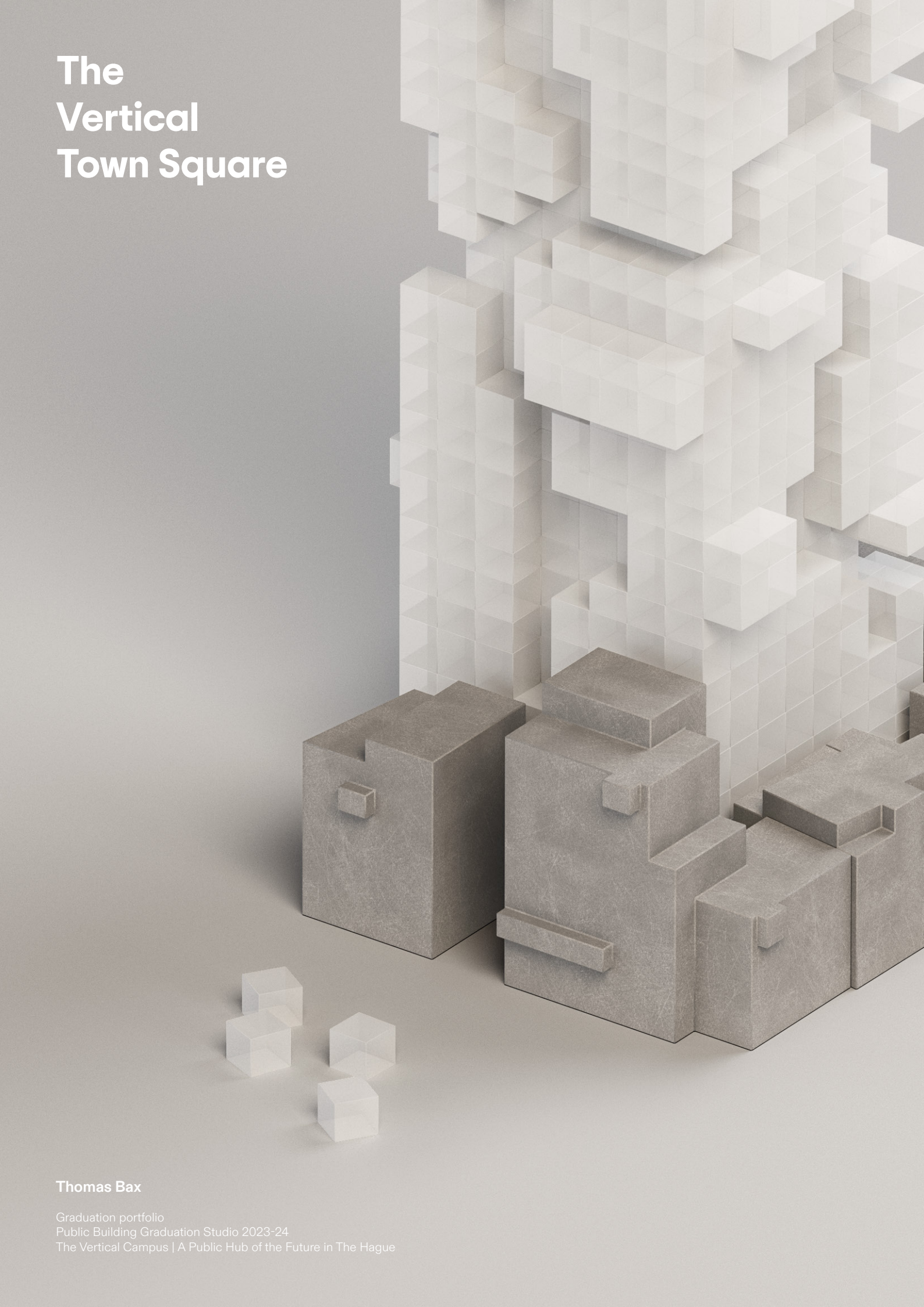
The Vertical Town Square



Thomas Bax

Graduation portfolio
Public Building Graduation Studio 2023-24
The Vertical Campus | A Public Hub of the Future in The Hague

Delft University of Technology
Public Building Graduation Studio 2023-24
The Vertical Campus | A Public Hub of the Future in The Hague

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The Vertical Town Square

Rethinking spatial dynamics in the Hague's Vertical Campus for a more symbiotic relationship between the university and the city

In the ever-changing field of architecture, each project represents a unique example of innovation and ambition. My time at TU Delft's 2023-24 Public Building Graduation Studio has been a journey of discovery and creativity, with a focus on the idea of a "Vertical Campus."

Situated in close proximity to The Hague's Central Station District, the project's objective was to investigate the difficulty of integrating expansive educational areas into metropolitan settings. Designing buildings that mix the spirit of a conventional campus with the compactness of city living is becoming more and more important as cities grow. In what ways can architects prioritize sustainability, community involvement, and academic quality while reimagining the university experience within tall buildings?

This report documents my experience studying architecture at TU Delft, from preliminary concepts and research to the final, detailed design and implementation. It embodies my vision and the objectives that have directed this endeavor.

I invite you to join me on this journey, to explore a vision that aims to redefine urban education spaces and take part in the discussion that will shape the future of architecture.

“We shape our building; thereafter they shape us.”

Winston Churchill - October 28, 1943

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Project Abstract

Vertical Town Square

The Vertical Campus in The Hague redefines the synergy between educational institutions and urban environments amid increasing urbanization and scarcity of (public) space. By transitioning from traditional horizontal sprawling campus to a vertical framework, this concept addresses the challenges and opportunities of this transformation. This project strives to expand the city's public space "vertically" to create a place where The Hague can escape from all the hustle and tension. Central to this concept is the "Vertical Town Square," which provides the basis to weave the education campus into the urban fabric, with the aim of reducing the anonymity in the densely built-up high-rise areas and creating a place to stay in the city.

The Vertical Town Square transcends conventional educational atmosphere by creating a dynamic and inclusive environment that supports both formal and informal space for development and interaction. The focus of this concept is not on the interaction of different cultures, but on encouraging interactions that occur unconsciously to create a social and interactive context. These spaces are seen as unprogrammed places where spontaneity and informal encounters can flourish, preserving and enhancing the intrinsic value of existing public spaces. This integration serves as the basis for multiple town squares, each with its unique spatial dialect, which enrich academic and social domains by facilitating collaborative and experiential learning.

In higher education, "teaching" is often understood as lecturing. Teaching at universities, however, involves more than lecturing. It involves creating conditions conducive to learning that involve relational, personal and emotionally challenging activities. This environment transcends traditional static classrooms and provides a dynamic, interactive setting for both formal and informal learning. Contemporary society regularly ignores the fundamental role of universities and rarely questions their importance or function. It is essential to see universities as institutions that cultivate lifelong learning within the community. This approach not only enriches the community but also responds to changing spatial dynamics. This creates a space where educational and social interactions can coexist, supporting lifelong learning and active community participation.

The building's various town squares are integrated into the urban landscape, allowing the Vertical Campus to promote inclusivity and accessibility while keeping education a public good. Therefore, the campus provides environments that offer both extroverted and introverted functions, such as squares for meetings, creativity and relaxation. It allows for unexpected encounters, serendipity and innovation. This diverse building supports exchange and diversity of development and promotes a living space that can accommodate disorder and dissonance. Individuals can only participate in and contribute to changing our time if they are given the opportunity to shape it through their own efforts. The campus will provide a platform for this.

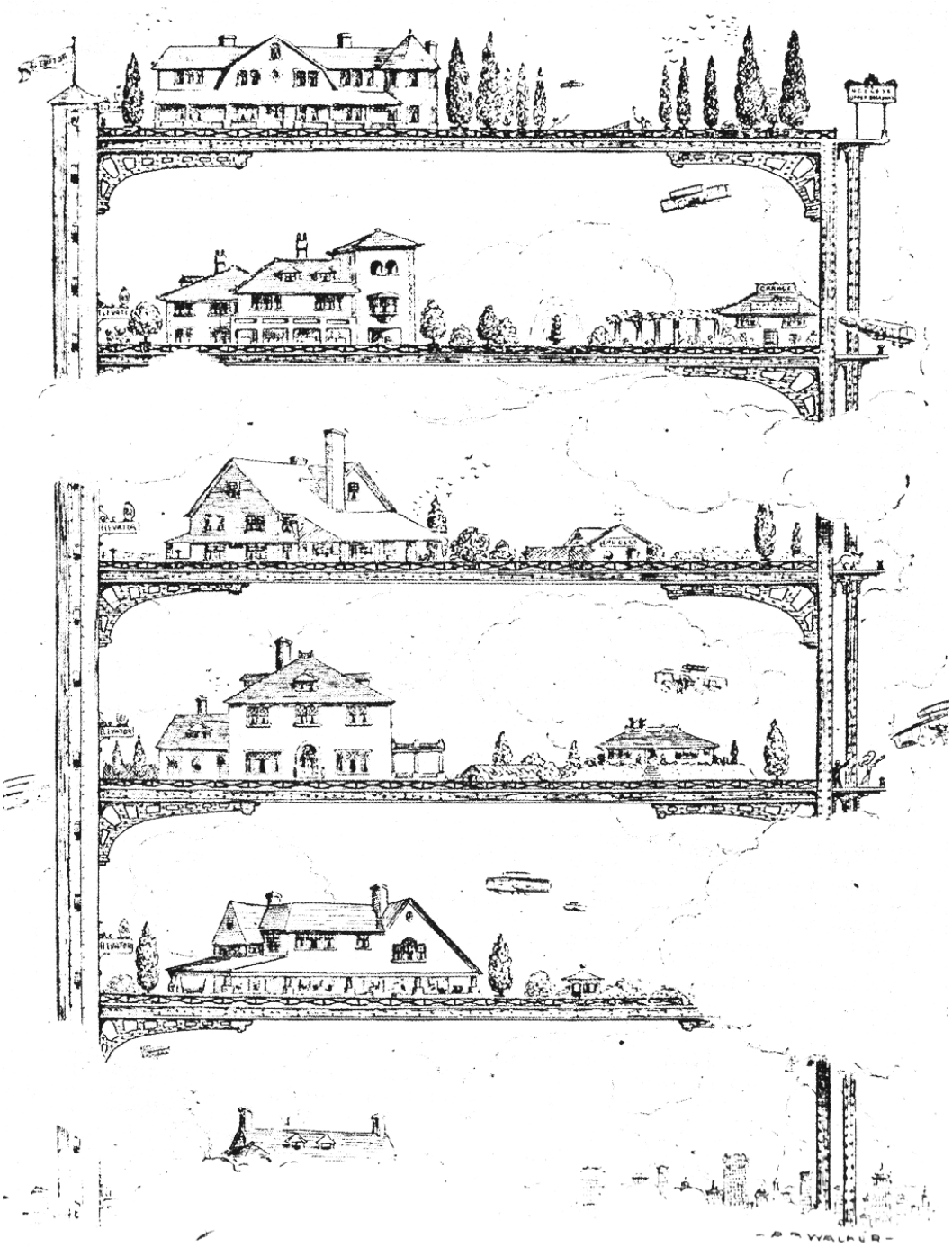

Figure 1 - *1909 theorem.* From Delirious New York. A Retroactive Manifesto for Manhattan. (1994)

Part I | **Graduation Plan**

Introduction

Title of the graduation project
The Vertical Town Square

Location
The Hague, The Netherlands (Central Station District)

Argumentation of choice of the studio
My lifelong fascination with towering structures and a deep passion for architecture have led me to a remarkable opportunity—the creation of a Vertical Campus. As urbanization accelerates and available land diminishes, the need for vertical educational spaces has become increasingly evident. This shift from sprawling horizontal campuses to vertical structure presents a host of unexplored challenges and opportunities. The Public Building Studio ethos aligns seamlessly with the importance of “publicness” in contemporary architecture. The focus on creating public spaces that encourage community interaction, inclusivity, and sustainability mirrors the growing emphasis on designing urban environments that are not only functional but also serve as hubs of cultural expression and civic engagement, resonating with the evolving dynamics and values of modern society.

Problem statement
Educational institutions, historically spread across large horizontal campuses, are now adapting to the rising trend of vertical towers. This shift challenges the traditional design ethos of universities, known for fostering face-to-face interaction and sparking interdisciplinary ideas. This raises questions about how layout affects learning, interaction, and creativity. The evolution of university campuses reflects changing societal and architectural norms, transitioning from city-centered academic buildings to isolated pastoral campuses and now, re-integrating into urban life with vertical campuses. This vertical integration, however, presents challenges like loss of urban identity and disconnect from street life. The concept of verticality raises questions about accessibility, public access, and the architectural embodiment of education as a public good, aiming for a synergistic relationship between the educational environment and the urban landscape.

The core essence of a campus is not just in its physicality, but in the experiences it curates, the interactions it fosters, and the sense of community it nurtures. These dynamics, deeply rooted in the traditional horizontal layouts, face potential disruption as we transition to vertical designs. Thus, the main question arises:

"How does the design of vertical campus in The Hague contribute to the creation and integration of a more symbiotic relationship between the campus and the city?"

SQ1: How does the design and layout of horizontal university campuses impact social interactions and cultural exchange between students, faculty, and the local community?

SQ2: How do vertical (educational) buildings affect the social fabric and sense of community in urban setting?

SQ3: How can the vertical campus in The Hague contribute to its integration as an extension of the urban environment?

SQ4: How can the integration of private spaces in a vertical campus be re-imagined to approach the concept of an entirely public building?

This assignment explores the possibility of creating a fully public educational building in The Hague that extends the city vertically, examining how such a structure could be integrated into the urban landscape. It questions if a building meant for public education should inherently offer unrestricted public access and how this translates architecturally. The concept of 'seamless' integration is central, aiming for a structure that complements and enhances the city, rather than just existing within it. This approach could transform a vertical campus into a vertical town square, merging academic and public spaces. This concept discusses where such integration can counter urban anonymity and foster lively, inclusive spaces that encourage cultural exchange and community integration in the city.

Methodology and methods

This research aims to understand the transformative potential of a vertical campus in The Hague and investigates how it can redefine spatial dynamics to promote a symbiotic relationship between the educational institution and the city.

Literature Review
The research begins by examining the spatial relationship between urban educational institutions and their surrounding cities, guided by key theoretical concepts. Kevin Lynch's 'Image of the City' helps interpret urban structures through ideas like legibility and urban elements. Henri Lefebvre's works 'Production of Space' and 'Right to the City' provide a theoretical framework for studying socio-political dynamics and spatial claims in urban environments. Attention is given to the intermediate or public spaces of the campus, exploring their role in facilitating interactions between students and the city. Inspired by Whyte's insights in 'The Social Life of Small Urban Spaces', the research explores how these communal spaces can facilitate exchanges, create connections, and shape identities.

Contextual Analysis
The research is divided into three main investigations. First, it examines the relationship between campuses and their urban contexts, providing a historical and spatial overview and emphasizing the importance of understanding examples. These could include campuses like Leiden, Erasmus Rotterdam and/or Delft, as they may be stakeholders for the vertical campus.

Second, the study focuses on global vertical case studies to extract insights about the spatial configurations of these vertical campuses and understand how they blur the boundaries between (academic) spaces and the urban environment.

The third investigation concentrates on The Hague and conducts a comprehensive site analysis to examine aspects such as urban development, architecture, socio-economic dynamics, and cultural and demographic factors. This localized contextual analysis is crucial for formulating strategies to integrate the proposed vertical campus into the fabric of the city.

Architectural Exploration
This study explores the architectural and design aspects of implementing a vertical campus in The Hague, drawing from a strong theoretical and contextual foundation. Research-by-design, particularly emphasized in the Public Building studio, is used to address important design challenges, such as reconciling the contrast between public and private spaces in a vertical structure. The study aims to create a cohesive vertical campus that seamlessly integrates into the urban environment, with an emphasis on connectivity, accessibility, and permeability to foster interaction between the educational space and the city below.

Literature and general practical references

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Reflection

Reflecting on the connection between my graduate project and the master's program, it is clear that my focus on vertical campus design ties in with the broader themes of urban evolution and architectural innovation. Rooted in the history of vertical expansion in cities like Manhattan and influenced by visionaries like Le Corbusier and Archigram, the vertical campus brief seeks to reshape educational institutions within this vertical paradigm. This approach not only resonates with 1960s avant-garde ideas but also addresses current urban challenges, making it highly relevant to the architectural discipline in my master's track.

My graduation work has important applications in the social, professional, and scientific domains that go beyond academia. The essential requirement for space optimization in rapidly increasing cities is addressed in the context of urban planning and architecture. By offering strategies for the effective utilization of vertical spaces in densely populated regions, my concept adds to the continuing discussion about sustainable urban development.

The impact of my research is significant, especially as our cities keep growing upwards. A vertical campus isn't just a futuristic idea; it's becoming a practical solution. Traditional university campuses often feel separate from the city around them, but a vertical campus can bridge that gap. By embedding educational spaces within the city, we can make education more inclusive and accessible. This approach ensures that education stays a public good, both physically present and symbolically connected to the urban environment.

Professionally, this project marks a significant change in architectural thought, urging architects and urban planners to design educational spaces that are adaptable, multifunctional, and well-integrated into urban environments. It challenges professionals to reconsider the relationship between buildings and their surroundings, especially with an eye toward fostering lively, inclusive urban communities.

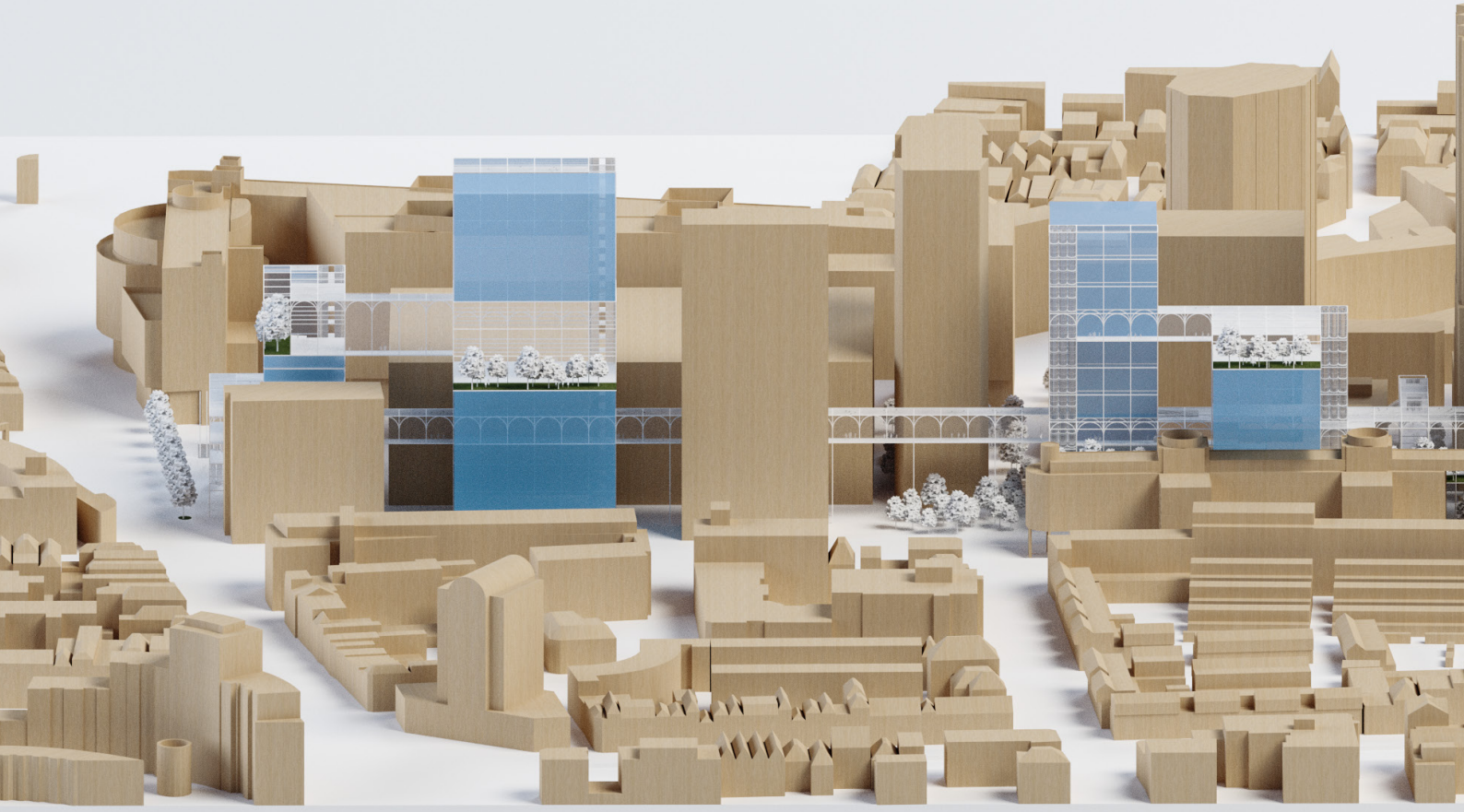
The research expands the notion of how architecture and urbanism influence social interactions and community development from a scientific point of view. It offers new insights into the interplay between social dynamics and spatial volumes, especially in vertical buildings. By integrating social science, urban planning and architectural design, the vertical campus underlines the importance of research-by-design in architecture, aiming to create spaces that are not only visually pleasing but also socially and ecologically responsible

Part II | **Capacity Plan - The Public Take-Off (P1)**

in collaboration with:
Yelim Kim & Floriaan Troost

The character of the network is bound to its experience: its dimensions and proportions, its qualities under one's feet and hands, its accommodation of the bodies and minds and lives of many, its ways of making those bodies and minds conscious of each other, as sensuous, sentient beings, **free to move, to associate, to act, to be together, to be alone, to be.**

The Public Interior as idea and Project - Mark Pimlott (2016)



Introduction

The Fly Over Infrastructure

One of The Hague's most notable urban features is the flyover area, which is renowned for its complex three-dimensional infrastructure. Forming a bustling crossroads of transportation lines, it extends from Utrechtsebaan to Spui and is bounded by the Prins Bernhardviaduct and Ammunitiehaven. This area is distinguished by its interconnecting rail tracks and multi-level automobile lanes, which combine to provide an amazing structural and functional design. It borders residential areas to the south, including the Rivierenbuurt by the Ammunitiehaven and Bezuidenhout-West next to the east end of the Prins Bernardviaduct. On the other hand, the zone's northern region is changing, with the construction of tall structures intended for residential, commercial, and educational uses. This area's recent architectural advancements are highlighted by the addition of the Amare Music Centre, adding a cultural dimension to the urban landscape. The flyover area thus stands as a symbol of The Hague's urban evolution, blending transportation, residential life, and cultural development.

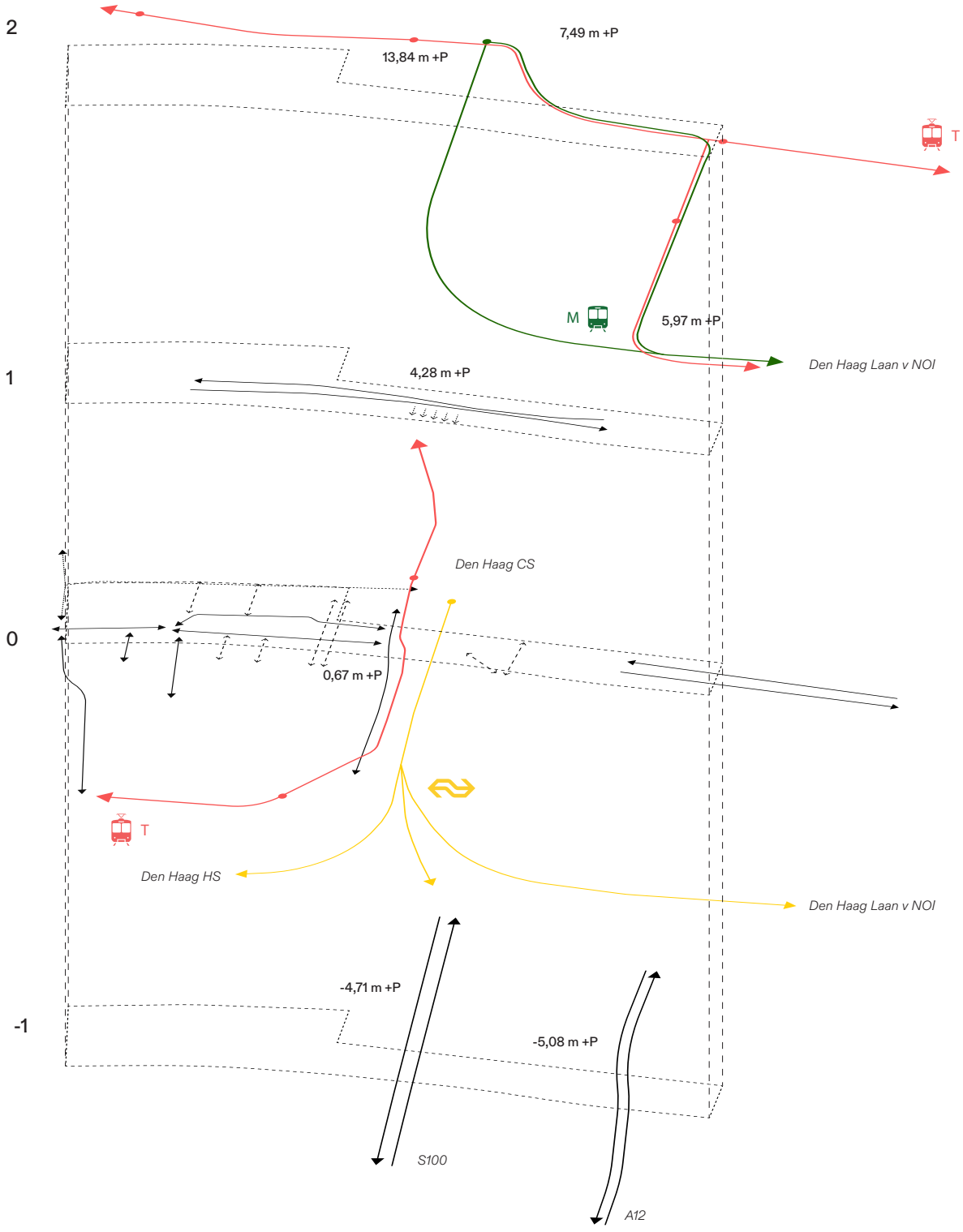


Figure 2 - *Traffic Flows.* Author. (2023)

Problem Statement

Getting from Station to Center

Navigating from The Hague's Central Station to the old city center has become increasingly challenging over time, posing problems for pedestrians. The area, evolving constantly, now presents a confusing layout that hinders straightforward pedestrian access. This shift has gradually eroded the area's appeal for those on foot, as the clear and accessible paths once available are now obscured by urban development. The transformation of this zone, while perhaps benefiting other forms of transit, has neglected the needs and convenience of pedestrians. As a result, the journey from the central station to the heart of the old city has lost much of its pedestrian-friendly charm, reflecting a broader trend of urban spaces prioritizing vehicles over foot traffic.

Figure 3 - *Turfmarkt.* Delboy Freres. (1870)

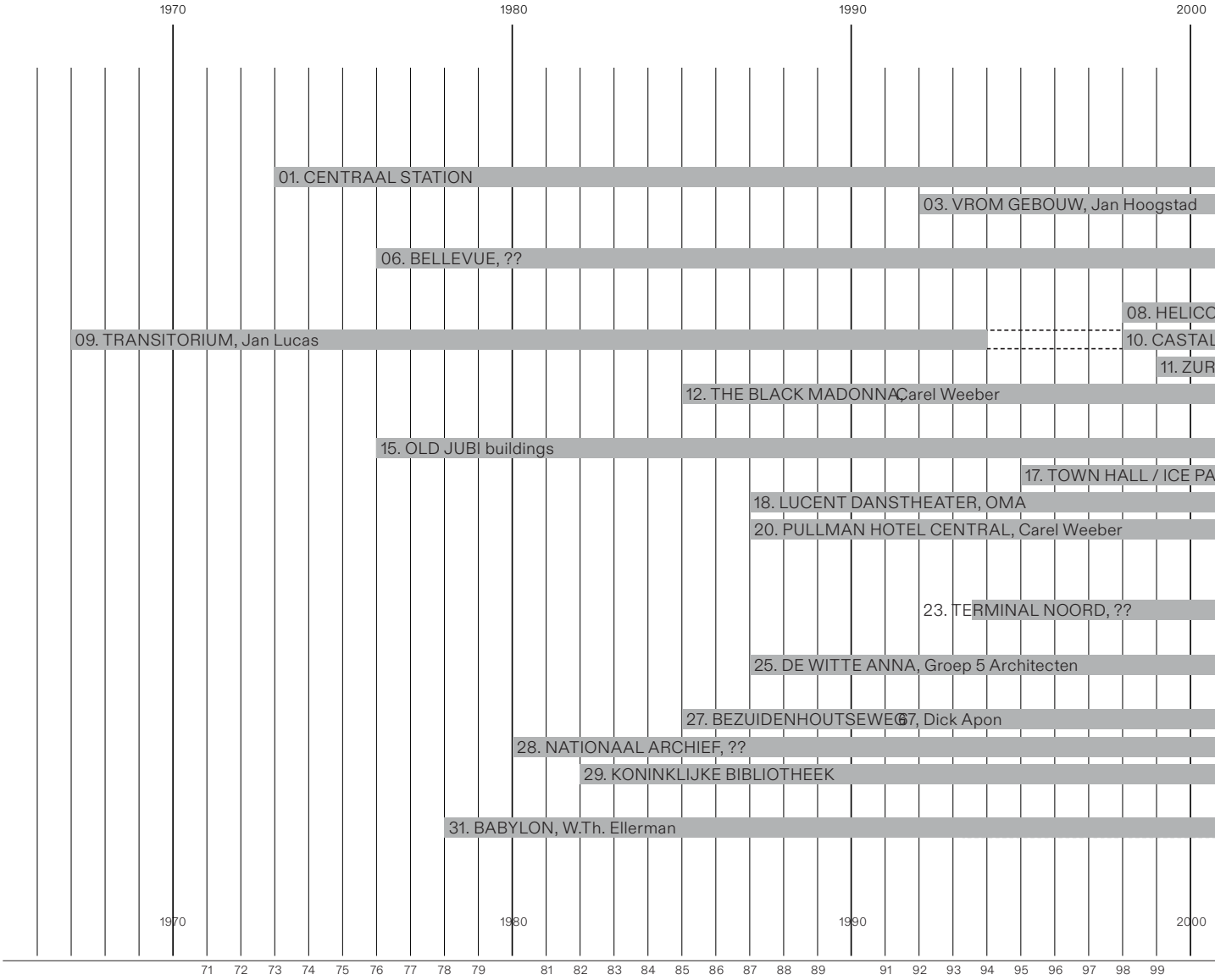
Figure 4 - *Turfmarkt.* Unkwown. (1907)

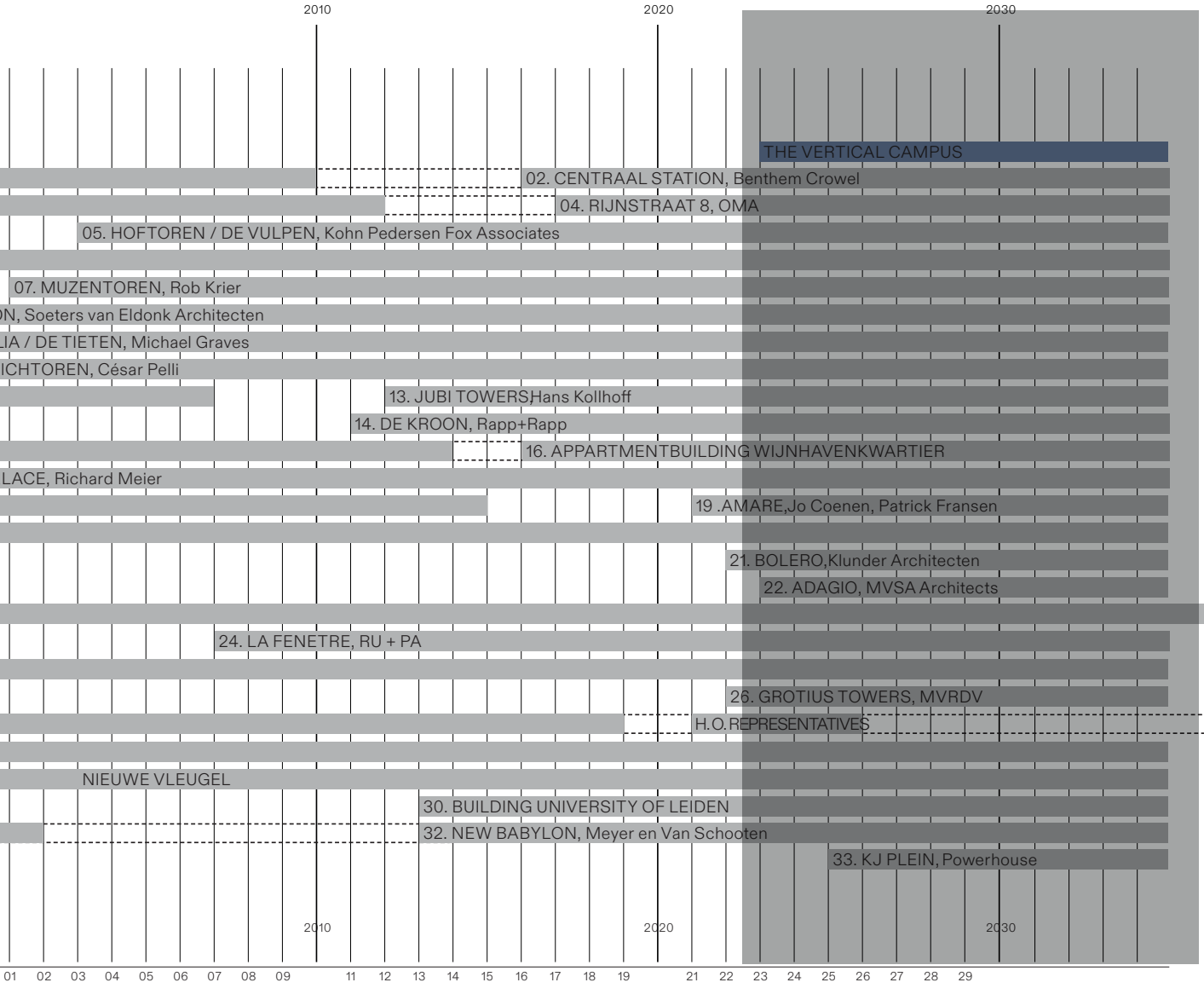
Figure 5 - *Turfmarkt.* Dienst Stadsontwikkeling en Volkshuisvesting. (1961)

Problem Statement

Demolition

The short lifespan of its buildings is a major factor in the fast changing of The Hague's street scene. The fast rate of architectural turnover causes the urban environment to change regularly as new designs replace aging ones on a regular basis. The city's streets seem to be always changing due to this cycle of building and destruction, which is changing the city's skyline and character more quickly. As a result, the contemporary tendency of giving new construction precedence over the preservation of historic structures has defined The Hague's visual and cultural character, which is evolving.




2010
2020
2030
THE VERTICAL CAMPUS
02. CENTRAAL STATION, Benthem Crowel
04. RIJNSTRAAT 8, OMA
05. HOFTOREN / DE VULPEN, Kohn Pedersen Fox Associates
07. MUZENTOREN, Rob Krier
ON, Soeters van Eldonk Architecten
LIA / DE TIETEN, Michael Graves
ICHTOREN, César Pelli
13. JUBI TOWERS,Hans Kollhoff
14. DE KROON, Rapp+Rapp
16. APPARTMENTBUILDING WIJNHAVENKWARTIER
LACE, Richard Meier
19 .AMARE,Jo Coenen, Patrick Fransen
21. BOLERO,Klunder Architecten
22. ADAGIO, MVSA Architects
24. LA FENETRE, RU + PA
26. GROTIUS TOWERS, MVRDV
H.O.REPRESENTATIVES
NIEUWE VLEUGEL
30. BUILDING UNIVERSITY OF LEIDEN
32. NEW BABYLON, Meyer en Van Schooten
33. KJ PLEIN, Powerhouse
2010
2020
2030
01 02 03 04 05 06 07 08 09 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 27 28 29

Fun Fact

End Station/Highway

Following the A12 highway from The Hague reveals an intriguing journey, as this route ultimately leads to Vienna. This connection positions The Hague Central Station not merely as a terminus for train travel but also as a pivotal starting or ending point for car journeys. The A12 serves as a vital link between these two European cities, illustrating the station's dual role in facilitating both rail and road transportation. This unique aspect underscores the significance of The Hague Central Station as a comprehensive travel hub, connecting the Netherlands to the heart of Europe by road and rail.

Problem Statement

Car undermining public interaction

Public engagement is becoming more and more undermined in The Hague due to the prevalence of cars in urban areas. Due to the widespread usage of cars, roadways now favor traffic flow over pedestrian areas, obstructing organic social interactions. The reliance on cars reduces the chances for social interactions and get-togethers, which are vital to a lively city life. The result is that The Hague's vehicle culture is changing the city to prioritize convenience and speed over connection and community.

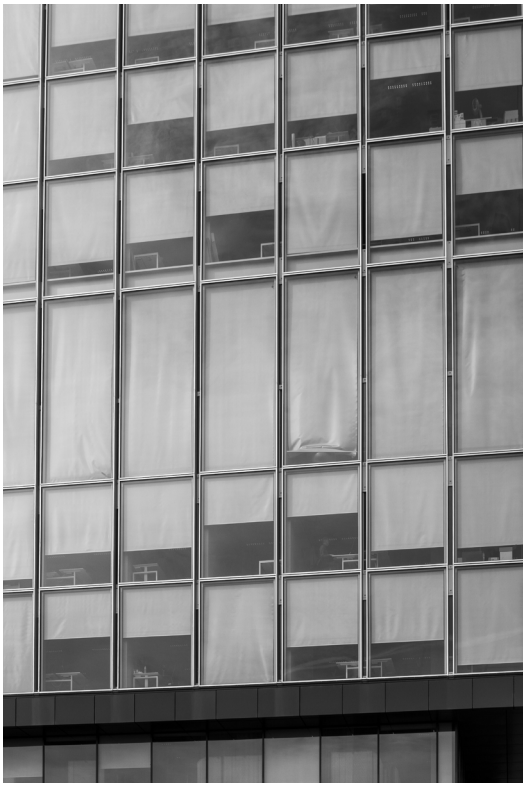
parking garages in city center

Problem Statement

Program hidden behind curtains

A significant portion of the urban program remains concealed behind the curtains creating a sense of mystery and inaccessibility. These closed structures dominate the cityscape, presenting a facade that lacks transparency and public engagement. The absence of visible activity or interaction within these buildings contributes to a somewhat private atmosphere in the city's public spaces. Consequently, this architectural approach has led to a diminished sense of community and openness in The Hague, as the public remains largely disconnected from what transpires inside these enigmatic buildings.

pictures Thomas Bax (2023)



closed facades

visible movement

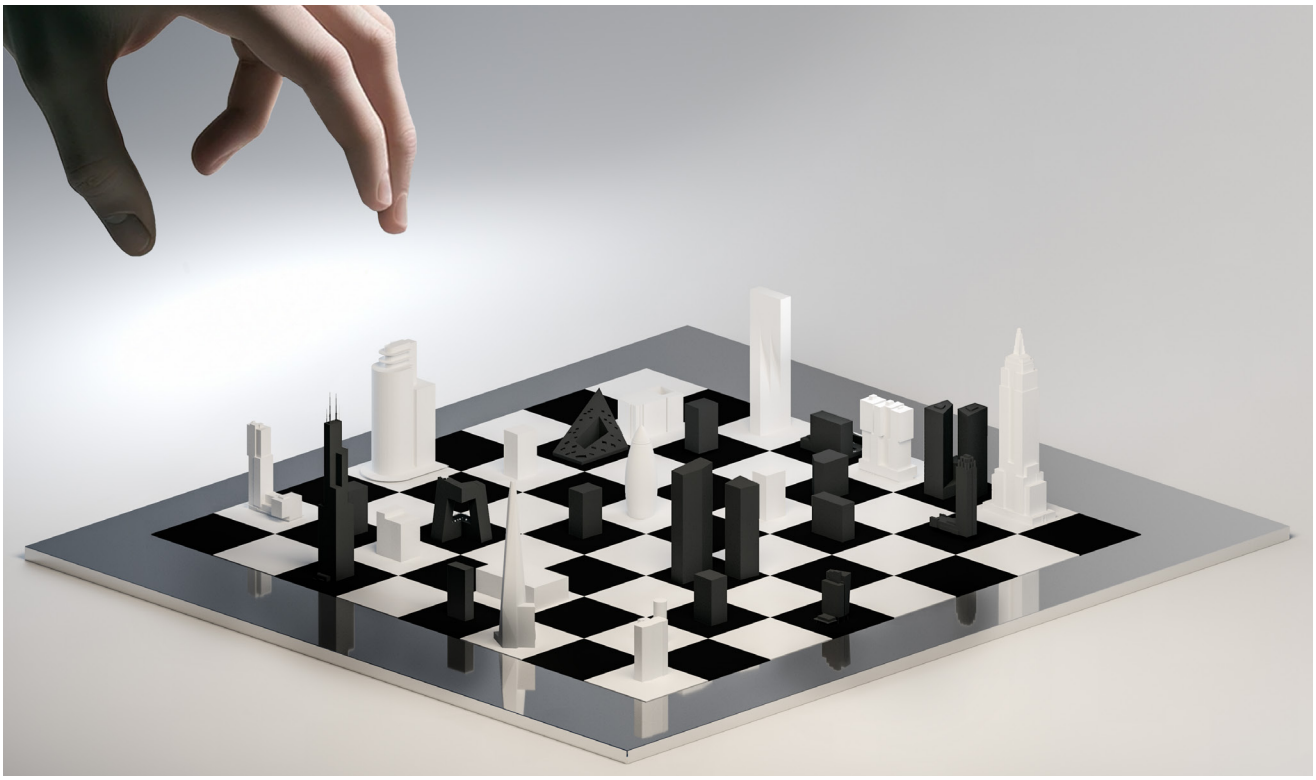
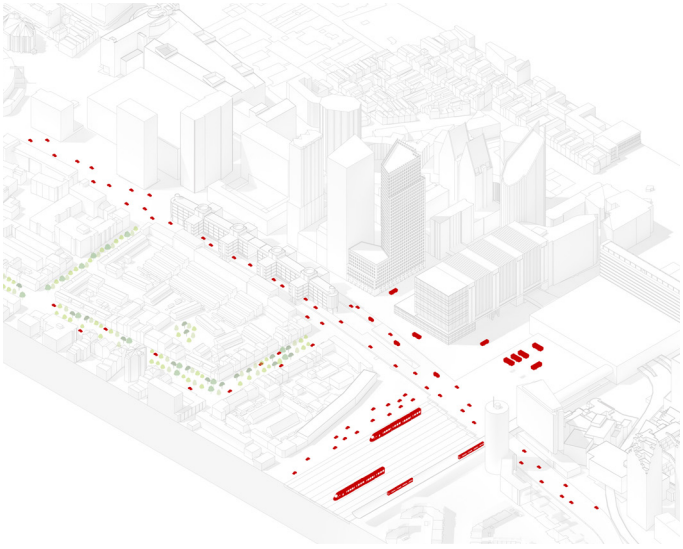


Figure 5 - Diagram. *Author.* (2023)

In a novel approach, imagine city map as a chessboard, where buildings are represented as playing pieces, each denoting their accessibility to the public. This conceptual layout distinctly highlights buildings as either closed or open to the public, offering a clear visual distinction of the city's architectural landscape.

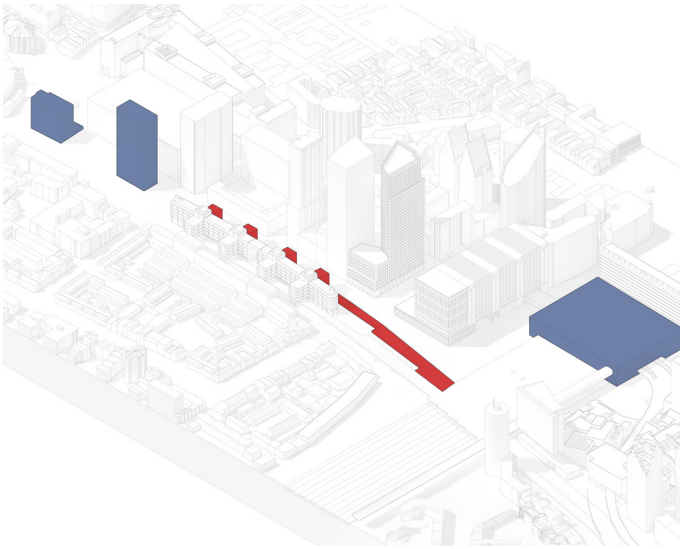
Concept

Axonometry



1 existing

traffic-dominated territories



2 demolition & adaptation

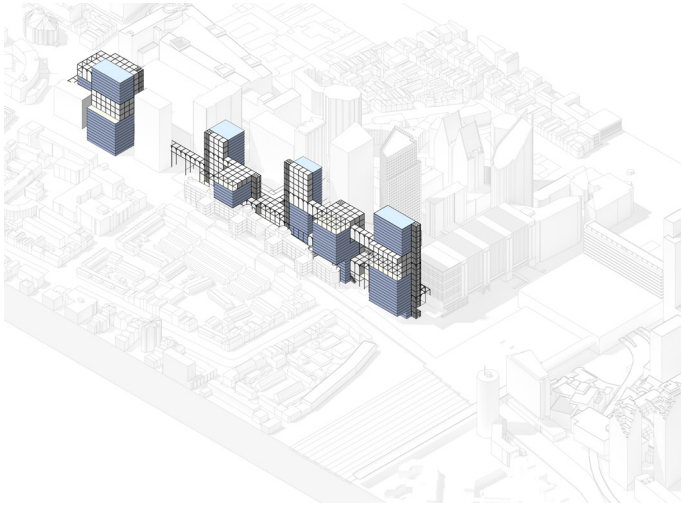
prioritize preservation over demolition

3 new volumes

adding 100.000 m2

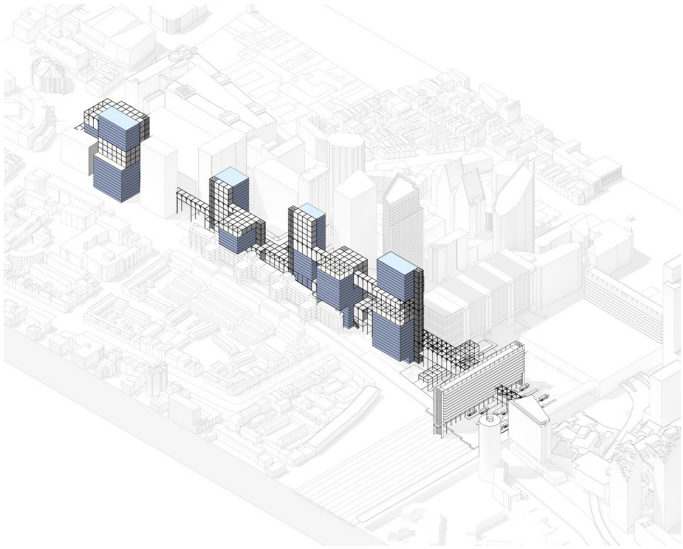
4 flexible space

+ 20/80.000 m2 for circulation



5 parking hub

parking garage → end station A12



6 serene city

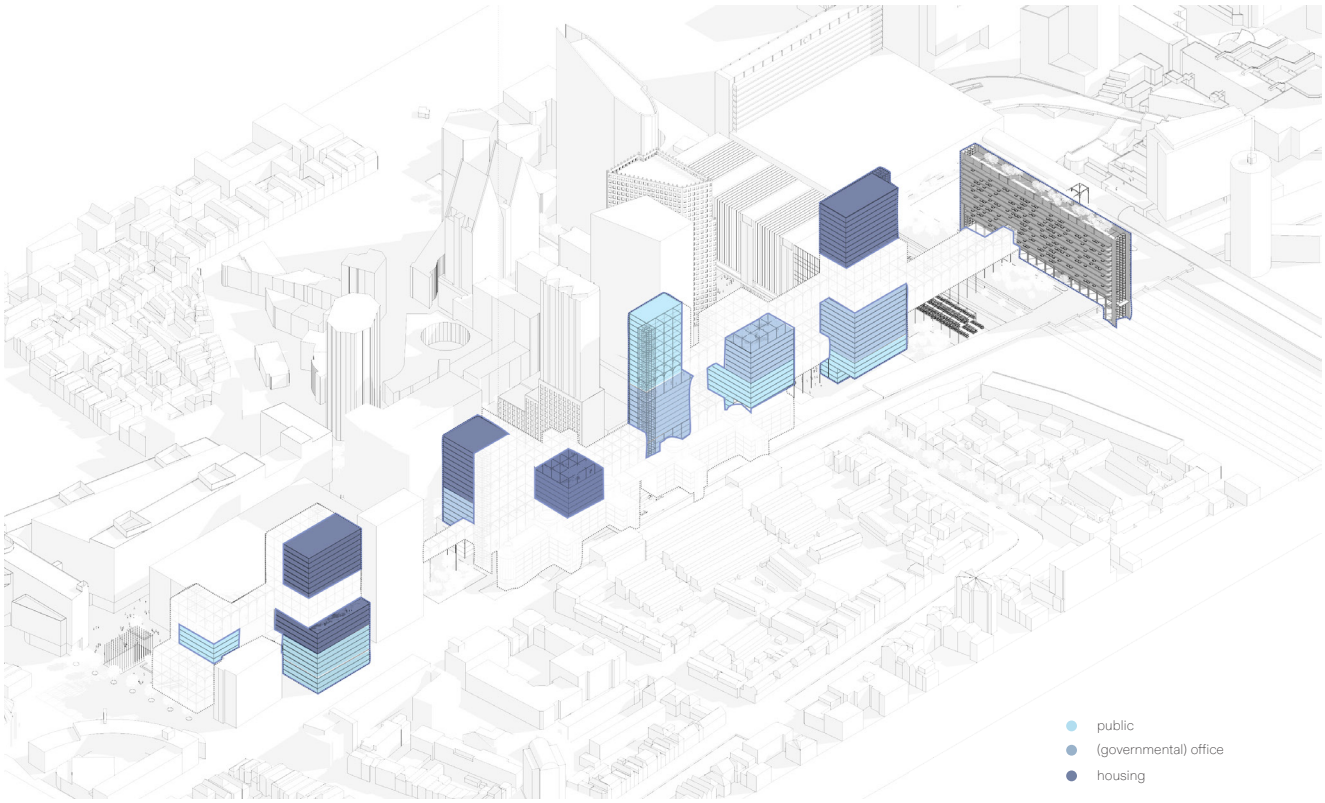
smooth circulation, pleasant to stay

Passage

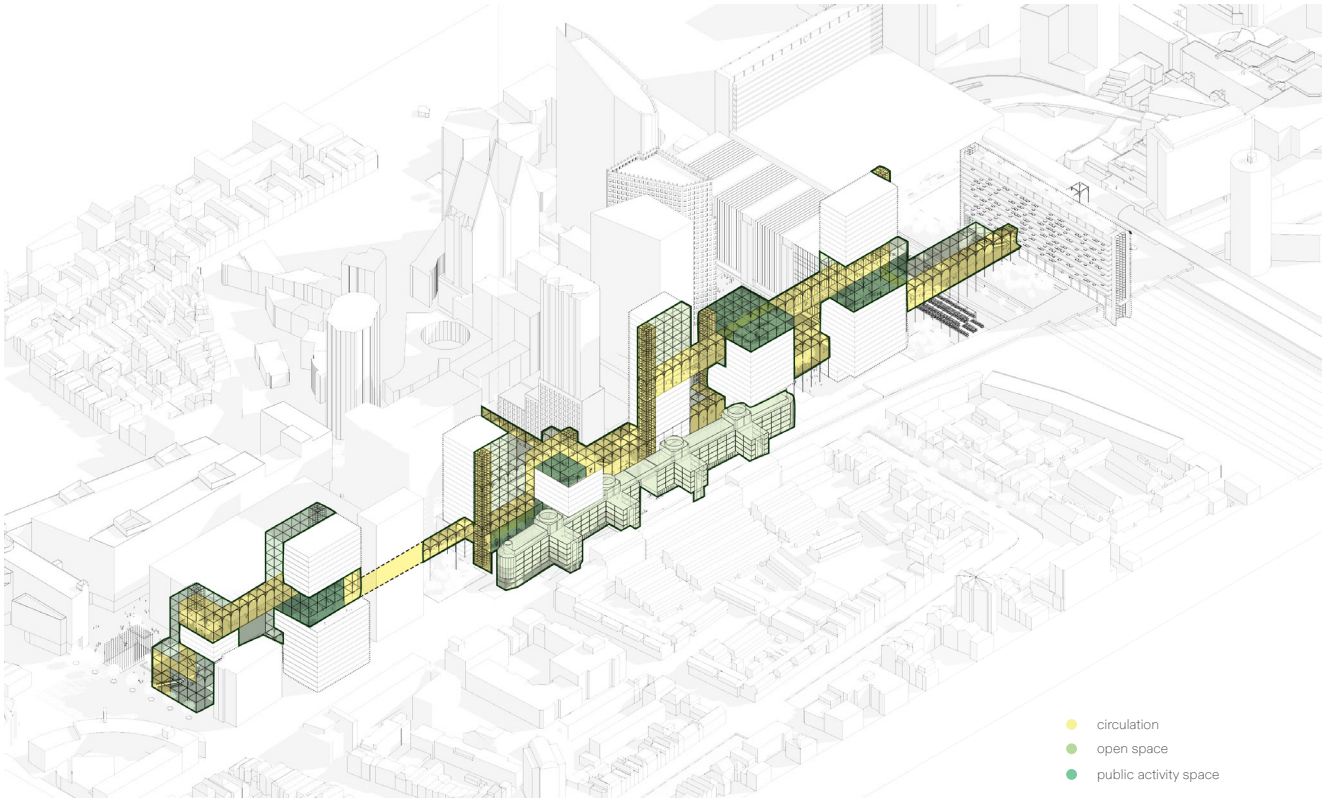
Concept

The passage's design, which draws inspiration from Sydenham's famous Crystal Palace, transforms circulation space into a lively public place, revolutionizing the notion. This method creates a dynamic environment where flexibility and engagement replace the typical static nature of transit zones, blurring the distinctions between just moving through a space and actively engaging with it. These corridors develop into vibrant centers of activity rather than merely thoroughfares, promoting communication between people, cross-cultural exchanges, and business opportunities. This creative idea subverts the traditional use of space by converting transit-oriented areas into multipurpose, vibrant public spaces that support a range of events and activities.

Figure .. - *interior view of the rebuilt Crystal Palace at Sydenham.* Historic England Archive



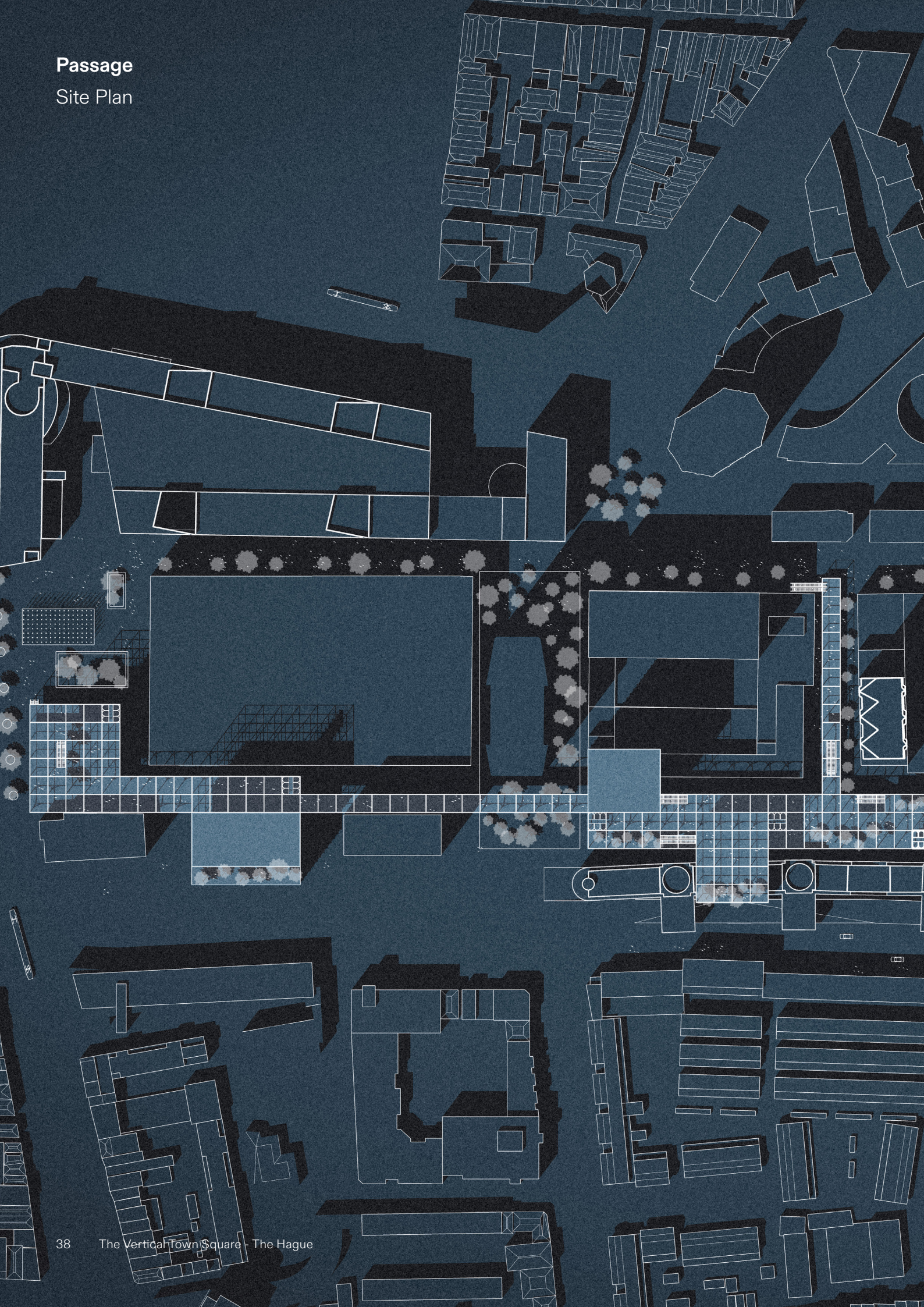
static program

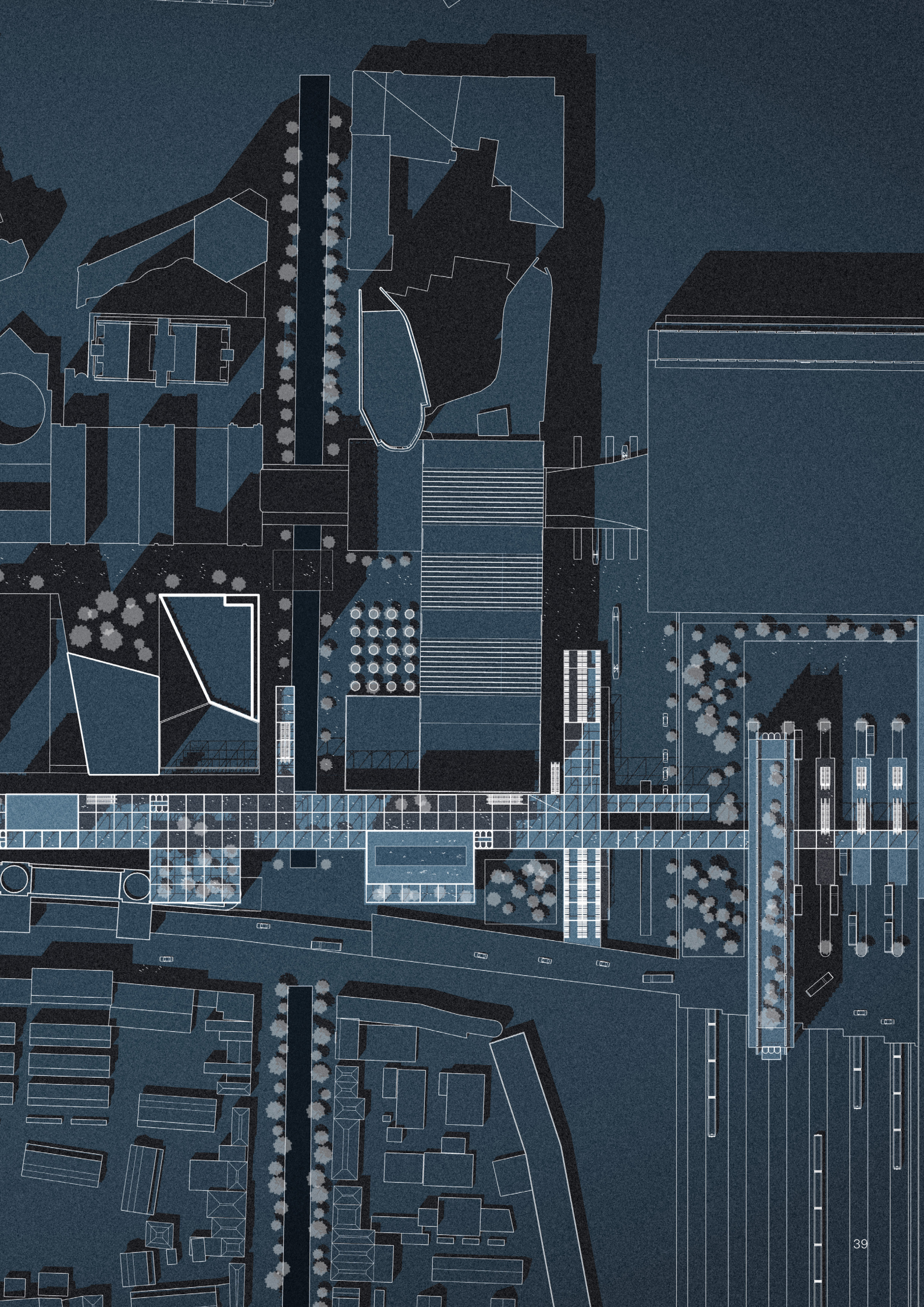


flexible program

Passage

Site Plan



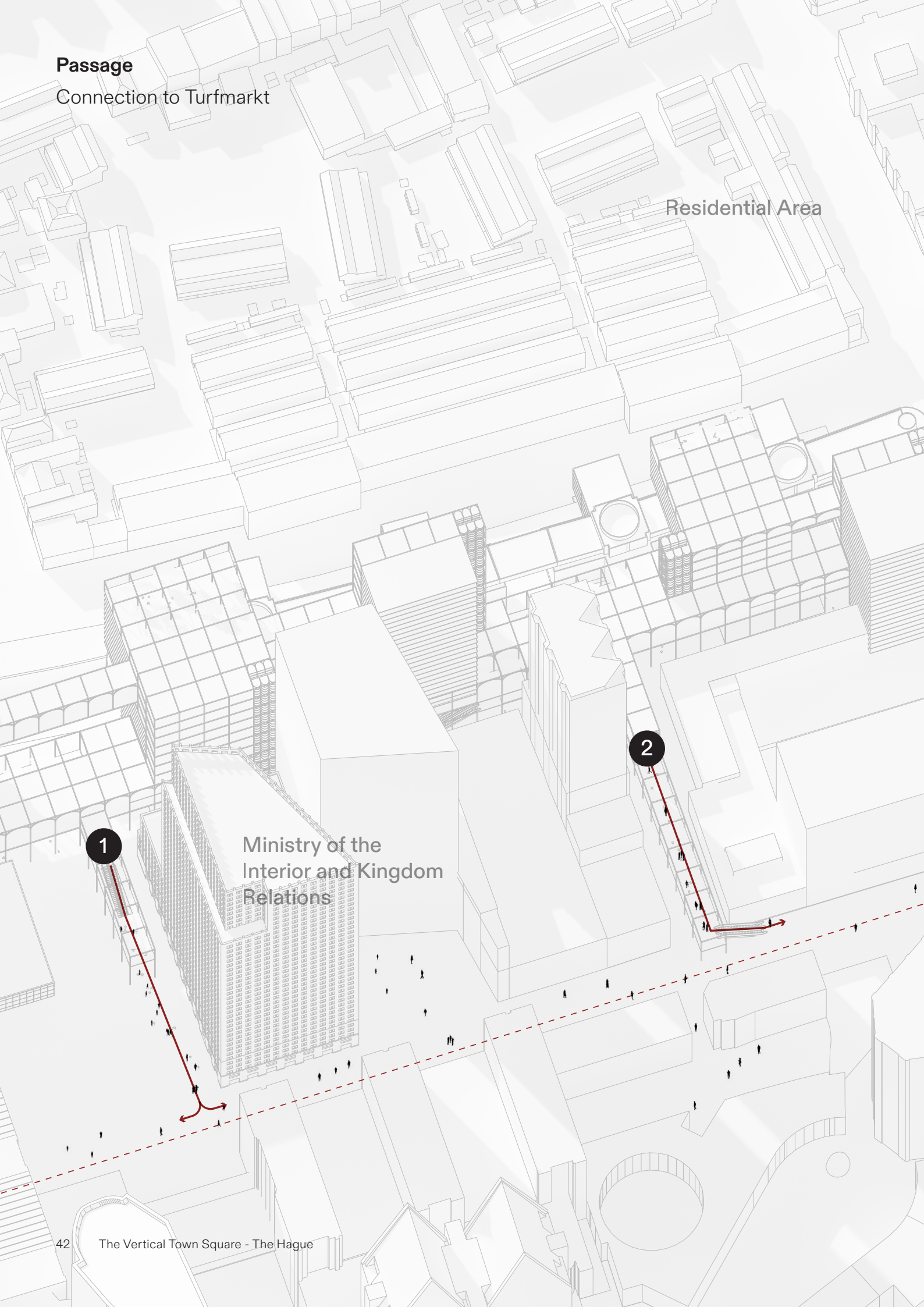


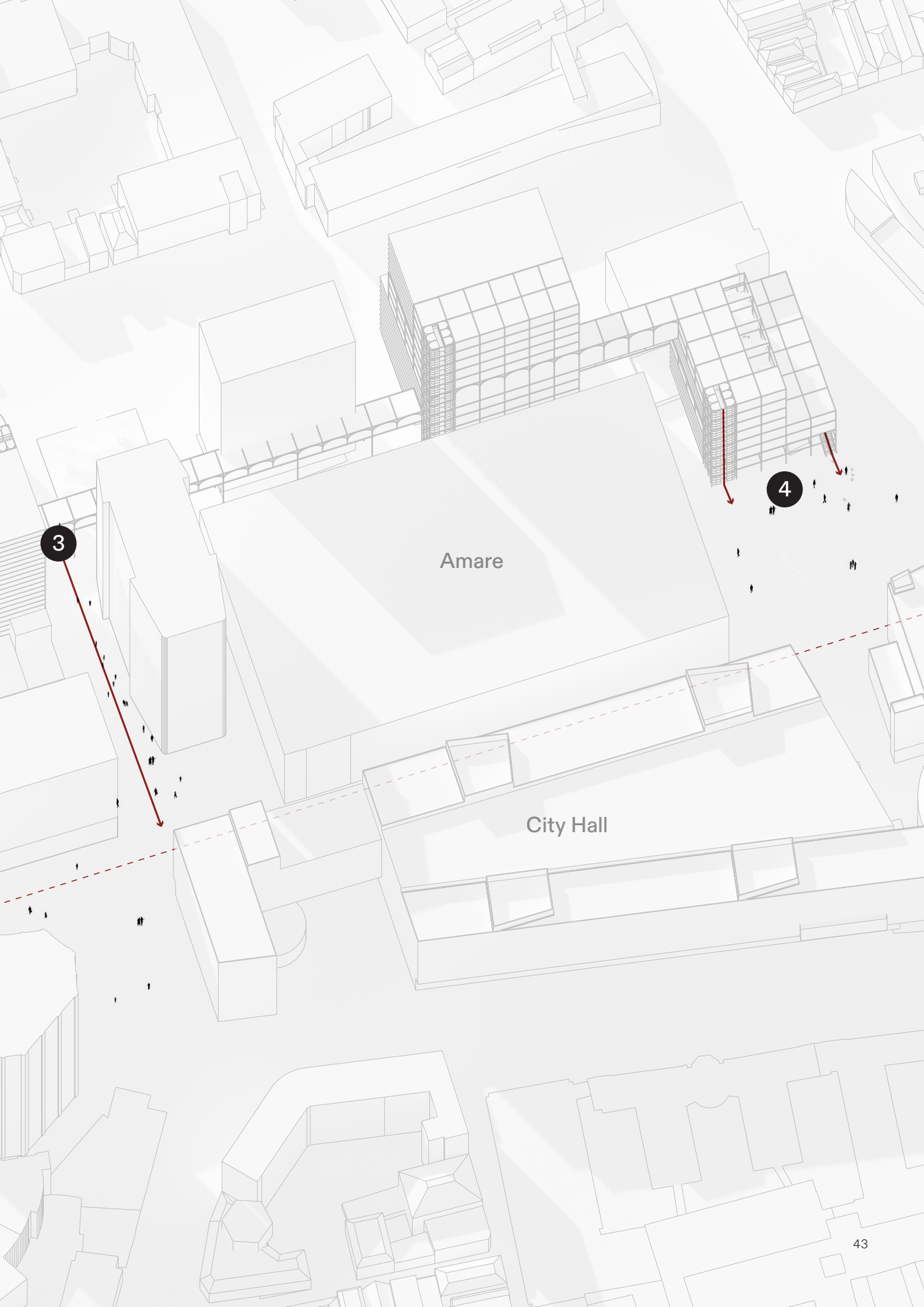
Passage

Interior view

Passage

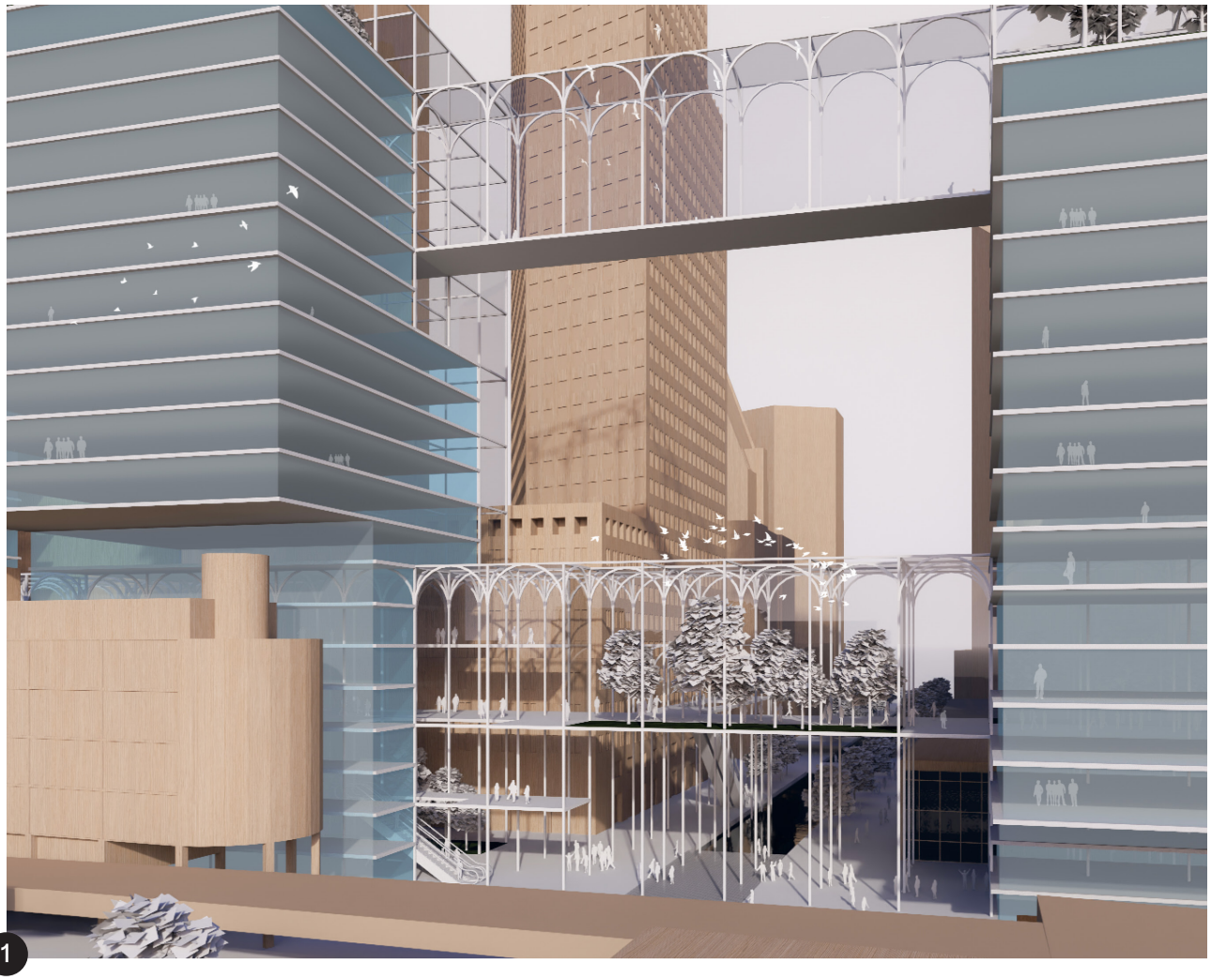
Connection to Turfmarkt




3
4
Amare
City Hall

Passage

Exterior perspectives



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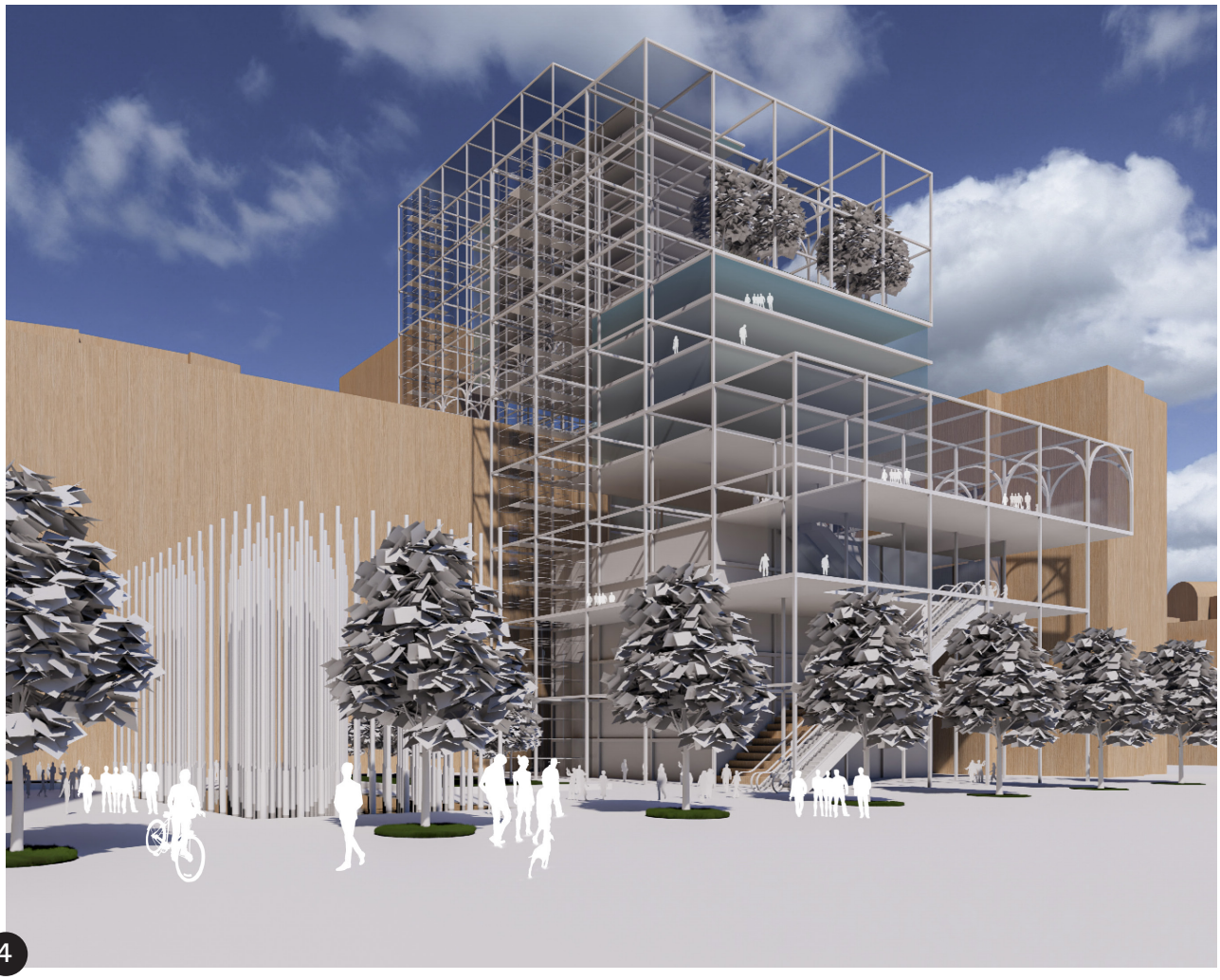


4

Passage

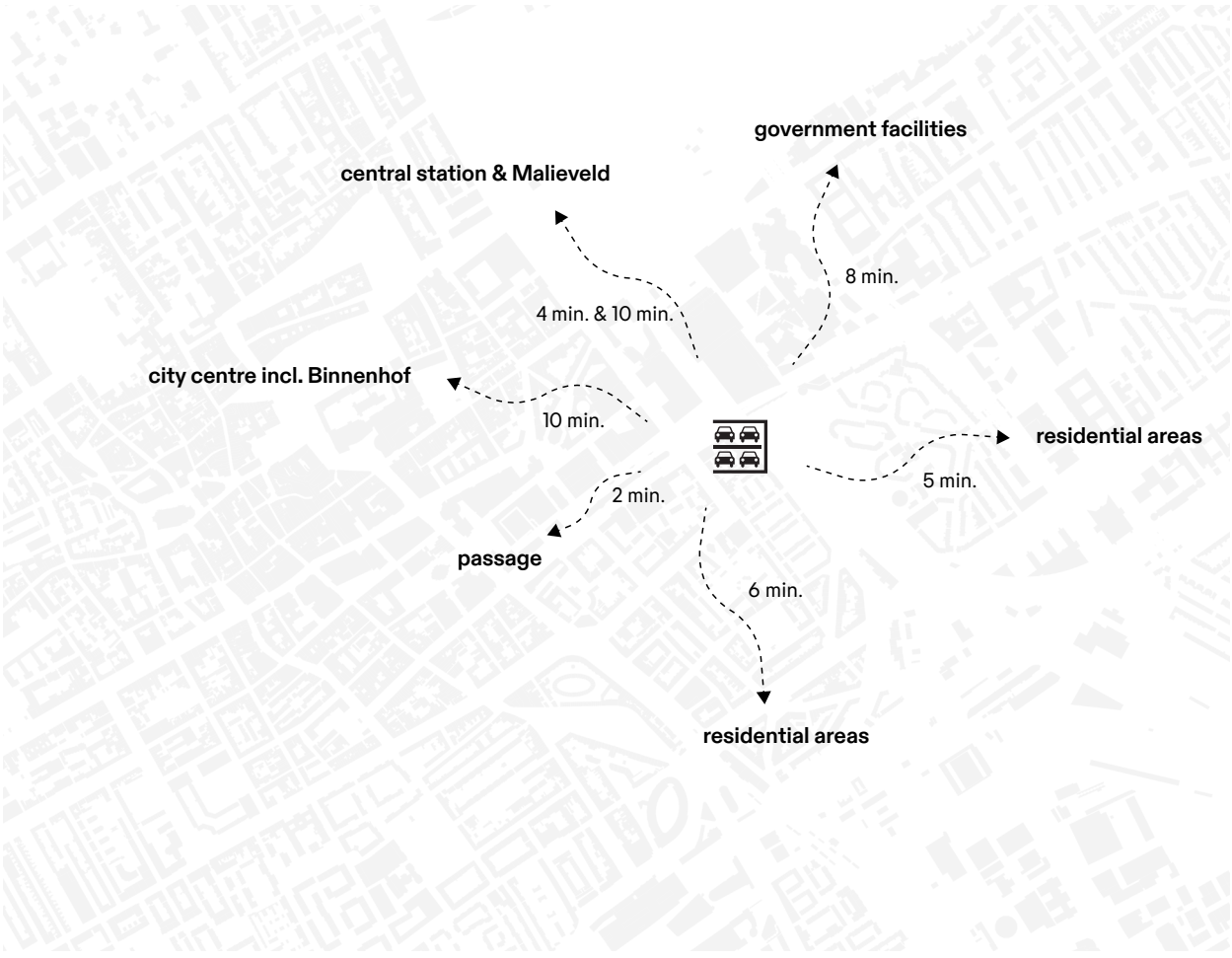
Exterior perspective

Parking Garage

Efficiency vs. Anti Efficiency

The Hague, with its abundance of car parks, epitomizes efficiency for motorists but at the cost of urban vibrancy. The city's layout facilitates a pattern where individuals drive directly into a car park, proceed to their specific destination like a shop or office, and then leave, all without truly engaging with the city. This convenience for drivers inadvertently creates a disconnect, as people bypass the city's streets and public spaces, leading to less foot traffic and interaction in the urban fabric. Consequently, this car-centric approach contributes to a noticeable reduction in the liveliness and communal atmosphere that is often fueled by pedestrian activity and street-level engagement.

A revolutionary urban plan is presented by the idea to combine The Hague's several parking garages into one sizable, highly visible structure. The city may demonstrate how much vehicle traffic it can handle by consolidating parking into one large building, ideally close to the central station. In addition to making a strong statement about the city's attitude toward automobiles, this centralization frees up valuable urban area that was previously taken up by a number of smaller garages. This mega-garage's position provides easy access to many sections of the city, making it a perfect linking point. Furthermore, by relocating parking to the periphery of the central area, this concept encourages visitors to traverse the city on foot or by public transport, potentially enhancing the vibrancy and dynamism of The Hague's urban life.

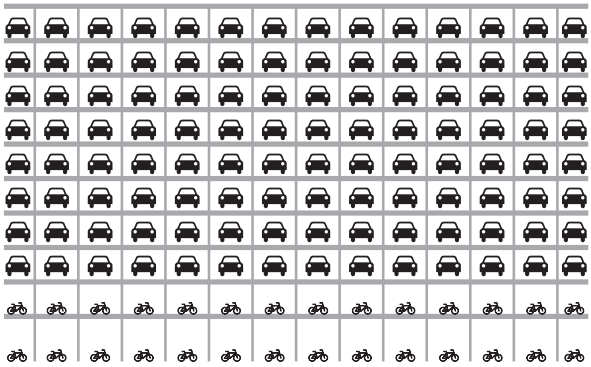


Parking Garage

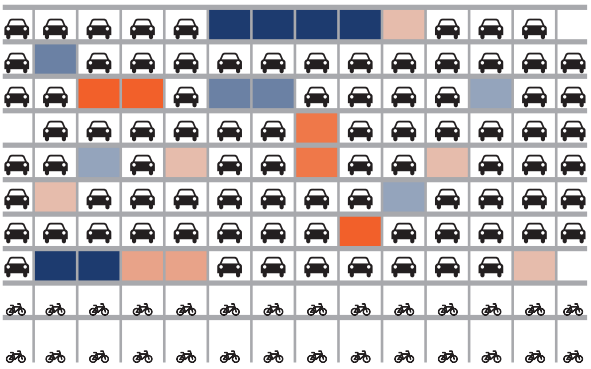
Concept

Inspired by Herzog & de Meuron's unique Lincoln Road design, the idea of a giant parking garage goes beyond conventional parking options. This innovative building was created with the future in mind, anticipating a period when metropolitan areas would change and people's need on cars will decline. Because of the garage's purposefully flexible construction and layout, it can eventually be converted to public areas like community centers, shops, or cultural events when the demand for large amounts of parking for cars declines. This flexibility adds to the building's usefulness and vitality by ensuring that it is still important and valuable to the city's landscape. By blending functionality with foresight, the mega parking garage stands as a testament to sustainable urban planning, seamlessly transitioning from a car-centric facility to a public-centric space in response to changing urban dynamics.

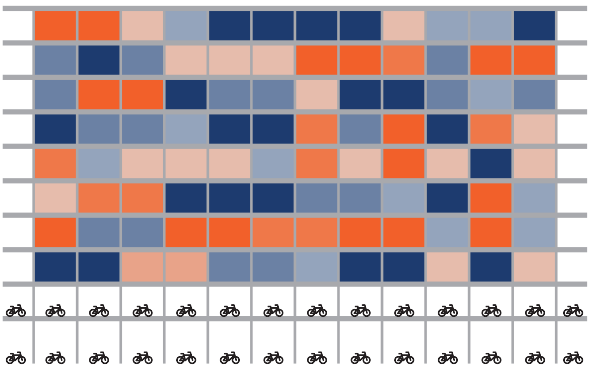
Figure 6 - *Lincoln Road.* Herzorg de Meuron. (2008)



1 normal parking garage



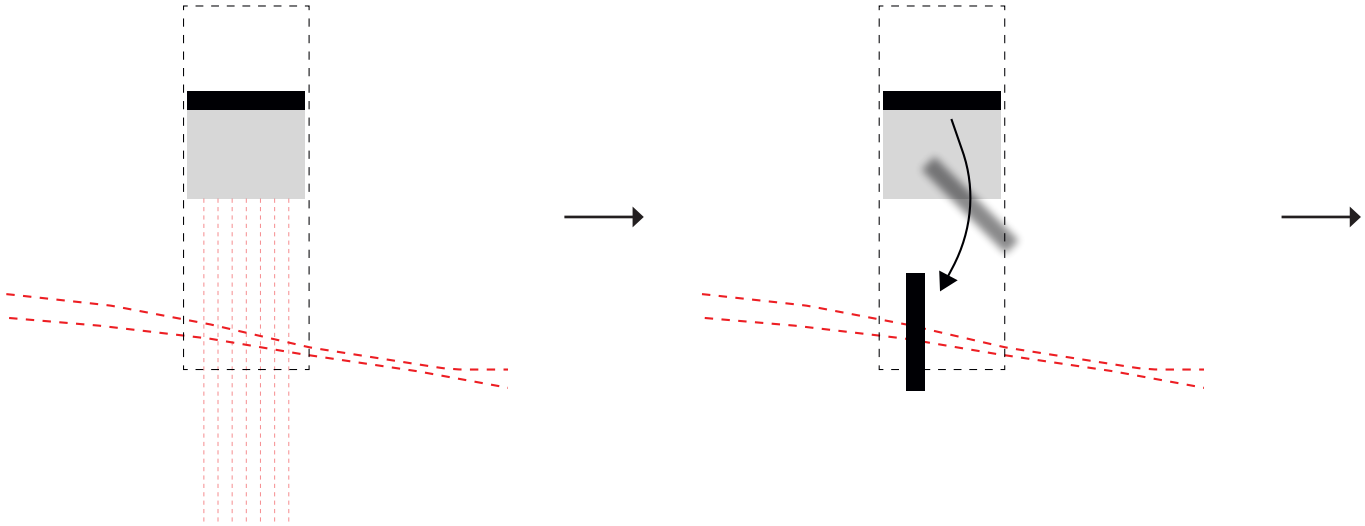
2 public functions take over parking spaces



3 complete public building

Parking Garage

Concept

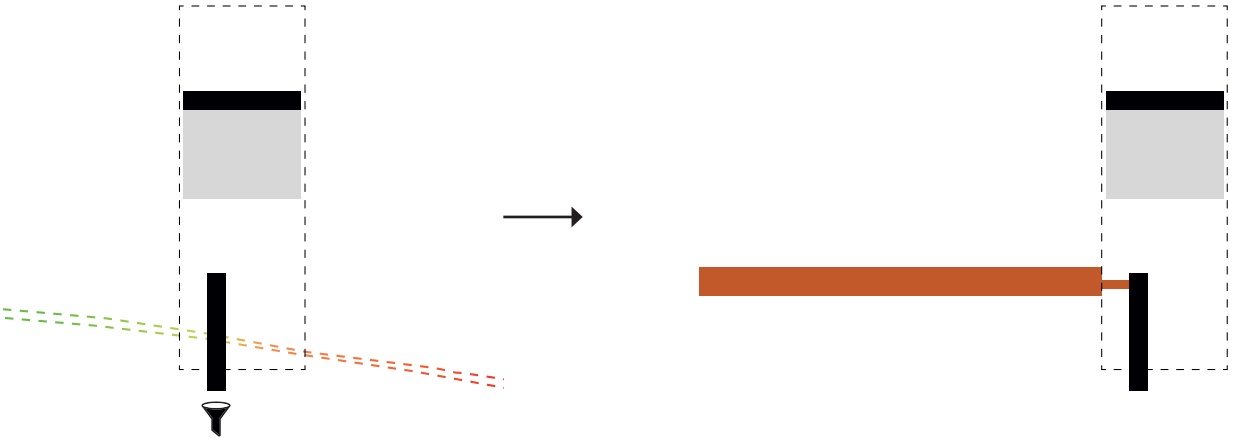


1 current situation

The Hague Central as endpoint, linked to bustling road

2 link to existing

new volume redefines train station's role and mass



3 filter

A12's endpoint garage "filters" cars into downtown

4 connection

garage provides direct access to passage

Part III | **Design Research**

Introduction

Campus as Extension of the city

The vertical campus in The Hague is part of a contemporary persuasive paradigm shift, a prime example of reintegration into the urban fabric. This vertical trend also brings with it a set of problems. The most significant drawback of the skyscraper craze is the loss of urban identity. Architect Jan Gehl remarked, *"I would say that anyone living above the fifth floor should generally address the airspace authorities. You are no longer part of the earth, as you cannot see what is happening on the ground, and the people on the ground cannot see where you are."*[9] What high-rises do is separate large numbers of people from the street, resulting in a city that is detached from street life, a city based on enclaves and gated communities. The high-rise becomes your world, especially when looking at the program of the Vertical Campus. You never have to go outside or encounter other people, which creates a separation between the city and the campus.

This brings up the question: Is it possible to create a fully public education building that can seamlessly extend the city vertically? Thoughts on the integration of educational architecture into the urban fabric of The Hague cannot but reflect on the deeper implications of such an endeavor. The driving force behind the investigation into the feasibility of a fully public educational building is the underlying assumption that education, as a public good, should reflect accessibility and openness in its physical form. This raises the complex question of whether public education is synonymous with unrestricted public access and how this concept translates into architectural design. Furthermore, the notion of "seamless" integration is worth exploring. It suggests an ambition for an educational structure that not only exists alongside the city but rather complements and enhances the existing urban landscape. The term "seamless" here implies more than just a physical merging; it aims for a synergy that promotes a vibrant interaction between the educational environment and street life. It prompts consideration of the ways in which a vertical campus could not only occupy the space of the city but also enrich it, thus providing a revitalizing boost to both the academic realm and the daily rhythm of the public space of The Hague.

[9] Gehl, J. (2010). *Cities for People.* Island Press.

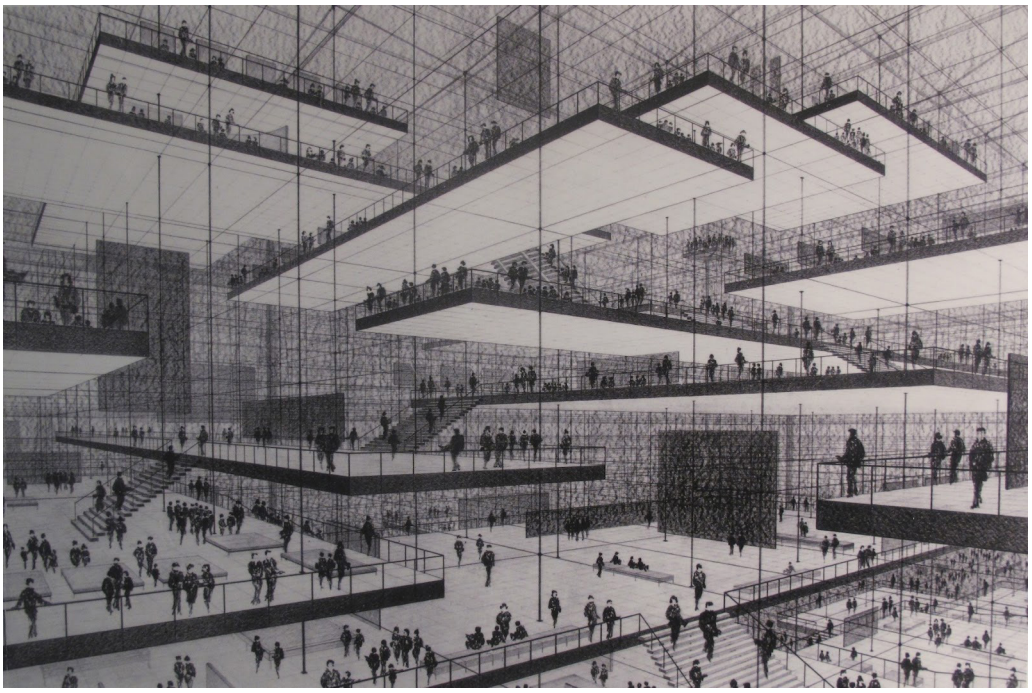


Figure 7 - *drawing for an exhibition hall with floating levels.* Conrad Roland. (1964)

Figure 8 - *Turris Babel.* (1679)

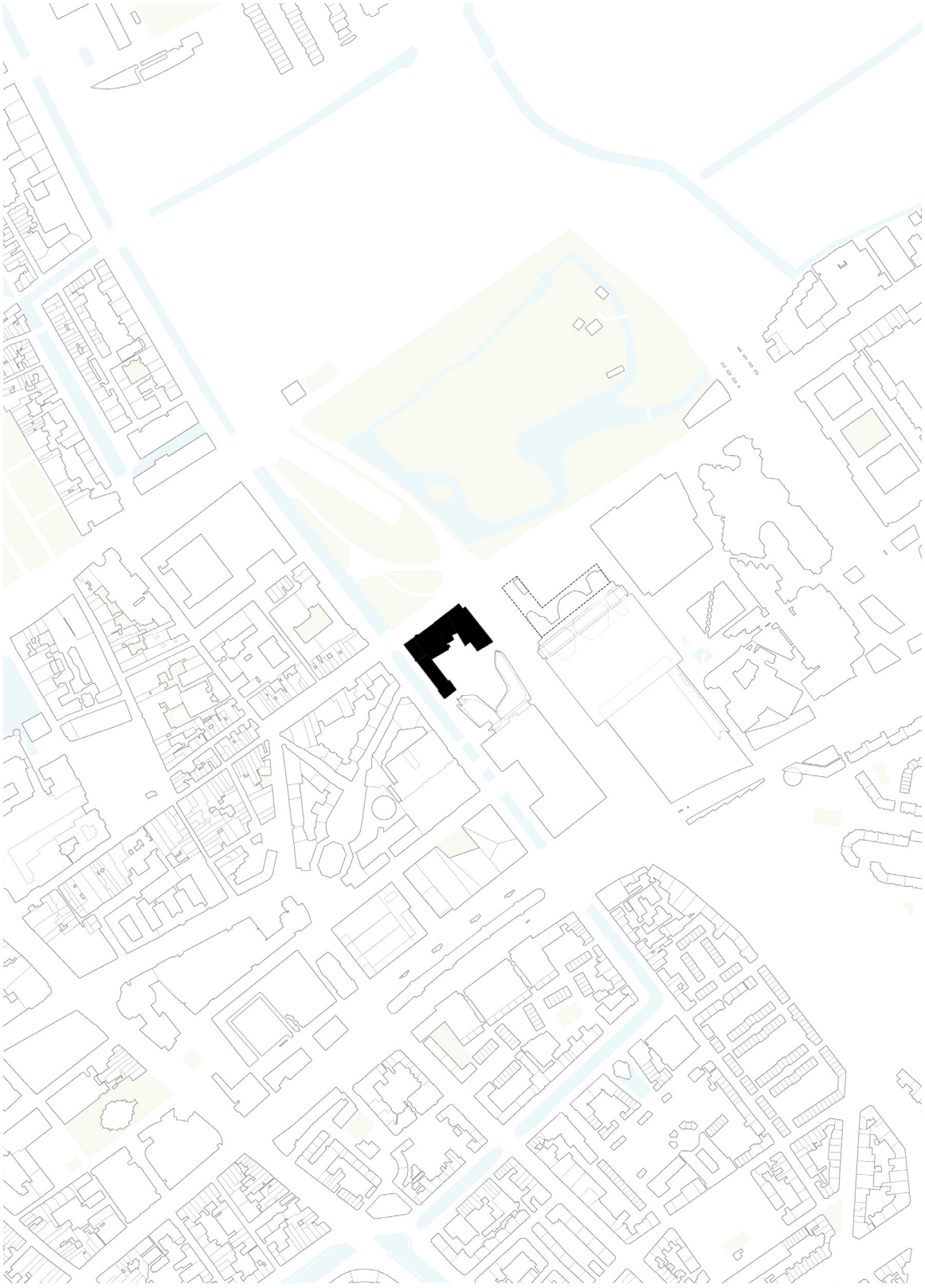
Figure 9 - *Nantes School of Architecture.* Lacaton & Vassal. (2009)

Design Research | **Site analysis**

Site

Bellevue location

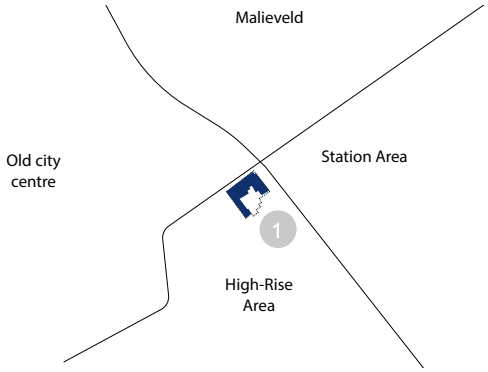
In The Hague, adjacent to the Central Station, a significant urban redevelopment plan is underway, proposing the replacement of various existing structures with a new residential tower. This initiative has ignited discussions on the intersection of urban renewal and environmental sustainability. The Public Building studio advocates for a strategy centered on the preservation and adaptive reuse of the current buildings. This approach aligns with sustainable development principles by reducing demolition waste and conserving the architectural diversity inherent to the site. The existing buildings, representing a range of architectural styles, offer a unique opportunity to merge historical elements with contemporary design. The challenge lies in integrating these varied styles into a cohesive whole, creating a modern living space that respects The Hague's rich architectural heritage. This project exemplifies the potential for urban projects to embrace innovation while preserving the environmental and historical integrity of their settings.

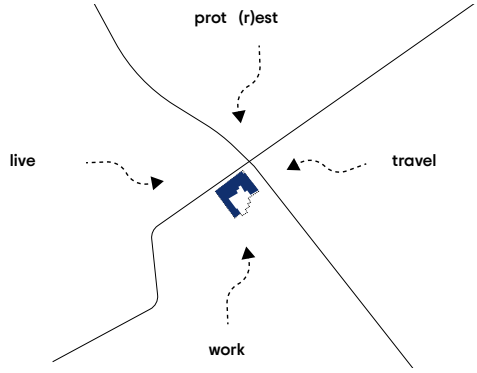


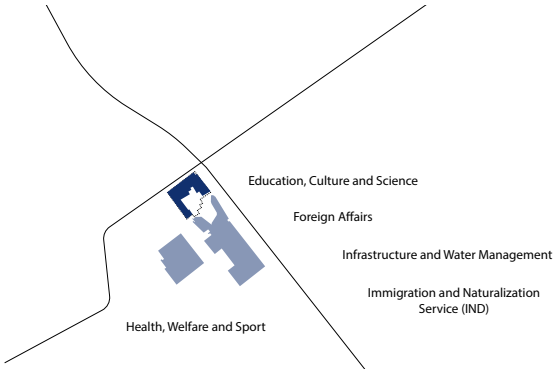
Connection to City

Location choice

Selecting a location that strategically connects four key areas in The Hague represents an ideal choice for establishing a vertical campus. This choice not only capitalizes on the city's diverse cultural and social landscapes but also fosters a hub of innovation and interaction at the heart of these interconnected zones.





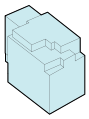


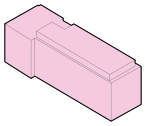
The location of the site is at the intersection of four different “worlds.” It is near the Central Station, which acts as a transportation center and makes traveling both domestically and internationally easier. The Haagse Bos and Malieveld, which provide grounds for leisure as well as a platform for open demonstrations and protests, are close by. The historic and residential area of the city, which includes iconic buildings like the Binnenhof, is rich in history. This section of the site offers a striking contrast to the southern portion, which is primarily made up of high-rise structures. This zone is defined as a workplace-centric environment since government offices, including numerous ministries, occupy these towers.

The site’s distinctive geographic location emphasizes both the variety of its immediate surroundings and its multipurpose role in urban life. Every “world” adds to the dynamic urban fabric where travel, history, governance, and leisure converge to form a lively and intricate urban ecosystem. The combination of diverse urban functions in a condensed region augments the location’s usefulness and allure, providing inhabitants, laborers, and tourists with a diverse urban encounter. Thus, the location is a prime example of how many urban functions may be integrated, each of which enhances the overall character of the city by adding a layer of complexity and richness.

Exploratory Research

Existing buildings

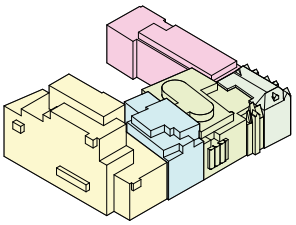


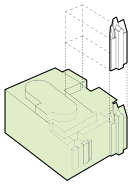


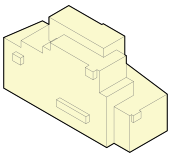
Kantoorgebouw
Haagsche Assurantie Compagnie

Den Hout

Oranje Hout





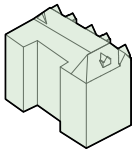


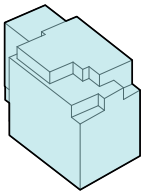
Nieuwe Hout

Kantorenflat Bellevue ‘s Gravenhage

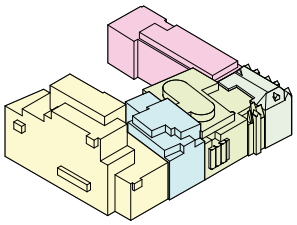
Exploratory Research

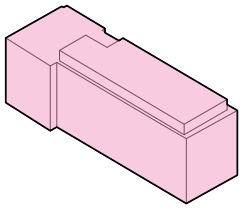
Existing buildings

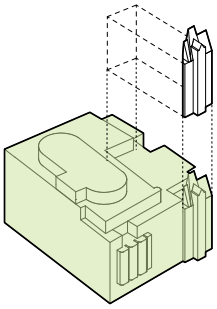




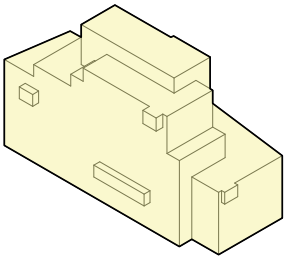
Basic Information		
Building Name	**Kantoorgebouw Haagsche Assurantie Compagnie**	**Den Hout**
Architect	Johan Mutters (1858-1930)	Mehrtens & Van Veldhoven Architecten
Year of Construction	1913	1984
Architectural Style		
Style	Art Nouveau/Jugendstil	Brutalism/Modernism
Design Features	Ornaments, Classical detailing, Brickwork, Balanced symmetry and proportion	Clean lines, Minimal ornamentation, and Functional form
Size and Area		
Total Area (m^2)	1.865	4.035
Number of Floors	5	6
Footprint Size (m^2)	370	535
Construction Details		
Construction Type	Traditional	Columns and Beams
Historical and Cultural Significance		
Historical Status	Monumental	No Status
Functional Analysis		
Current Use	Office	Office
Original Use	Banking Building	Banking Building







Residence (1907)
Liefland, W.B. van
Municipal Monument



Oranje Hout	**Nieuwe Hout**	**Kantorenflat Bellevue 's Gravenhage**
Prent-Landman Architekten	Mehrtens & Van Veldhoven Architecten	Hornstra Verschoor
1981	1974	1975

International Style	Post-Modernism + Neo-Renaissance	Brutalism
Simplicity of form, Functional design, Lack of ornamentation	Partly monumental Facade, Extensive use of glass, Curved glass bay windows	Raw Concrete, Repetitive Modular Elements, Massive Forms, Lack of Ornamentation

6.620	7.500	13.850
6	8	12
810	835	1.475

Columns and Beams	Columns and Beams	Columns and Beams

No Status	(partly) Municipal Monument	No Status

Office and Residential	Banking Building	Office
Office and Residential	Banking Building	Office

Figure 10 - *Bezuidenhoutseweg gezien van de Herenbrug.* Collectie Haags Gemeentearchief. (1917)

Figure 11 - *Bezuidenhoutseweg 7-3.* Collectie Haags Gemeentearchief. (1921)

Figure 12 - *Bezuidenhoutseweg, gezien van de Herengracht; intocht geallieerden.* Biegstraaten, F.W.H. Collectie Haags Gemeentearchief. (1945)

Figure 13 - Oorlogsschade na het bombardement van 3 maart 1945. Biegstraaten, F.W.H. Collectie Haags Gemeentearchief. (1945)

Figure 14 - *Bezuidenhoutseweg 13-1, gezien van de Koningskade naar de Oranjebuitensingel.* Collectie Haags Gemeentearchief., Dienst voor de Stadsontwikkeling (1979)

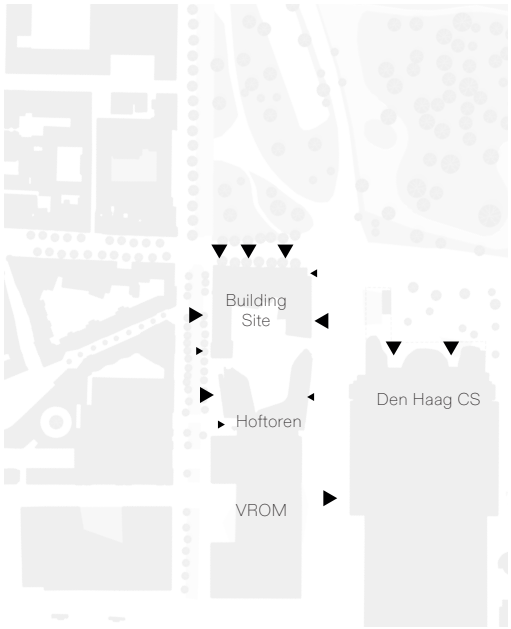
Figure 15 - *Bezuidenhoutseweg 13-1.* Collectie Haags Gemeentearchief., Dienst voor de Stadsontwikkeling (1979)

Figure 16 - *Bezuidenhoutseweg.* Dienst voor de Stadsontwikkeling (1982)

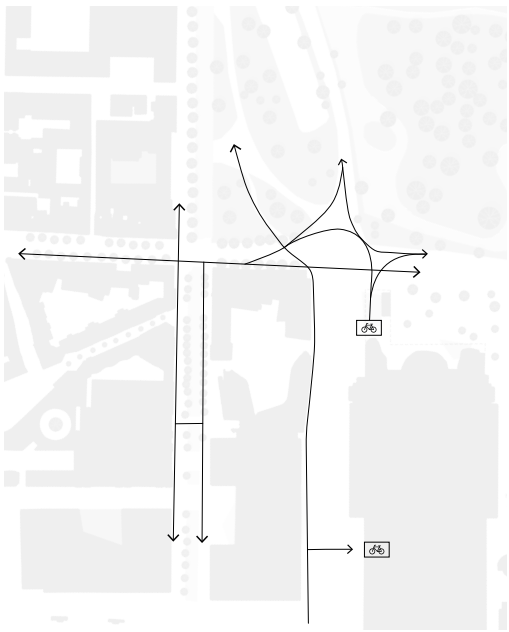
Existing Situation

Ground floor

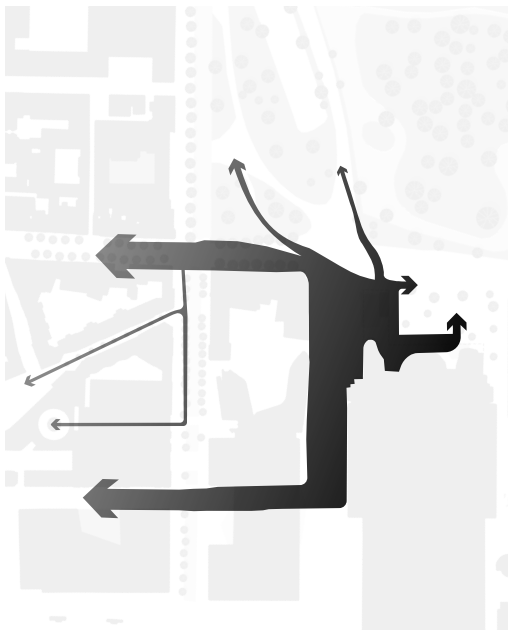
The Hague tower is ideally situated for easy access by bicycle, public transportation, and a variety of pedestrian paths. Its existing layout, however, prevents seamless communication by erecting a substantial barrier between the city and the station. This offers a chance to improve urban flow through the redesign or modification of the tower's environmental interface. Enhancements to the walkways, incorporated public areas, and creative architectural designs can turn the structure from a barrier into an essential link, promoting better traffic flow and communication between the city and the station.



entrances



cycling paths + parking



walking paths

0 4 m
Bezuidenhoutseweg
Oranjebuitensingel
Koningin Julianaplein
P
P
P
P
STOP
0,74m +NAP
5,59m +NAP
0,69 +NAP
Ministry of Education, Culture and Science

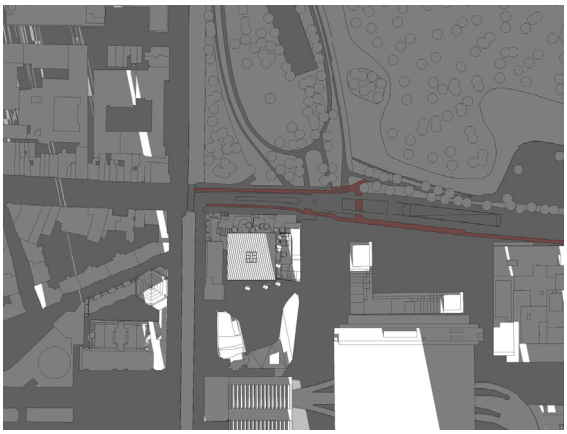
Sun Study

with massing

21 December

21 February

9.00



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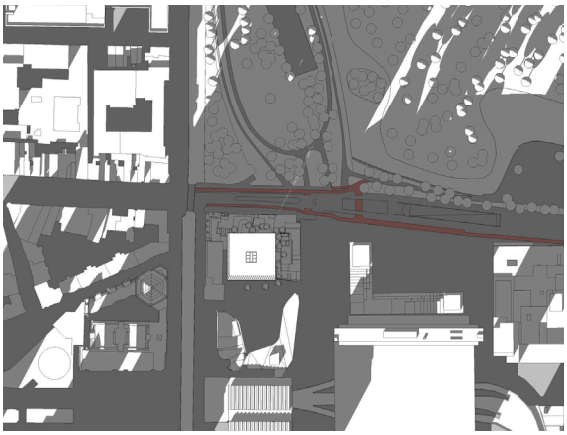

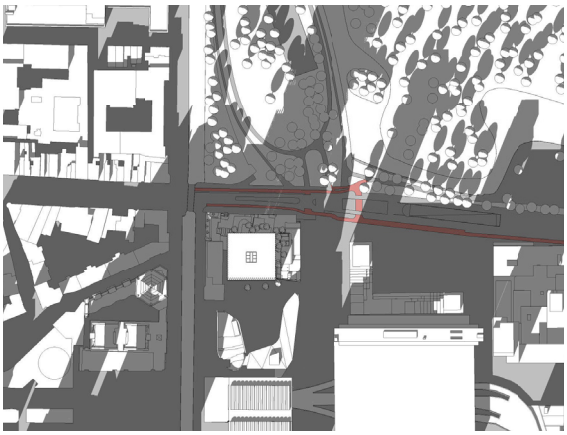

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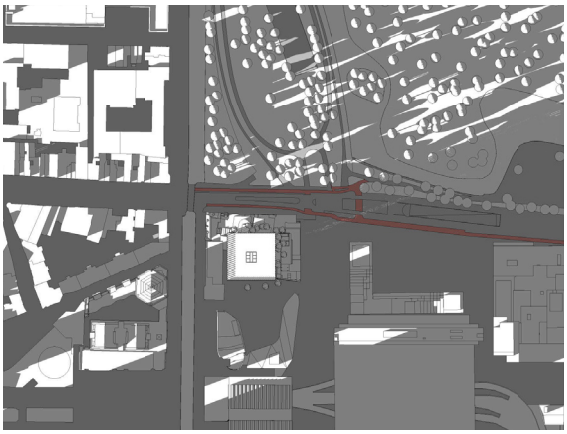

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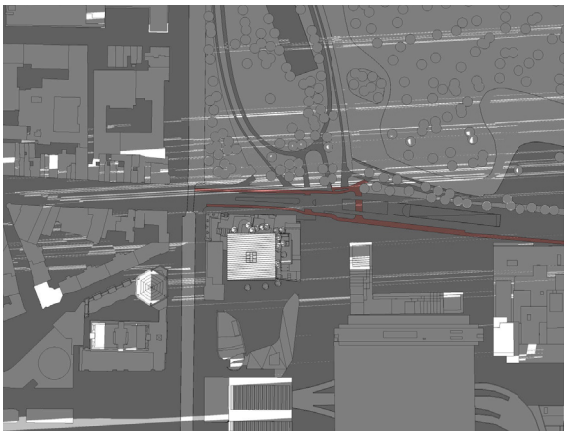

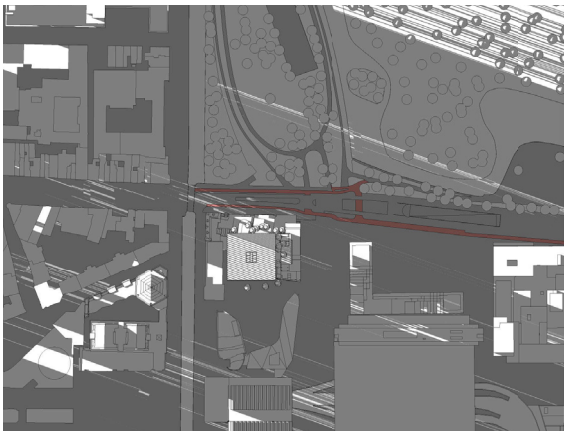

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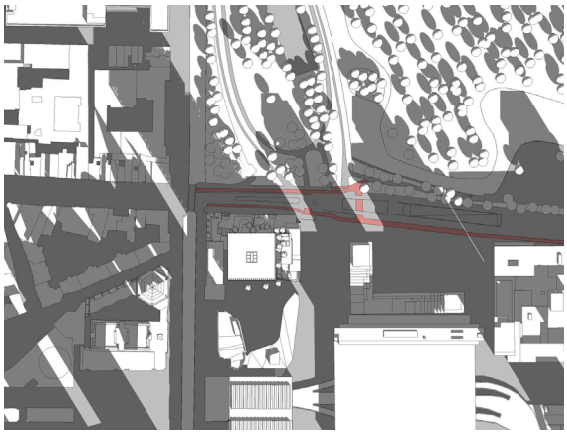

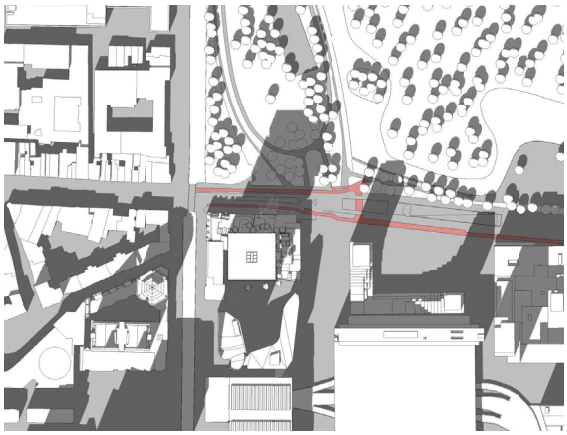

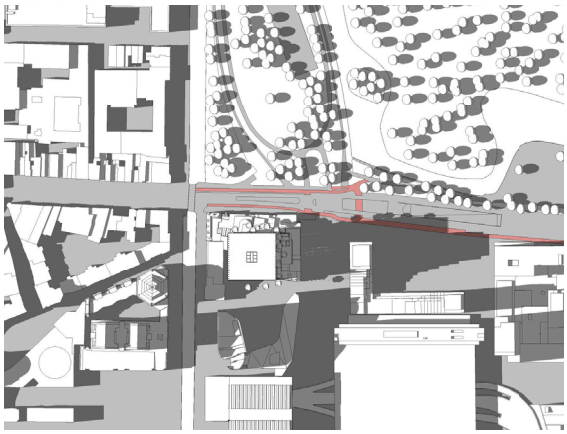

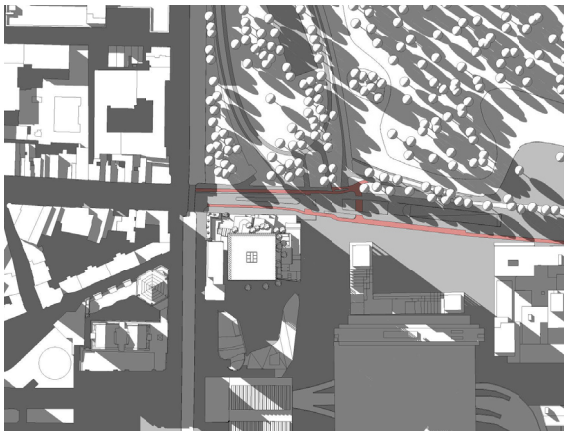

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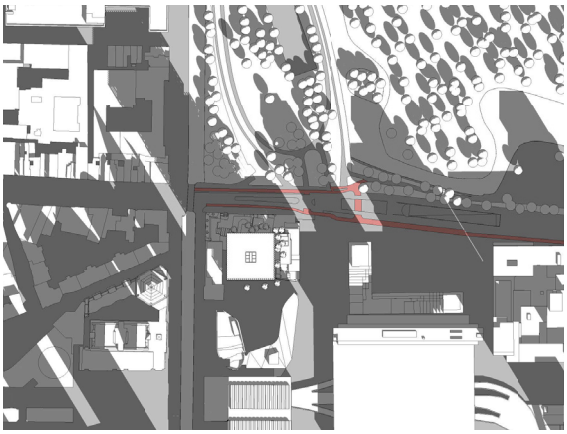
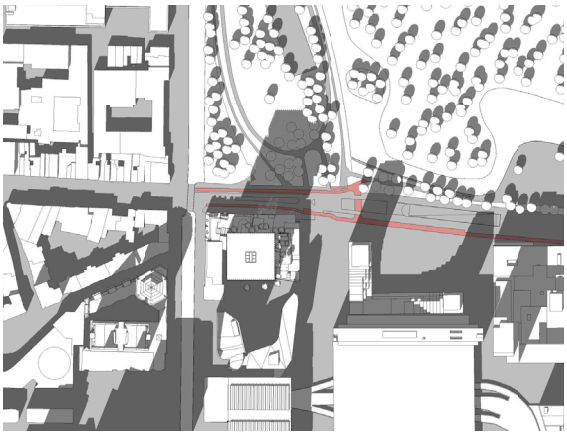
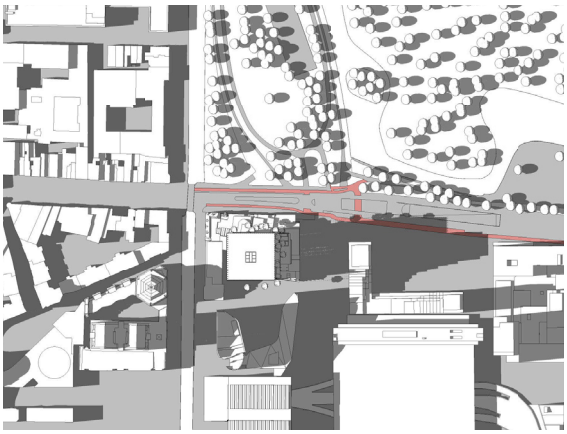
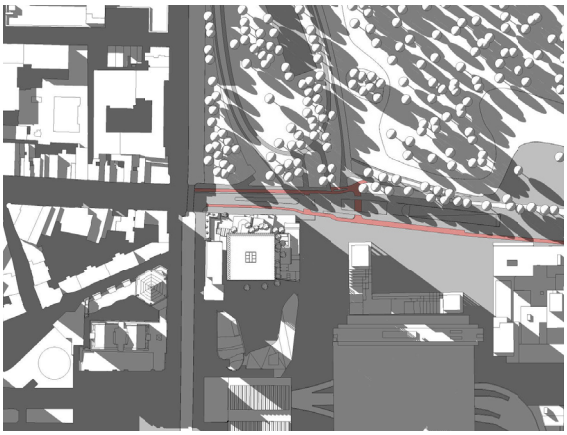








Design Research | **Theoretical research**

Campus

History

From its historical beginnings to its modern iterations, university campuses have evolved to represent a dynamic interaction between urban settings and learning spaces. The social and cultural interactions that take place within these institutions and the communities around them have been greatly impacted by this connection.

The early campuses were integrated components of the cities rather than independent institutions, and the origins of the university campus may be found in the medieval universities of Europe. First and foremost is the University of Bologna, which was founded in 1088. Nestled within the centre of Bologna, this institution was the first in the Western world, with its many buildings located across the city. Parallel to this, the University of Paris, which was established in the twelfth century, was a collection of academic pursuits dispersed around the Latin Quarter of the city rather than a single site.[2] Physically and socially, these colleges were woven into the city's streets, buildings, and public areas; they were not remote academic enclaves.

Due to this integration, colleges were increasingly important to urban life and culture. In these metropolitan centers, academics and students from all origins came together, bringing with them a diversity of languages, concepts, and cultural traditions. The city became a hive of intellectual activity with public lectures, academic discussions, and the overall bustle of academic life spilling onto the streets, cafés, and public squares[3]. Bender gives a detailed account of this occurrence. According to him, colleges played a major role in shaping the social and cultural dynamics of the city rather than merely existing beside it. These establishments were regarded as essential to the identity and success of the city, enhancing urban life's cultural diversity and economics in addition to education.[4]

The 'town and gown' principle, a term that historically refers to the often complex relationship between a university (gown) and the non-academic community (town) in which it resides, has its roots deeply embedded in the medieval era. This dichotomy frequently led to conflicts in medieval university towns, stemming primarily from cultural, economic, and legal disparities. This symbiotic relationship also meant that the city influenced the university. The political, cultural, and economic context of the city shaped the academic pursuits and the administration of these universities. For instance, the complex interplay of church and state power in medieval cities often had direct implications for the universities, affecting everything from curriculum to student life[5].

[2] Verger, J. (1999). *The Universities and Scholasticism [in Europe, c. 1198 - c. 1300].* New York: Cambridge Medieval History

[3] Haskins, C. H. (1923). *The Rise of Universities.* Henry Holt And Company.

[4] Bender, T. (1991). *The University and the City: From Medieval Origins to the Present.* Oxford University Press.

[5] Kibre, P. (1948). *The Nations in the Medieval Universities.* Mediaeval Academy of America

Universities were often founded as religious or royal entities throughout the Middle Ages, giving them specific rights and immunities. Conflict frequently resulted from the colleges' legal autonomy, which put them beyond the municipal authorities' purview. This created an even greater gulf between the townspeople and the students, who were generally members of the clergy and were therefore subject to distinct rules. An instance of this legal paradox may be seen in the 1355 St. Scholastica Day riot at the institution of Oxford, which was a violent conflict between the town's residents and students that left many dead and gave the institution considerable influence over the town for several decades.

However, this integration began to shift in the 19th and 20th centuries. Influential models like the University of Virginia, designed by Thomas Jefferson, and later, the landscaped campuses of American land-grant universities, as described by Turner[6], marked a transition towards more self-contained, pastoral campuses. These 'horizontal' campuses were characterized by expansive green spaces and a deliberate separation from urban centres, reflecting an ideal of academic community and intellectual retreat.

The social relationships and cultural exchanges that resulted from this architectural divide were significant. Because of the campus's horizontal arrangement, which created a microcosm that promoted internal socialization and collaboration, instructors and students felt more a part of the community.[7] However, this self-control also resulted in a certain amount of social isolation. [8]

[6] Turner, P. V. (1984). *Campus: An American Planning Tradition.* Cambridge, MA: MIT Press.

[7] Dober, R. P. (1992). *Campus Design.* John Wiley & Sons

[8] Hajrasouliha, A. H. (2017). "Master-Planning the American Campus: Goals, Actions and Design Strategies." Urban Design International 22 (4): 363–381. doi:10.1057/s41289-017-0044-x.

Campus

History

not a campus in the modern sense, but a **gathering of intellectuals**

universities as **part of city life**

universities' legal privileges creating tension with local communities

universities partaking in broader **cultural movements**, influencing various aspects of society

859 | **al-Qarawiyyin**
Traditions of higher learning were well developed in China, India, and the Islamic world.

1088 | **establishment University of Bologna**

1150 | **foundation of University of Paris**

1500-1600 | **Renaissance and Humanism Influence Universities**

1499 | **University of Alcalá**
example of Renaissance university planning, self-contained complex.

300 BC | **Plato's Academy**

1096 | **establishment Oxford University**

1355 | **St. Scholastica Day riot - Oxford**

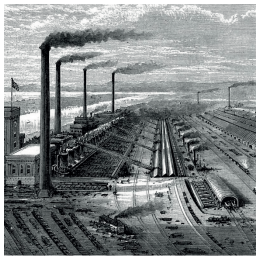
1636 | **Harvard University**

300 BC	1000 integration	1300 tension	1600 expansion
integrated and interdependent		strained and adversarial	collaborative and mutually beneficial

enlightenment ideals in campus design, creating a **holistic educational environment**

increased demand for higher education, leading to the development of new campus models.

globalization and global challenges like climate change influencing campus culture and design



Early 20th Century |
Industrialization and urbanization prompting campuses to move away from city centers

1962 | **University of Brasília**
A landmark of modernist architecture in campus design

2008 | **First MOOC**
Massive Open Online Course (MOOC) "CCK08", pioneered by Siemens and Downes.

2020-2022 | **COVID-19 Pandemic**
Led to a rethinking of campus spaces and their utility, as well as the importance of virtual learning environments.

1819 | **University of Virginia Established by Thomas Jefferson**

Mid-20th Century | **Post-WWII Educational Expansion**

Late 20th Century to Present |
Focus on Sustainability and Technology

?

21st Century | **Vertical Campus?**

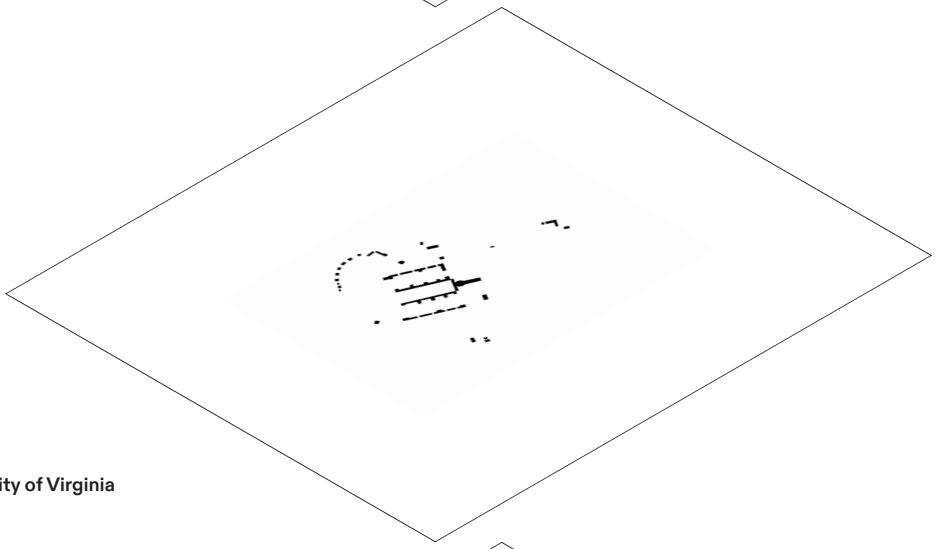
1800 academical village 1900 | 2000 reintegration now integration

conceptually integrated but physically distinct | Increasingly separate and self-contained | Globalized and collaborative | integrated & interdependent

Campus

Current

University of Bologna



University of Virginia

Vertical campus - The Hague

The role of current campus

There is a particular paradox in the contemporary relationship between universities and the surrounding cities. The university's role as a stakeholder in the community and its position as a knowledge centre can conflict. Universities sometimes operate in a state of semi-detachment from their surrounding communities, despite being viewed as centres of innovation and cultural activity. The growing paradigm of colleges acting as anchor institutions in urban areas and promoting social, cultural, and economic revitalization is outlined by Perry and Wiewel [9]. The reality is that a lot of campuses in today's world are built on the outskirts of cities due to land availability, the need for development, and the desire to create independent learning settings, even with the possibility of integration.

[9] Perry, D. C., & Wiewel, W. (Eds.). (2005). The University as Urban Developer: Case Studies and Analysis. Lincoln Institute of Land Policy.

Historic European universities like Bologna, Paris, and Oxford have grown subtly within various city centres. Bologna, for instance, integrates modern academic facilities within its historic urban core, utilizing refurbished iconic structures such as old monasteries and cinemas. The university ambiance evokes a bygone European era, with vibrant street life, café discussions, and a mix of students, artists, and politicians that could be straight out of classic European literature. While some universities have expanded to suburban campuses, they've maintained their original buildings in the city, adding new buildings as far as possible, as seen in cities like Leiden, Tübingen and Delft.

This approach supports the idea that campuses serve as "educational factories," with productivity, efficiency, and creativity serving as the primary criteria and knowledge production analogous to industrial processes. This actual and occasionally symbolic division affects how the academic community and the general public interact, as well as how the campus functions within the city. Many contemporary campuses are located in less desirable areas for tourists than for students and faculty, which limits their ability to function as active, integrated hubs of intellectual and cultural exchange within their urban environments. In their work "The University as Urban Developer: Case Studies and Analysis"[9], Perry and Wiewel examine the effects of university development initiatives on the surrounding urban districts and go into great detail about this phenomena. They contend that although campuses on the outskirts of cities have the benefit of lots of open area for growth, they frequently lack the energy and accessibility of institutions situated closer to the centre, which could result in a lessened function for these campuses in the urban environment.

Is online education taking over campus life?
Over the past three decades, ever since the World Wide Web (web) was uncovered, the digital economy has presented both opportunities and challenges to every organization.[10] The rapid evolution of online education, particularly through Massive Open Online Courses (MOOCs), is revolutionizing traditional education and campus environments, prompting a critical reassessment of the architectural and spatial planning of educational institutions[11]. Platforms like Coursera, edX, and Khan Academy have democratized education by providing high-quality content from prestigious universities to a global audience, challenging the conventional role and design of university campuses. This shift is not merely pedagogical but extends to the very architecture and spatial organization of learning, necessitating a nuanced understanding of how educational spaces interact with the digital realm.

Campuses of universities have historically served as more than merely locations for education. They have played a crucial role in enhancing social, cultural, and economic aspects of urban life. For example, the 151-hectare campus of the Netherlands' Technical University of Delft (TU Delft) accommodates 26,000 students and is part of the city itself. Nonetheless, more than 3.5 million people have enrolled in TU Delft's online courses, suggesting a substantial change in the way learning environments are perceived and utilized.[12] The disparity between the student population on campus and virtually raises questions of what the future holds for physical campuses and how they will fit into urban areas settings.

Campus architecture and layout have historically encouraged both intentional and unplanned contacts in an effort to promote social engagement, community development, and intellectual exchange. These exchanges are essential to the educational process because they foster a feeling of community and belonging. But this dynamic is profoundly changed by the virtual classroom, which is not limited by physical walls. It doesn't have the physicality that supports traditional college life, yet it nevertheless provides unmatched access to knowledge. The nature of social learning and community participation is altered by the lack of a physical environment in online education since the conventional locations for these activities—lecture halls, libraries, and common areas—lose significance.

The proliferation of virtual learning environments has compelled educational establishments to reevaluate their physical designs and infrastructures. The circumstances at TU Delft provide as an illustration of the more general issue that academic institutions have, which is striking a balance between the nature and extent of online learning and conventional campus-based instruction. While the physical campus is meant for thousands of users, the internet world caters to millions of users. This calls for a re-evaluation of educational space planning and its relationship to the greater urban context. As more students opt for online learning, physical campuses run the risk of becoming underutilized, which would lessen campus culture and its positive effects on urban living.

[10] M.E. Porter (2003). *Harv. Bus. Rev., 79 (3) (2003), pp. 62-78*

[11] Teece, D. J. (2018). Managing the university: Why "organized anarchy" is unacceptable in the age of massive open online courses. *Strategic Organization*, 16(1), 92-102

[12] TU Delft Department Communication (2021). *Facts & Figures 2021-2022.* TU Delft

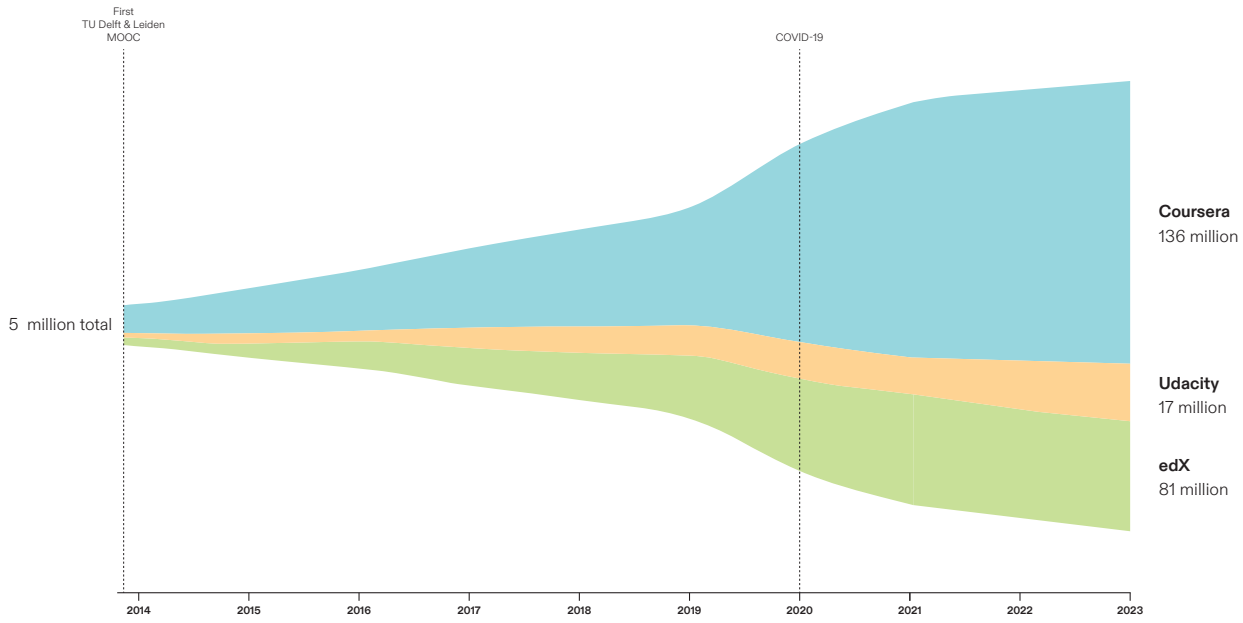


Figure 17 - *Increase in the quantity of registered users on three major MOOC platforms (Coursera, Udacity and edX).* Author (2024)

Campus

Vision

What should the role of future campus become?

Examining how university campuses fit into urban surroundings and their role will become crucial when discussing how universities will change in the future, particularly in light of the increasing trend toward online learning. Digital learning platforms are becoming more and more common, which is challenging the traditional idea of a campus as a self-contained physical area devoted mostly to academic pursuits. The chance to rethink the campus's relationship to the city it resides in is also presented by this shift, which redefines the physical requirements of higher education. As the need for in-person attendance at school decreases due to online learning, cities may become virtual campuses, making it more difficult to distinguish between academic settings and urban life.[13 & 14]

[13] Bender, T. (2018). The University and the City. Princeton University Press.

[14] Moretti, E. (2020). The New Geography of Jobs. Houghton Mifflin Harcourt.

Under the notion of a "urban campus," public spaces such as parks, cafes, libraries, and other gathering places could become unofficial educational settings where knowledge can be shared. According to Katz and Bradley[15] and Goddard and Vallance[16], this type of paradigm encourages a more integrated approach to education, where the city's resources and infrastructure serve as an extension of the academic sphere and provide possibilities for learning outside of the traditional classroom. According to Glaeser[17], integration has the potential to enhance the urban experience by promoting a culture of lifelong learning among city dwellers by making education more easily accessible and integrated into daily events.

[15] Katz, B., & Bradley, J. (2013). The Metropolitan Revolution. Brookings Institution Press.

[16] Goddard, J., & Vallance, P. (2013). The University and the City. Routledge.

[17] Glaeser, E. (2011). Triumph of the City. Penguin Press.

But this move toward a more integrated and dispersed campus model questions concerns about traditional schools' significance and position in the community. Campuses have traditionally been centres of knowledge and social interaction where academics, staff, and students feel a sense of belonging. It is necessary to reevaluate how campuses may continue to serve as community anchors in the digital age given the possibility that this physical and communal identity will be lost in favor of a more diffused approach. [18 & 19]

[18] Putnam, R. D. (2000). Bowling Alone: The Collapse and Revival of American Community. Simon & Schuster.

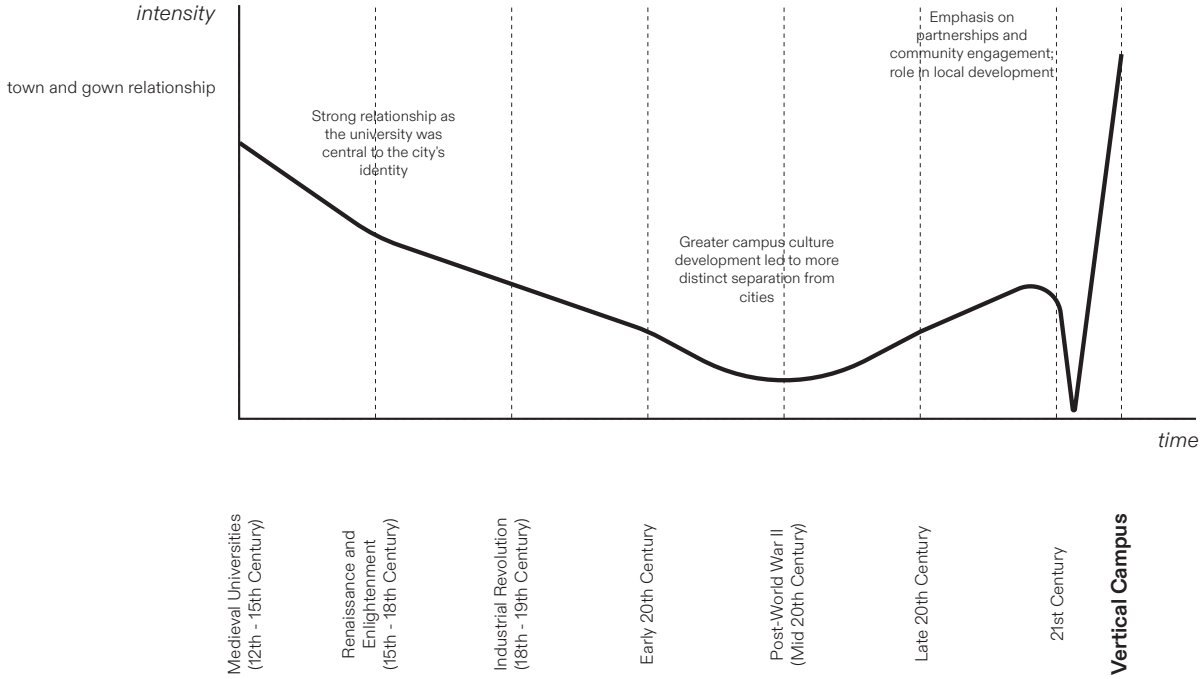
[19] Oldenburg, R. (1989). The Great Good Place. Marlowe & Company.

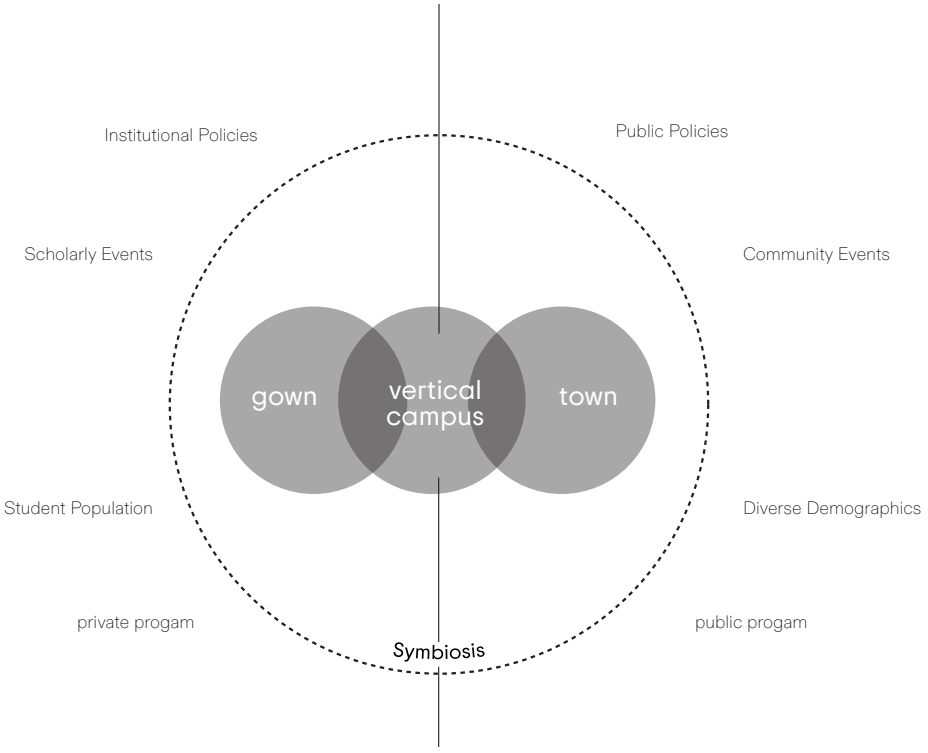
Universities need to take a dual strategy to deal with these changes: they need to use technology to improve accessibility and flexibility, but they also need to revitalize the campus itself as a lively community that provides interactions and experiences that can't be found online[20]. In order to achieve mutually beneficial learning opportunities, this could entail redesigning campus spaces to be more open and integrated with the surrounding city, encouraging public engagement and knowledge exchange, and fostering partnerships with local businesses and organizations. [21 & 22]

[20] Perry, D. C., & Wiewel, W. (Eds.). (2015). The University as Urban Developer: Case Studies and Analysis. Lincoln Institute of Land Policy

[21] Florida, R. (2014). The Rise of the Creative Class. Basic Books.

[22] Landry, C. (2000). The Creative City: A Toolkit for Urban Innovators. Earthscan.


intensity
town and gown relationship
Strong relationship as the university was central to the city's identity
Greater campus culture development led to more distinct separation from cities
Emphasis on partnerships and community engagement; role in local development
time
Medieval Universities (12th - 15th Century)
Renaissance and Enlightenment (15th - 18th Century)
Industrial Revolution (18th - 19th Century)
Early 20th Century
Post-World War II (Mid 20th Century)
Late 20th Century
21st Century
Vertical Campus


Institutional Policies
Public Policies
Scholarly Events
Community Events
gown
vertical campus
town
Student Population
Diverse Demographics
private progam
public progam
Symbiosis

Architecture as Town Square

Introduction

The concept of a “Vertical Town Square” refers to the integration of an educational campus with the urban fabric of a city, particularly in a high-rise form. Traditionally, “town and gown” describes the relationship between a university (gown) and the non-academic community (town) it’s part of. However, The Hague faces a challenge with its closed high-rise structures, which engender a sense of urban anonymity and a scarcity of engaging public spaces. This issue would also arise in a straightforward translation from a horizontal campus layout to a vertical one. The vertical campus could revolutionize this by creating an open, accessible space that promotes interaction between students and the city’s residents, enhancing cultural exchange and community integration. This vertical integration could counteract the impersonal circulation efficiency seen in The Hague’s inner city, by providing vibrant, multipurpose spaces that welcome both the academe and the public. The architectural design must foster private areas within a public realm, redefining the urban campus as a lively, inclusive vertical town square.

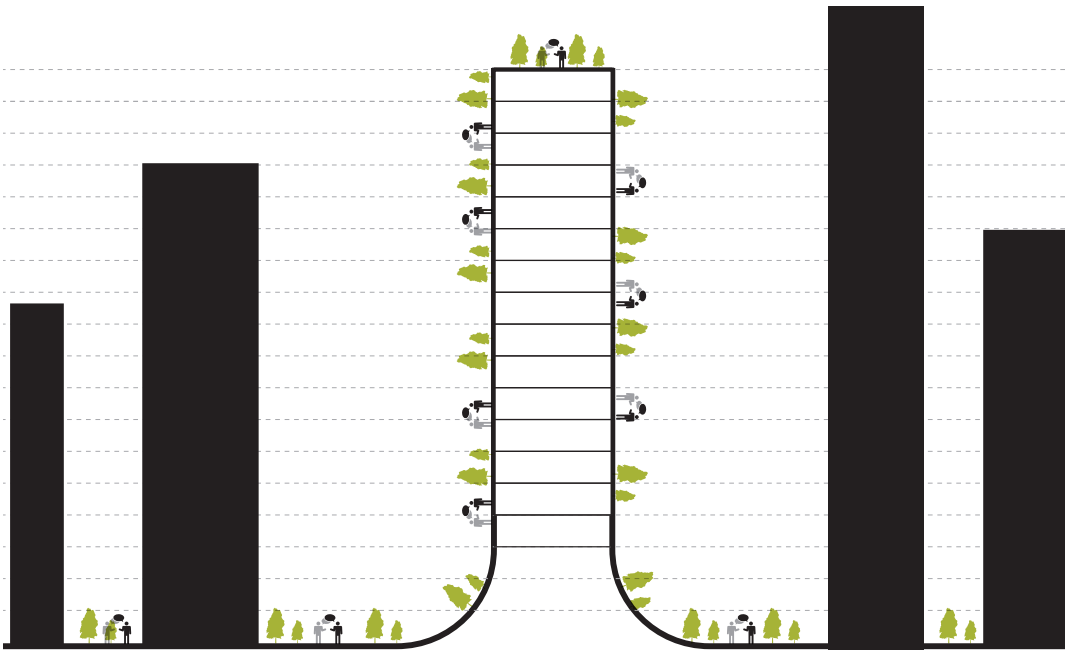


Figure 18 - *Vertical Campus as extension of the city* . Author

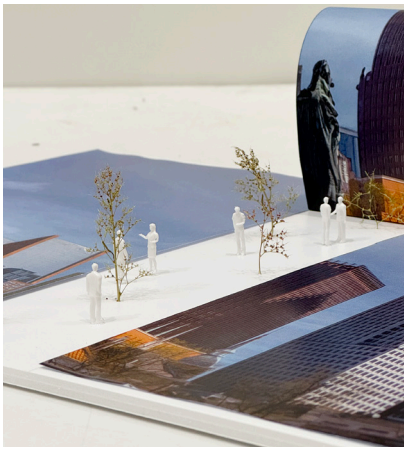


Figure 19 - *Collages of the Vertical Town Square.* Author

Town Square

Introduction

City squares, as pivotal elements in the urban fabric, encapsulate a rich tapestry of historical, social, and spatial narratives. Their evolution from ancient civic centers to modern public spaces reflects the dynamic interplay between architecture, society, and urban development. Kostof's book[23] traces their historical significance, noting how these squares have consistently been the epicenter of cultural and political life. The Greek Agora, for example, transcended its role as a marketplace to become a cradle of democracy, showcasing the square's multifunctionality across eras.

In contemporary urban theory, the city square's role as a social catalyst is emphasized. Architect Jan Gehl highlights their importance in fostering community interactions and social bonds.[24] These spaces, according to Gehl, are instrumental in enhancing the quality of urban life, offering a stage for public discourse and communal activities. This perspective aligns with Jane Jacobs' view [25] in "where she advocates for city squares as key to vibrant and sustainable urban communities. Jacobs argues that active city squares are central to social cohesion, economic vitality, and the overall health of urban environments.

From a spatial standpoint, Lynch[26] presents city squares as vital to urban legibility. They act as nodes that aid in navigation and orientation within the complex urban grid, enhancing the city's imageability. This spatial significance is intertwined with Norberg-Schulz's concept of 'genius loci'[27]. He posits that city squares, through their design and architectural elements, contribute significantly to the unique spirit or character of a place, fostering a sense of identity and belonging among urban dwellers.

The aesthetic dimension of city squares is equally crucial. As public spaces, they represent the artistic and architectural zeitgeist of their times. Their design, from the layout to the choice of materials, reflects and influences the aesthetic preferences and cultural values of the society. This intersection of aesthetics, functionality, and symbolism in city squares underscores their role in shaping the urban narrative.

[23] Kostof, S. (1991). The City Shaped: Urban Patterns and Meanings Through History. Thames & Hudson

[24] Gehl, J. (2011). Life Between Buildings: Using Public Space. Island Press.

[25] Jacobs, J. (1961). The Death and Life of Great American Cities. Random House.

[26] Lynch, K. (1960). The Image of the City. MIT Press.

[27] Norberg-Schulz, C. (1980). Genius Loci: Towards a Phenomenology of Architecture. Rizzoli.

Figure 20 - *Pro-democracy protesters are gathered at Tiananmen Square on June 2, 1989.* AFP (Photo)

Figure 21 - Carnival floats on the Meir Square in Antwerp, 1670. Erasmus de Bie

Figure 22 - *Vegetable market at the Waag in Amsterdam.* Andries Scheerboom. (1832)

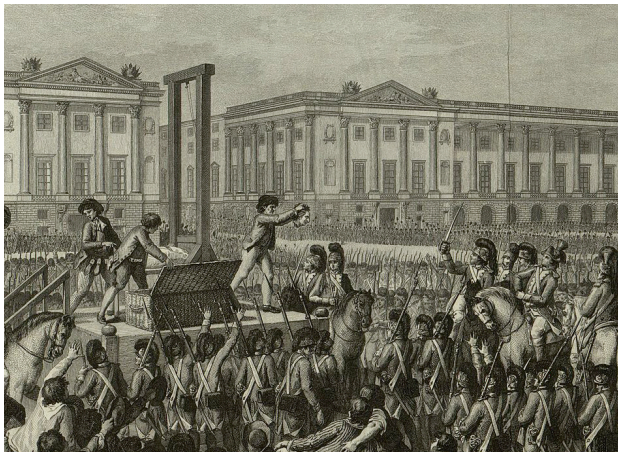


Figure 23 - *Louis XVI execution in Paris.* Isidore Stanislas Helman (1793)

Town Square

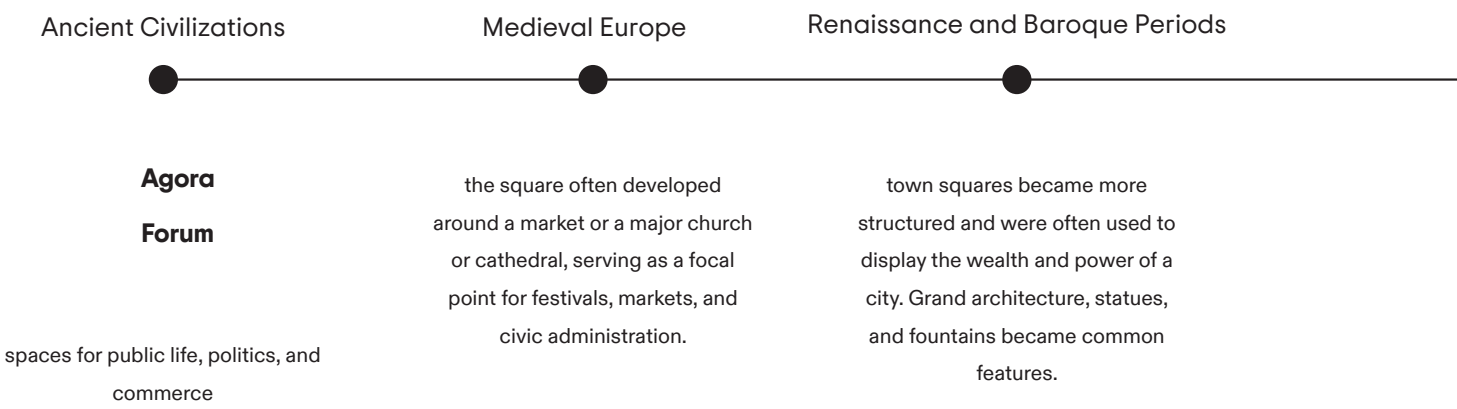
Timeline

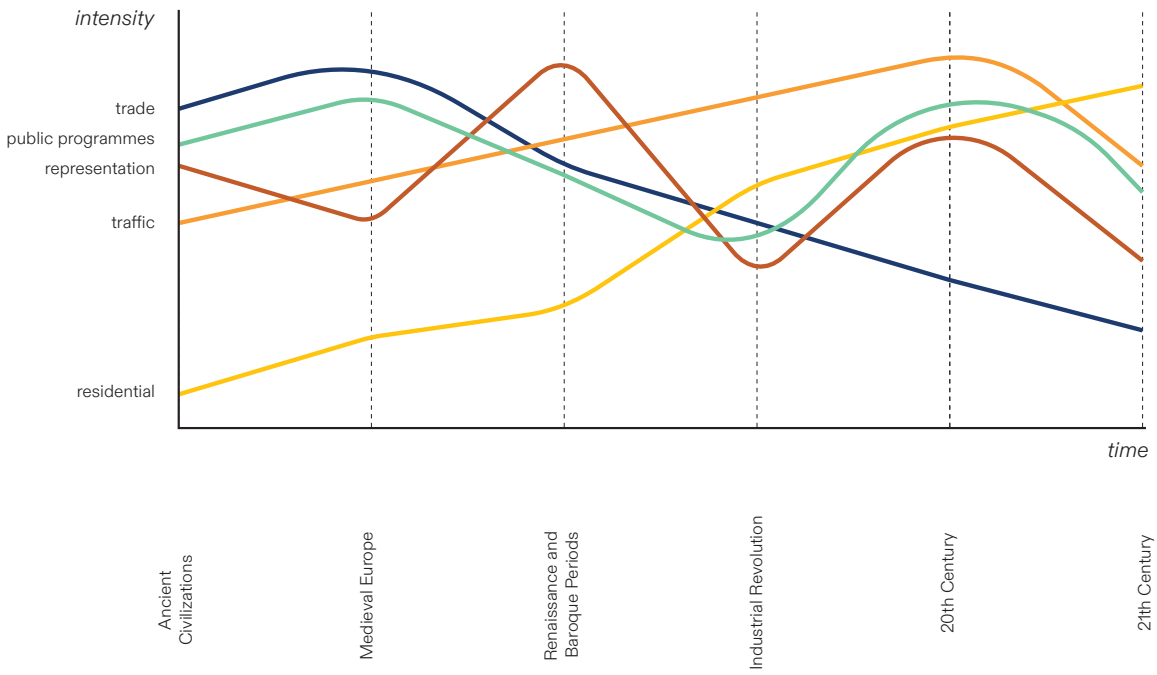
The town square, a pivotal element in urban design, has historically functioned as a multifaceted civic space, embodying the social, political, and cultural ethos of its surrounding community. Originating in ancient times, these squares were central to civic life in Greek and Roman cities, serving as marketplaces, meeting areas, and religious centers. Their design evolved through the Middle Ages in Europe, where they often became the focal point of a town, surrounded by significant buildings like town halls, churches, and markets.

The Renaissance period witnessed a transformation in the architectural and aesthetic aspects of town squares, emphasizing symmetry, proportions, and the integration of art, as seen in notable examples like Piazza della Signoria in Florence. This evolution continued into the Baroque era, where grandiose and theatrical designs, exemplified by places like the Piazza San Pietro in Vatican City, reflected the power and influence of the Church and the State.

In modern times, the concept of the town square has further evolved, integrating contemporary urban design principles. These spaces now often prioritize pedestrianization, greenery, and adaptability to various public uses, reflecting an increased emphasis on environmental sustainability and social inclusivity. Thus, the town square, as an urban feature, has continually adapted to the changing needs, values, and aesthetics of society, representing a microcosm of the broader architectural and cultural trends throughout history.

Ancient Origins and Evolution





Modern Development

Industrial Revolution

The 19th century brought significant changes to town squares. Industrialization led to urbanization, and public squares became crucial for political and social rallies.

20th Century to Present

In modern times, town squares often serve as symbolic and practical centers of cities, accommodating protests, celebrations, and public gatherings.

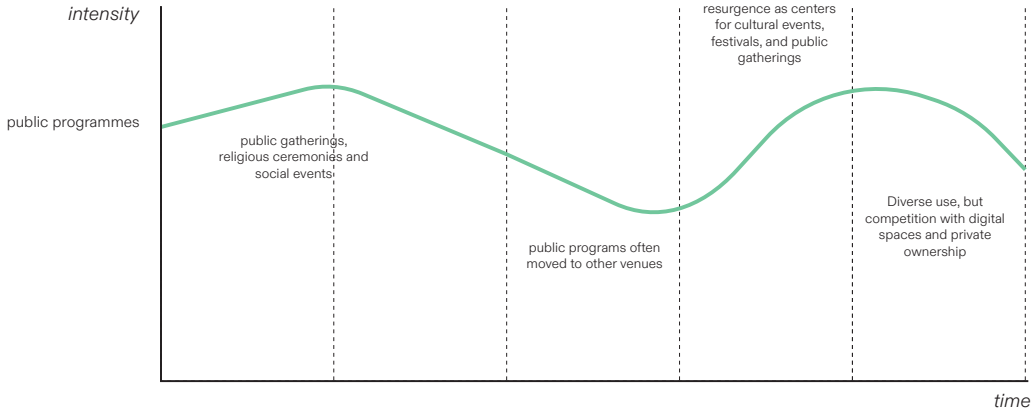
Vertical Town Square?

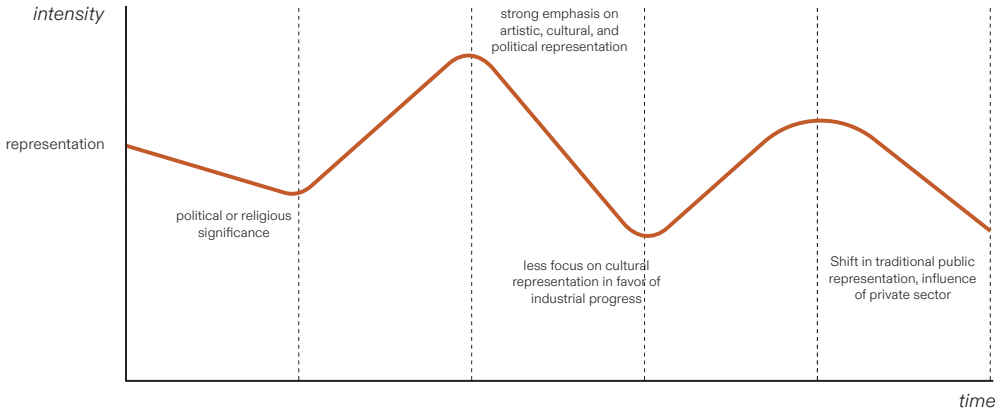
?

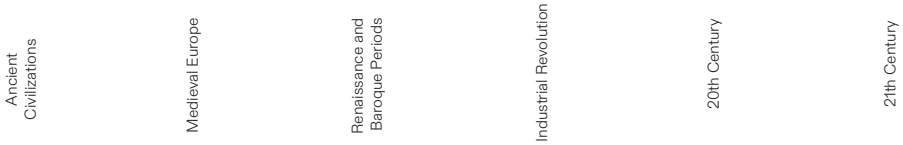
Town Square

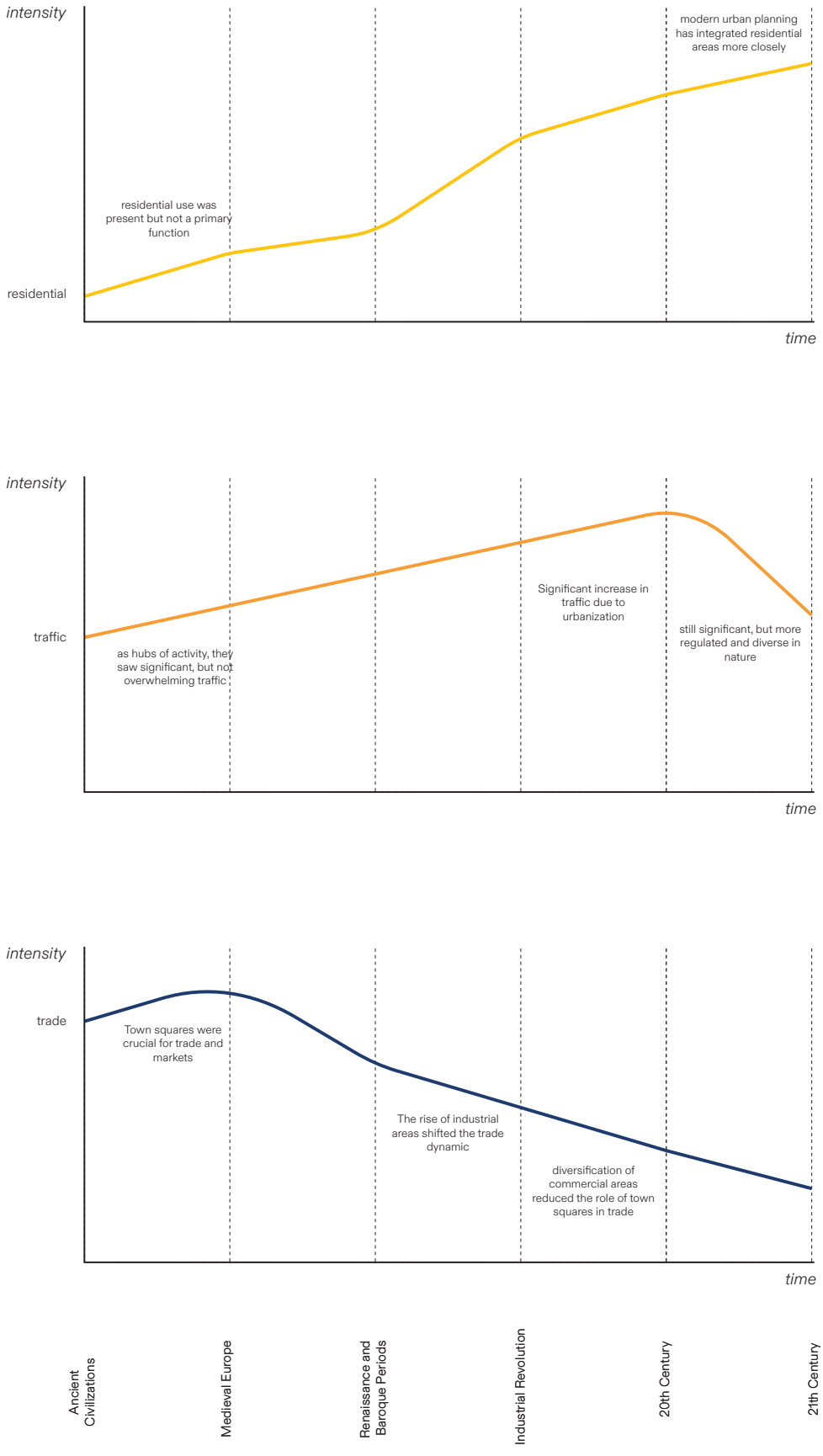
Functions

To illustrate how town squares have served different functions across various historical periods, I'll assign a rating to each function, reflecting its prominence in each era. These ratings will indicate the varying degrees of intensity with which town squares have been utilized for activities. This approach highlights the dynamic role of town squares, showcasing their adaptability and significance in meeting the evolving demands and structures of societies over time. It offers a nuanced understanding of how these public spaces have transitioned from centers of commerce and politics to multifaceted hubs of social, cultural, and urban life.








intensity
residential
residential use was present but not a primary function
modern urban planning has integrated residential areas more closely
time
intensity
traffic
as hubs of activity, they saw significant, but not overwhelming traffic
Significant increase in traffic due to urbanization
still significant, but more regulated and diverse in nature
time
intensity
trade
Town squares were crucial for trade and markets
The rise of industrial areas shifted the trade dynamic
diversification of commercial areas reduced the role of town squares in trade
time
Ancient Civilizations
Medieval Europe
Renaissance and Baroque Periods
Industrial Revolution
20th Century
21th Century

Connection to City

Role of Public Space in The Hague

The Hague, a city rich in political and royal history, has public places that are vital platforms for the interaction of public protests, politics, and royalty. These areas, which are frequently close to important political and regal sites like the Binnenhof, the Dutch Parliament, and the Noordeinde Palace, serve as organic hubs for civic engagement and political dialogue. They hold a variety of events, ranging from colorful political rallies and marches supporting different causes to serious national rituals featuring the royal family.

Figure 24 - *Demonstration at the Greek embassy.* Brugge, G.J. ter & Haags Gemeentearchief. (1968)

Figure 25 - *Herdenking van het herstel van de onafhankelijkheid in 1813.* Stokvis & Haags Gemeentearchief. (1963)

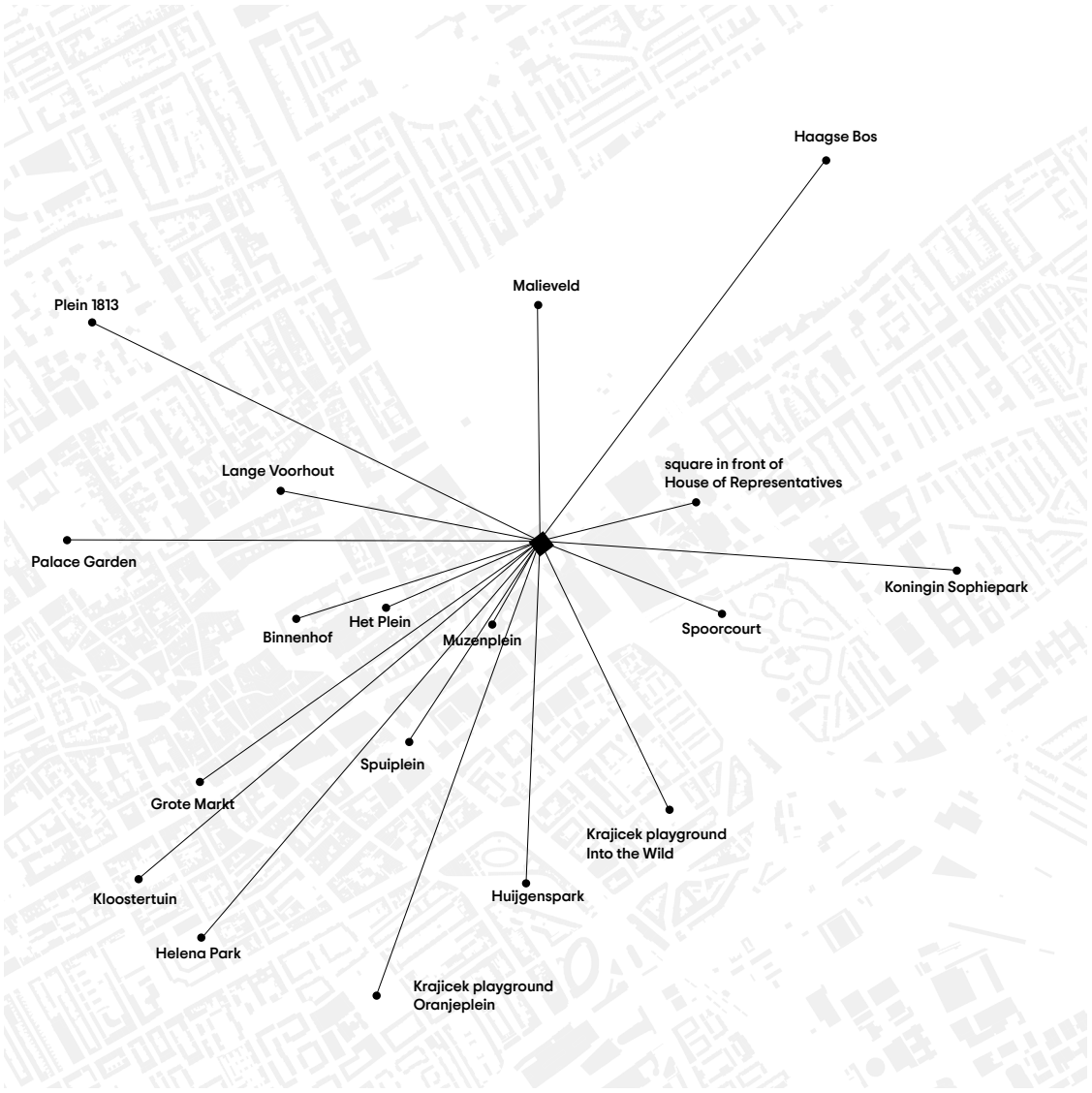
Figure 26 - *Binnenhof, met fontein en Ridderzaal.* Meyer, Fotoburo & Haags Gemeentearchief. (1950)

Figure 27 - *Demonstrations farmers at Malieveld.* Haags Gemeentearchief. (2024)

Connection to City

Addition to The Hague

In towns like The Hague, where conventional public areas serve a variety of purposes including monumental, political, and sports events, the idea of a vertical town square is an innovative approach to urban architecture. A vertical town square can have natural spaces, social hubs, and commercial zones all inside a vertical structure. It is essentially a multi-level, multipurpose place. This architectural concept fosters a distinct sense of communal belonging by encouraging vertical community connections in addition to addressing the lack of horizontal space in metropolitan environments.



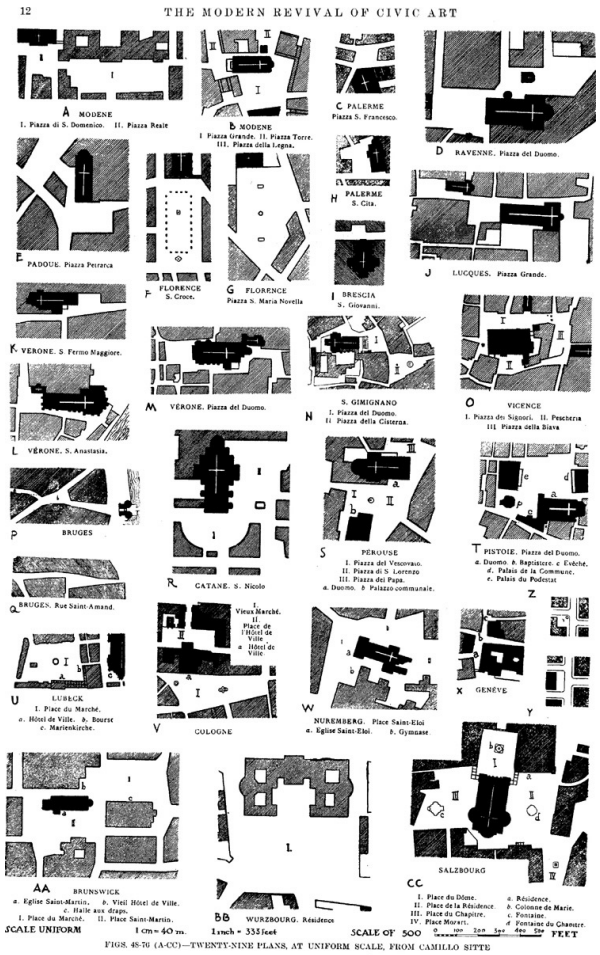
A vertical town square would provide a creative, three-dimensional platform for public life in The Hague, enhancing the diversity of public spaces now in place. It may function as a hub where many urban functions, such as cultural events, political discourse, and leisure, converge in a vertical plane. A building of that like might also become a landmark in architecture, representing The Hague's dedication to inclusive and sustainable urban growth while fusing the city's rich historical legacy with a forward-thinking outlook.

Connection to City

Matrix

An important turning point in the study of typology and urbanism was reached by architect Camillo Sitte's groundbreaking contributions to the subject of urban planning, which are described in his influential 1889 article "City Planning According to Artistic Principles."[28] Sitte explored the complex architecture and visual elements of European city squares, sometimes referred to as platz, place, or piazze, in this book. He made it easier to compare these metropolitan spaces directly by using a similar format and scale in his drawings. This analytical approach was revolutionary because it made it possible to comprehend the spatial and aesthetic characteristics of urban landscapes in a more sophisticated way.

[28] Sitte, C. (1889). City Planning According to Artistic Principles. Dover Publications Inc.



FIGS. 48-76 (A-CC)—TWENTY-NINE PLANS, AT UNIFORM SCALE, FROM CAMILLO SITTE

Figure 28 - *Atlas of important city squares (piazze, platz, or place, etc.).* Camillo Sitte (1889)

European squares are categorized using a thorough framework in Detail's book "Squares: Urban Spaces in Europe," which outlines the squares' architectural traits and social roles. This matrix provides a detailed understanding of urban squares by carefully examining a variety of factors, including size, shape, surrounding structures, historical context, and usage trends. For the purpose of appreciating and assessing the significance of squares in the urban fabric of European towns, it is an indispensable resource for urban planners, architects, and historians. This matrix illustrates a useful method for comprehending and contextualizing urban environments within a particular geographic and cultural context by being used to classify squares in The Hague.

shapes

rectangle

trapezoid

funnel

rounded shape

star shape

spatial trajectory

functions & programmes

trade

traffic

residential

representation

public programmes

performative potential

	strolling	Without needing a fixed destination, the stroller moves through the square aimlessly.
	corso	The shape of the square promotes an up-and-down promenading movement.
	scene	The square, thanks to its architecture, is explicitly laid out for overview, or for seeing and being seen.
	ceremonial	As evidenced by its shape and furnishings, the square is intended for ceremonial procedures.
	relaxation	A cosy atmosphere and a sensation of comfort entice the visitor to linger, without a fixed intention.
	being inside	Just as in a room, in the square. They relate to the use of the square one has the feeling of being in an interior. and of its buildings. Entrance and exit are decisive acts.
	meeting	One drops in, meets acquaintances, and gastronomy in the surrounding buildings loiters for a while, and leaves again - a continuous coming and going.
	gathering	The sqaure is the scene of political and social activiyies, demonstrations, rallies, protest, etc. and gives them significance/meaning.
	void	Predominantly, the square us traversed, and does not incite any particukar action or specific behaviour.

Figure 29 - *matrix based on atlas for comparison of Town Squares.* (Squares. Urban Spaces in Europe.) Detail (2017)

Connection to City

Squares/Parks in The Hague

Plein 1813

Time 1869

Architect Johannes Jacobus Delia

Dimensions 140m x 80m (11.200 m²)

Lange Voorhout

Time 15th century

Architects -

Dimensions +- 38.000 m²

Paleistuin

Time 1609

Architect Hoeufft van Velsen

Dimensions 30.000 m²

Spuiplein

Time 1861

Architects -

Dimensions 2500 m²

Square H. of R.

Time 1980s

Architect Dick Apon

Dimensions 600 m²

Malieveld

Time 1606

Architects -

Dimensions 350m x 200m (75.000m²)

Binnenhof

Time 13th century

Architect Cornelis Peters

Dimensions 3000 m²

Het Plein

Time 1632

Architect W.N. Rose

Dimensions 5250 m²

Muzenplein

Time 20th century

Architect Rob Krier

Dimensions 2000 m²

Krajicek playground Oranjeplein

Time 2021

Architects -

Dimensions 2500 m²

Kloostertuin

Time 1700

Architect -

Dimensions 1680 m²

Grote Markt

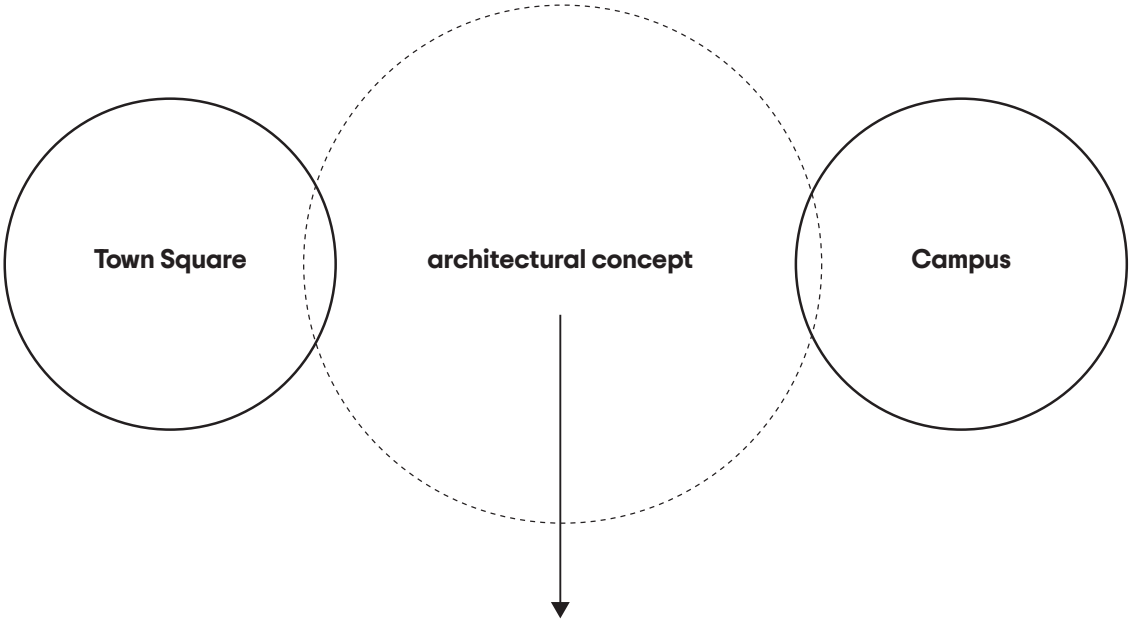
Time 17th century

Architects -

Dimensions 105m x 40m (4.200m²)

Architecture as Town Square

Key Points



Diverse Learning Opportunities

plethora of learning experiences beyond the traditional classroom. It hosts events, workshops, and exhibitions that cater to a wide range of interests and age groups. This variety encourages individuals to engage in new learning experiences at any stage of their life.

Accessibility and Inclusivity

by breaking down the barriers between academic institutions and the public, it encourages a broader demographic to engage in educational activities, catering to those who might not have access to formal educational settings.

Social Interaction and Networking

lifelong learning is reliant on social interactions and networking. The concept facilitates connections between individuals from different backgrounds, professions, and generations, fostering a rich learning environment. These interactions can lead to knowledge exchange, mentorship opportunities, and collaboration, all of which are essential for continuous learning and growth.

Adaptability and Flexibility

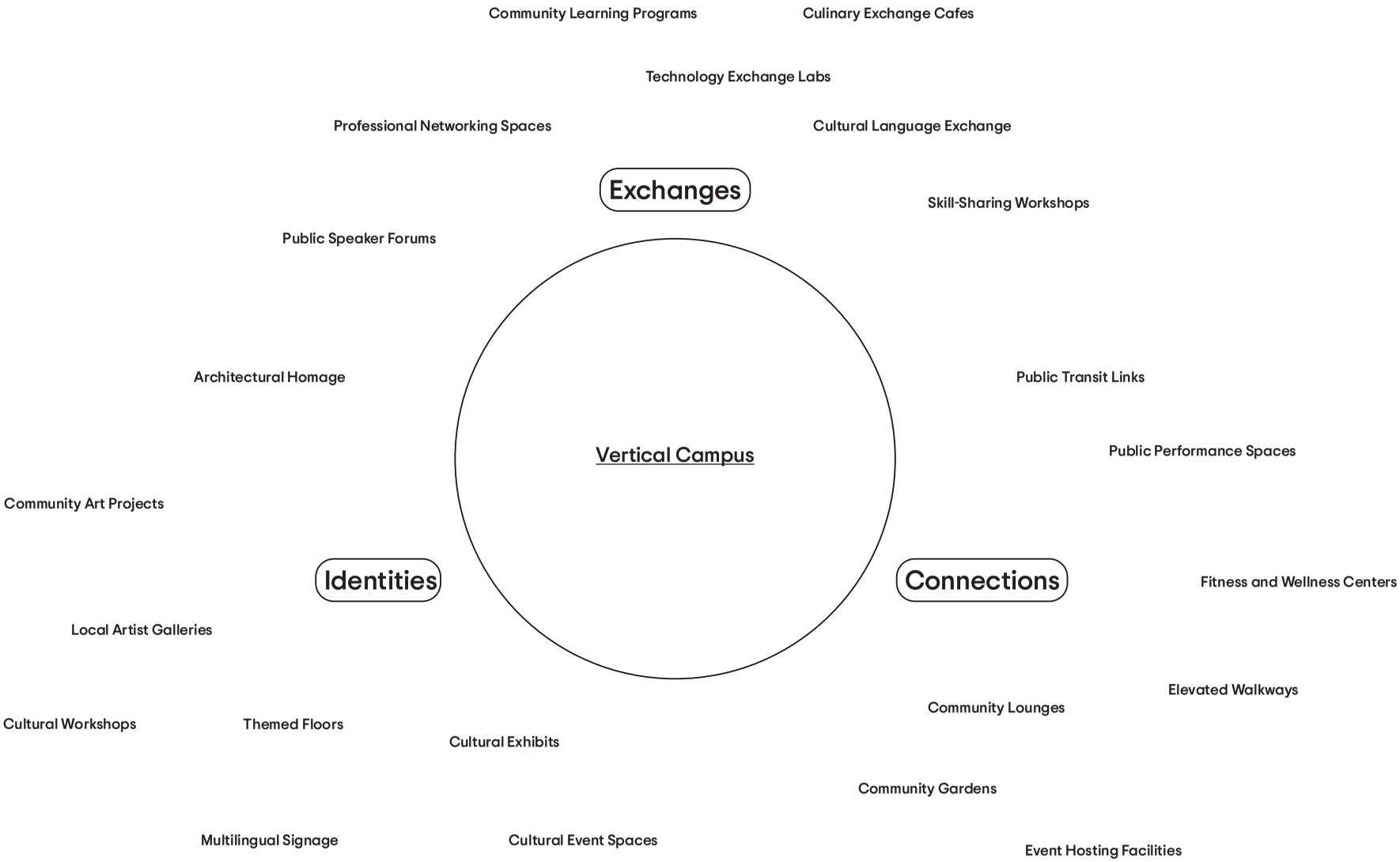
provides a space that can be reconfigured for different purposes and learning styles. This adaptability ensures that the space remains relevant and useful for learners of all ages, accommodating various forms of learning and interaction.

Encouragement of Curiosity and Exploration

with its ever-changing activities and interactions, cultivates a sense of curiosity and a desire to explore new ideas. This environment is ideal for fostering a lifelong learning mindset, where individuals are motivated to seek knowledge and experiences continuously.

Community Engagement

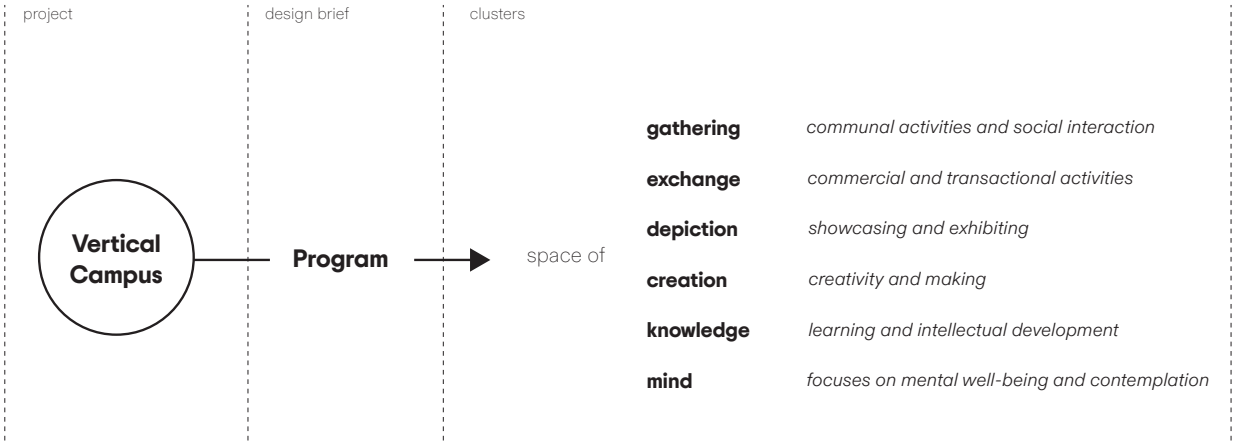
this engagement is a cornerstone of lifelong learning, as it allows individuals to learn from real-world scenarios, community challenges, and diverse perspectives. It nurtures a culture of continuous learning and curiosity, essential for personal and professional development.

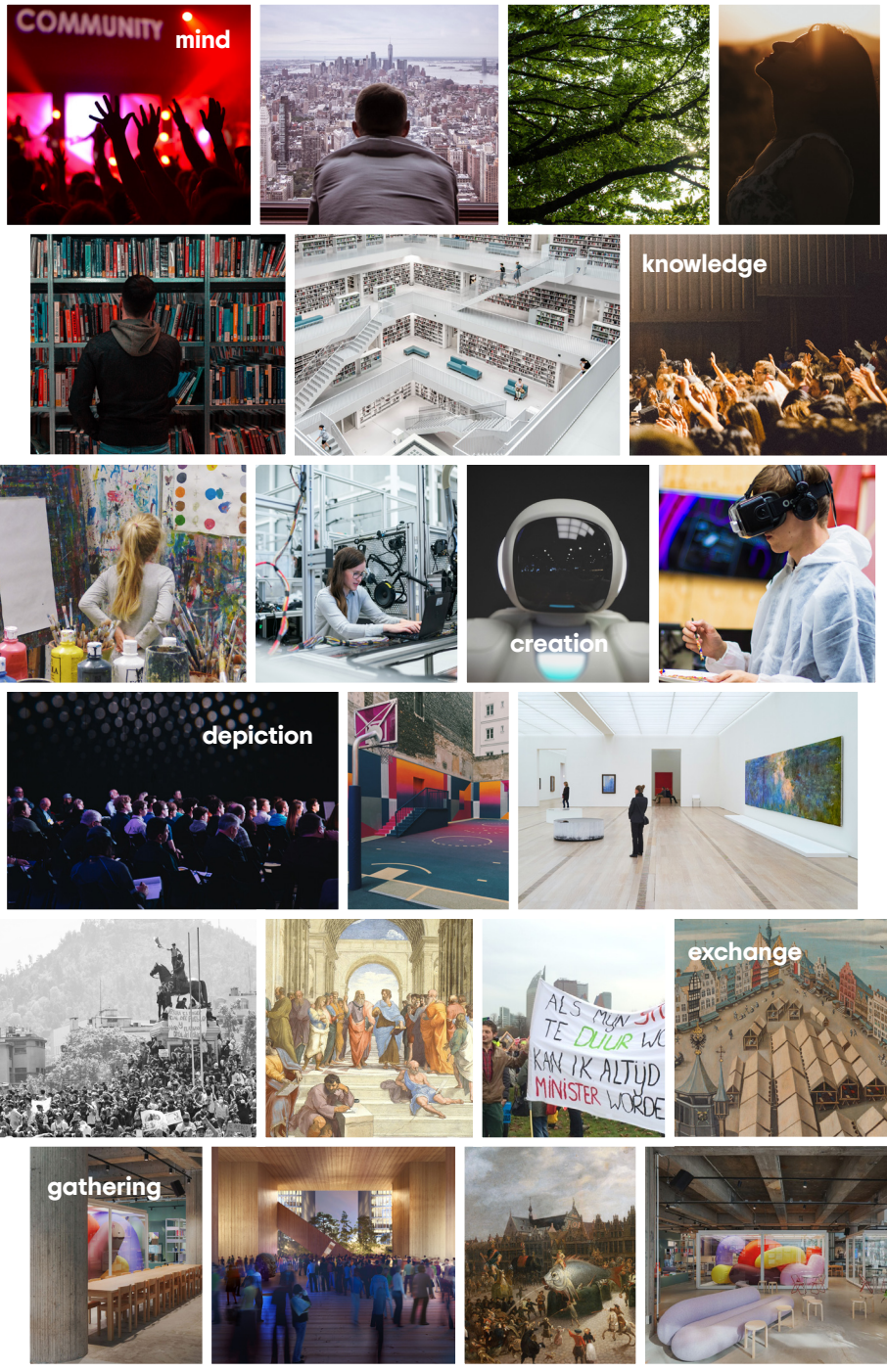

Community Learning Programs
Culinary Exchange Cafes
Technology Exchange Labs
Professional Networking Spaces
Cultural Language Exchange
Exchanges
Skill-Sharing Workshops
Public Speaker Forums
Architectural Homage
Public Transit Links
Vertical Campus
Public Performance Spaces
Community Art Projects
Identities
Connections
Fitness and Wellness Centers
Local Artist Galleries
Elevated Walkways
Community Lounges
Cultural Workshops
Themed Floors
Cultural Exhibits
Community Gardens
Multilingual Signage
Cultural Event Spaces
Event Hosting Facilities

Program

Clusters

Vertical campuses transform the idea of educational spaces by vertically stacking different functional regions, or clusters, within a single building. They are designed to maximize space in urban situations. The purpose of the carefully arranged clusters—gathering, depiction, creation, knowledge, exchange and mind—is to support a whole educational experience. As a social hub, the gathering cluster encourages interaction and community development between students and faculty. The exchange cluster encourages the flow of ideas between many sectors by emphasizing collaborative and interdisciplinary activity. The depiction and creation clusters are dedicated to artistic and innovative endeavors, providing spaces for expression and experimentation. Lastly, the knowledge and mind clusters are focused on mental health and academic learning, guaranteeing a balance between mental development and intellectual advancement. In addition to making the most use of the limited urban area available, this clustering strategy produces a dynamic, diverse environment that is supportive of contemporary education and personal growth.




COMMUNITY
mind
knowledge
creation
depiction
exchange
gathering

Final Program

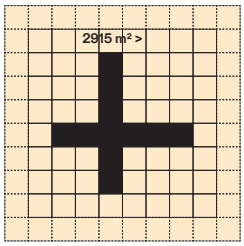
Vertical Campus

space of gathering

communal activities and social interaction

Zone	Area (m²)
Entrance	400
Commercial Spaces	1.000
Community Event Space	2.000
Office Spaces	1.670
Outdoor Grounds	?
Functional useful area	**5.070**
Storage, Mechanical Utilities and Circulation Space	**25-30% of total gross floor area**
Gross floor area	**6.590**

+



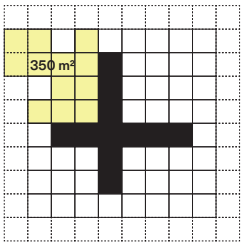
Town Squares

space of exchange

commercial and transactional activities

(Lecture) Theatres - Medium	400
Entrepreneurship and Incubation Hub	400
Social Hub and Cafe	400
Collaborative Workspaces	200
Sports	500
Office Spaces	1.670
Outdoor Grounds	?
3.570	
25-30%	
4.070	

+

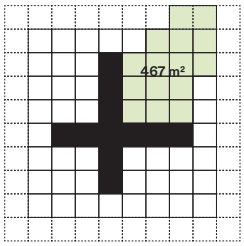


space of depiction

showcasing and exhibiting

(Lecture) Theatres - Large	600
Backstage	300
Centre for Advanced Virtuality	500
Music venue	600
Recording studios	350
Office Spaces	1.670
Outdoor Grounds	?
4.020	
25-30%	
5.225	

+



space of creation

creativity and making

Play and Learn	2.000
Exhibition Space	500
Creative hub	400
Workshops	400
(Lecture) Theatres - Small	200

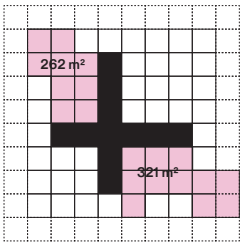
Office Spaces	1.670
Outdoor Grounds	?

5.170

25-30%

6.720

+



space of knowledge

learning and intellectual development

Learn and Discover; Studio Spaces	1.000
Library and Media Center	2.000
Learn and Develop; Research Spaces	2.000
Teaching, Learning & Development Spaces	1.000
(Lecture) Theatres	550

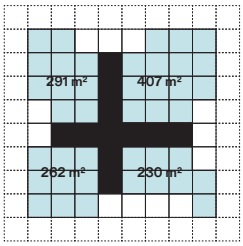
Office Spaces	1.670
Outdoor Grounds	?

8.220

25-30%

10.690

+



space of mind

focuses on mental well-being and contemplation

Café and Lounge	500
Quiet Study Places	400
Meditation and welness centre	400

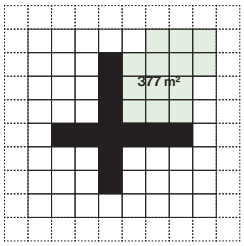
Office Spaces	1.670
Outdoor Grounds	?

2.970

25-30%

3.710

+



Part IV | **Concept Design Process** P2

20/11/23 - 24/01/24

Concept

Vertical Town square

An method to conceptualize how a vertical campus in The Hague can facilitate its integration as an extension of the urban environment is to view the building as a series of squares connected by vertical streets.

The Plan of the City of Washington (fig 30) demonstrates how squares are arranged throughout a city and connected by a number of routes in conventional urban planning. An inventive architectural solution is shown by translating this horizontal arrangement into a vertical dimension. Here, the squares are piled vertically, one on top of the other, resembling layers or floors inside a building, as opposed to being dispersed across a horizontal surface. A fluid and integrated vertical urban environment is created by connecting these “vertical squares” with features that resemble vertical streets.

To avoid giving the impression that the building is a monolithic tower, which can frequently come across as uninviting, this structural approach should be made evident in the exterior of the structure. Rather, by exposing these stacked squares and vertical linkages, the building itself is transformed into a welcoming environment that promotes communication and interaction.

By stacking these squares, the campus’s physical layout is varied, and each square may be used for a variety of purposes and activities, resulting in a dynamic and multipurpose vertical urban center. Because of its linked squares and streets, this vertical campus acts as a living extension of the city, adding a distinctively vertical character to its urban fabric.

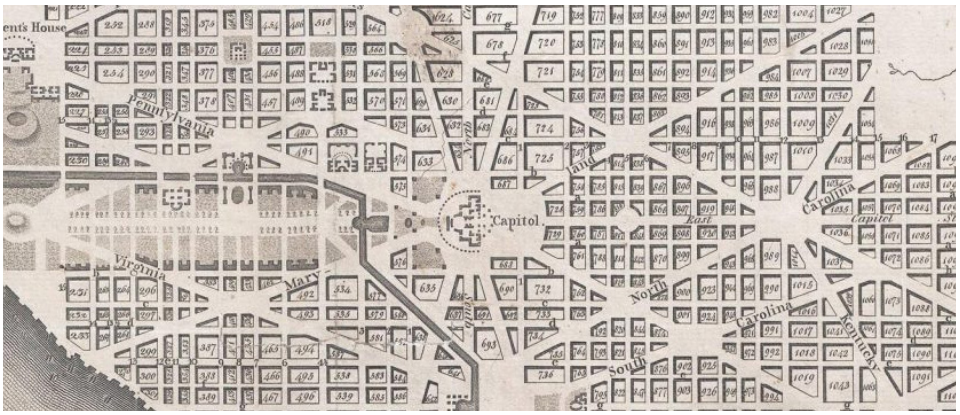
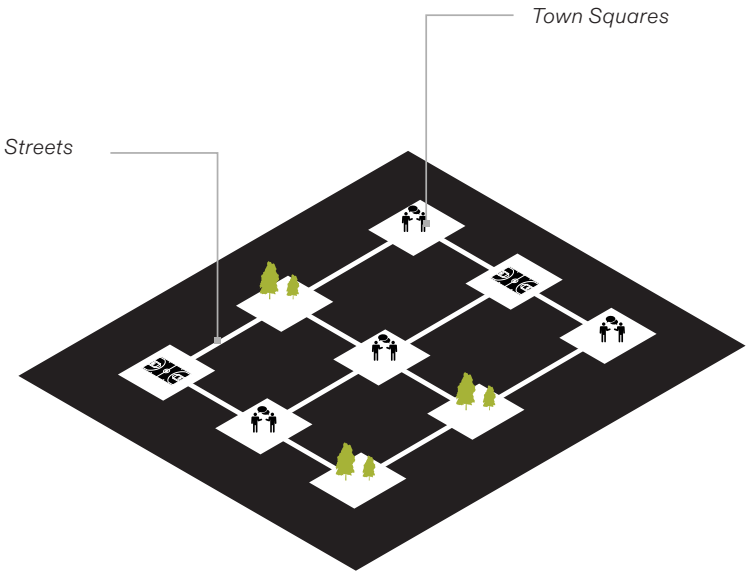
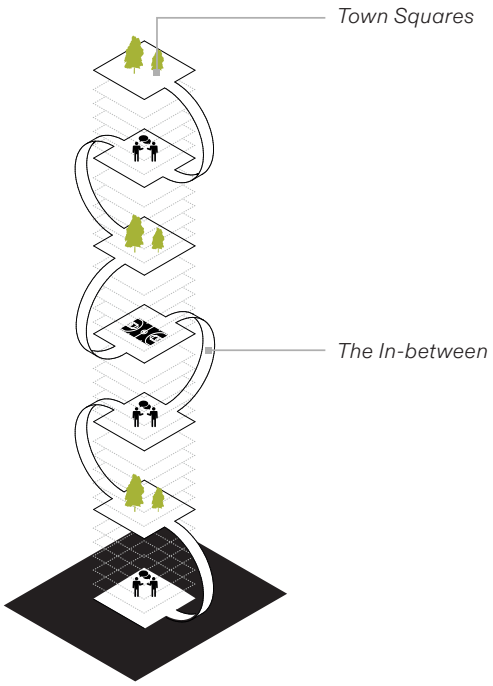


Figure 30 - Plan of the City of Washington. Vallance, Thakara (1792)



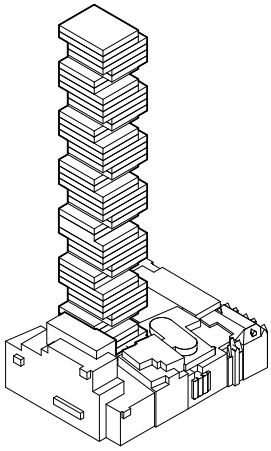
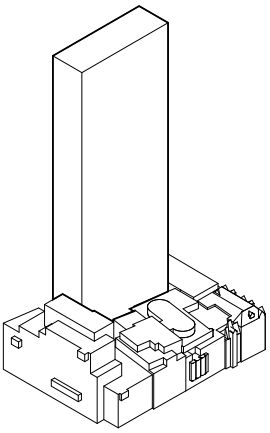
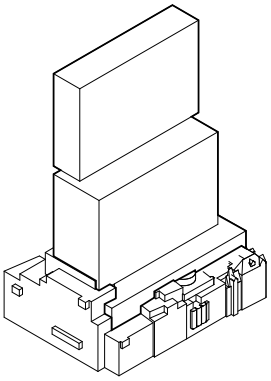
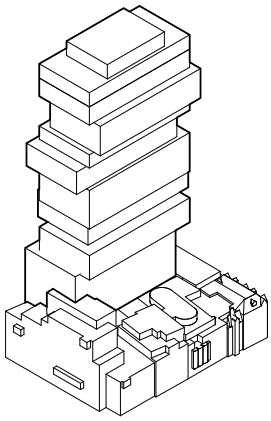
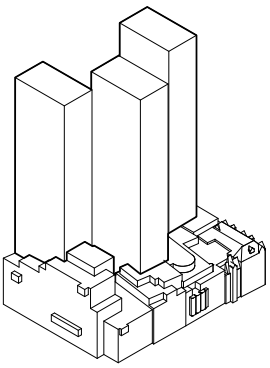
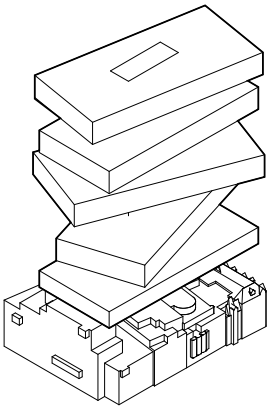
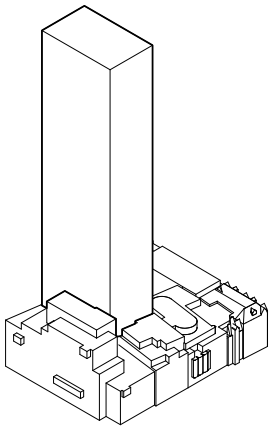
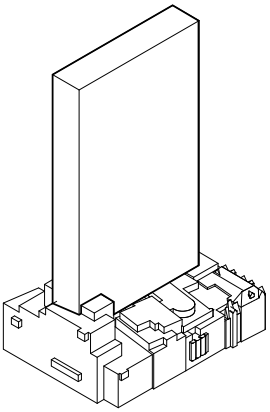
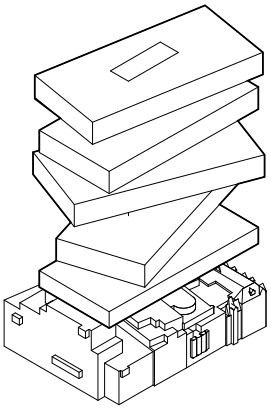
Traditional Lay Out

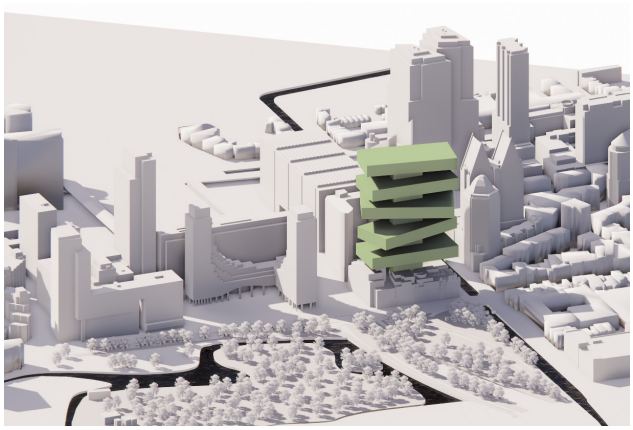


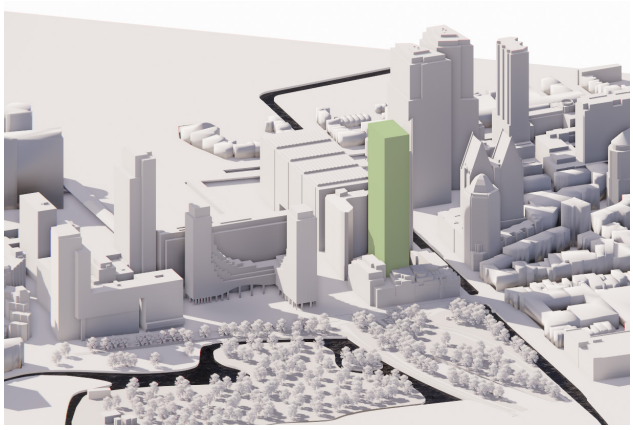
“Vertical Town Square”

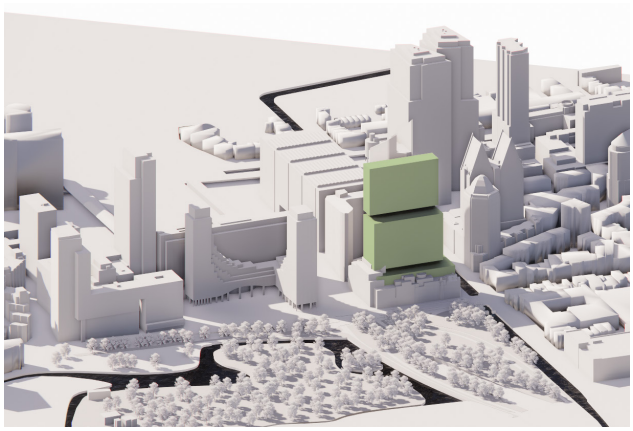
Mass Study

First Sketches

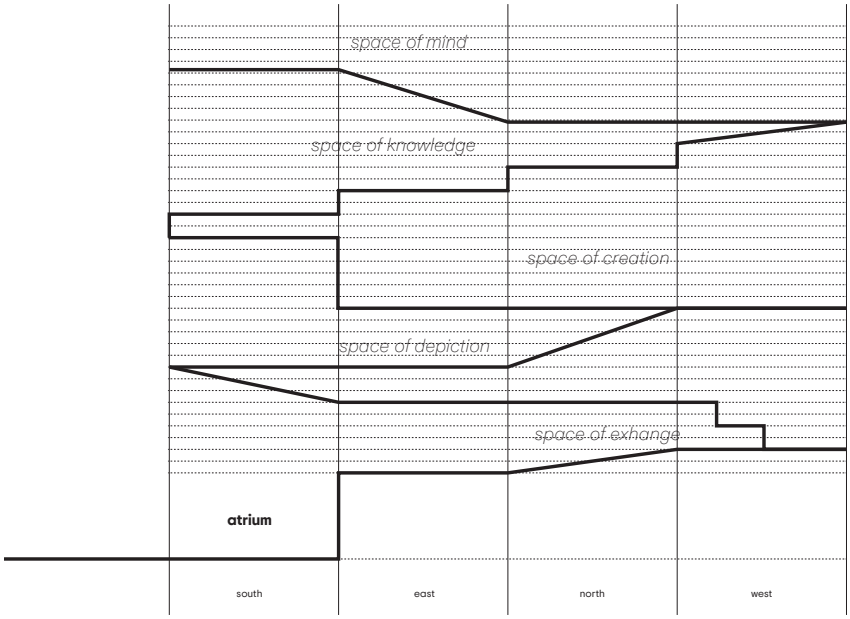


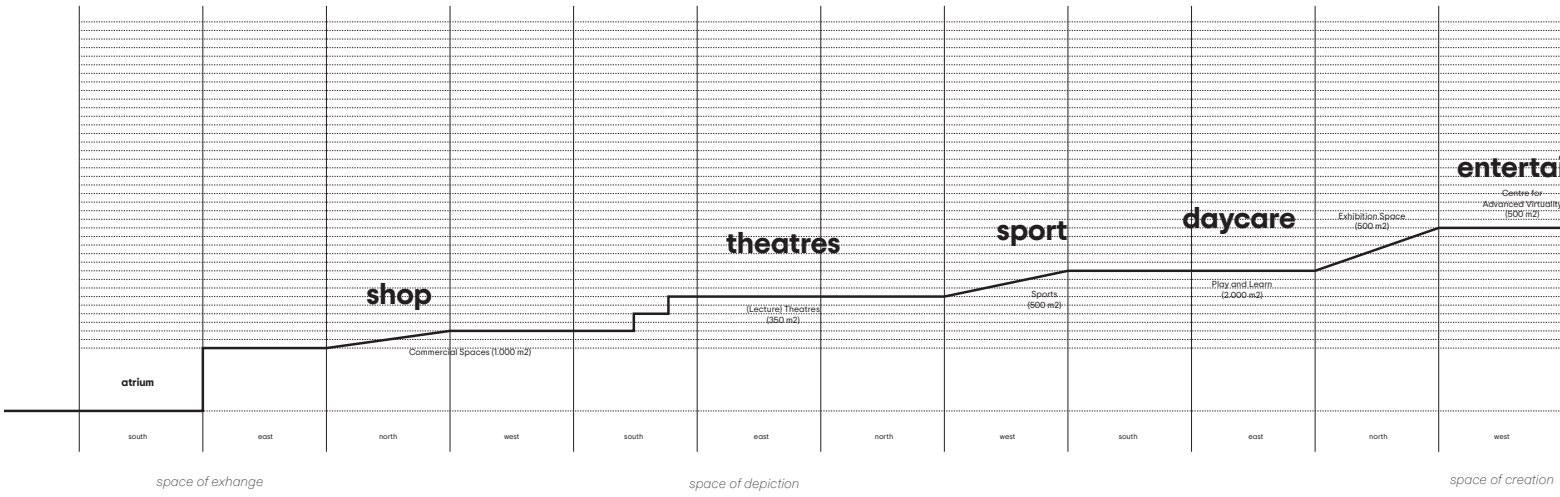


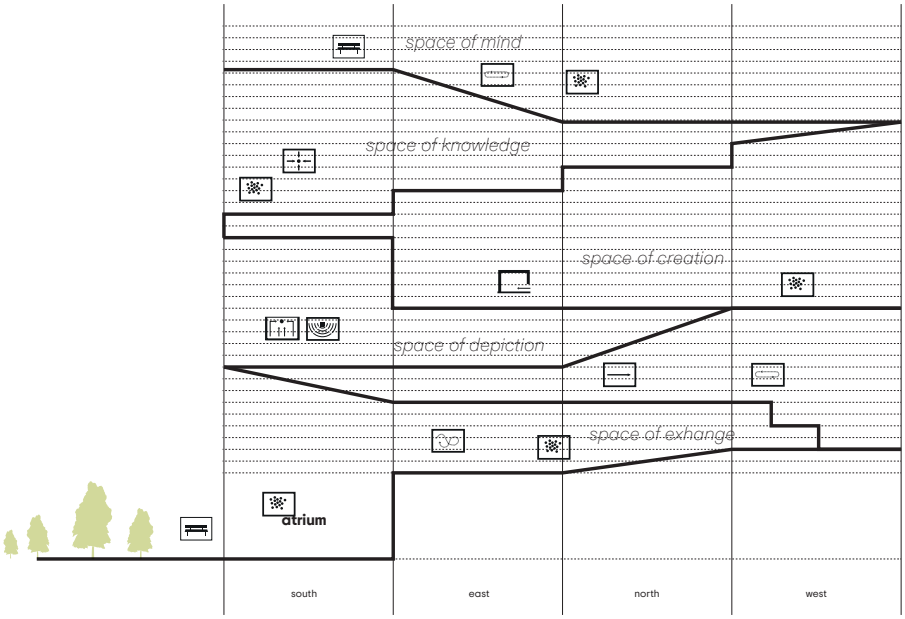


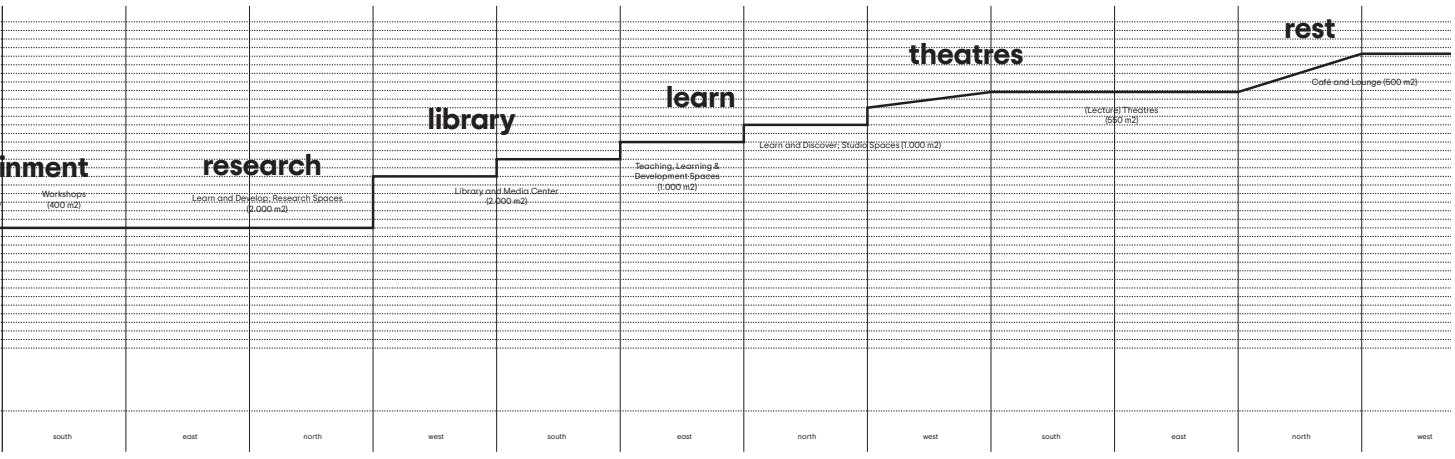
Design Sketch

Continous Loop







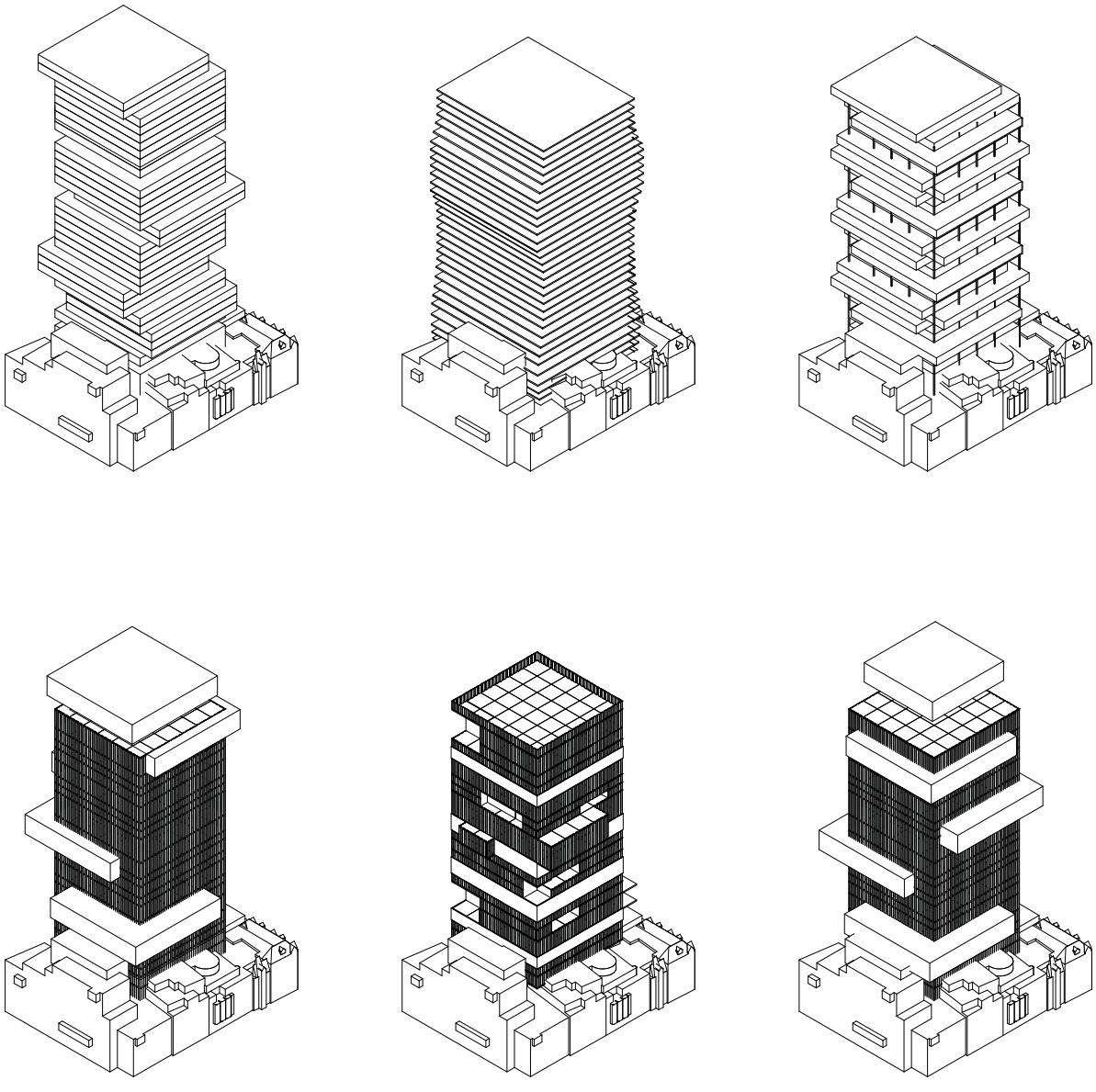


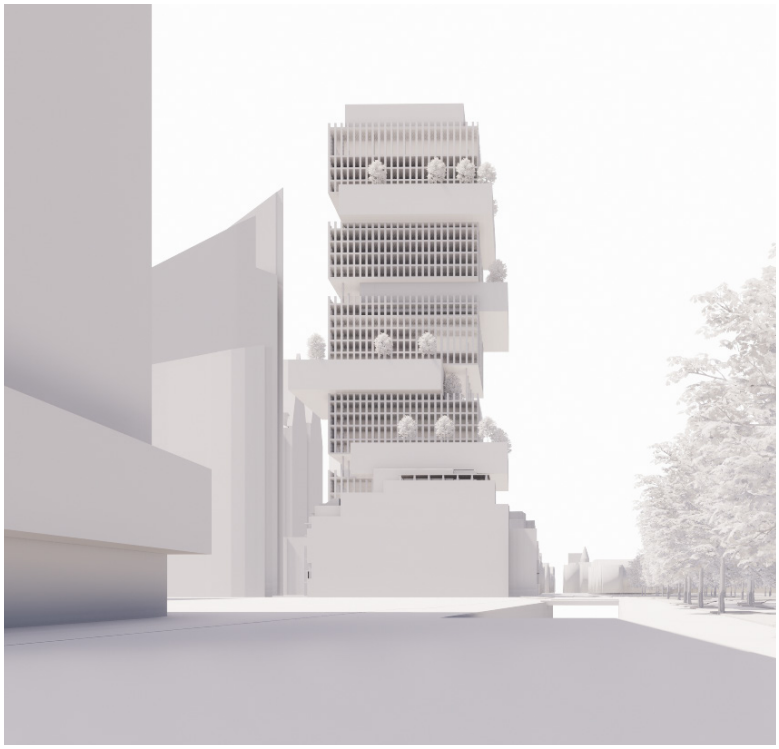
space of knowledge

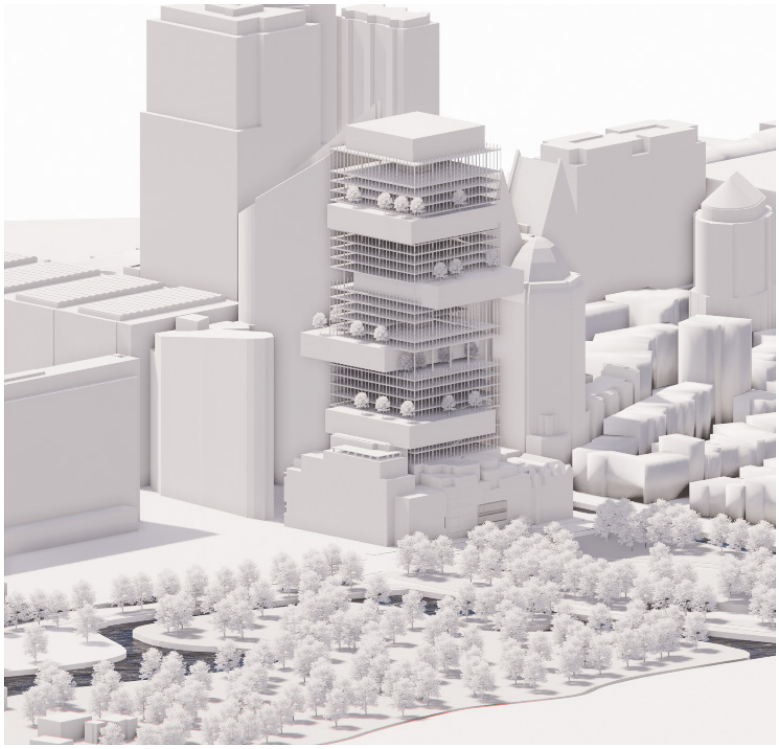
space of mind

Design Sketch

Stacking and Circulation

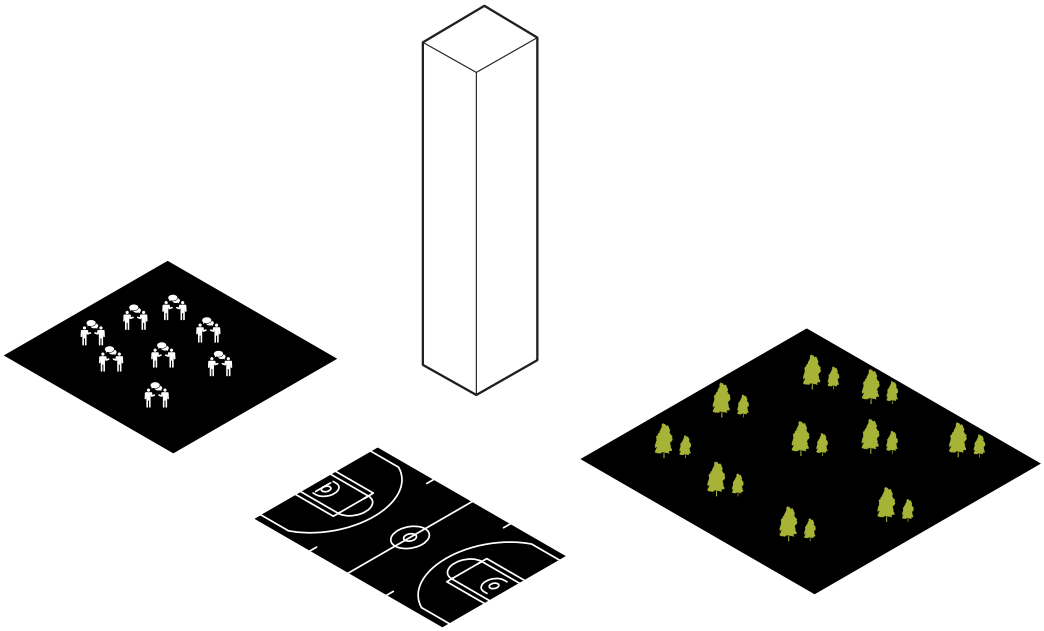






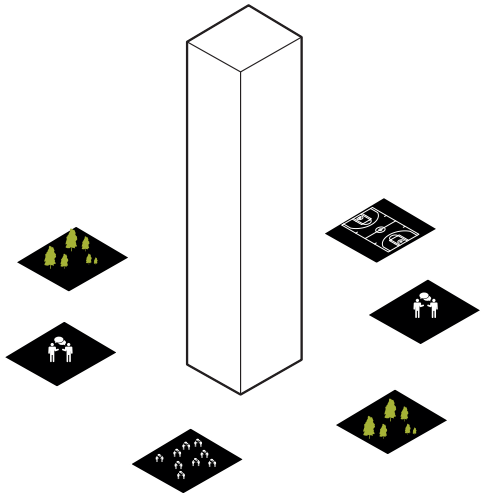
Concept

Introduction



current model

→ clear separation between public space/squares and monolith towers



scaling the urban to building level

→ addition to the existing public spaces

the vertical town square

→ public town squares are incorporated into the building

Concept

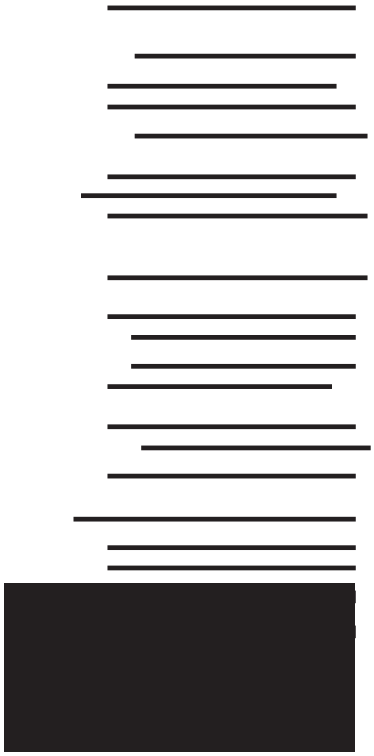
Strategy

1. Generic Tower

→ same floor heights, no connection between floors

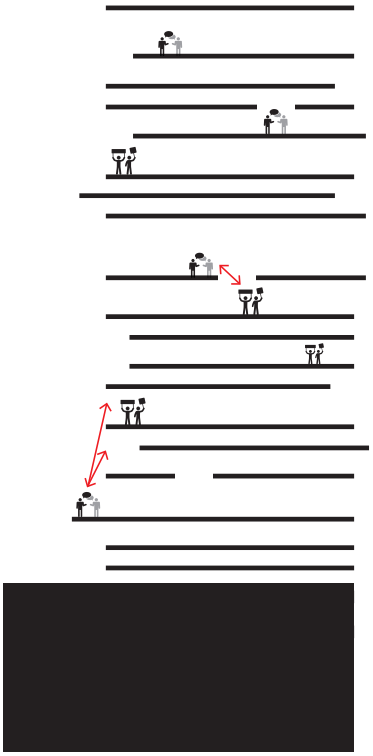
2. Floor Height follows Function

→ playful section which creates different environments



3. Unblocking and Extending

→ creates more space for big program and creates outdoor spaces/squares



4. Visual Connection

→ to create a community + to attract and tease people to move within the building

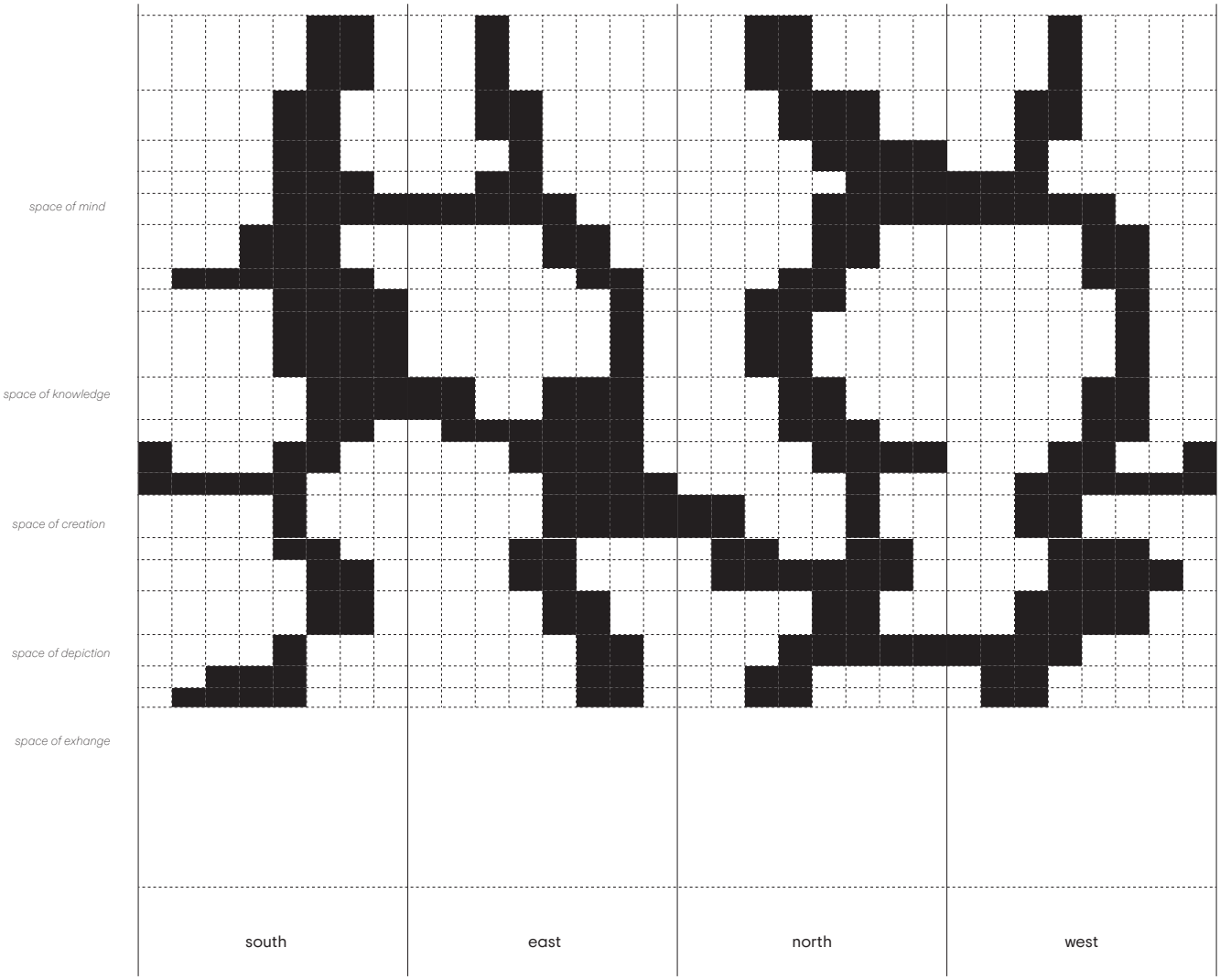
Mass Study

Unblocking

The idea of unblocking a tower in architecture is influenced by Eduardo Chillida's sculptures, which frequently combine form and emptiness. This architectural technique entails systematically deleting portions of a building's volume in order to produce distinctive outdoor areas, create visual links between the many structural layers, and enable a variety of circulation routes. This idea can be used in the construction of a building to change a conventional tower into a dynamic, multi-dimensional area that engages with its surroundings in interesting ways.

A grid system with dimensions of 7200, 5400, and 3600 was used to carefully test the concept and determine the ideal ratio of form to function. The most efficient grid was found to be the 5400 grid, which provided the most opportunities for imaginative use of space and design flexibility. This particular grid size permits major structural carving without appreciably reducing the floor area, therefore preserving the building's functional usefulness while augmenting its visual appeal. The carved tower concept is an example of how creative vision and innovative architecture can come together to create structures that are not only useful but also visually arresting and interact well with their surroundings.

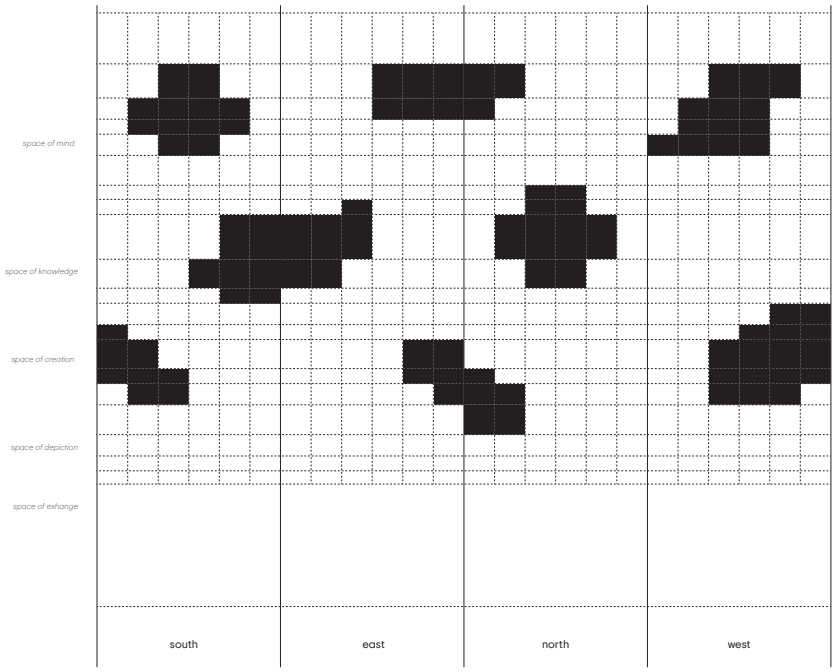
figure 31 - Homenaje a la Arquitectura II. Eduardo Chillida. (2000)



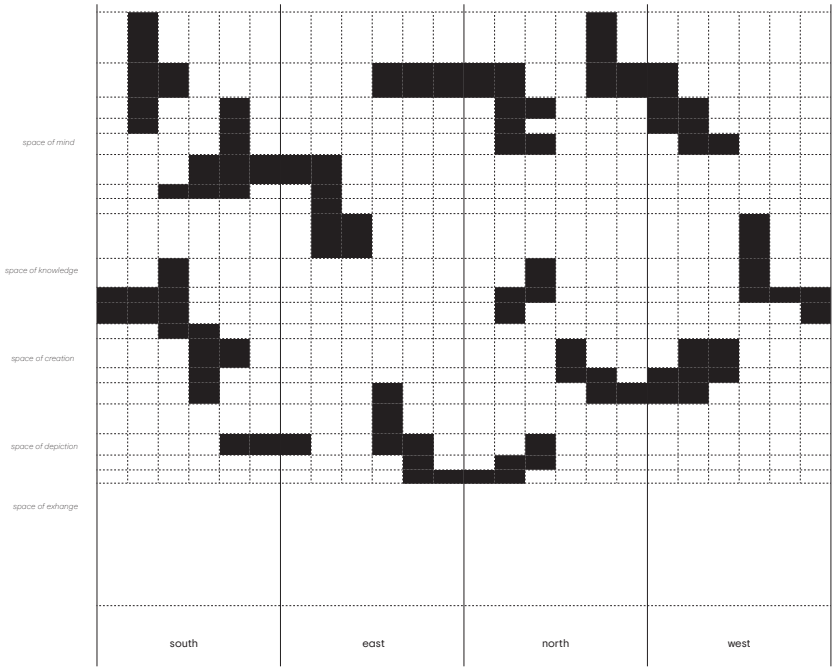
Final option for unblocking mass

Mass Study

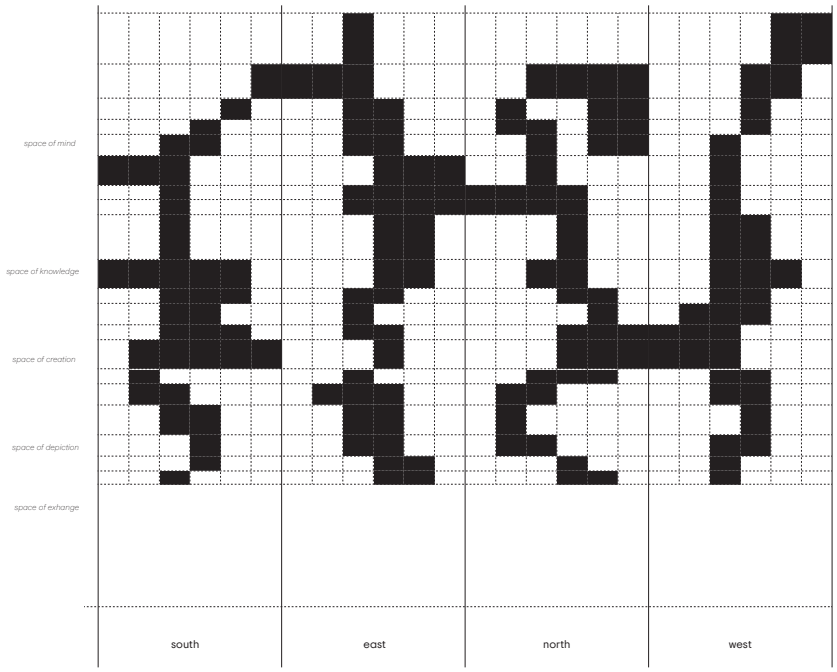
Unblocking sketches



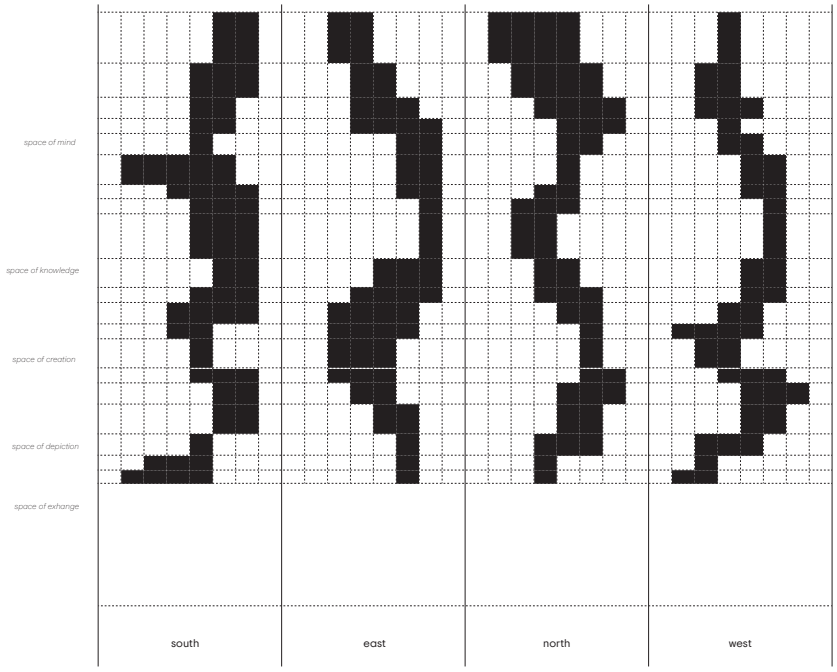
1 - voids (L)



2 - voids (S)

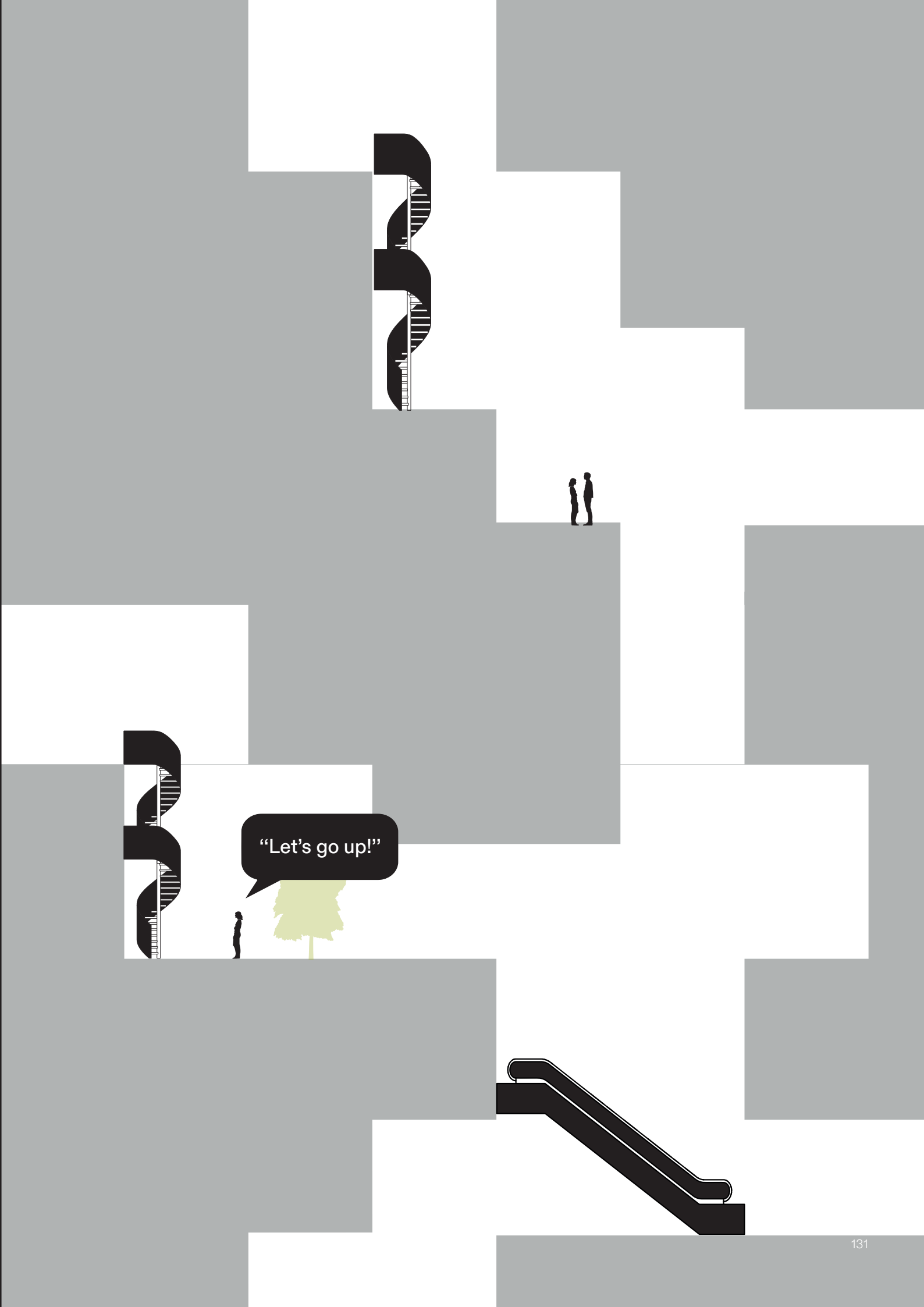


3 - vertical “streets” (connected)



4 - vertical “street” (separate)

''How do I get there?''
''I see people in the workshop''
''I want to go to that open spot''

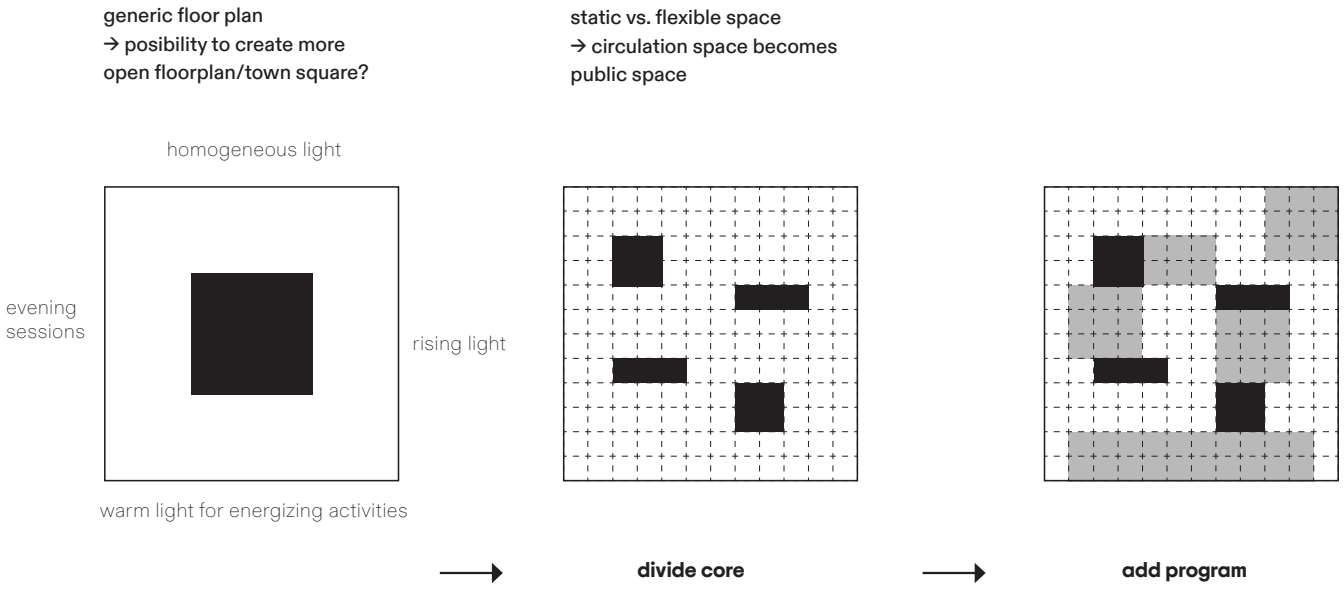

“Let’s go up!”

Negative vs. Positive

Floorplan Concept

The idea of constructing adaptable, flexible areas that resemble town squares is at the centre of the debate over whether floor plans in architecture are positive or negative spaces. According to this architectural concept, a building's floors are infinitely flexible spaces that can be used for a wide range of purposes and configurations.

This method, which takes its cues from Cedric Price's ground breaking "Fun Palace," highlights the dynamic and fluid quality of architectural space. The seamless arrangement of a range of room spaces made possible by the grid system enables the building to change and adapt throughout time. Rather than providing a static floor plan, this idea offers a living, breathing architecture that adapts to the changing demands of its users. In order to fully realize the concepts of freedom and future-proofing in architectural design, the idea goes beyond simply designing spaces to include environments that may develop, transform, and be redefined. The way we view and engage with our built environment has changed dramatically as a result of this approach, which views architecture as a dynamic, adaptable framework rather than as a fixed object.



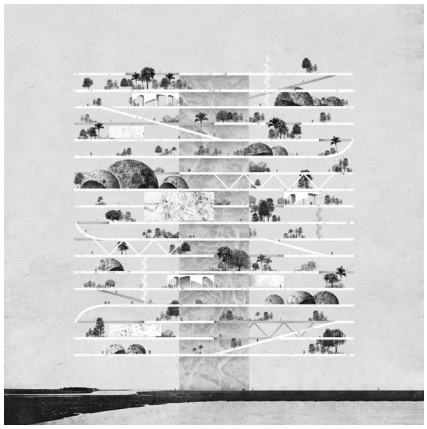


Figure 32 - *Hanging Gardens - Seven Series.* Miles Gertler. (2013)

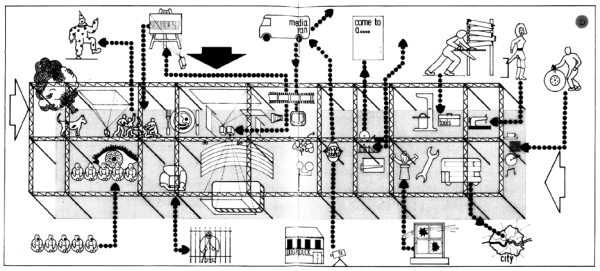
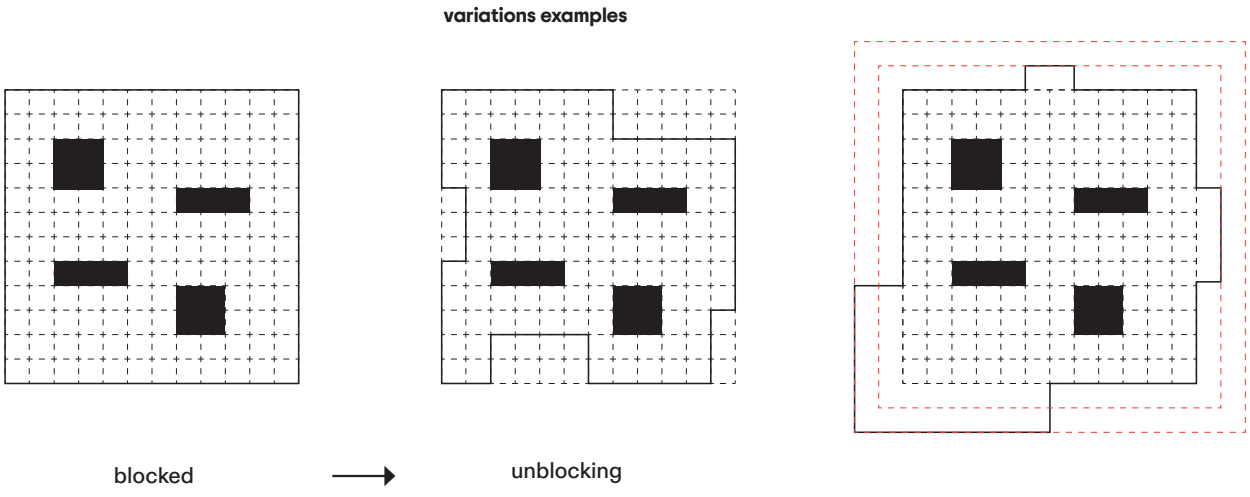


Figure 33 - *Fun Palace.* Cedric Price (1964)

Figure 34 - *Beirut Terraces by Herzog & de Meuron.* Iwan Baan. (2009)

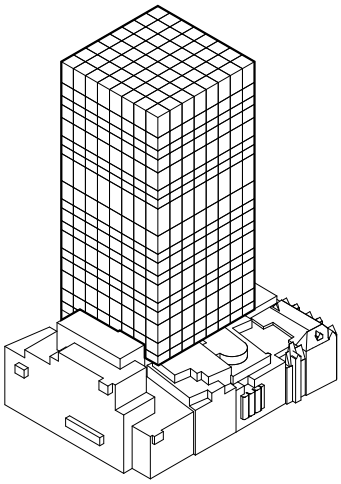


Design Process | **P2 Presentation**

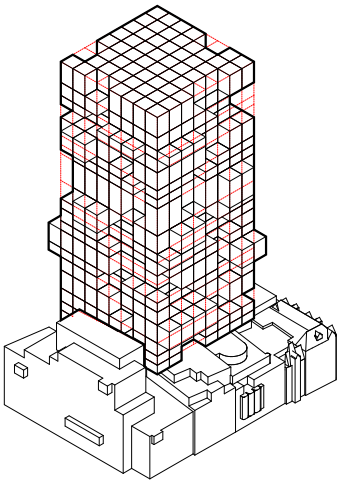
→ 24/01/24

Axonometric diagram

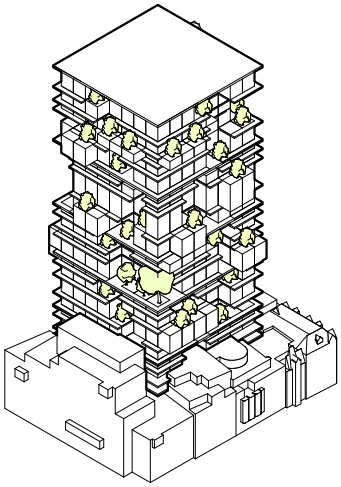
Summary



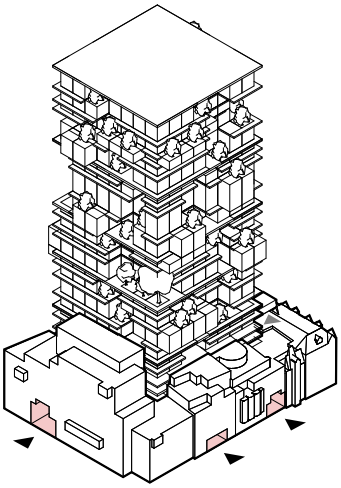
1. Generic Grid Tower



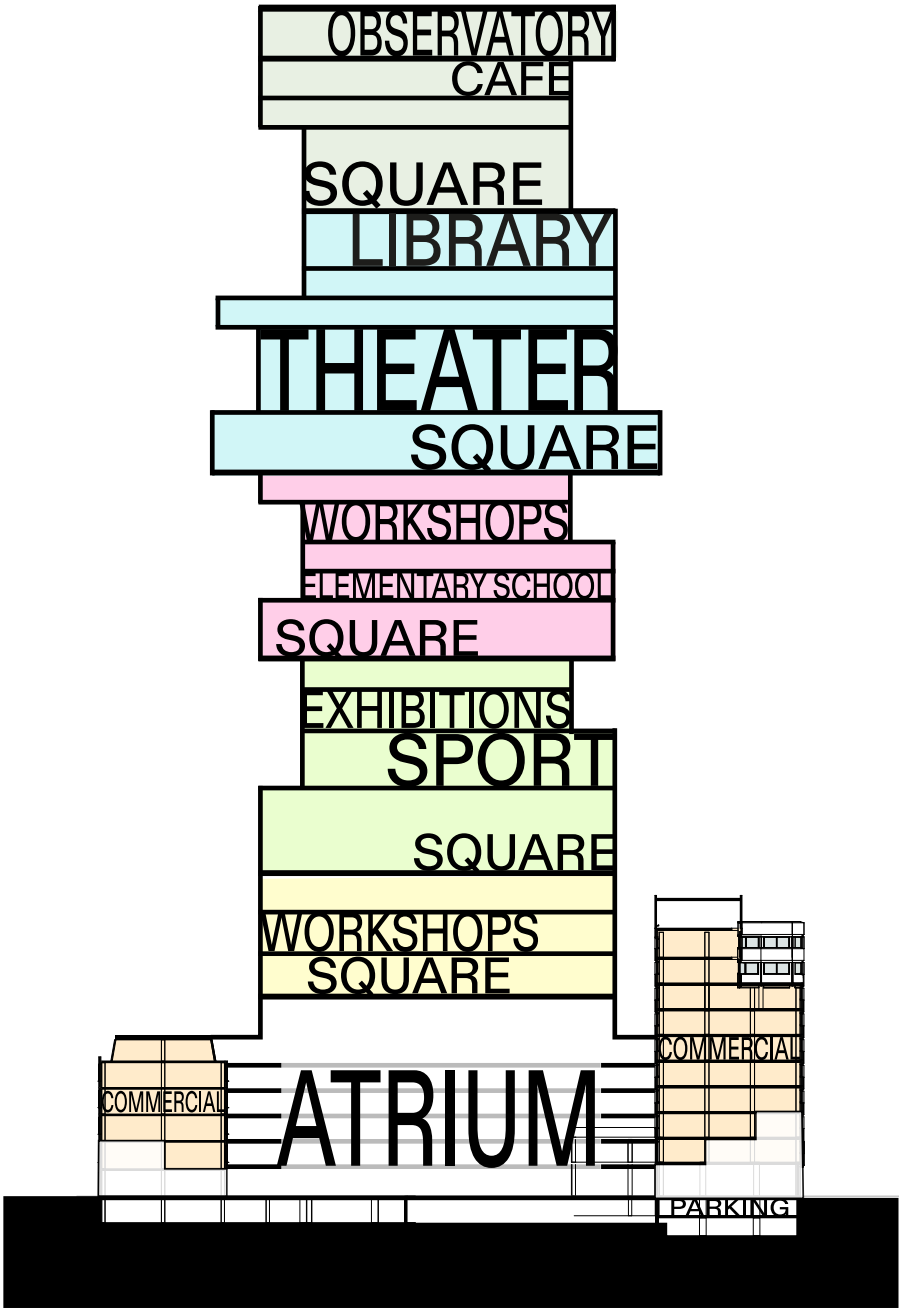
2. Unblocking and Extending



3. Highlighting Floors and adding Roof Terrace



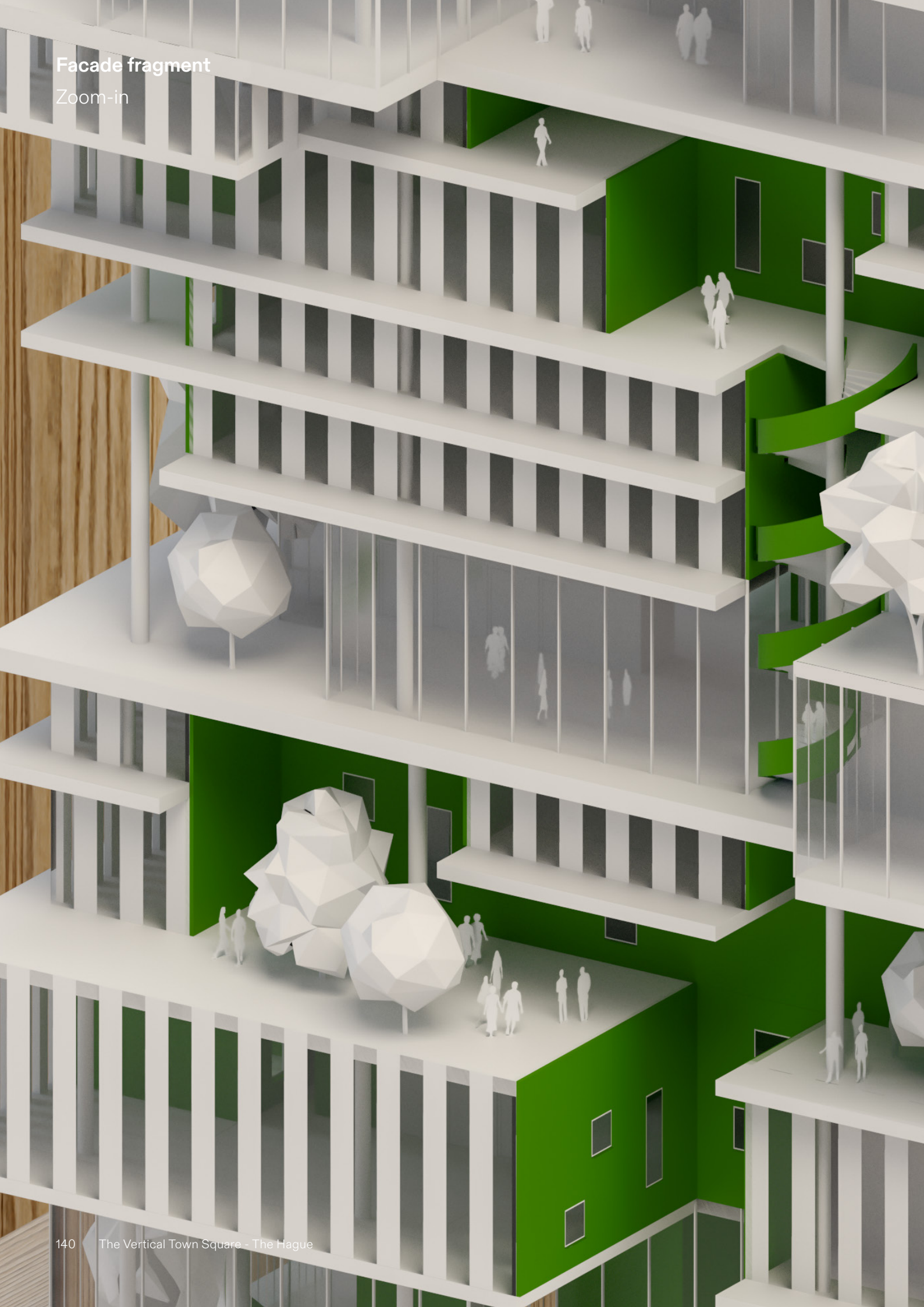
4. Opening Up the existing



Conceptual Section

Facade fragment

Zoom-in



Construction Steps

Demolish

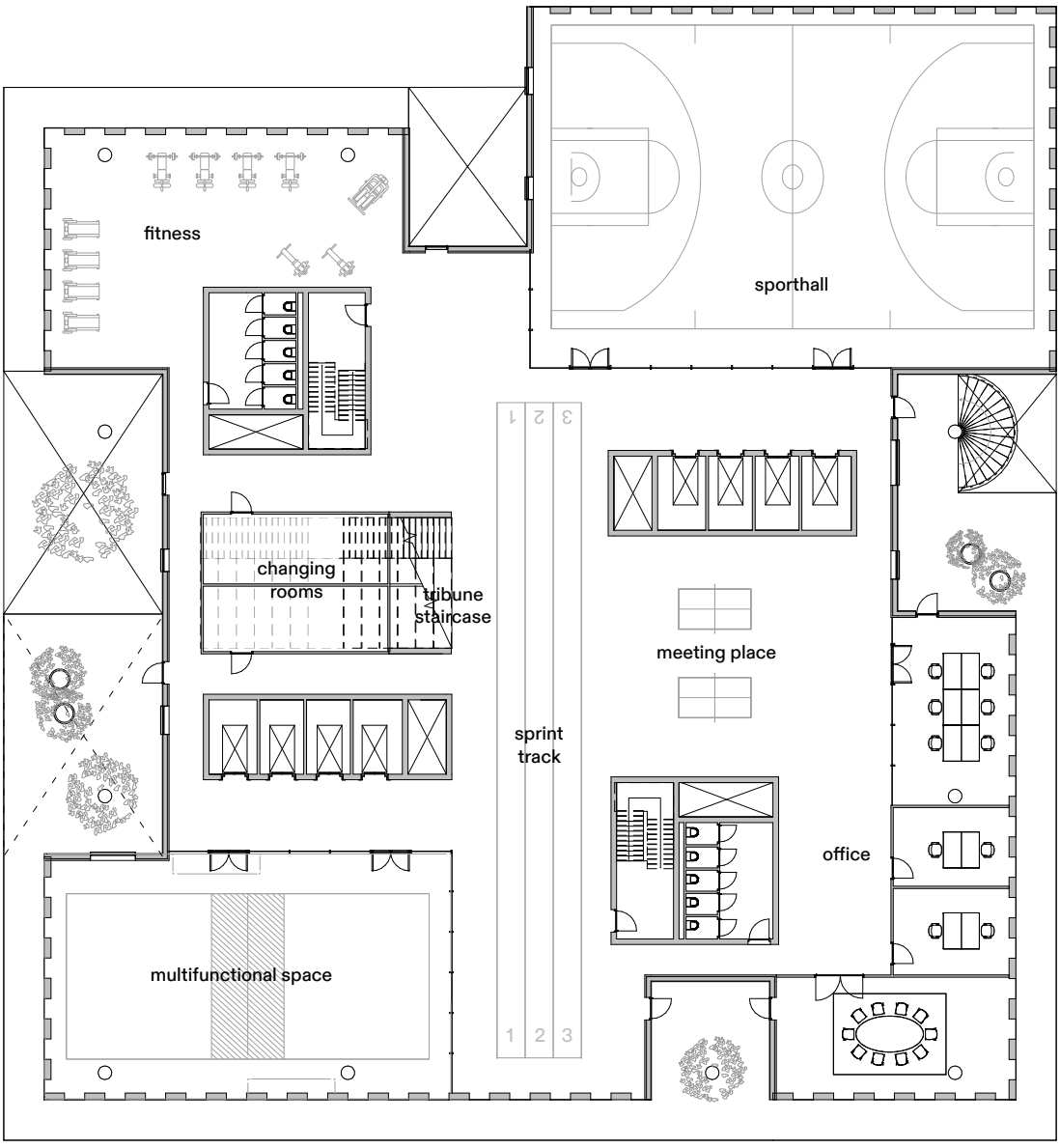
0 4 m

New Construction

Building

Floor Plan - Sport

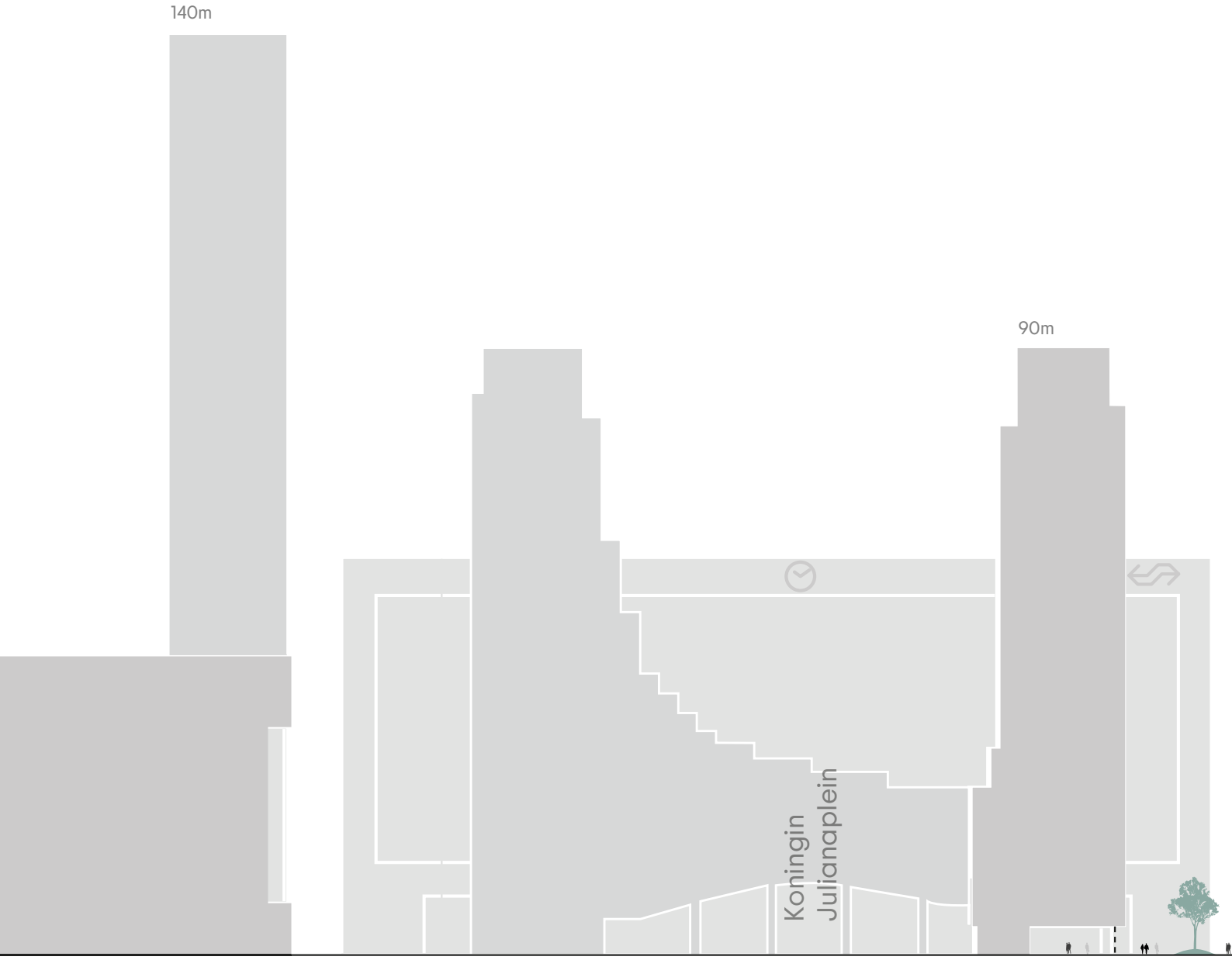
0 2 m



SPORT
10
1
2
3

Urban Context

Elevation

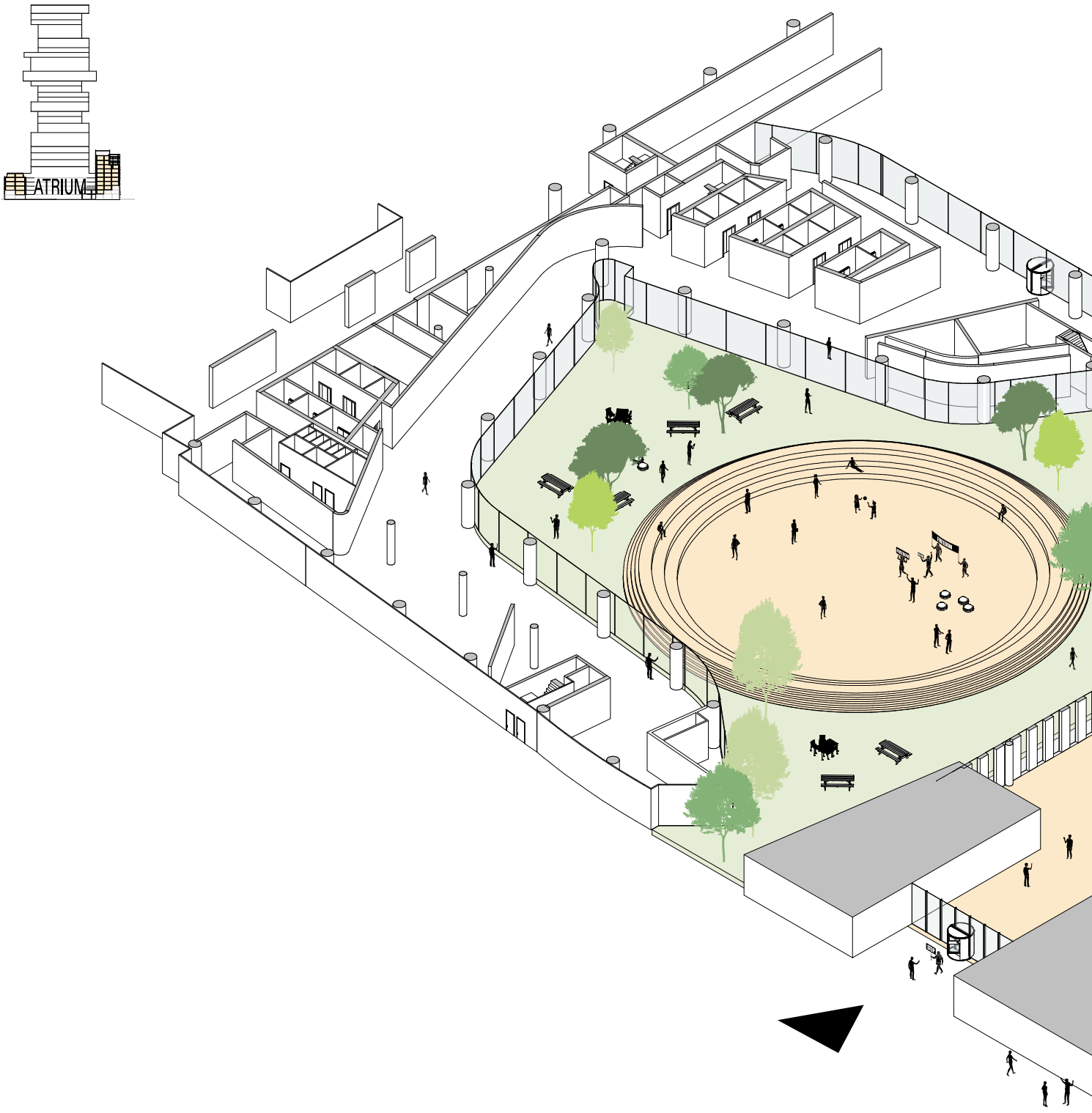


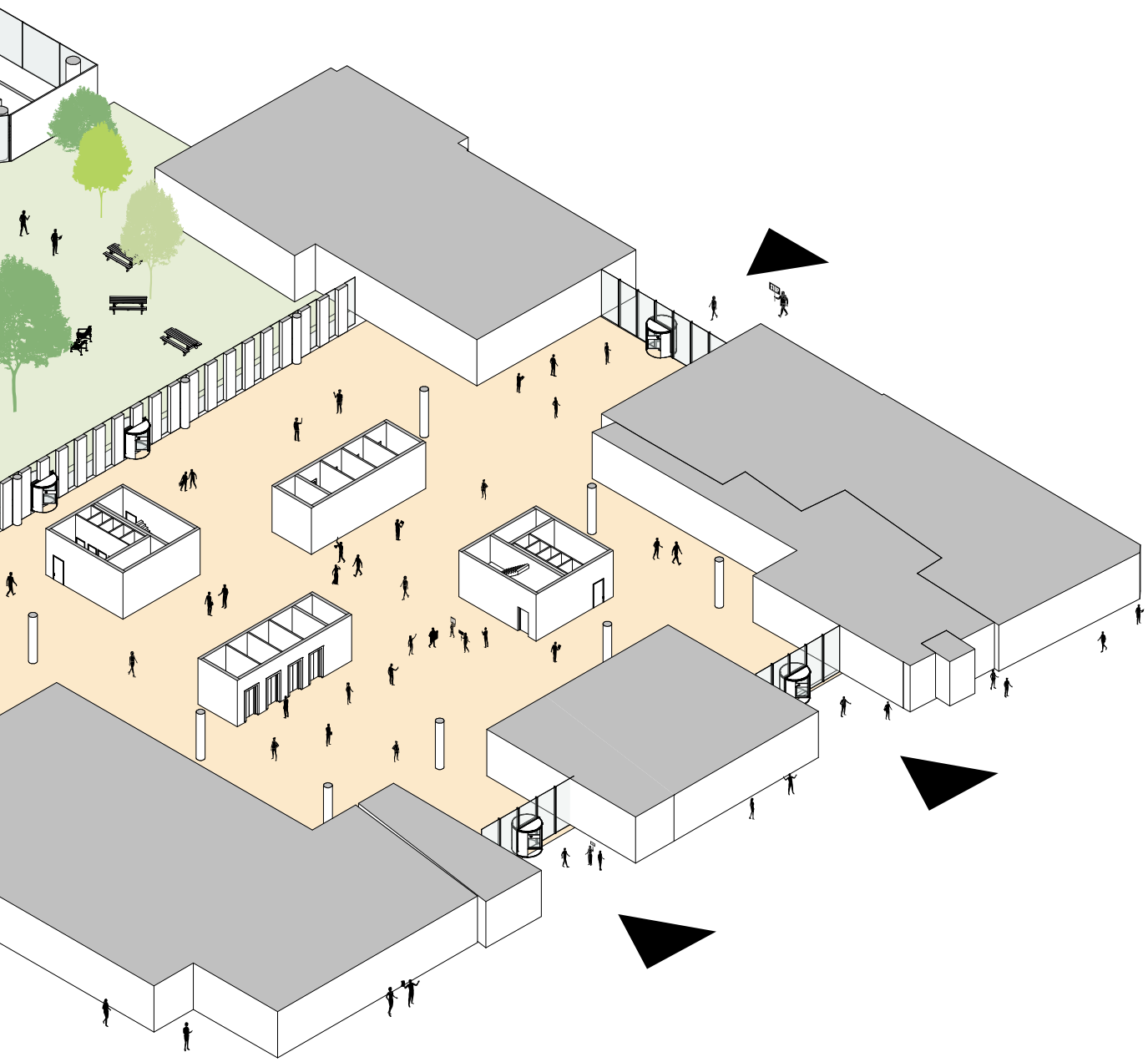
0 2 m

140m
70m
50m
Rijnstraat
Oranjebuitensingel
8m
13,5m
3m
3m
cult.hist.facade

Amphitheater

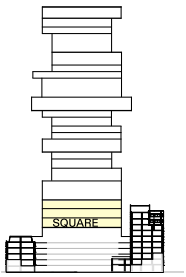
Space of Gathering

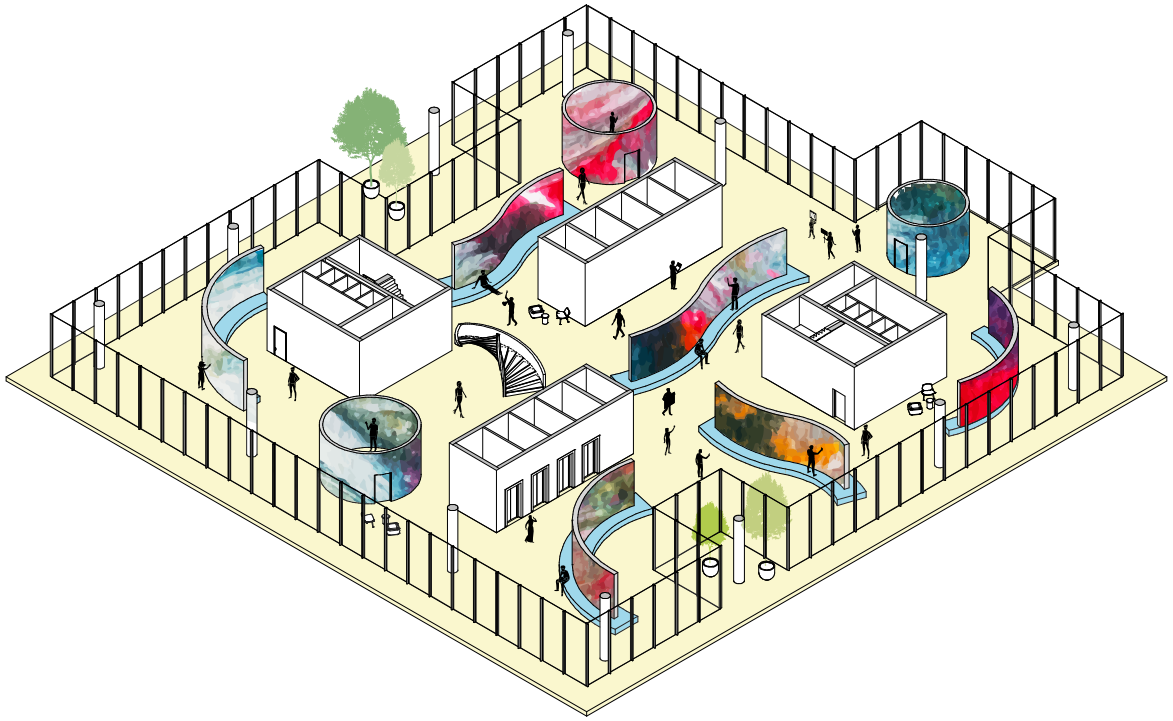




Digital Graffiti Walls

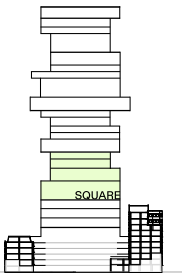
Space of Exchange

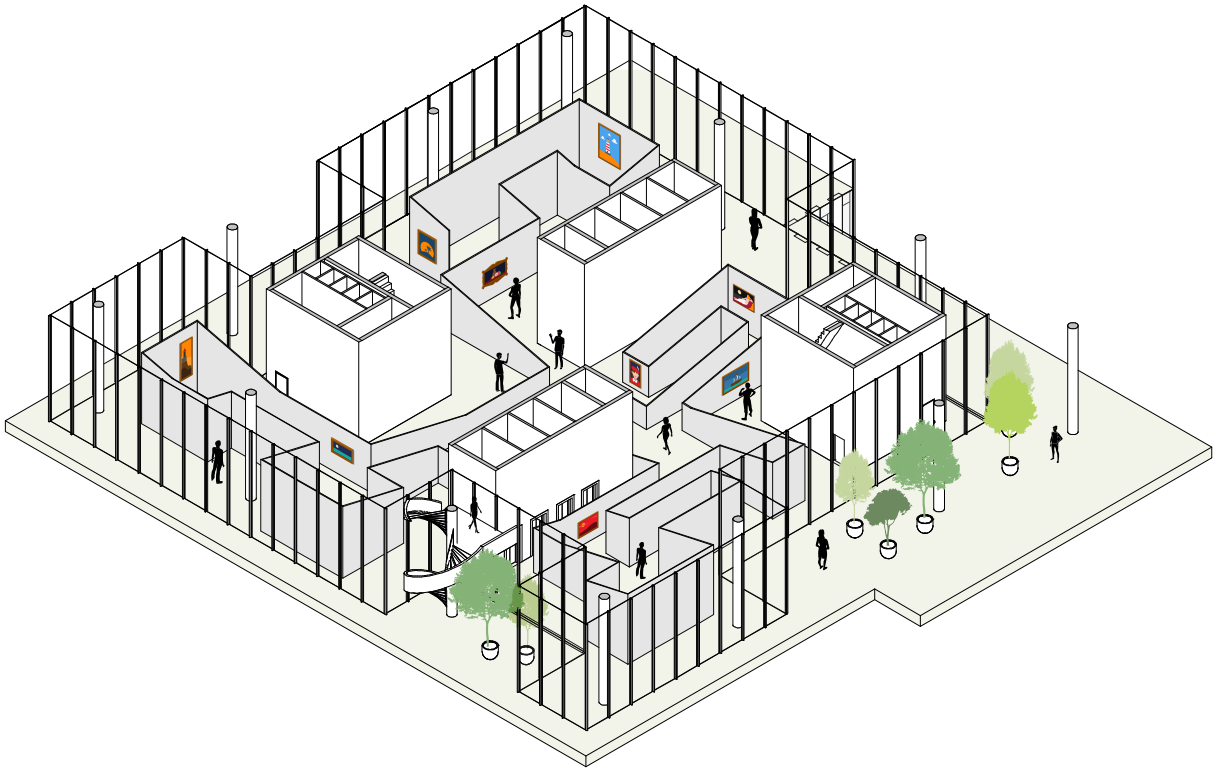




Pop-Up Museum

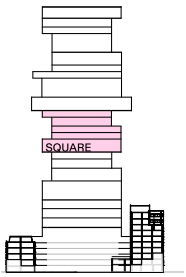
Space of Depiction

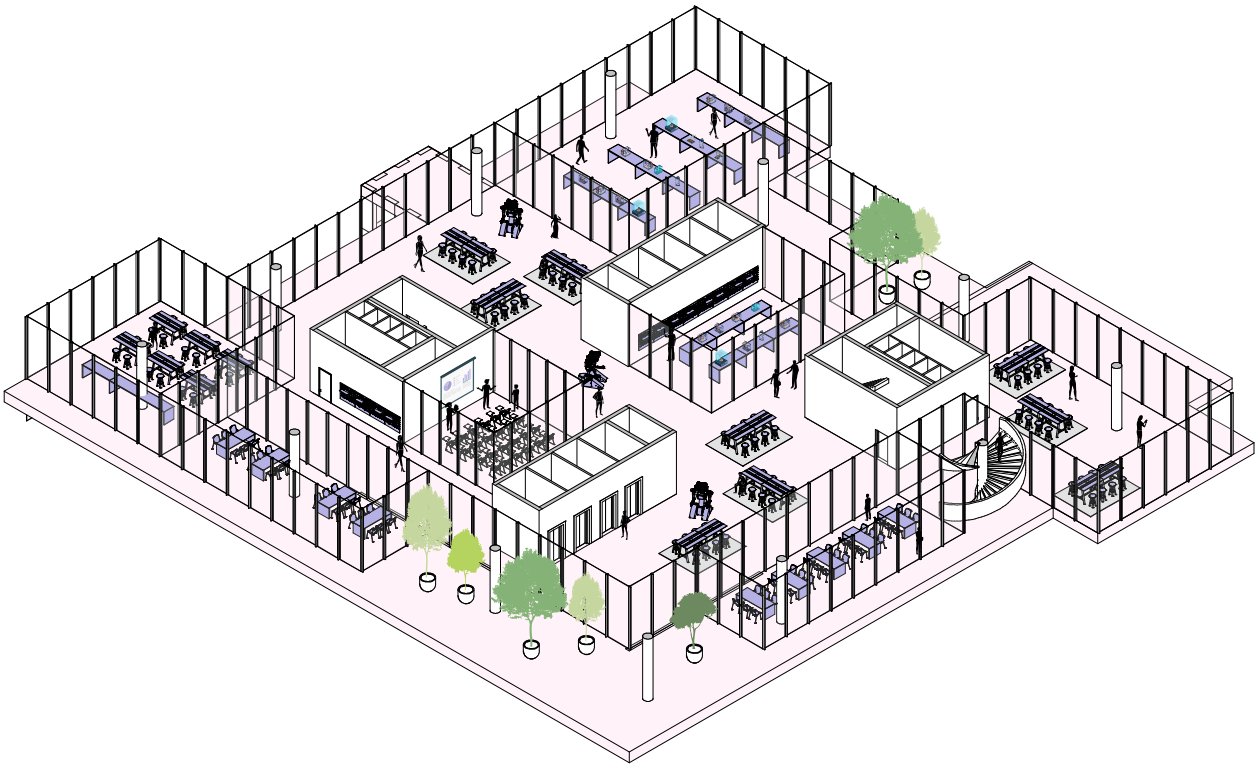


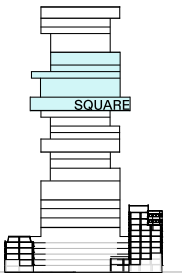


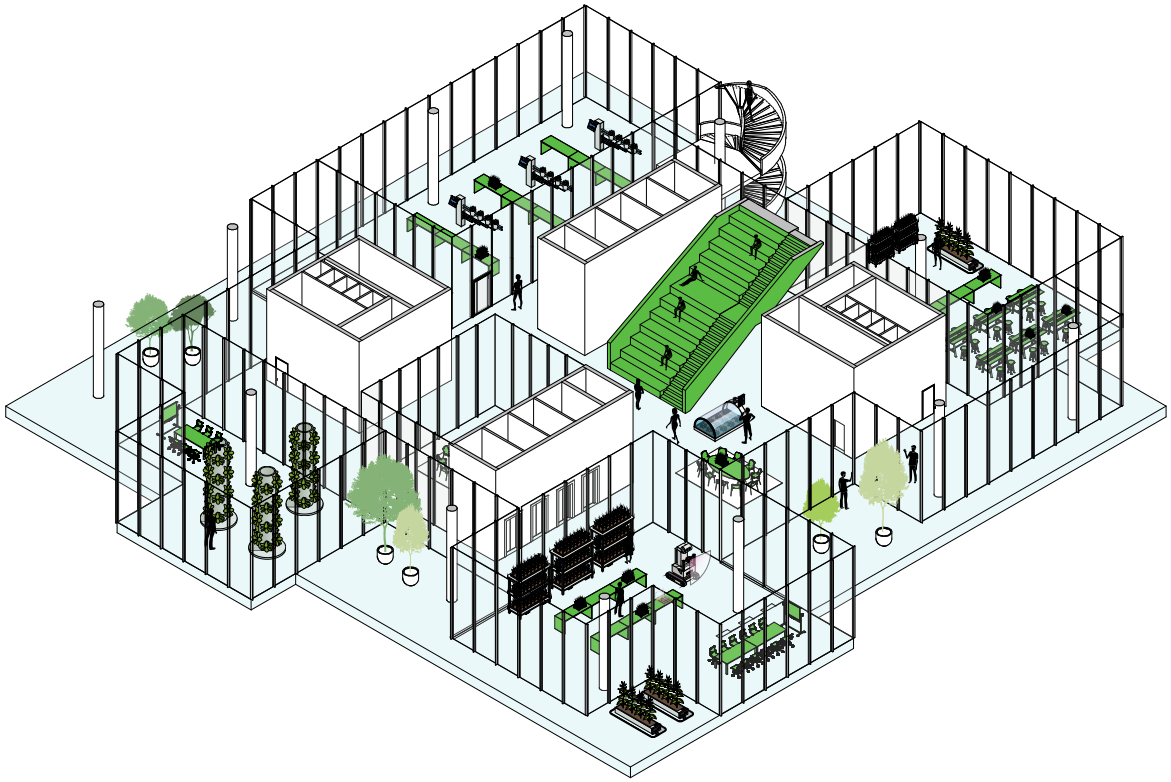
Fabrication Lab

Space of Creation



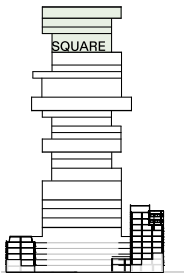



SQUARE



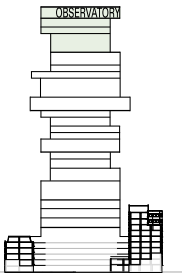
Sensory Forest

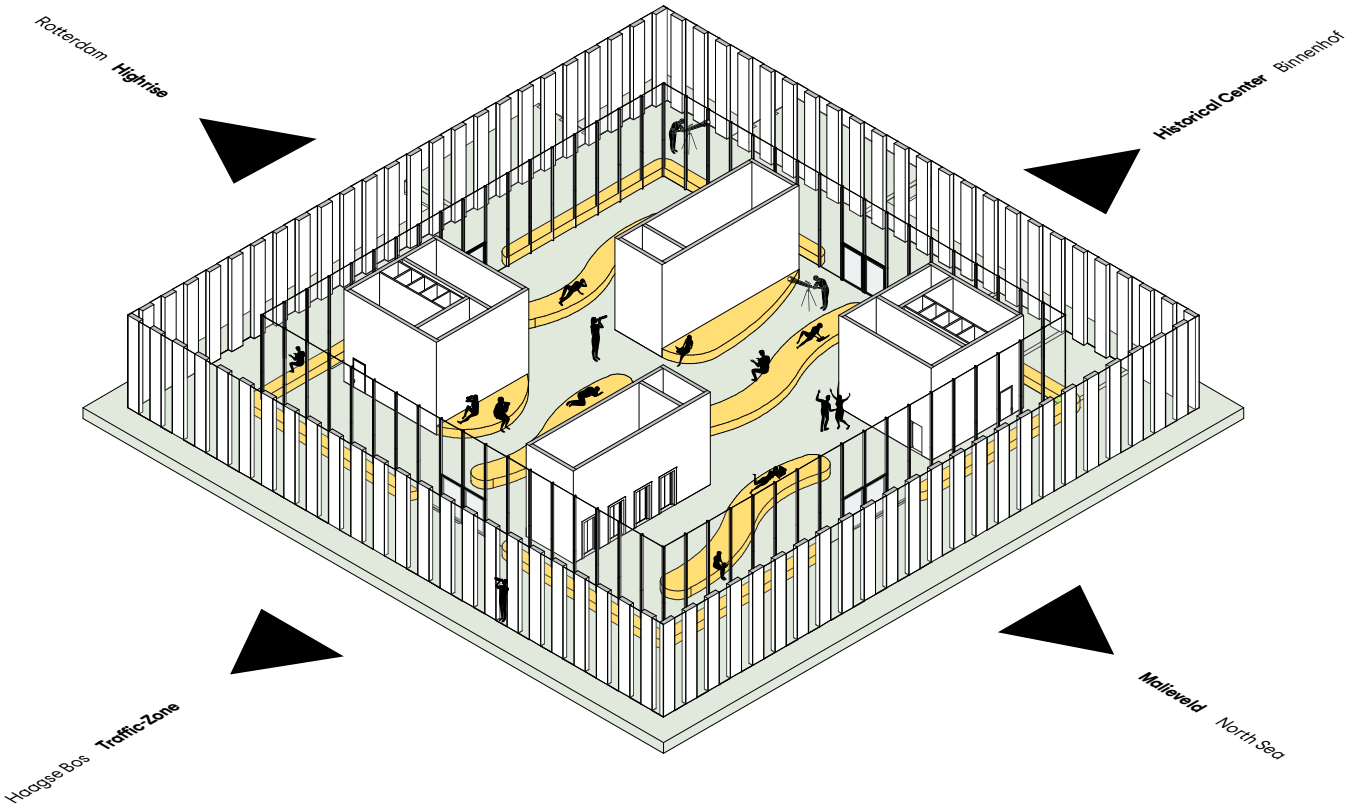
Space of Mind



Observatory

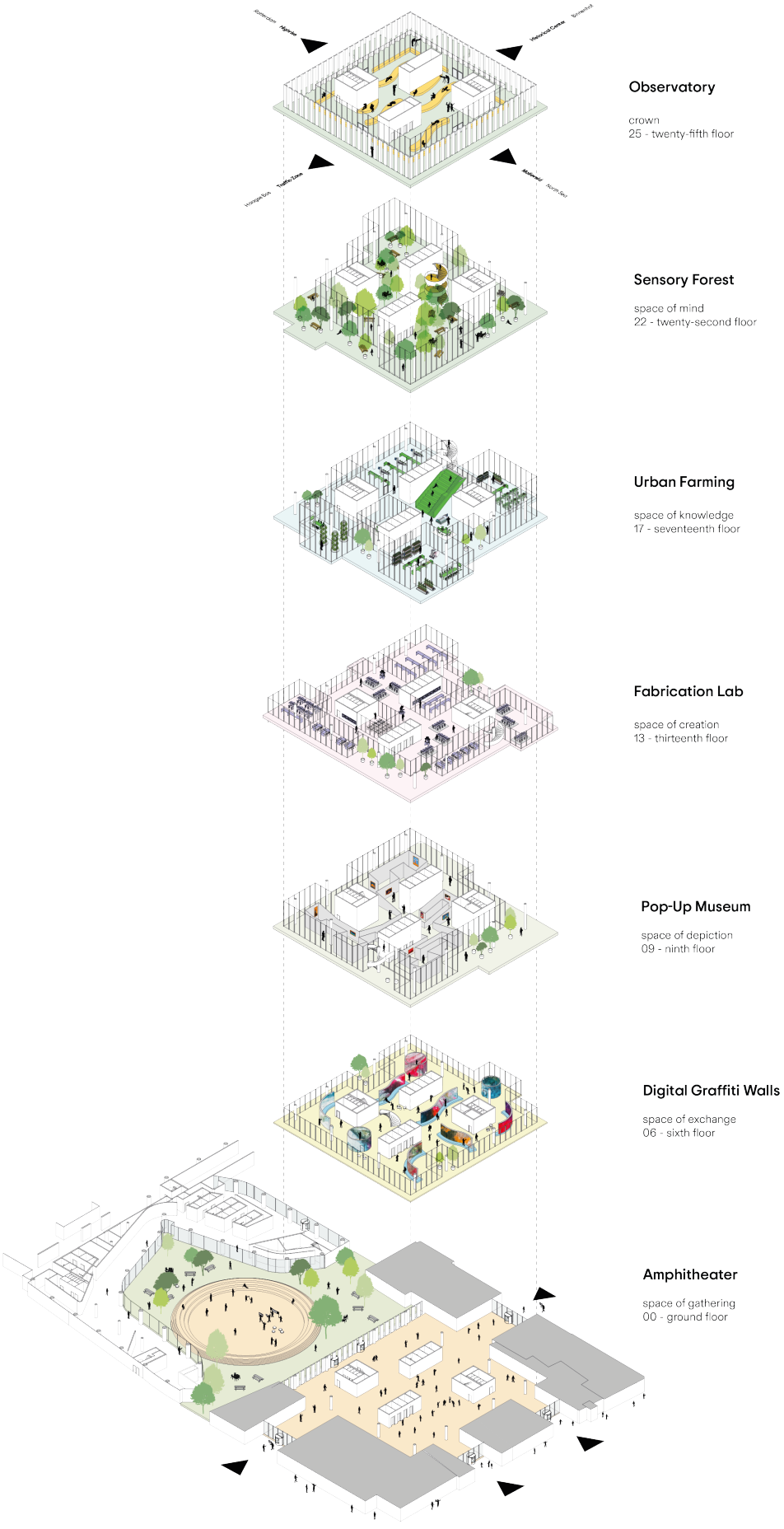
Crown





Transitions Spaces

Squares



Observatory

crown
25 - twenty-fifth floor

Sensory Forest

space of mind
22 - twenty-second floor

Urban Farming

space of knowledge
17 - seventeenth floor

Fabrication Lab

space of creation
13 - thirteenth floor

Pop-Up Museum

space of depiction
09 - ninth floor

Digital Graffiti Walls

space of exchange
06 - sixth floor

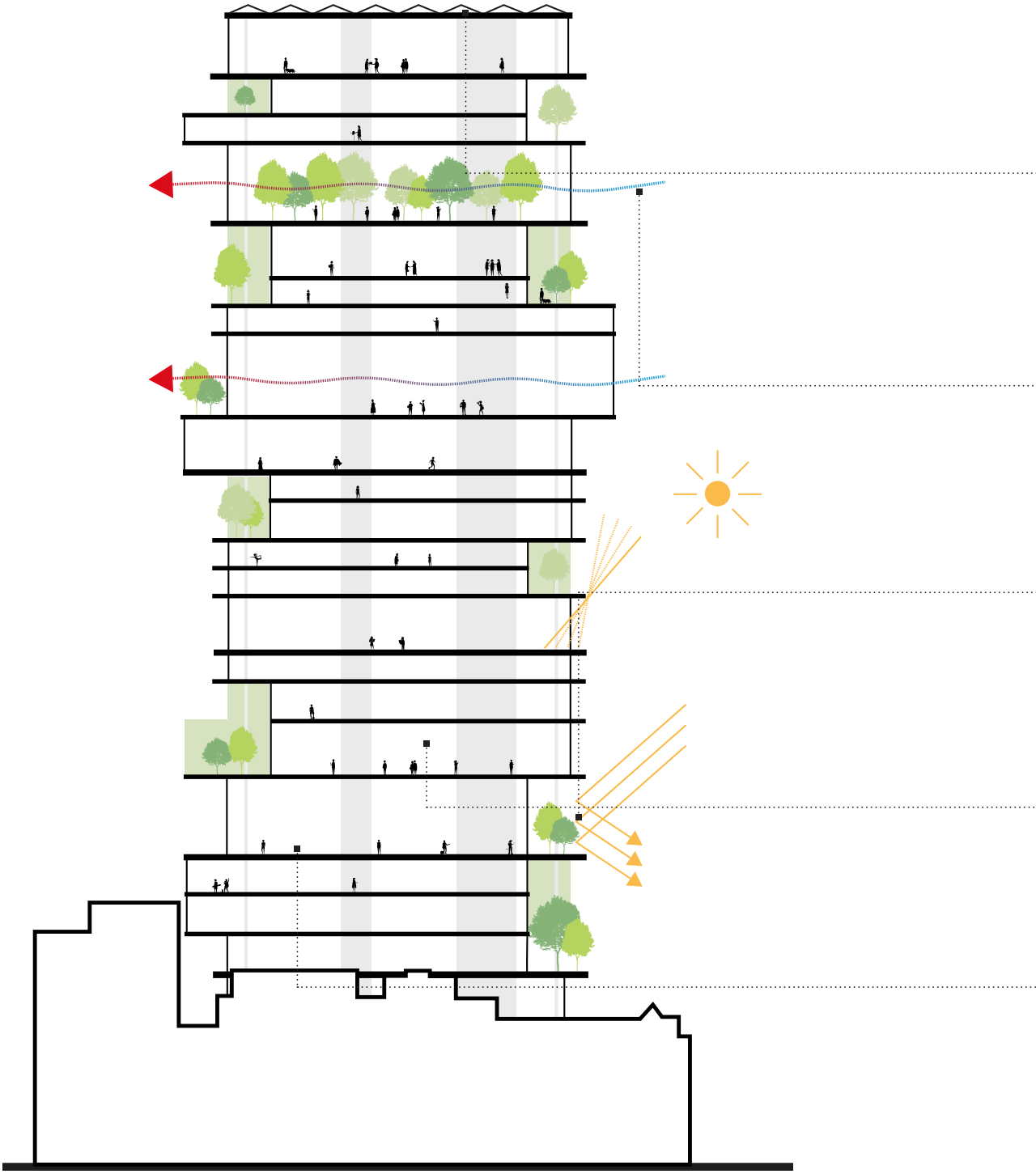
Amphitheater

space of gathering
00 - ground floor

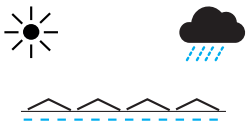
Rabobank

Sustainability diagram

Initial ideas



Optimization



Renewable Energy

solar panels or geothermal systems for self-sustaining energy

Rainwater Harvesting

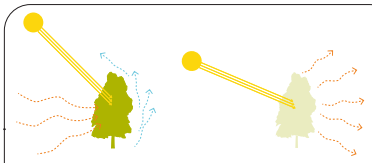
collect and reuse rainwater for non-potable purposes

Optimization

Natural Ventilation

decreases the building's reliance on non-renewable energy sources for air circulation

Sustainability



Summer

vegetation provides shading and transpiration, reducing the need for artificial cooling

Winter

harnessing solar energy for heating

Multi-functional Spaces

areas designed for various uses, maximizing utility per square meter

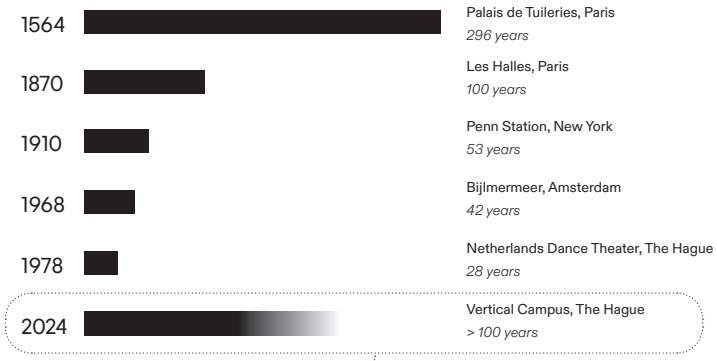
Sustainability

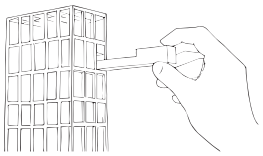
Social Harmony

ensuring that different parts of the building are (visually) connected to encourage a sense of community and reduce feelings of isolation

Durability

Lifespan of a Building





Layers of Brand

emphasis on circular detailing, as it promotes the idea of adaptable elements that can evolve over time, by reducing waste and encouraging reuse and repurposing in the building's lifecycle

Modular Design

facilitate future modifications or expansions with minimal resource use

High-Durability Materials

materials that are known for their longevity and ability to withstand different weather conditions

Conservation & Durability

Use of existing buildings

saves the energy and resources that would have been used in constructing a new building

Sustainability

Carbon Based Design

reduce the carbon footprint of the building

Part V | **Concept Design to Preliminary Design** P3

24/01/24 - 07/04/24

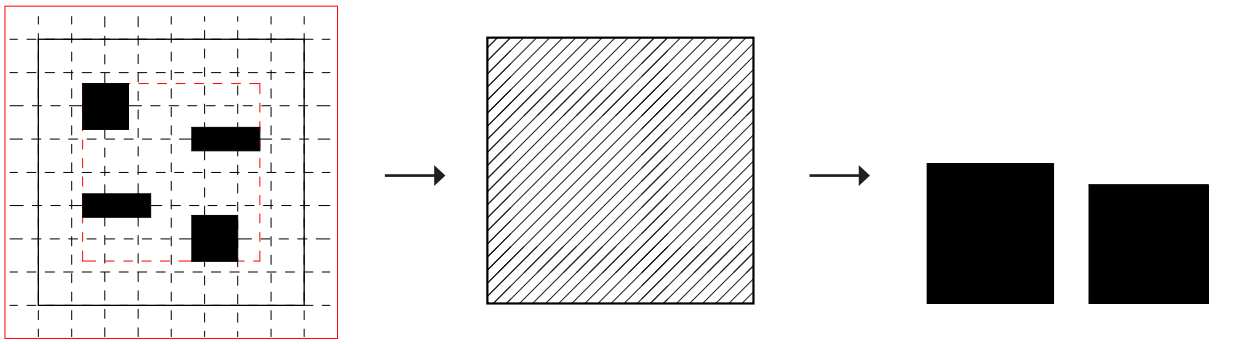
Design Process | **Constructional revision**

→ 24/01/24

Structural principles

Core

The core size of the building as shown in the floor plan became a major topic of contention after the P2 presentation. In the presentation, the core was shown to make about 10% of the building's overall area. This is an important difference from James O'Callaghan's recommended recommendations, which call for a core size of approximately 25%. This difference is not just a matter of numbers; it has a fundamental impact on the building design's entire layout and conceptual structure. In light of this, the first step must be to reassess the proportions of the core. Readjusting the building's core size will improve the building's structural soundness and overall usefulness while also bringing the design more closely in line with accepted architectural standards.

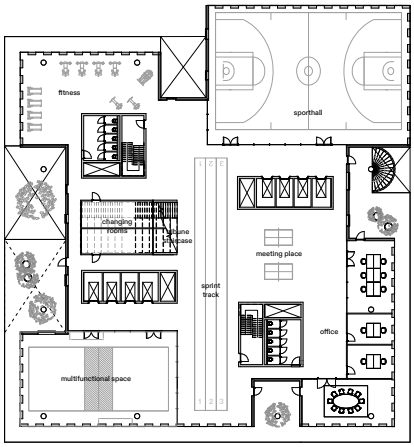


P2 194 m² (10,4%)

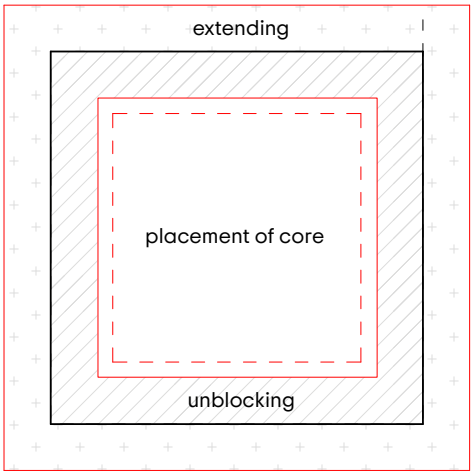
total floor area 1865 m²

25% 466 m² **20%** 373 m²

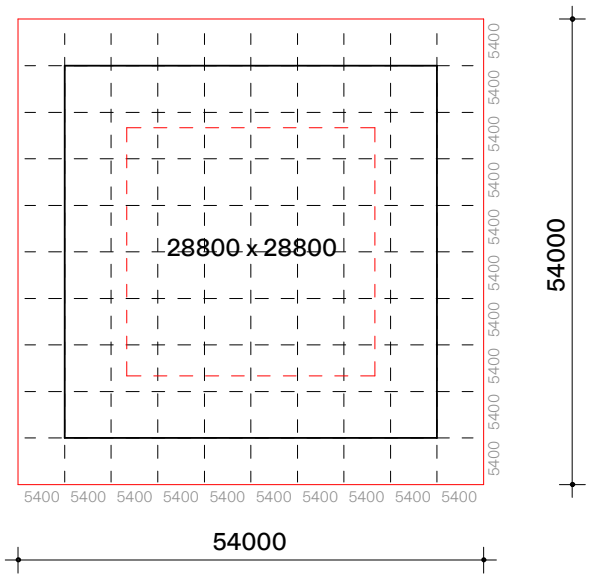
floor plan P2



zones



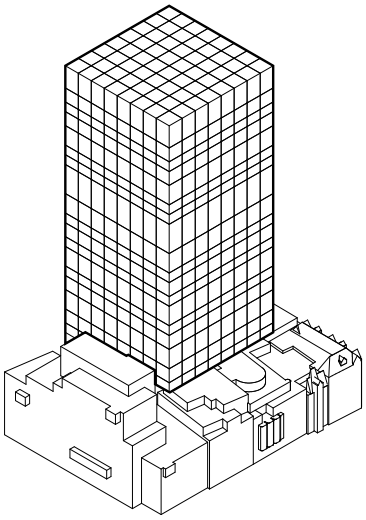
measurements



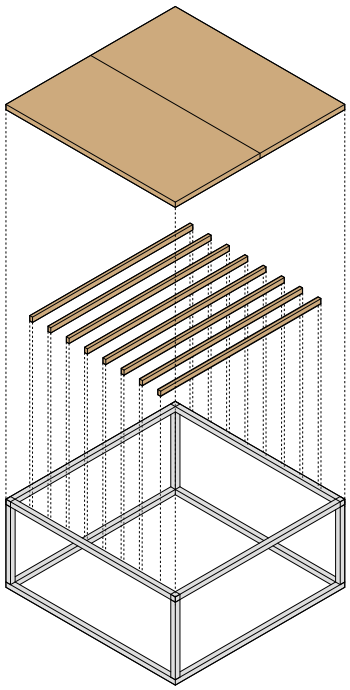
Structural principles

Initial idea structure

The concept of a fixed structure within a grid that accommodates a flexible infill, such as biobased materials like wood, embodies a sustainable and adaptable approach to the architectural design. By establishing a rigid framework, this principle allows for the internal spaces to be customized and modified over time to meet evolving needs, particularly in dynamic environments like educational institutions. This method mirrors the principles seen in grid tower construction, where the external skeleton supports various configurations within. The use of biobased infills not only enhances environmental sustainability but also offers a natural aesthetic and healthier indoor climates. As educational paradigms shift, this architectural strategy ensures that physical spaces can evolve concurrently, providing enduring relevance and utility.



P2 grid tower 5.400 × 5.400



fixed grid construction with flexible infill

Figure 35 - IKEA store in Vienna by Querkraft Architekten. *Hertha Hurnaus. (2022)*

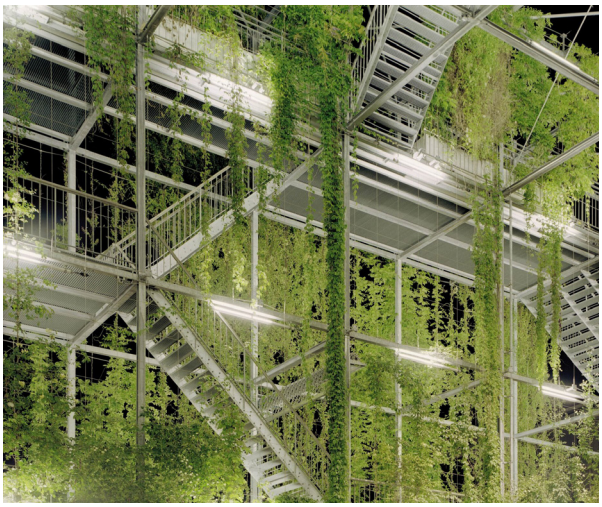


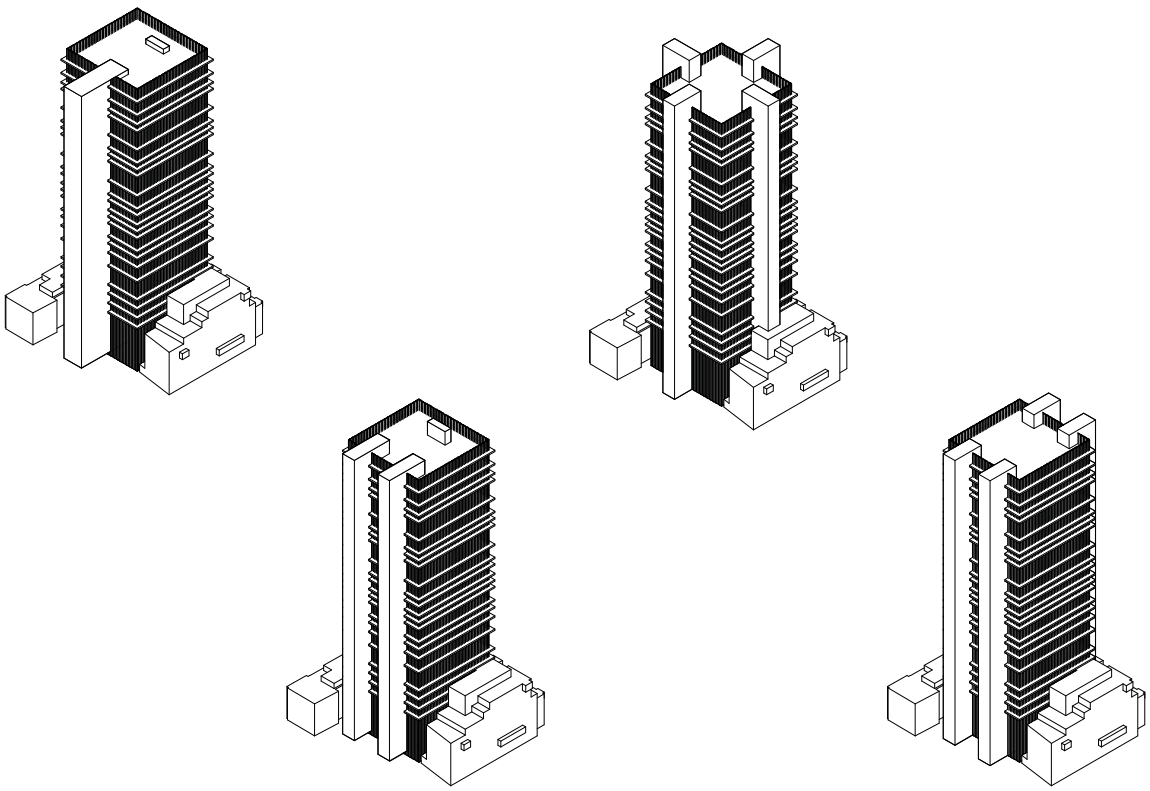
Figure 36 - MFO-Park in Zürich by Burckhardt. *Burckhardt. (2002)*

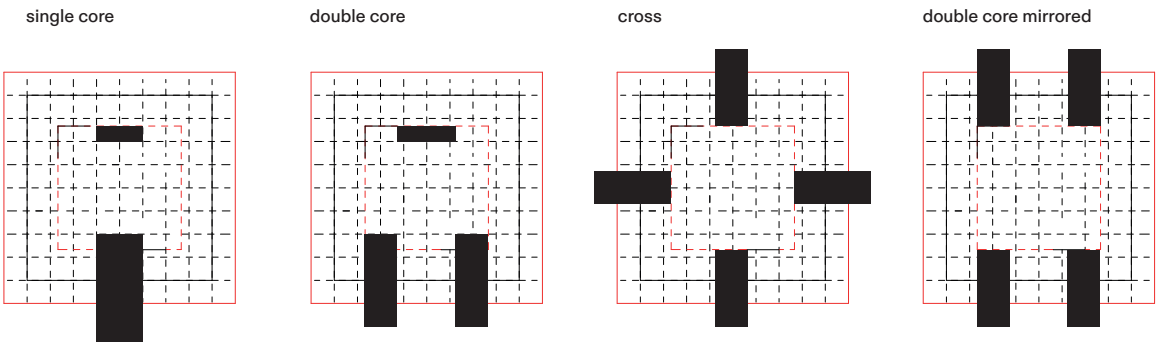
Figure 37 - REBEL in Amsterdam by Studioninedots & Delva. *Proloog. (2017)*

Structural principles

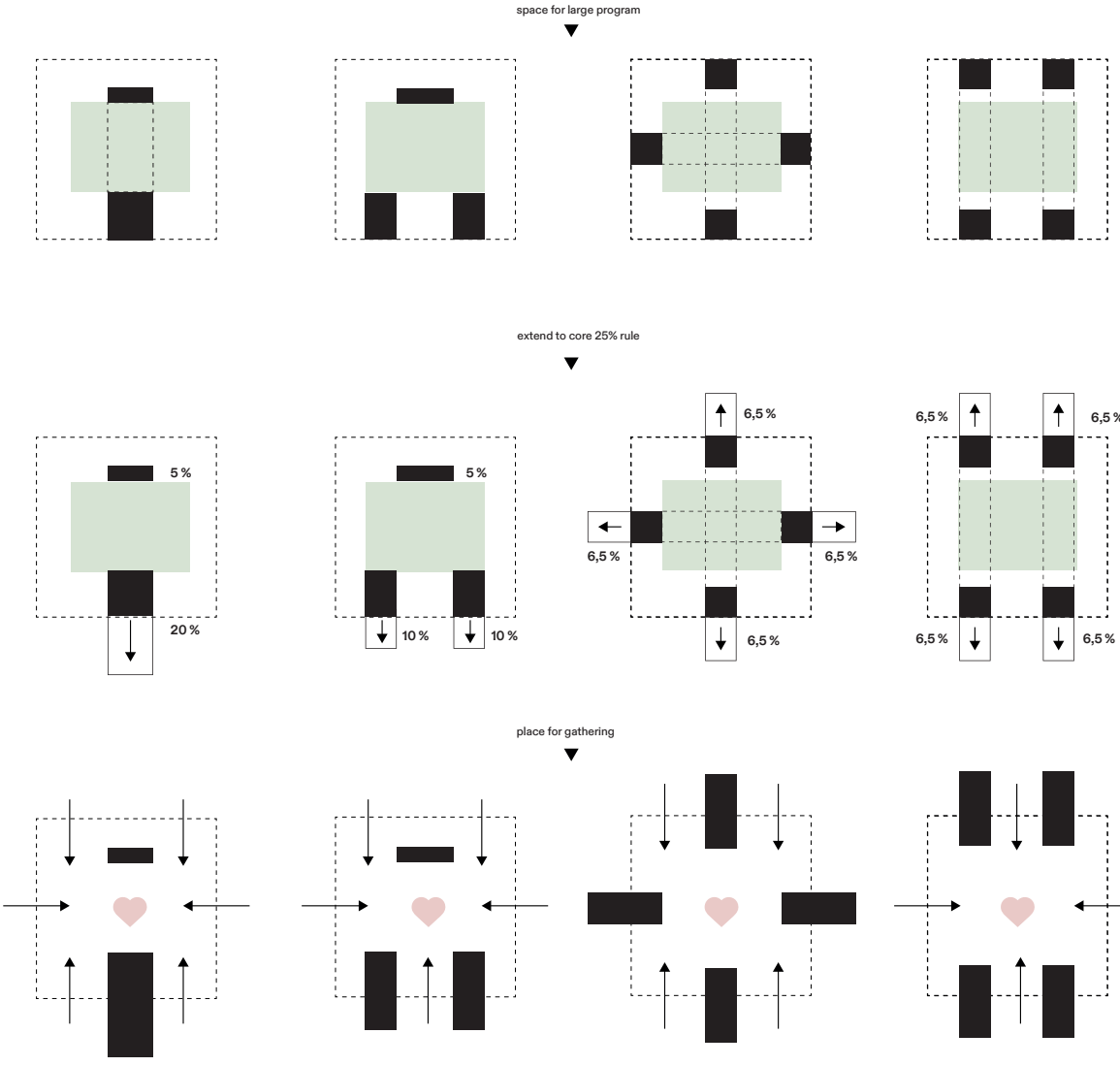
Offset-cores

The central core design traditionally used to equalize facade distribution presents a spatial challenge for accommodating large-scale programs like a gymnasium or a 400-seat theatre. This inherent limitation necessitates a strategic deviation from the norm, leading to the innovative placement of cores on the building's periphery, a concept known as the offset core. By relocating these structural elements, it will unlock valuable interior space, thereby facilitating the integration of expansive programmatic elements. Furthermore, this shift not only accommodates larger functions but also paves the way for the creation of dynamic communal spaces, such as squares and atriums, enhancing the building's social and aesthetic value. This approach represents a harmonious blend of form and function, ensuring architectural integrity while meeting complex spatial demands.



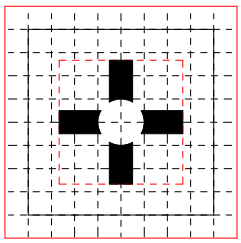


concept explanation

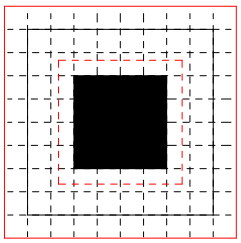


Structural principles

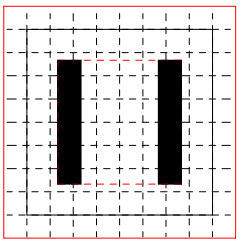
Core sketches



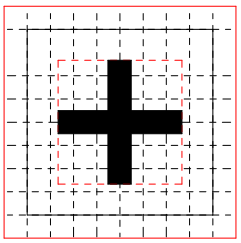
1 - 199 m² (10,6%)



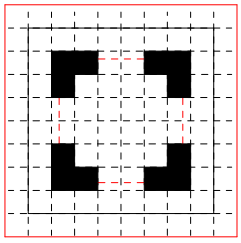
2 - 466 m² (25%)



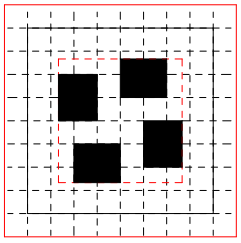
3 - 310 m² (16,6%)



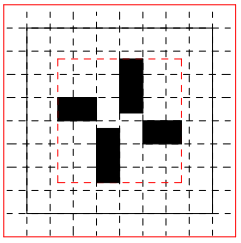
4 - 281 m² (15,07%)



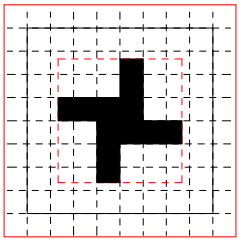
5 - 349 m² (18,7%)



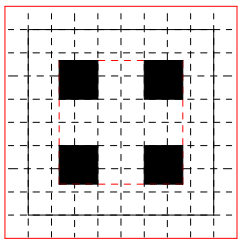
6 - 388 m² (20,8%)



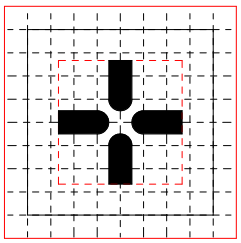
7 - 233 m² (12,4%)



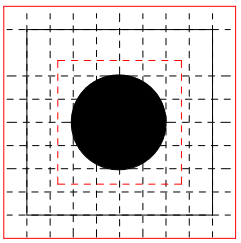
8 - 311 m² (16,67%)



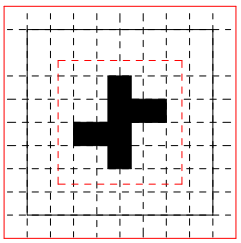
9 - 324 m² (17,4%)



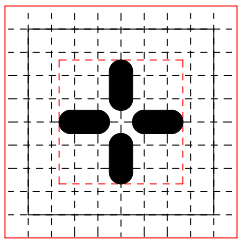
10 - 240 m² (12,8%)



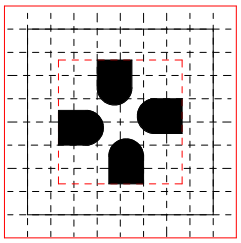
11 - 382 m² (20,4%)



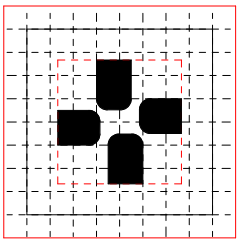
12 - 204 m² (10,9%)



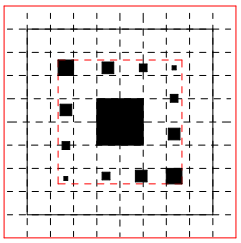
13 - 227 m² (12,1%)



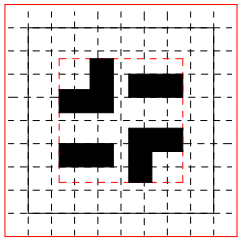
14 - 310 m² (16,6%)



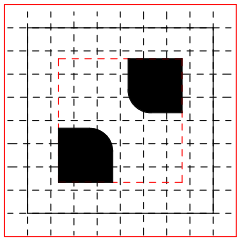
15 - 335 m² (17,9%)



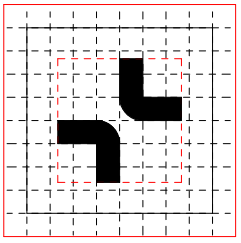
16 - 186 m² (9,9%)



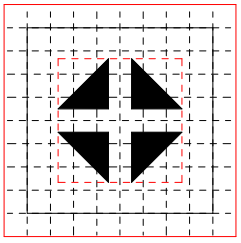
17 - 349 m² (18,7%)



18 - 305 m² (16,3%)

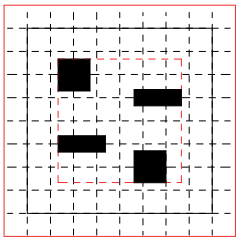


19 - 240 m² (12,9%)



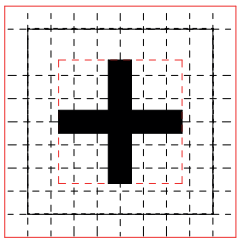
20 - 273 m² (14,6%)

open floor ‘square’



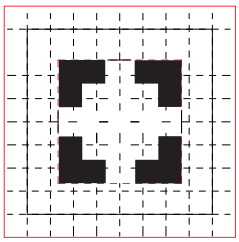
P2 - 194 m 2 (10,4%)

“4 areas”

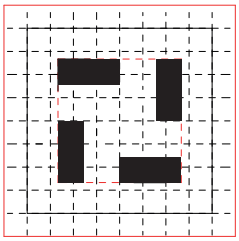


4 - 281 m 2 (15,07%)

inverted cross

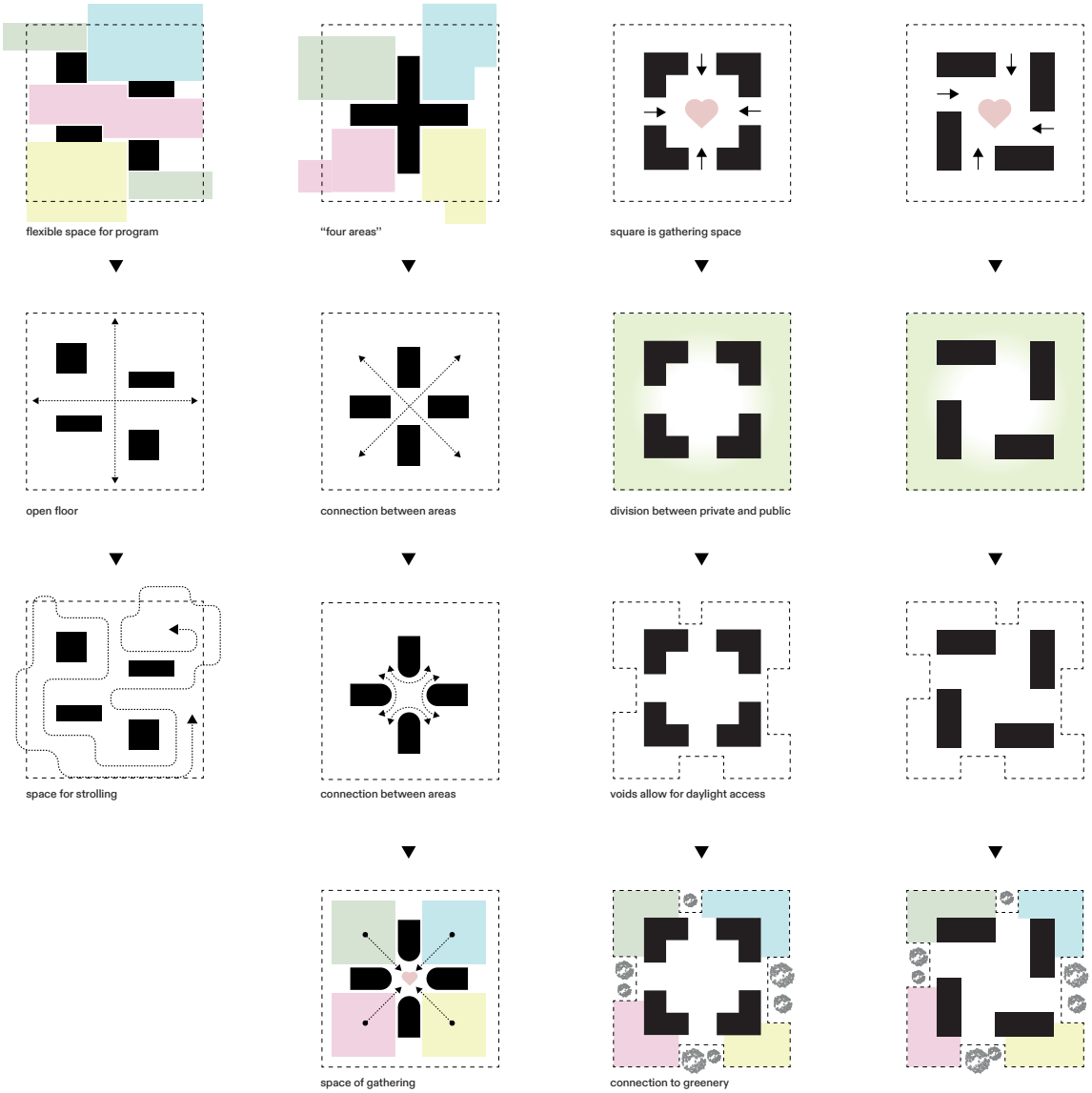


5.1 - 348 m² (18,70%)



5.2 - 311 m² (16,60%)

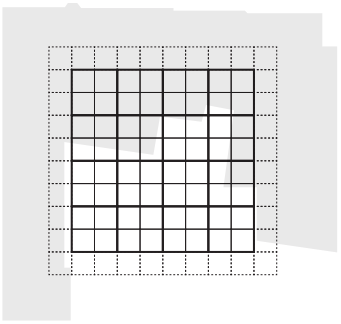
concept explanation



Structural principles

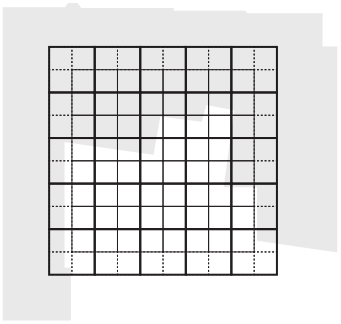
Grid size selection

In exploring various grid systems for the purpose of unblocking and extending the urban fabric, my research delved into the intricacies of the 5400, 7200, and 6000. The 5400 grid system emerged as the most harmonious solution, particularly due to its ability to seamlessly integrate extensions that are suspended from the primary structure.

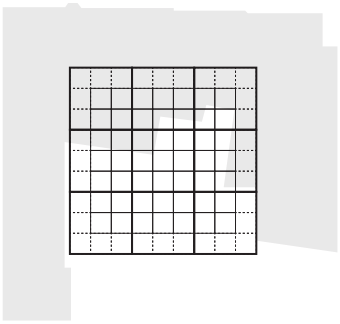


P2

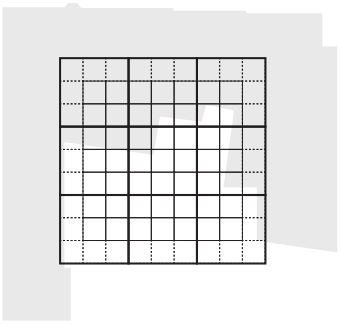
grid size **5.400 × 5.400** (8 × 8)
total width **43.200** (10.800 × 4)
→ 54.000



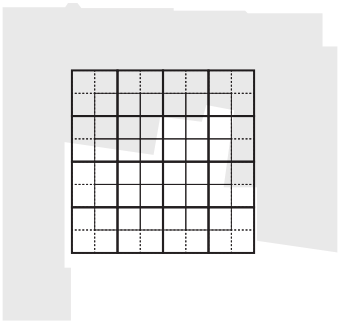
grid size **5.400 × 5.400** (10 × 10)
total width **54.000** (10.800 × 5)



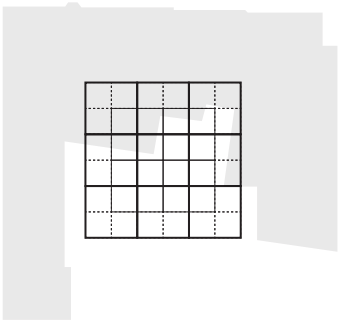
grid size **4.800 × 4.800** (9 × 9)
total width **43.200** (14.400 × 3)



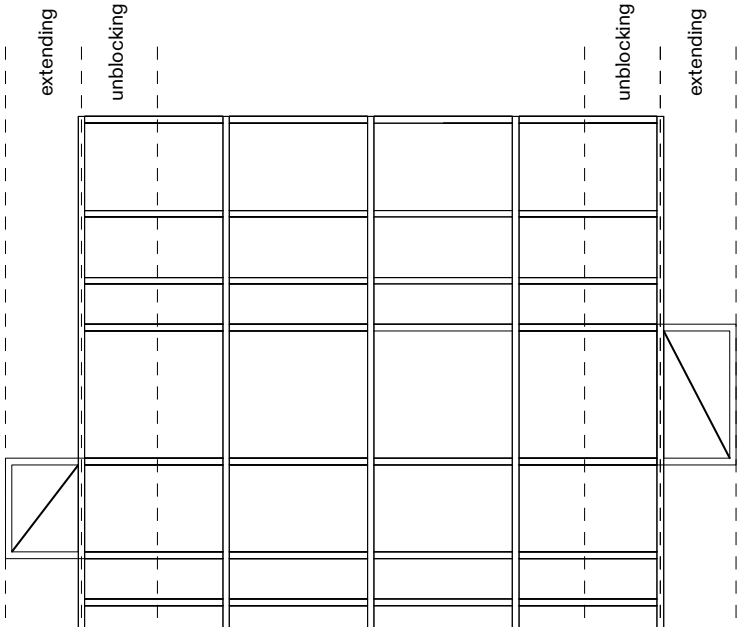
grid size **5.400 × 5.400** (9 × 9)
total width **48.600** (16.200 × 3)



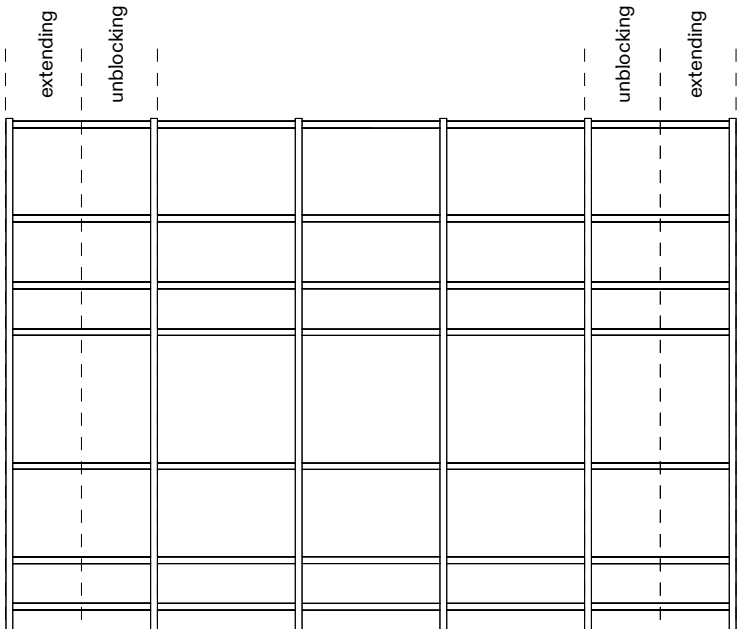
grid size **5.400 × 5.400** (8 × 8)
total width **43.200** (10.800 × 4)



grid size **6.000 × 6.000** (6 × 6)
total width **36.000** (12.000 × 3)



option 1 program sticking out



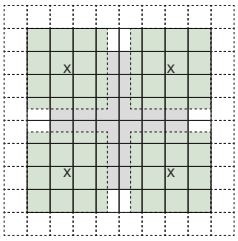
option 2 clean tower

Structural principles

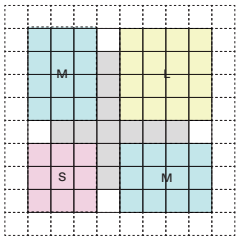
Core choice

The research explored innovative core design, culminating in an asymmetric cross-shaped core that ingeniously divides the space into four distinct areas. This deliberate asymmetry avoids creating a monumental feel, instead fostering a variety of spatial experiences with varying dimensions. The core's strategic positioning facilitates a central corridor, enhancing circulation towards the facades and ensuring a lively interaction between the interior activities and the building's external expression.

placement

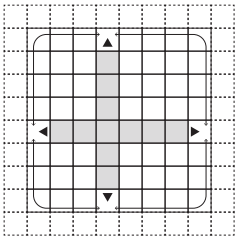


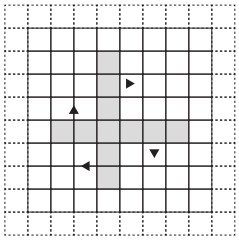
monumental equivalent spaces

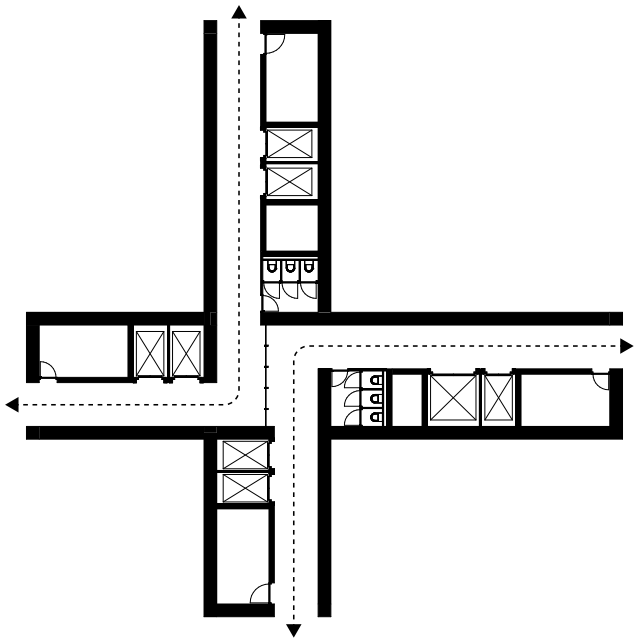


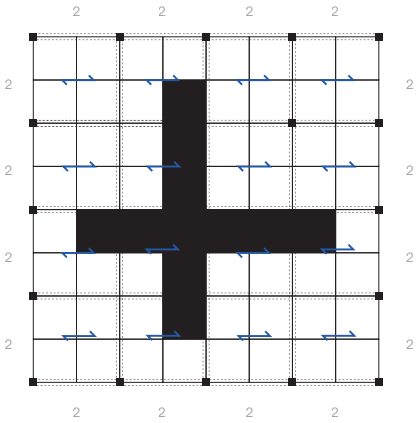
offset variation of spaces

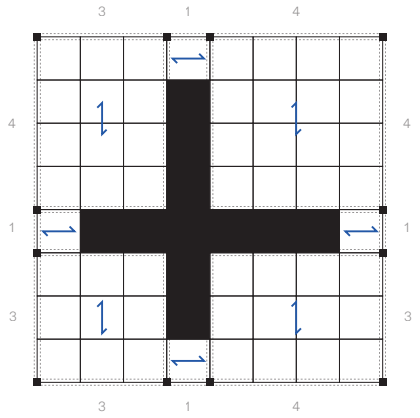
connections

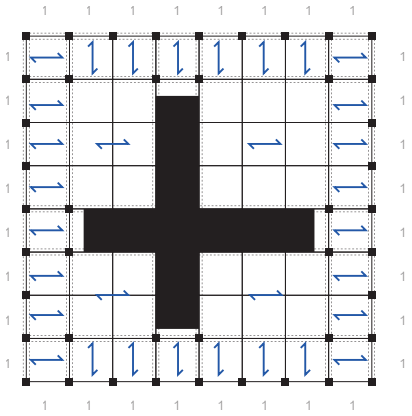


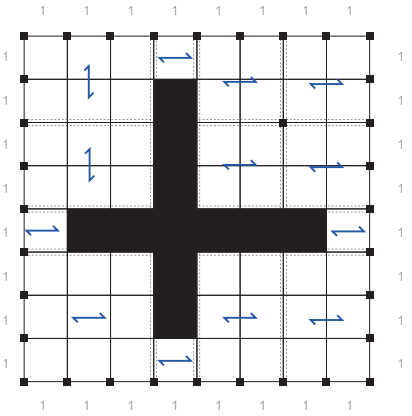


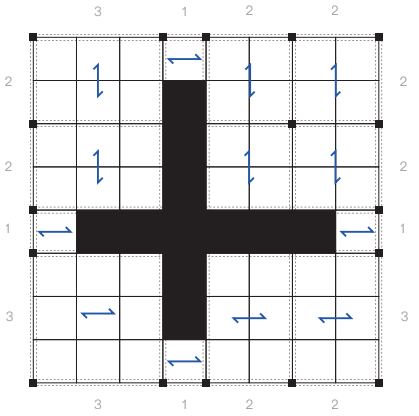


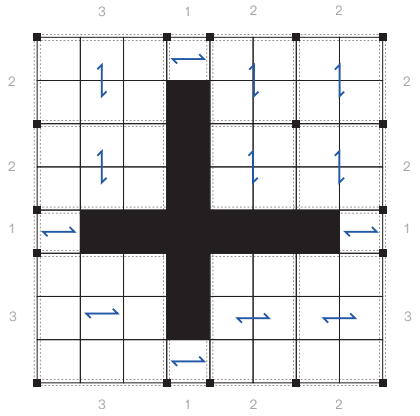








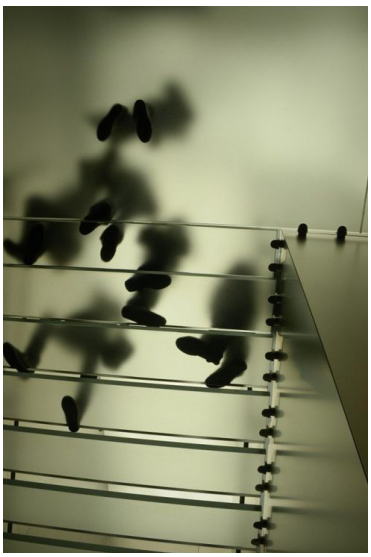


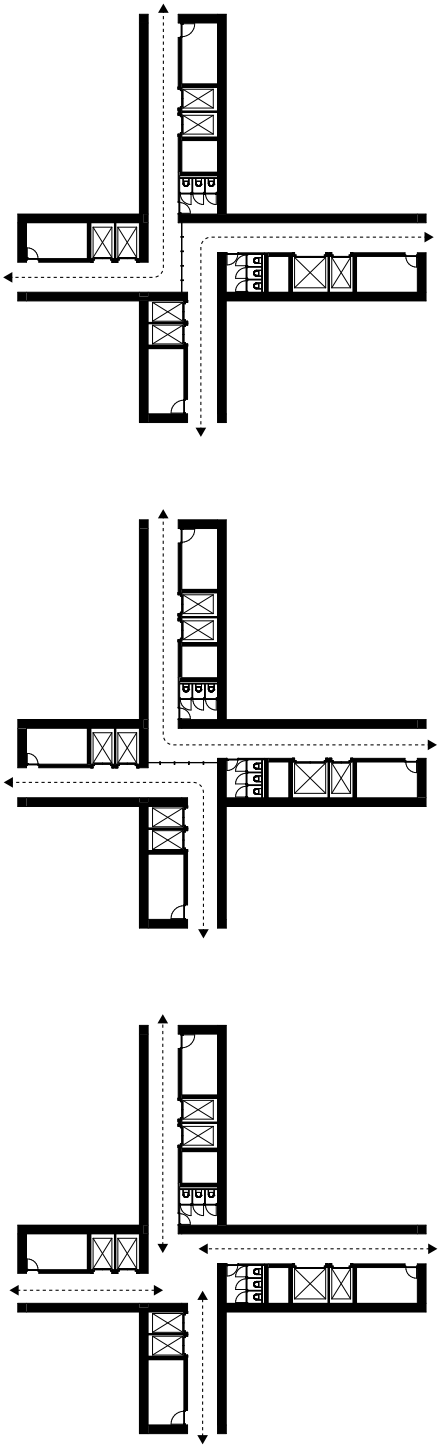


Core design

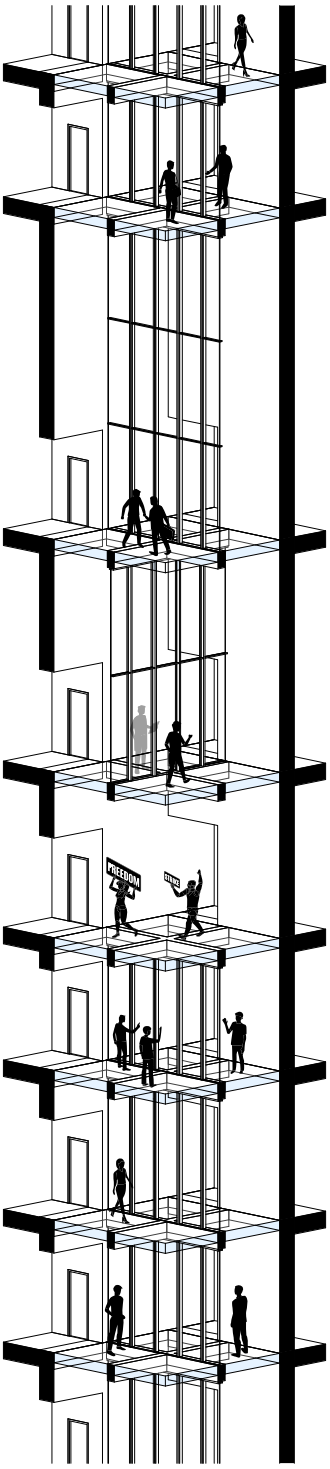
Melting point

The core design serves as a pivotal fusion point, intertwining all surrounding spaces and establishing itself as a crucial junction for accessing various areas. This central positioning invites contemplation of diverse pathways and alternative uses, enriching the spatial experience. Through the introduction of transparency within the core, a sense of connection is fostered, albeit with a maintained sense of distance, sparking curiosity and encouraging exploration across different levels. This interplay between visibility and separation not only enhances the architectural narrative but also invites a deeper engagement with the building's layered spaces.





Routing variations of the core corridor

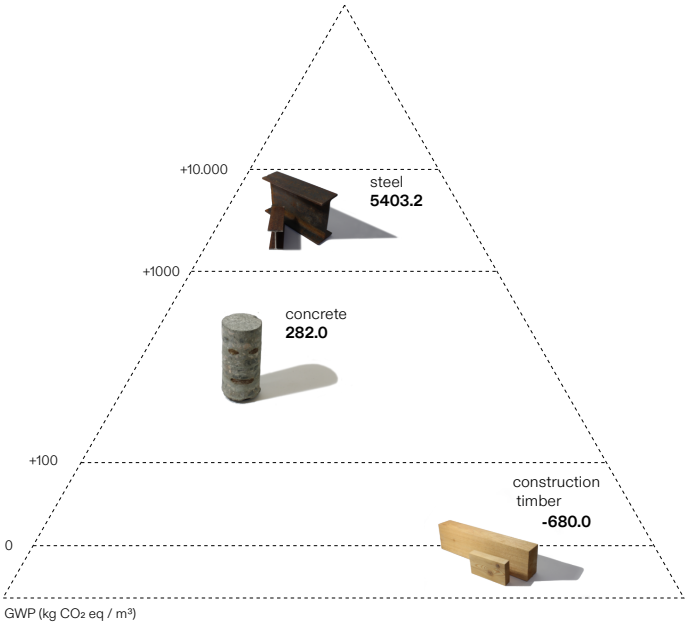


Section of the melting points

Structural principles

Material choice

In the realm of sustainable architecture, the selection of materials for the base of a structure is pivotal, especially when considering the environmental footprint. Concrete, despite its high carbon dioxide equivalent emissions of 280 CO_2 eq/m^3, remains a favored choice for the base due to its robustness and minimal maintenance requirements. This solid foundation is indispensable for the stability and longevity of buildings, particularly in the construction of keeps where strength is paramount. However, the significant CO_2 impact of concrete raises environmental concerns. Interestingly, the integration of wood, with its negative CO_2 impact of -680 CO_2 eq/m^3, offers a compelling counterbalance. By incorporating bio-based materials in the floors, which constitute approximately 45% of a construction's CO_2 footprint, the overall environmental impact can be markedly reduced, potentially leading to a negative CO_2 footprint for this portion of the structure. This approach exemplifies how strategic material choices can harmonize structural integrity with environmental stewardship in modern construction practices.

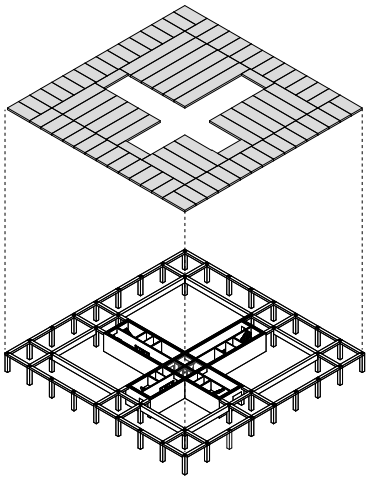


option 1 **full concrete**

concrete core:	12.397,64 m^3	→ 3.496.133,63 kg $CO_{2\ eq}$	(45 %)
columns (600×600):	2.328,5 m^3	→ 656.603,2 kg $CO_{2\ eq}$	(8 %)
beams:	4.309,2 m^3	→ 1.215.194,4 kg $CO_{2\ eq}$	(15 %)
floor (exl. spatial moves)	8.802,7 m^3	→ 2.482.361,4 kg $CO_{2\ eq}$	(32 %)
total	**7.850.292,6 kg $CO_{2\ eq}$**		
per m^2	**196,26 kg $CO_{2\ eq}$**		

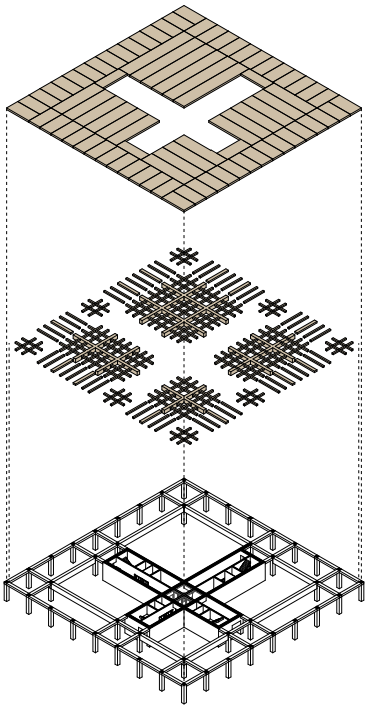
option 2 **concrete frame + wood-concrete composite floors**

concrete core: (45 %)		12.397,64 m^3 → 3.496.133,63 kg $CO_{2\ eq}$	
columns (600×600):	2.328,5 m^3	→ 656.603,2 kg $CO_{2\ eq}$	(8 %)
beams:	4.309,2 m^3	→ 1.215.194,4 kg $CO_{2\ eq}$	(15 %)
floor (exl. spatial moves)	4049,2 m^3	→ 1.141.886,2 kg $CO_{2\ eq}$	(15%)
wood floors	4.753,5 m^3	→ -3.156.296,1 kg $CO_{2\ eq}$	(17 %)
total	**3.353.555,17 kg $CO_{2\ eq}$**		
per m^2	**83,84 kg $CO_{2\ eq}$**		



452,00 m³
127.464,00 kg $CO_{2\ eq}$
45 %

543,92 m³
153.385,44 kg $CO_{2\ eq}$
55%



562,24 m³
-373.324,7 kg $CO_{2\ eq}$
36%

473,00 m³
-314.072,00 kg $CO_{2\ eq}$
30%

543,92 m³
153.385,44 kg $CO_{2\ eq}$
34%

1 **full concrete** → 2 **concrete base + wooden infill**

total	280.849,44 kg $CO_{2\ eq}$	total	-534.011,26 kg $CO_{2\ eq}$
per m²	**144,03 kg $CO_{2\ eq}$**	per m²	**-273,85 kg $CO_{2\ eq}$**

Design Process | **Architectural design of the Base** (levels 1 - 6)

→ 24/01/24

Base of the tower

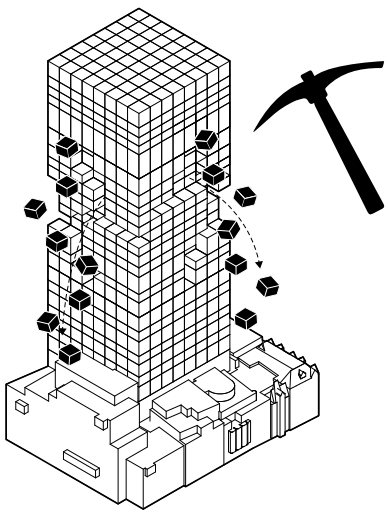
Introduction

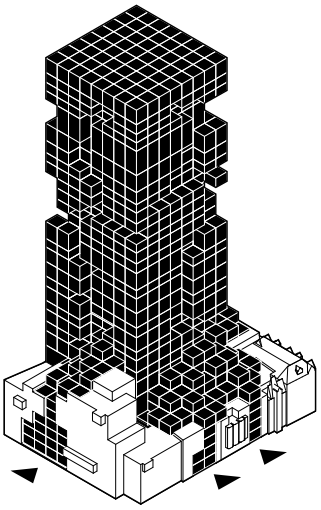
The design of the tower's base is a endeavour that bridges the new structure with the fabric of existing buildings, emphasizing respectful integration. Key to this approach is the strategic placement of the tower, shifted one grid size from its P2 position to preserve more of the existing built environment, showcasing a thoughtful balance between new and old.

The study addresses how buildings interact with one another and focuses on integration solutions that preserve architectural integrity while improving accessibility and navigation inside the vertical campus. The base's design places a high priority on user entry, taking into account a variety of access points, layouts, and aesthetically pleasing entrances to greet guests and students. A multitude of tactics, including material selection and spatial layout, are tried and tested to create a welcoming atmosphere at the tower's entrance.

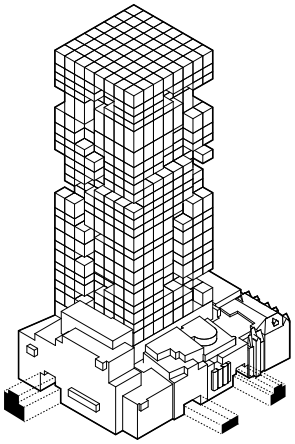
The research also delves into the spatial dynamics between the tower and adjacent Hoftoren, underscoring the importance of thoughtfully designed transitional spaces that facilitate connectivity and interaction. This interface between the tower and its neighbours is not merely a buffer but a vital component that enriches the urban landscape, making the base design a project of significant complexity and value in its own right. The careful consideration of these elements ensures that the tower's base is not only functional but also contributes positively to the urban aesthetic and social fabric.

In designing the base of the tower, a key strategy involves crafting an inviting entrance while minimizing the impact on the CO_2 footprint, recognizing that preserving these structures significantly reduces emissions compared to constructing a new base. The flexibility of the office facades allows for aesthetic modifications and enhanced transparency through minimal, yet impactful, interventions, reducing material usage. Furtermore, replacing closed roof elements with lighter additions revitalises the rooftops with greenery and activity.





best option

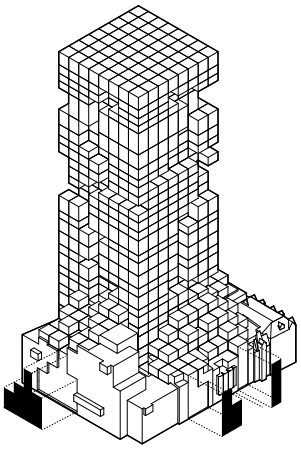


option 1 **small facade removal**

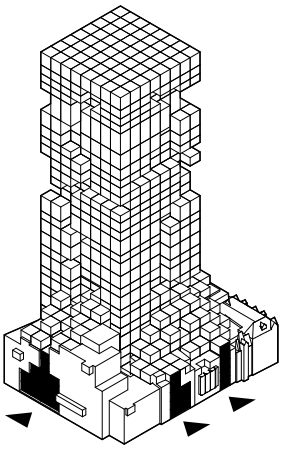
CO_2 impact

removal existing 20 %

attractiveness



option 2 **large facade removal**

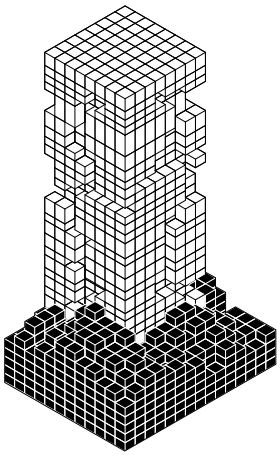


option 3 **remove building fragment**

CO_2 impact

removal existing 40 %

attractiveness



option 4 **full new plinth**

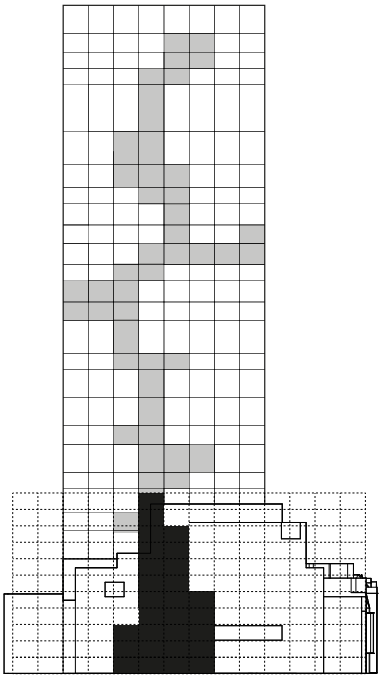
100 %

Spatial moves

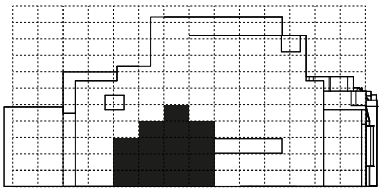
Existing facade study

east

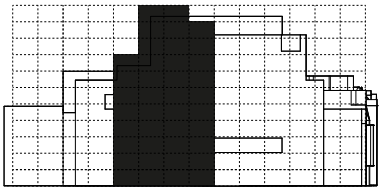
option 1 **continuous facade**



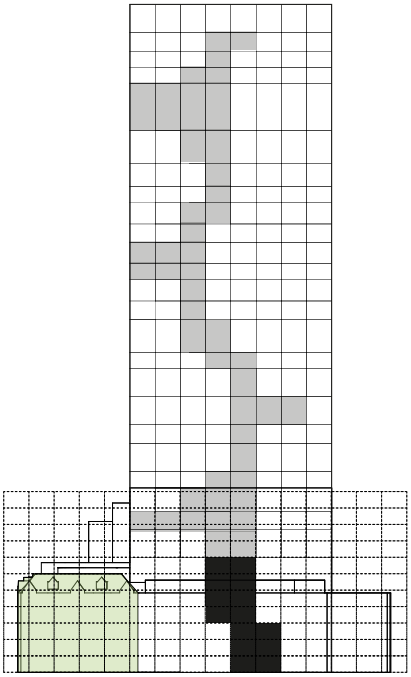
option 2 **small voids**

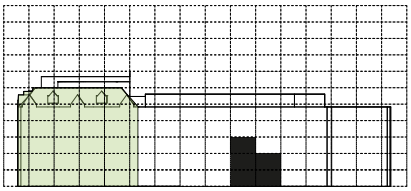


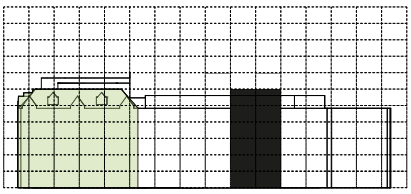
option 3 **large voids**



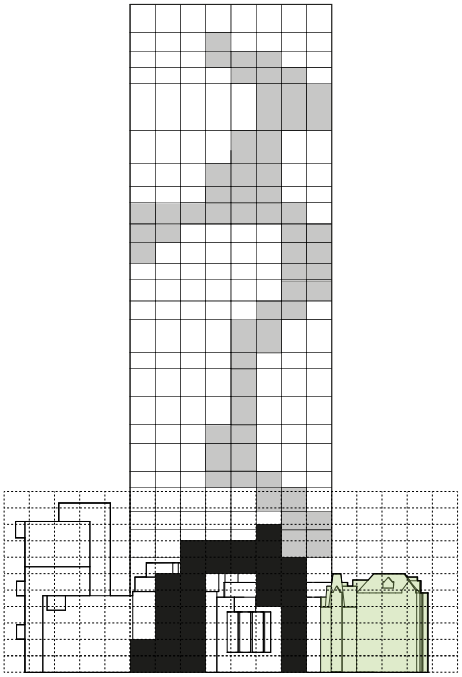
west

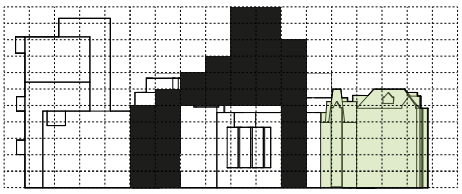






north

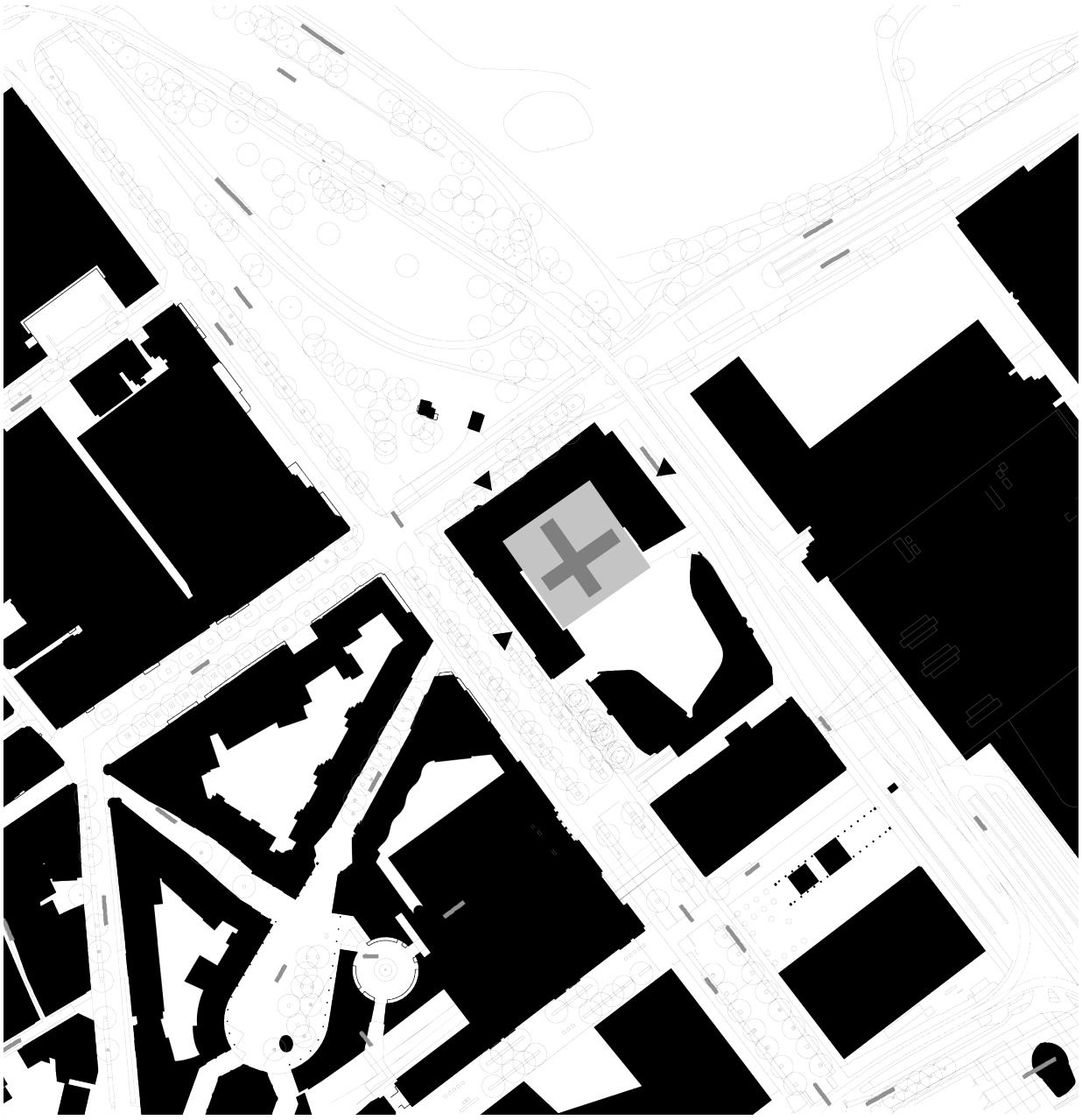




Entrances

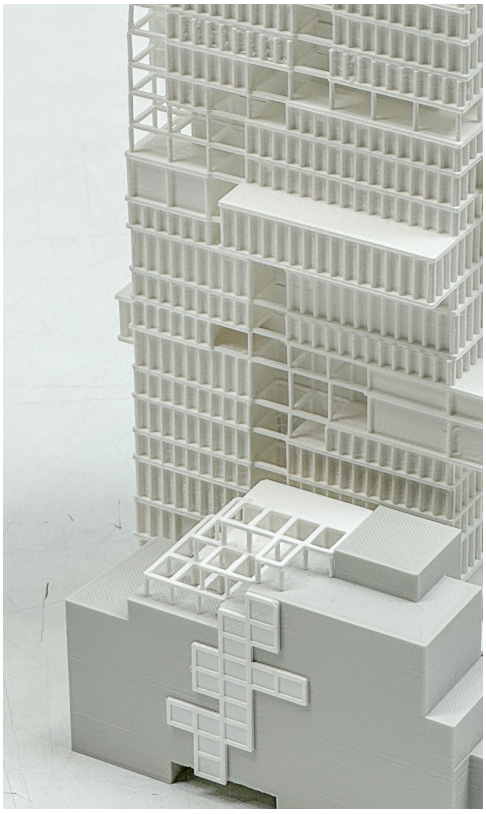
Site plan

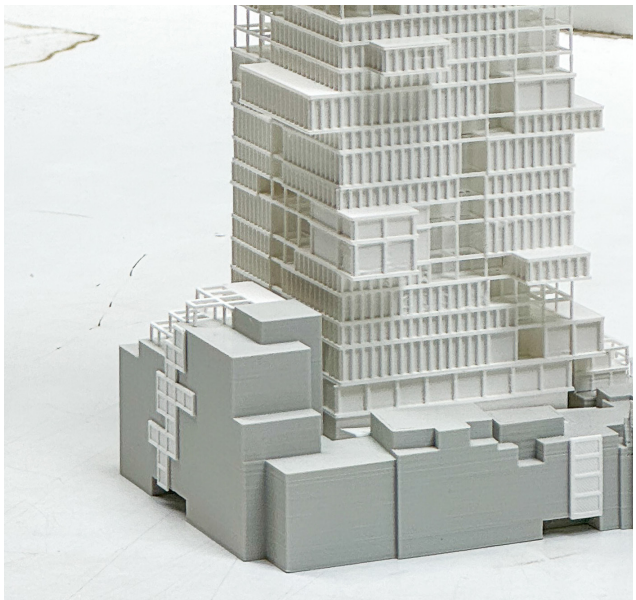
0 10 m



Scale model

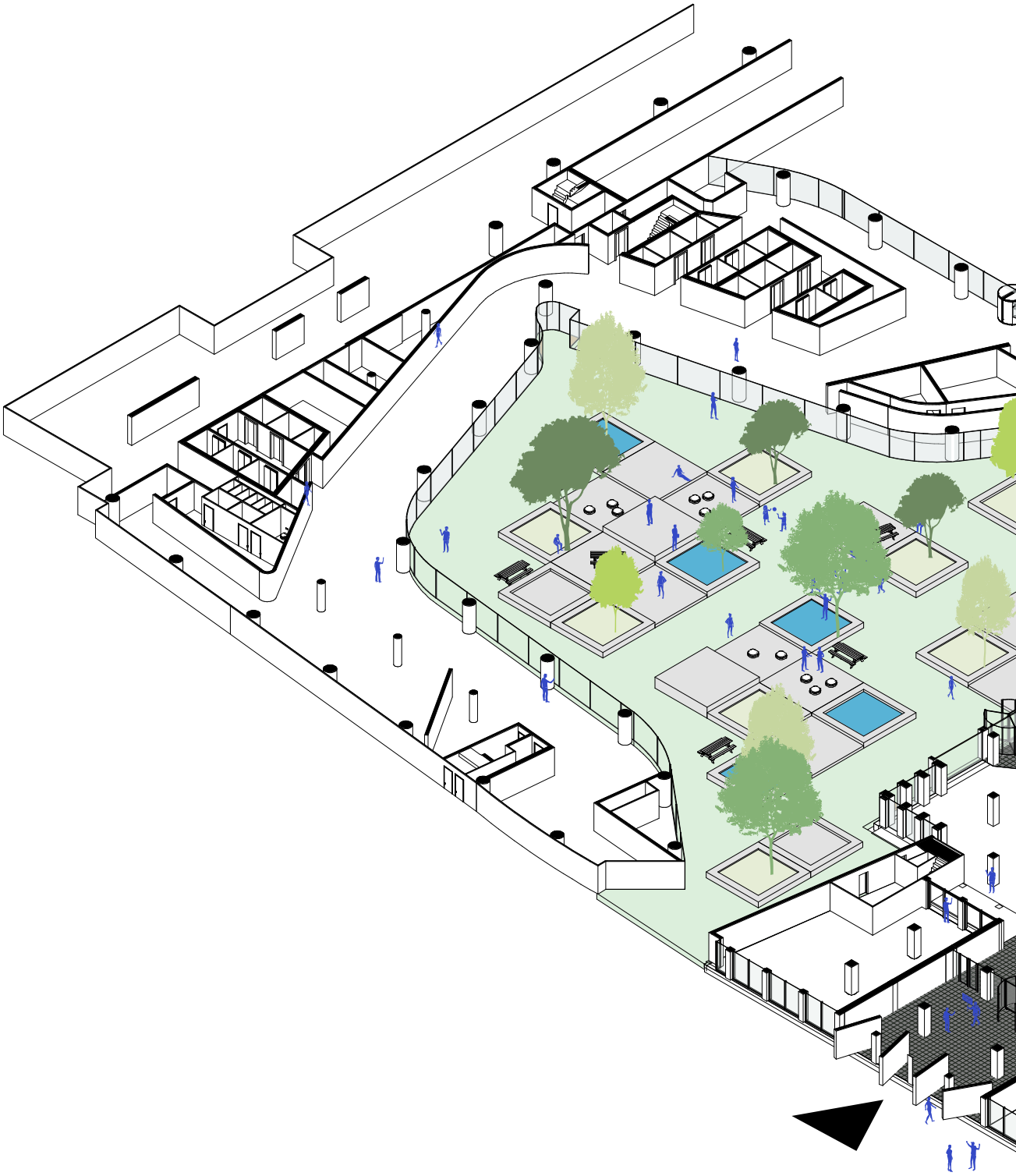
1:500

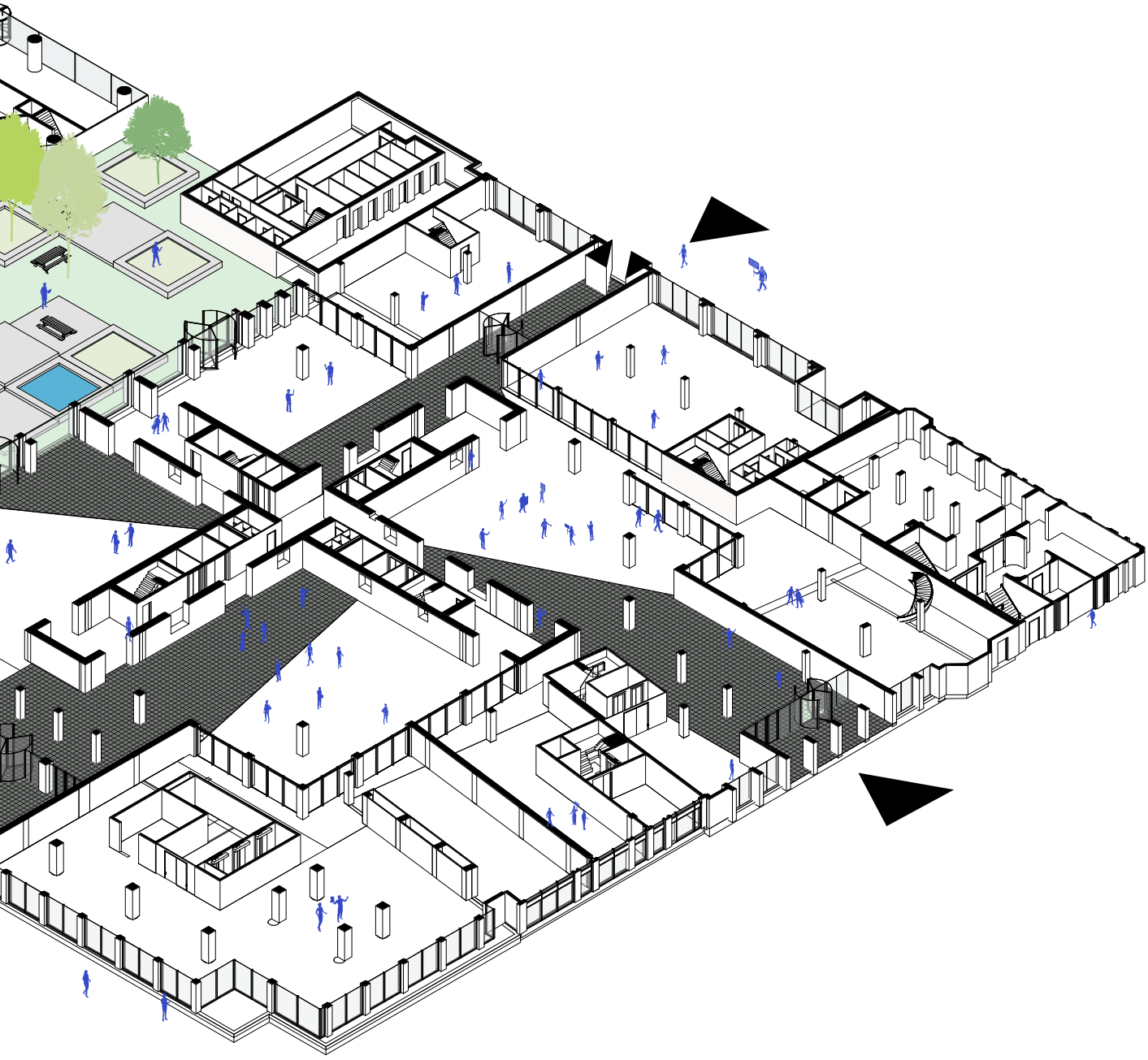




Ground floor

Axonometric drawing



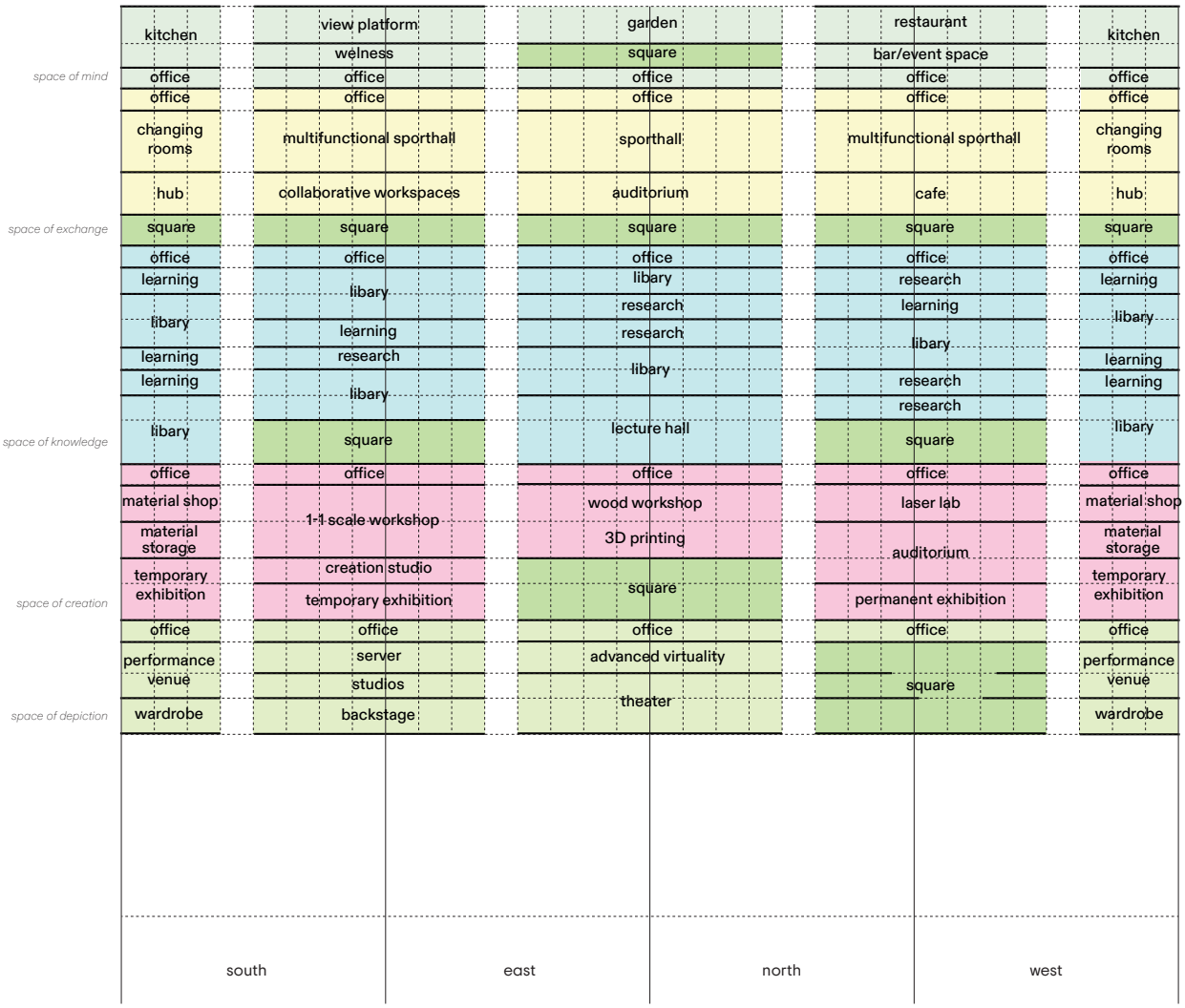


Design Process | **Architectural design of the Tower** (levels 6 - 30)

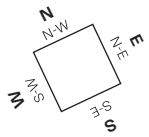
→ 24/01/24

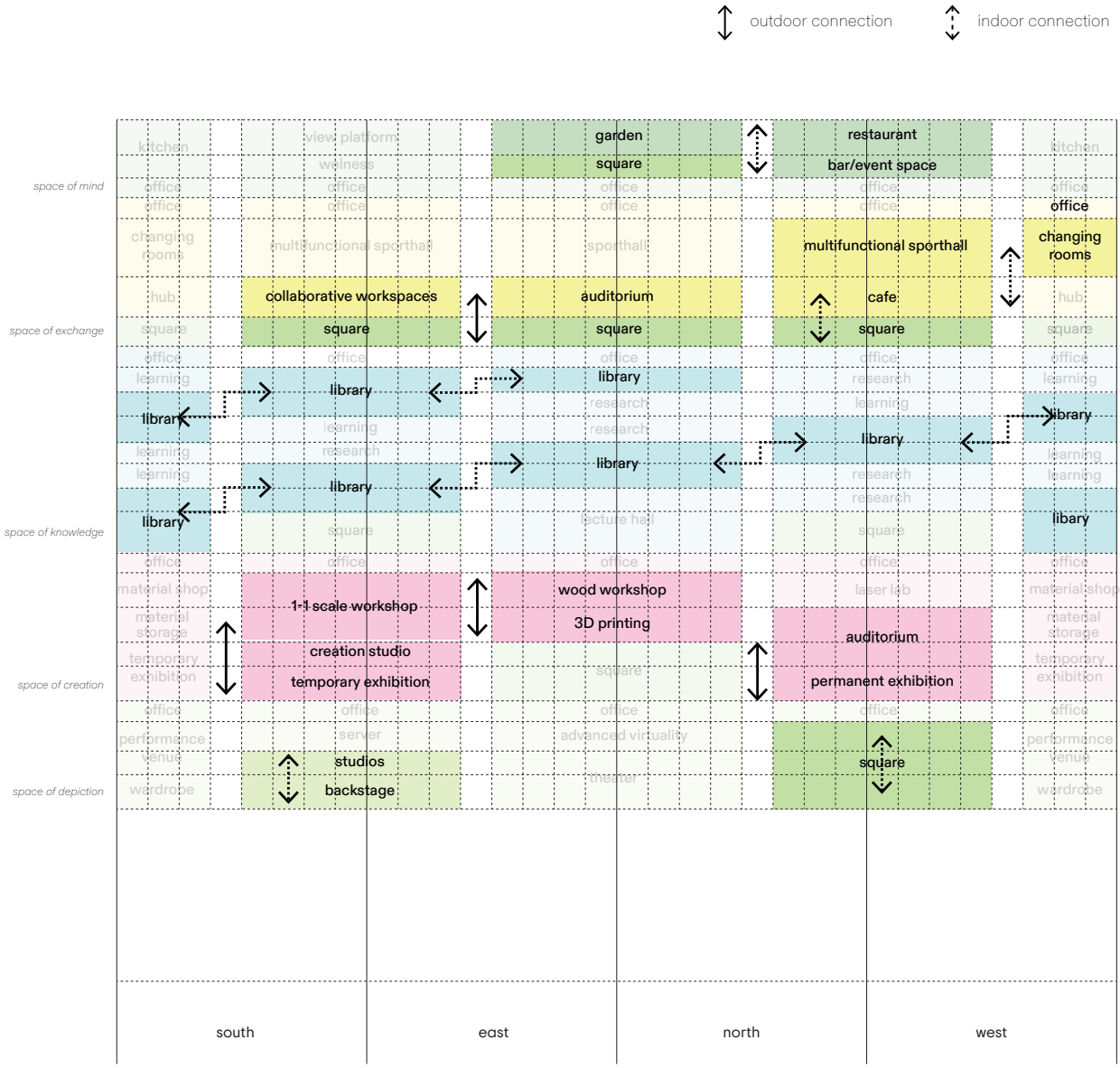
Program exploration

Behind the facade



Post-P2 presentation adjustments to the tower's program have led to a reconfiguration of spaces, resulting in uniquely shaped and sized squares within each cluster, thoughtfully distributed across the building's layout. To foster a greater connection with the urban environment, the exchange clusters have been elevated, offering expansive views over the city and integrating these visual corridors into the spatial experience.

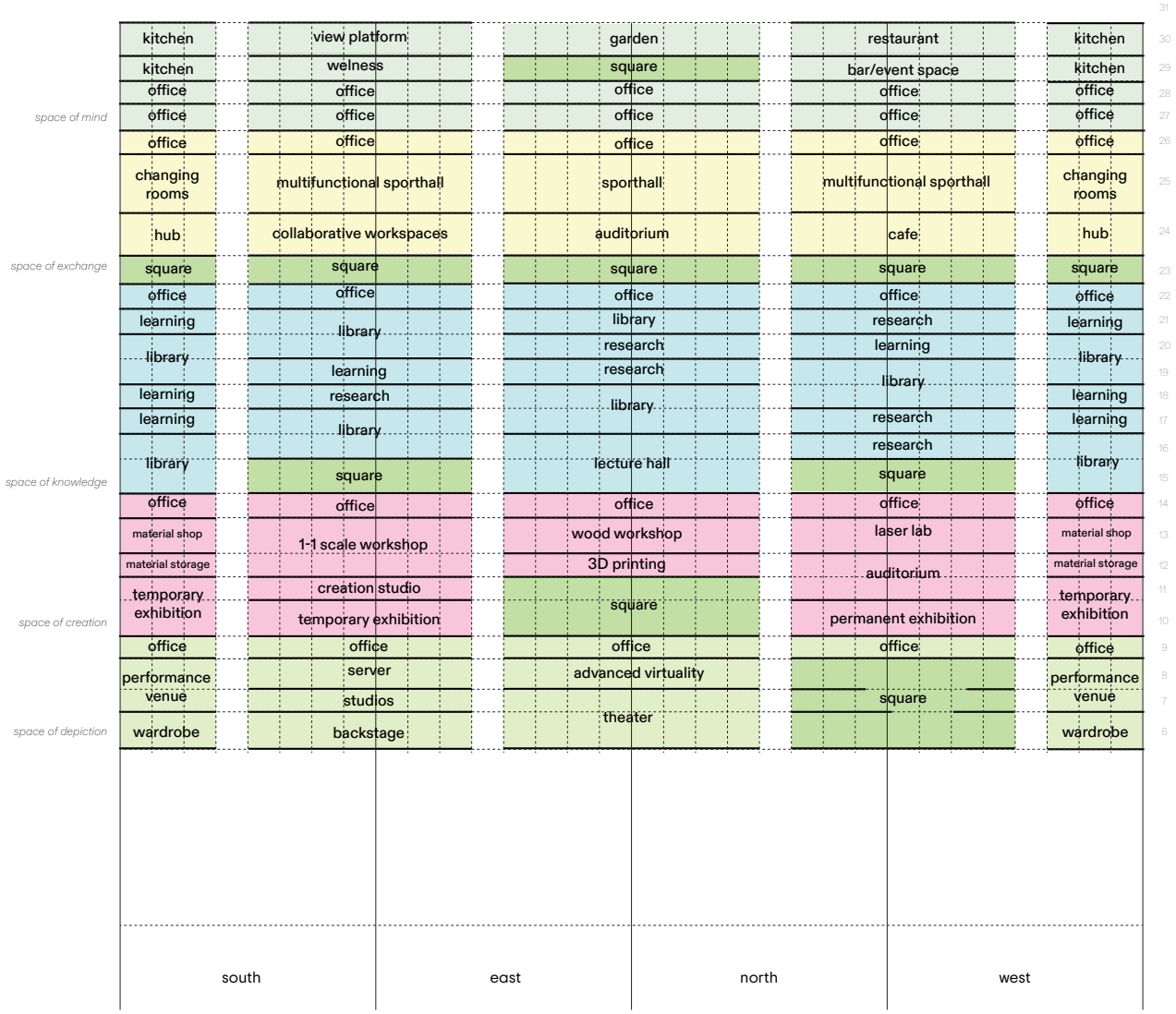




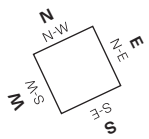
Certain functions need to be vertically connected to create interrelationships. This can be achieved either externally through voids or via an internal connection. These aspects should be considered in the spatial moves of the façade.

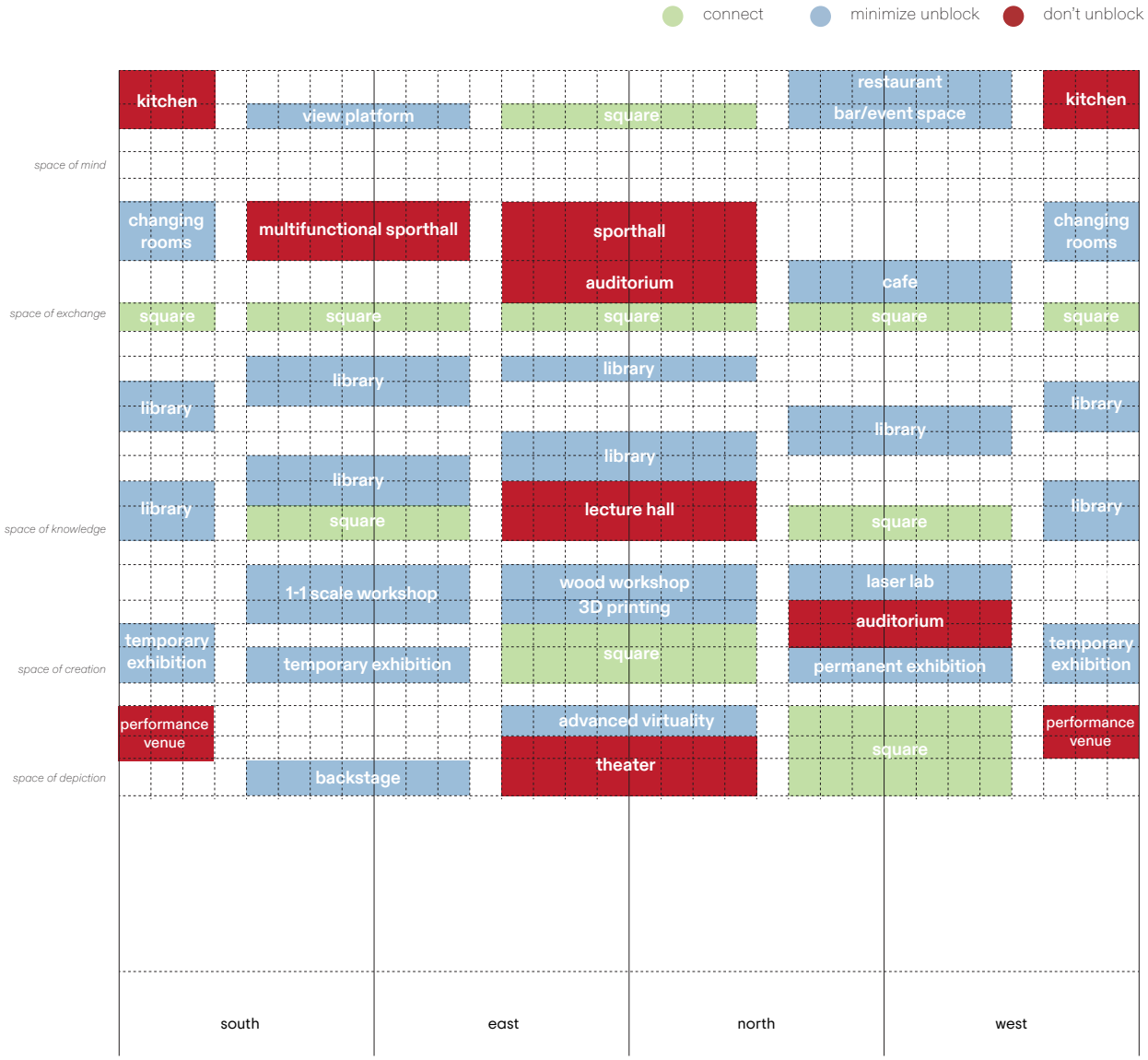
Program exploration

Behind the facade



Over the past few weeks, further research into the building's design program has led to modifications in its cross-section.

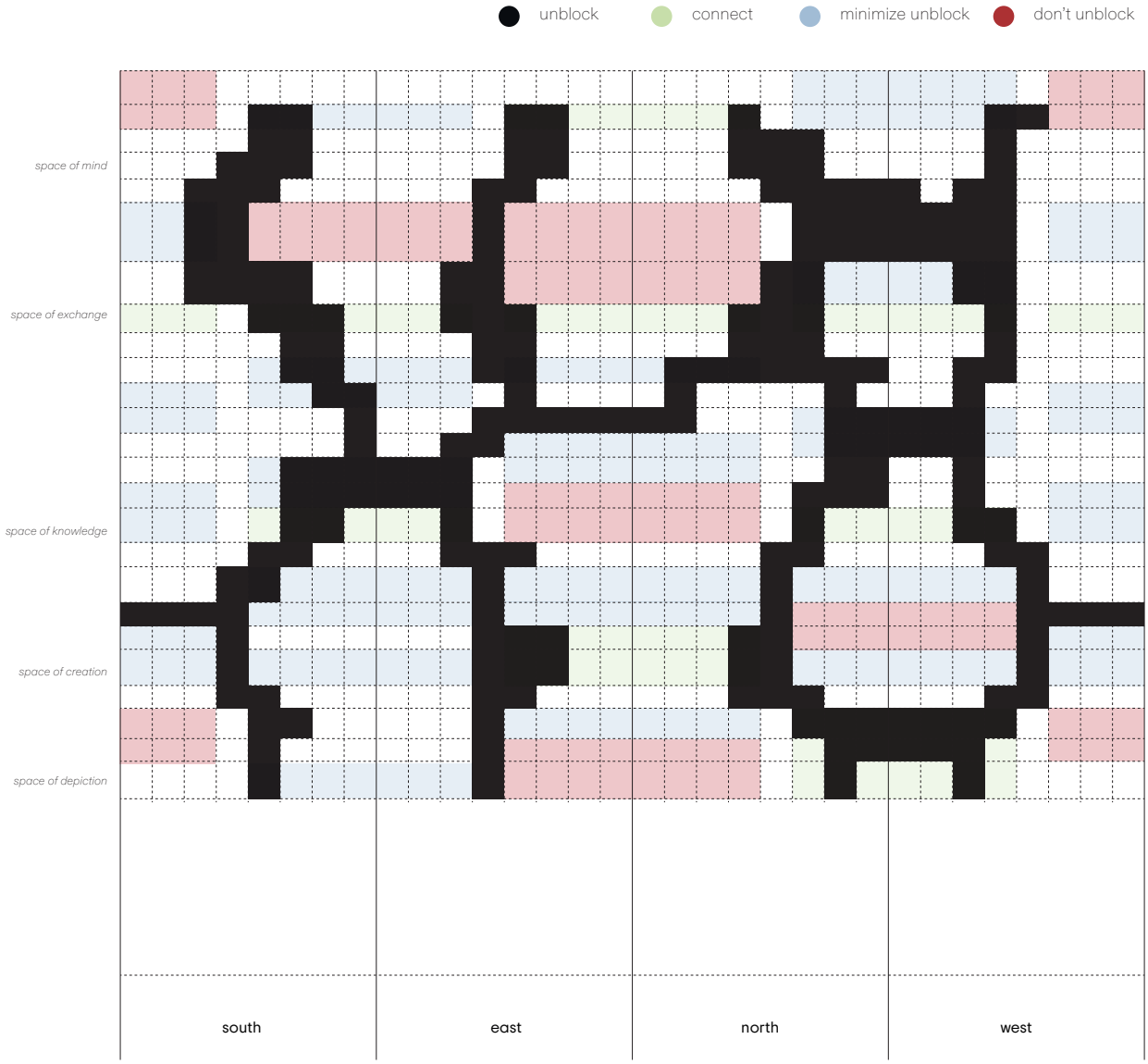




A framework has been established to address the unblocking of the mass based on the program requirements. The red-coded program elements must remain unchanged to preserve their form. These elements generally include large-scale facilities such as theaters, auditoriums, and sports halls. Interventions are permissible within the blue-coded areas, though they require careful deliberation. The green-coded squares are adaptable and function as connecting points between different spaces.

Spatial moves

Unblocking



Opening up the building's mass aims to lend it a more inviting and open feel. Essentially, it's like having vertical streets that link different squares through a variety of sightlines, vertical movement, and assorted outdoor spaces. This design strategy pulls the city up from the street and into the tower, blending the urban landscape with the structure of the building itself.

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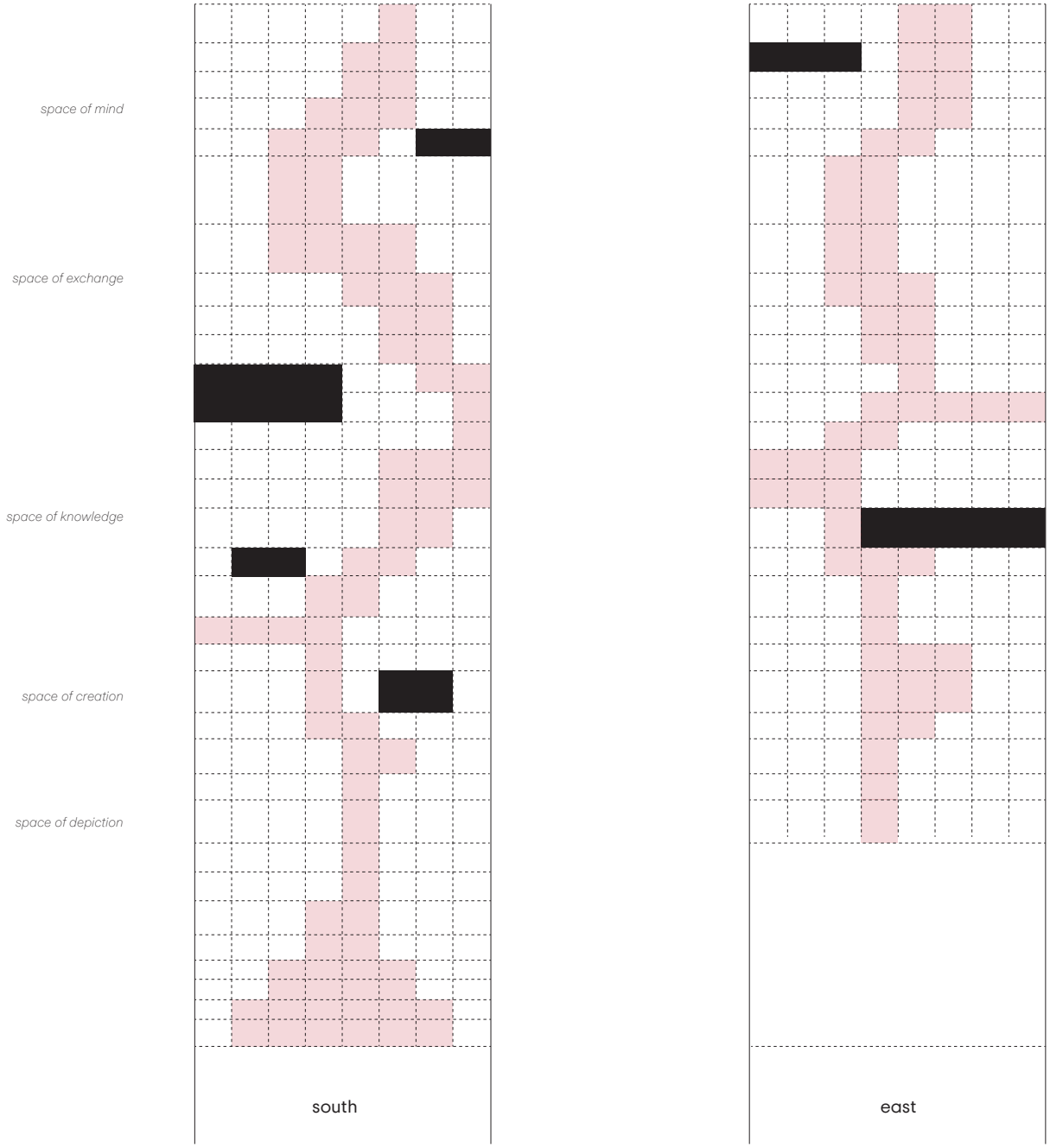
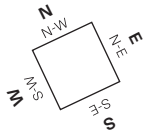
Spatial moves

Extending

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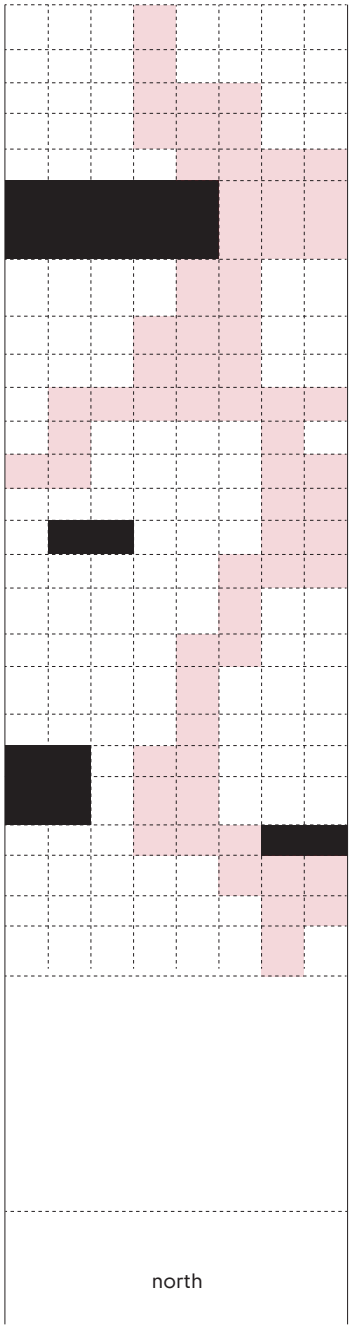
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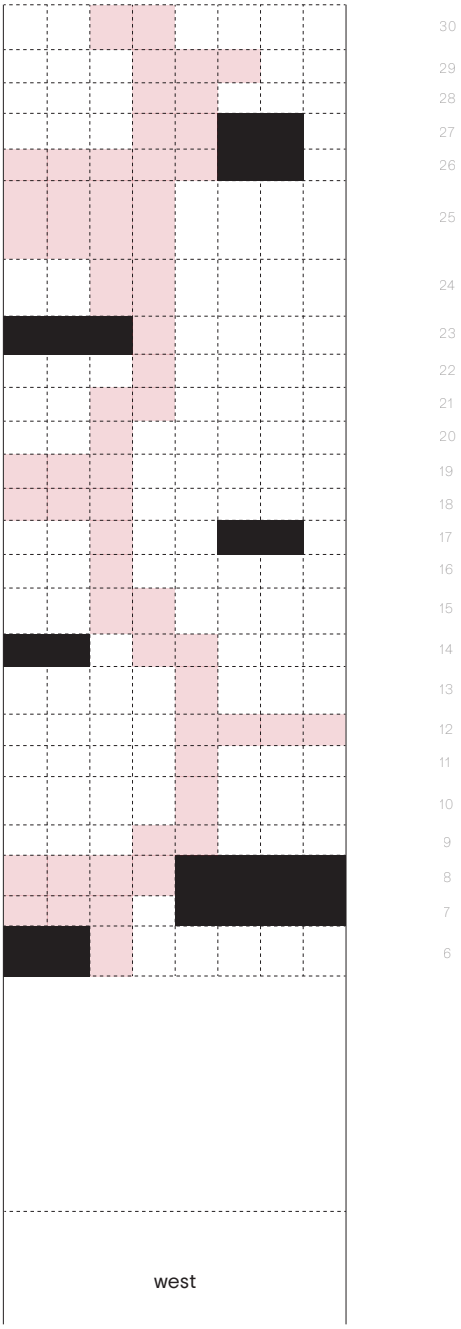
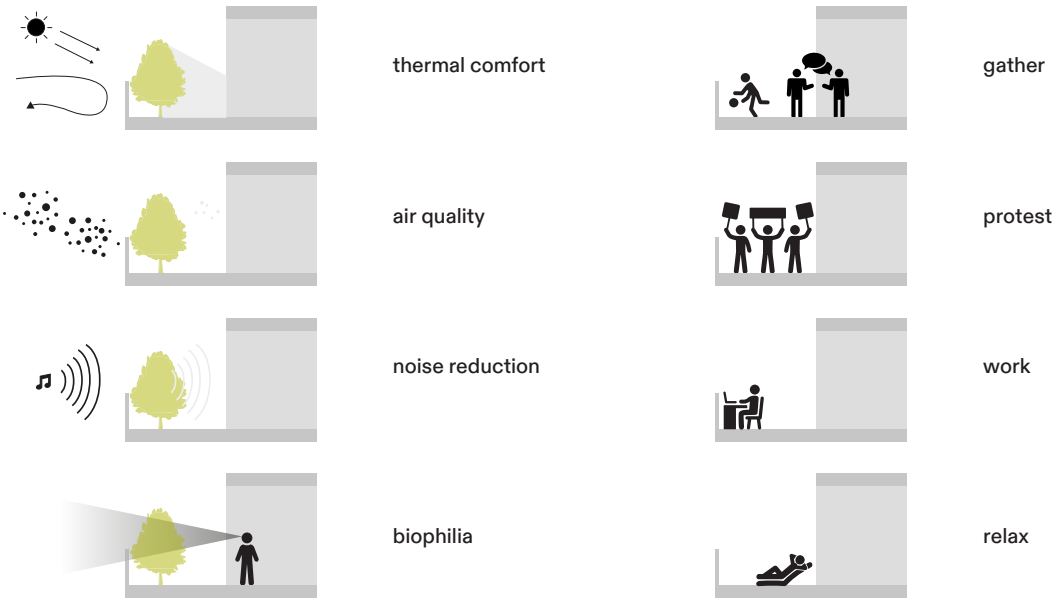

west

Outdoor space

Introduction

Integrating outdoor spaces into educational environments offers a wide range of benefits that enhance both the well-being of individuals and the quality of education. Incorporating elements like rooftop gardens and closable spaces not only supports biodiversity and improves air quality but also creates tranquil areas for relaxation and inspiration. Outdoor recreational spaces encourage physical activity and social interactions among students, which helps to build a strong sense of community and teamwork.

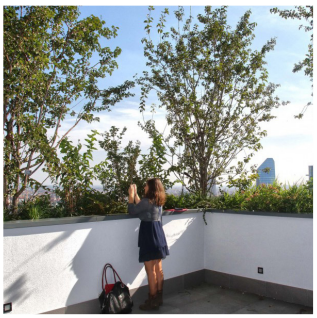
Moreover, outdoor learning areas equipped with comfortable seating and interactive features bring the classroom experience into the fresh air, providing dynamic and engaging educational opportunities. Communal terraces and balconies are also invaluable, acting as multifunctional spaces for social events, workshops, and informal gatherings. These areas facilitate cultural exchanges and intellectual conversations, further enriching the academic and social life. Considering the limited time available during breaks, it is essential that these outdoor spaces are conveniently located near educational programs to ensure easy access and maximize usage. Overall, these outdoor amenities play a crucial role in shaping a vibrant and sustainable educational ecosystem on vertical campuses.



Political

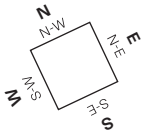
Social

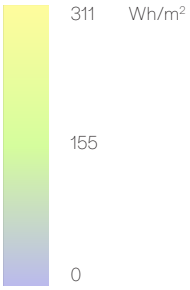
Green



Spatial moves

Solar study





Cumulative Insolation

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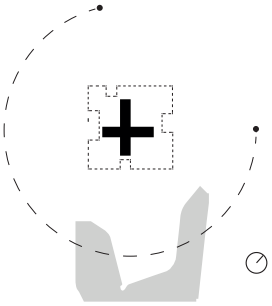
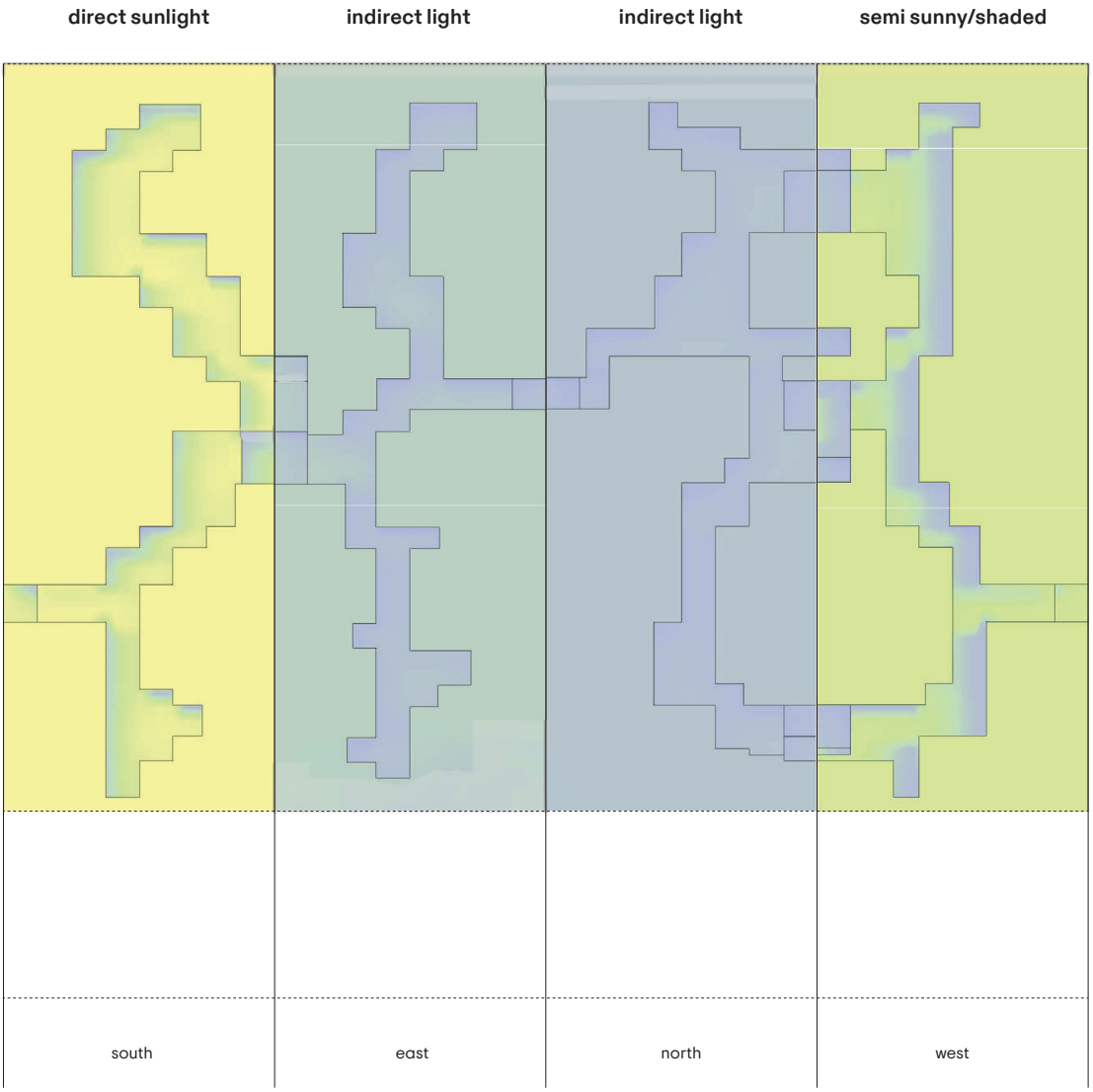
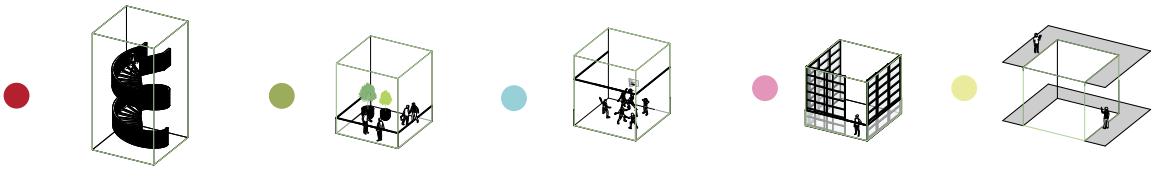
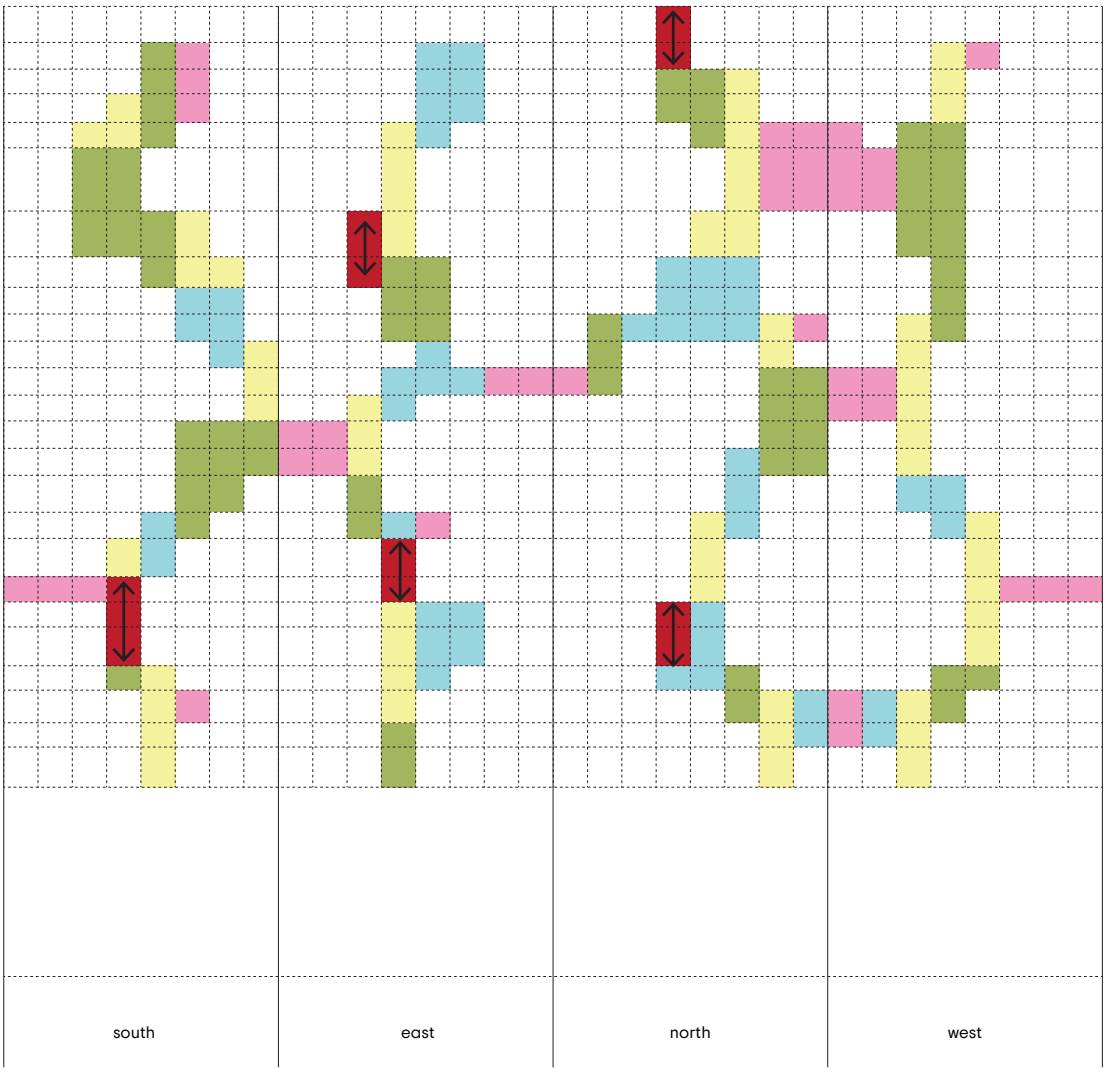






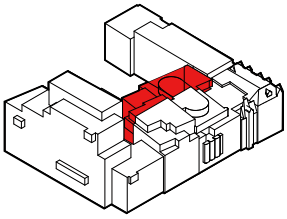

south
east
north
west

Design Process | **P3 Presentation**

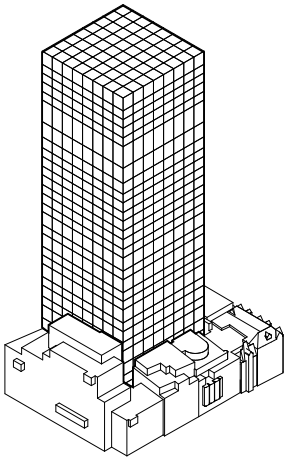
04/04/24

Concept

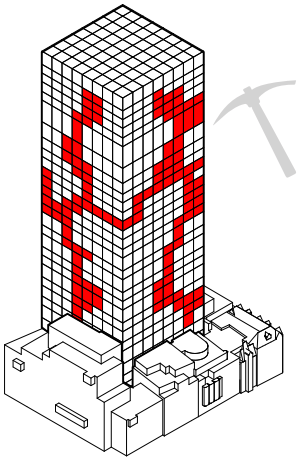
Form evolution



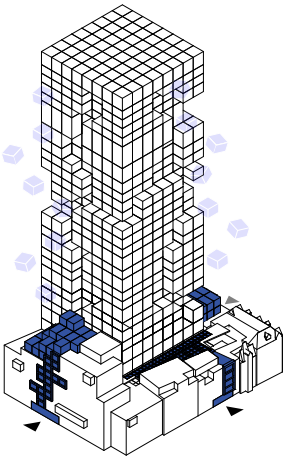
1 **removal parts existing**



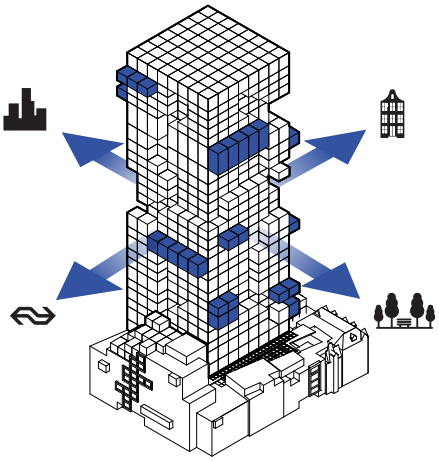
2 **generic grid tower**



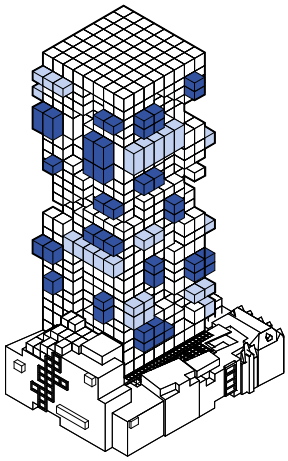
3 **unblocking**



4 **opening up the existing**



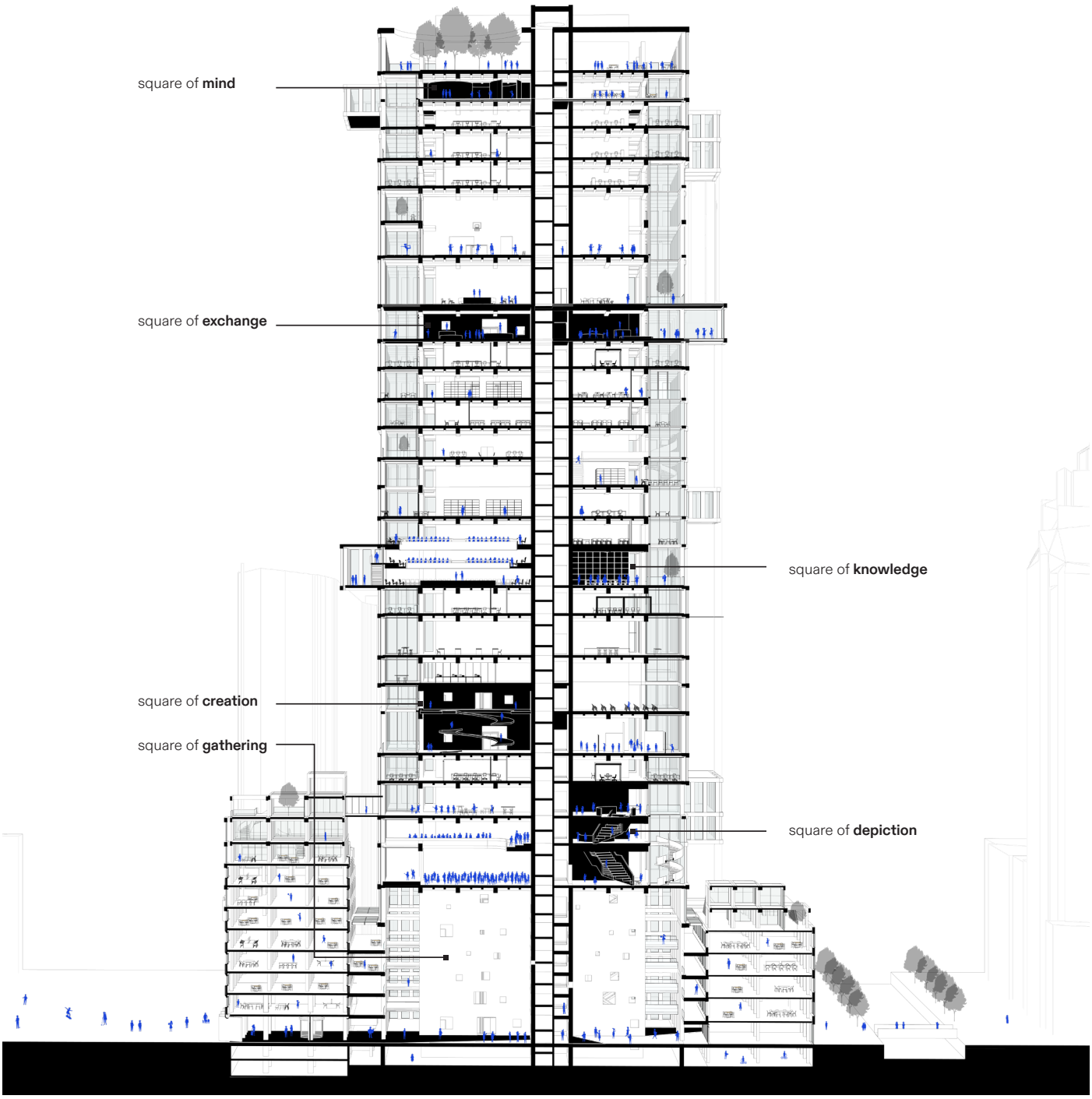
5 **extending**



6 **future-proof**

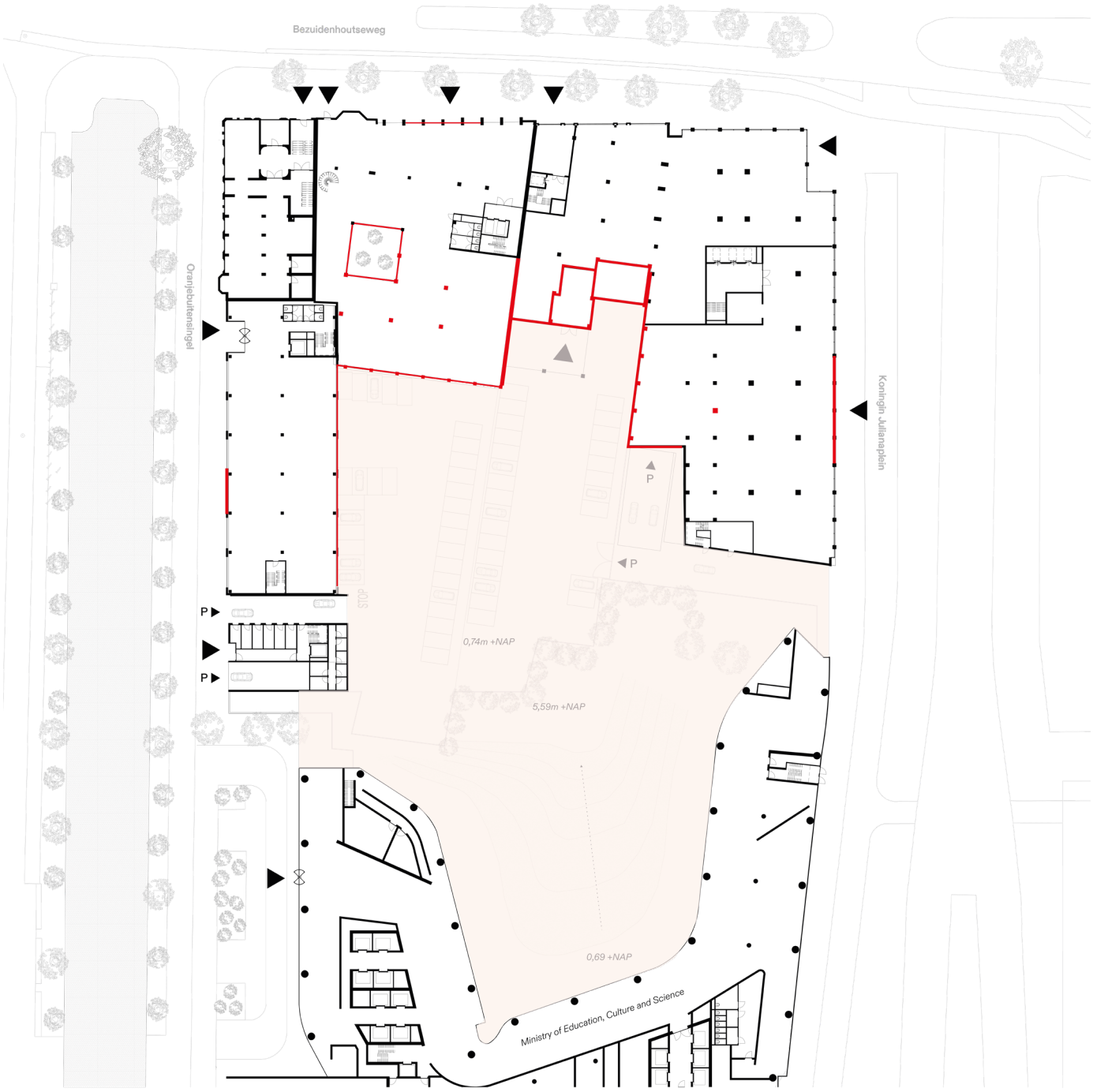
Perspective section

Squares

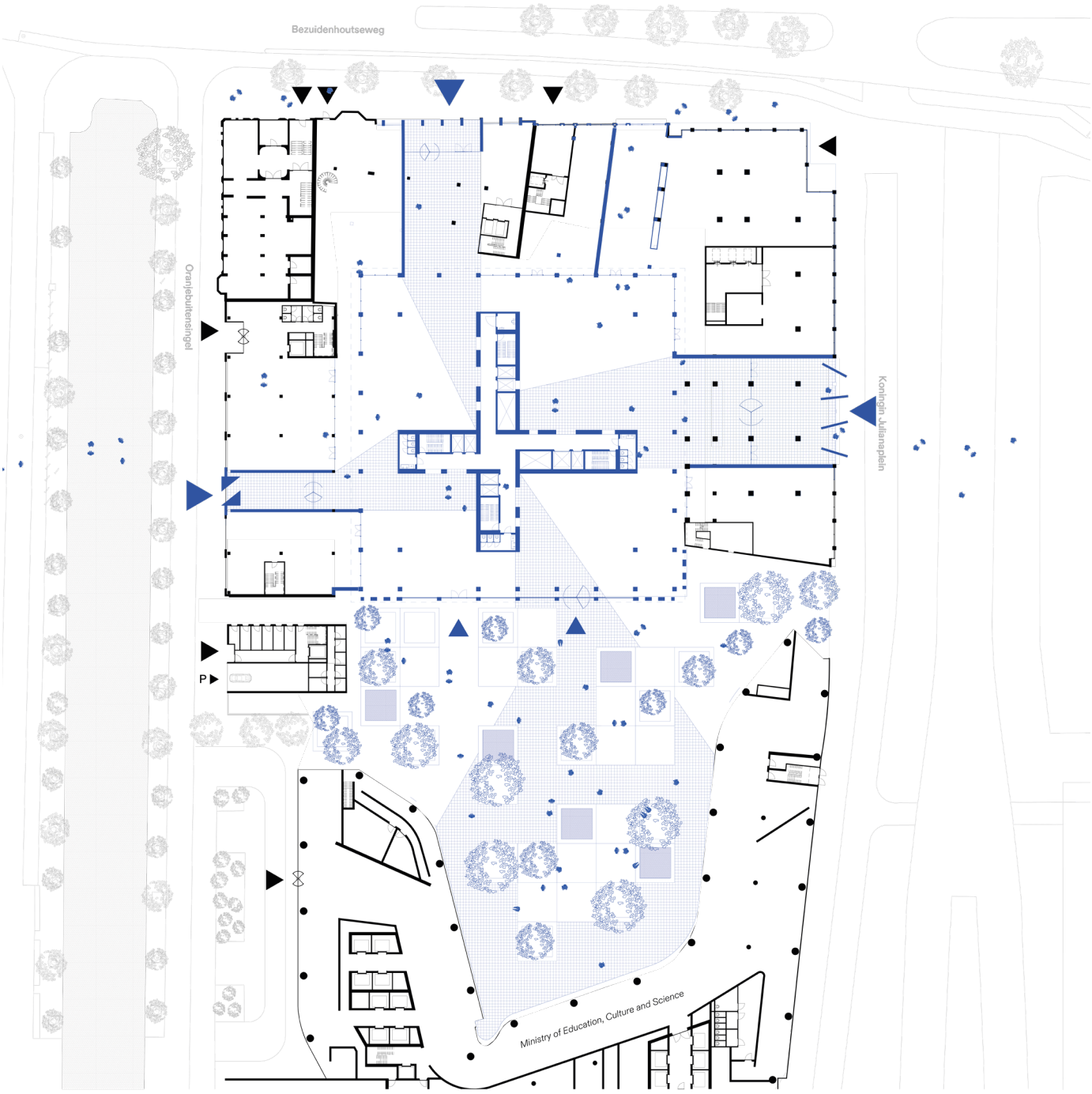


Floor plans

Ground floor



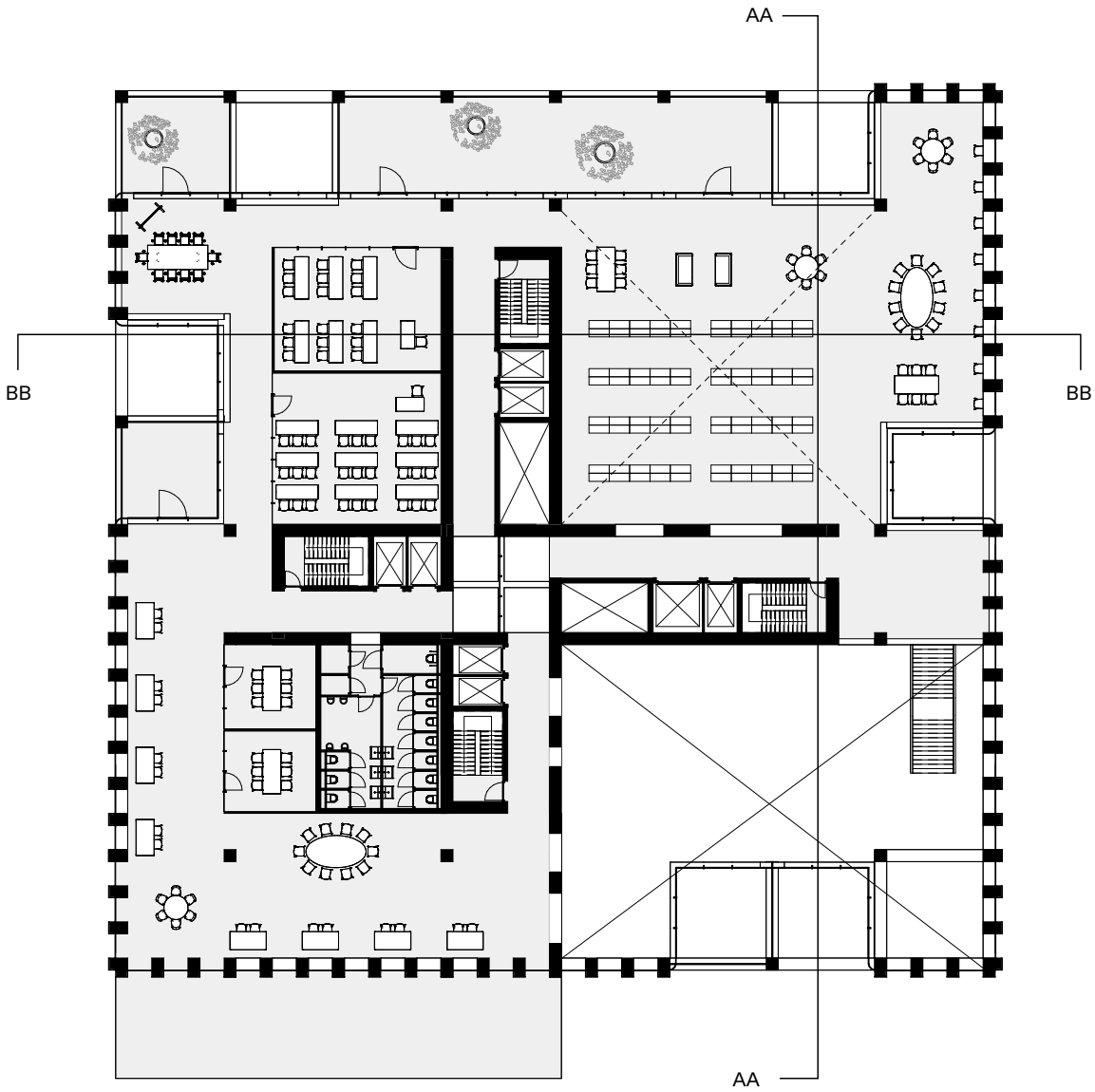
demolition


0 4 m
Bezuidenhoutseweg
Oranjebuitensingel
Koningin Julianaplein
P
Ministry of Education, Culture and Science

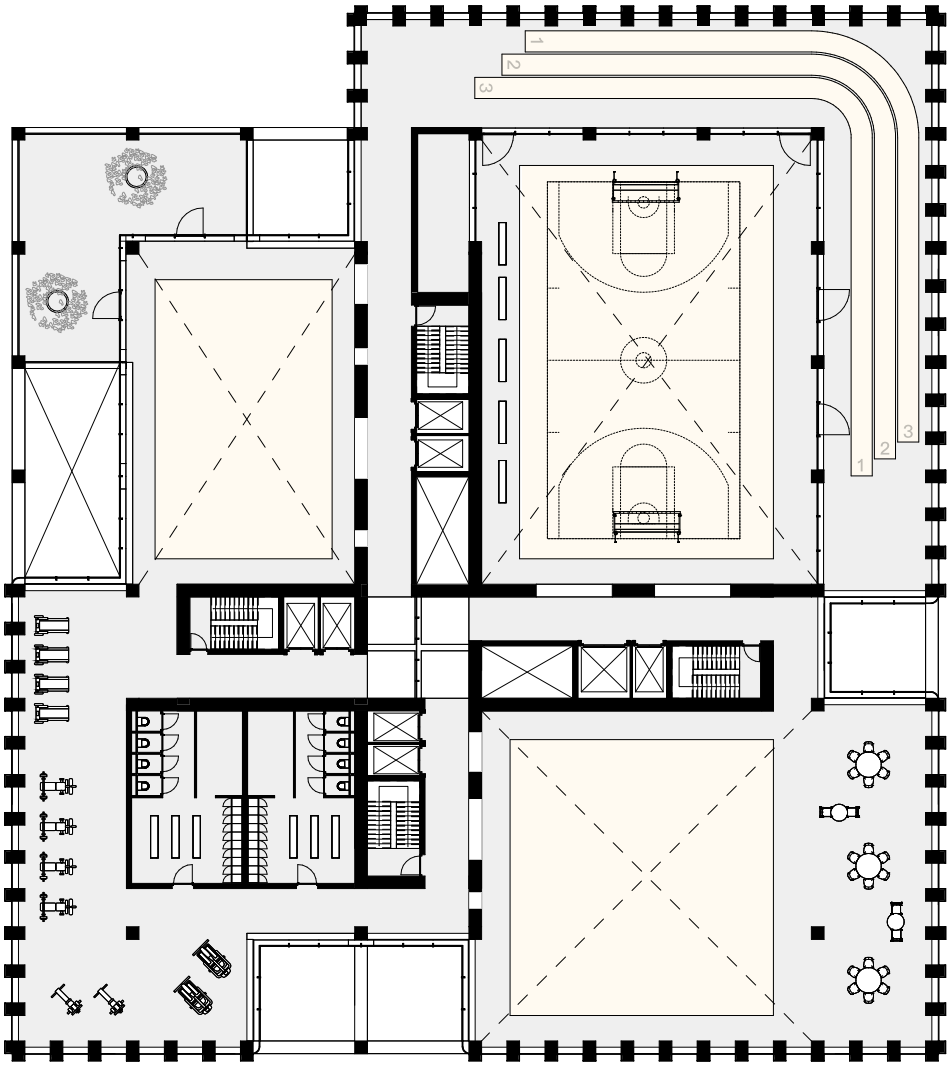
new

Floor plan

Educational spaces



0 4 m



Perspectives

Sport & Exterior

Design Process | **Final design process**

04/04/24 - 20/06/24

Base

introduction

During the P3 it was observed that the tower is hidden behind the surrounding buildings. A solution to this is to create an open space between the existing structures to make the building visible from the street. This would result in a passageway reminiscent of the cuts by Gordon Matta-Clark, creating a tactical and artistic interstice. While this seems like a substantial modification, it is certainly feasible. By proceeding strategically, this increases transparency and connection with the urban fabric, while preserving valuable aspects of the existing buildings

Figure 33 - *Gordon Matta-Clark and Gerry Hovagimyan working on "Conical Intersect".* Harry Gruyaert / Magnum Photos. 1975

Figure 34 - *Yamamoto Masao - A Box of Ku #613.* Robert Koch Gallery. 1993

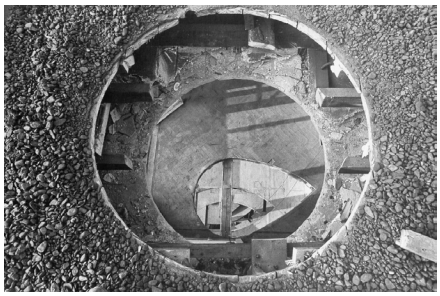
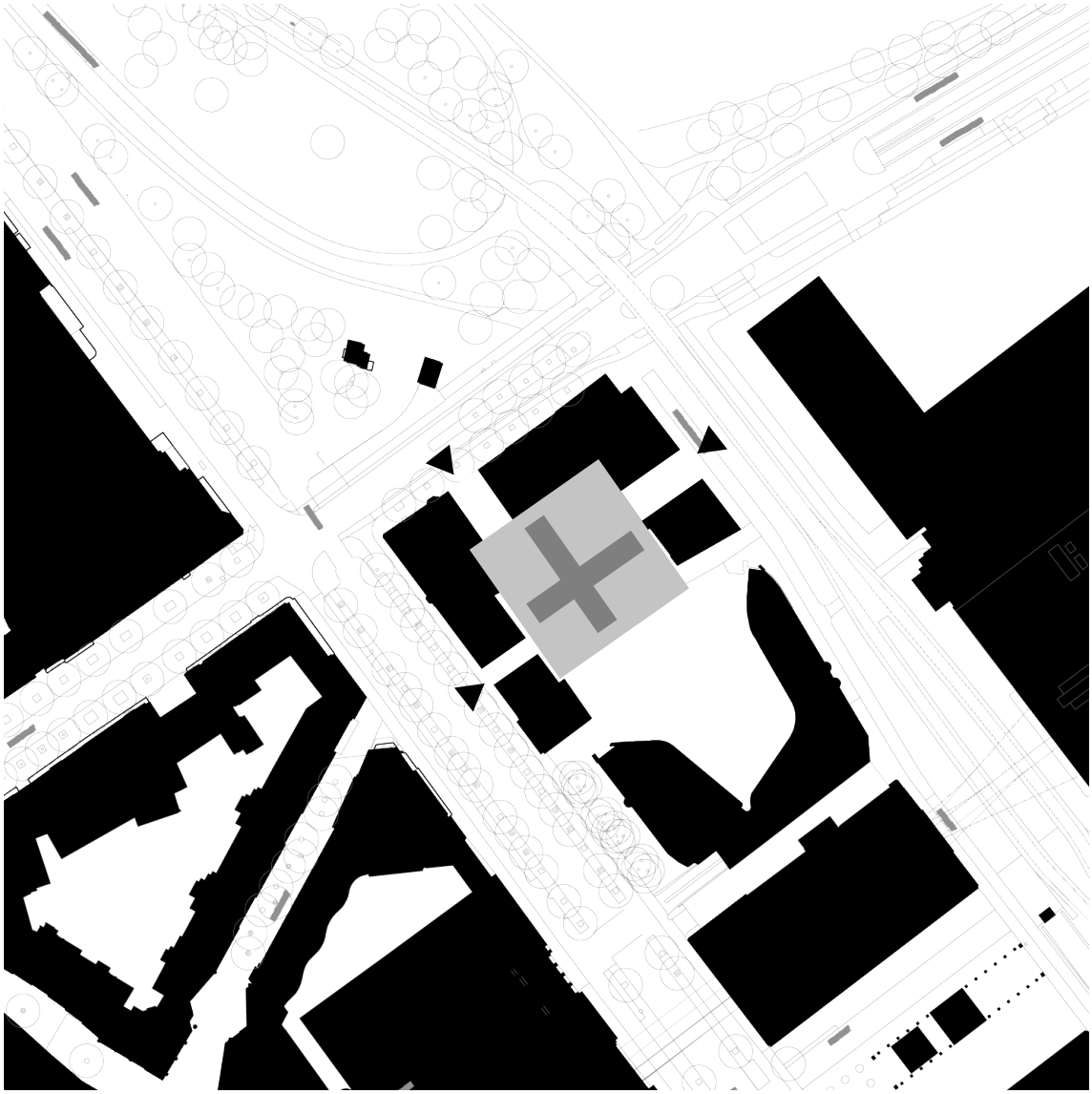


Figure 35 - *Office Baroque by Gordon Matta-Clark.* Collecció MACBA. (1977)

0 5 m

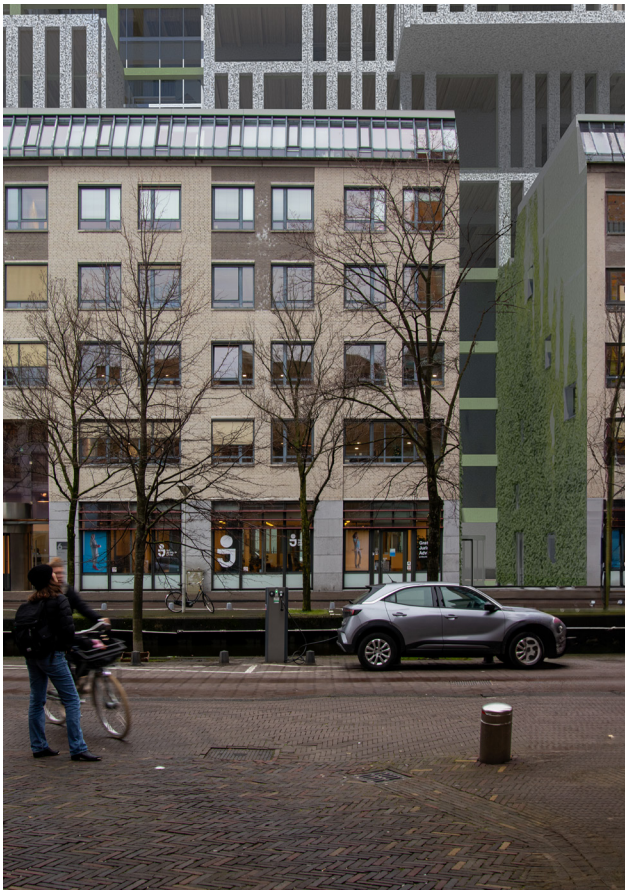


Base

Position and entrances

east entrance
connected to central station

north entrance
connected to the park



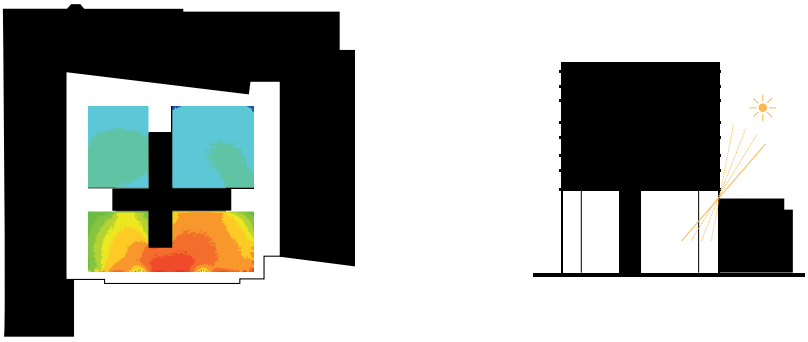
west entrance
connected to highrise

south entrance
connected (semi) public courtyard

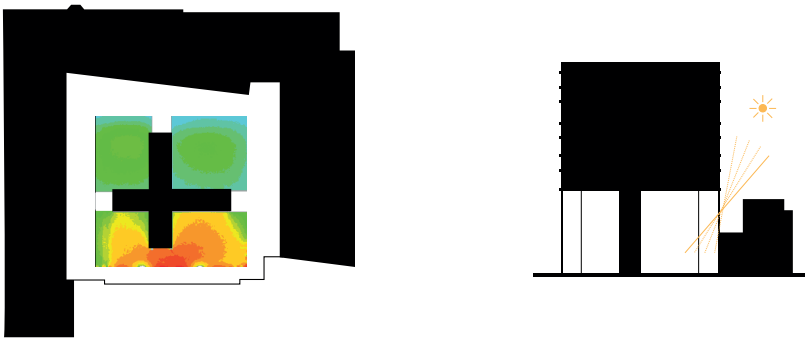
Base

Position and entrances

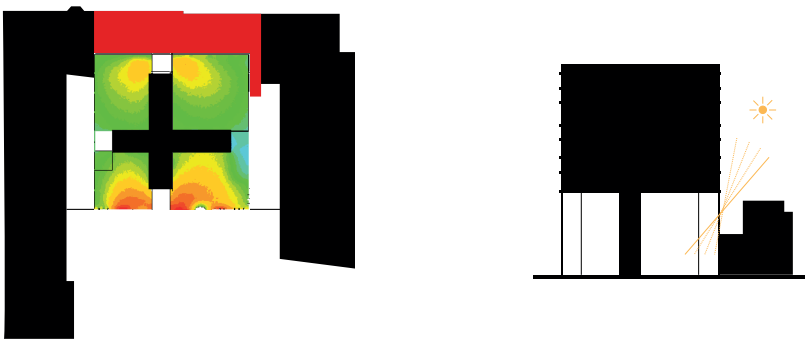
lack of daylight in the atrium



adaptation for more daylight access

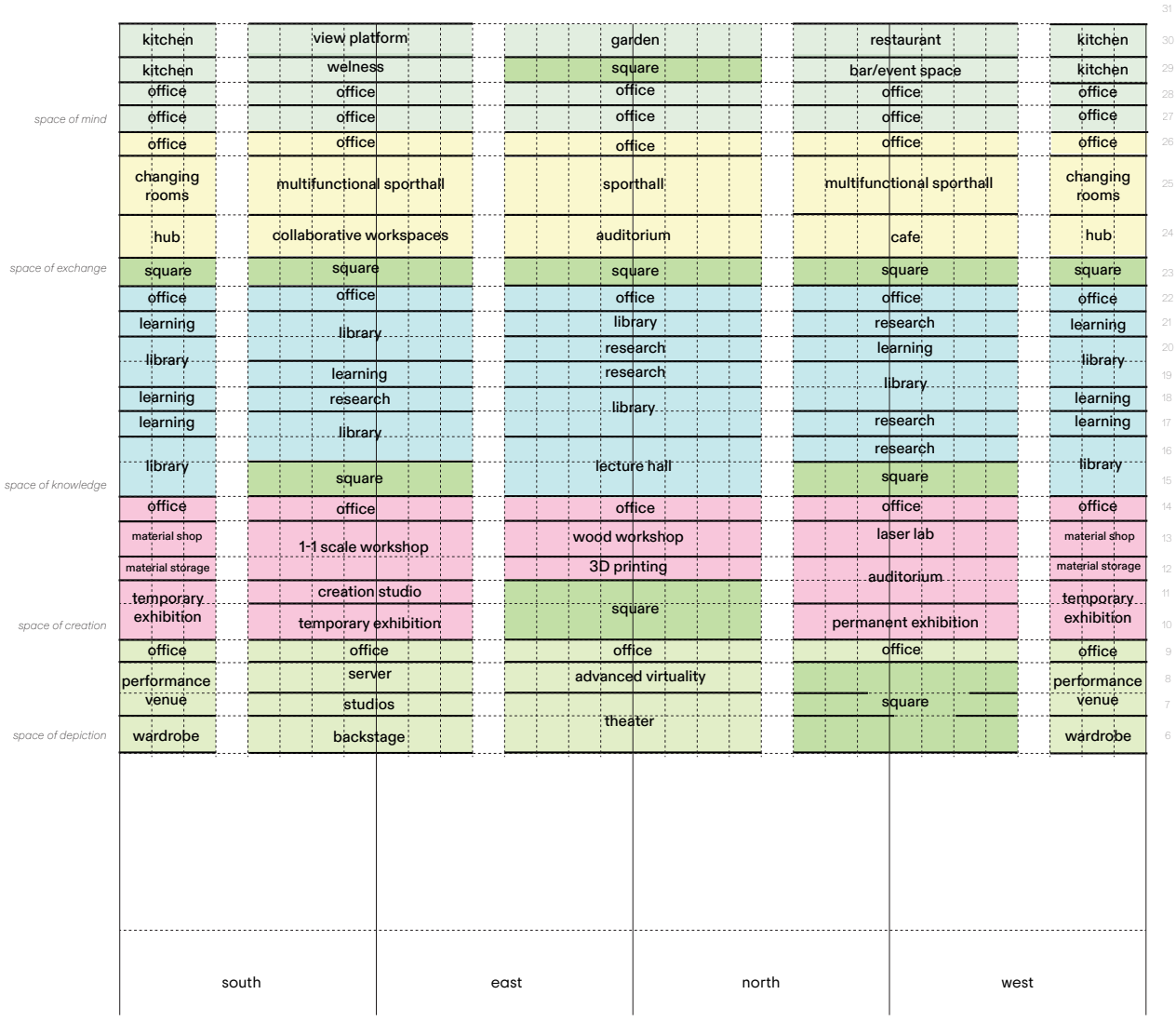


adding intersections in the building for access and daylight

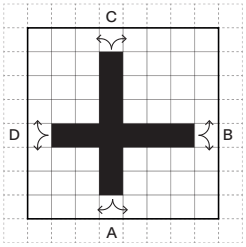


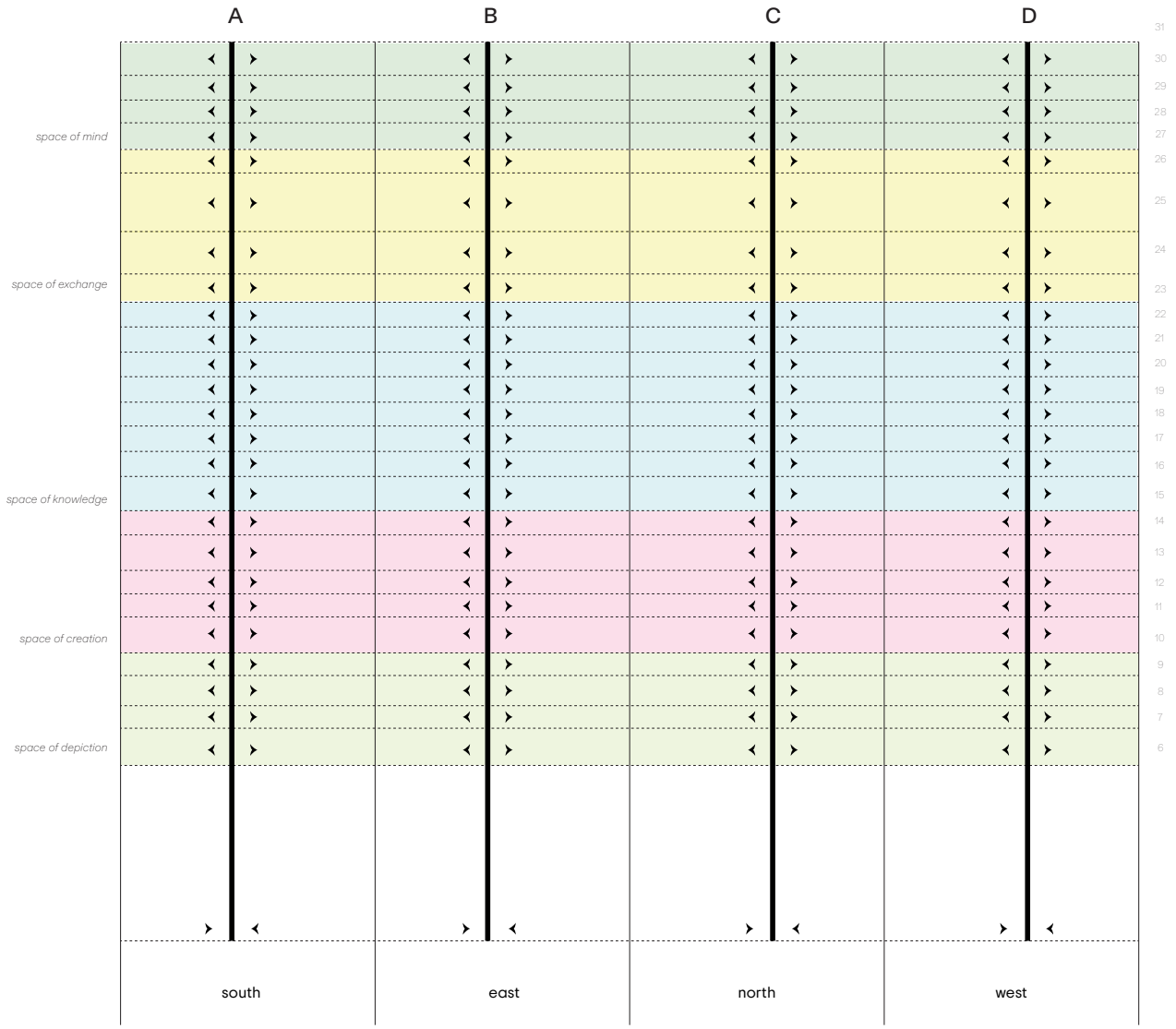
Circulation

Program and Primary routing



program

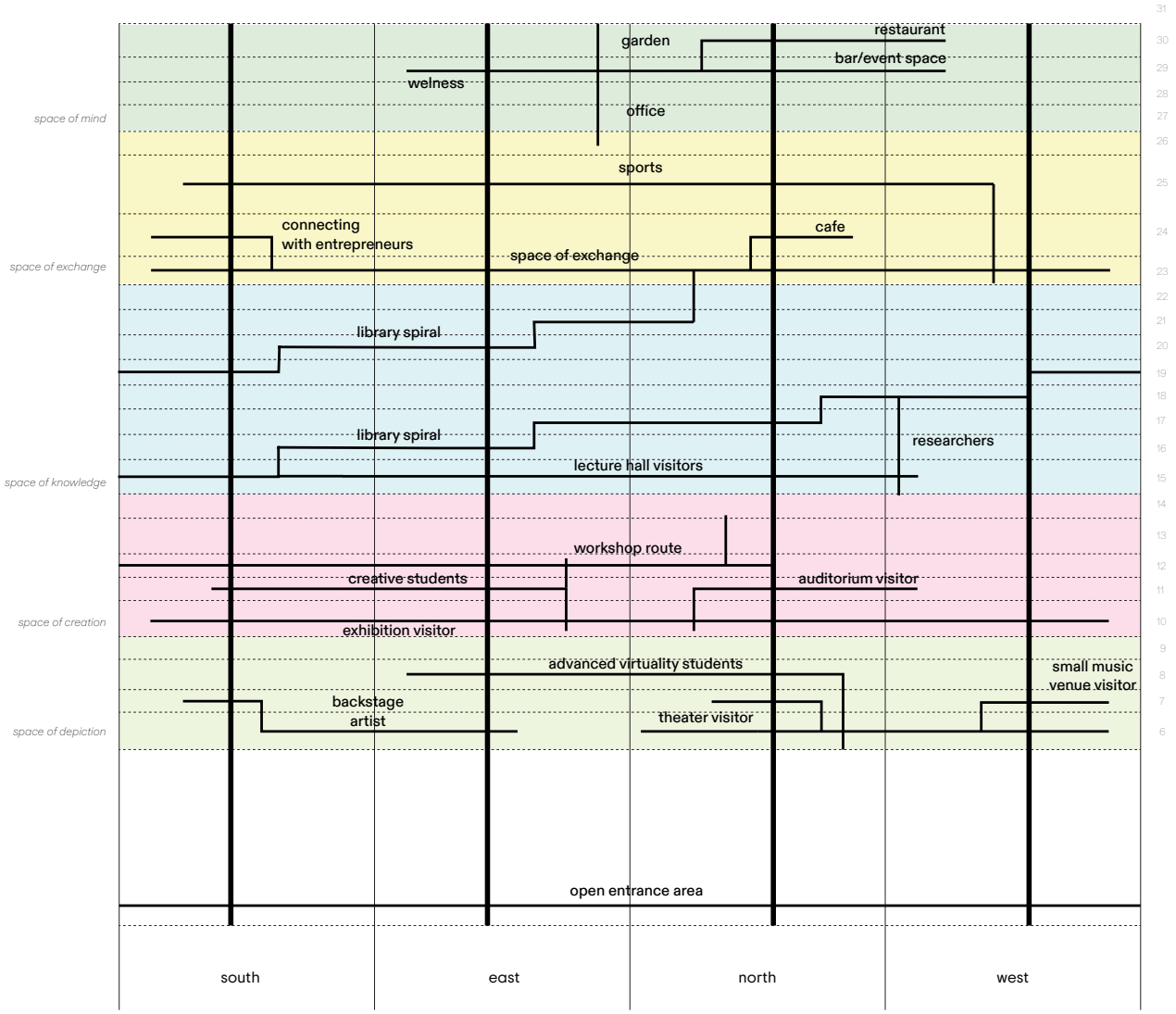




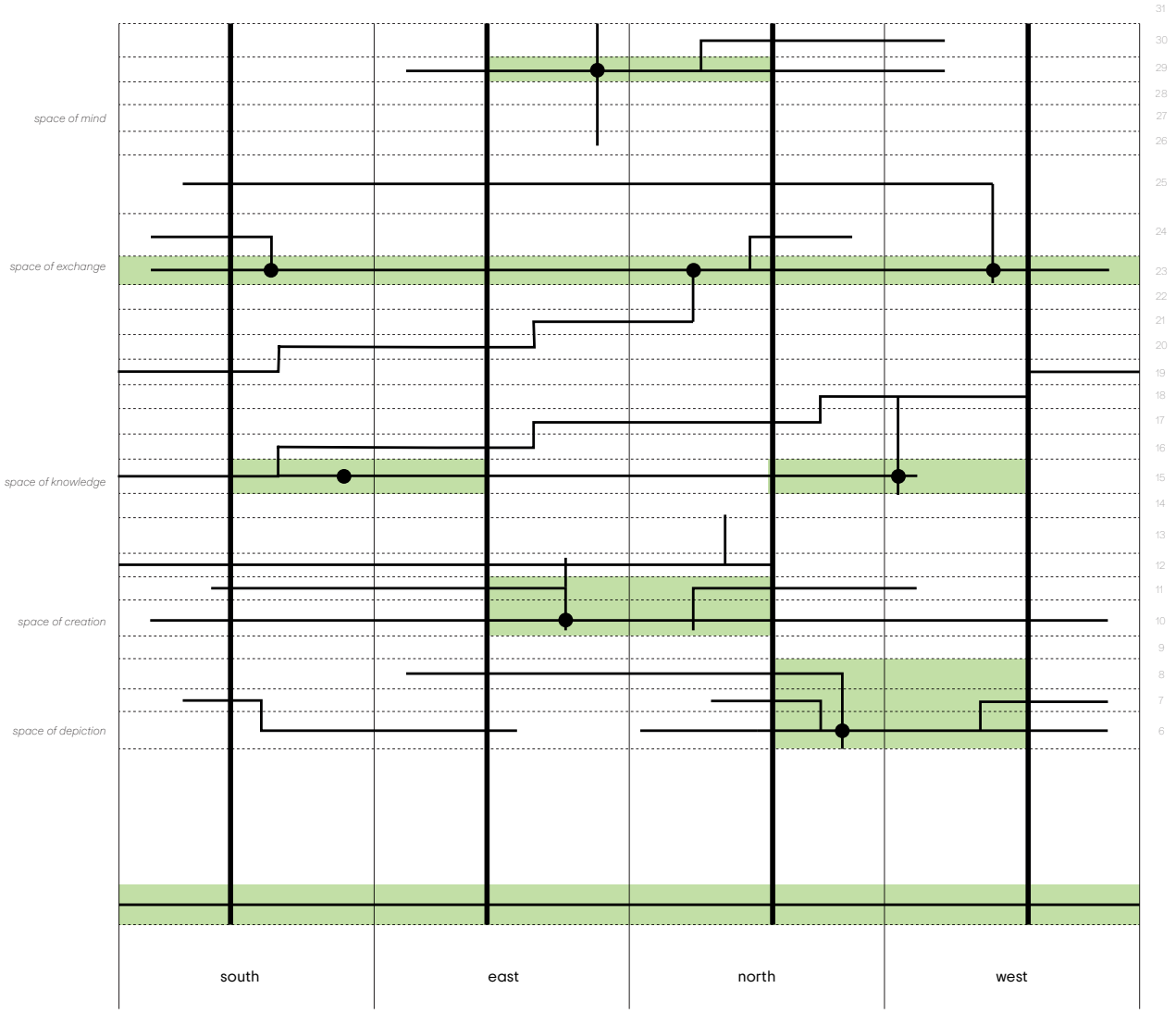
primary circulation (core traffic)

Circulation

Secondary routing



secondary circulation



town squares at the crossing

Town Squares

Introduction

“Only an empty room waiting...
And it was in this apparently empty
space that everything suddenly seemed possible”

Adolphe Appiah

The vertical town square in The Hague is designed as a breathing space away from urban tension, offering an informal meeting place that complements existing public spaces. It aims to inspire the creation of various town squares, each with a unique spatial language, enhancing rather than replacing current public spaces. A new tower in The Hague, like all other buildings, has a symbolic and characteristic power in its appearance, yet remains accessible and subtle through its varied squares.

In higher education, teaching extends beyond lecturing to include creating supportive environments that foster learning through relational, personal, and emotionally challenging activities. This approach promotes student learning across intellectual, social, physical, cultural, and ethical domains, emphasizing the complex nature of adult education.

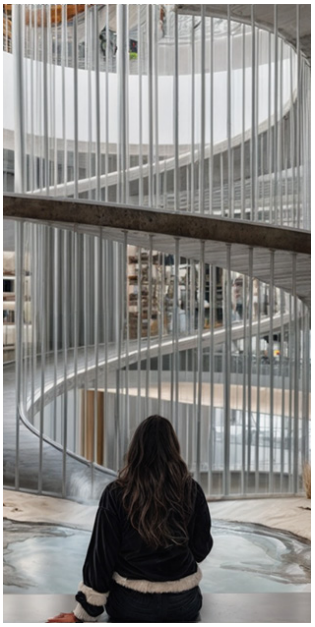
The vertical campus town square promotes collaborative learning and social interaction, facilitating cross-disciplinary engagement and real-world application. It supports both formal and informal education, encouraging reflection and critical thinking, and enhancing self-awareness and social interaction. The campus contains a total of six squares, each with its own context and linked to specific clusters. The clusters organize the program into different zones, providing a clear layout and a good starting point for connecting the squares with relevant program.

Universities play a crucial role in lifelong learning by offering diverse programs and research facilities that support personal and professional growth. They must provide varied settings that encourage both extroverted and introverted activities, fostering unexpected encounters and innovation. A diverse building supports the exchange and diversity of developments, fostering a living space that can accommodate disorder and dissonance. Individuals can only participate in and contribute to changing our times if they are given the opportunity to shape them through their own endeavors. The campus will provide a platform for this.

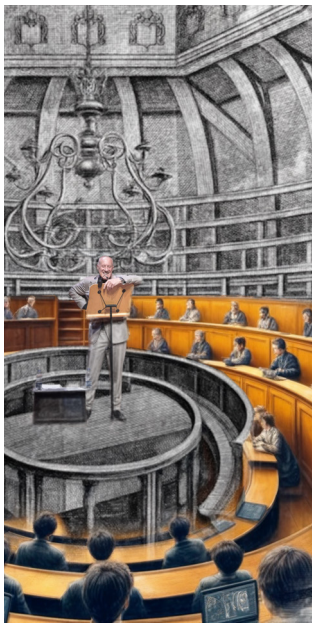
gathering

depiction

creation



knowledge



exchange

mind

Town Squares

Program

	gathering	depiction	creation
identity	**character** welcoming open central inviting **relation to context** Links to central transportation hubs and squares → Connects with Central Station	**character** creative bold expressive vibrant **relation to context** cultural districts, theaters → Links with Spuiplein center for arts and culture	**character** artistic messy inspiring functional **relation to context** adjacent to local galleries artist studios → Links to KM21, Mauritshuis, Panorama Mesdag
role/use	**role for education** facilitates collaboration networking **role for the city** public events central hub accessibility **role for building** main entrance potential for future expansion	**role for education** enhances creative expression performance arts **role for the city** hosts cultural events attracts city audience **role for building** cultural landmark important connection between floors	**role for education** develops artistic skills hands-on creativity **role for the city** community workshops art exhibitions **role for building** artistic hub (vertical) connection from exhibition to auditorium
design elements	**movement** horizontal **elements** open space large atrium **materials** glass concrete base with wooden infill	**movement** vertical - staircases **elements** stages flexible seating **materials** wood acoustic panels	**movement** slope **elements** studio exhibition space natural light **materials** colorfull materials blank walls

knowledge

character
intellectual
studious
quiet
engaging

relation to context
close to libraries
academic institutions
(Leiden, TU Delft)

→ Resembles Binnenhof, fostering intellectual debates and learning

role for education
supports deep learning
research

role for the city
open seminars
educational public events

role for building
core educational area
open area for expansion of classrooms or library

movement
horizontal

elements
quiet study spaces
places for group work

materials
wood
greenery

exchange

character
dynamic
social
energetic
collaborative

relation to context
venue for sports, demonstrations and large gatherings

→ Malieveld and square of House of Representatives

role for education
encourages debate
team sports

role for the city
venue for politics
sports events

role for building
social convergence point
versatile event space

movement
horizontal - height difference

elements
360 view - transparancy
Stages for debate

materials
concrete
metal

mind

character
calming
serene
restful
peaceful

relation to context
offers tranquil, green retreat

Aligns with Paleistuin and Haagse Bos.

role for education
promotes mental well-being
relaxation

role for the city
public wellness programs
open relaxation area

role for building
Wellness center
provides a retreat within the building

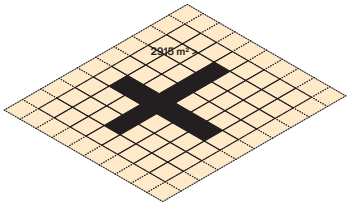
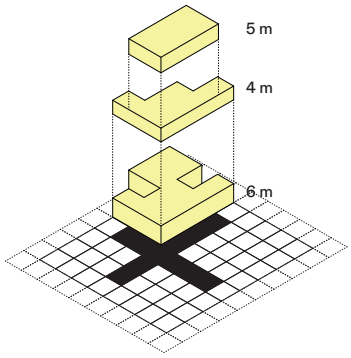
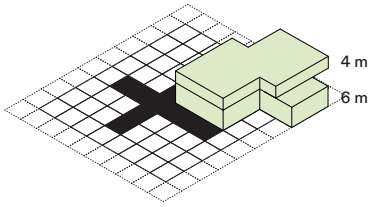
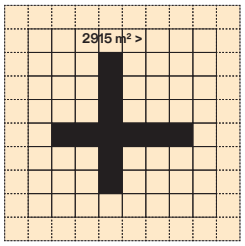
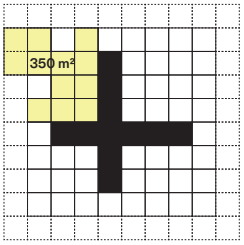
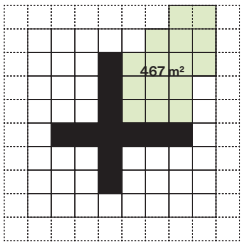
movement
horizontal

elements
green spaces
spaces to isolate

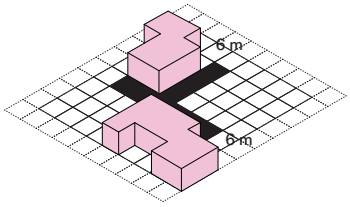
materials
wood
greenery

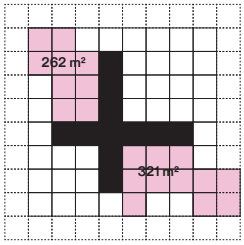
Town Squares

Nature, the character and the role

	gathering	depiction	creation
explanation volumes			
size			
perfomative potential	star shape gathering strolling meeting	relaxation ceremonial gathering scene	being inside meeting gathering corso
urban challenges	3 11 13	3 4 11	3 4 11

knowledge

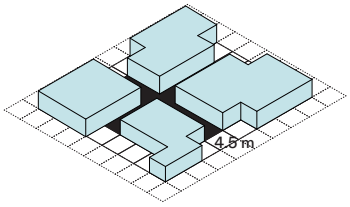


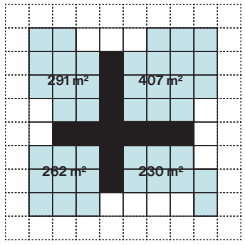


- relaxation
- meeting
- strolling
- scene

11 13

exchange

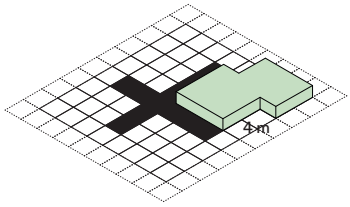


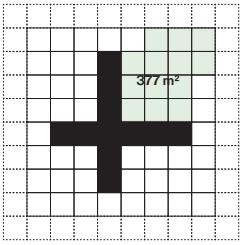


- gathering
- strolling
- meeting
- ceremonial
- scene

4 11 13

mind





- relaxation
- scene
- being inside

3 6 11 15

Urban challenges

- Good health and well-being
- Growth of the city
- Inclusive and diverse city
- Quality of life in the city

UN Sustainable Development Goals (SDG's)

- 3 Good health and well-being
- 4 Quality Education
- 6 Clean water and sanitation
- 11 Sustainable cities and communities
- 13 Climate action
- 15 Life on earth

Town Squares

Precedents

space of **gathering**

Figure 35 - Vancouver art gallery by Herzog & de Meuron (2016)

Figure 38 - Vieux Port Pavilion by Foster + Partners. (Nigel Young / Foster + Partners, 2013)

Figure 41 - Theaterplein Antwerpen, Studio Associato Secchi-Viganò (Dieuwertje Komen, 2018)

space of **depiction**

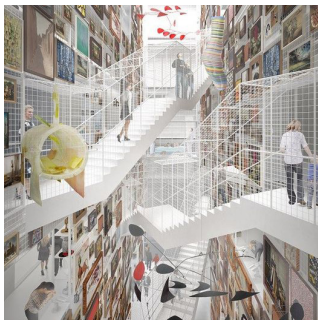


Figure 36- Render for Depot Boijmans Van Beuningen by MVRDV (2016)

Figure 39 - 'Newcastle' for the festival Horst17, titled 'spaces & places,' in Holsbeek, Belgium (2017)

Figure 42 - Lucas Museum by OMA (OMA New York, 2014)

space of **creation**

Figure 37 - E-goi & Clavel's Kitchen Offices by Paulo Merlini arquitetos. (2020)

Figure 40 - Panorama Mesdag, panorama painting of Scheveningen, The Hague (1880)

Figure 43 - Makerspace by Mecanoo and Martinez + Johnson Architecture (2015)

space of **knowledge**

Figure 44 - KANAL competition by noAarchitecten (2017)

space of **exchange**

Figure 45 - Urban plaza in Copenhagen by Cobe (2014)

space of **mind**

Figure 46 - The Matter of Time, weathering steel sculpture by Richard Serra, (Franco Ricci/Dreamstime, 2005)

Figure 47 - SESC Pompéia (1982) by Lina Bo Bardi (2005, Pedro Kok)

Figure 48 - Agora De Meerpaal in Dronten by Frank van Klingeren (1968, J. Versnel)

Figure 49 -Atelier Gardens TON 1 by MVRDV (Yasutaka Kojima, 2022)

Figure 50 - Nantes School of Architecture by Lacaton & Vassal (2009)

Figure 51 - Image by Jesper Henriksson (2020)

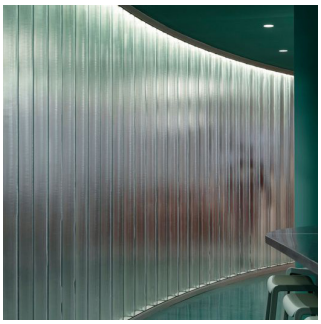


Figure 52 - Flighthub by ACDF Architecture (2020)

Facade

Strategy

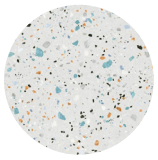
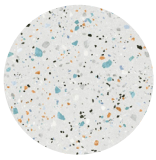
The architecture of a building facade can be described as a composite of layers, each adding distinctively to both the aesthetic appeal and functional aspects of the structure. A typical multi-layered facade includes three primary elements: a set-back facade, the skin, and extending elements.

The set-back facade is designed to improve natural light penetration within the building. By positioning part of the facade behind the building's main alignment, a larger surface area is exposed to daylight, which enhances the brightness inside and reduces the reliance on artificial lighting.

The primary barrier between the building and its surroundings, both visually and protectively, is the skin of the facade. It usually has a massive look with a strong and eye-catching façade. Large apertures that are positioned to divide public and private areas are a common feature of this stratum. Not only do these apertures serve a practical purpose by admitting light and offering views, but they also contribute to the facade's dynamic visual rhythm.

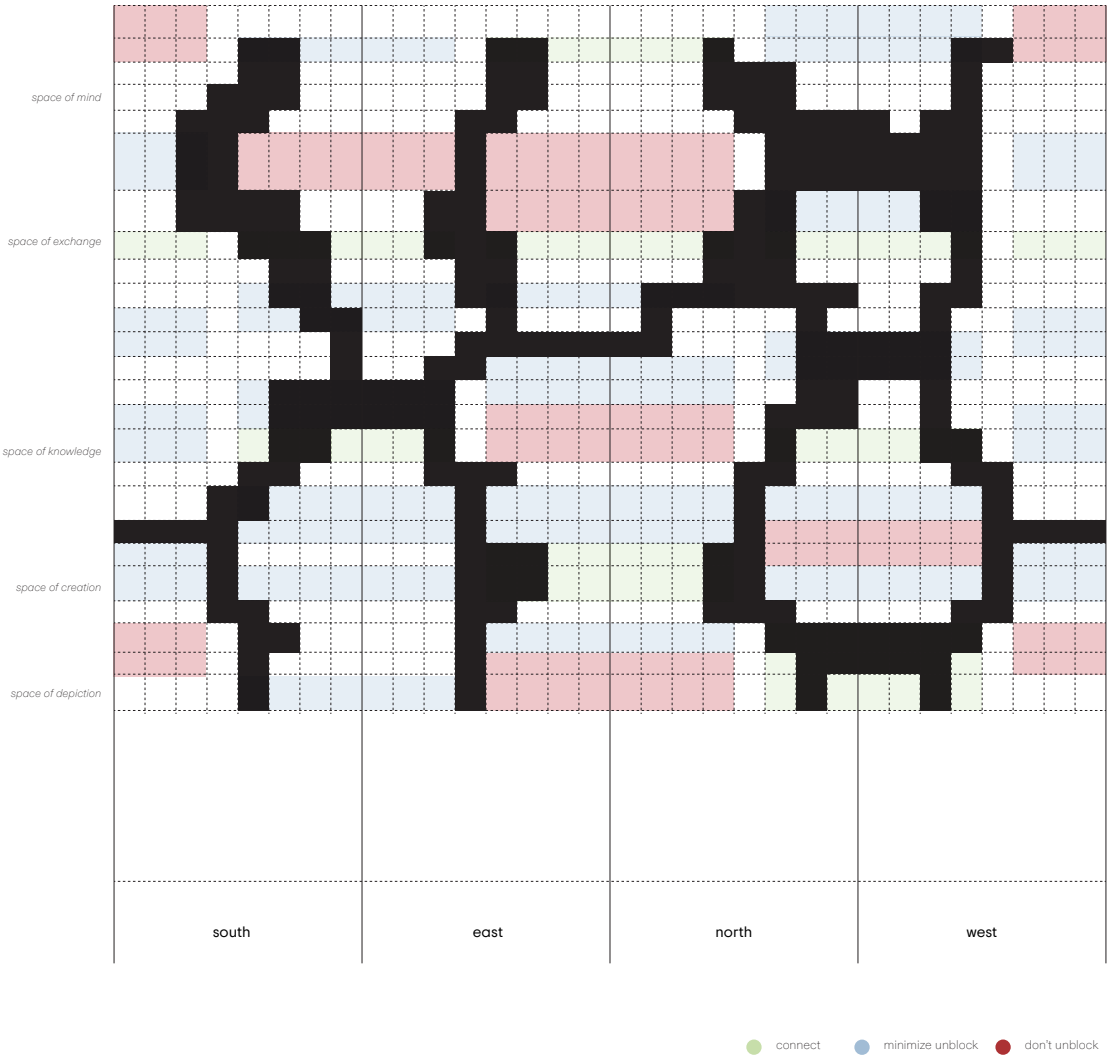
The extending elements introduce an innovative layer that integrates with the building's overall exterior design. These elements break away from traditional architectural forms and add a playful, sometimes provocative, dimension to the facade.

Collectively, these layers form a sophisticated and multifaceted facade that harmonizes aesthetics with practicality, delivering both functional advantages and an engaging visual narrative.

	1 set-back	2 skin	3 extension
color and texture	curtain wall glass	 custom terrazo	 custom terrazo
transparency	100%	+- 40%	+- 60%
modularity	demountable curtain wall	facade panels	facade panels + flexible hanging system
sustainablity strategy	biobased mullions	biobased frame with sustainable facade finish	biobased frame with sustainable facade finish
climate strategy	greenery for sun protection and biophilica	large openings fitted with a double façade to trap heat	roof equipped with solar panels for local power supply

Set-back

Unblocking

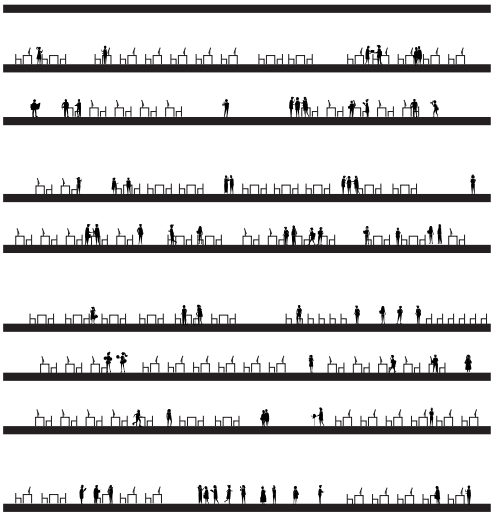


Opening up the building's mass aims to lend it a more inviting and open feel. Essentially, it's like having intermediate that link different squares through a variety of sightlines, vertical movement, and assorted outdoor spaces. This design strategy pulls the city up from the street and into the tower, blending the urban landscape with the structure of the building itself.

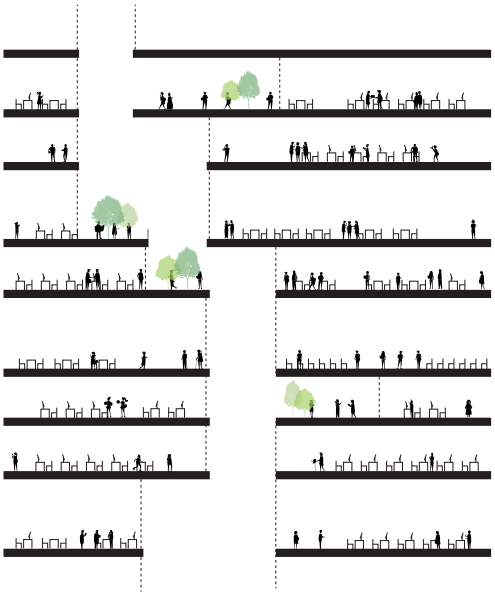
Set-back

The bufferzone - in-between

The setback reinvents high-rise structures by inserting open spaces inside the facade, known as “in-between” areas. These voids let natural light into the structure, reducing the need for artificial lighting and promoting a healthier atmosphere. By breaking up the usual monolithic exterior, the design makes the structure appear more open and less intimidating. The in-between spaces serve as outdoor patios and community areas, inviting people to socialize and engage. They serve as bridges between the city’s outside and interior spaces, effortlessly mixing public and private regions. This design connects different floors in a way that encourages visual and tactile contact, transforming the structure into more than a collection of discrete levels. Green spaces and recreational places are incorporated within the structure, improving both its appearance and function. These areas change the way people interact with the city, transforming the high-rise into a dynamic, linked community. This intervention changes the interaction between the building and the city, making it a vibrant, engaging space for everybody.

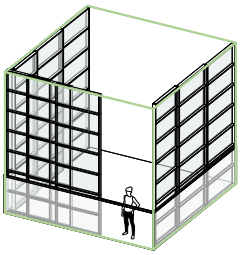


Typical highrise layout



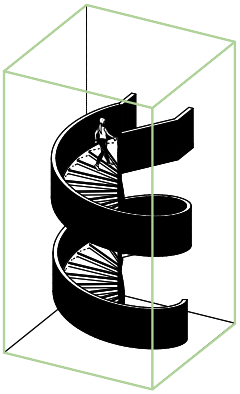
The In-between

1 Functional



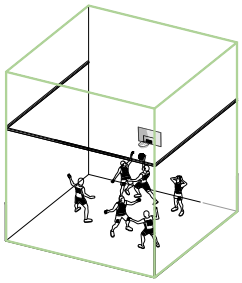
closable space

year-round use



vertical transition

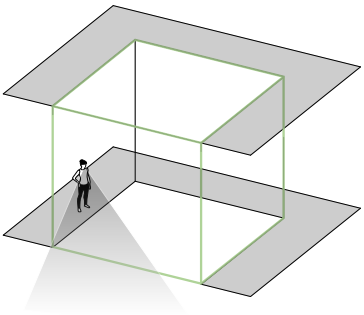
creating connection



outdoor (class)room

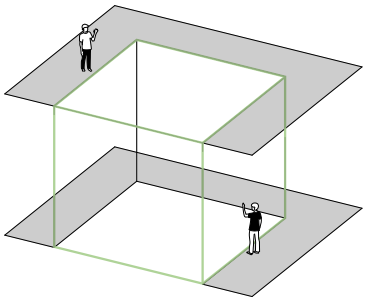
program related

2 Symbolic



external connection

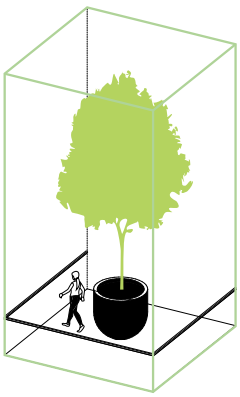
sightlines to the city



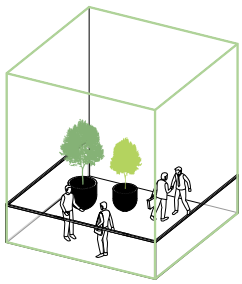
internal connection

linking the program

3 Ecological



trees

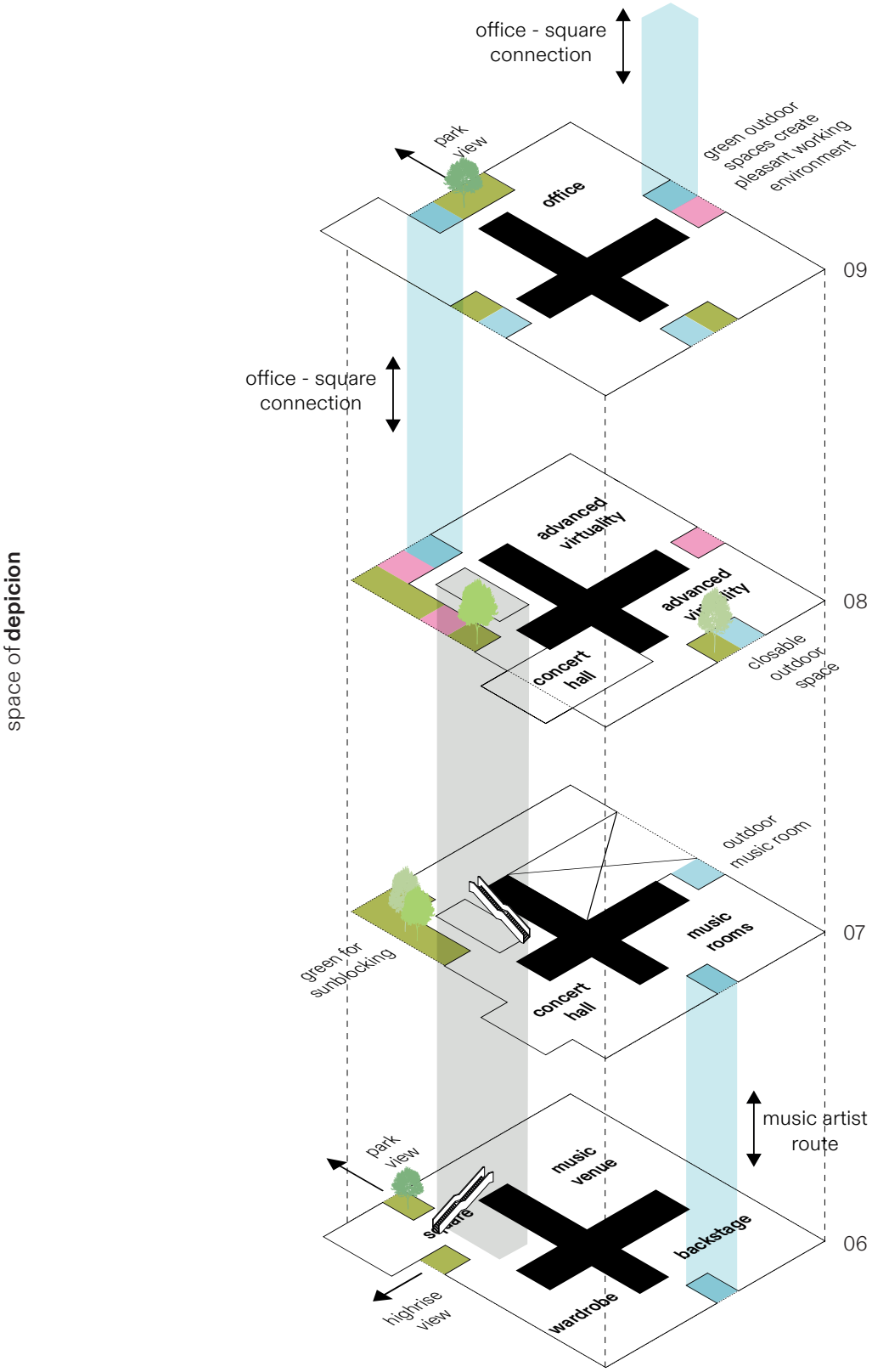


green garden

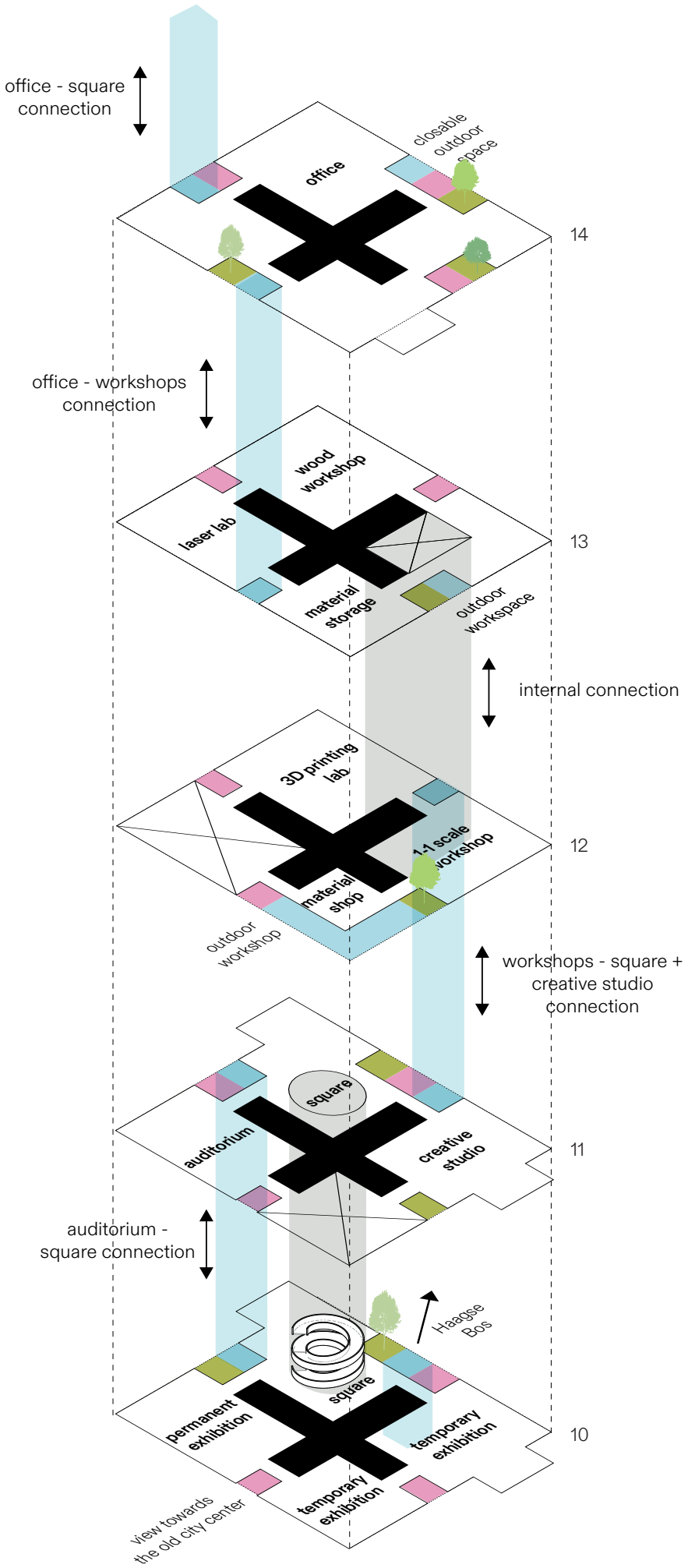
relaxtion and protection

Set-back

Outdoor space and circulation



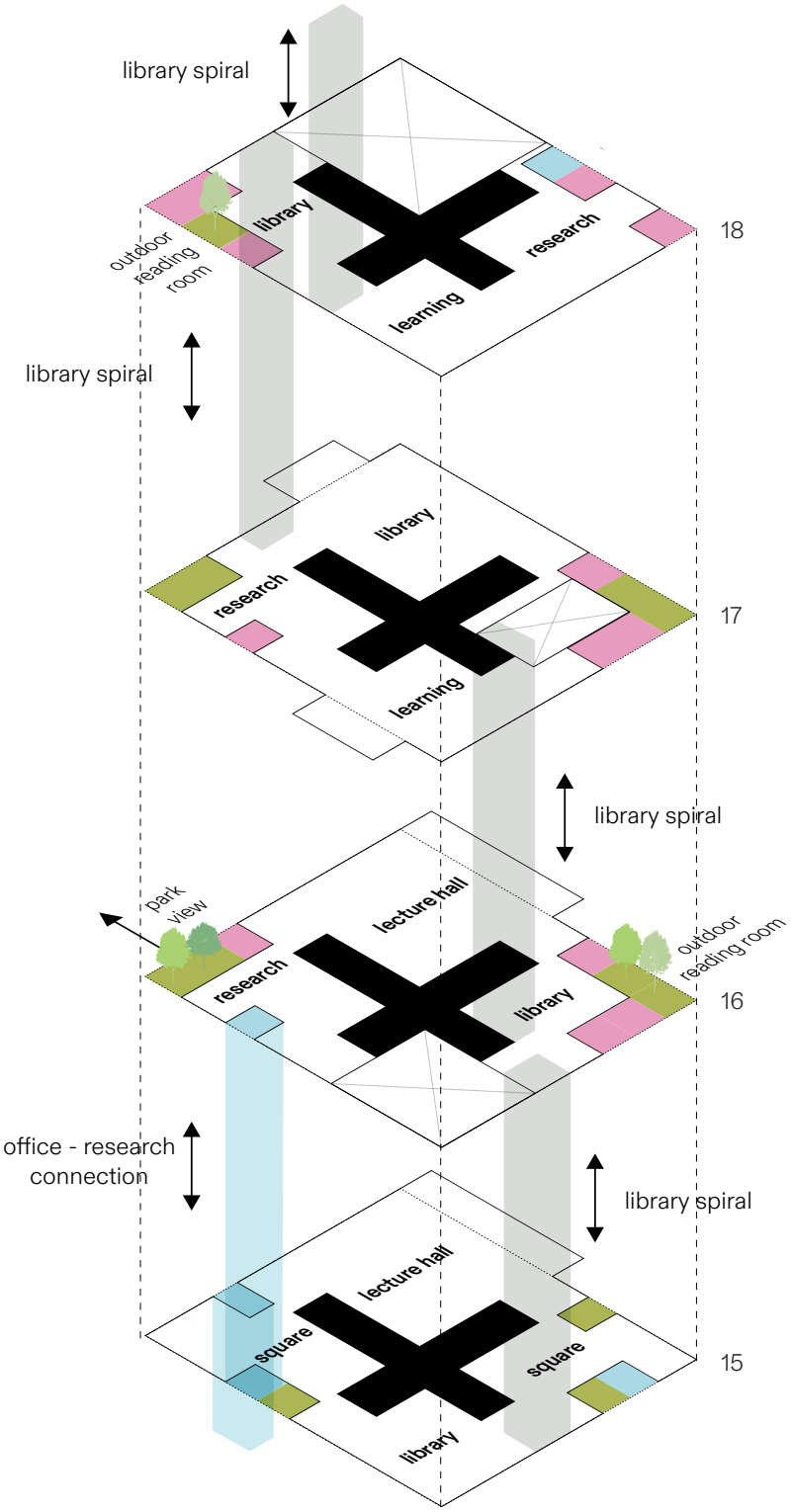
- Functional
- Symbolic
- Ecological



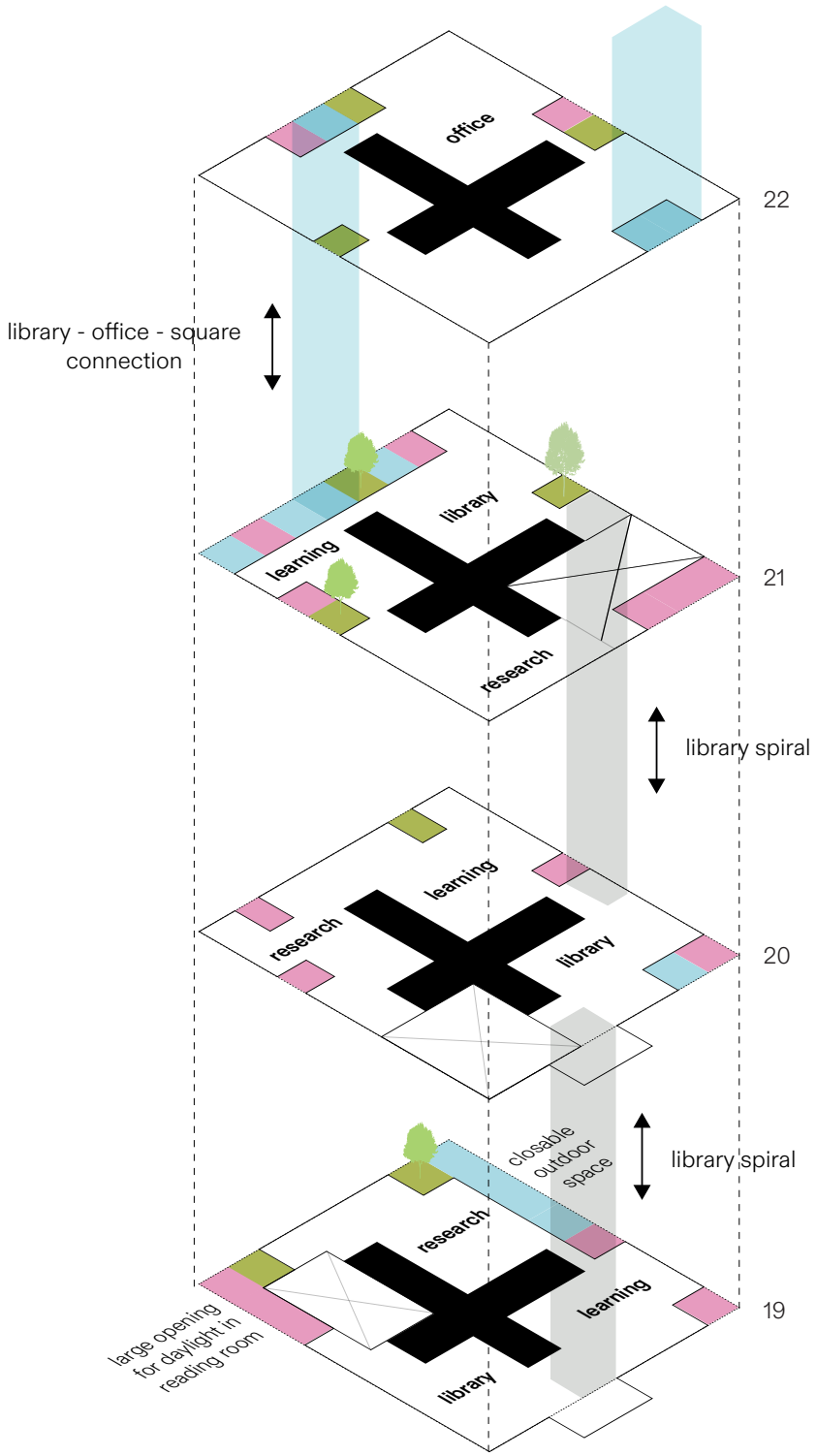
Set-back

Outdoor space and circulation

space of **knowledge**

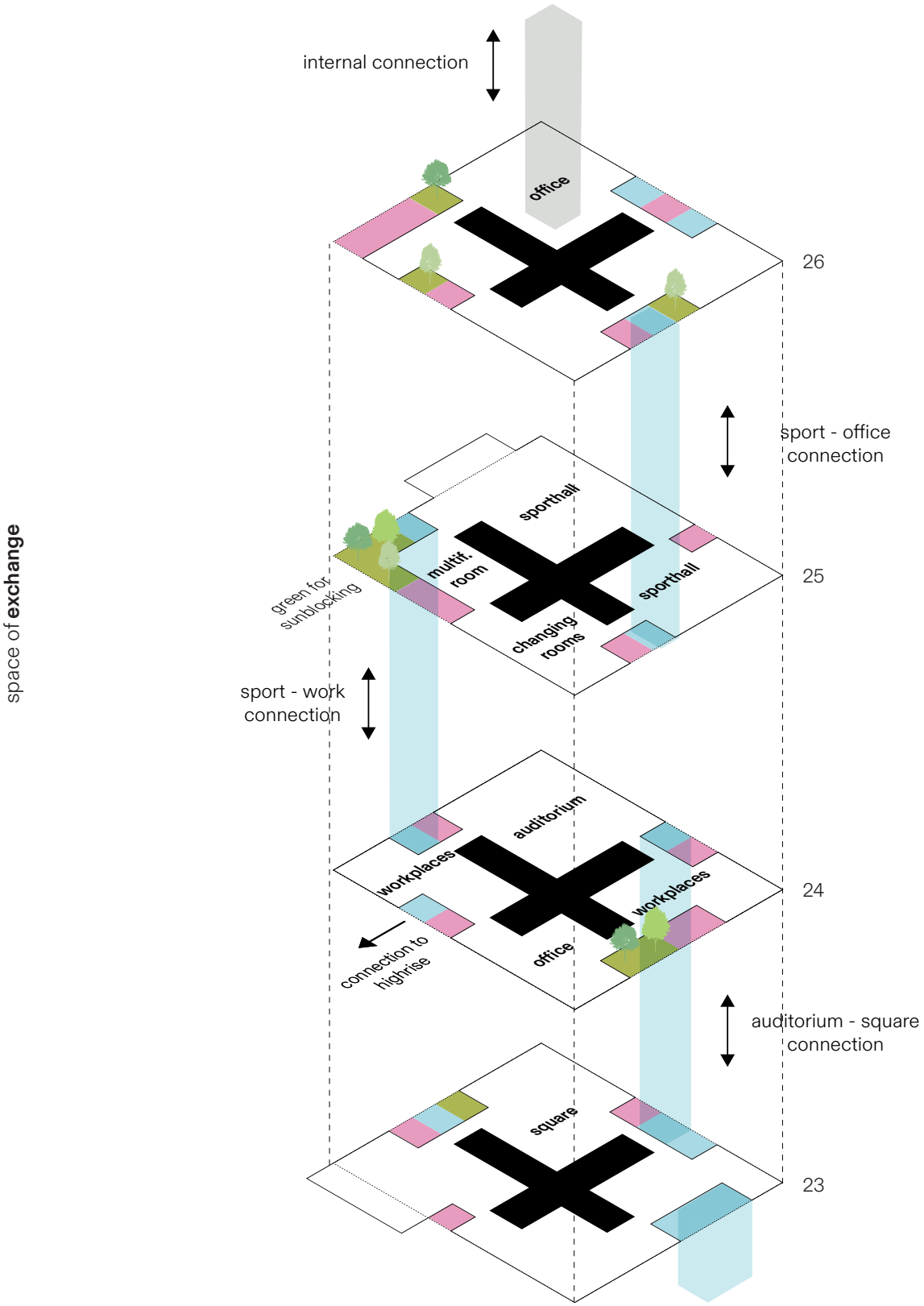


- Functional
- Symbolic
- Ecological

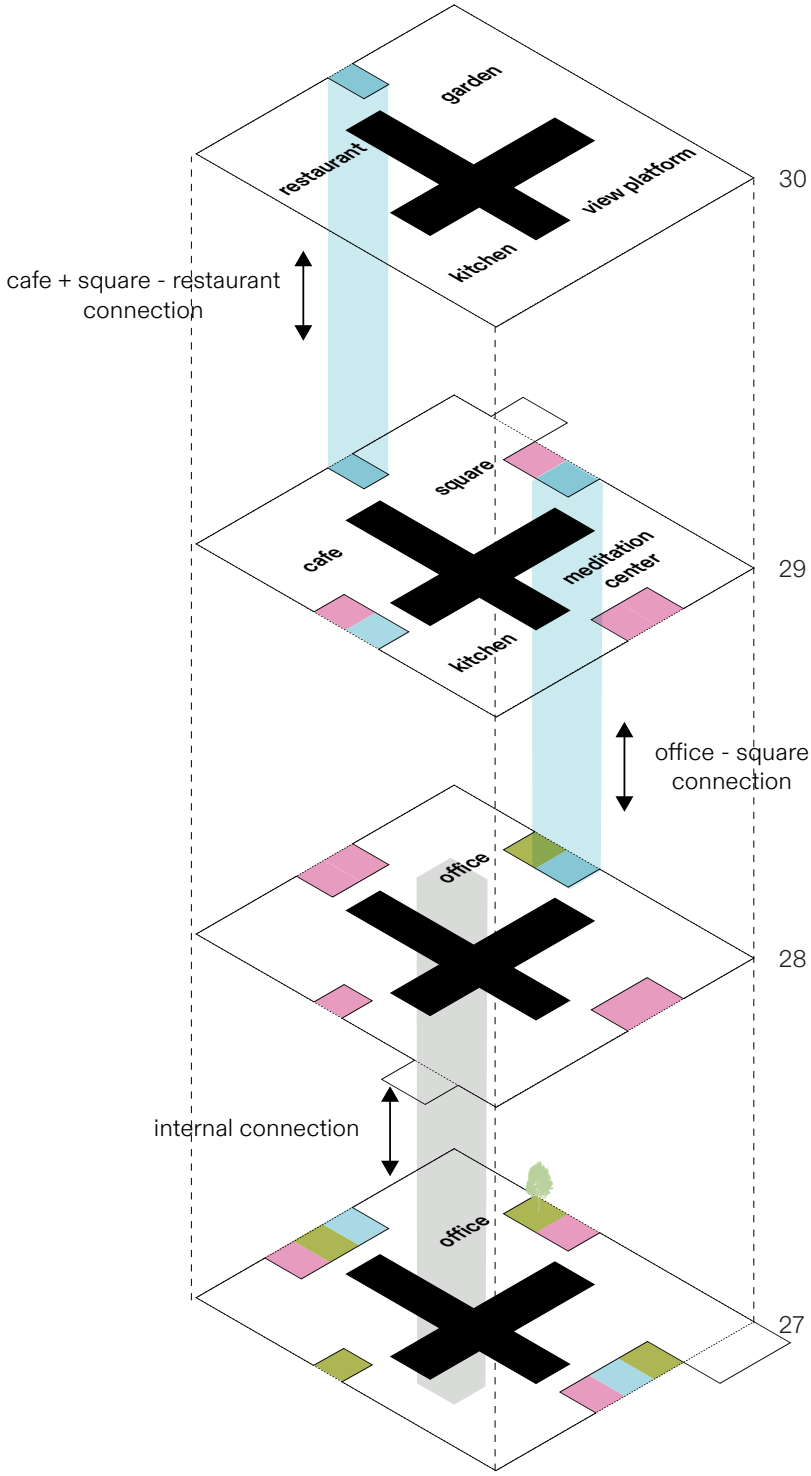


Set-back

Outdoor space and circulation



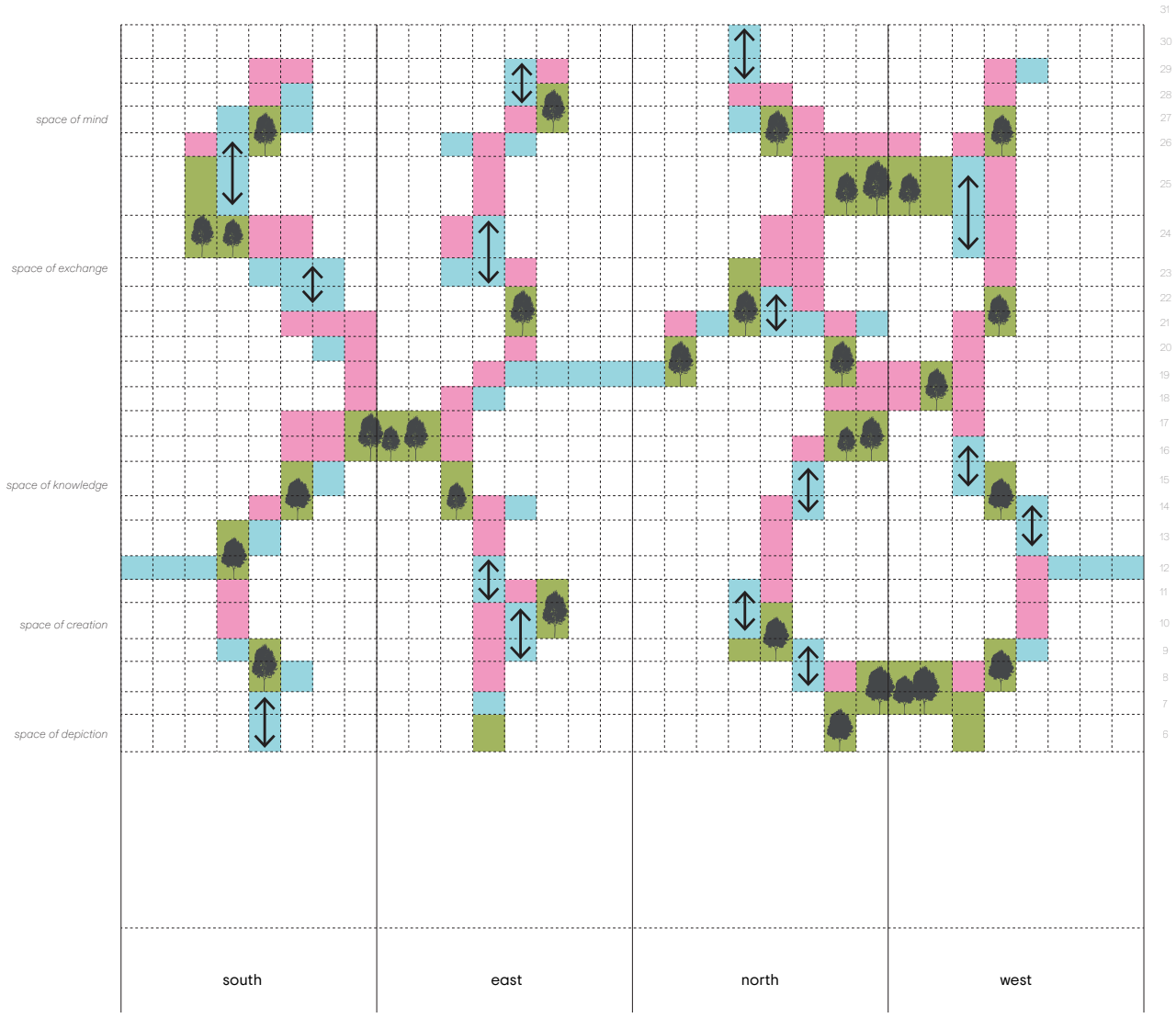
- Functional
- Symbolic
- Ecological



Set-back

Outdoor space

Functional Symbolic Ecological

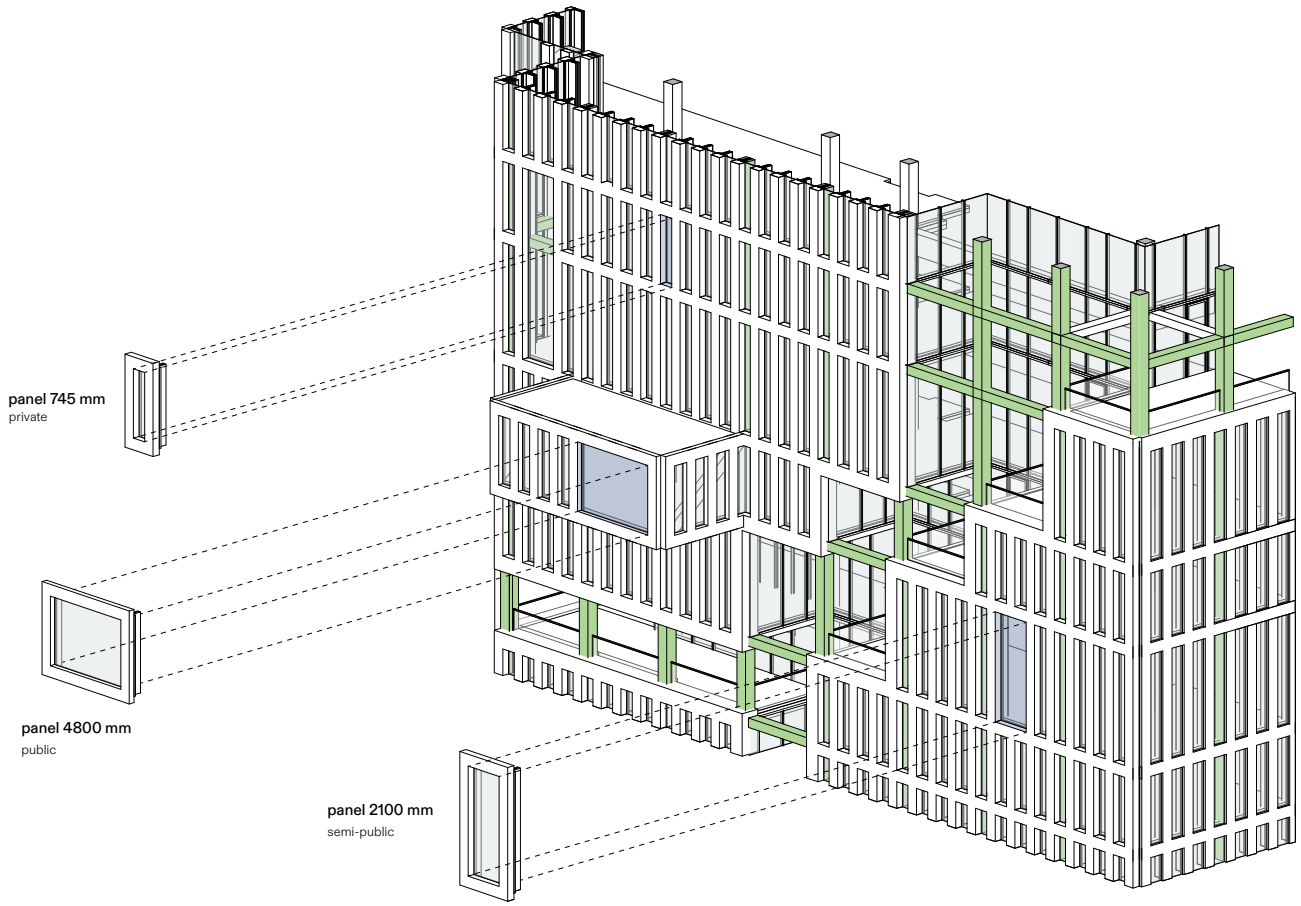


Skin

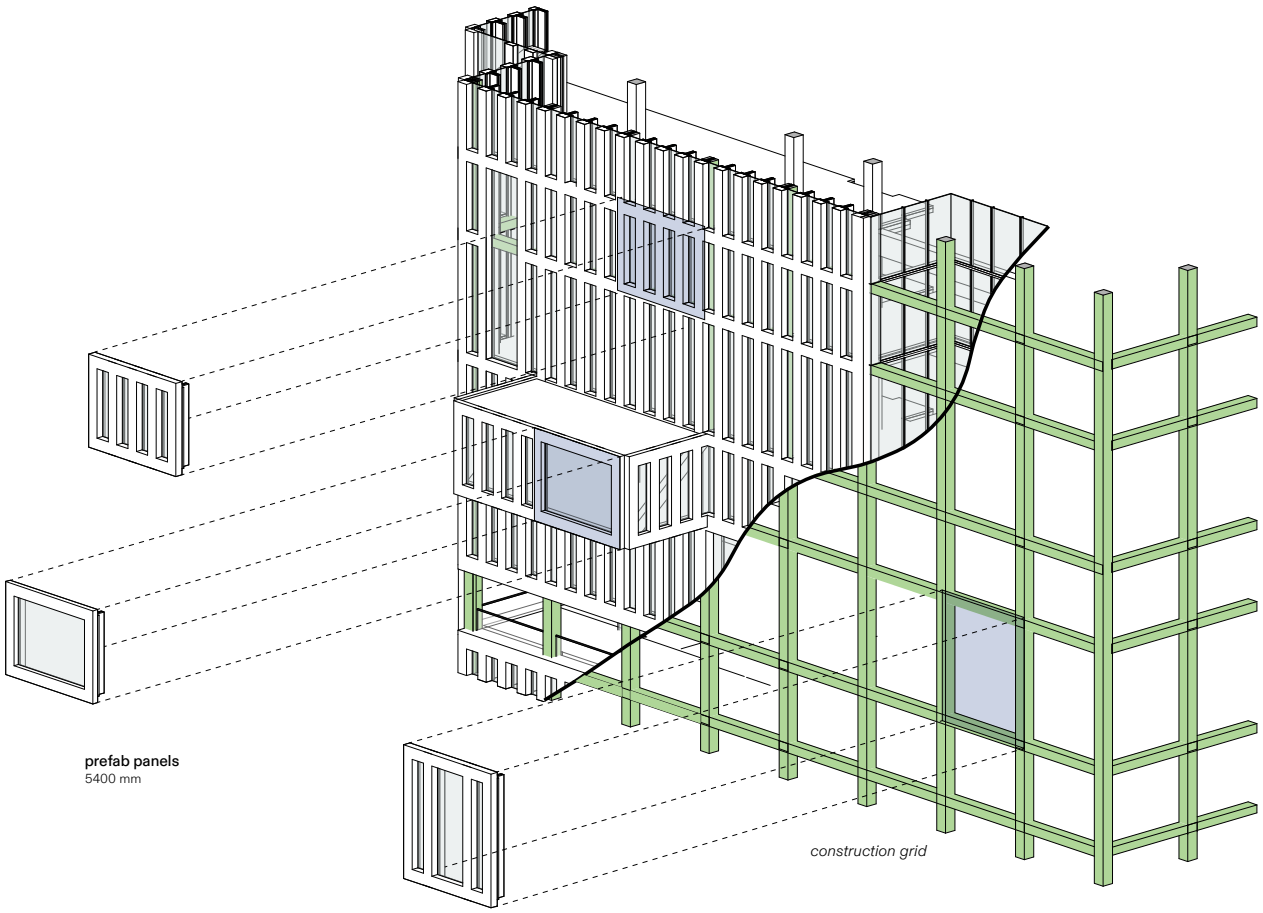
Introduction

In the design of the façade, both functionality and aesthetic impact are prioritized by considering the façade as the building's skin—the largest and most visible part of its exterior. The façade is crafted to be somewhat monumental yet intelligently adaptive to various climatic conditions, enhancing energy efficiency and reducing material usage. For example, the west-facing façade incorporates vertical blinds to mitigate afternoon sun, while the south façade utilizes horizontal blinds to optimize shading throughout the day, and the north side is designed with minimal obstructions to maximize natural light.

To soften the monumentality and inject dynamism into the structure, variations in the façade include larger openings that not only break up the massing but also facilitate deeper daylight penetration and foster visual connections with the urban environment. This approach enhances the openness of public functions within the building and strategically frames lines of sight to significant locales in the city, creating a direct dialogue between the structure and its surroundings.

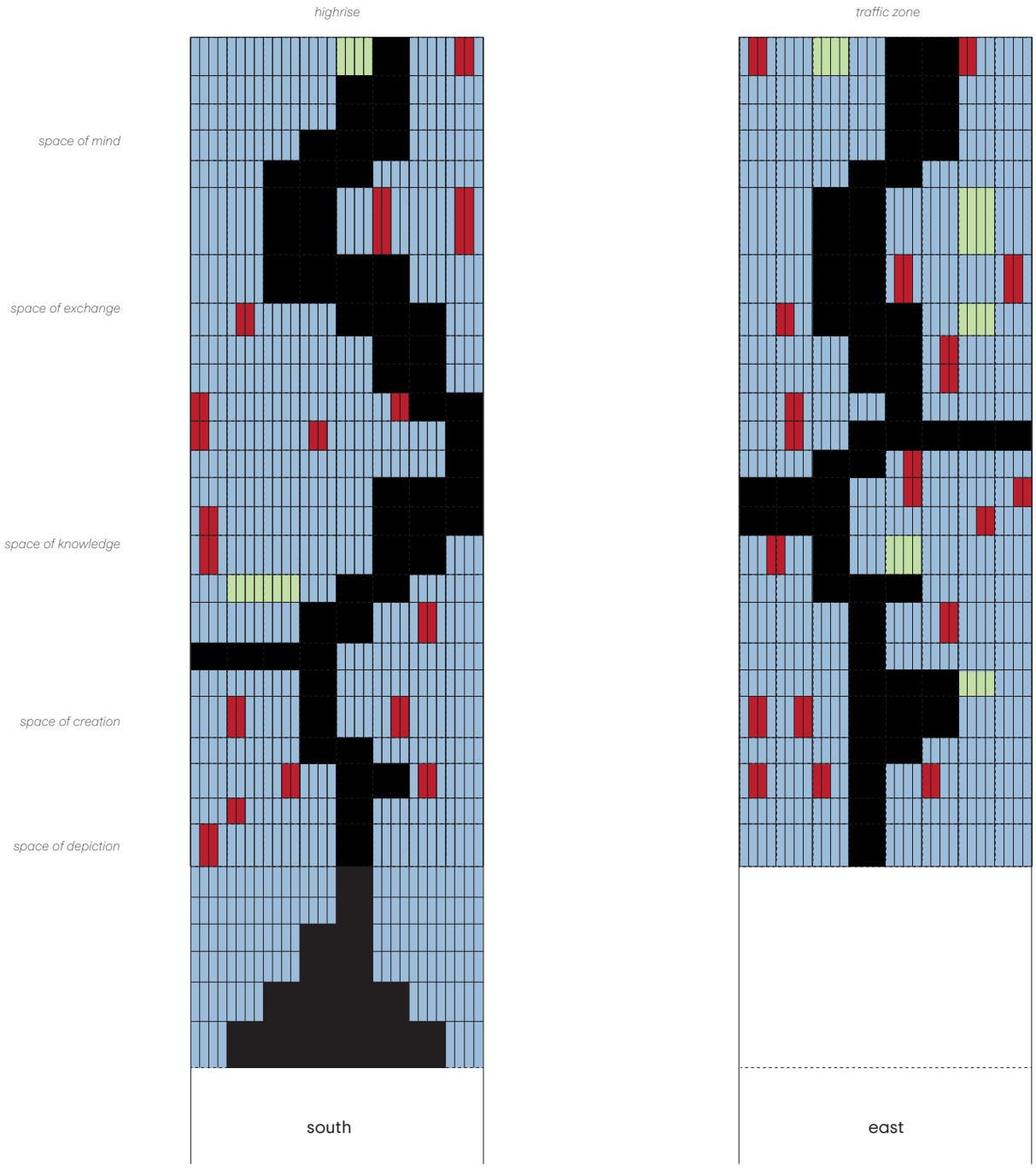


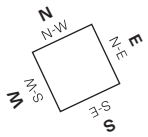
Additionally, the modular façade components facilitate future adaptation by allowing reconfiguration or redecoration as needed. The flexibility to adapt to shifting functional needs or aesthetic preferences is essential to the building's long-term viability and relevance. Thus, the design focuses not just on creating a striking visual identity but also on ensuring practical longevity and responsiveness to both environmental and urban dynamics.



Skin

Layout


highrise
traffic zone
space of mind
space of exchange
space of knowledge
space of creation
space of depiction
south
east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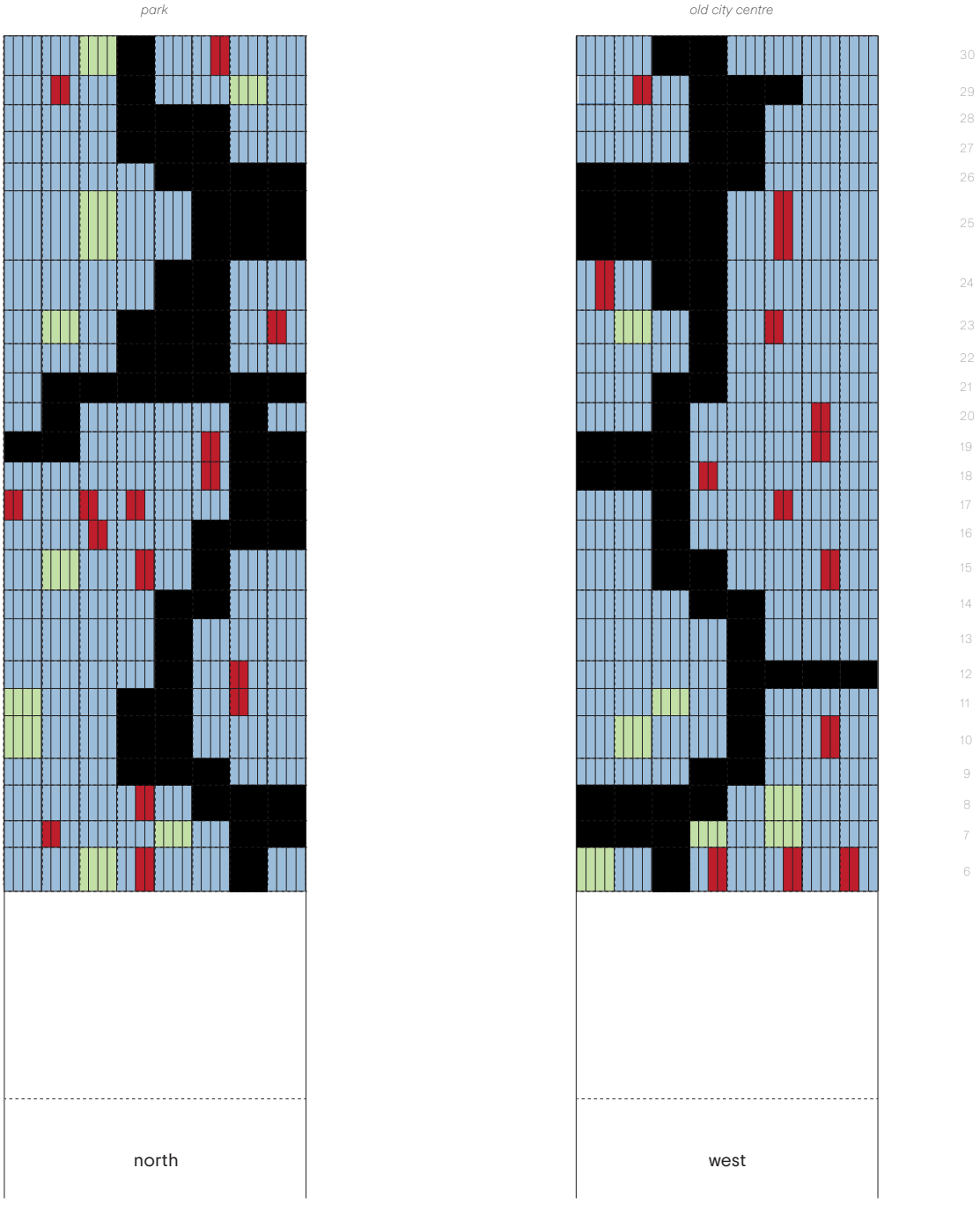
park
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north
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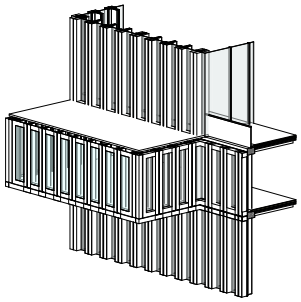
745 mm
2100 mm
4800 mm

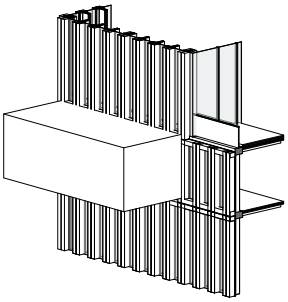
Extension

Introduction

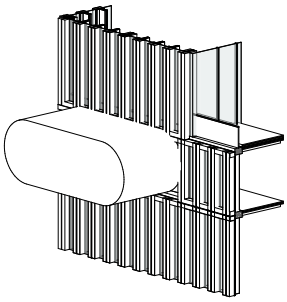
Extending the façade involves placing parts of a building's structure outside the main external walls, creating additional space and visual interest. These projecting elements can improve the building's connection to the city by creating sightlines to key landmarks, integrating the building into the urban context. These extensions are not only architectural features, but also functional improvements that provide additional space for different programmes. By carefully considering the urban fabric and environmental factors, the facades can create dynamic interactions between the building and its surroundings.



option 1 **continuous**



option 2 **parasite (squared)**



option 3 **parasite (rounded)**

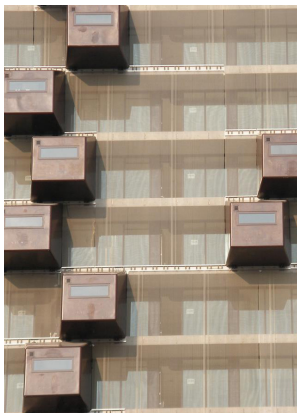


Figure 53 - Schiecentrale Phase 4b in Rotterdam by Mei Architects and Planners. (2008)

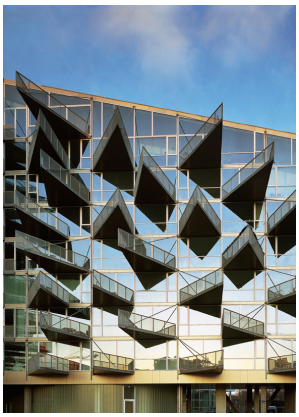
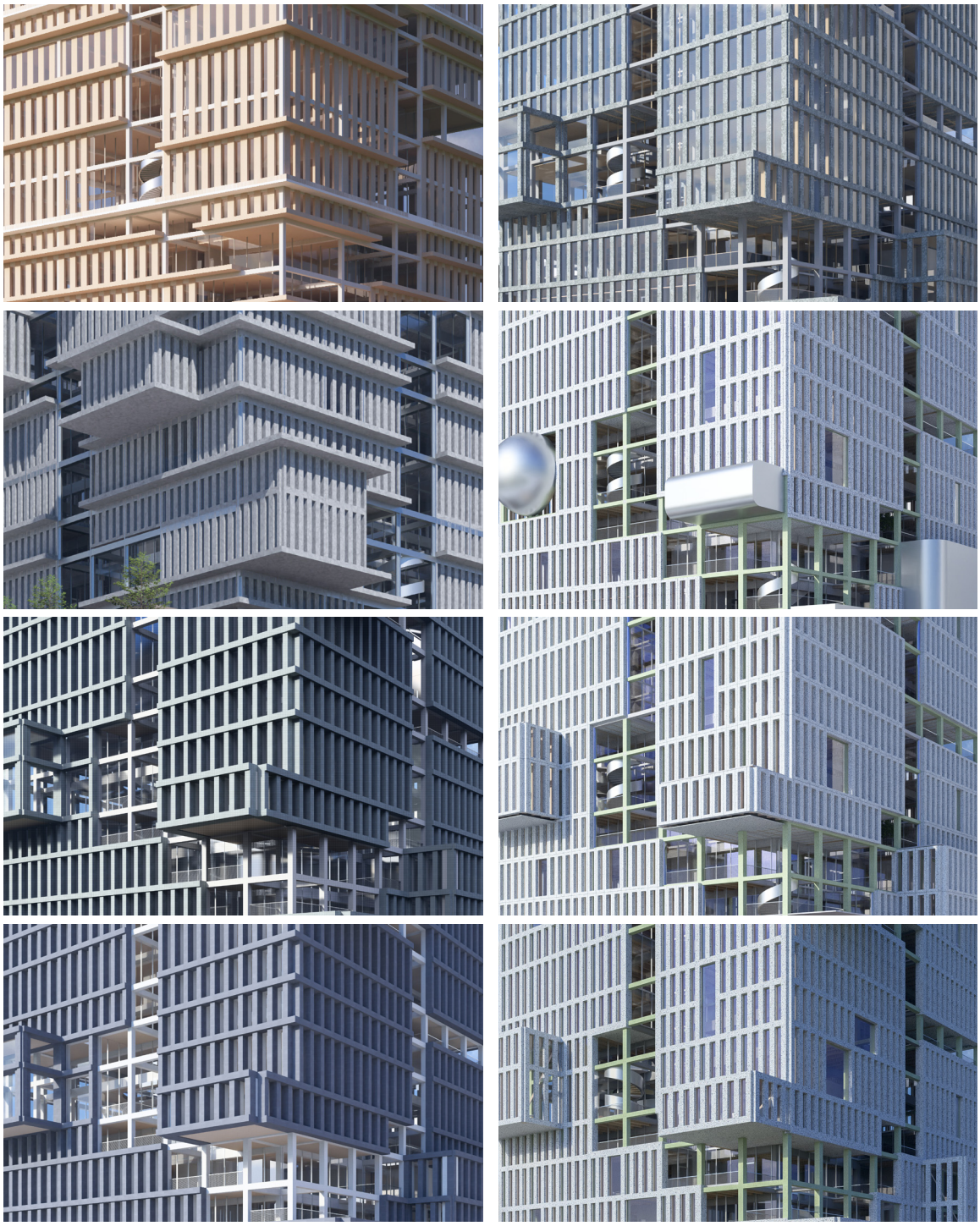


Figure 54 - VM Houses in Copenhagen by BIG + JDS (Maria Gonzalez, 2005)

Figure 55 - The Nakagin Capsule Tower (1972) in Shimbashi, Tokyo by Kisho Kurokawa. (REUTERS/Thomas White)

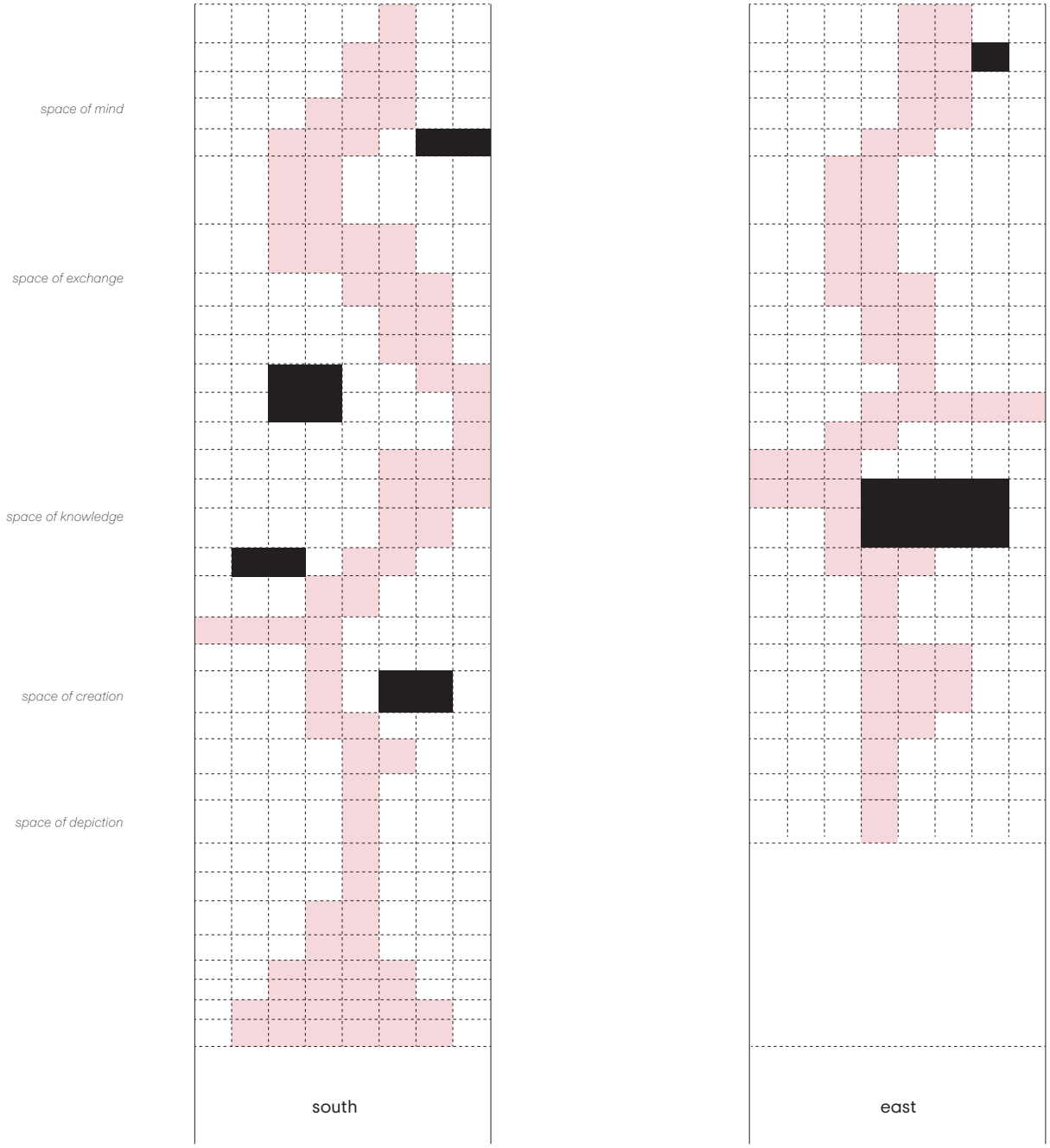
Figure 56- Oase No. 7 at documenta V, Kassel 1972. (Haus-Rucker-Co)

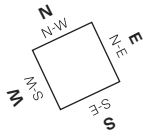


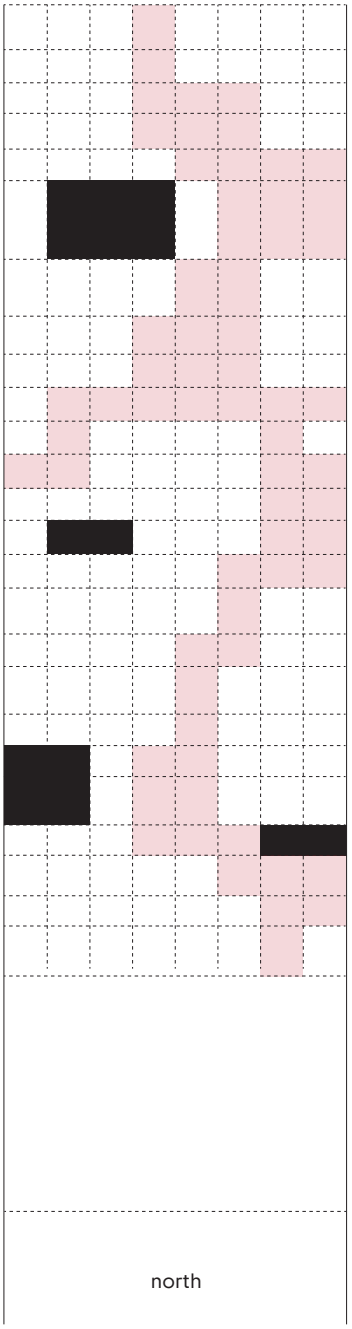
Design variations through the weeks

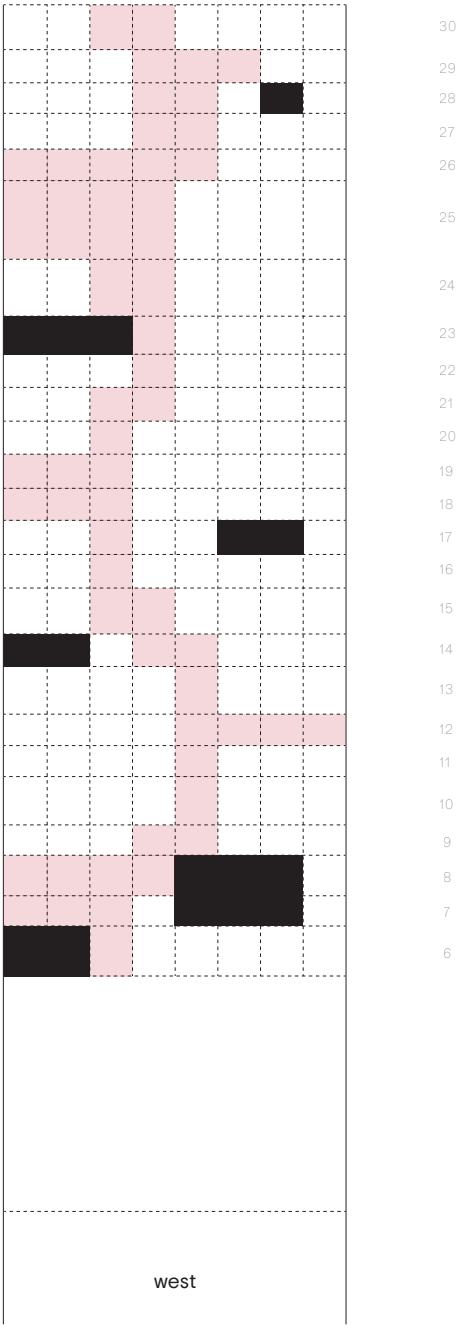
Extension

Spatial moves









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Extension

Sport - 25

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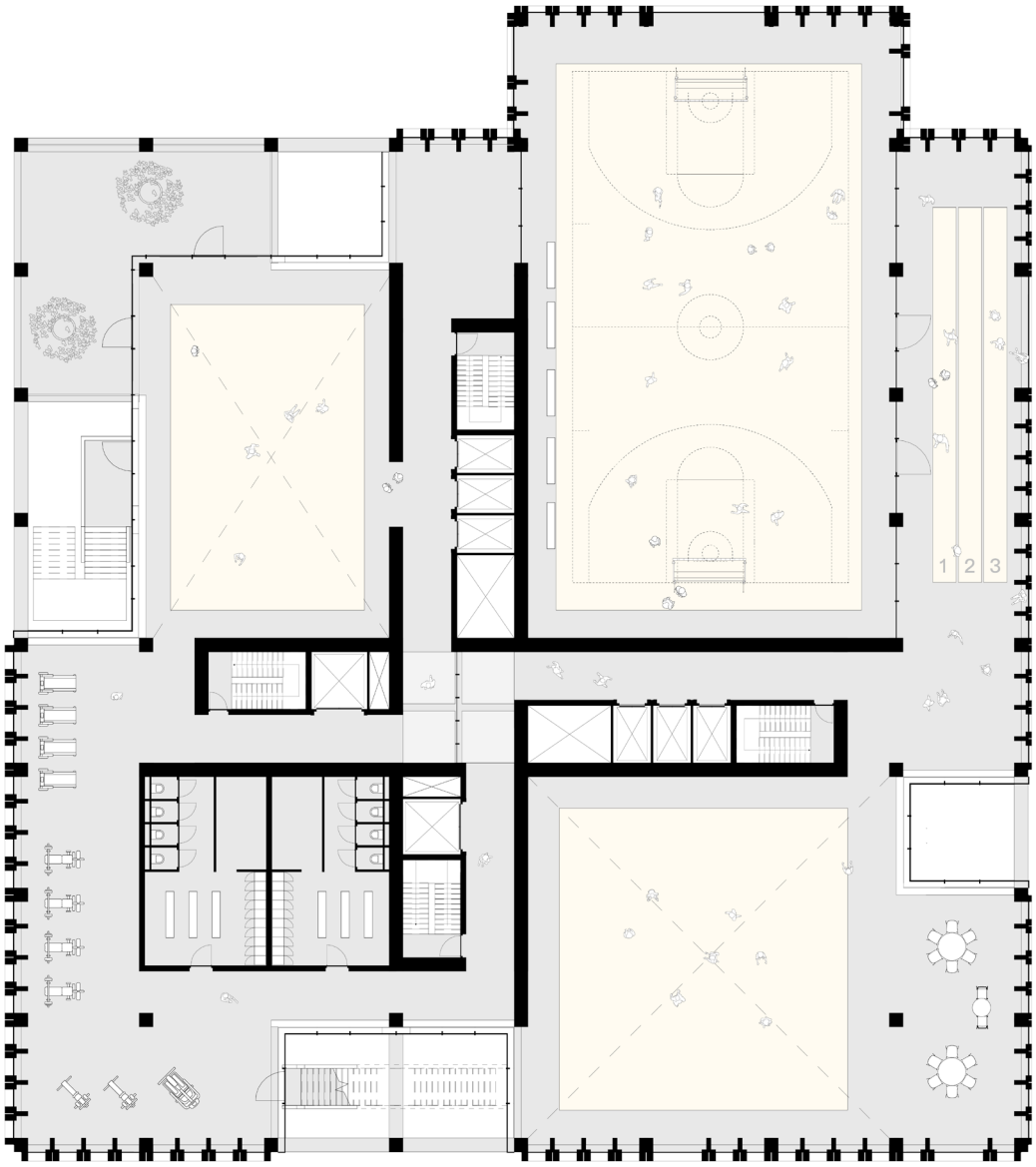
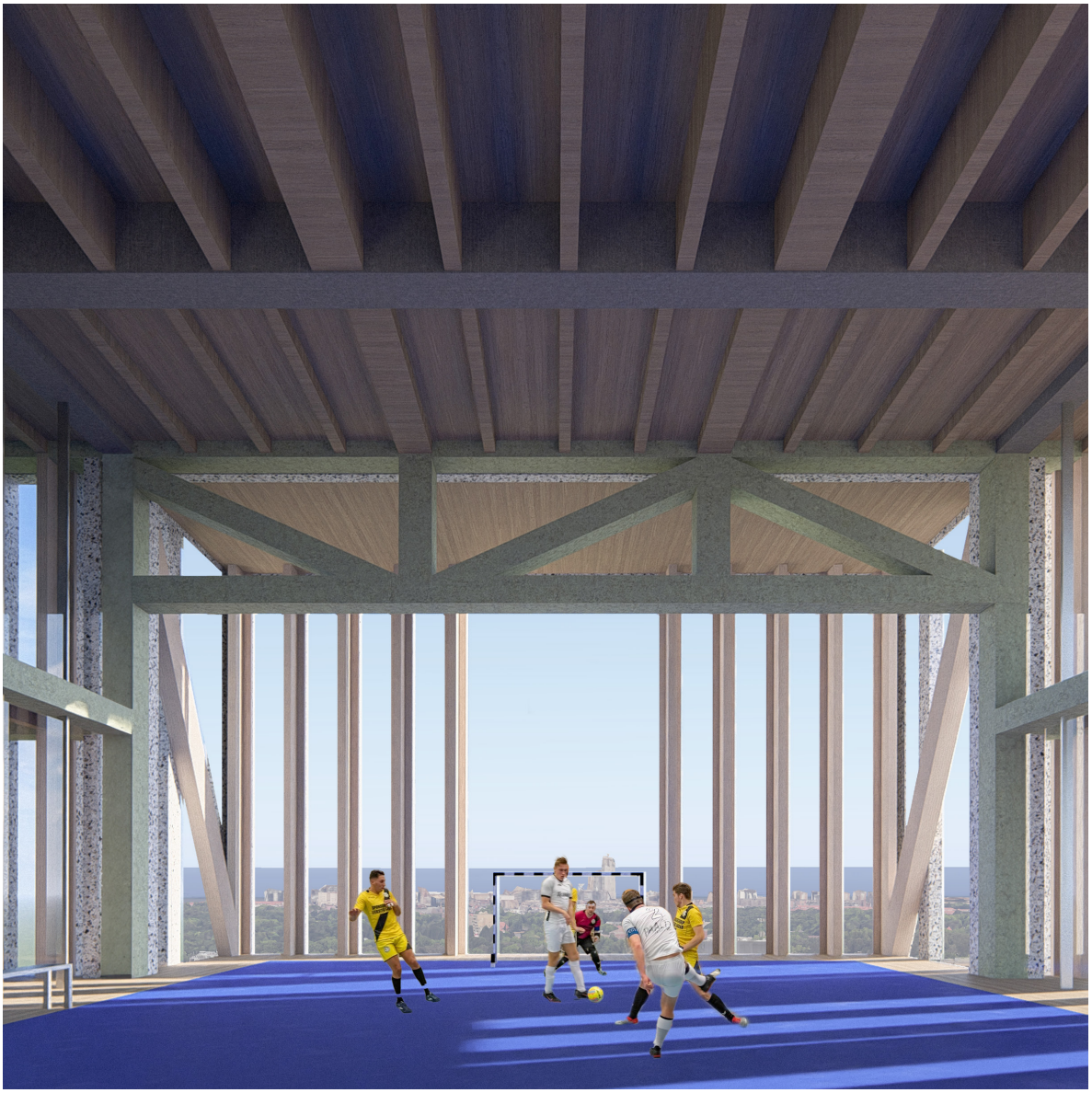
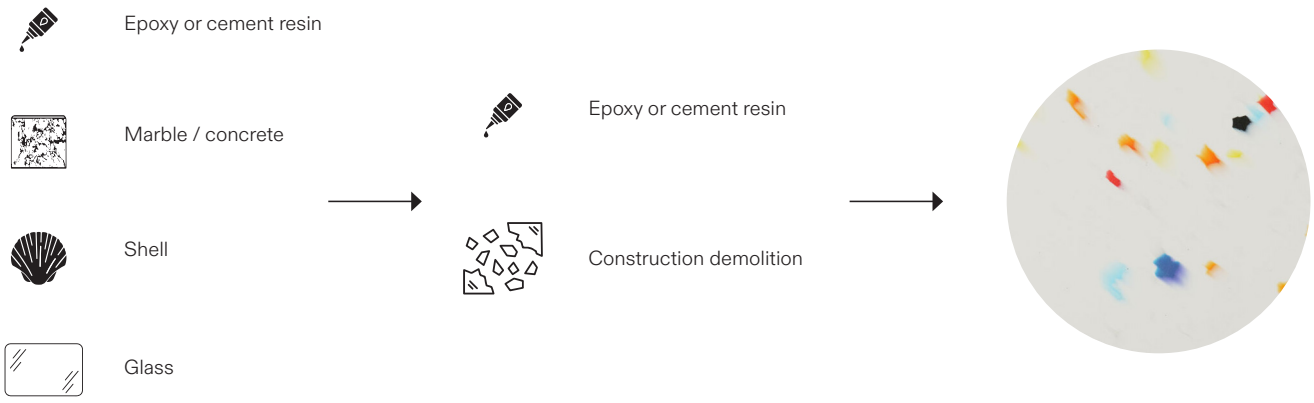


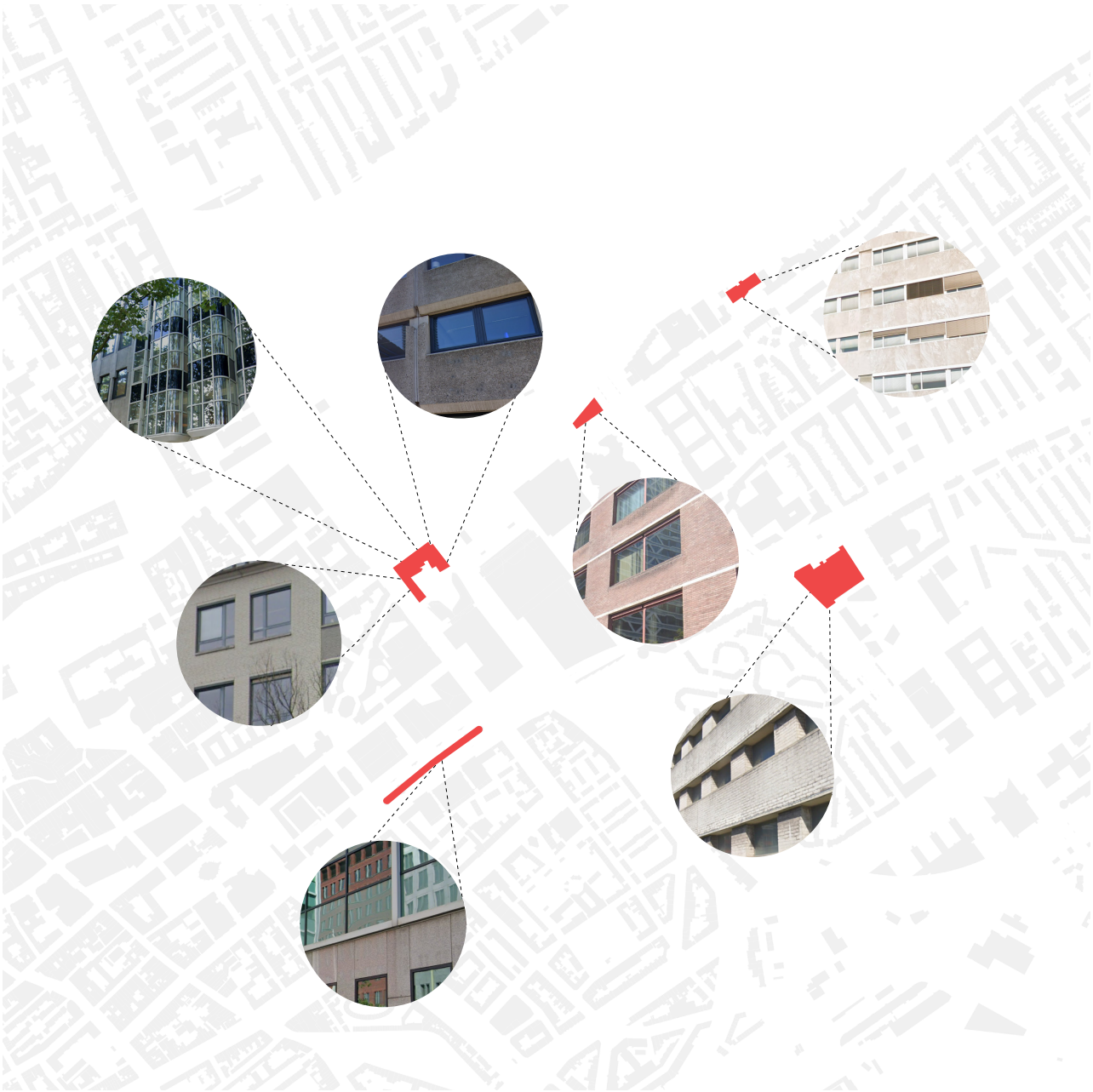


Facade

Reuse the existing

In the quest for sustainable materials, traditional choices like granite and bluestone often leave unanswered environmental concerns. A novel approach to this dilemma is the creation of custom terrazzo stone, incorporating reclaimed materials from urban development sites. In cities like The Hague, where rapid development leads to frequent demolition, there lies an opportunity to repurpose materials, infusing new life into the facade of the next generation of buildings. The idea of harvesting materials from one's own plot, rich in diverse materials and colors, adds a unique and personal touch to the architectural fabric. This method not only addresses sustainability questions but also adds a narrative layer to the building, connecting it intimately with the city's evolving landscape.



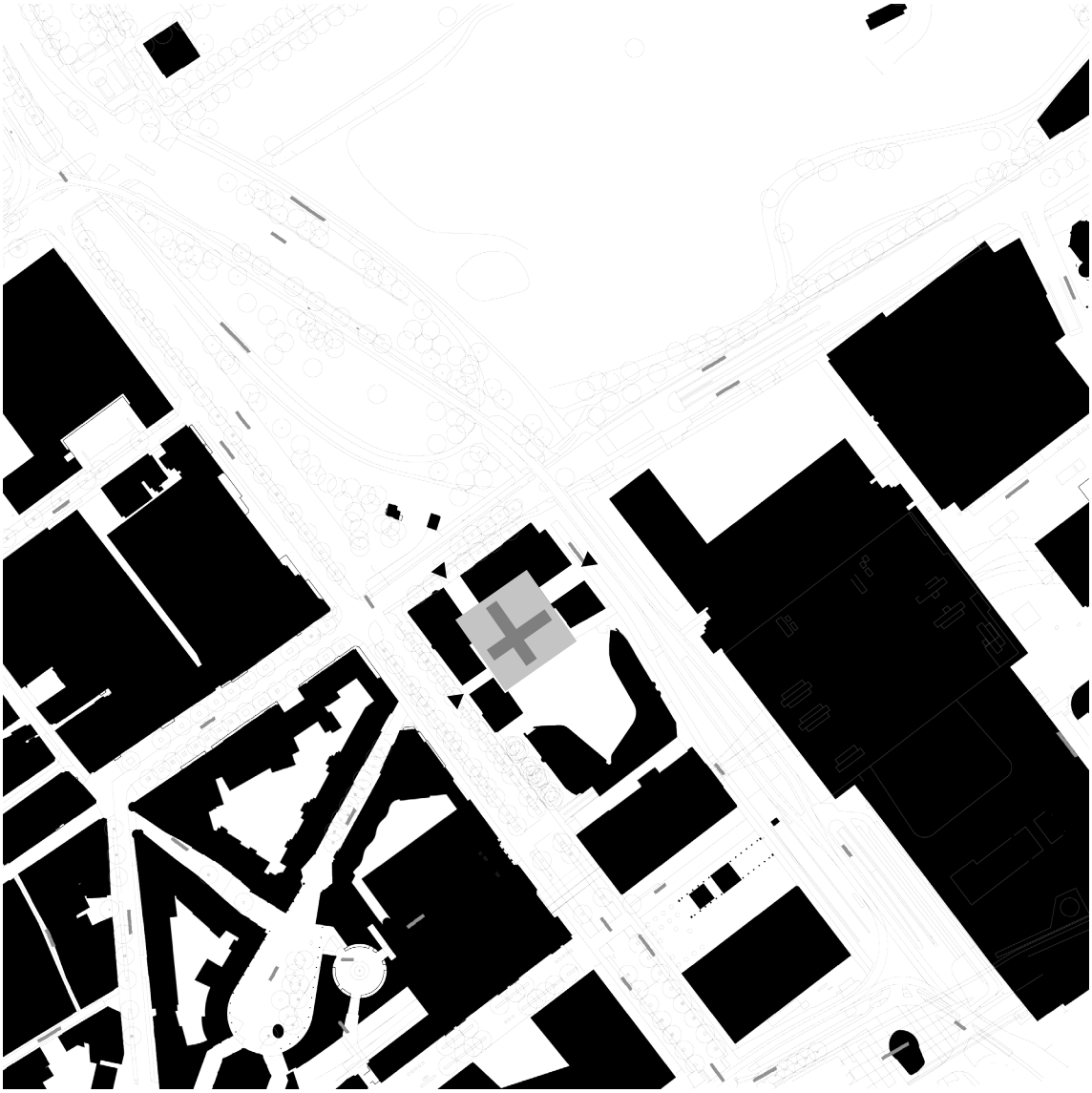


Scheduled to be scrapped

Part VI | **Final Design** P4 & P5

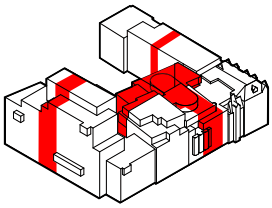
16/05/24

0 10 m



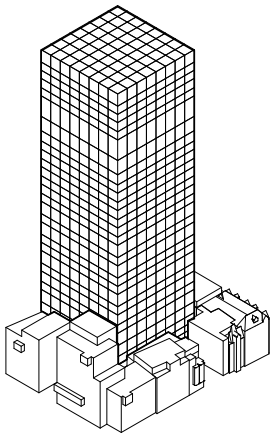
Form evolution

Overview



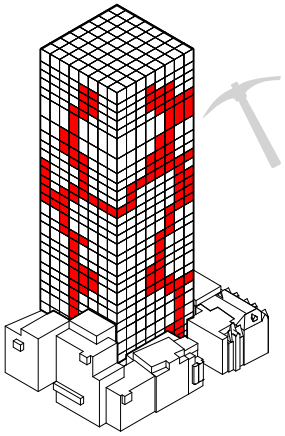
1 **removal parts existing**

Demolition is the easy choice, so is minimised as much as possible. As a result, around 30 % of the total existing surface area will be demolished.



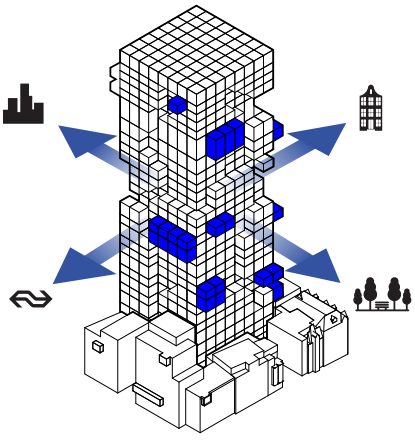
2 **generic grid tower**

A grid provides a solid foundation for flexibility and layout design.



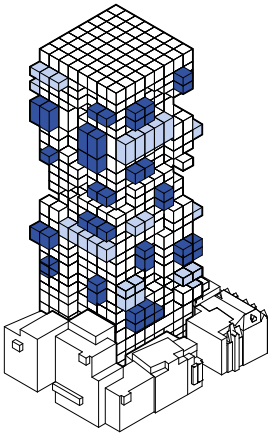
3 **unblocking**

By removing blocks from the mass, an open building with outdoor spaces is created.



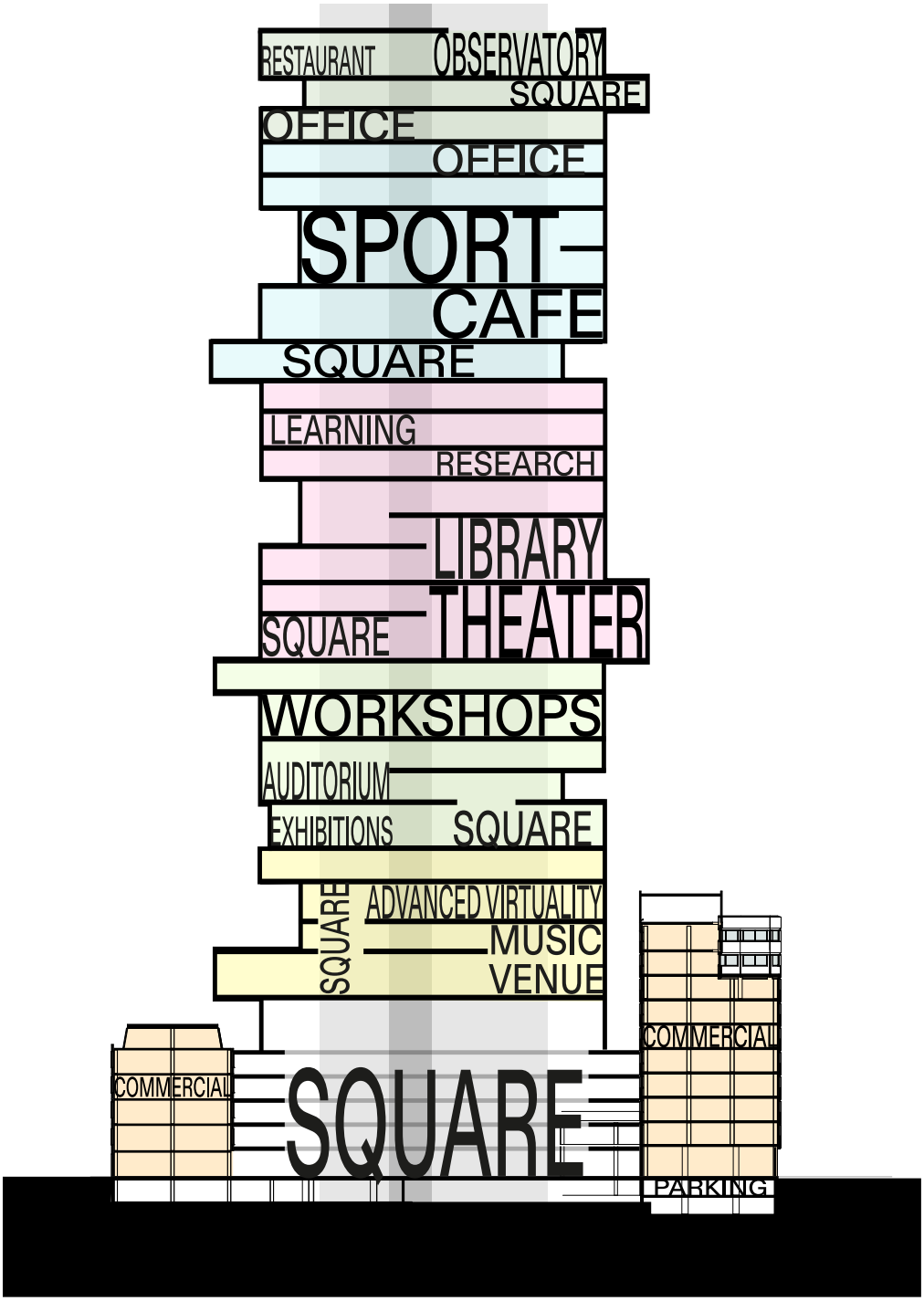
4 **extending**

To connect with the context and extend the building with various programs, elements will also be attached to the structure.



5 **future-proof**

To counter the trend of current through development and demolition in The Hague, the building is flexibly reconfigurable and expandable up to 5,000 m².

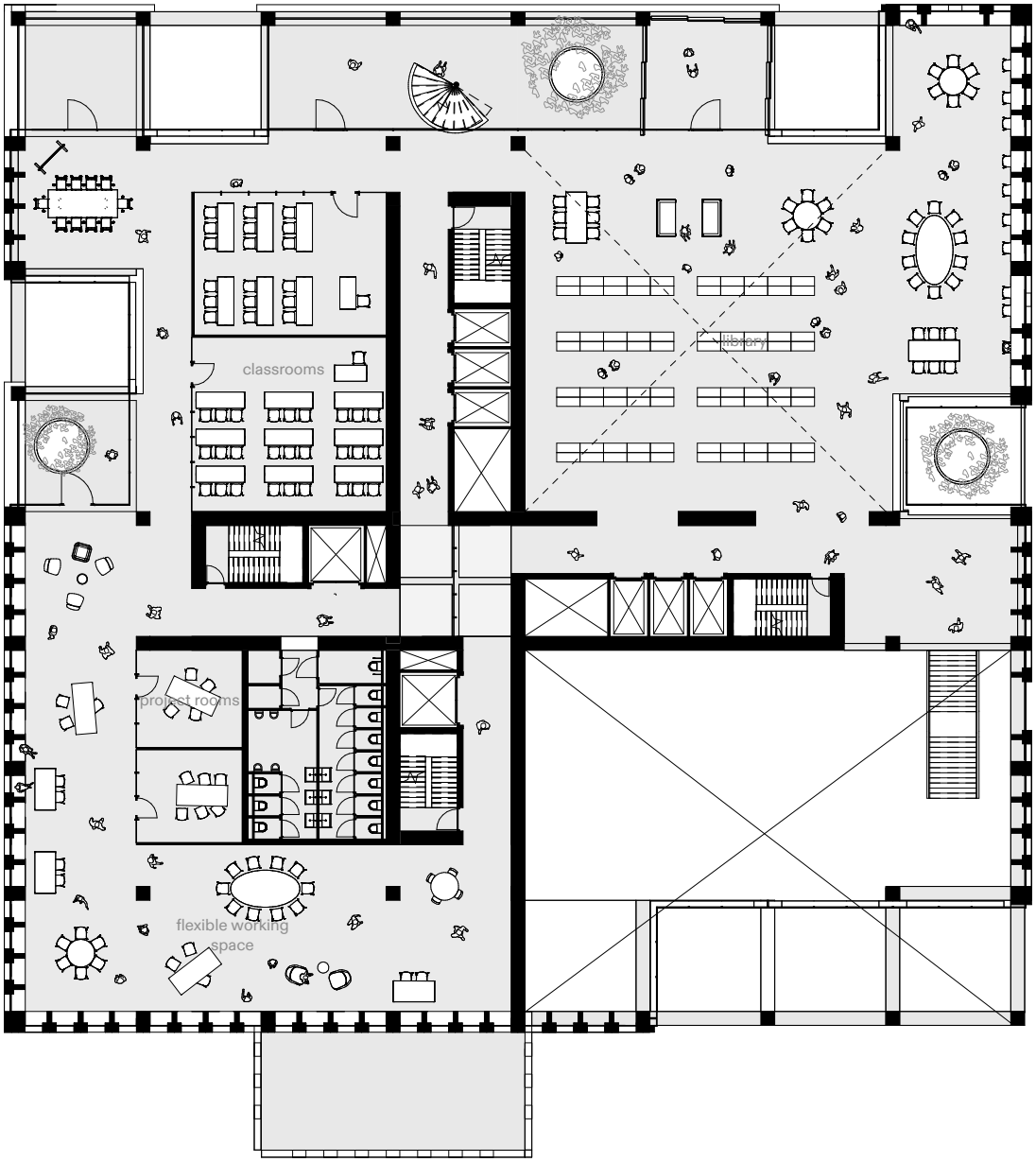

RESTAURANT
OBSERVATORY
SQUARE
OFFICE
OFFICE
SPORT
CAFE
SQUARE
LEARNING
RESEARCH
LIBRARY
THEATER
SQUARE
WORKSHOPS
AUDITORIUM
EXHIBITIONS
SQUARE
SQUARE
ADVANCED VIRTUALITY
MUSIC
VENUE
COMMERCIAL
COMMERCIAL
SQUARE
PARKING

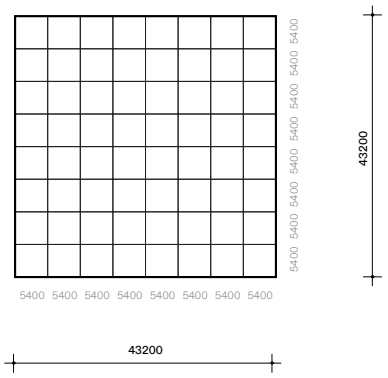
Stadion

Floor plan

22 - Education

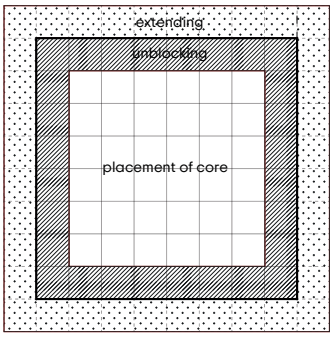
0 2 m





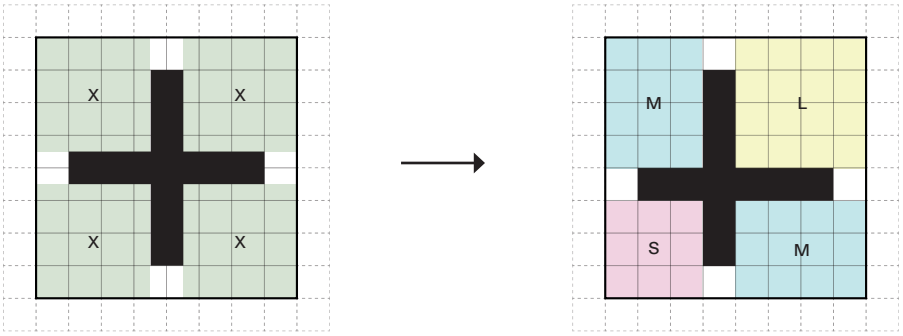
grid

The building consists of a grid of 5.4 m



zones

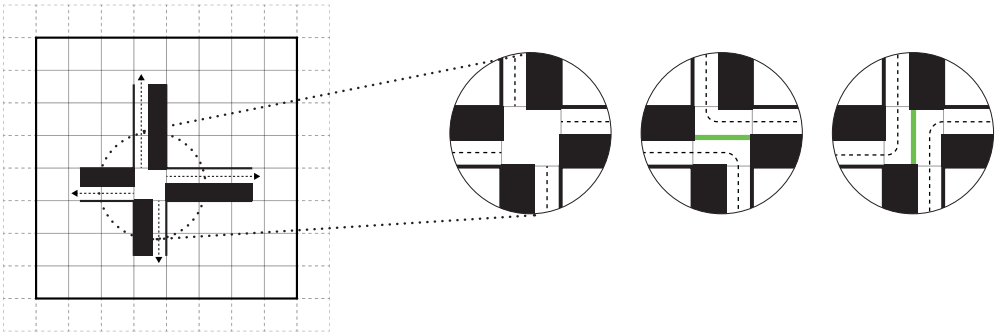
Due to unblocking and extending, the placement of the core is limited



core placement

To create large spaces and meet the requirement for a stable core, a cross shape has been designed

By shifting the core slightly, a variety of spaces is created, making the shape less monumental and integrating the core into the construction grid

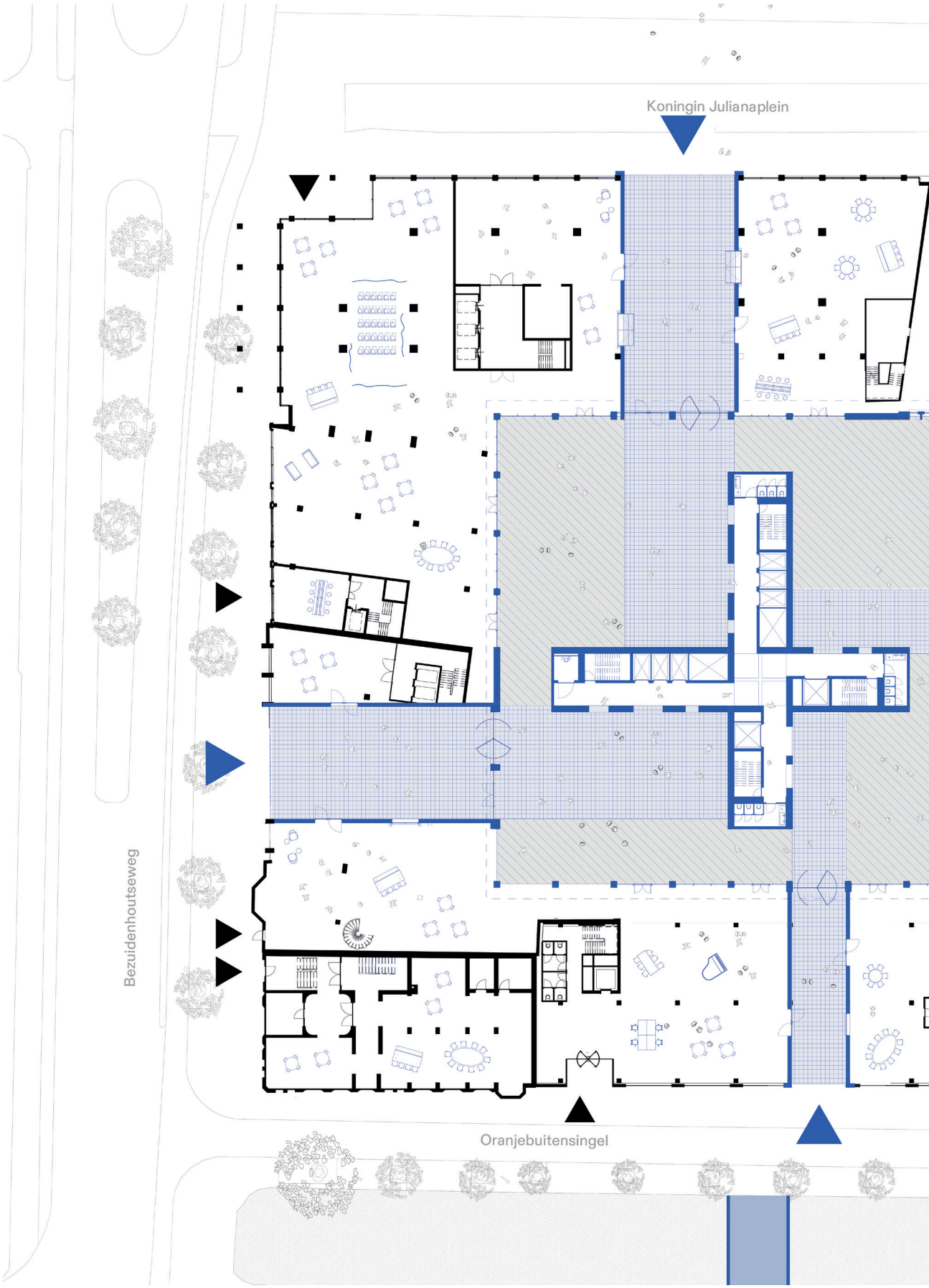


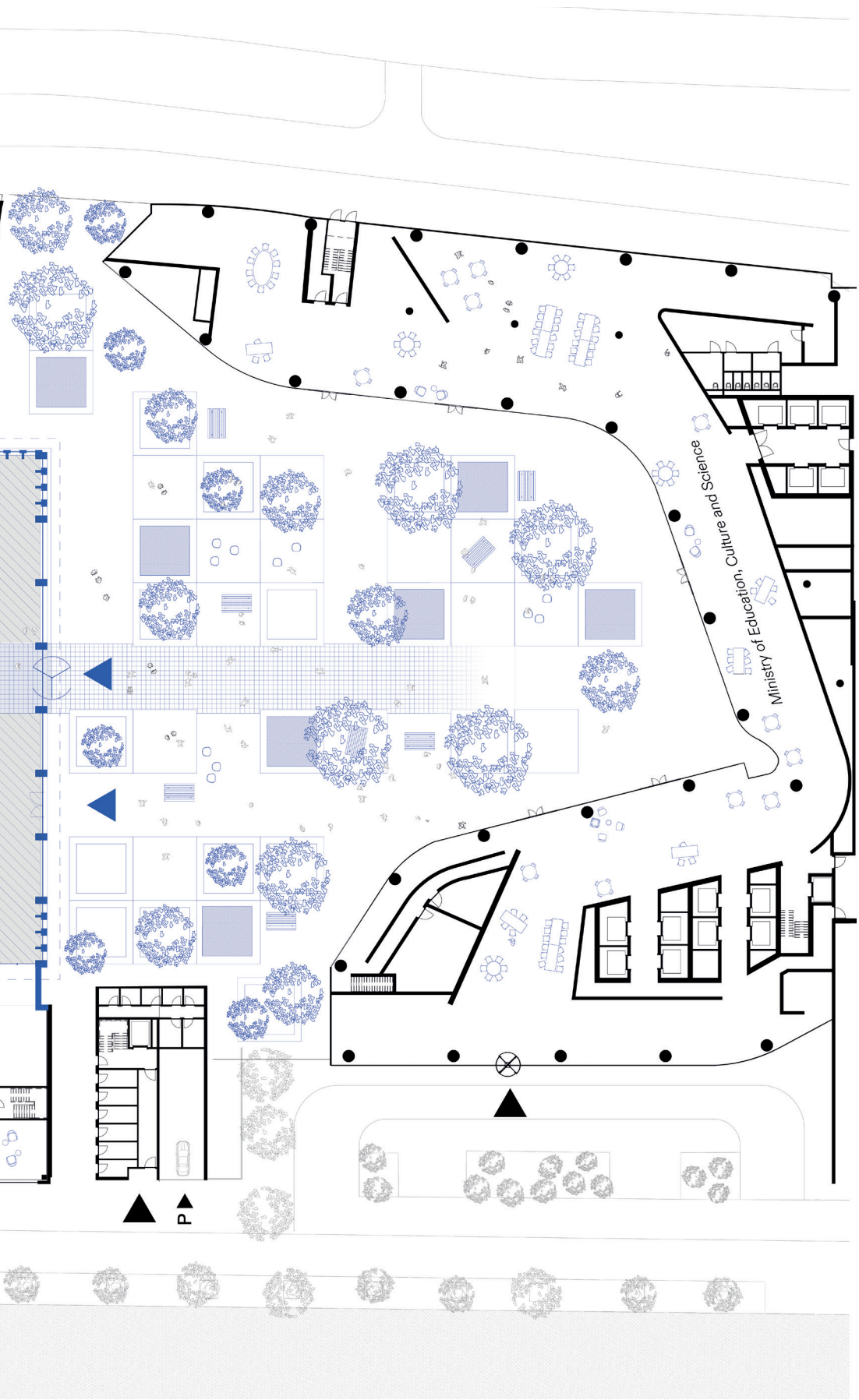
circulation

All circulation occurs within the core. By placing a wall in the middle, multiple routes can be created, allowing each floor plan to be divided into private and public areas

Plans

00 - space of gathering



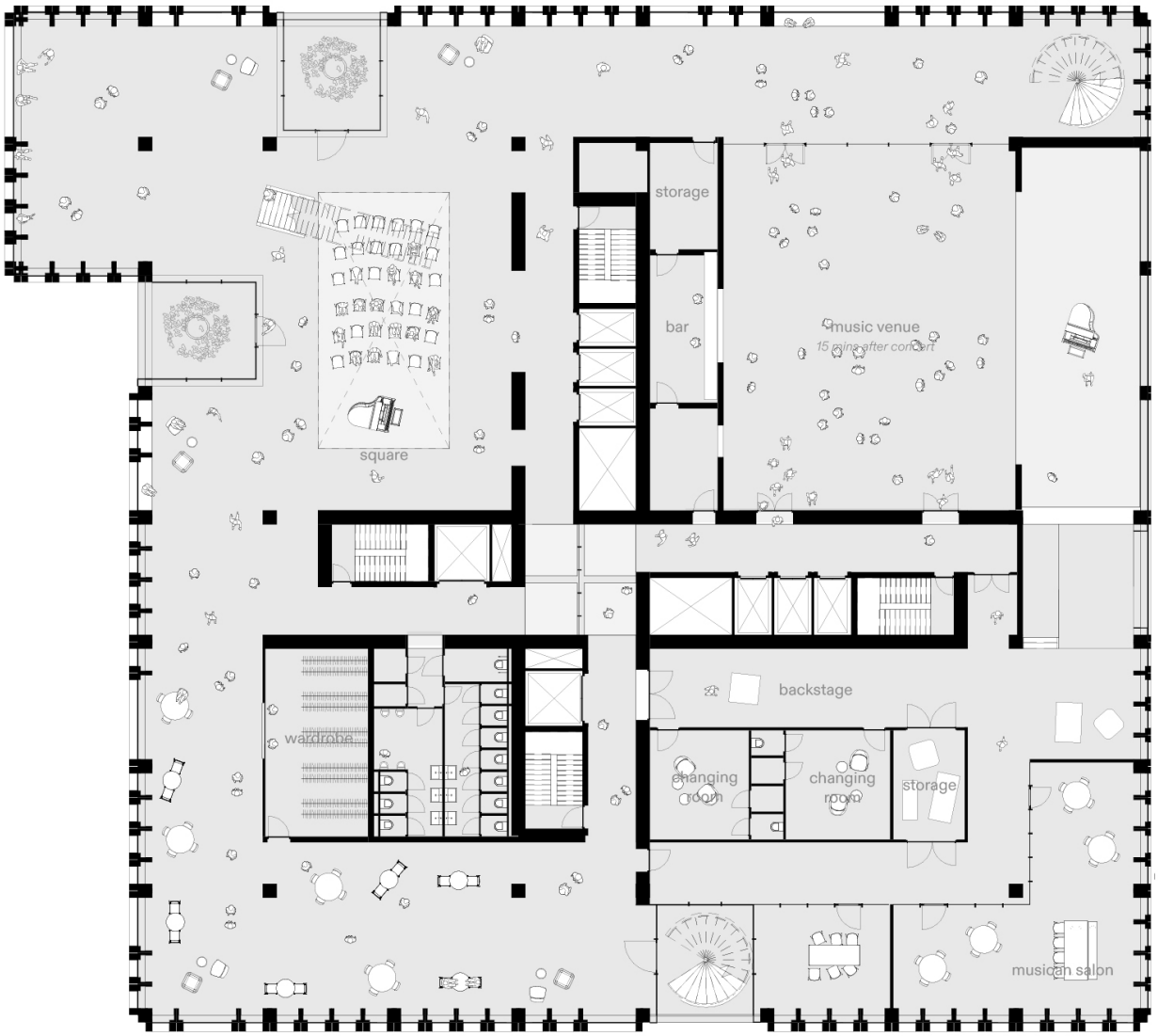

0 4 m
Ministry of Education, Culture and Science
P

Town Squares

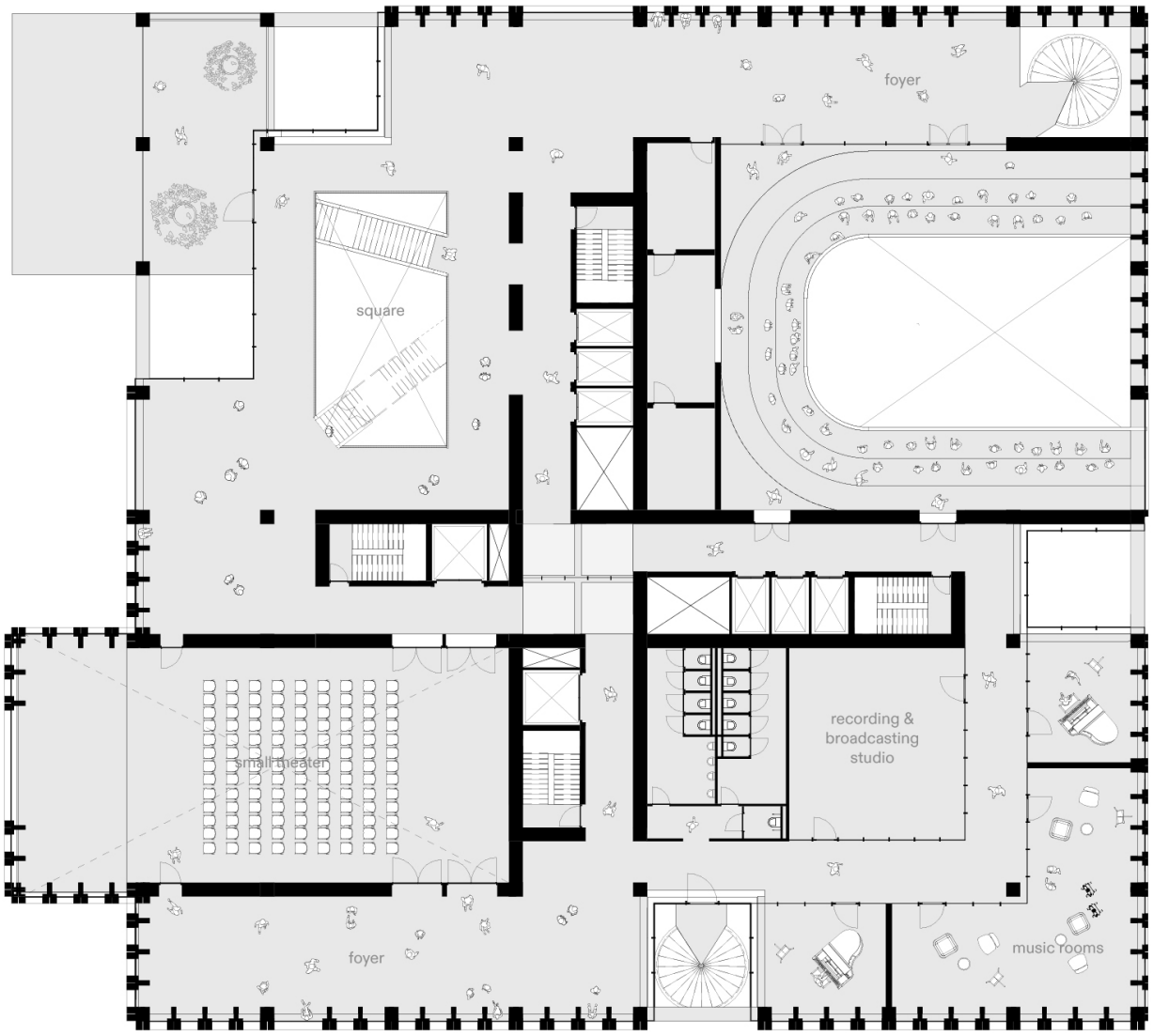
Space of Gathering

Plans

06 & 07 - space of depiction

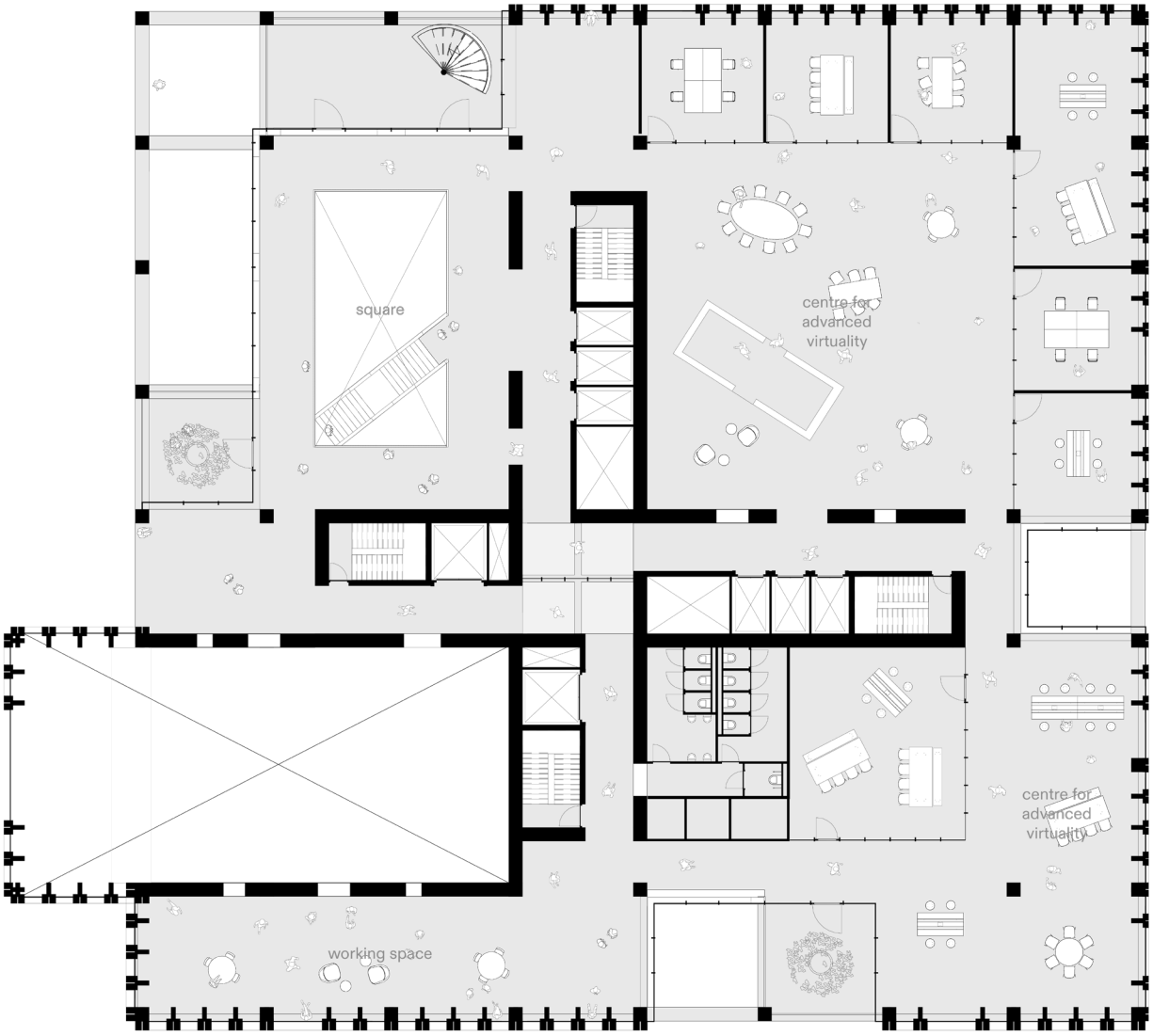


0 2 m


foyer
square
small theater
recording &
broadcasting
studio
foyer
music rooms

Plans

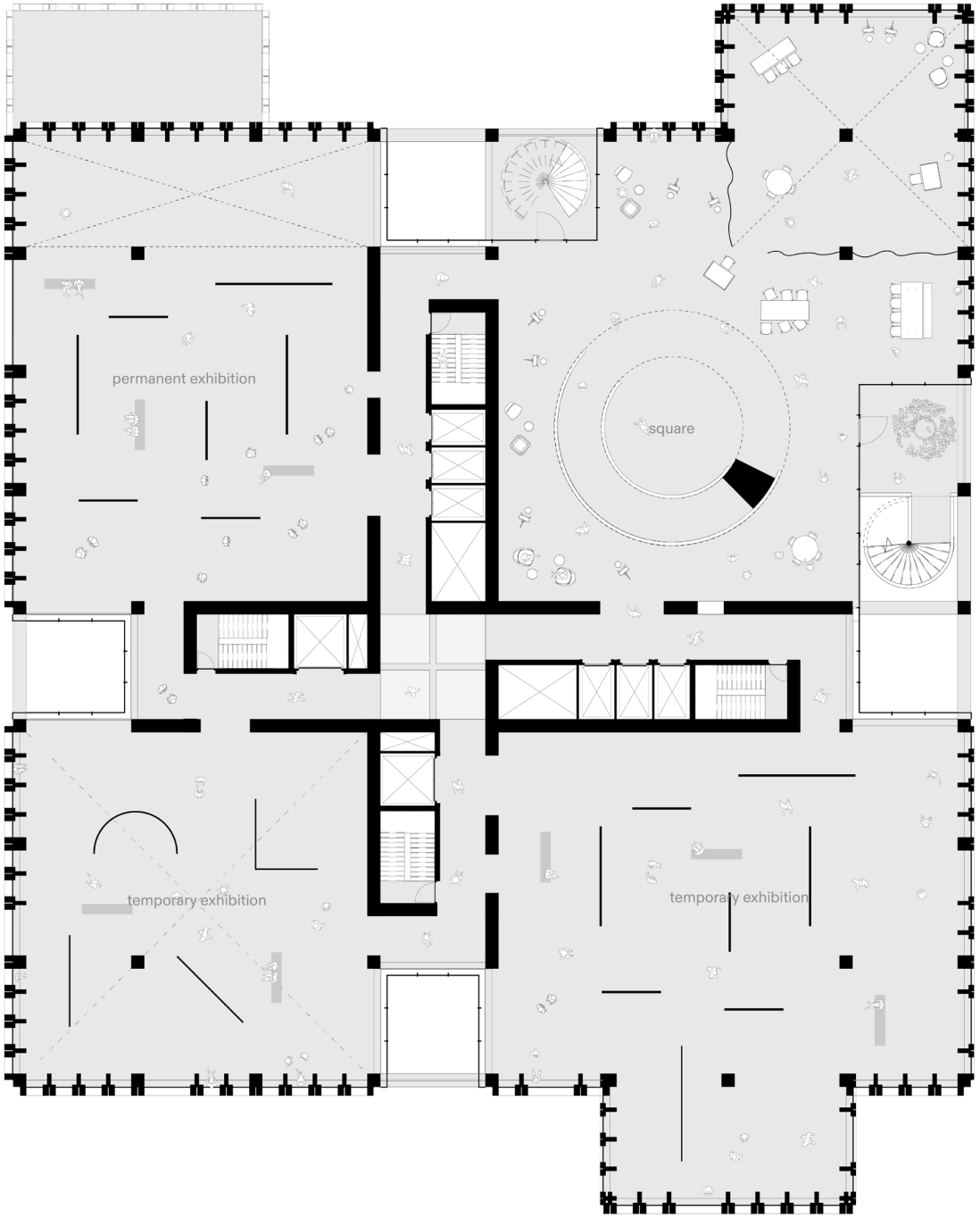
08 - space of depiction

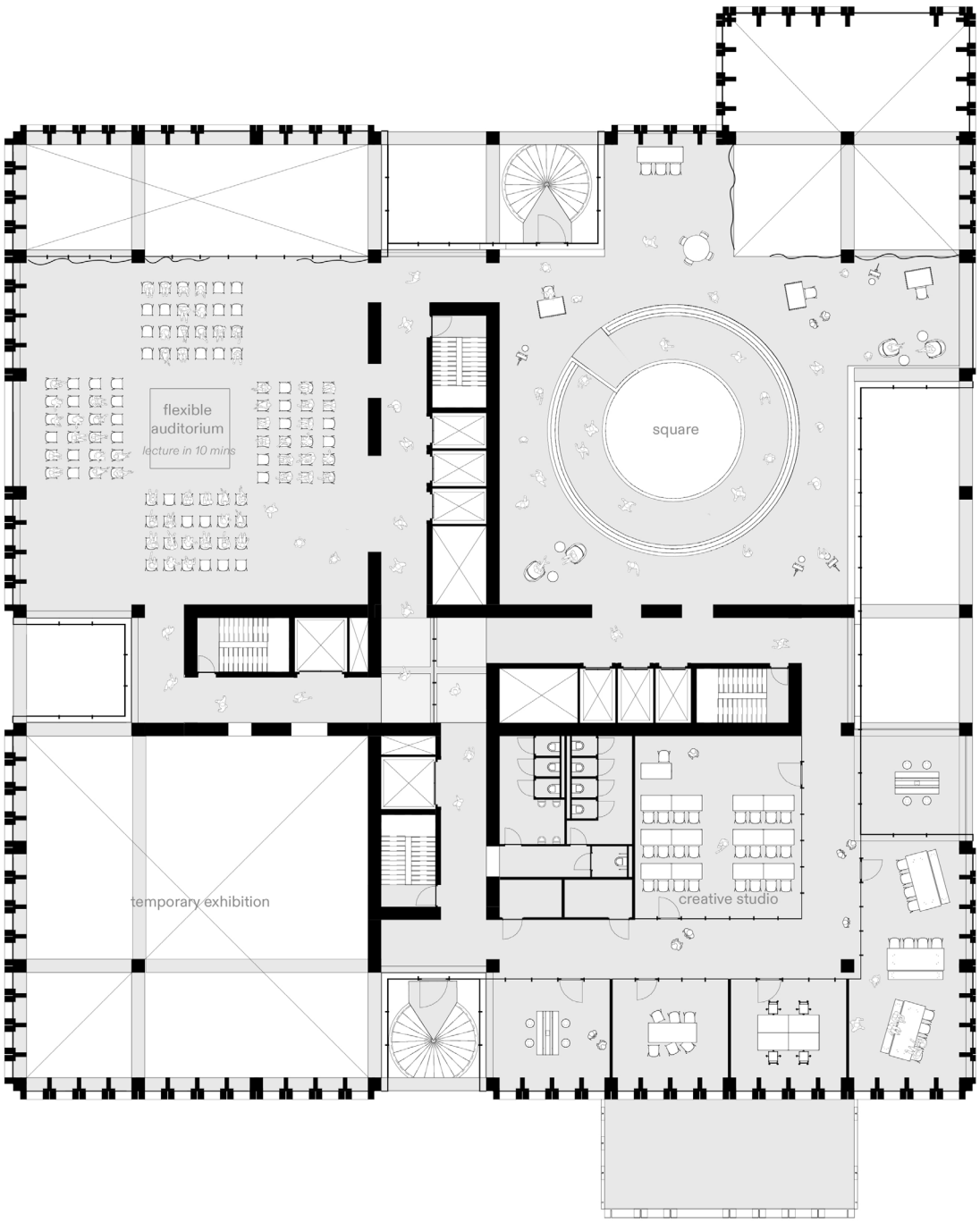


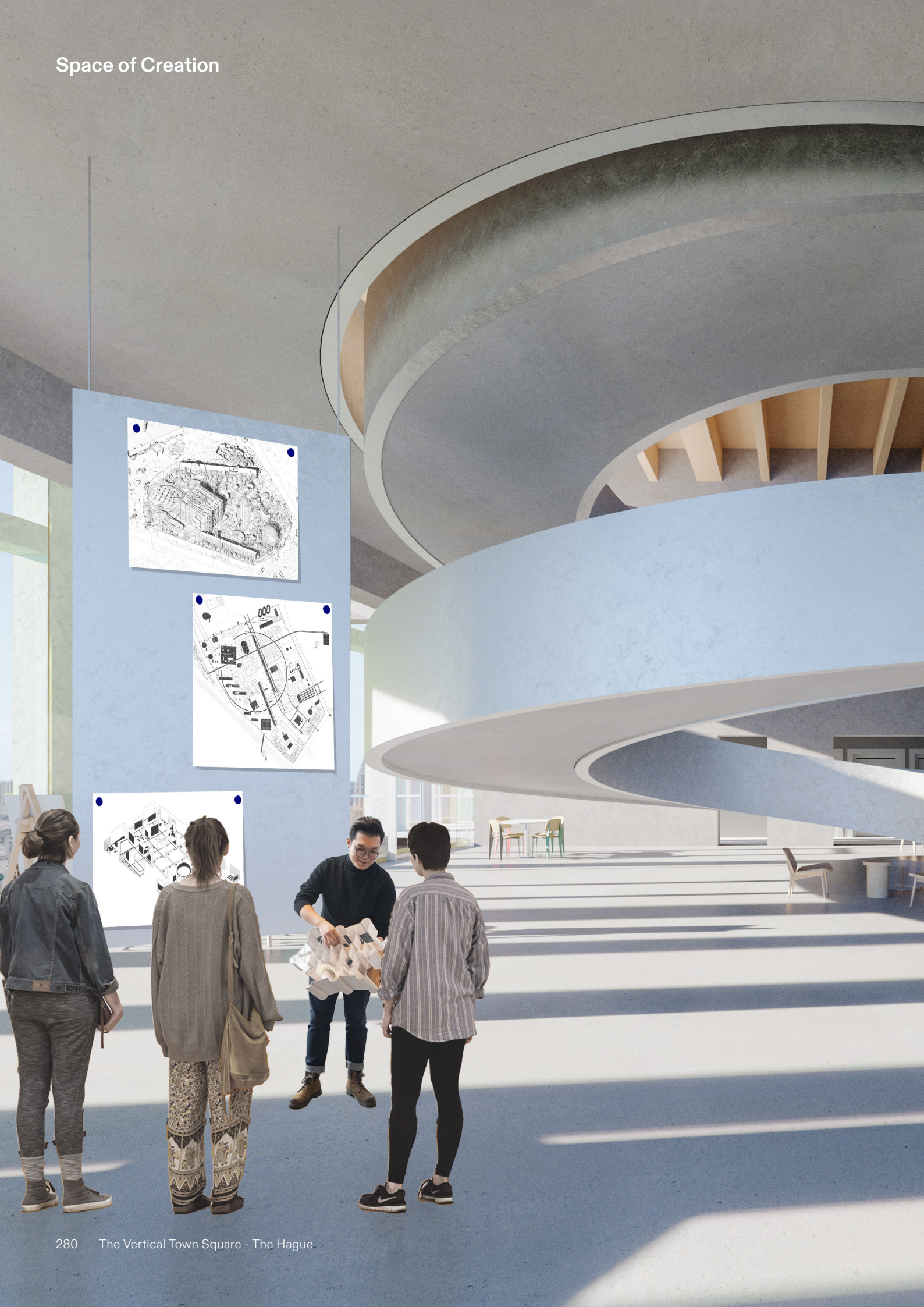
0 2 m

Plans

10 & 11 - space of creation

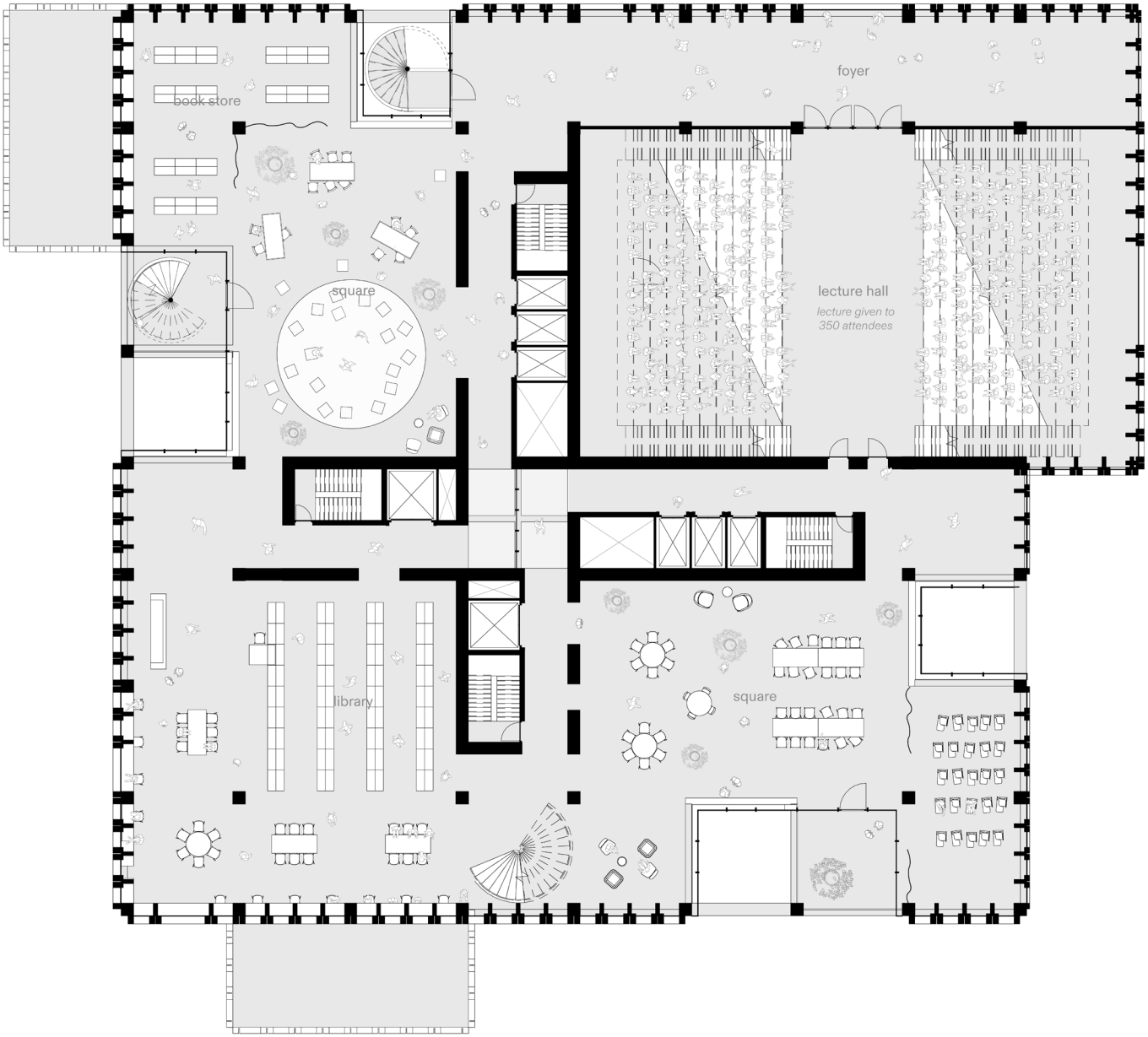



0 2 m
flexible auditorium
lecture in 10 mins
square
temporary exhibition
creative studio



Plans

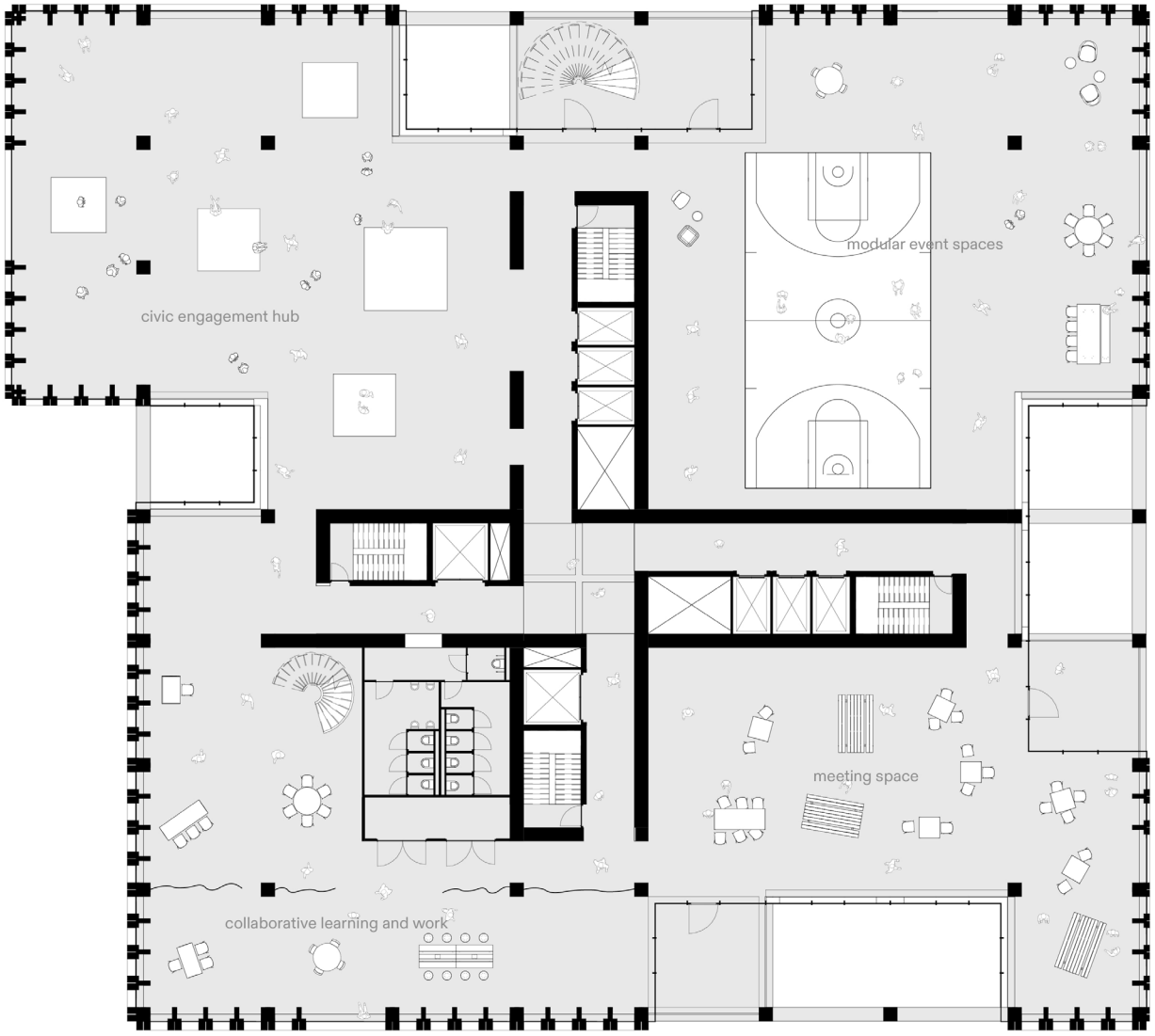
15 - space of knowledge



0 2 m

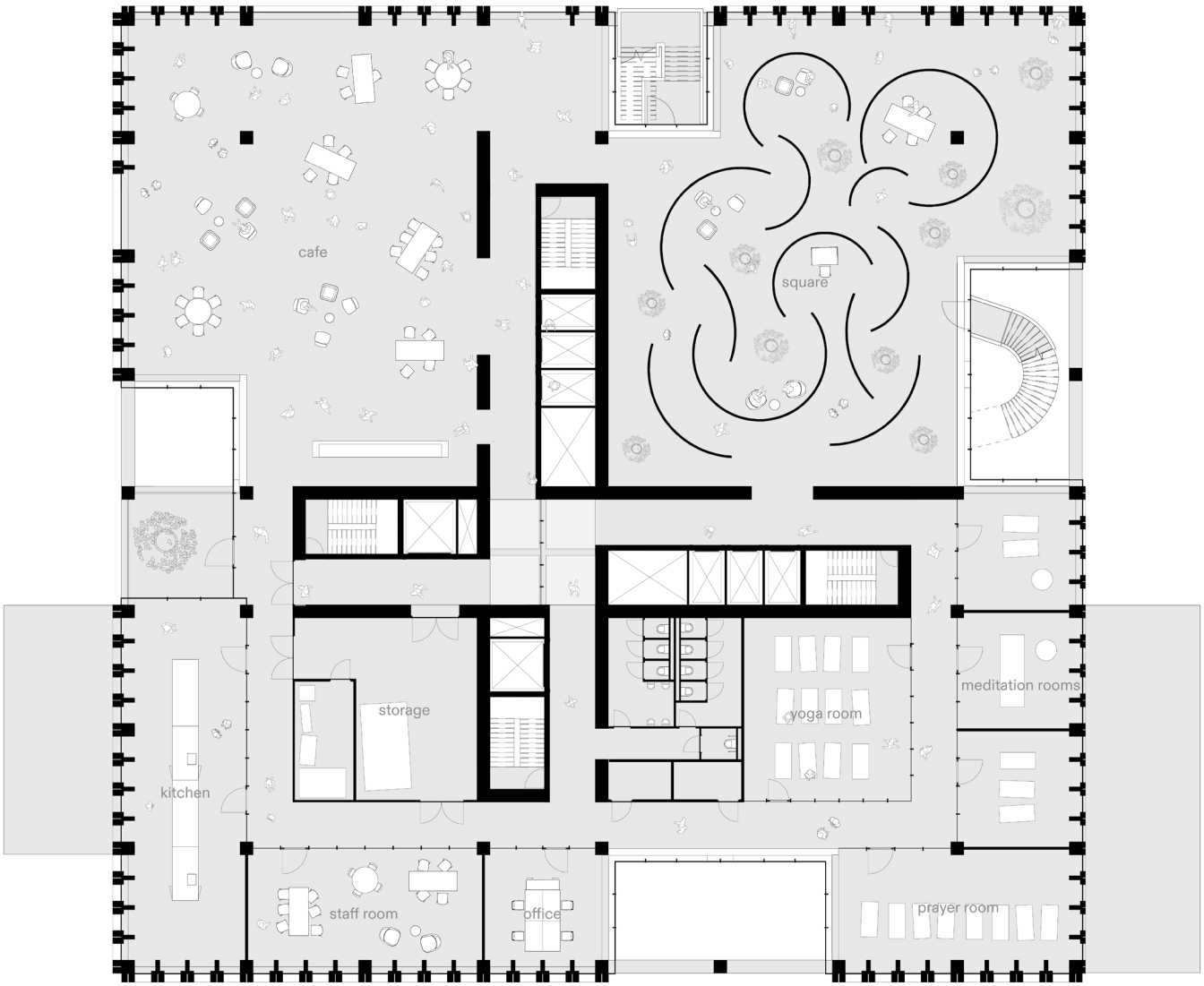
Plans

23 - space of exchange



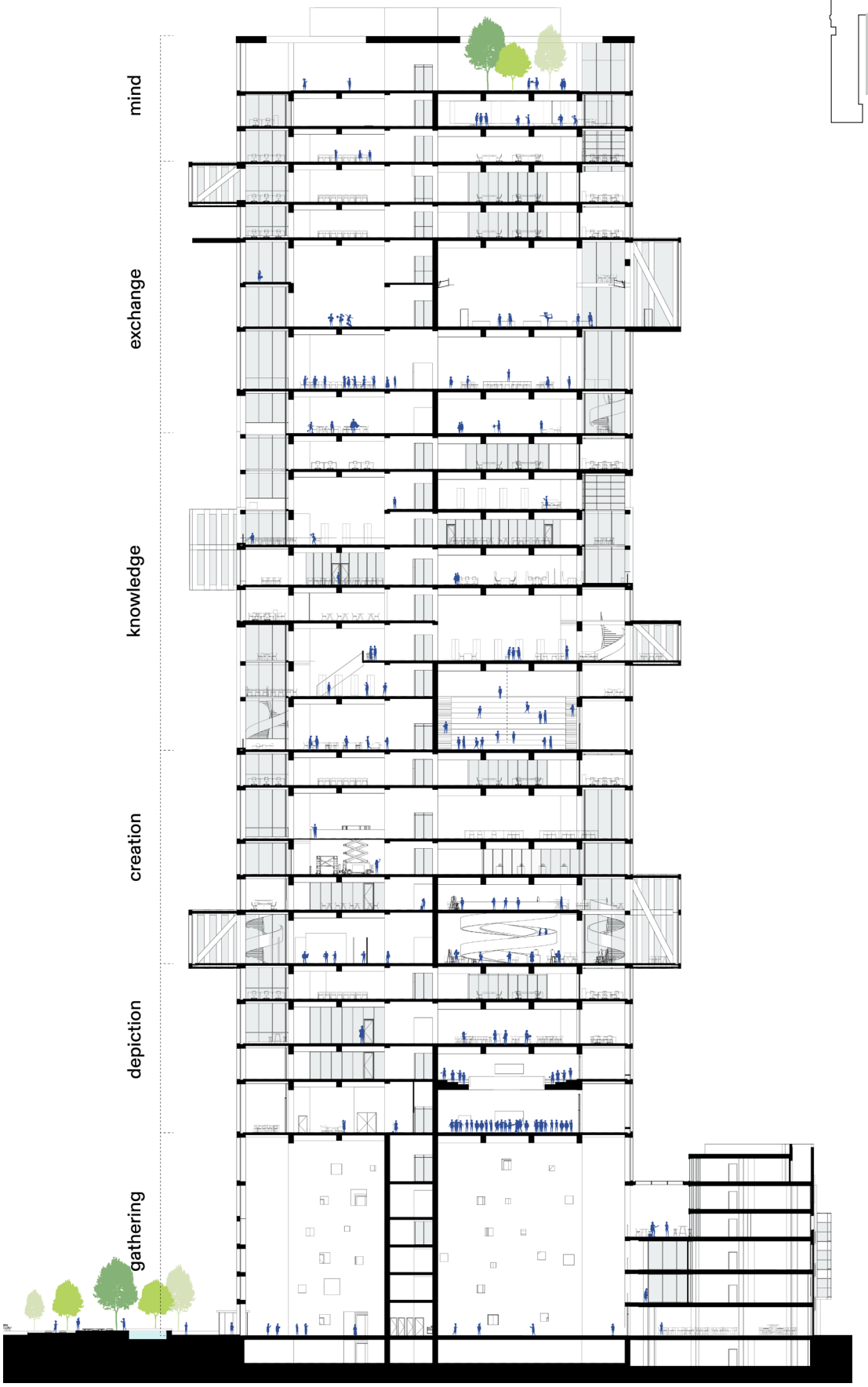
0 2 m

29 - space of mind

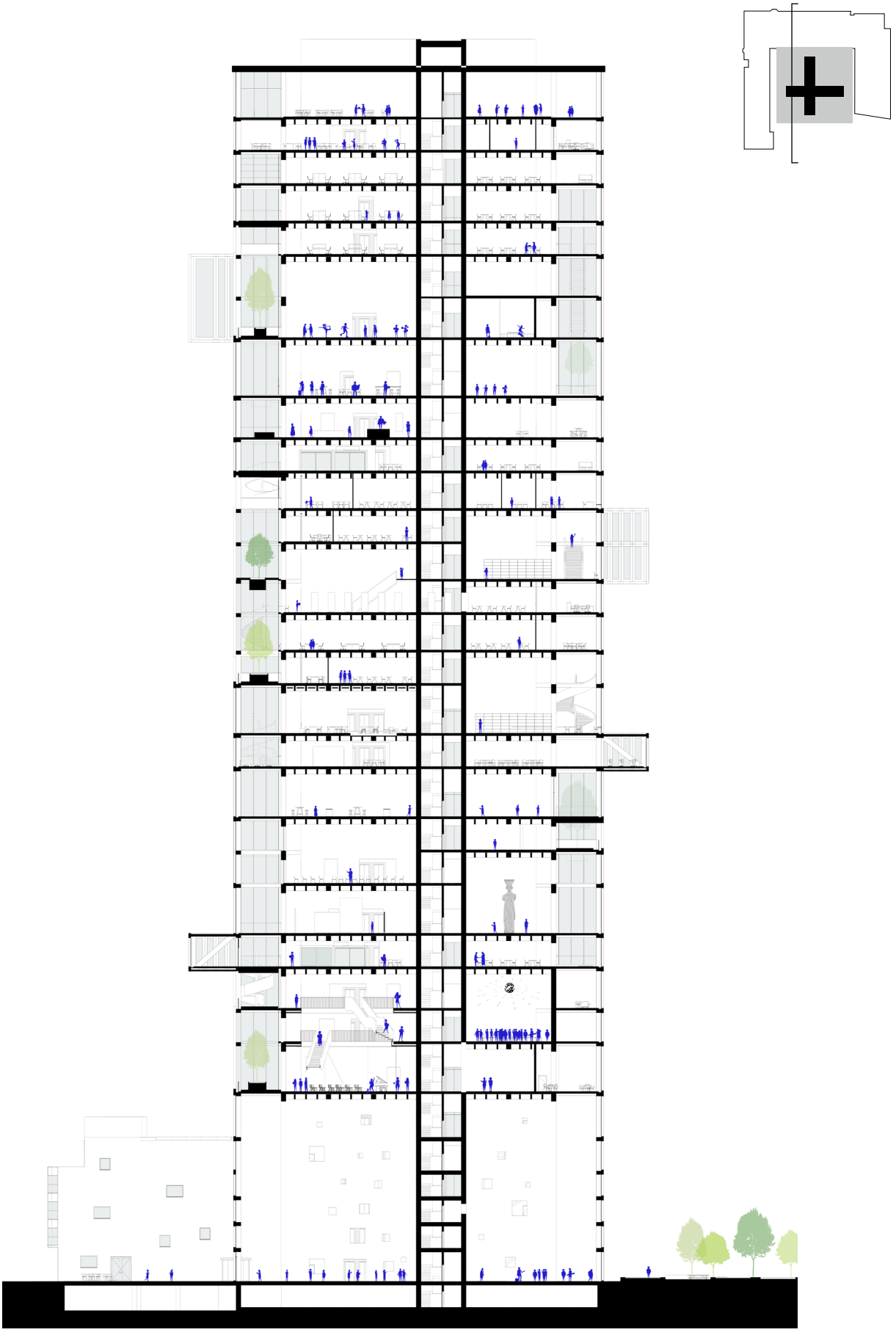


Section

AA & BB

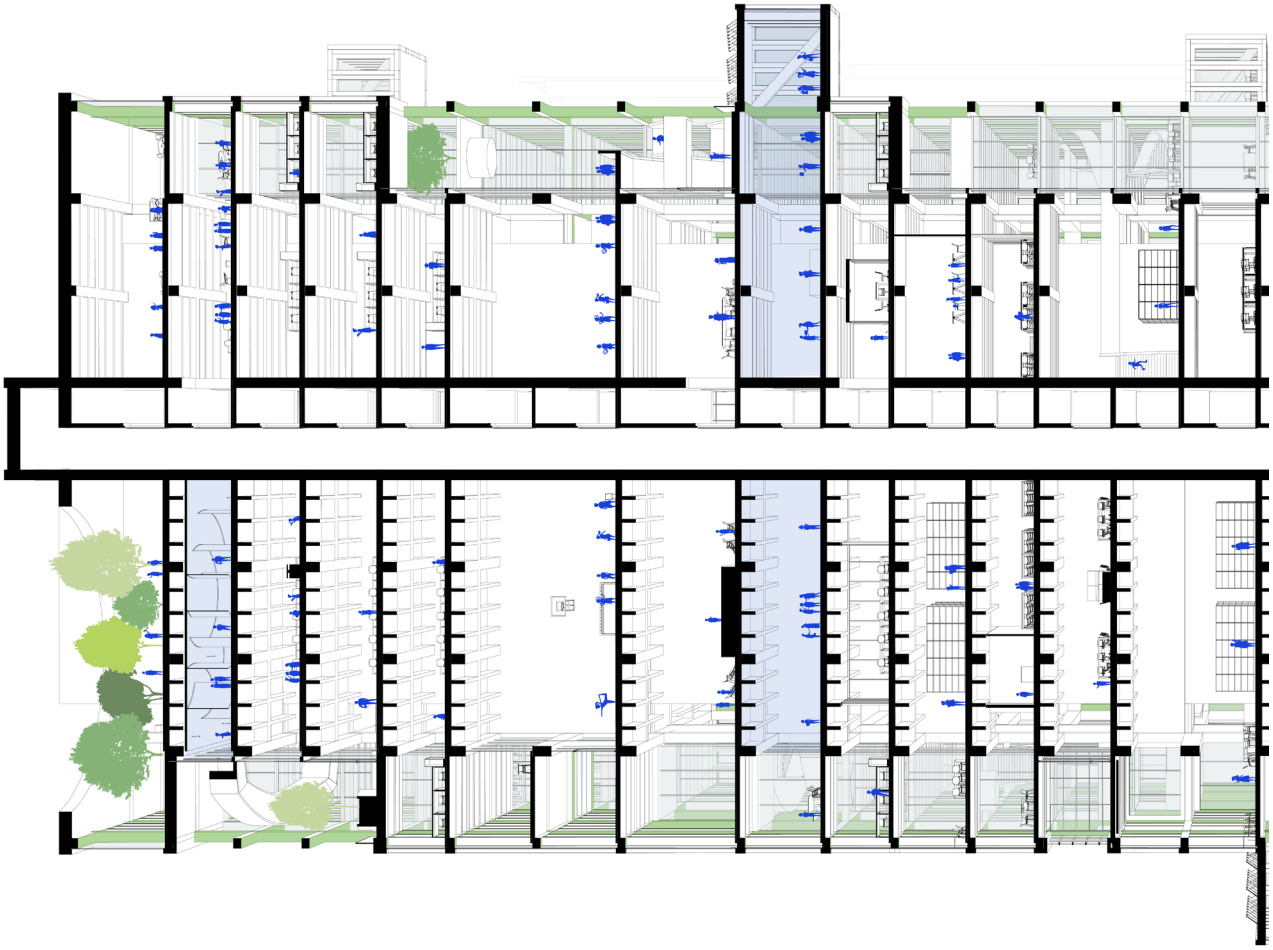


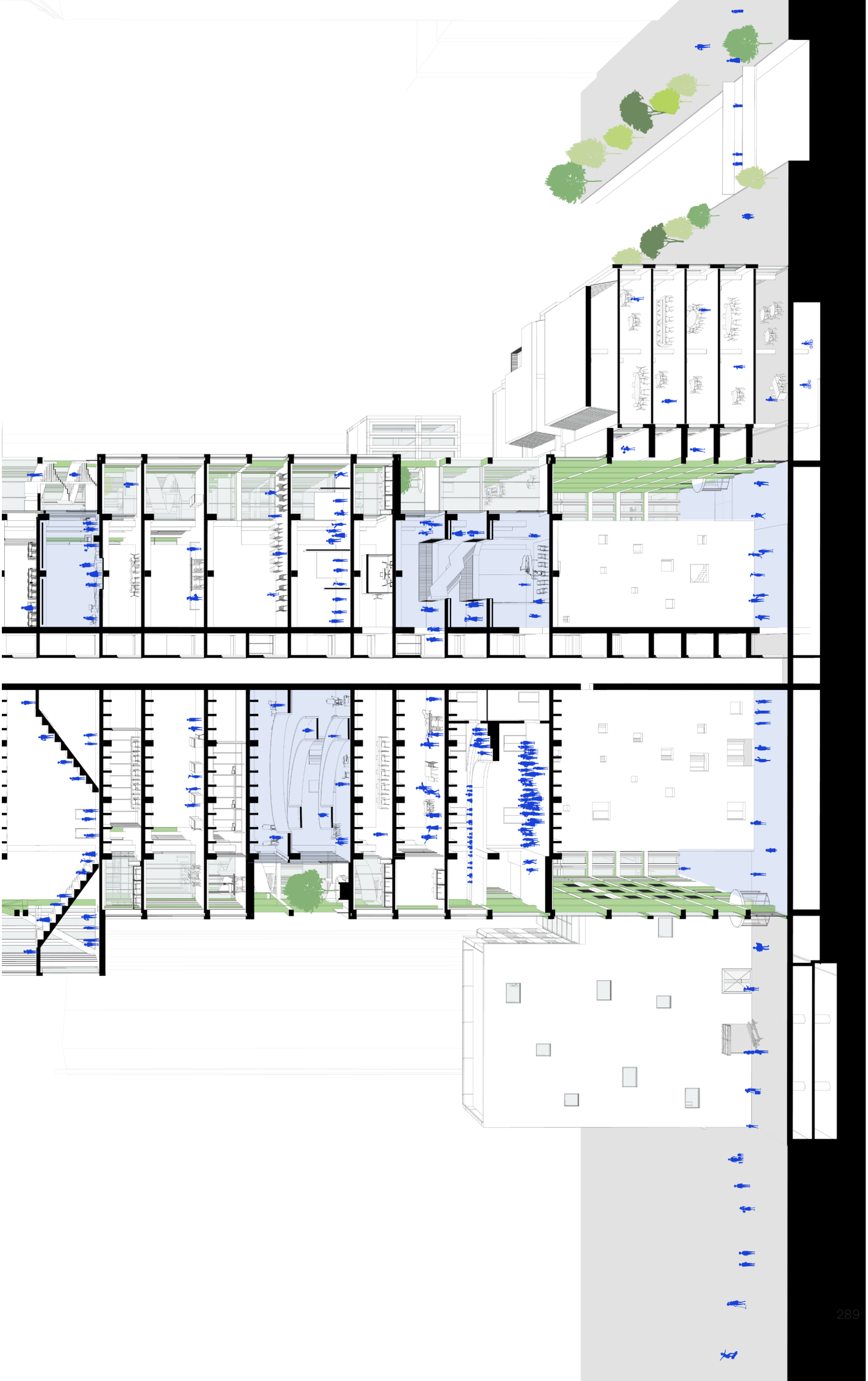
0 4 m



Section

CC





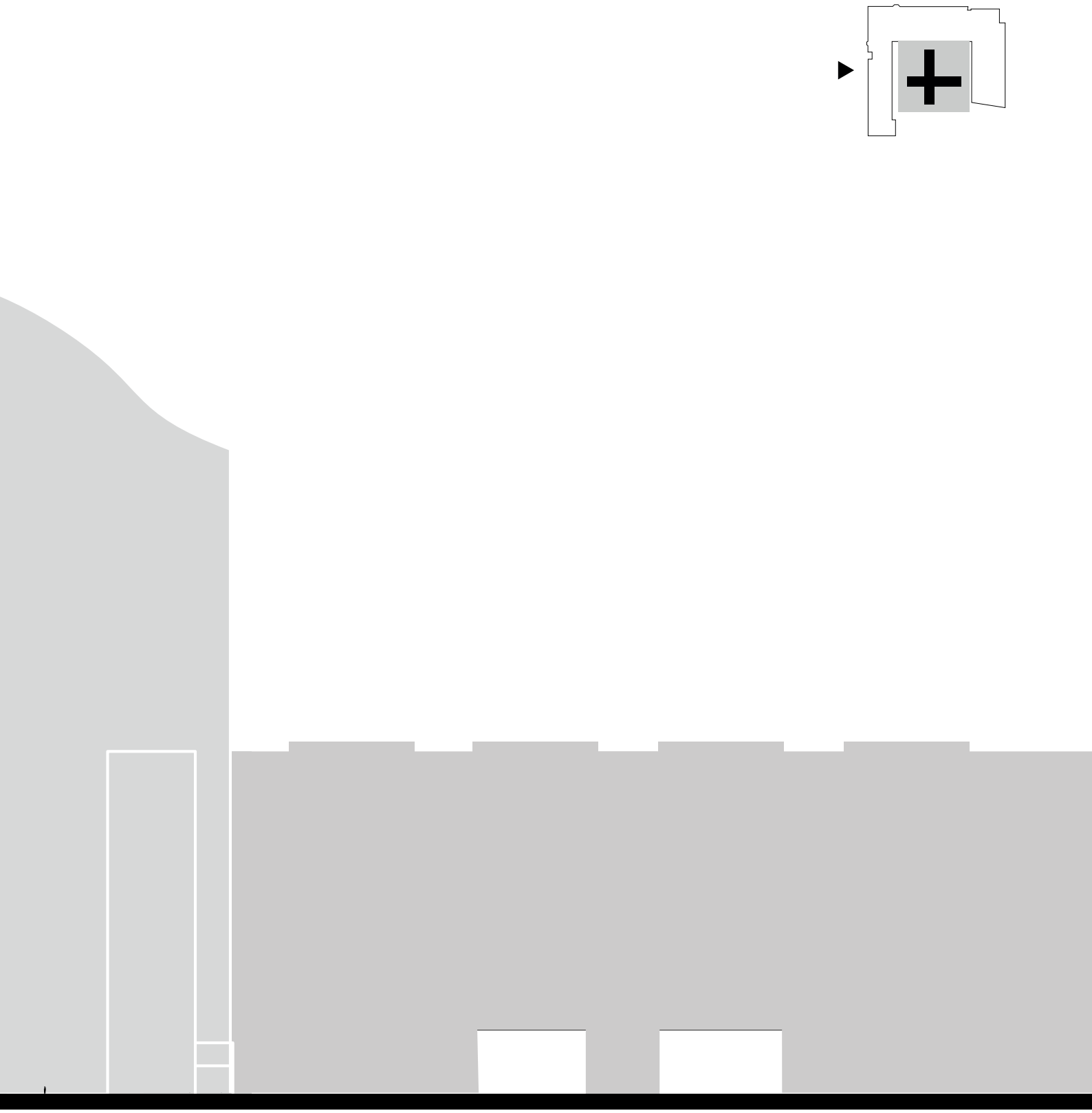
Interior perspectives

The In-between

Elevation

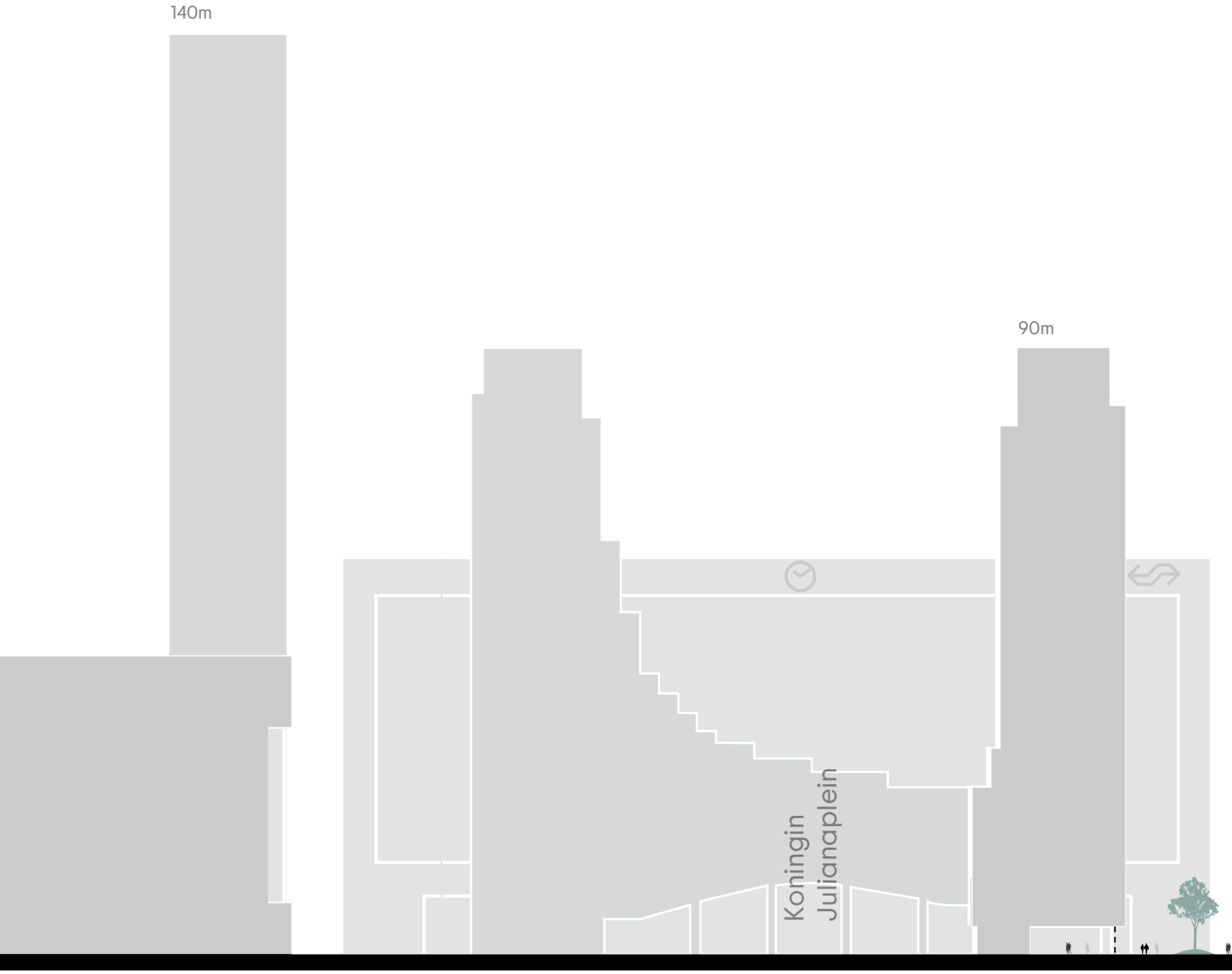
West

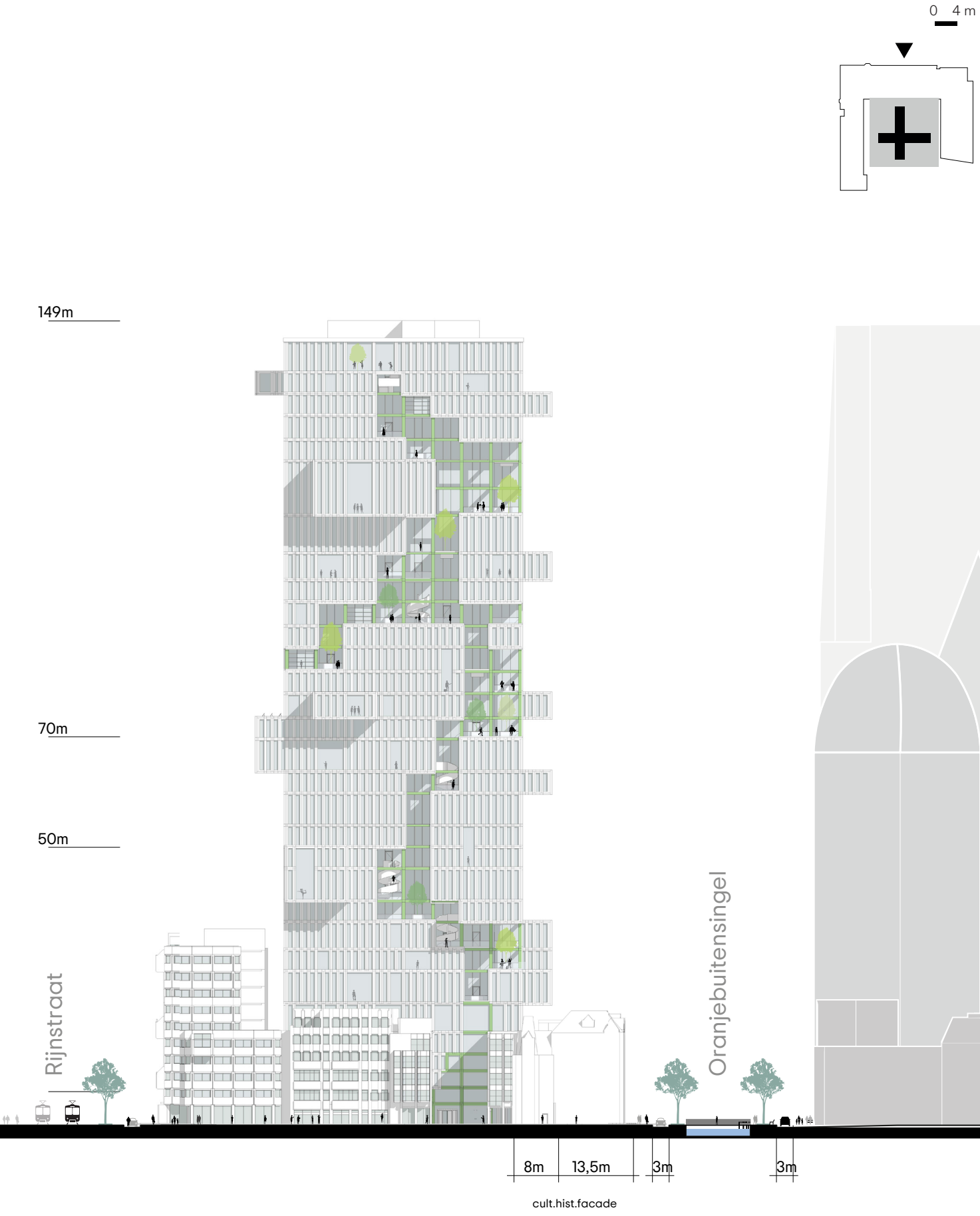
0 4 m



Elevation

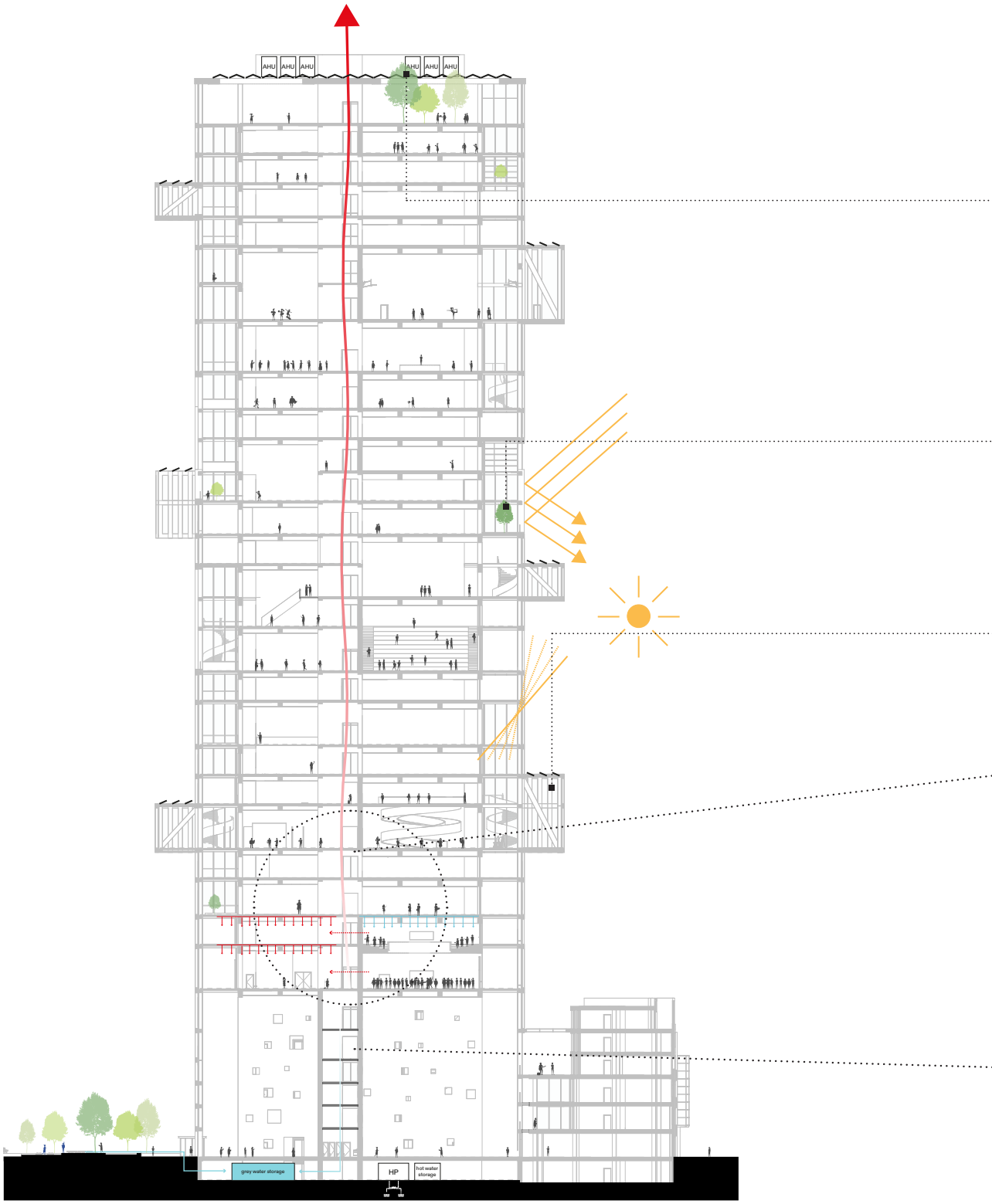
North




0 4 m
149m
70m
50m
Rijnstraat
Oranjebuitensingel
8m
13,5m
3m
3m
cult.hist.facade

Building Engineering

Climate concept



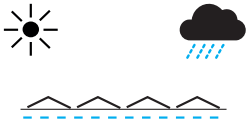
Durability

Lifespan of a Building

2024 — Vertical Campus, The Hague *> 100 years*

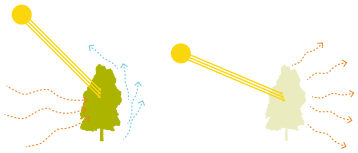
Modular Design | **Layers of Brand** | **High-Durability Materials**

Optimization



Renewable Energy | **Rainwater Harvesting**

Sustainability



Optimization

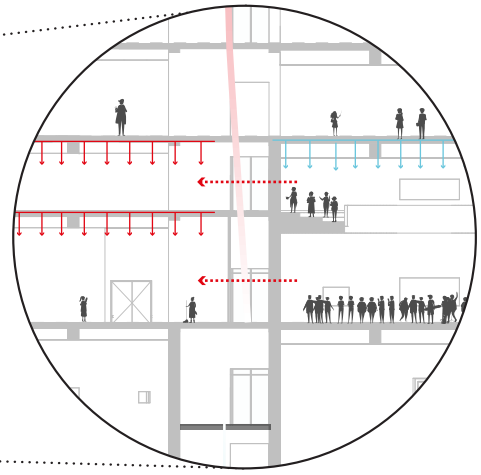
Solar chimney

Optimization

Local Renewable Energy

Optimization

Climate facade



Sustainability - Construction + Materials

Hybrid Construction

Core + Columns
Concrete

Beams
Glulam

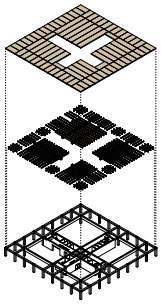
Floors
Wood (CLT)

Facade
Self-made terrazo tile

conventional

biobased

Recycle



Optimization

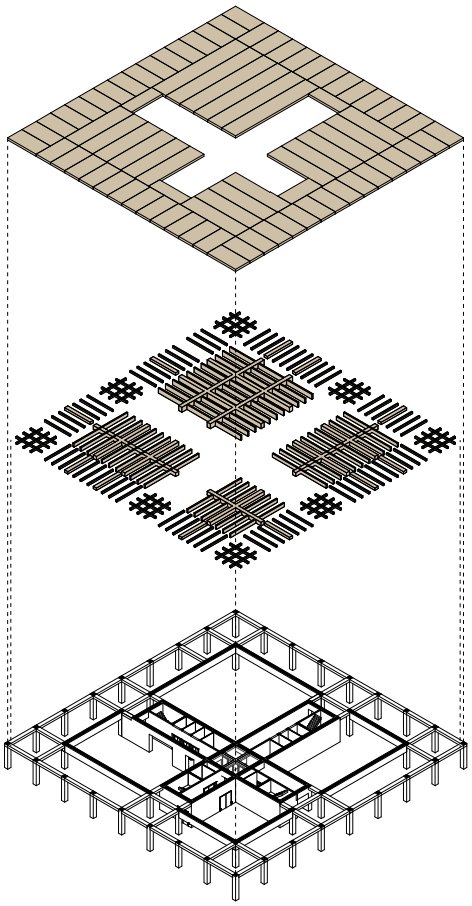
Ventilation optimization

Optimization

Stormwater retention

Building Engineering

Structural concept



246,54 m³
-163.702,56 kg $CO_{2\ eq}$

129,88 m³
-86.242,98 kg $CO_{2\ eq}$

543,92 m³
153.385,44 kg $CO_{2\ eq}$

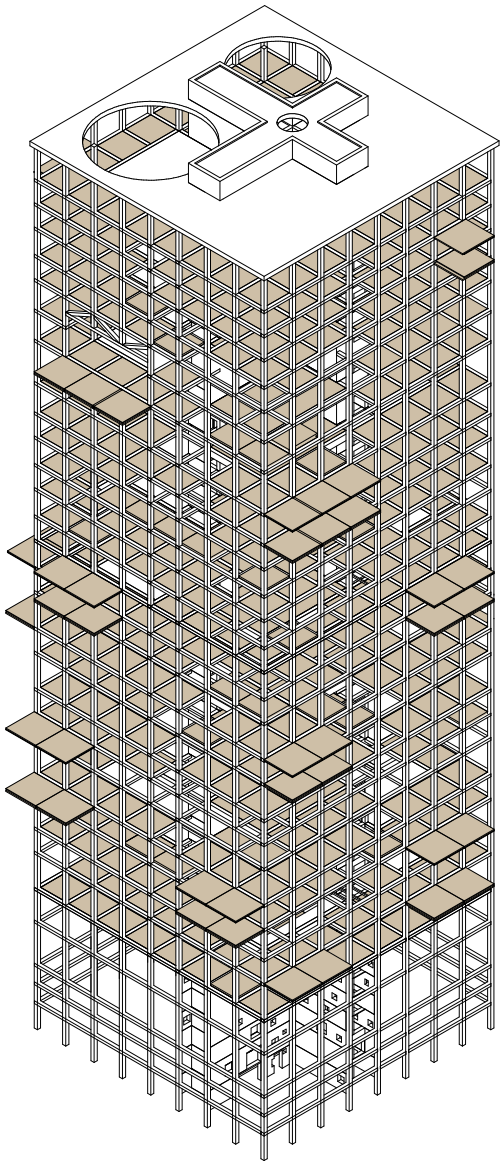
1 full concrete

144,03 kg $CO_{2\ eq}$
per m²

→

2 concrete base + wooden infill

-49,52 kg $CO_{2\ eq}$ per m²



1 full concrete

2 concrete base + wooden infill

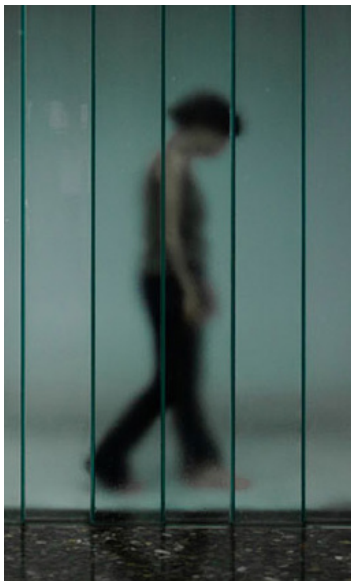
9.251.156,64 kg $CO_{2\ eq}$ → **-2.071.129,44 kg $CO_{2\ eq}$**

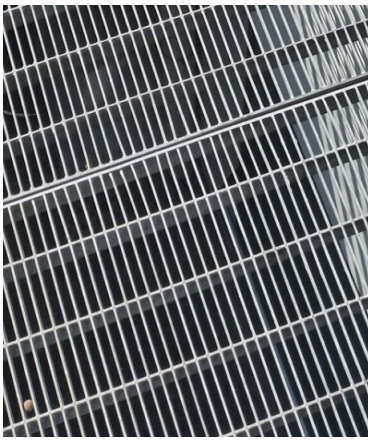
In the realm of sustainable architecture, The Vertical Campus project exemplifies the thoughtful selection of materials to balance structural integrity and environmental impact. While concrete is utilized for the base due to its robustness and minimal maintenance needs, the significant CO2 emissions associated with its use are mitigated by integrating wood for the floors. This combination not only ensures the stability and longevity of the building but also significantly reduces its overall carbon footprint, showcasing a harmonious blend of strength and environmental stewardship.

Interior

Concept

M1	**exterior walls**	Concrete
M2	**interior separation**	Reglit glass colored
M3	**ceiling**	Concrete
M4	**floor**	Wood and metal mesh grid
M5	**furniture**	-



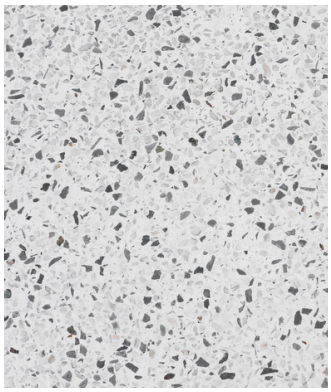


06
06
usic venue
ppodium
square
plan

Interior

Gathering

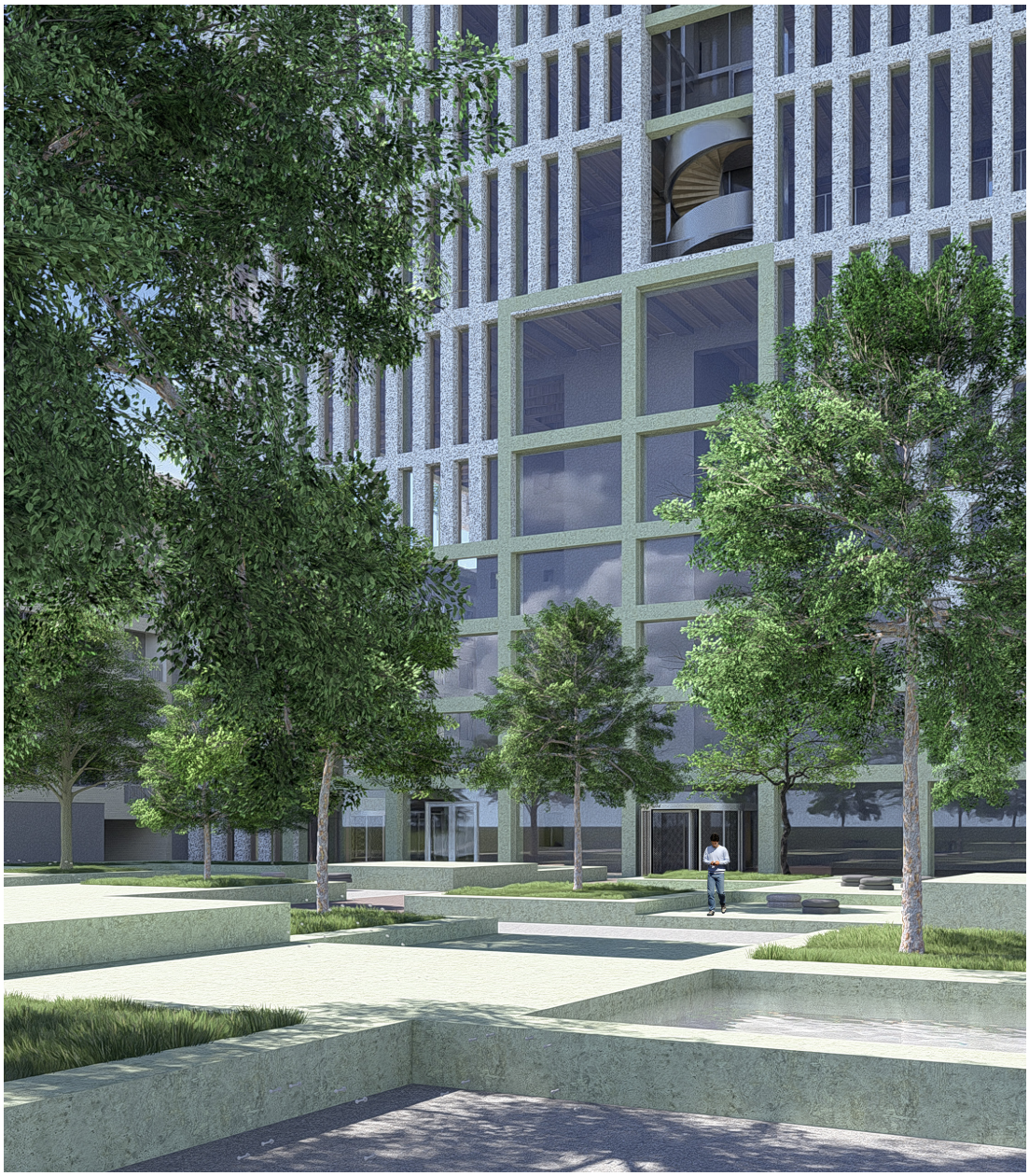
M1	**exterior walls**	Concrete
M2	**interior separation**	Meranti wooden frames filled with glass
M3	**ceiling**	High ceilings with industrial-style exposed ductwork
M4	**floor**	Red brick and terrazzo
M5	**furniture**	-



Interior

Courtyard

M1	**exterior walls**	-
M2	**interior separation**	-
M3	**ceiling**	-
M4	**floor**	Hexagonal paver system by Snøhetta
M5	**furniture**	Pigmented concrete with wooden furniture



Interior

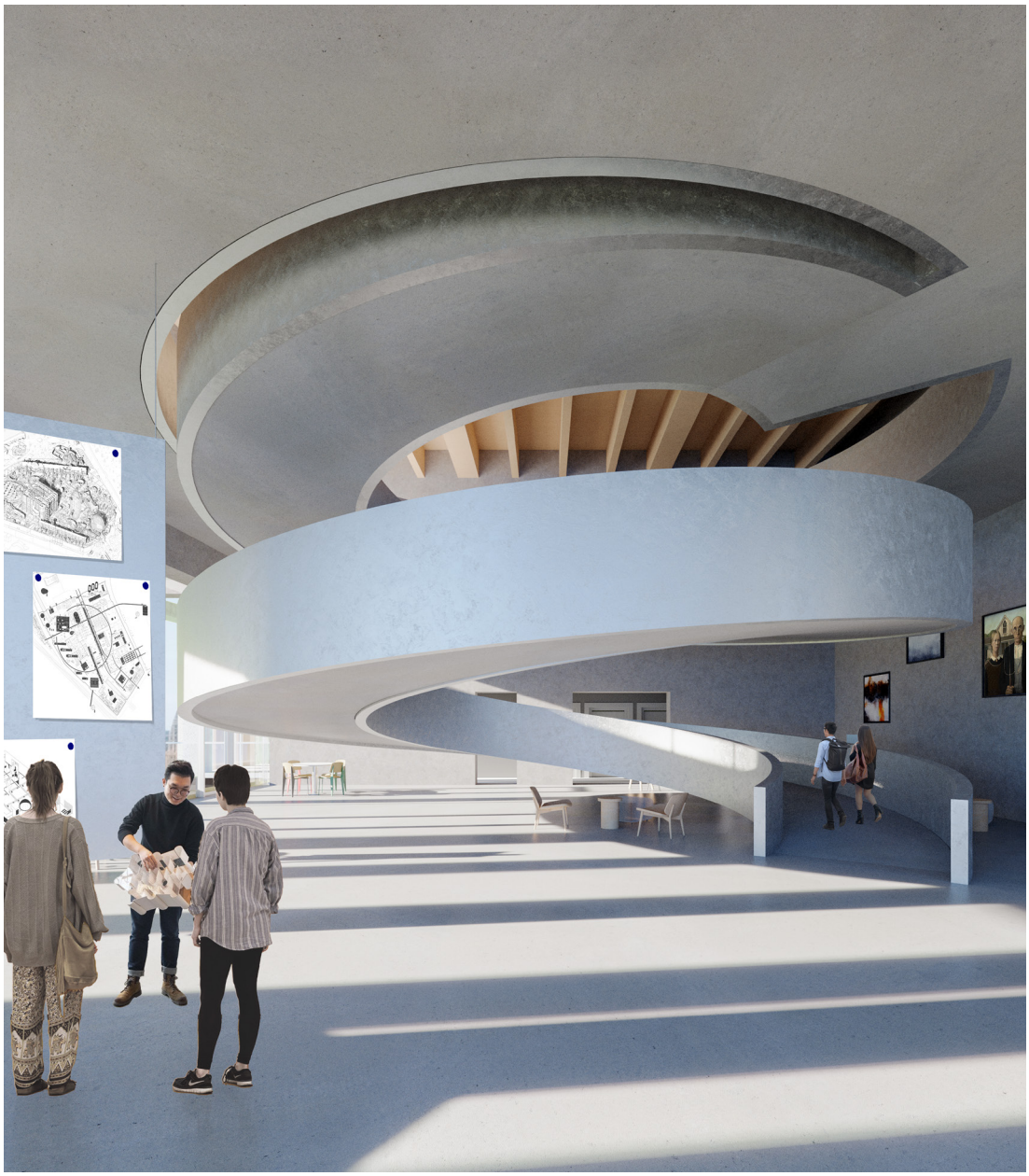
Depiction

M1	**exterior walls**	BAUX Pulp Panels (biobased)
M2	**interior separation**	Curtains
M3	**ceiling**	Acoustic panels by Kvadrat
M4	**floor**	Light terrazo stage, surrounded by wooden theater floor
M5	**furniture**	Wood and chromium-plated aluminium
M6	**railing**	Recycled aluminium

Interior

Creation

M1	**exterior walls**	Concrete and timber
M2	**interior separation**	-
M3	**ceiling**	Sound absorbing plaster
M4	**floor**	Durable materials like epoxy-coated concrete
M5	**furniture**	Wood and (colorfull) textile
M6	**railing**	Recycled aluminium



Interior

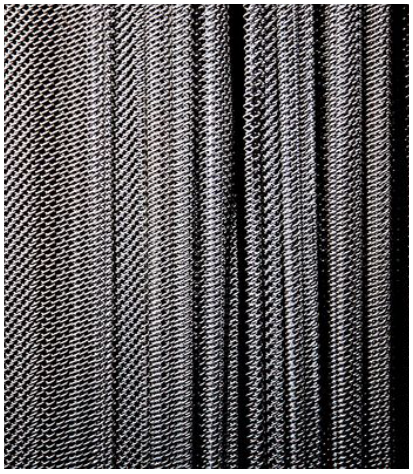
Knowledge

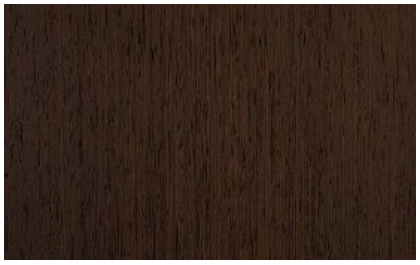
M1	**exterior walls**	Concrete and timber
M2	**interior separation**	Polyester curtains
M3	**ceiling**	Acoustic panels by Kvadrat
M4	**floor**	Terrrazo flooring
M5	**furniture**	Wood, aluminium and chromium-plated aluminium

Interior

Mind

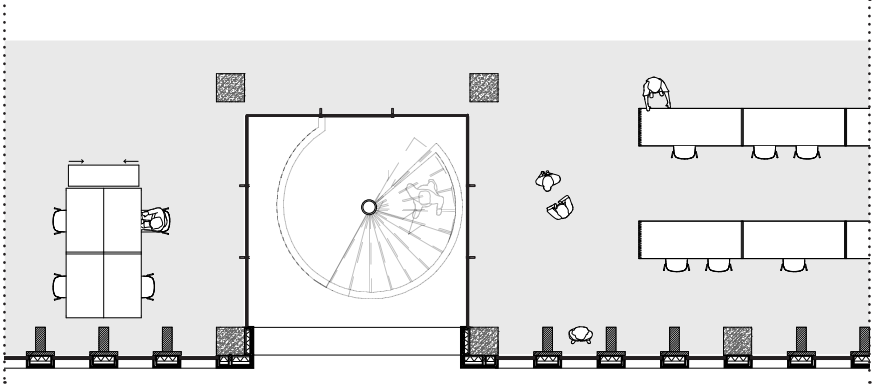
M1	**exterior walls**	Acoustic panels by Kvadrat
M2	**interior separation**	Metal curtains
M3	**ceiling**	Acoustic panels by Kvadrat
M4	**floor**	Dark casting floor by Senso Bcrete
M5	**furniture**	Walnut and Wengé wood



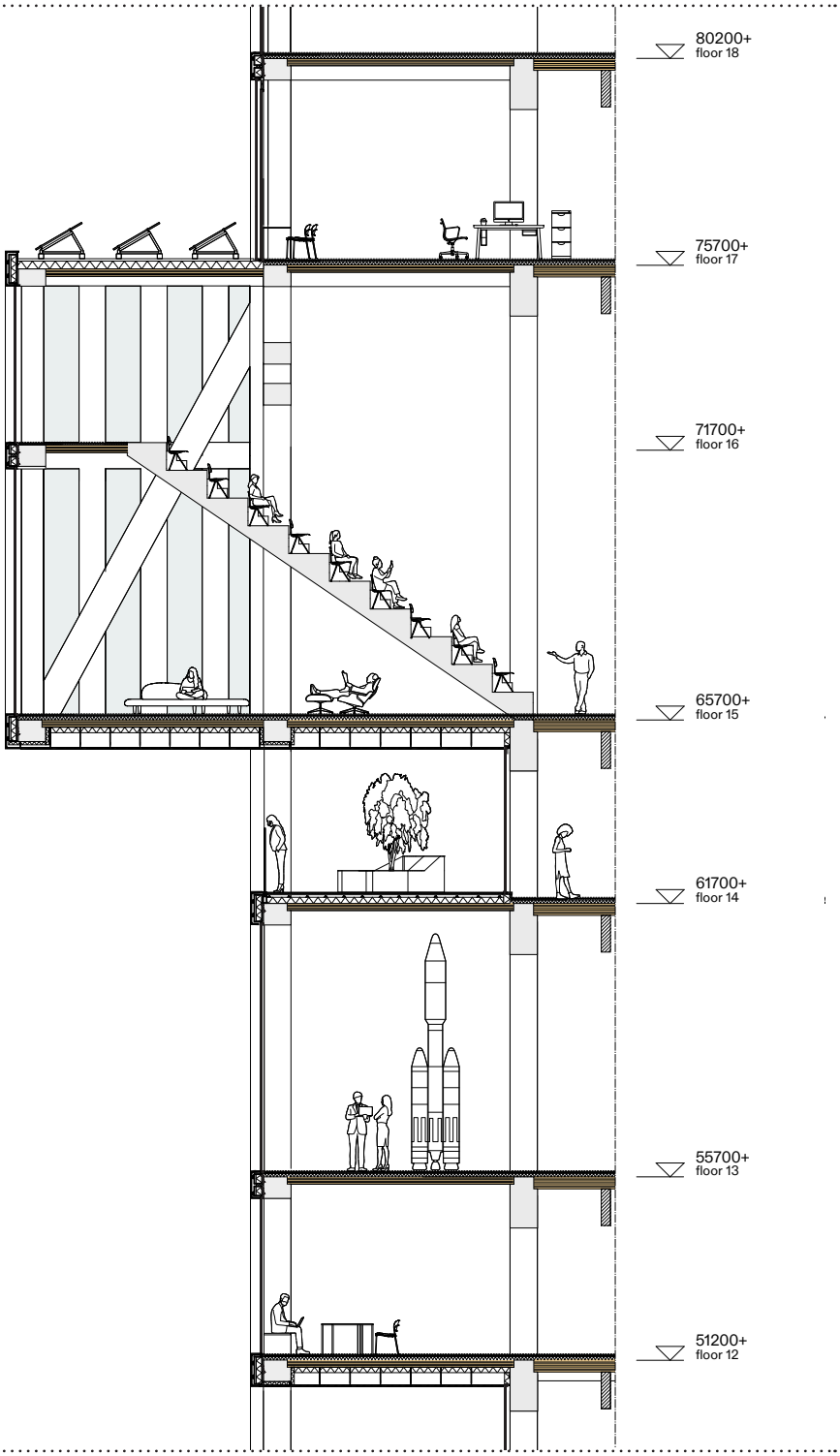


Fragments

1:50

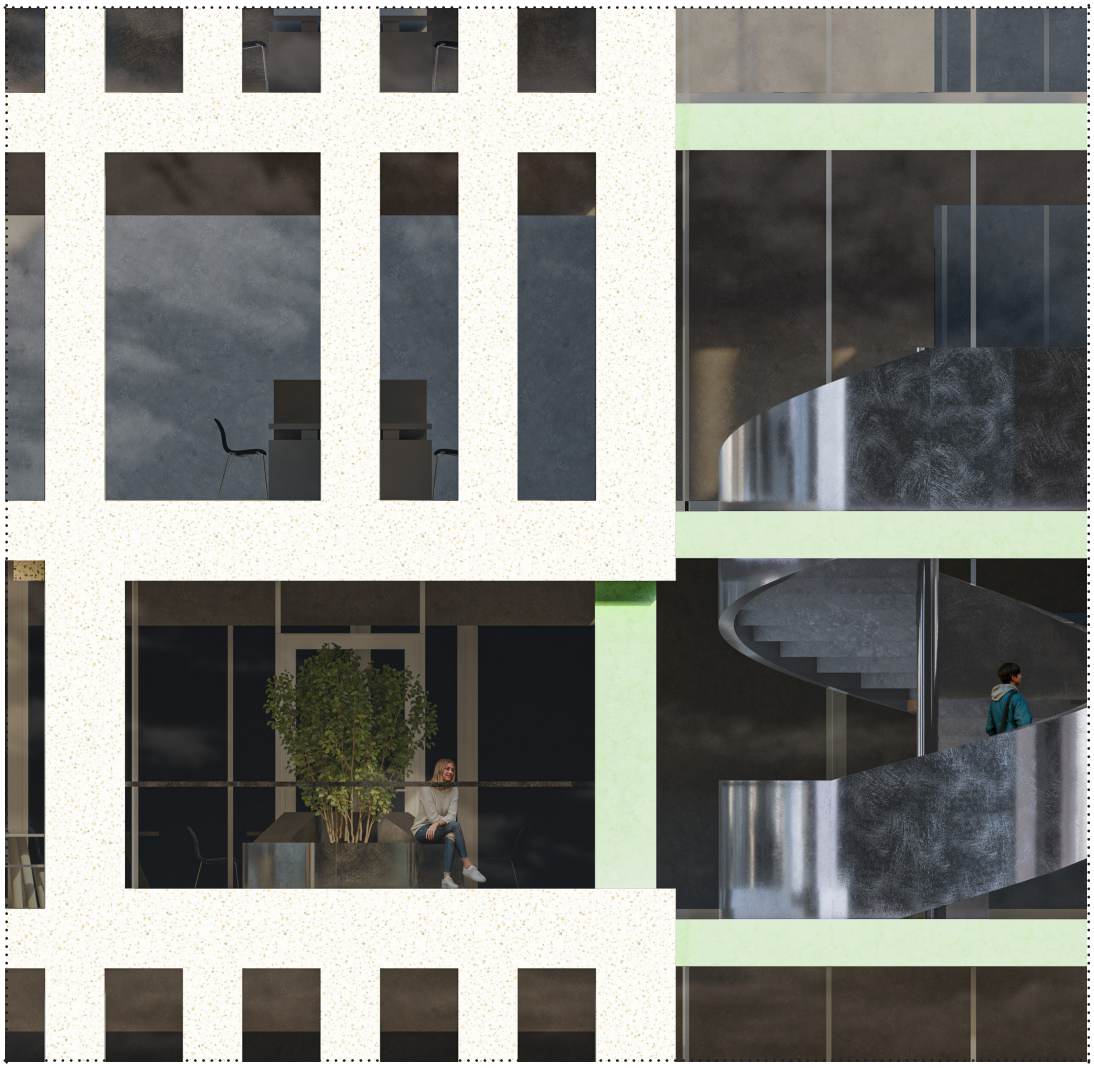


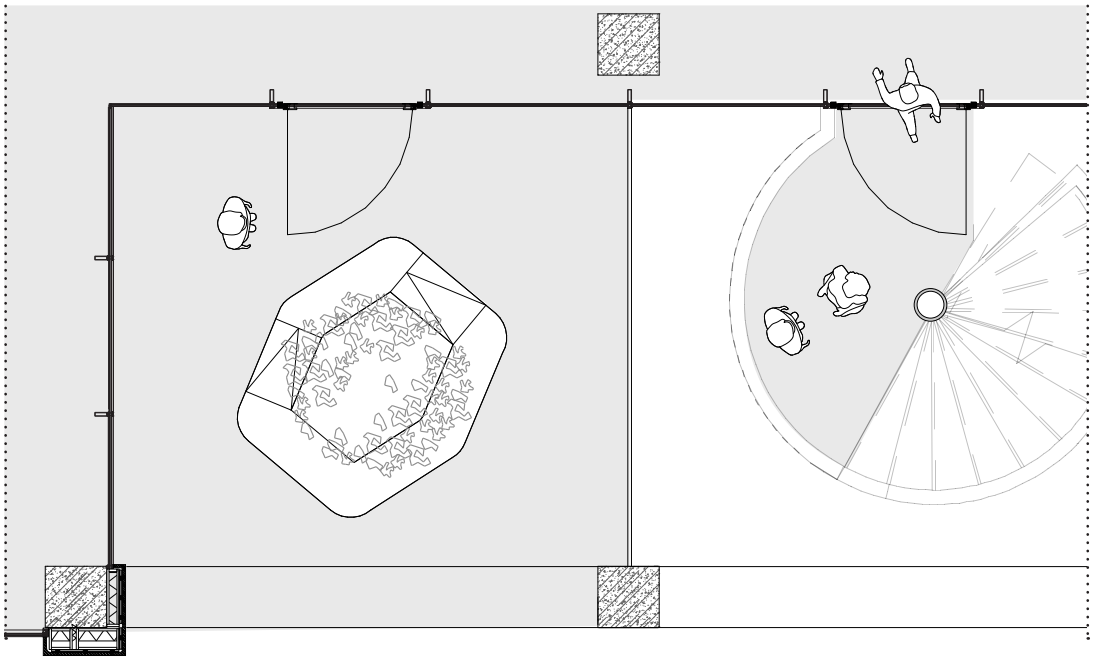
0 1 m


80200+
floor 18
75700+
floor 17
71700+
floor 16
65700+
floor 15
61700+
floor 14
55700+
floor 13
51200+
floor 12

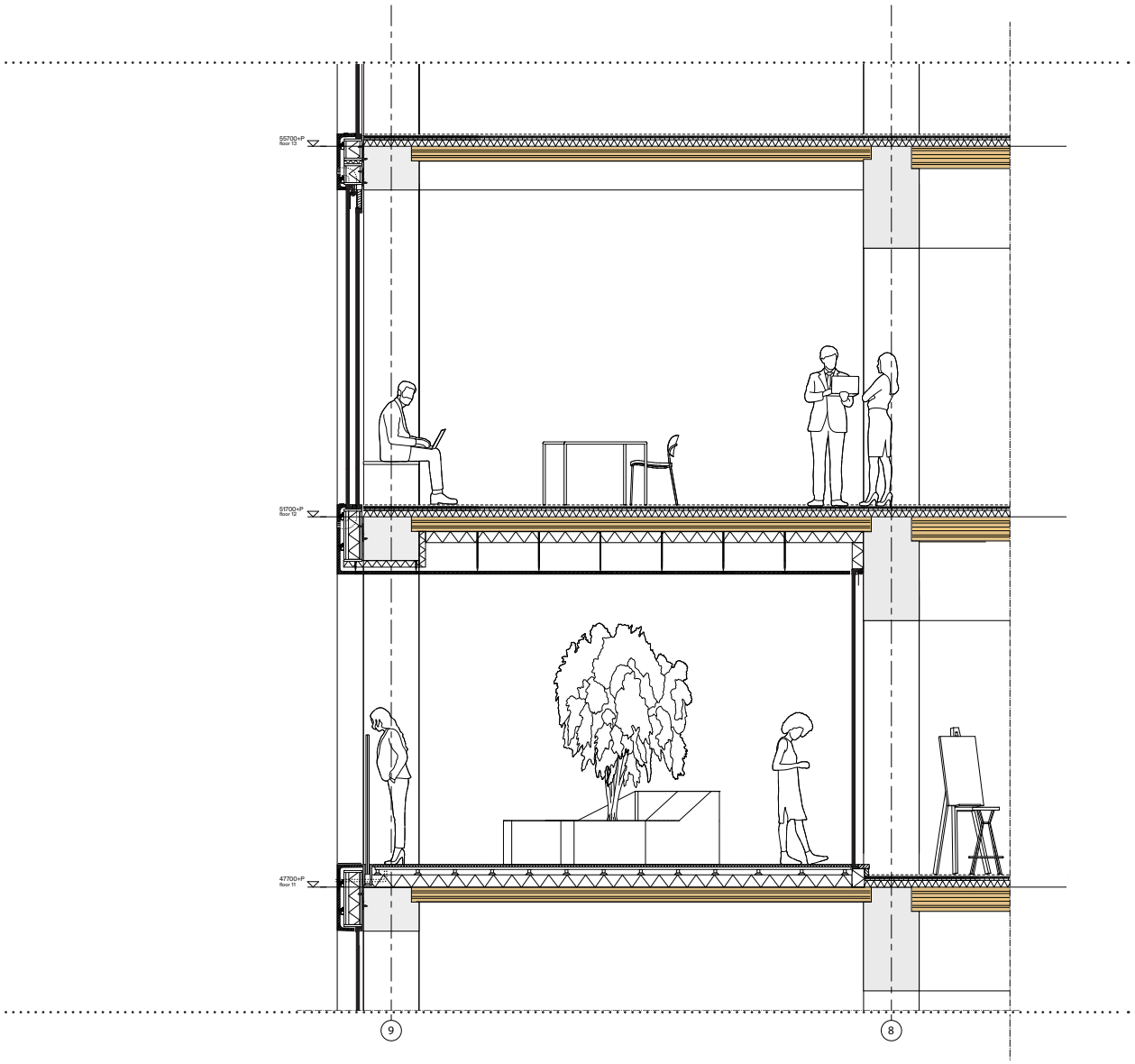
Fragments

1:20



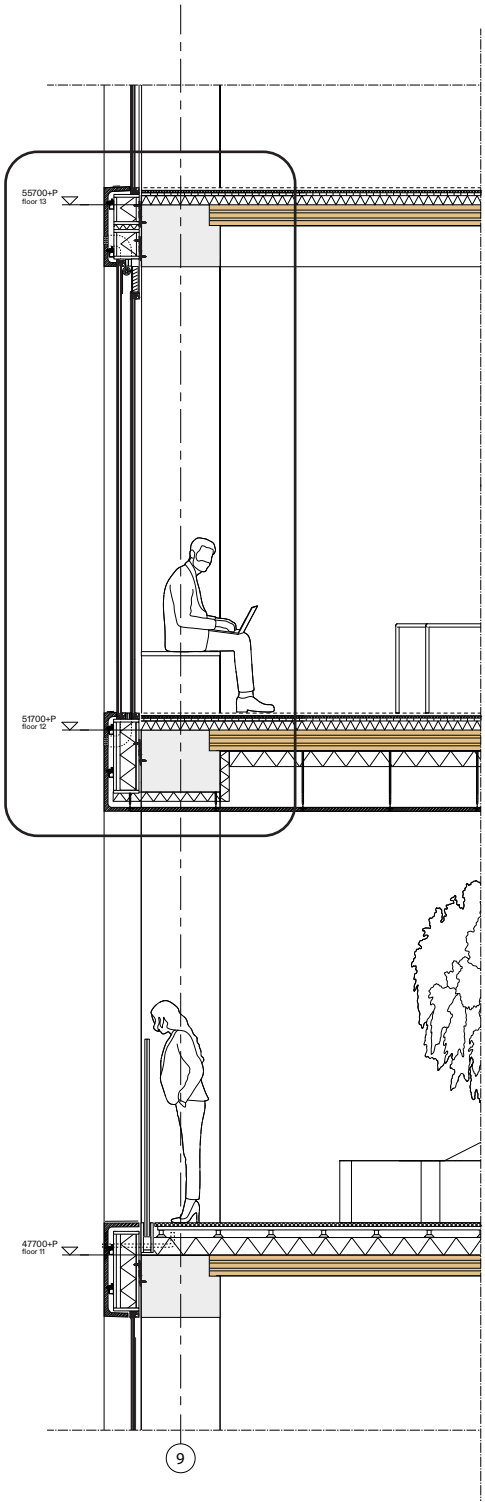


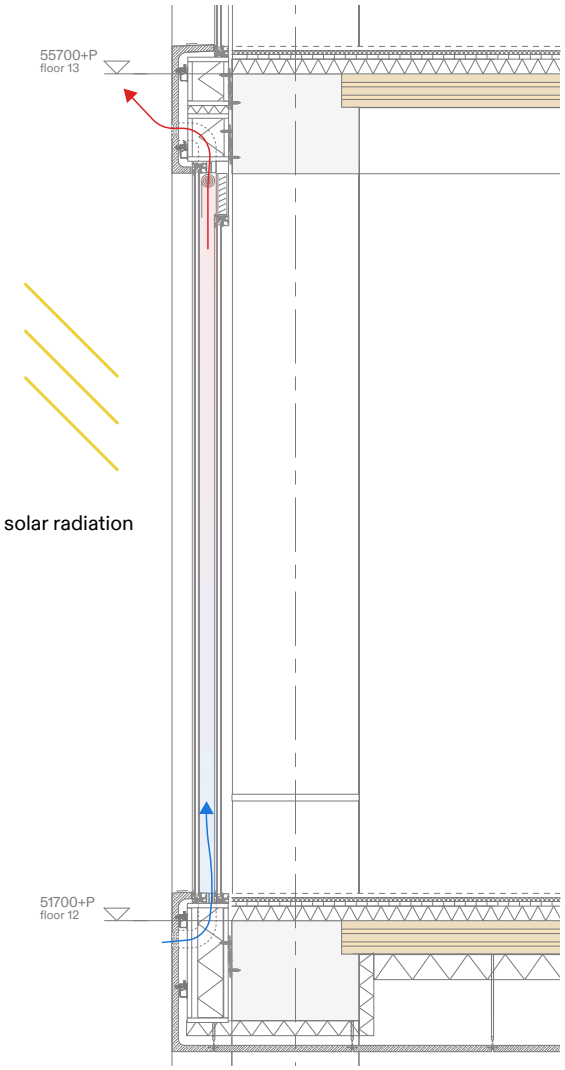
0 0.5 m



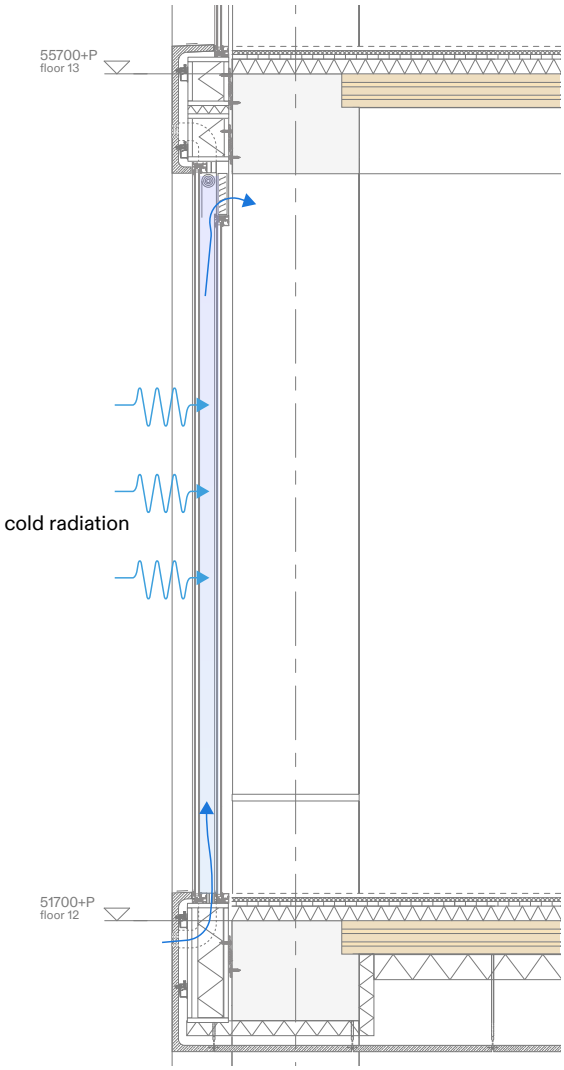
Fragments

1:50

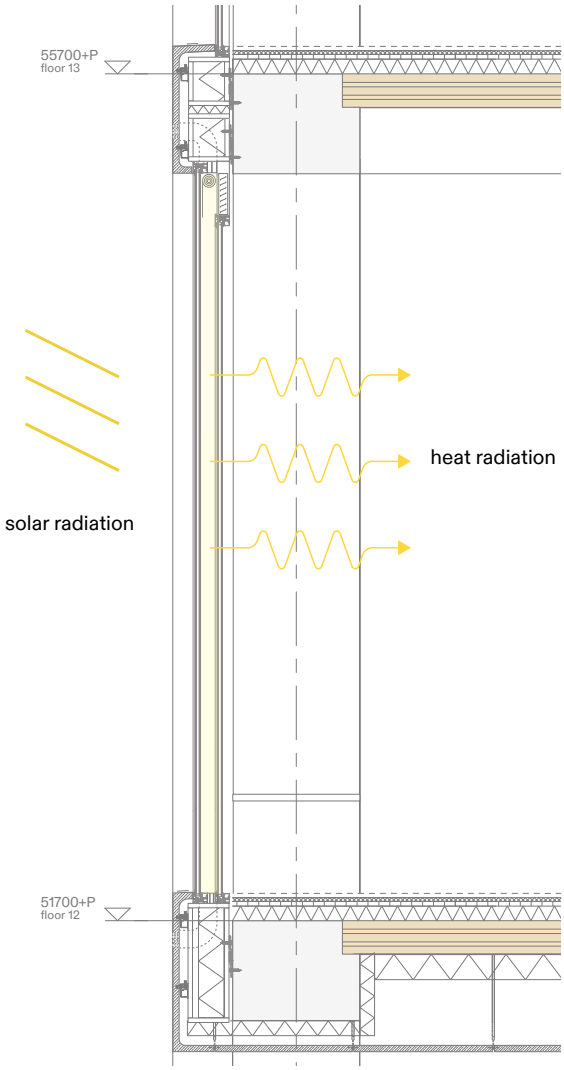




summer daytime



**summer night/
transition seasons**



winter daytime

Details

1:5

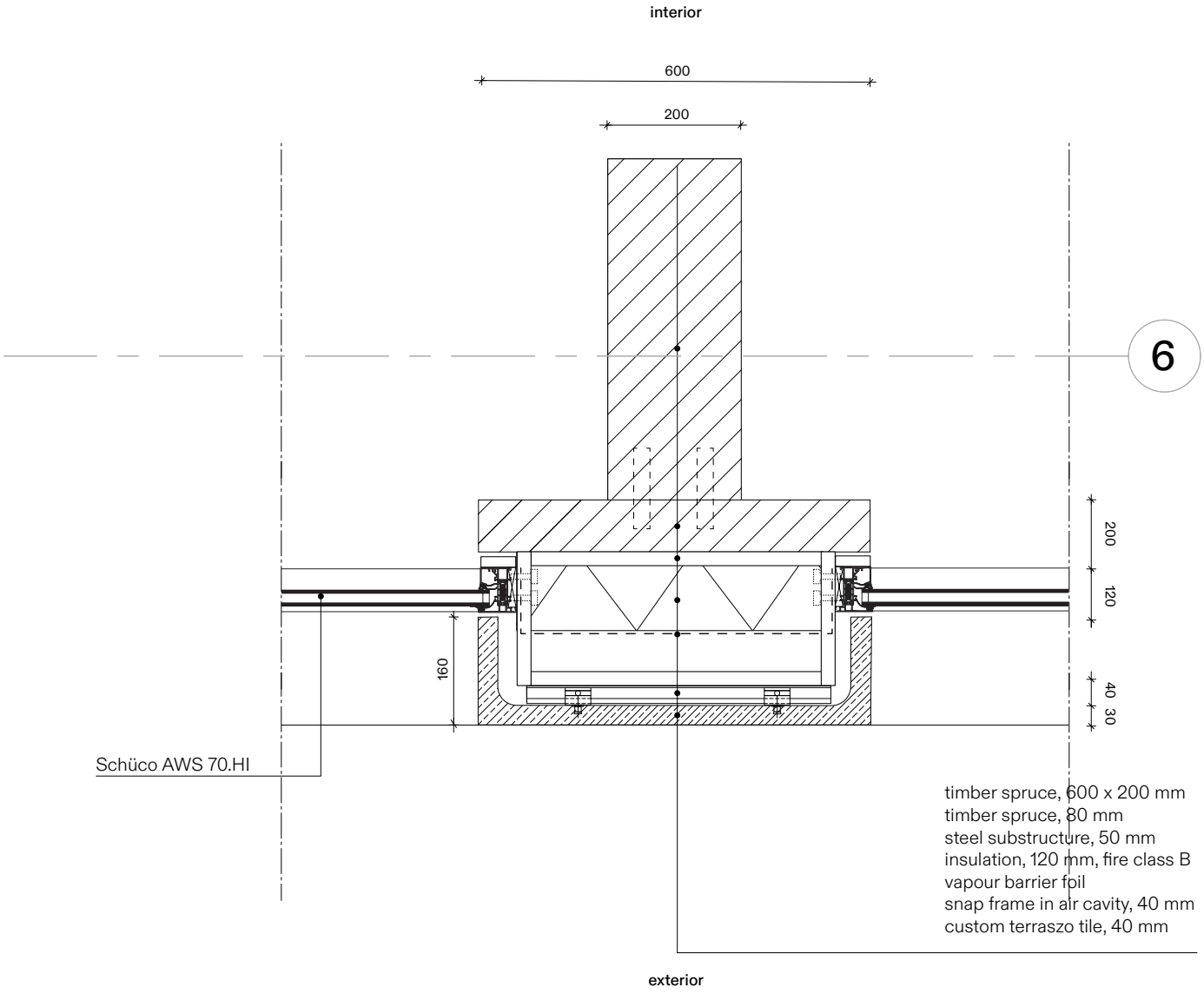
Drawing No.
DO-401

Subject
Facade panel wood (middle)

Size
A4

Date
16-05-2024

Phase
DO - P5



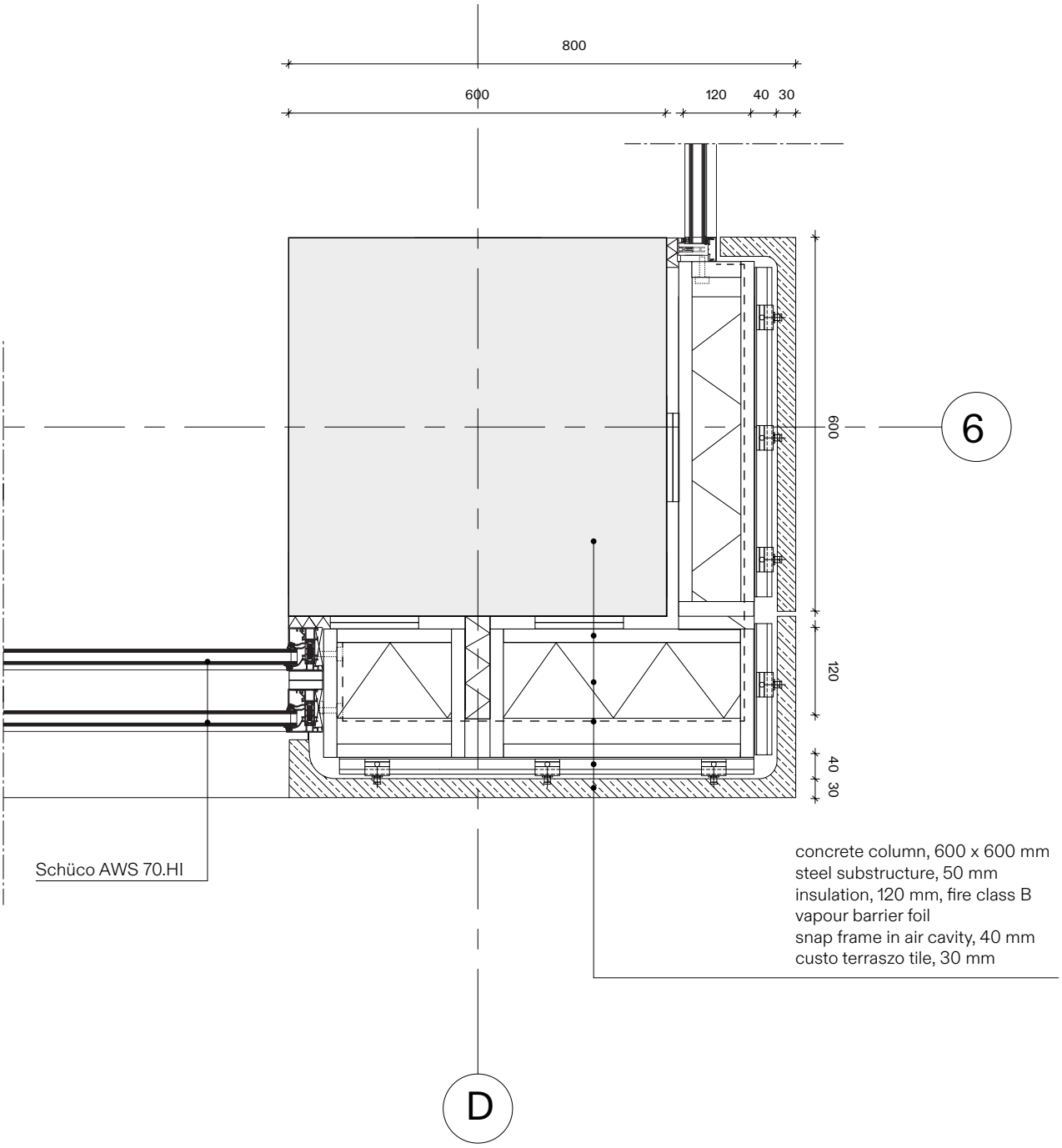
Drawing No.
DO-402

Subject
Facade panel connection column - corner unblocking

Size
A4

Date
16-05-2024

Phase
DO - P5



Details

1:5

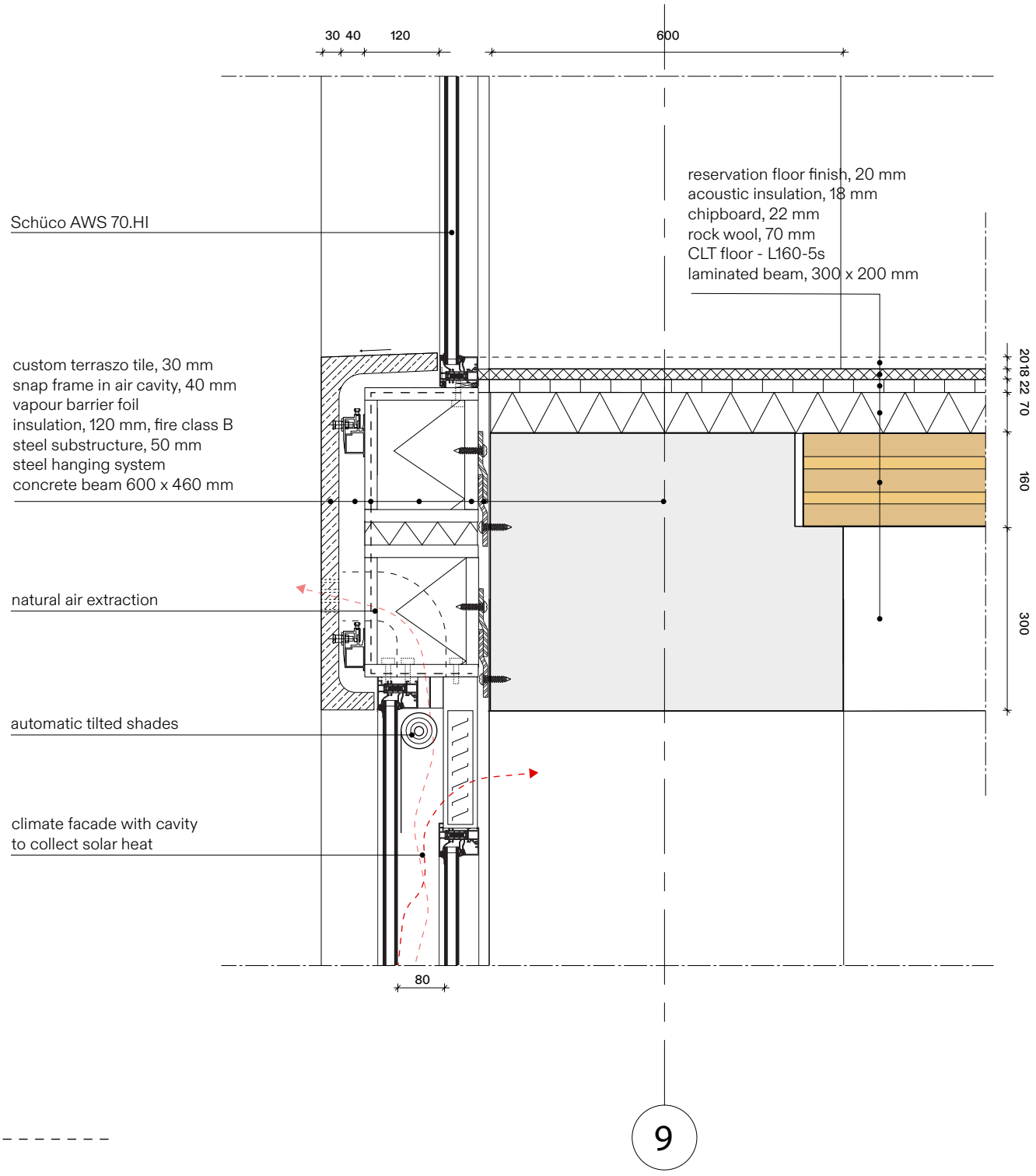
Drawing No.
DO-403

Subject
Storey floor with prefab facade elements

Size
A4

Date
16-05-2024

Phase
DO - P5



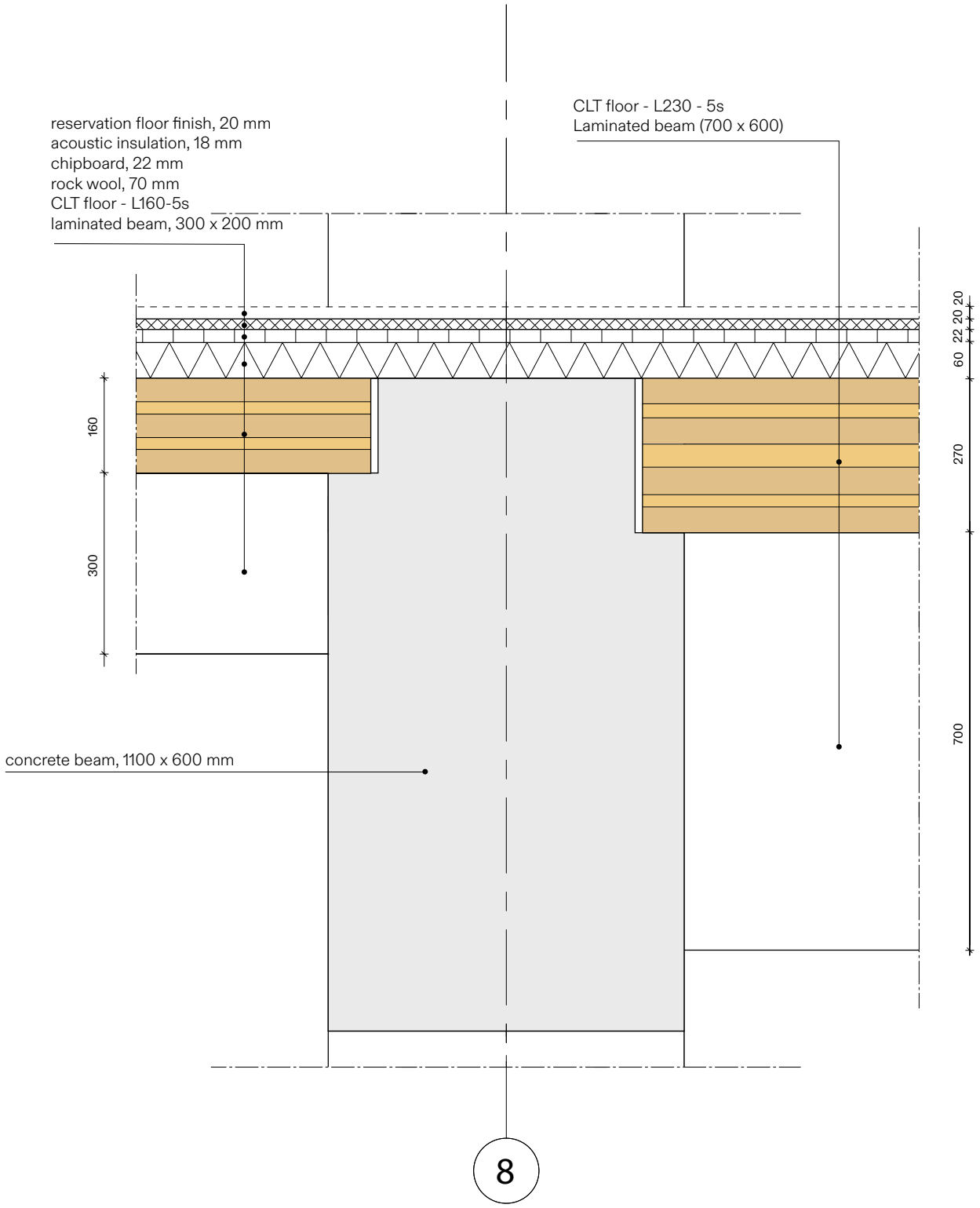
Drawing No.
DO-404

Subject
Floor transition on beam

Size
A4

Date
16-05-2024

Phase
DO - P5



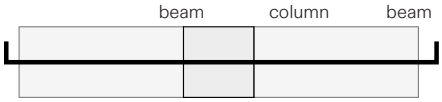
8

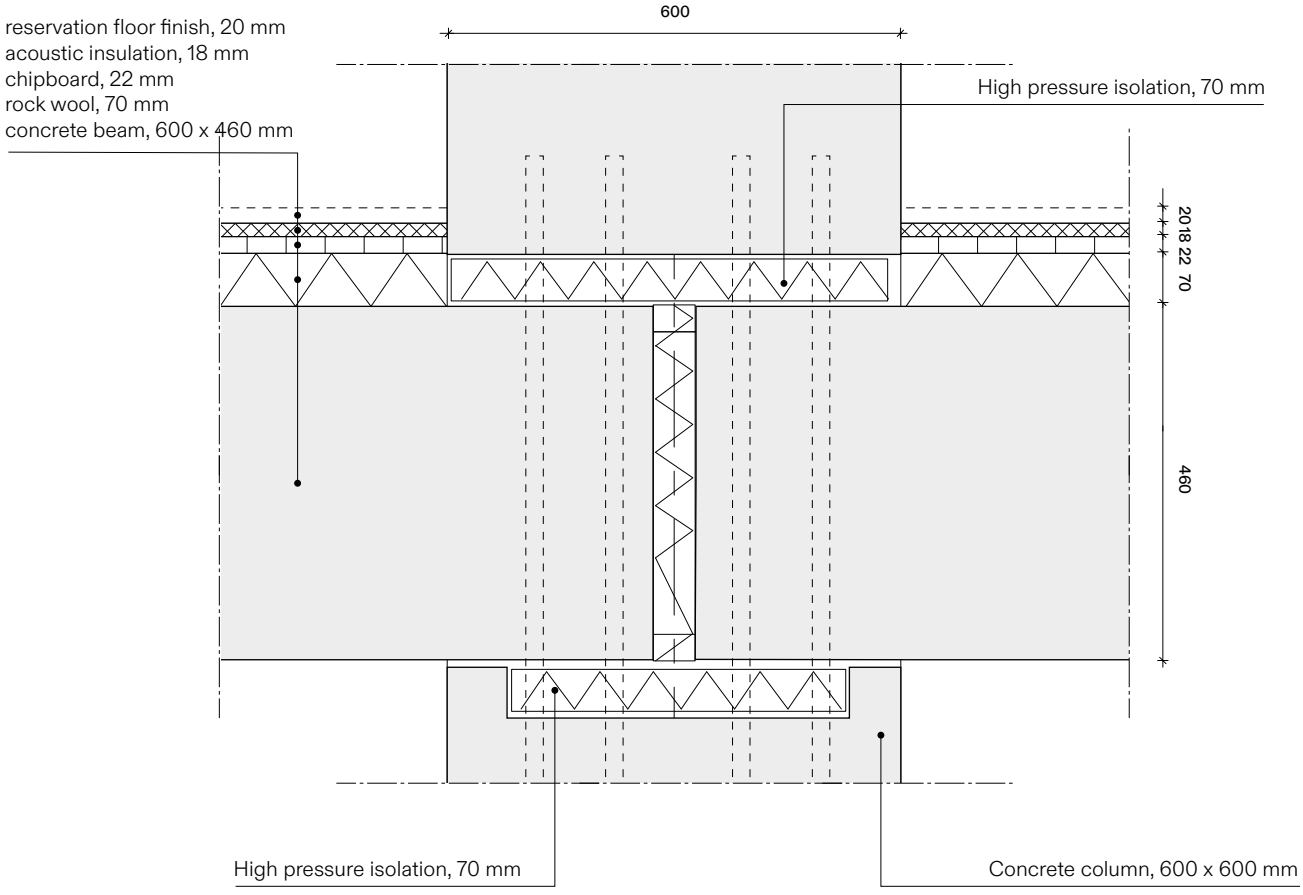
Details

1:5

Drawing No.	Subject
DO-405	Thermal bridge solution column

Size	Date	Phase
A4	16-05-2024	DO - P5





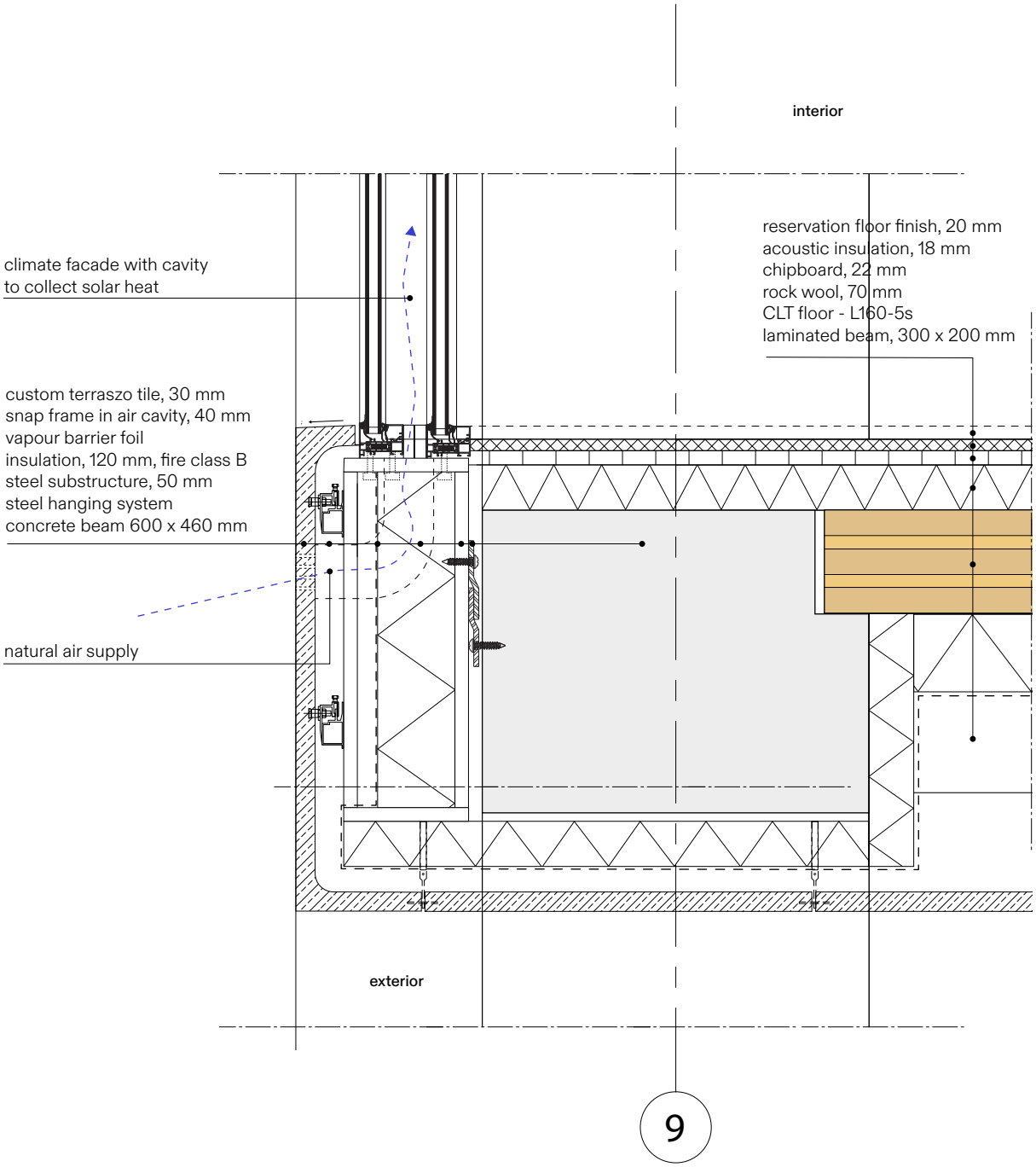
Drawing No.
DO-406

Subject
Storey floor with prefab facade elements - at unblocking part

Size
A4

Date
16-05-2024

Phase
DO - P5



Model

1:200

Part VII | **Reflection**

Reflection

The graduation project for the vertical campus has been a true journey of discovery. Investigating a building that effectively extends the city and connects education with public space was a challenging start. I enjoyed the studio's 'Research by Design' approach, and thanks to my supervisors, I learned a lot from this method. This approach is a good combination of theory and design, ensuring that design ideas are supported by underlying theoretical thoughts. The focus of the research was primarily on understanding, testing, and exploring, rather than merely searching for problematic aspects. An early start in designing allowed me to test (theoretical) findings from the beginning and helped me formulate my interventions. It gave me a better perspective on the city, the future of education, and the concept of a vertical town square within the building.

This project sought to extend the public space in the city vertically and is envisioned as a space where The Hague can find respite from all the hustle and tension. This concept aims to serve as an unprogrammed space of opportunities, distinguished in its quality as an informal meeting place within the current, somewhat closed urban structure. Through a methodical approach, I was able to systematically analyze a variety of public spaces in the city. This concluded that there is indeed value in the existing public spaces, which must certainly be preserved. This space should be understood as a source of inspiration and serve as a foundation for the design of various town squares, each expressing its own spatial language. Thus, it is not a replacement but an addition to the existing public spaces in the city.

The concept focuses on the strategy of connecting public space and education through the vertical campus. In higher education, "teaching" often refers narrowly to lecturing. However, teaching at universities encompasses more than just delivering lectures; it is about creating conditions conducive to learning, which involves relational, personal, and emotionally challenging activities.[1] It necessitates a substantial commitment and entails the development and upkeep of supportive environments in the intellectual, social, physical, cultural and ethical realms that promote student learning.[2] This approach also involves ethical considerations, acknowledging and addressing the intricate nature of adult student learning.

The vertical town square concept on a vertical campus offers significant educational benefits by promoting collaborative learning. It reflects the idea that social interaction is crucial in education, bringing together diverse groups for cross-disciplinary learning and real-world application.[3] By engaging with this model, students can develop skills in teamwork, problem-solving, and innovation within a context that reflects real-world challenges and processes. These

[1] Macfarlane, B. (2004). T*eaching with integrity.* London: RoutledgeFalmer.

[2] Seldin, P. (1993). The use and abuse of student ratings of professors. *Chronicle of Higher Education*, p.40

[3] Johnson, D. W., & Johnson, R. T. (1999). *Learning together and alone: Cooperative, competitive, and individualistic learning.* Pearson Education.

interactions are critical as they help students develop a holistic understanding of varied academic fields, fostering a more comprehensive educational experience. This setting transcends traditional static classrooms, providing a dynamic, interactive environment for both formal and informal education, in line with experiential learning theories.[4] The goal is thus to create squares of engagement, places for the society of The Hague to come together, merging various social classes, and enhancing awareness of societal diversity. A new tower in The Hague, like all other buildings, has a symbolic and characteristic power in its appearance, yet remains accessible and subtle through its varied squares.

In theory, this concept sounded promising, but translating it into architecture proved quite challenging. It was important for me that the spaces had the characteristics of town squares, otherwise they might have been merely landscapes or zones. After many mass studies, I was still not convinced of the vertical translation, and I questioned my approach. The (design) process of the vertical campus brought up many aspects, making it difficult to perform detailed interventions at every level. I tend to be perfectionistic about every detail, but I had to distribute my time wisely. The building is not serially constructed, which was also part of my design goal, meaning each floor has its own design and intervention. This was very time-consuming, occasionally distracting from the ultimate main goal, the design of the squares. This sometimes shook my confidence as an architect and raised questions about my design approach. However, thanks to the studio's method, after many experiments, I found a way to navigate my concept, which gave me new insights and taught me a new approach to tackling complex issues in terms of approach, theory, understanding, and exploring variants.

The methodical approach of the grid and the strategic placement of the core helped me create a approach that forms the structure for the development of the campus. The floor plan is flexible, offers space for a variety of functions, and distinguishes between public and private. This makes it possible to realize different squares throughout the building, allowing the campus to be public from top to bottom, serving as a vertical extension of the city. The intervention in the facade creates porosity, ensuring it does not become a new monolith in the The Hague, and serves as a vertical street that runs from the ground floor to the crown. This intervention connects the squares and other floors with each other through outdoor spaces, sight lines, and vertical connections, which are often very neglected in a tower. Outdoor spaces are essential as they offer a practical solution to the challenge of accessing urban open areas during limited break times. This strategic intervention guarantees that each floor features its own outdoor space, facilitating accessible relaxation and recreational opportunities. The relationship with existing buildings on the plot also plays an important role as an urban layer and was often a point of discussion. After much trial and error, an intervention was made that makes the building visible from the street, while still retaining much of the existing square meters.

[4] Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development.* Prentice-Hall.

The campus contains a total of six squares, each with its own context and linked to specific clusters. The clusters organize the program into different zones, providing a clear layout and a good starting point for connecting the squares with relevant program. During the P2 the squares were still too similar in characteristics and size, which led to valid questions and comments. Thus, I focused on the design language of the six different interventions so that they are connected to their context, both within the building and in relation to the city. They give the building relevance to society and space for people to make their own. The focus of this concept is not just on the interaction of different cultures, but on fostering interactions that occur subconsciously, to create a social and interactive context supporting students' ability to learn in a "supercomplex" world.[5] The aim is to improve their ability to build knowledge, think deeply and critically, and engage in reflection; it also supports both intrapersonal- (such as independence and self-awareness) and interpersonal-processes (such as conversation and interaction with different stakeholders).

[5] Barnett, R. (2000). *Realizing the university in an age of supercomplexity.* Buckingham: Open University Press.

Academic Relevance
Reflecting on the relationship between my graduation project and my master's studies, it is clear that my focus on designing vertical campuses is in line with key themes of urban development and architectural renewal. My project draws inspiration from the historical trend of vertical growth in urban centers such as pioneers like Rem Koolhaas and Le Corbusier, proposing a new vision for educational spaces within the vertical context. This approach not only echoes the innovative historical spirit but also tackles present-day urban issues, making it a vital part of the architectural conversation in my master's program.

My graduation project's significance reaches beyond academic interests, impacting various societal, professional, and scientific areas. Within the realms of urban planning and architecture, it addresses the critical demand for space efficiency in fast-expanding cities. The project adds to the dialogue on sustainable urban development by offering strategies for effectively utilizing vertical spaces in densely populated regions.

Social Relevance

Contemporary societies often overlook the fundamental roles of universities, rarely questioning their importance or function. It is essential to view universities as institutions that cultivate and shape a culture of lifelong learning within the community.[6] They provide diverse educational programs and maintain cutting-edge research facilities that promote continuous personal and professional development. Their strong community ties and outreach initiatives further extend learning opportunities, making education a dynamic and accessible ongoing process for all societal members. By integrating educational spaces within the urban landscape, my project promotes inclusivity and accessibility, ensuring that education remains a public good and is physically and symbolically intertwined with the city. Therefore, it is important that the campus offers a range of settings that support both extroverted and introverted functions for lifelong learning, such as the squares for meeting/gathering, creativity, and relaxation/closure. It should enable unexpected encounters, allow for serendipitous discoveries, and permit innovation. A diverse building supports the exchange and diversity of developments, fostering a living space that can accommodate disorder and dissonance. Individuals can only participate in and contribute to changing our times if they are given the opportunity to shape them through their own endeavors. The campus will provide a platform for this.

[6] Pollard, A. (2003). Learning through life-higher education and the lifecourse of individuals. In M. Slowey & D. Watson (Eds.), *Higher education and the lifecourse* (pp. 167-187). Maidenhead: Society for Research into Higher Education and Open University Press

Value of the Transferability

This work encourages architects and urban planners to design creative and adaptable learning spaces that enhance urban environments. To create thriving, diverse urban communities connected to education, it challenges professionals to rethink how buildings interact with their surroundings. From a scientific perspective, the research expands our knowledge of how urban planning and design affect social interactions and community development. It draws attention to the link - especially in vertical structures - between social dynamics and the design of spaces. The project highlights the importance of studio's research-by-design approach in producing aesthetically pleasing, socially and environmentally responsible environments by fusing social science, urban planning and architectural design.

"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody."

Jane Jacobs. *The Death and Life of Great American Cities. (1961)*

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Delft - June 2024