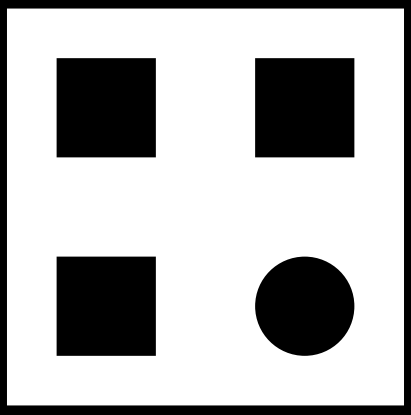

MESSE PERFORMANCE CUBE

Performing Arts Center Berlin

TU Delft

Graduation Project Book
Edwin Scharringa

2022/2023

COMPLEX PROJECTS
Bodies & Building Berlin
AR3CP100

chair
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building technology tutor
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research tutor
Angeliki Sioli

Fuerzabruta by Diqui James

The Messe Performance Cube, complements the cultural heart of the Messe Berlin exhibition grounds, situated next to one of the busiest transportation nodes of Berlin. It is a centre for a wide range of performing arts and stands among the global frontrunners in the field of innovative theatre experience. The Cube transcends the traditional organization of theatre buildings, adopting a new approach in its design and layout. The design pushes the boundaries of performance spaces, resulting in a robust structure that can accommodate countless forms of performances. Due to its versatile design, the Messe Performance Cube extends beyond the confines of music, theatre or spectacle. It can also serve as a space for exhibitions, events, festivals and studios and can be played by artists and curators as an ever-changing instrument.

Physical model

REFLECTION
GRADUATION PROJECT

01 Relationship between research and design

The Complex Project graduation studio places significant importance on conducting thorough preliminary research. The design is informed by literature studies, site analysis, analysis of predecessors, and program analysis.

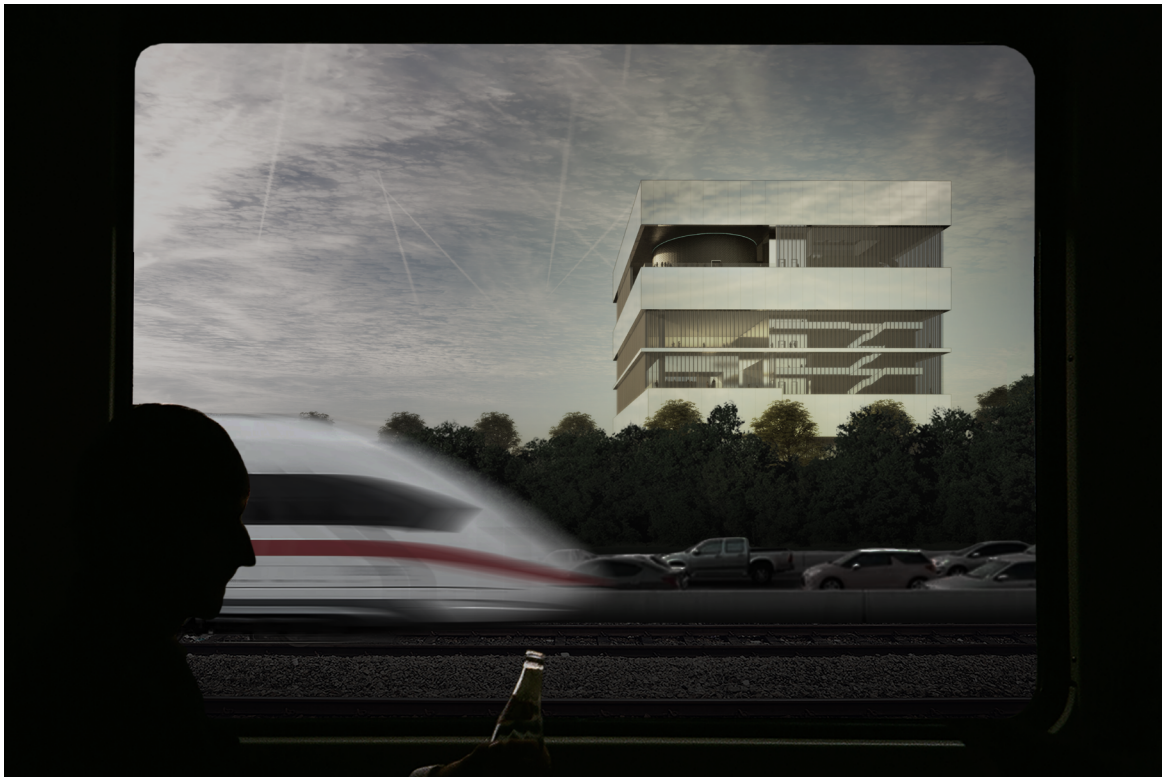
The focus of the project on the relation between performing spaces and the performance resulted in questioning the need for designated performing spaces. This sparked an interest in exploring an alternative scenario where the entire building could be perceived as a performance space, rather than having distinct areas solely dedicated to performances. Extensive research was conducted to investigate how the spaces within the building could expand horizontally and vertically, resulting in a blurring of the traditional separation between the front-of-house, house and back-of-house areas typically found in conventional theatres. As a result of this exploration, the building evolved into a robust structure that can be seen as one massive performance space. It can accommodate a wide range of unique performances and offer unprecedented experiences. By challenging the conventional notions of performance spaces, the building transcends limitations and provides a more versatile and dynamic environment for artistic expression.

In order to achieve this concept, all three theatres within the building are part of a larger network of performances. While each theatre has its distinct identity and is designed for specific purposes by default, they can be considered as plug-ins in a larger system of performance. This system encompasses back-of-house spaces such as workshops, delivery bays, and rehearsal areas, as well as front-of-house spaces like lobbies, foyers, and exhibition areas. By linking these spaces together horizontally and vertically, they can be arranged in countless ways, offering a wide variety of performance possibilities. This adaptable design expands the building's potential, allowing it to accommodate a diverse range of activities. From intimate concerts and cabaret shows to grand theatre productions, ballet performances, opera showcases, electronic music festivals, fashion shows, and other events, the building's interconnected network of spaces is a platform for limitless creative expression.

02 Relationship between research and design

The research focuses heavily on the relationship between the human body and the building. There is a growing demand from users for enhanced building performance. This includes faster flows, quicker processing times, heightened security levels, and improved interior climate conditions. The perception of space by the body can be objectified through measurable spatial characteristics, including temperature, acoustics, lighting, texture, and more: it uses data points to quantify bodily needs and thus enables the engineering of spaces.

In the design of the performing arts centre, the relationship between the performing space and the performance itself, as well as the role of the audience within the performing space, takes centre stage. The seat beholds significant importance in this, as the seat can be regarded as a data point that not only influences the enclosing space but the entire



View of GF entrance

building. The capacity of the building is closely linked to the number of seats, and therefore controls the overall sizing of the building: for example, capacity determines the size of the auditorium which in turn determines the size of the foyer and lounge. Even the number of toilets is based on the number of seats in a theatre.

03 Research method and approach in relation to the graduation studio

The Complex Projects graduation studio imparts a methodological and structured approach to the design process. The studio methodology places a strong emphasis on interdisciplinary research, studying reference projects and learning by doing.

Complex Projects acknowledges that as buildings become more efficient, they also grow in size and complexity. Consequently, it is not feasible to address the entire design at once. A crucial aspect of the design process is the proper delineation and breakdown of smaller design topics and their impact. This allows for the parallel development of various options, which can subsequently be integrated into a cohesive design. To evaluate and validate design choices, data derived from conducted research are utilized. Organizing this data effectively enables the ability to make well-informed decisions driven by data. This entire process takes place within the framework of the overarching concept, which in this case, is shaped by the program of the building.

In the context of "learning by doing," the plans, sections, and models are regarded as dynamic components of the design process. They serve not only as mediums for conveying and communicating ideas, but can also be actively designed themselves. By engaging in parallel design iterations of plans, sections, and models, it becomes possible to experiment and discover what works effectively and what does not. These spatial discoveries are subsequently reflected upon in light of the applicable data and the overarching conceptual framework.

04 Relationship between graduation project and wider social, professional and scientific relevance

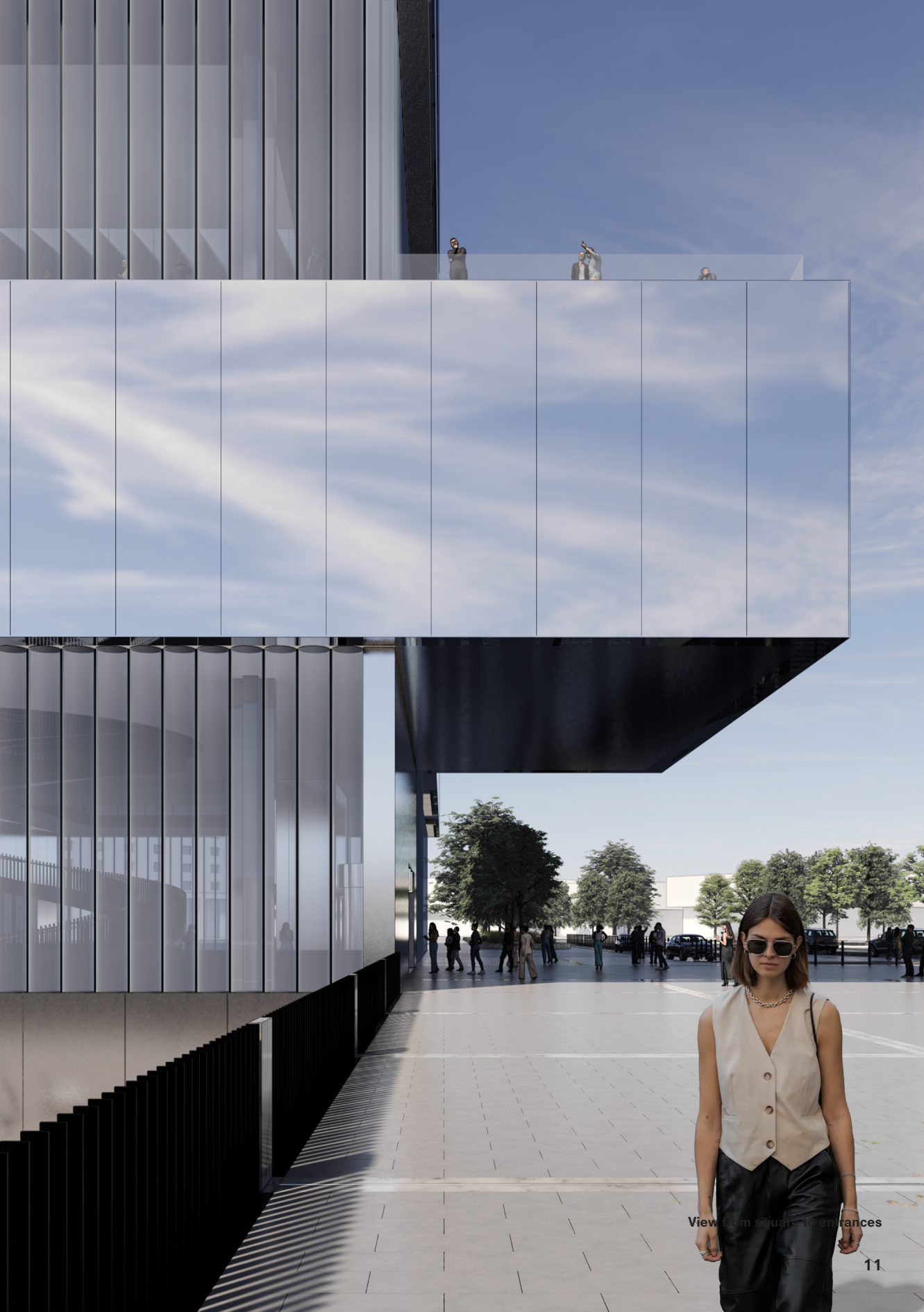
The design is an exploration of the role of seating in theatres and breaks with the more or less identical, comfortable and conservative seating arrangements. It pushes the boundaries of performing spaces, while simultaneously considering the relationship between the audience and performers.

The examination of the engagement and experiences of audiences in relation to performance sheds light on the dynamic and multifaceted relationship between an audience and a performer. This topic is not limited to traditional performance venues such as theatres, operas, or concert halls, but is also relevant to other fields, including education and politics. The act of teaching, for example, can be regarded as a form of performance, with the teacher as the performer and the students as the audience. Through a deeper understanding of the performer-audience relationship, valuable insights are gained that can inform the design and configuration of performance spaces, classrooms, parliament chambers and other settings. This knowledge can facilitate the creation of optimal spaces for the engagement of audiences.

05 Ethical issues and dilemmas

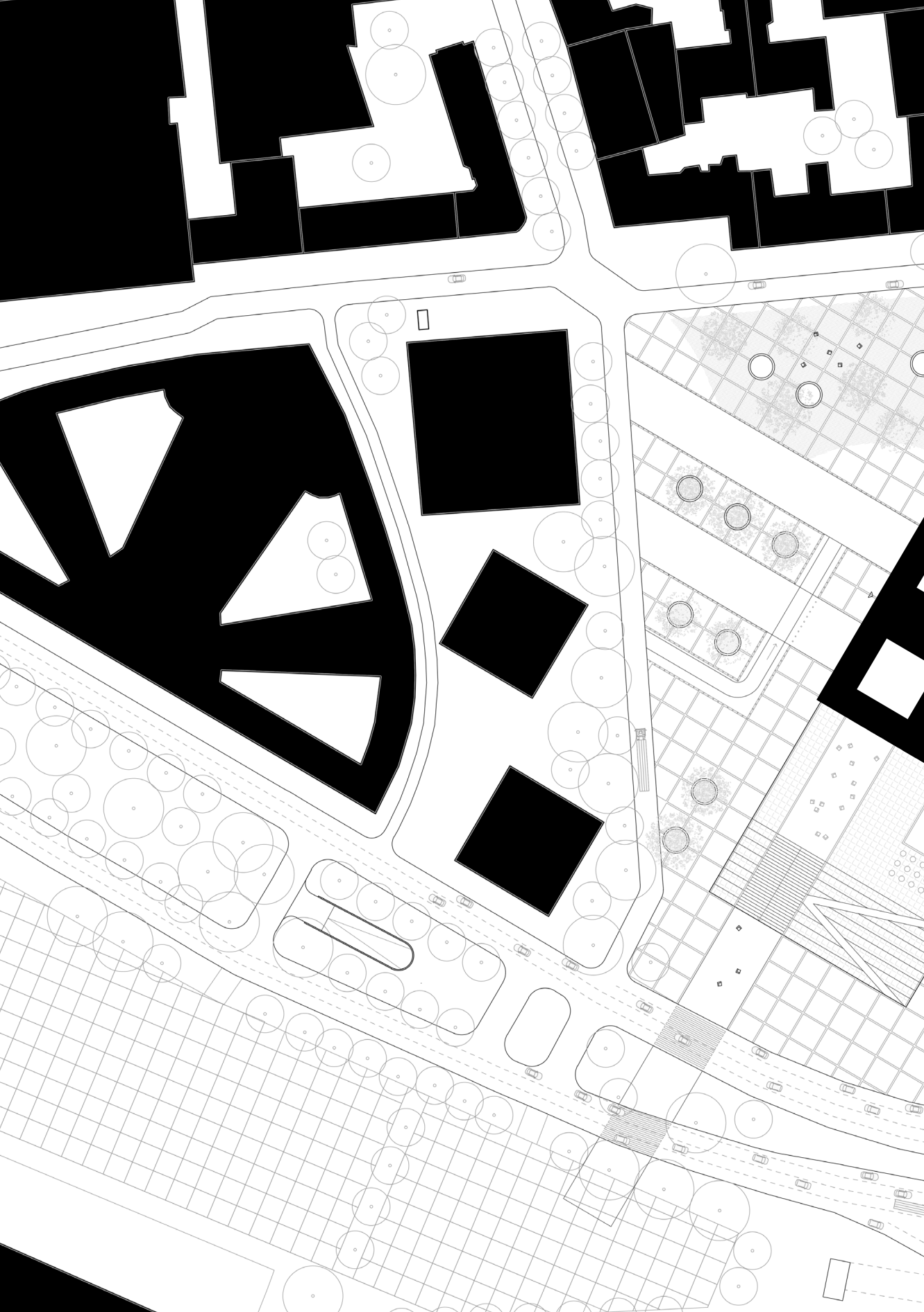
Over the past century, an abundance of research has been conducted on theatres and theatre design. Designing a theatre today involves drawing from millennia of spontaneous performances while fostering a space for reflection and artistic expression. However, the number of realized innovative theatre schemes remains limited. The explanation of this phenomenon is ambiguous and complex and extends beyond the scope of this research.

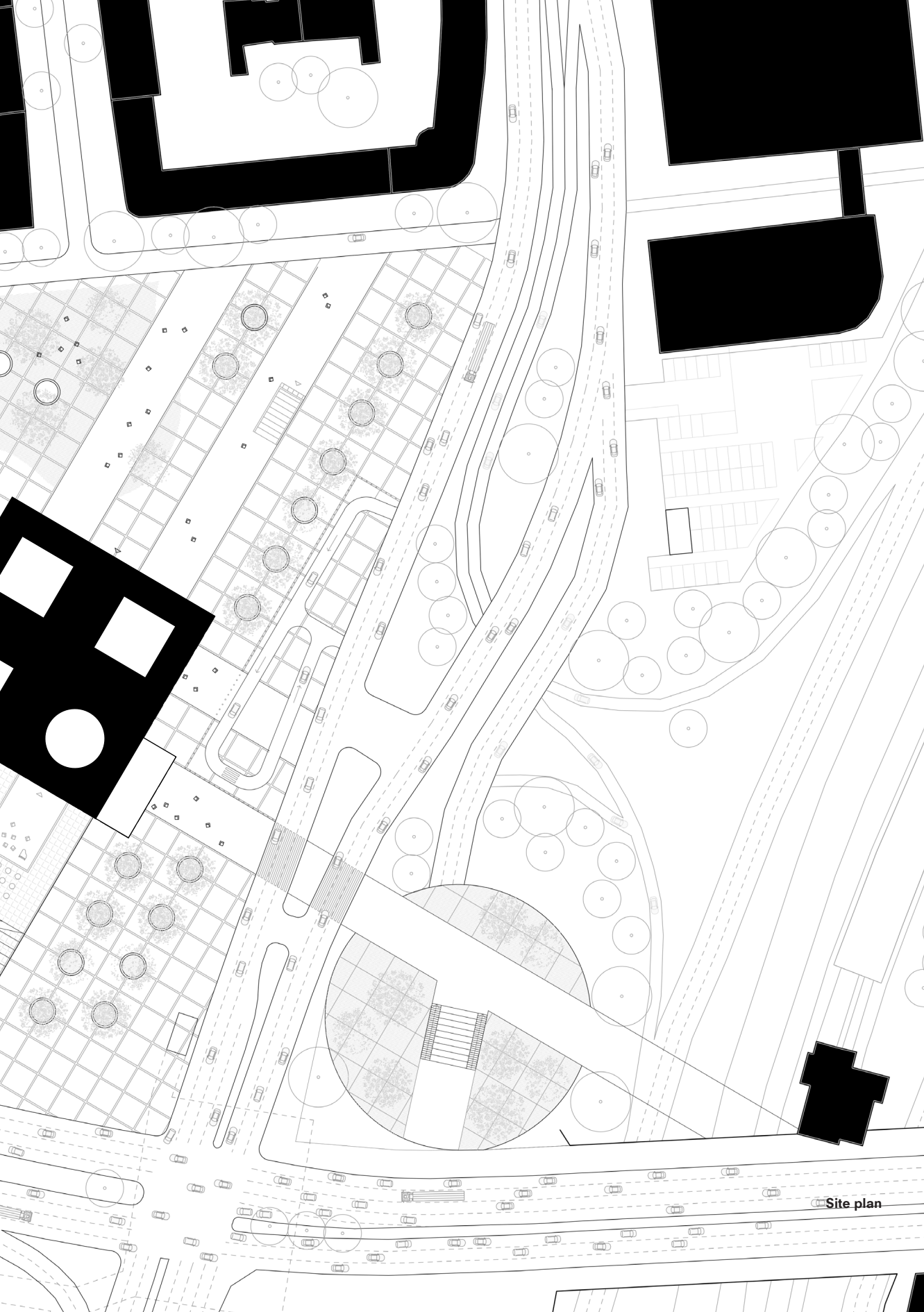
Nonetheless, it led to the starting point that the three theatres should be outstanding performing spaces by default, designed for a certain specificity, perhaps in a more conventional way. Building upon this, it is explored how these spaces can offer an alternative experience that reaches further than the inherent specificity of each theatre. To achieve this, the design challenges traditional seating arrangements, questions performance expandability and deviates from the prevailing conception of theatre experiences.



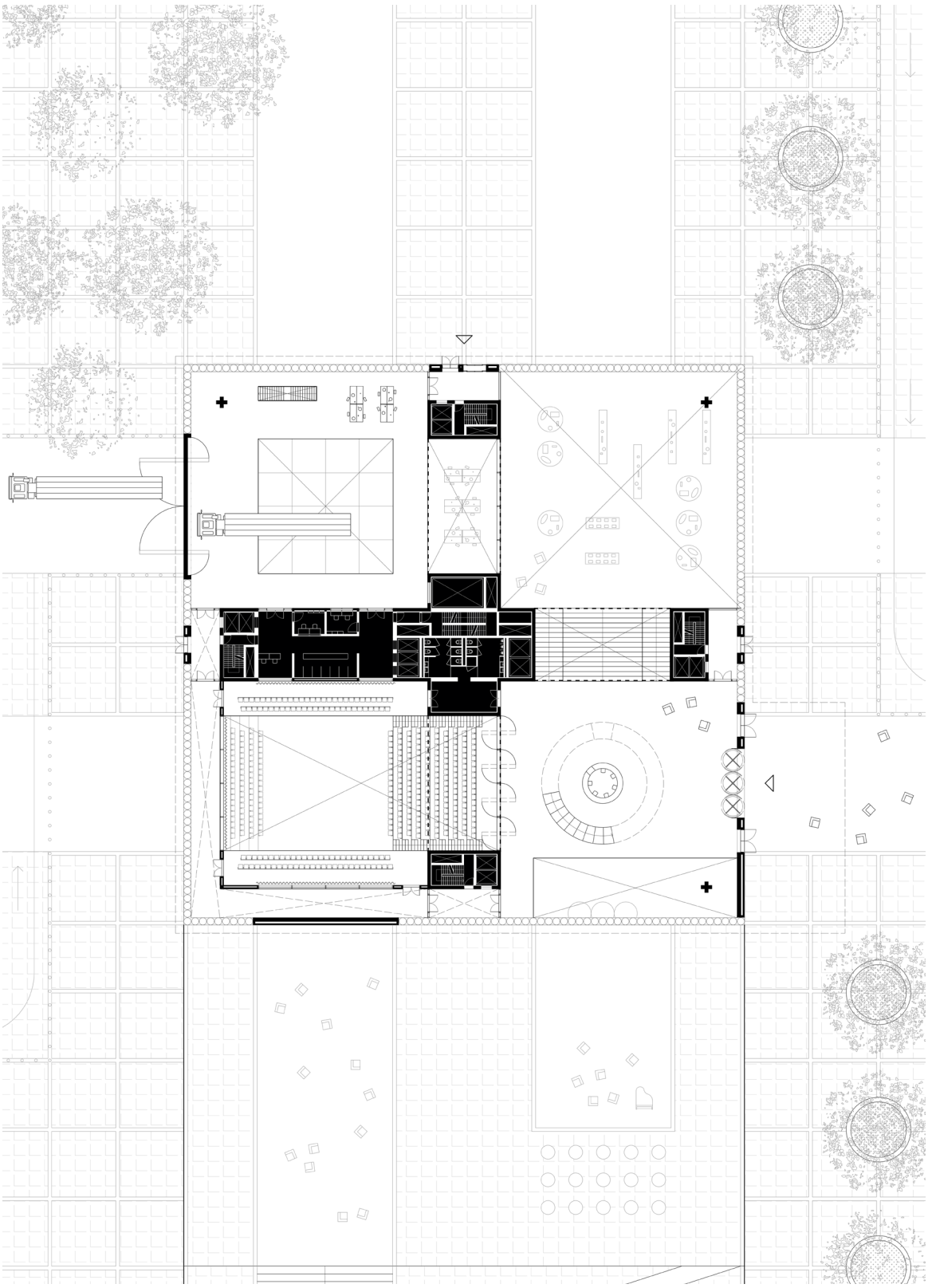
View from square to entrances

View of L04 foyer

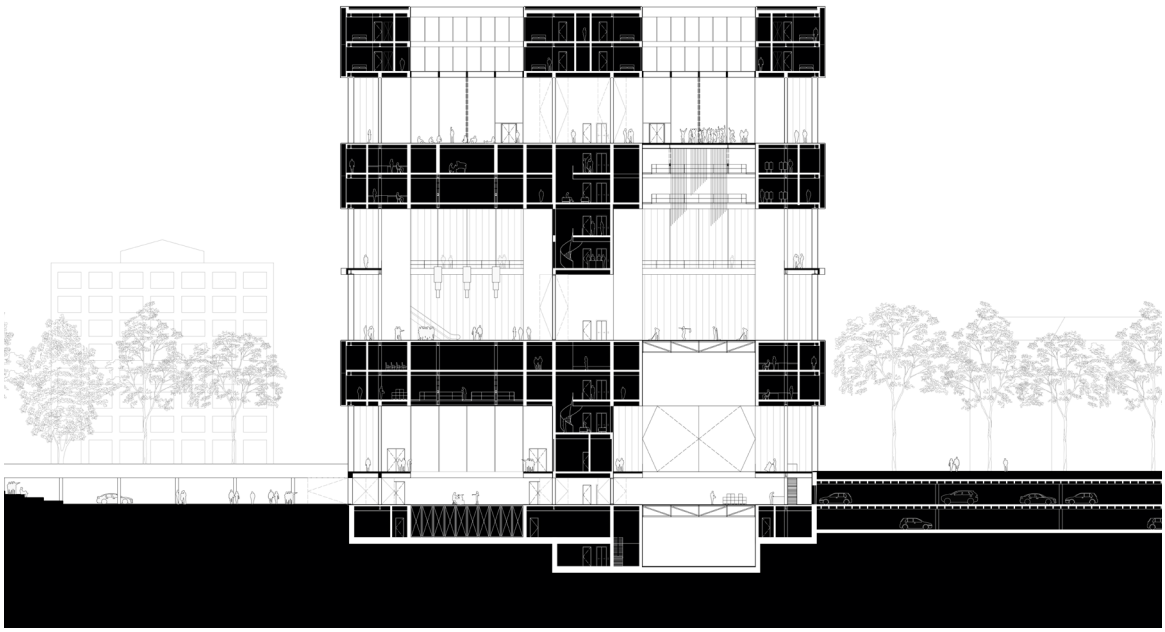




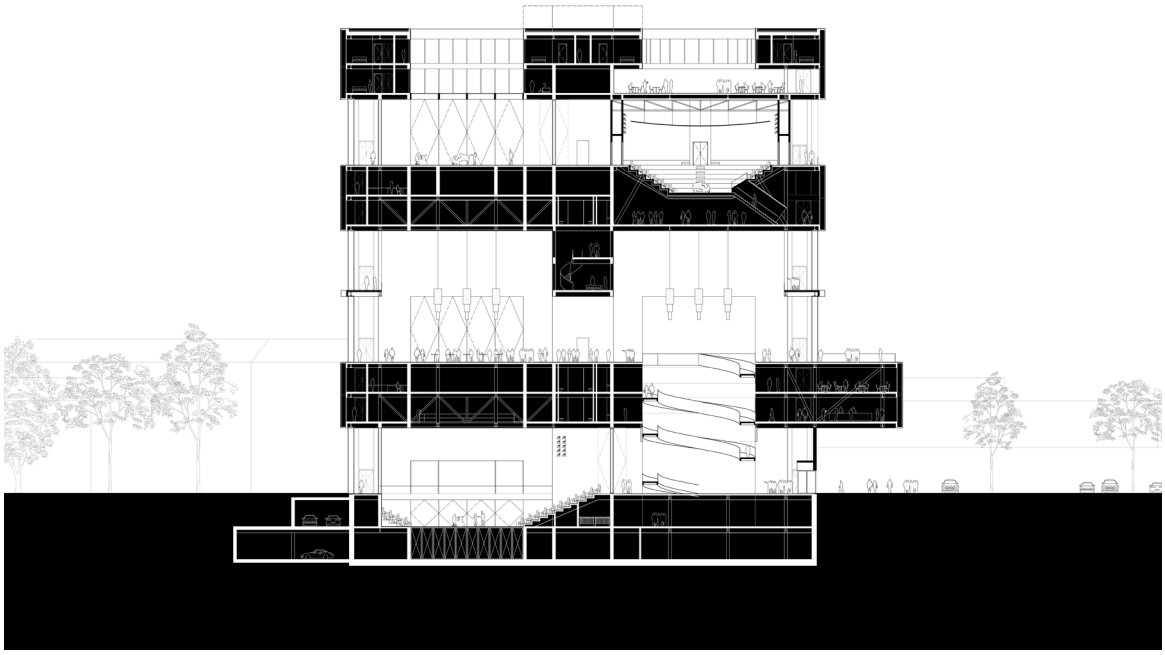
Site plan



Ground floor



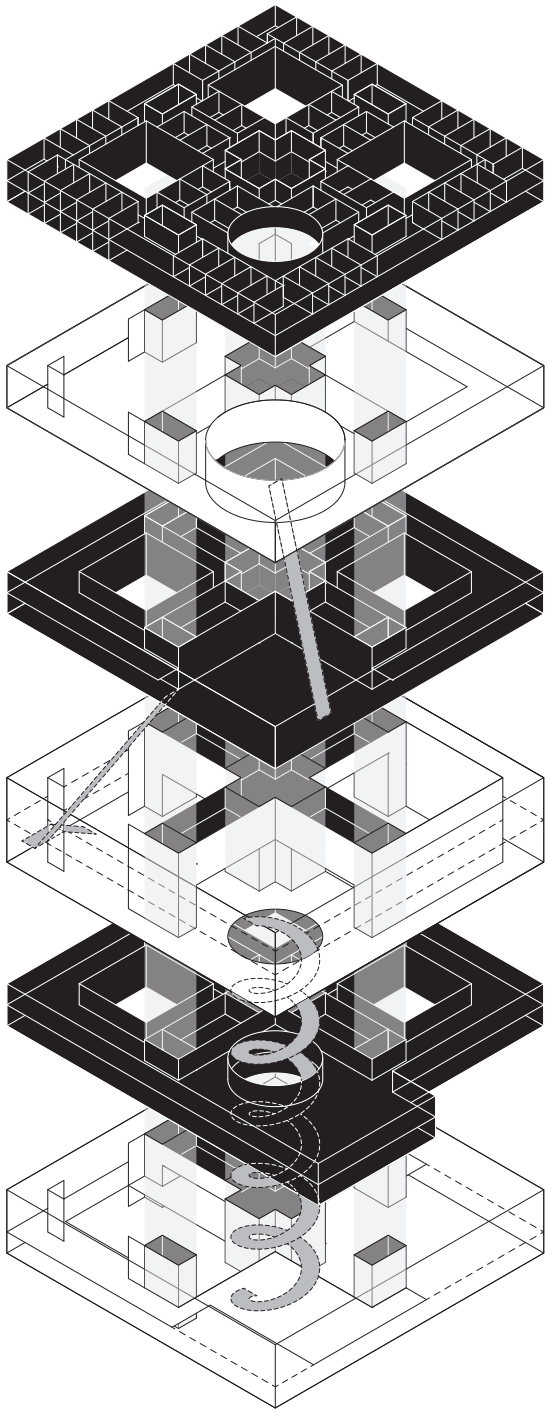
Section AA



Section CC

Collage grand theater

Collage concert arena



SUPPORT SPACES
rooftop bar
hotel lobby
hotel rooms
technical space

PERFORMANCE NETWORK
arena theater
perf./staff canteen
perf. lounge
drama & dance rehearsal
terrace

SUPPORT SPACES
arena lobby
management
dressing rooms
make-up rooms
costume
technical space
sound & lighting
storage
vocal/instr. rehearsal

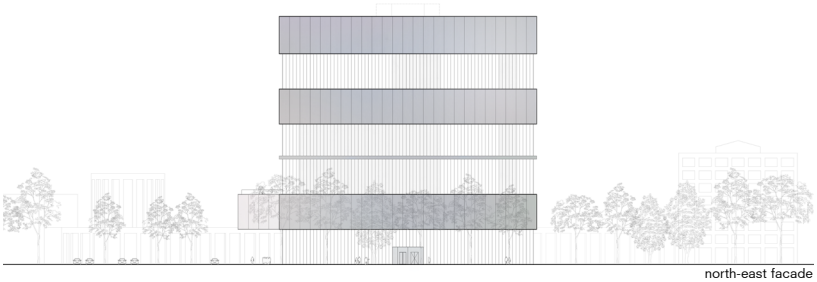
PERFORMANCE NETWORK
foyer
stage
auditorium

SUPPORT SPACES
bar/restaurant
offices
dressing rooms
make-up rooms
costume
technical space
sound & lighting
storage

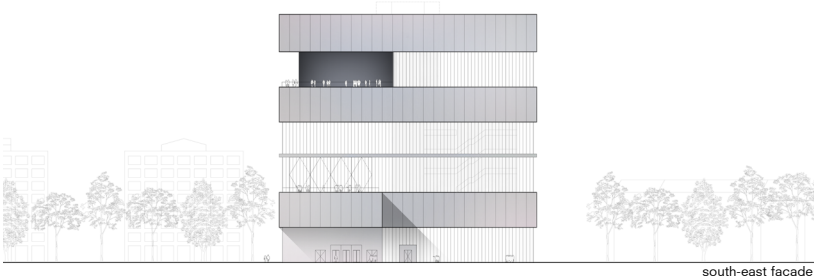
PERFORMANCE NETWORK
entrance
exhibition
black box
delivery bay
workshop

Program axonometric

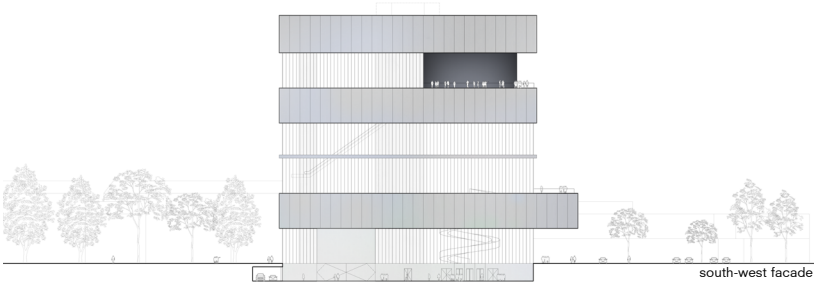
View of L04 foyer



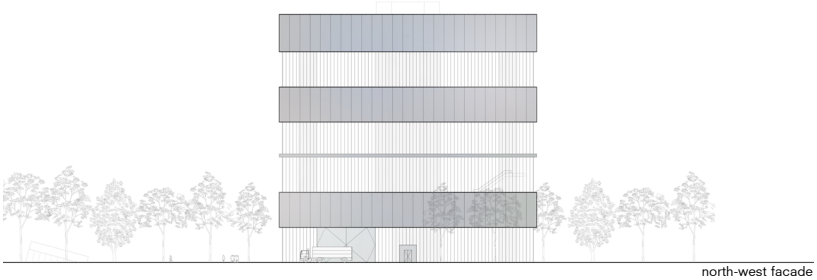
north-east facade



south-east facade

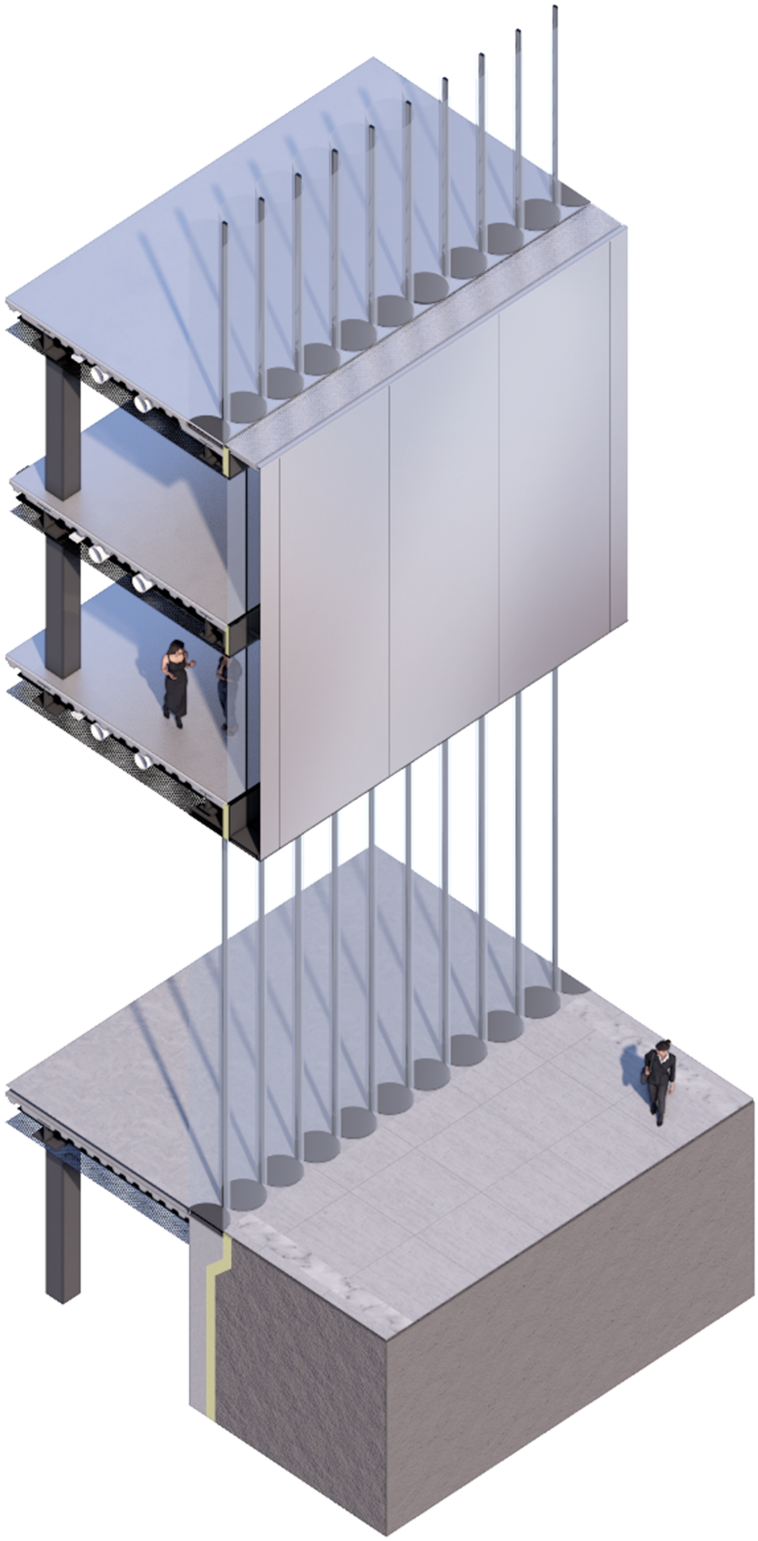


south-west facade

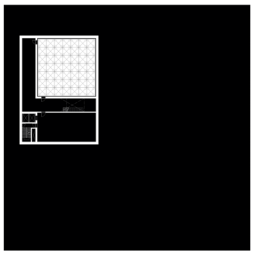


north-west facade

Facades



Facade fragment



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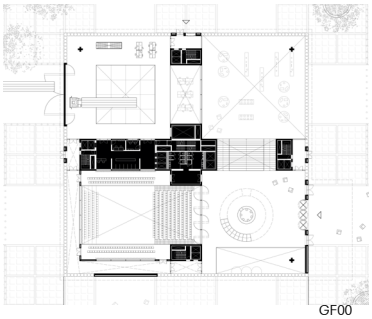
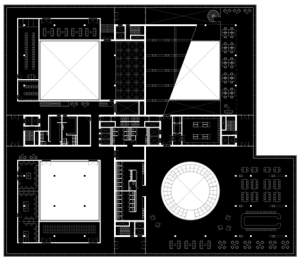


GF00



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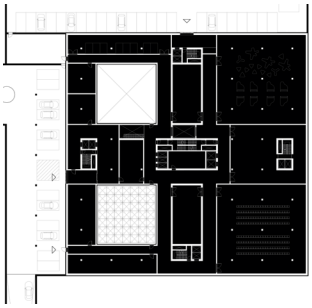

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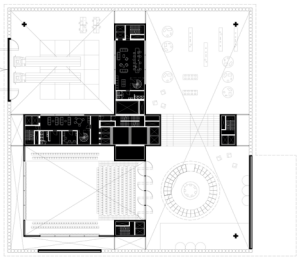

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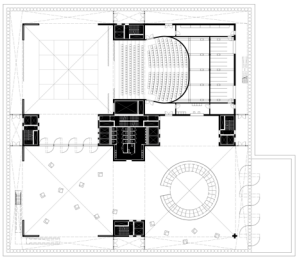

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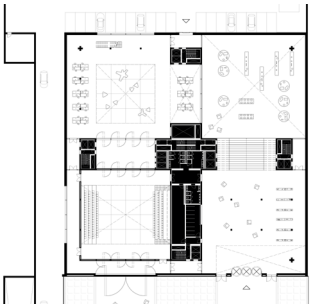

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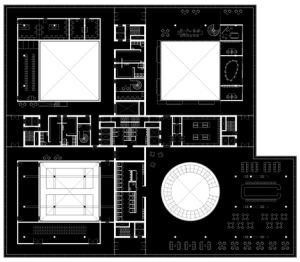

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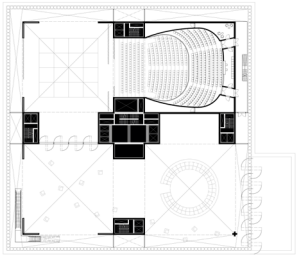

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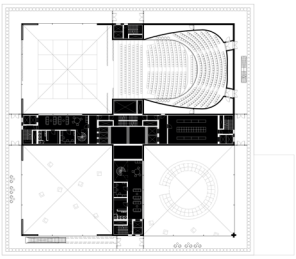

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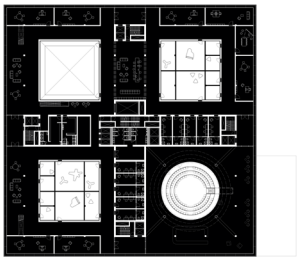

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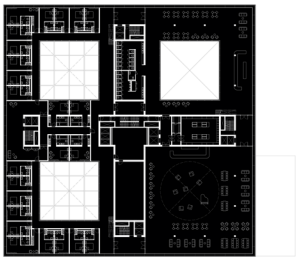

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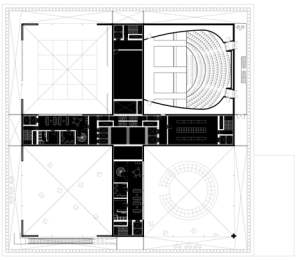

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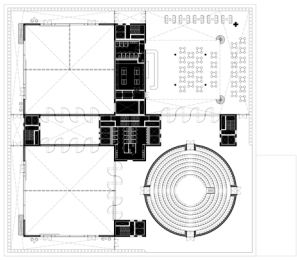

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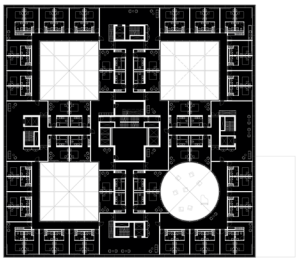

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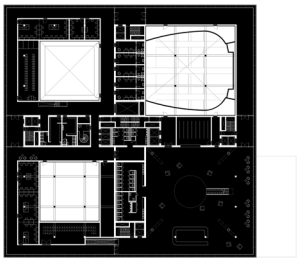

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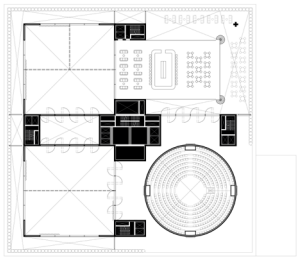

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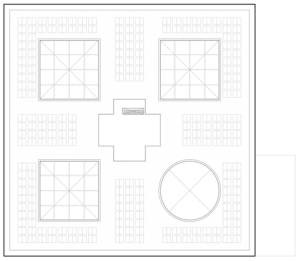

R14

Matrix of floor plans

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