

House of Knowledge
Educational systems and mirrored spaces

Task

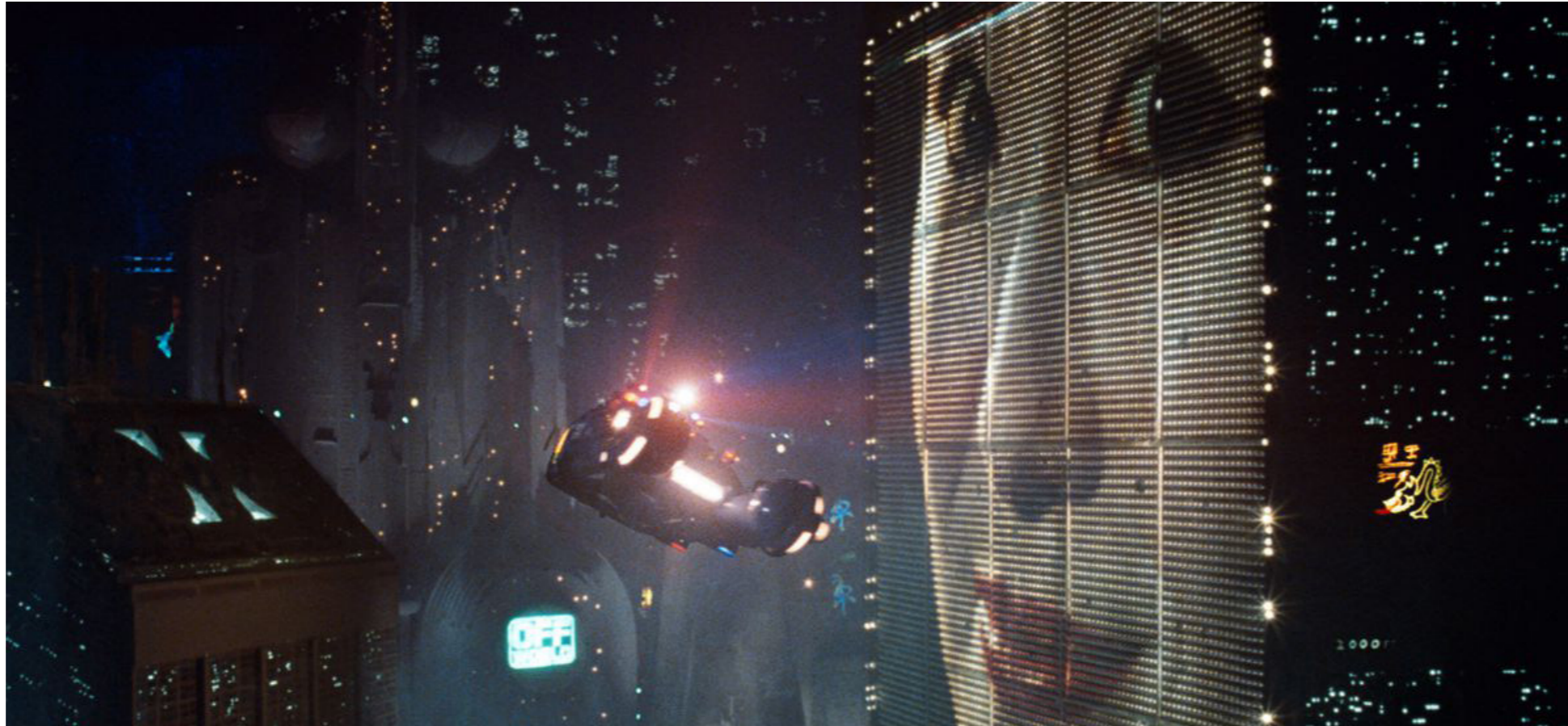


‘The Graduation Studio’s assignment is to design a hybrid building for **higher education** in the center of The Hague. The design should facilitate and encourage public interaction between citizens, businesses, governmental institutions, and (with emphasis on) **university curricula.**’

higher education

university curricula

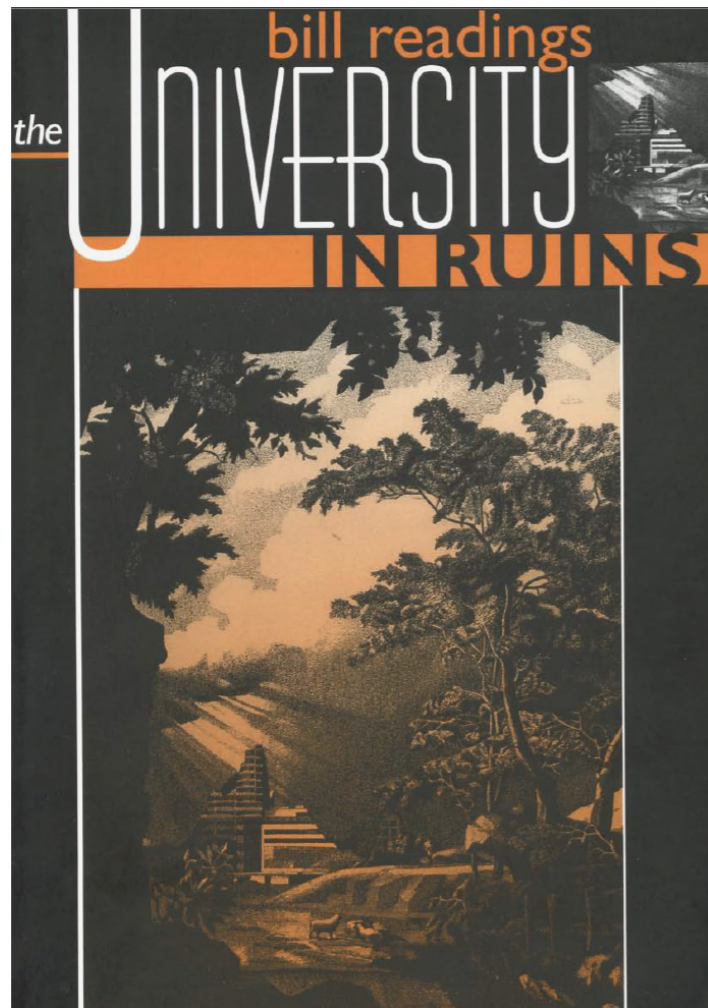
Research



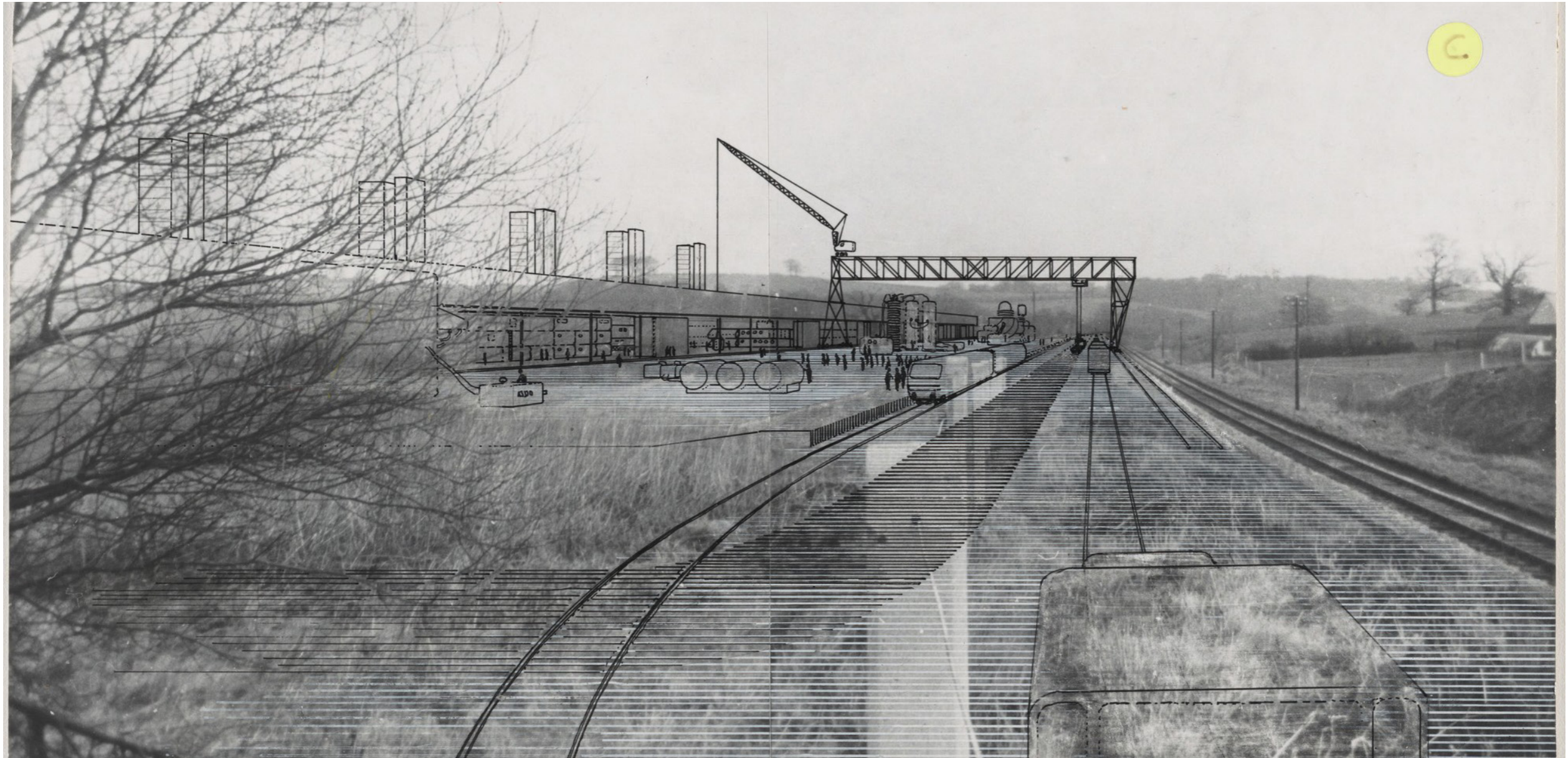
“Recall your favorite sci-fi books or movies. Most of these are very imaginative when it comes to transportation (hoverboards, teleportation and time traveling De Lorean), weapons and even sexual recreation. However, when it comes to **education** – **almost always students physically congregate in a dedicated space, where they are taught to by a master, even if that master is an alien or AI.**”

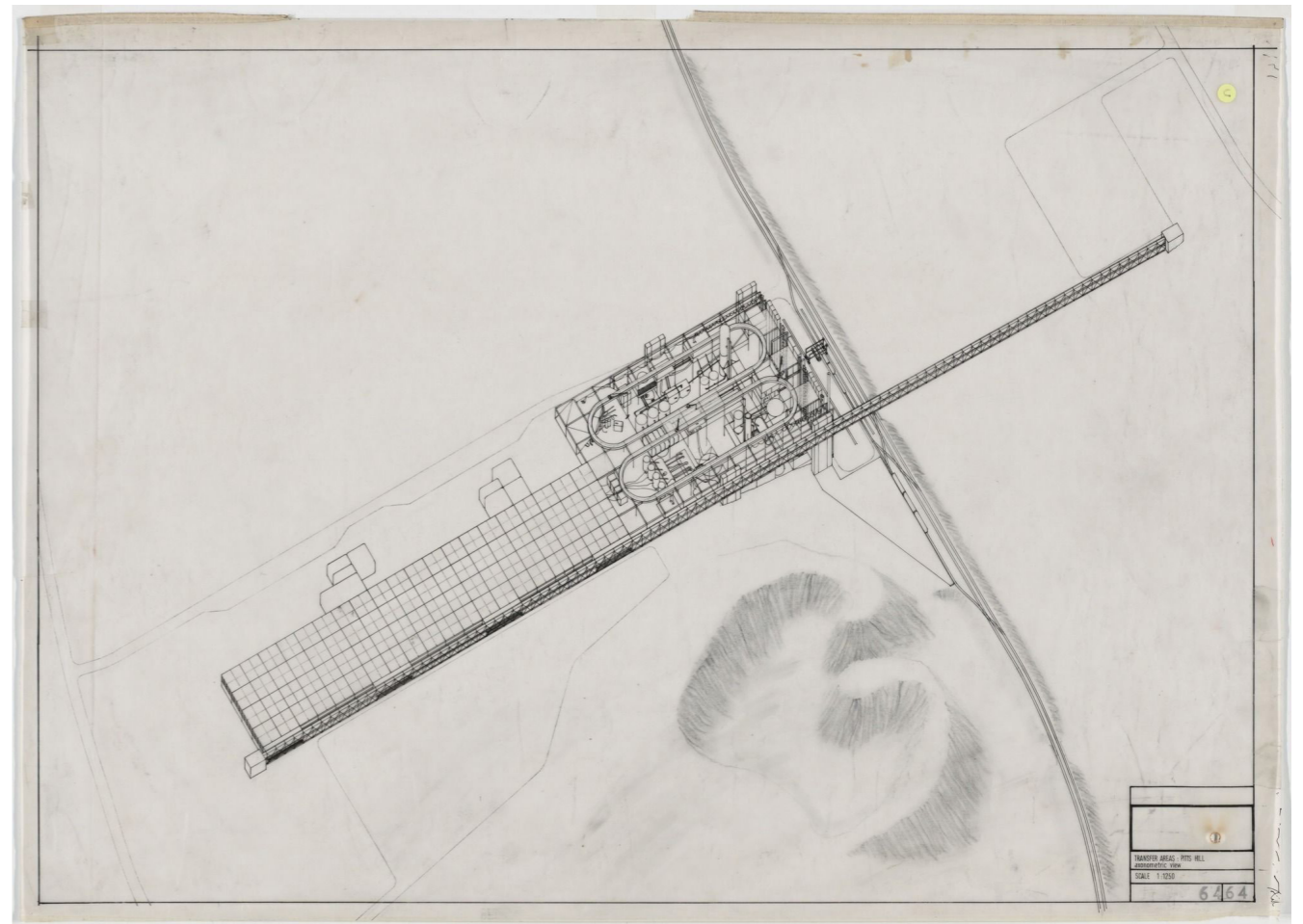
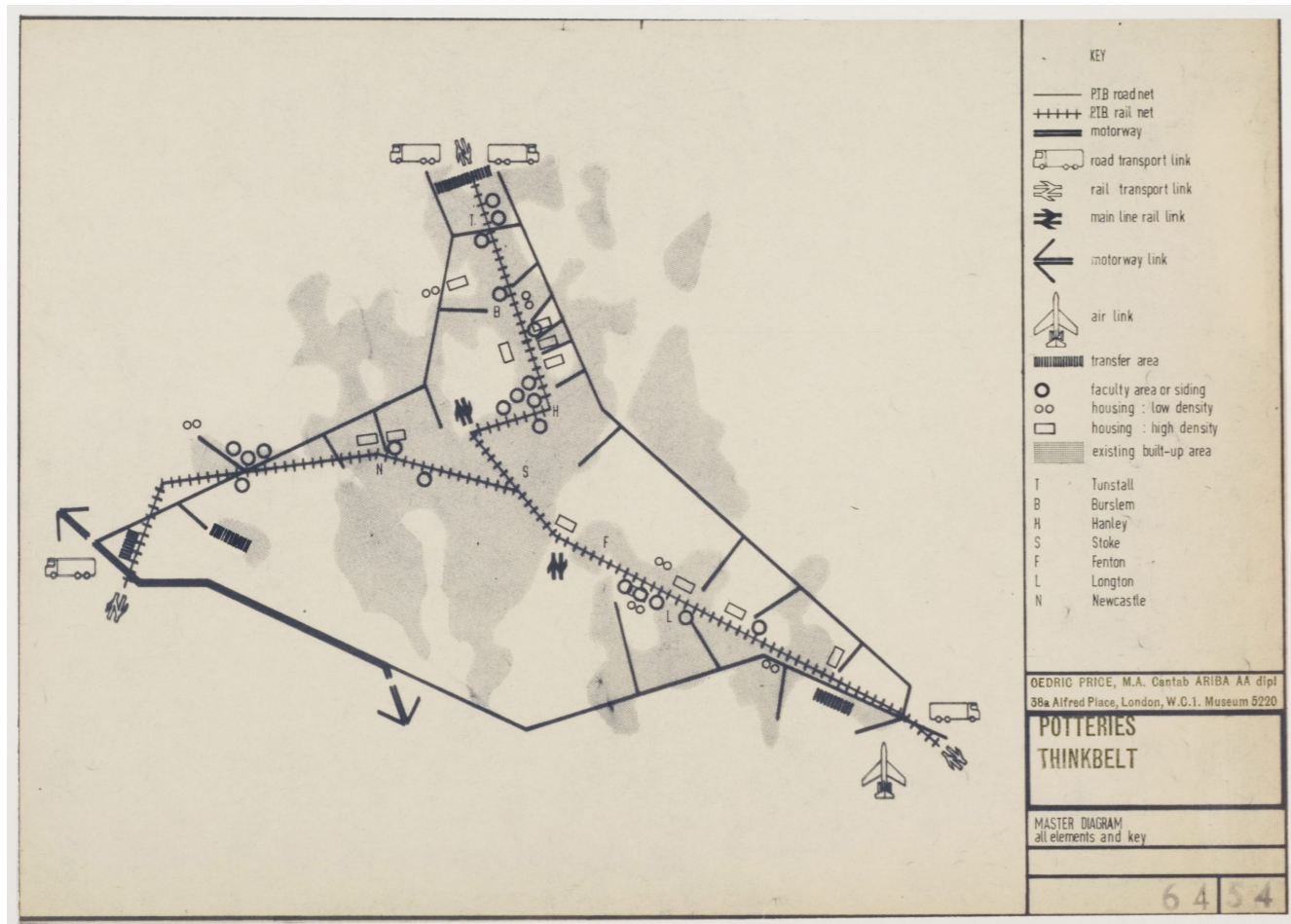


“Recall your favorite sci-fi books or movies. Most of these are very imaginative when it comes to transportation (hoverboards, teleportation and time traveling De Lorean), weapons and even sexual recreation. However, when it comes to **education** – **almost always students physically congregate in a dedicated space, where they are taught to by a master, even if that master is an alien or AI.**”



...wider social role of the University as an institution is now up for grabs. It is no longer clear what the **place of the University is within society** nor **what the exact nature of that society is**, and the changing institutional form of the University is something that intellectuals cannot afford to ignore...





...during the 1990s it became clear that education is a ***fundamental economic factor in advanced capitalism***. As such it could no longer be sustained as a publicly funded educational system but was susceptible of being traded as a ***commodity***.

...universities are **factories that produce subjectivity** which is addressed to the precarious student-workers: socially mobile, able to cope with all sorts of unstable conditions, and ready to **jump** from one knowledge domain to the other according to opportunities...

Knowledge is now a marketable commodity.

comodity - a substance or product that can be traded, bought, or sold*

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comodity - a substance or **product** that can be traded, bought, or sold*

Primary:

How to design for educational system of the future and consequently its spaces that respond to the concept of future higher education?

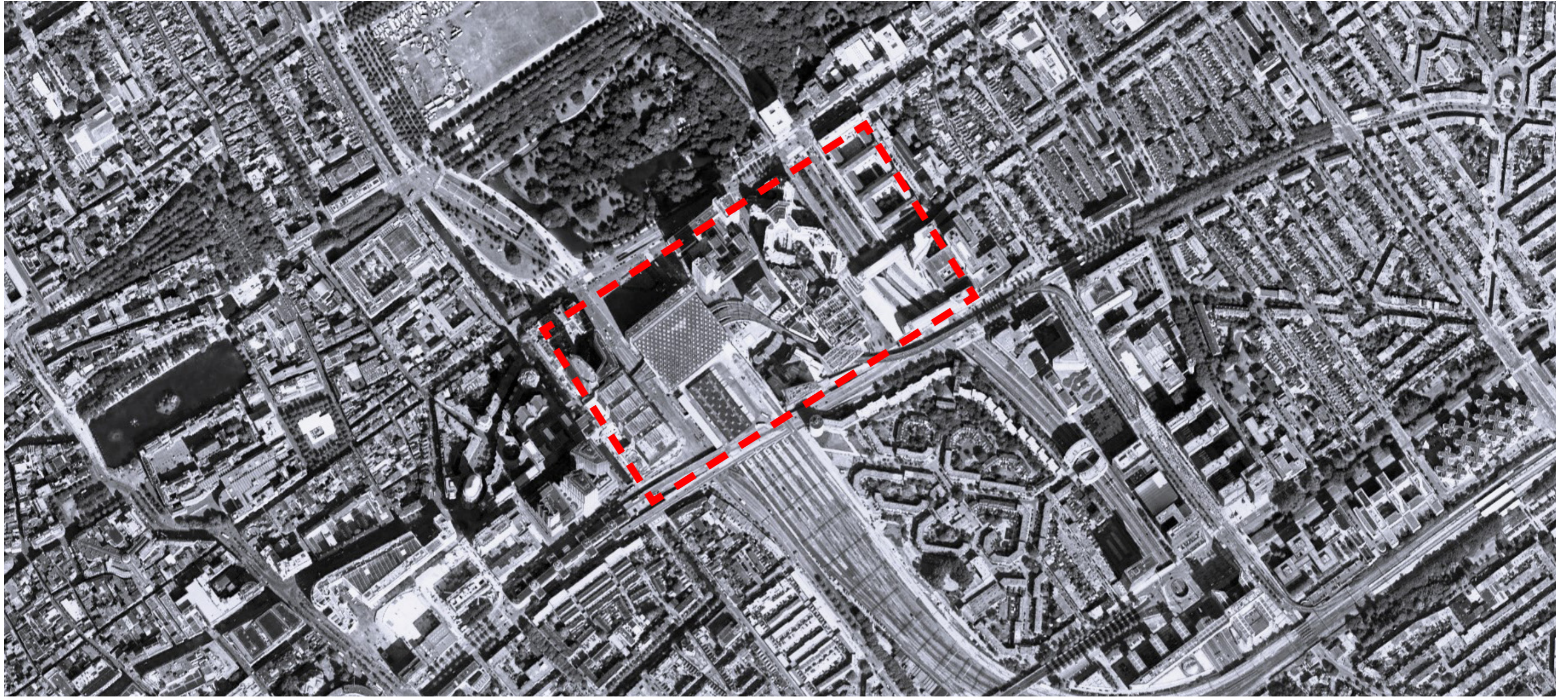
Secondary:

What is the role of an architect in remaining educational system?

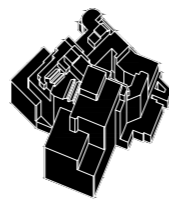
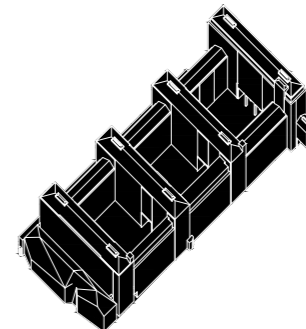
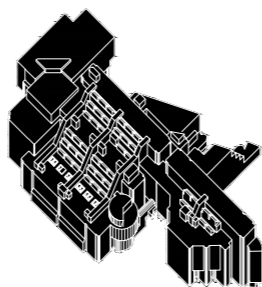
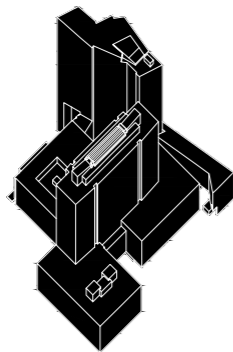
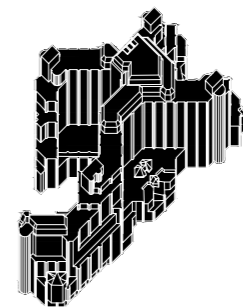
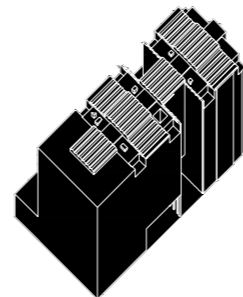
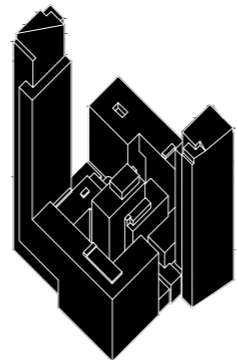
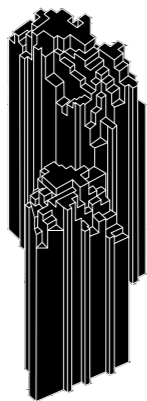
What is the future role of university and campus as its formal manifestation?

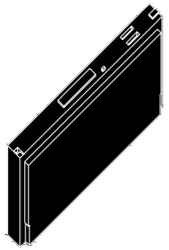
Context











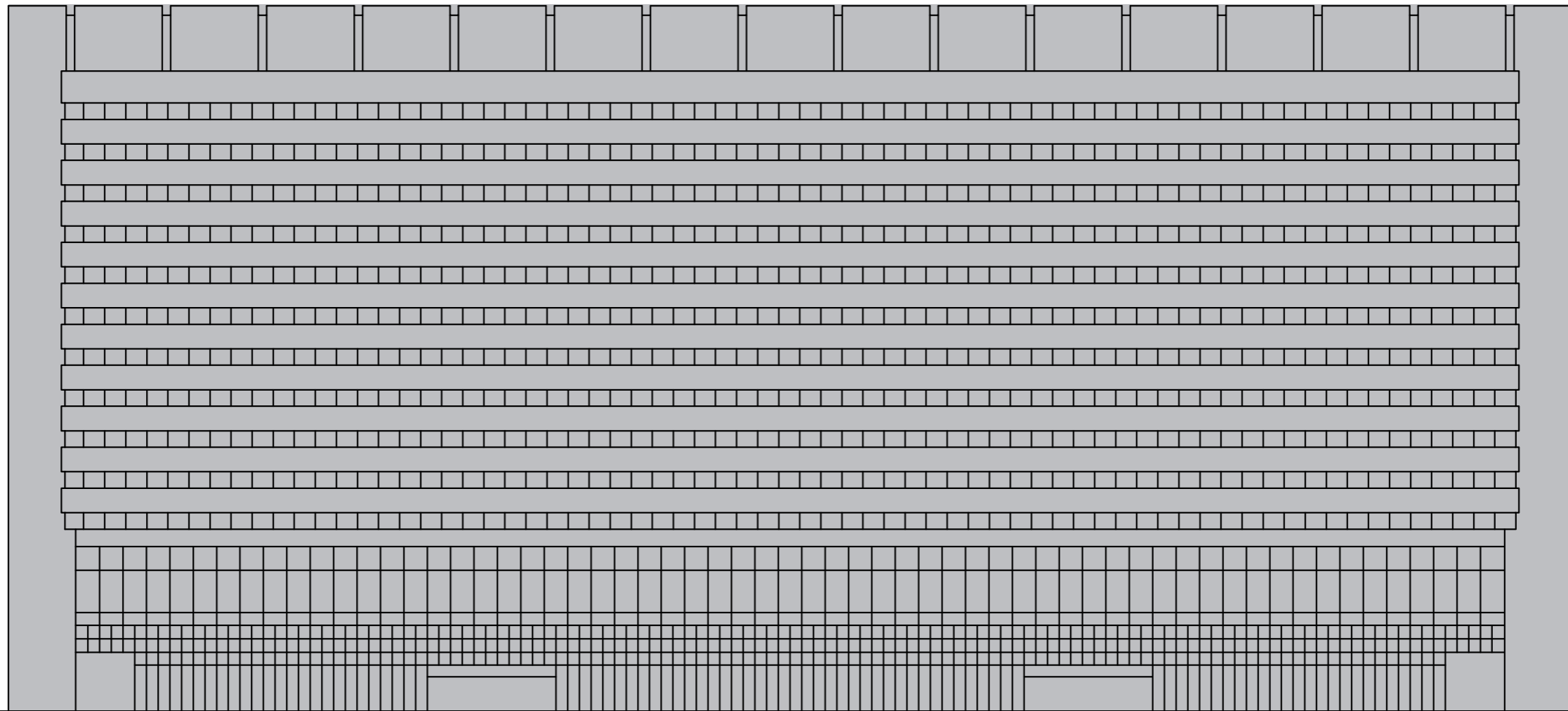




Stichtage / (The Slab)
Koen van der Gaast & Hans Bak
brutalism
year: 1970-1975
h= 63 m
P= 30 000 m²





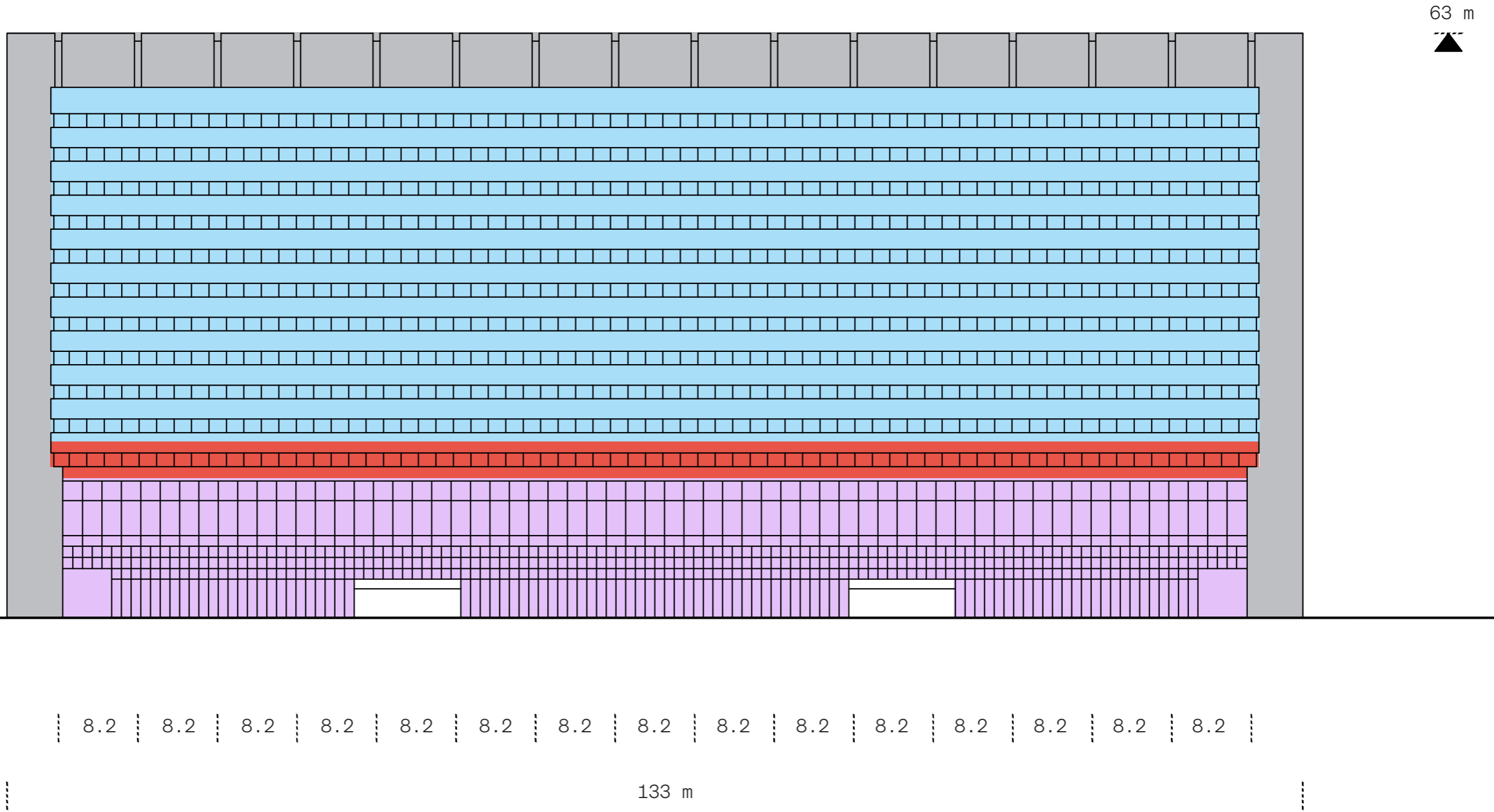


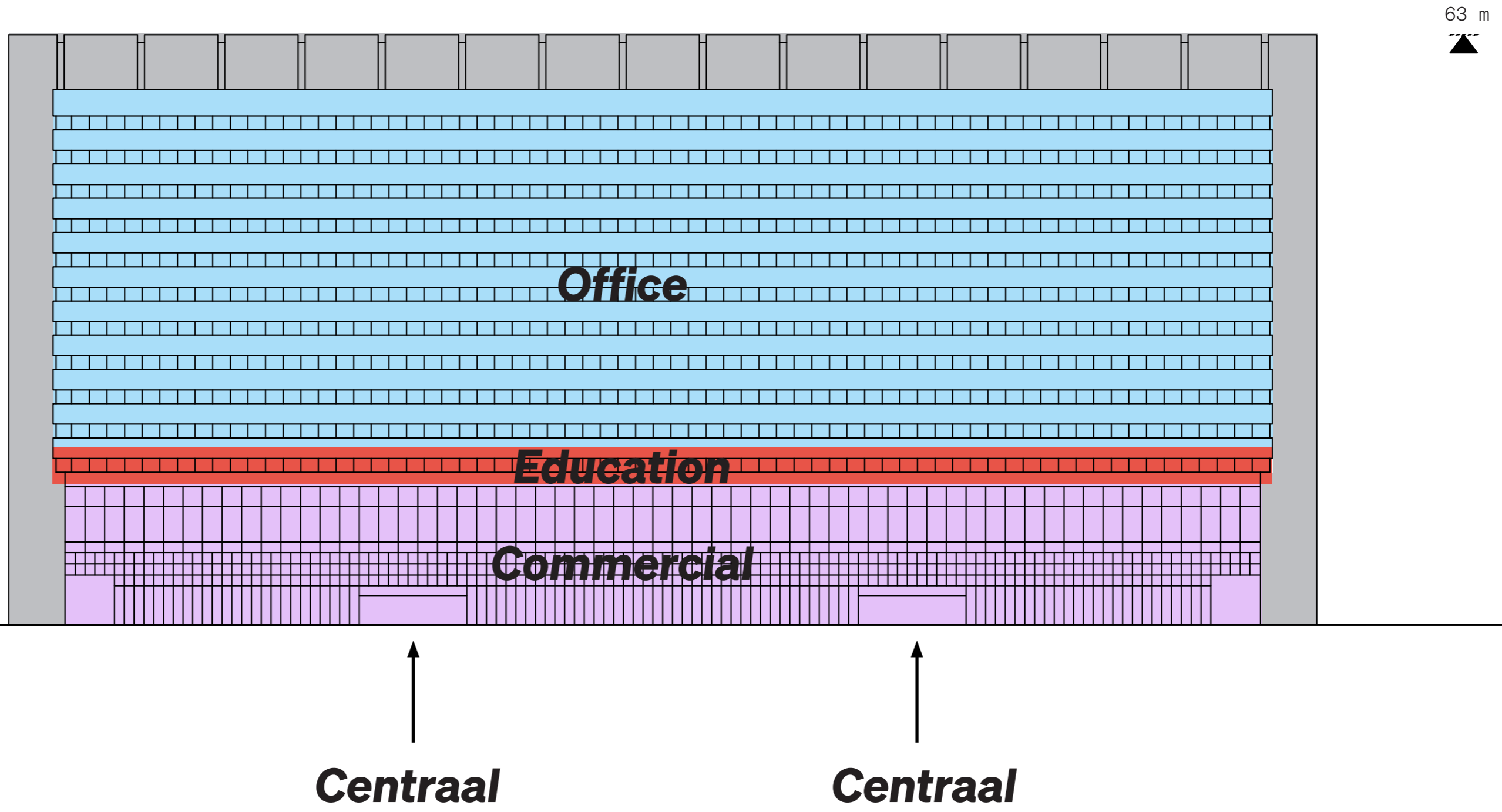
63 m



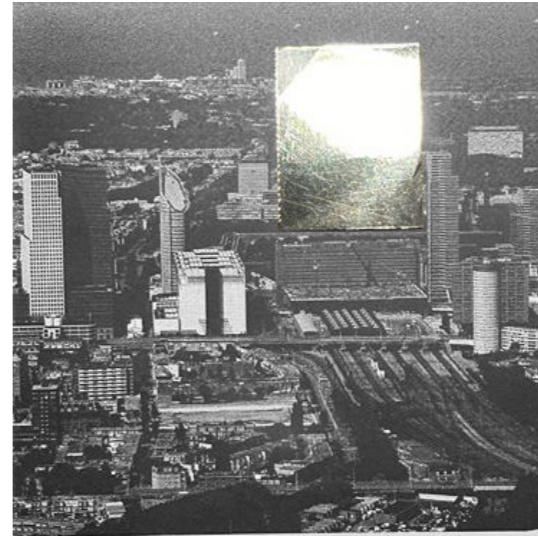
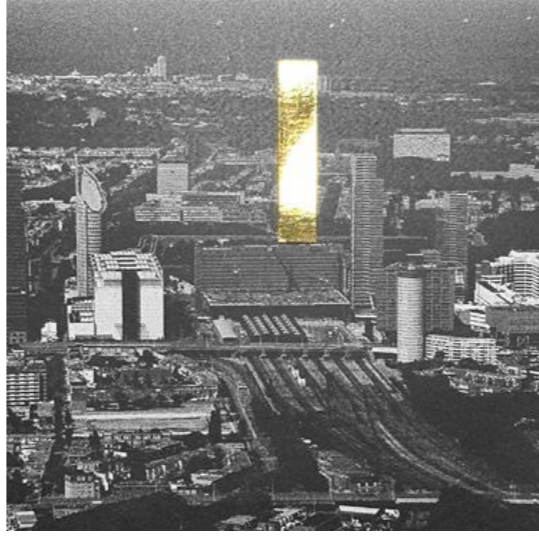
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133 m





Design exploration



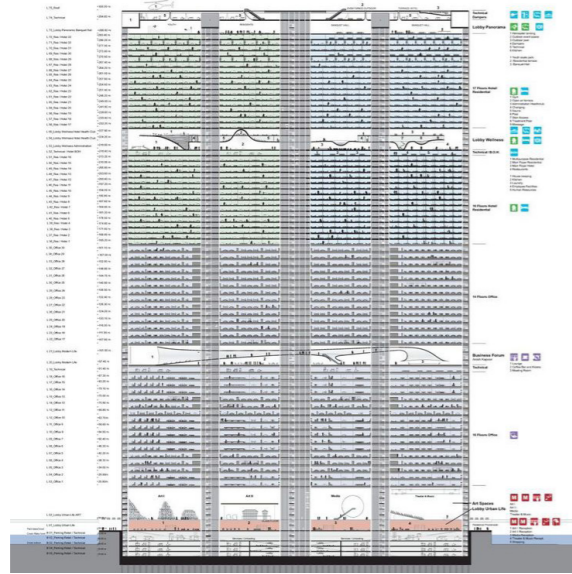


In this essay I try to do so by drawing a contrast between two kinds of systems, one closed, the other open. By a closed system I mean a system in harmonious equilibrium, by an open system I mean a system in unstable evolution. My argument is that the closed system has paralysed urbanism, while the open system might free it...

Closed system ... system in **harmonious equilibrium**

Open system ... system in **unstable evolution**

OMA Dubai Renaissance



open / abstract / **generic**

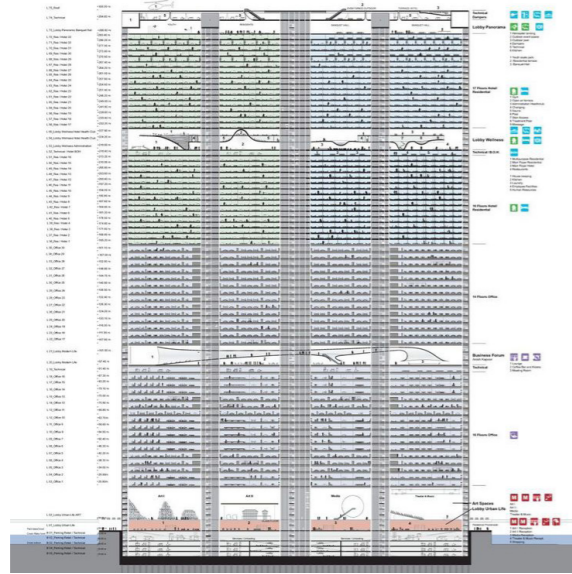
X

closed / absolute / **sublime**



Pantheon

OMA Dubai Renaissance



open / abstract / **generic**

X

=

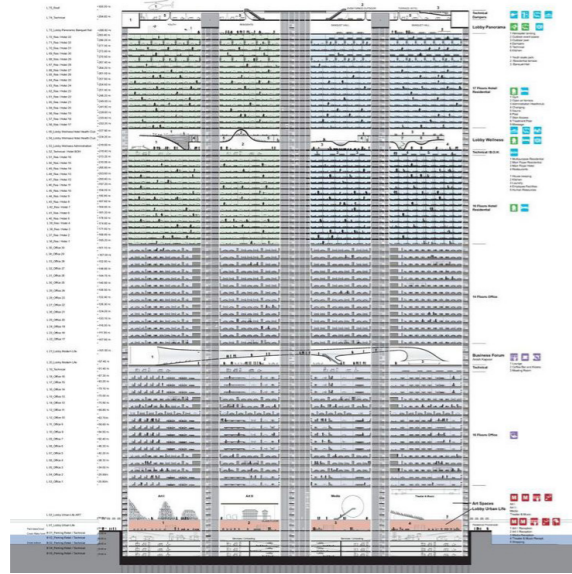
SYSTEM

closed / absolute / **sublime**



Pantheon

OMA Dubai Renaissance



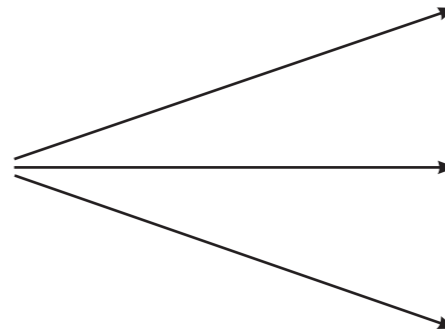
open / abstract / **generic**

x

closed / absolute / **sublime**

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SYSTEM



Program - aim of university campus

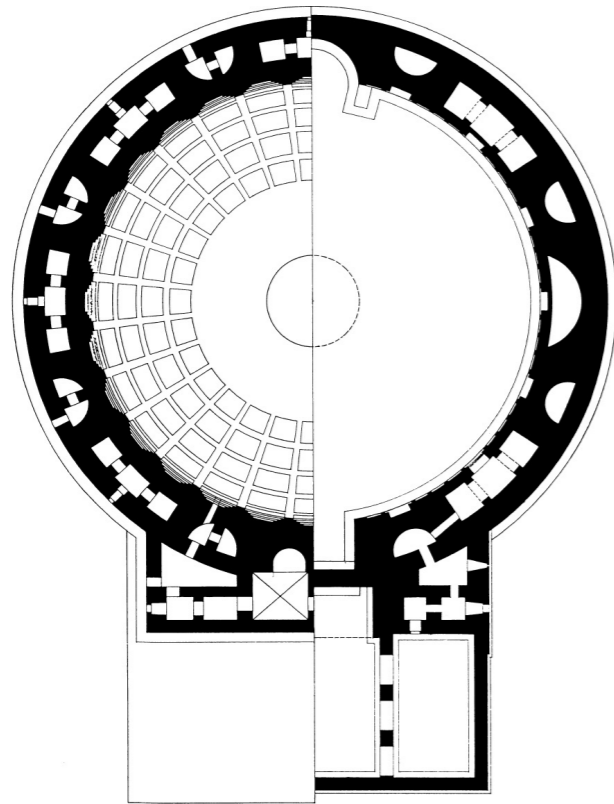
1. Create the knowledge

2. Archive the knowledge

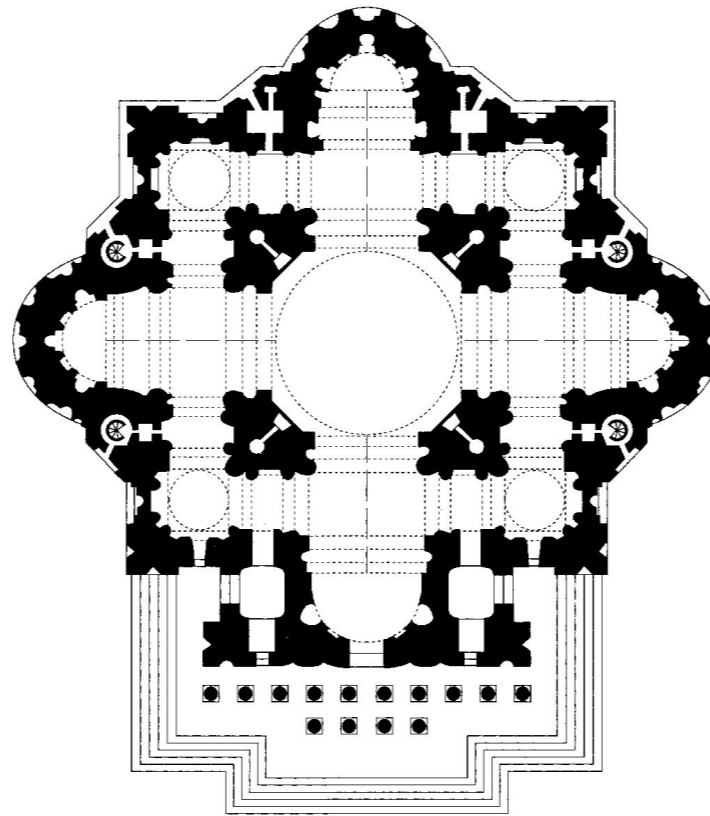
3. Transfer the knowledge



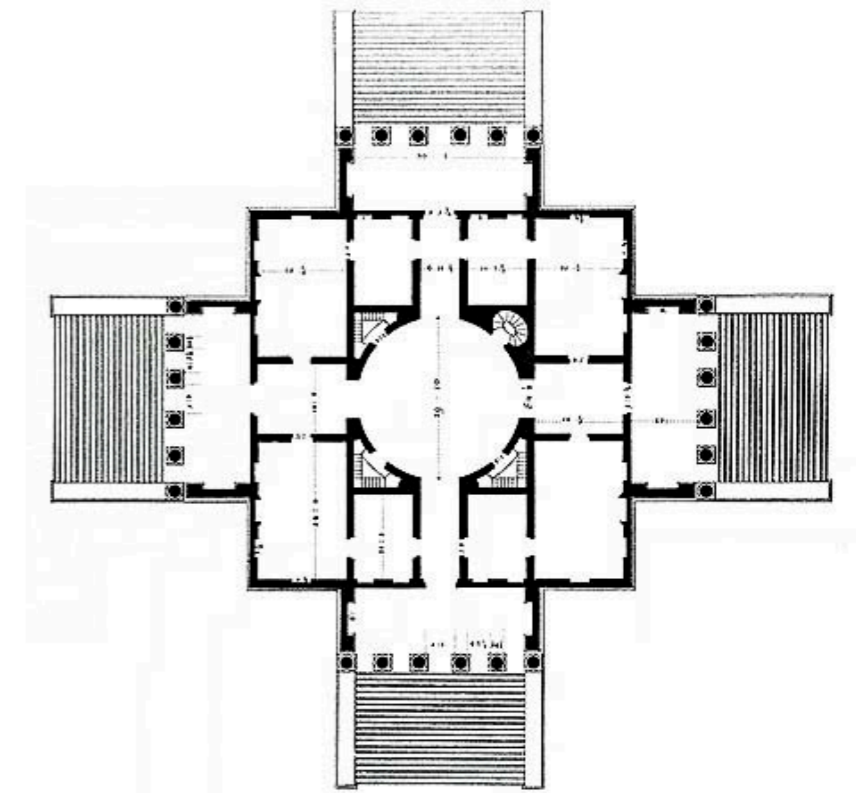
Pantheon



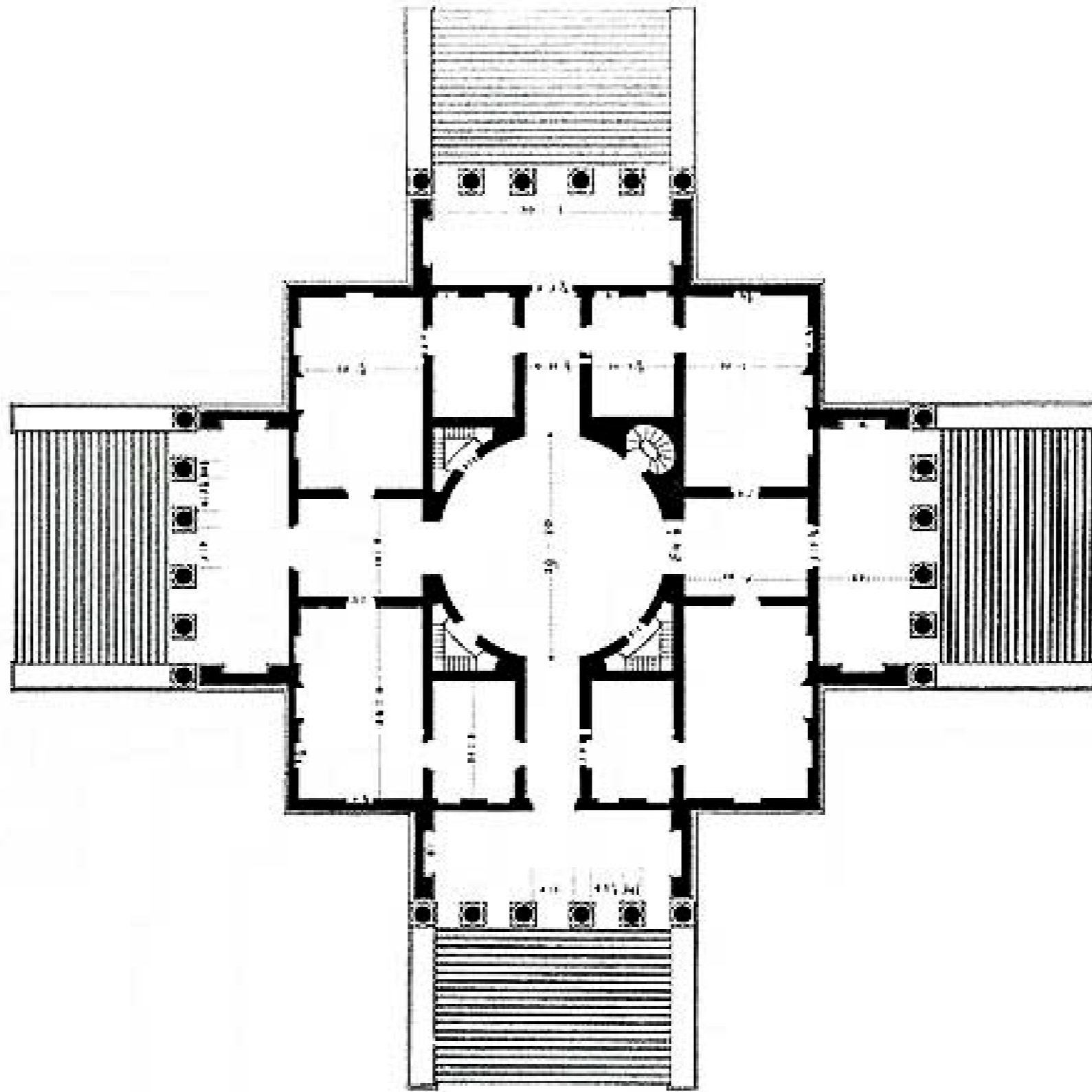
Panteon

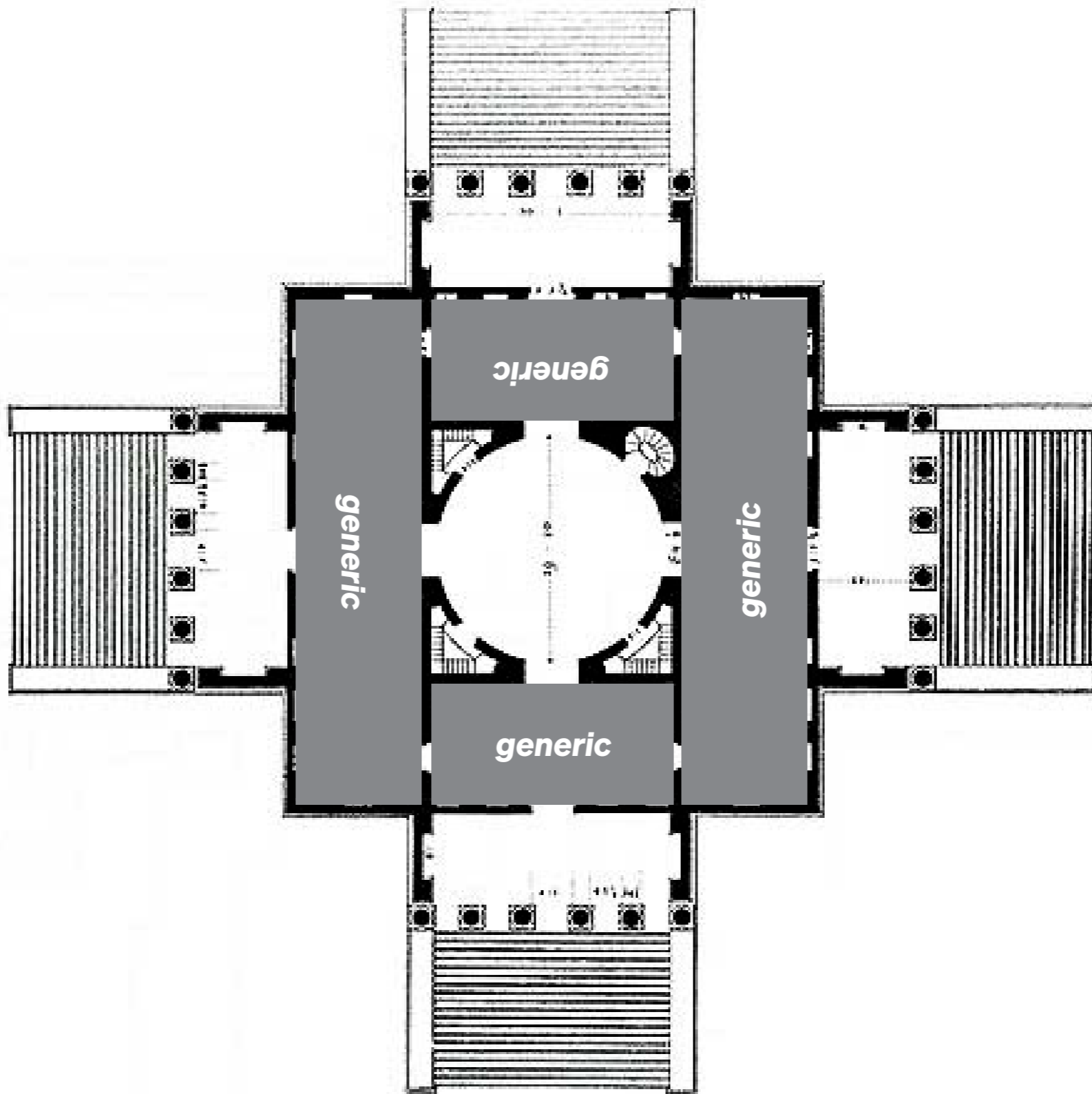


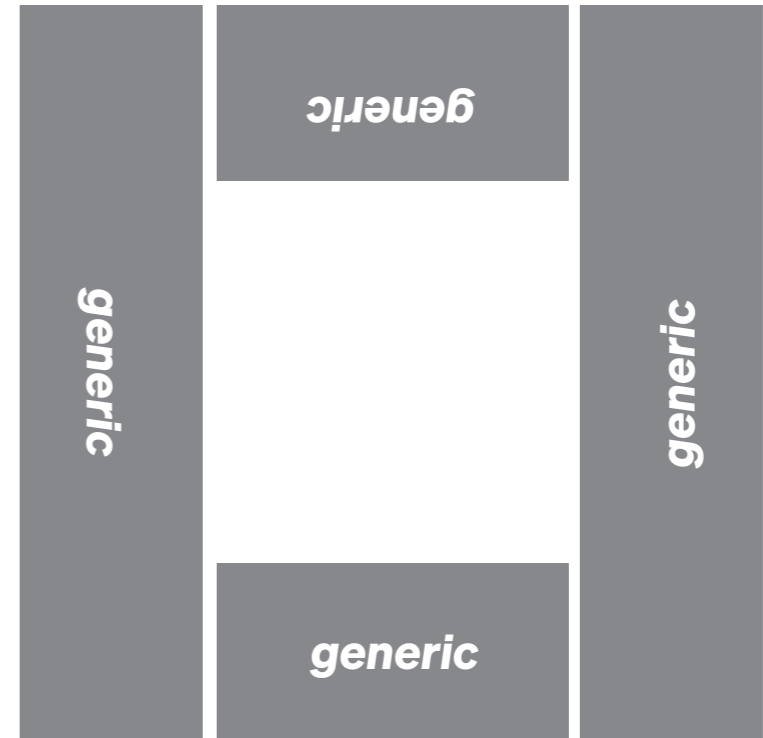
St. Peter
(Michelangelo)

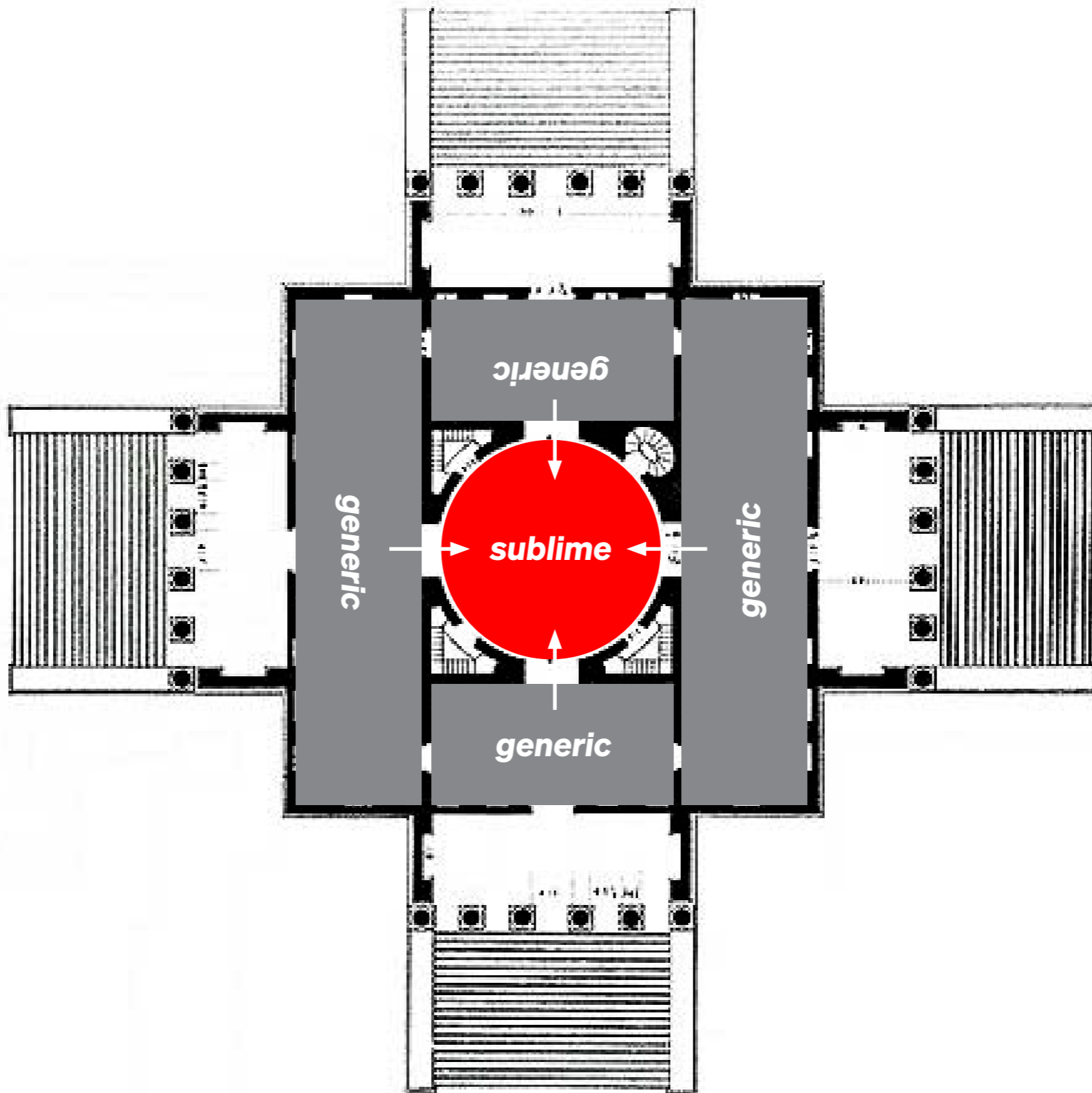


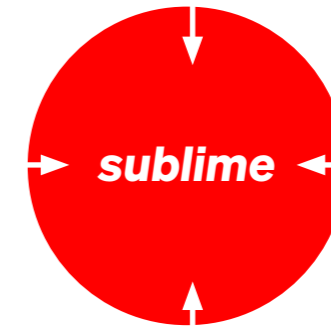
Villa Capra/Rotonda
(Andrea Palladio)

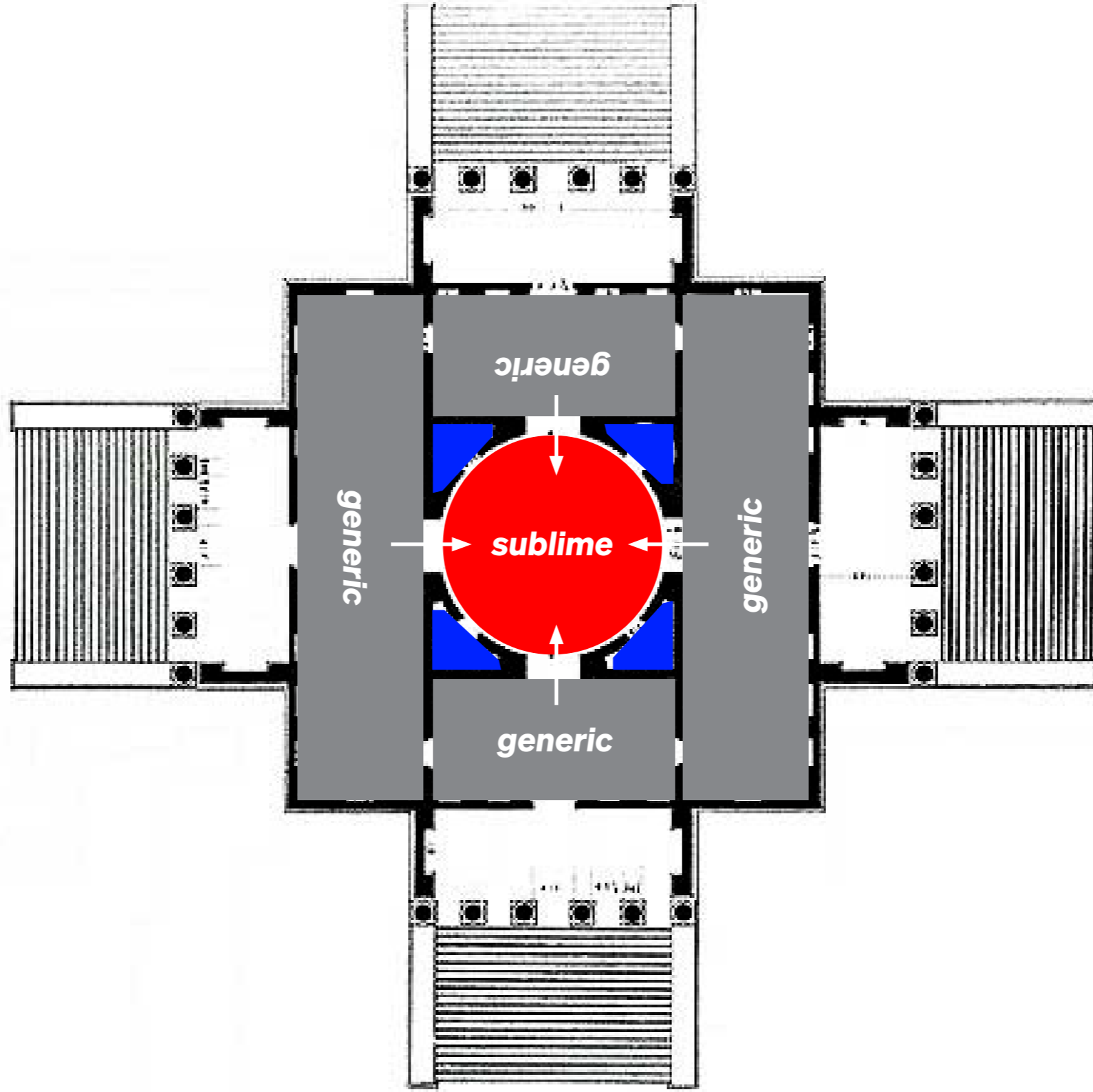








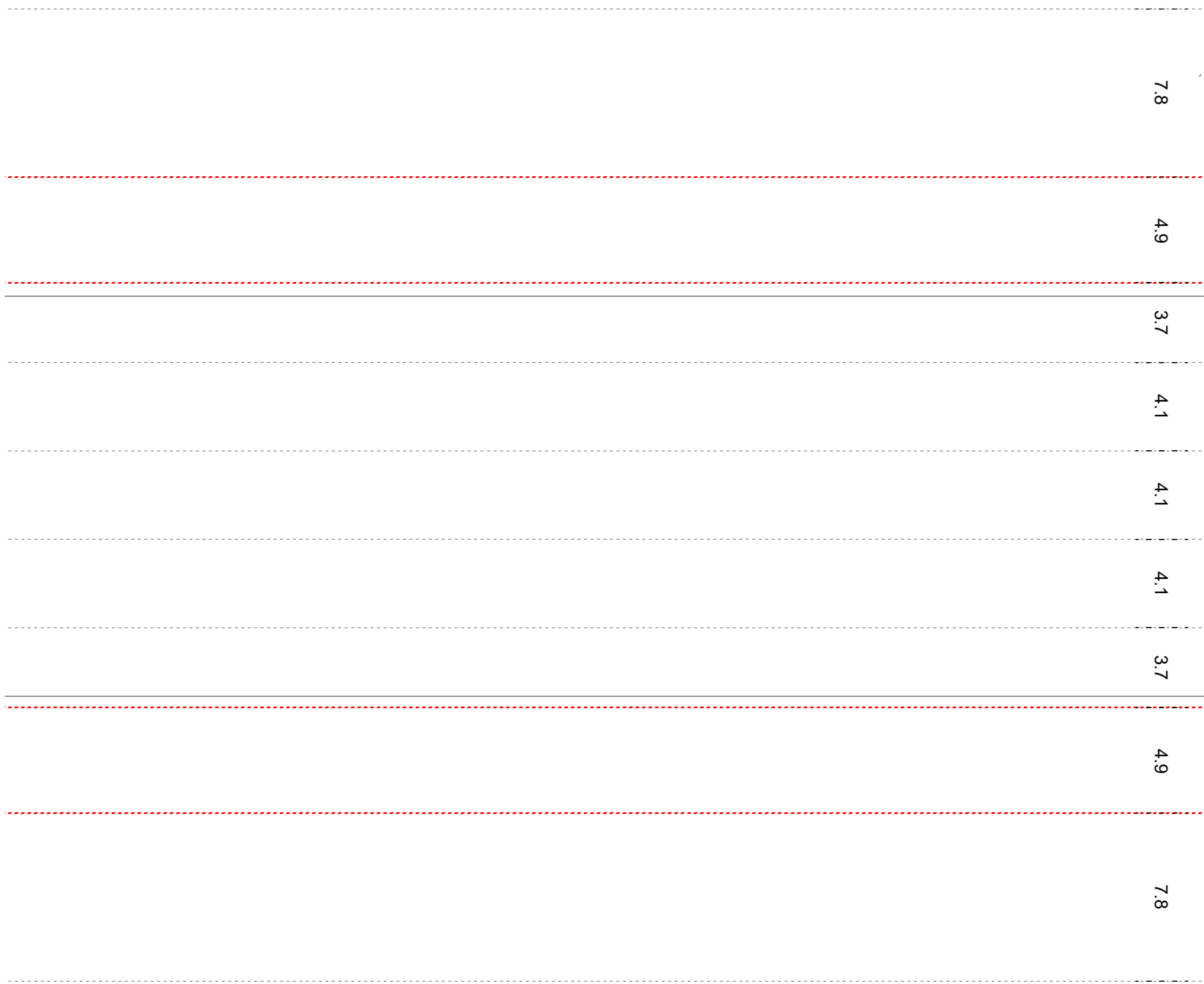


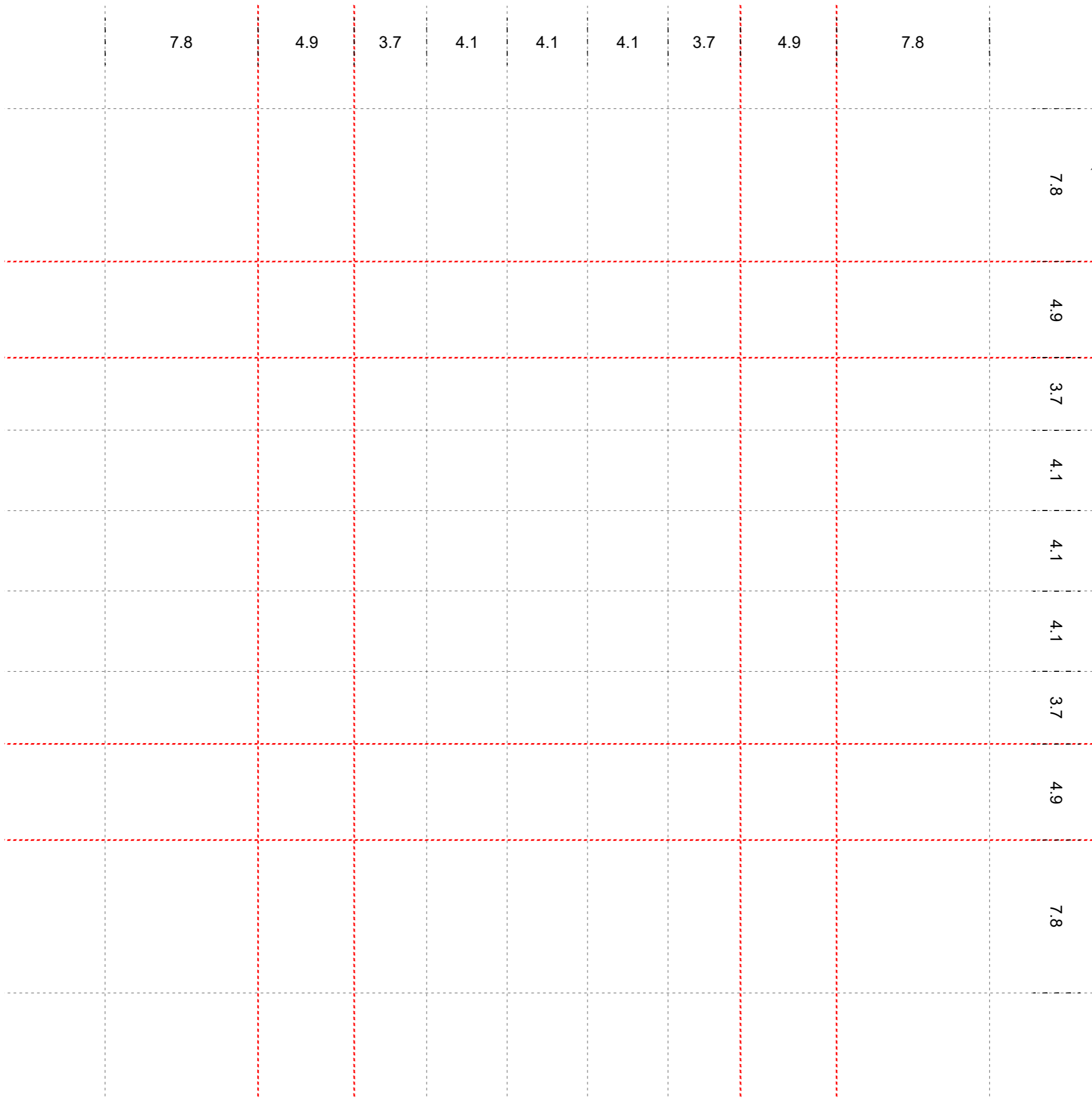


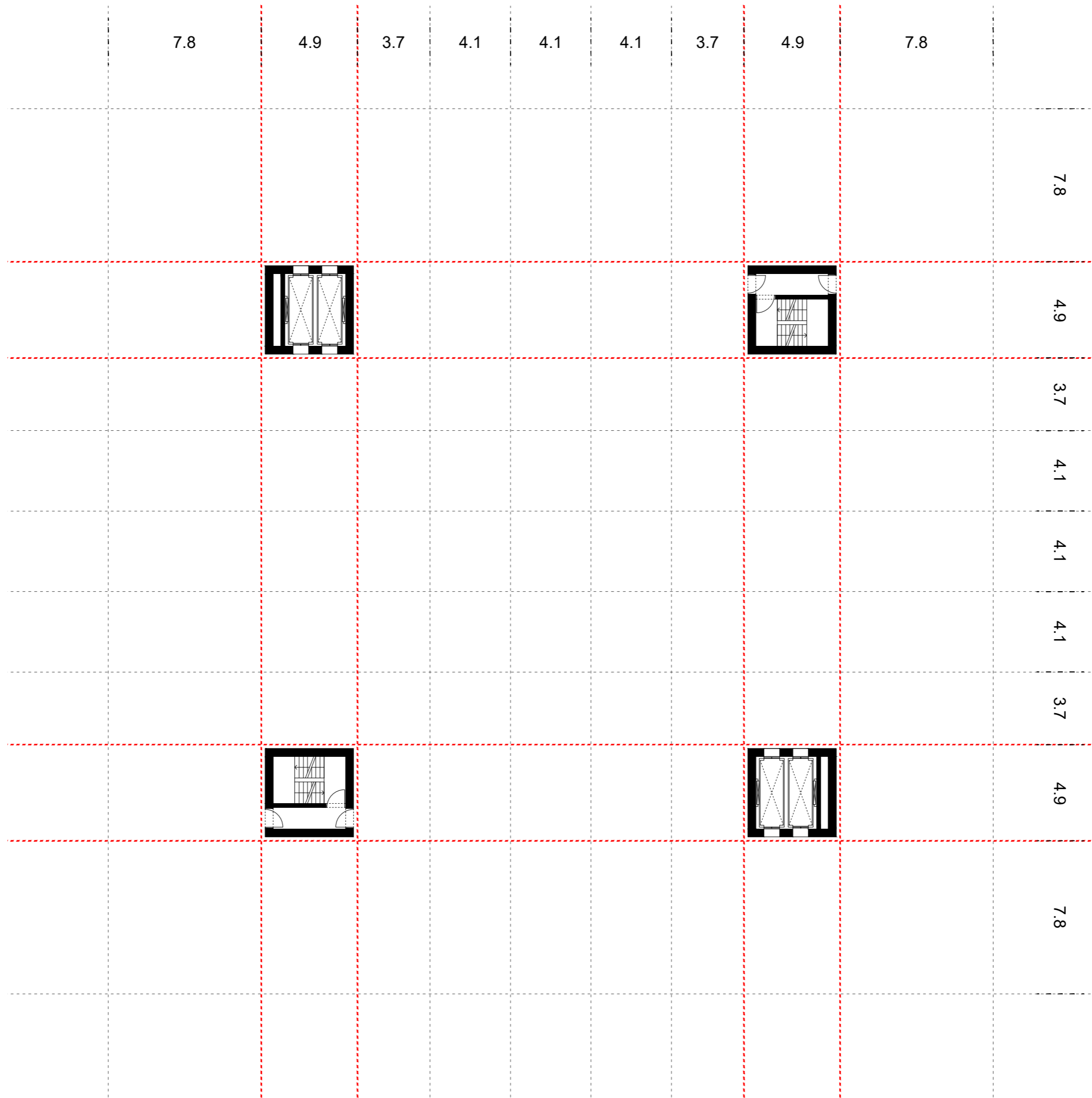
Floor plan design

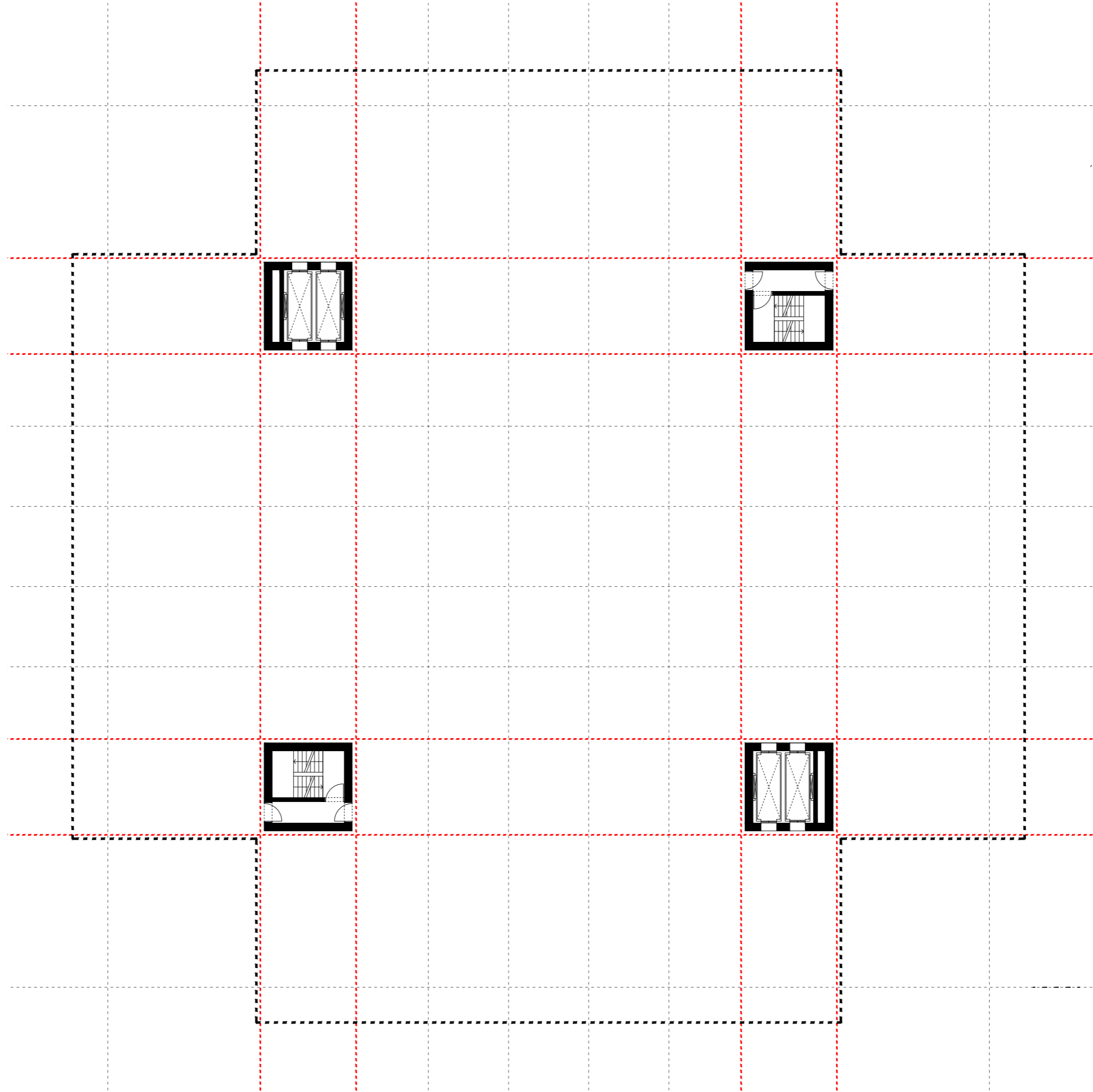


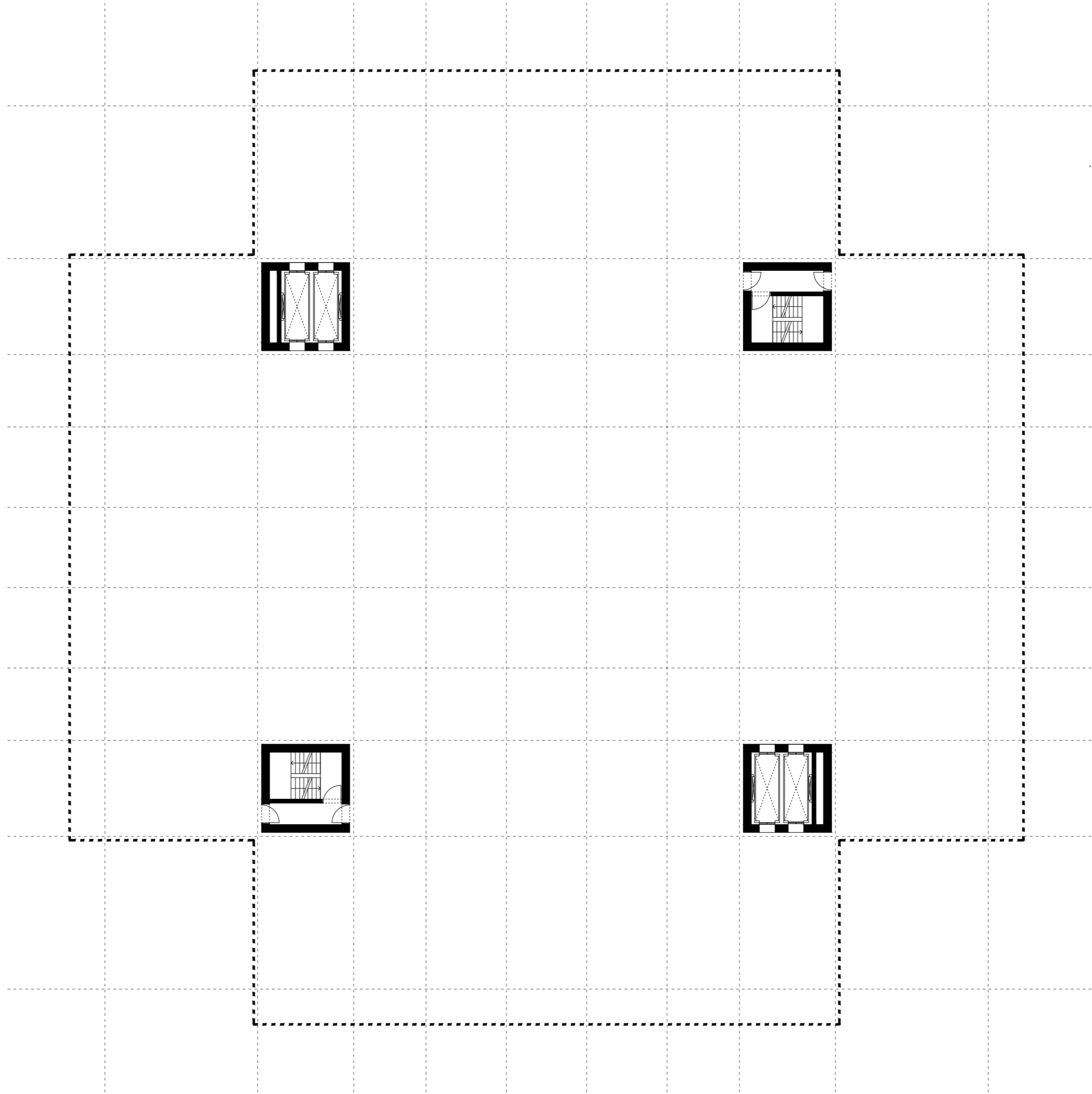
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	4.9	
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	4.1	
	3.7	
	4.9	
	7.8	

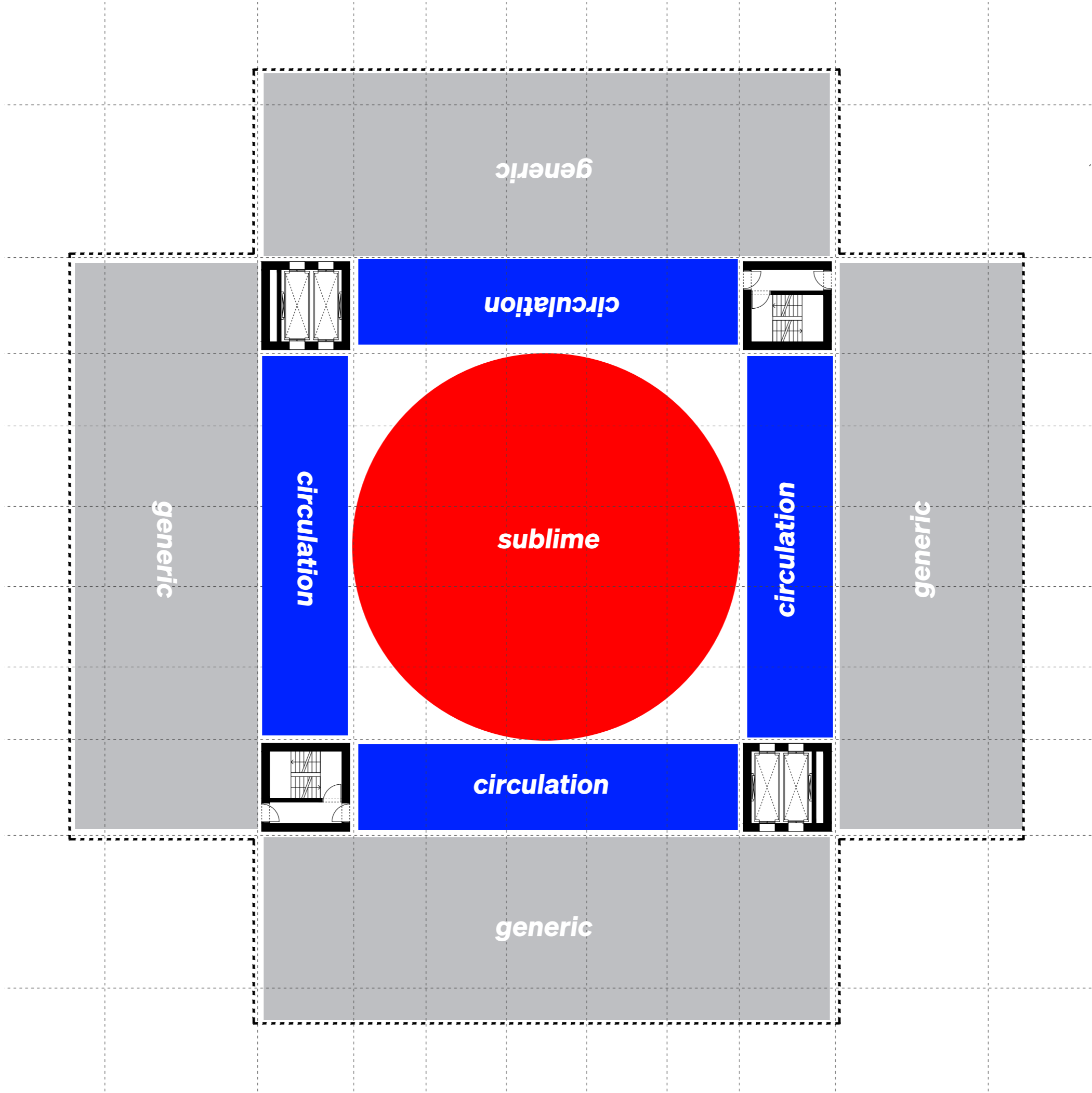


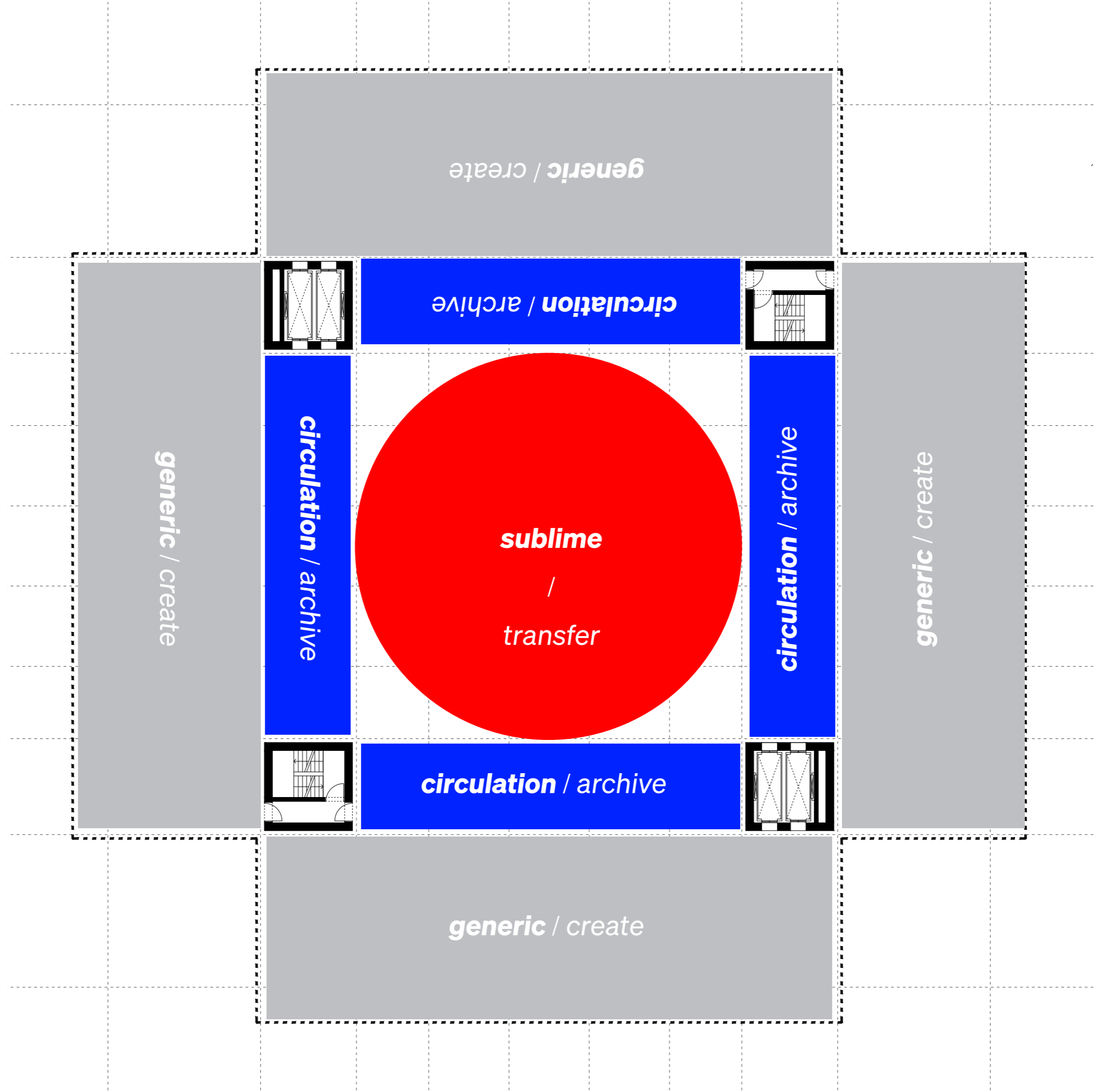


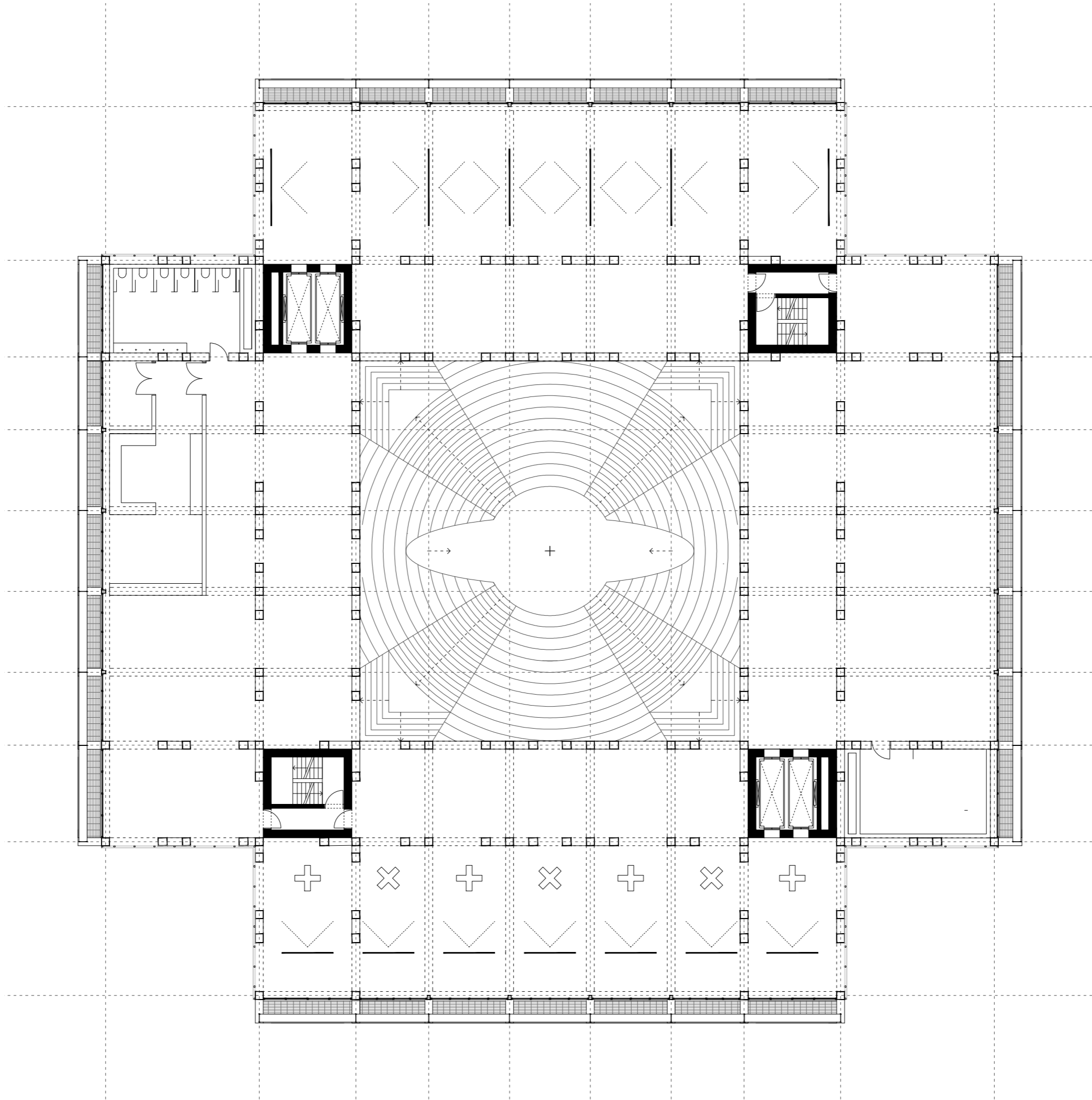




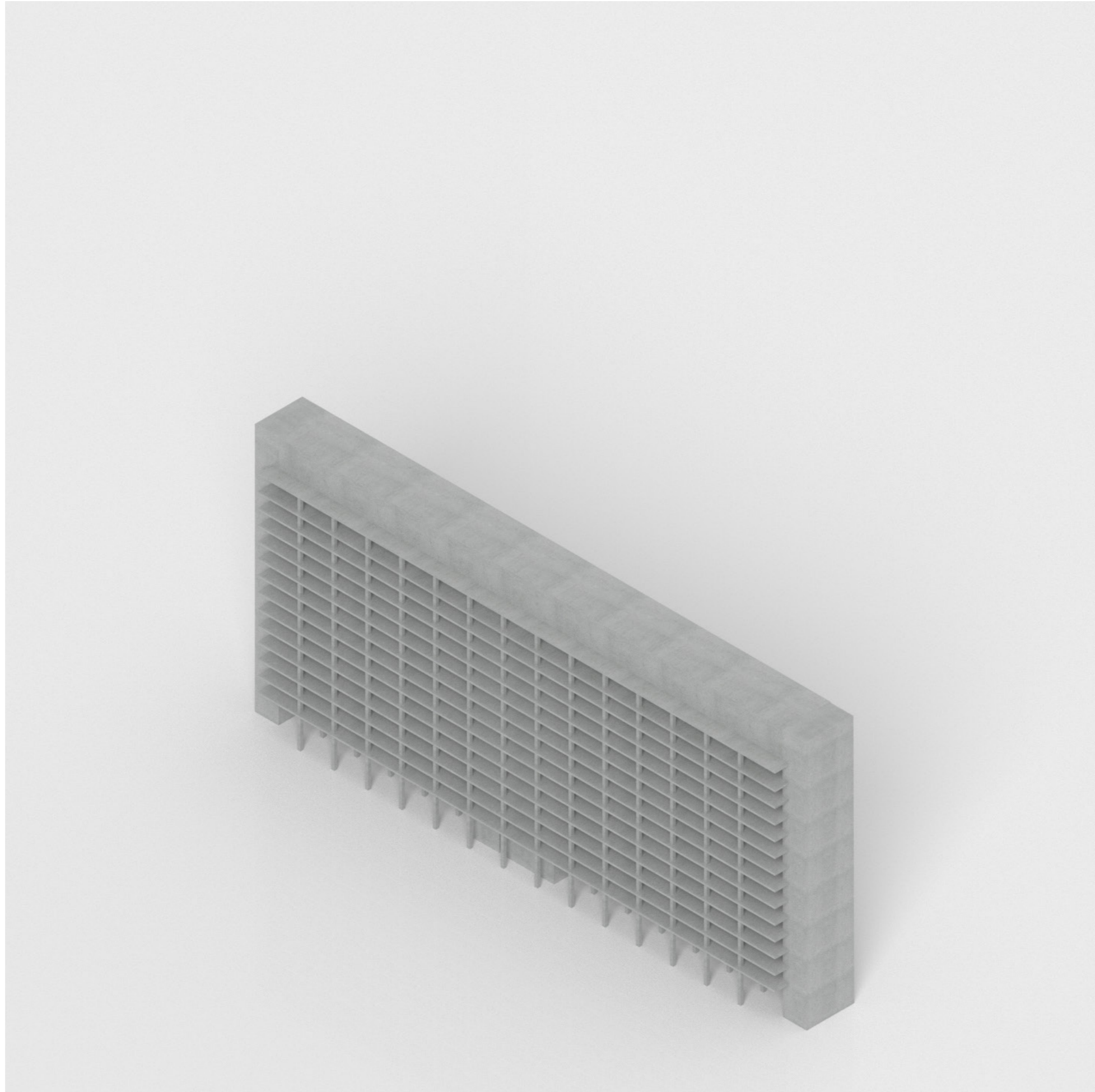


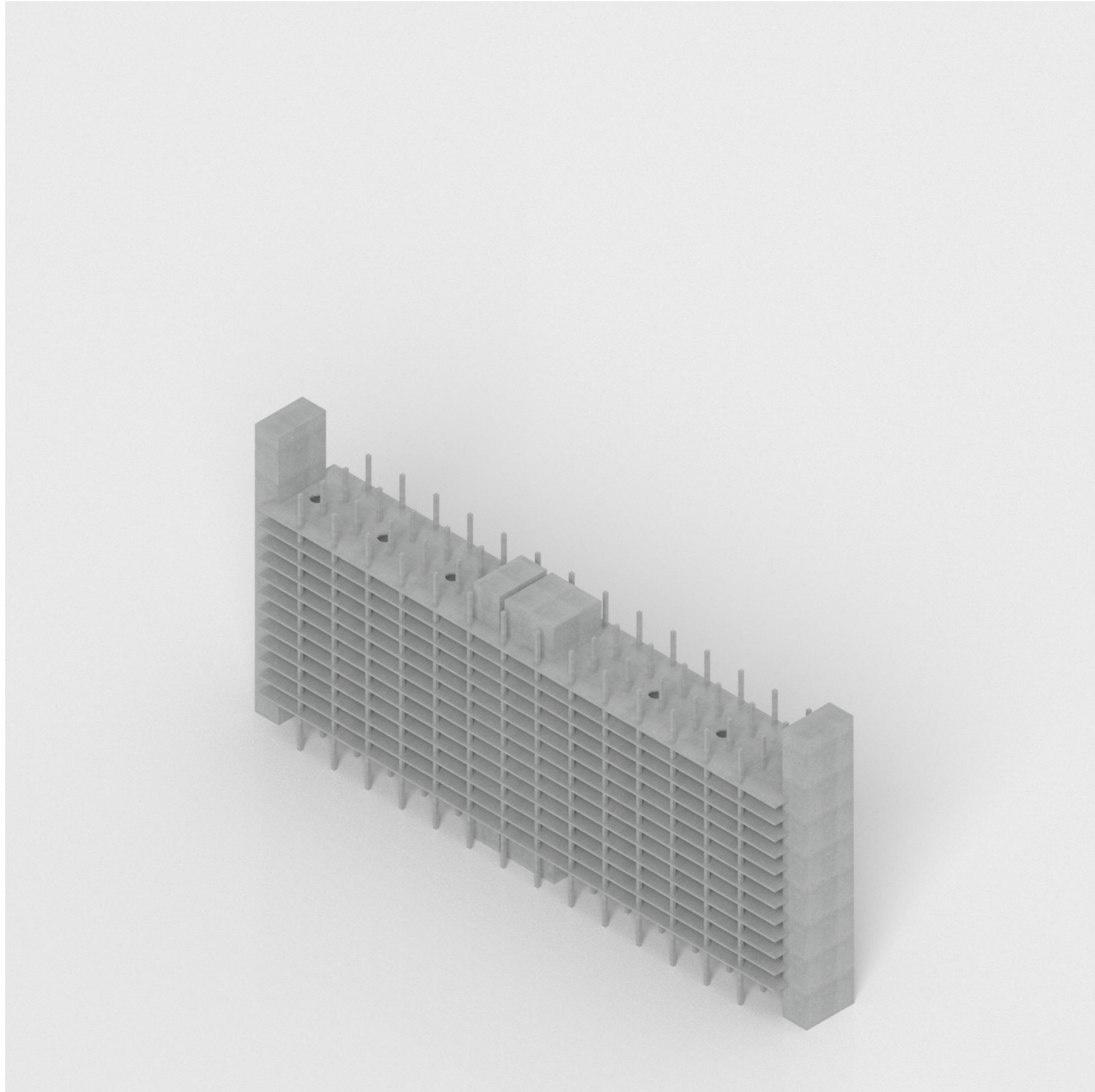




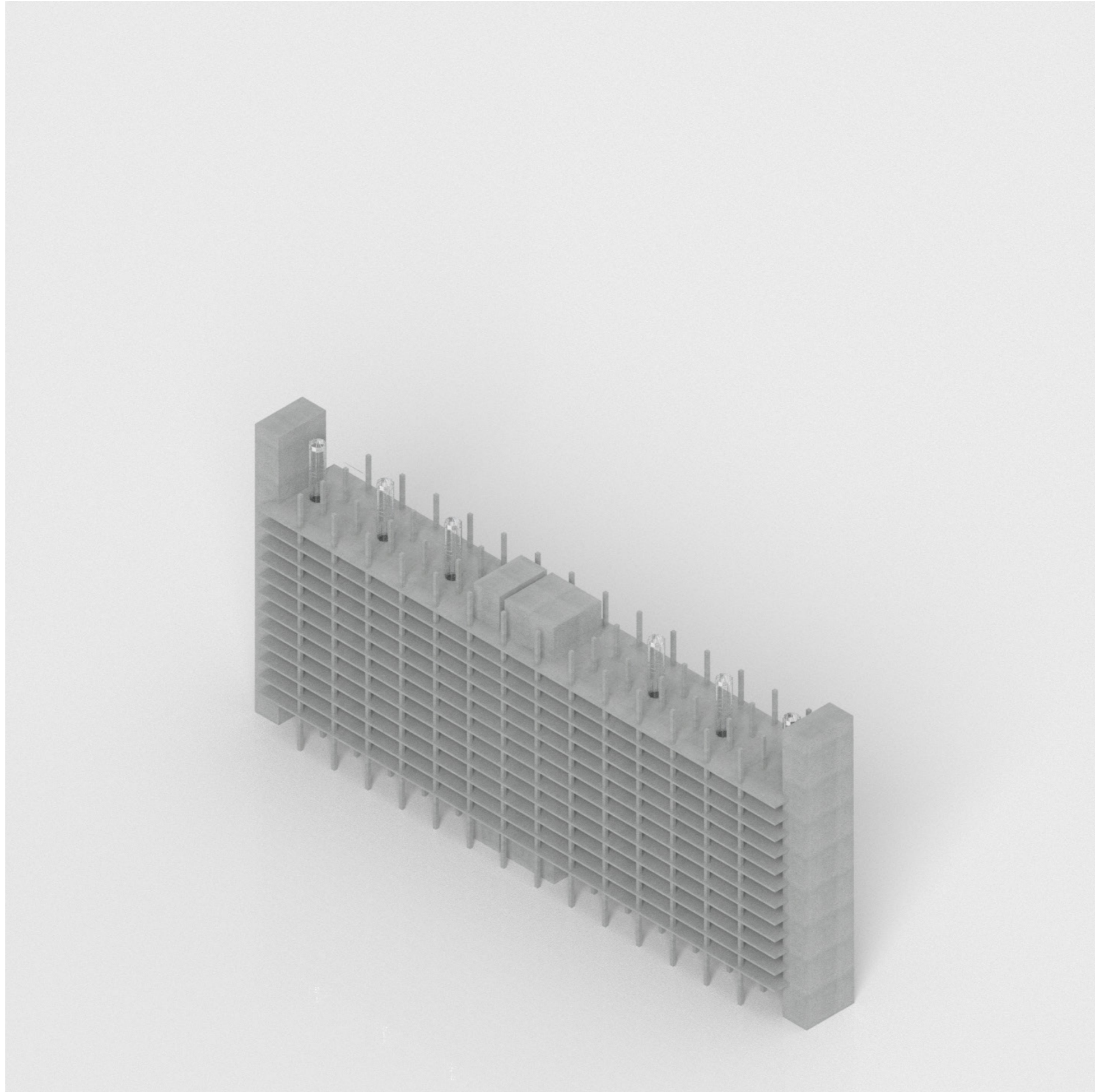


Structure and design decisions

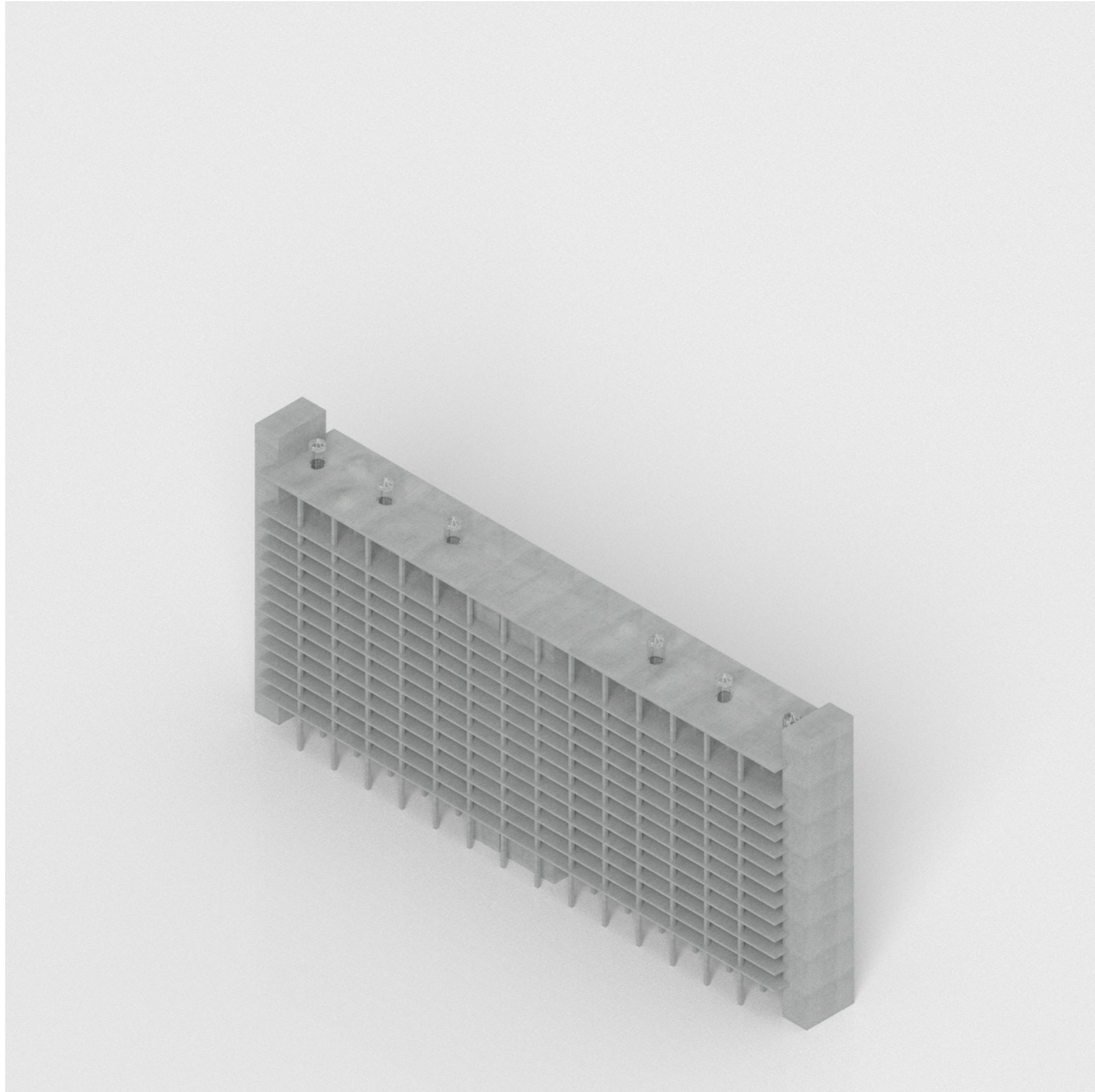




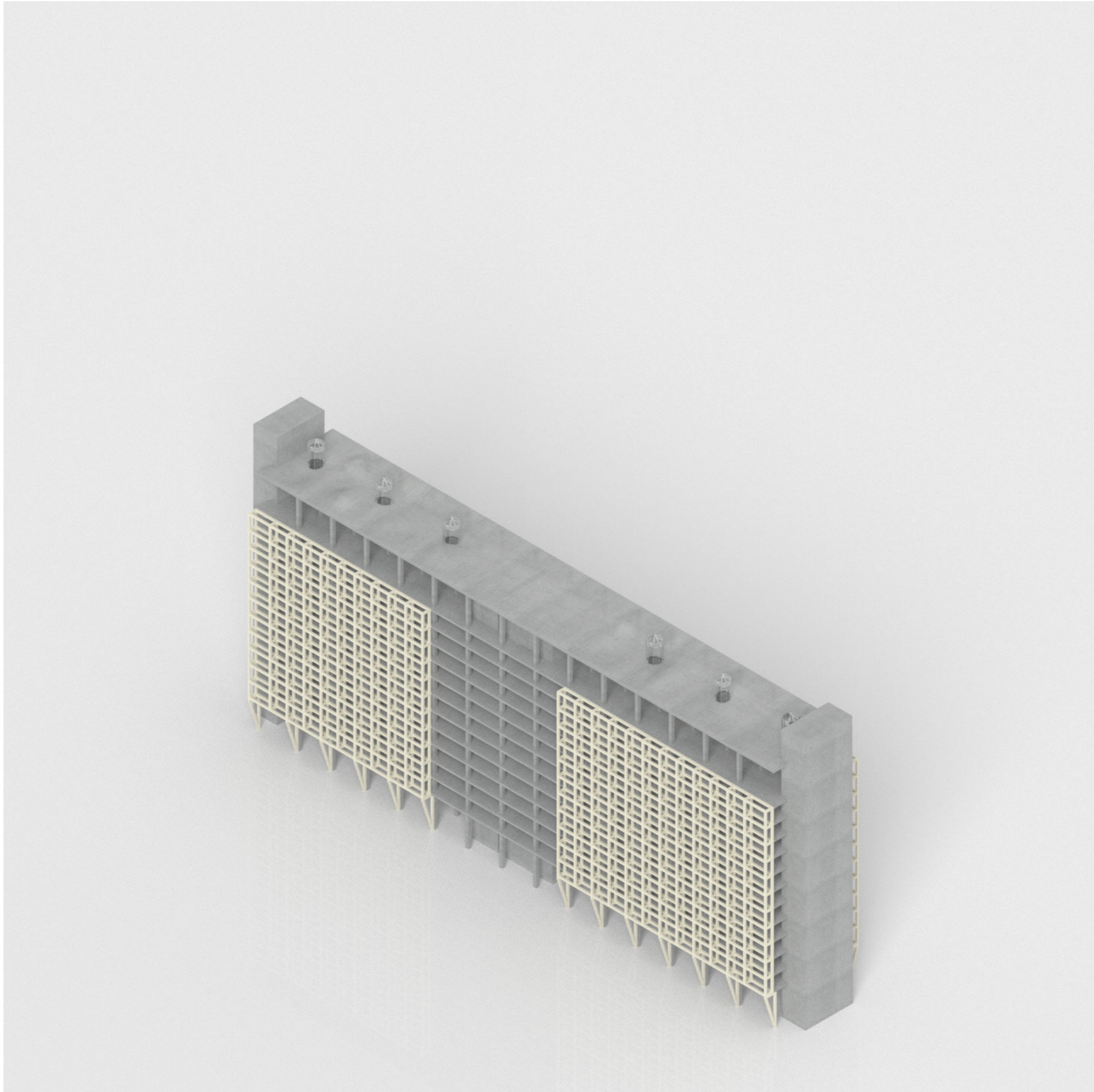
removal of two last floors - drilling holes

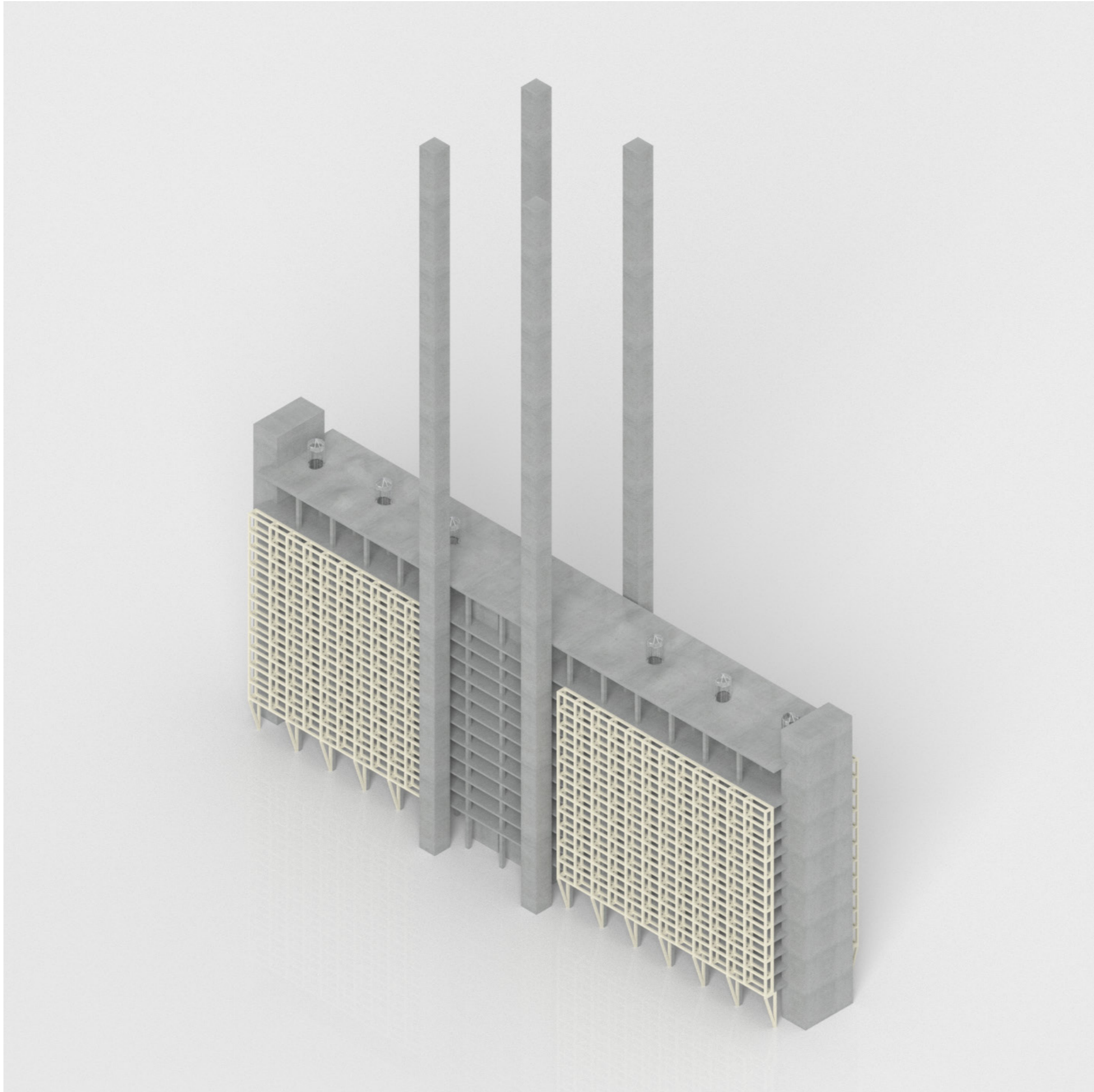


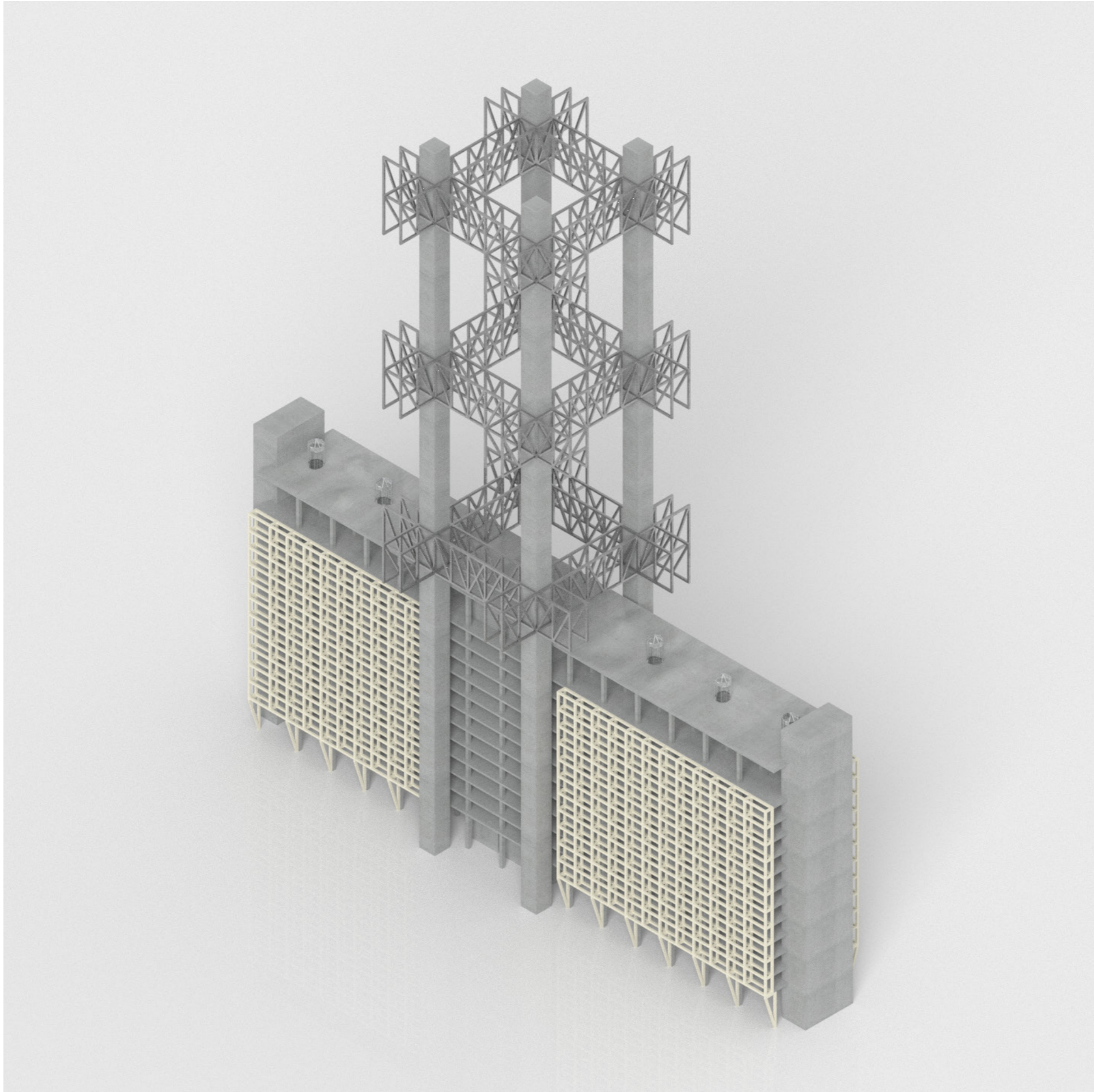
addition of passive ventilation - chimneys

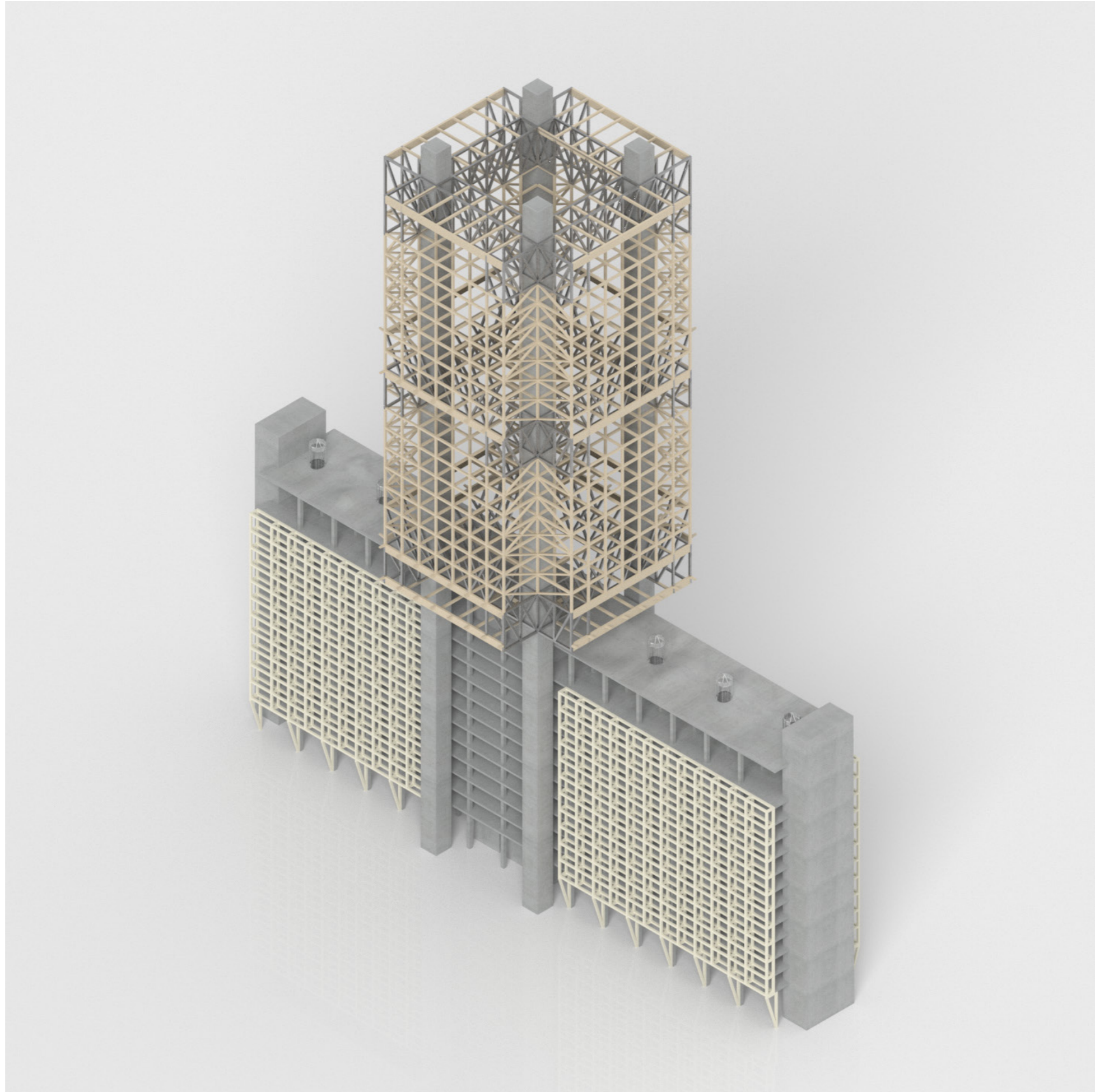


adding top floor, raised ground floor - *new ground*

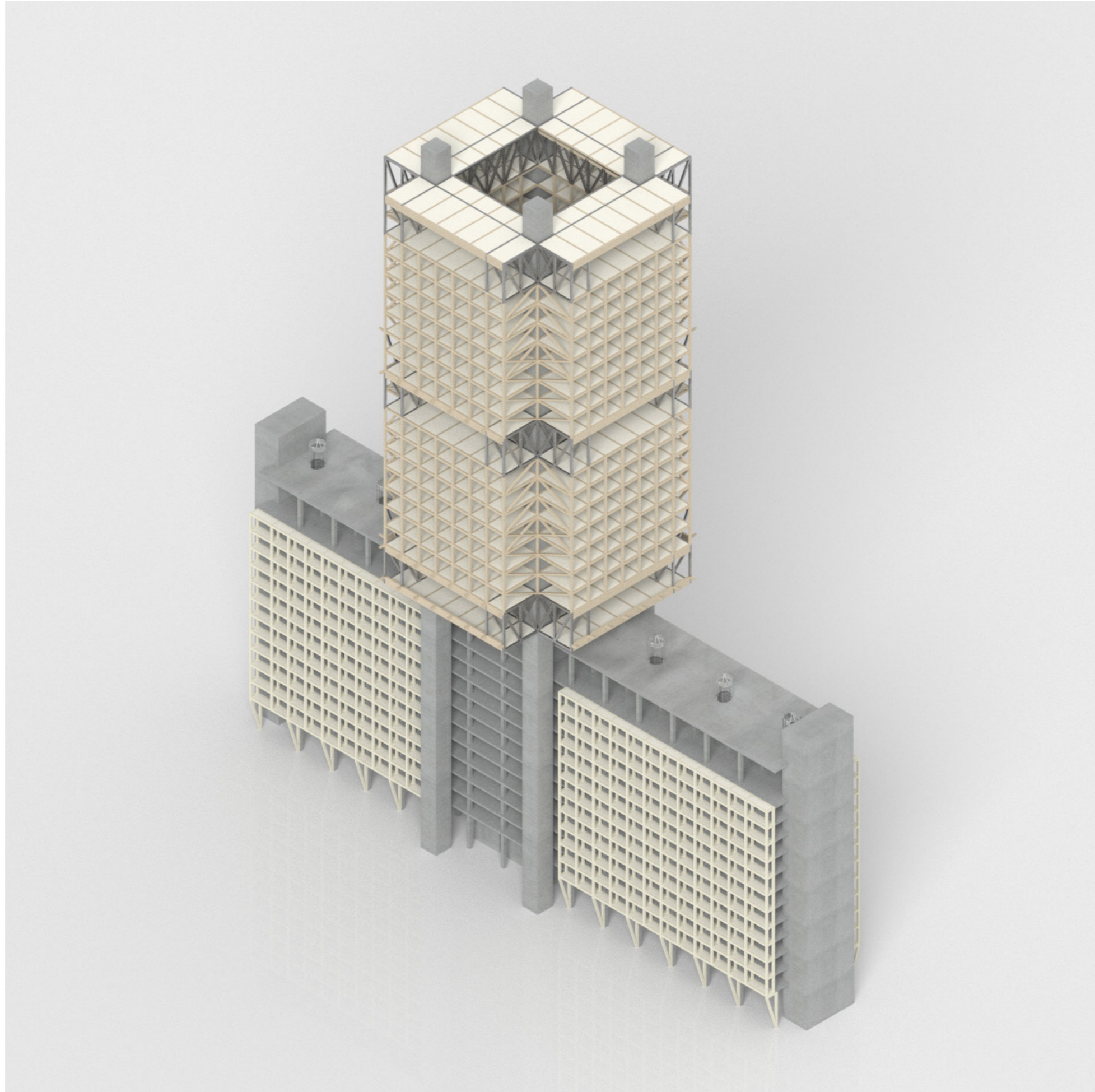


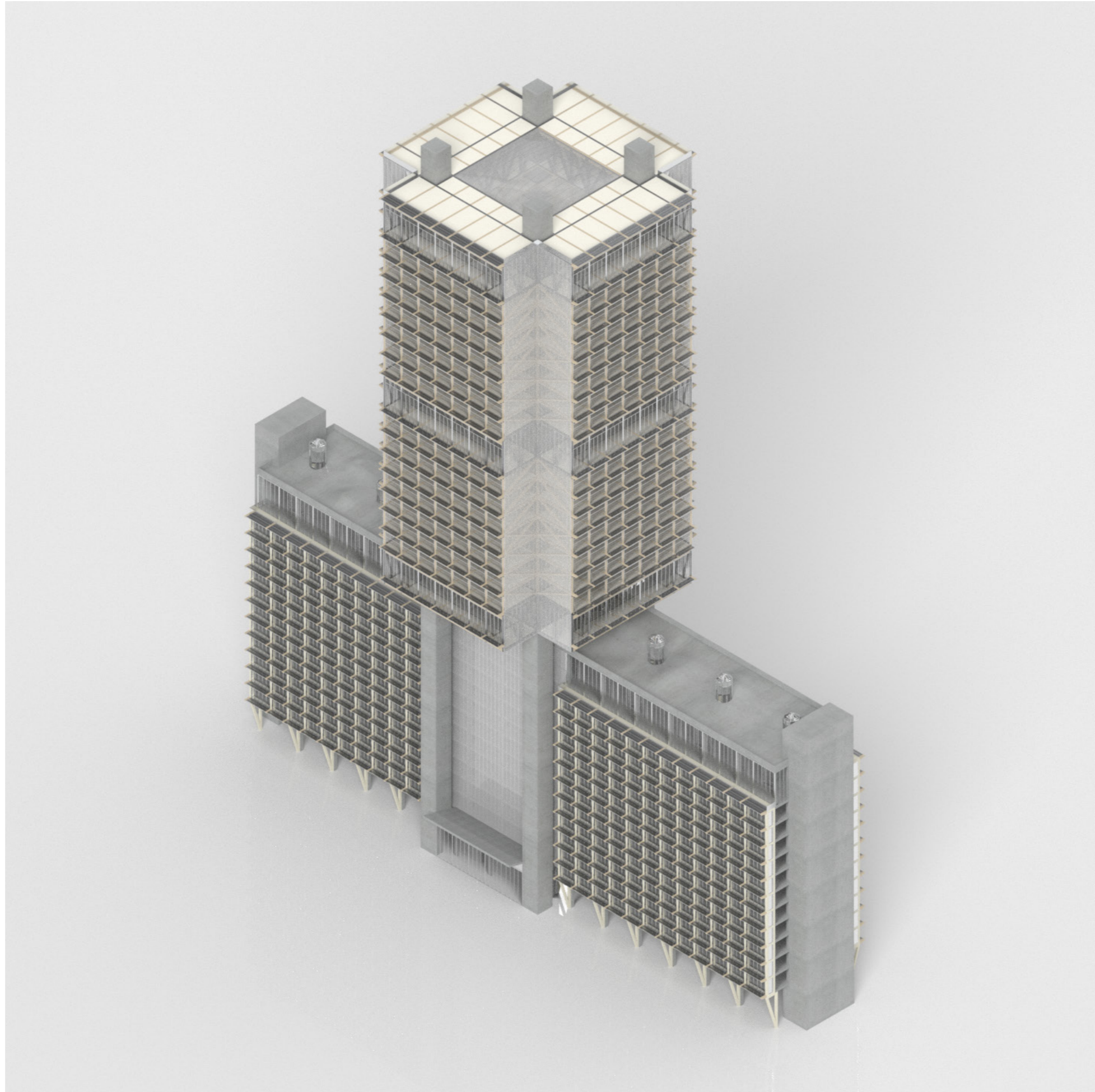


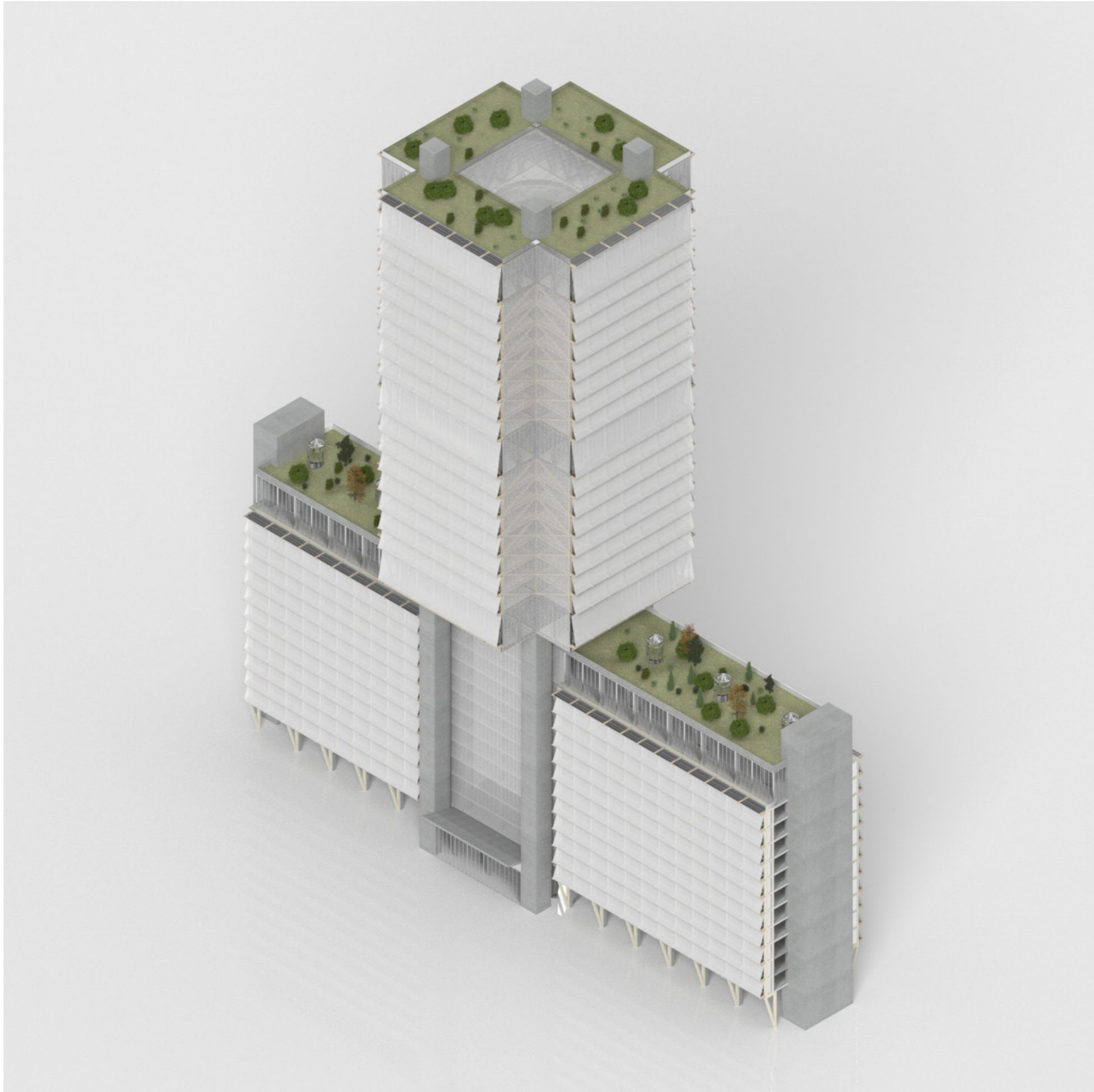




timber frame structure

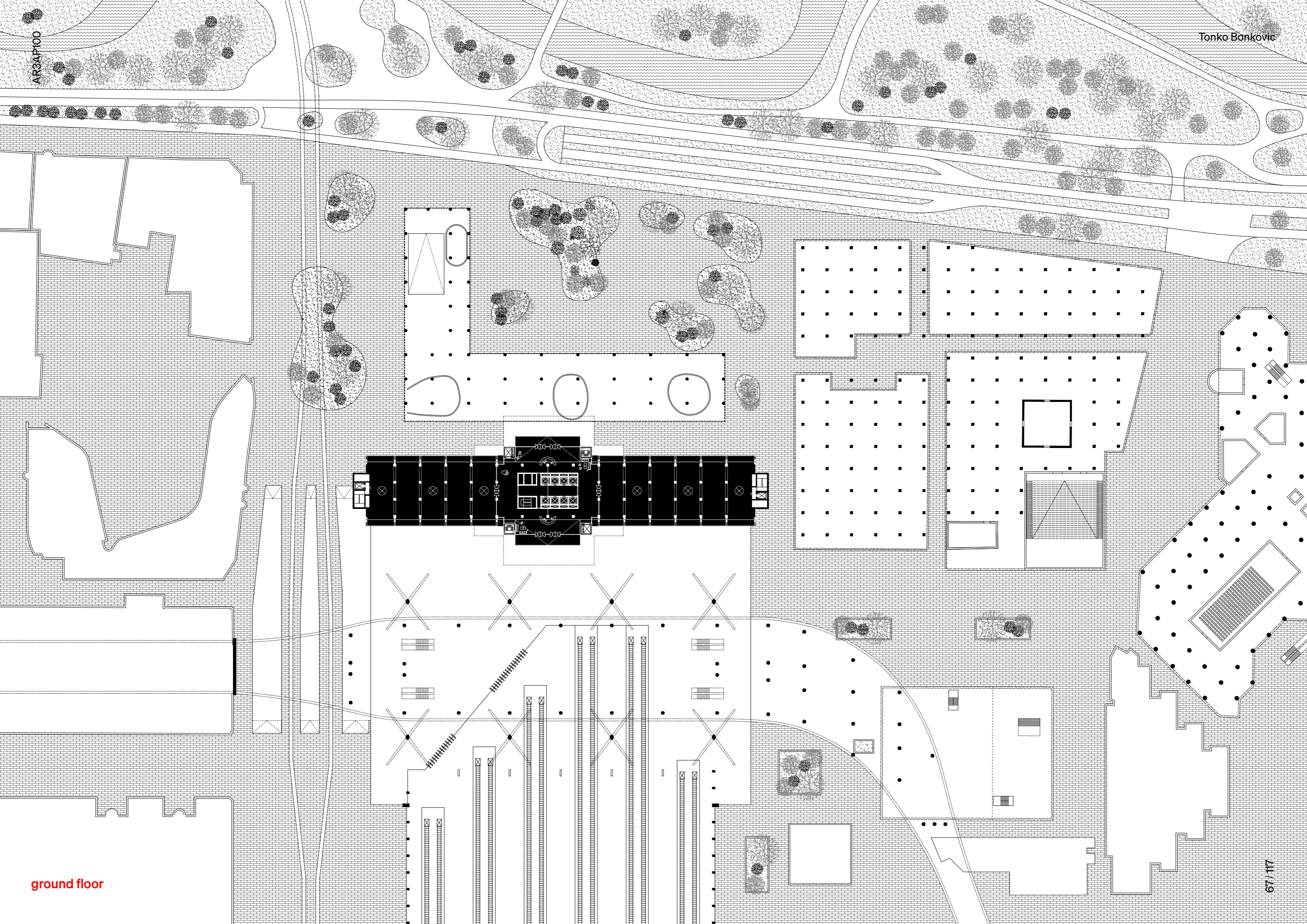


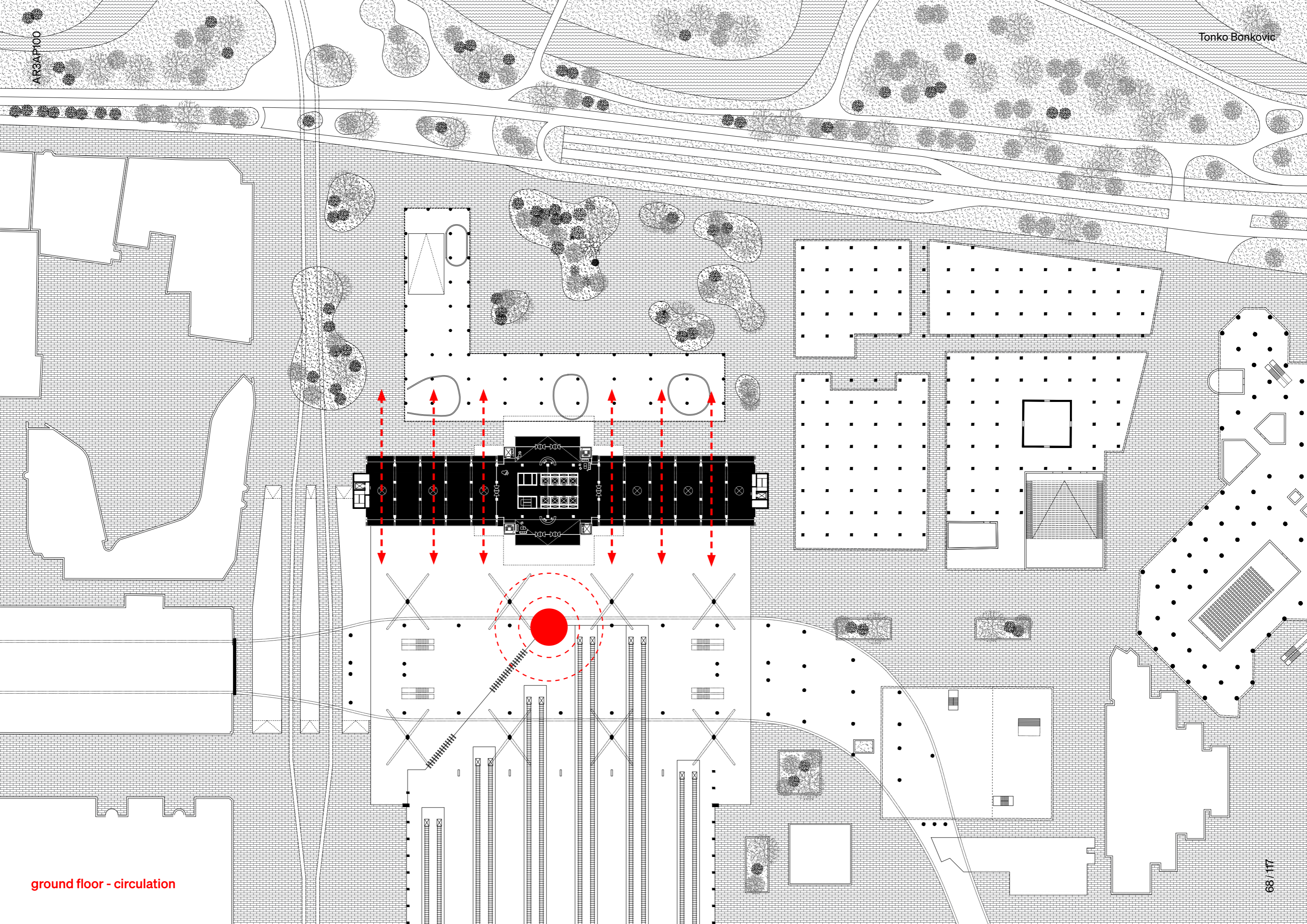


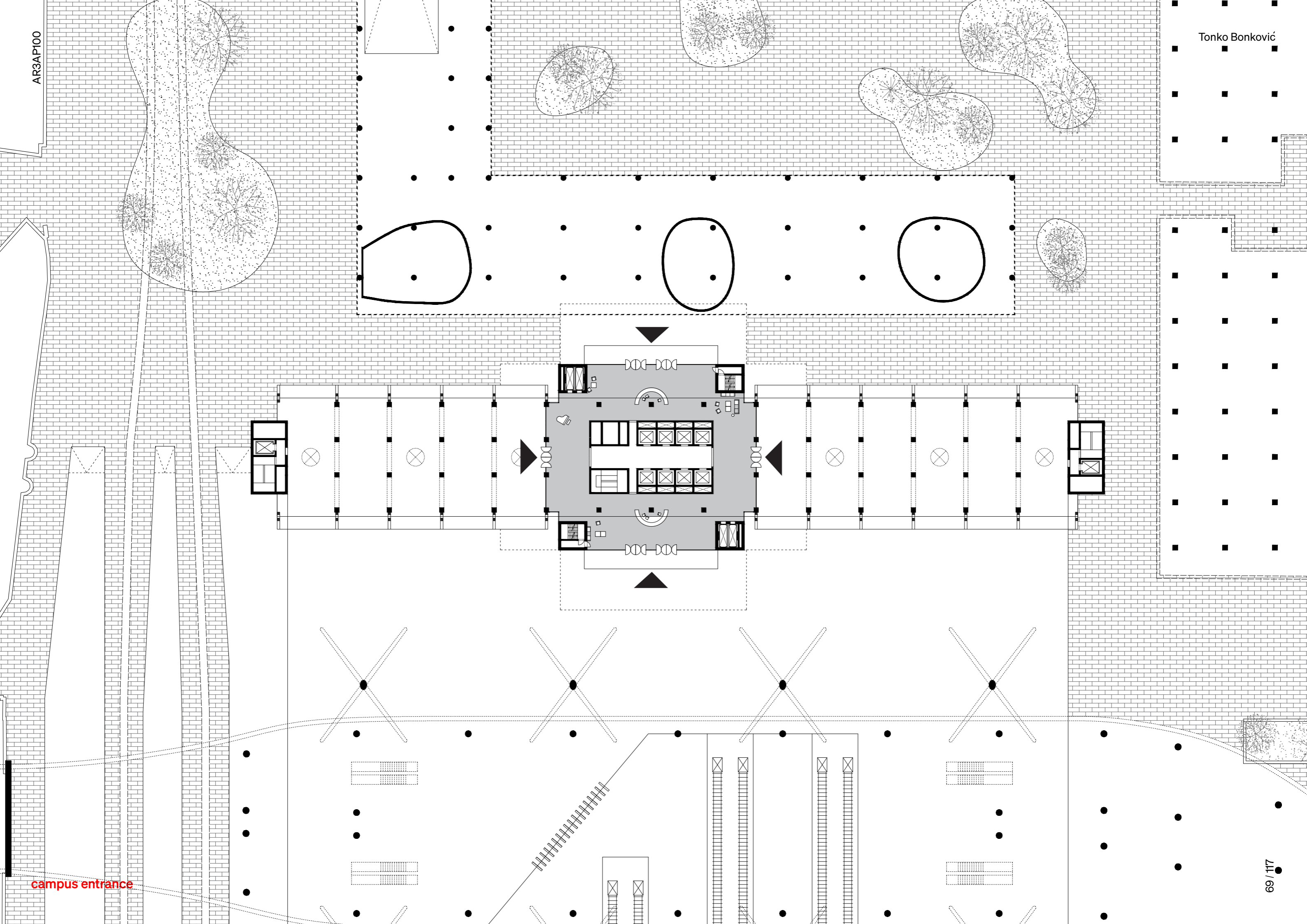




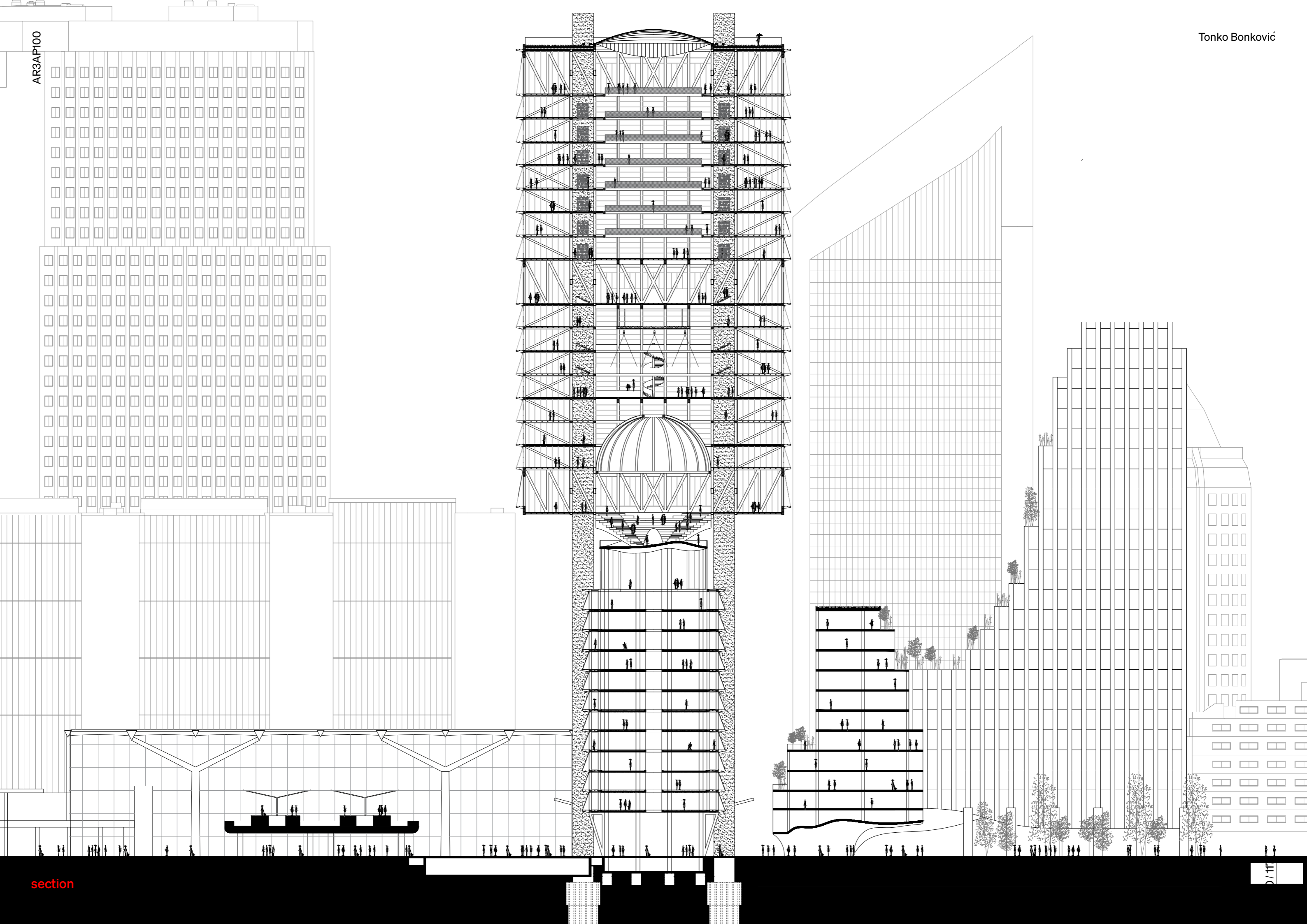


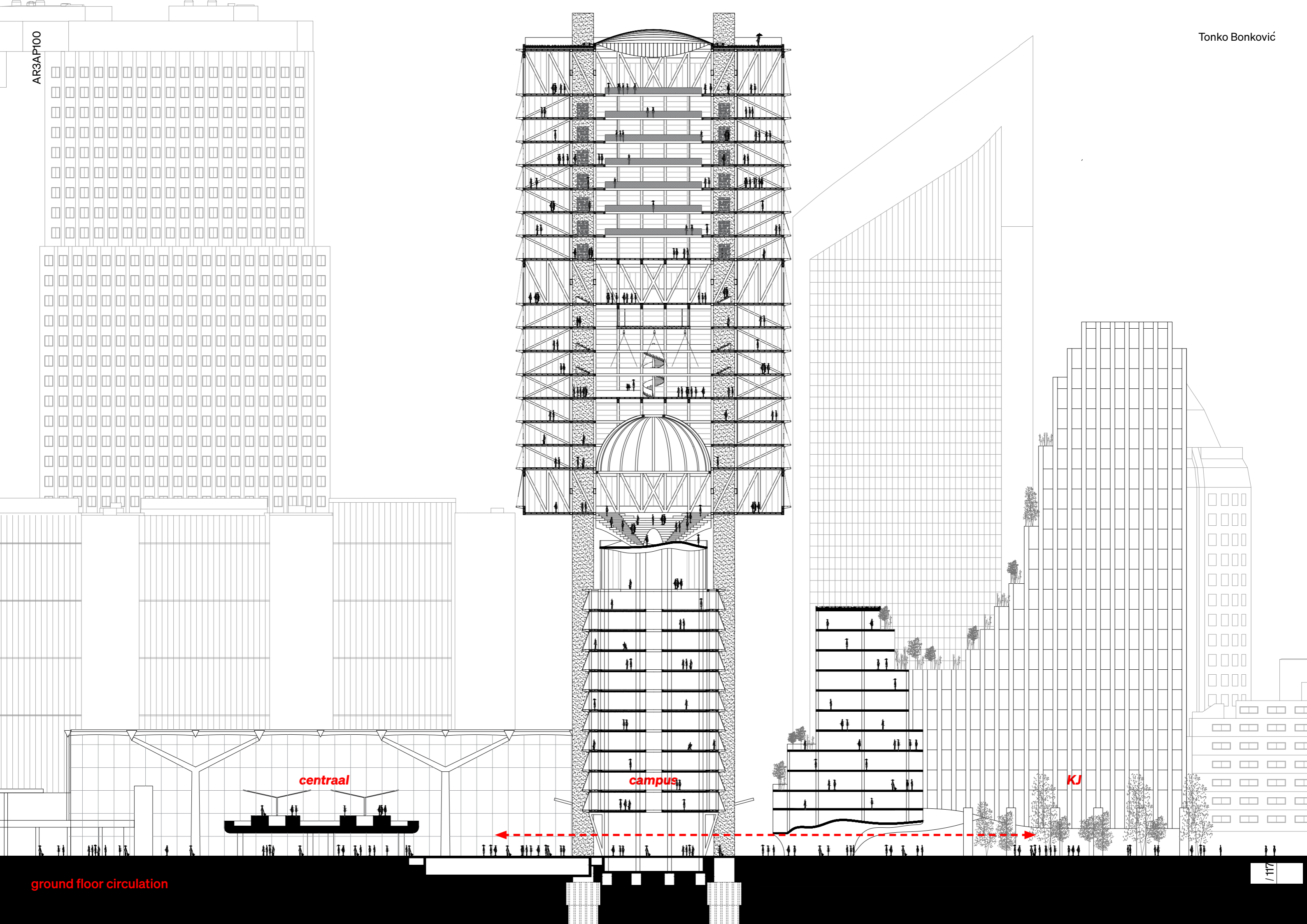






campus entrance



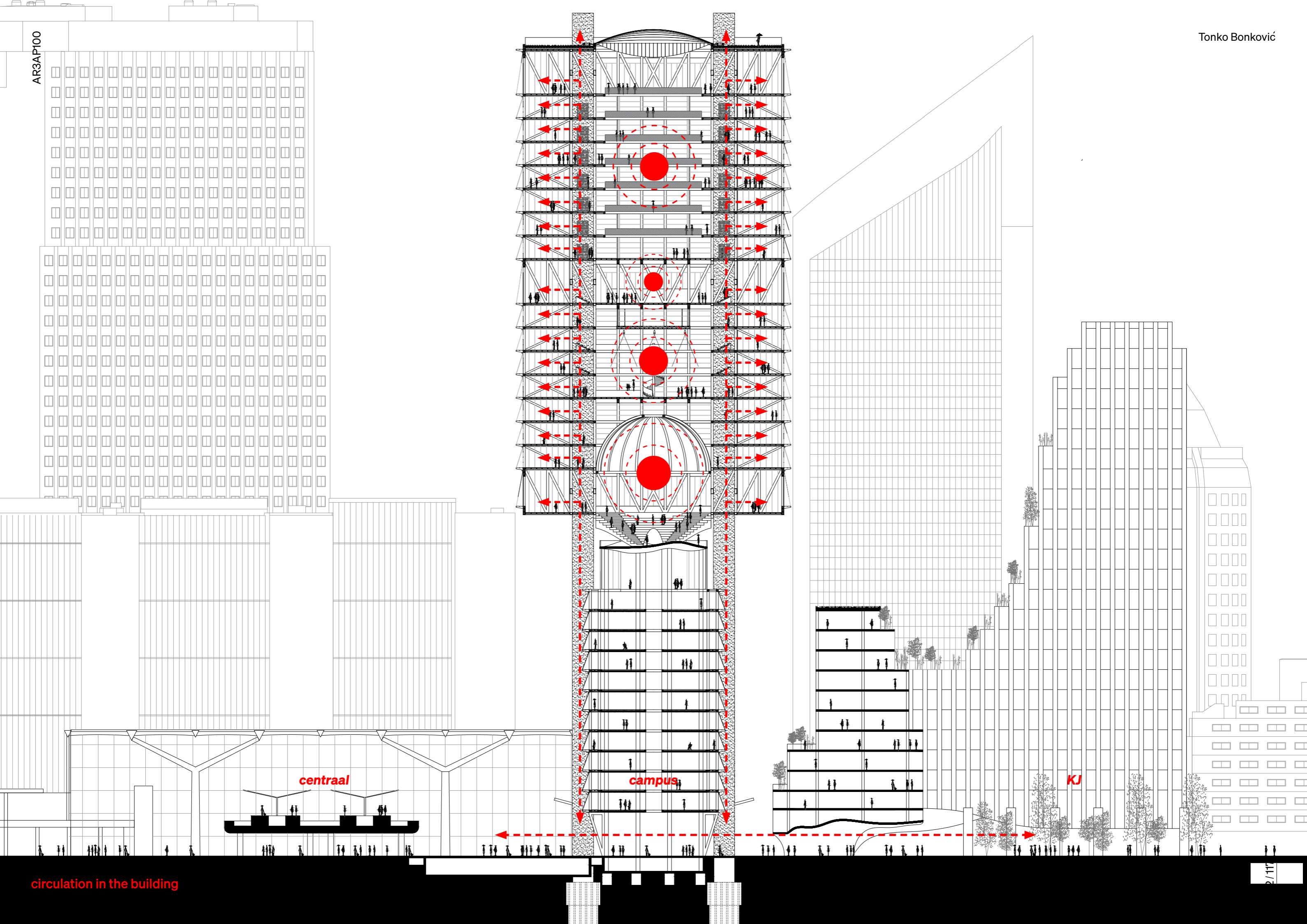


centraal

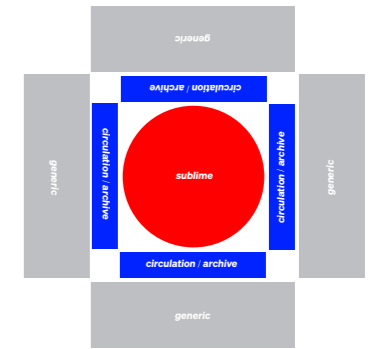
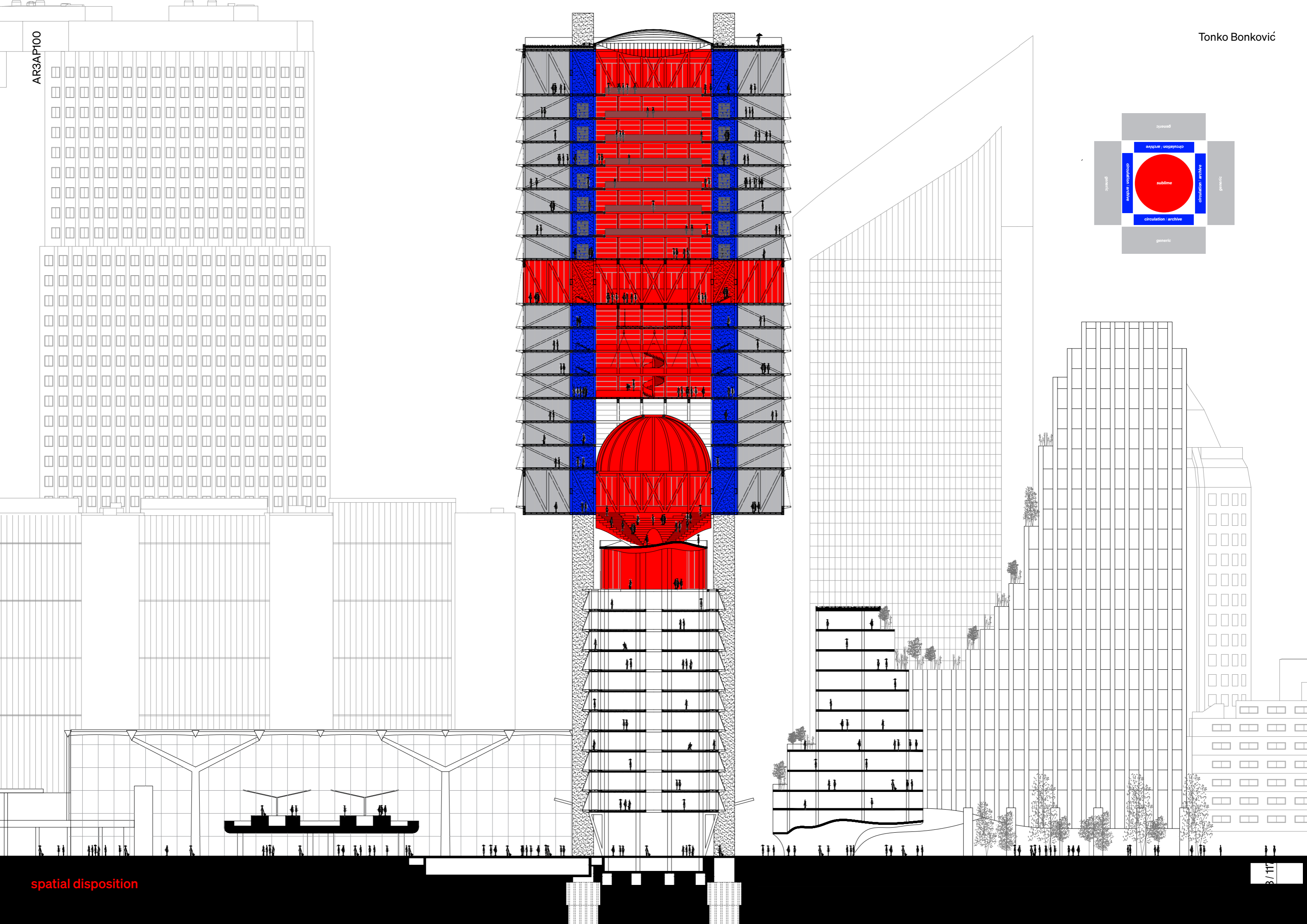
campus

KJ

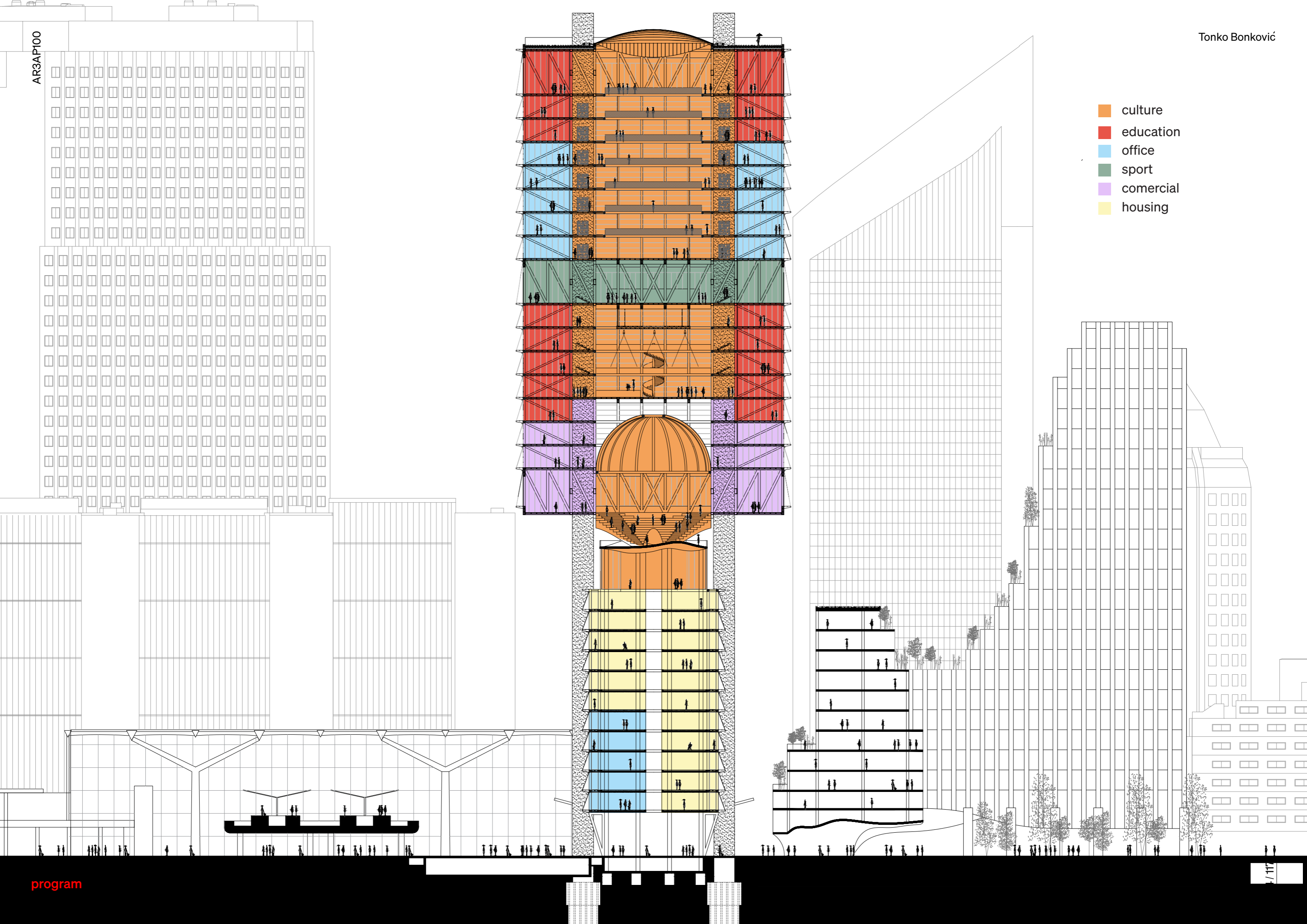
ground floor circulation

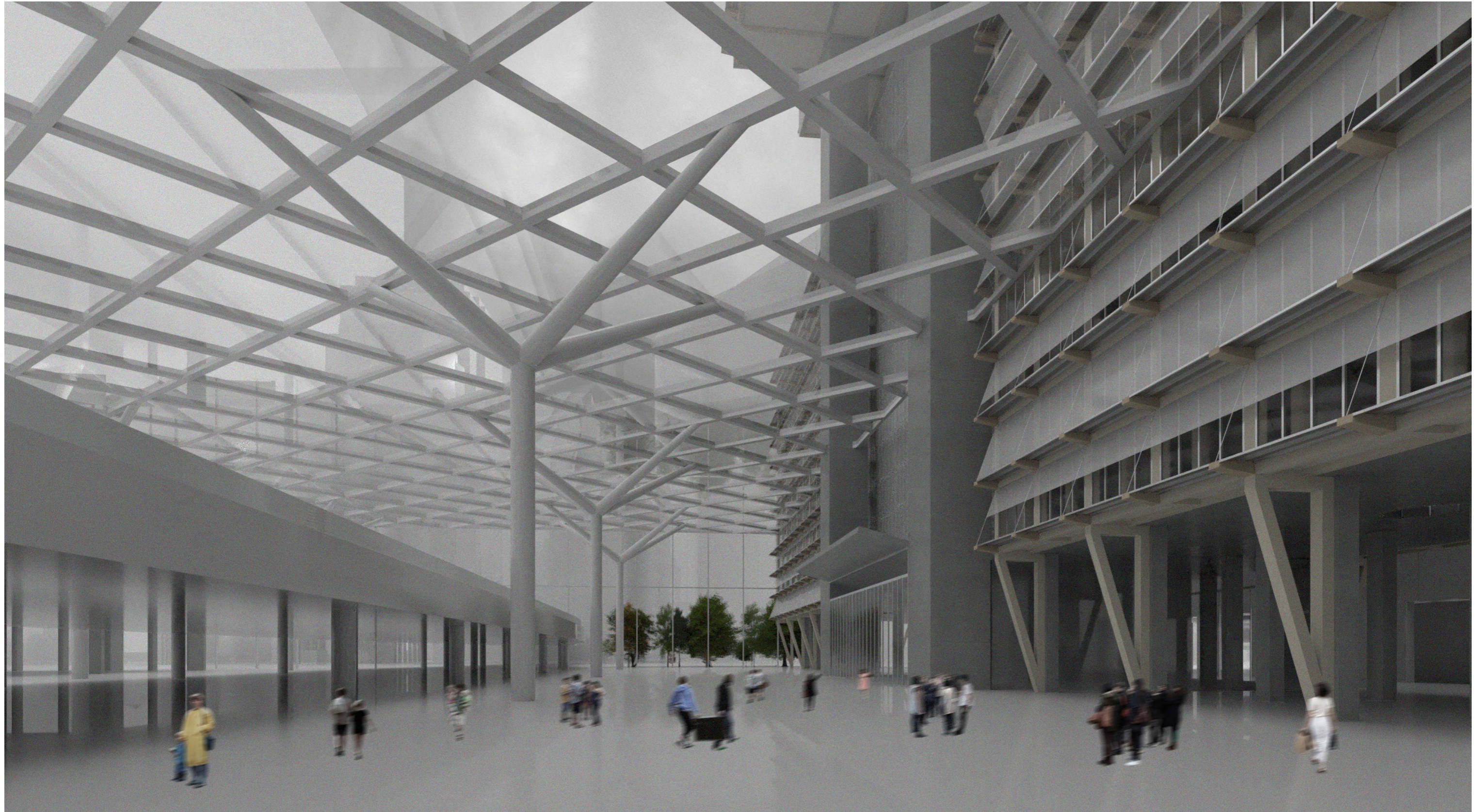


circulation in the building



- culture
- education
- office
- sport
- comercial
- housing



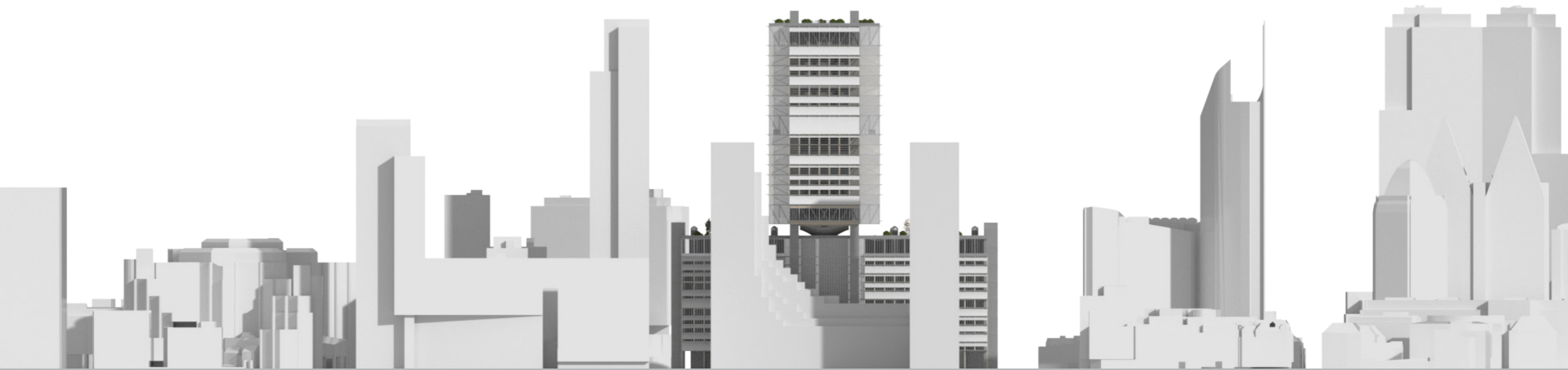


view - entrance to the campus

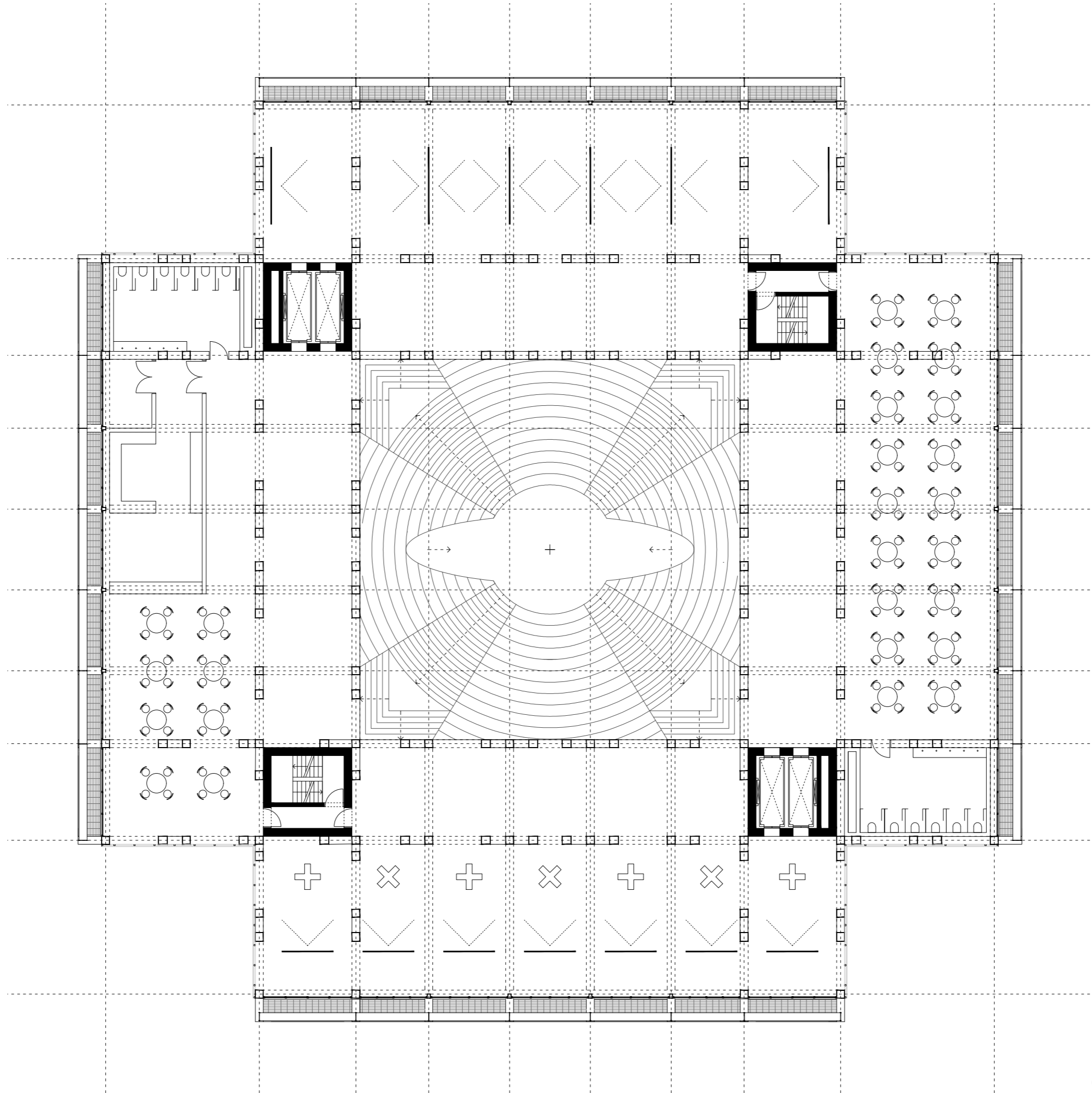


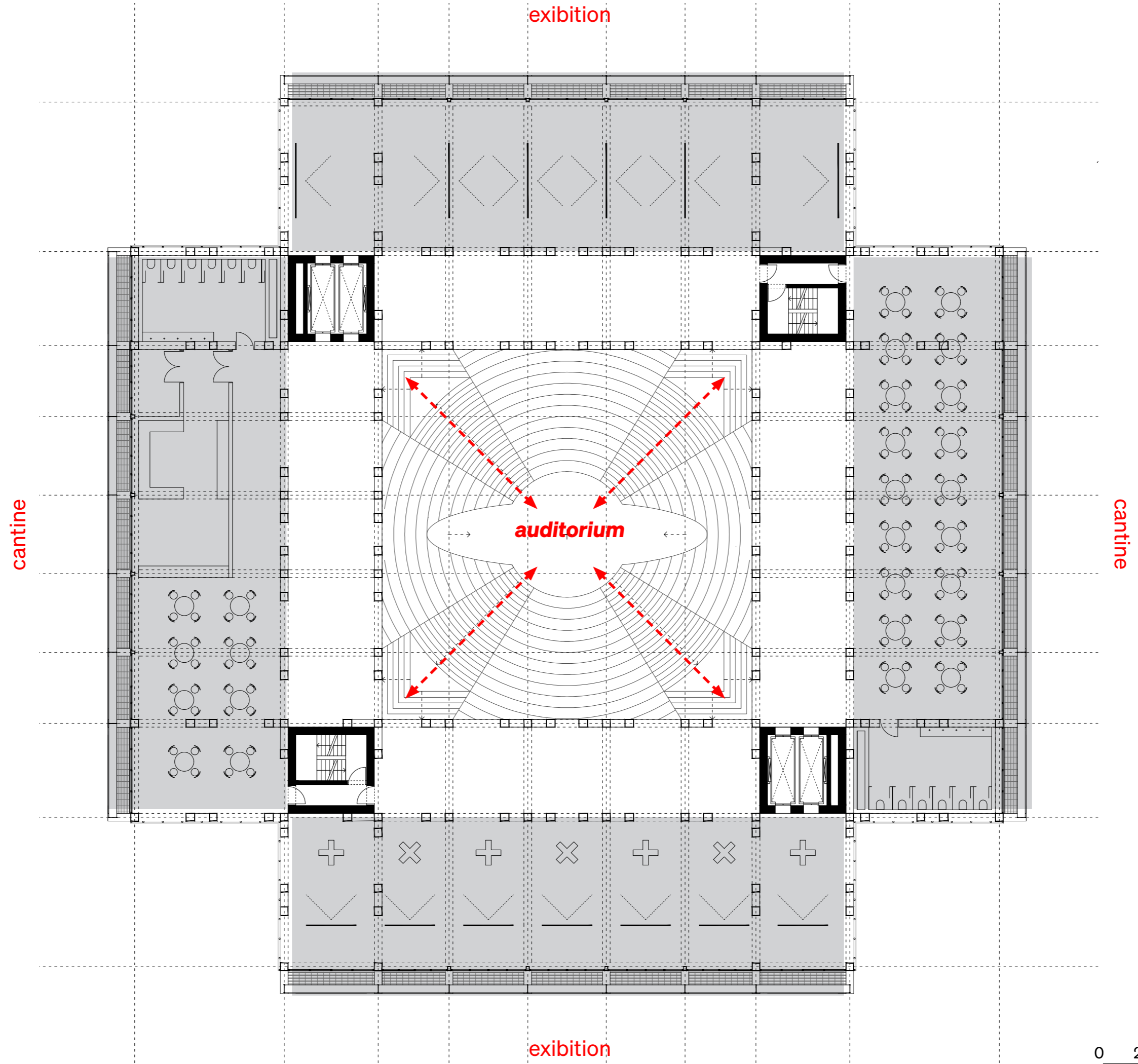


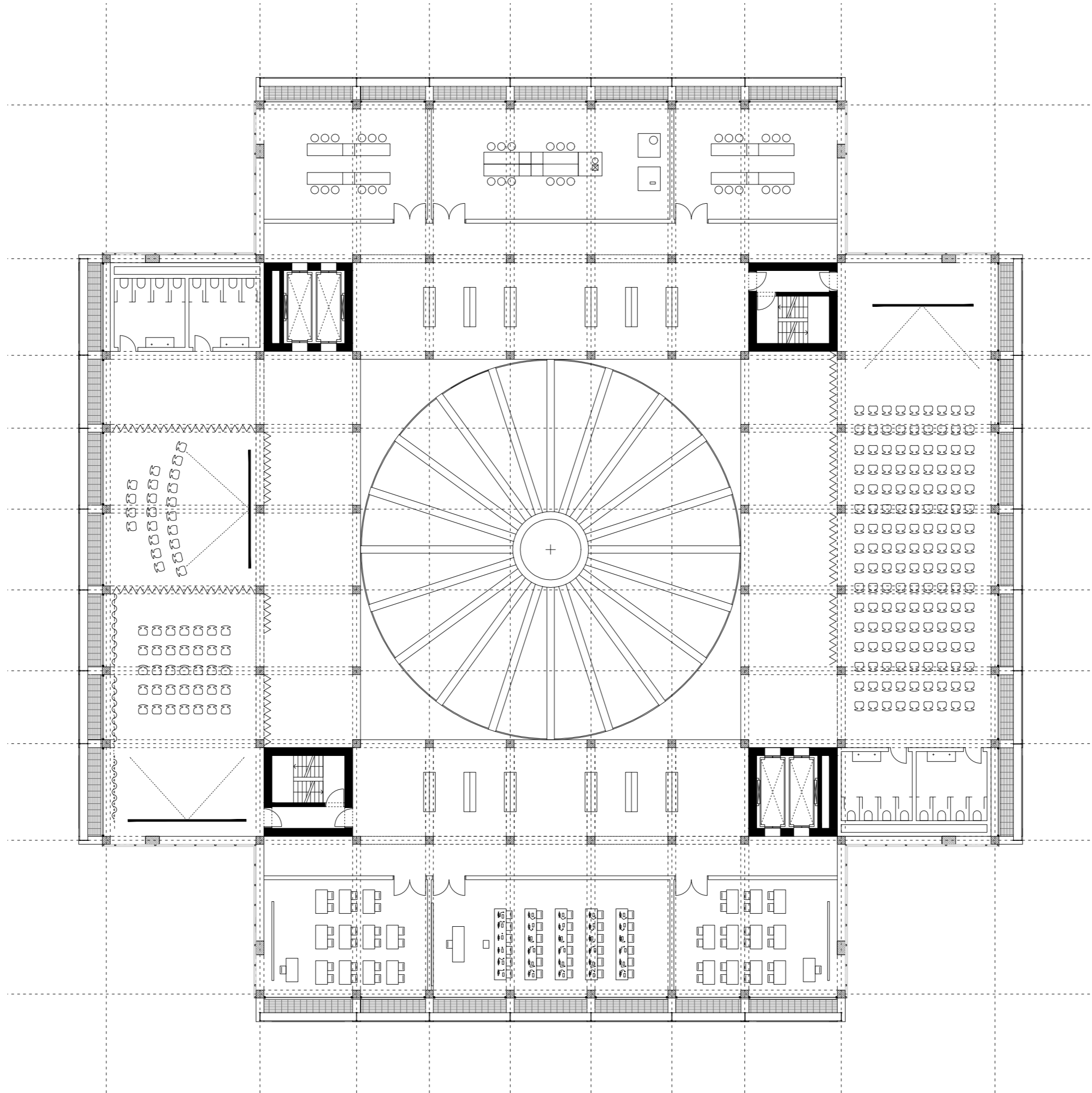
entrance to campus - porosity towards central station

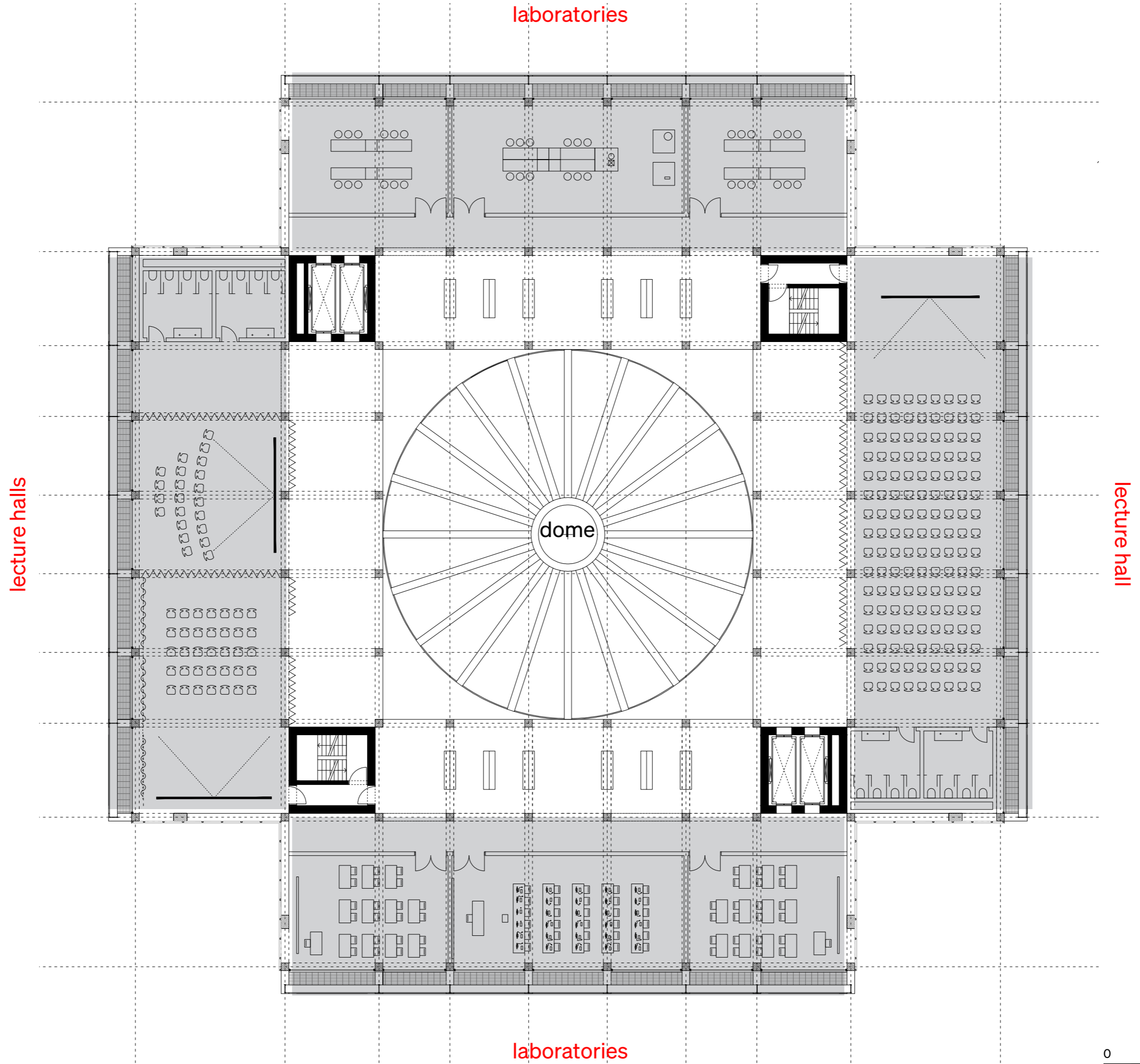


building



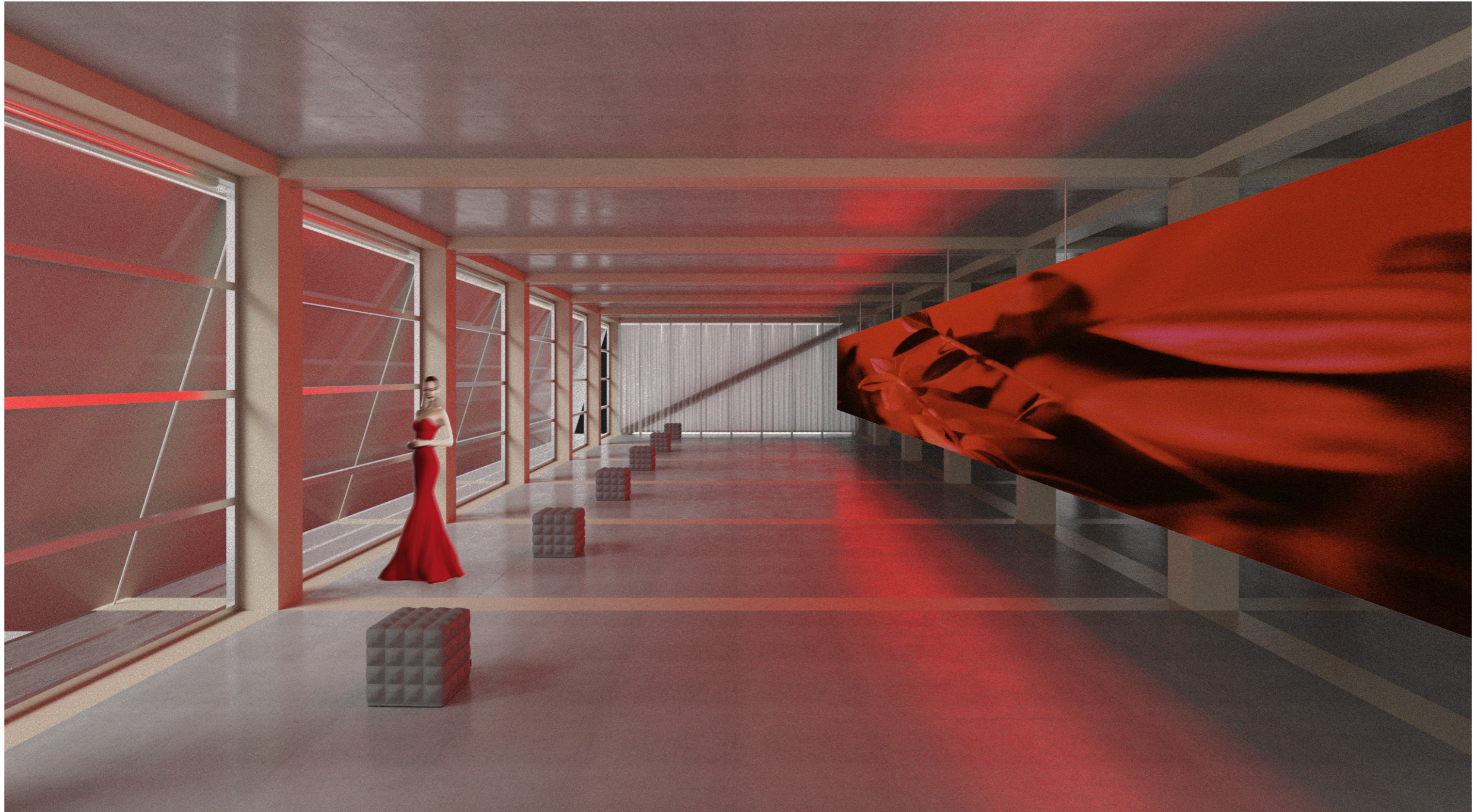


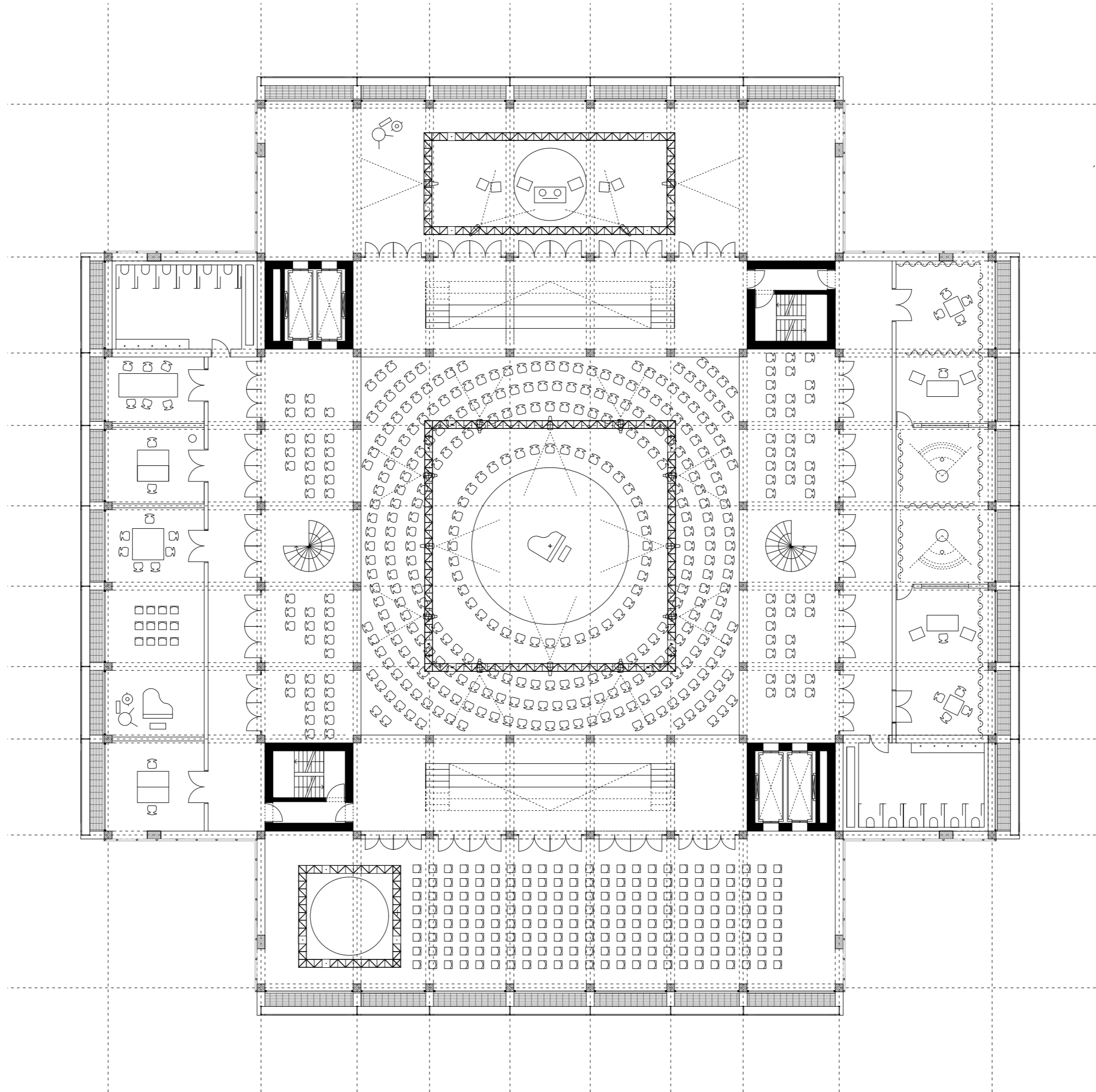


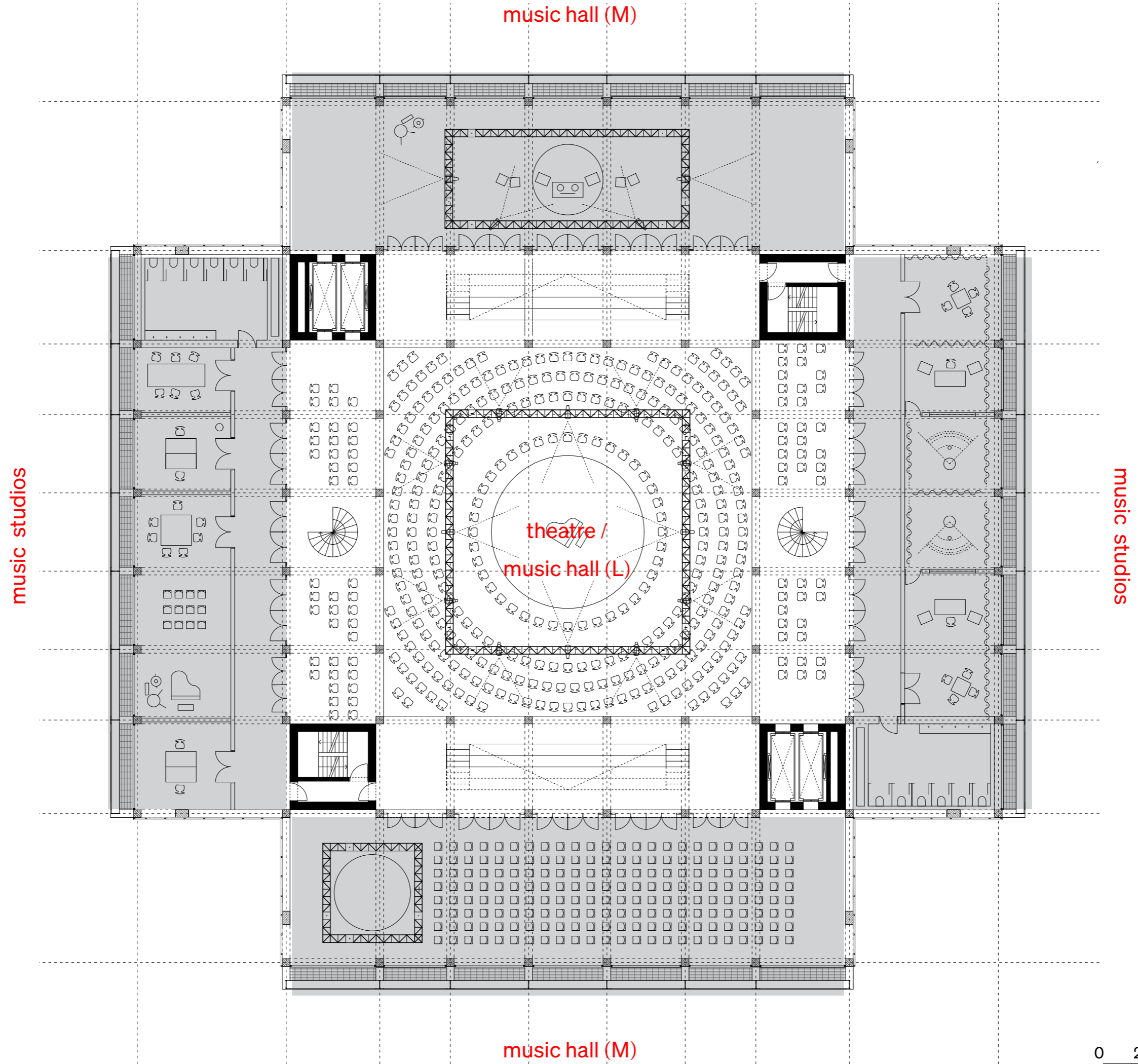




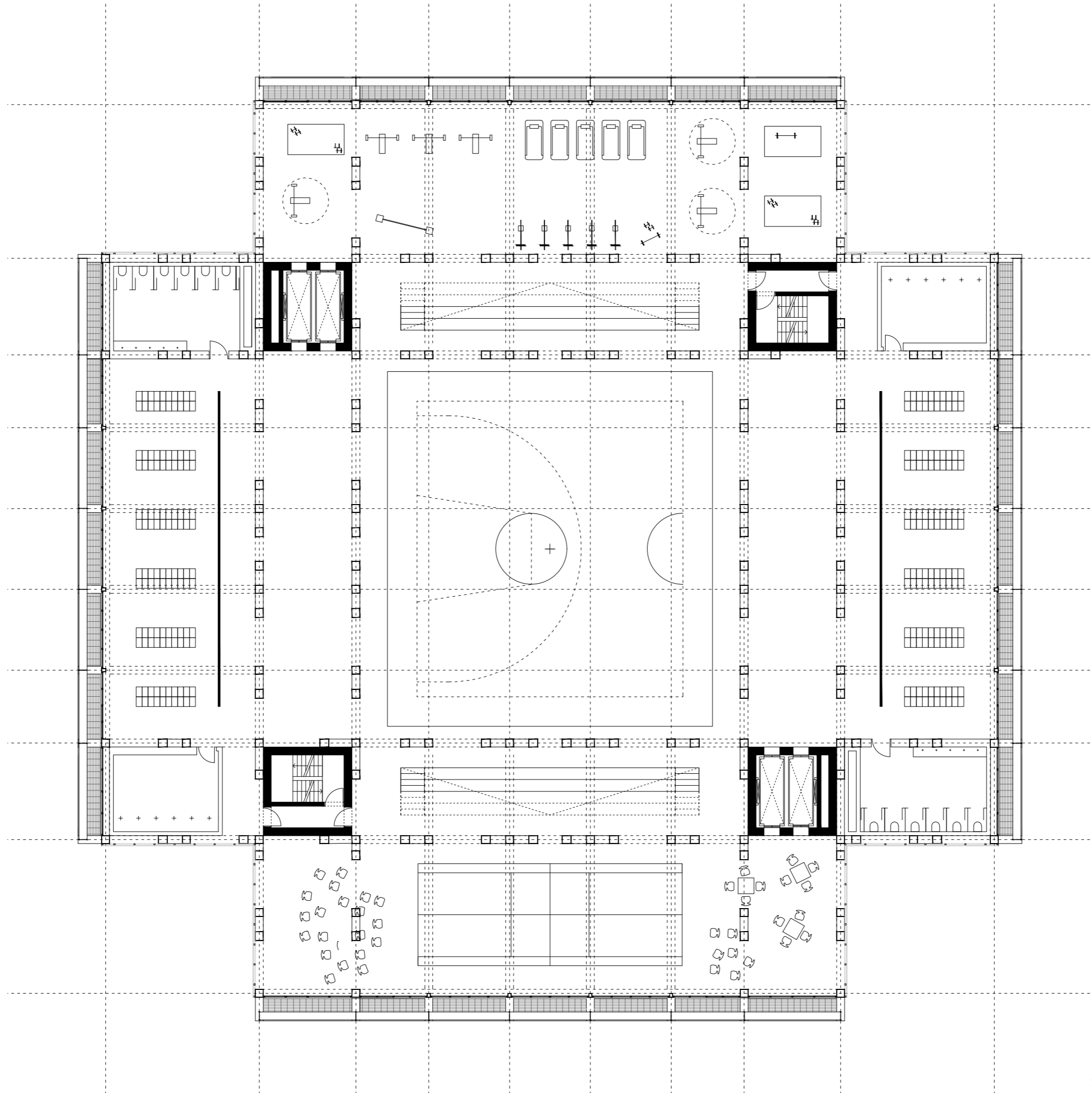


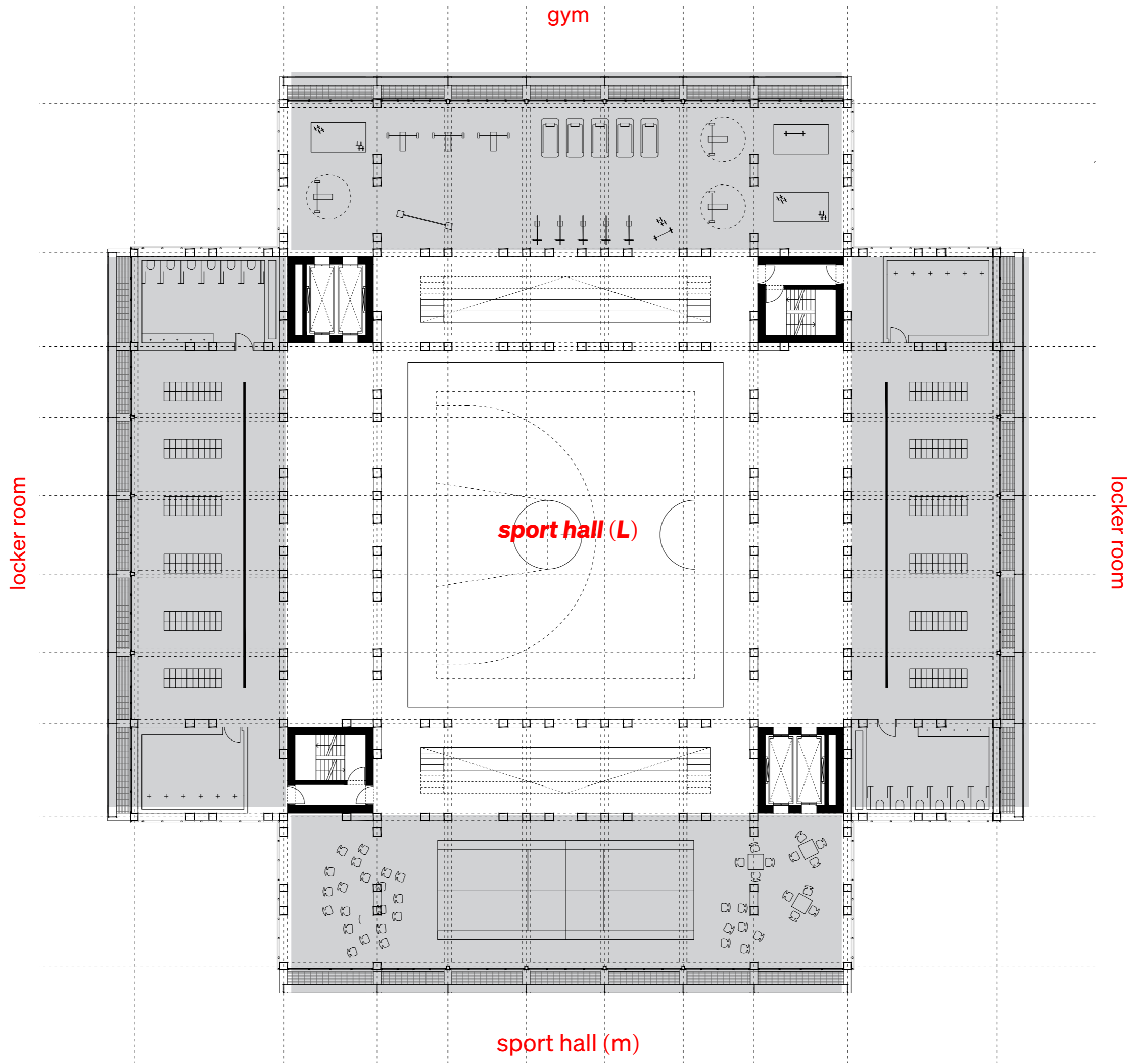




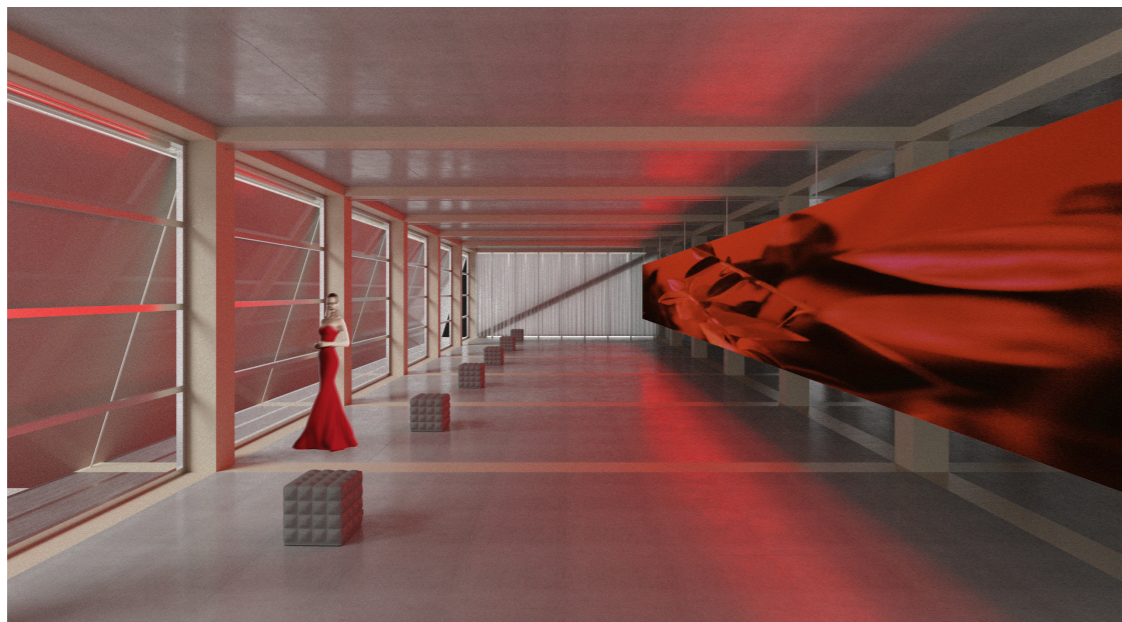
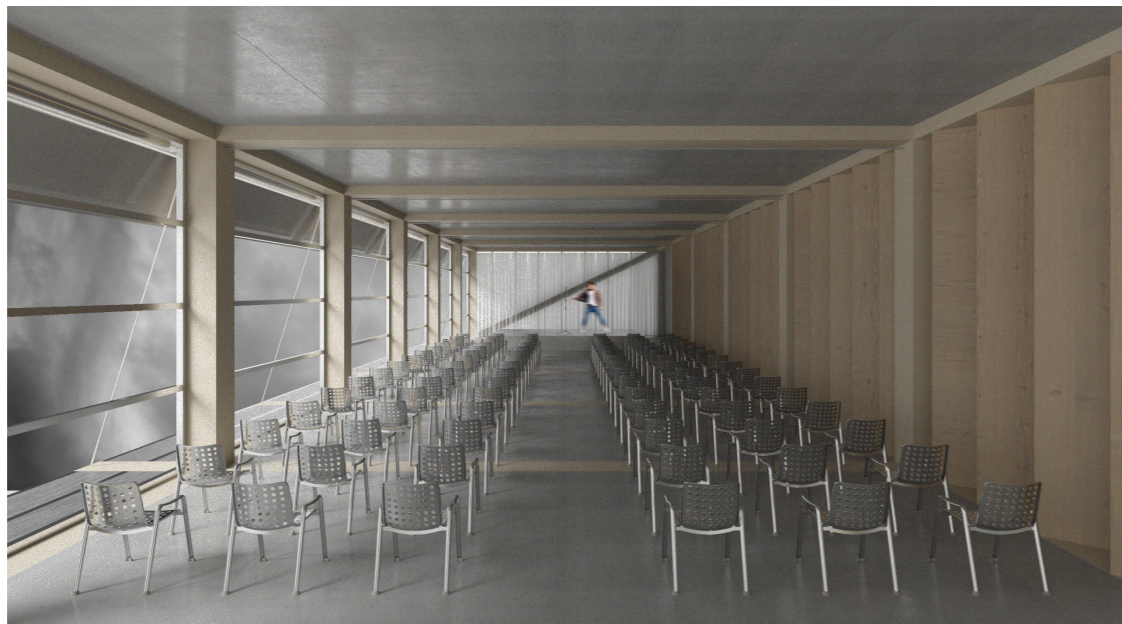


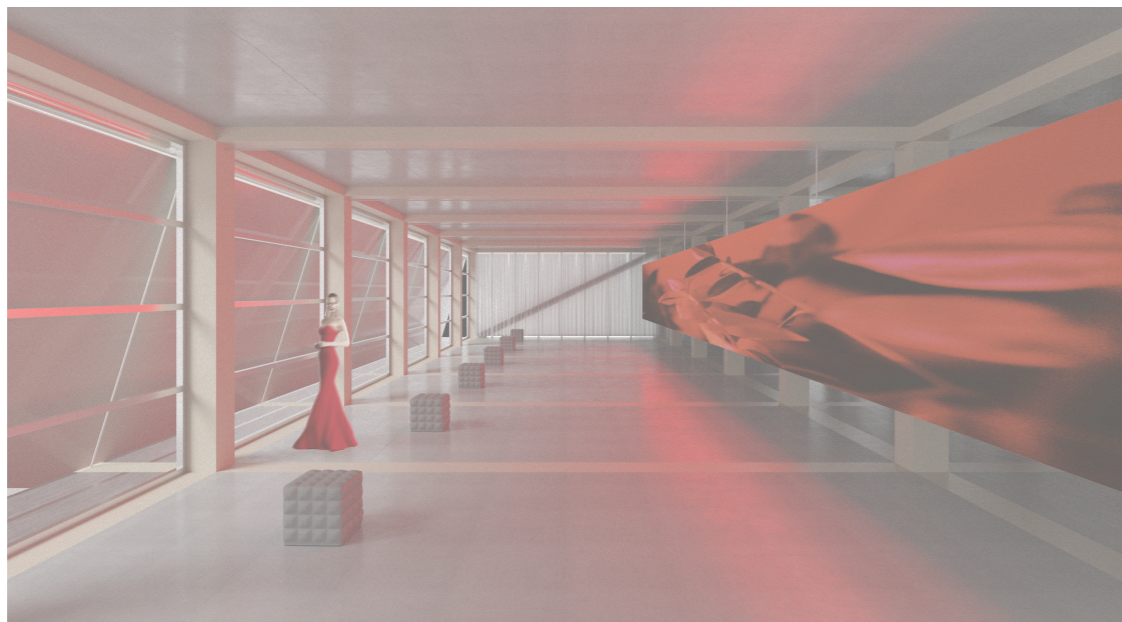


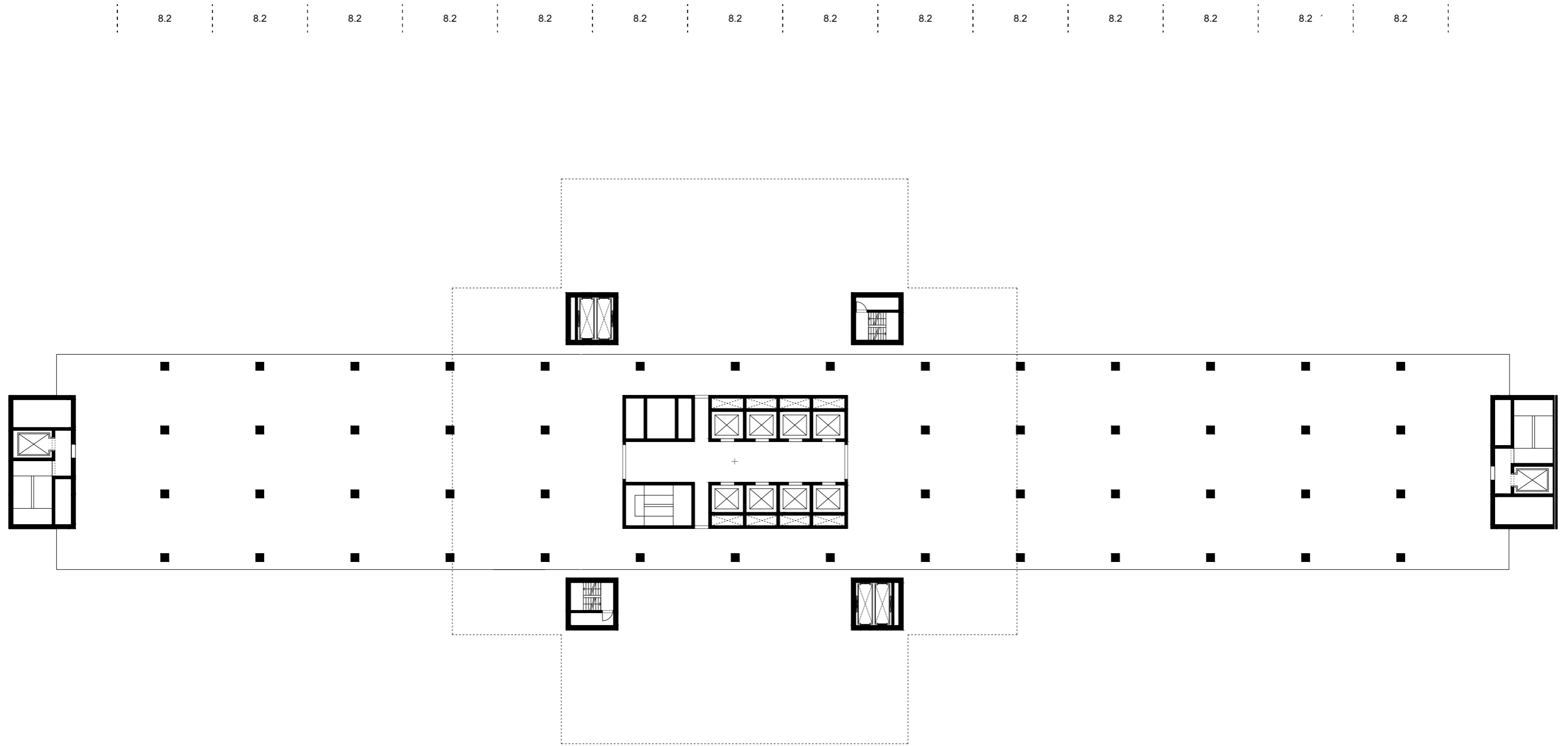


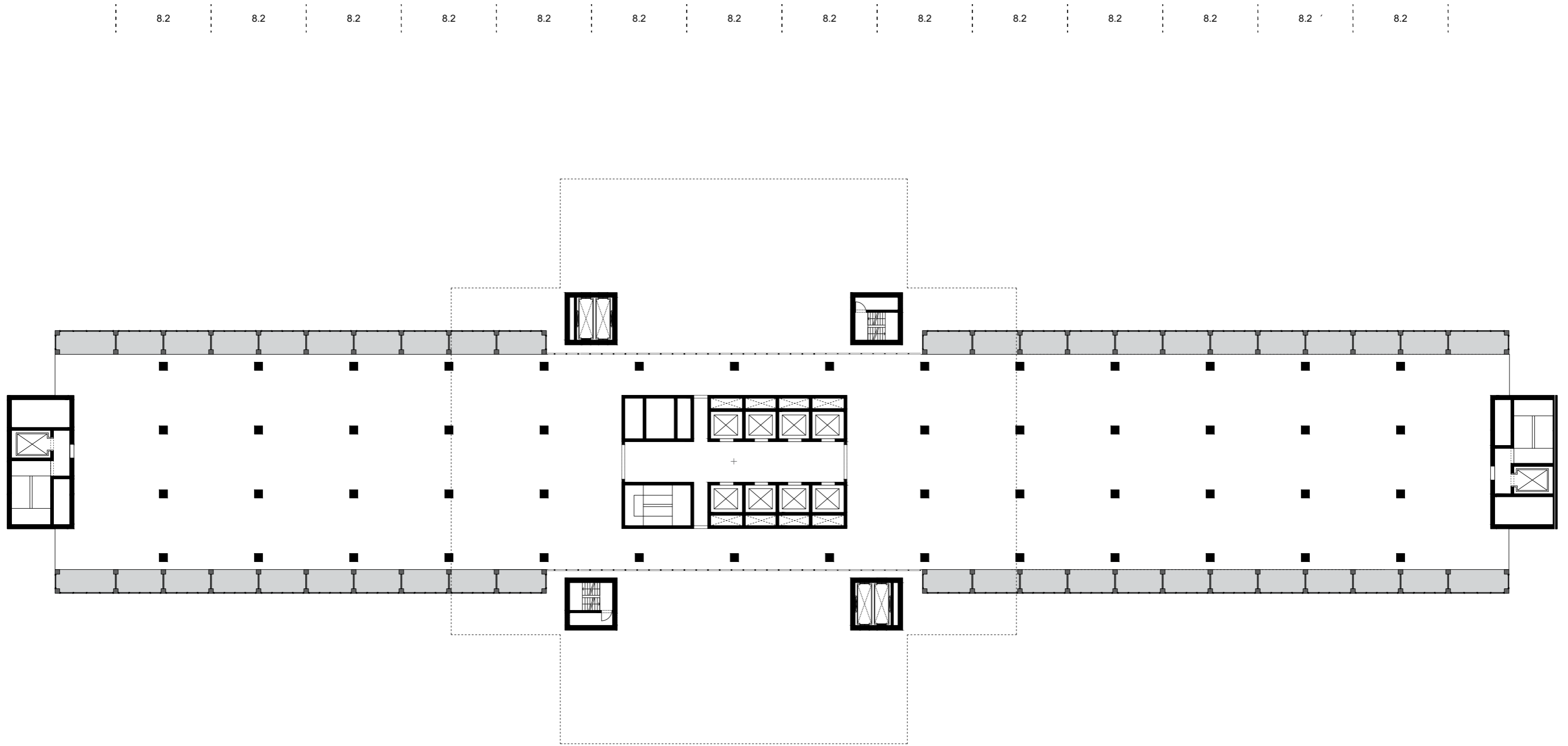


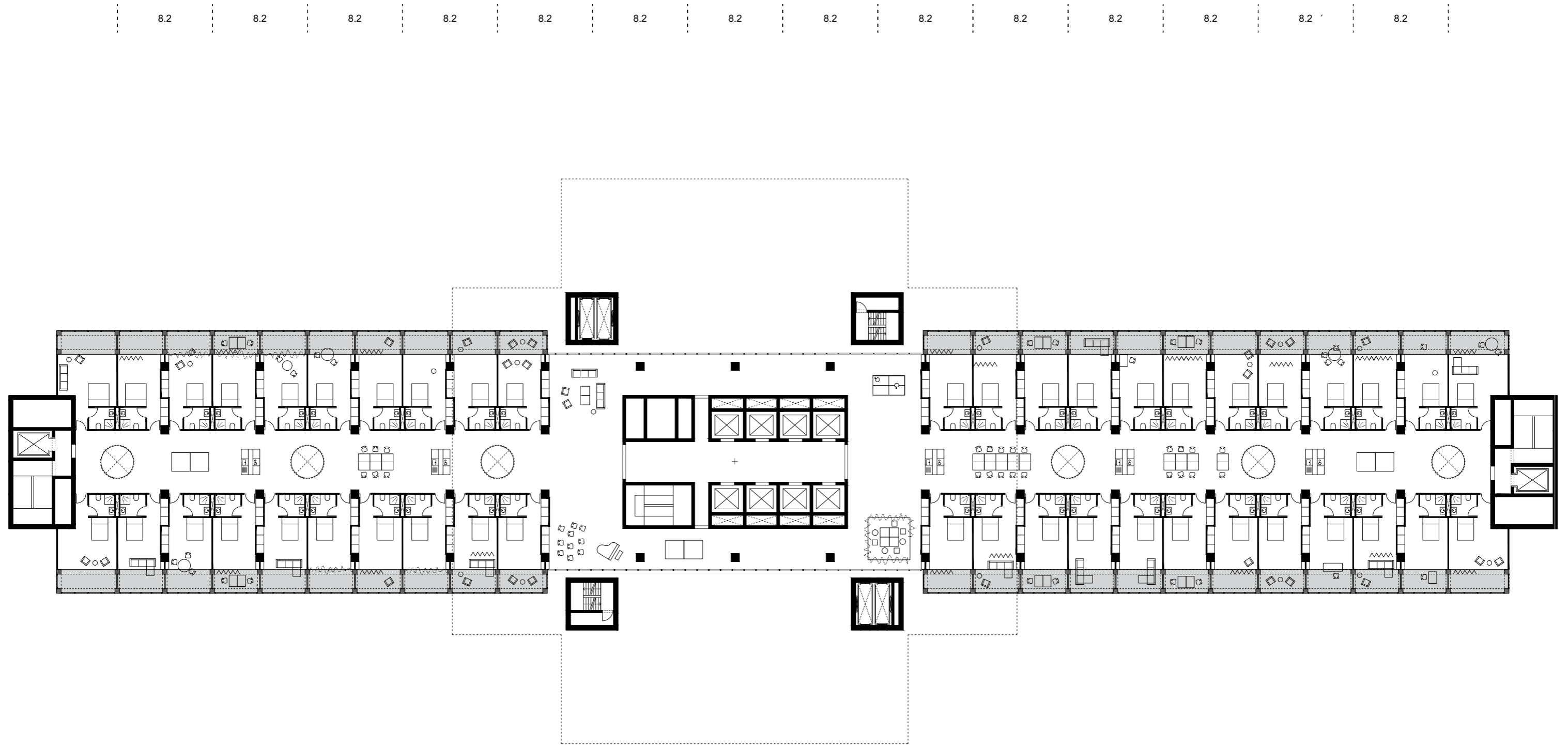








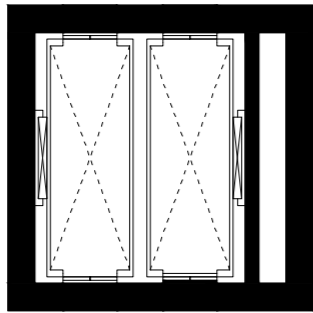
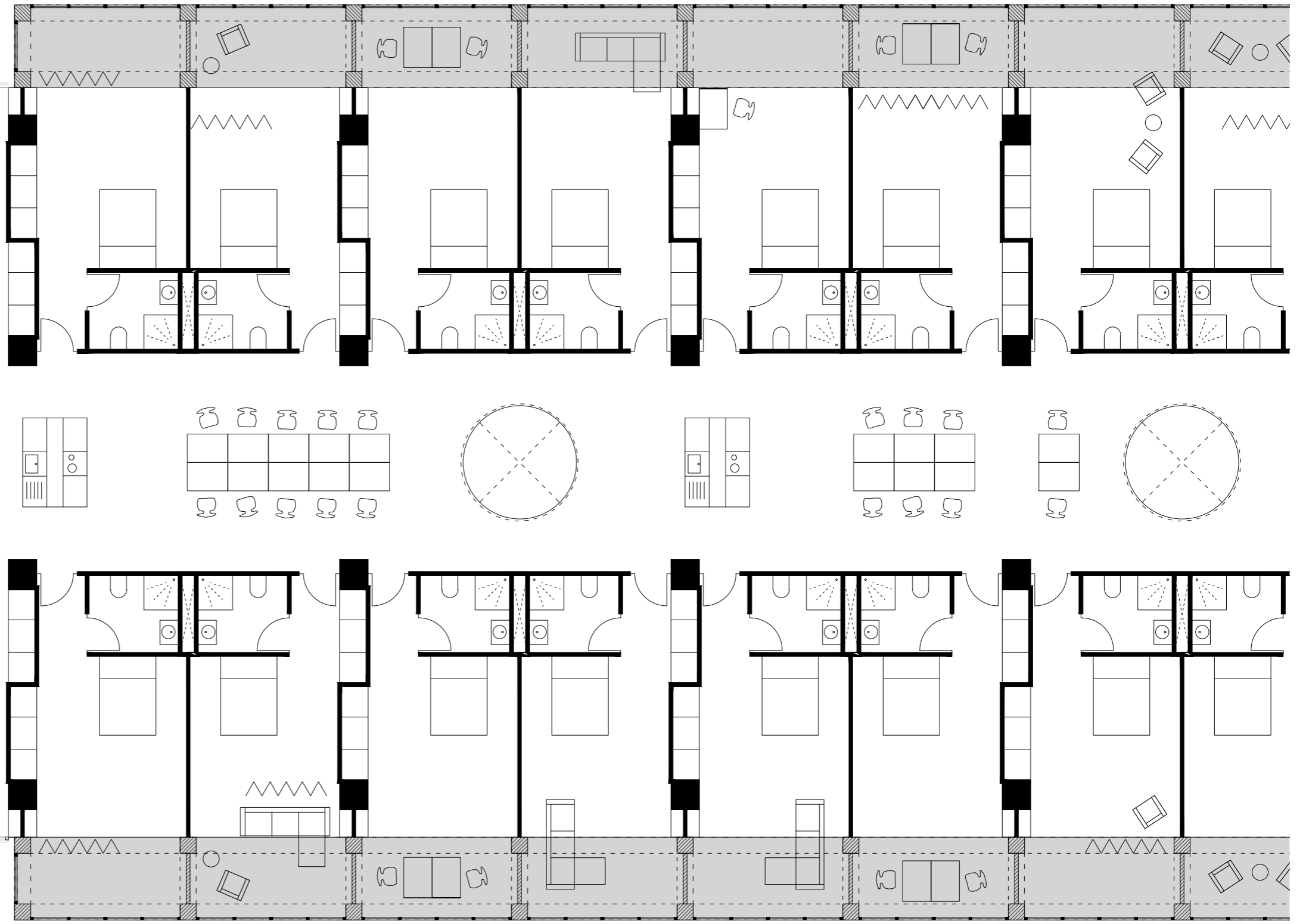
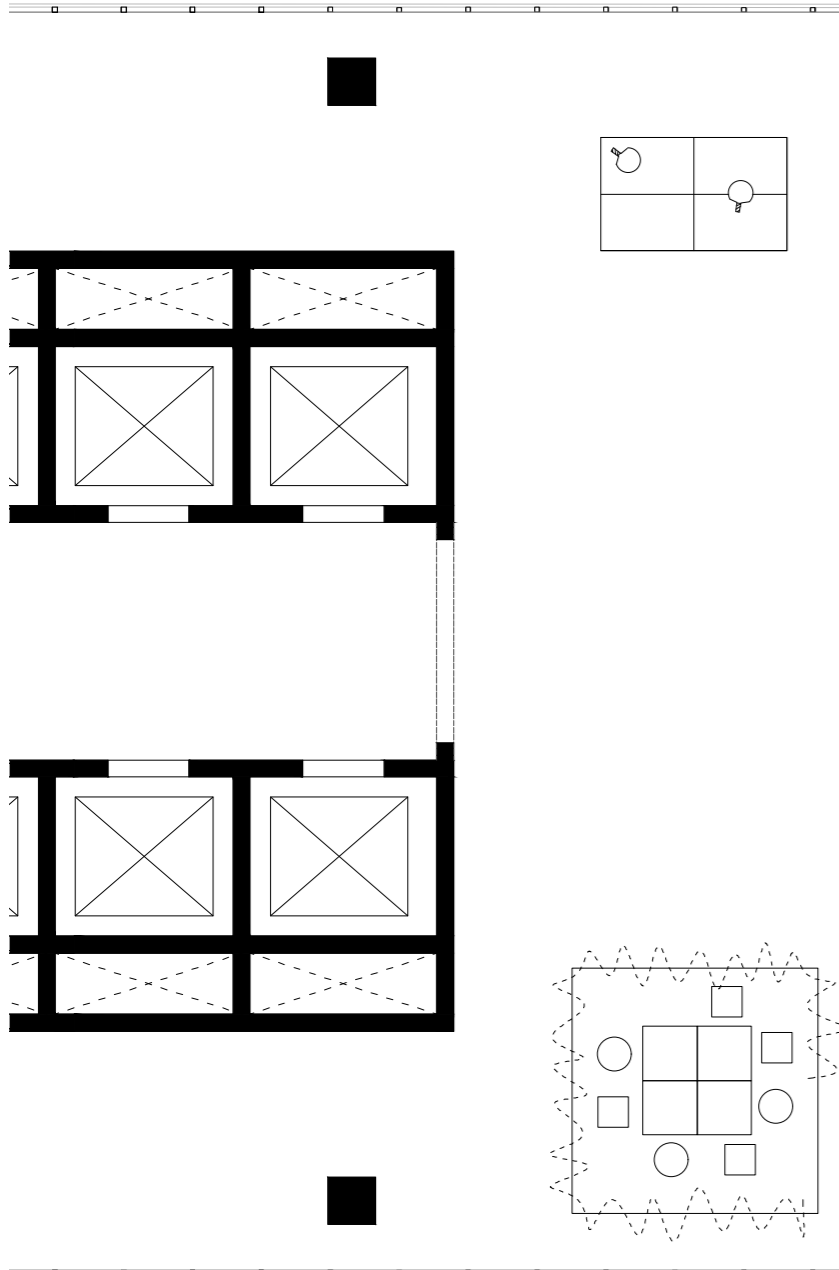
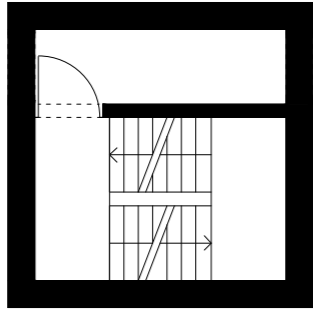


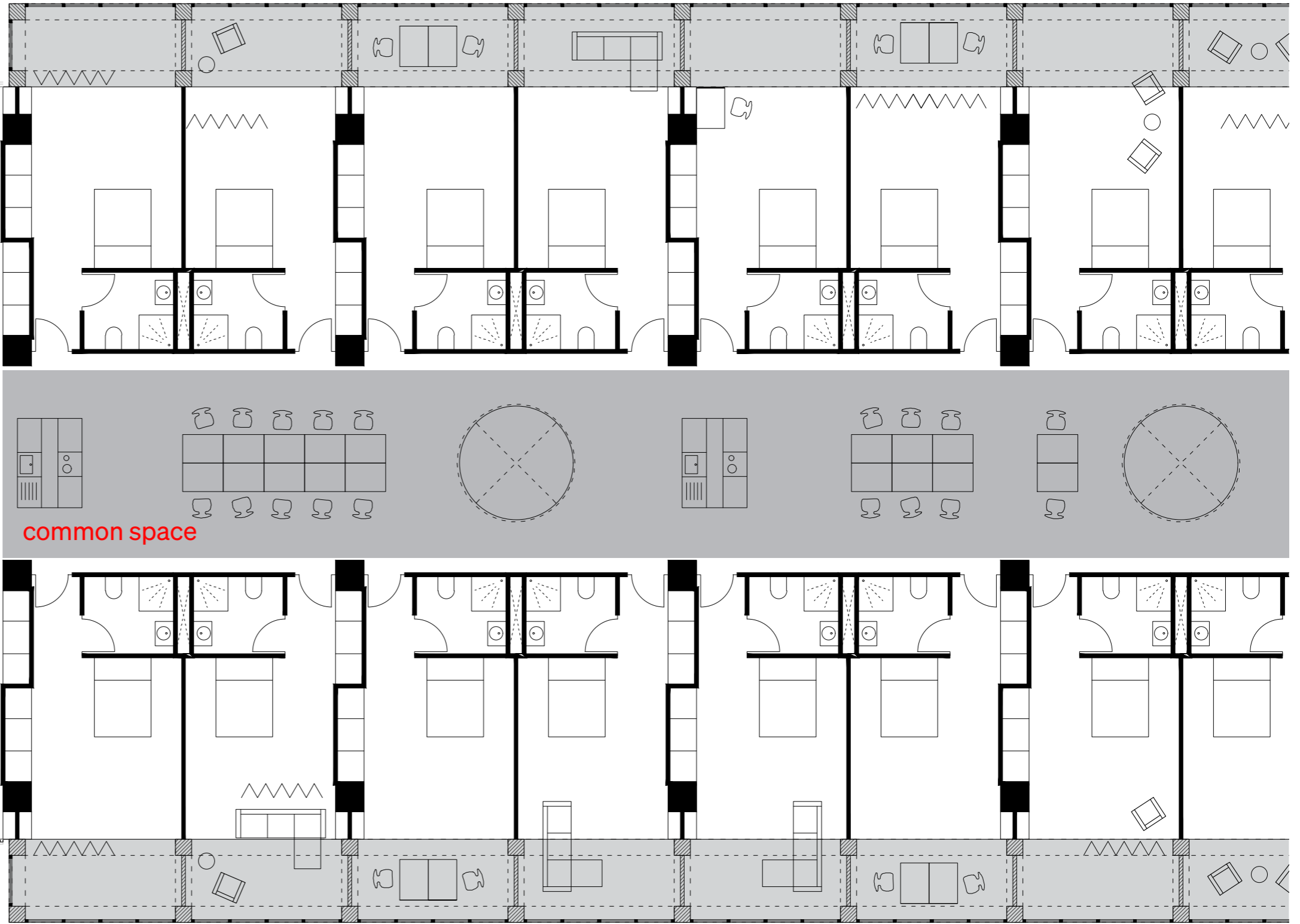
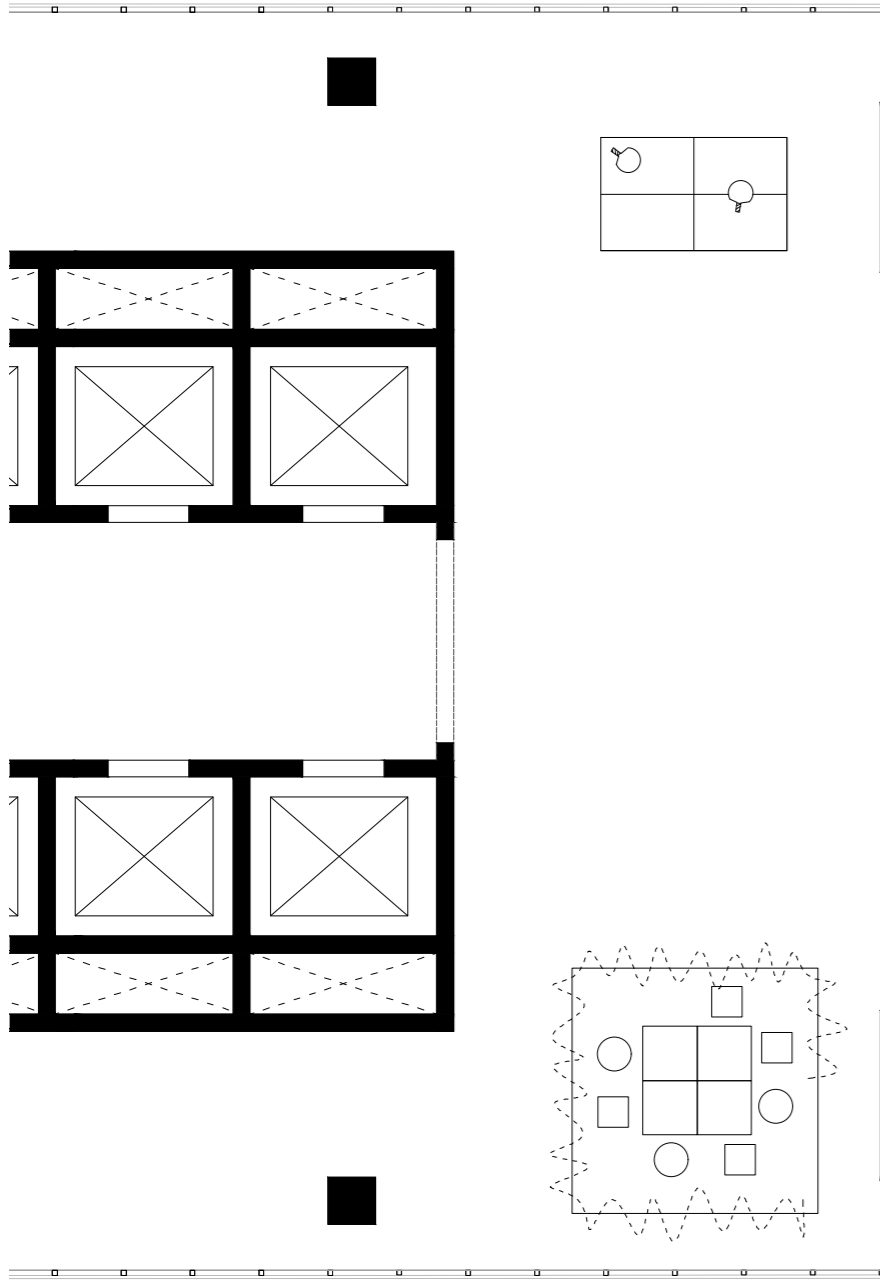
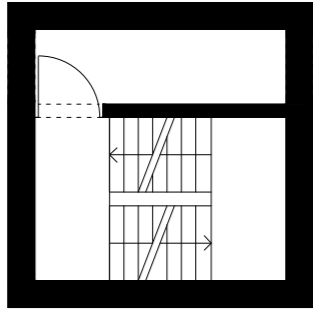


396 units

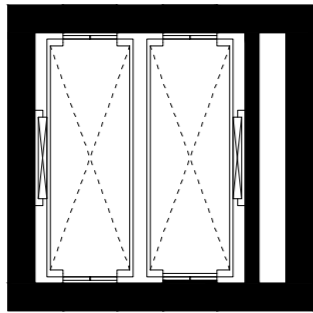
+ office space

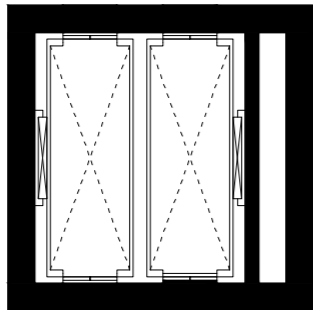
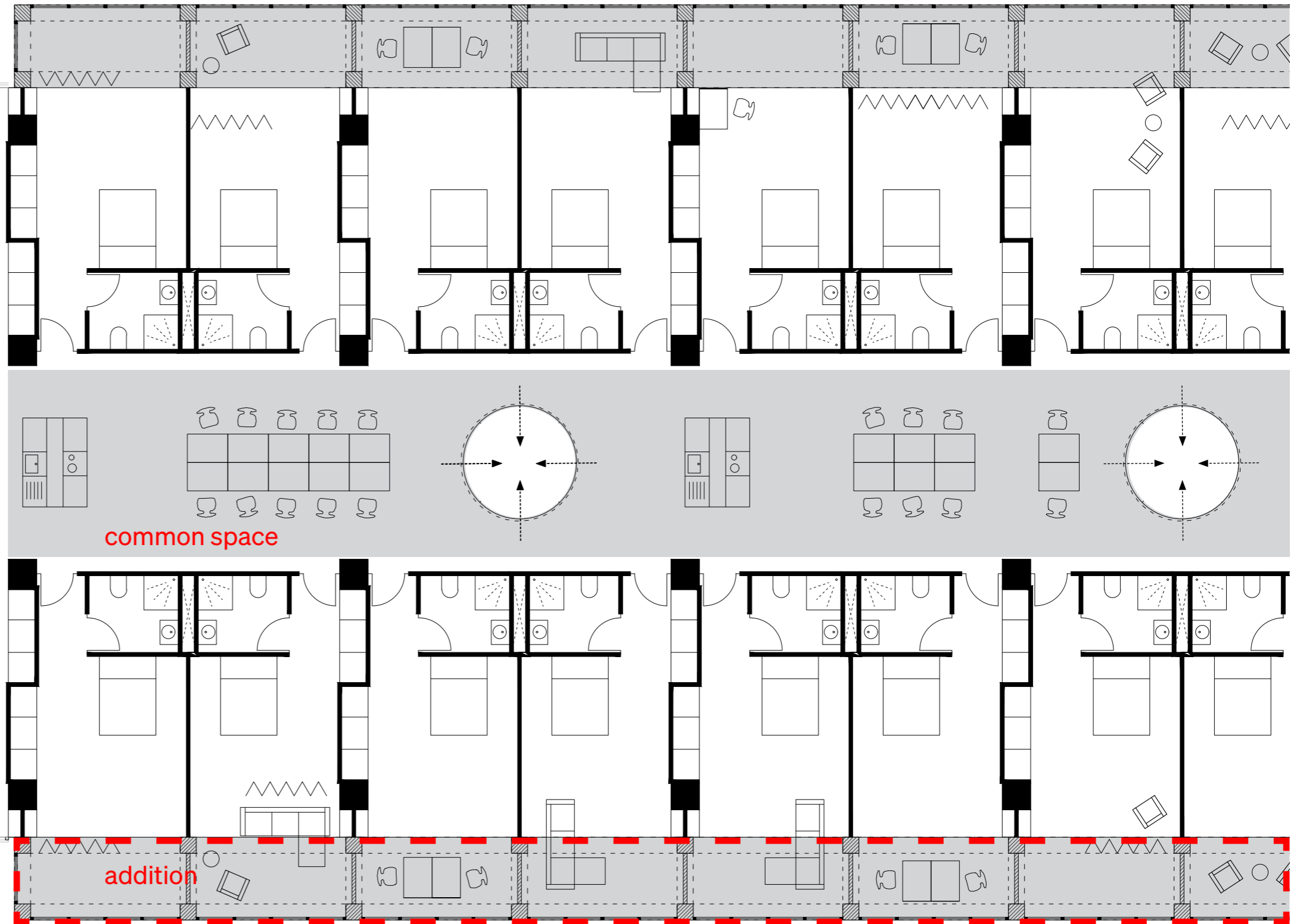
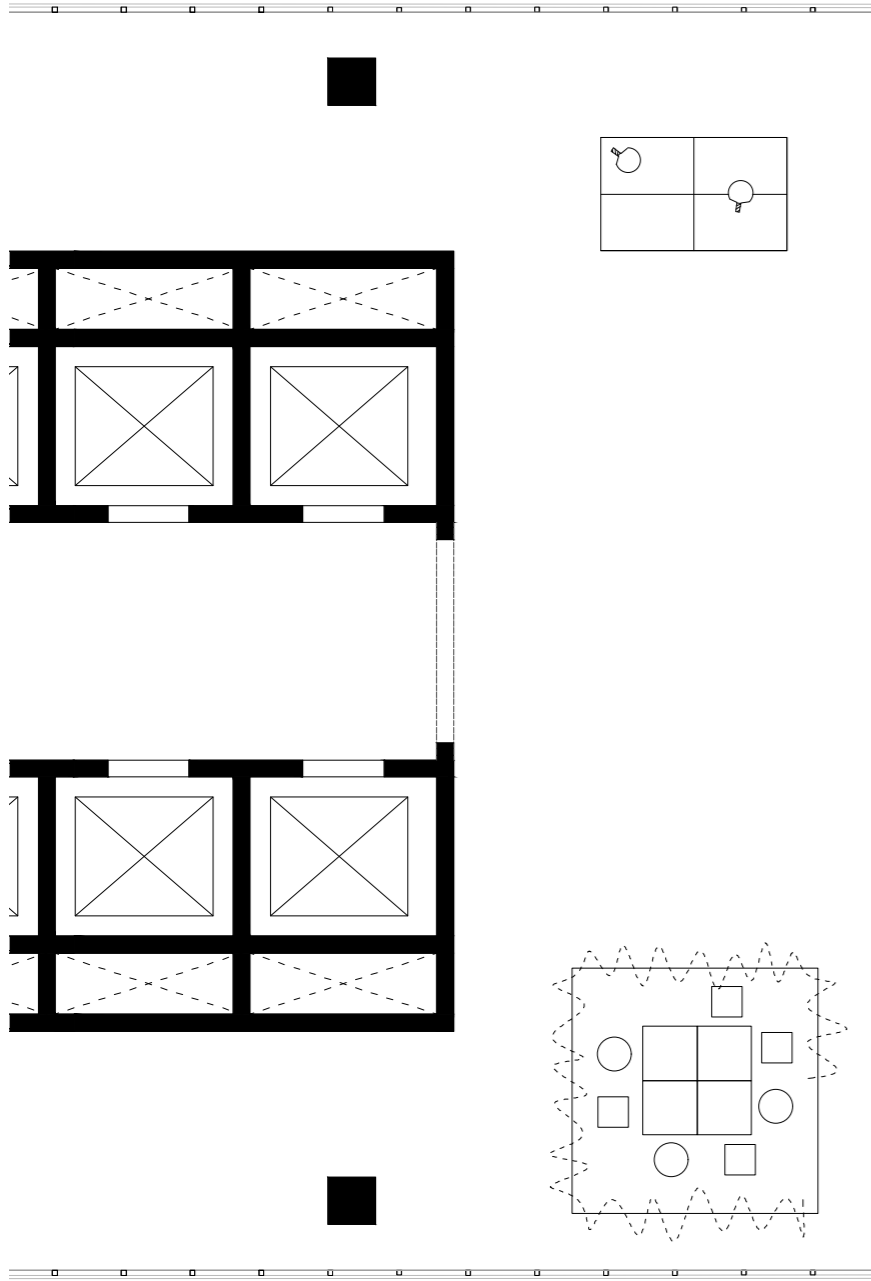
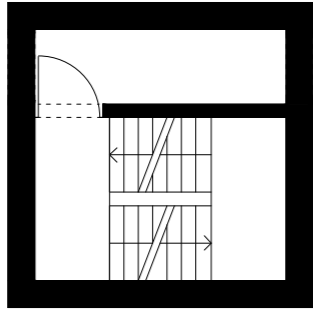
adaptive re-use of existing building

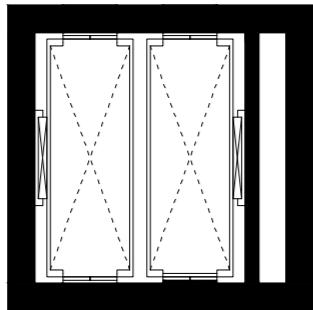
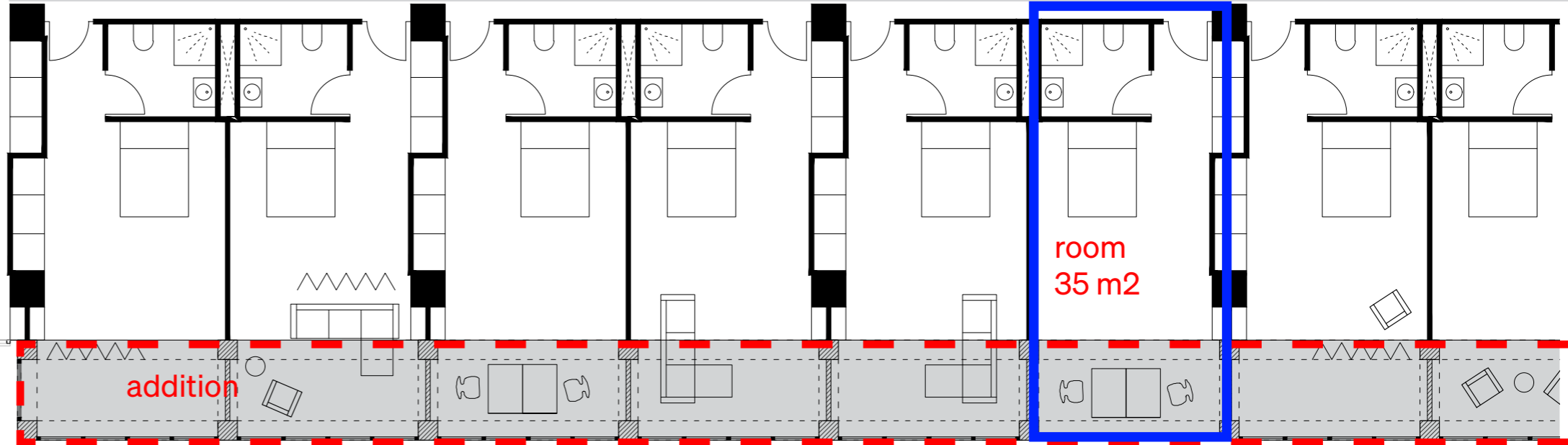
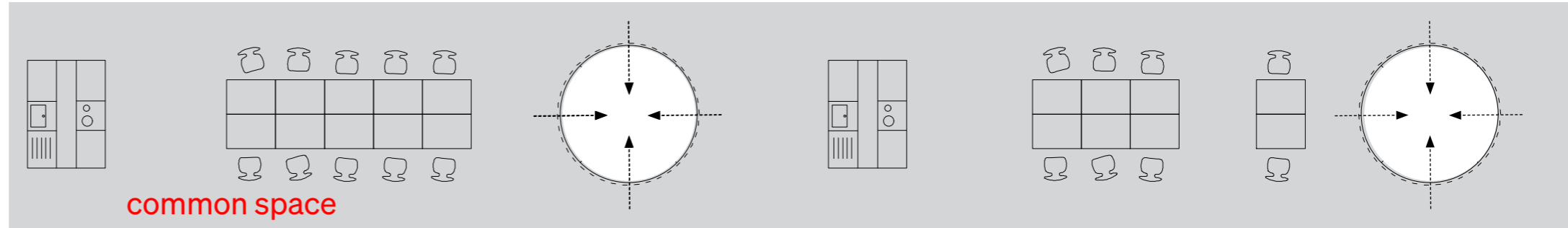
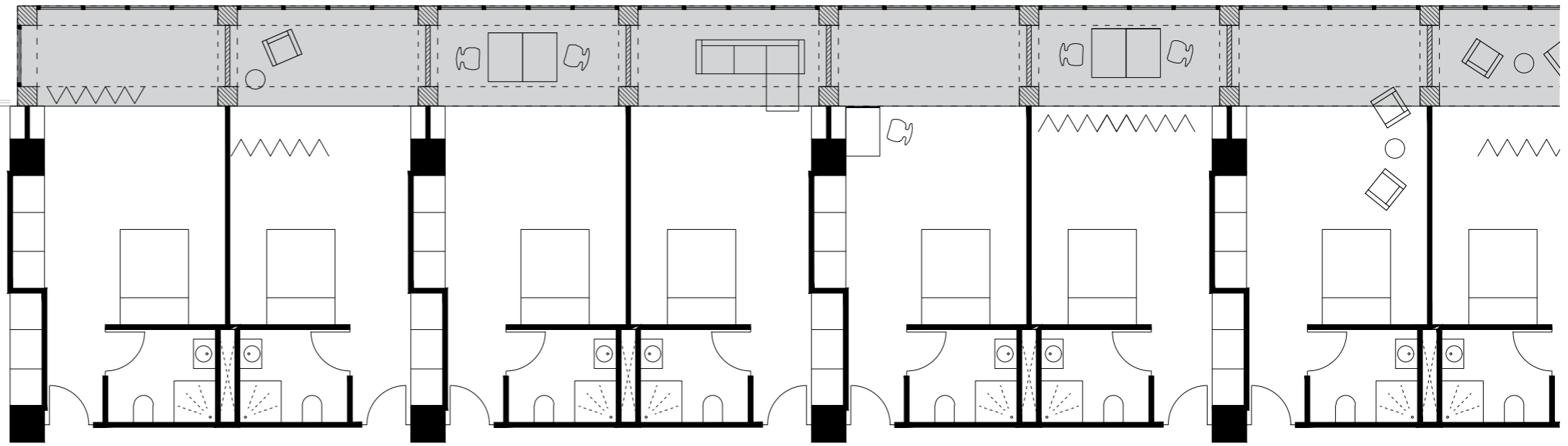
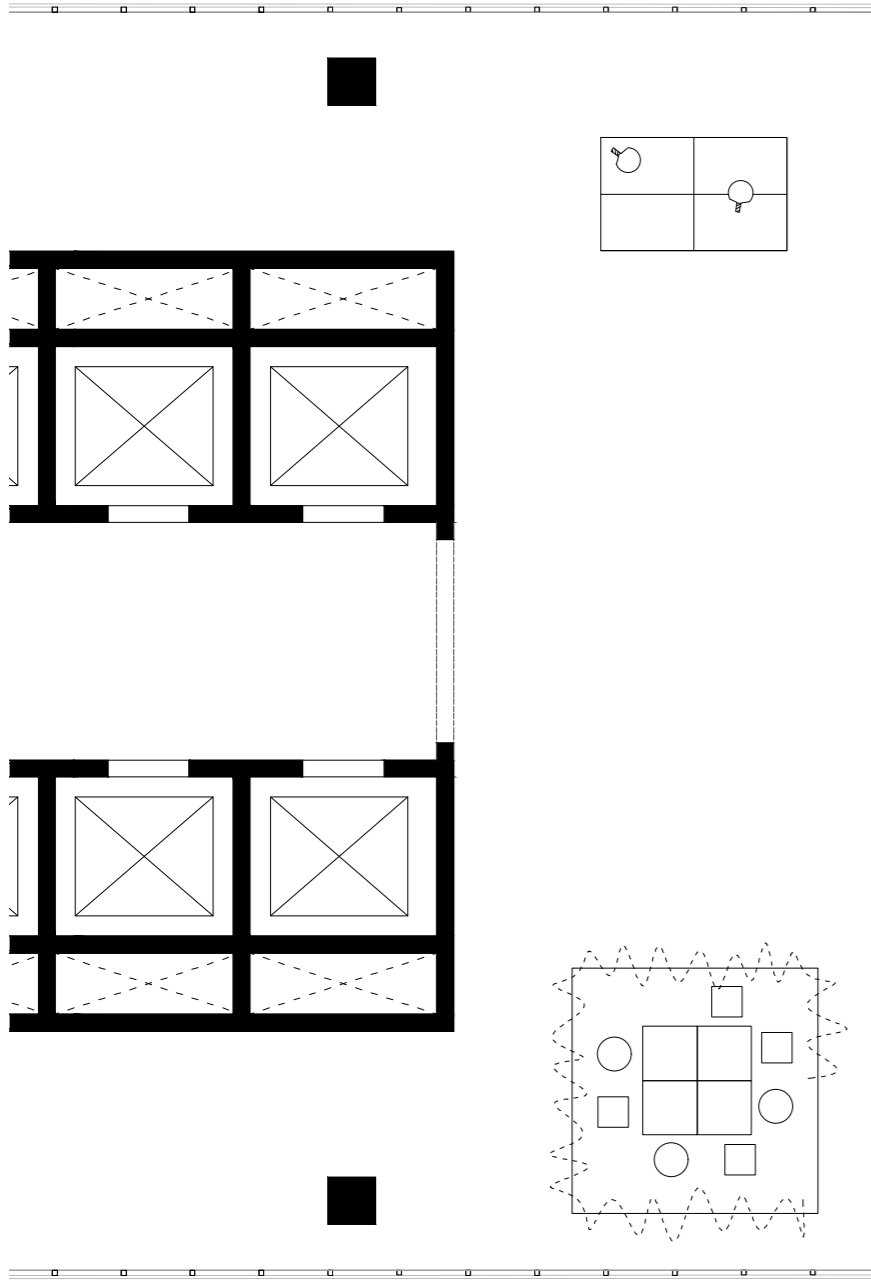
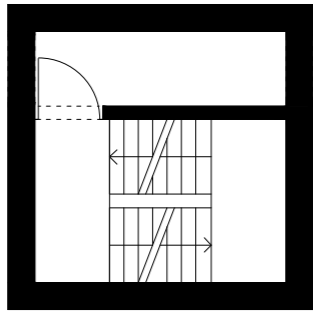


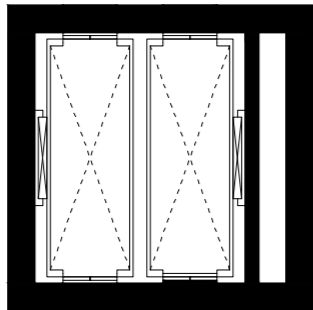
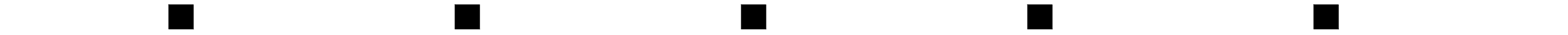
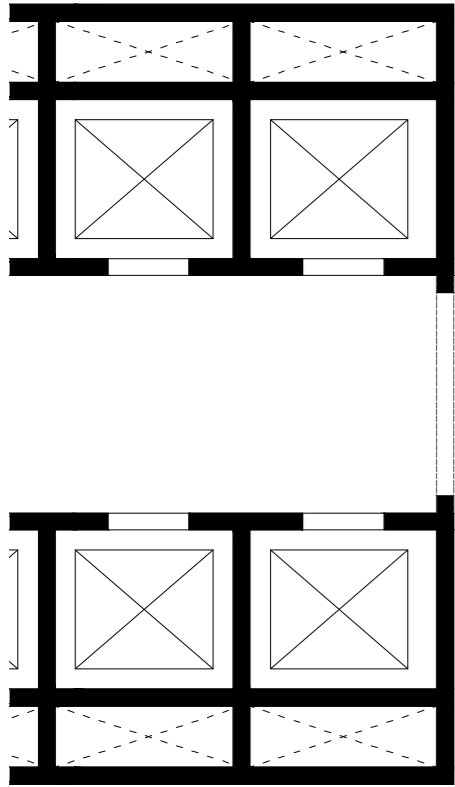
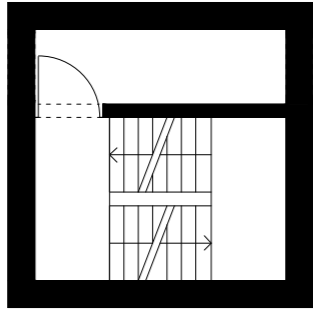


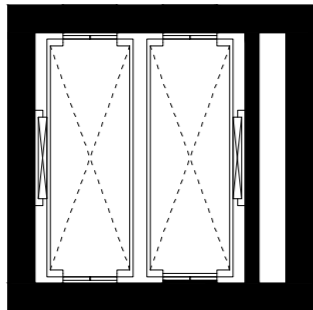
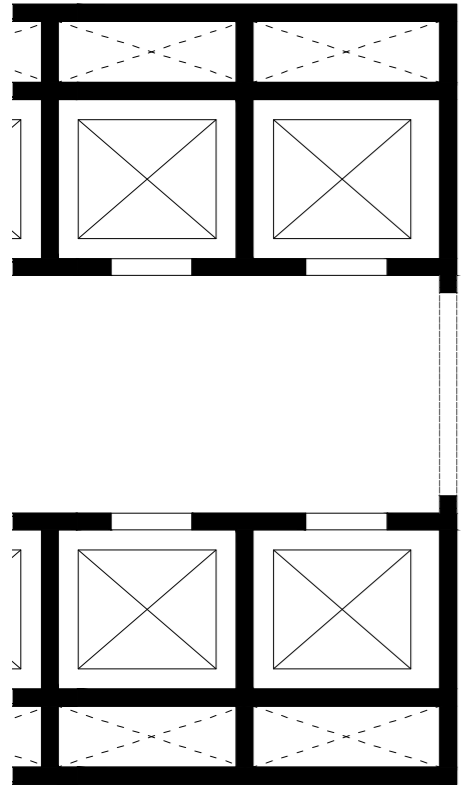
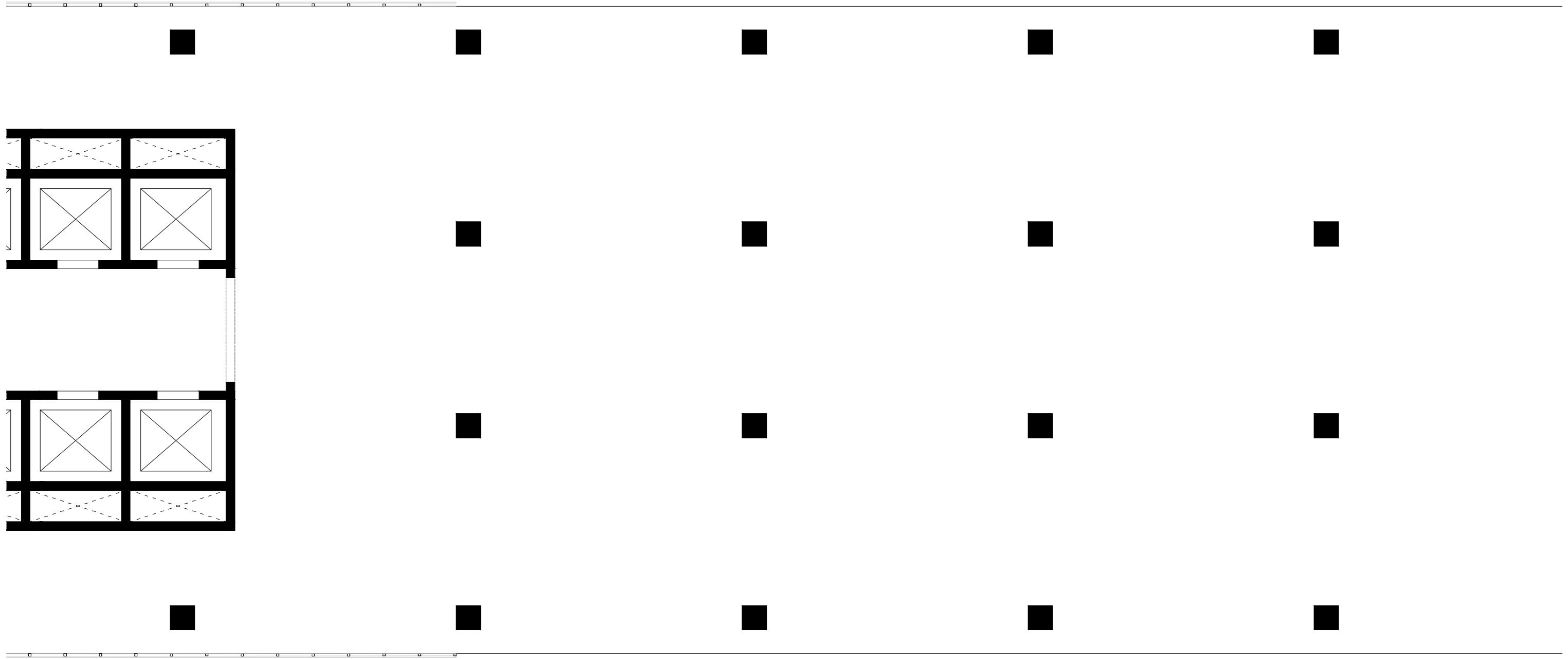
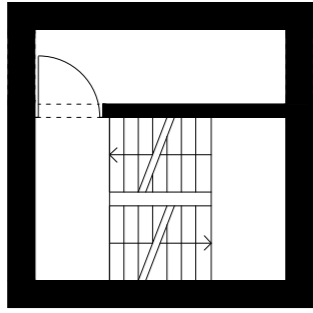
common space

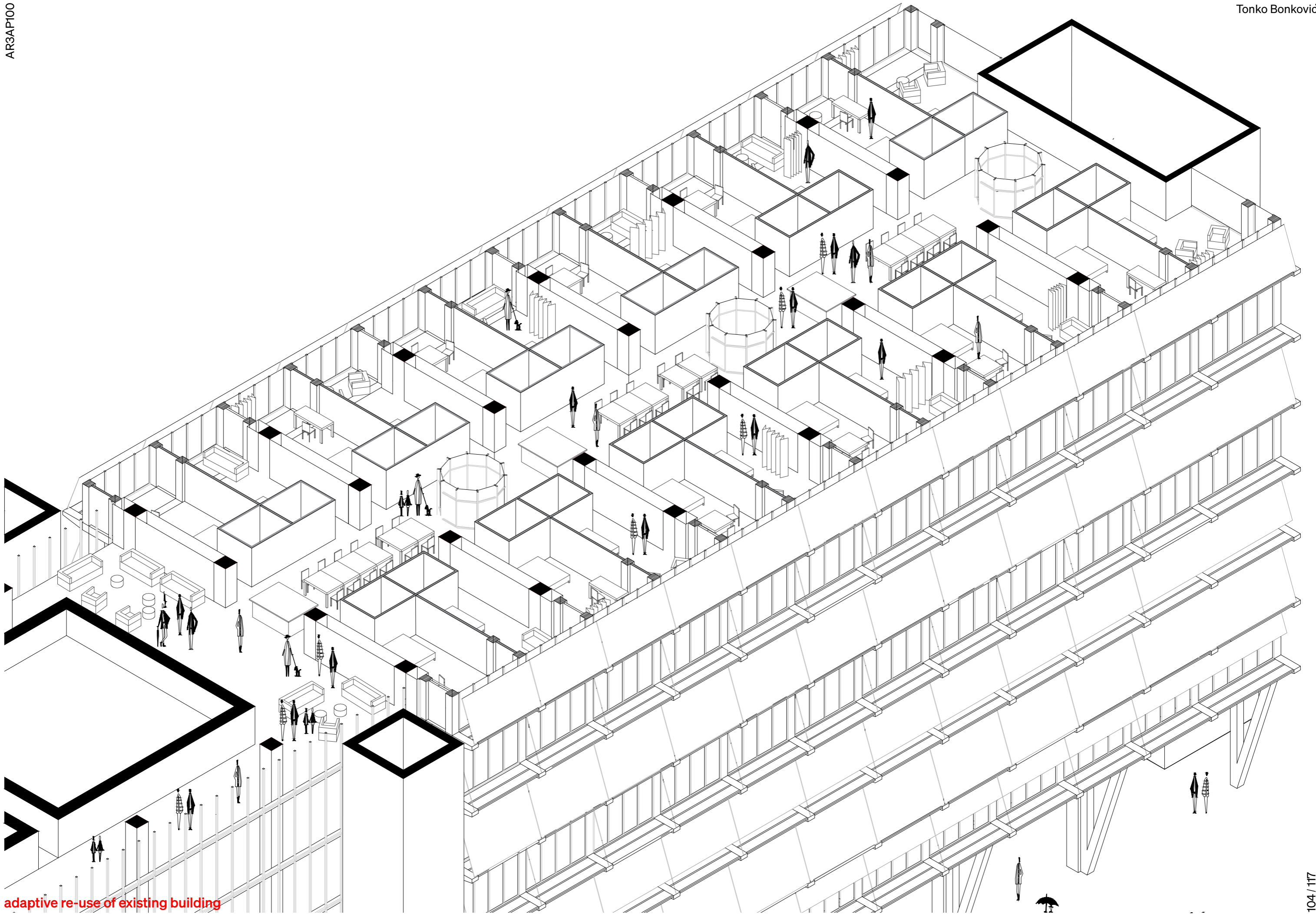










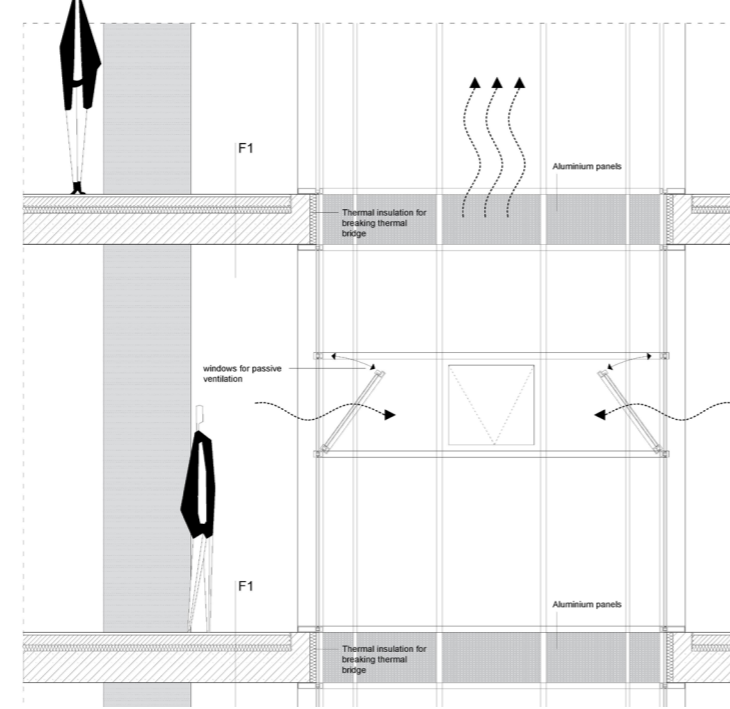
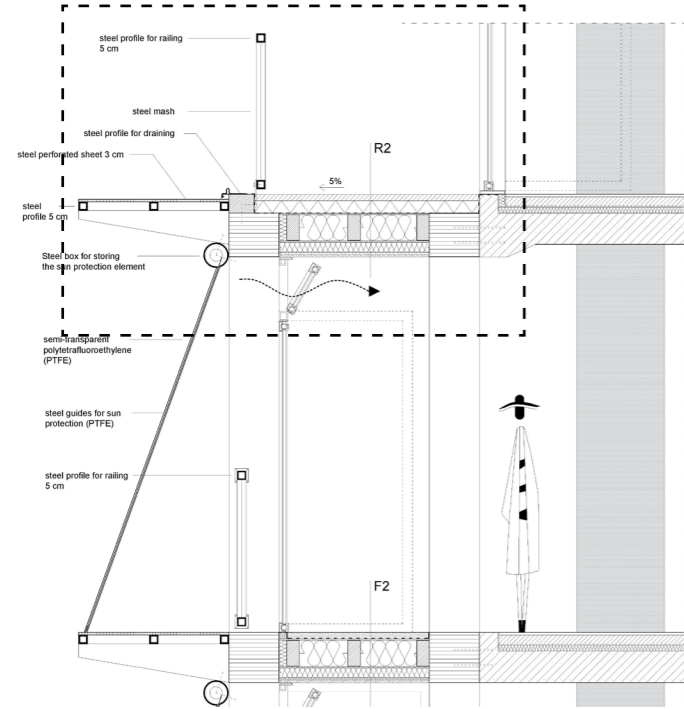
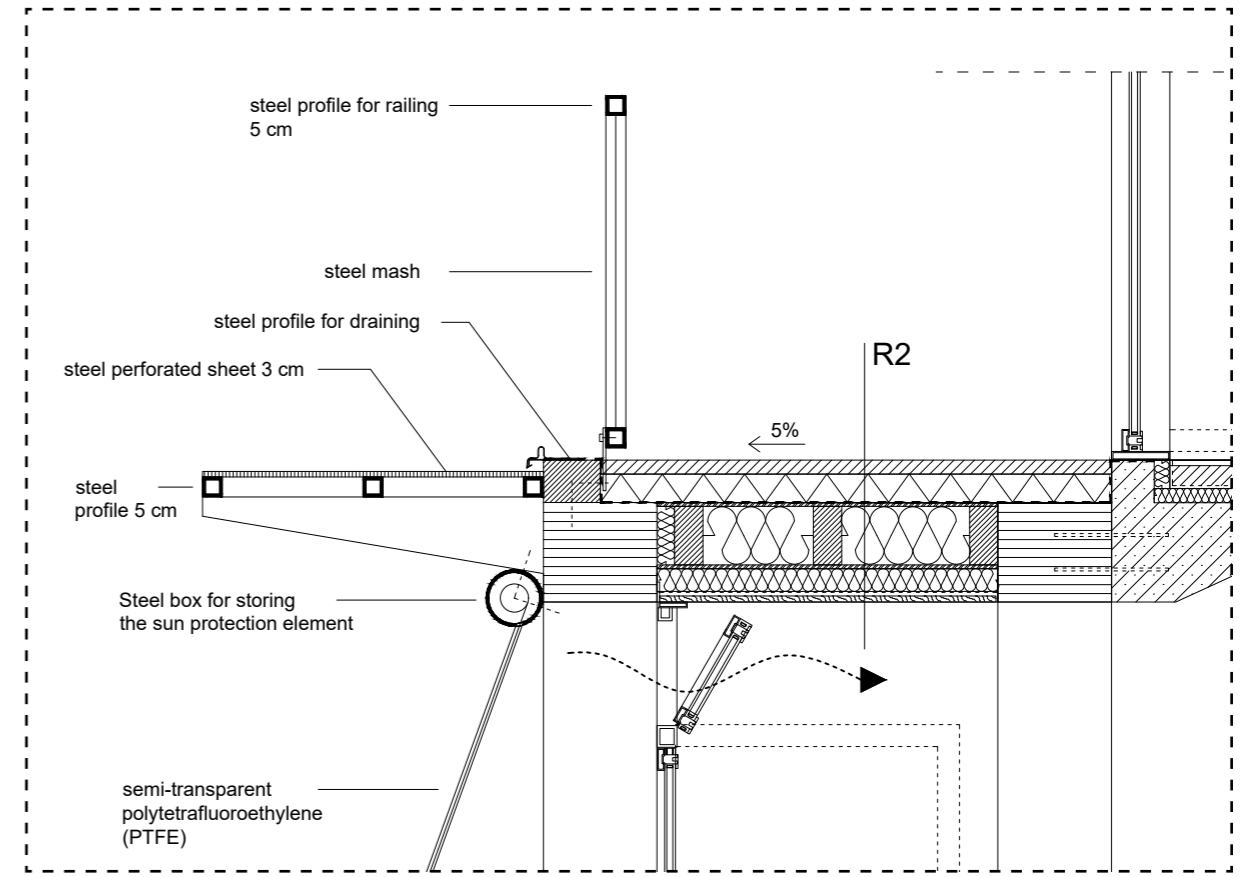
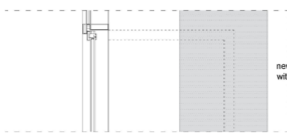
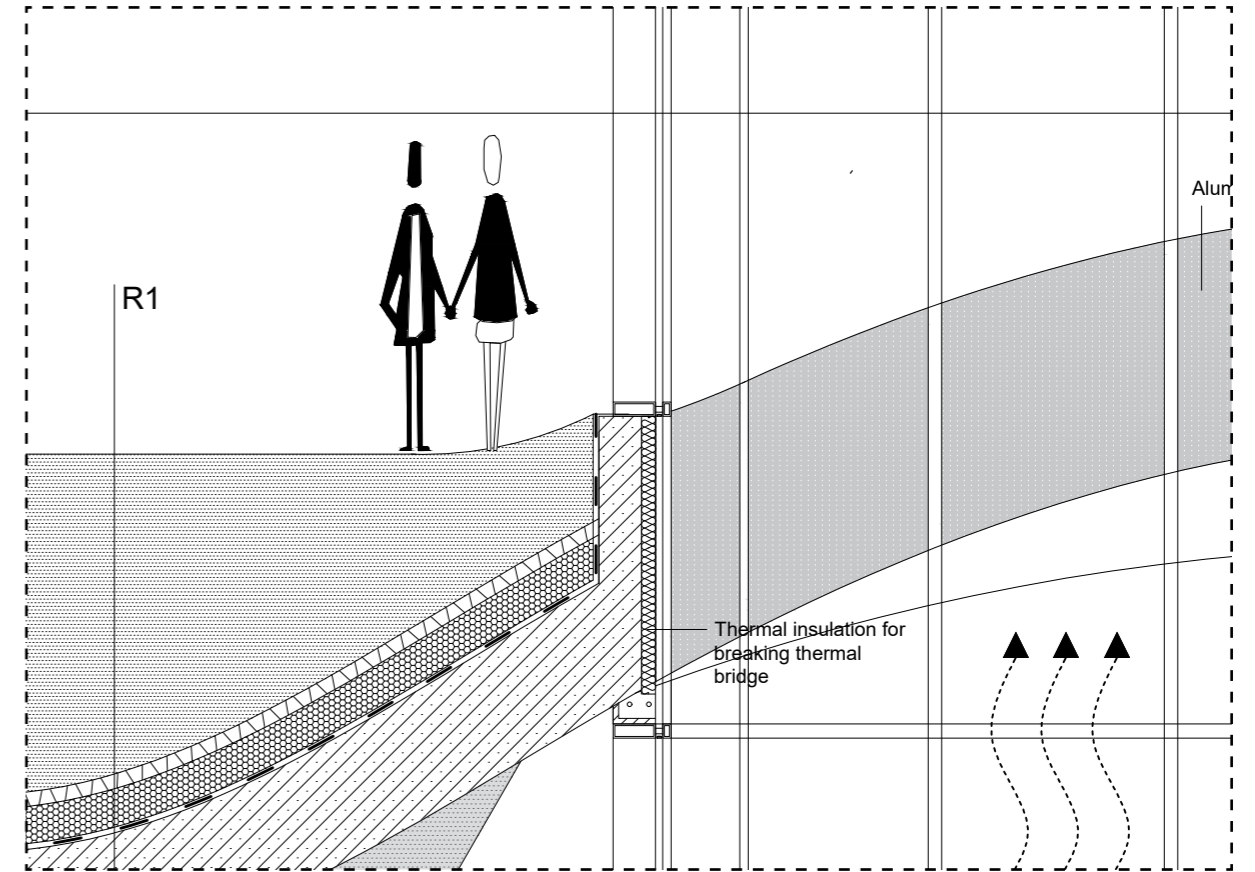
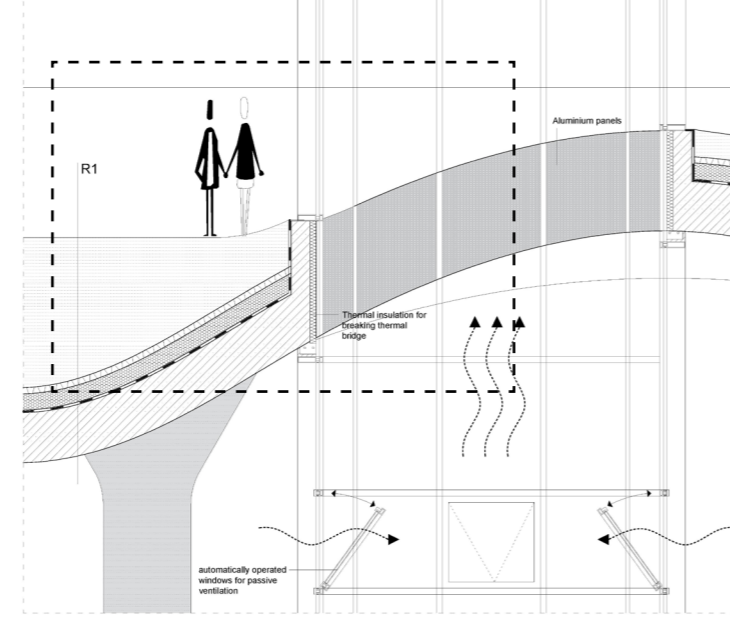
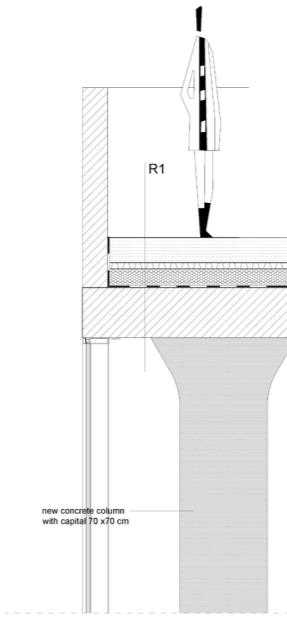
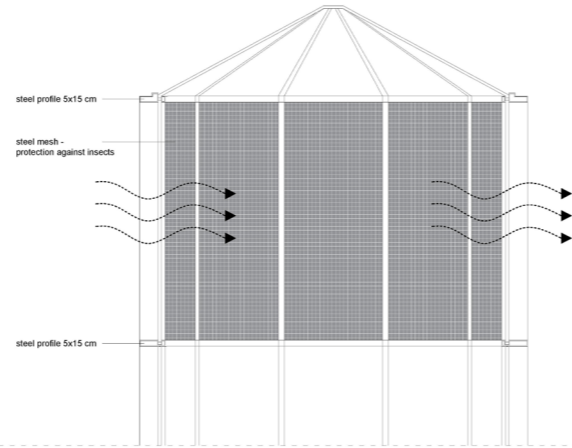


adaptive re-use of existing building





- R1 - Green curved roof**
 - Vegetation (kind depends on the depth) 20 - 120 cm
 - PEHD drainage layer with aggregate 5 cm
 - XPS thermal insulation filled with PUJI foam in panel joints 15 cm
 - Waterproofing (Elastomeric "Rubber" (EL)) 1 cm
 - Reinforced concrete (curved) 40 cm
- R2 - Roof over timber extension of existing building**
 - Polished waterproof concrete 5 cm
 - XPS thermal insulation 10 cm
 - Waterproofing (Synthetic) 0.2 cm
 - Prefabricated timber panel (floor structure) 20 cm
 - Mineral wool between substructure of timber planks 8 cm
 - Vapor barrier 2 cm
 - Ventilated cavity / substructure (timber planks) 2 cm
 - Plywood panels 2 cm
- F2 - Floor (existing building - concrete structure)**
 - Parquet 2 cm
 - Thin concrete slab (estrih) 8 cm
 - PE foil for sound insulation protection 5 cm
 - Sound insulation - mineral wool 25 cm
 - Reinforced concrete
- F2 - Floor (new extension - timber structure)**
 - Polished waterproof concrete 5 cm
 - Vapor barrier (PE foil)
 - Prefabricated timber panel (floor structure) 20 cm
 - Mineral wool between substructure of timber planks 8 cm
 - Rain foil
 - Ventilated cavity / substructure (timber planks) 2 cm
 - Plywood panels 2 cm
- F3 - Floor (superstructure)**
 - Polished concrete 5 cm
 - Vapor barrier (PE foil)
 - Prefabricated timber panel (floor structure) 20 cm
 - Mineral wool between substructure of timber planks 10 cm
 - Rain foil
 - Ventilated cavity / substructure (timber planks) 5 cm
 - Plywood panels 2 cm





reference: Radic, Teatro Biobio in Concepcion

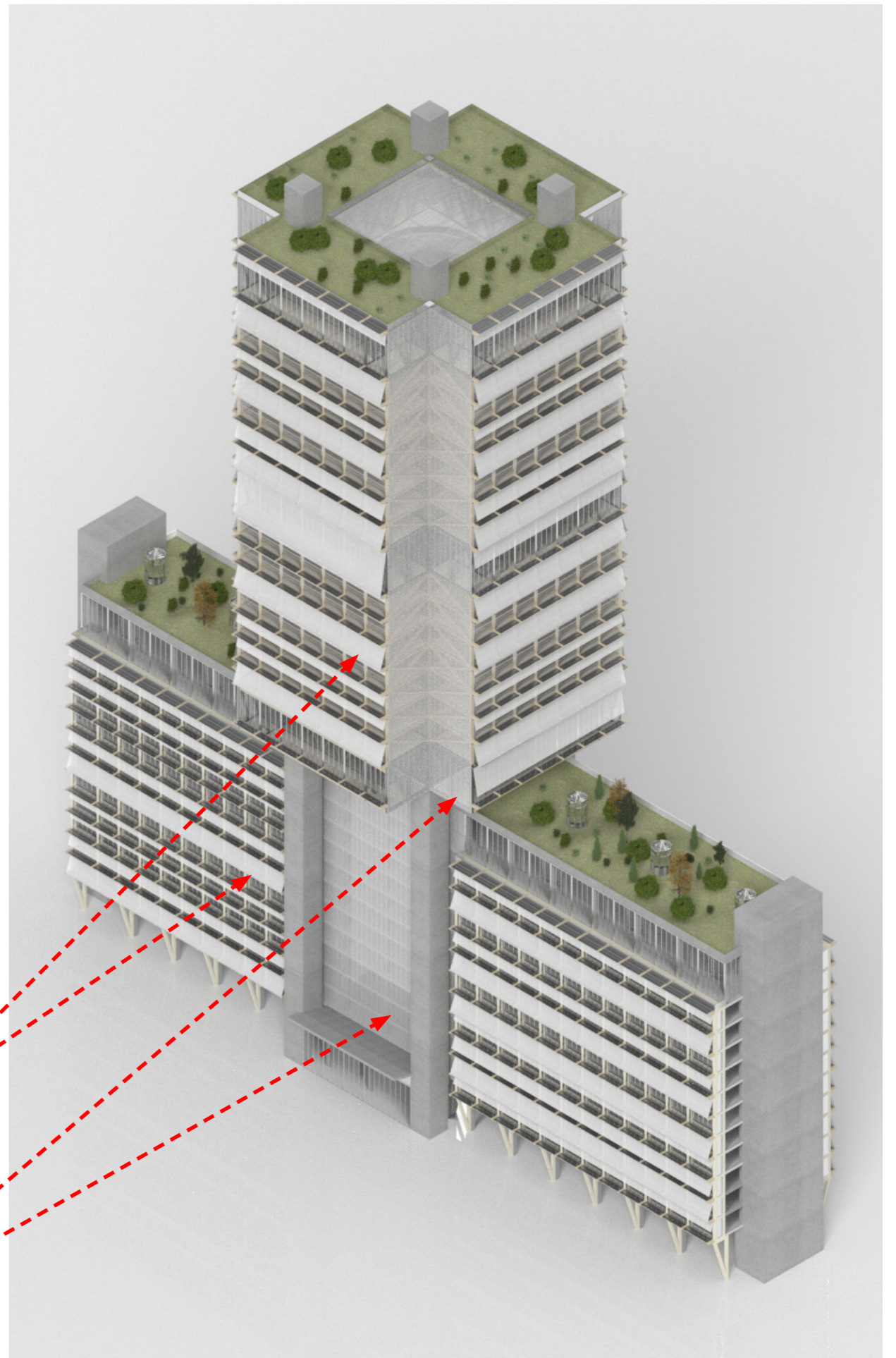


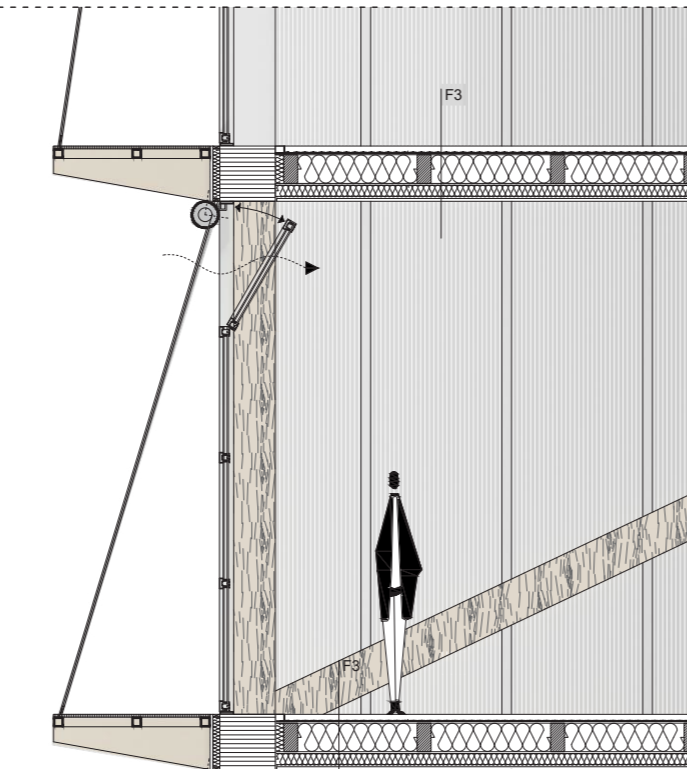
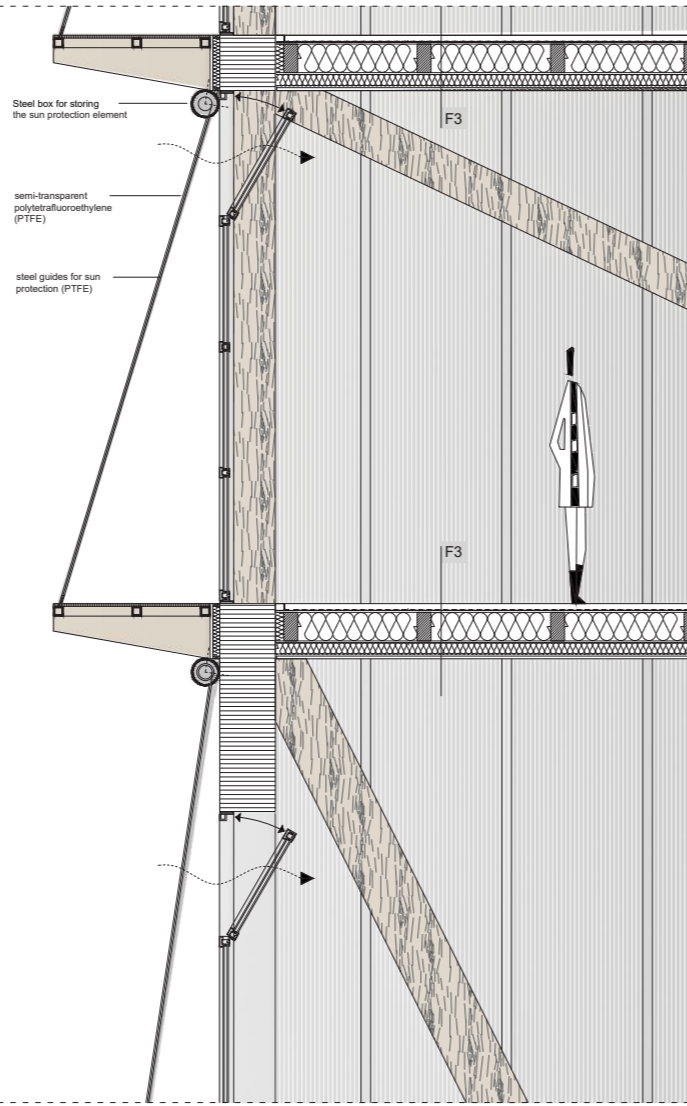
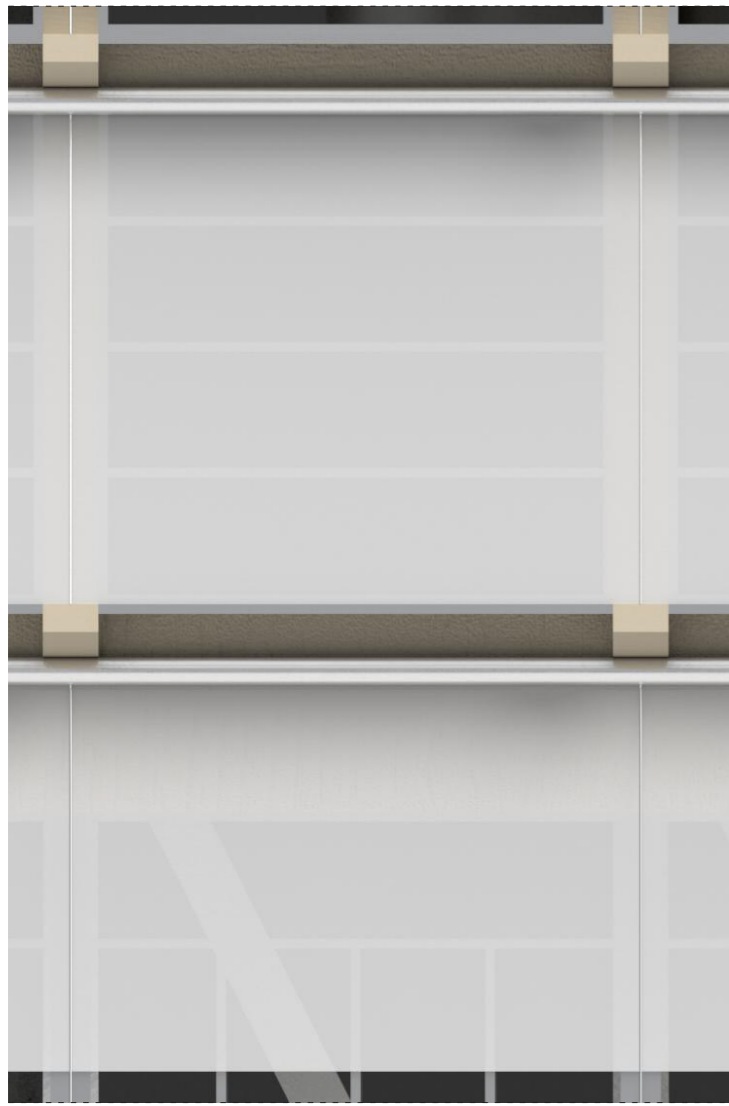
PTFE (fabric membranes)

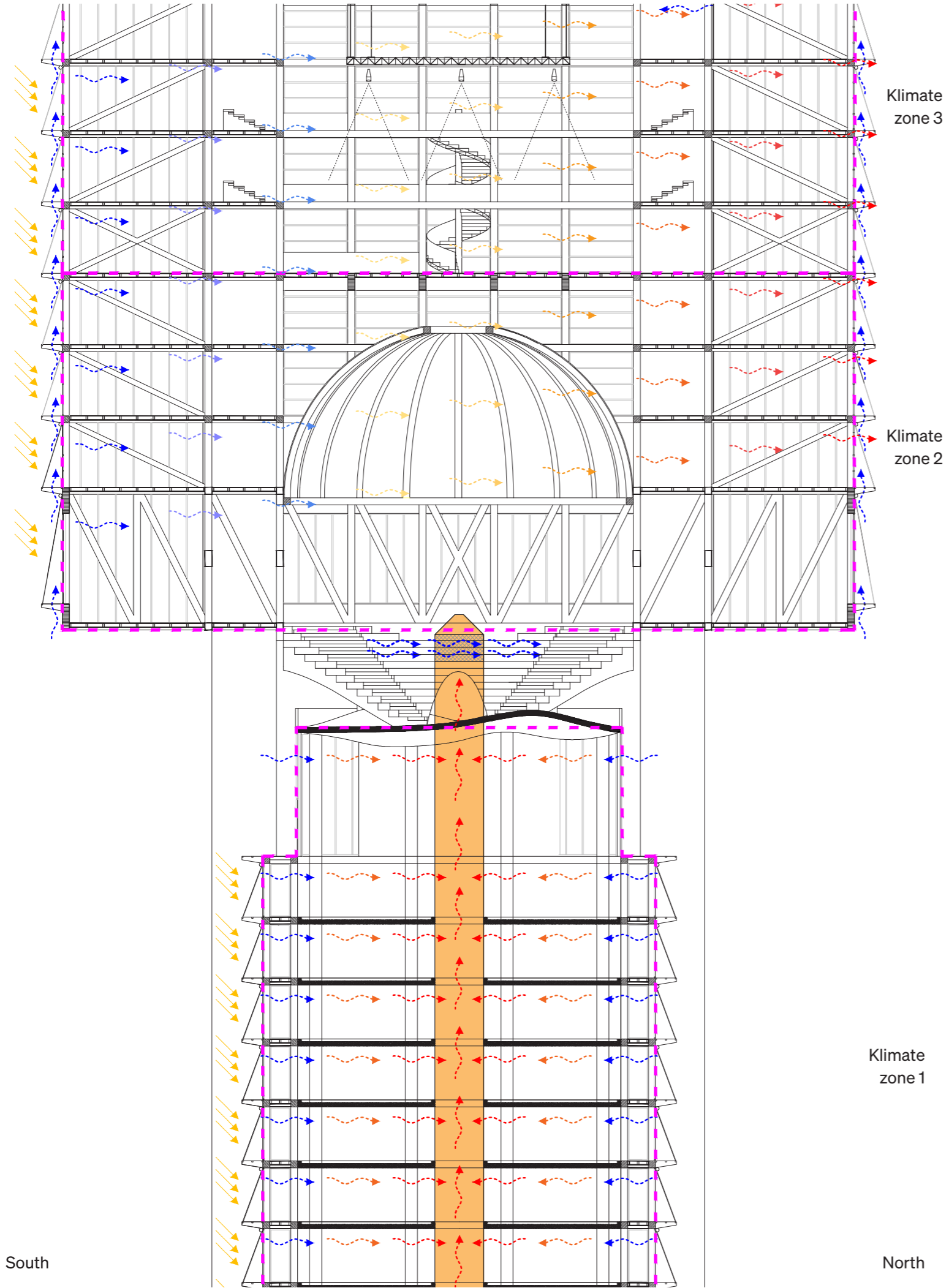
Polytetrafluoroethylene:

- waterproof
- resists UV rays
- chemically inert
- reflect as much as 60 % of visible light

Polycarbonat

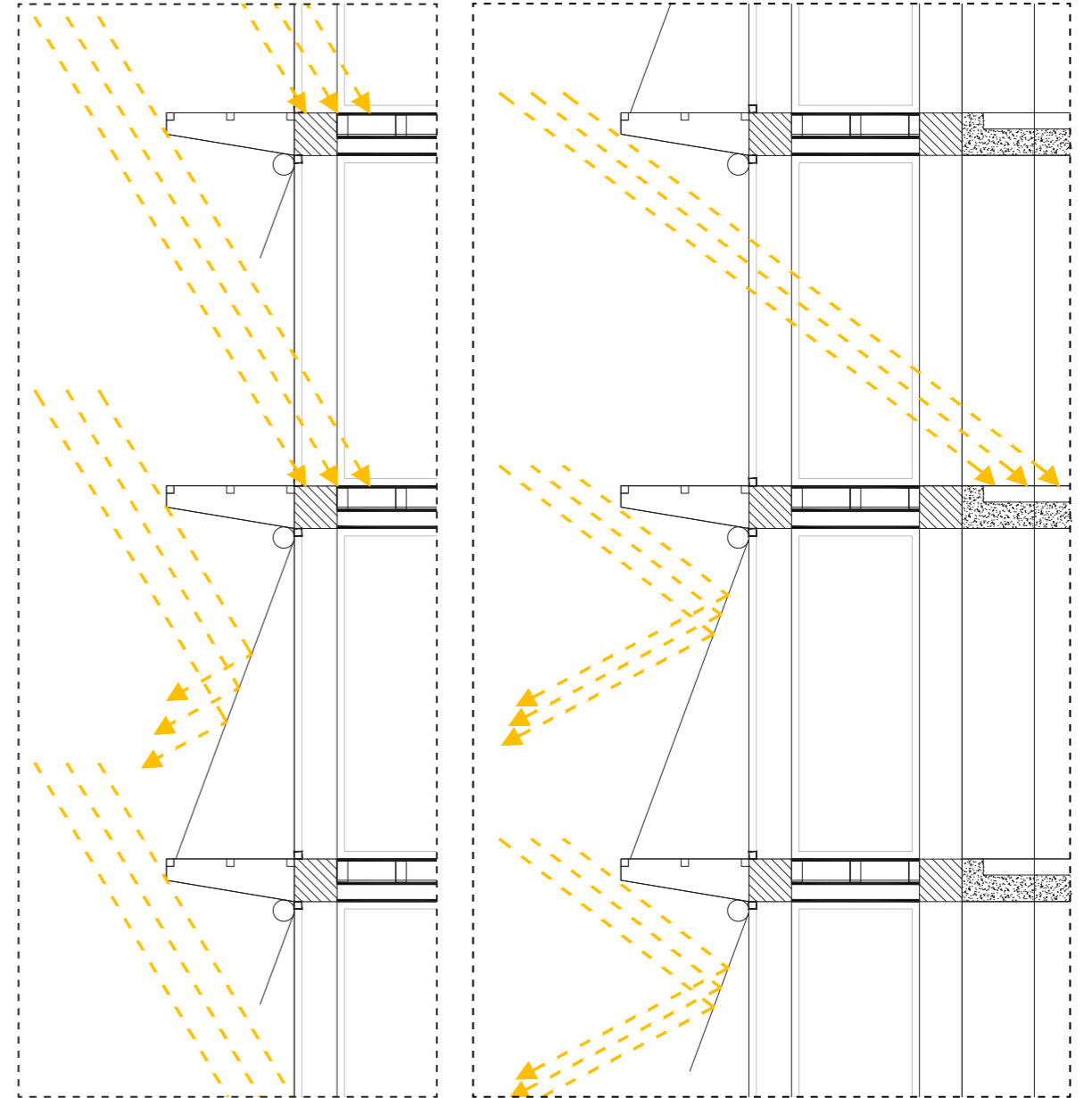




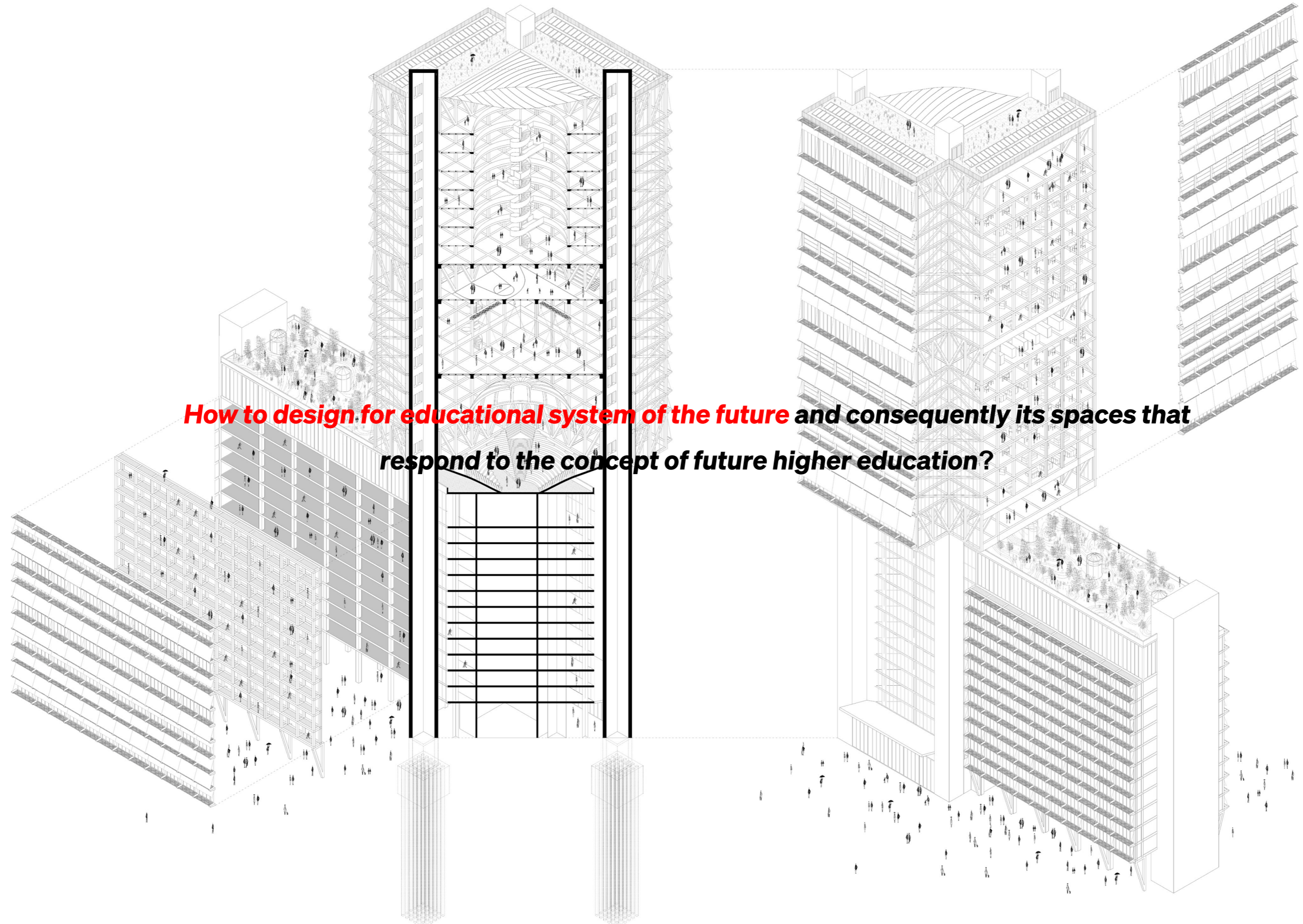


Summer

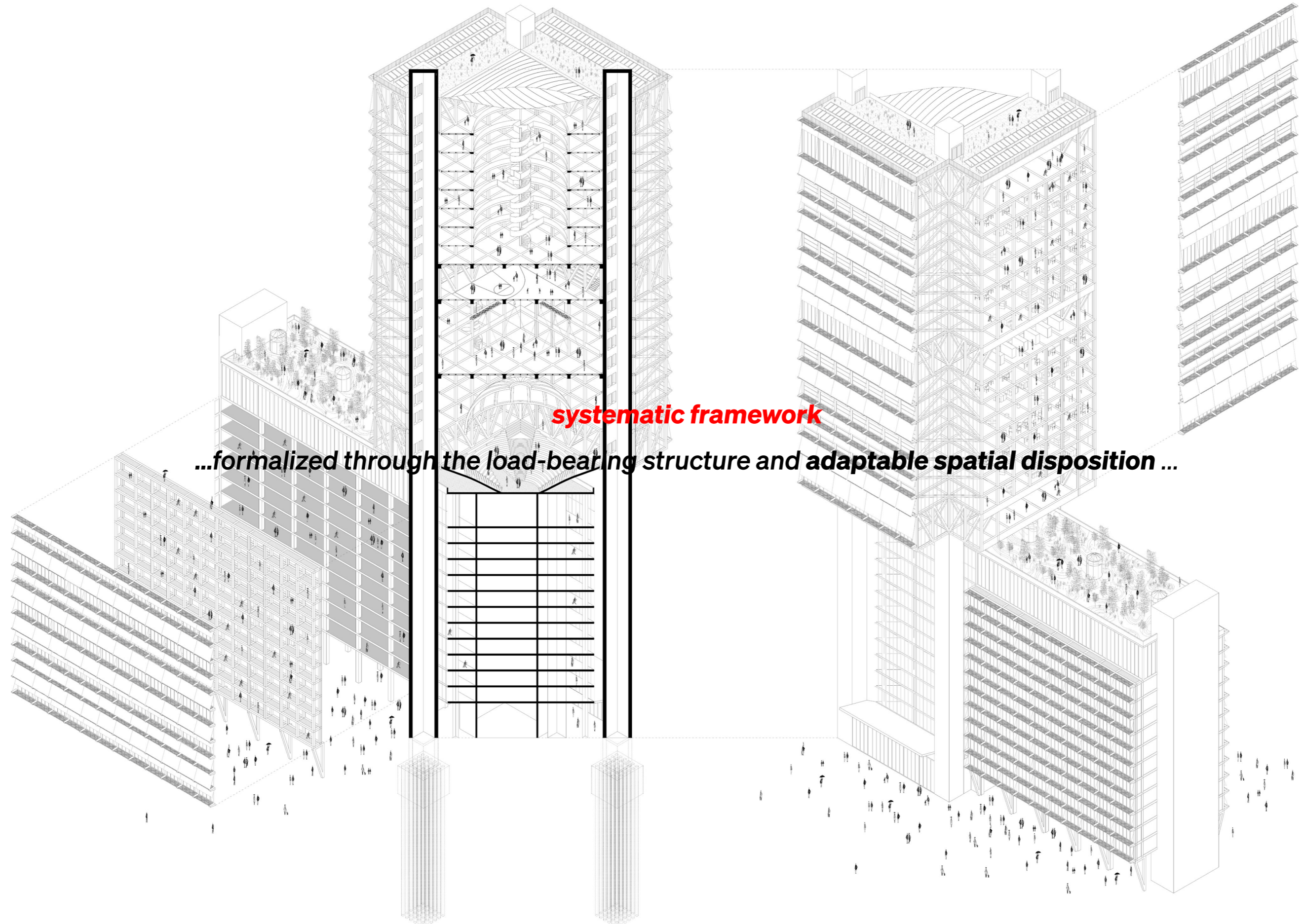
Winter



conclusion



How to design for educational system of the future and consequently its spaces that respond to the concept of future higher education?



systematic framework

...formalized through the load-bearing structure and adaptable spatial disposition ...



symbolic manifestation of knowledge

with a central position within the city accessible to all

