

“THE HUMAN BODY SHOP”

I. INTRODUCTION

II. RESEARCH & DESIGN BRIEF

III. CONCEPT

IV. IMPLEMENTATION

V. CONCLUSION

**HAVE YOU BEEN TO THE
HOSPITAL LAST YEAR?**

1,893 HOSPITALS

16,800,000 PATIENTS

20% OF THE POPULATION



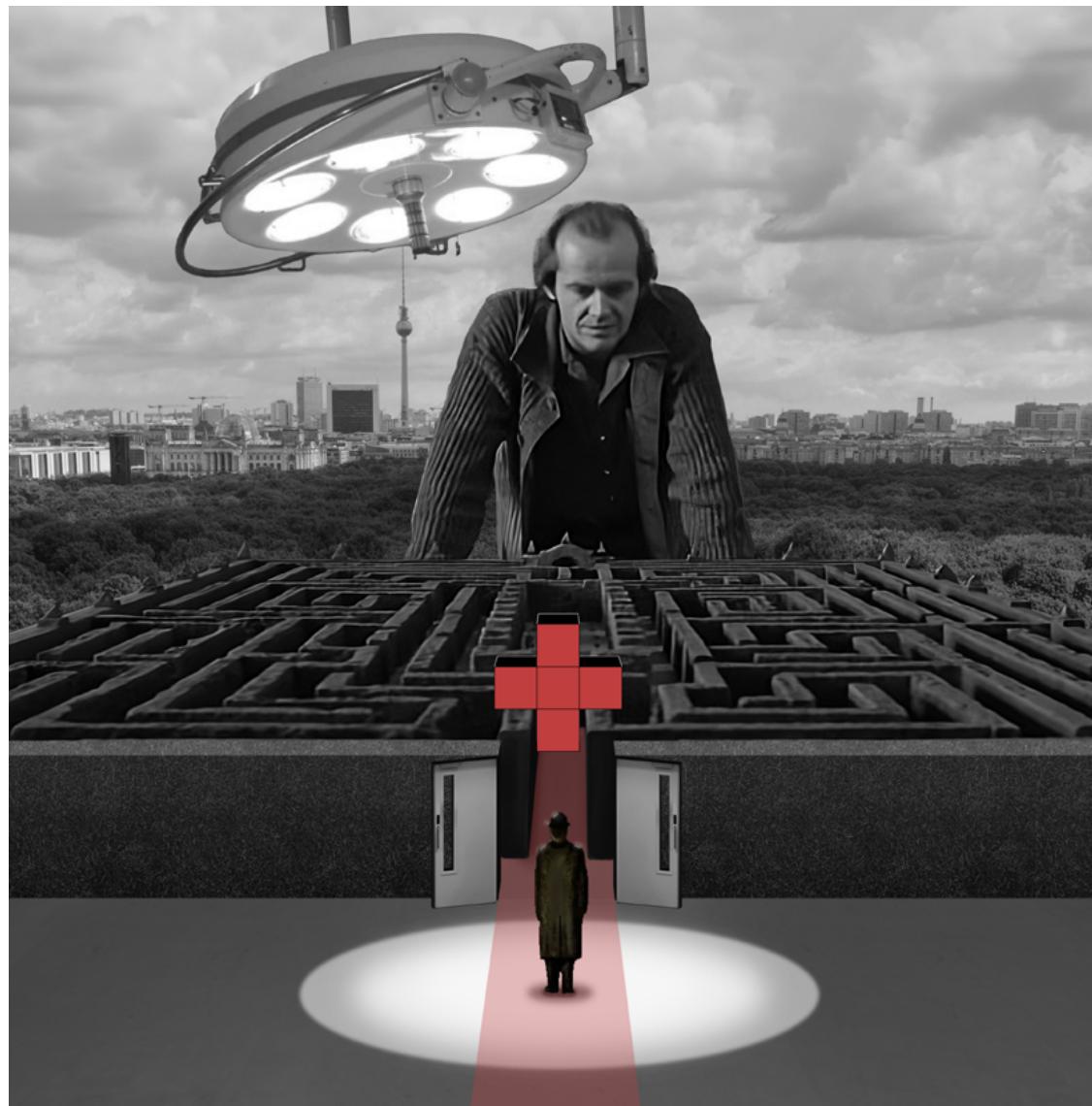
CRITICAL INFRASTRUCTURE

THE LAST RESORT



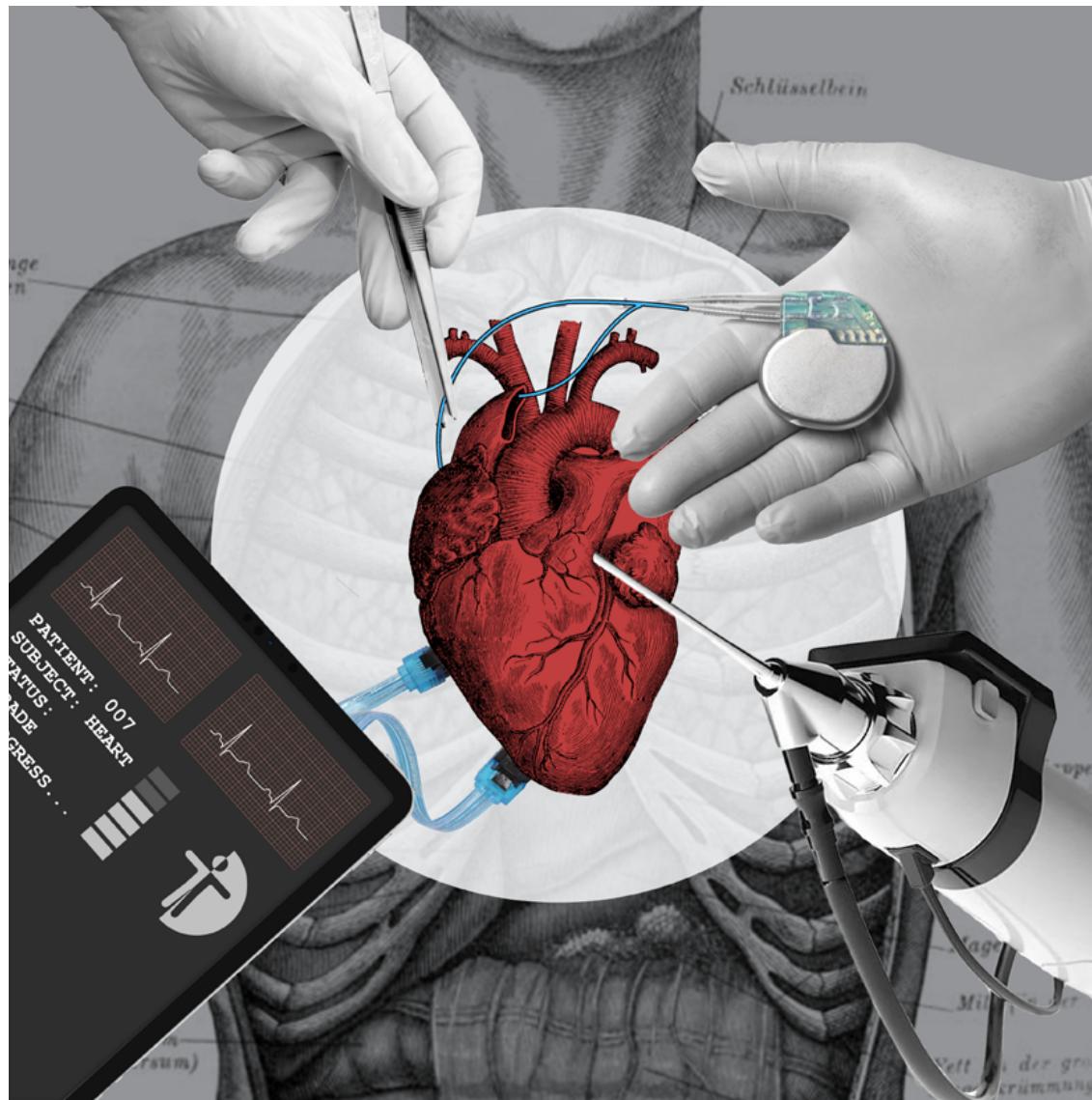
*Hospitals are the most critical buildings within society,
but are only part of it during times of necessity.*

THE LABYRINTH



The highly complex program and dominant circulation of the 'healing machine' has created a labyrinth within the built environment; a labyrinth that society rather avoids, than partake, discover, and be associated with.

BUILDINGS TO BODIES



Innovation in the field of human body augmentation has started the transition of buildings, to bodies as a healing machine.
Not only changing the human body, but also the hospital as we know it today.

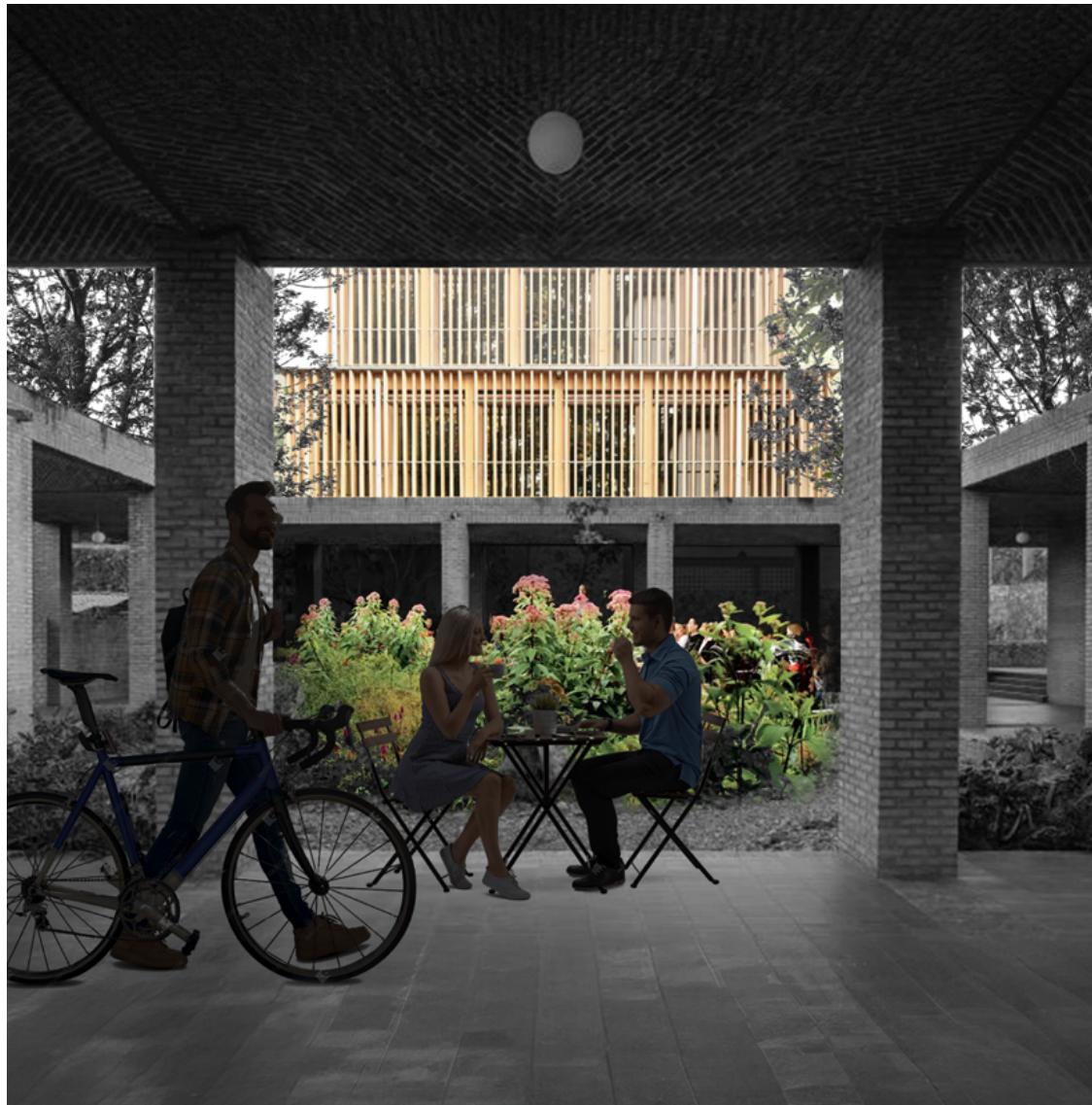
SPECIALISED & OPEN



Corridor

The surge in human body augmentation, technology, and development will require a specialised hospital structure that is optimised, flexible, and open to society and its discourse.

INTERWOVEN WITH THE EVERYDAY



Courtyard

Creating a new hospital typology, that intertwines the threshold between hospital, and society, by interweaving the everyday activities happening in a park, neighbourhood, and city. Park + Shopping Mall + Theme Park = IoAB

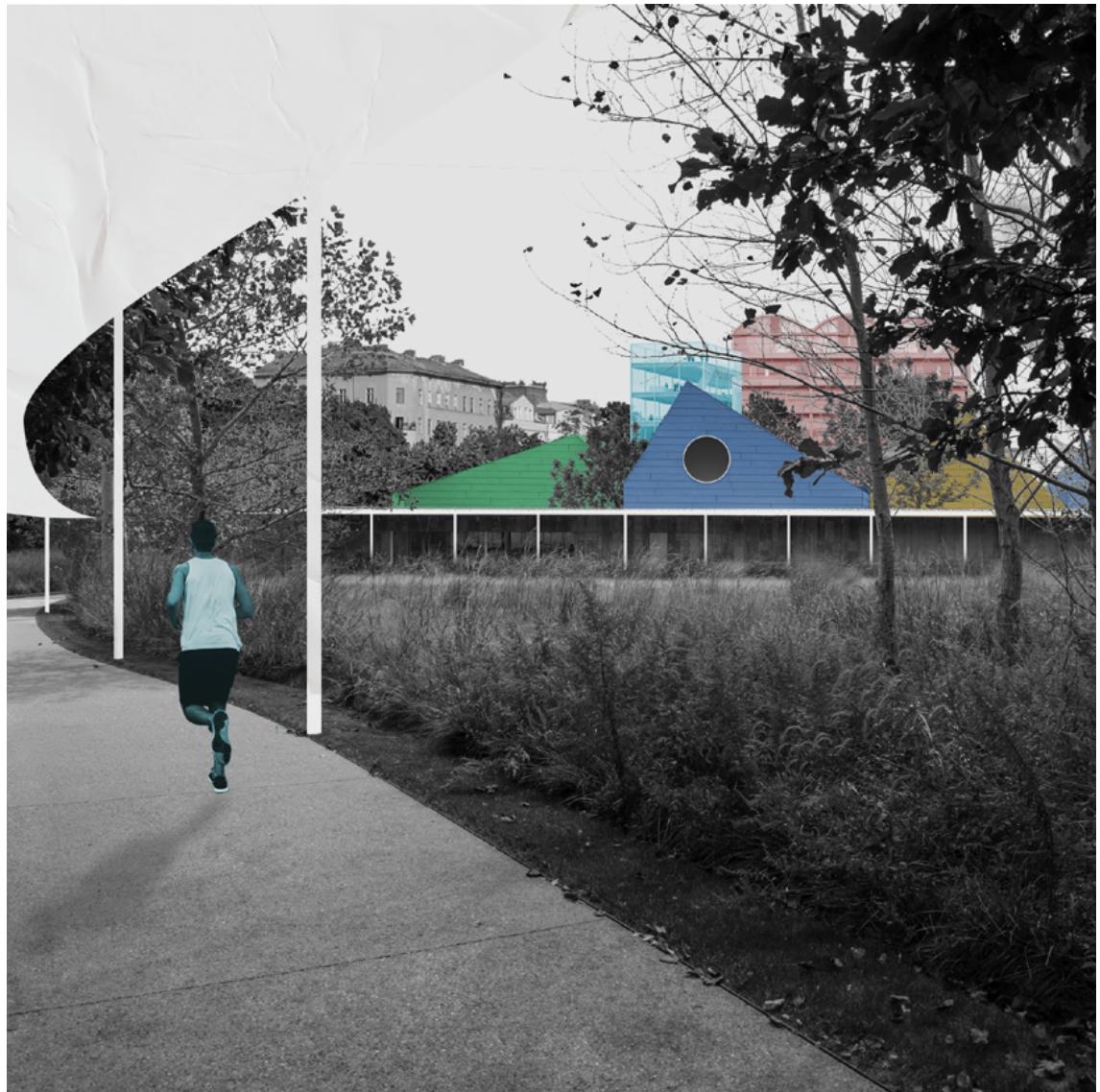
INTERWOVEN WITH THE EVERYDAY



Courtyard

Creating a new hospital typology, that intertwines the threshold between hospital, and society; by interweaving the everyday activities happening in a park, neighbourhood, and city. Park + Shopping Mall + Theme Park = IoAB

EXTENSION OF THE CITY



Creating a new hospital typology, that intertwines the threshold between hospital, and society; by interweaving the everyday activities happening in a park, neighbourhood, and city. Park + Shopping Mall + Theme Park = IoAB

PART OF SOCIETY



Introducing a new hospital, that is not only part of society when in need, but part of society every day.

- I. INTRODUCTION**
- II. RESEARCH & DESIGN BRIEF**
- III. CONCEPT**
- IV. IMPLEMENTATION**
- V. CONCLUSION**

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MAIN RESEARCH QUESTION

**“HOW WILL HUMAN BODY AUGMENTATION
REFLECT CHANGE IN THE HOSPITAL
TYPOLOGY OF THE FUTURE?”**

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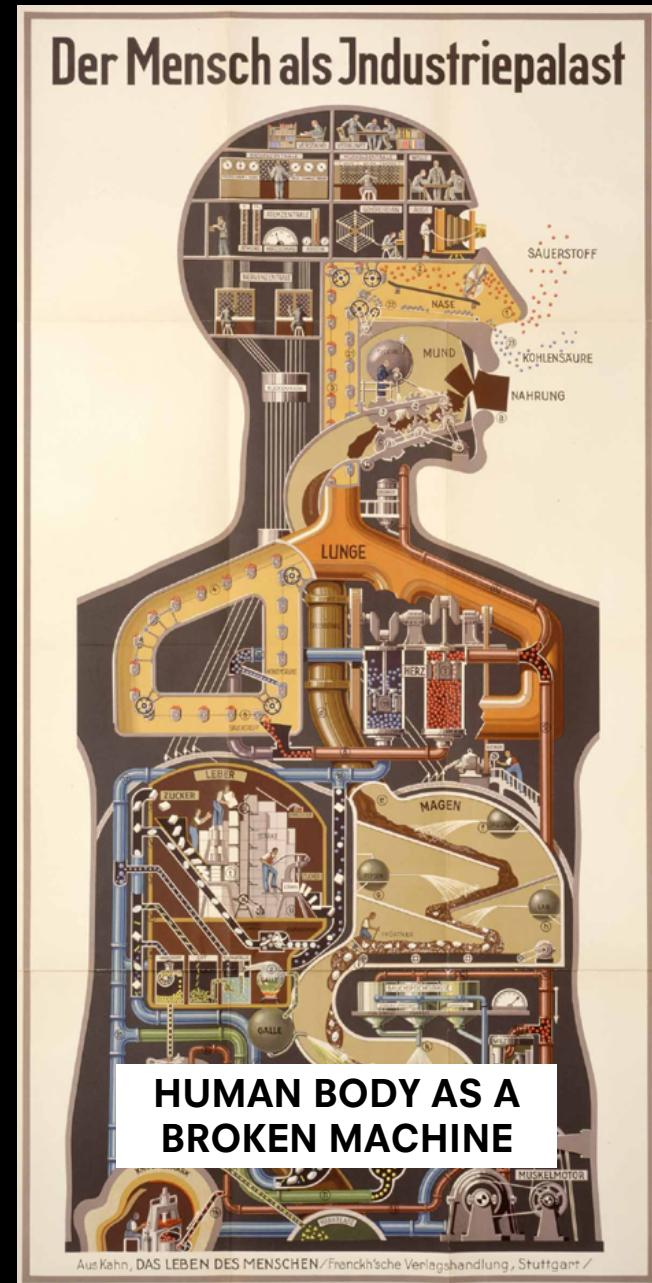
MAIN RESEARCH QUESTION

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**“HOW WILL HUMAN BODY AUGMENTATION
REFLECT CHANGE IN THE HOSPITAL
TYPOLOGY OF THE FUTURE?”**

“WHAT IS HUMAN BODY AUGMENTATION?”

RESULT



Man as Industrial Palace, Fritz Kahn, 1926.

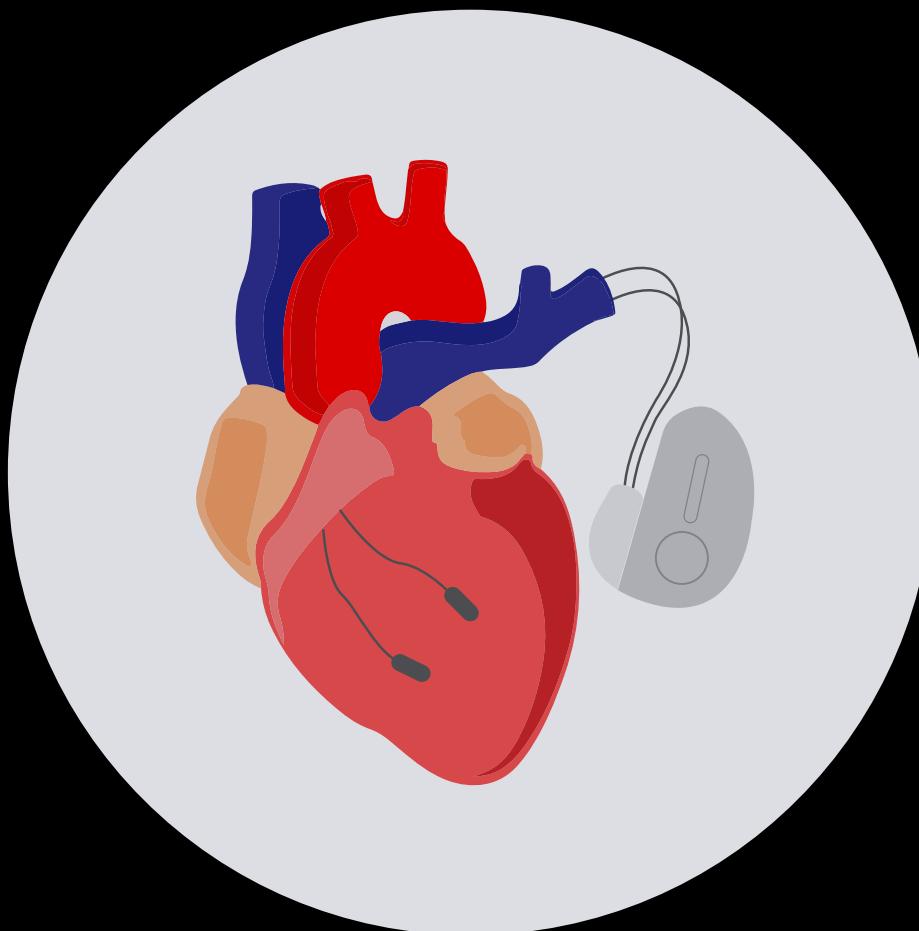
PATH TOWARDS THE FUTURE



from **buildings** as a (healing) machine
to **bodies** as a (healing) machine.

OVERVIEW

BIO-ELECTRONICS



PACEMAKER

- 1958 -

OVERVIEW



COCHLEAR IMPLANT

- 1982 -

OVERVIEW



BIOMECHATRONICS

- 2010 -

OVERVIEW



BRAIN PROSTHESIS

- 2011 -

OVERVIEW

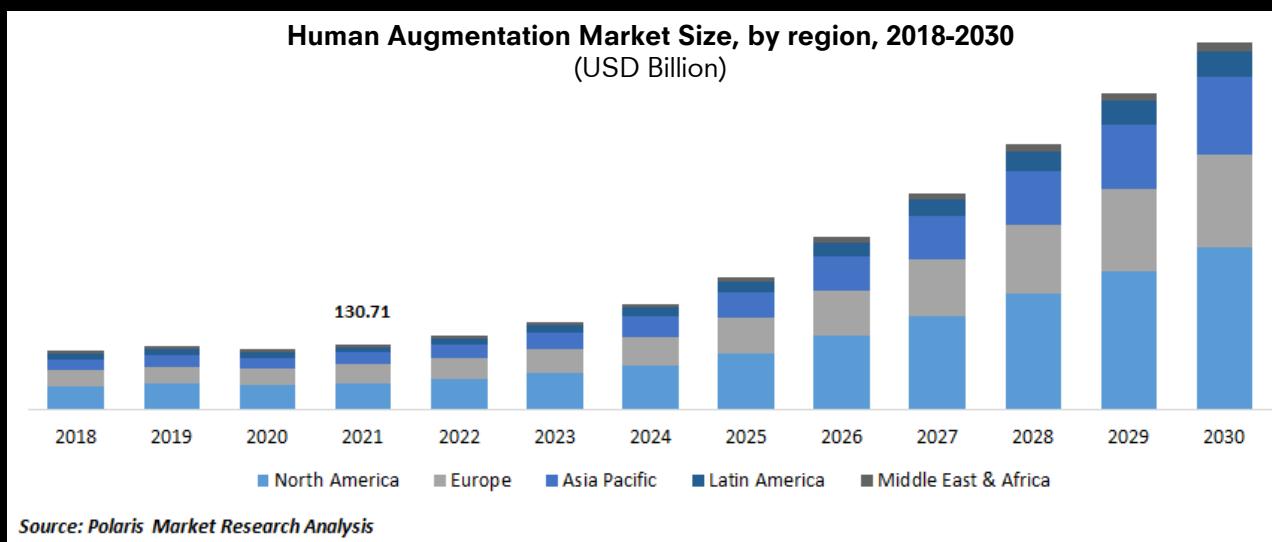


EXOSKELETON

- 2015 -

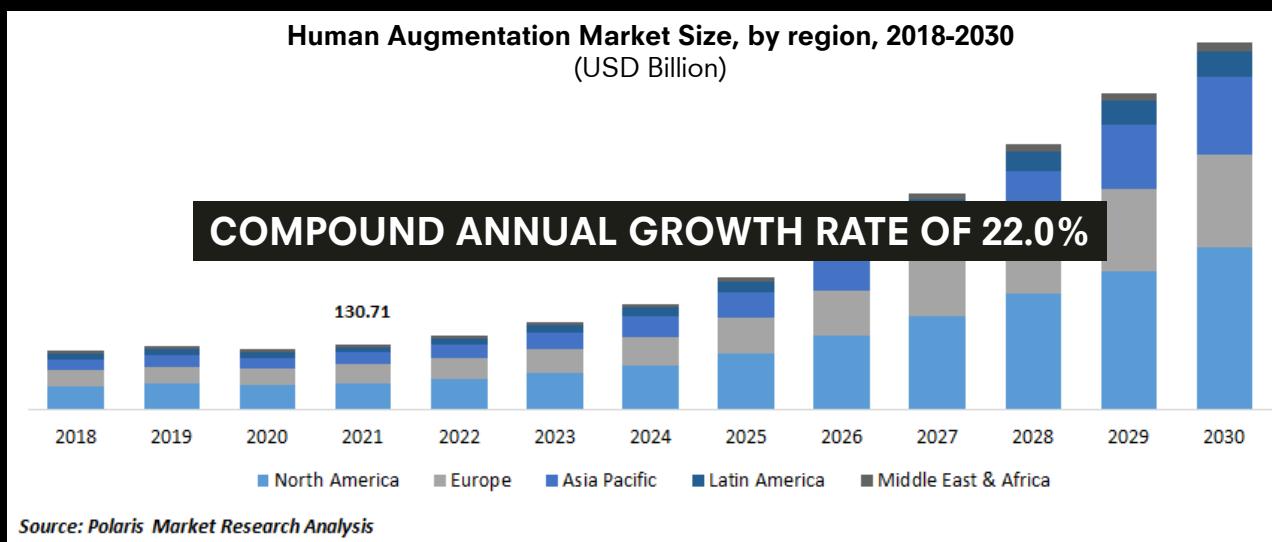
DEVELOPMENT

“BODY AUGMENTATION”

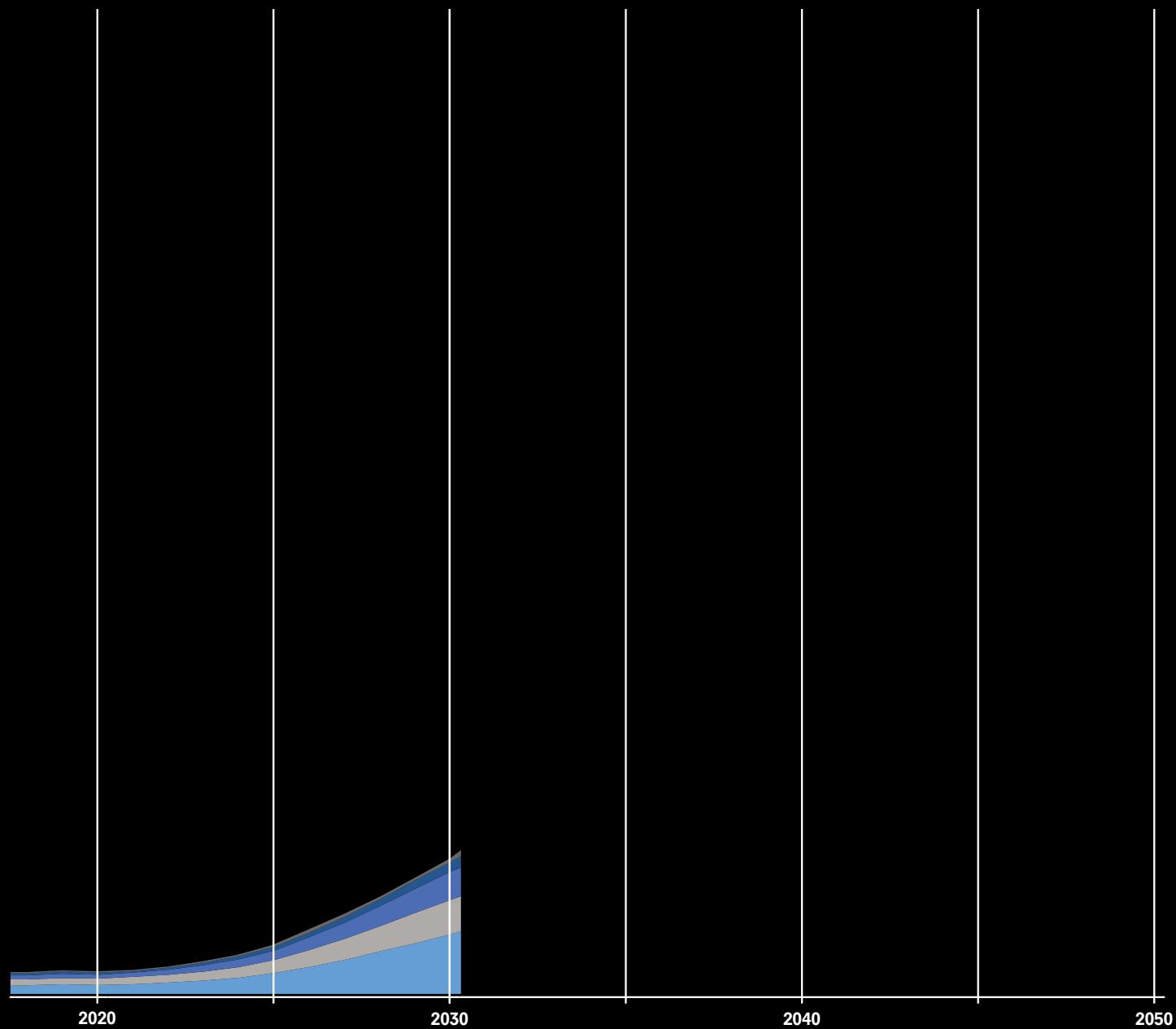


DEVELOPMENT

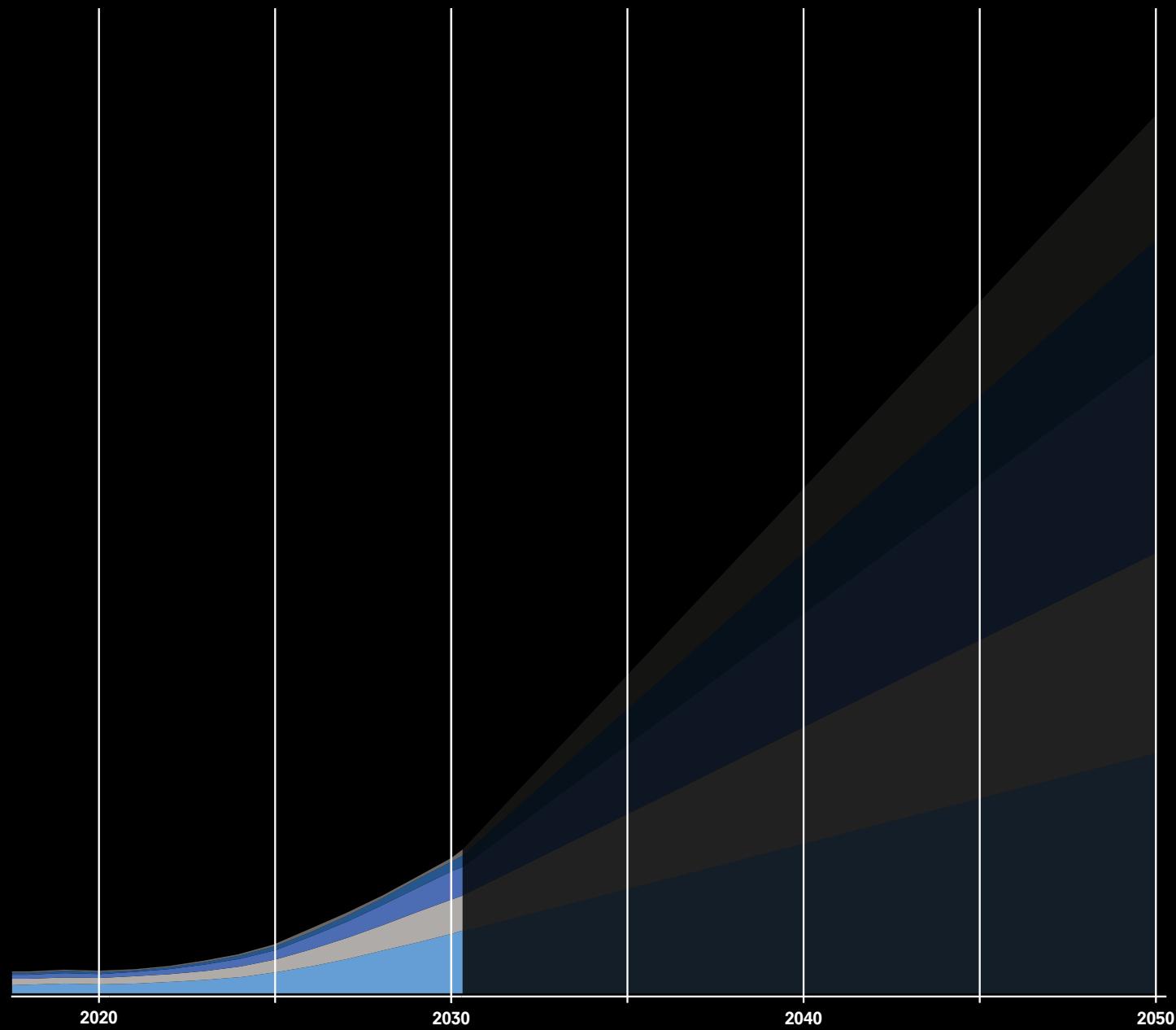
“BODY AUGMENTATION”



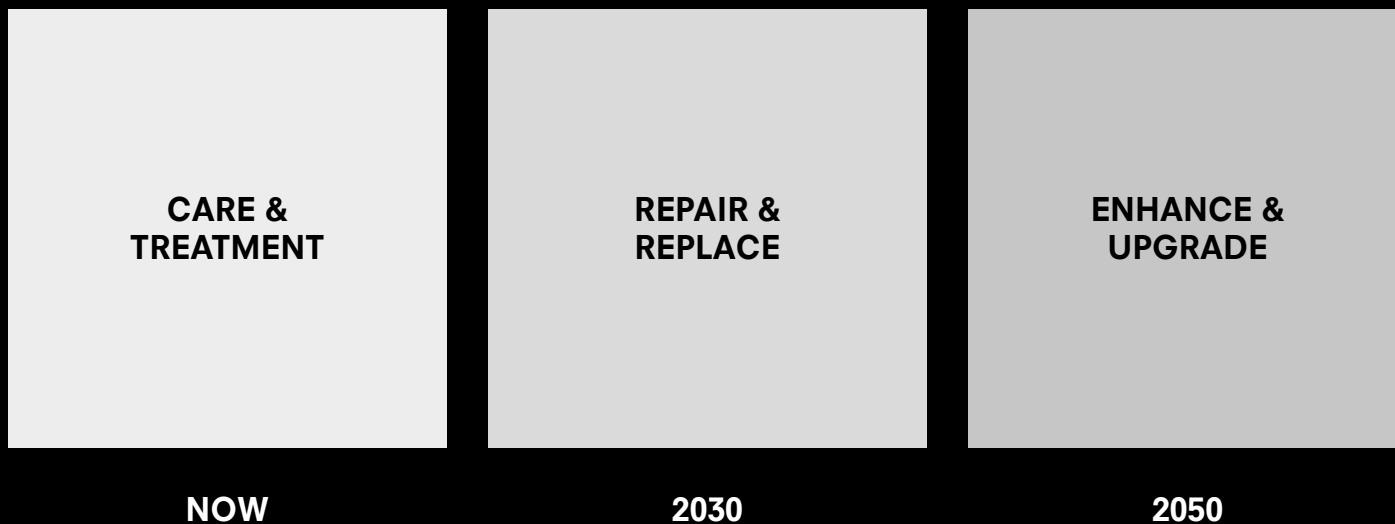
CURRENT DEVELOPMENT



FUTURE DEVELOPMENT

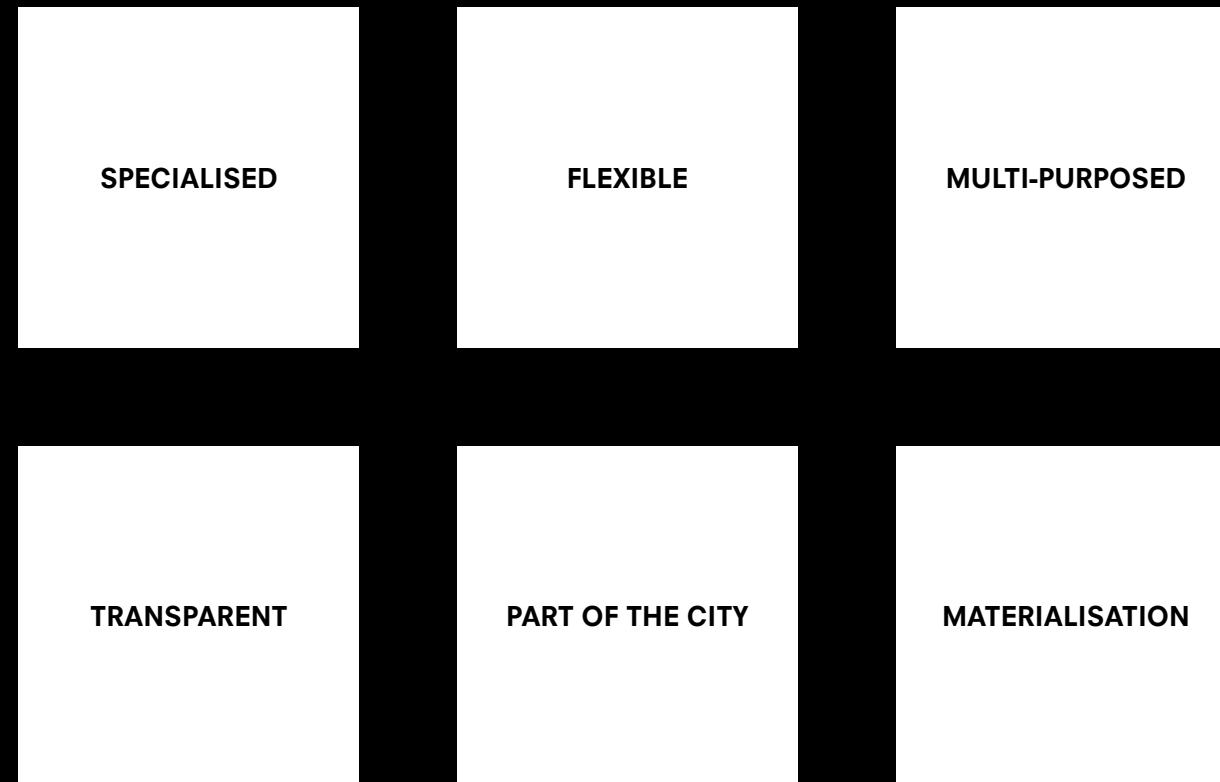


CHANGING ROLE OF THE HOSPITAL



HOW WILL THIS AFFECT THE BUILDING?

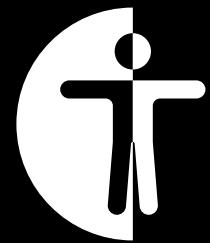
BUILDING - IMPLICATIONS



WHAT WILL THE FUTURE LOOK LIKE?

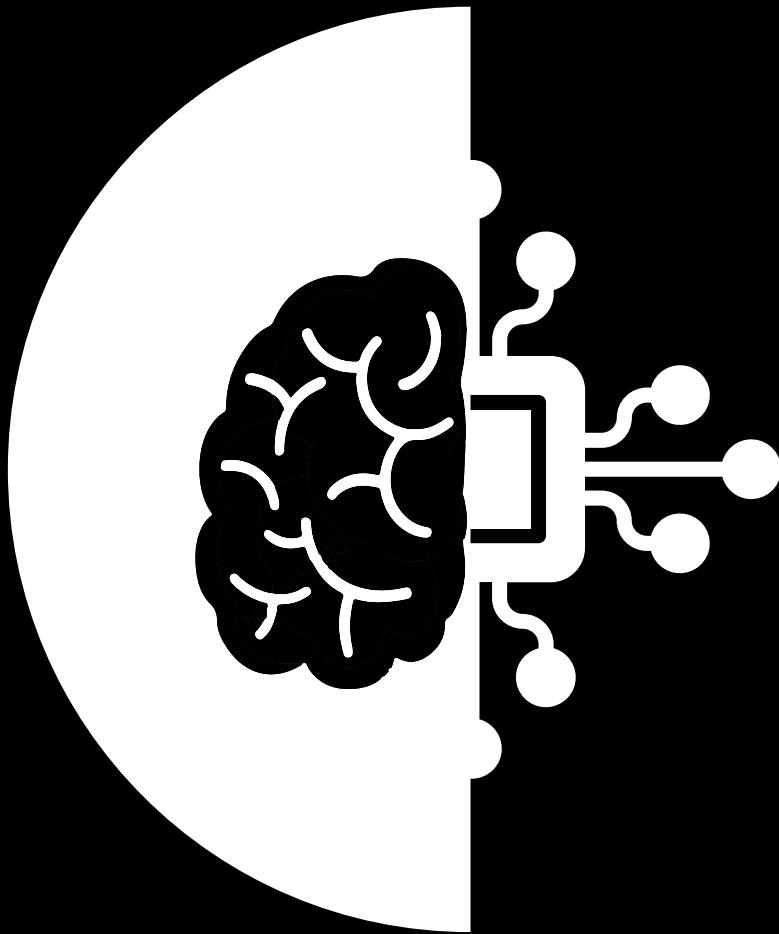
2054?

PROPOSAL



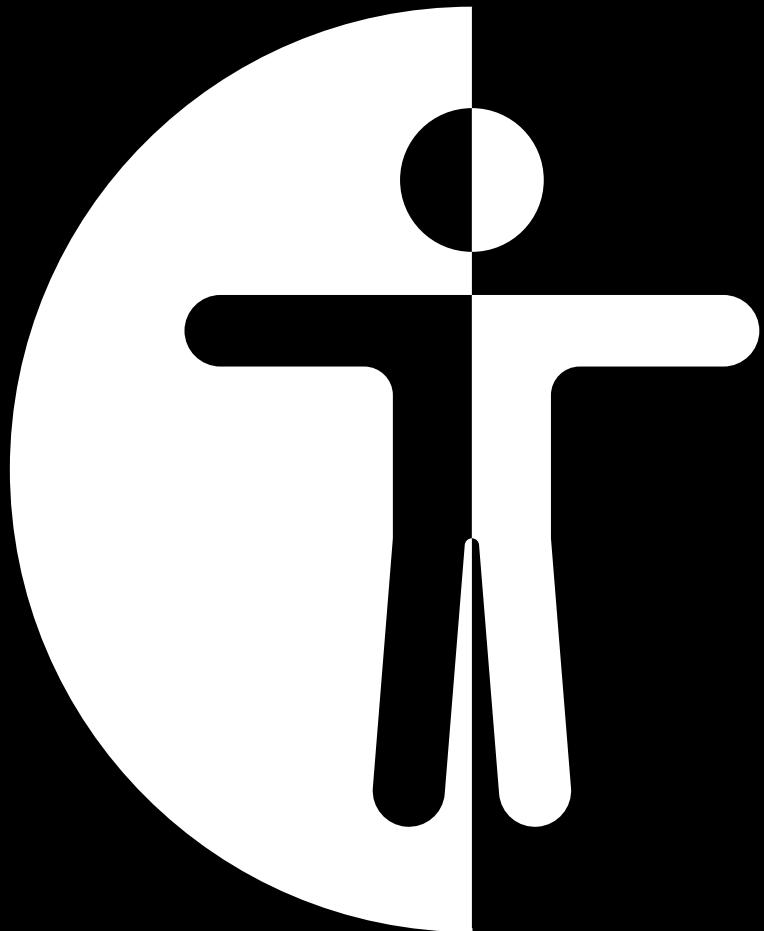
**Institute of
Augmented Bodies**

SPECIALISATION



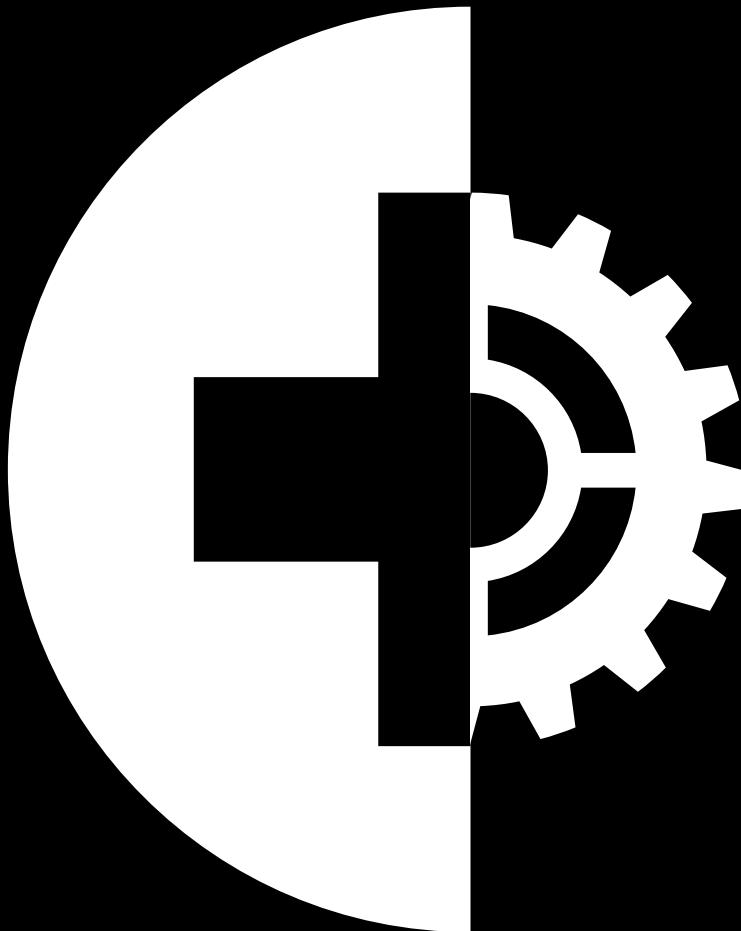
MIND

SPECIALISATION



BODY

SPECIALISATION



DOCTORS & ENGINEERS

MAIN RESEARCH QUESTION

“HOW WILL HUMAN BODY AUGMENTATION REFLECT CHANGE IN THE HOSPITAL TYPOLOGY OF THE FUTURE?”

- 1 - “How will augmentation change the hospital process for the human body, and thus the building program?”
- 2 - “How can we create a living hospital structure, that can grow, upgrade, and get augmented through time?”

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MAIN RESEARCH QUESTION

**“HOW WILL HUMAN BODY AUGMENTATION
REFLECT CHANGE IN THE HOSPITAL
TYPOLOGY OF THE FUTURE?”**

WHO WOULD FUND THIS CHANGE?

GERMAN HEALTHCARE MARKET

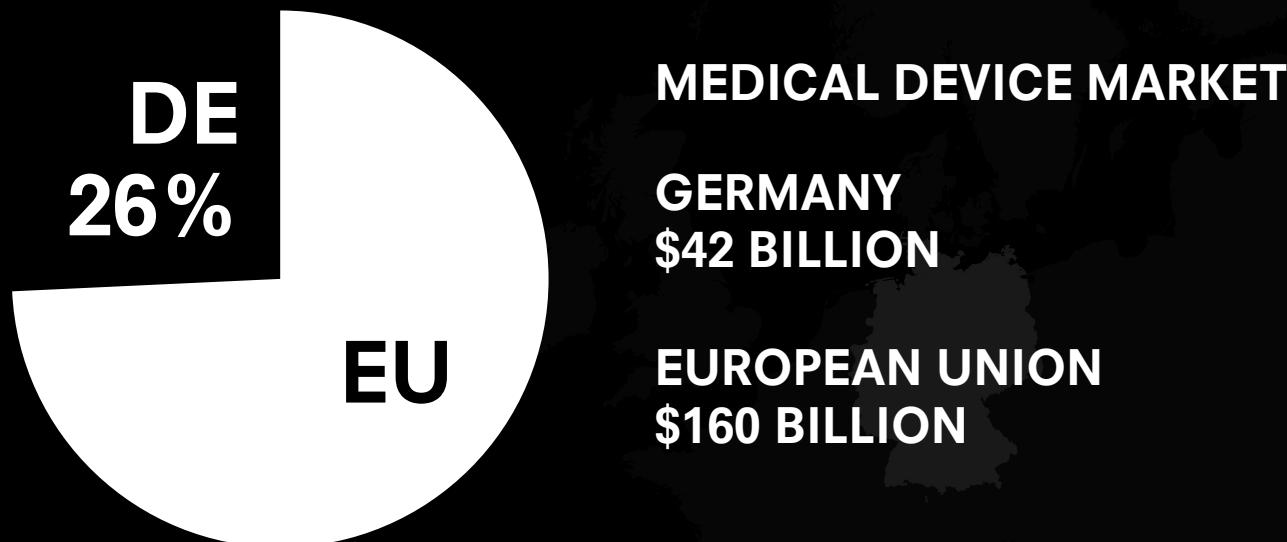
SYNLAB **SIEMENS** **FRESENIUS****SARTORIUS****ZEISS****Dräger****BIONTECH**

GLOBAL MARKET LEADERS



1. US
2. GERMANY
3. JAPAN

EUROPEAN MARKET



The German medical device market is one of the most lucrative healthcare markets worldwide, accounting for roughly USD 42 billion annually, or 26.4% of the European market total.

International Trade Administration - U.S. Department of Commerce (2023)

LEADER OF THE EU

GERMANY AS HEADHUNTER OF
THE HEALTHCARE QUALITY & INDUSTRY



GERMAN HEALTHCARE MARKET



**1/6 JOBS LINKED TO THE HEALTHCARE SECTOR
678.2 BILLION EURO, 12% OF GERMANY'S GDP**

FUTURE

2054?

NEW COMPETITOR



HISTORY



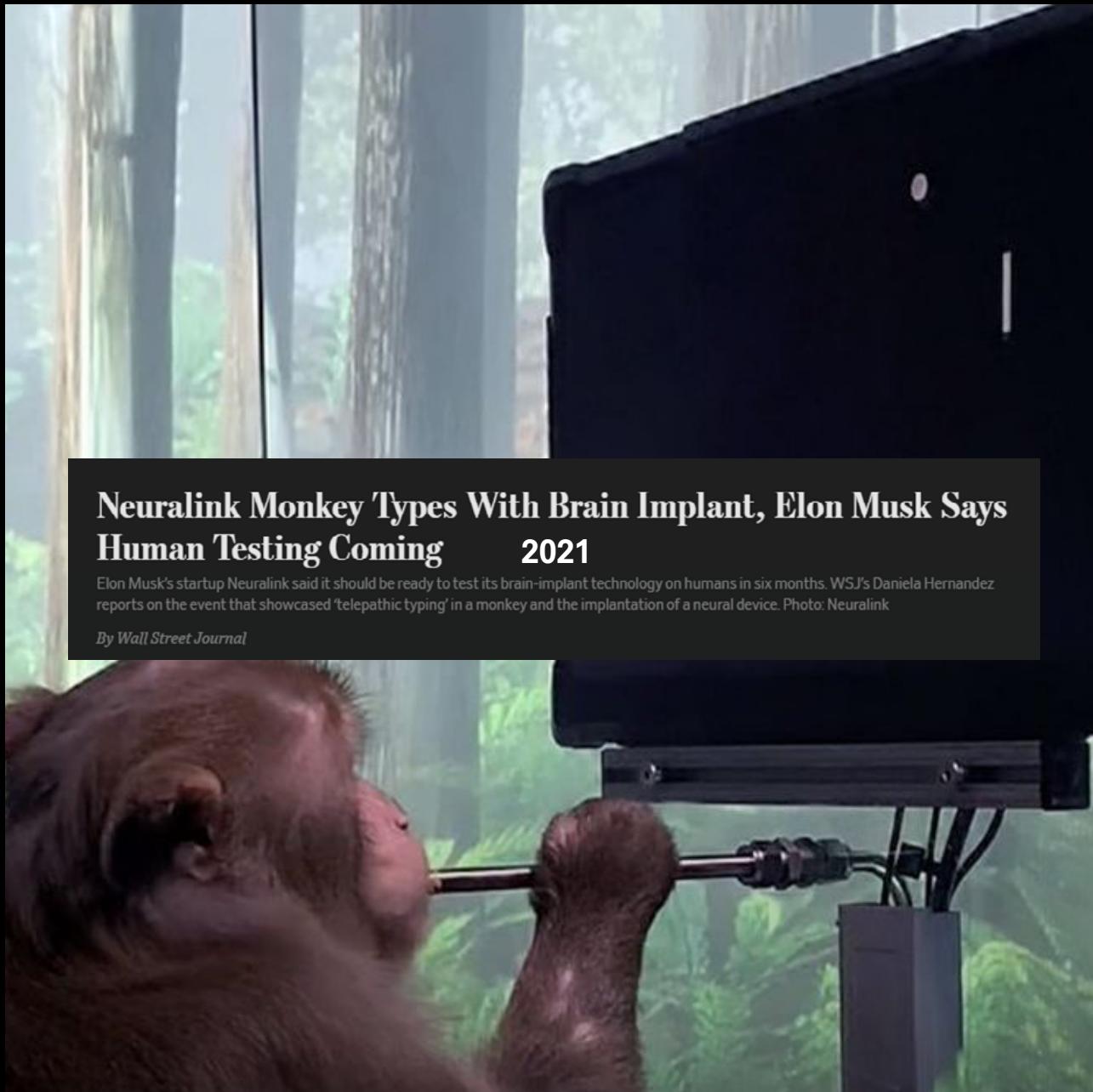
Elon Musk Launches Neuralink to Connect Brains With Computers

2016

HISTORY



HISTORY



Neuralink Monkey Types With Brain Implant, Elon Musk Says Human Testing Coming 2021

Elon Musk's startup Neuralink said it should be ready to test its brain-implant technology on humans in six months. WSJ's Daniela Hernandez reports on the event that showcased 'telepathic typing' in a monkey and the implantation of a neural device. Photo: Neuralink

By Wall Street Journal

HISTORY

Future of Health

**Musk's Neuralink to start human trial of
brain implant for paralysis patients**

Reuters

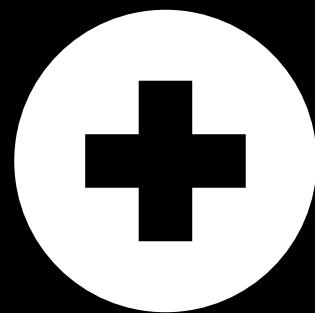
2023



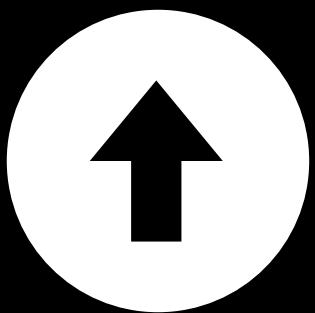
HISTORY



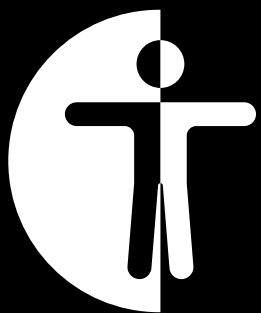
FUTURE AMBITIONS



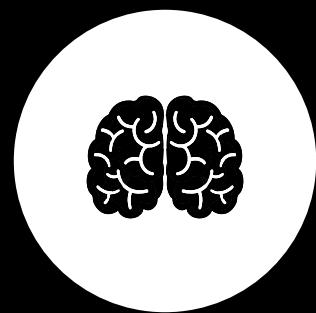
Treating Neurological
Conditions



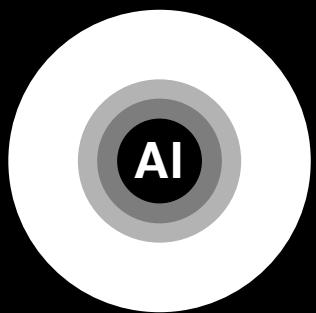
Enhancing Human
Cognition



Human & Technology
Symbiosis



Understanding
the Brain



AI & Human integration

“CLIENTS”

NON-PROFIT



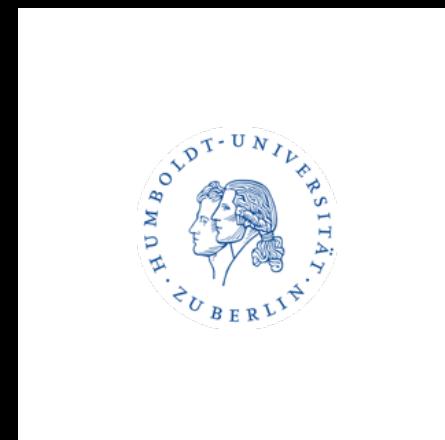
MAX PLANCK
INSTITUTE
OF HUMAN DEVELOPMENT

PRIVATE



NEURALINK

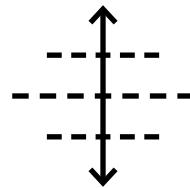
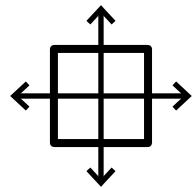
PUBLIC



HUMBOLDT UNIVERSITY
OF BERLIN

PROJECT AMBITIONS

150
BEDS



Specialised = Size

Room for expansion

Public Engagement

Low Threshold

Part of Society

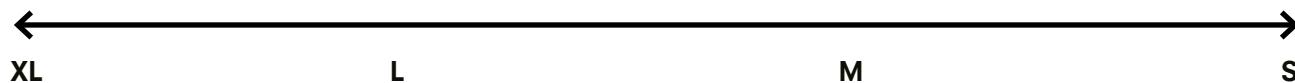
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MAIN RESEARCH QUESTION

**“HOW WILL HUMAN BODY AUGMENTATION
REFLECT CHANGE IN THE HOSPITAL
TYPOLOGY OF THE FUTURE?”**

“WHAT DOES A HOSPITAL ENTAIL?”

CASE STUDIES



PROGRAM BENCHMARKING

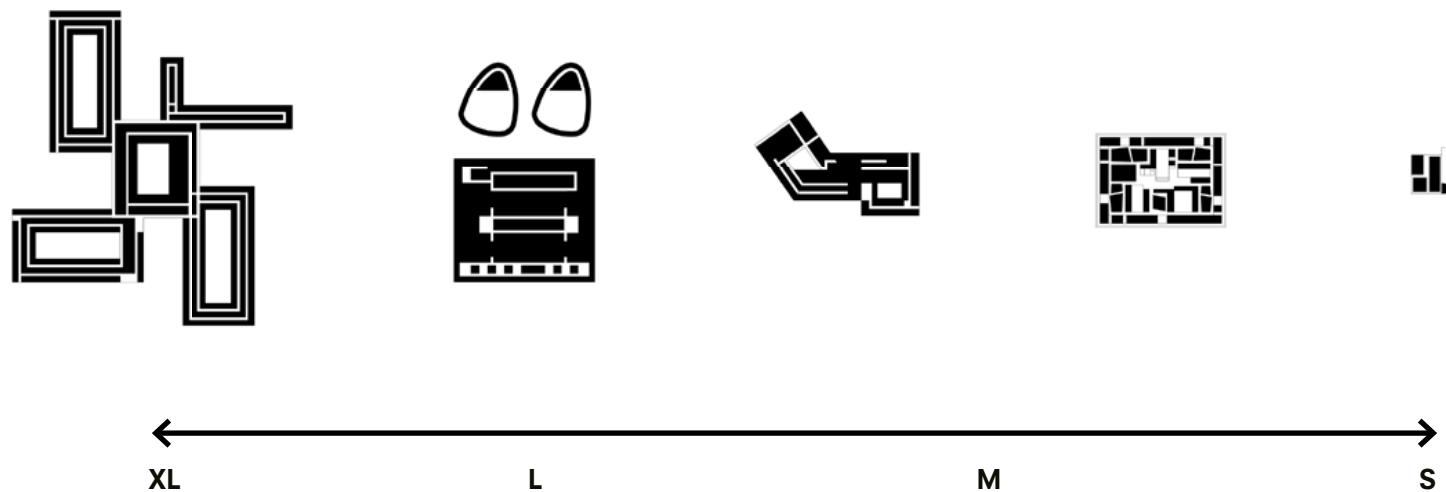
AZ GROENINGE
GFA 125,000 M²
1100 BEDS

REY JUAN CARLOS HOSPITAL
GFA 72,000 M²
260 BEDS

ZAANS MED. CENTRUM
GFA 31,000 M²
299 BEDS

REHAB
GFA 23,221 M²
92 BEDS

UMC IMAGING CENTRE
GFA 15,000 M²
0 BEDS



PROGRAM BENCHMARKING

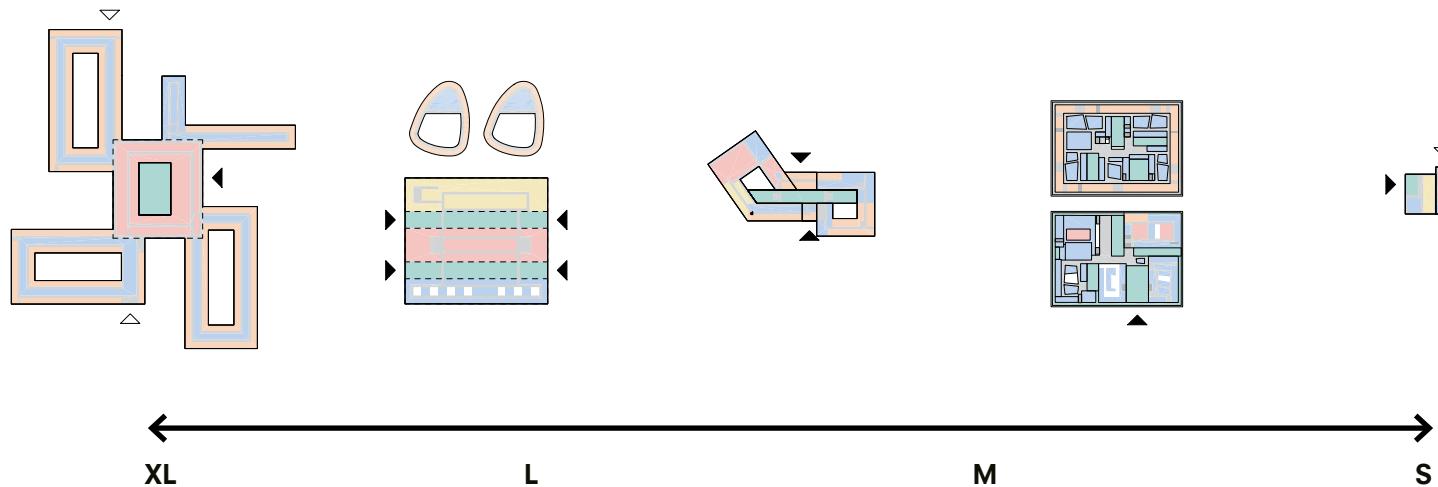
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“HOT FLOOR”

“HOTEL”





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નિક સંસ્કરણ નિકિ

“PUBLIC”





“CIRCULATION”

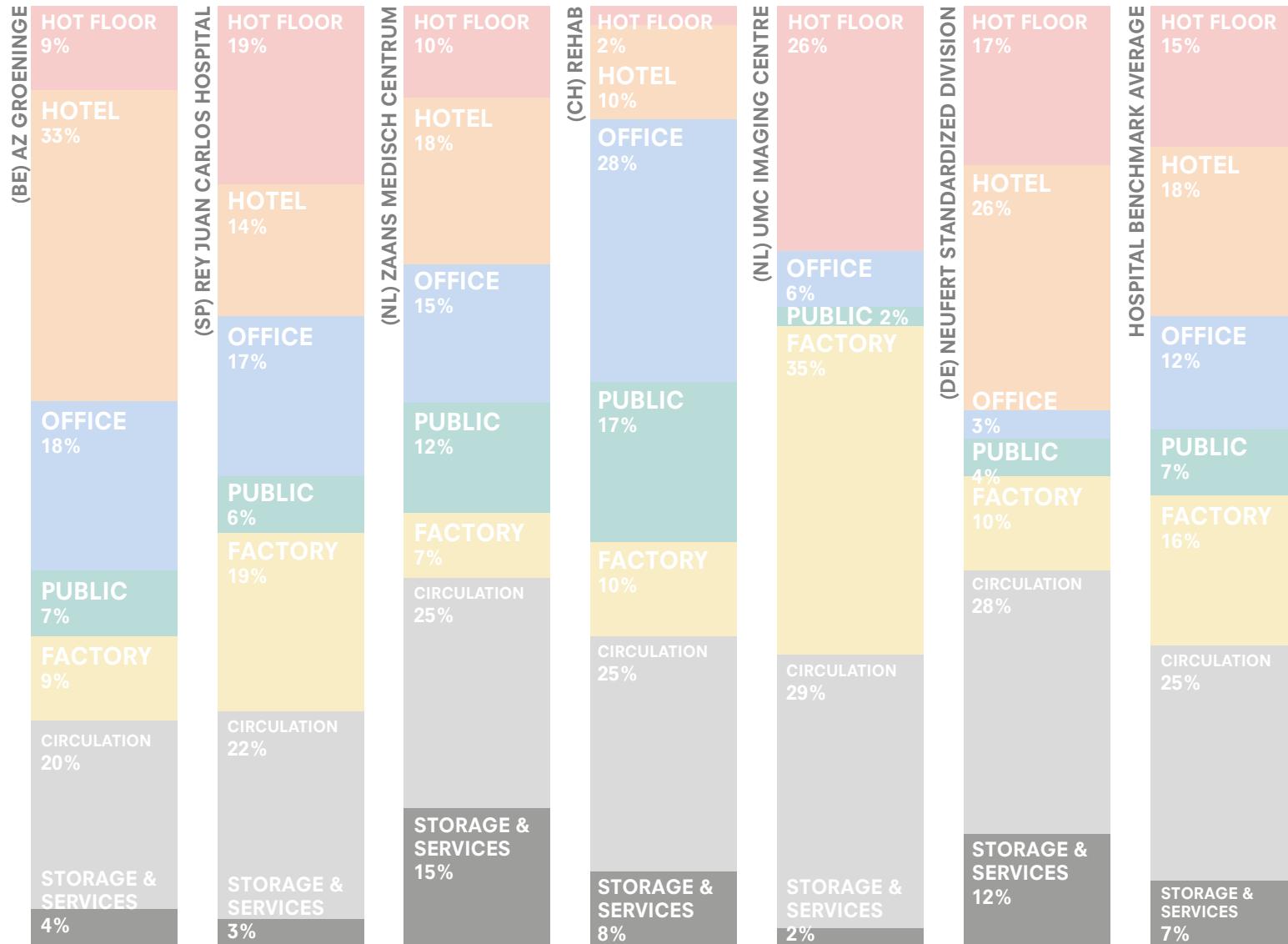


“STORAGE & SERVICES”



“FACTORY”

PROGRAM BENCHMARKING



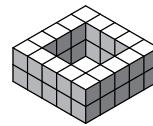
ORGANISATION STRATEGIES

STRUCTURE

CROSS



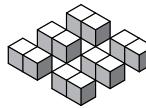
COURTYARD



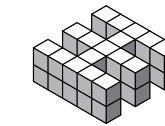
LINE



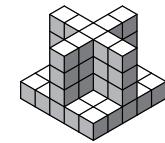
CAMPUS



COMB

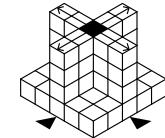
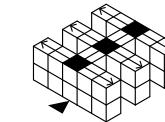
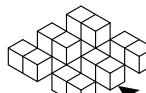
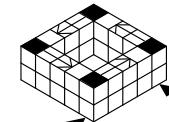
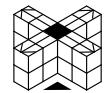
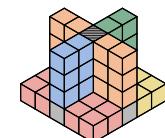
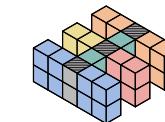
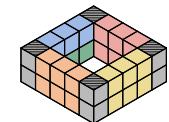
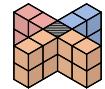


HYBRID



ORGANISATION

FLOWS



MAIN RESEARCH QUESTION

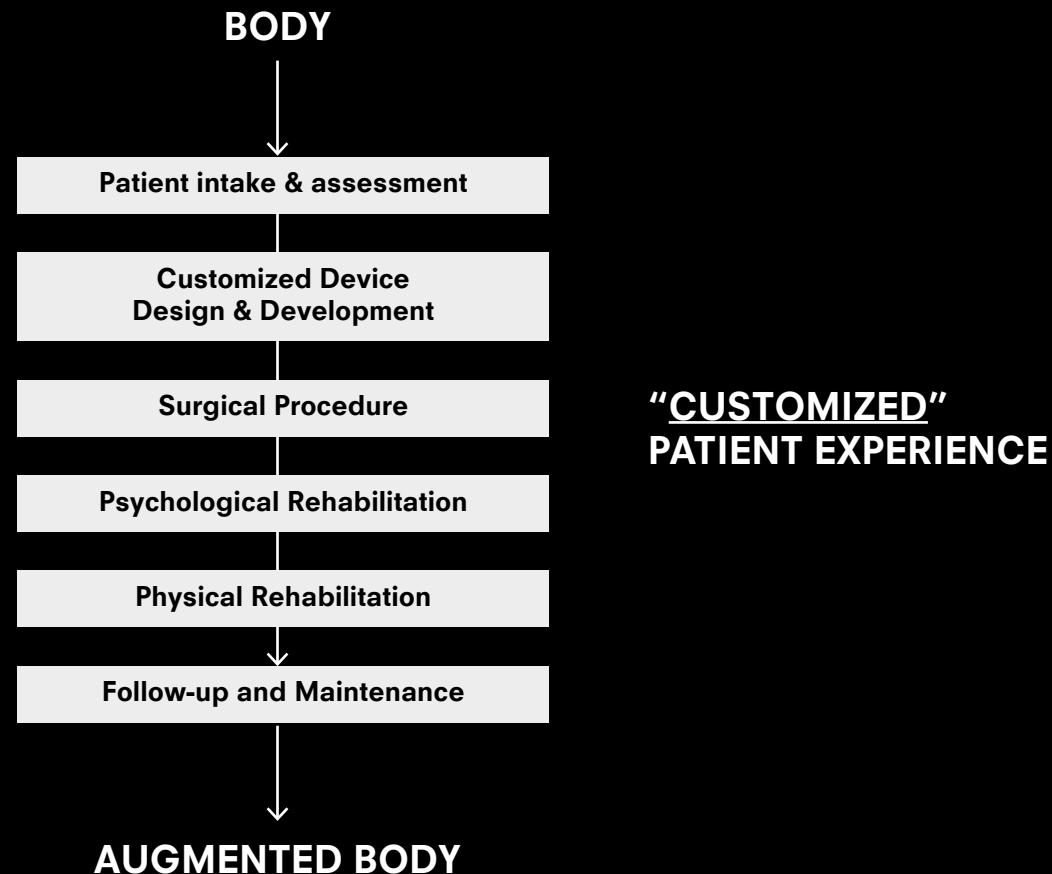
**“HOW WILL HUMAN BODY AUGMENTATION
REFLECT CHANGE IN THE HOSPITAL
TYPOLOGY OF THE FUTURE?“**

“WHAT WILL CHANGE IN THE FUTURE?”

SPECIALIZED FACILITIES AND EQUIPMENT

FROM GENERAL HOSPITAL
TO A SPECIALISED HOSPITAL

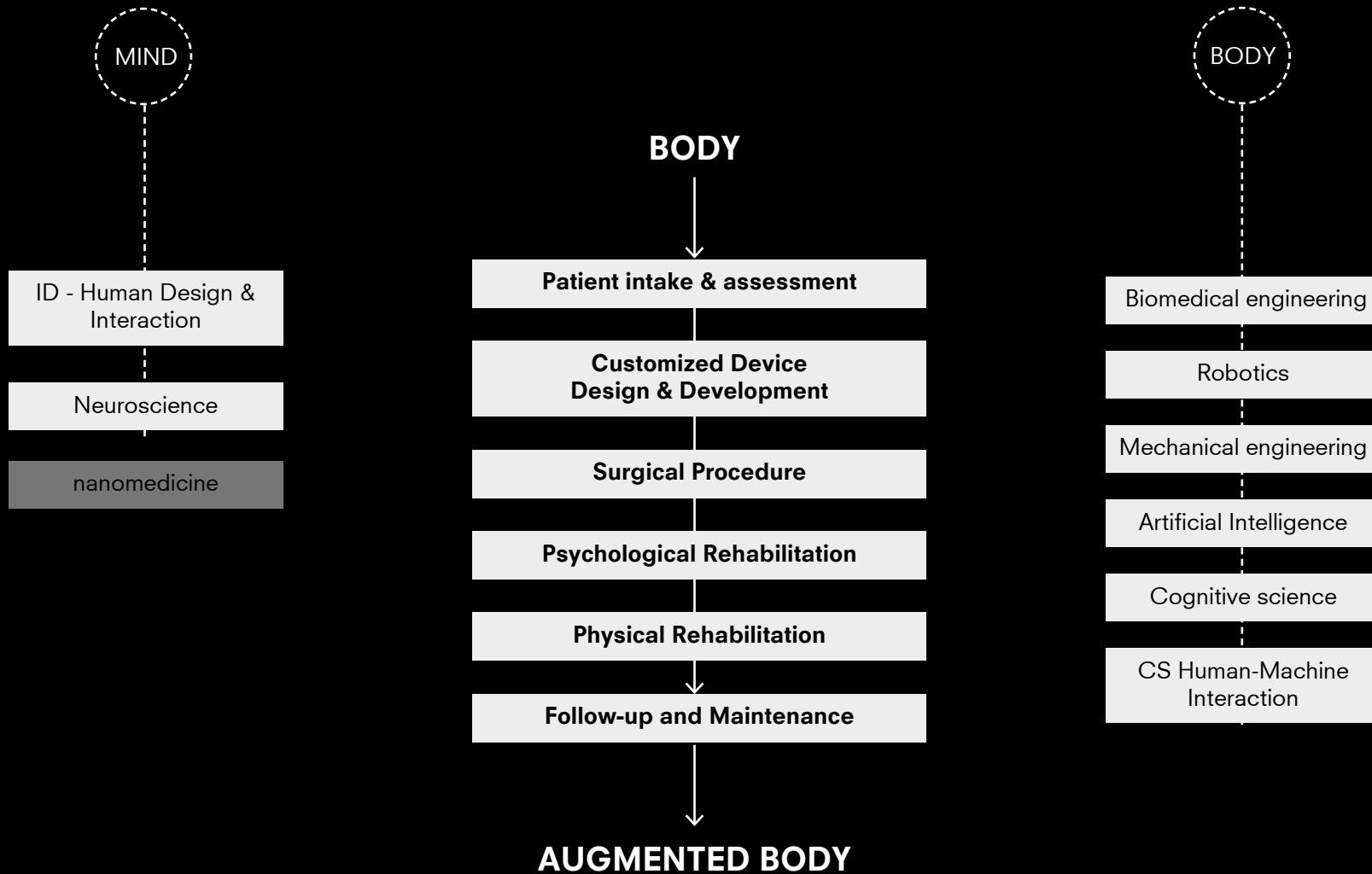
FUSION OF BODY AND MATERIAL



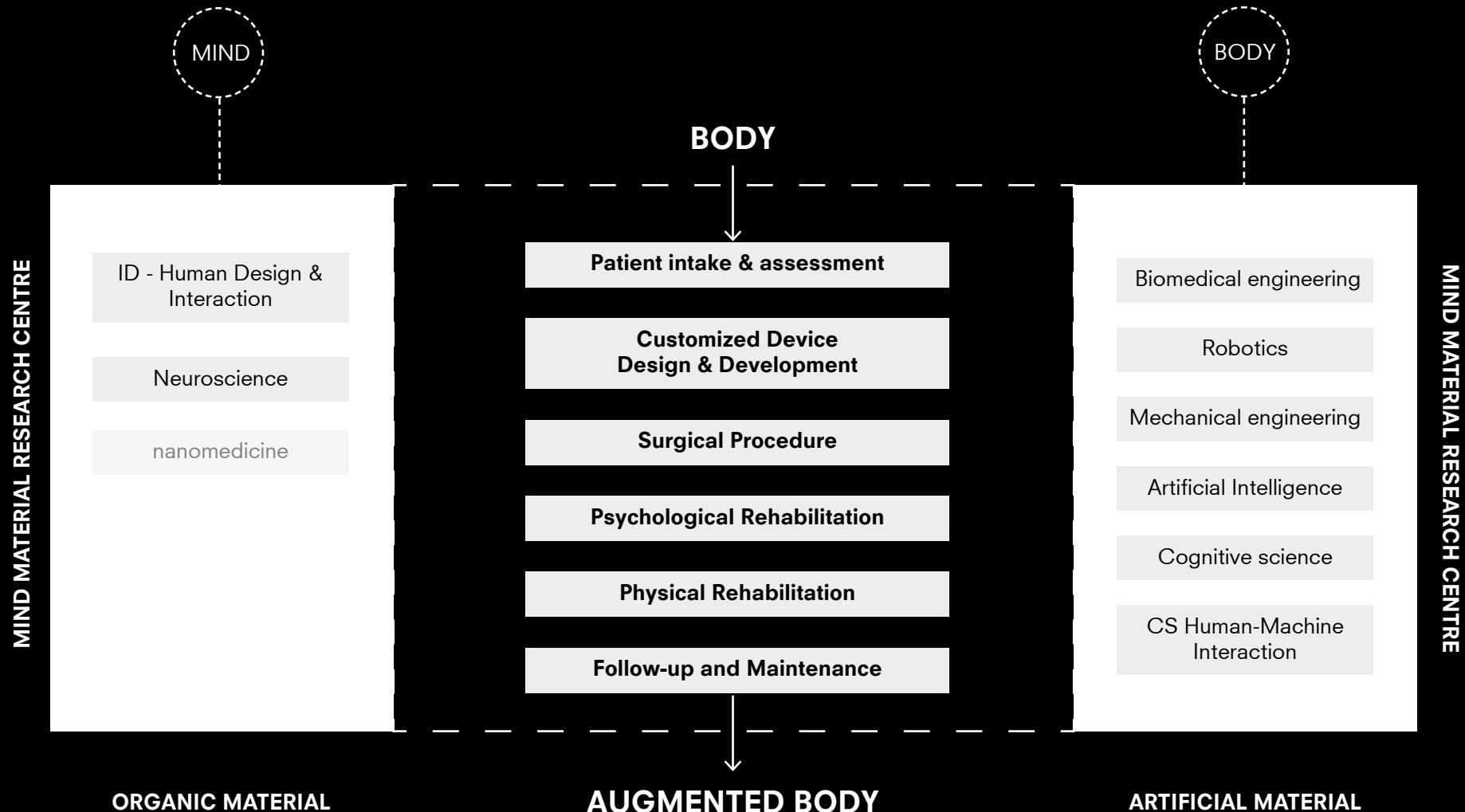
FUSION OF BODY AND MATERIAL

ORGANIC MATERIAL

ARTIFICIAL MATERIAL



FUSION OF BODY AND MATERIAL



INTEGRATION OF RESEARCH AND DEVELOPMENT FACILITIES

AUTOMATION & OPTIMISATION

FROM PASSIVE HOSPITAL TO AN ACTIVE HOSPITAL

AUTOMATION & OPTIMISATION

HOT FLOOR

HOTEL

OFFICE

RESEARCH

PROGRAM

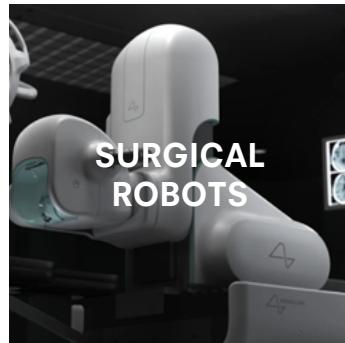
PUBLIC

FACTORY

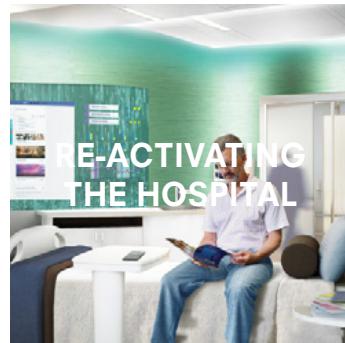
CIRCULATION

STORAGE
& SERVICES

AUTOMATION & OPTIMISATION



SURGICAL
ROBOTS



RE-ACTIVATING
THE HOSPITAL



TELE-HEALTHCARE
DIGITALISATION



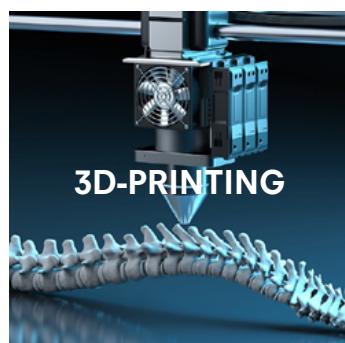
ARTIFICIAL
INTELLIGENCE



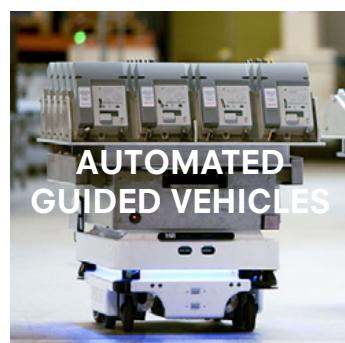
DEVELOPMENTS



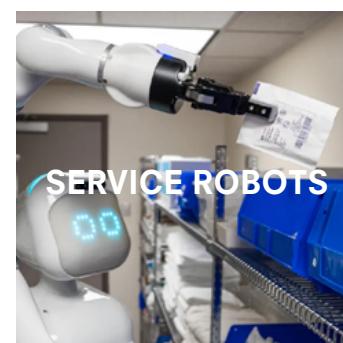
RE-ACTIVATING
THE HOSPITAL



3D-PRINTING



AUTOMATED
GUIDED VEHICLES



SERVICE ROBOTS

AUTOMATION & OPTIMISATION

+ INCREASE OF
OPERATION ROOM SIZE

- DECREASE OF
INPATIENT BEDS

- DECREASE OF
INPATIENT BEDROOM
SIZE

- DECREASE OF
WAITING AREAS AND
PRIVATE OFFICE
SPACE

+ INCREASE IN
BACK OF HOUSE

- DECREASE IN
FRONT OF HOUSE

SPATIAL

+ INCREASE OF
SHARED AND PUBLIC
SPACE

+ INCREASE IN
WORKSHOP AND
PRODUCTION AREA

+ SEPERATED
CIRCULATION
FOR HUMAN AND
AUTOMATED FLOWS

- DECREASE OF
STORAGE AREA

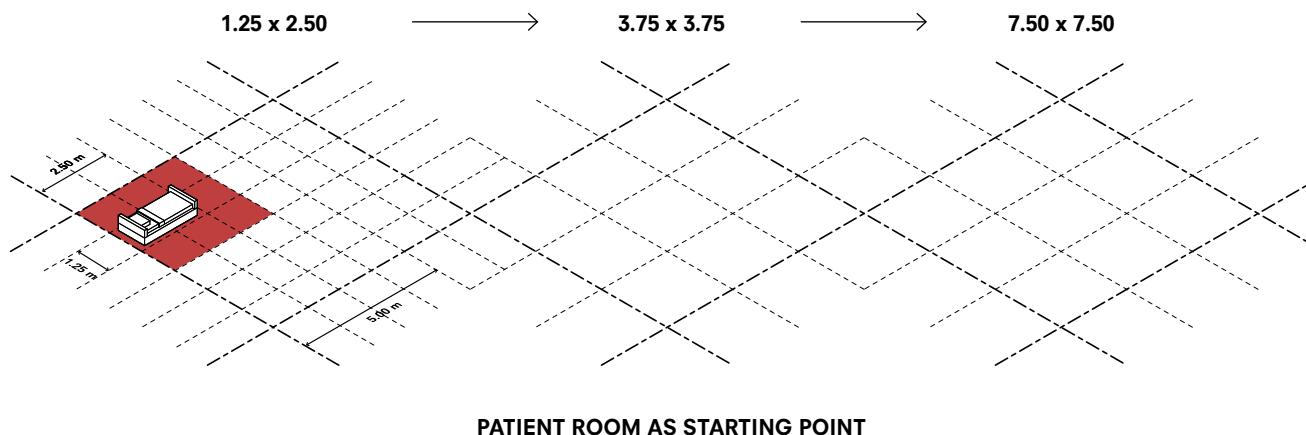
AUTOMATION & OPTIMISATION

FROM PASSIVE HOSPITAL TO A FLEXIBLE HOSPITAL STRUCTURE

SUB-RESEARCH QUESTION

“HOW CAN WE CREATE A LIVING HOSPITAL STRUCTURE, THAT CAN GROW, UPGRADE, AND GET AUGMENTED THROUGH TIME?”

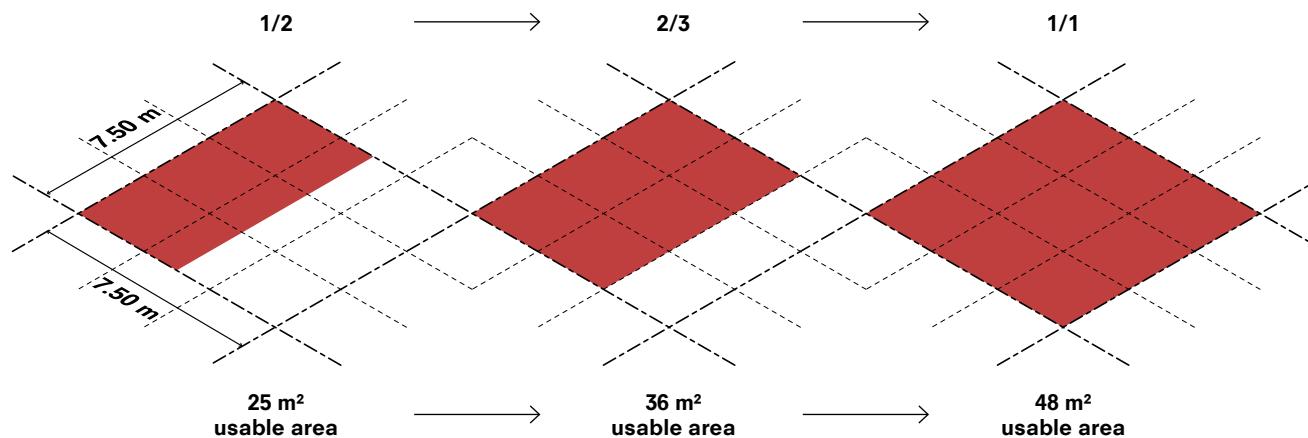
MODULAR GRID



7.5 X 7.5 MODULE

NICKL-WELLER, C., & NICKI, H. (2021). ARCHITECTURE FOR HEALTH.

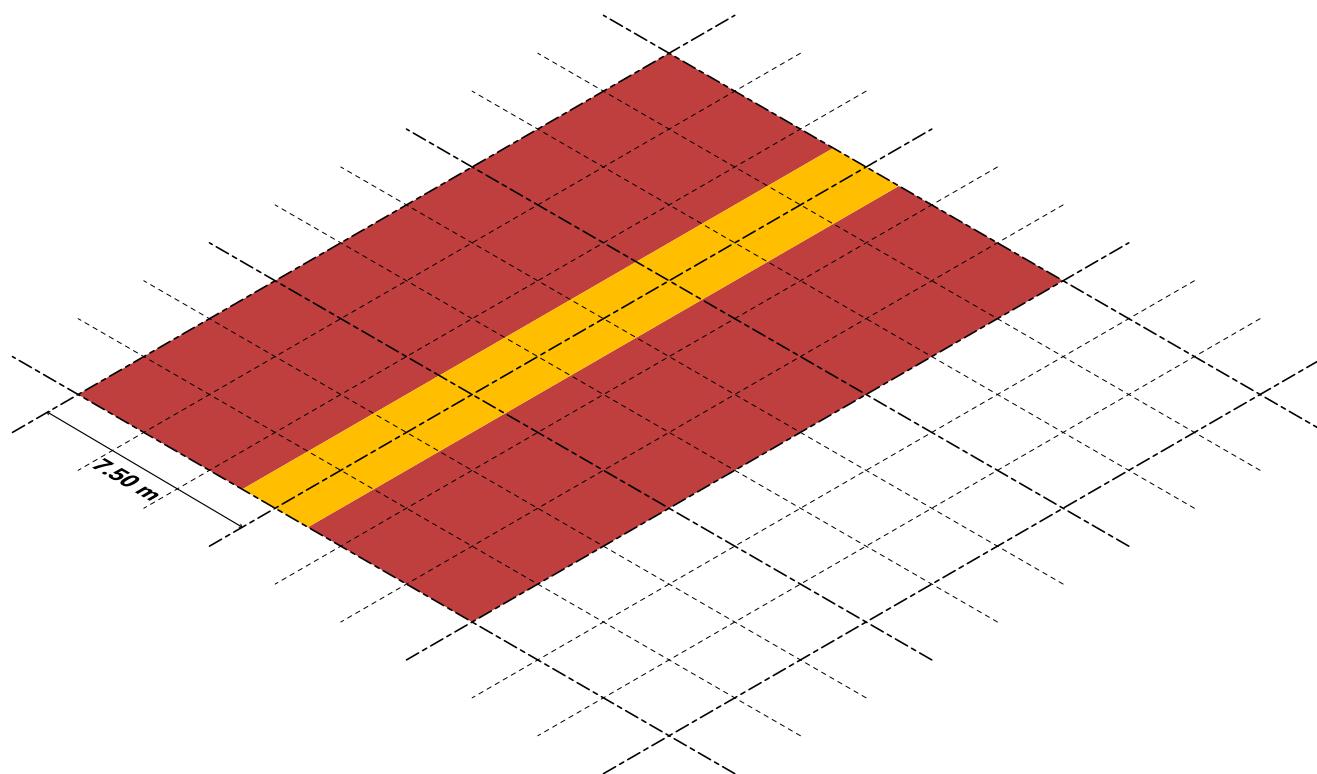
MODULAR GRID



MODULAR SIZING ORDER

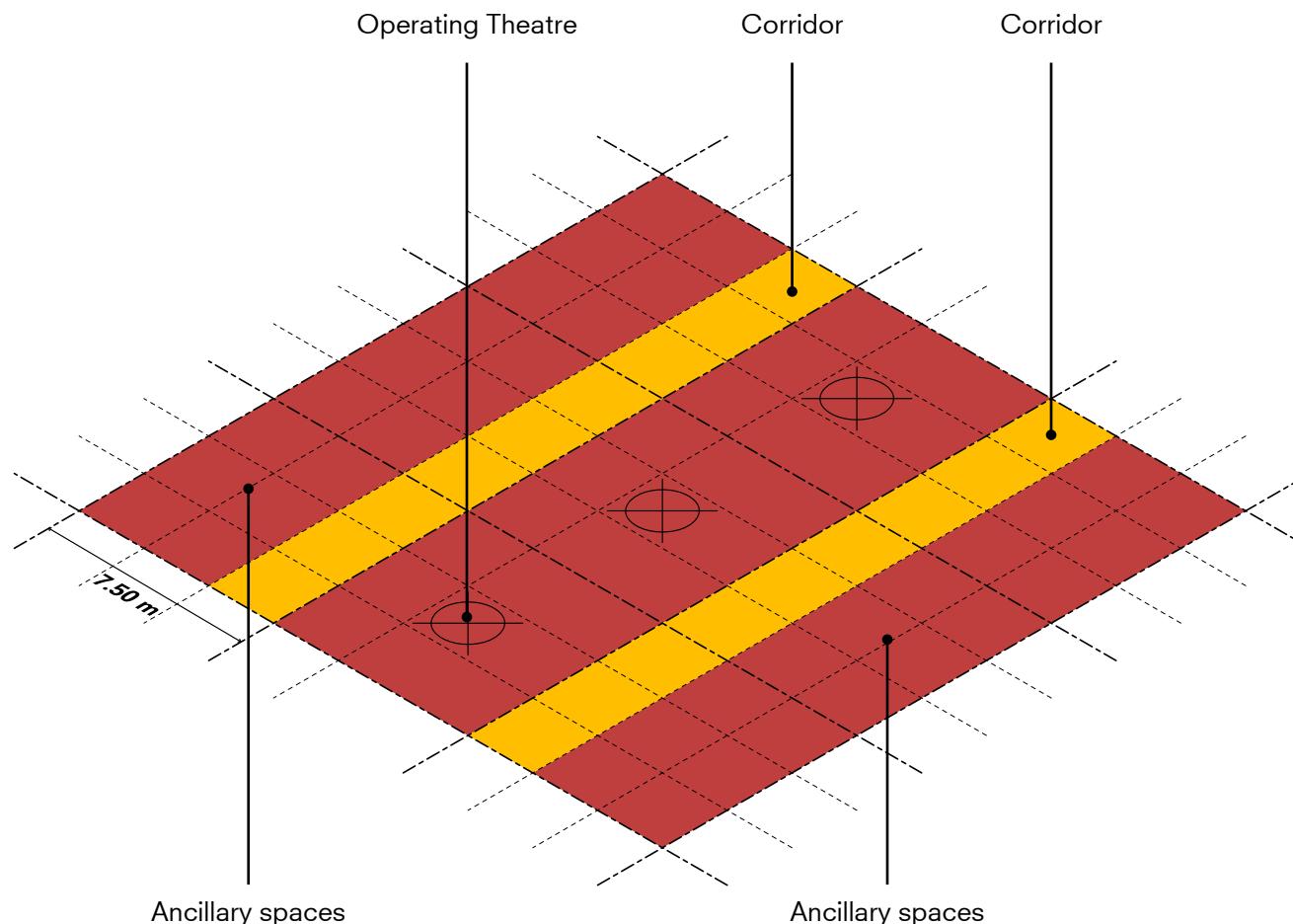
NICKL-WELLER, C., & NICKI, H. (2021). ARCHITECTURE FOR HEALTH.

MODULAR GRID



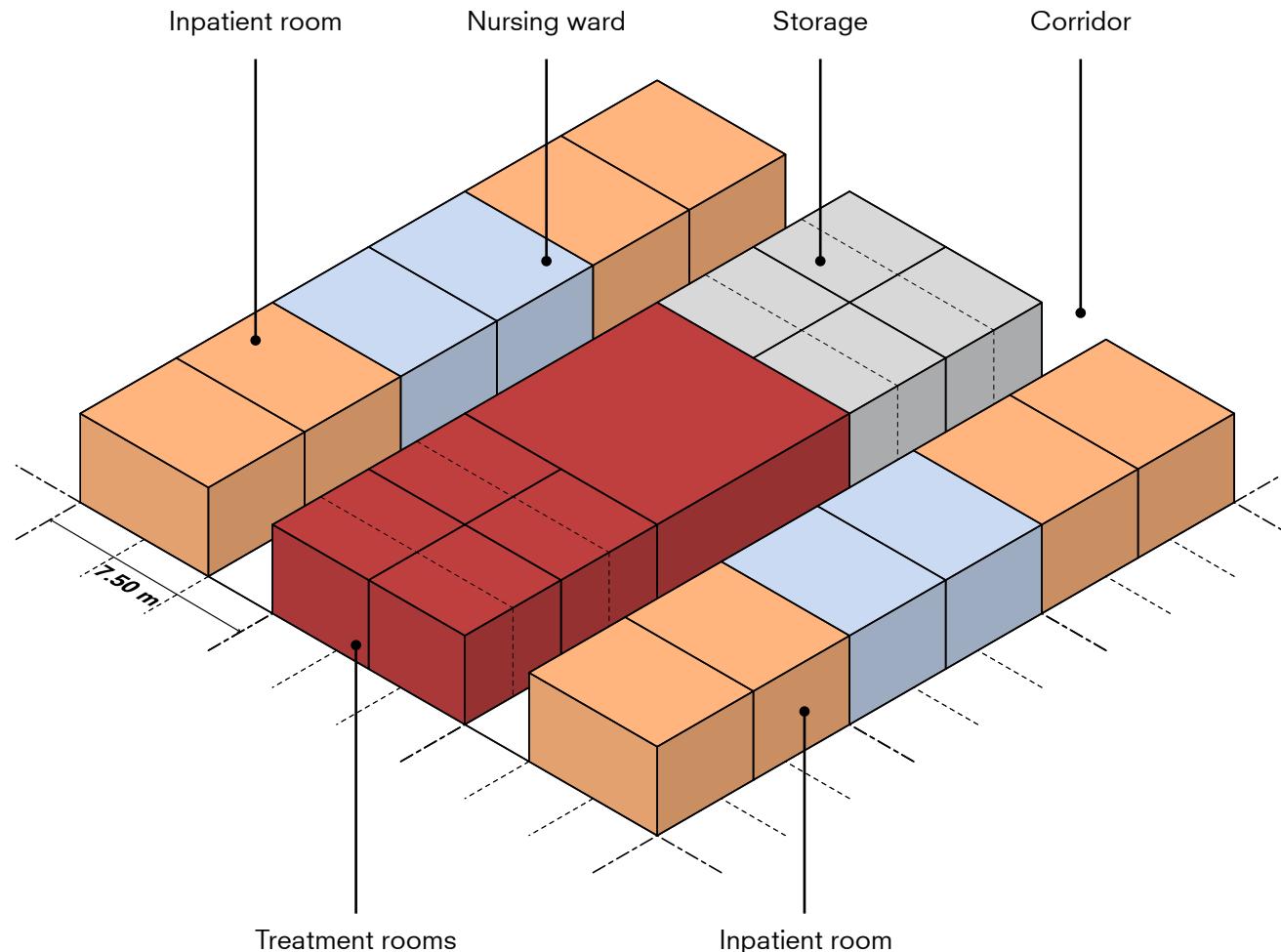
INPATIENT DEPARTMENT - 15M WIDE

MODULAR GRID



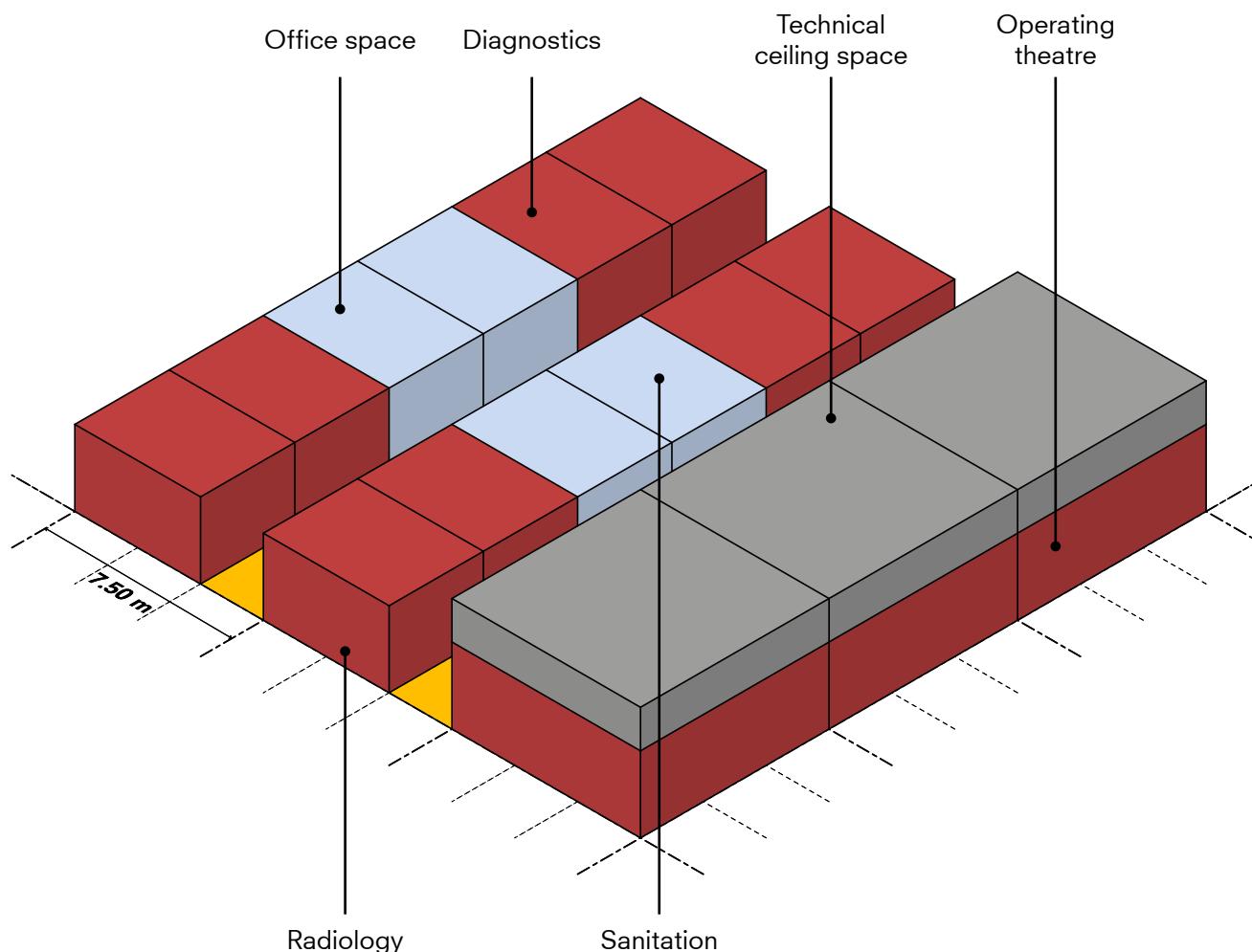
HOT FLOOR - 22,5M WIDE

MODULAR GRID



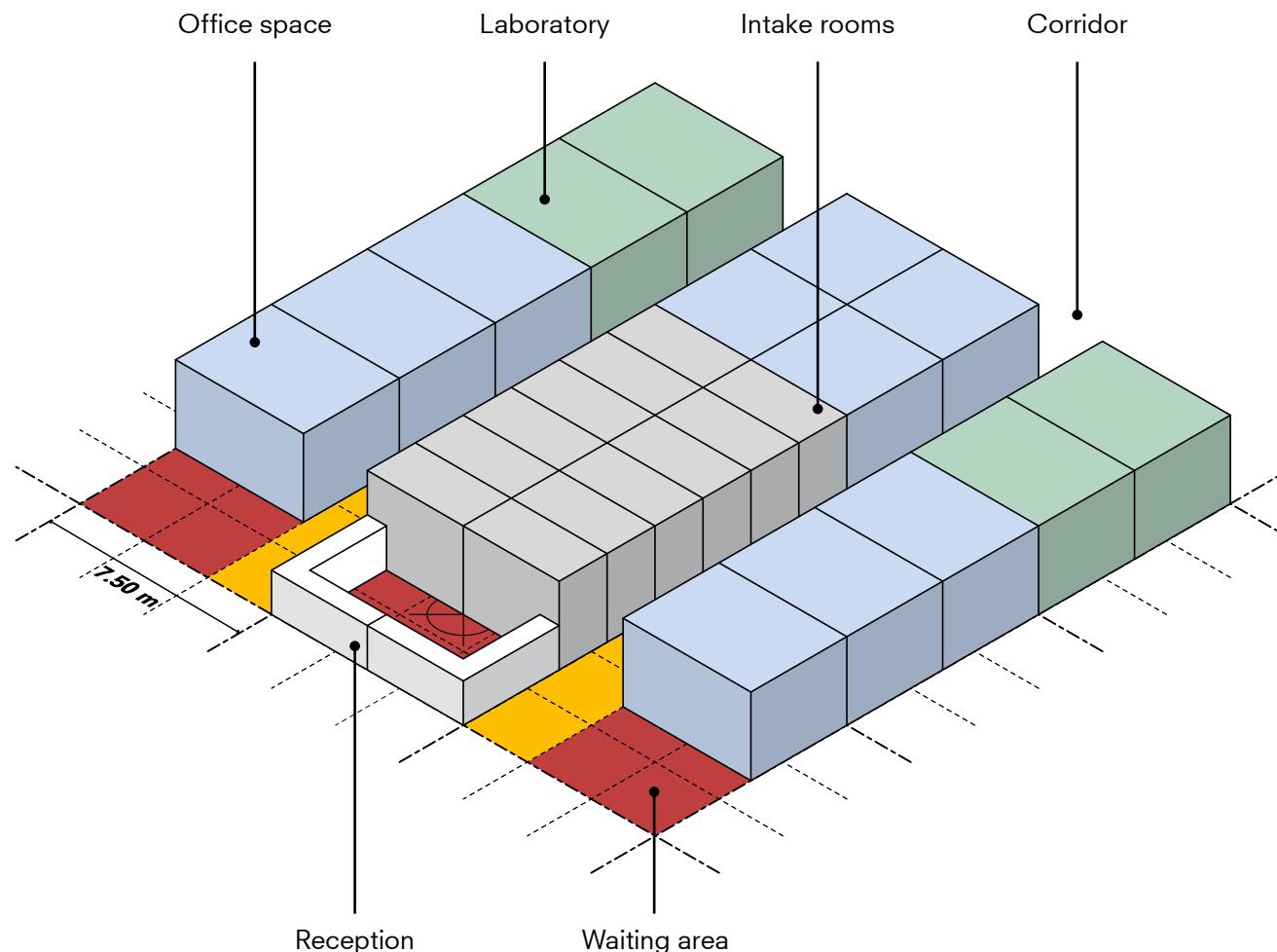
HOTEL - INTENSIVE CARE DEPARTMENT

MODULAR GRID



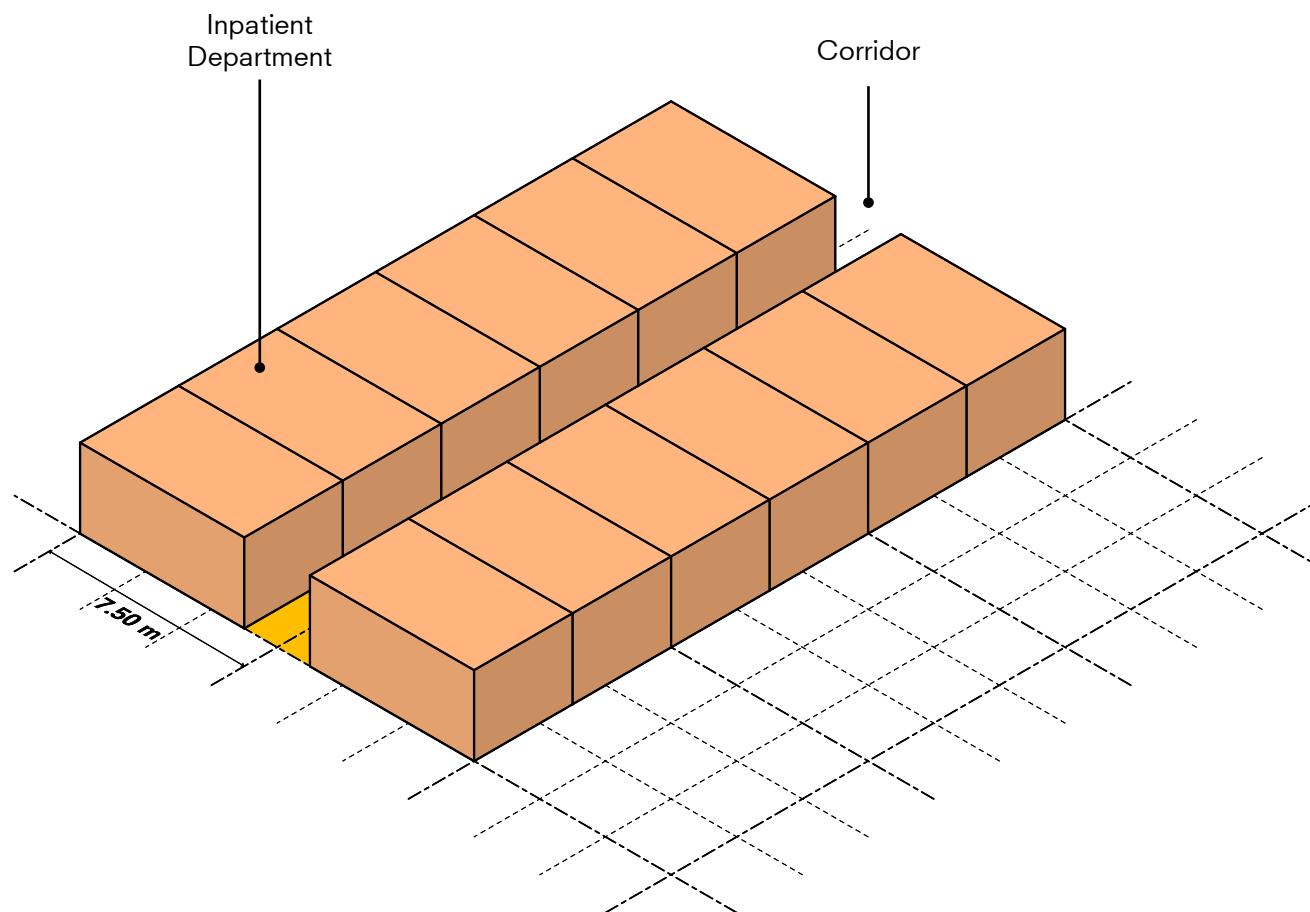
HOT FLOOR - DIAGNOSTICS & OPERATION

MODULAR GRID



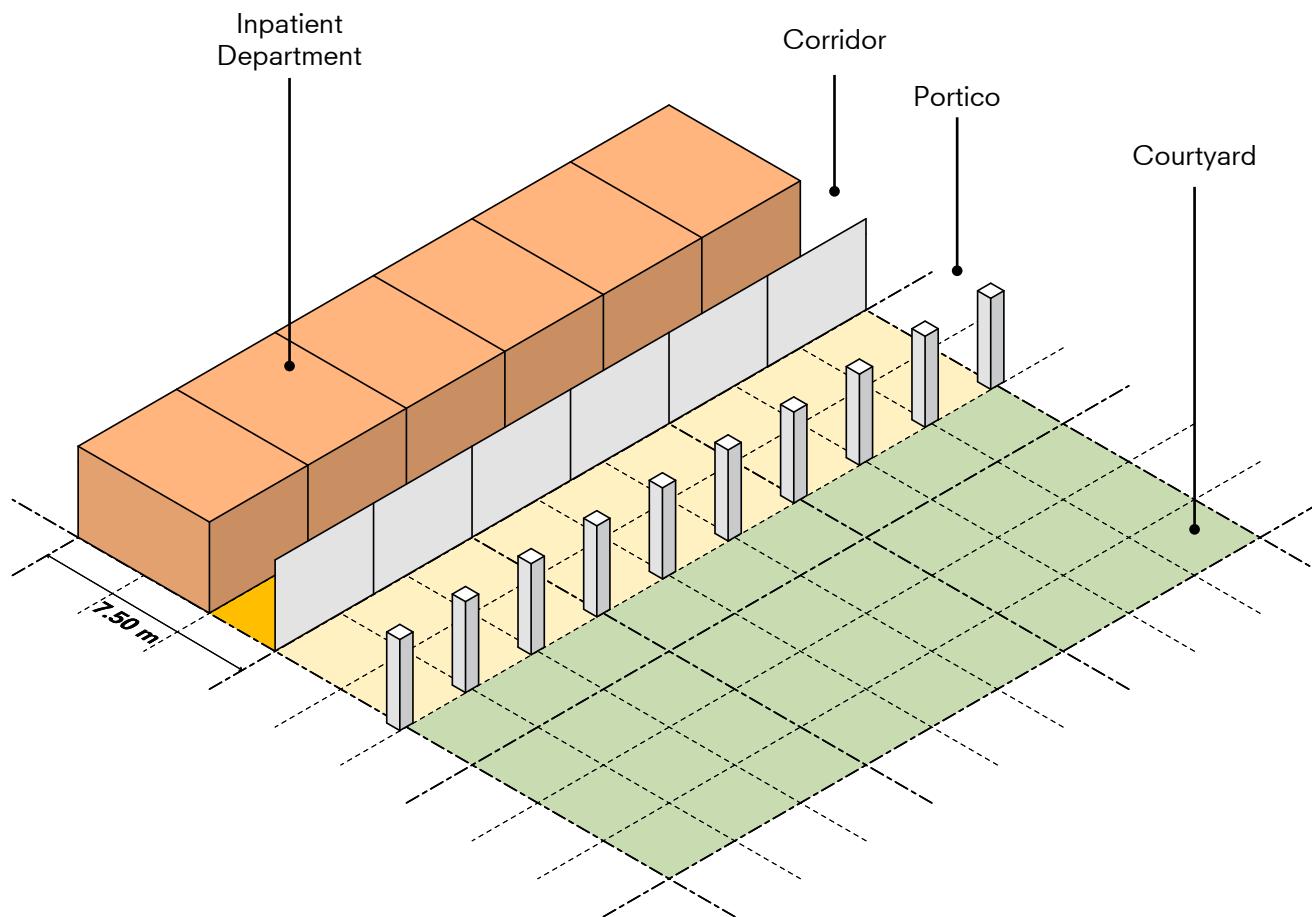
OFFICE - OUTPATIENT DEPARTMENT

MODULAR GRID



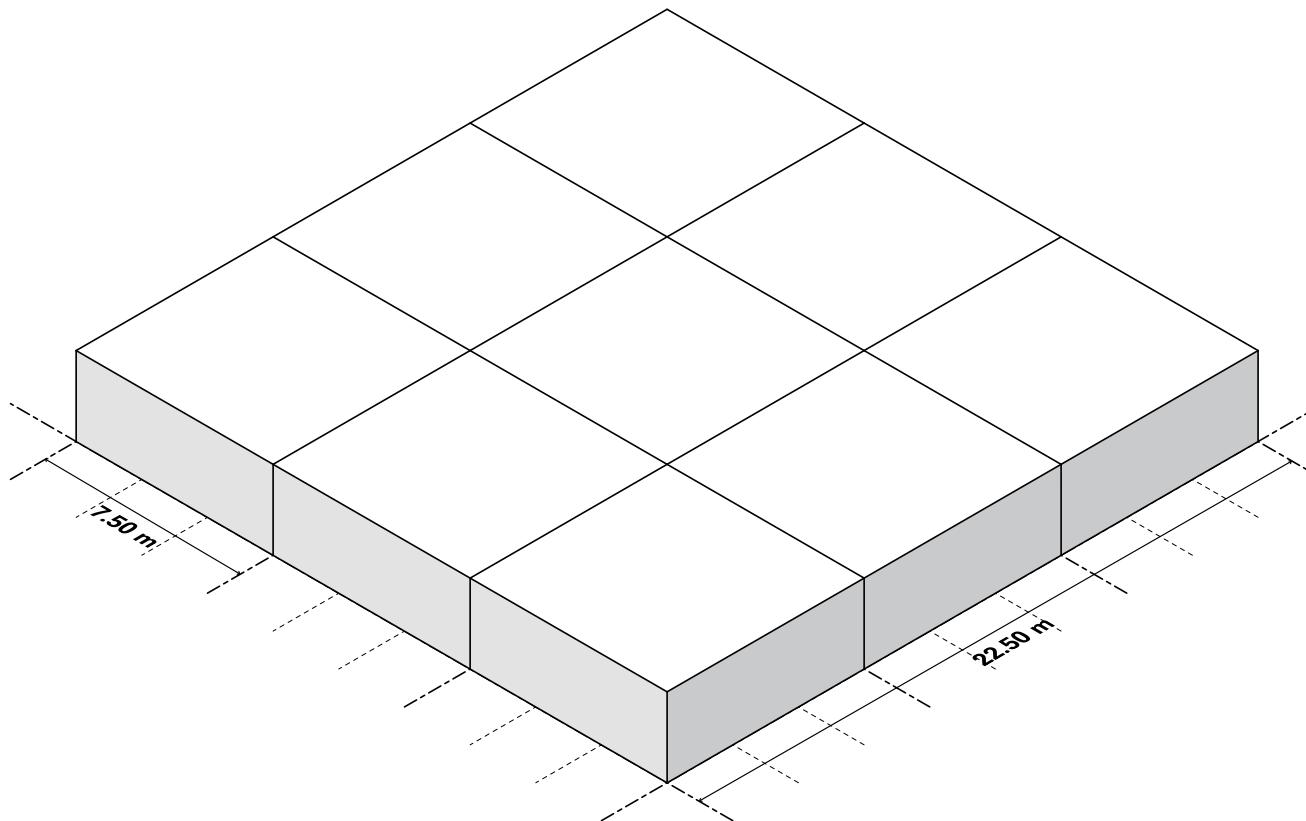
HOTEL - INPATIENT DEPARTMENT

MODULAR GRID



INPATIENT DEPARTMENT - COURTYARD

MODULAR GRID



STANDARDISED MODULE 7.50 X 7.50 / 22.50 X 22.50

REDEFINING THE IMAGE

FROM A CLOSED HOSPITAL
TO AN OPEN HOSPITAL

PROGRAM BENCHMARKING

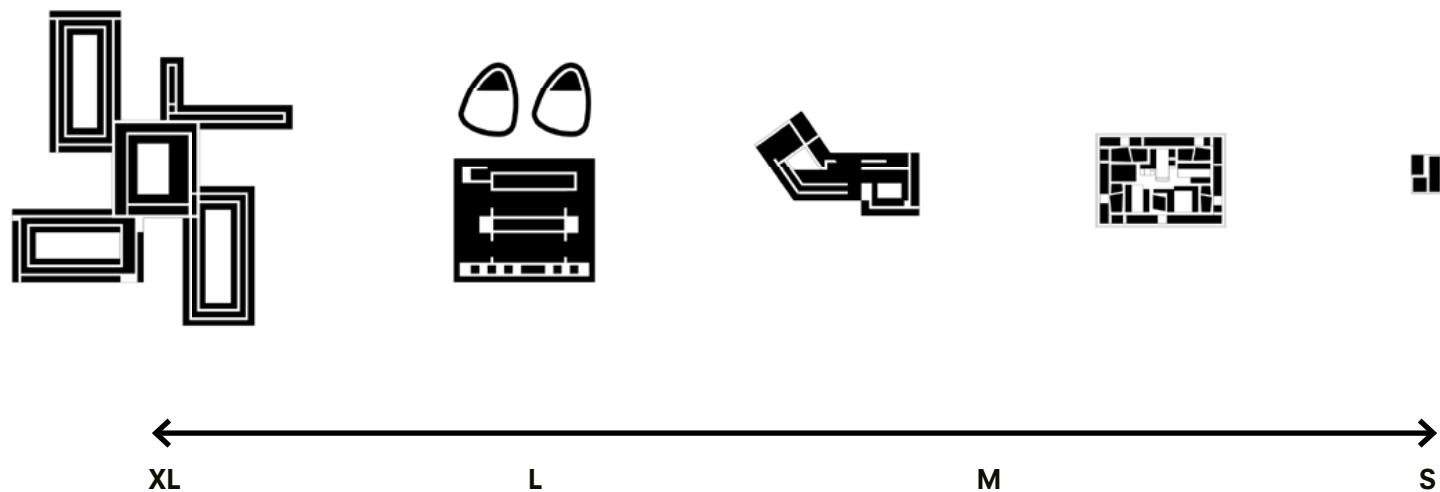
AZ GROENINGE
GFA 125,000 M²
1100 BEDS

REY JUAN CARLOS HOSPITAL
GFA 72,000 M²
260 BEDS

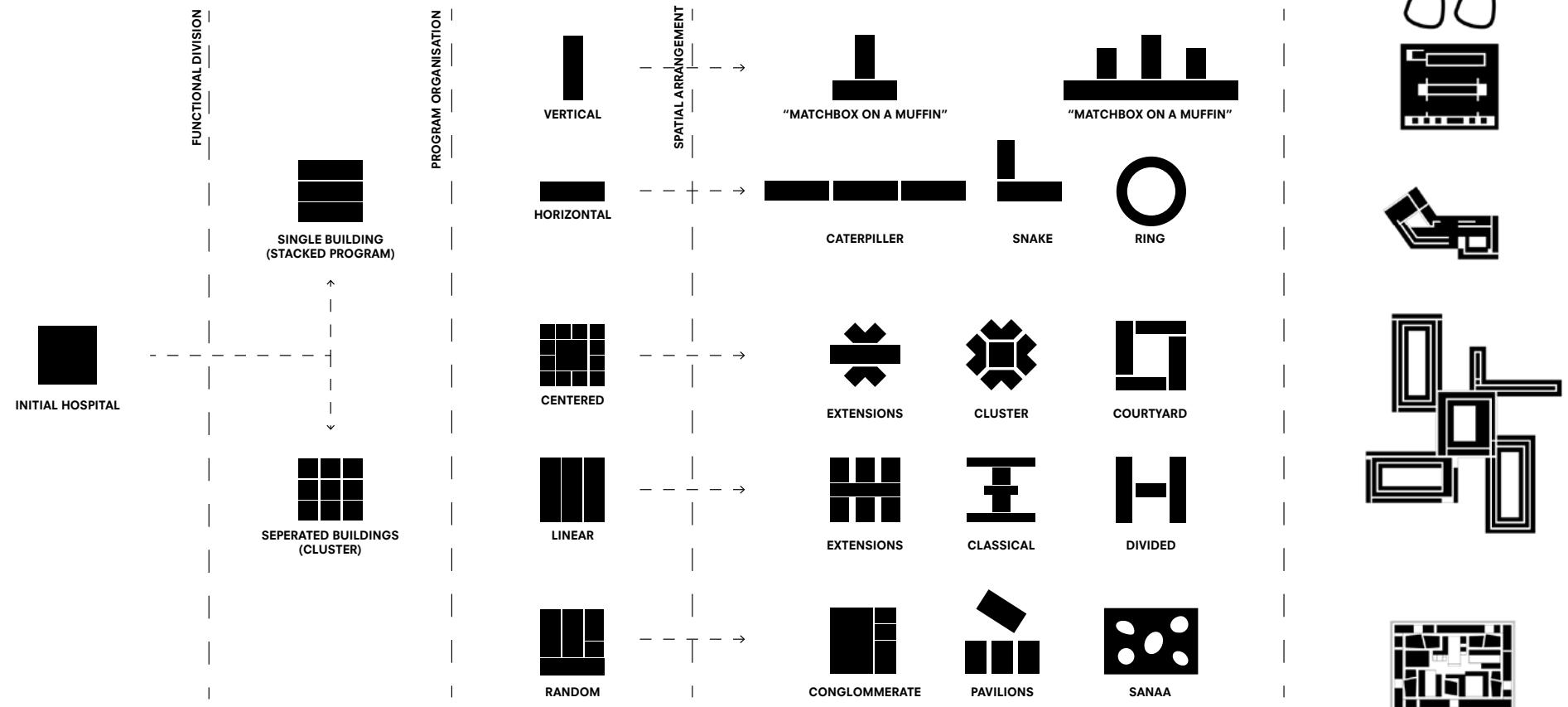
ZAANS MED. CENTRUM
GFA 31,000 M²
299 BEDS

REHAB
GFA 23,221 M²
92 BEDS

UMC IMAGING CENTRE
GFA 15,000 M²
0 BEDS



ORGANISATION STRATEGIES



THE ARCHITECTURE OF HOSPITALS, COR WAGENAAR (2006)

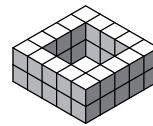
ORGANISATION STRATEGIES

STRUCTURE

CROSS



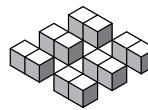
COURTYARD



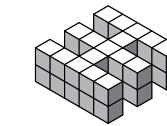
LINE



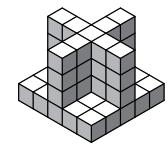
CAMPUS



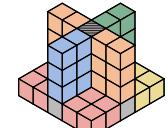
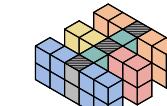
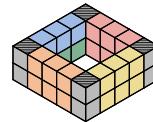
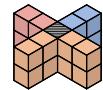
COMB



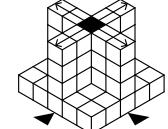
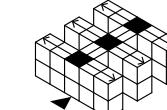
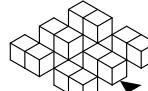
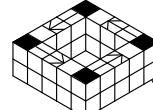
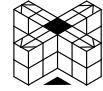
HYBRID



ORGANISATION



FLOWS



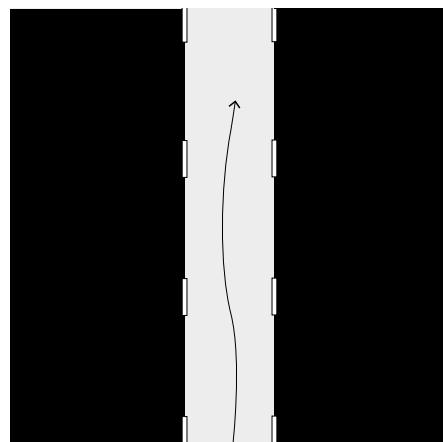
NICKL-WELLER, C., & NICKI, H. (2021). ARCHITECTURE FOR HEALTH. BRAUN PUBLISHING.

REDEFINING THE IMAGE

**FROM A HOSPITAL FOR ONLY PATIENTS TO
A HOSPITAL FOR SOCIETY**

REDEFINING THE STANDARD - CIRCULATION

“THE STANDARD”



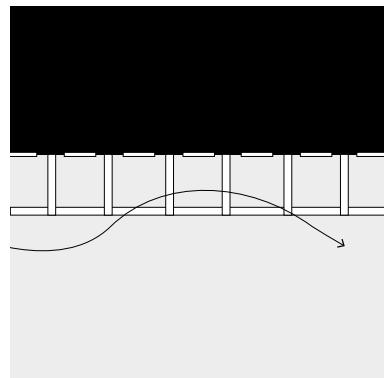
CORRIDOR

[2.25 - 3.00 M WIDE]

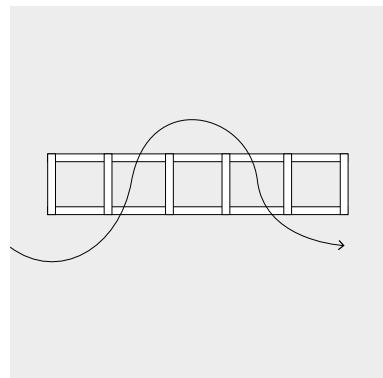
CONCLUSION #1

RE-DEFINE PUBLIC SPACE

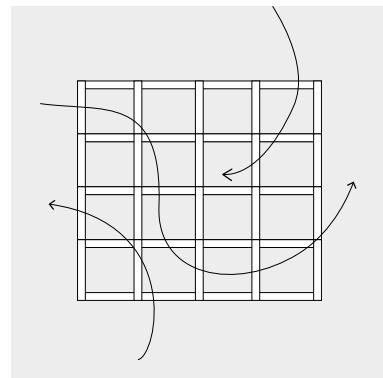
PUBLIC TRANSITION SPACES



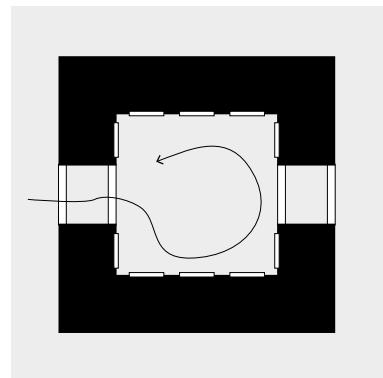
PORTICO



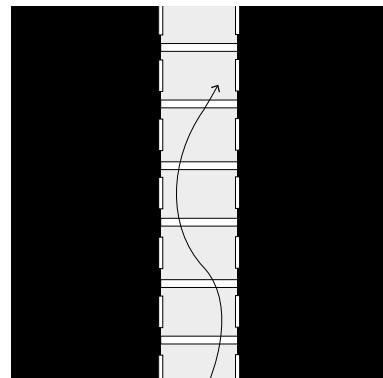
LOGGIA



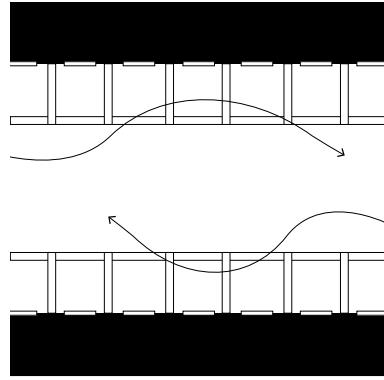
COVERED SQUARE



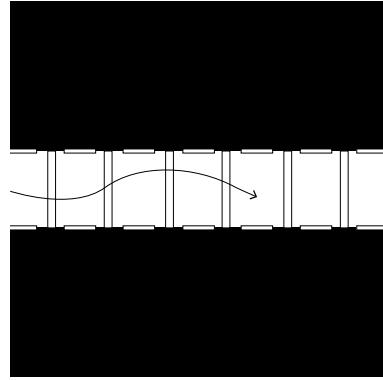
URBAN COURTYARD



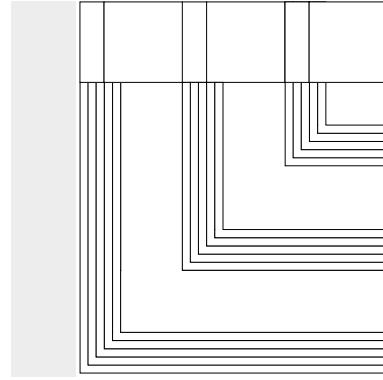
GALLERY



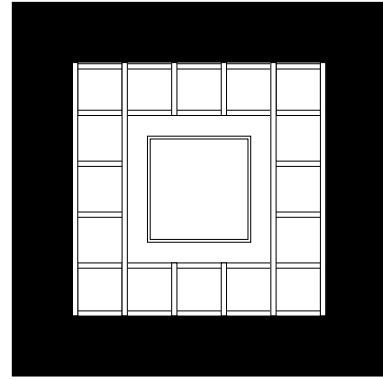
STREET



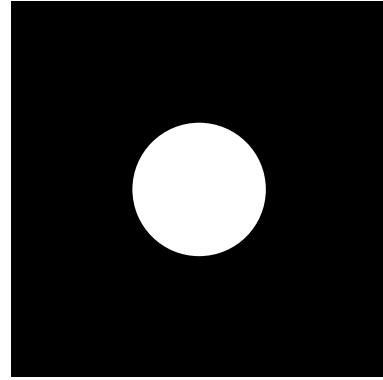
BRIDGE



STAIRS



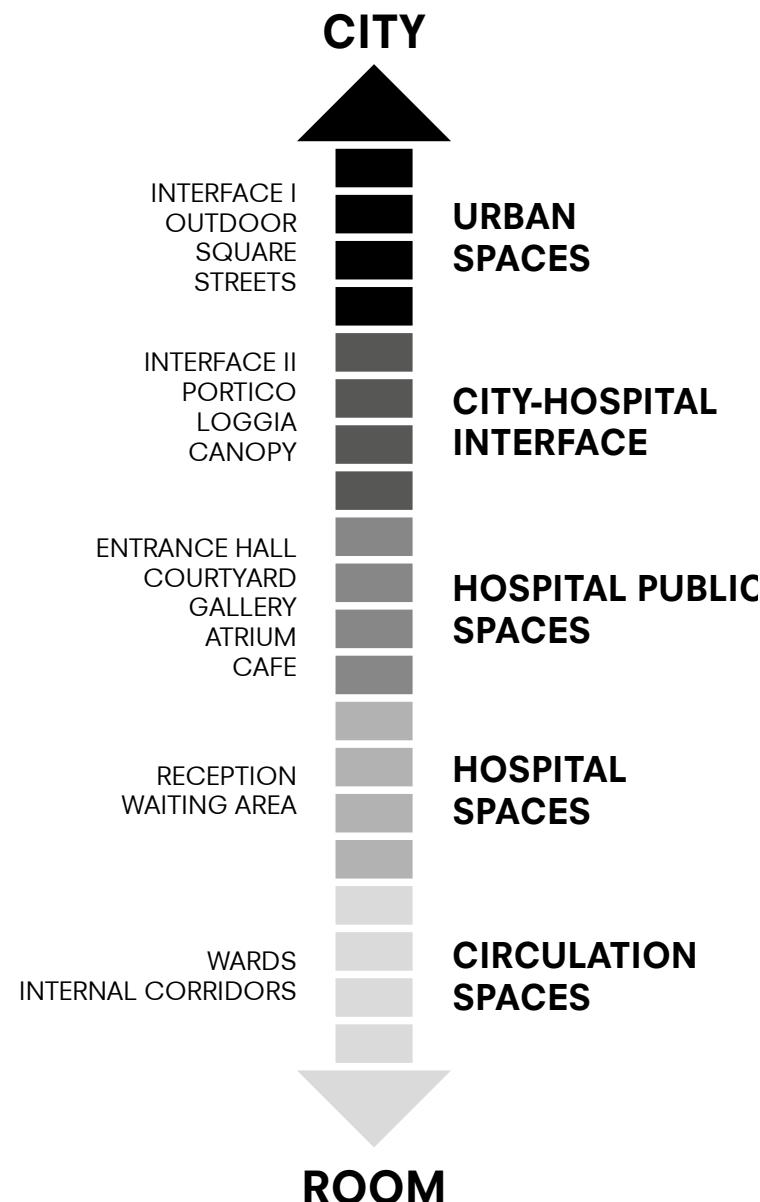
GREEN COURTYARD



URBAN TERRACE

THE ARCHITECTURE OF PUBLIC SPACE (2023)
MARIA CLAUDIA CLEMENTE, FRANCESCO ISIDORI

PUBLIC SPACE AS TRANSITION SPACE

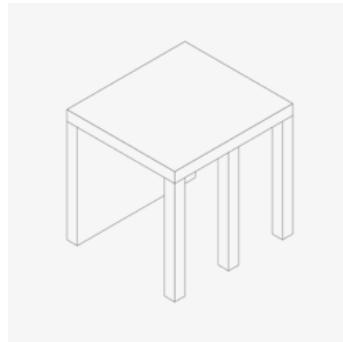


DESIGNING PUBLIC SPACES IN HOSPITALS - NICOLETTA SETOLA, SABRINA BORGIANNI (2016)

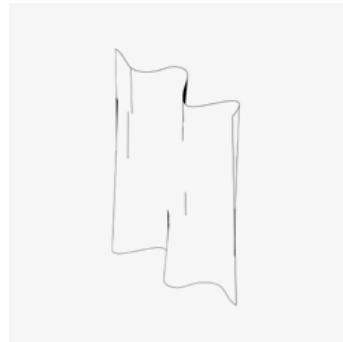
ARCHITECTURAL THRESHOLDS



fence



portico



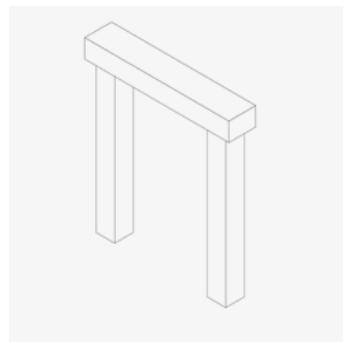
curtain



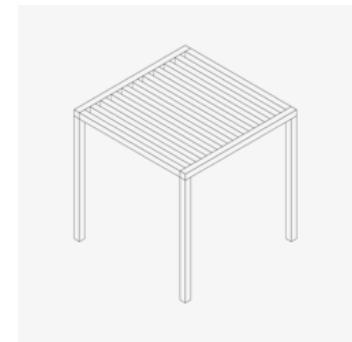
door



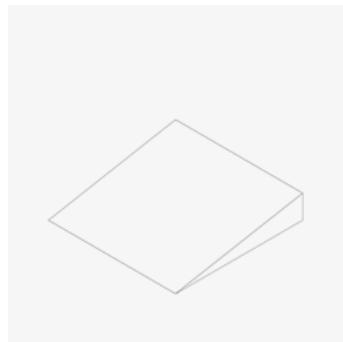
+ more



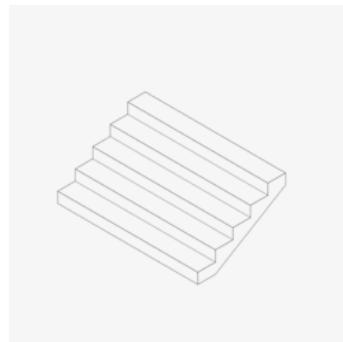
gateway



pergola



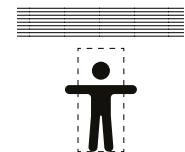
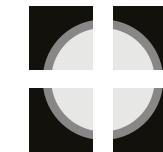
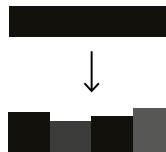
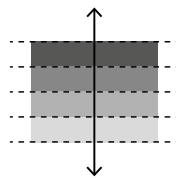
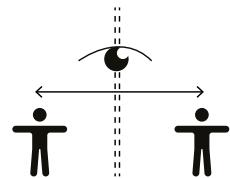
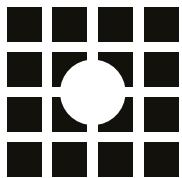
slope



stairs

BUILDING ACCESSIBILITY

A pattern language: towns, buildings, construction - relevant patterns



#106 - Positive Outdoor Space

The design of intentional outdoor space, that invites the public through natural extensions of the sidewalk or street, where the thresholds are formed by the building itself, landscaping, or street furniture.

#162 - Street Windows

To facilitate interaction between indoor and outdoor activities on the street, street windows need to facilitate transparency, which can stimulate interest and engagement between the interior and exterior world.

#112 - Entrance Transition

Creating a transition area between the street and the building's interior helps ease the movement from public to private space and can make the entrance more inviting. This can be achieved through architectural elements like a recessed doorway, a canopy, steps, or different pavement materials.

#136 - Building Fronts

This principle focuses on how the front of the building interacts with the public space. A continuous and engaging front can define the street edge and contribute to a sense of security and comfort for pedestrians. Variations in depth and height can add interest and break the monotony, making the facade more dynamic.

#150 - Activity Pockets

Niches or small semi-public spaces within the plinth can encourage people to stop, sit, and interact. The pockets could include features like benches, display windows, art, installations, or greenery.

#204 - Human Scale

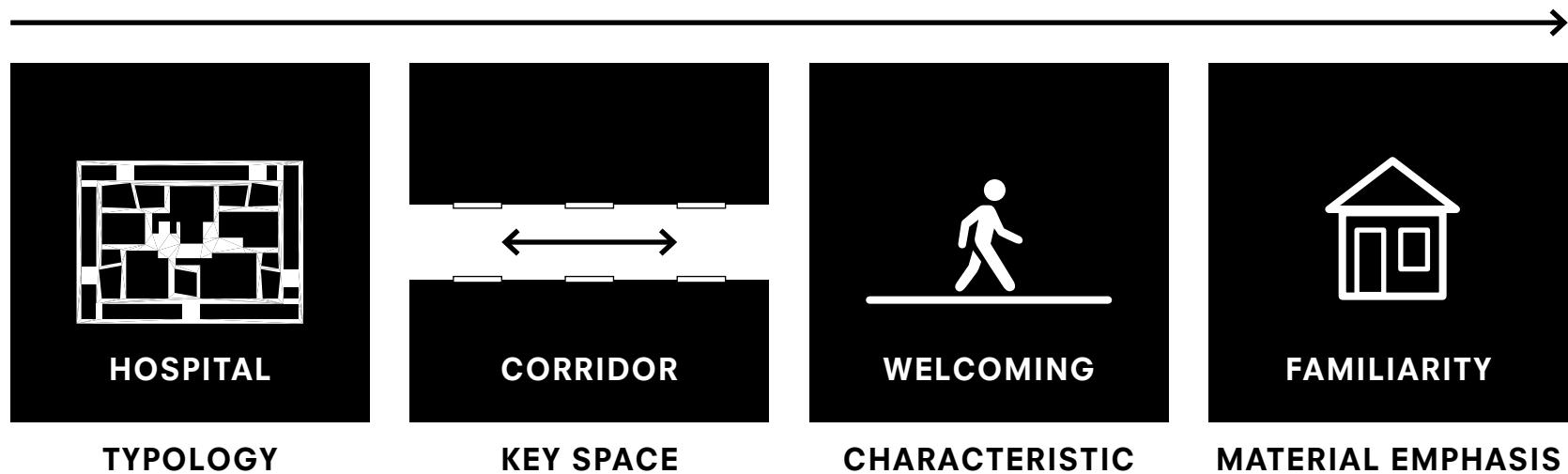
By considering the scale and size of architectural elements like doorways, windows, and other details, the principle of human scale can be taken into account to ensure that they are relatable to that of the human body. Textures, materials, and elements visible at eye level should be refined and engaging to draw people in and make the public space more vibrant and interactive.

Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., & Angel, S. (1977). A pattern language: towns, buildings, construction (Vol. 1, Issue 5). <https://ci.nii.ac.jp/ncid/BA00163982>

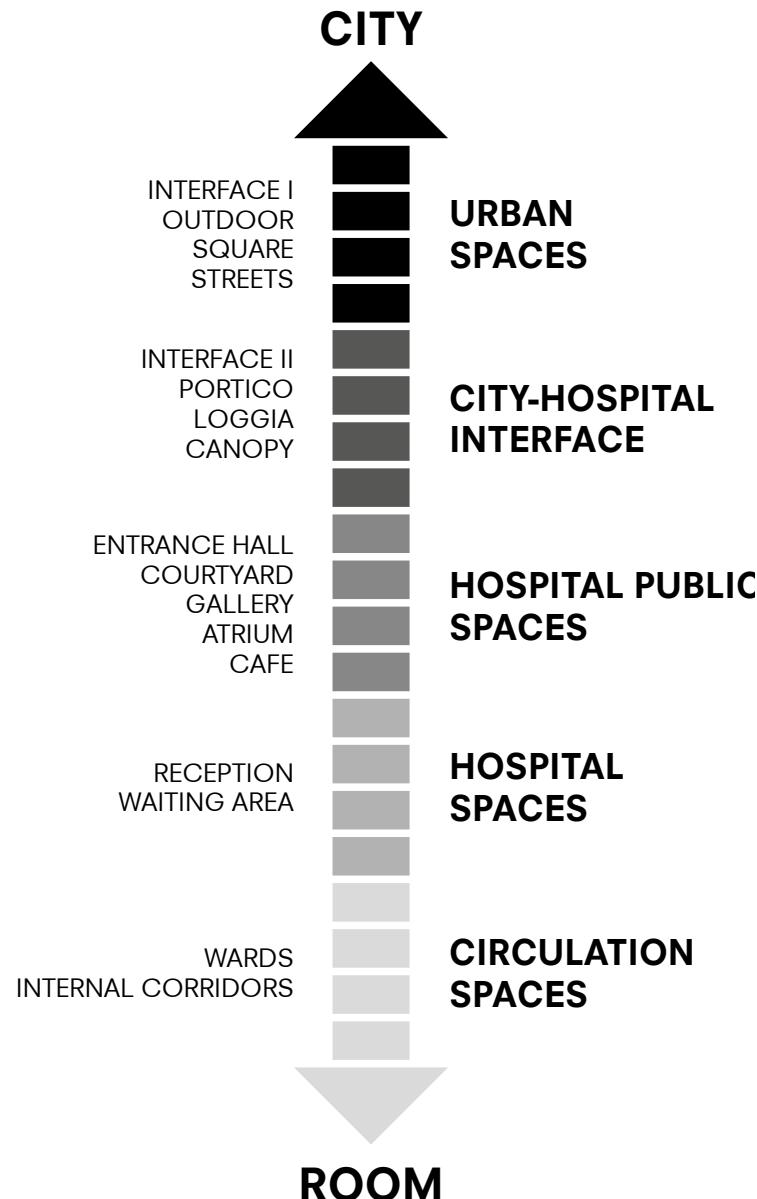
CONCLUSION #1

RE-MATERIALISE

REDEFINING PUBLIC SPACE

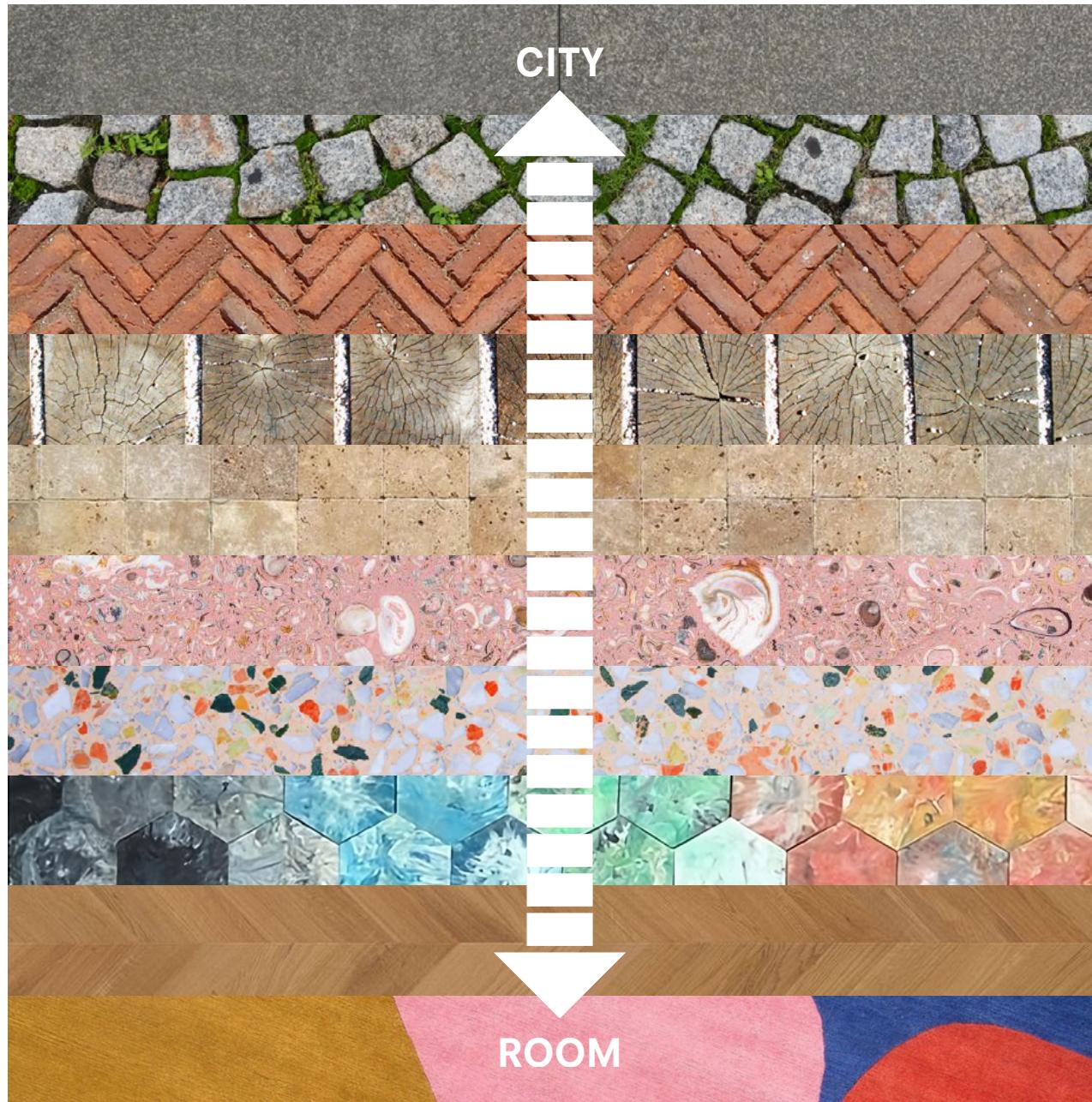


PUBLIC SPACE AS TRANSITION SPACE

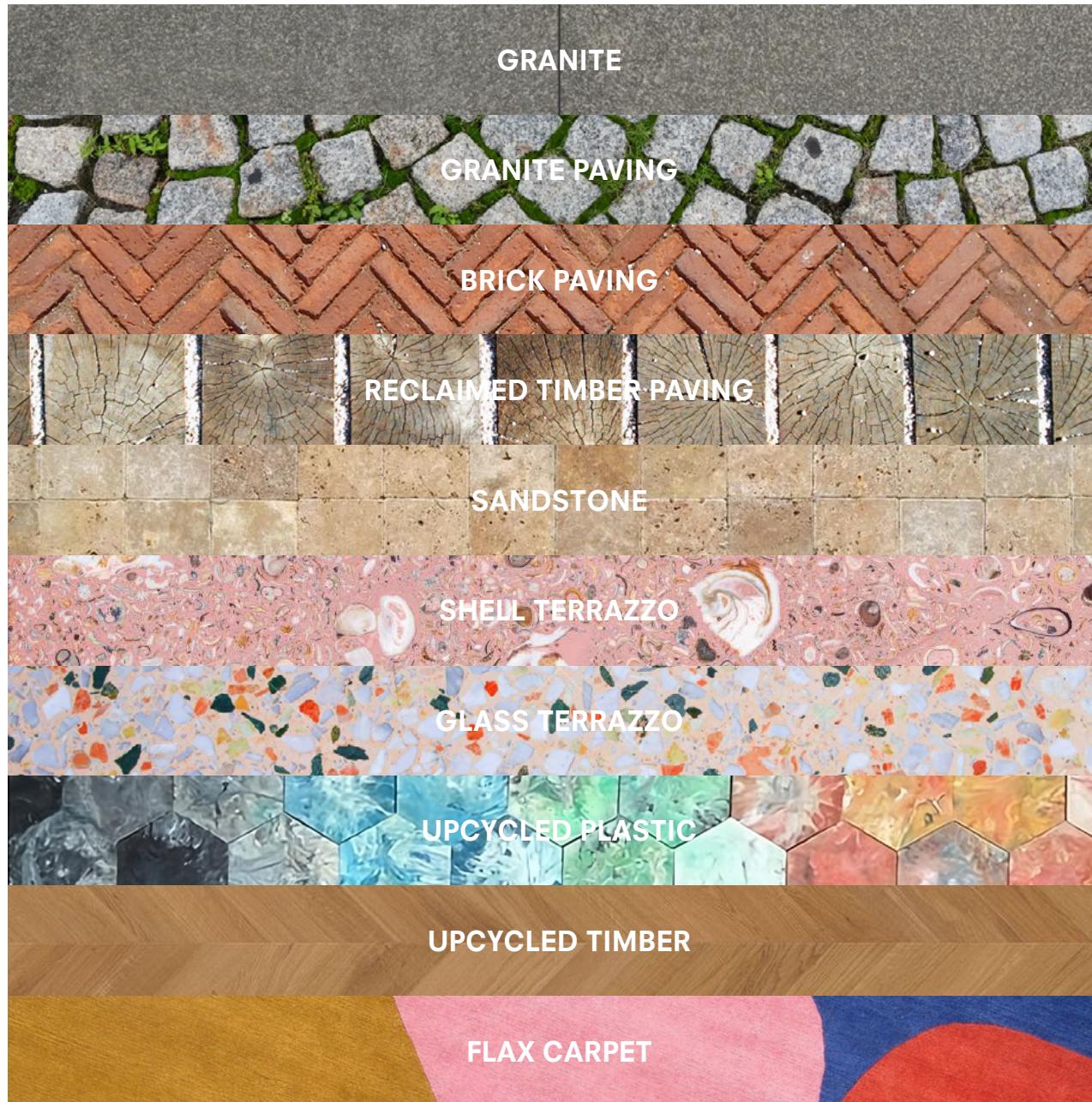


DESIGNING PUBLIC SPACES IN HOSPITALS - NICOLETTA SETOLA, SABRINA BORGIANNI (2016)

NOTION OF FAMILIARITY



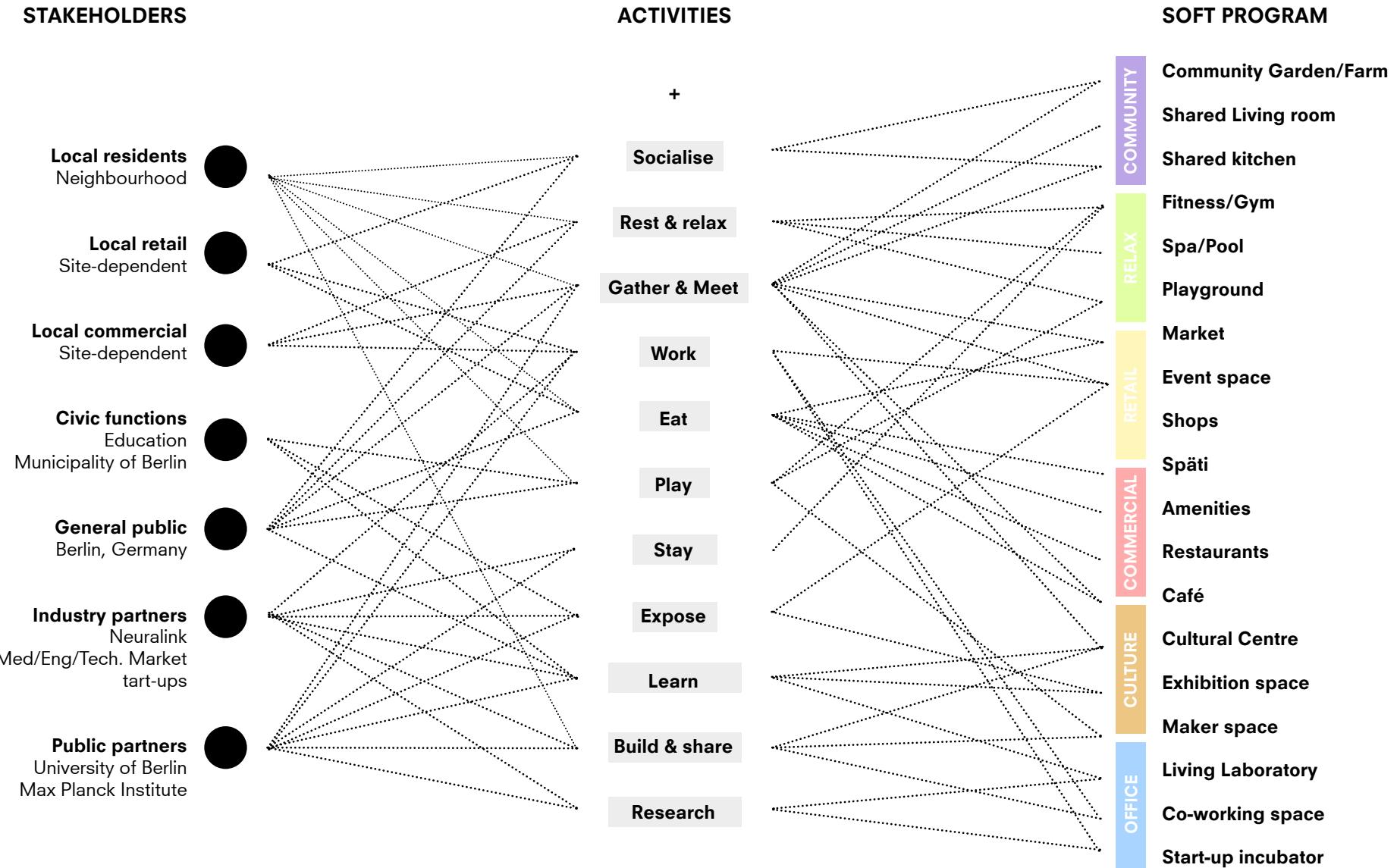
MATERIAL REPRESENTATION



CONCLUSION #1

RE-PROGRAM

INDICATIVE ADDED PROGRAM



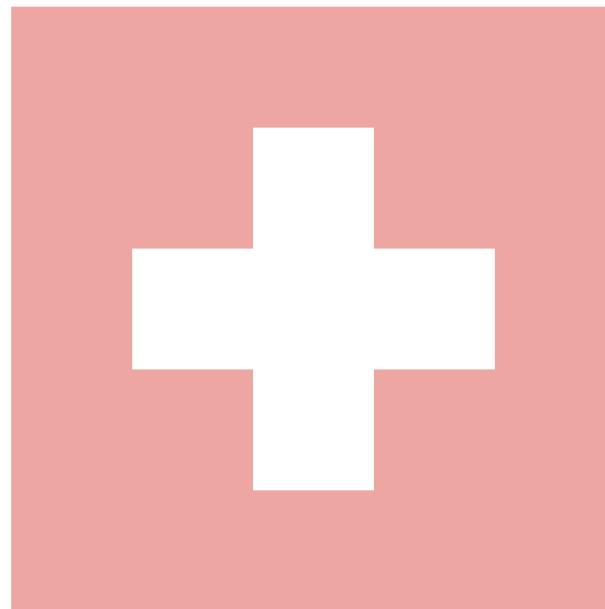
PROGRAM MIX

CORE PROGRAM



PROGRAM MIX

CORE PROGRAM



PROGRAM MIX

CORE PROGRAM

+

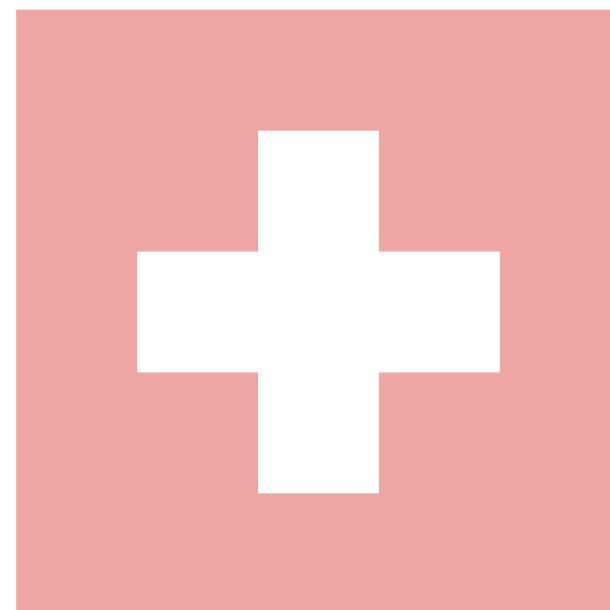
SOFT PROGRAM

Community Garden/Farm
Shared Living room
Shared kitchen

Cultural Centre
Exhibition space
Maker space

Market
Event Space
Shops - Späti

COMMUNITY
CULTURE
RETAIL



OFFICE & RESEARCH
RELAX
COMMERCIAL

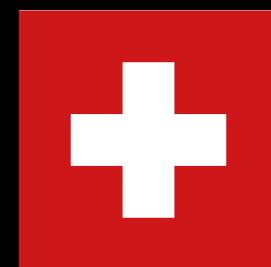
Living Laboratory
Co-working space
Start-up incubator

Fitness/Gym
Spa/Pool
Playground

Amenities
Restaurants
Café

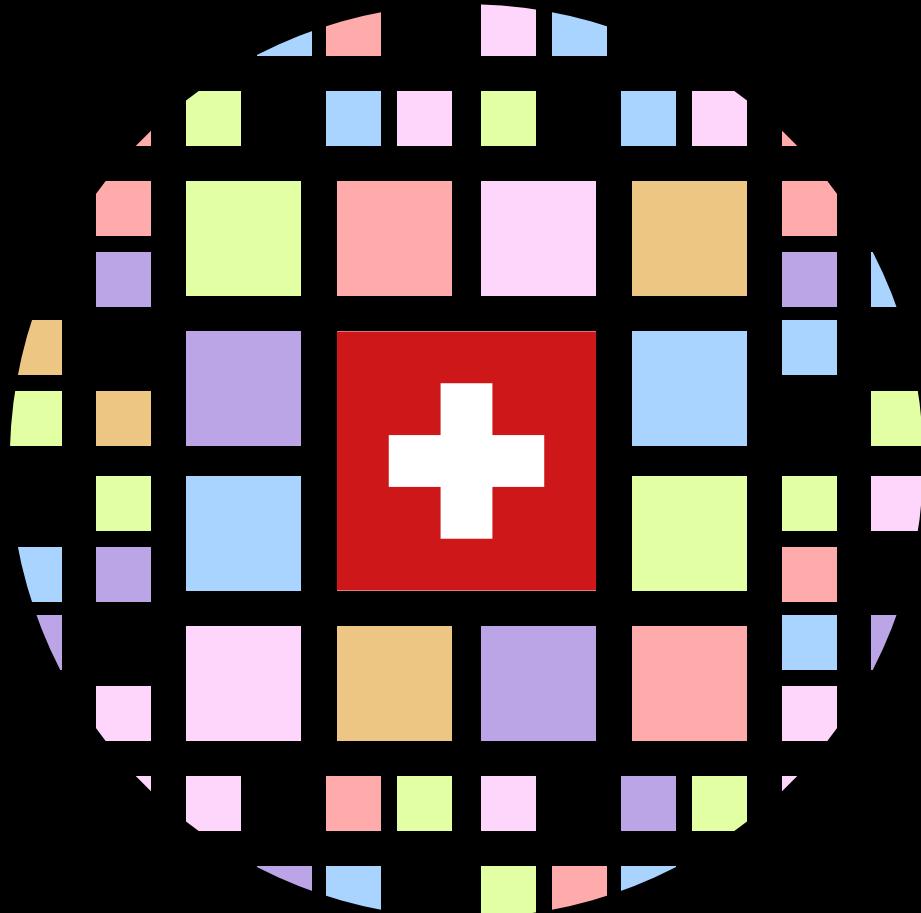
**BUILDING A HOSPITAL,
IS NOT ABOUT DESIGNING ONE BUILDING,
IT IS A NEW PART OF THE URBAN FABRIC,
AN EXTENSION OF SOCIETY,
AND A PART OF THE CITY.**

REDEFINING THE IMAGE



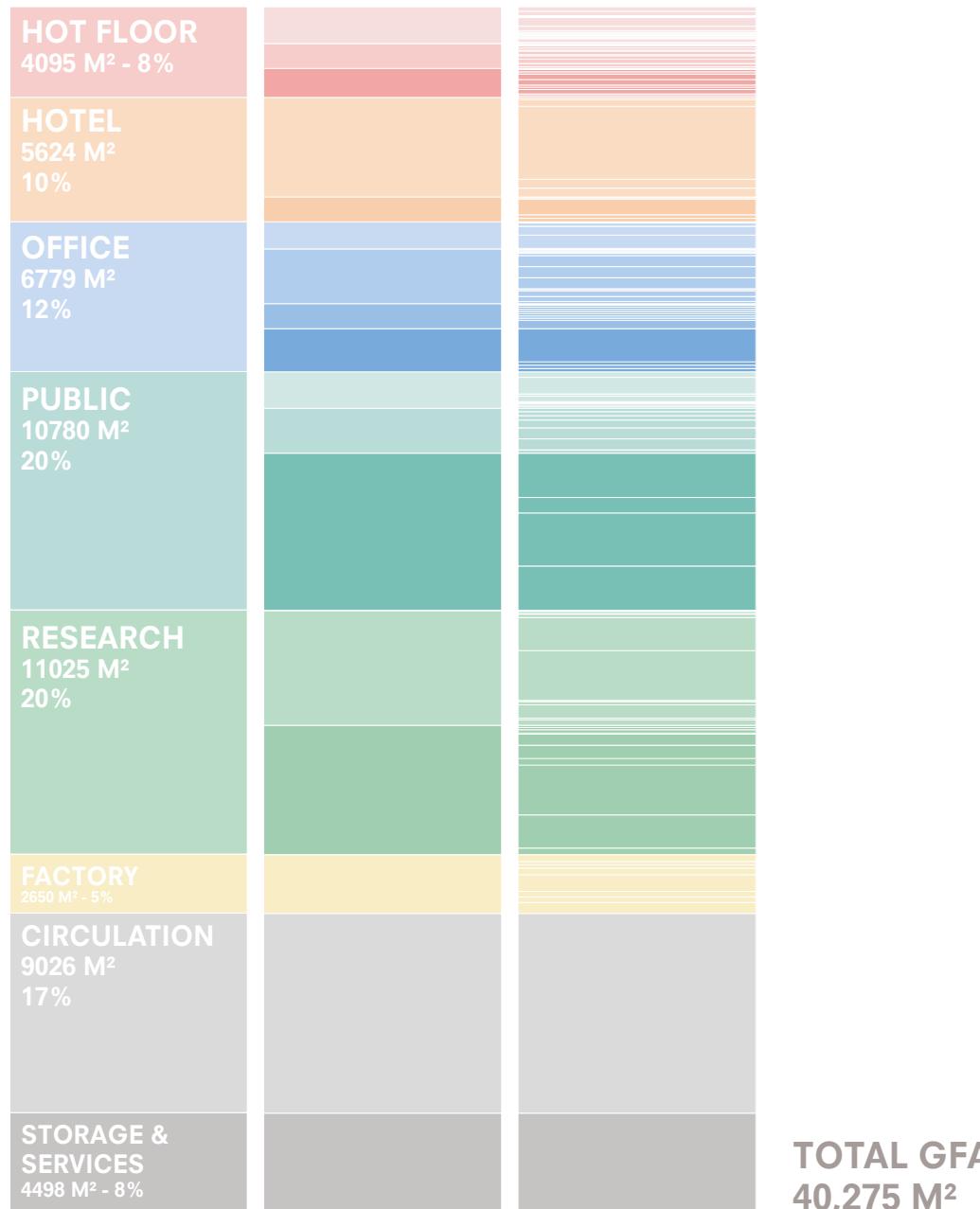
FROM SINGULAR IN-USE

REDEFINING THE IMAGE



TO MIXED-USE FOR SOCIETY

PROGRAM BREAKDOWN



WHERE?

GERMANY



FRIEDRICHSHAIN - KREUZBERG

+



GÖRLITZER PARK



site

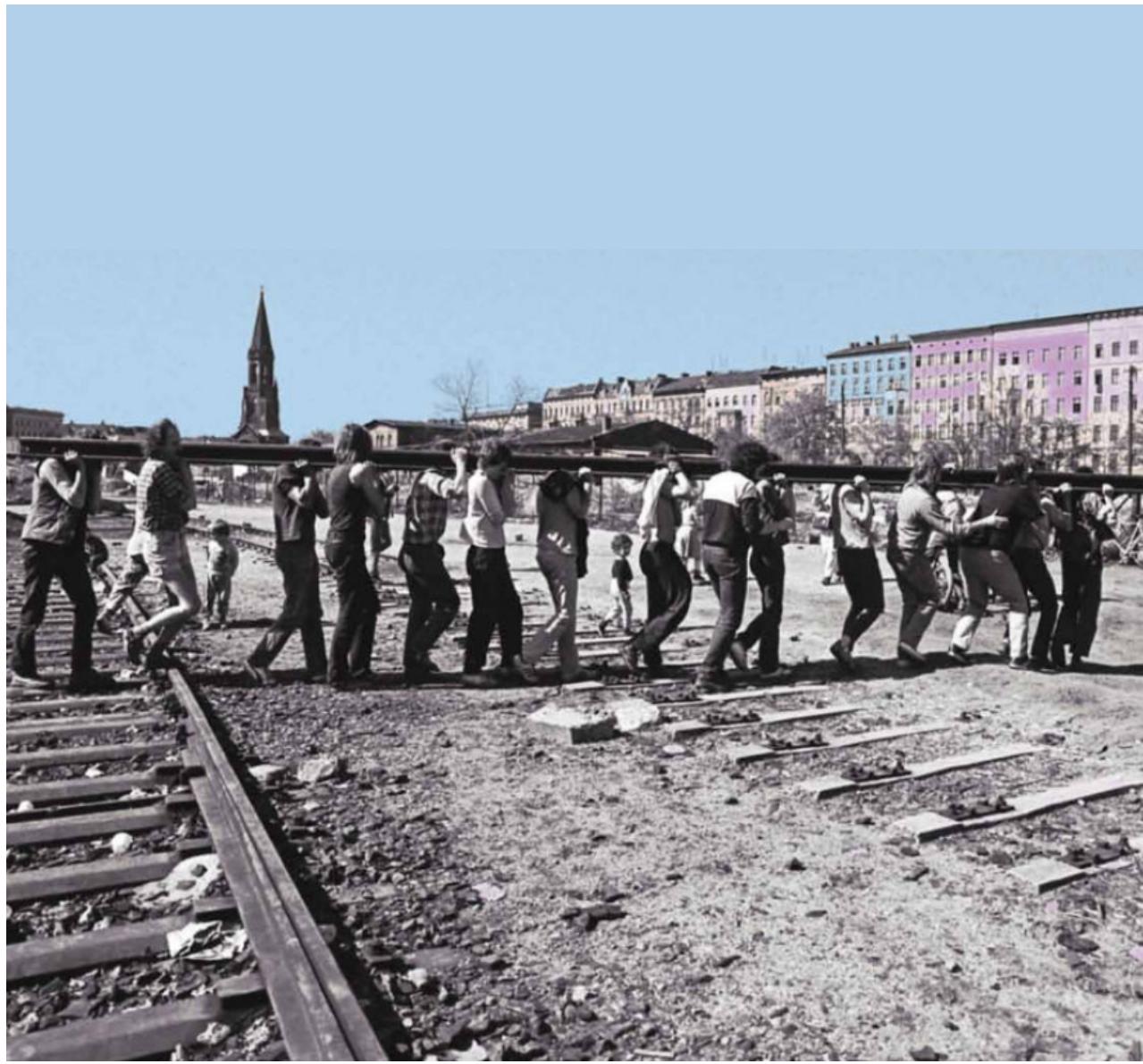
GÖRLITZER PARK



1961

site

NEIGHBOURHOOD PROTEST

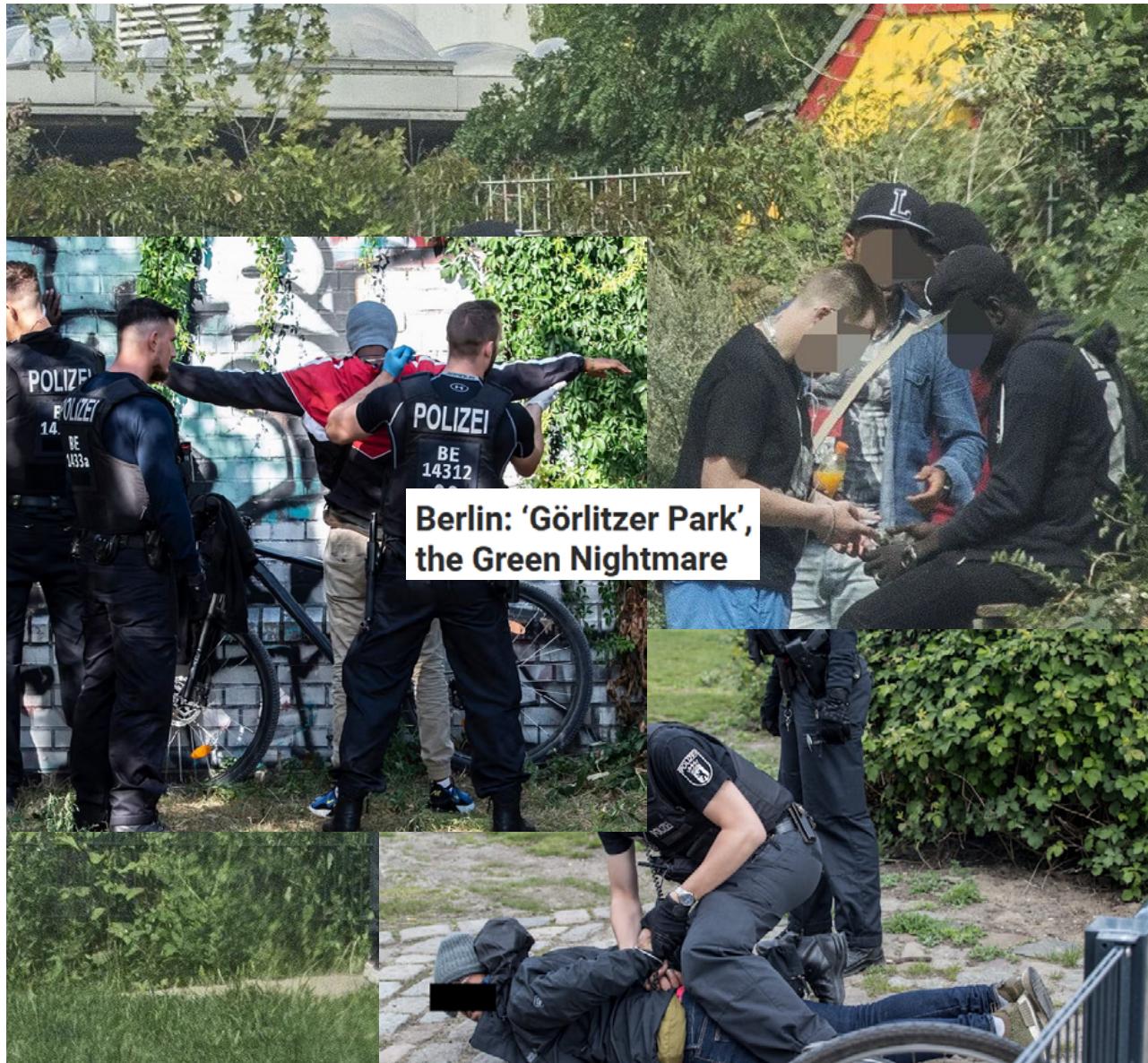


site

TERRAIN VAGUE



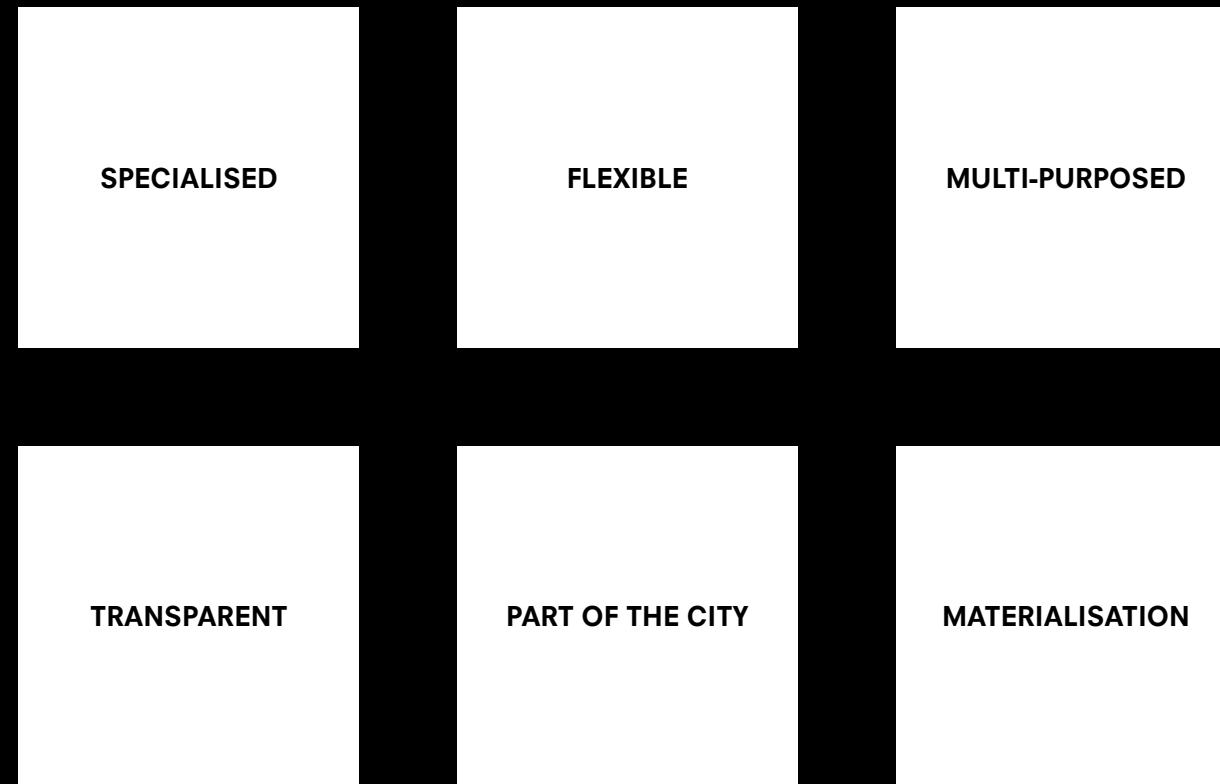
TODAY



2024

**THE HOSPITAL SHOULD NOT
ONLY AUGMENT THE HUMAN BODY,
BUT ALSO ITS SURROUNDINGS.**

BUILDING - IMPLICATIONS



I. INTRODUCTION

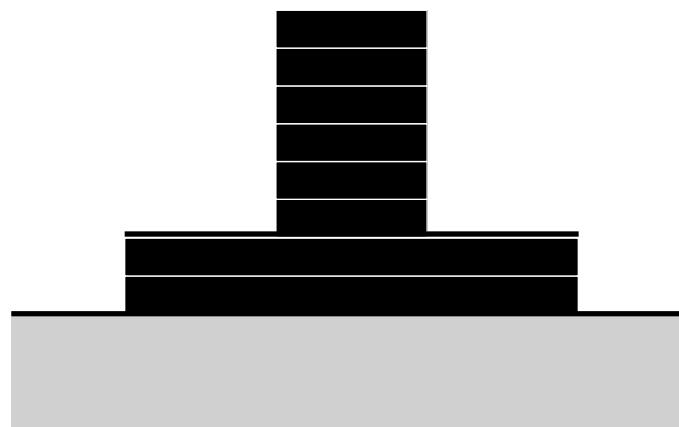
II. RESEARCH & DESIGN BRIEF

III. CONCEPT

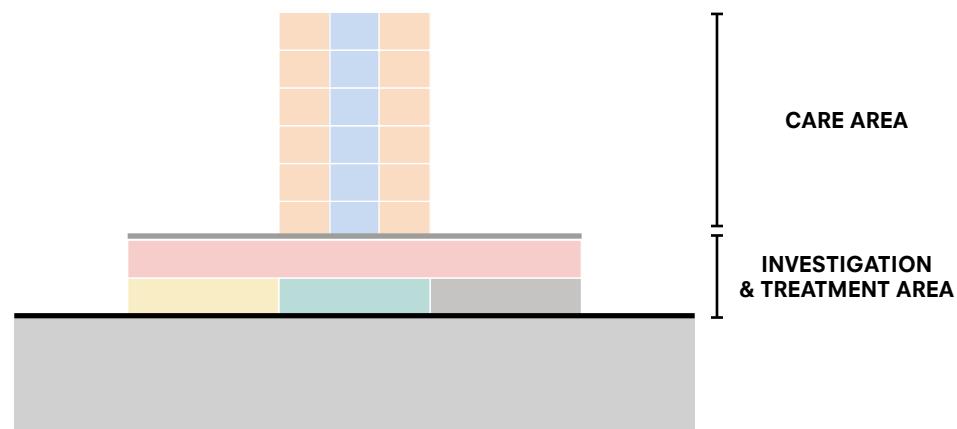
IV. IMPLEMENTATION

V. CONCLUSION

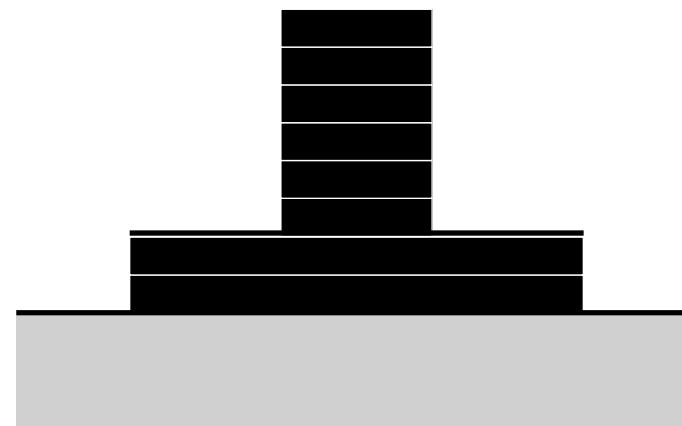
“PODIUM-TOWER” TYPOLOGY



VERTICAL PROGRAM SEPARATION

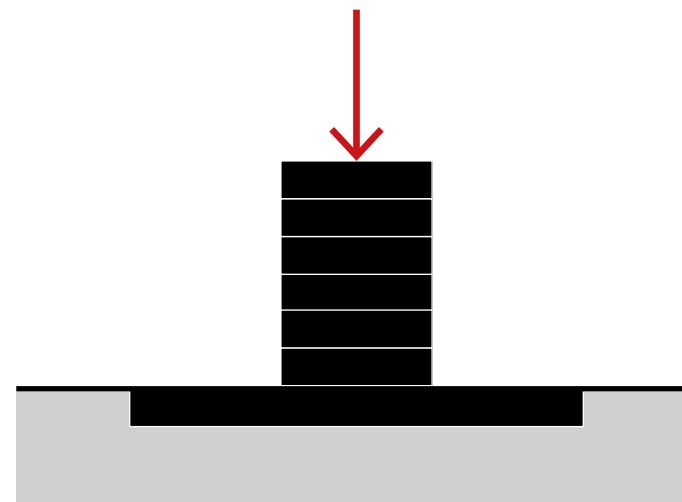


EXISTING HOSPITAL TYPOLOGY



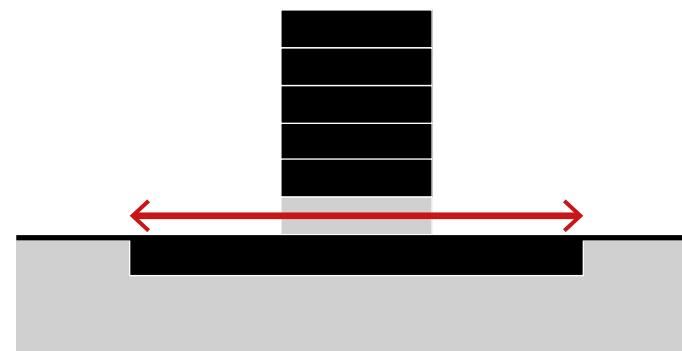
DESIGN DEVELOPMENT

HIDE THE "MACHINE"
UNDERGROUND



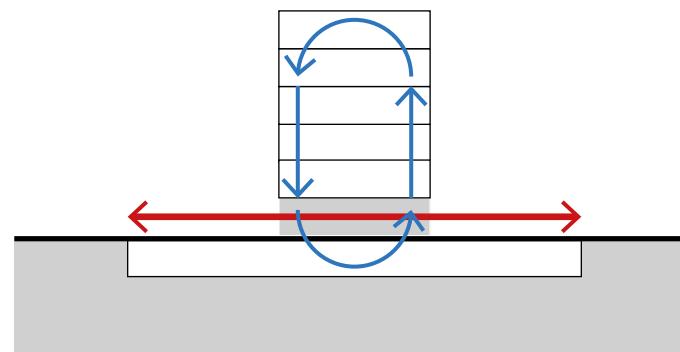
DESIGN DEVELOPMENT

OPEN UP THE GROUND FLOOR
FOR PUBLIC FLOW



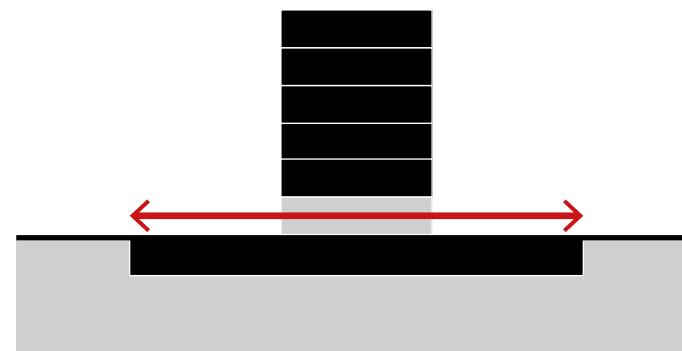
DESIGN DEVELOPMENT

INTERLINK FLOWS BETWEEN PUBLIC AND PRIVATE



DESIGN DEVELOPMENT

OPEN UP THE GROUND FLOOR
FOR PUBLIC FLOW



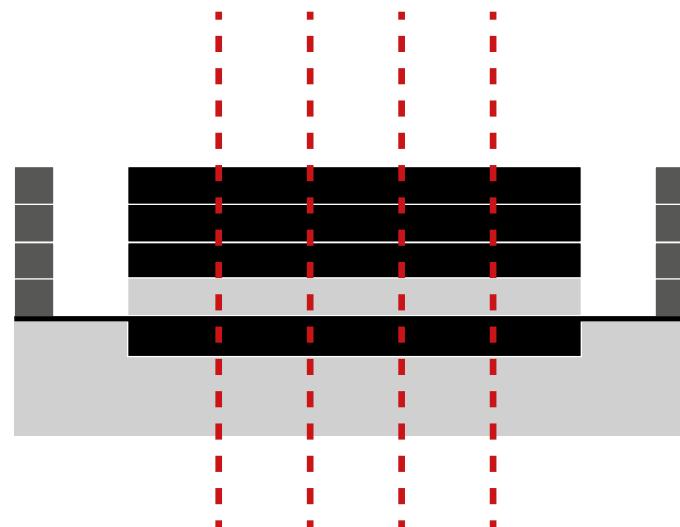
DESIGN DEVELOPMENT

EXTEND THE TOP TO CREATE
A BERLIN BUILDING BLOCK



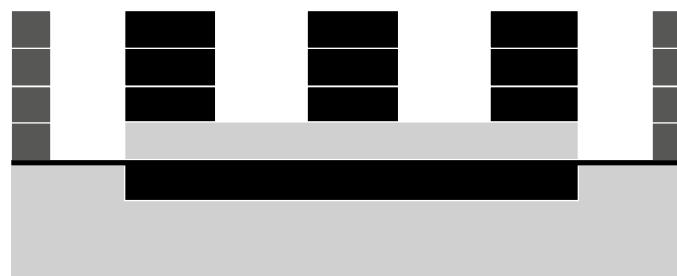
DESIGN DEVELOPMENT

MAKE INCISIONS TO
SPLIT THE BERLIN BUILDING BLOCK



DESIGN DEVELOPMENT

OPEN UP THE INNER COURTYARD
TO CREATE SPACE FOR THE PUBLIC



DESIGN DEVELOPMENT

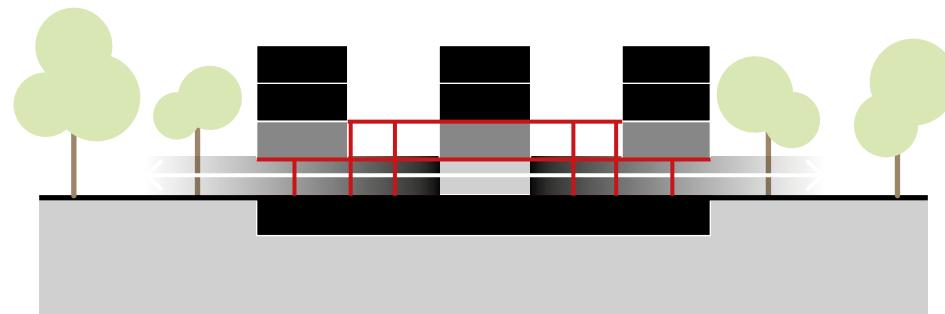
USE THE POSITIVE SPACE
AS TRANSITION SPACE FOR THE CITY



DESIGN DEVELOPMENT

+

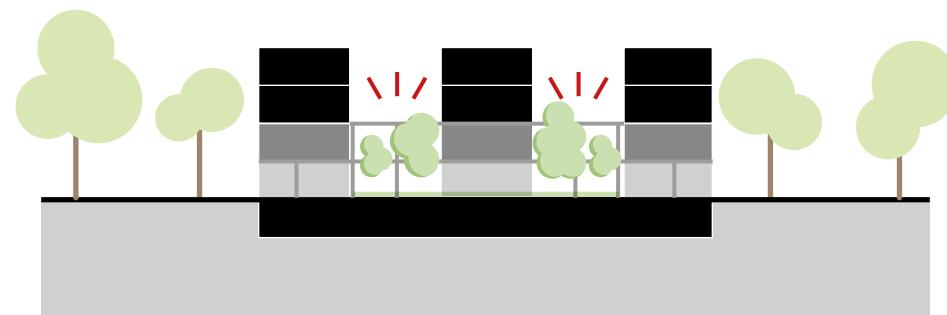
USE THE POSITIVE SPACE
AS TRANSITION SPACE FOR THE PARK



DESIGN DEVELOPMENT

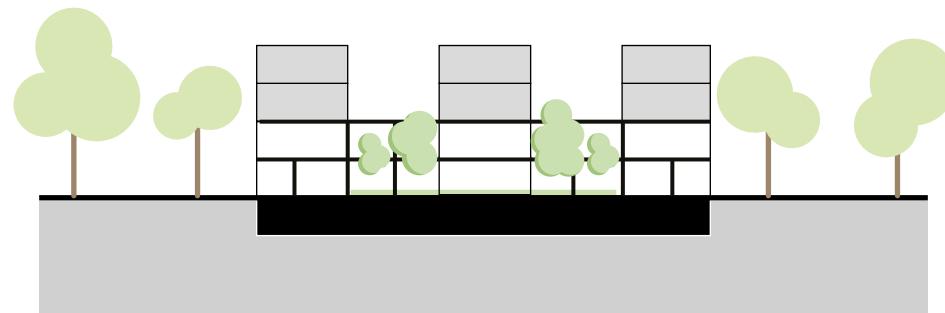
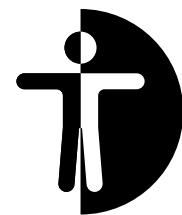
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AND AS OPPORTUNITY FOR CREATING
QUALITY PUBLIC SPACES WITHIN GÖRLI



DESIGN DEVELOPMENT

A PLACE OF SYNTHESIS
AND FOR SYMBIOSIS

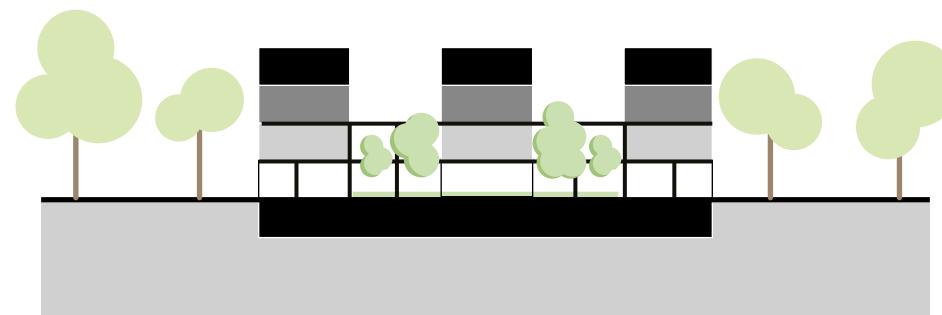


HUMAN
& MACHINE

AN AUTOMATED BASEMENT
FOCUSED ON MACHINE EFFICIENCY
& AN UPPER WORLD FOCUS ON HUMAN FREEDOM

DESIGN CONCEPT

A NEW HOSPITAL TYPOLOGY



A SYMBIOSIS
BETWEEN THE HOSPITAL & SOCIETY

- I. INTRODUCTION**
- II. RESEARCH & DESIGN BRIEF**
- III. CONCEPT**
- IV. IMPLEMENTATION**
- V. CONCLUSION**

XL - L - M - S - XS

XL - L - M - S - XS

“SITE - MASTERPLAN”

XL - L - M - S - XS

“STRUCTURE”

XL - L - **M** - S - XS

“PROGRAM - FLOWS”

XL - L - M - **S** - XS

“TRANSITIONS”

XL - L - M - S - **XS**

“DETAILS”

XL - L - M - S - XS

XL - L - M - S - XS

“SITE - MASTERPLAN”

GERMANY



FRIEDRICHSHAIN - KREUZBERG

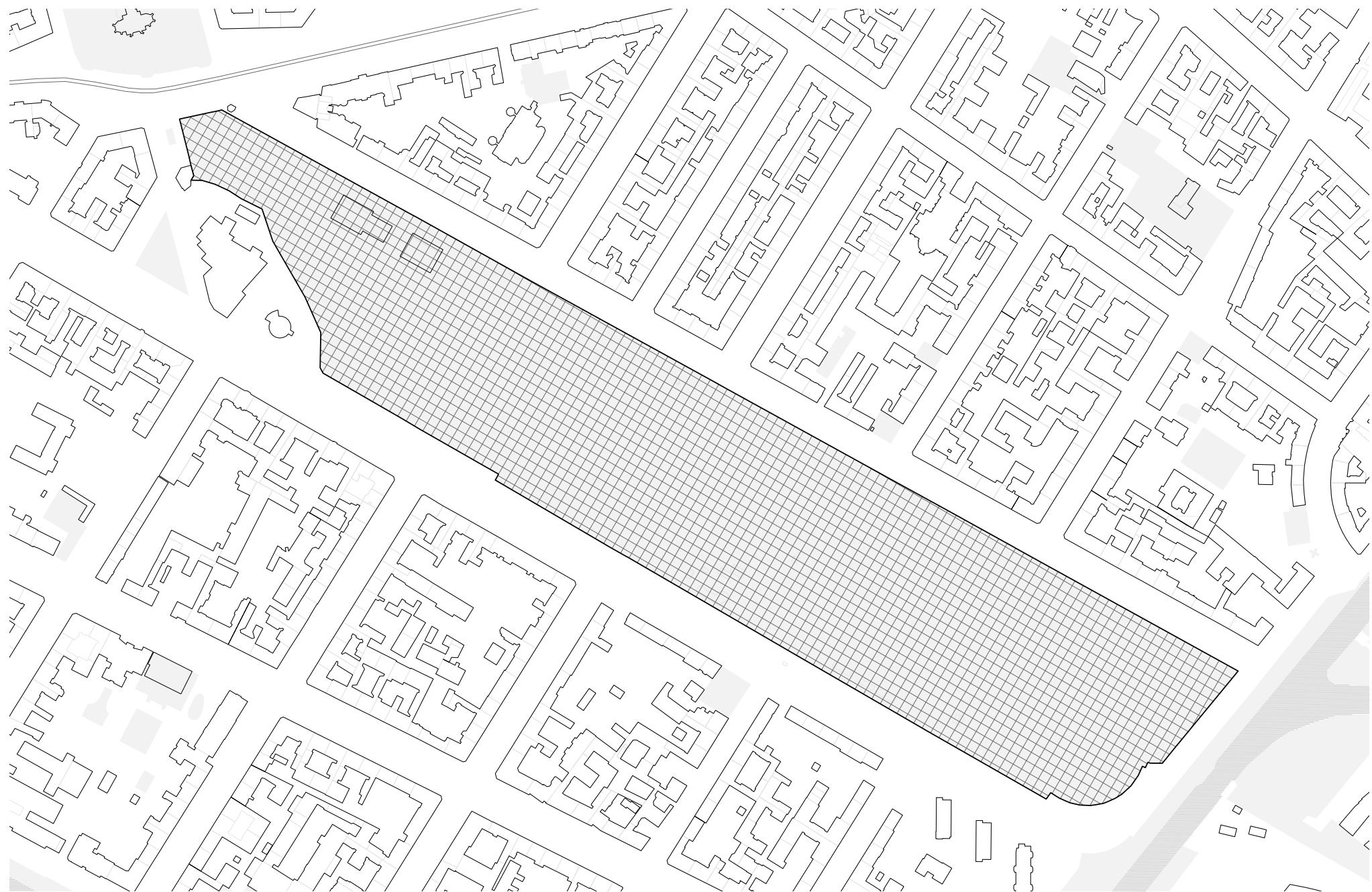
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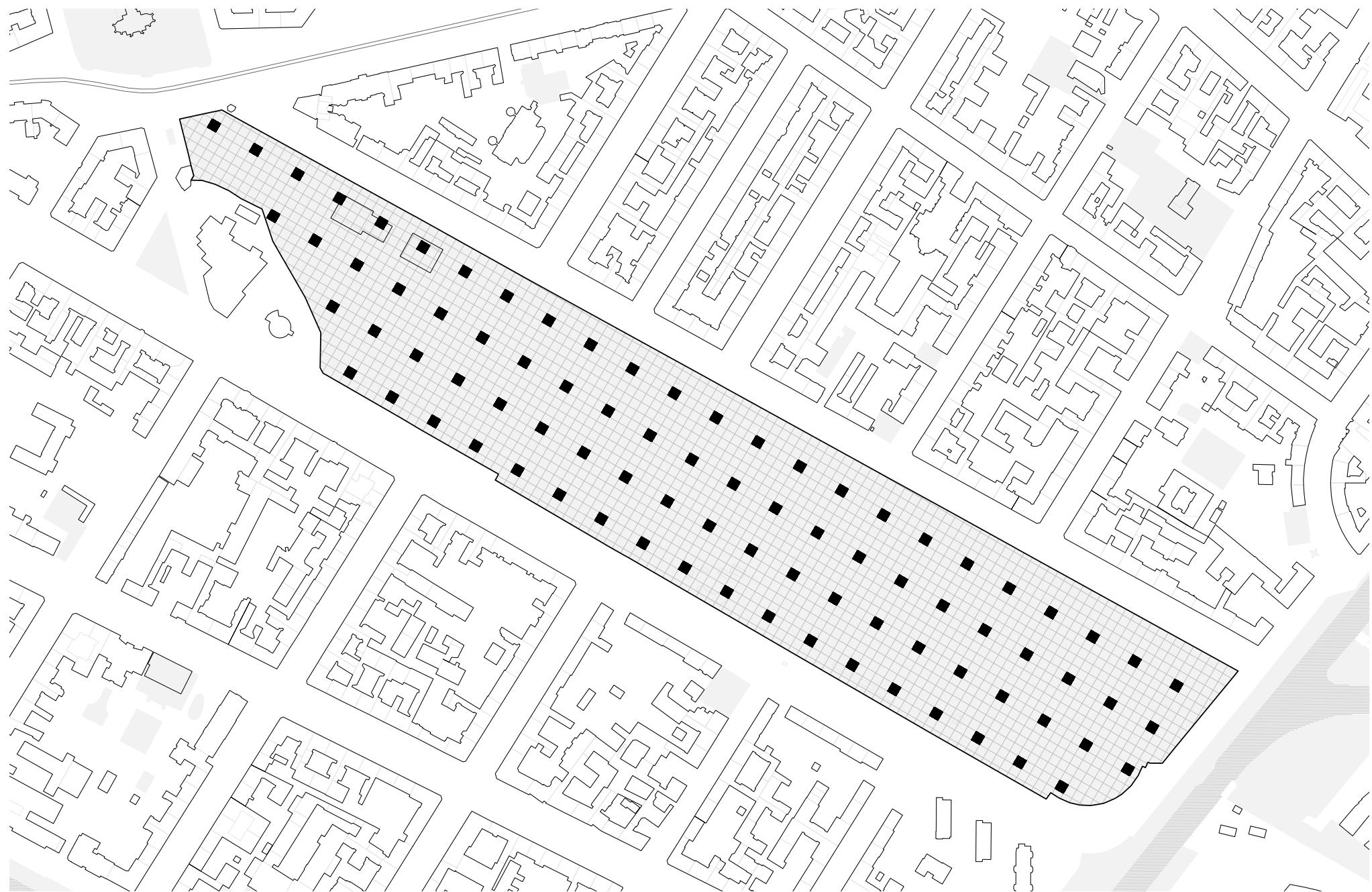


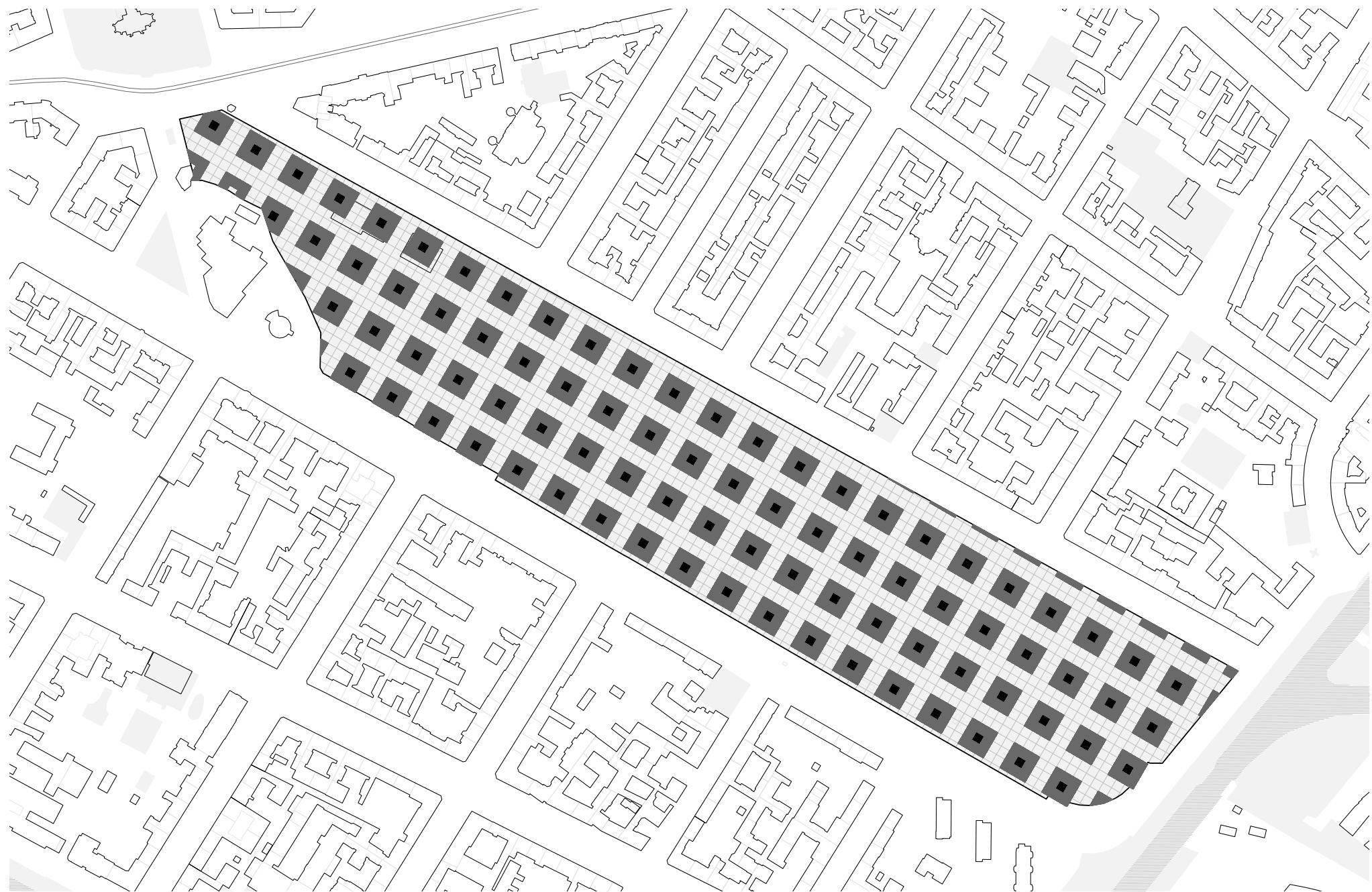
GÖRLITZER PARK

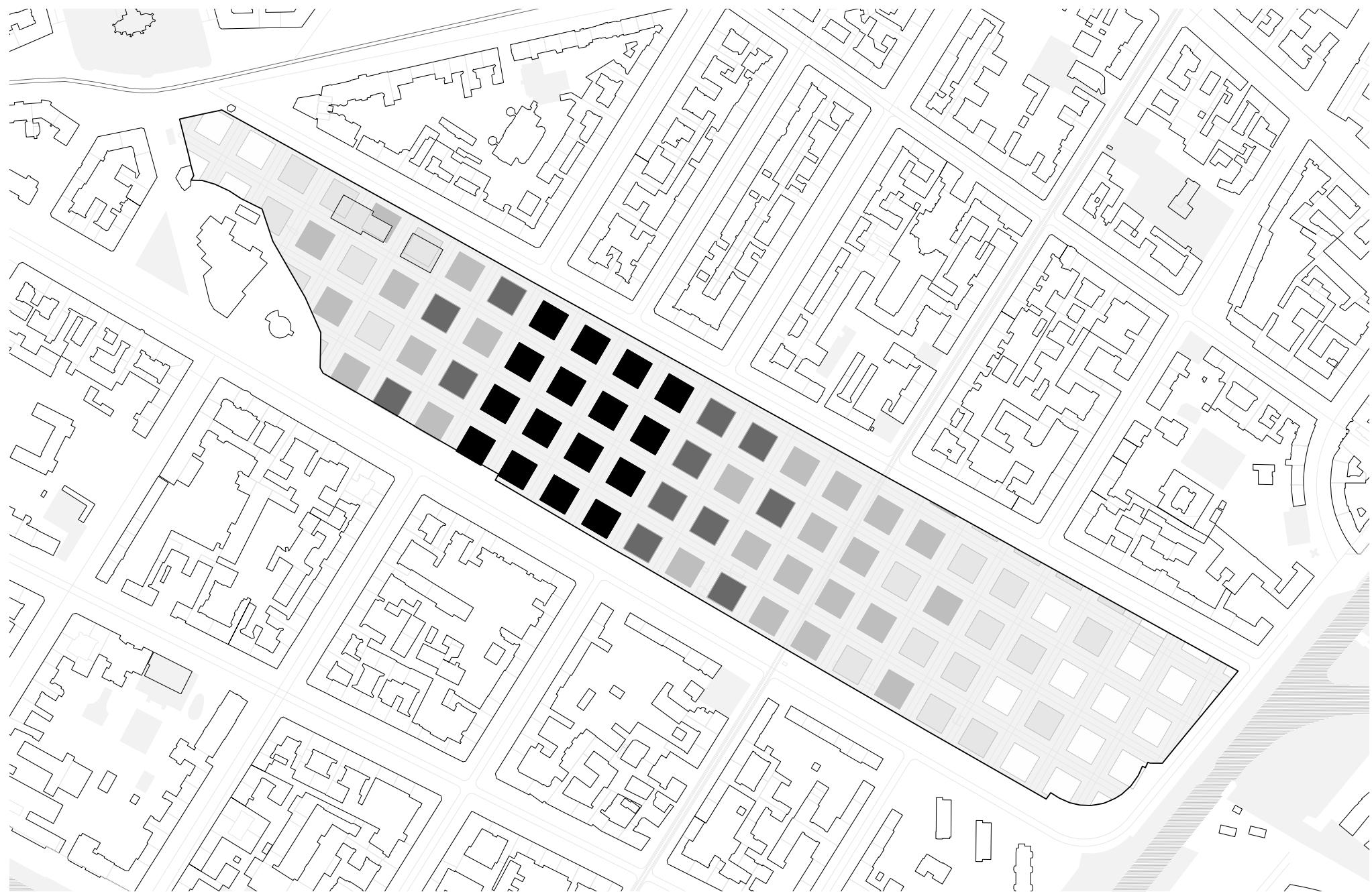


SITE - GÖRLITZER PARK

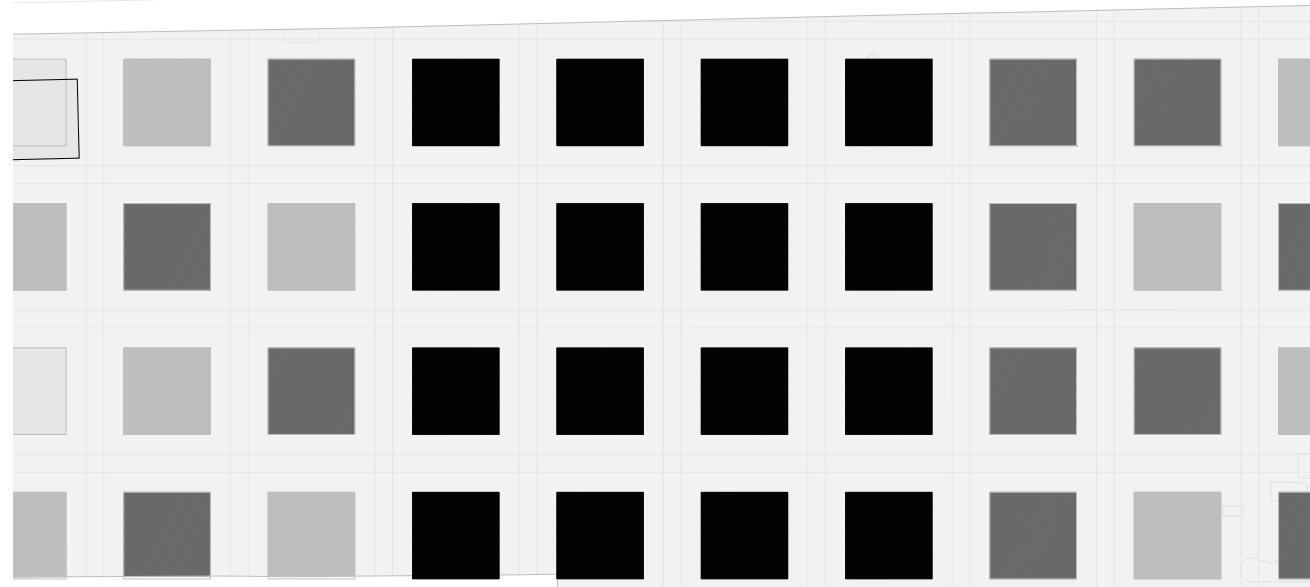
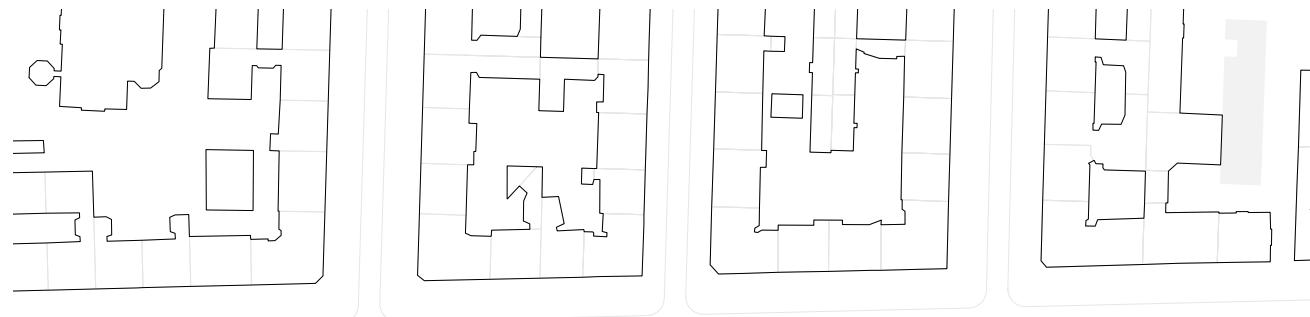
GRID PROJECTION

CORES

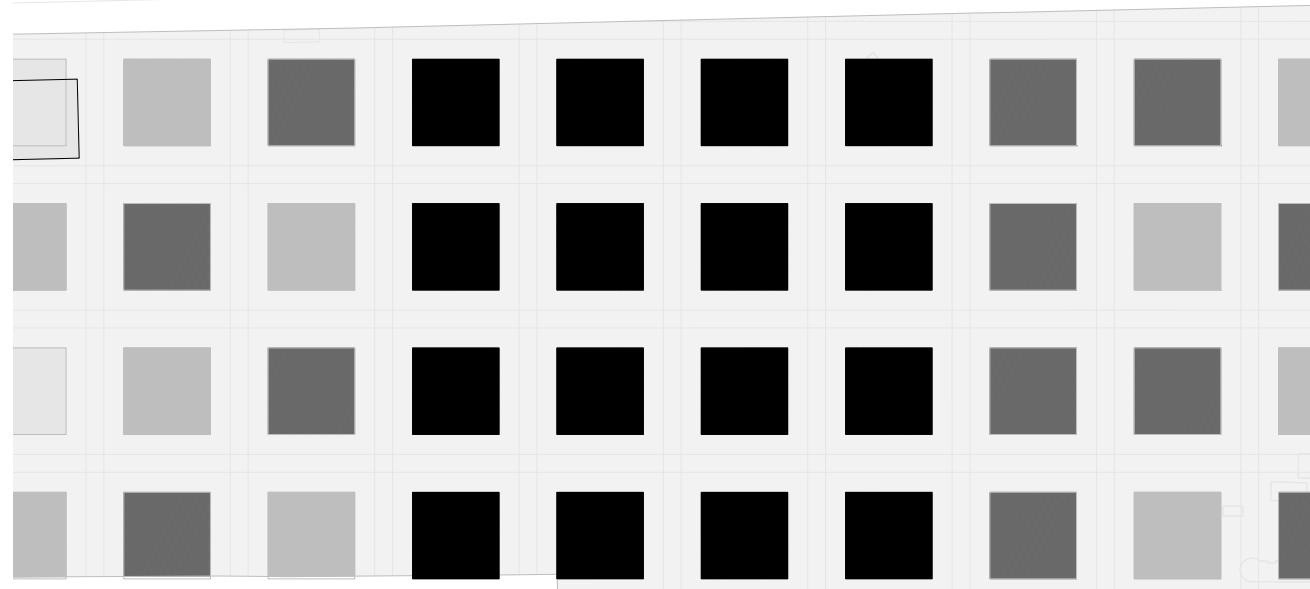
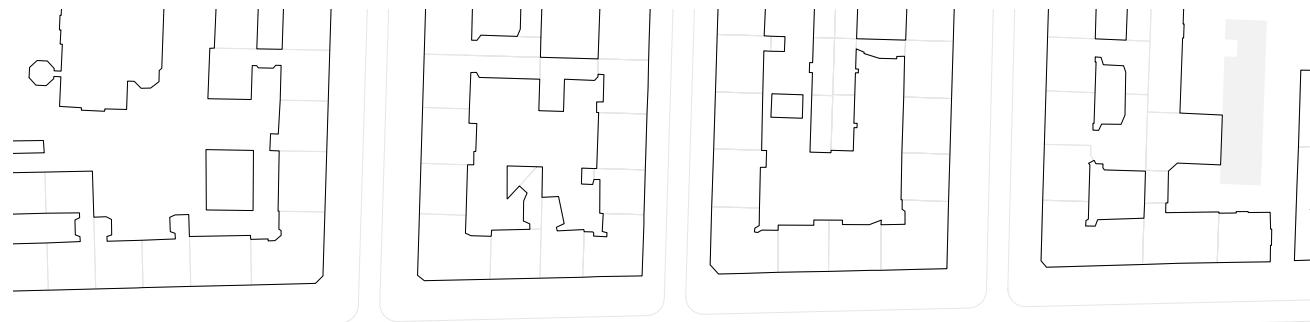
MEGA PATTERN STRUCTURE

'MASTERPLAN'

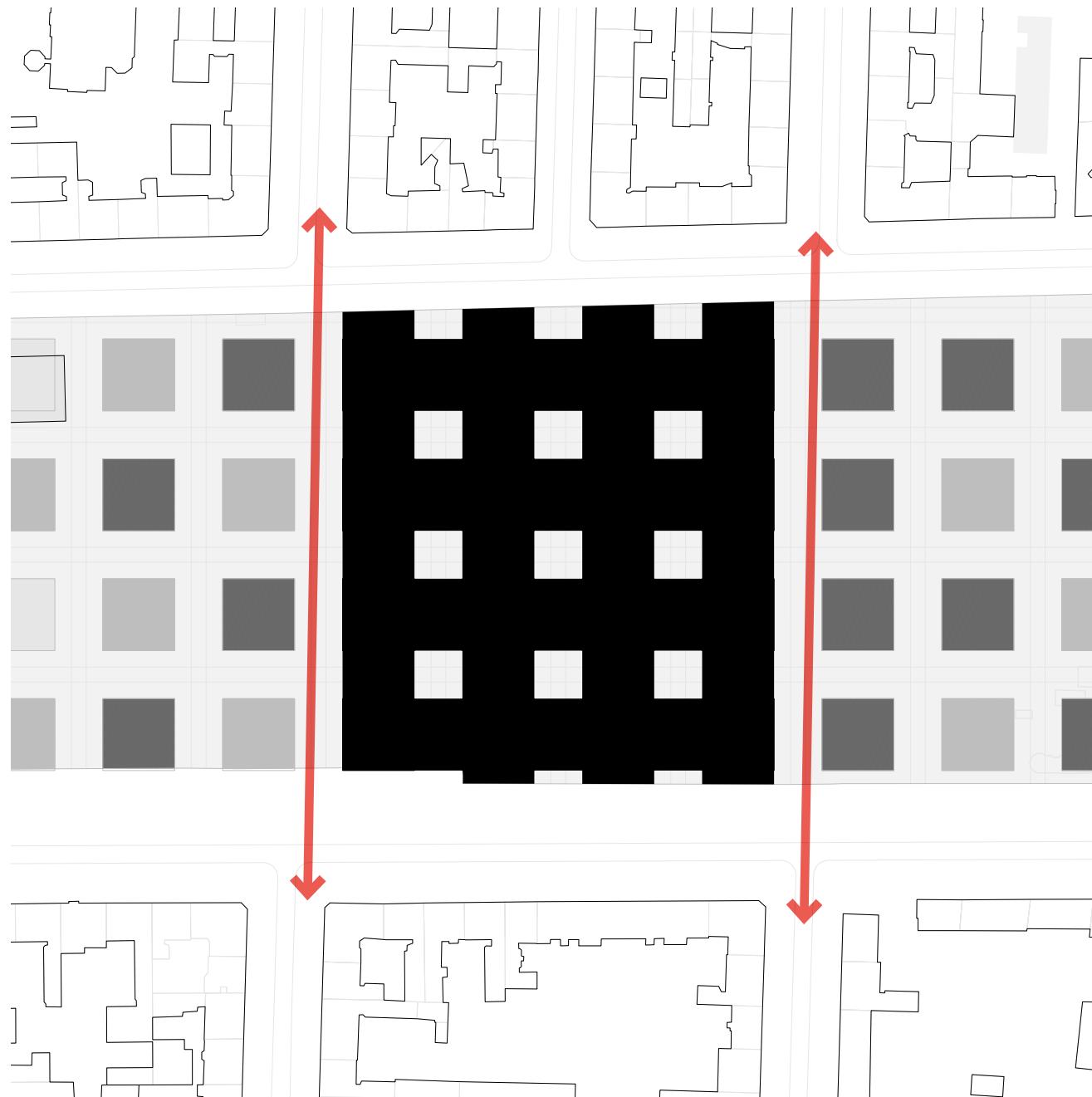
URBAN IMPLEMENTATION



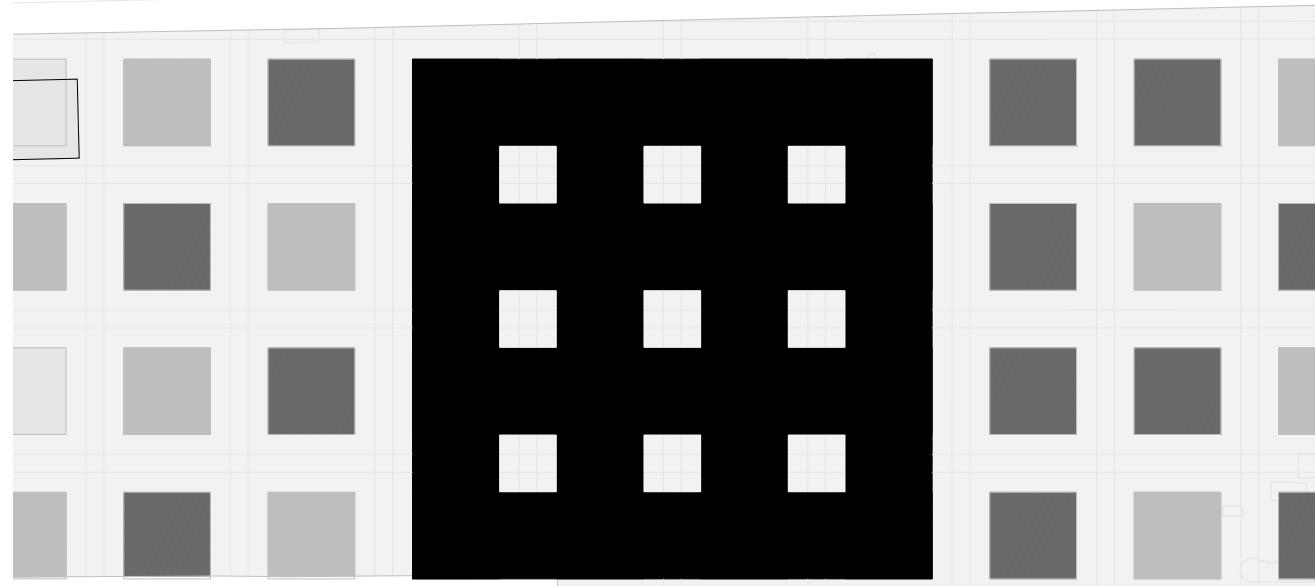
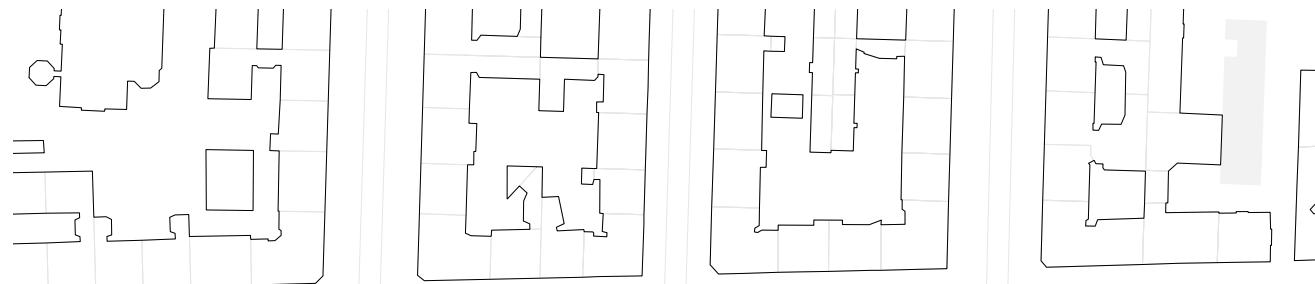
URBAN IMPLEMENTATION



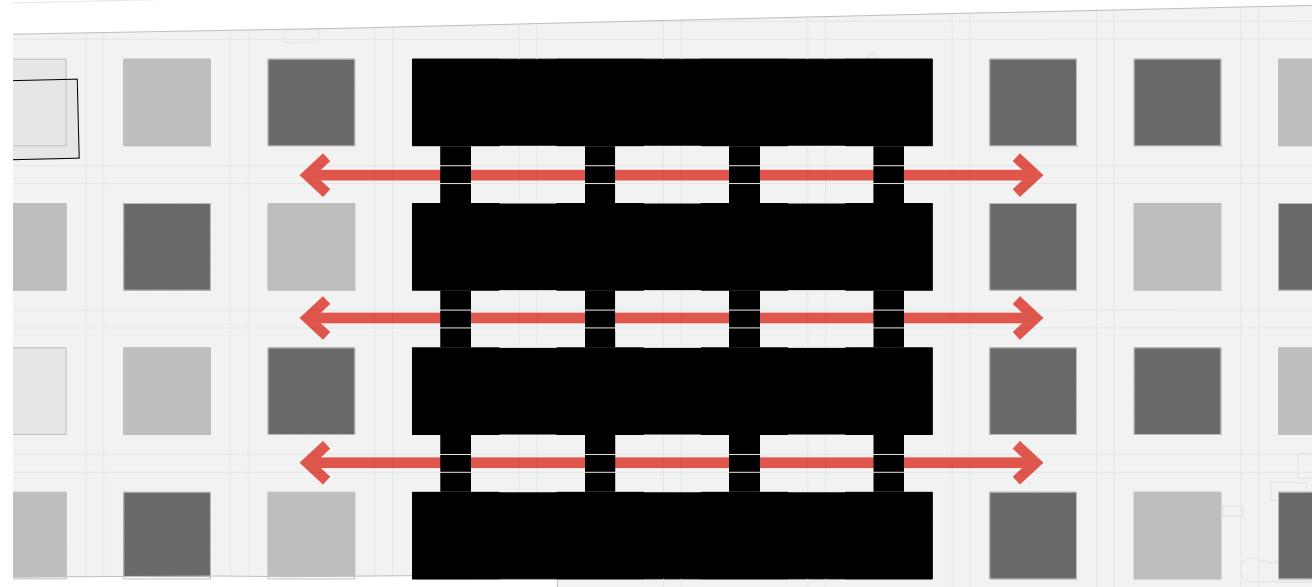
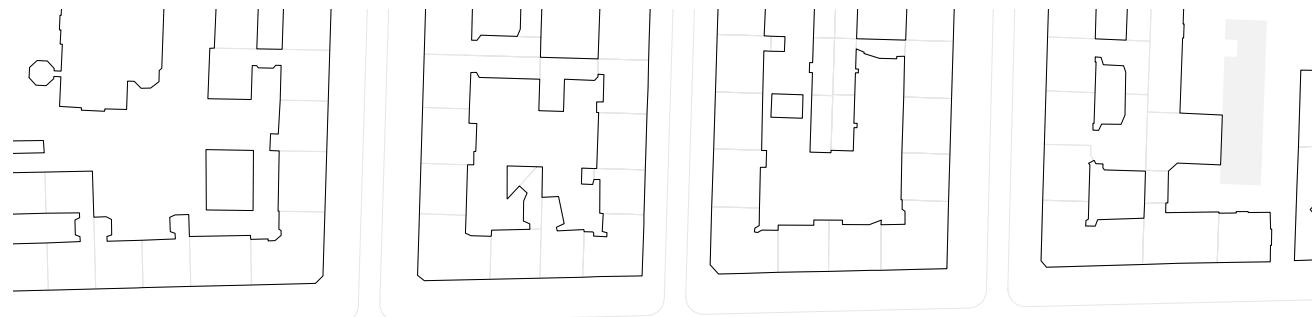
URBAN IMPLEMENTATION



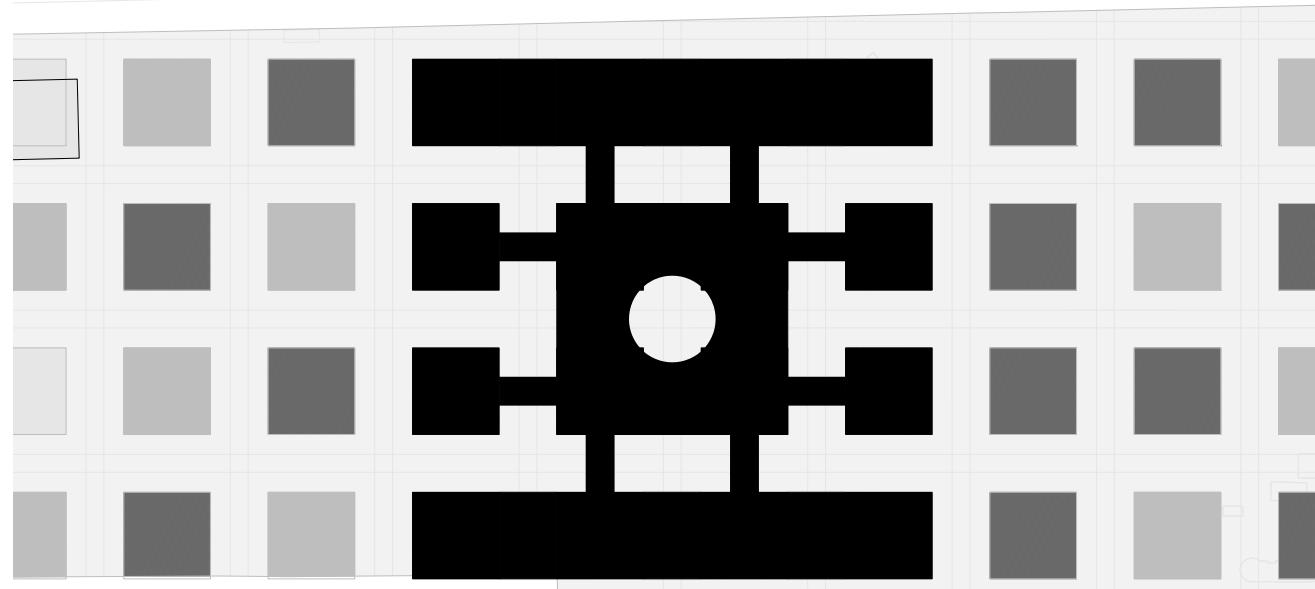
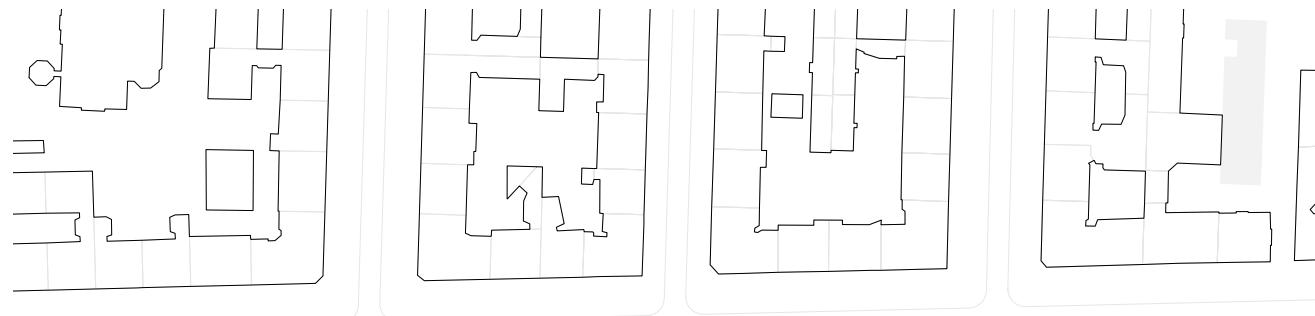
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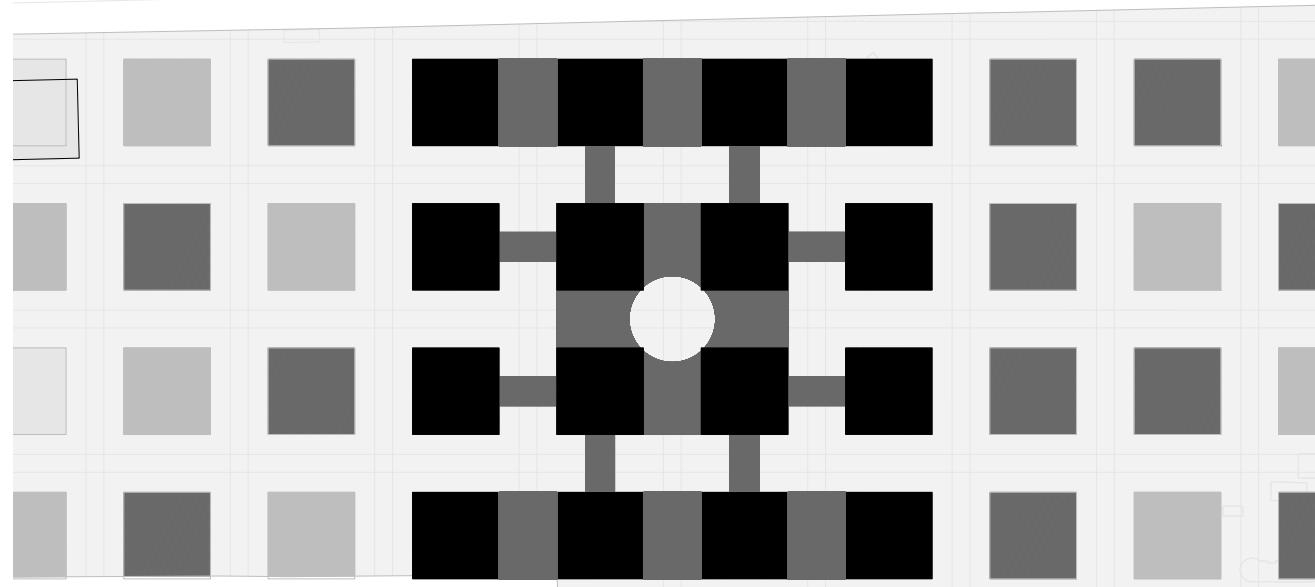
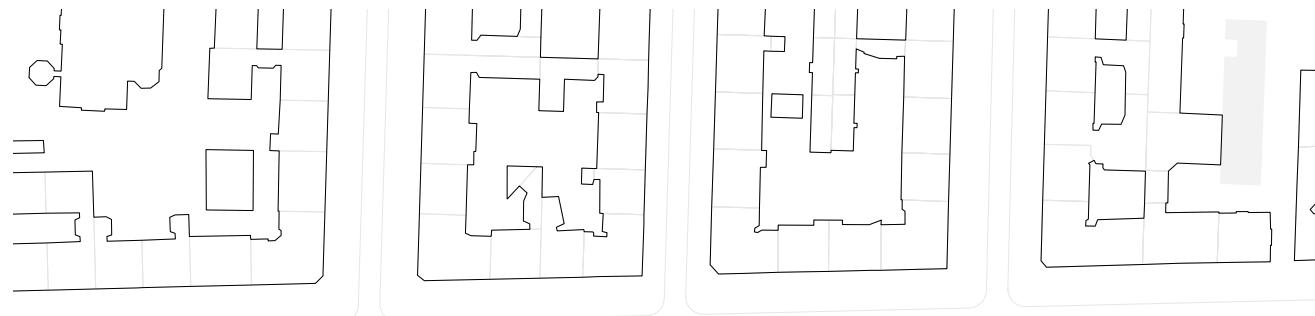
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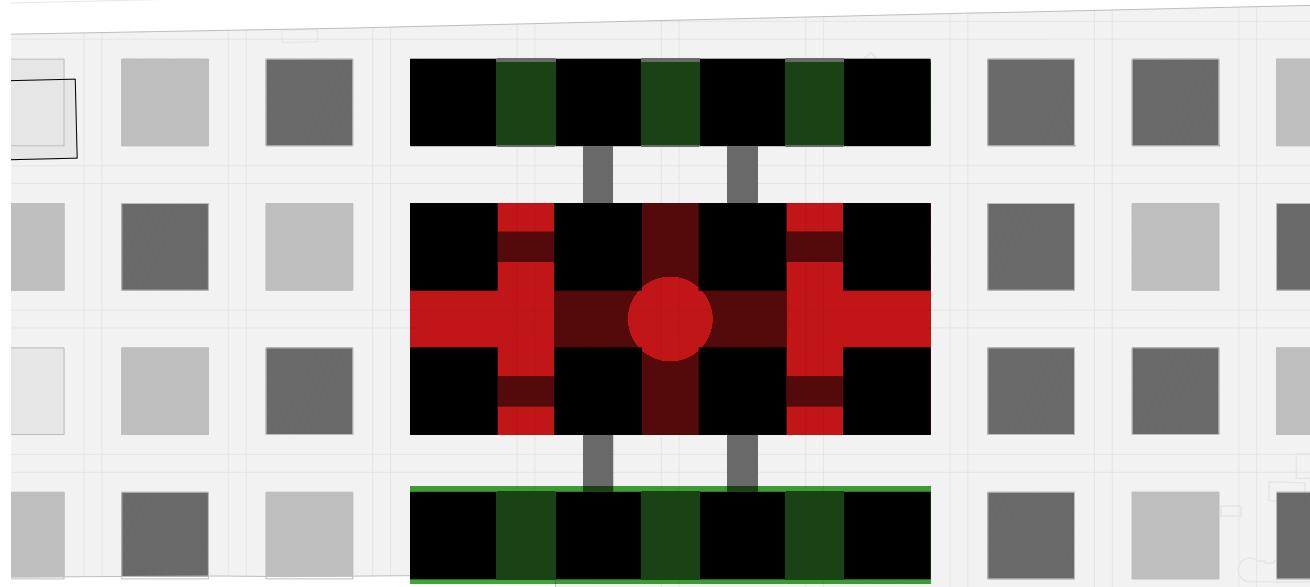
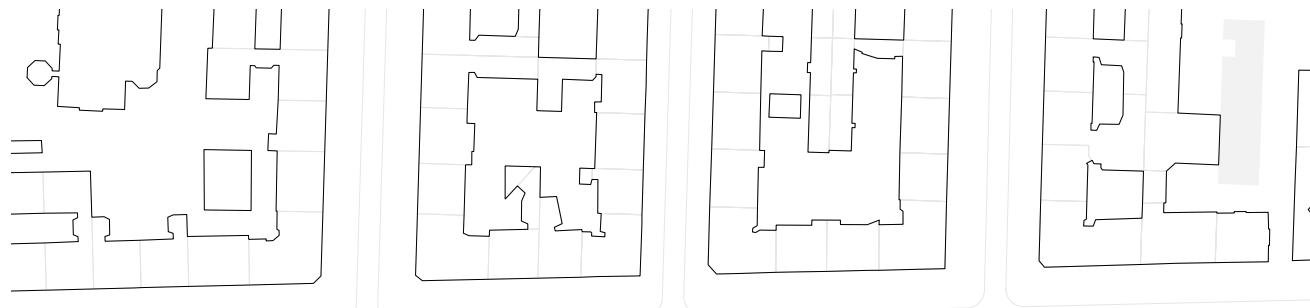
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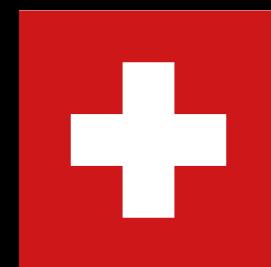
URBAN IMPLEMENTATION



URBAN IMPLEMENTATION

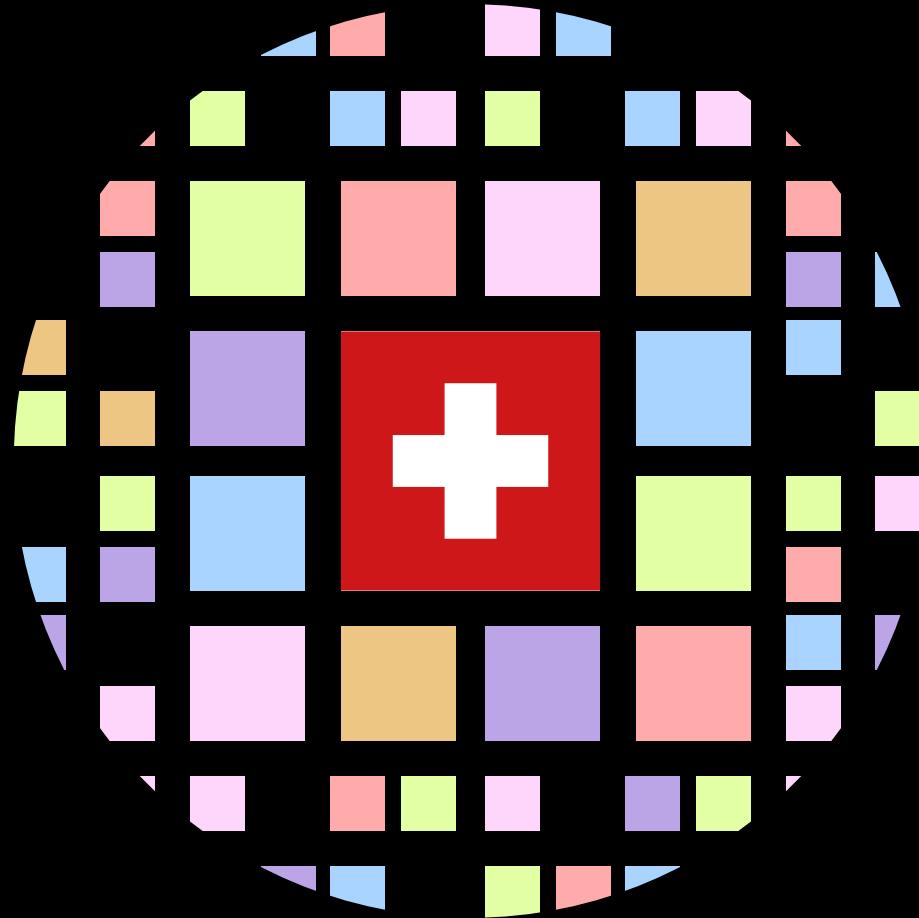


REDEFINING THE IMAGE



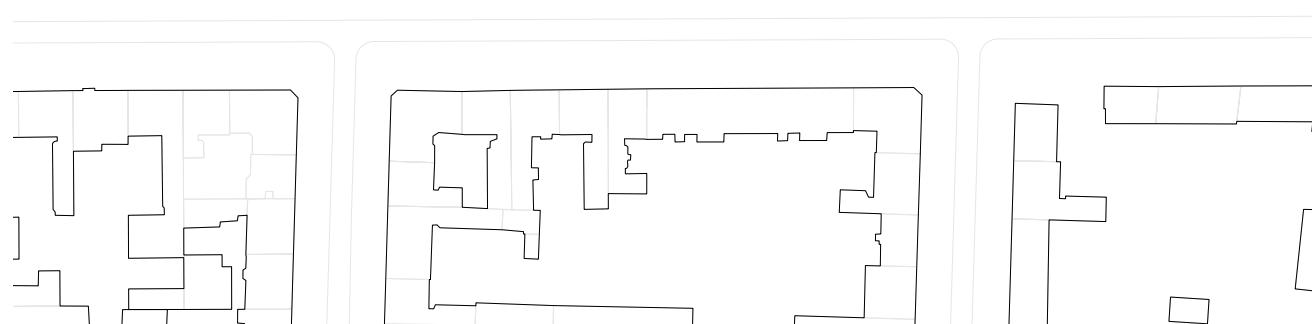
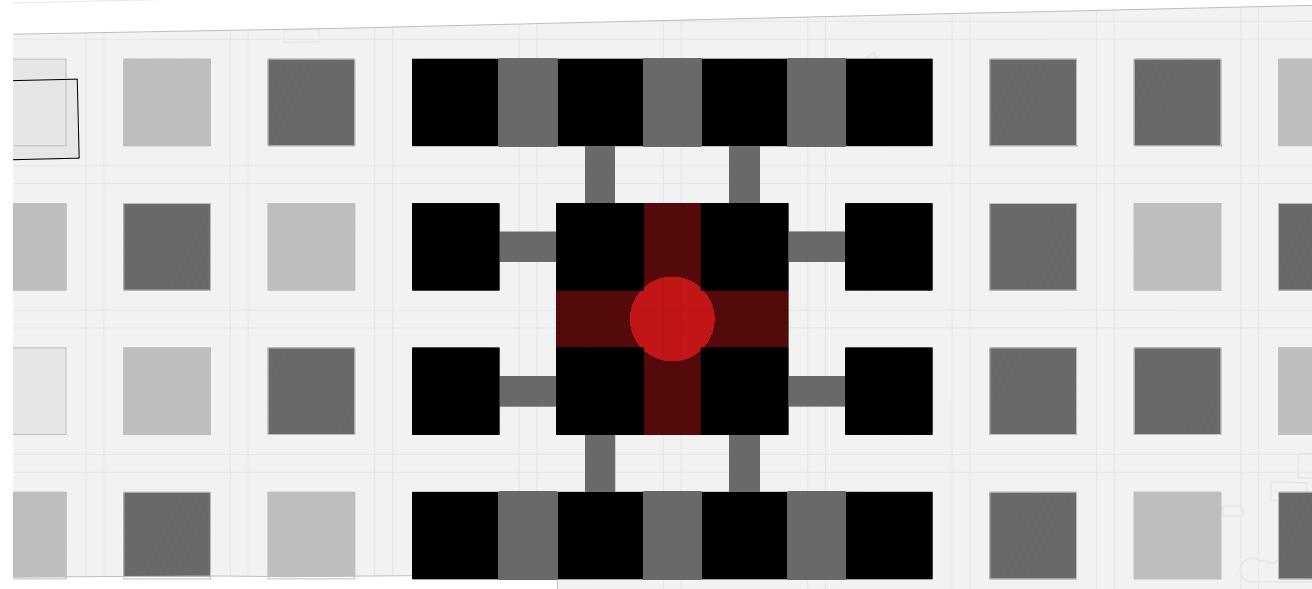
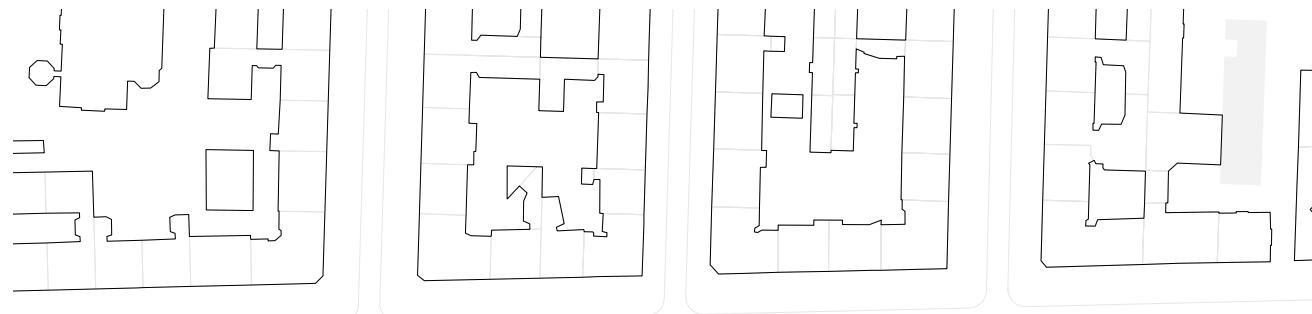
FROM SINGULAR IN-USE

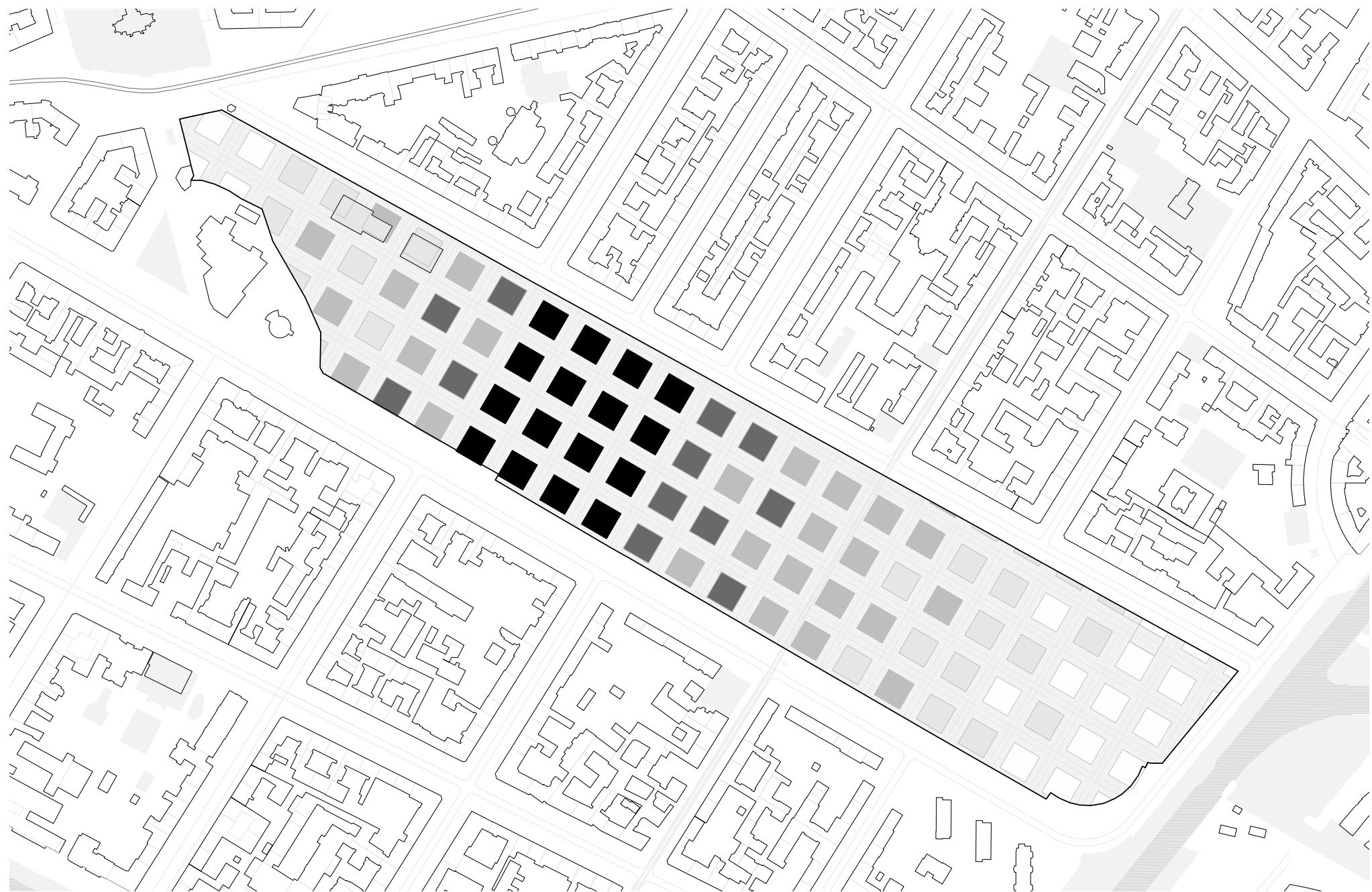
REDEFINING THE IMAGE



TO MIXED-USE FOR SOCIETY

URBAN IMPLEMENTATION



'MASTERPLAN'





RENDERS
R6 AERIAL

IV.

+



IV.

RENDERS

R6_AERIAL





R2_INTERSECTION

+
R2
INTERSECTION
RENDER

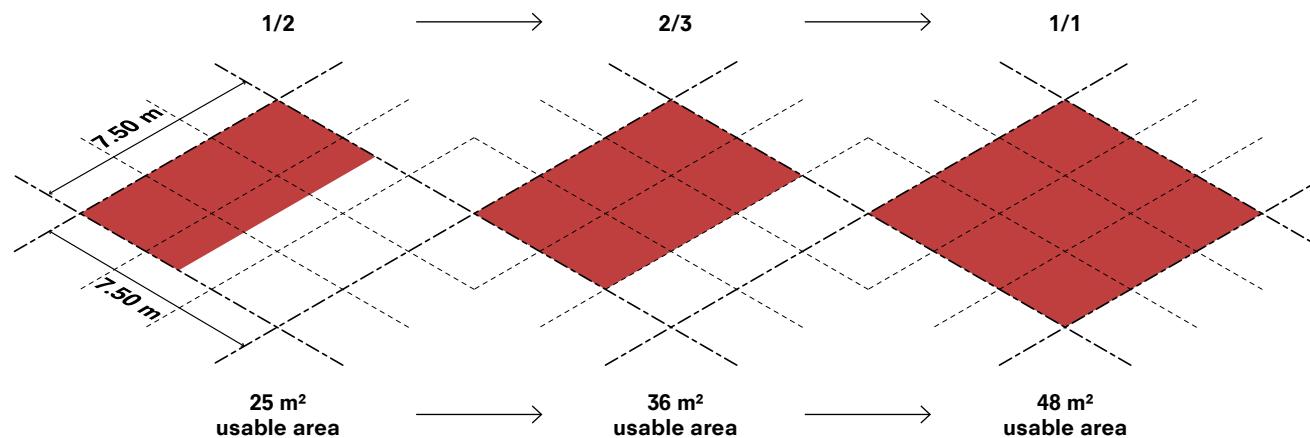
R1_EXTENSION OF THE URBAN FABRIC



XL - L - M - S - XS

“STRUCTURE”

SITE PLAN

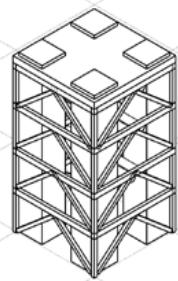
7.8 - 8.4 M**MODULAR SIZING ORDER**

NICKL-WELLER, C., & NICKI, H. (2021). ARCHITECTURE FOR HEALTH.

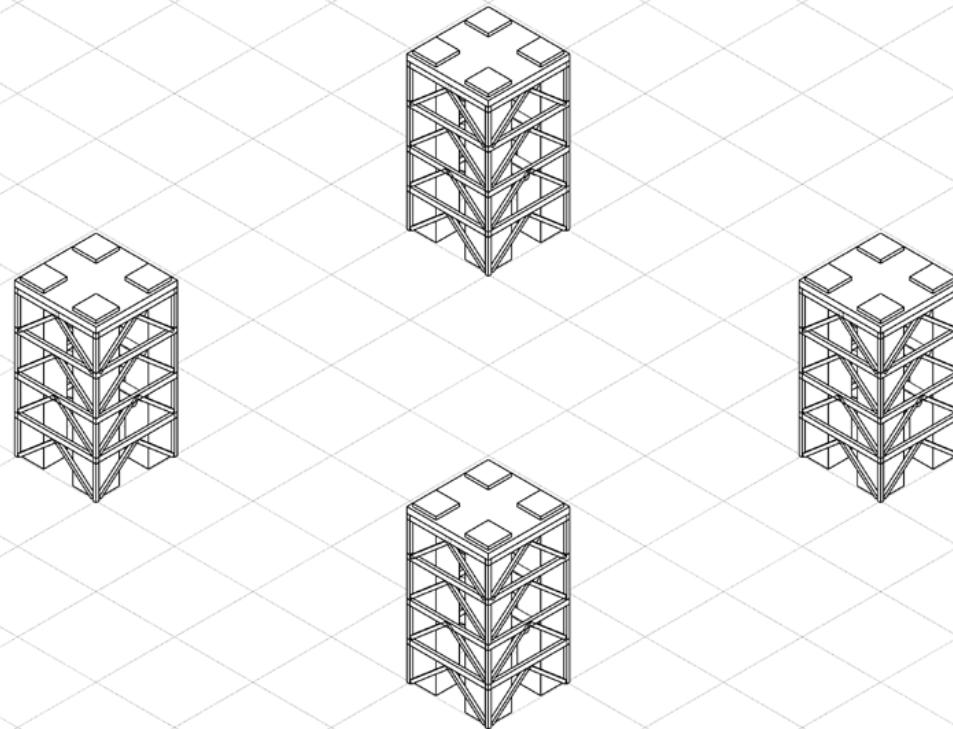
MODULAR 8.1 X 8.1 GRID



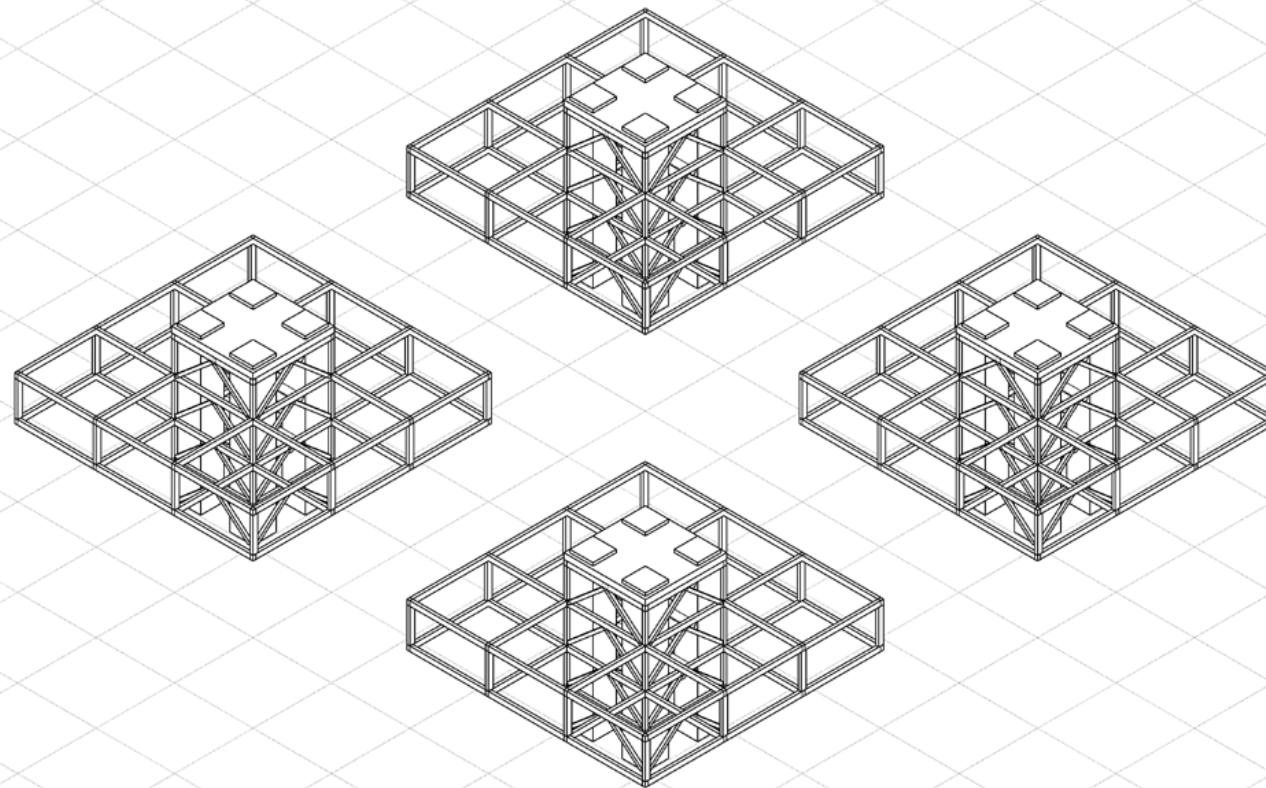
INFRASTRUCTURAL CORE

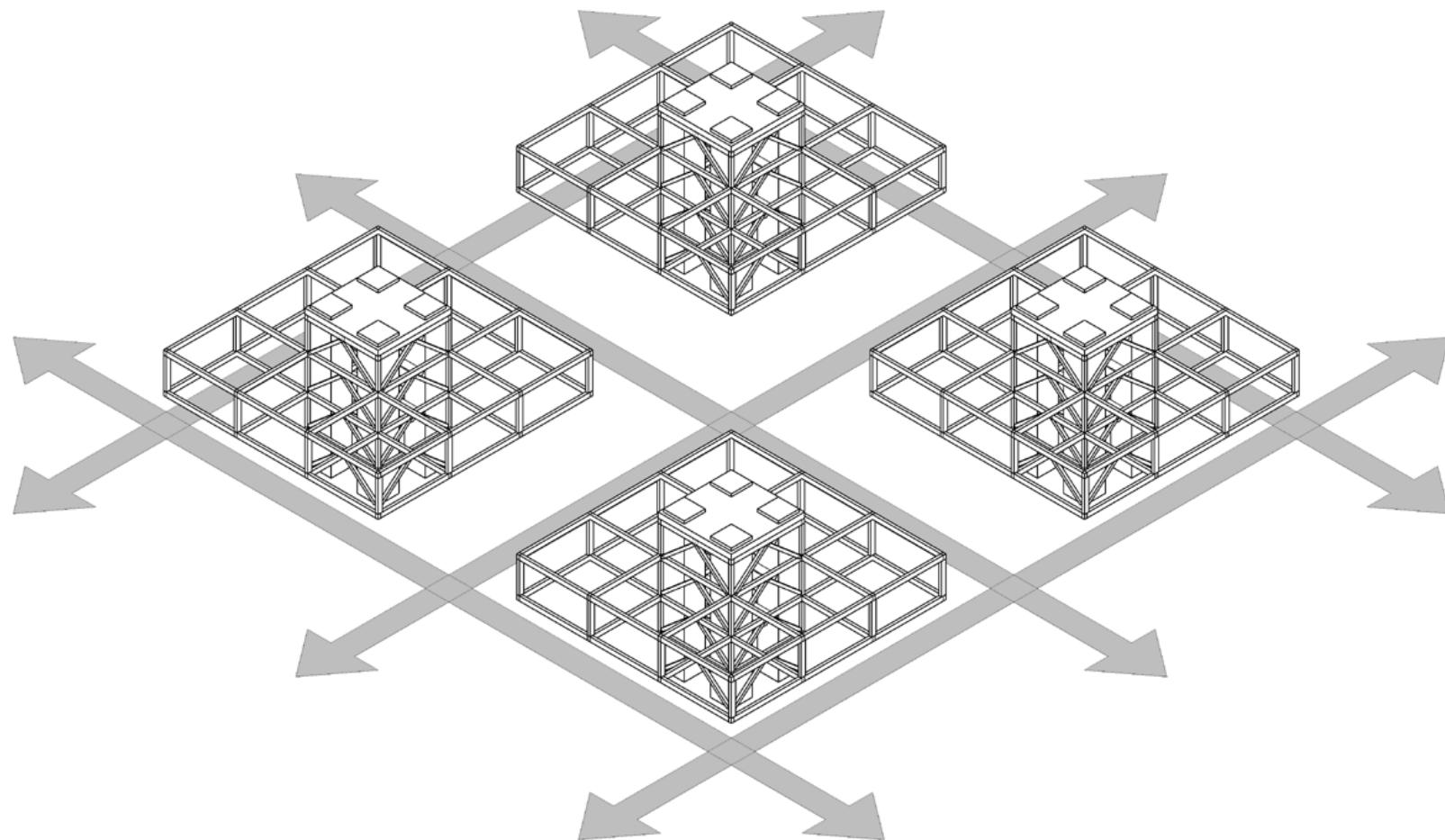


INFRASTRUCTURAL NETWORK

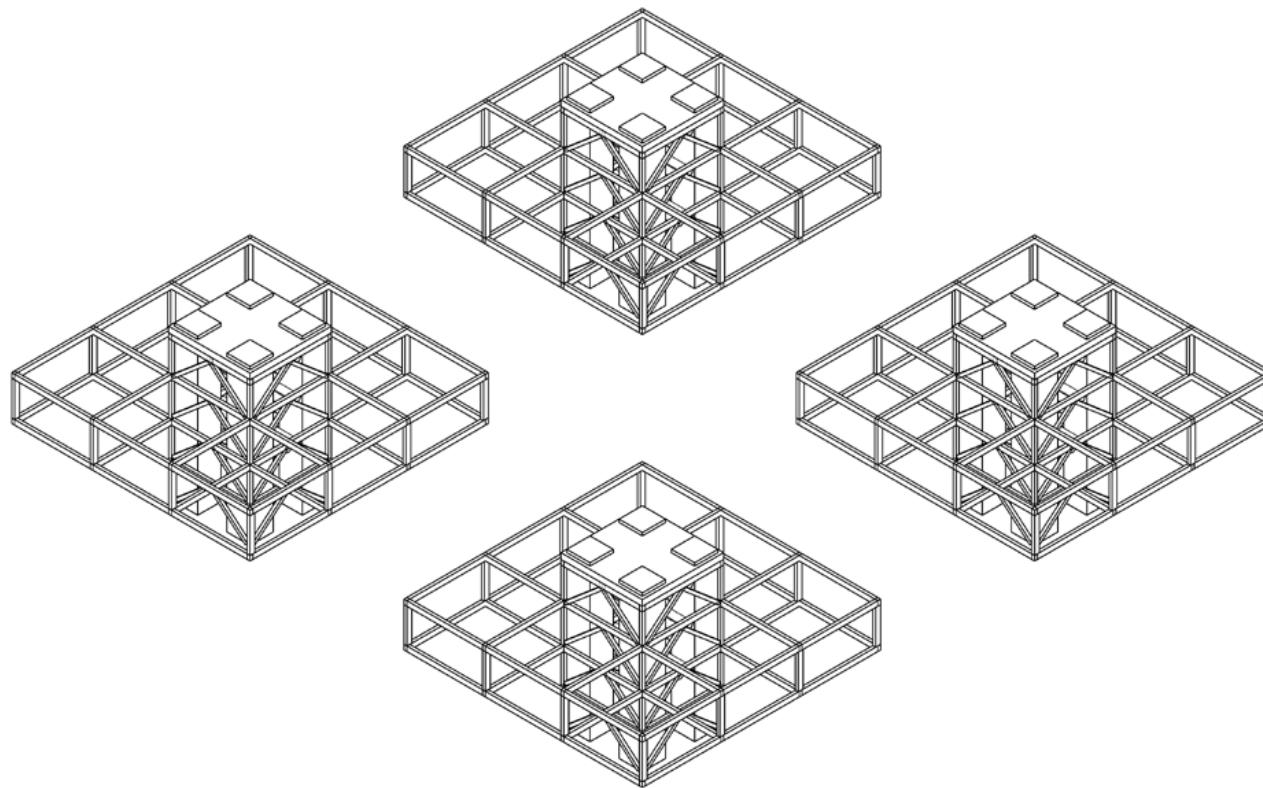


VIERENDEEL TRUSS

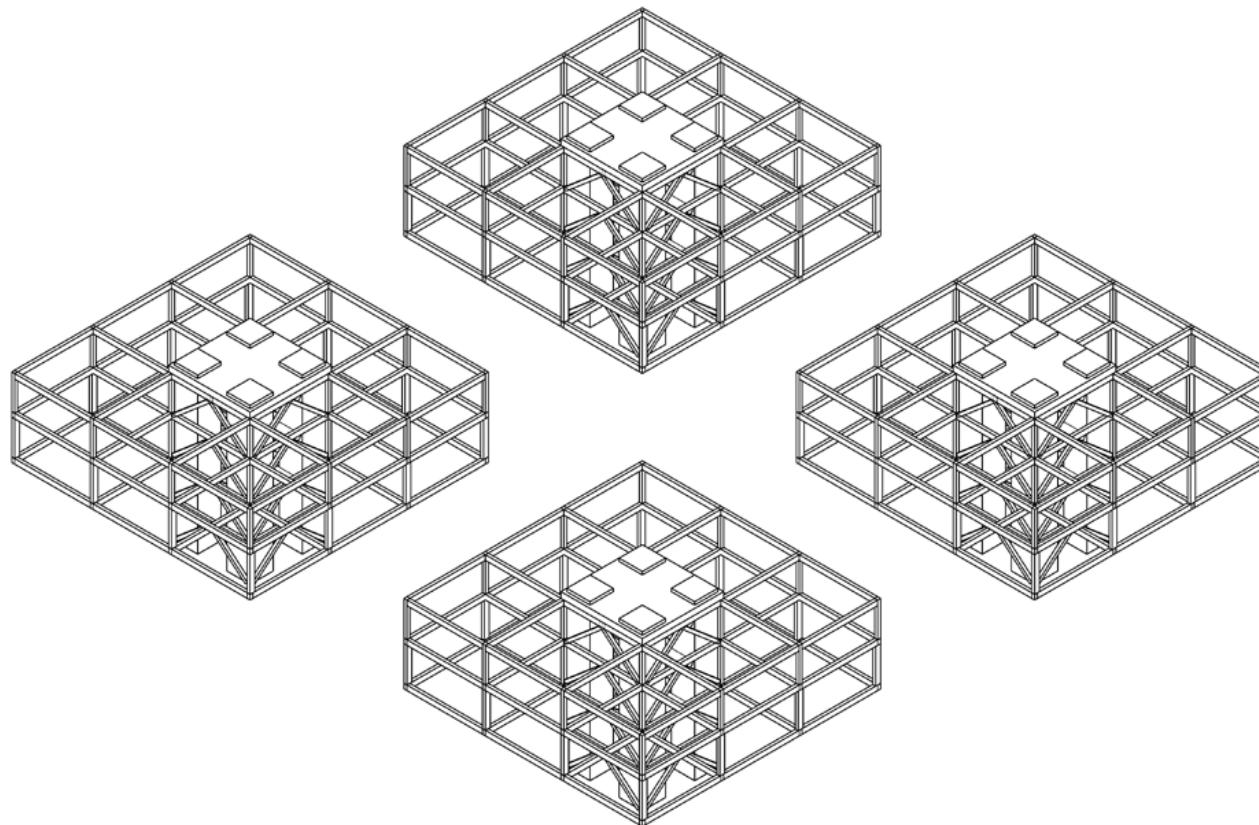


OPEN PLINTH

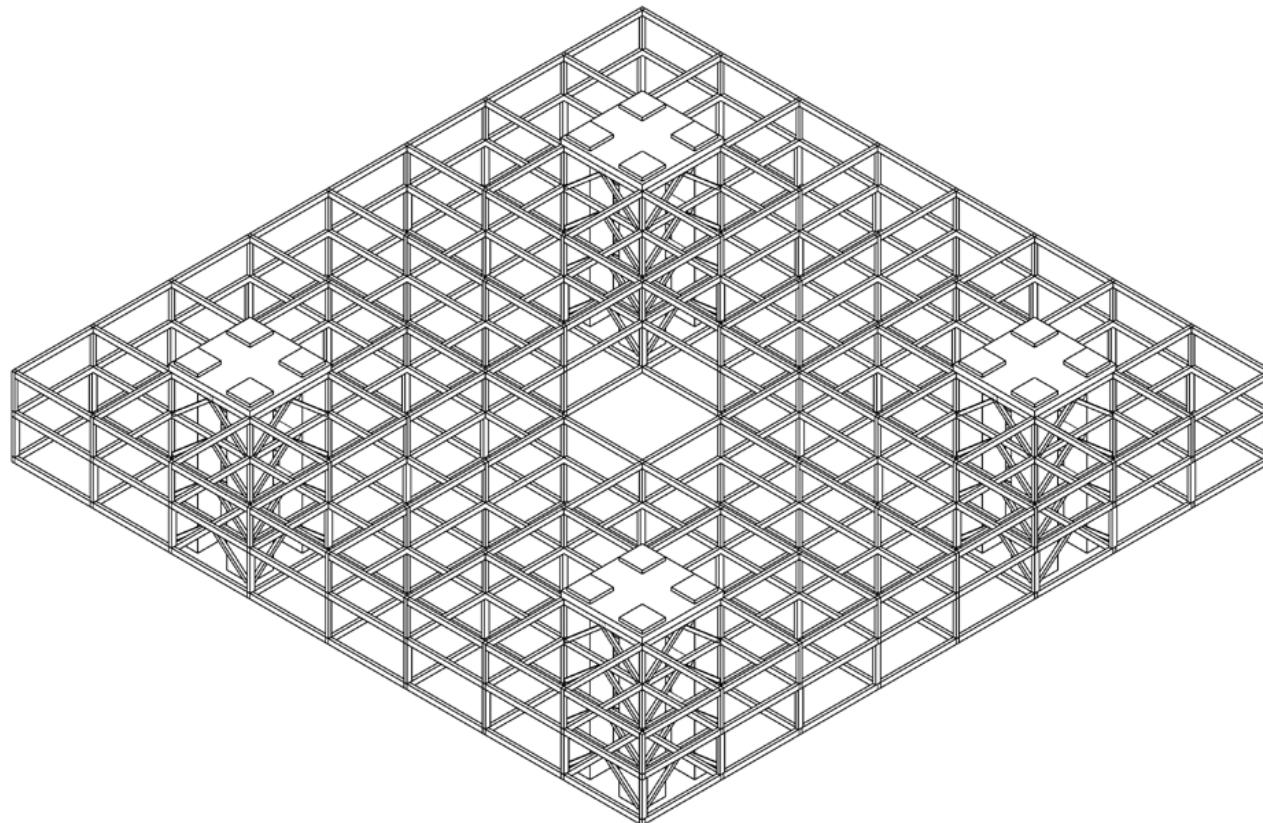
FLOATING SLABS

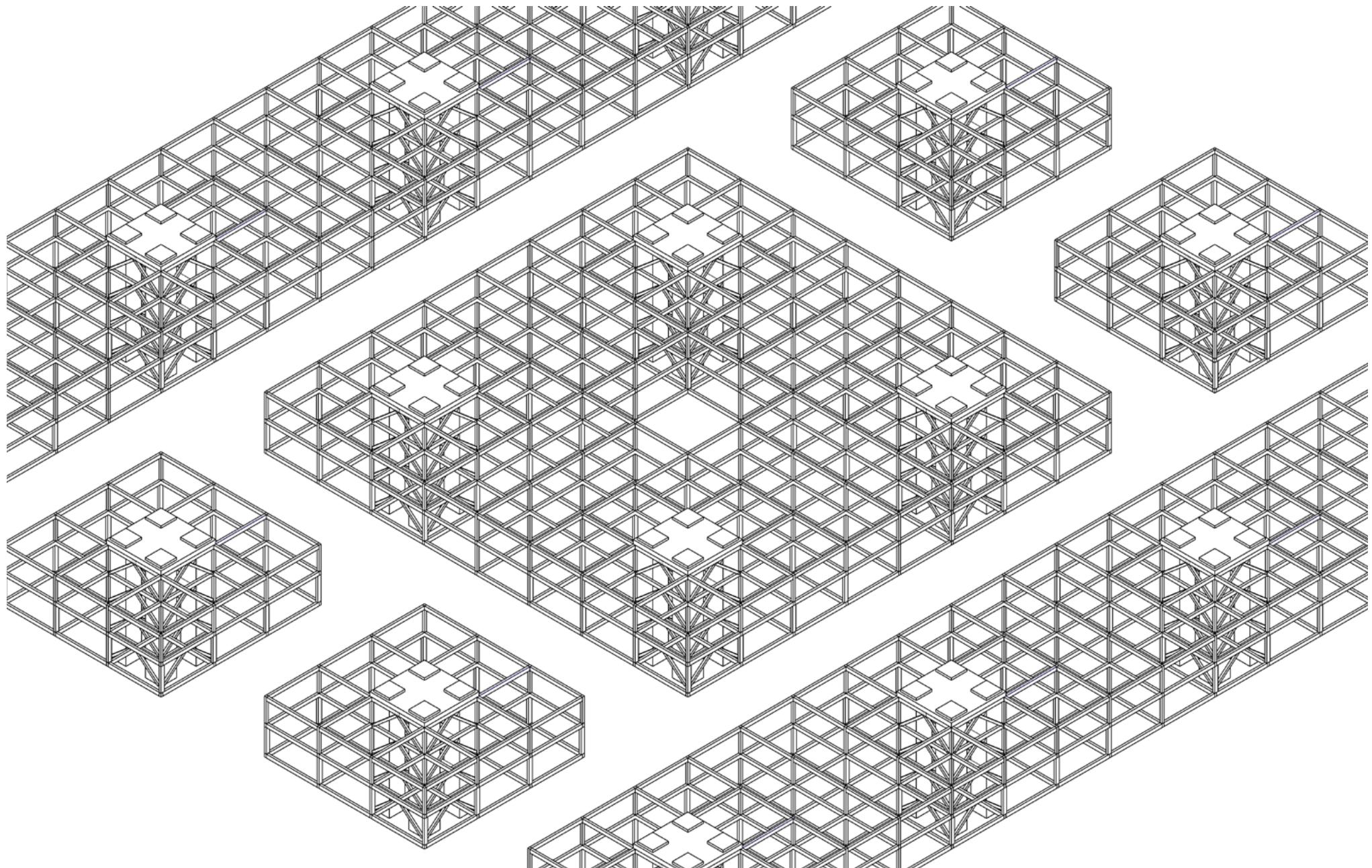


TOPPING UP

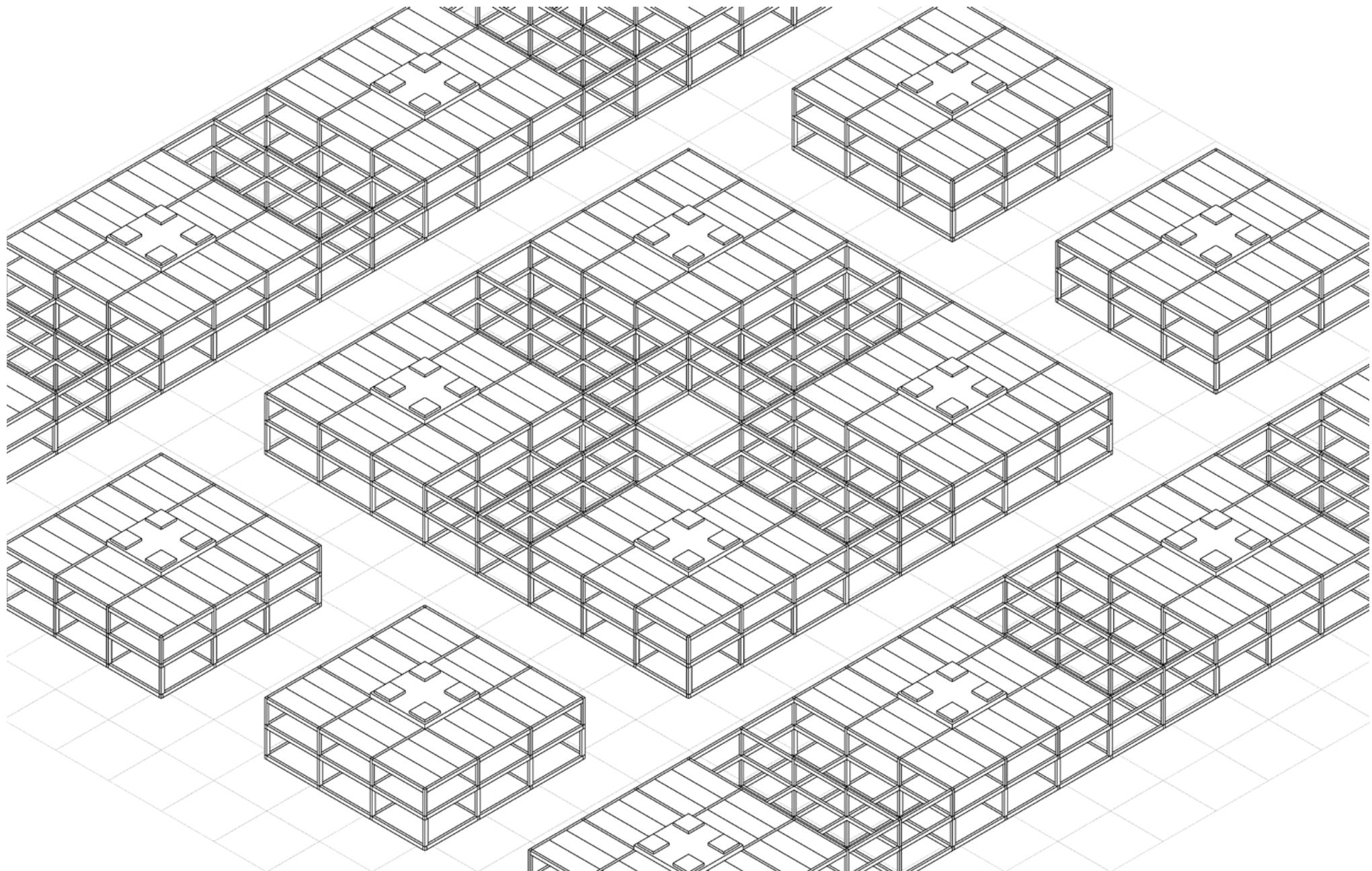


CONNECT

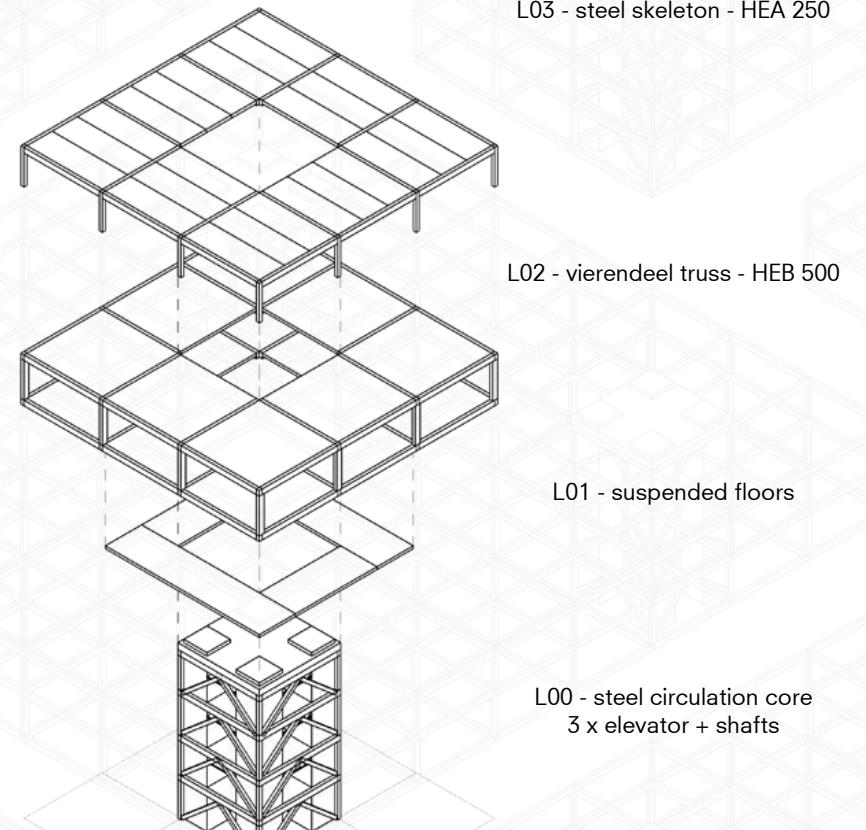


MULTIPLY

MEGA STRUCTURE



META STRUCTURE



L03 - steel skeleton - HEA 250

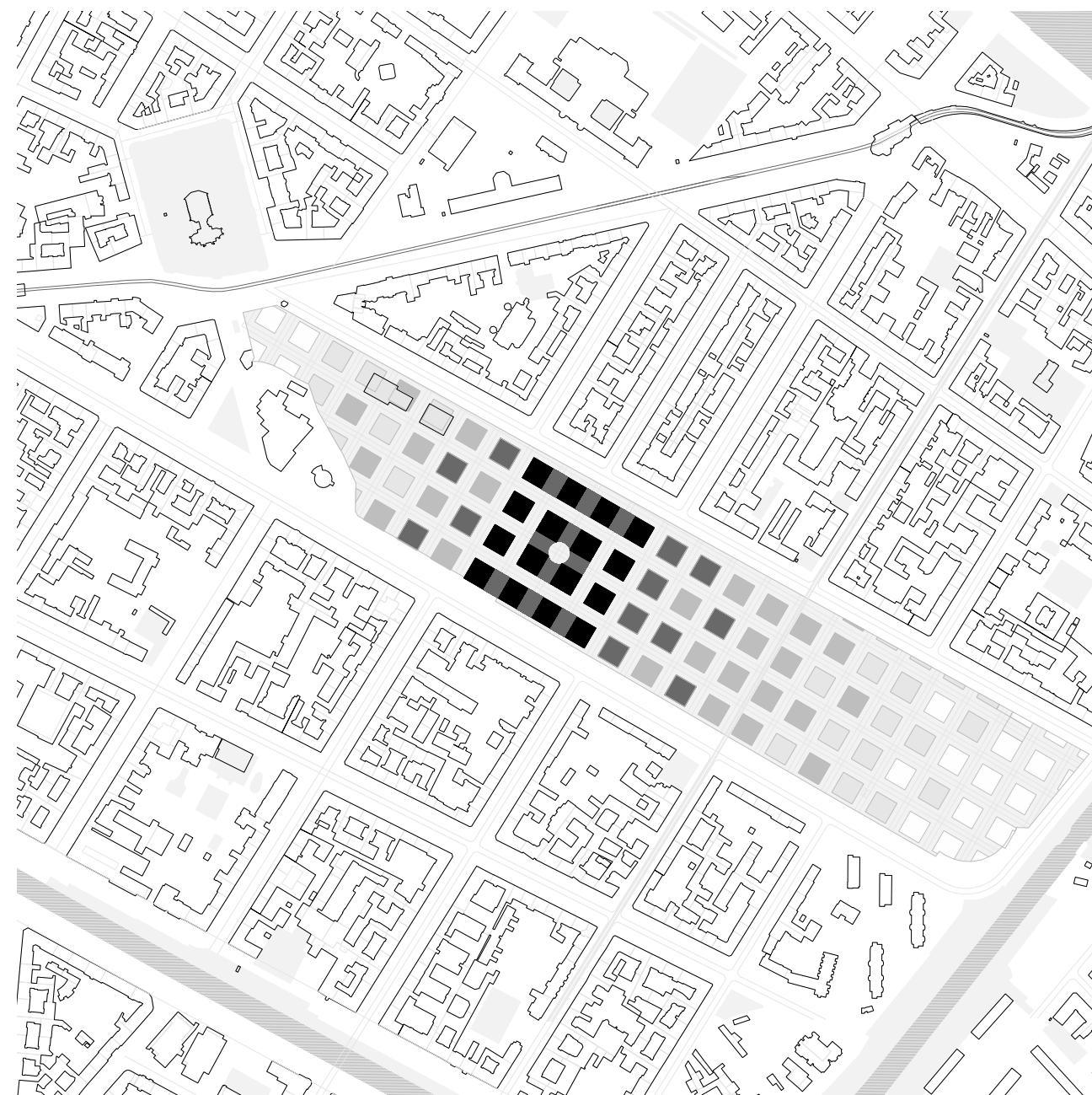
L02 - vierendeel truss - HEB 500

L01 - suspended floors

L00 - steel circulation core
3 x elevator + shafts

+ Kerto Ripa Hollow Core Floor slabs

vierendeel truss rules:
max 1. bay cantilever
max 4. bay span between cores
= extend & multiply

SITE PLAN



IV.

RENDERS
R6_AERIAL

+

CP

XL-L-M-S-XS

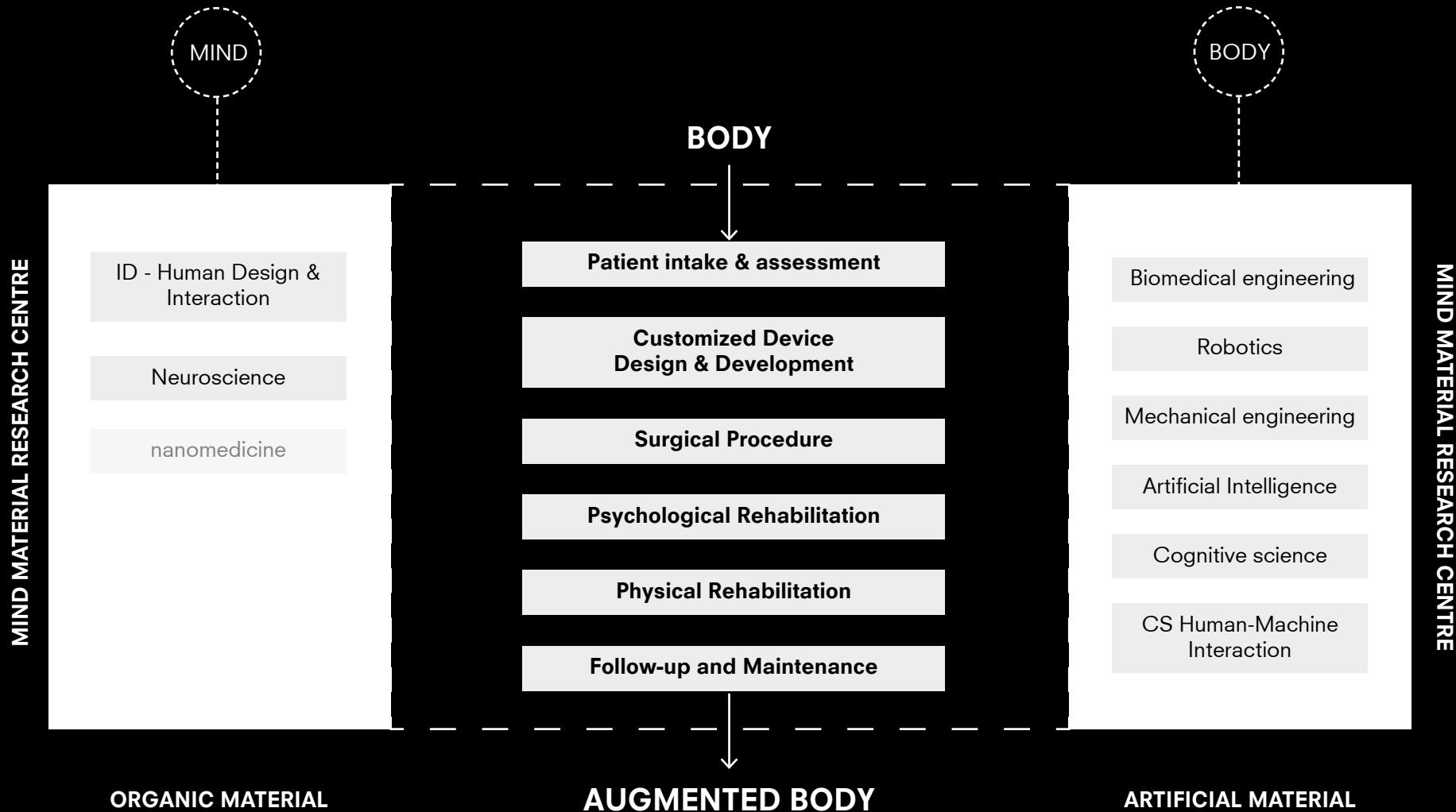
P.200

XL - L - **M** - S - XS

“PROGRAM - FLOWS”

HOW IS IT ORGANISED?

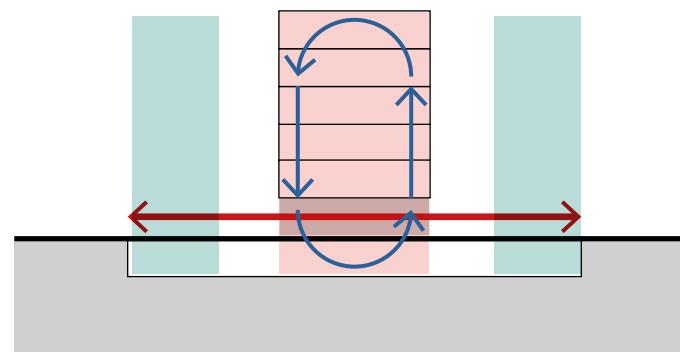
FUSION OF BODY AND MATERIAL



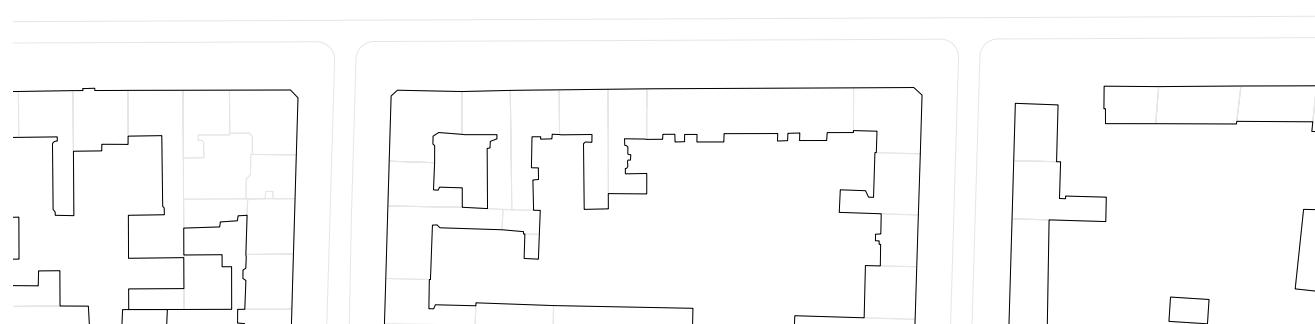
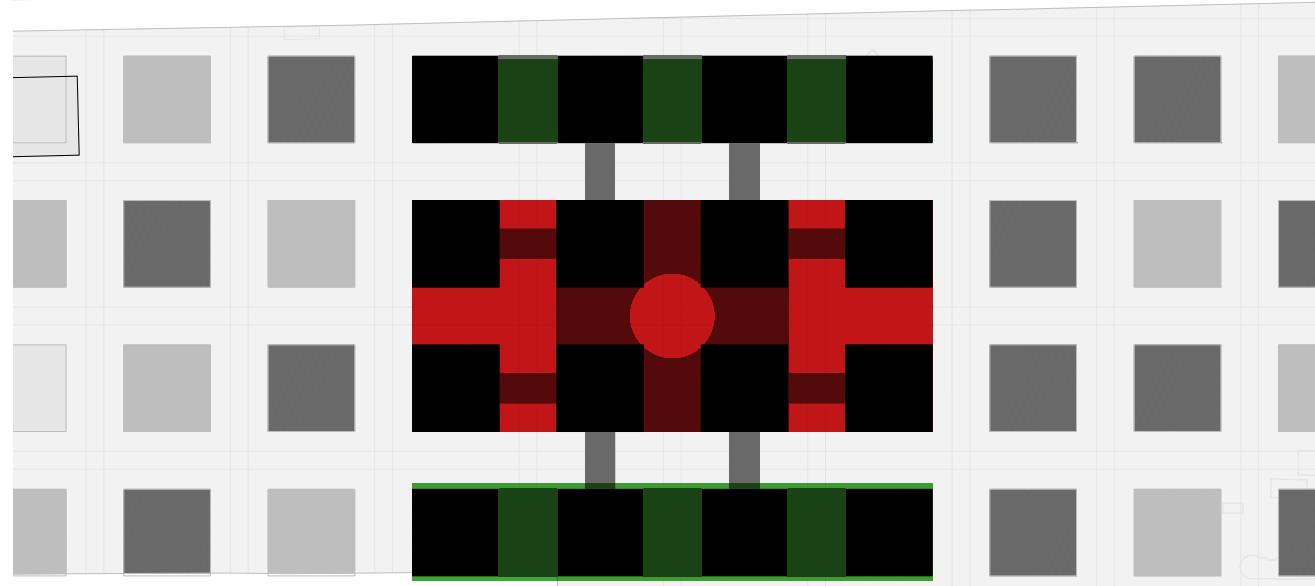
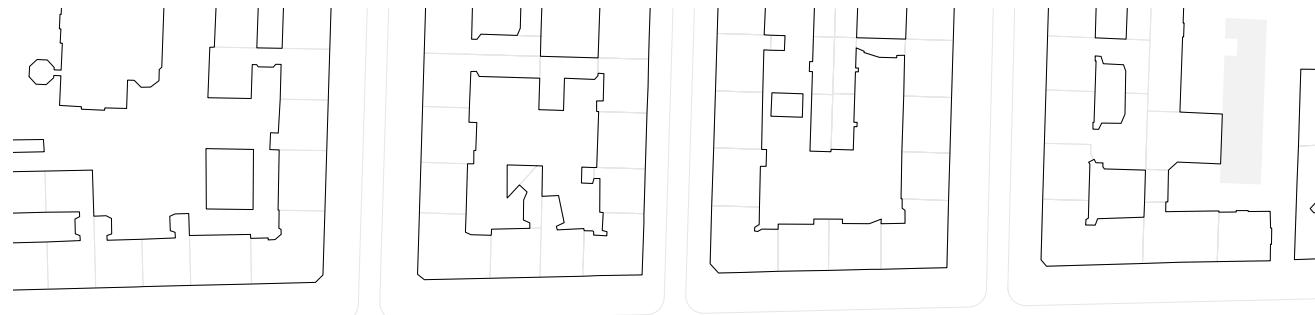
INTEGRATION OF RESEARCH AND DEVELOPMENT FACILITIES

DESIGN DEVELOPMENT

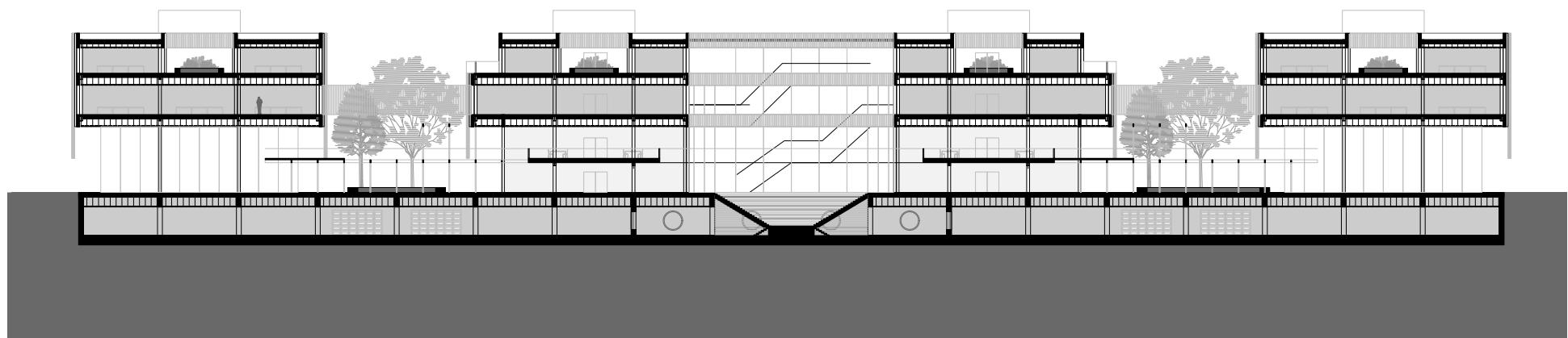
INTERLINK FLOWS BETWEEN PUBLIC AND PRIVATE



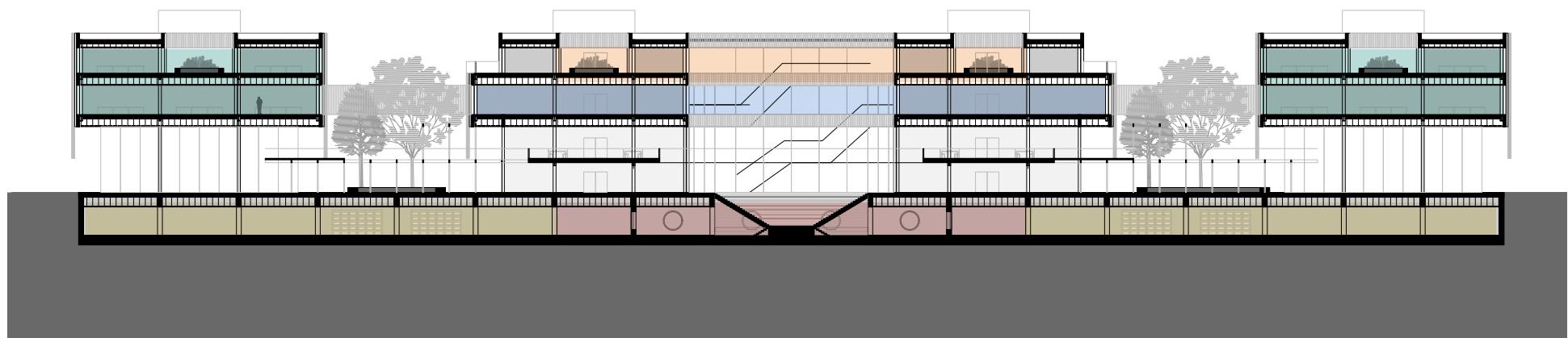
URBAN IMPLEMENTATION



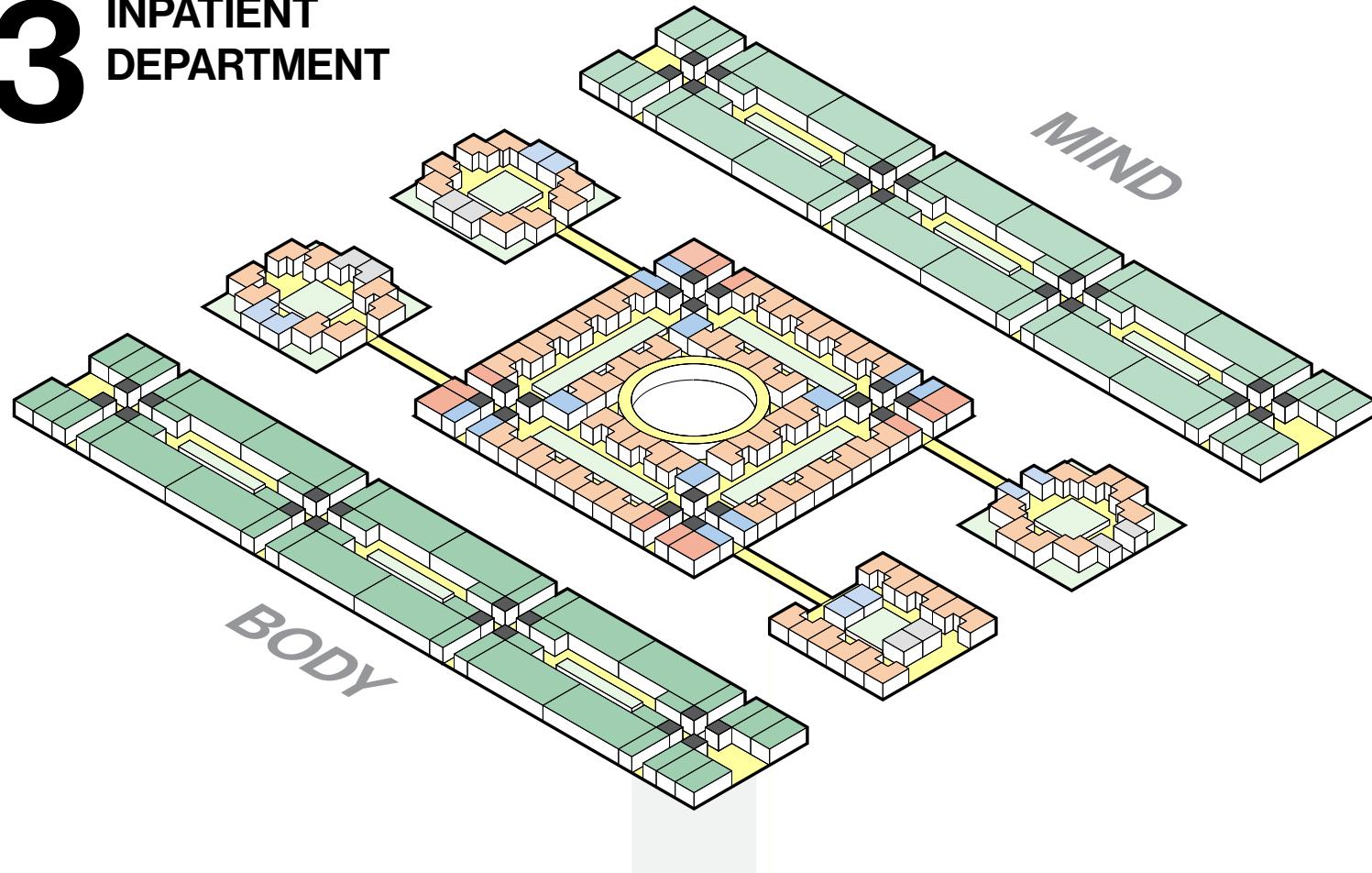
SECTION - MID



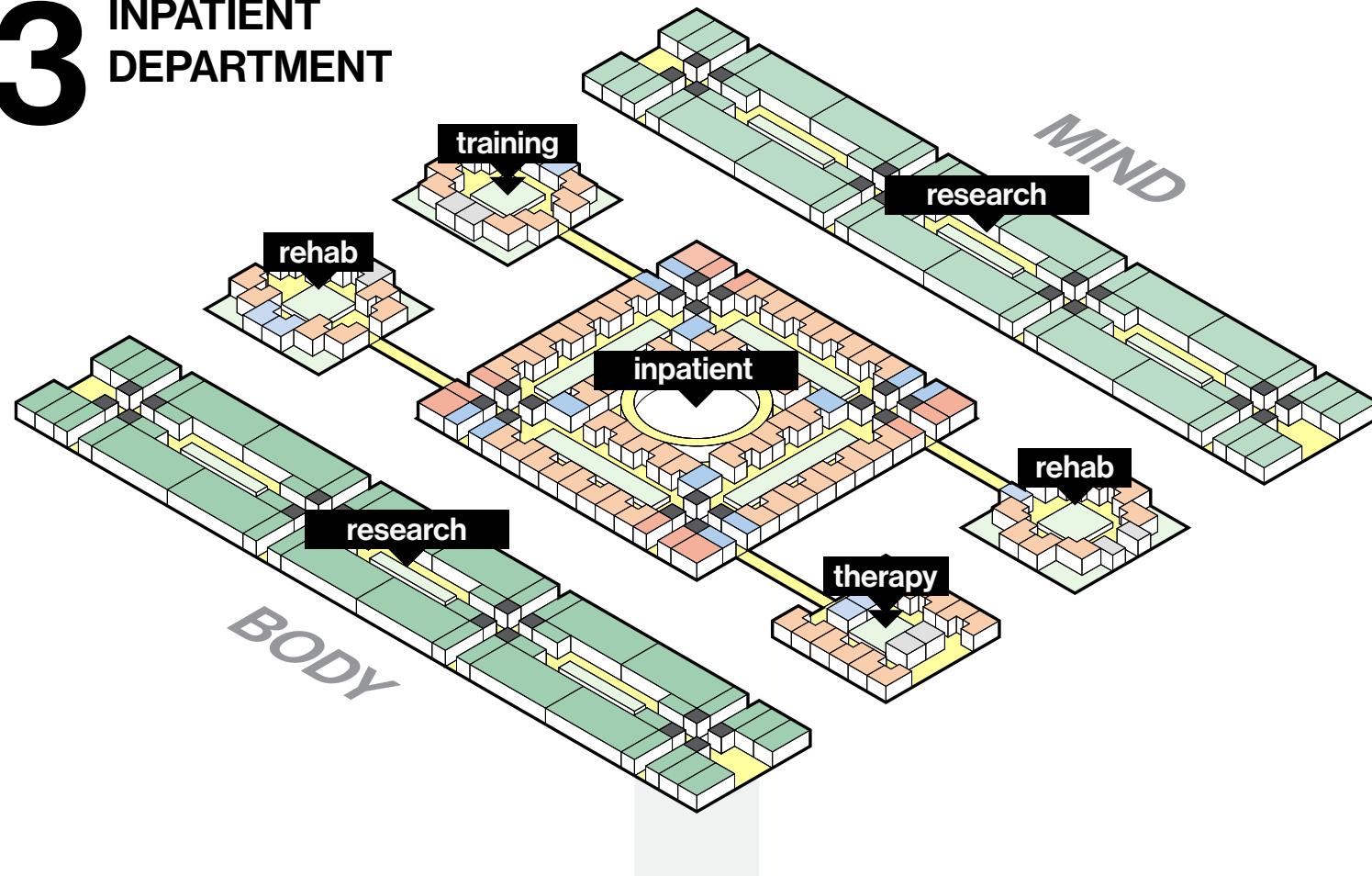
SECTION - MID



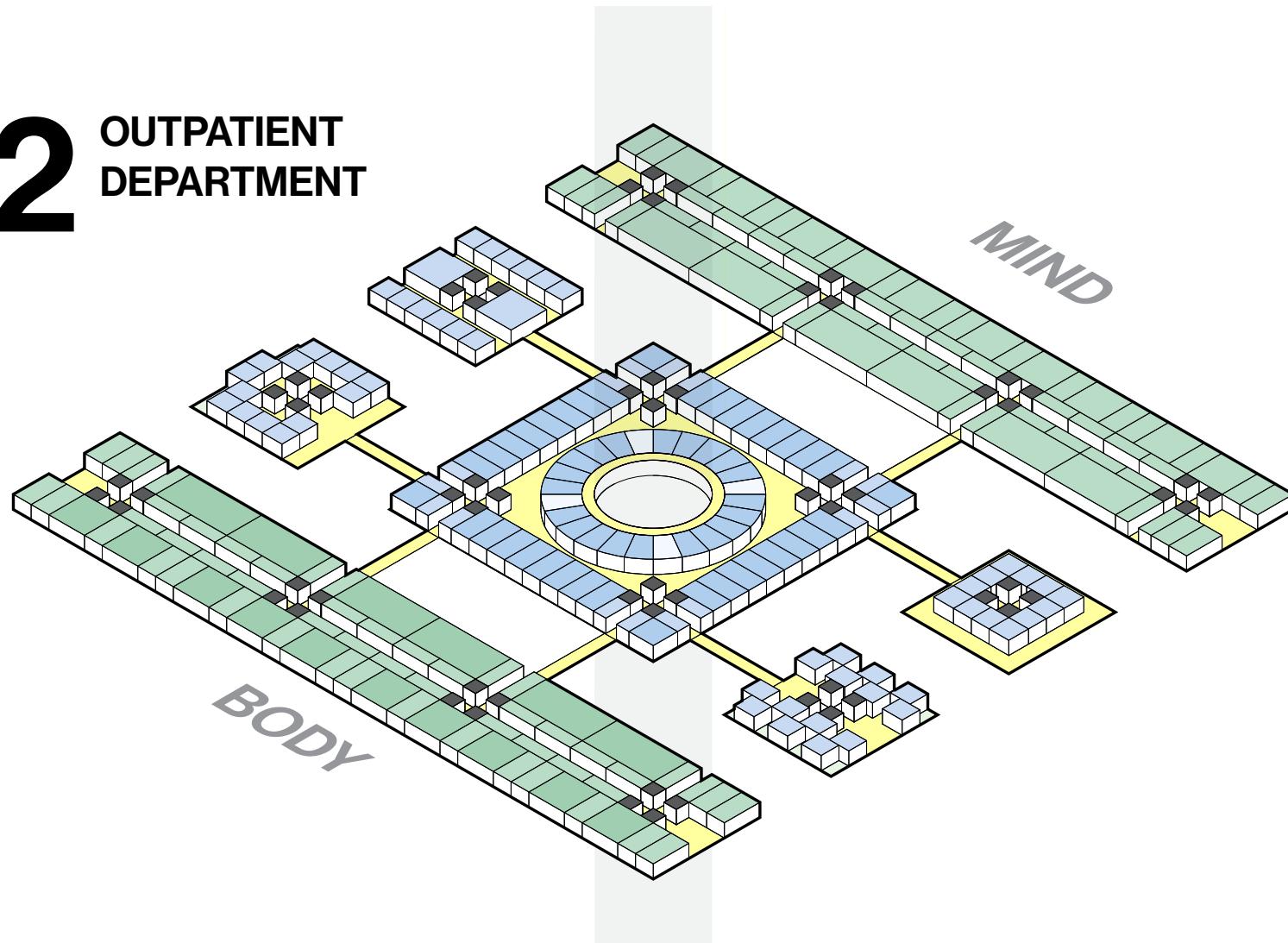
03 INPATIENT DEPARTMENT



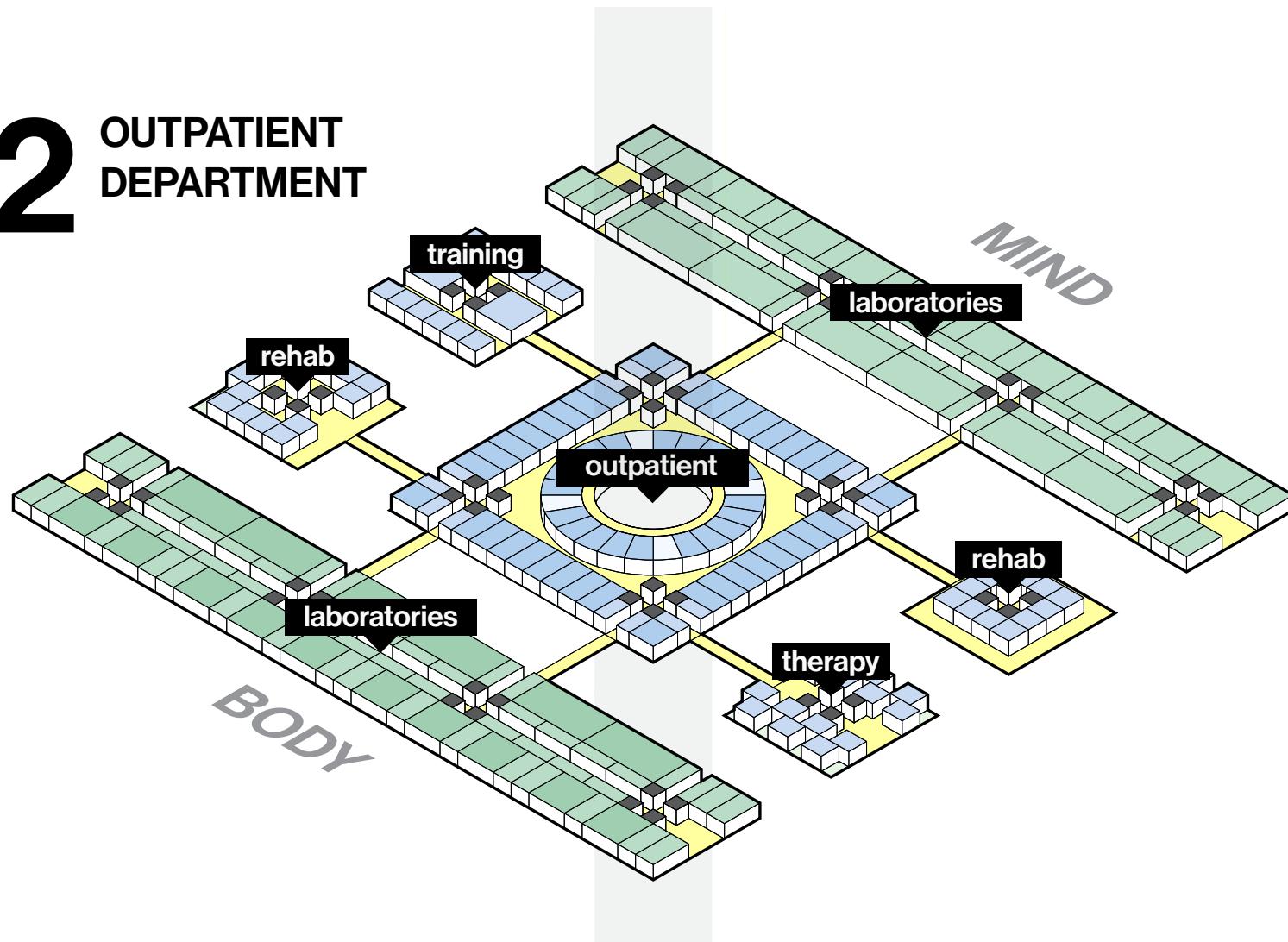
03 INPATIENT DEPARTMENT



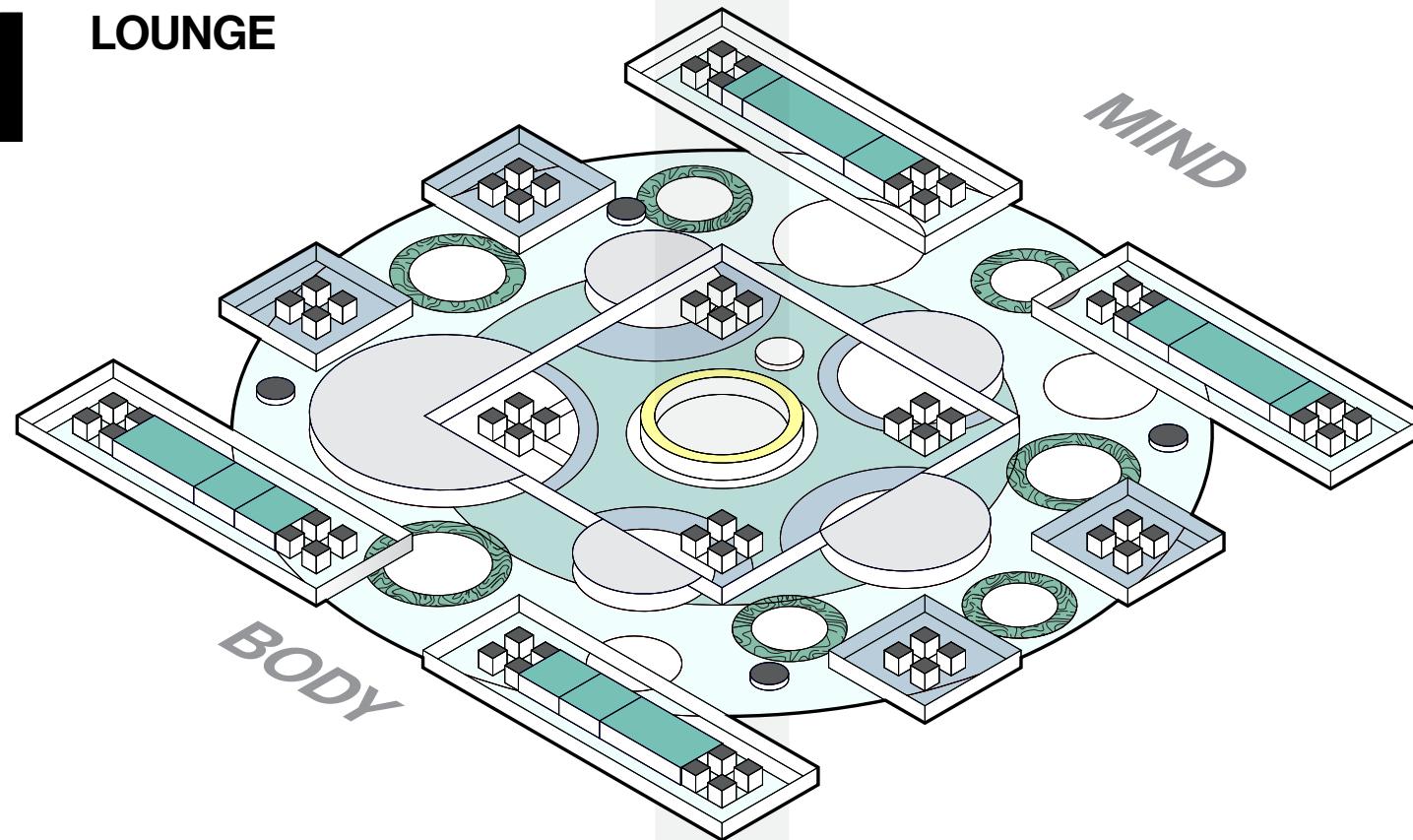
02 OUTPATIENT DEPARTMENT



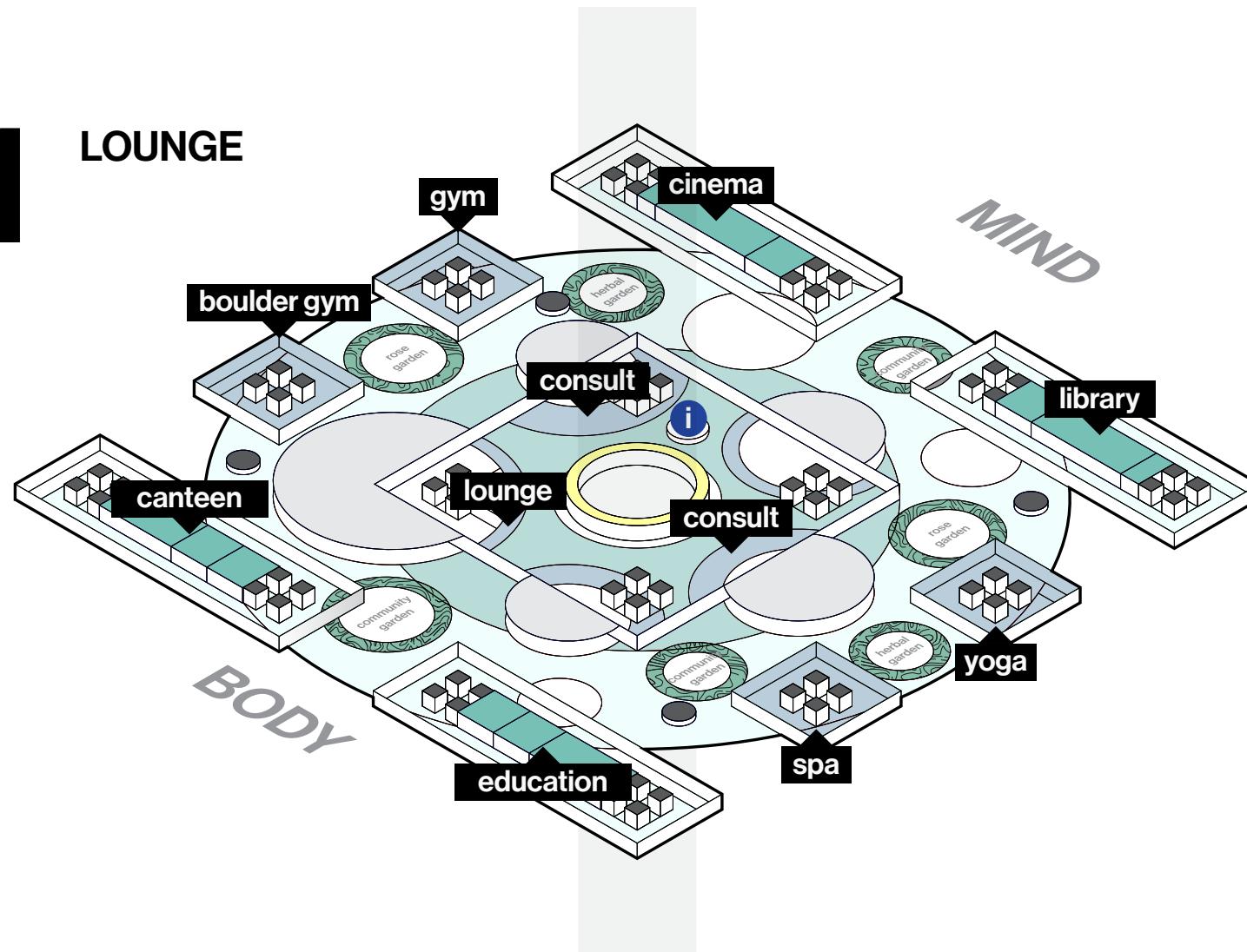
02 OUTPATIENT DEPARTMENT



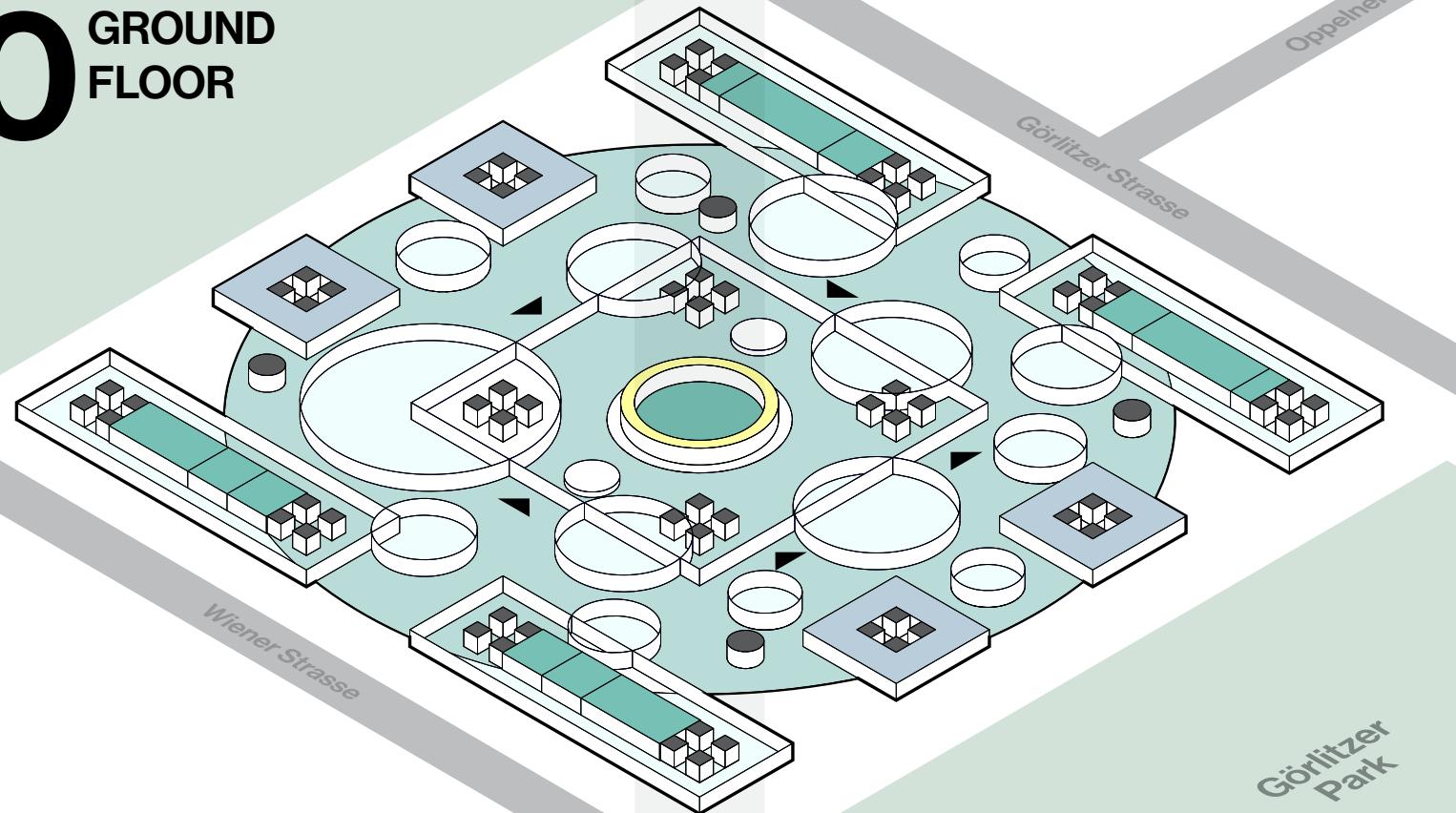
01 LOUNGE



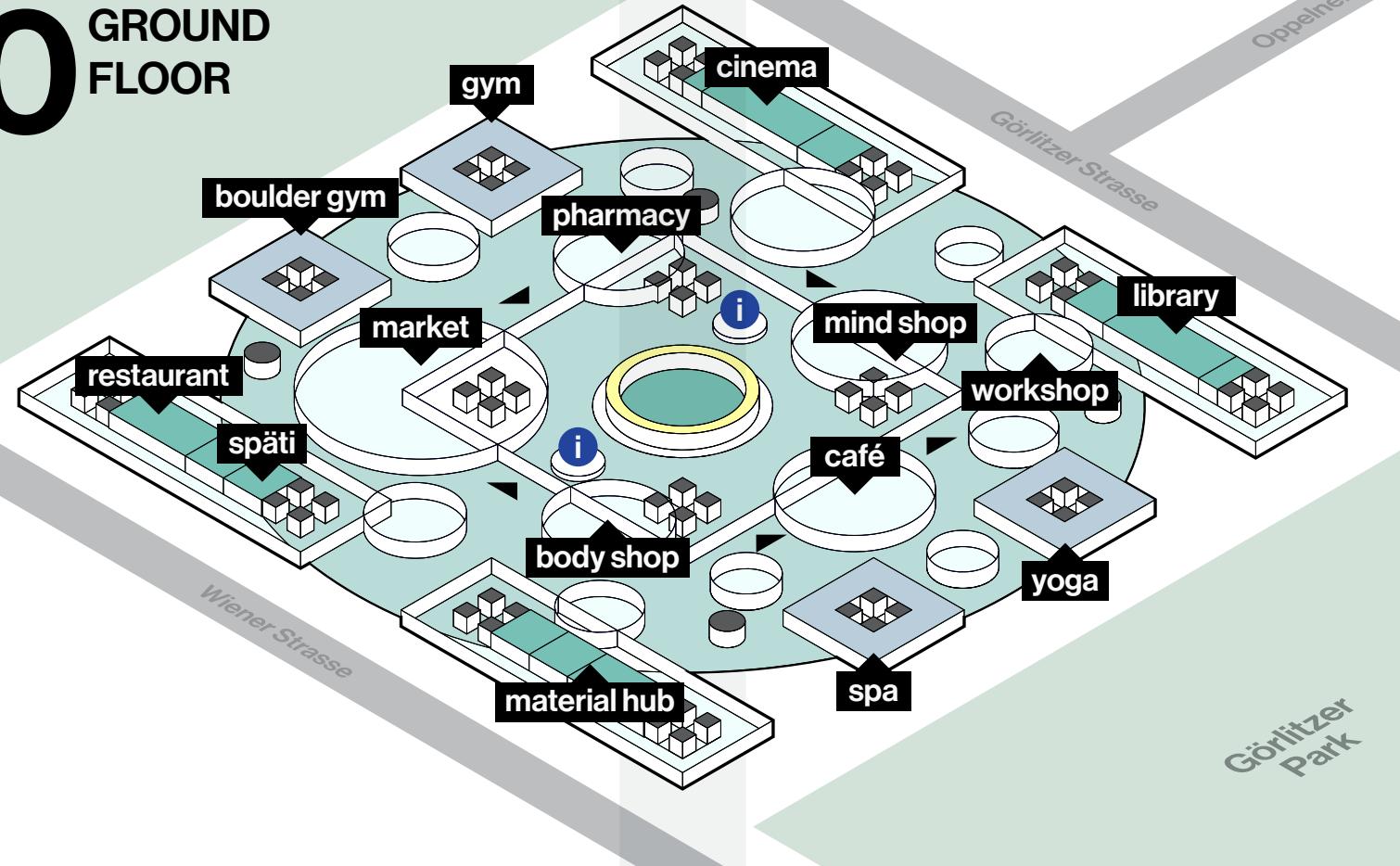
01 LOUNGE



00 GROUND FLOOR

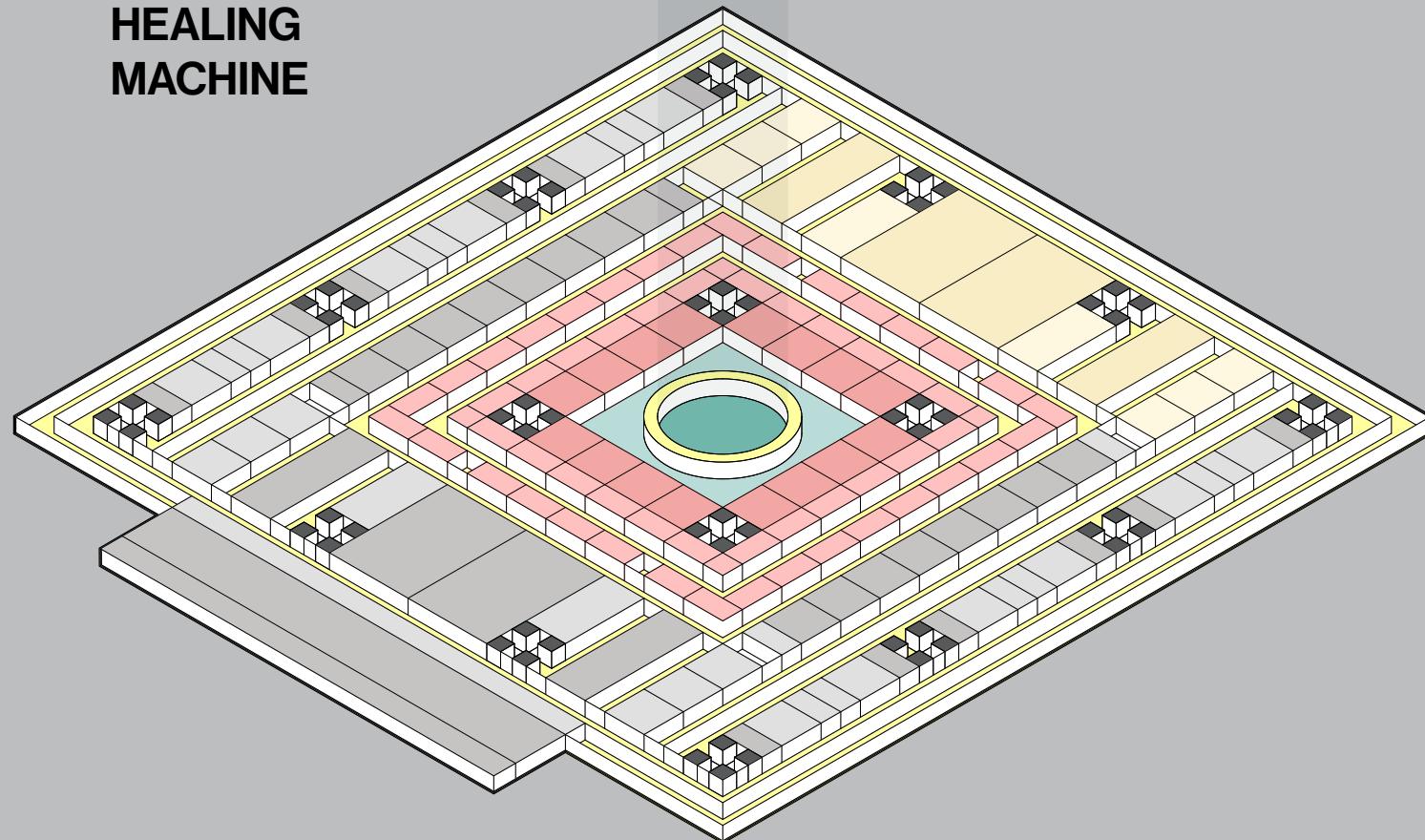


00 GROUND FLOOR



-1

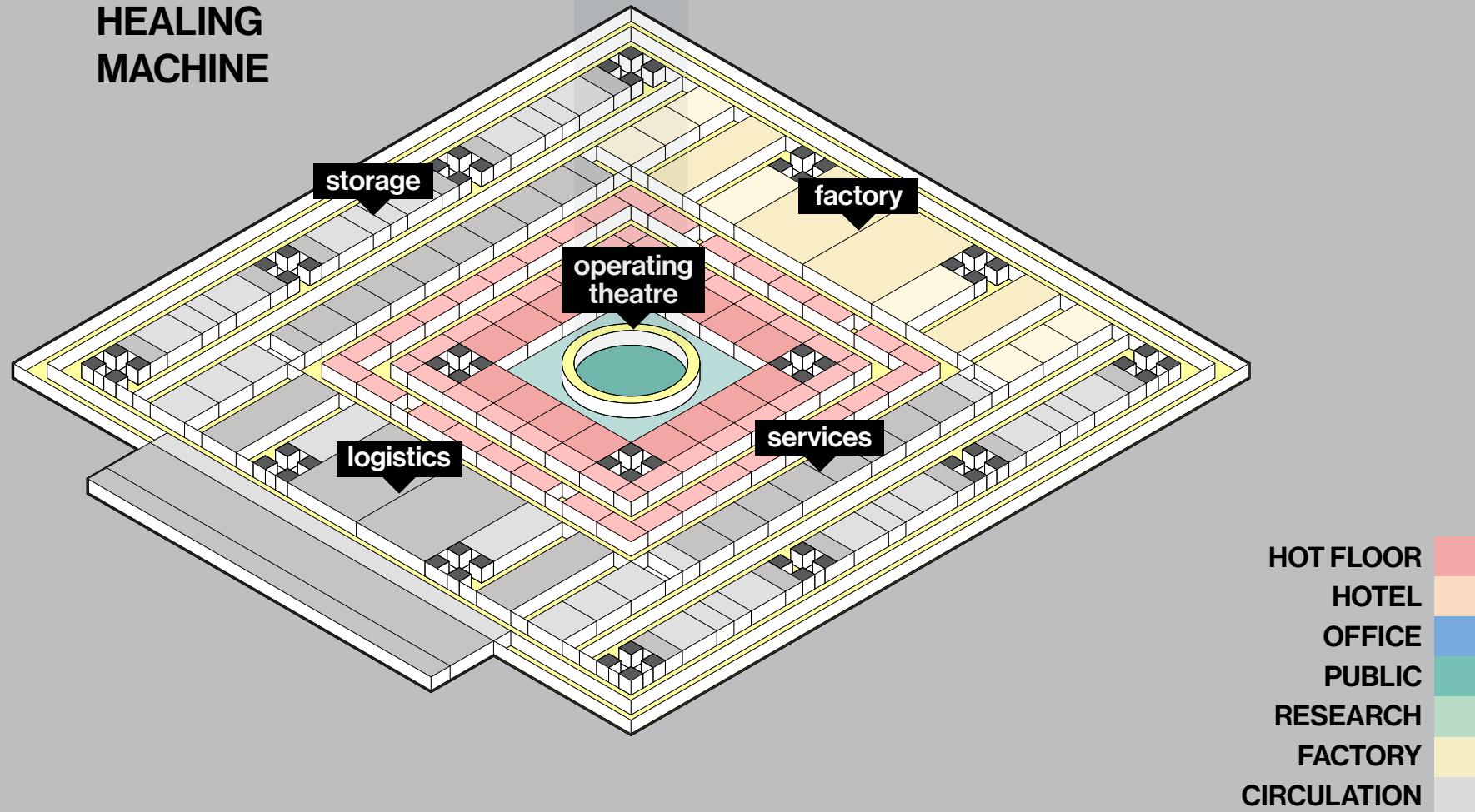
HEALING MACHINE



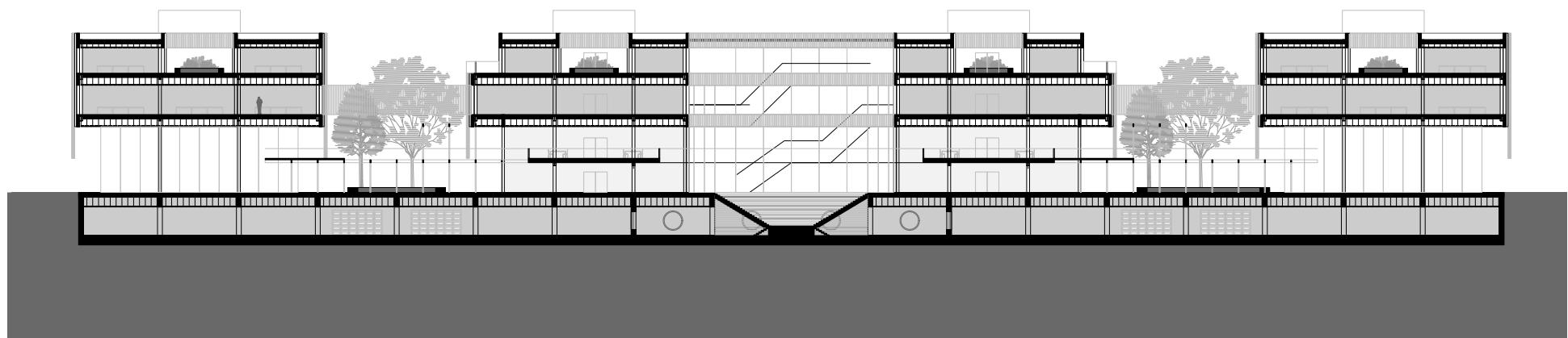
HOT FLOOR
HOTEL
OFFICE
PUBLIC
RESEARCH
FACTORY
CIRCULATION

-1

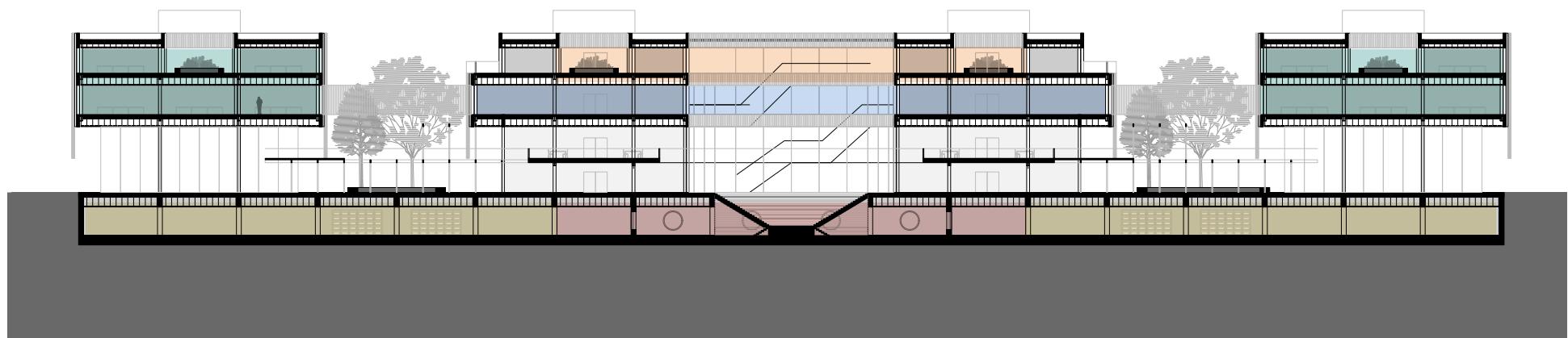
HEALING MACHINE



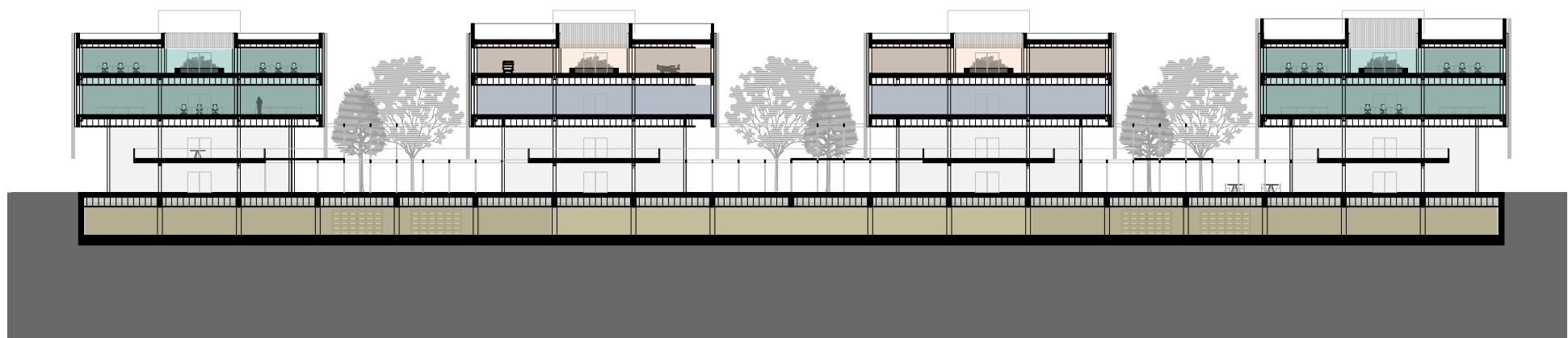
SECTION - MID



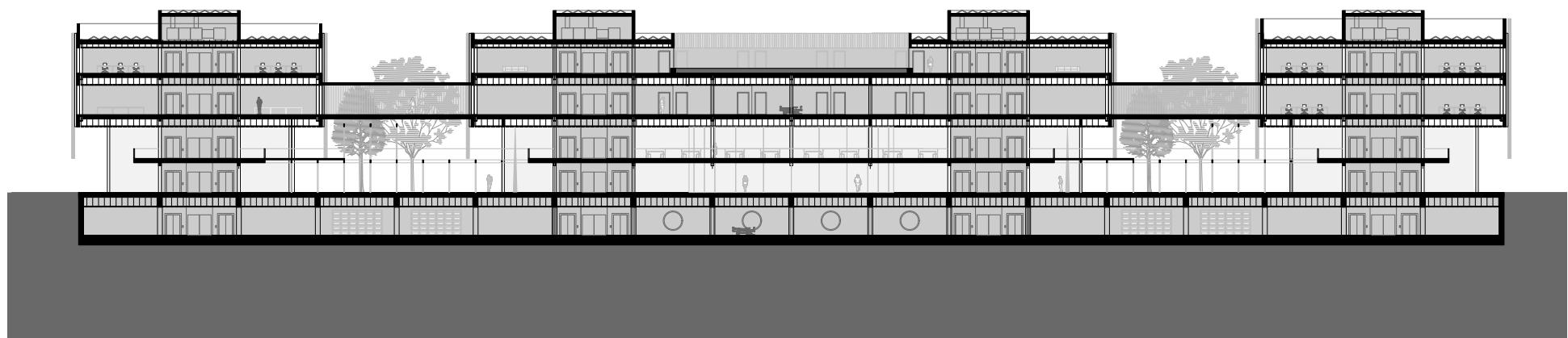
SECTION - MID



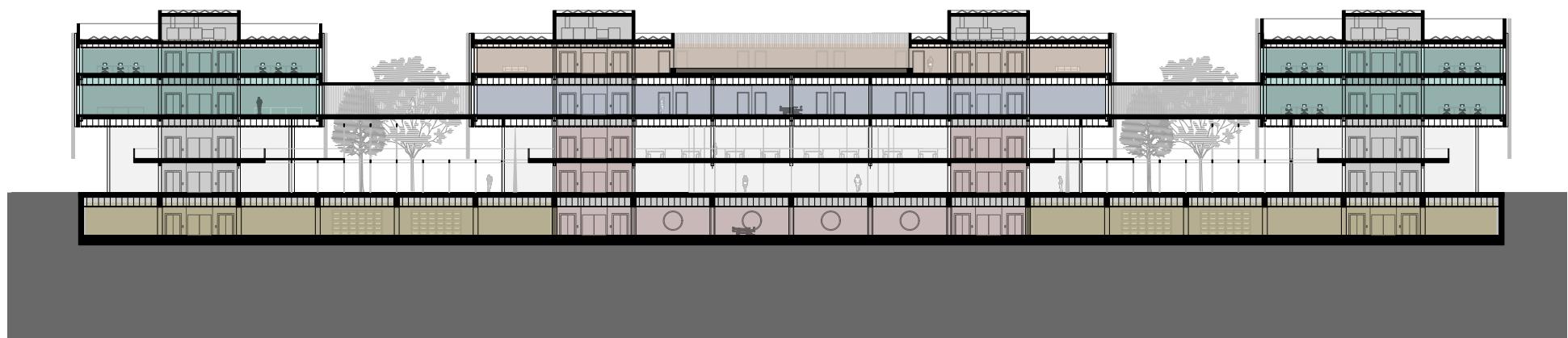
SECTION - SPLIT



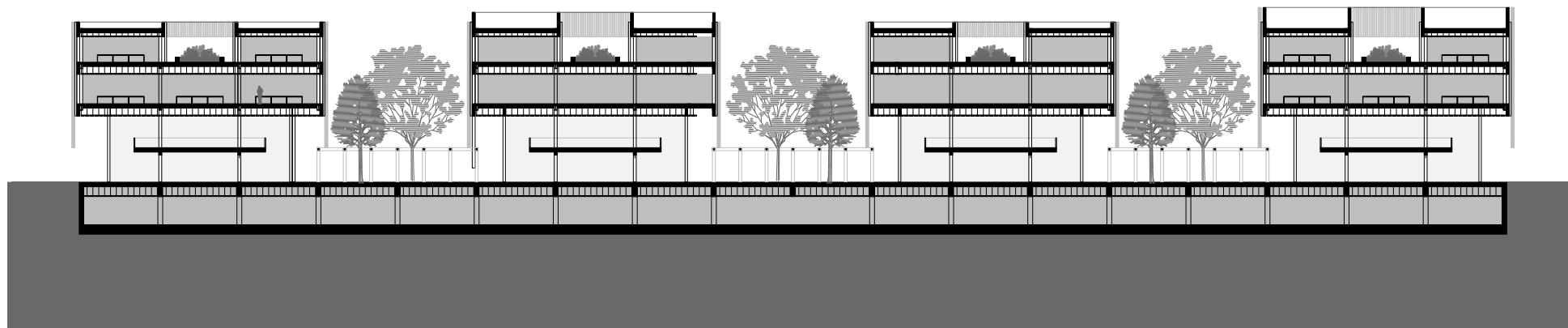
SECTION - CORE



SECTION - CORE



SECTIONS

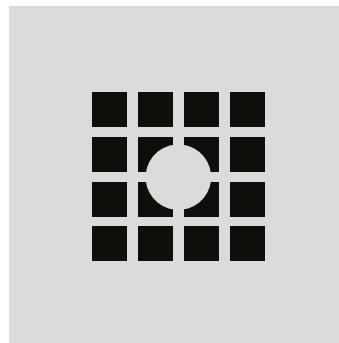


XL - L - M - **S** - XS

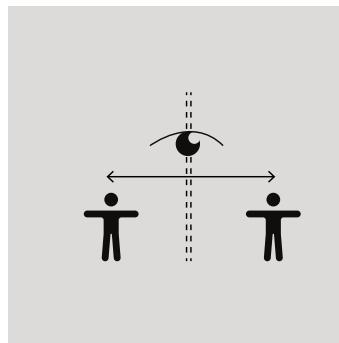
“TRANSITIONS”

BUILDING - ACCESIBILITY

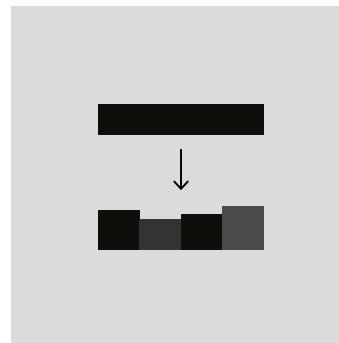
A pattern language: towns, buildings, construction - relevant patterns



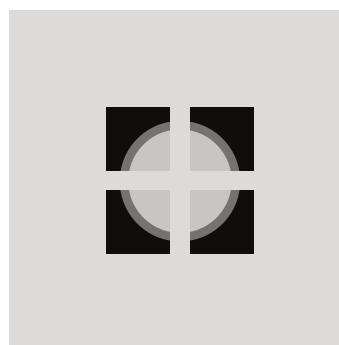
#106 - Positive Outdoor Space



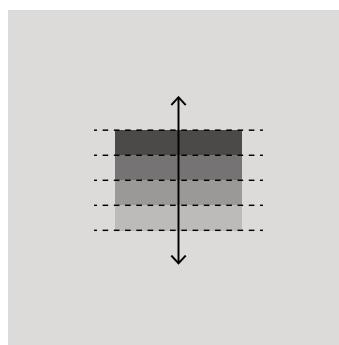
#162 - Street Windows



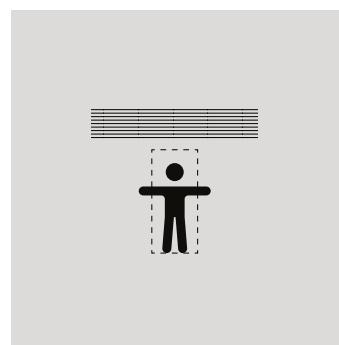
#136 - Building Fronts



#150 - Activity Pockets



#112 - Entrance Transition

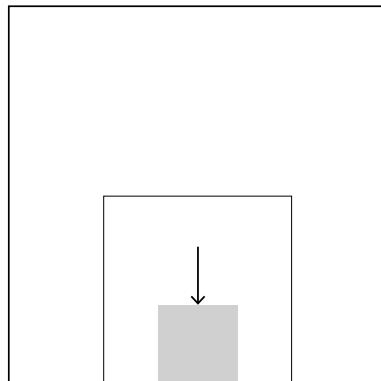


#204 - Human Scale

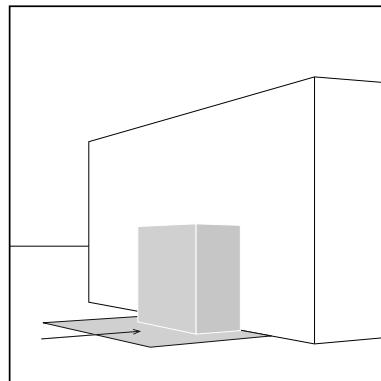
Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., & Angel, S. (1977). A pattern language: towns, buildings, construction (Vol. 1, Issue 5). <https://ci.nii.ac.jp/ncid/BA00163982>

THRESHOLDS

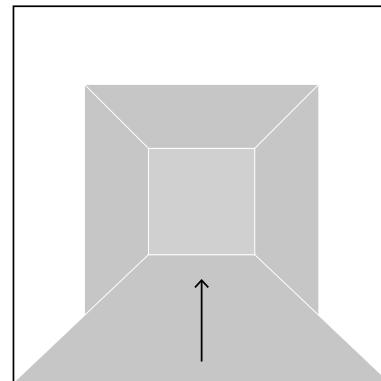
I. RECOGNITION



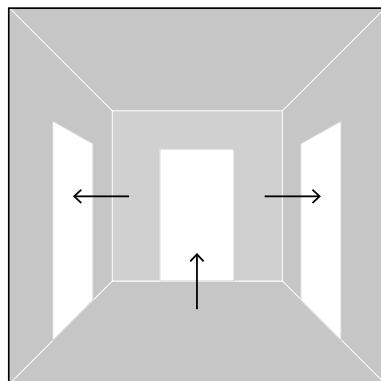
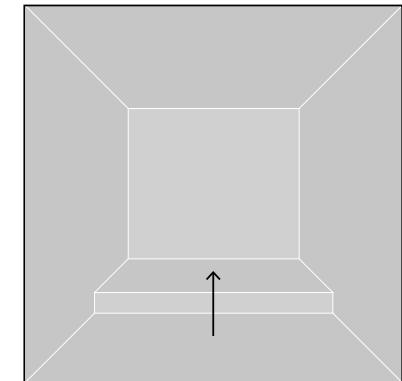
II. APPROACH



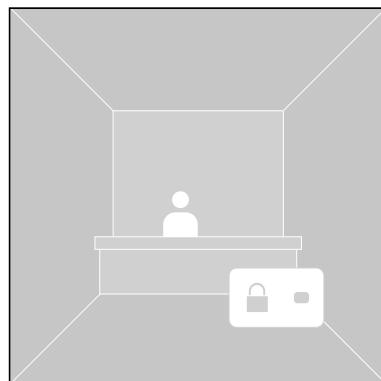
III. REACHING



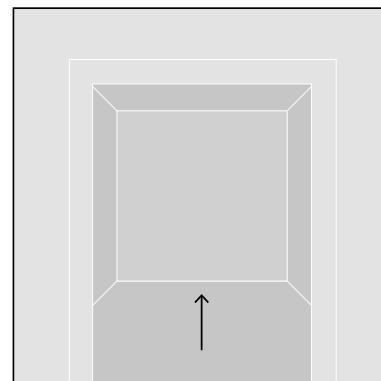
IV. ARRIVAL



V. ORIENTATION & INFORMATION



VI. MONITORING / ACCESS

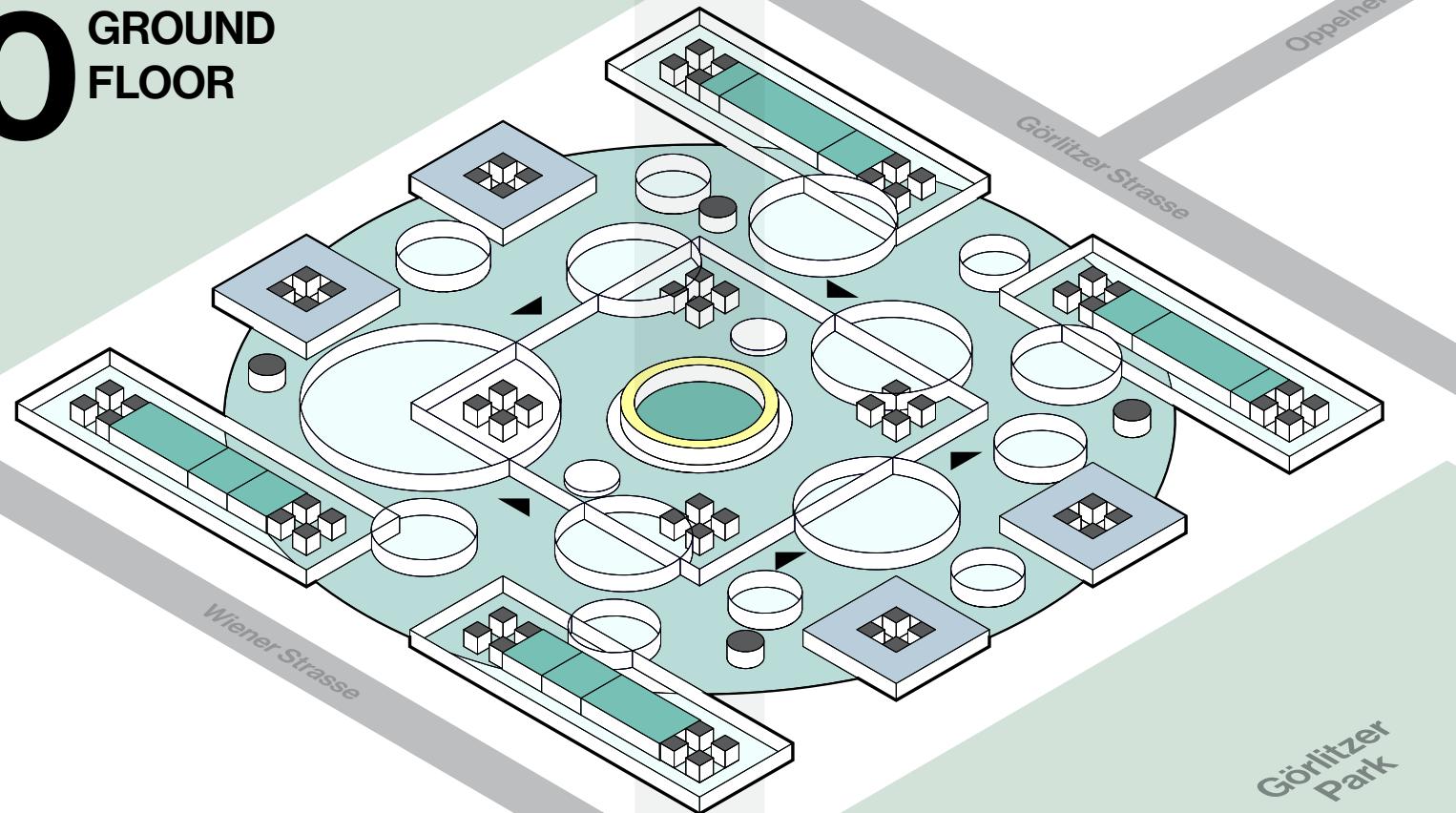


VII. EXIT

URBAN IMPLEMENTATION



00 GROUND FLOOR



FLOOR PLANS

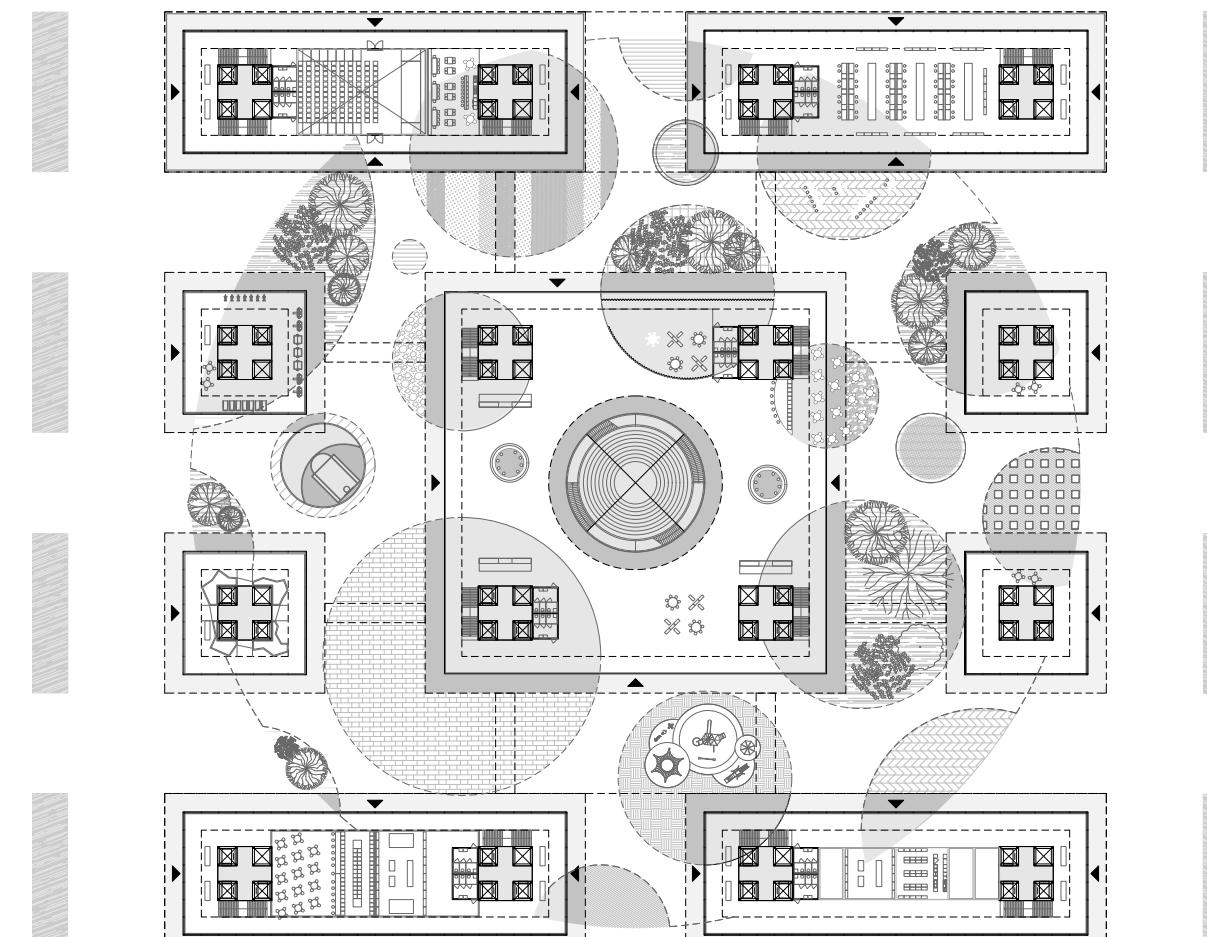
L00

PROGRAM OVERVIEW

A-PUBLIC PROGRAM
 1 - AMPHITHEATRE
 2 - RESTAURANT
 3 - CINEMA
 4 - GYM
 5 - Bouldering GYM
 6 - WORKSHOP
 7 - SPATI - SHOP
 8 - EXHIBITION
 9 - HAIR DRESSER
 10 - VENDER KIOSK
 11 - MATERIAL HUB
 12 - PHARMACY
 13 - MED RETAIL
 14 - TOILETS

B-OUTDOOR PROGRAM
 1 - MARKET SQUARE
 2 - CAFÉ SQUARE
 3 - PLAYGROUND
 4 - BASKETBALL COURT
 5 - COMMUNITY GARDEN
 - LEAVES & VEGETABLES
 6 - SKATE PARK
 7 - GREENHOUSE
 8 - WORKSHOP AREA
 9 - ENCLOSED GARDEN
 10 - SUNKEN GARDEN

C-HOSPITAL PROGRAM
 1 - CHECK-IN DESK
 2 - WAITING AREA

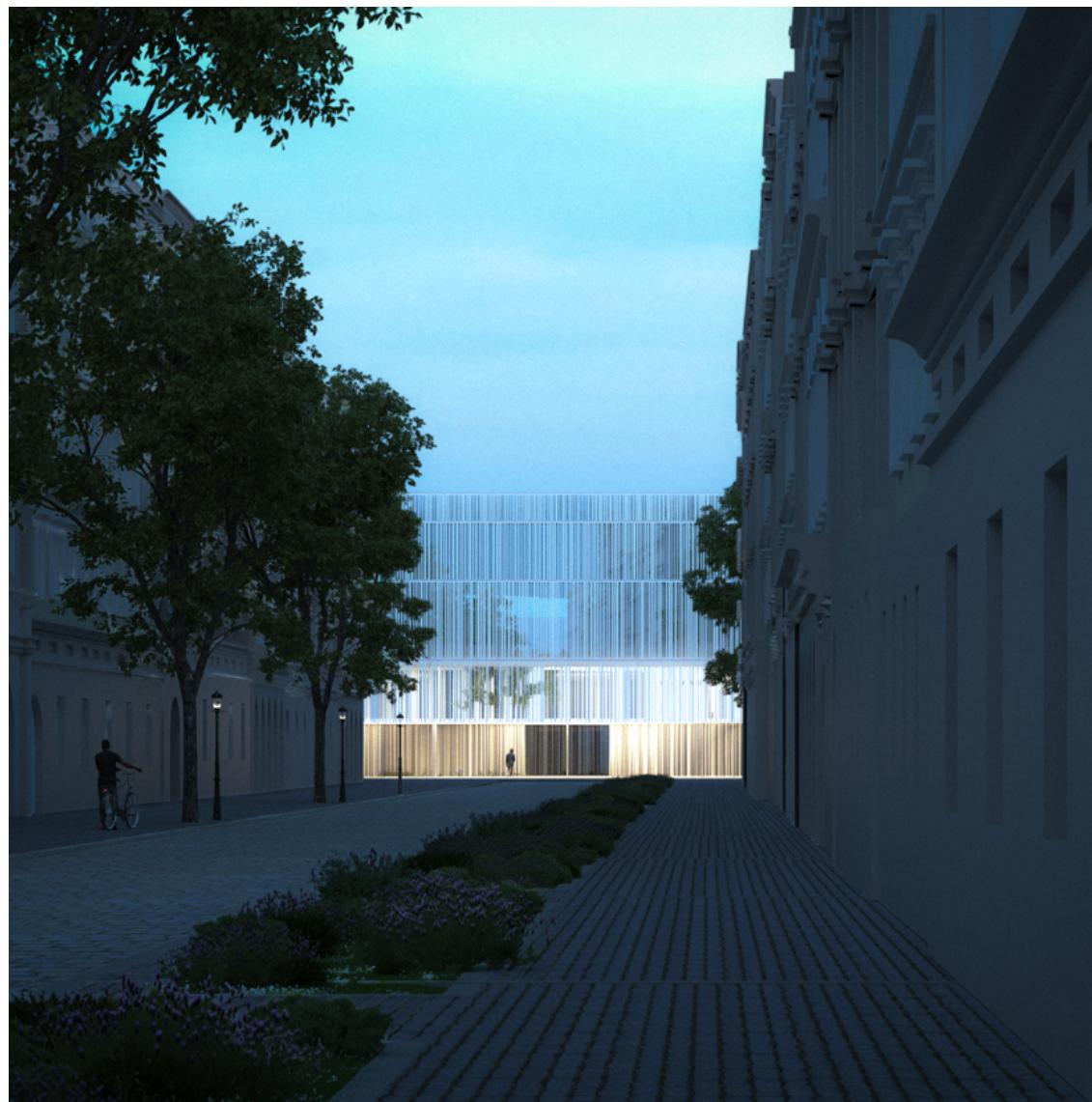


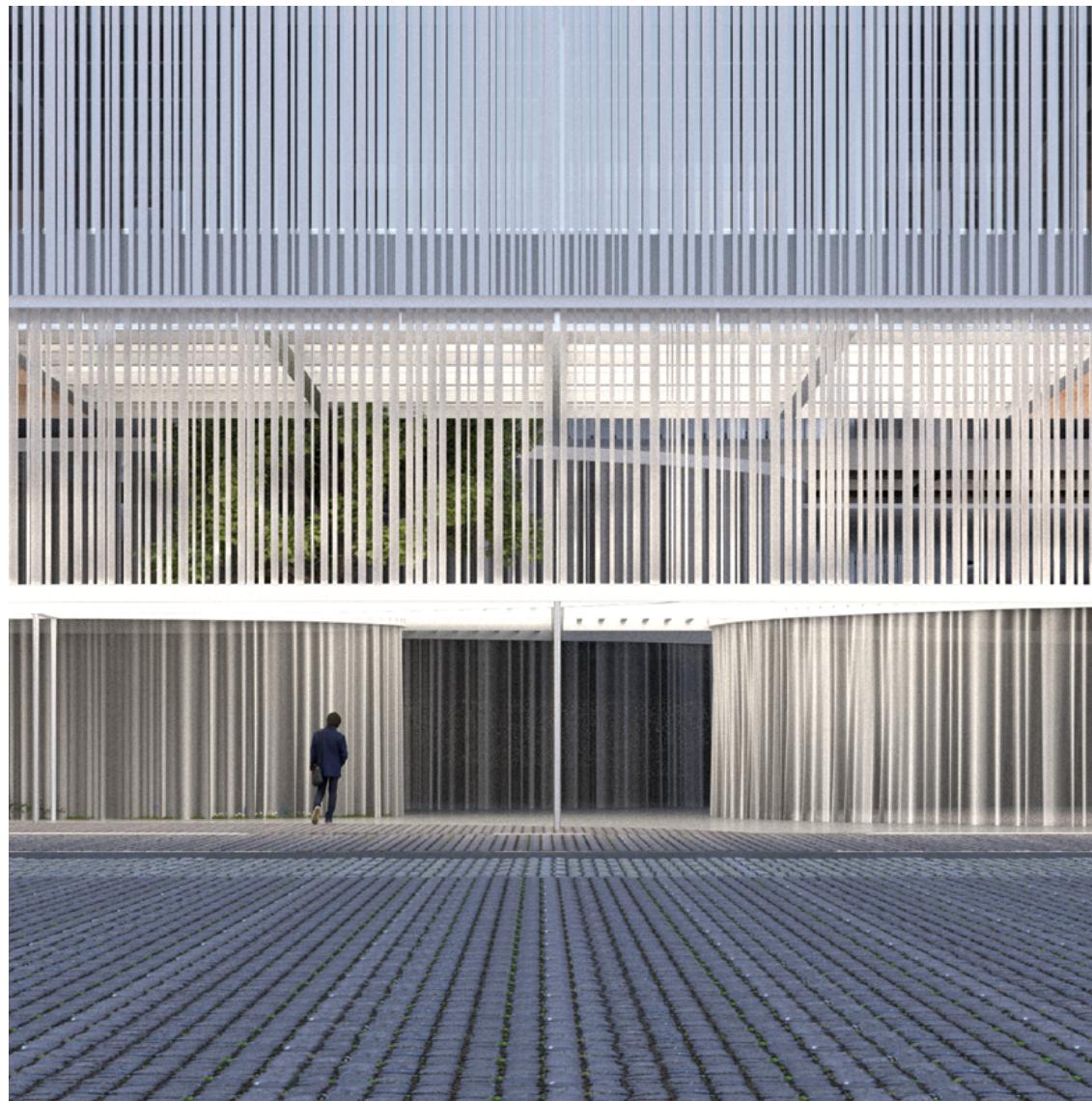
1:750

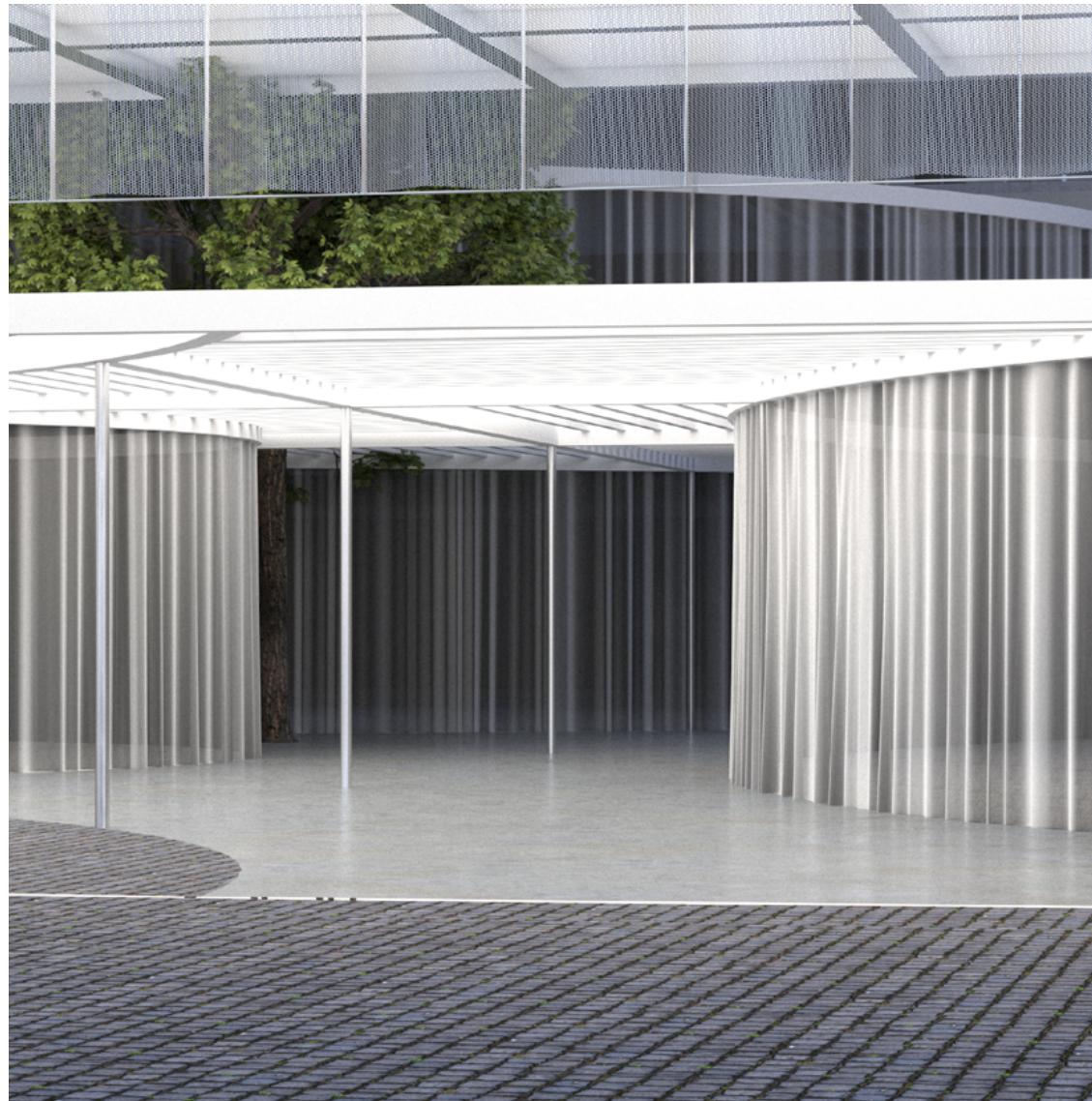
R1_EXTENSION OF THE URBAN FABRIC



R1_EXTENSION OF THE URBAN FABRIC

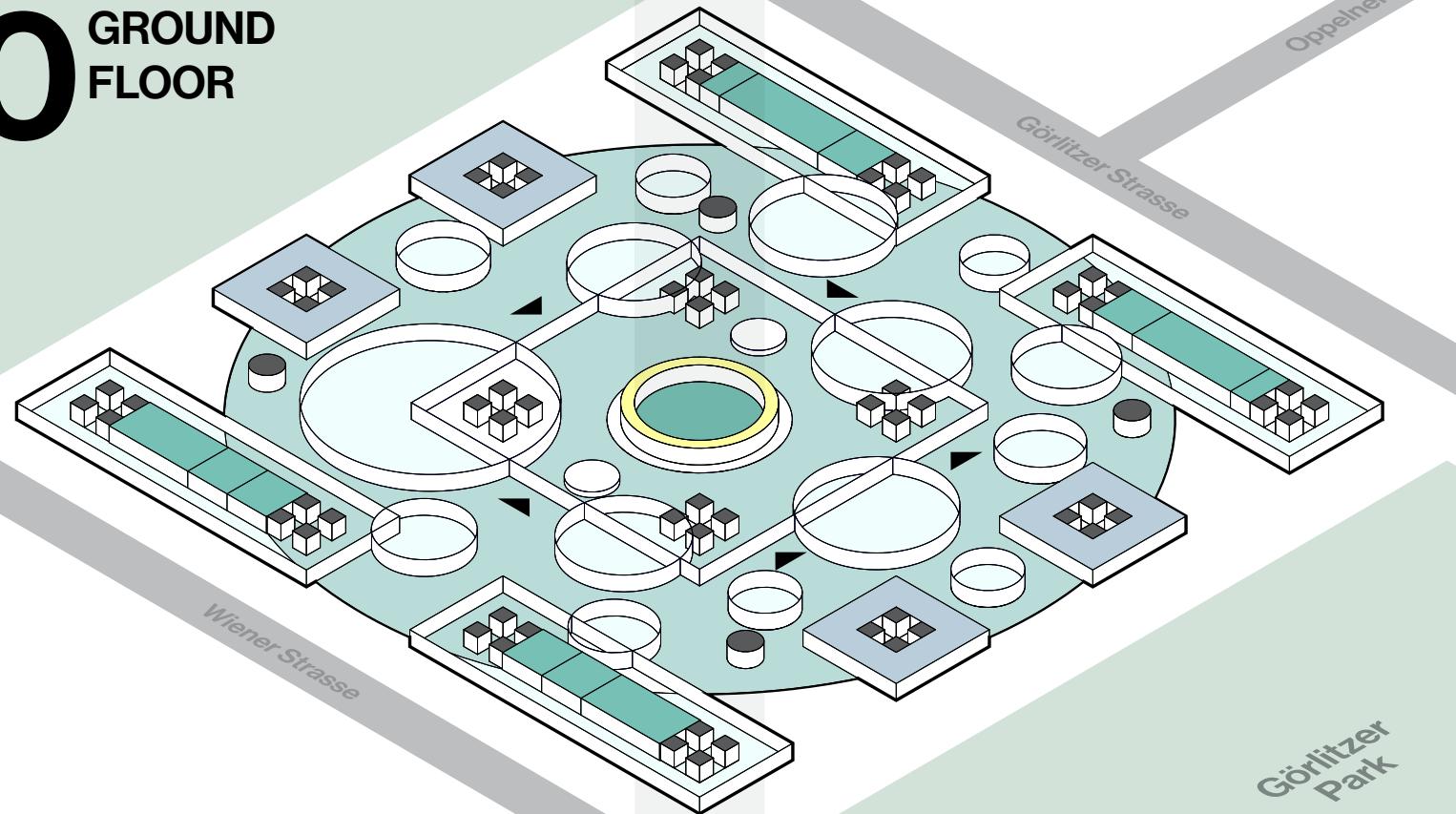




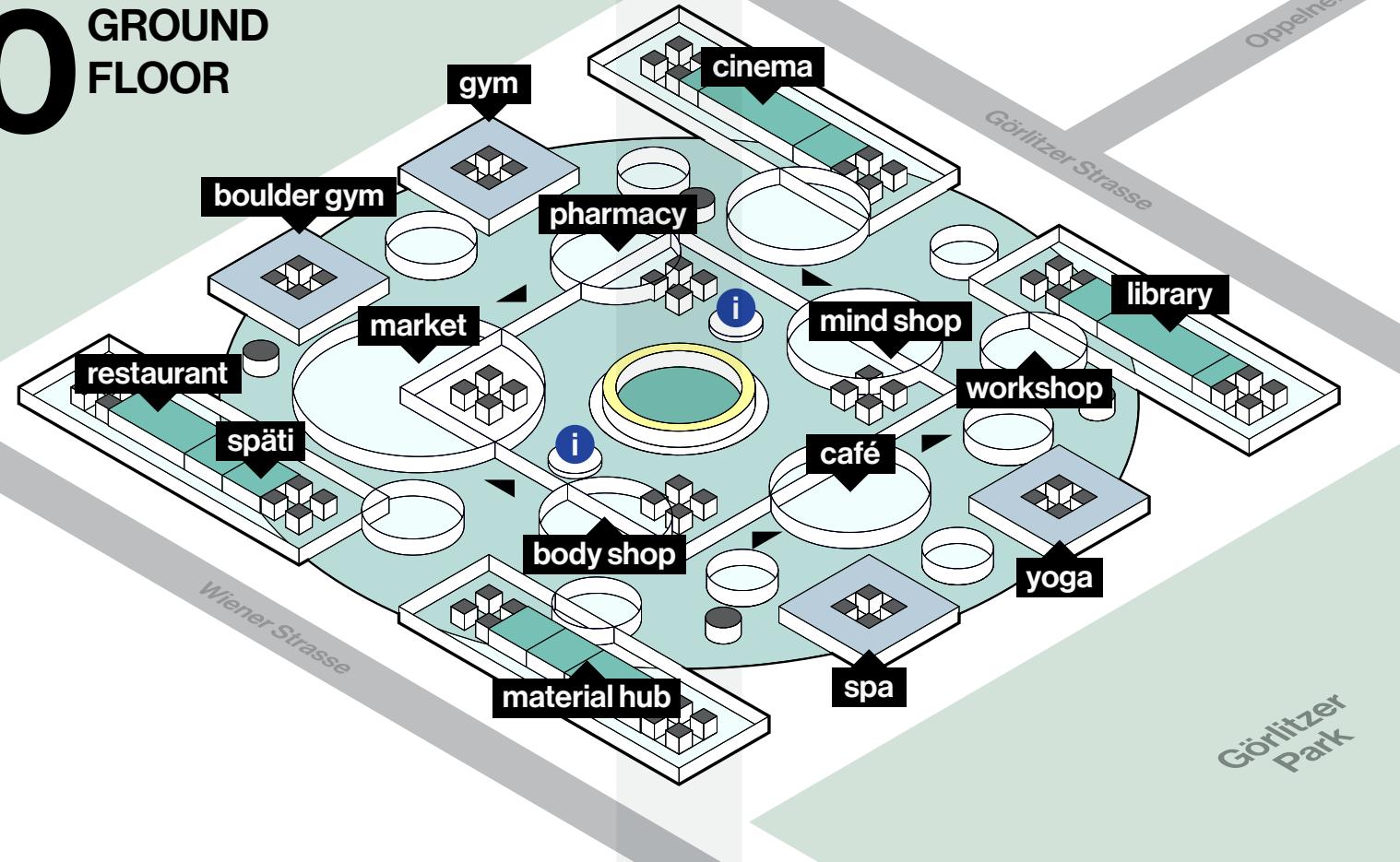




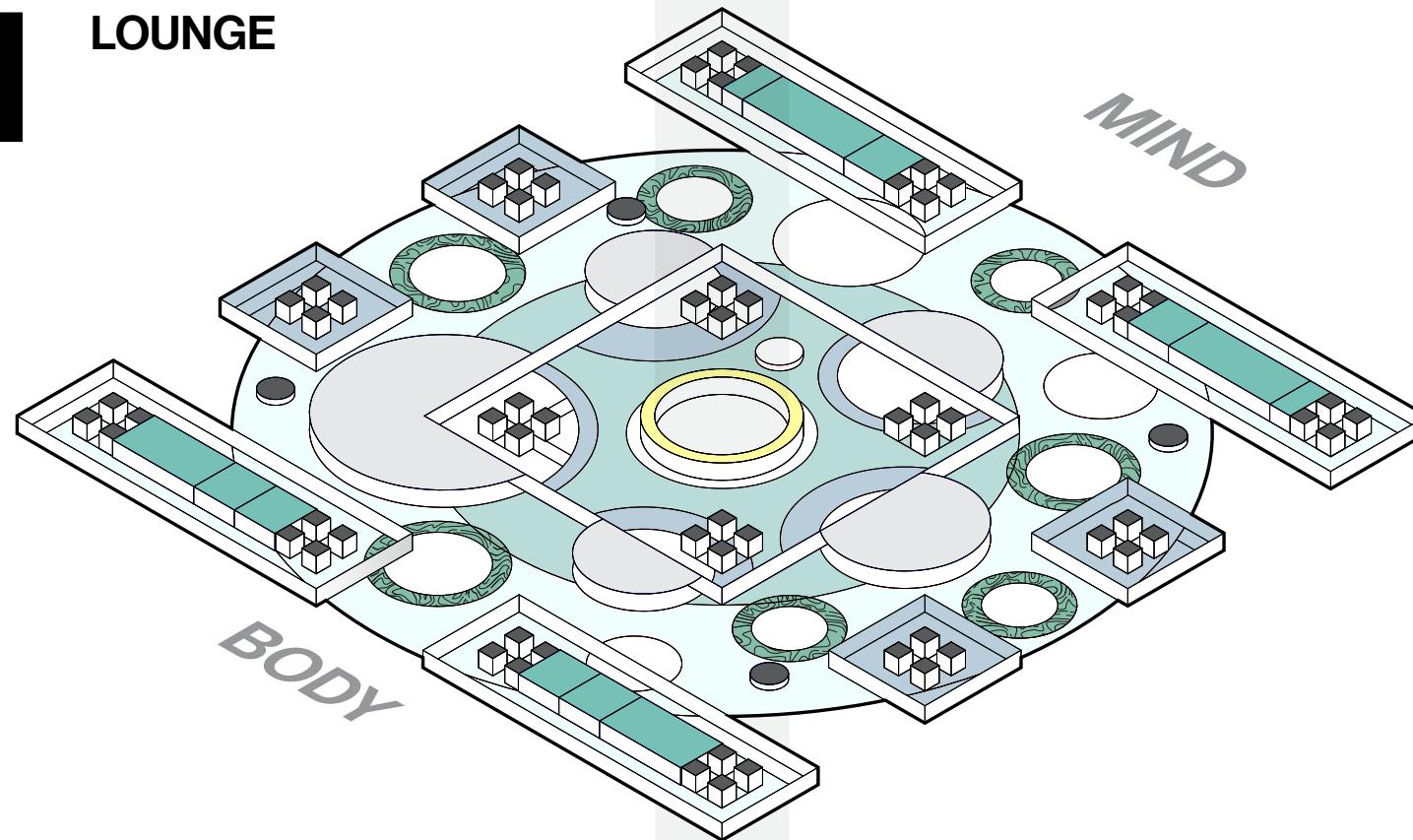
00 GROUND FLOOR



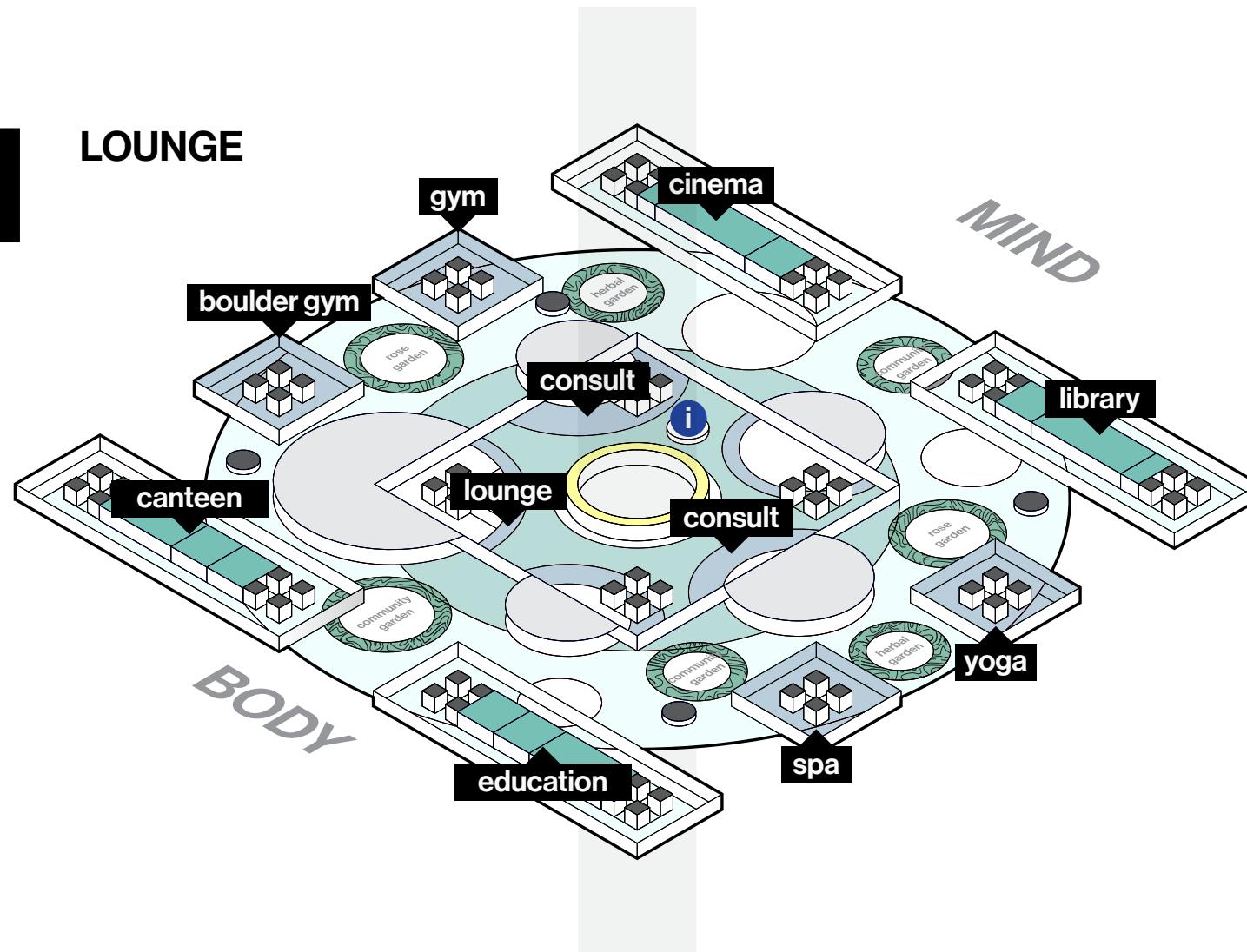
00 GROUND FLOOR



01 LOUNGE



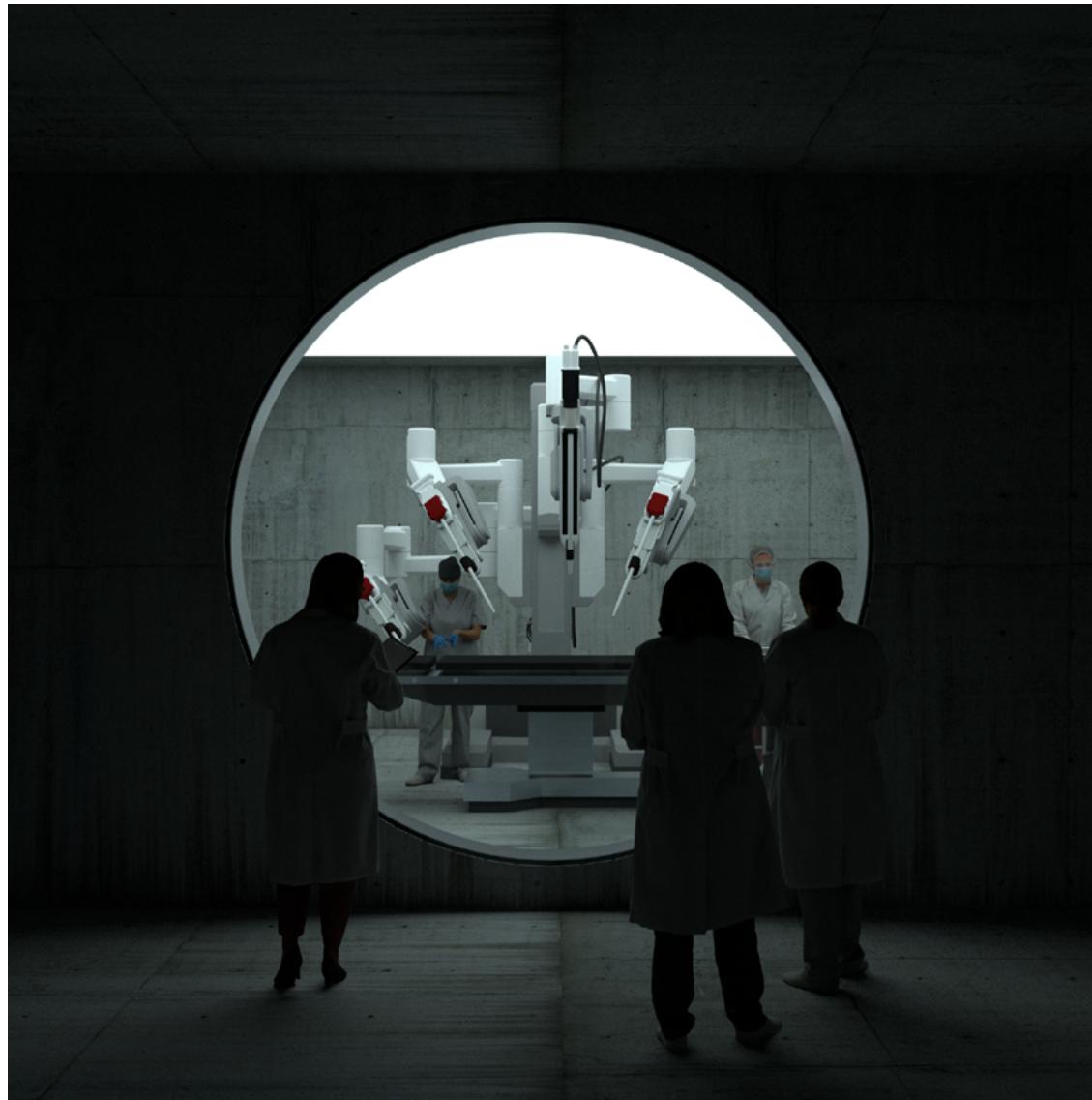
01 LOUNGE

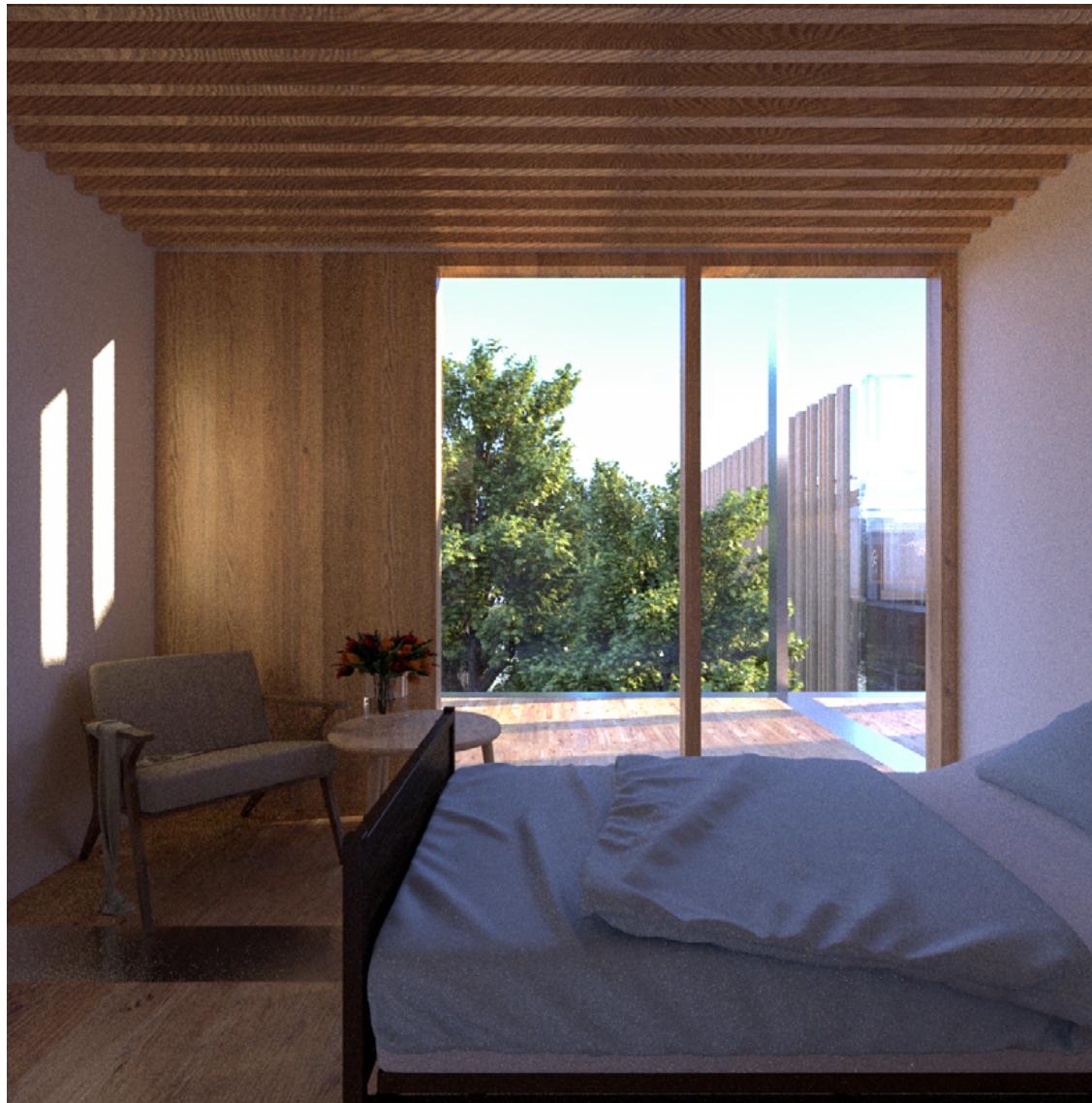


R4_ATRIUM

+









R1_EXTENSION OF THE URBAN FABRIC

XL - L - M - S - **XS**

“DETAILS”

Biomedical Waste Production in Hospitals

Hospitals, including AIIMS Delhi, generate a significant amount of waste from their medical activities. In 2018, AIIMS Delhi produced 74,500 kilograms of waste per month, or close to 2,500 kilograms each day. This included:



24,000 kilograms
of yellow waste



23,500 kilograms
of plastic and rubber
waste

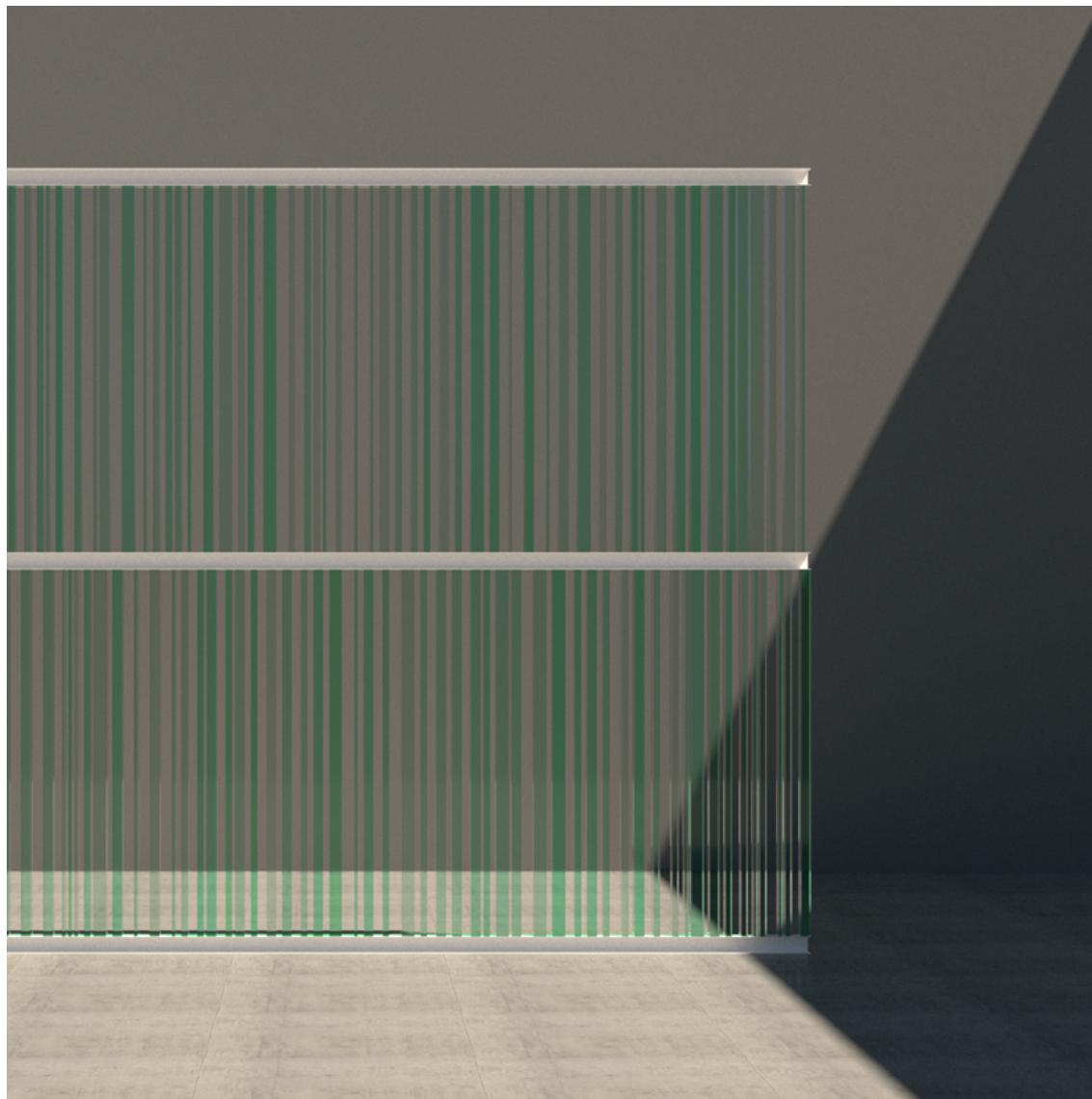


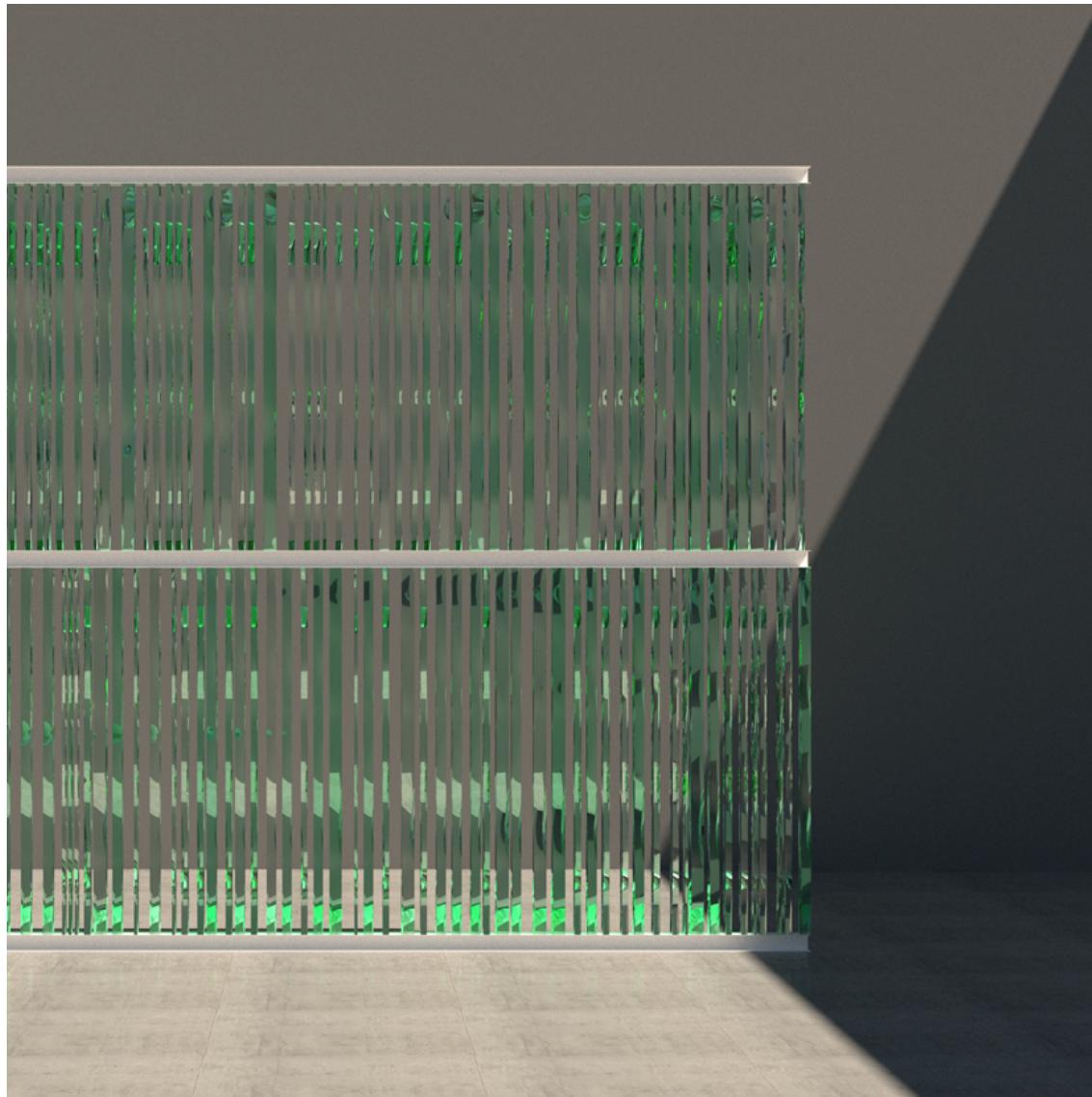
500 kilograms
of sharp waste

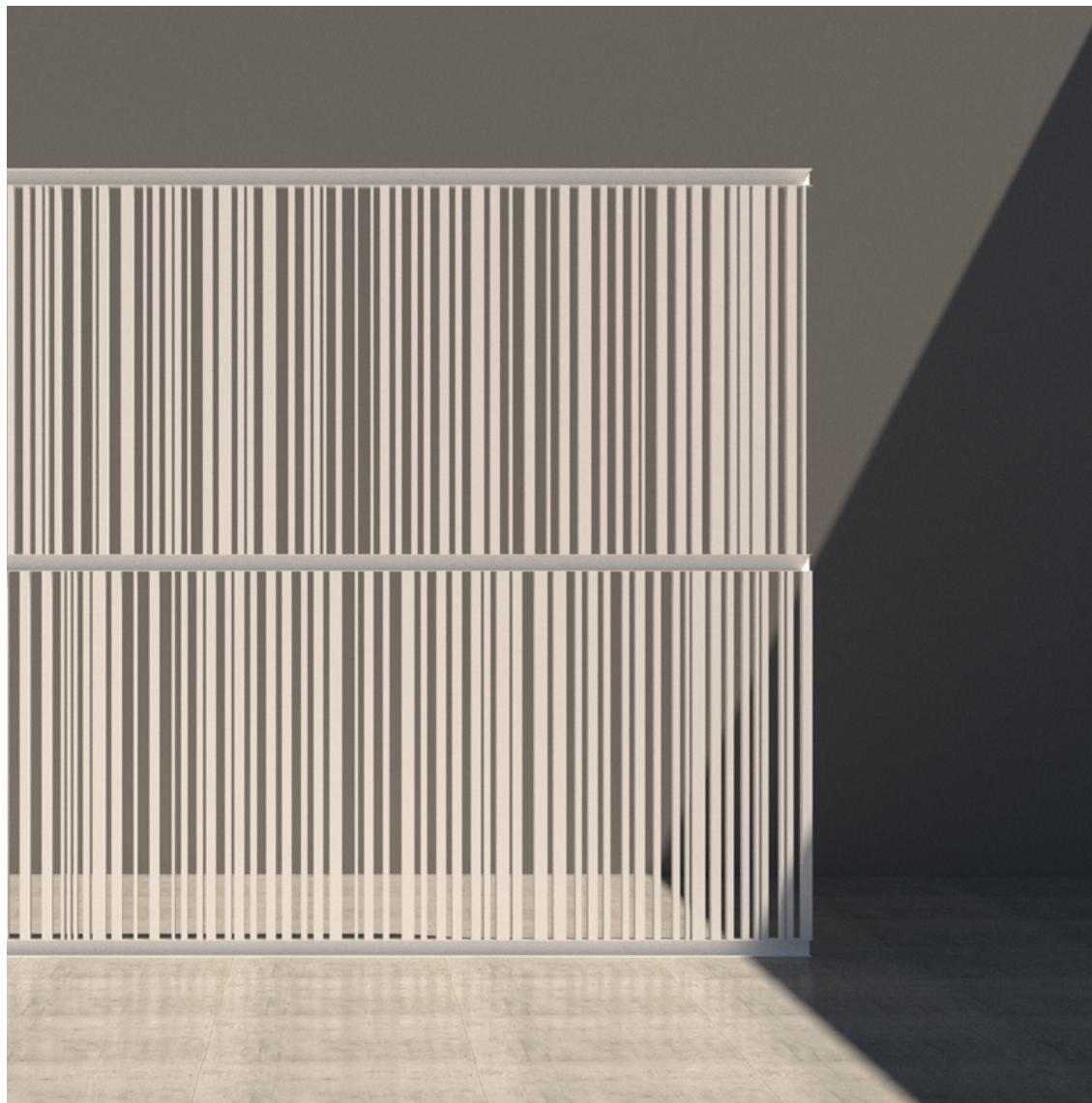


26,200 kilograms
of glass waste









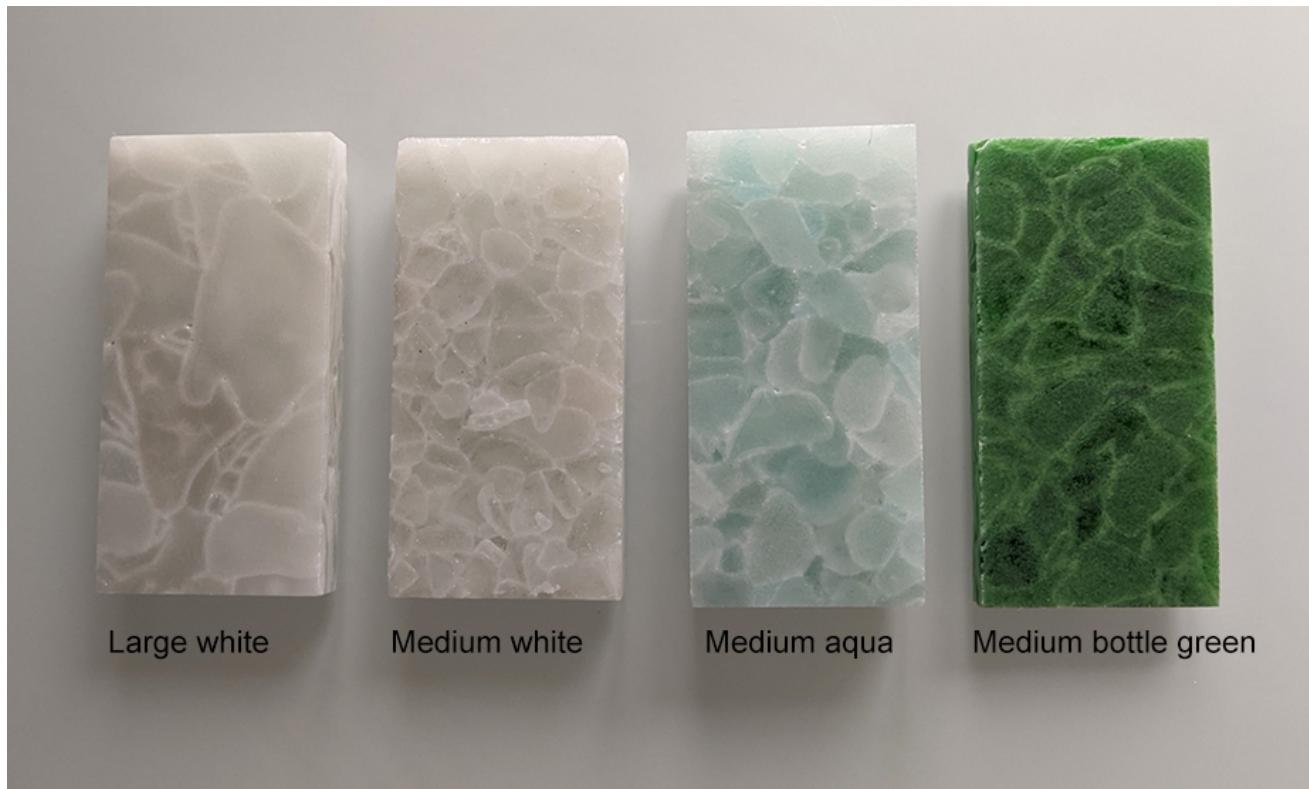


ANNE HOLTROP - CAST GLASS TESTS

+



RECYCLED GLASS PANELS



Large white

Medium white

Medium aqua

Medium bottle green

RECYCLED GLASS PANELS



IMPRESSION



IMPRESSION





R3_PARK

+



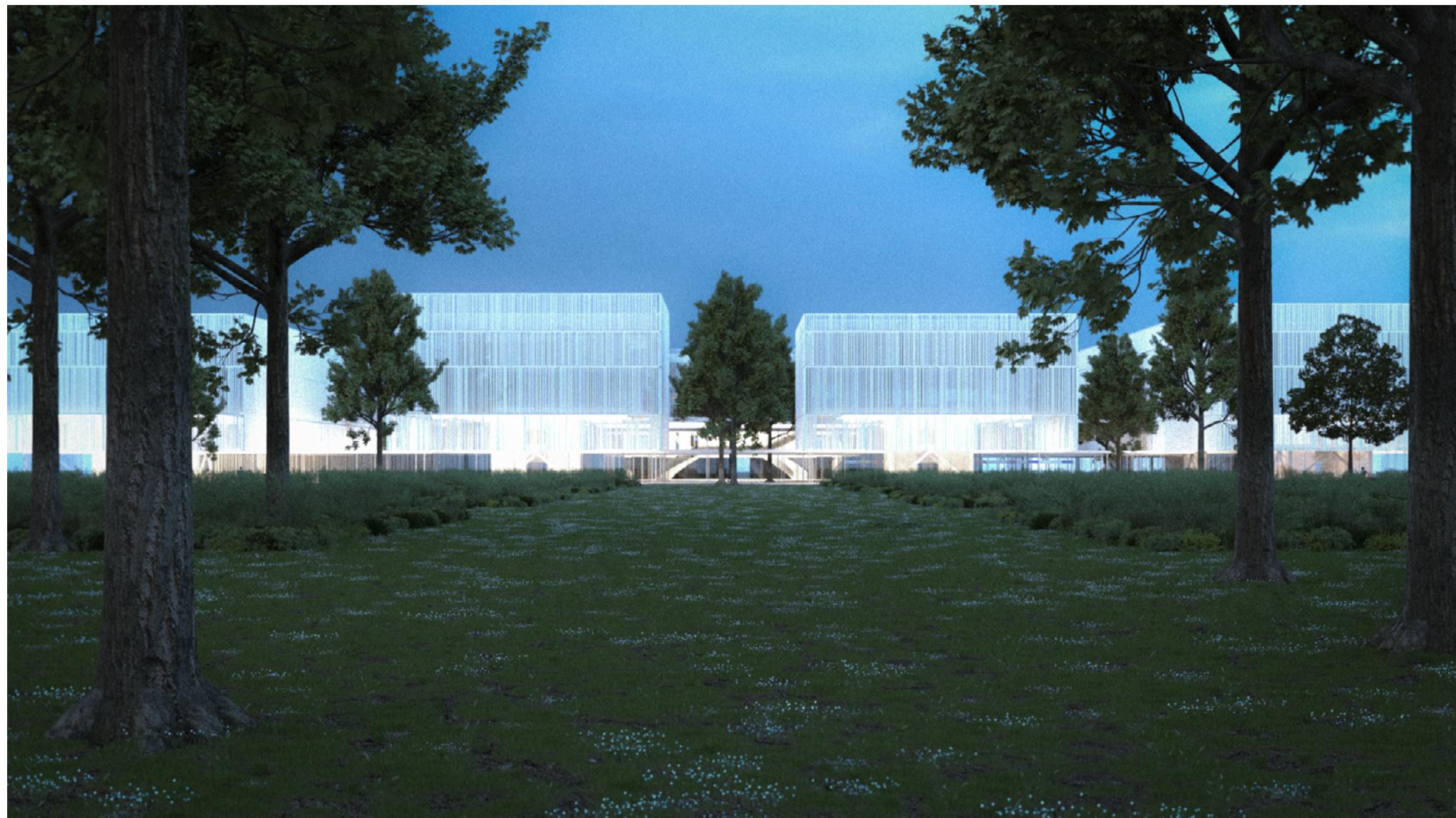
R3_PARK

+



R3_PARK

+



R3_PARK

+



R2_INTERSECTION

+



R2_INTERSECTION

+



R2_INTERSECTION

+
R2
INTERSECTION
RENDER

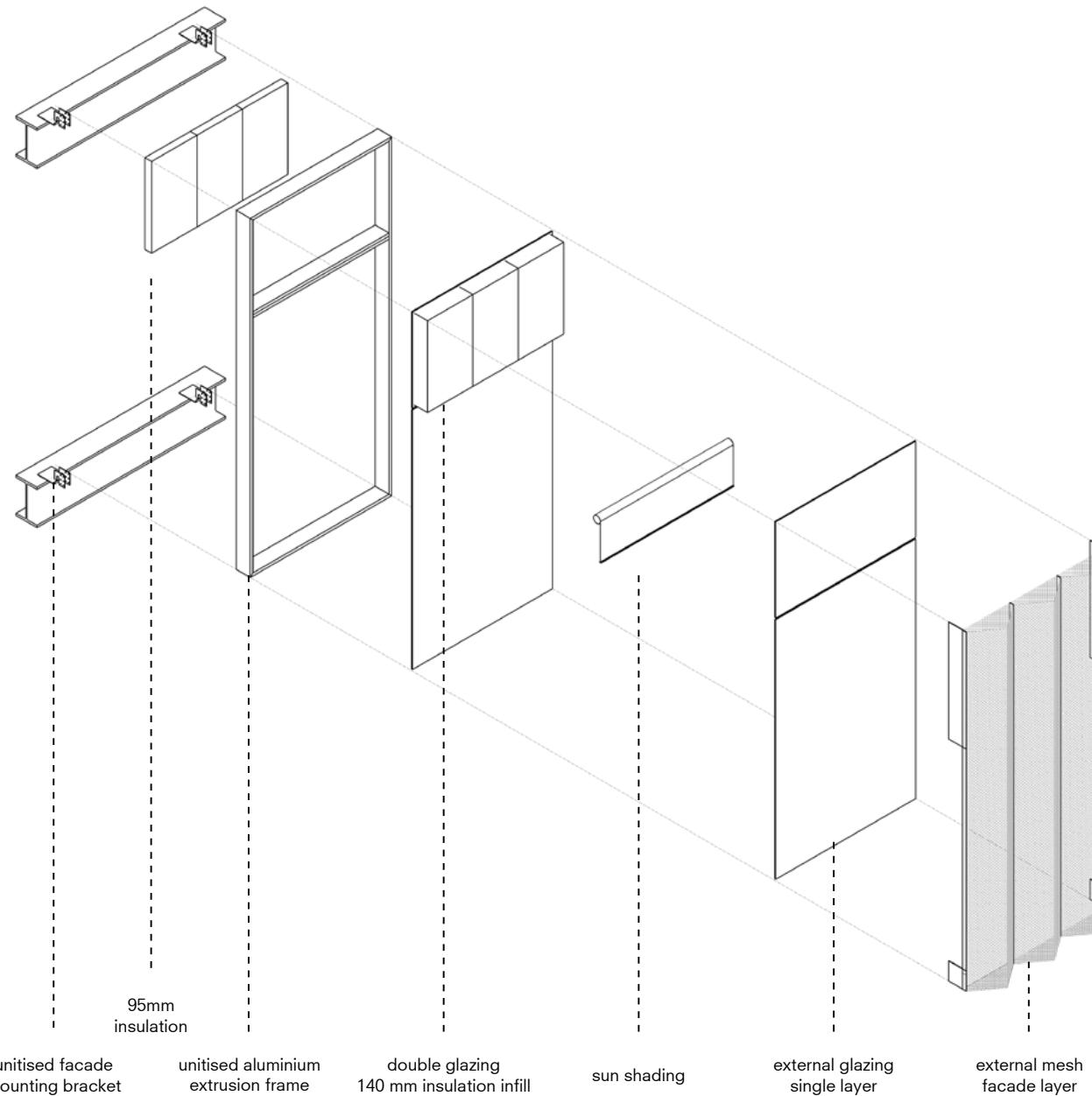
IMPRESSION



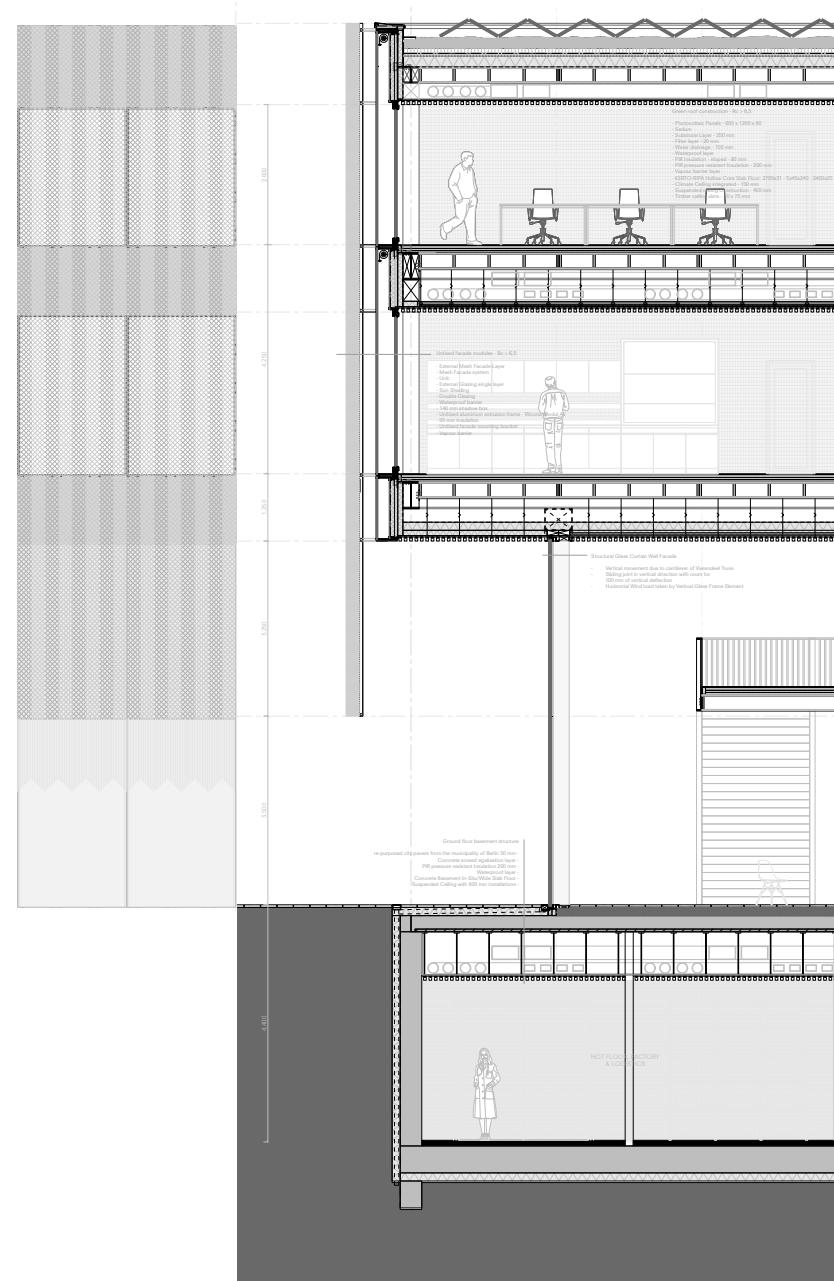
IMPRESSION



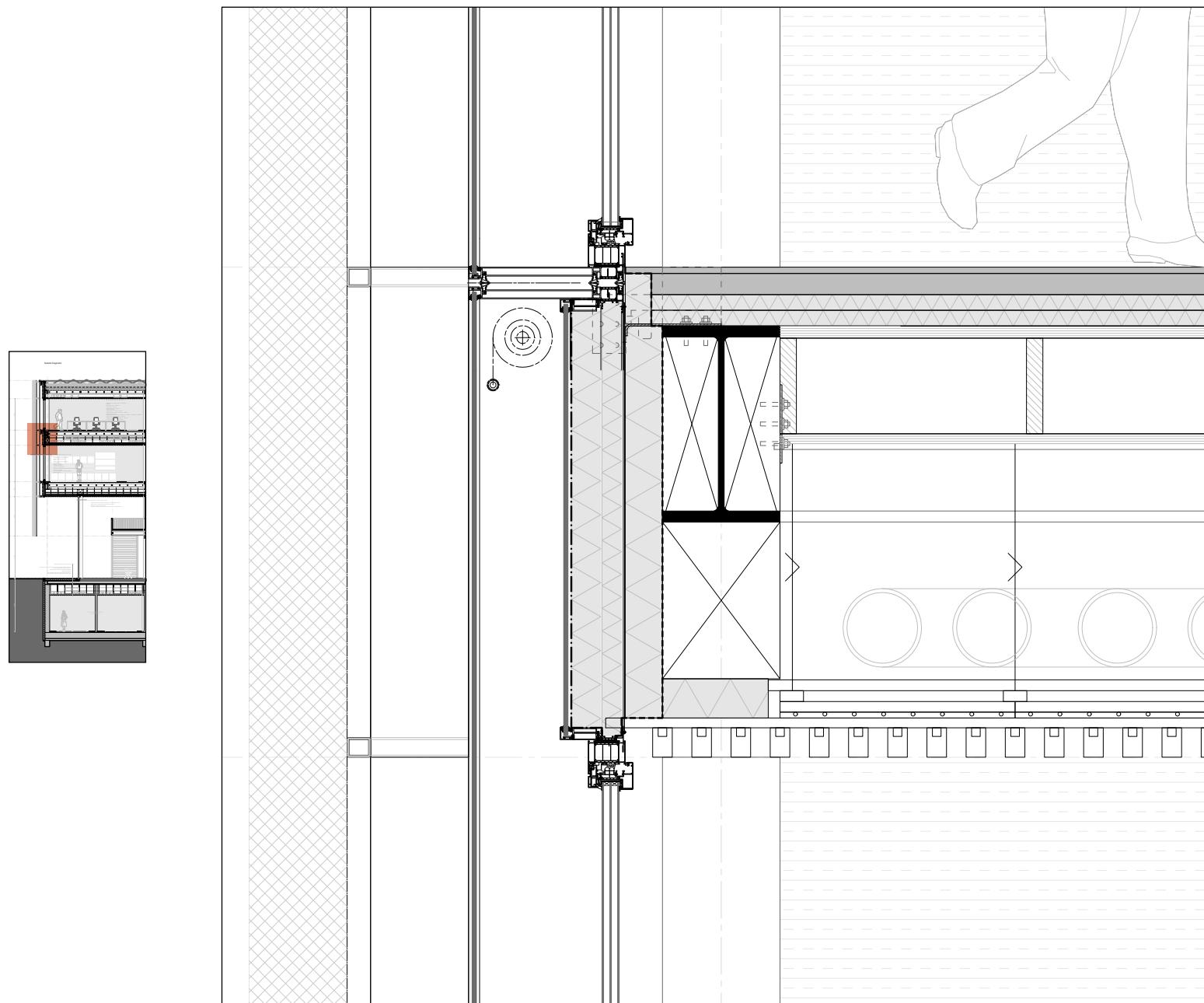
UNITISED FACADE MODULES



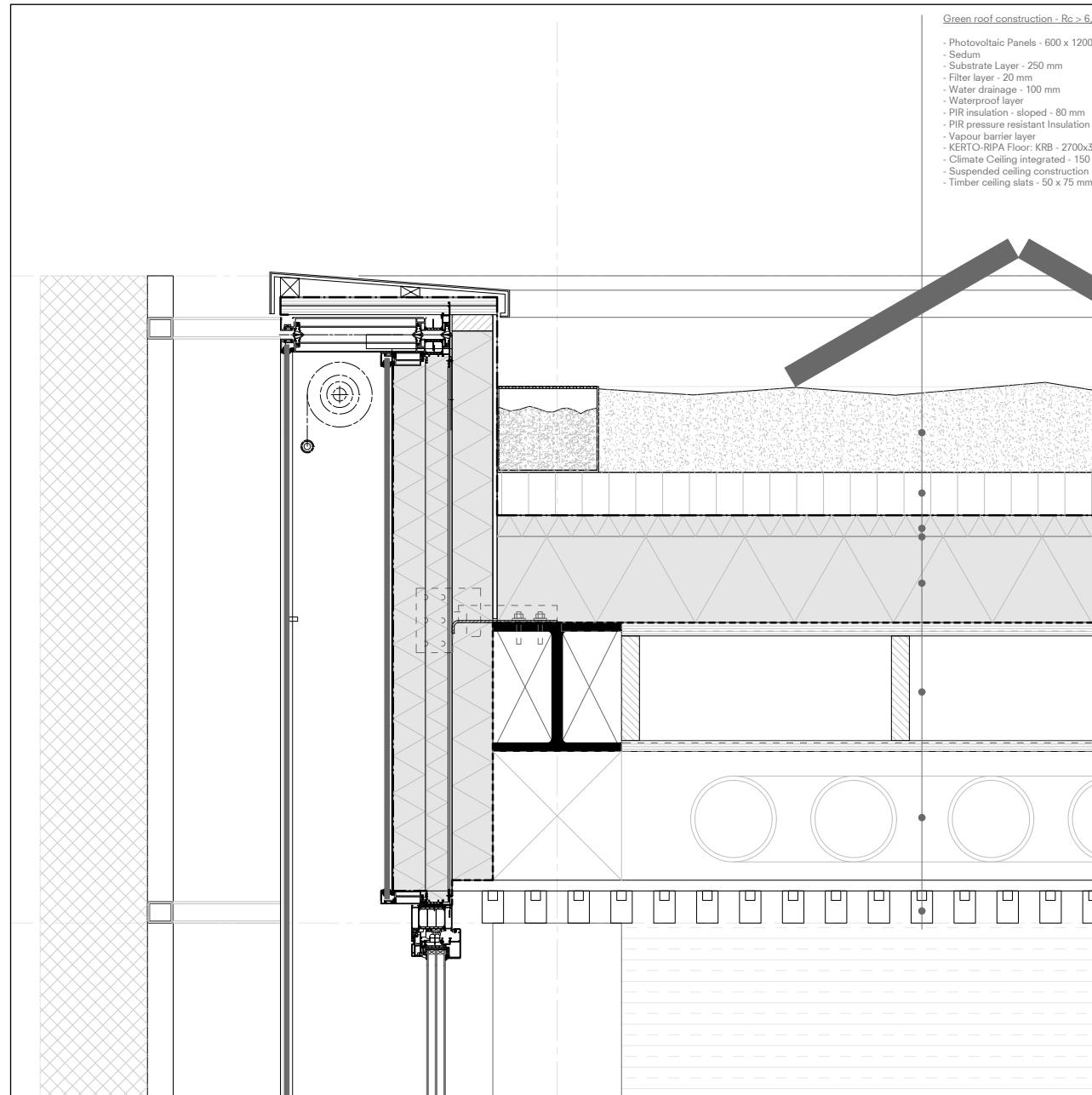
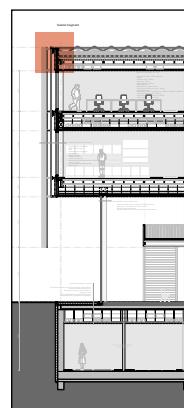
FACADE FRAGMENT



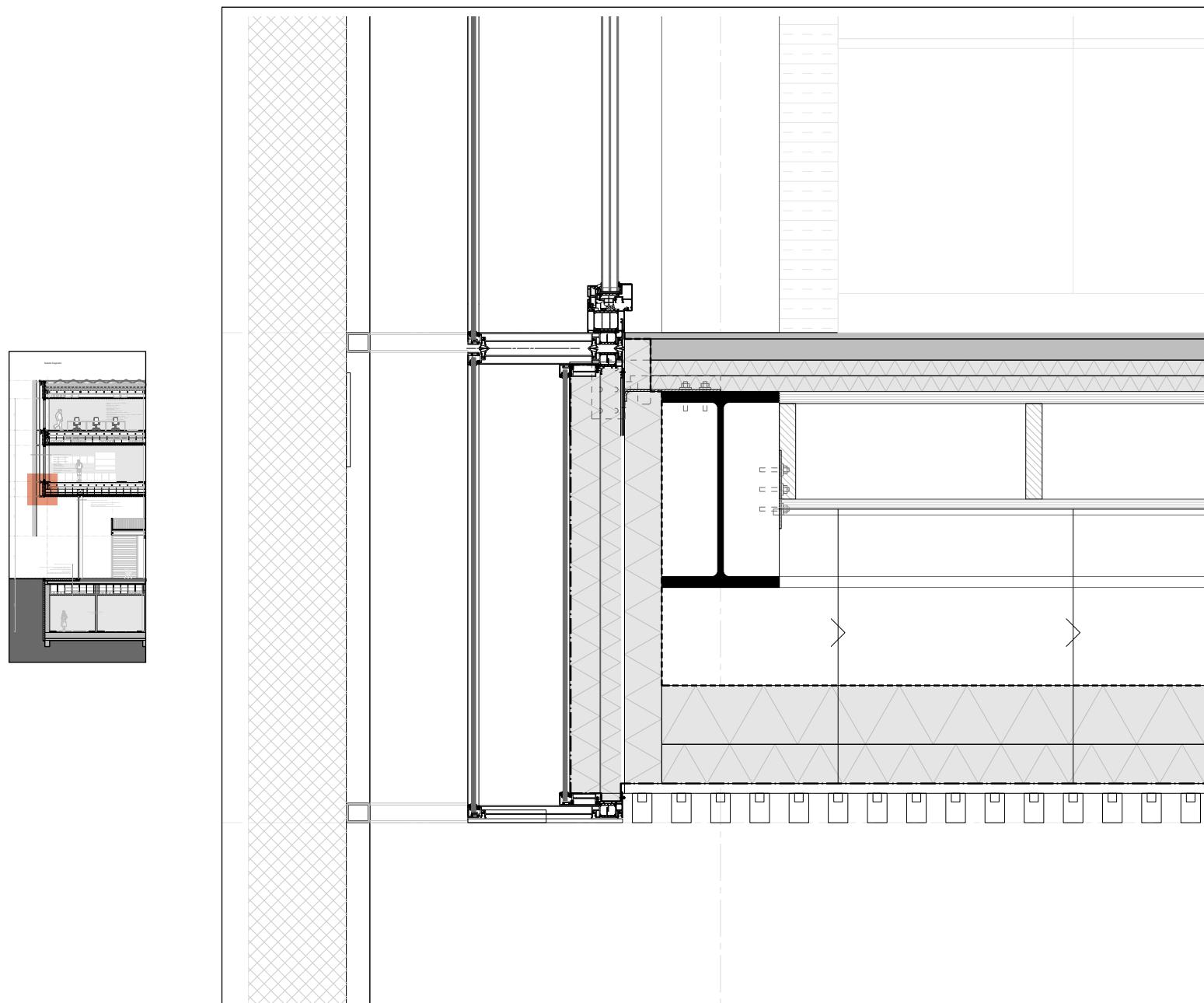
FAÇADE DETAILS



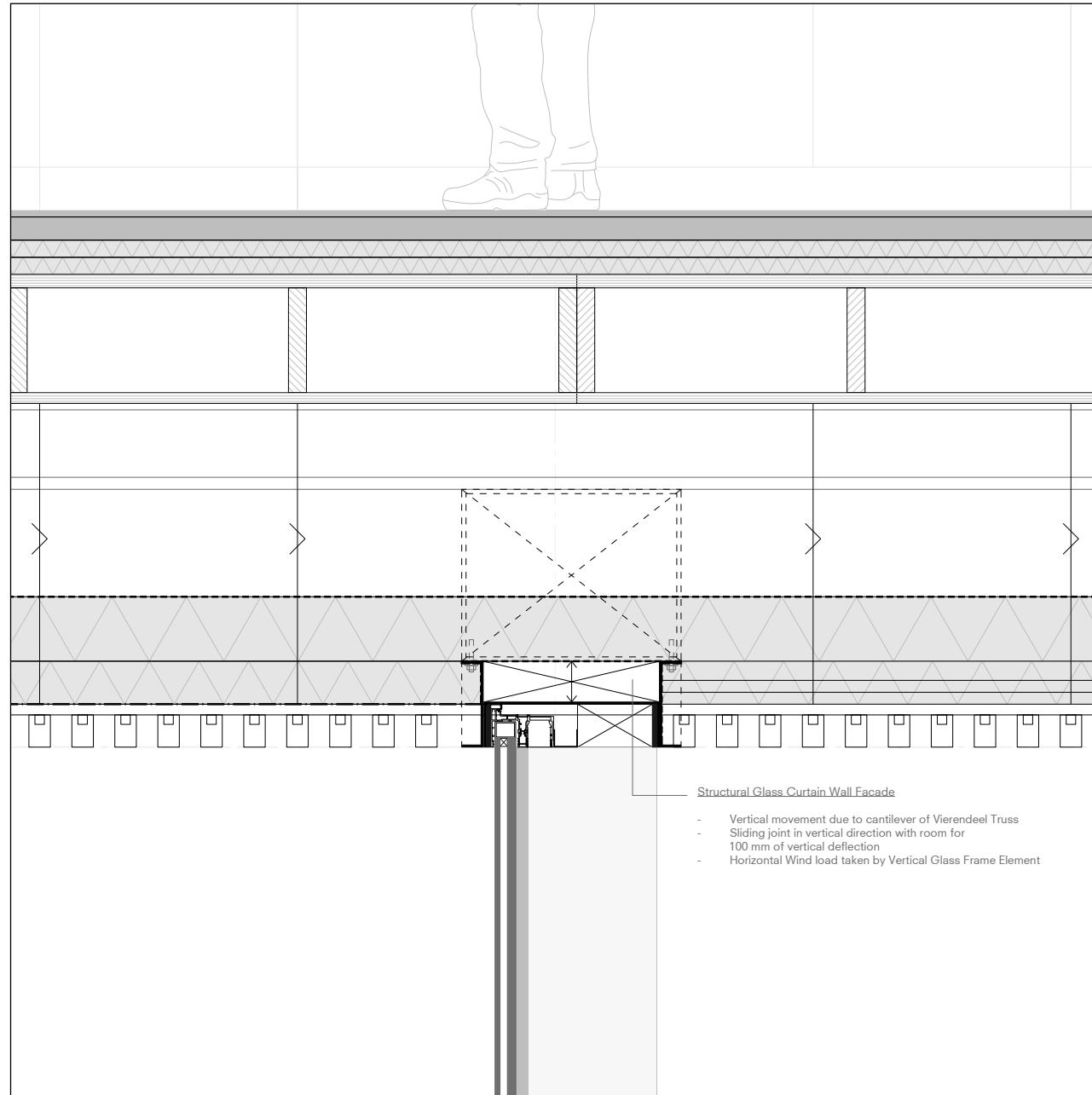
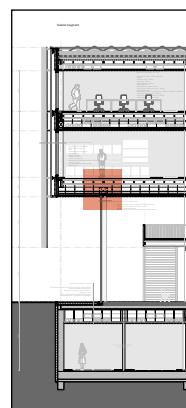
FAÇADE DETAILS



FAÇADE DETAILS



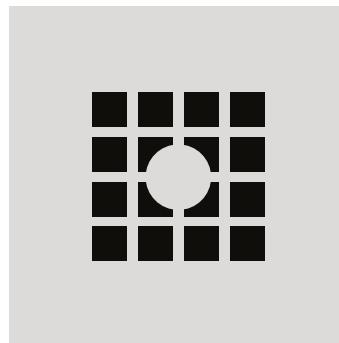
FAÇADE DETAILS



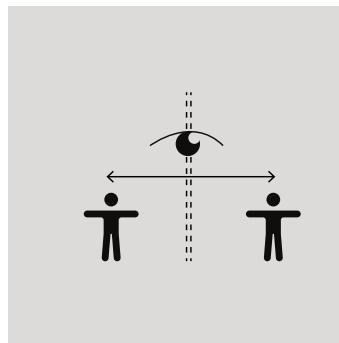
INSIDE - OUTSIDE TRANSITION?

BUILDING - ACCESIBILITY

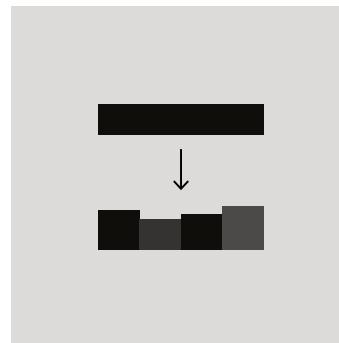
A pattern language: towns, buildings, construction - relevant patterns



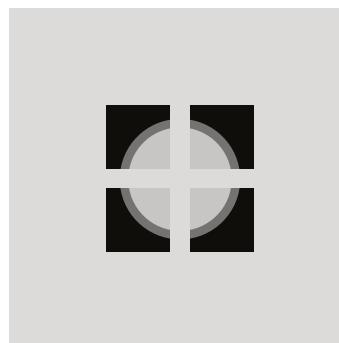
#106 - Positive Outdoor Space



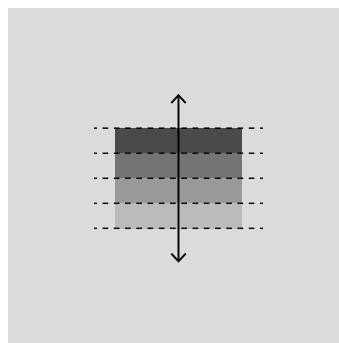
#162 - Street Windows



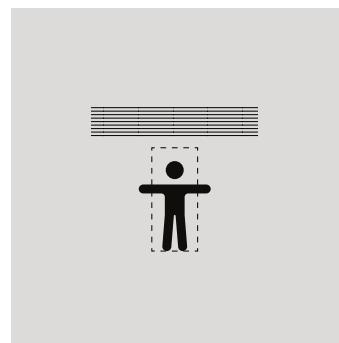
#136 - Building Fronts



#150 - Activity Pockets



#112 - Entrance Transition

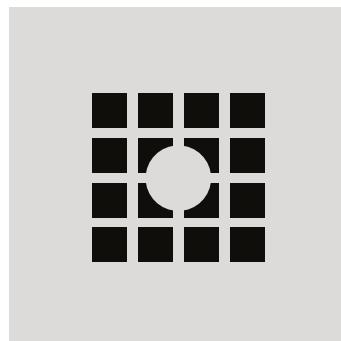


#204 - Human Scale

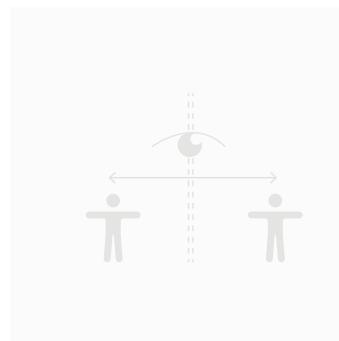
Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., & Angel, S. (1977). A pattern language: towns, buildings, construction (Vol. 1, Issue 5). <https://ci.nii.ac.jp/ncid/BA00163982>

BUILDING - ACCESIBILITY

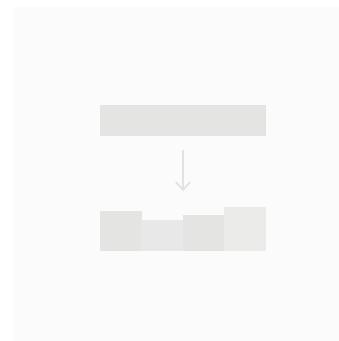
A pattern language: towns, buildings, construction - relevant patterns



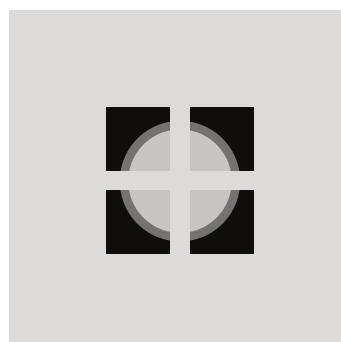
#106 - Positive Outdoor Space



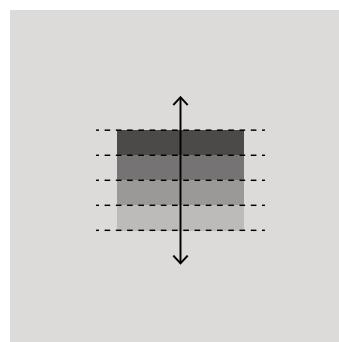
#162 - Street Windows



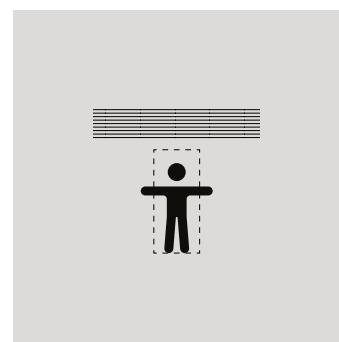
#136 - Building Fronts



#150 - Activity Pockets



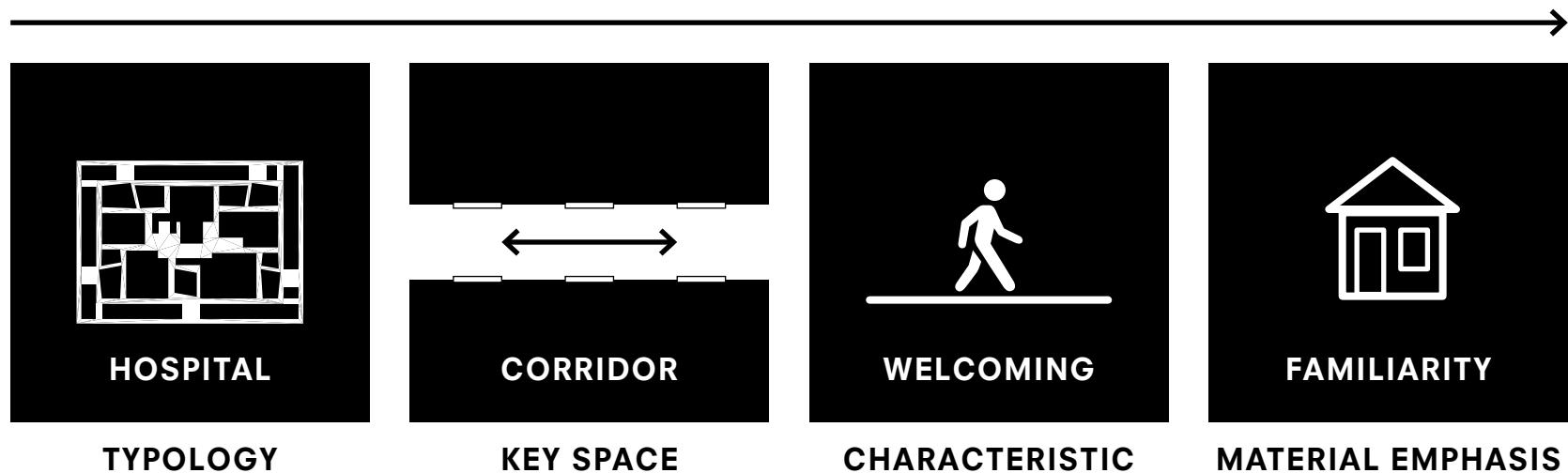
#112 - Entrance Transition



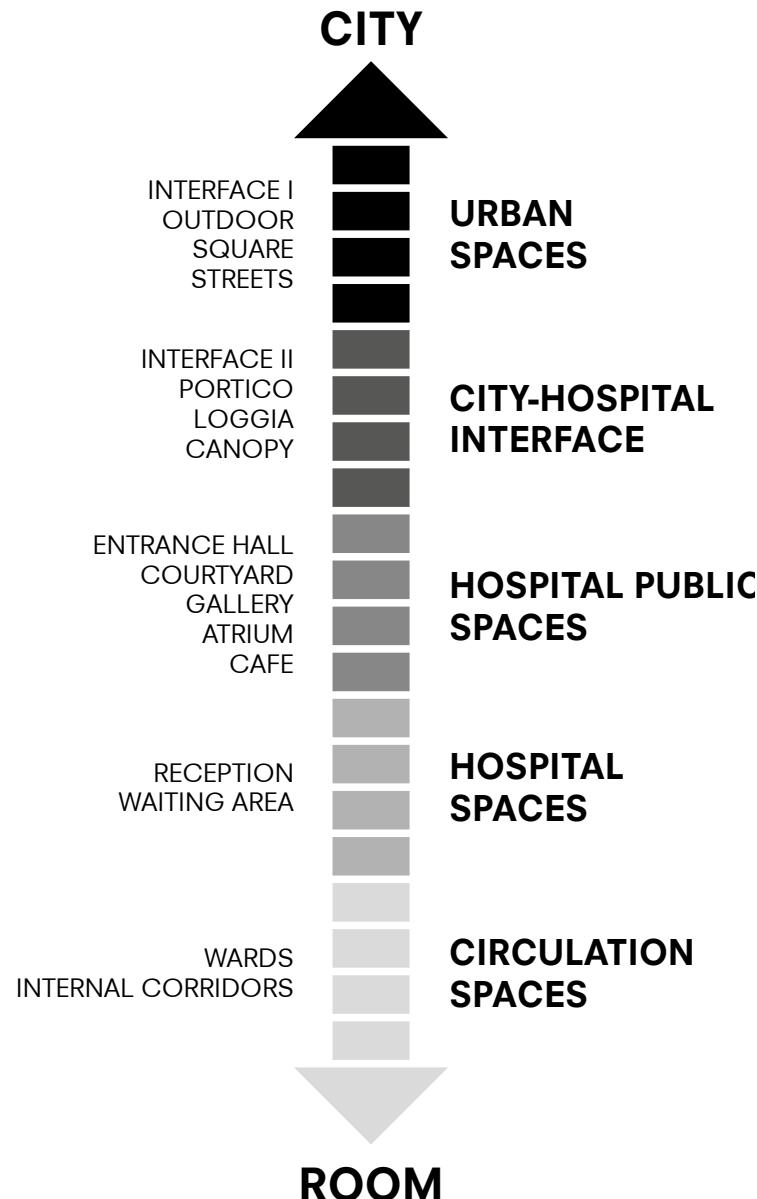
#204 - Human Scale

Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., & Angel, S. (1977). A pattern language: towns, buildings, construction (Vol. 1, Issue 5). <https://ci.nii.ac.jp/ncid/BA00163982>

REDEFINING PUBLIC SPACE

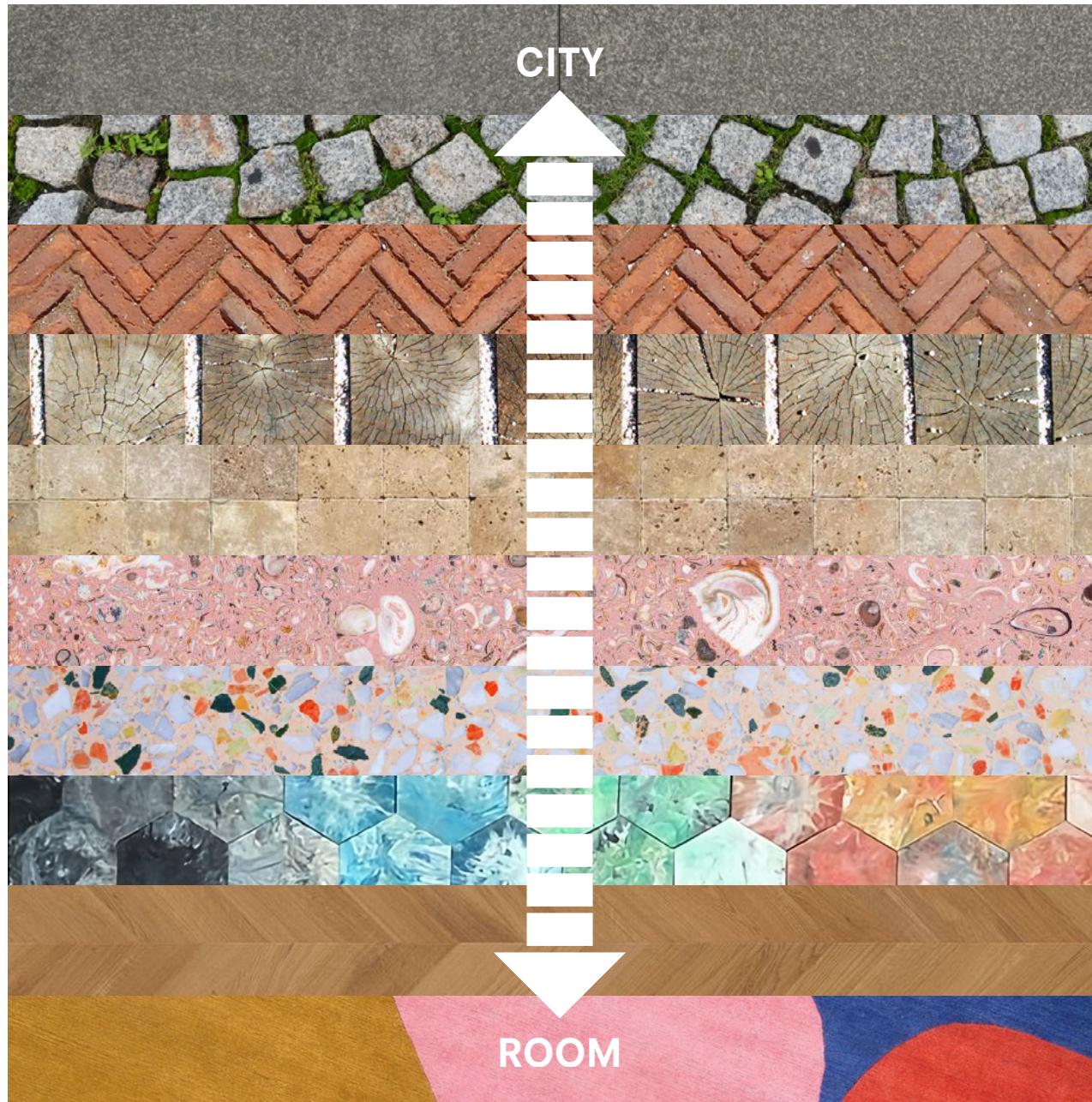


PUBLIC SPACE AS TRANSITION SPACE

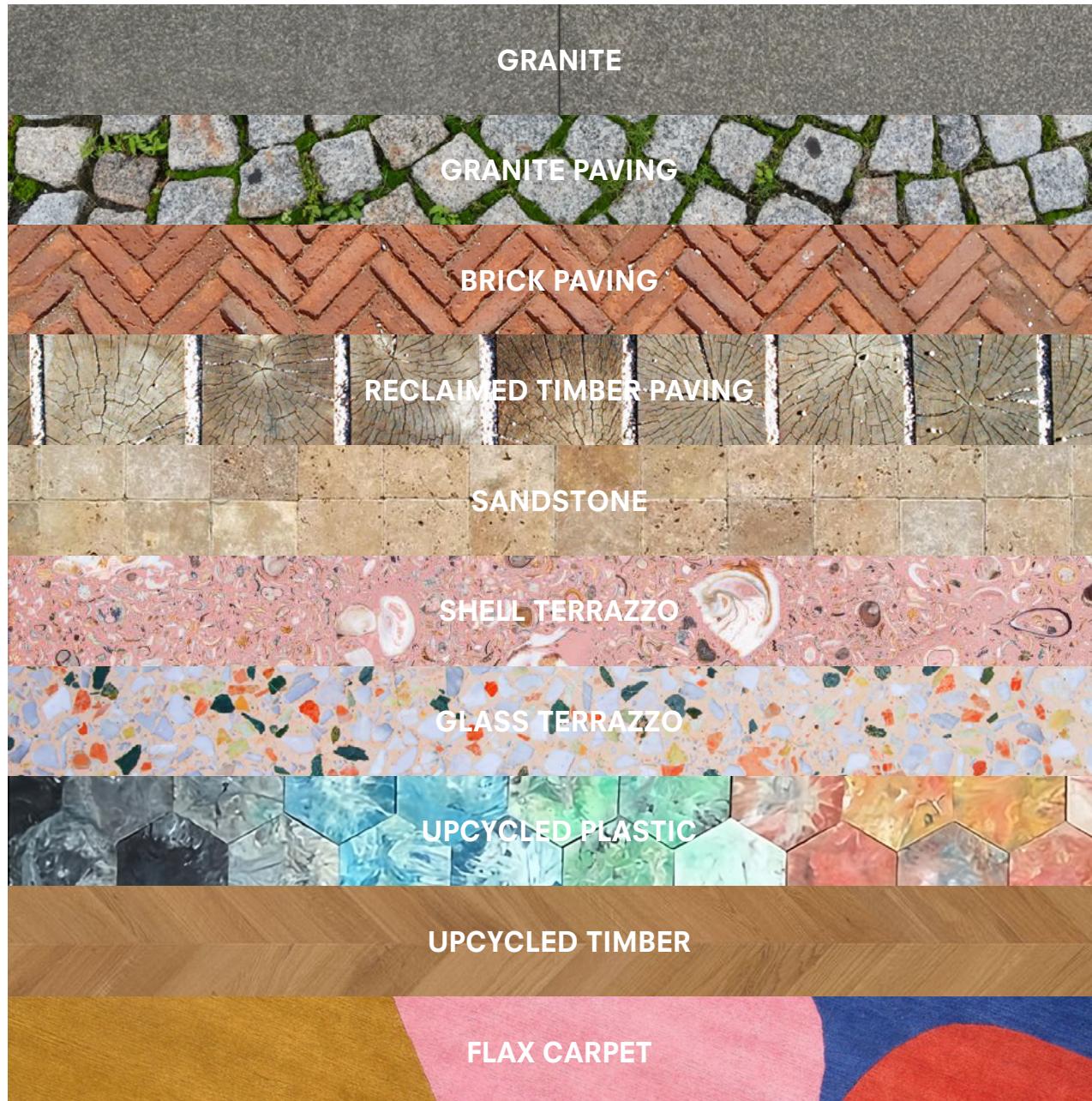


DESIGNING PUBLIC SPACES IN HOSPITALS - NICOLETTA SETOLA, SABRINA BORGIANI (2016)

NOTION OF FAMILIARITY

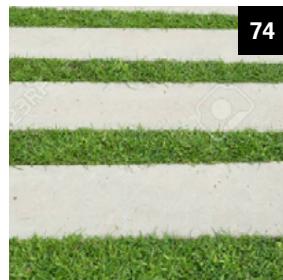


MATERIAL REPRESENTATION



MATERIAL INDEX

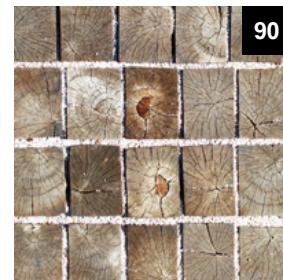
"MATERIAL ATLAS"



Plattenbau slabs



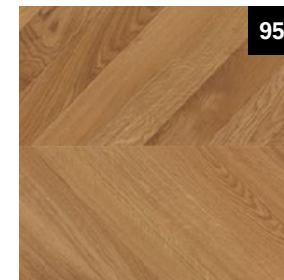
Granite paving



Reclaimed timber paving



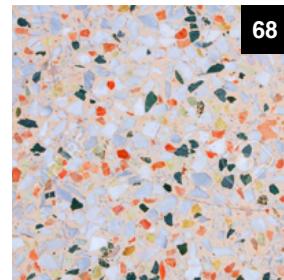
Sandstone



Upcycled timber



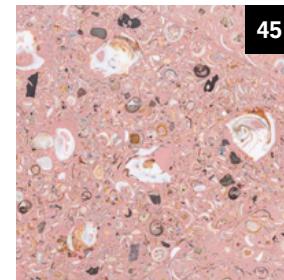
Re-used brick paving



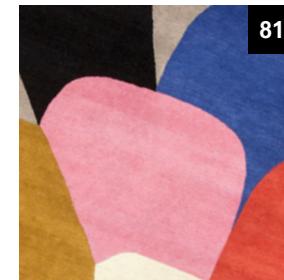
Recycled Glass Terrazzo



Upcycled plastic tiles

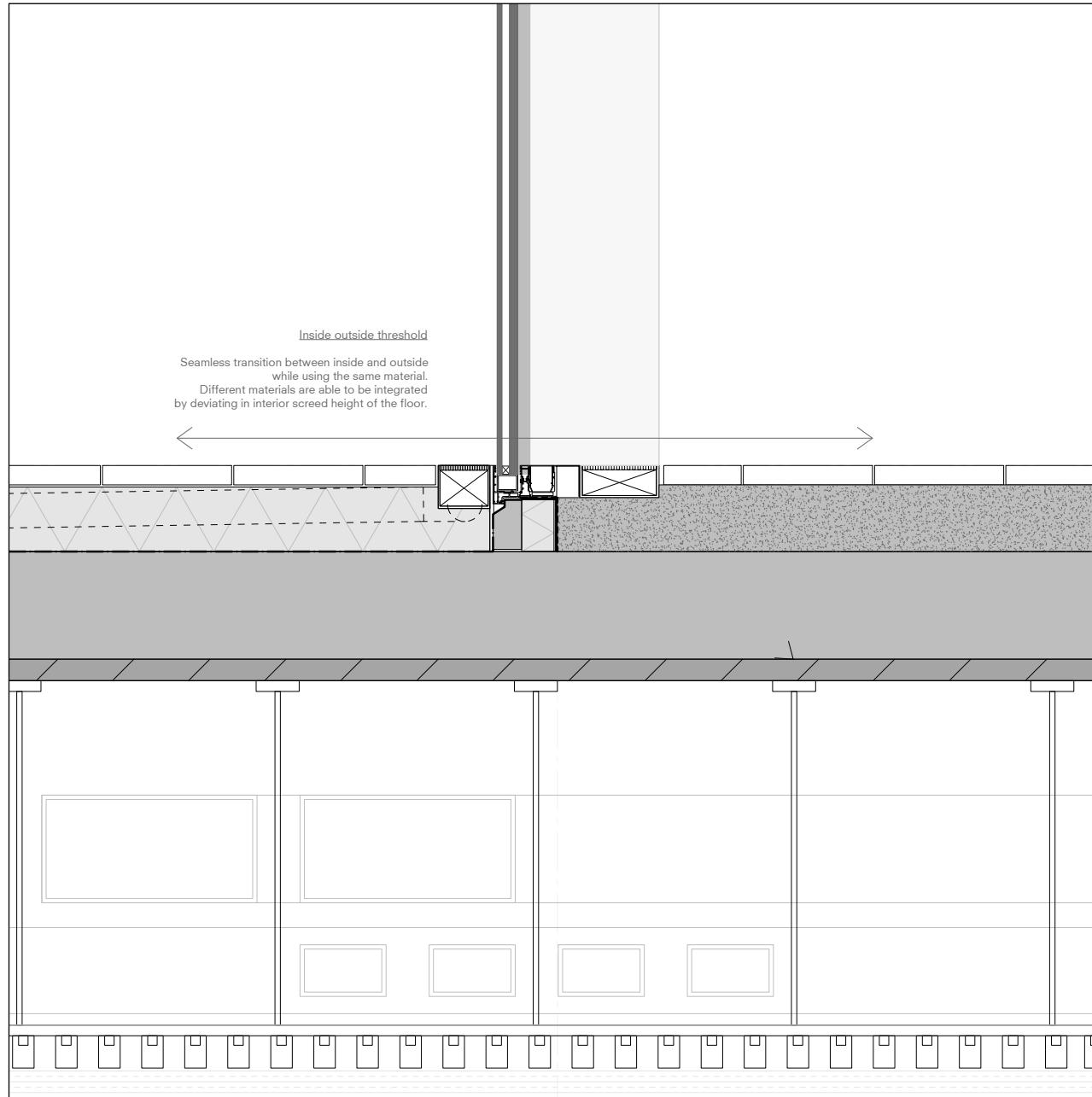
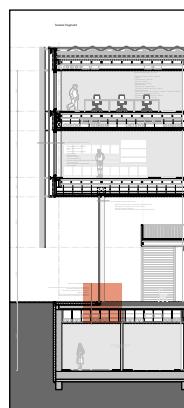


Shell Terrazzo

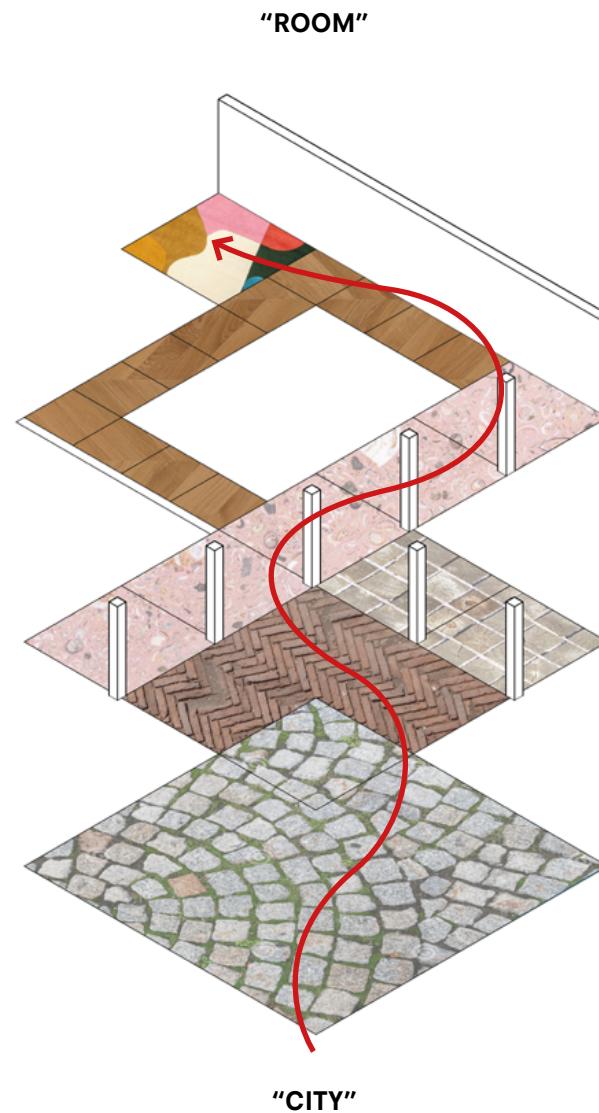


Flax Carpet

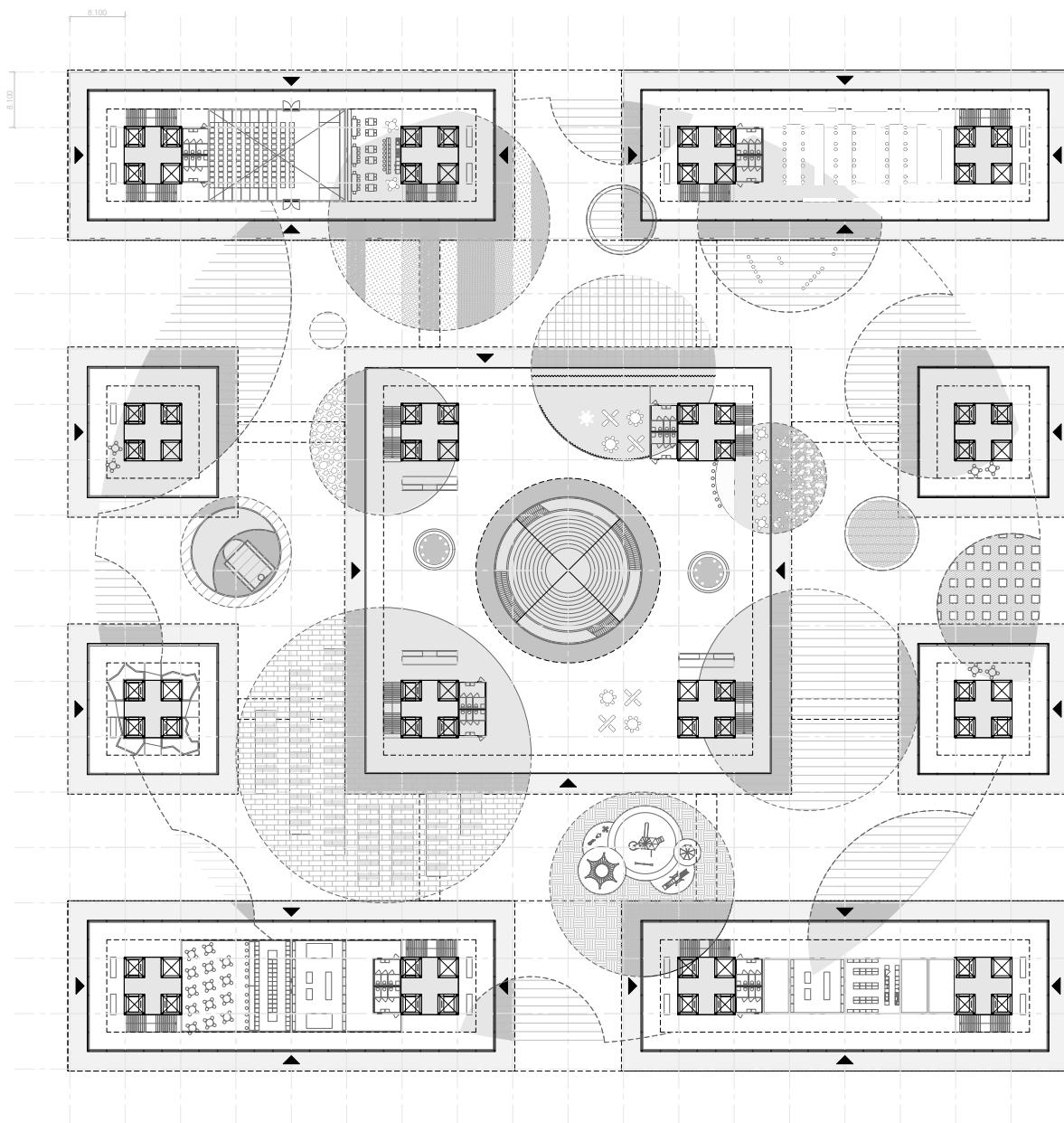
FACADE DETAILS

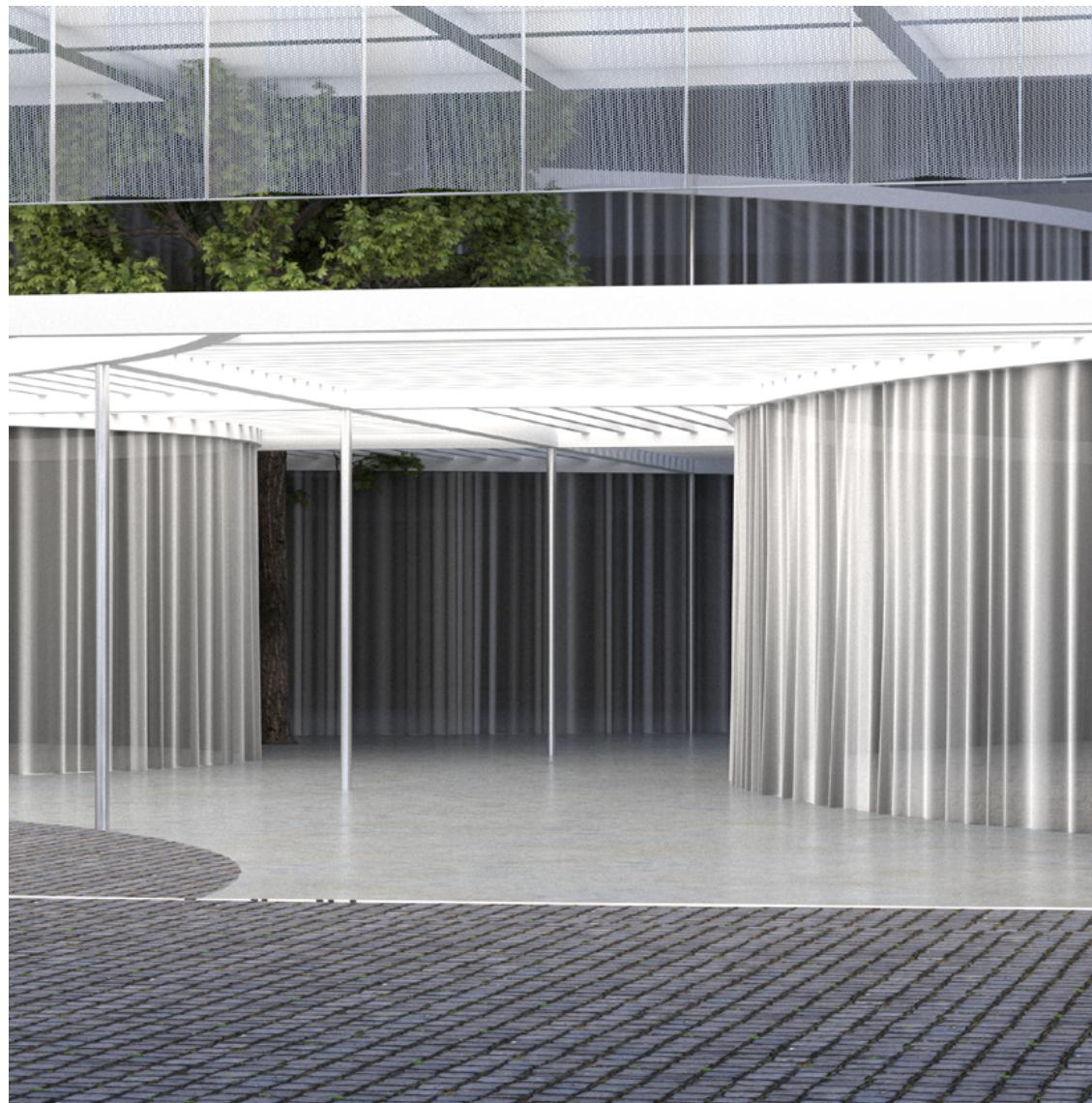


MATERIALISED KEY SPACE



MATERIALISED KEY SPACE





SANA - HIROSHI SENJU MUSEUM

+



- I. INTRODUCTION**
- II. RESEARCH & DESIGN BRIEF**
- III. CONCEPT**
- IV. IMPLEMENTATION**
- V. CONCLUSION**

MAIN RESEARCH QUESTION

“HOW WILL HUMAN BODY AUGMENTATION REFLECT CHANGE IN THE HOSPITAL TYPOLOGY OF THE FUTURE?”

- 1 - “How will augmentation change the hospital process for the human body, and thus the building program?”
- 2 - “How can we create a living hospital structure, that can grow, upgrade, and get augmented through time?”



R2_INTERSECTION

INTERSECTION



PART OF THE CITY

+



ACCESIBLE

+



ACCESIBLE

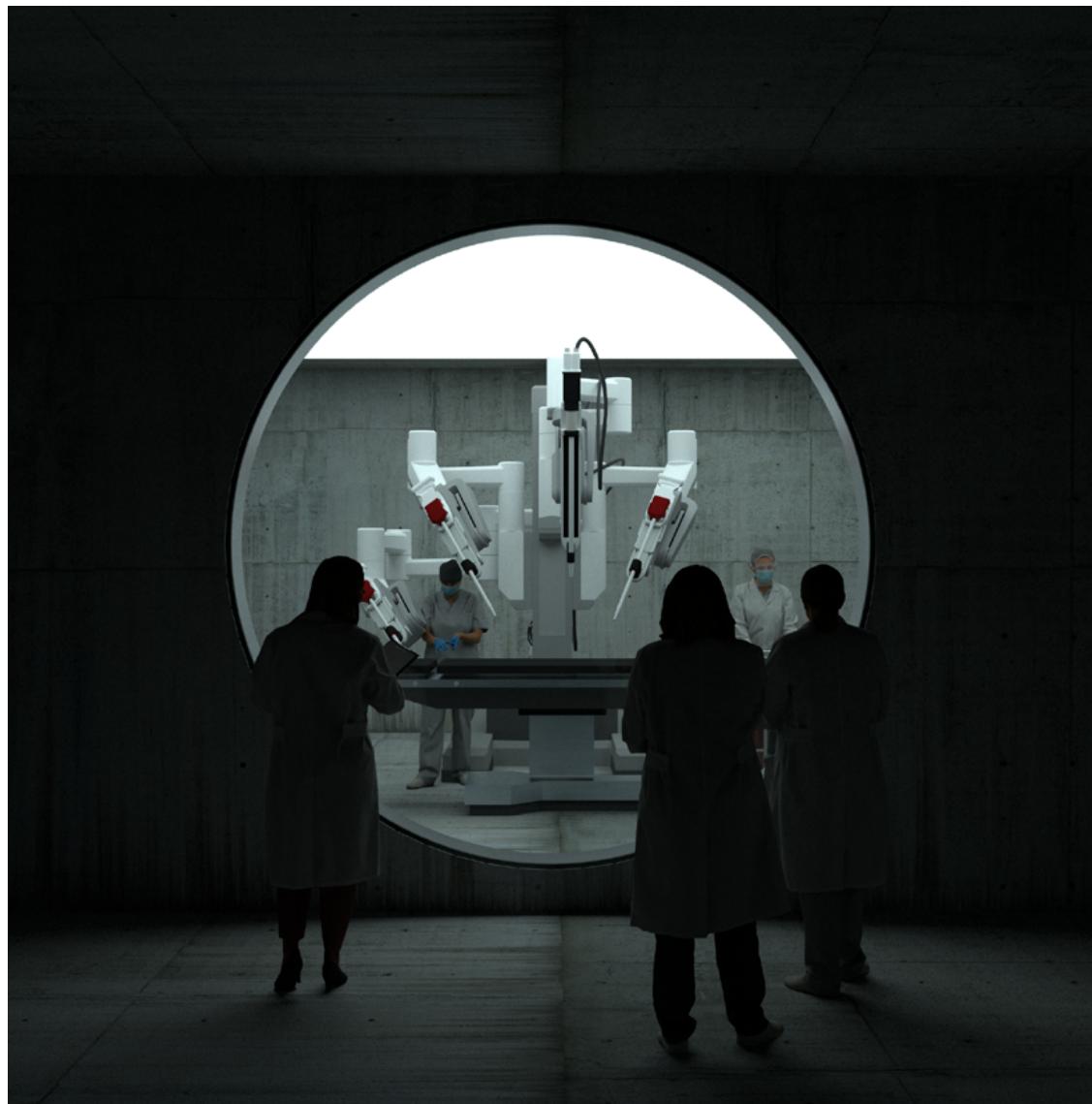
+

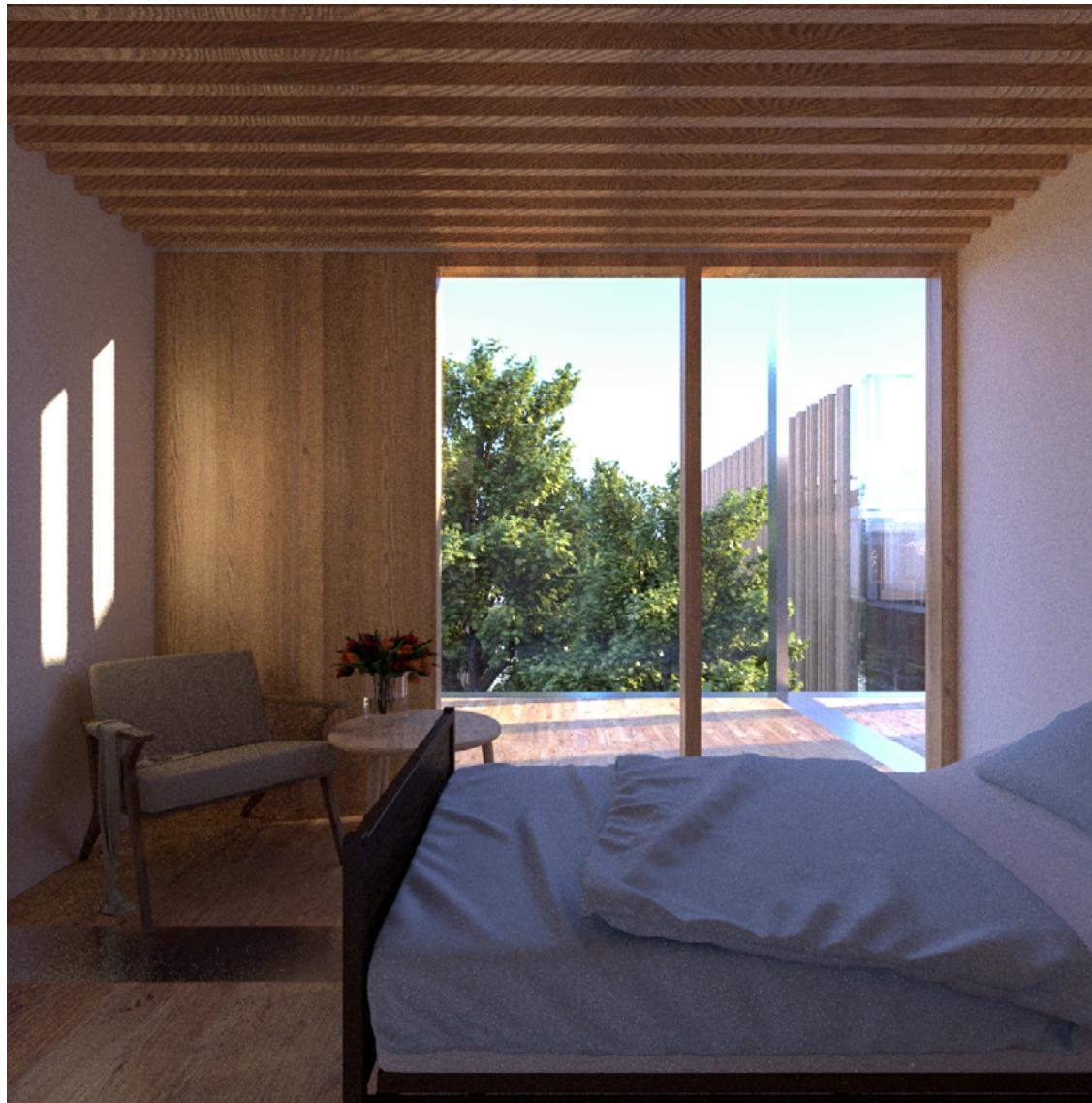


ACCESIBLE

+



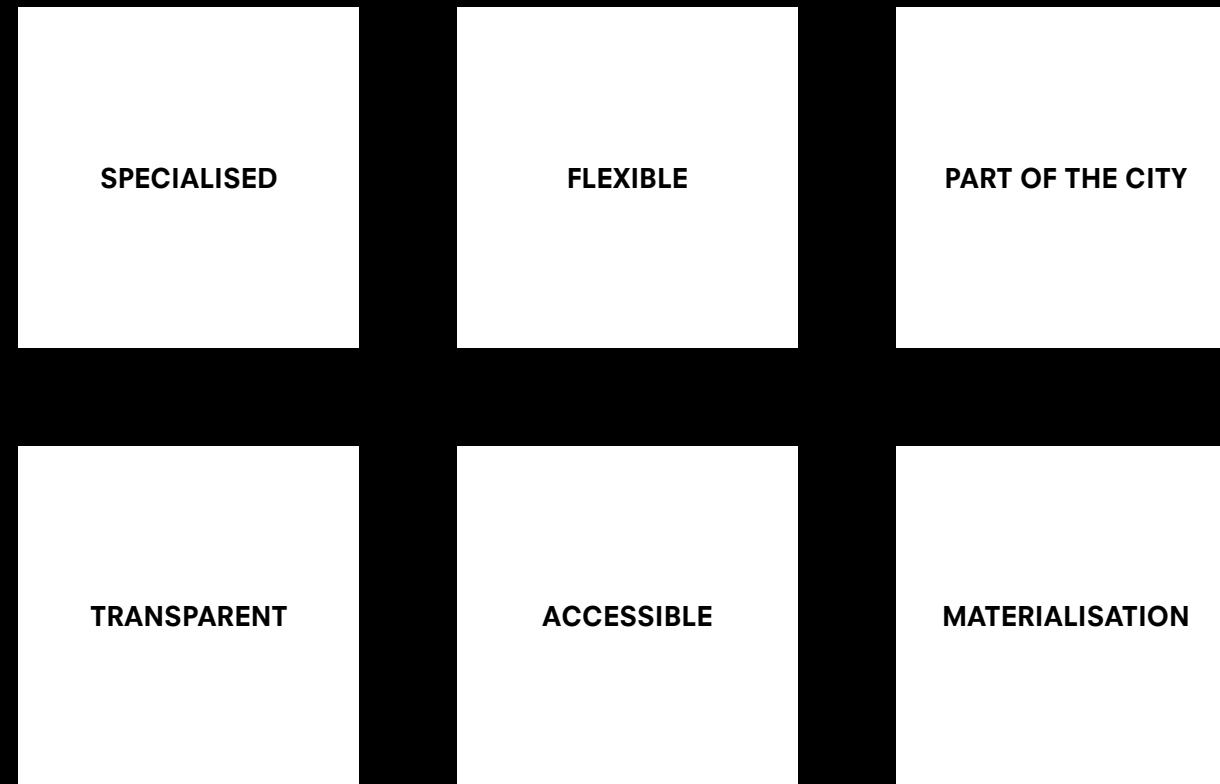
SPECIALISED





XL - L - M - S - XS

BUILDING - IMPLICATIONS



“THE HUMAN BODY SHOP”

PART OF THE CITY

L - STRUCTURE**FLEXIBLE**

M - PROGRAM**SPECIALISED**

S - TRANSITIONS**ACCESIBLE**

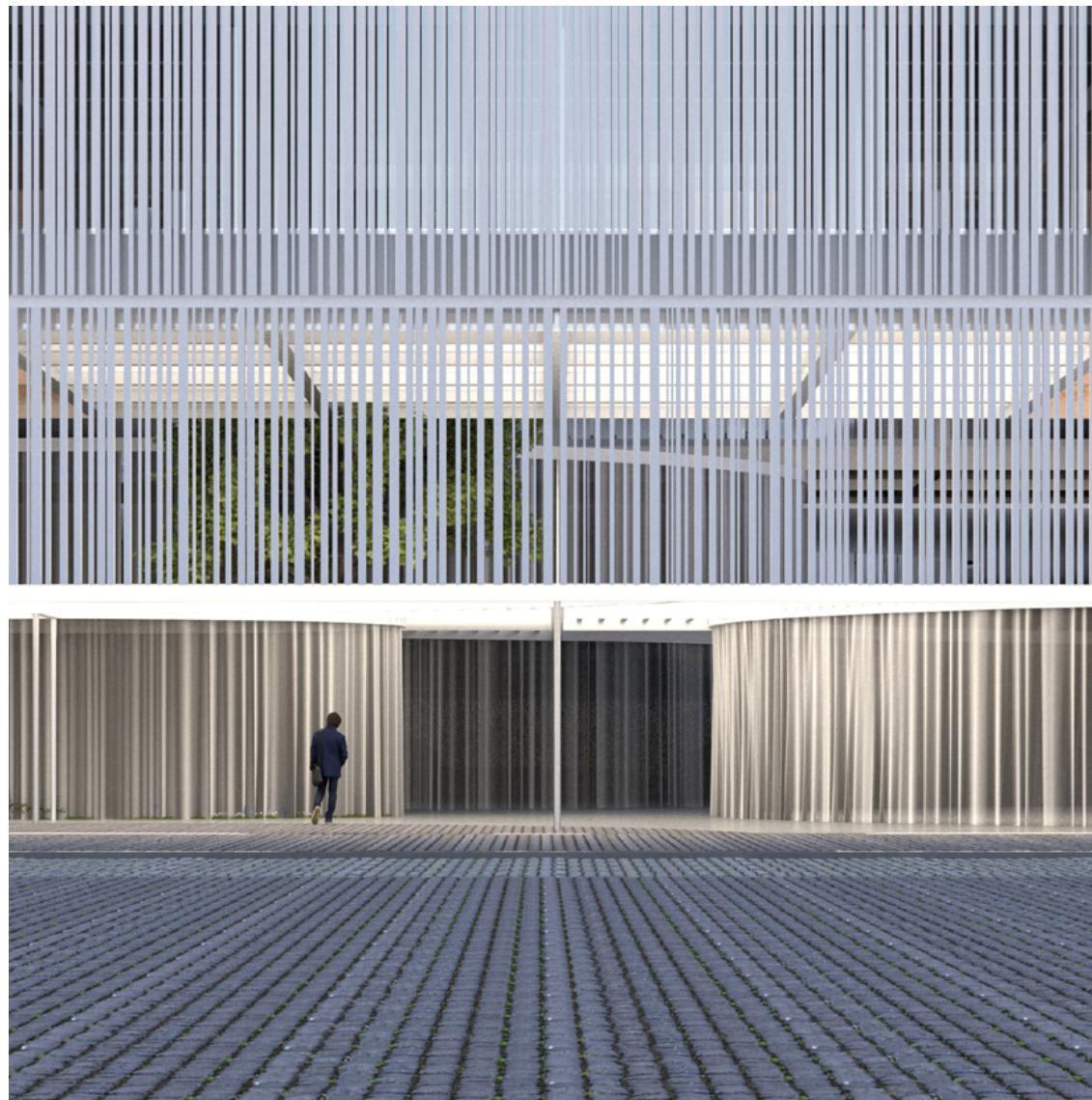
MODULAR



R4_ATRIUM

+

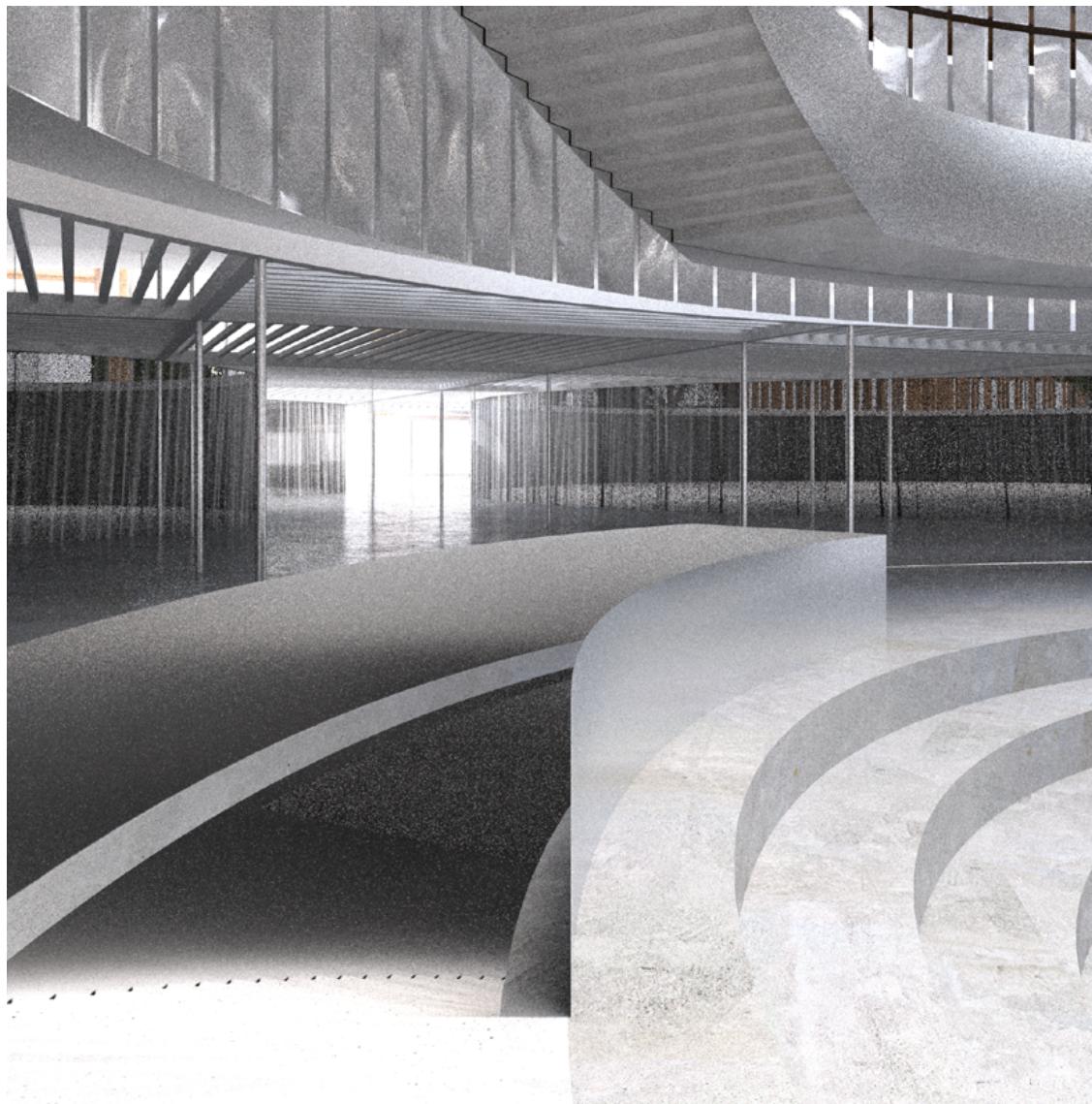




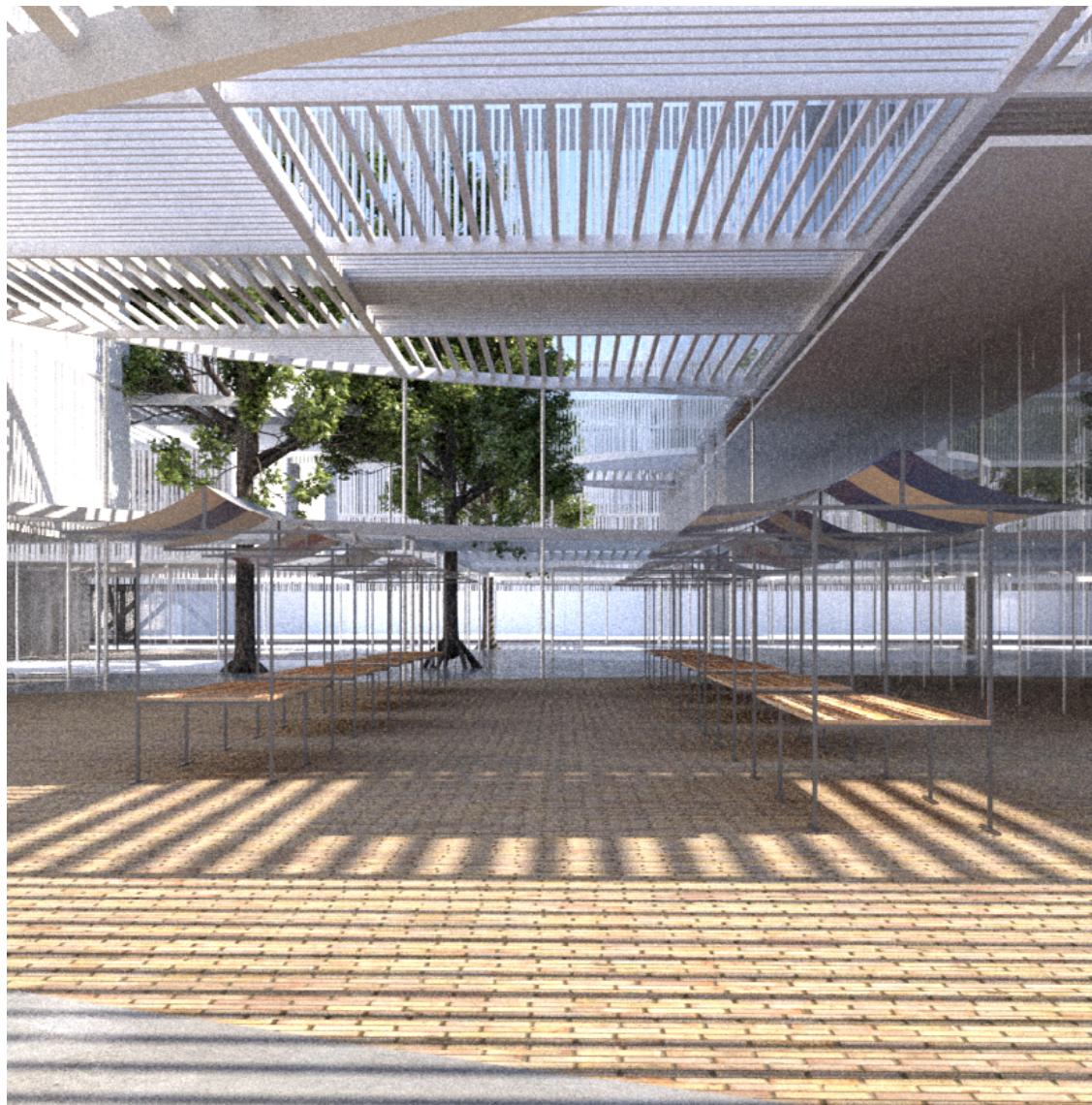


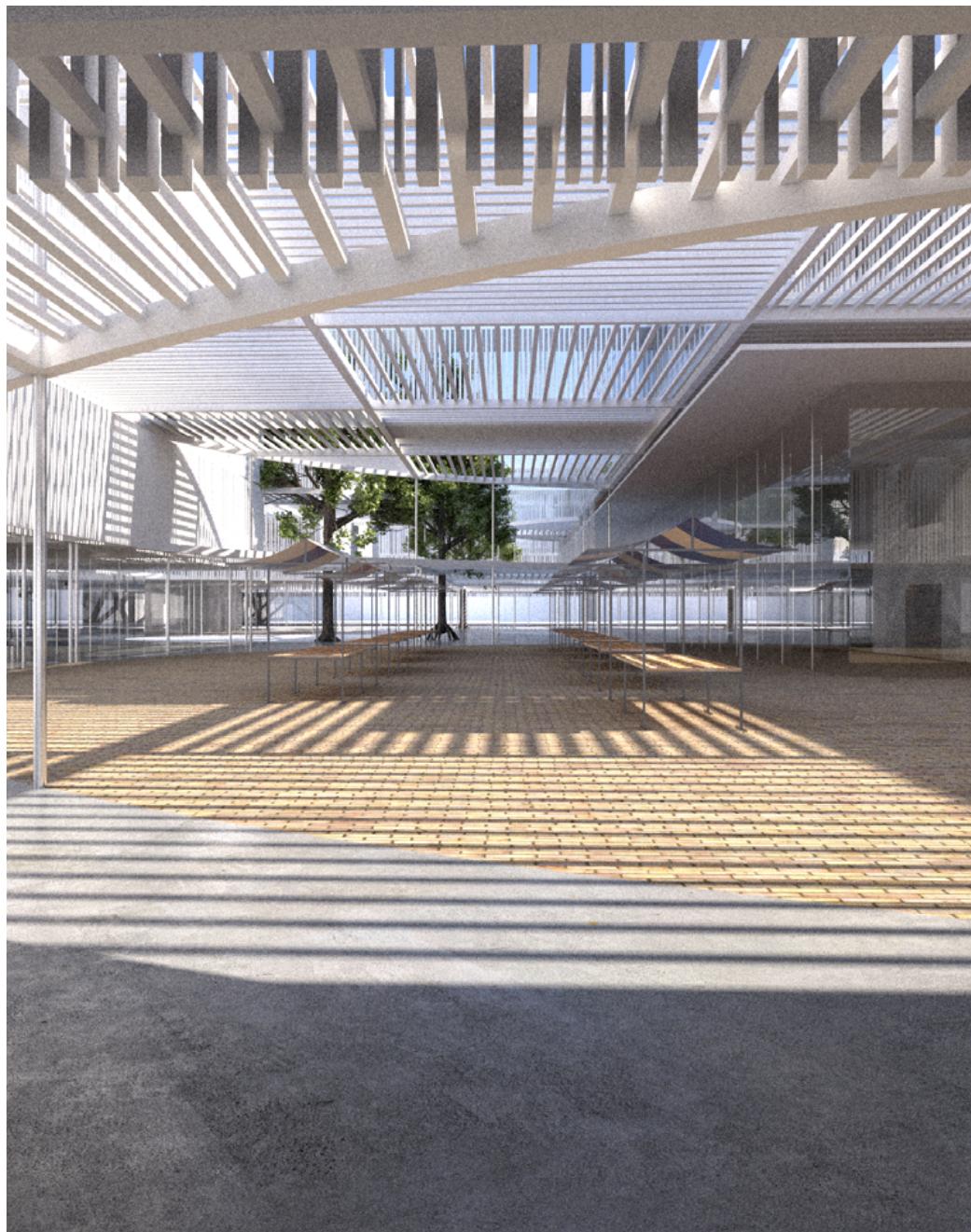




















facade

IMPRESSION



facade

IMPRESSION



IMPRESSION



