CoLab Milan

Public Library as a Platform for Collective Creation

Babette Duijvestein

October 30th, 2025

complex CP projects

INTRODUCTION

DESIGN BRIEF

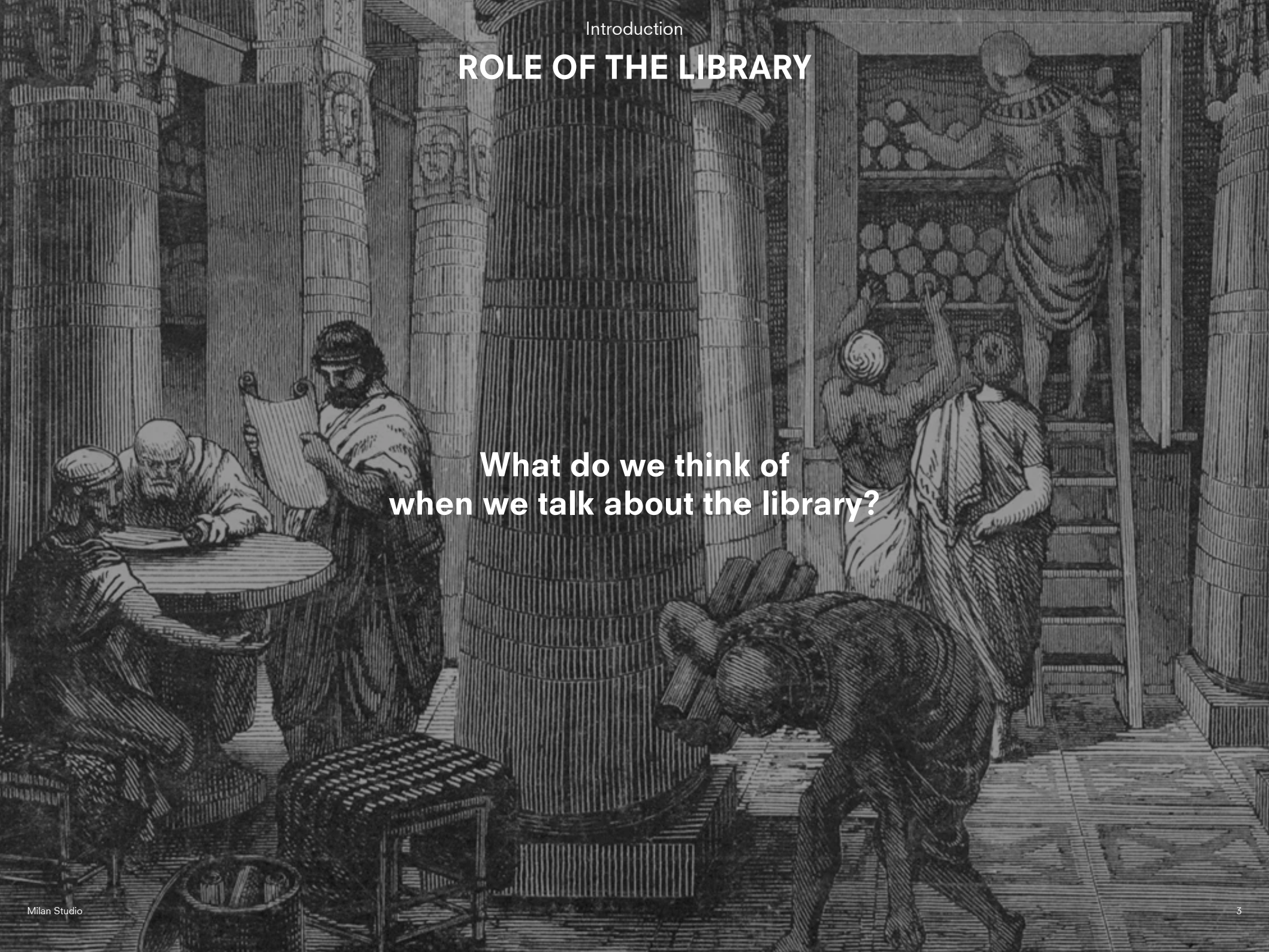
CONCEPT

DESIGN

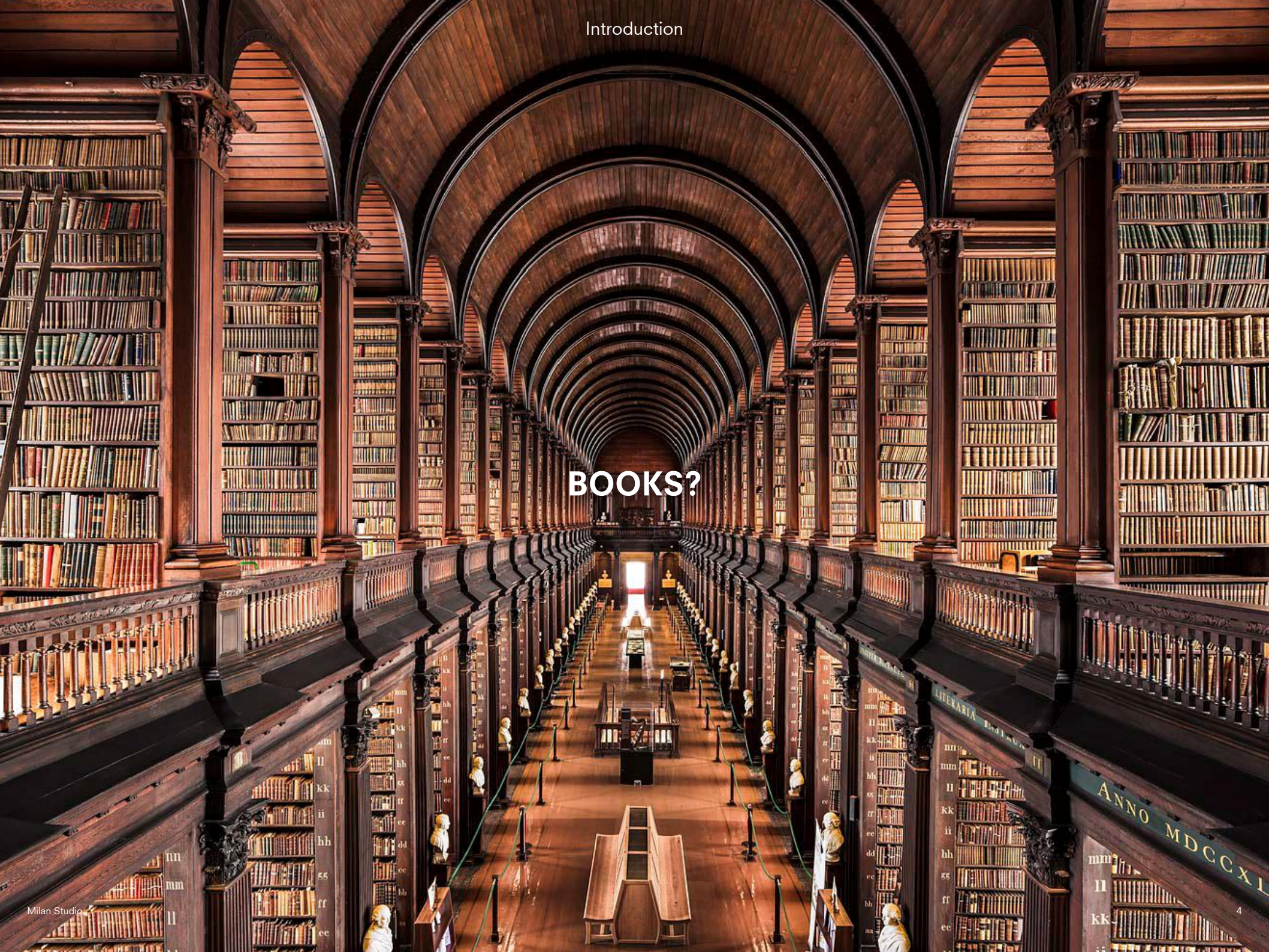
IMPLEMENTATION

CONCLUSION

ROLE OF THE LIBRARY



What do we think of when we talk about the library?


BOOKS?

STUDYING?

SILENCE?

ROLE OF THE LIBRARY

STIMULATING INDIVIDUAL LEARNING, WHILE BENEFITING SOCIETY AS A WHOLE

Chicago: ALA (2010)

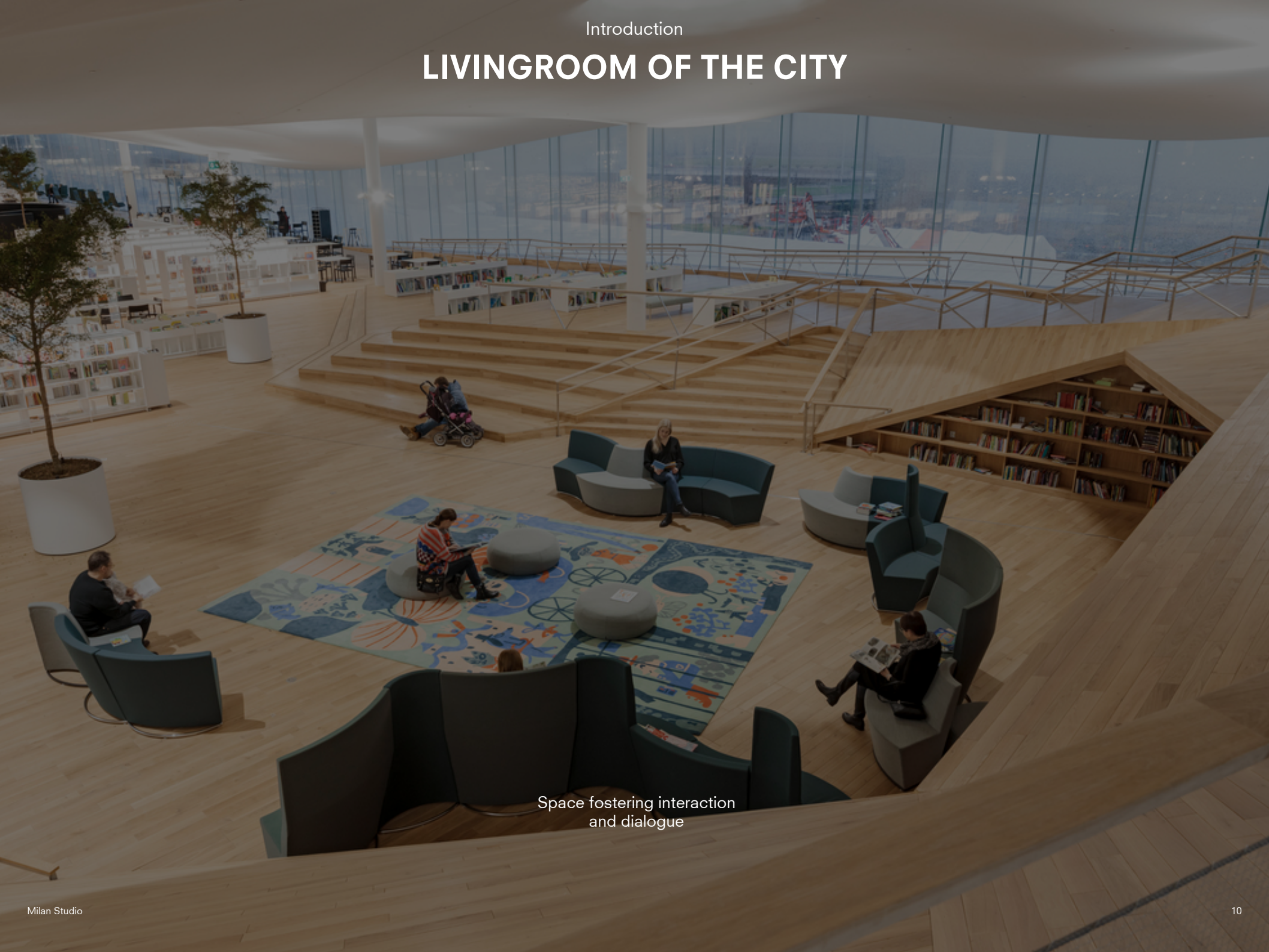
ROLE OF THE LIBRARY

Chicago: ALA (2010)

THE URBAN ARCHIVE

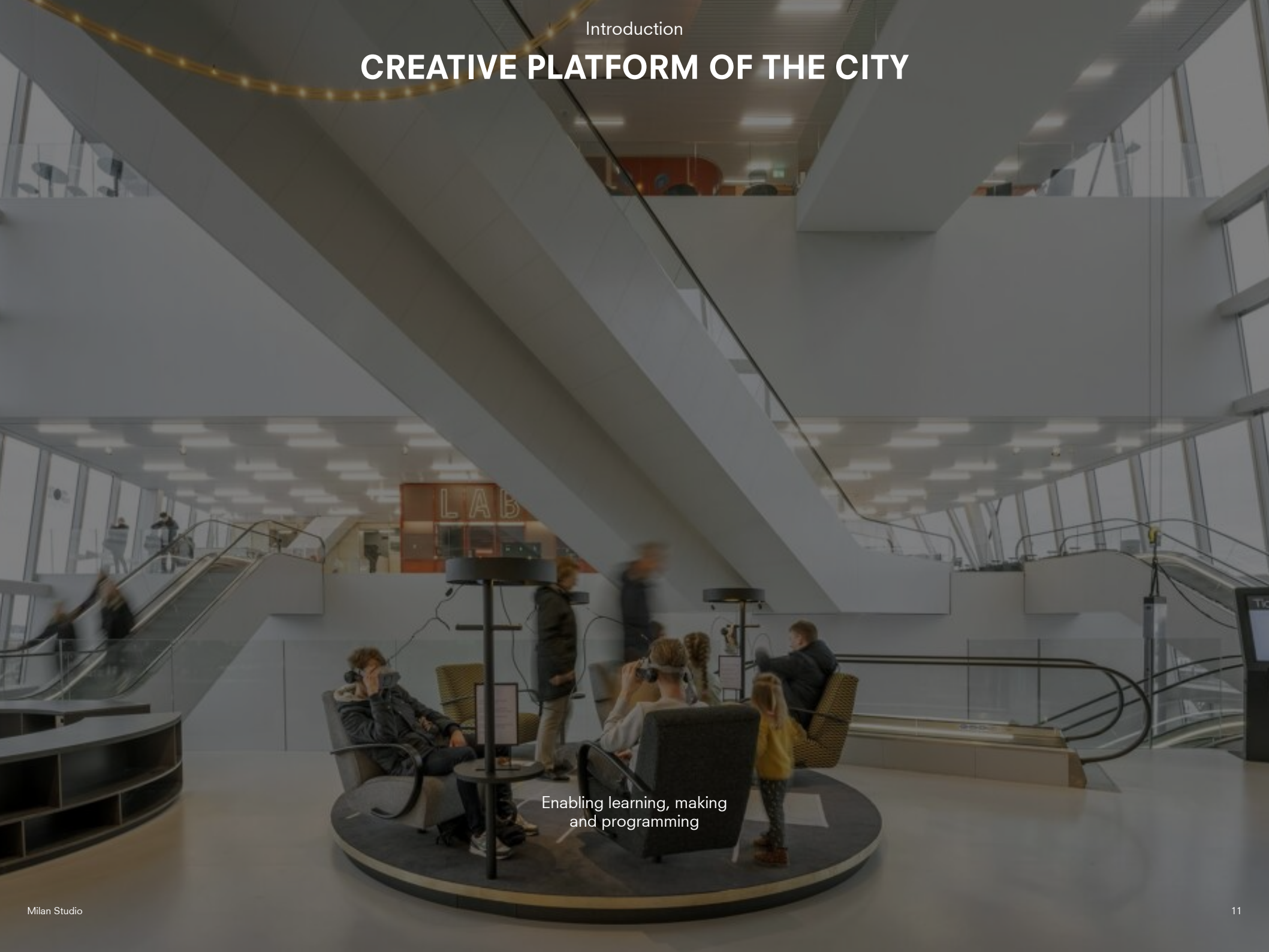
Collection and preservation
of knowledge

LIVINGROOM OF THE CITY



Space fostering interaction
and dialogue

CREATIVE PLATFORM OF THE CITY



Enabling learning, making
and programming

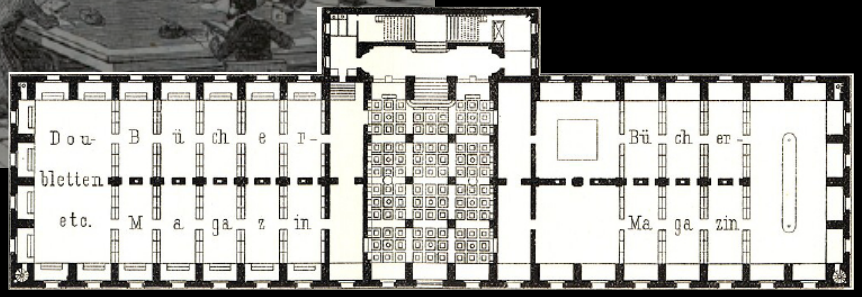
COLLECTION

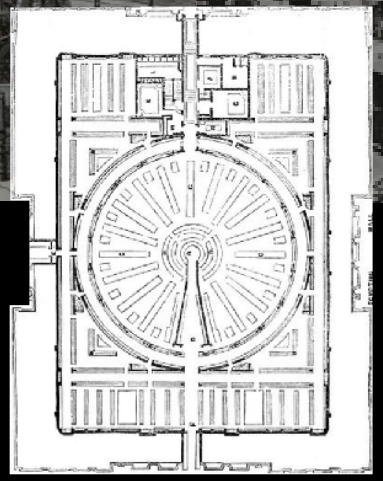
CONNECTION

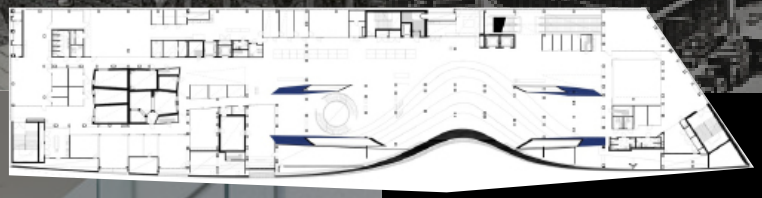
CREATION

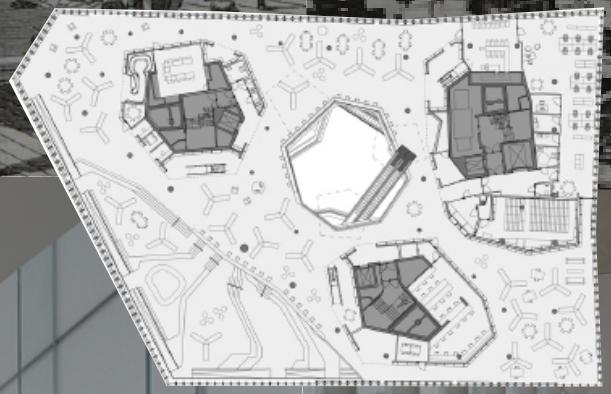
FROM CLOSED SPACES
TOWARDS...

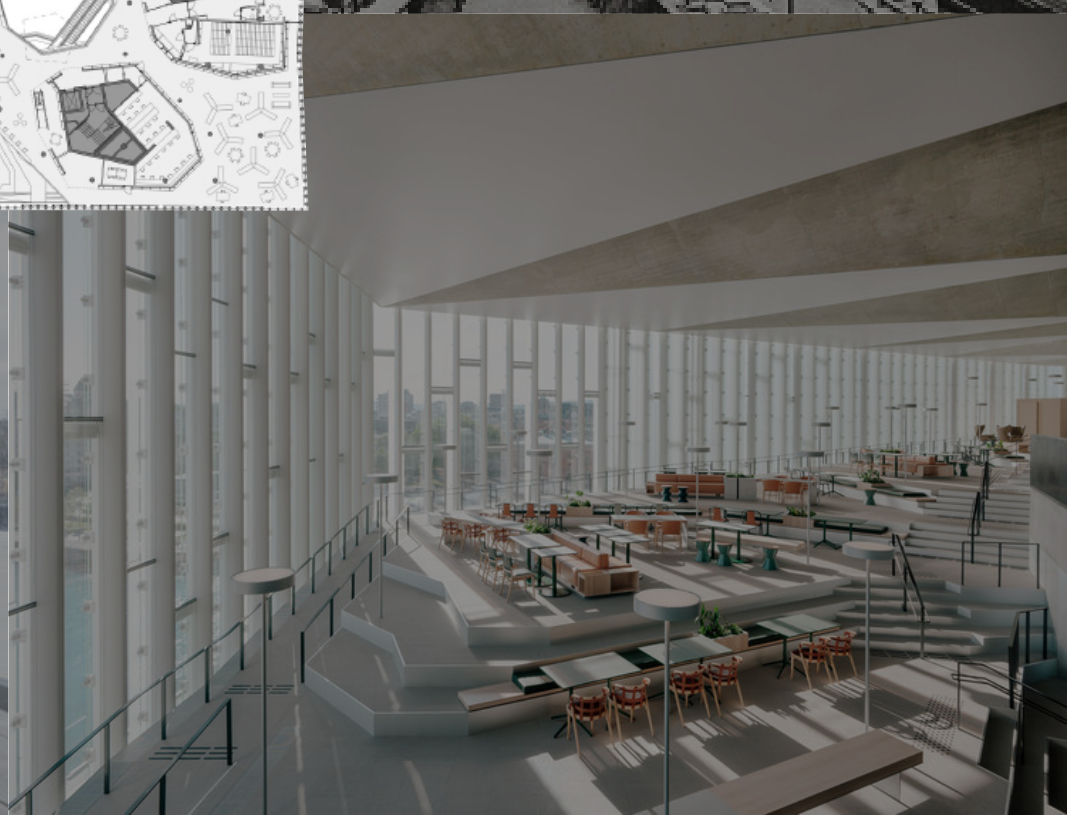
...OPEN AND TRANSPARANT
ARCHITECTURE


Dou-
bletten
etc.
Bücher-
Magazin
Bücher-
Magazin









What are the needs of
the communities in Milan?

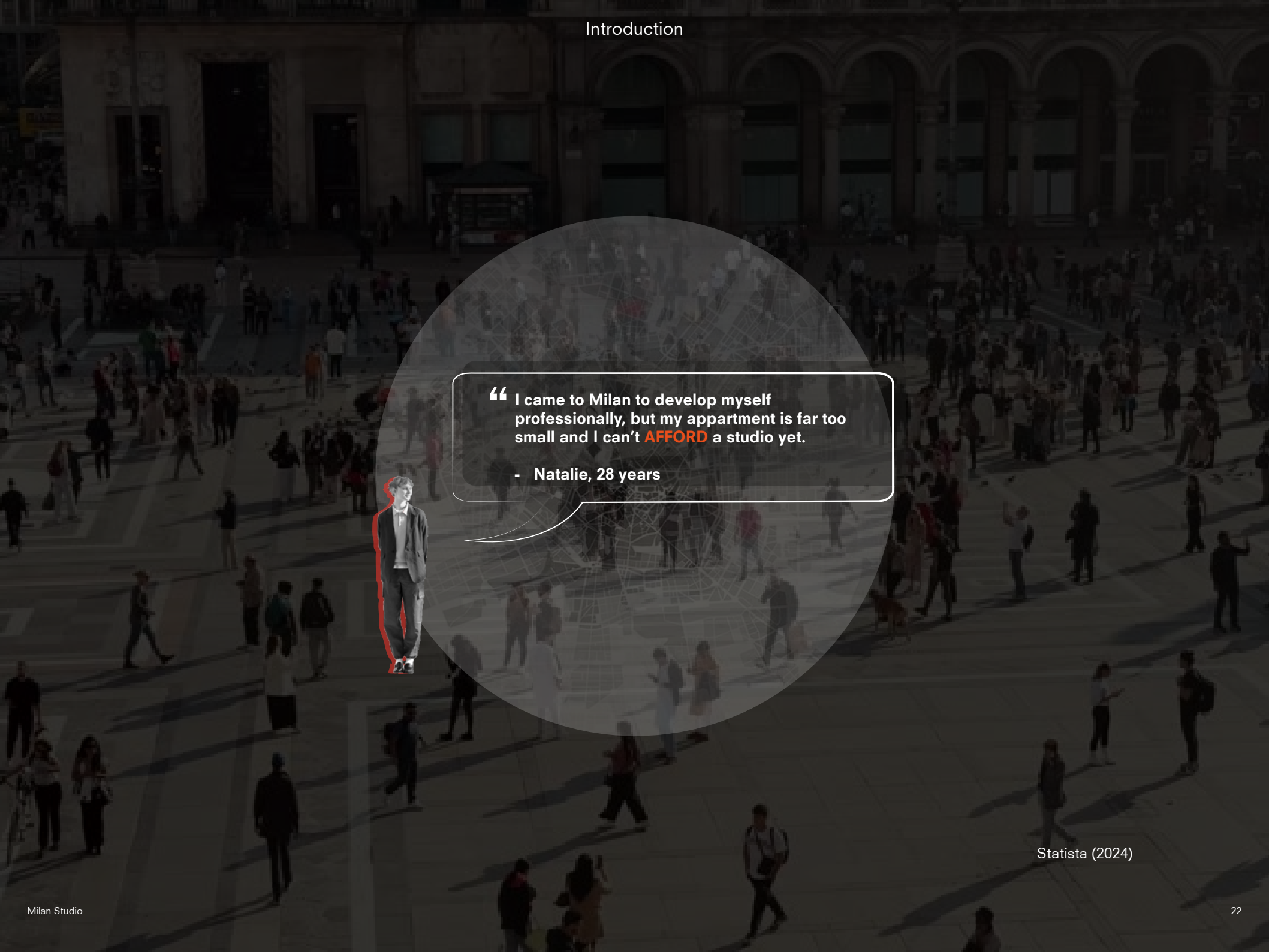
Cariplo Foundation (2023)

> Everything is online, the kids are **LOSING TOUCH** with the real world.
>
> - Valeria, 37 years

U.S. Census Bureau (2021)

> **The city feels full of opportunities, yet impossible to ACCESS without money or connections.**
>
> **- Renzo, 22 years**

CIAI / Radiomamma (2024)



Statista (2024)

Social fragmentation

What if the library became a place where...

people from different backgrounds
can meet, create, and belong.

THE COLLABORATIVE LIBRARY
A shared space for collective expression

COLLECTION

CONNECTION

CREATION

COLLECTION

CONNECTION

CREATION

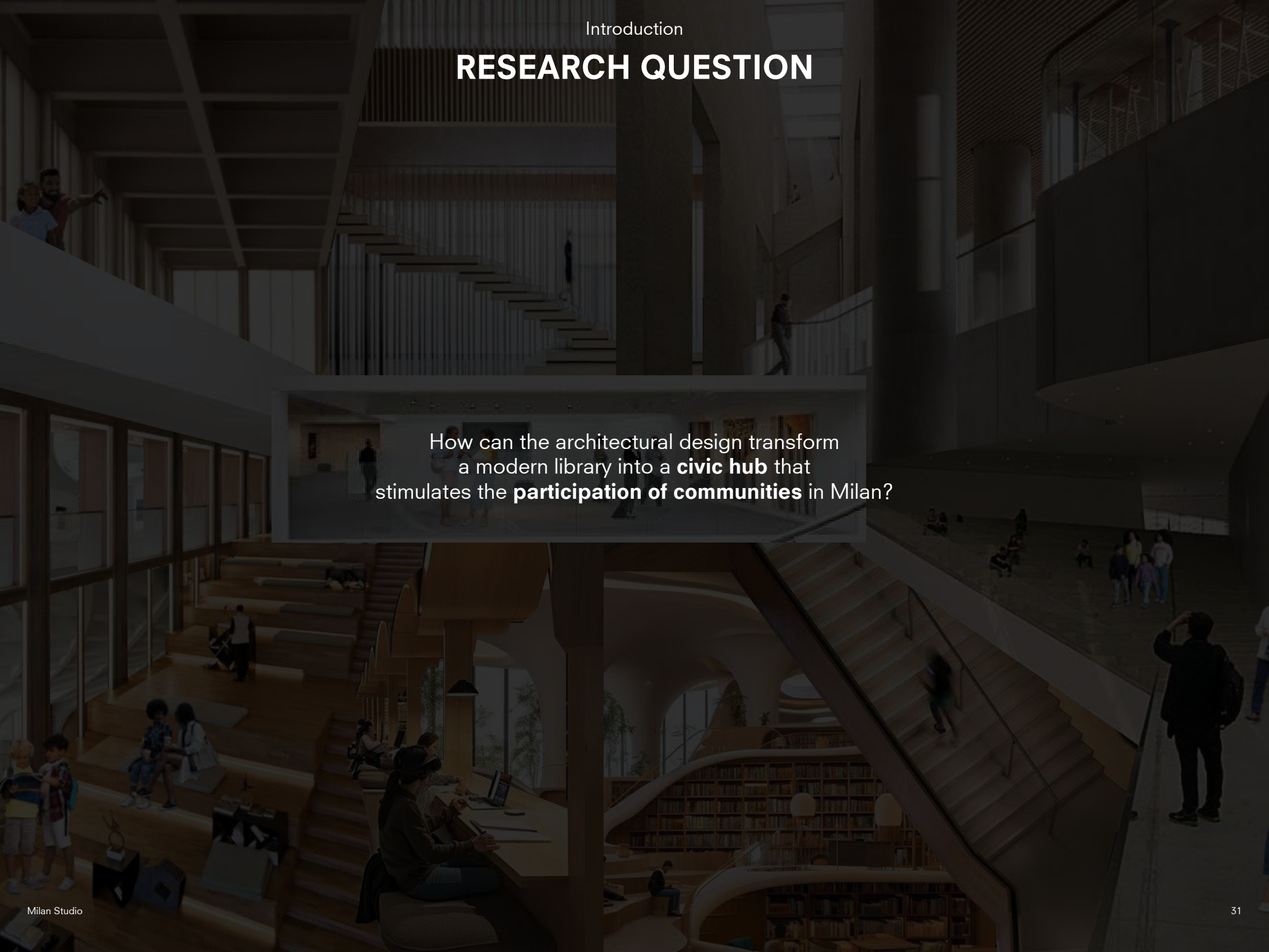
COLLABORATION

CoLab

CoLab

Collaborative Laboratory

RESEARCH QUESTION



How can the architectural design transform
a modern library into a **civic hub** that
stimulates the **participation of communities** in Milan?

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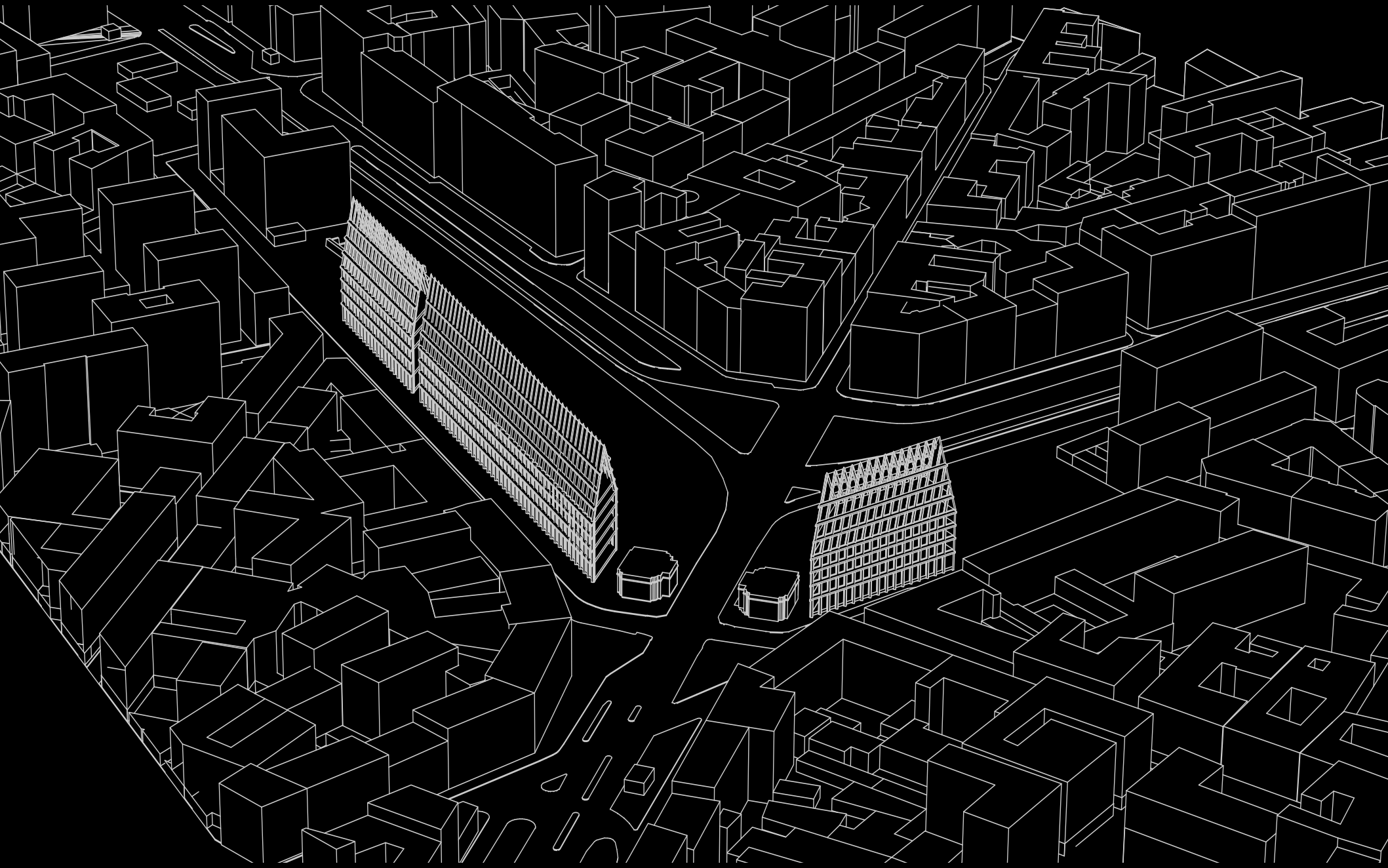
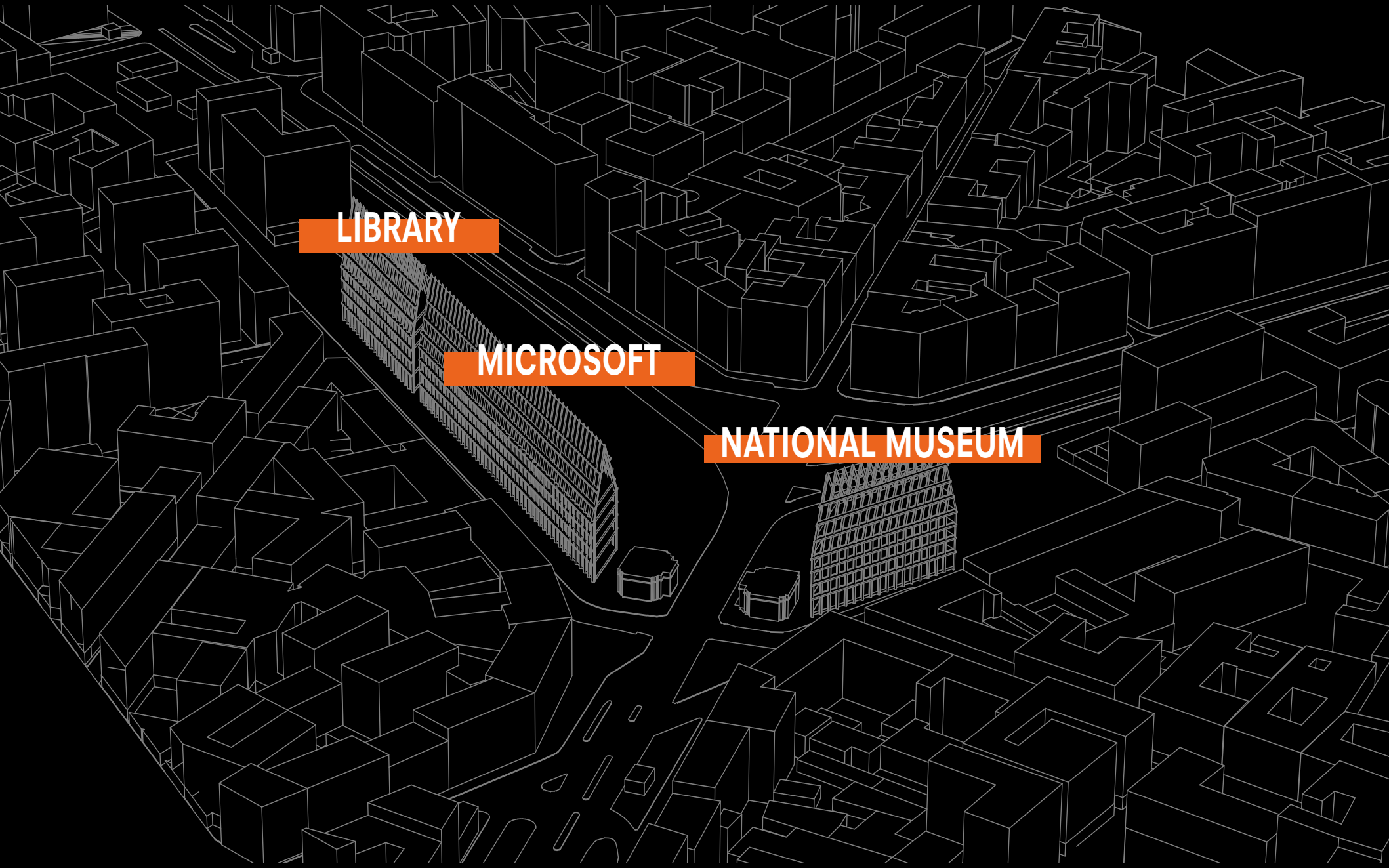
DESIGN ASSIGNMENT

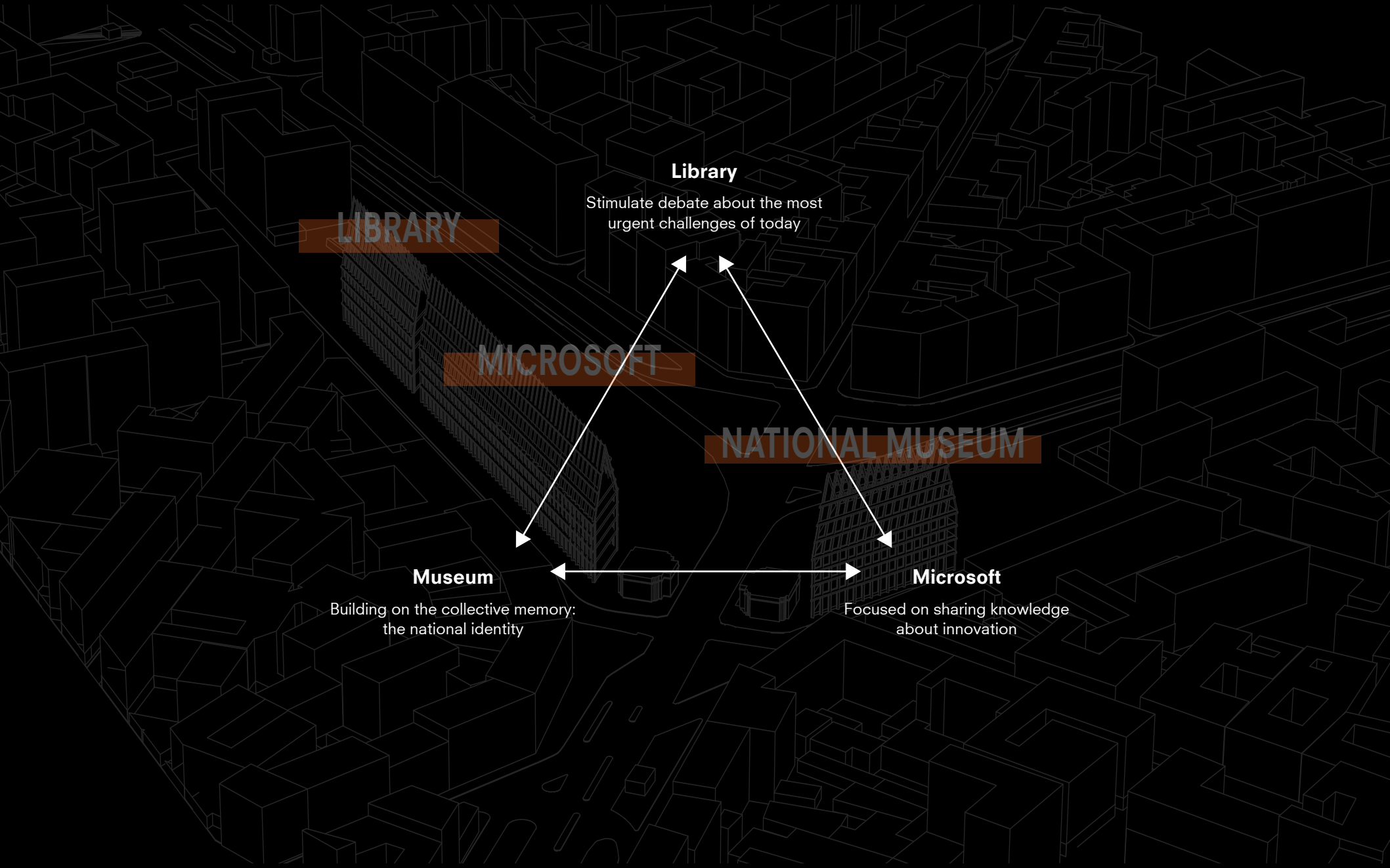
FONDAZIONE FELTRINELLI



CLIENT



ASPECTS



Library

Stimulate debate about the most urgent challenges of today

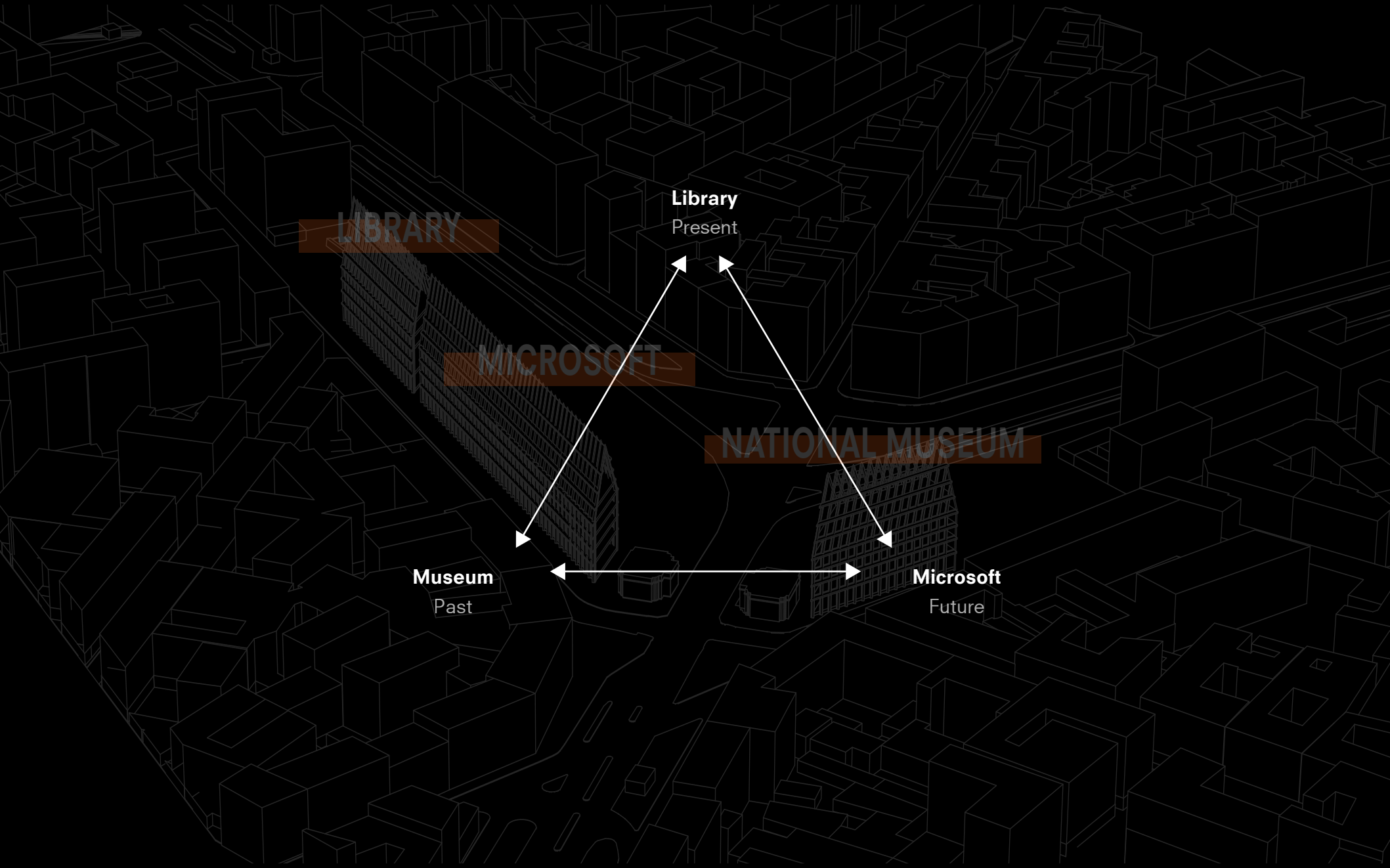
Museum

Building on the collective memory: the national identity

Microsoft

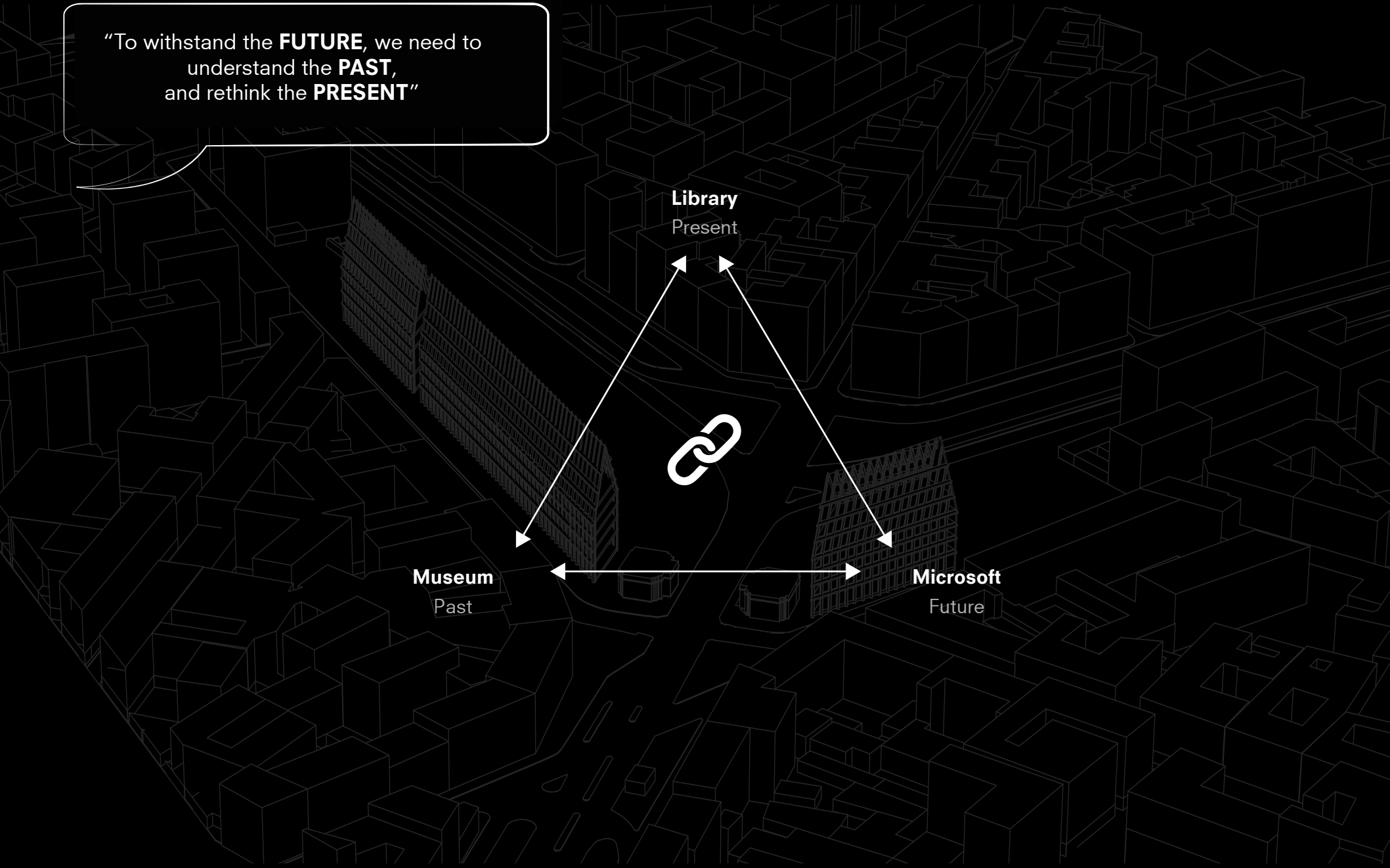
Focused on sharing knowledge about innovation

RELATION

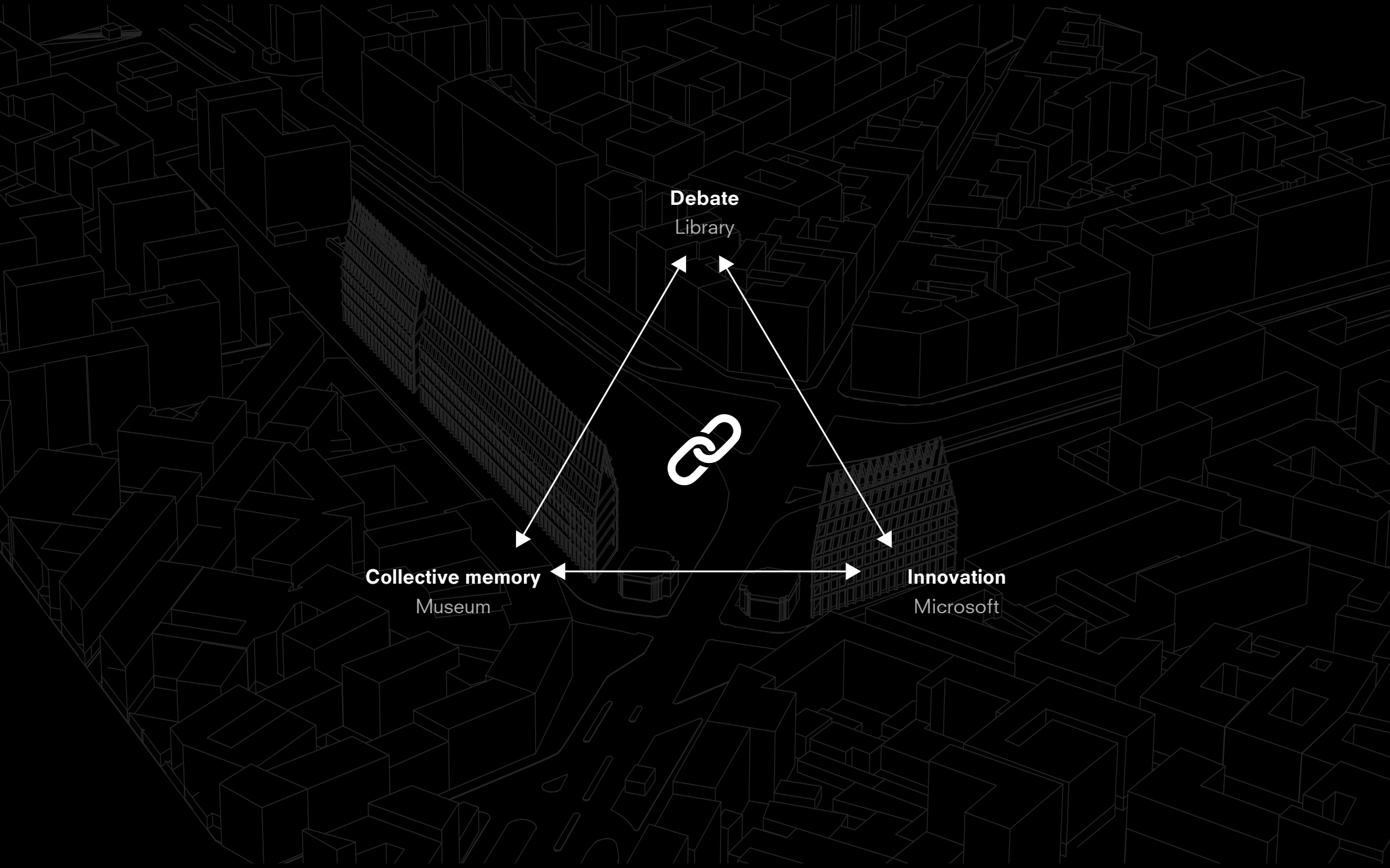

LIBRARY
MICROSOFT
NATIONAL MUSEUM
Library
Present
Museum
Past
Microsoft
Future

RELATION

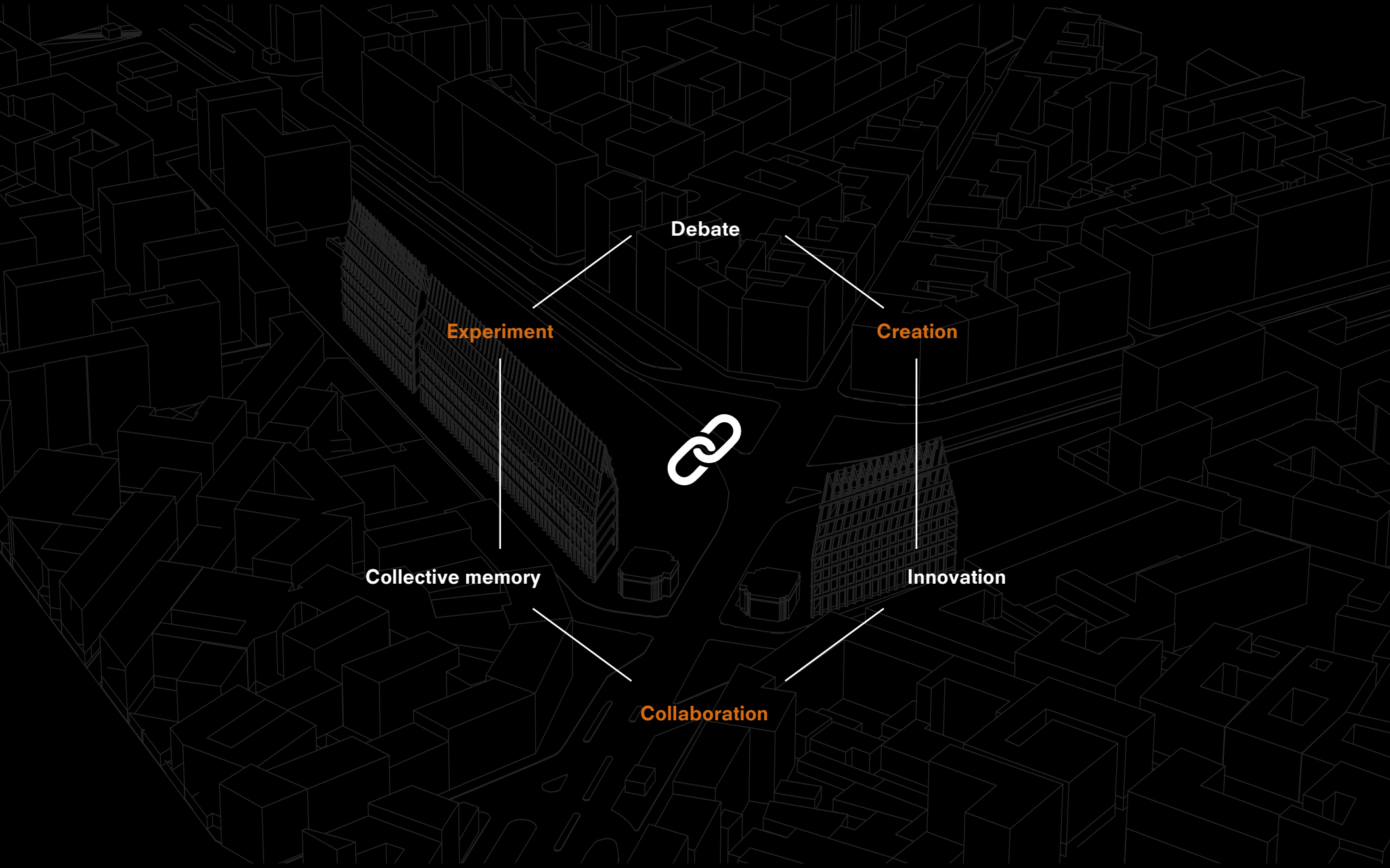
"To withstand the **FUTURE**, we need to understand the **PAST**, and rethink the **PRESENT**"



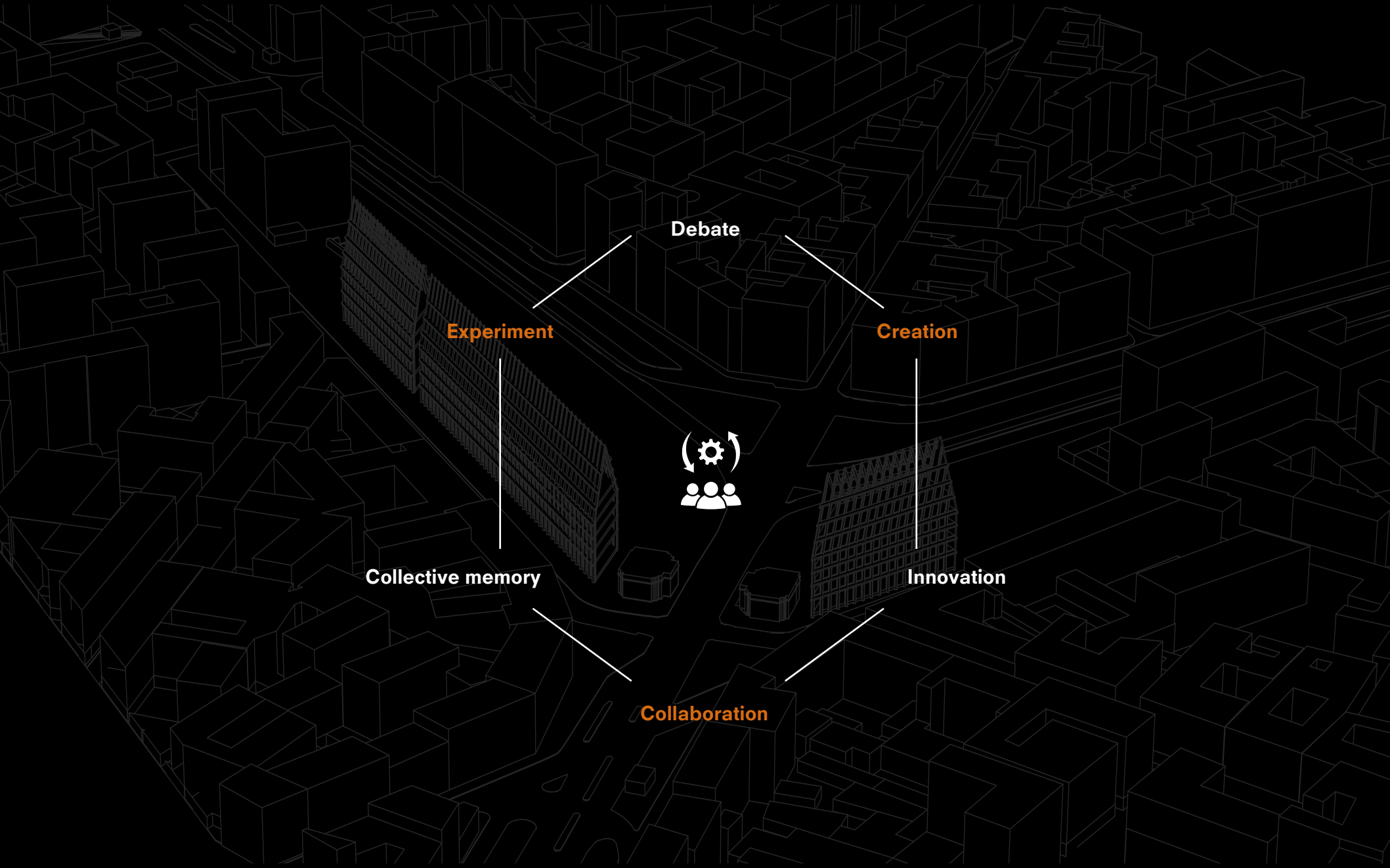
INTERWOVEN PROGRAM



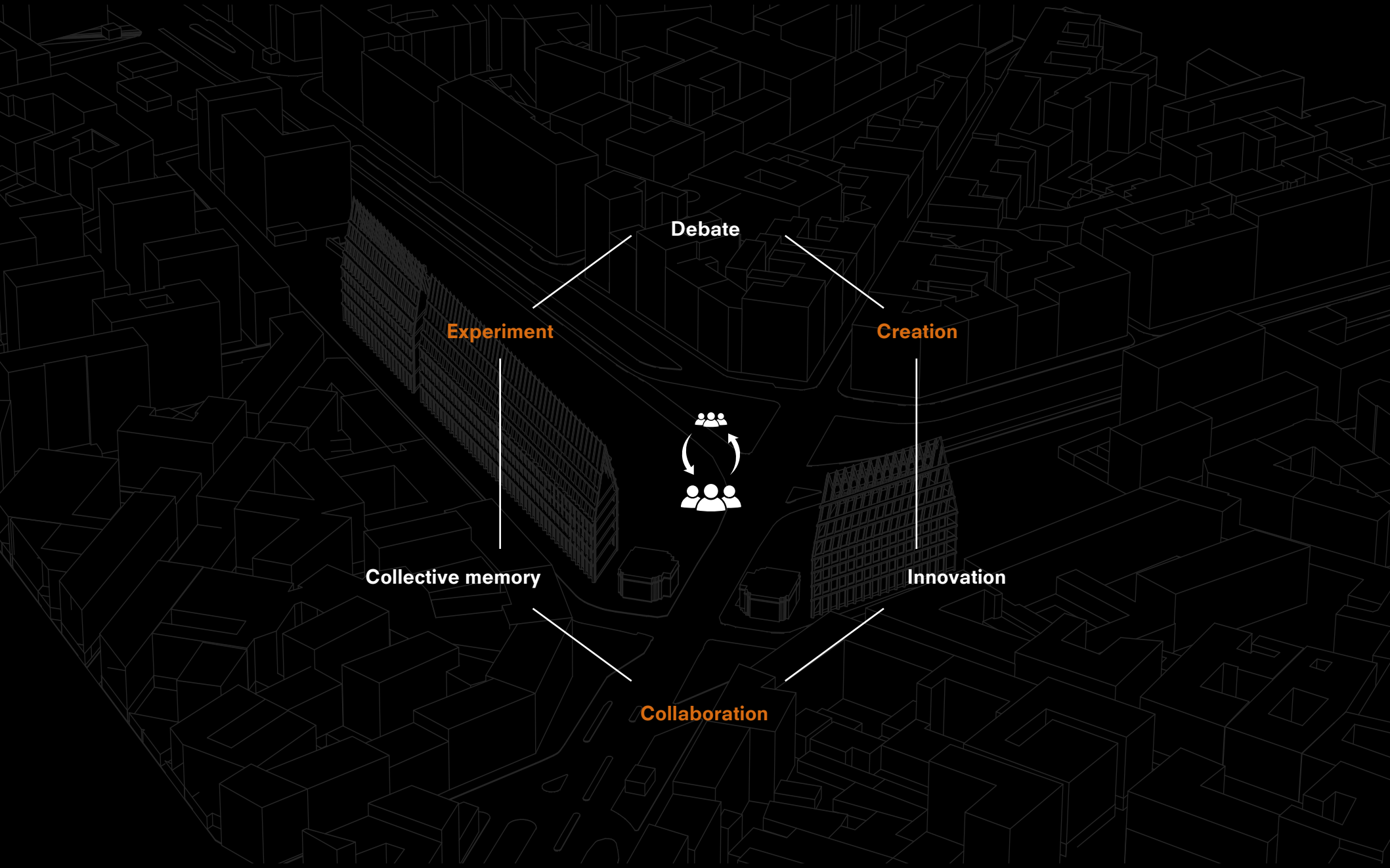
COLLABORATIVE LIBRARY



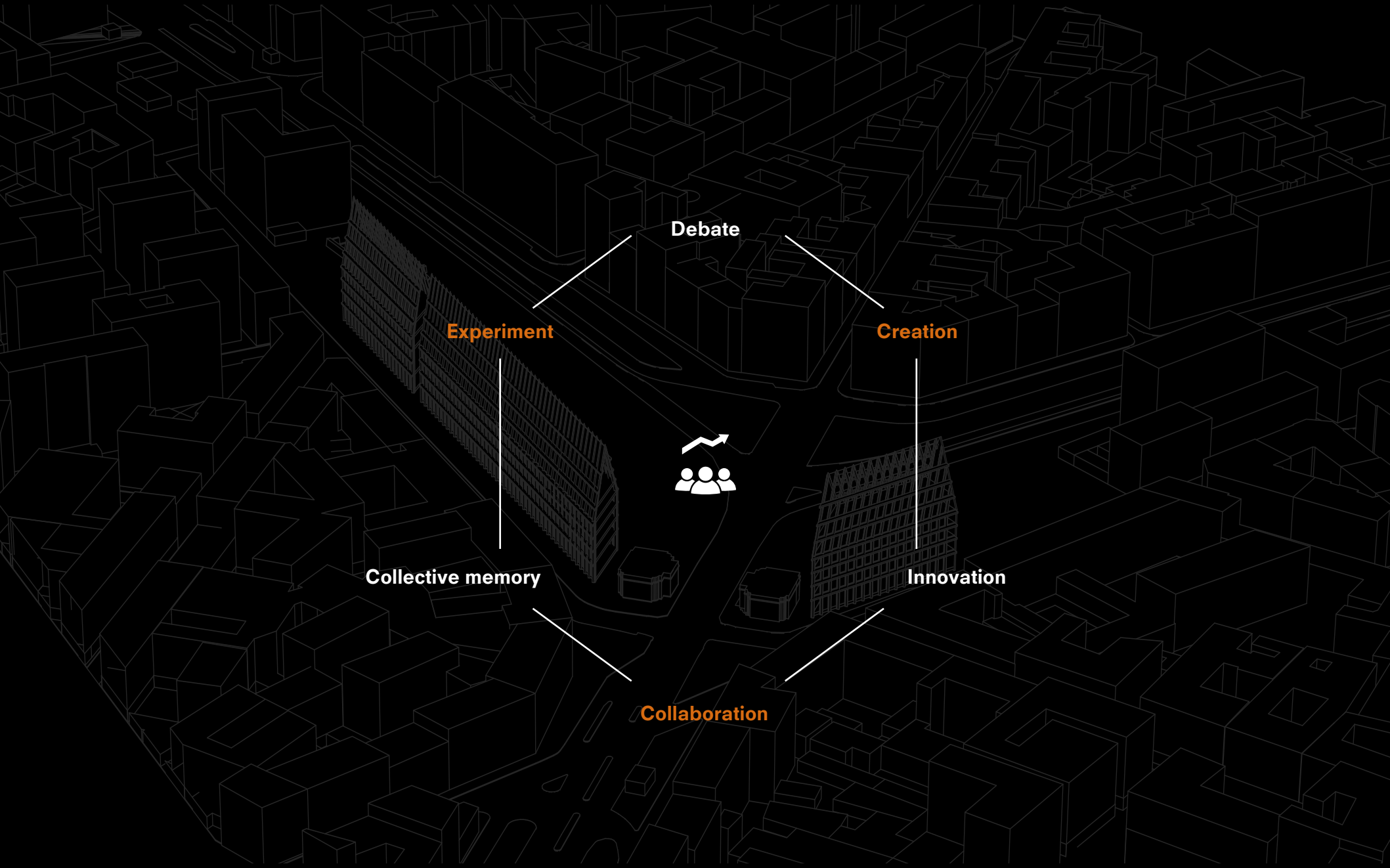
INCREASING KNOWLEDGE



ENHANCING INTERACTION



GROWTH IN PARTICIPATION



PROGRAM

Makerspaces

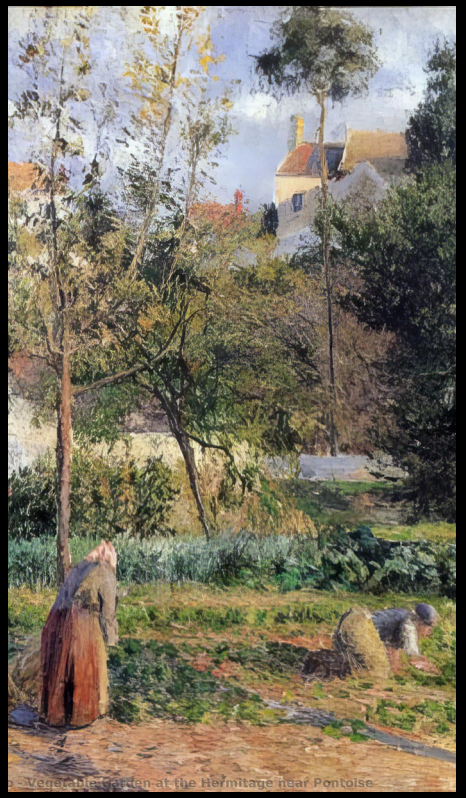
Jean-François, 1869
The Knitting Lesson

Art studios

Claude Monet, 1873
Painting in his garden at Argenteuil

Multi media spaces

Edgar Degas, 1870
The Orchestra at the Opera



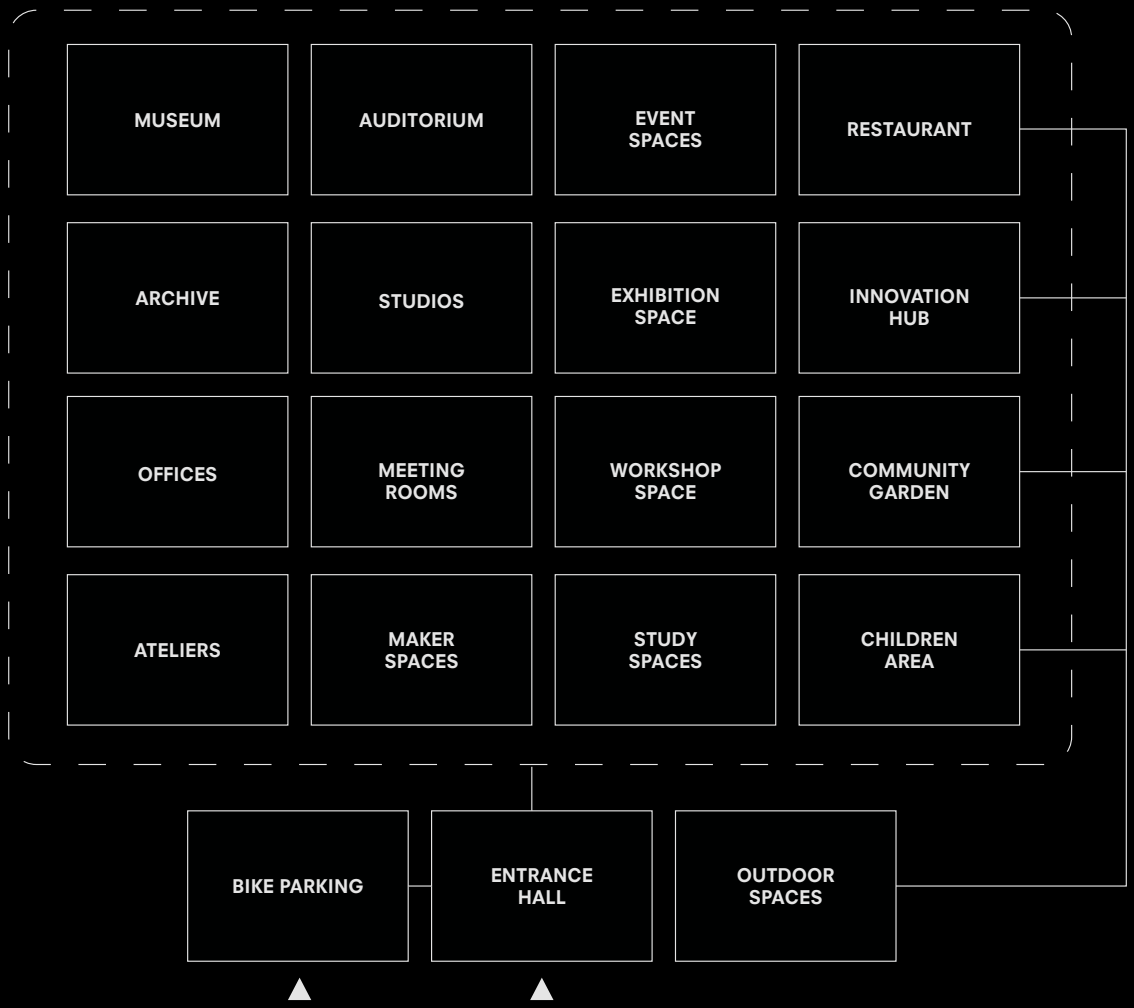
Community gardens

Clamille Pissarro, 1879
Vegetable Garden at the Hermitage

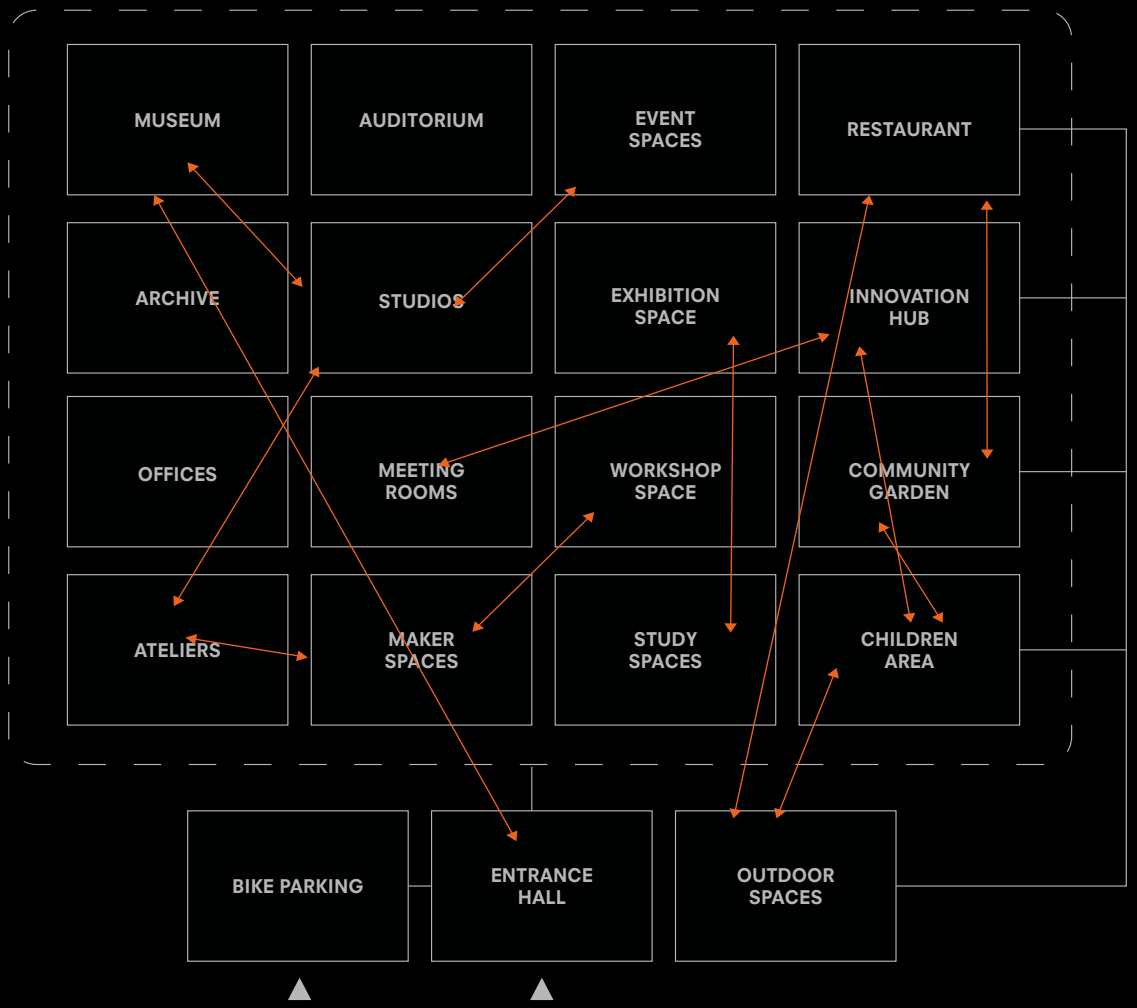
SPACES NEEDED

PRIVATE	SHARED		PUBLIC
MUSEUM	AUDITORIUM	EVENT SPACES	RESTAURANT
ARCHIVE	STUDIOS	EXHIBITION SPACE	INNOVATION HUB
OFFICES	MEETING ROOMS	WORKSHOP SPACE	COMMUNITY GARDEN
ATELIERS	MAKER SPACES	STUDY SPACES	CHILDREN AREA

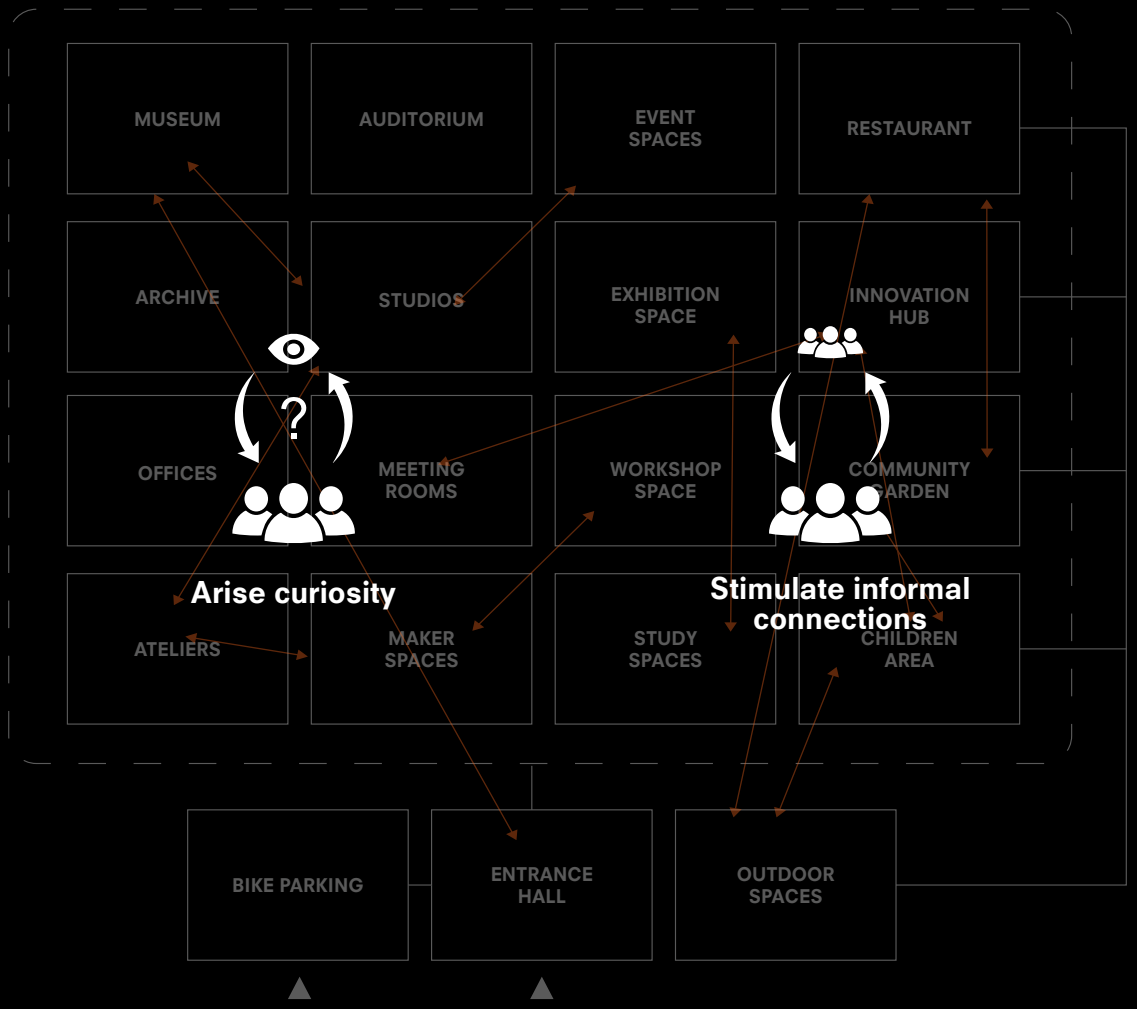
RELATION SCHEME



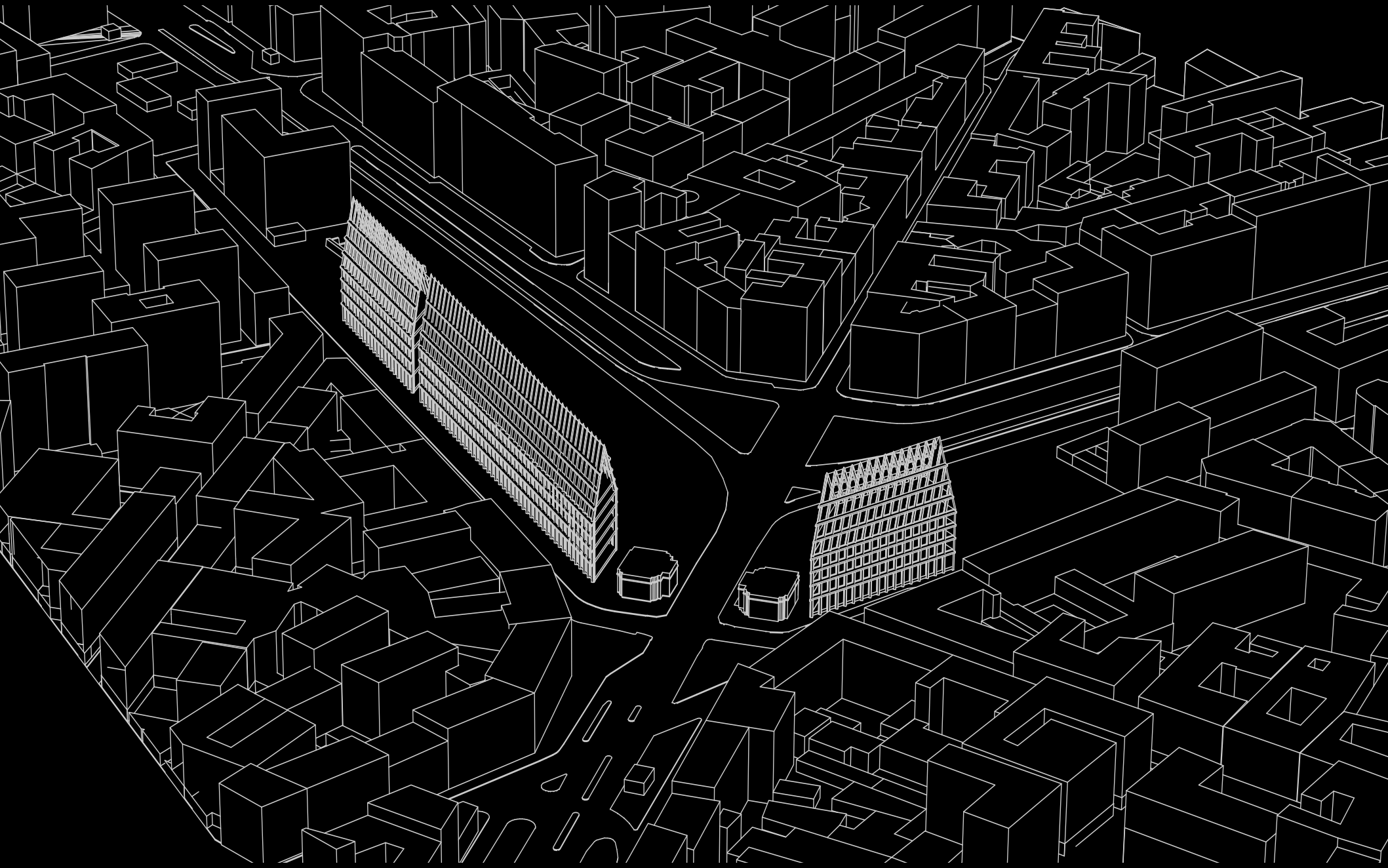
VISUALLY CONNECTED



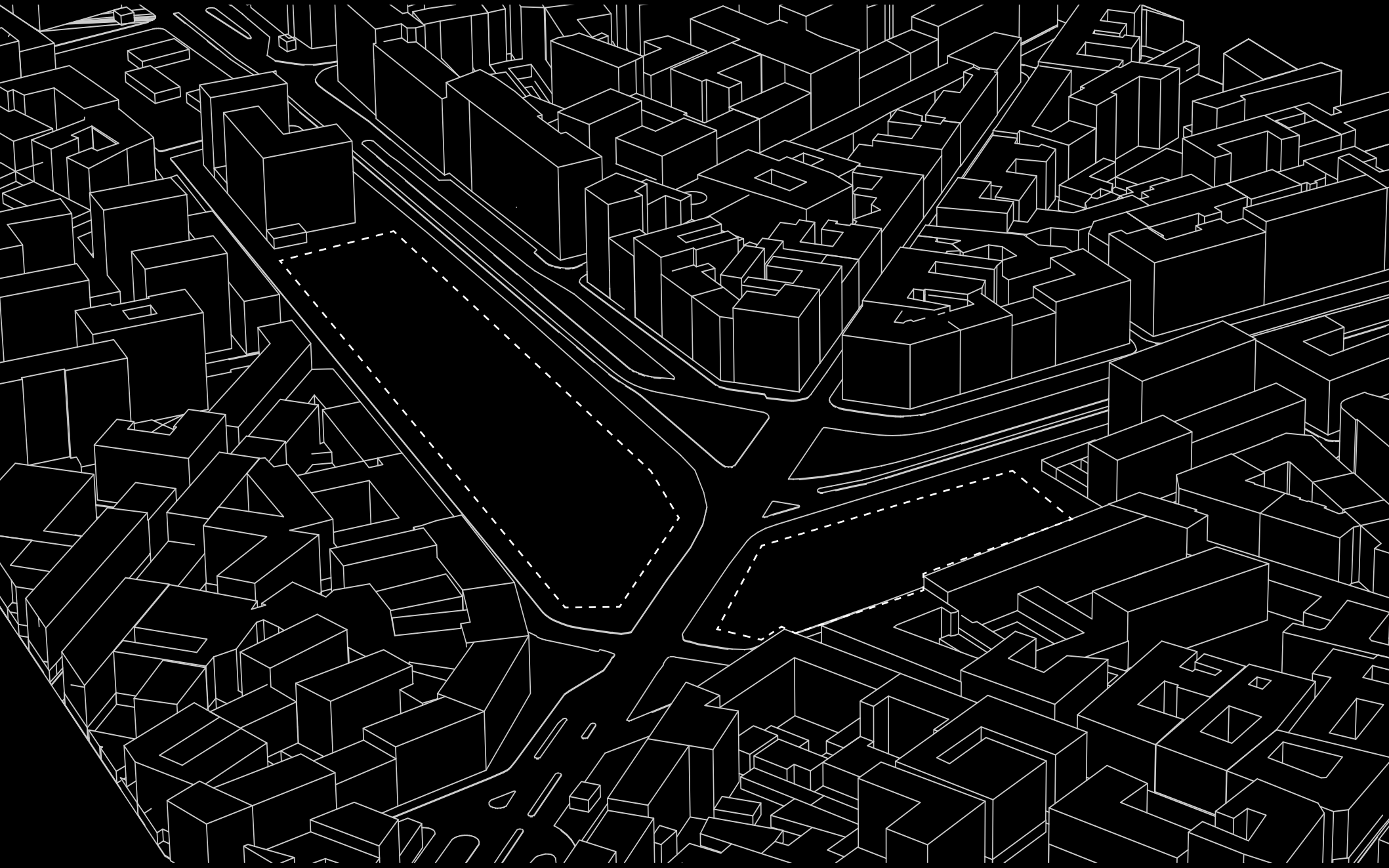
STIMULATE PARTICIPATION



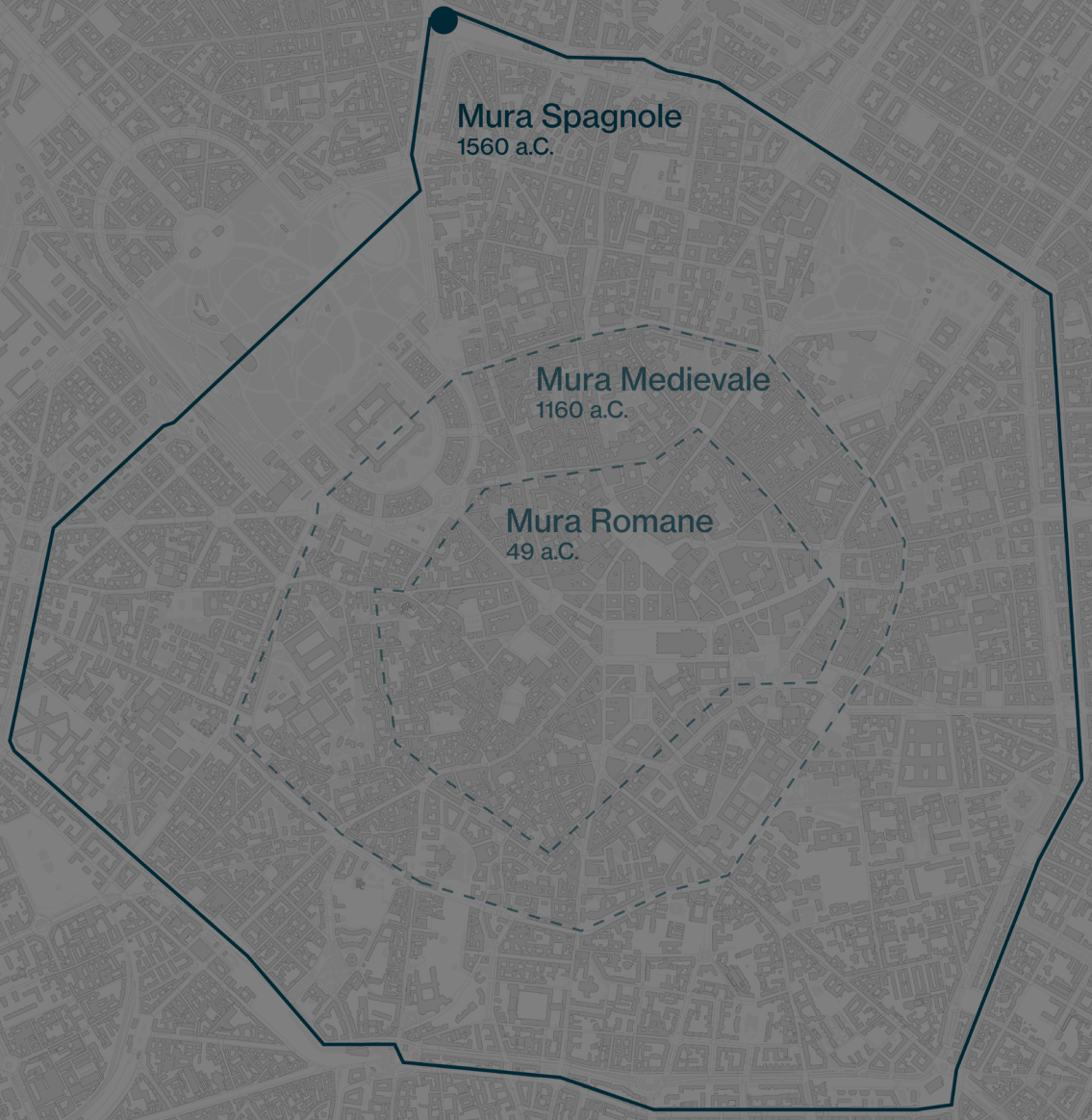
FONDAZIONE FELTRINELLI



BUILDING PLOT

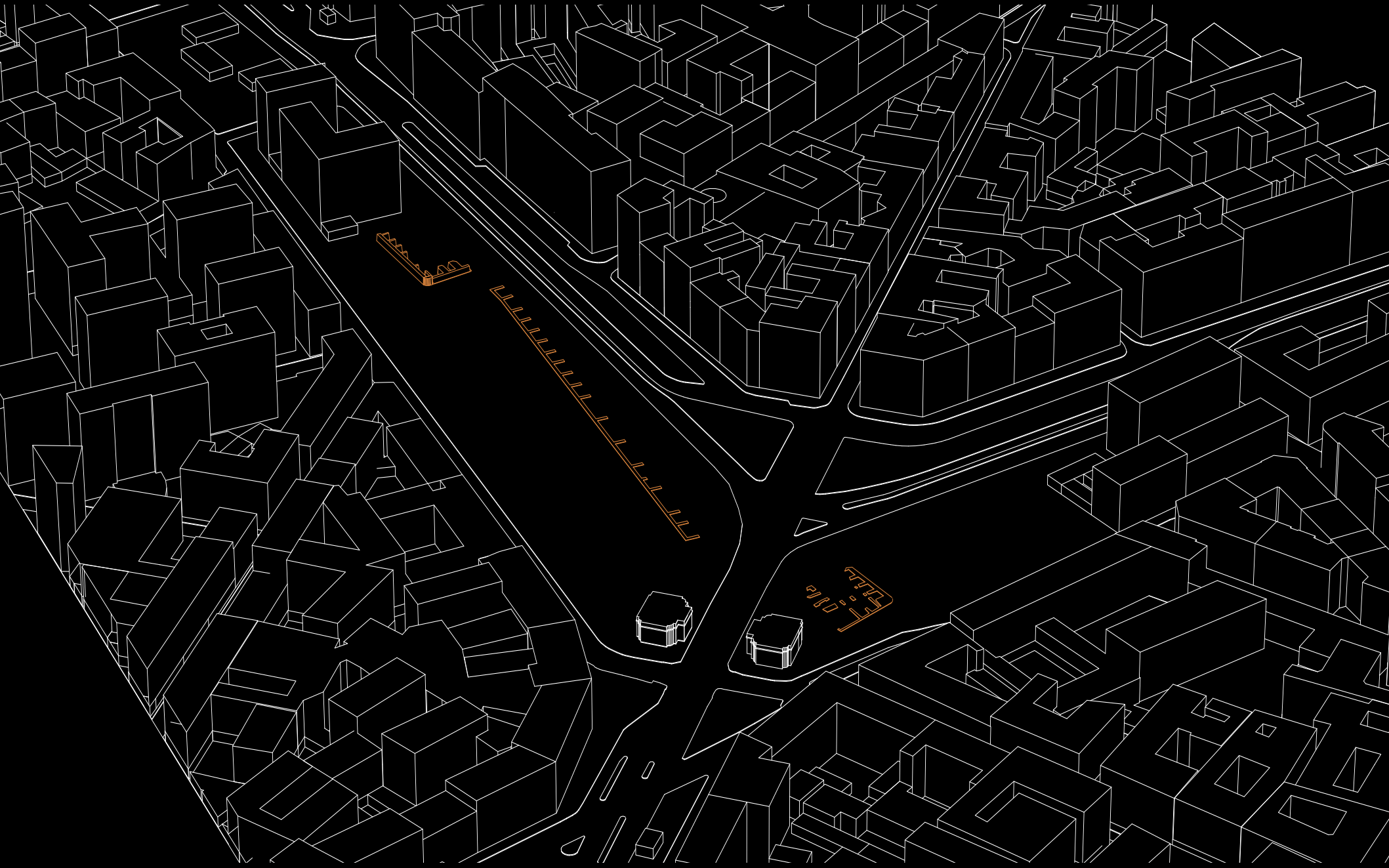


LOCATION

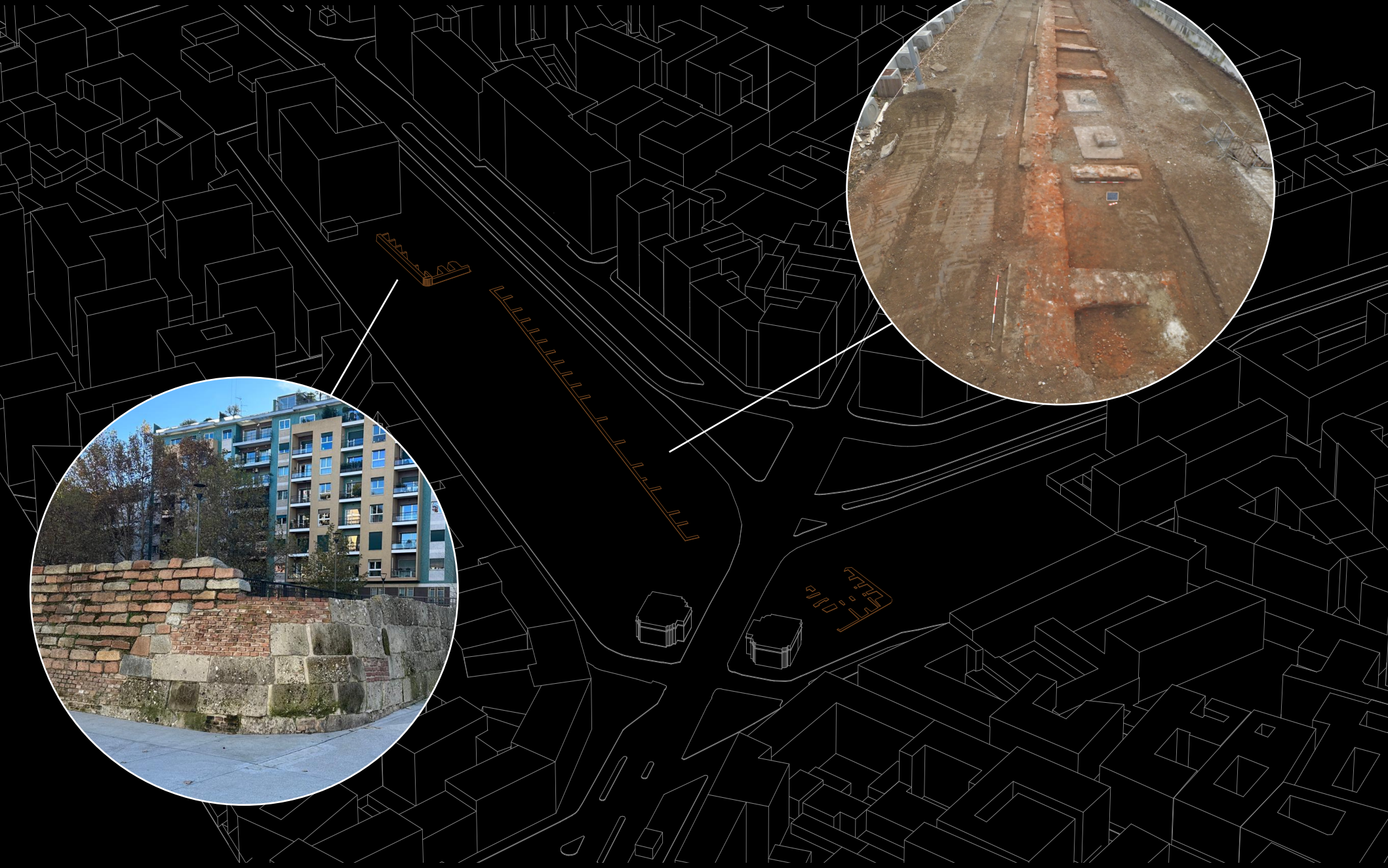

Mura Spagnole
1560 a.C.
Mura Medievale
1160 a.C.
Mura Romane
49 a.C.

TRANSITIONAL ZONE

BUILDING PLOT



BUILDING PLOT

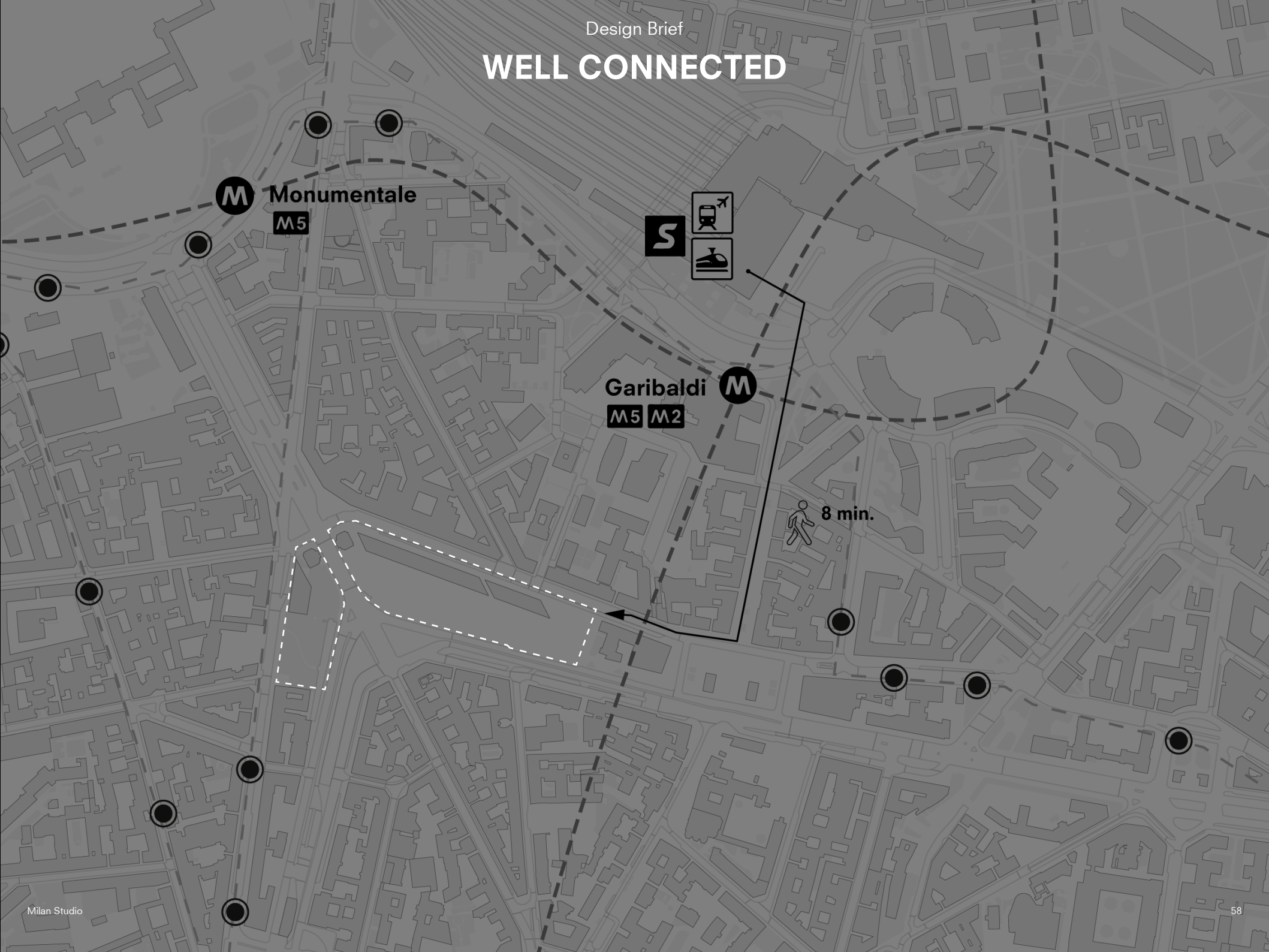


GREEN AMBITION

GREEN AMBITION

CONTRIBUTE TO SLOW MOBILITY

WELL CONNECTED



SHOPS AND RESTAURANTS

URBAN DIVISION

INTRODUCTION

DESIGN BRIEF

CONCEPT

DESIGN

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CONCLUSION

CURRENT DESIGN PROBLEMS

CLIENT

Prominently detached building

PROGRAM

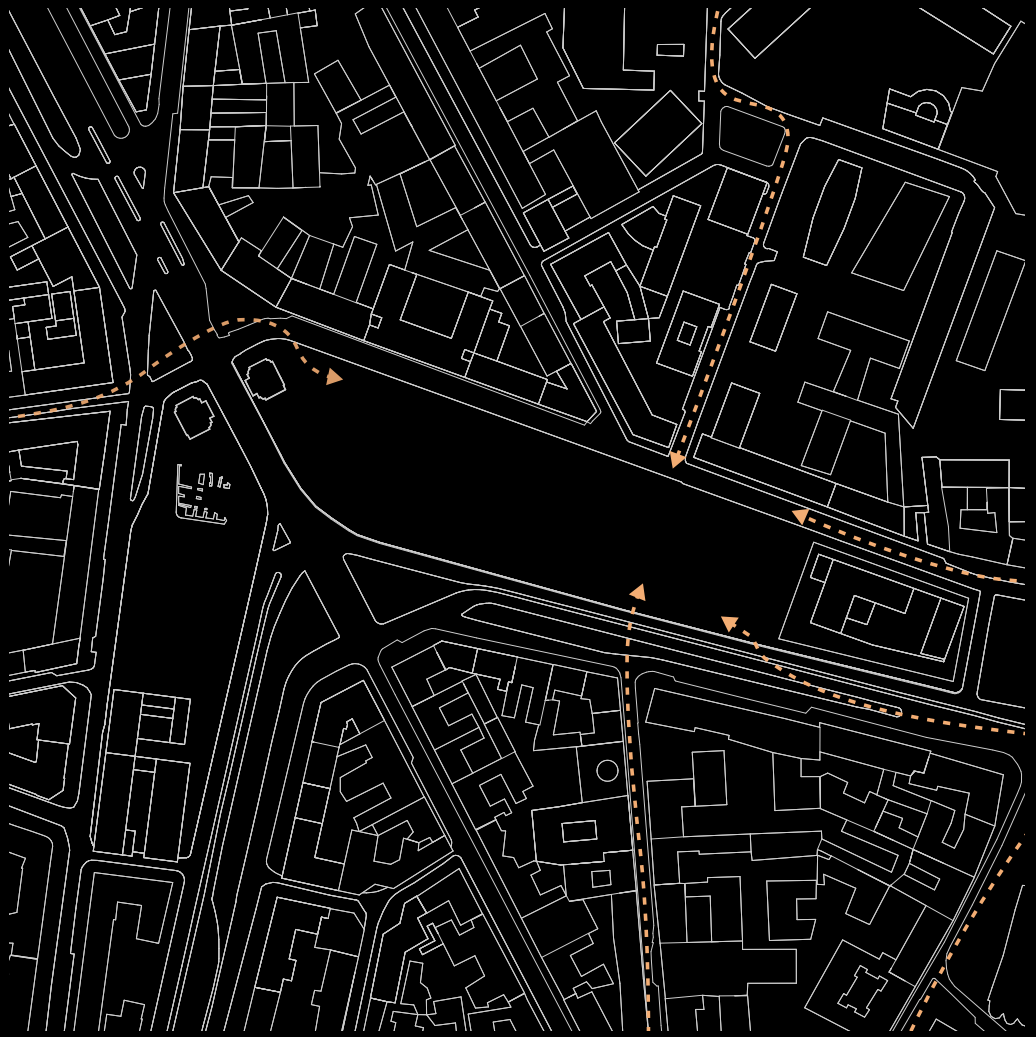
Isolated program

SITE

Urban division

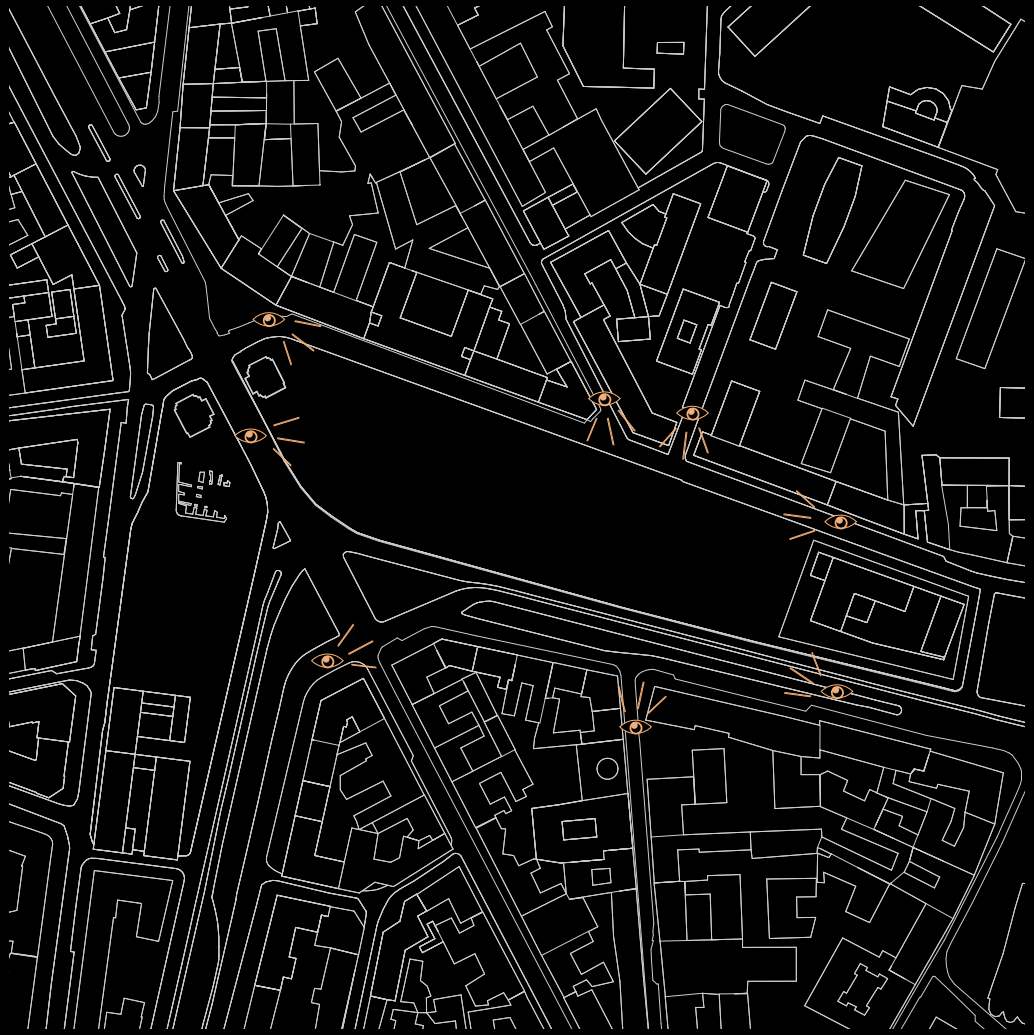
Concept

ACCESS



Concept

SIGHTLINES



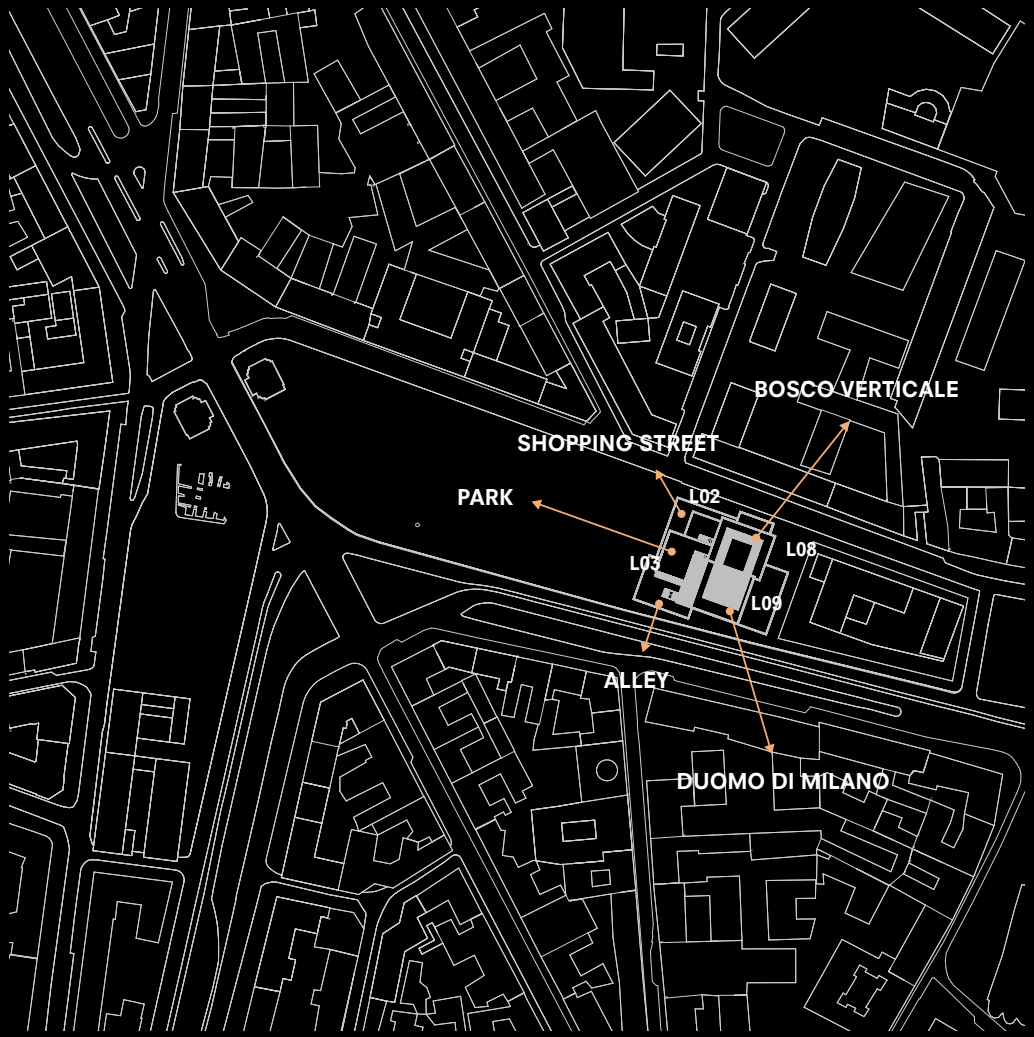
Concept

URBAN CONFIGURATION

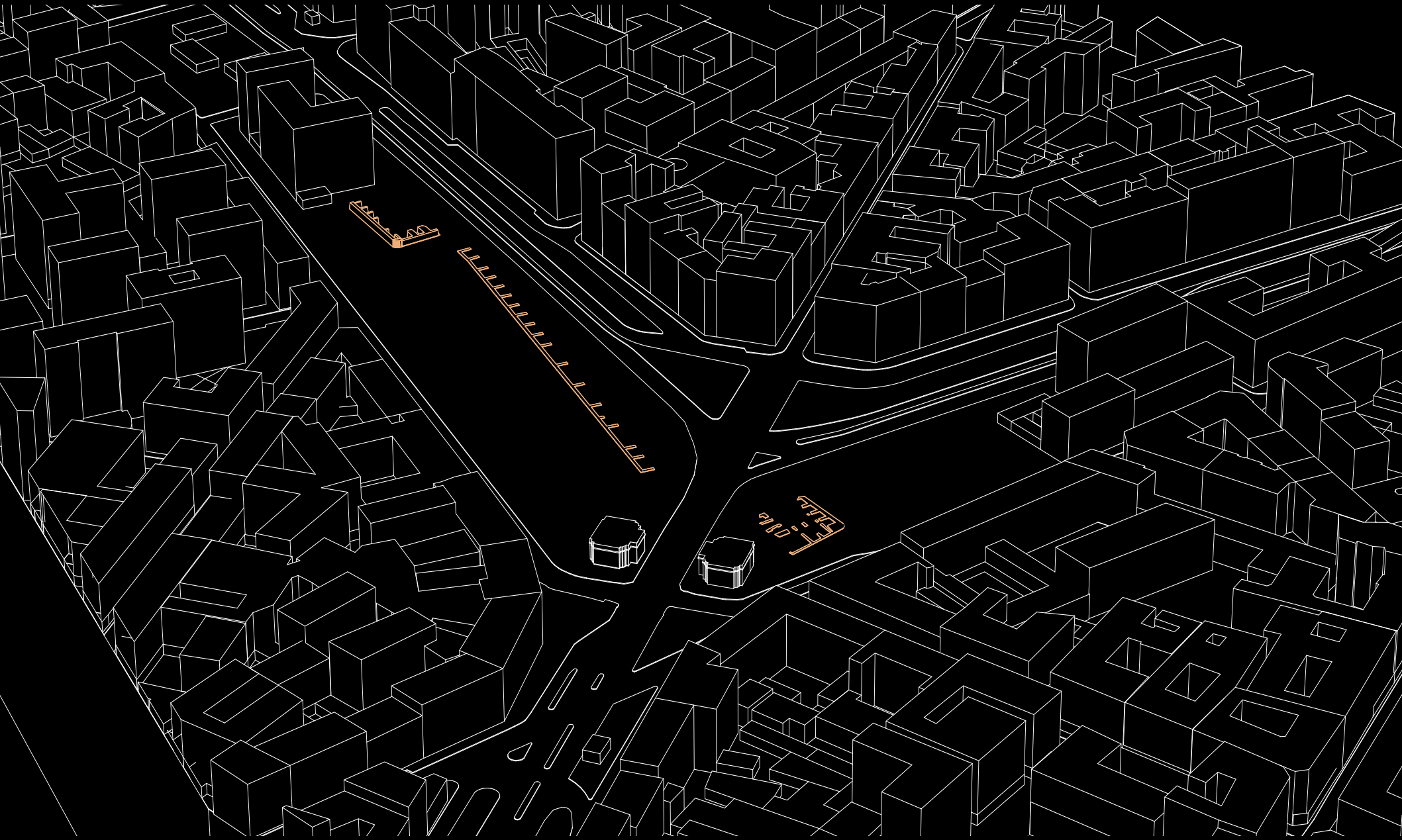
Concept

BUILDING VOLUME

VIEW POINTS

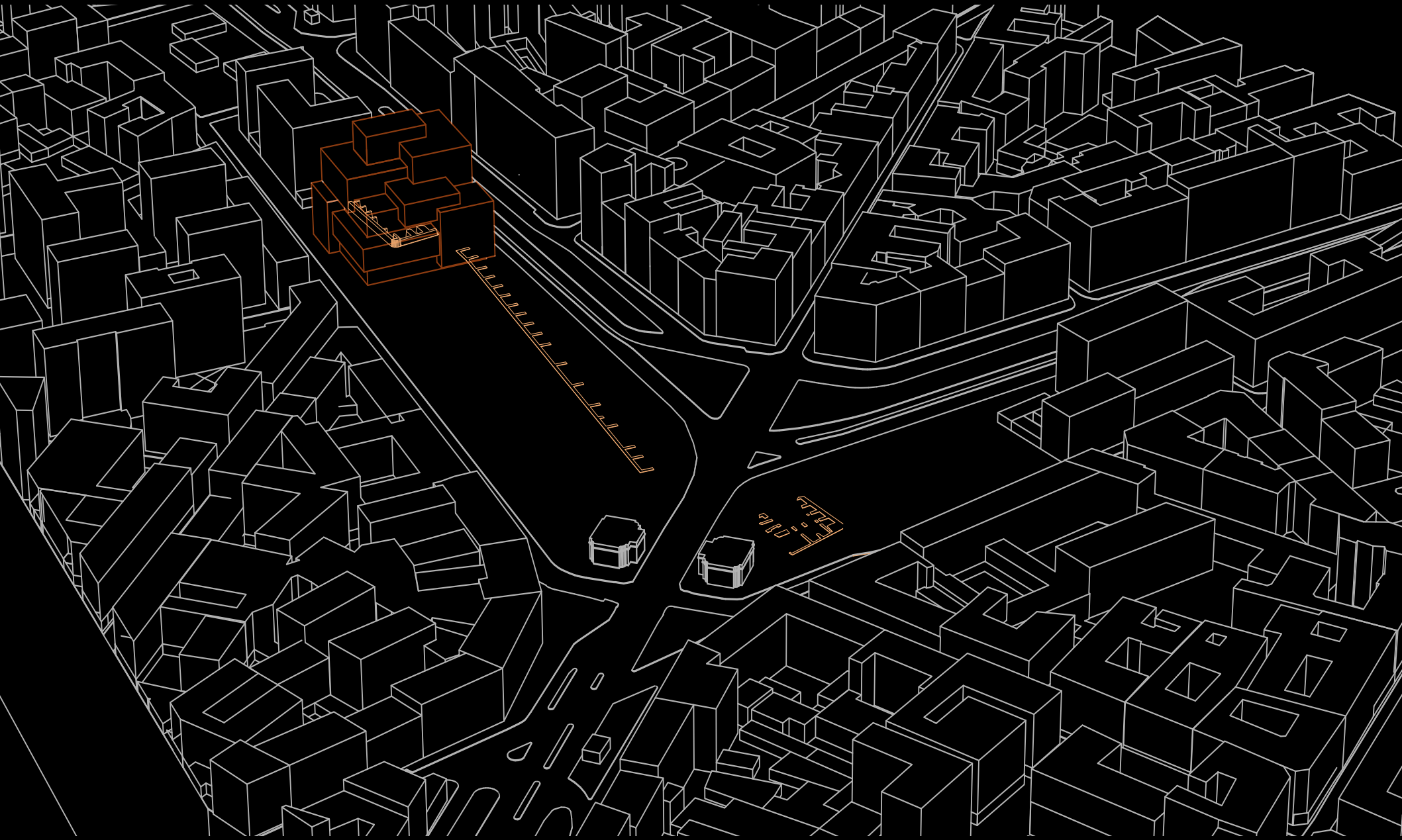

BOSCO VERTICALE
SHOPPING STREET
PARK
L02
L03
L08
L09
ALLEY
DUOMO DI MILANO

EMPTY SITE



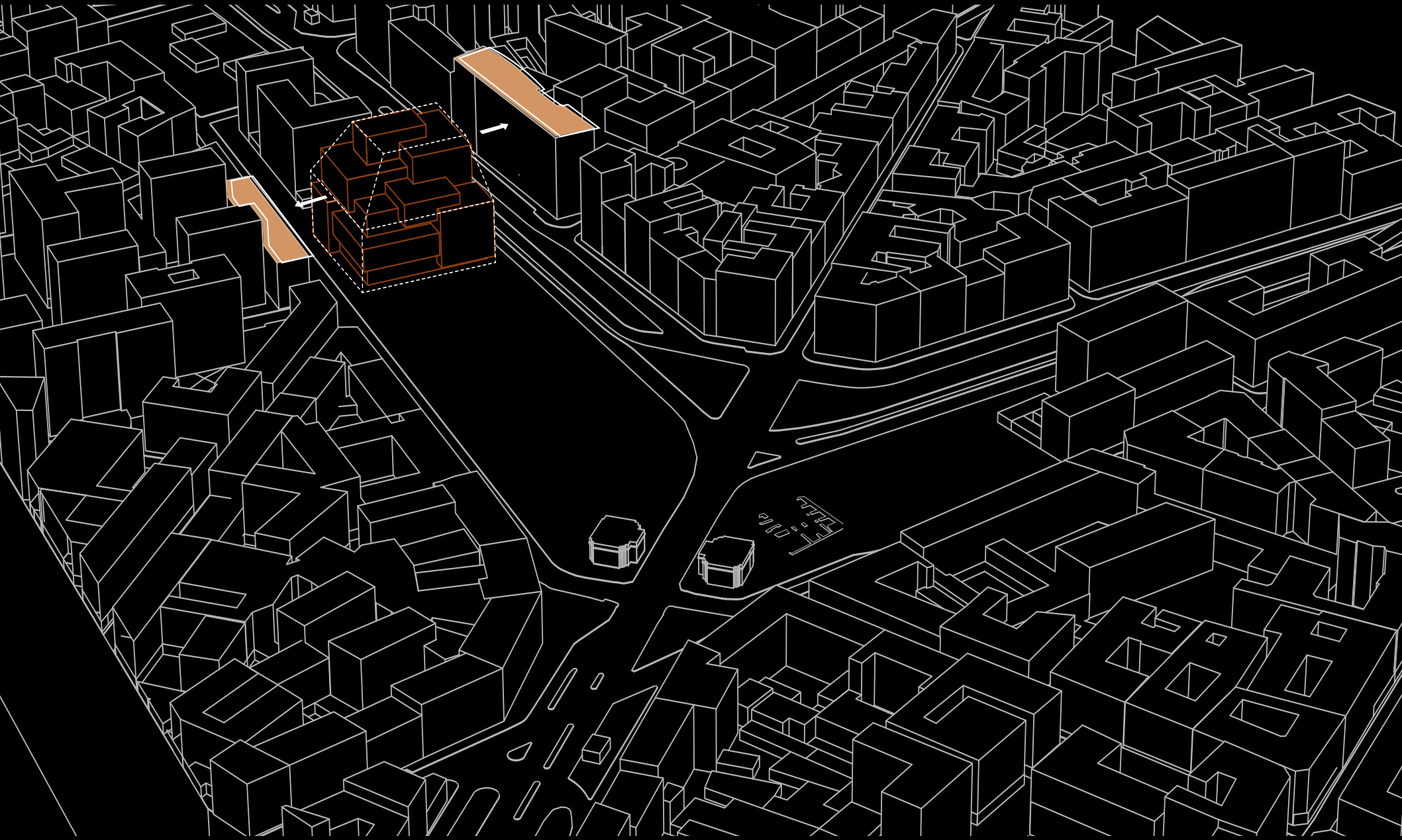
Concept

BUILDING VOLUME



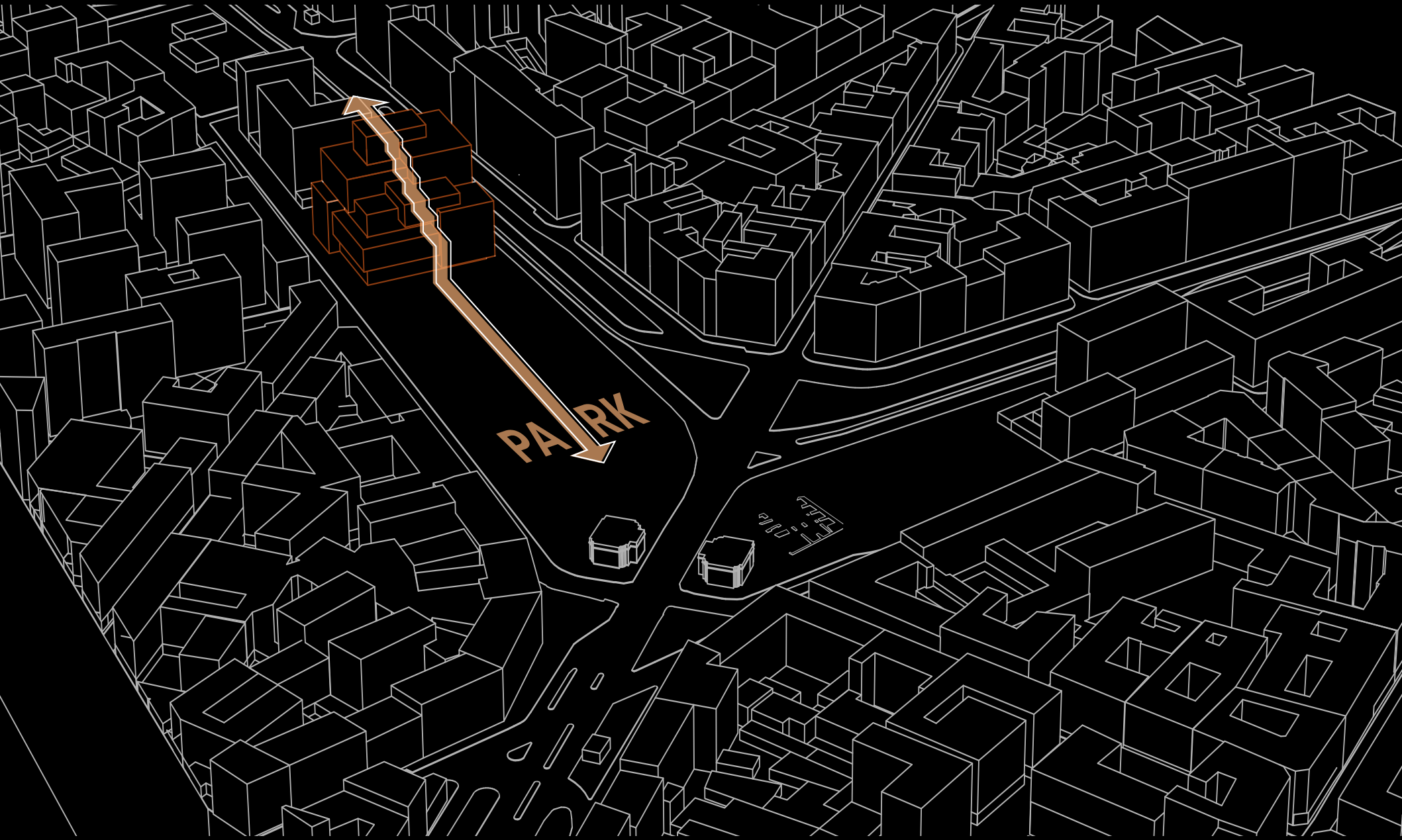
Concept

ADAPT TO SURROUNDINGS



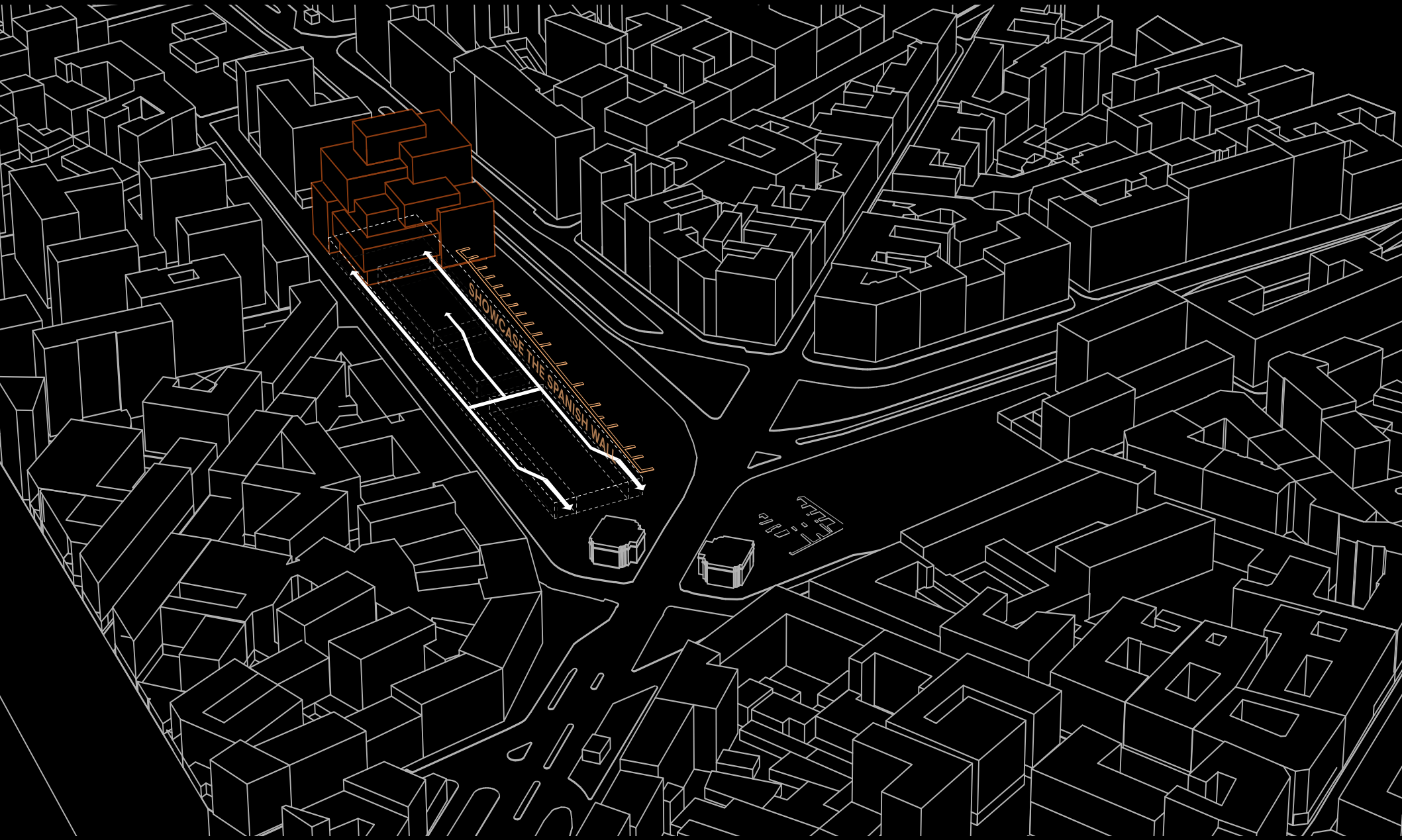
Concept

LAYERED PROGRAM



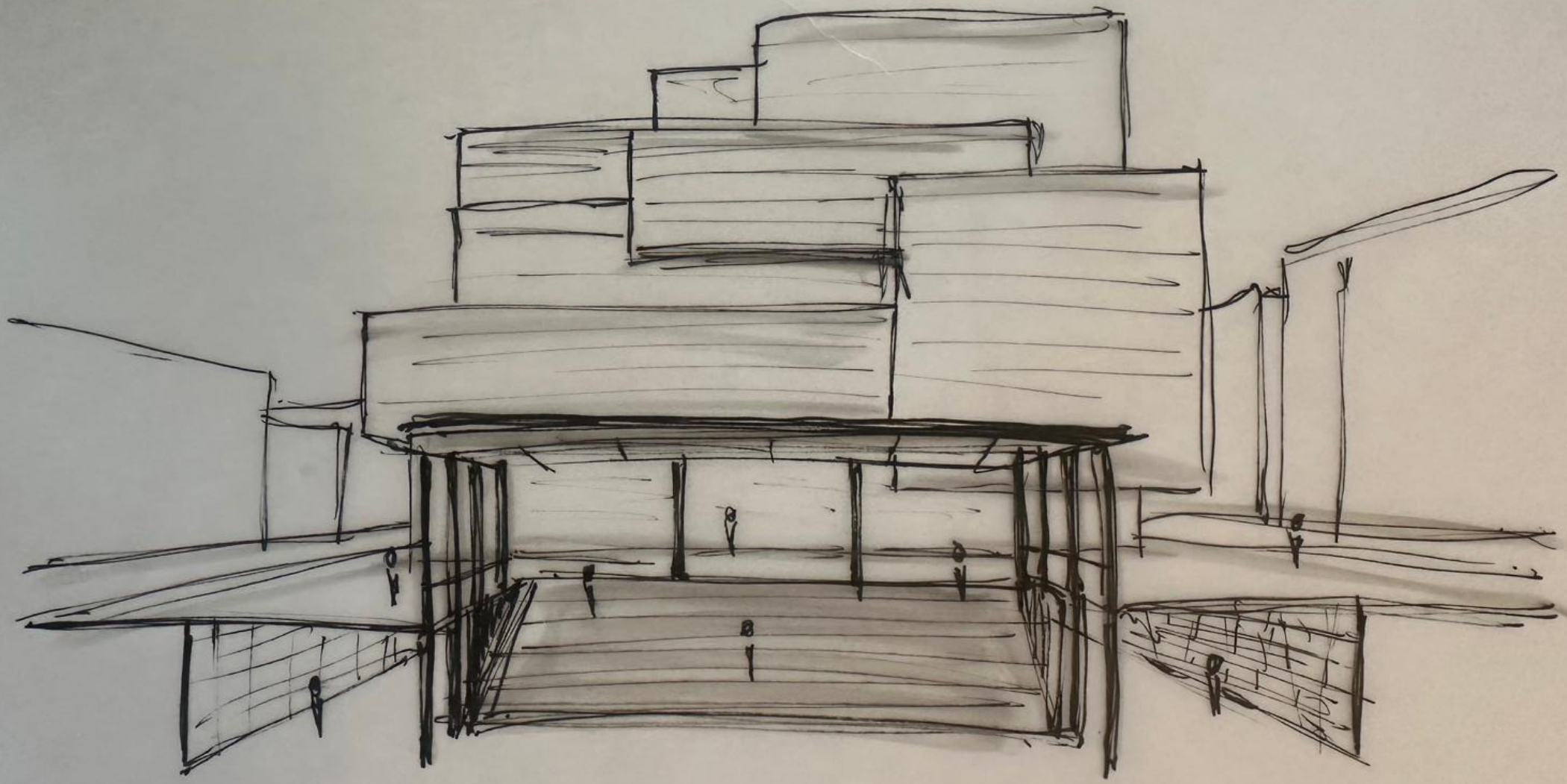
Concept

UNDERGROUND CONNECTION



Concept

UNDERGROUND CONNECTION



CONCLUSION

CLIENT

Prominently detached building

Compact and conherent

PROGRAM

Isolated program

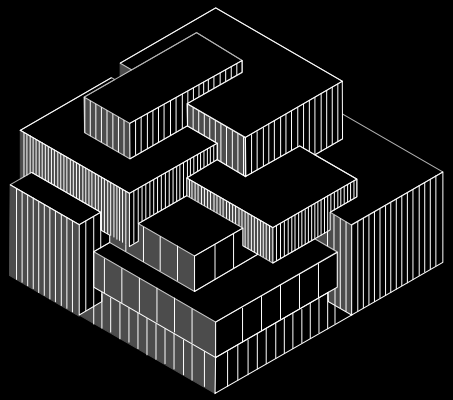
Open and layered program

SITE

Urban division

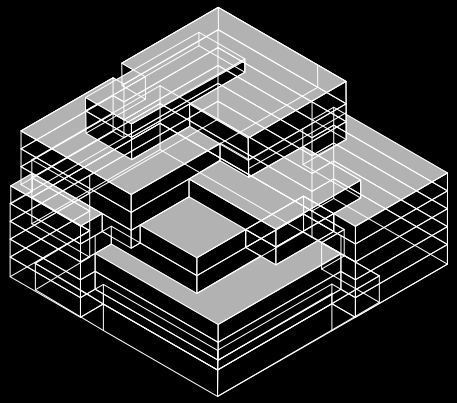
Urban integration

CONCLUSION



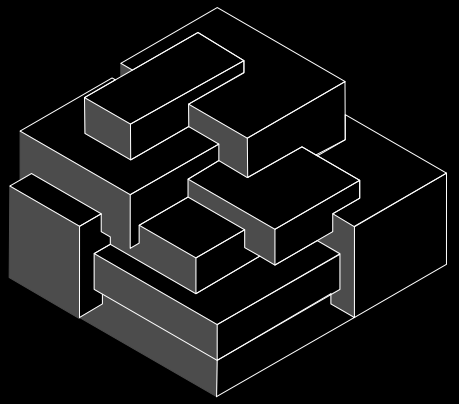
Compact and coherent

Invites interaction and encourages participation.



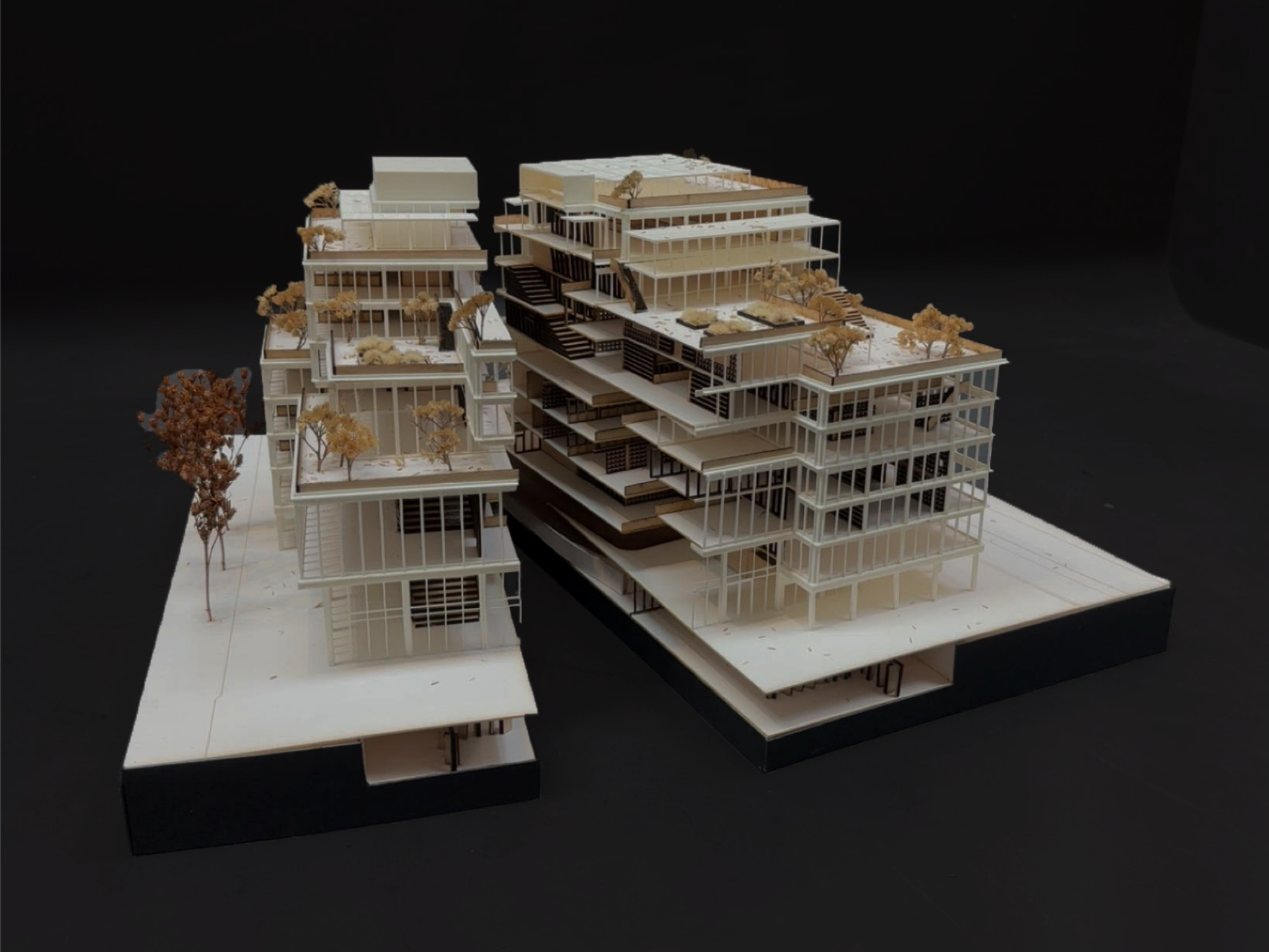
Open and layered program

Blur the boundaries between the library and it surroundings.

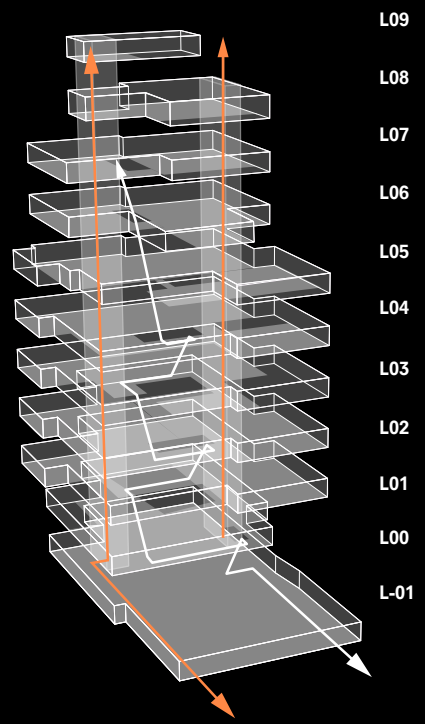


Urban integration

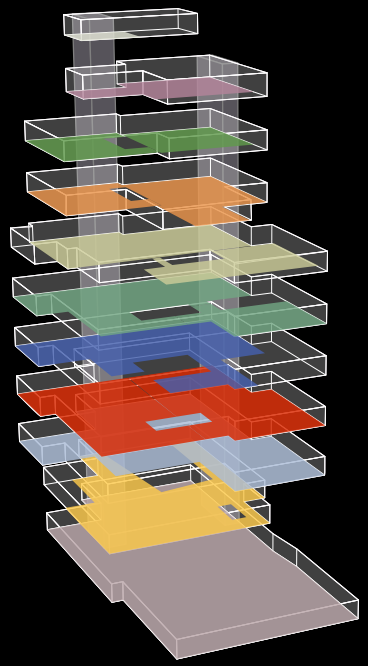
Creates connection as a transitional zone.



OVERVIEW



PROGRAM OVERVIEW



VIEW DECK
ROOFTERRACE

FOOD LAB
RESTAURANT

ECO LAB
GREENHOUSE

WONDER LAB
CHILDREN AREA

BOOK NOOK
ARCHIVE AND READING SPACE

SMART CITY LAB
INNOVATION HUB

CRAFT LAB
ART ZONE

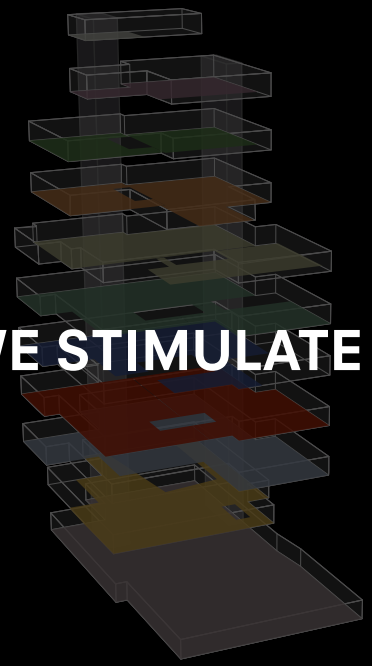
FAB LAB
DIGITAL AND MAKERSPACE

MUSEUM
EXHIBITION SPACE

THE PORTAL
ENTRANCE

FORTRESS LAB
STORY WALL AND EVENT SPACES

PROGRAM OVERVIEW



VIEW DECK
ROOFTERRACE

FOOD LAB
RESTAURANT

ECO LAB
GREENHOUSE

WONDER LAB
CHILDREN AREA

BOOK NOOK
ARCHIVE AND READING SPACE

SMART CITY LAB
INNOVATION HUB

FAB LAB
DIGITAL AND MAKERSPACE

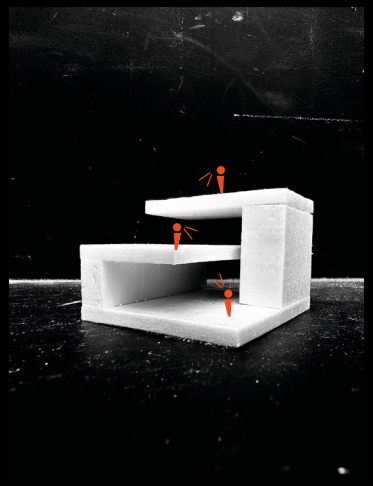
MUSEUM
EXHIBITION SPACE

THE PORTAL
ENTRANCE

FORTRESS LAB
STORY WALL AND EVENT SPACES

HOW DO WE STIMULATE PARTICIPATION?

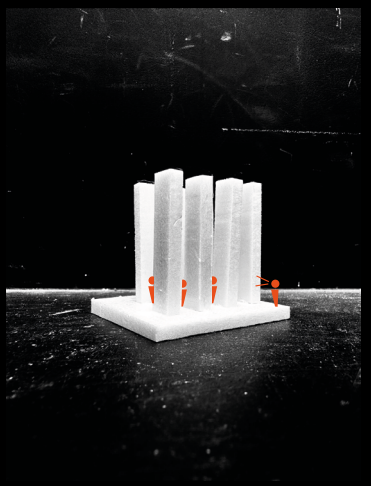
SPATIAL TRANSITIONS



Ascending encounters

Constriction as a prelude to collective space

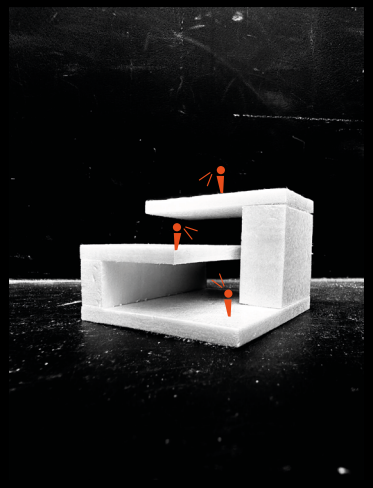
Illumination as a guide to engagement



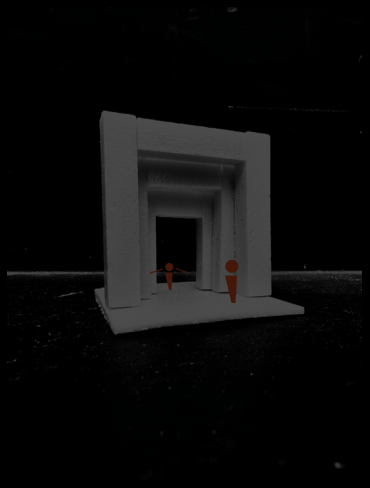
Pull of semi-open

Concept

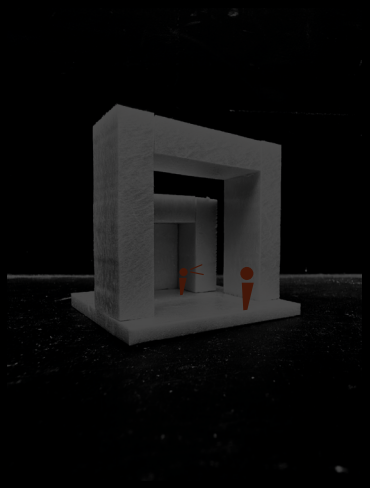
ASCENDING ENCOUNTERS



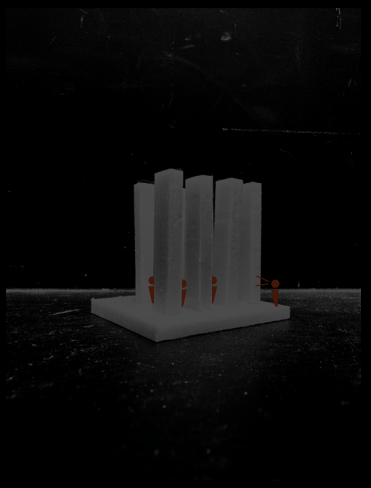
Ascending encounters



Constriction as a prelude to collective space



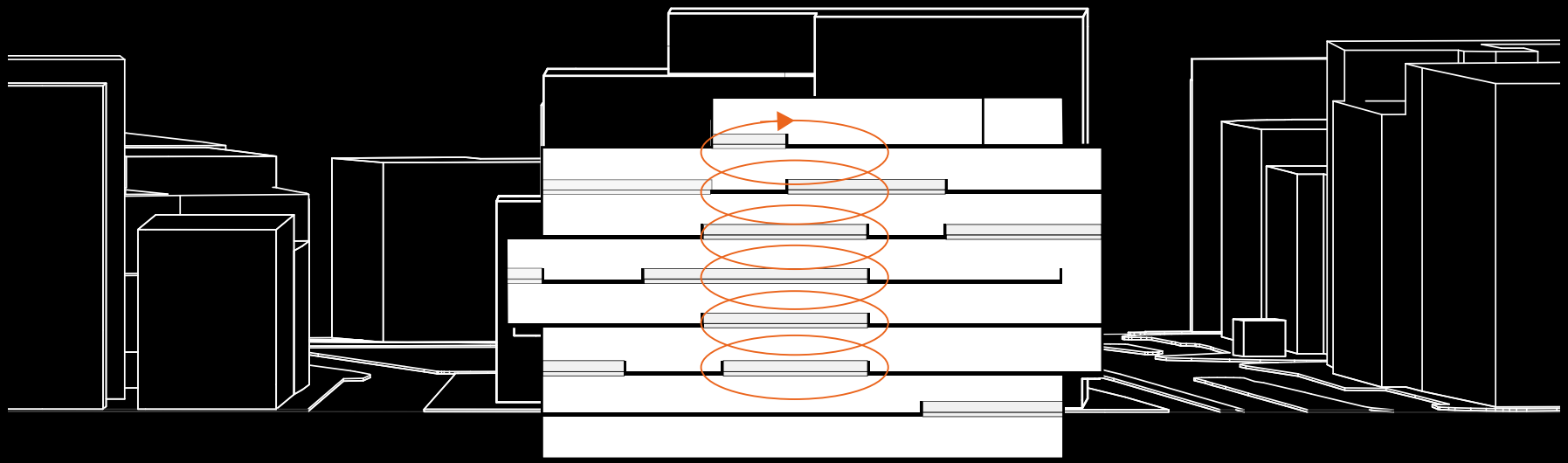
Illumination as a guide to engagement



Pull of semi-open

Concept

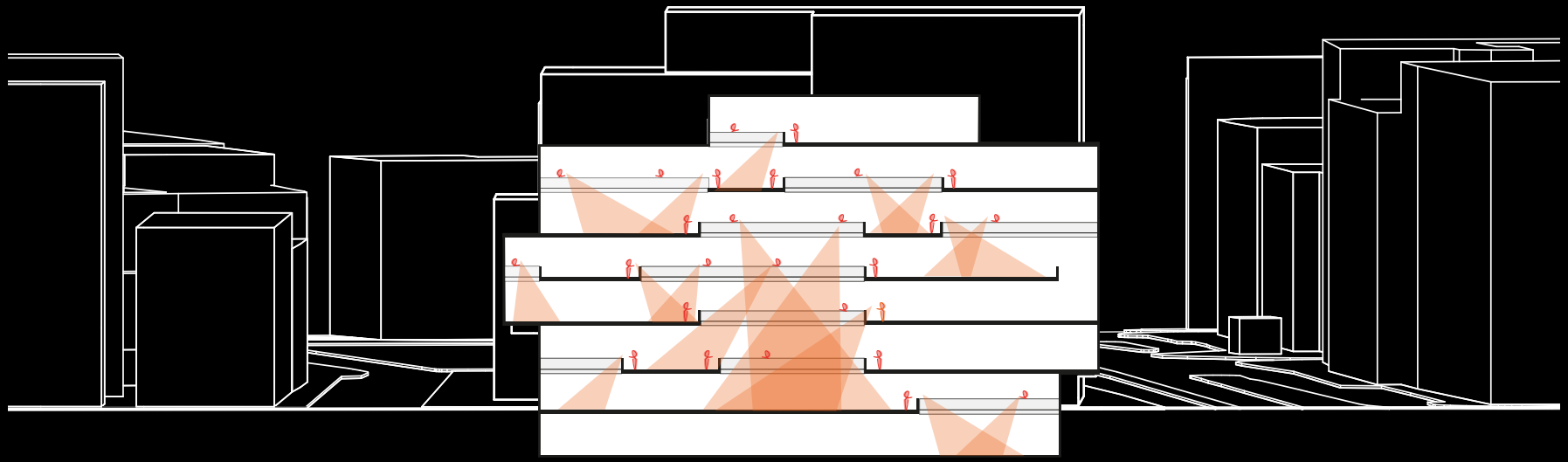
CENTRAL ATRIUM



Central atrium that connects vertically

Concept

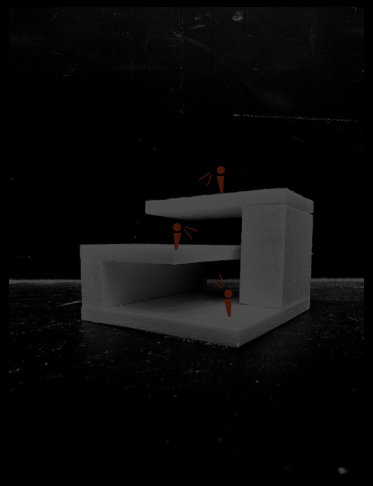
SPATIAL DISCOVARY



Openings provide long sight lines

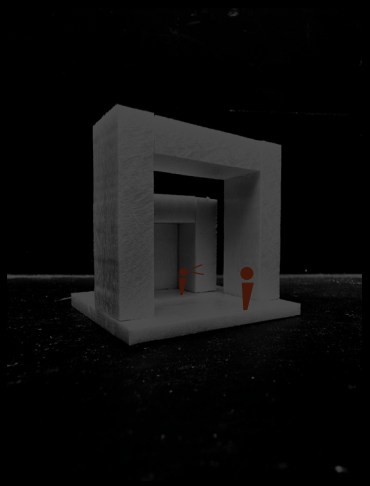
Concept

CONSTRICTION

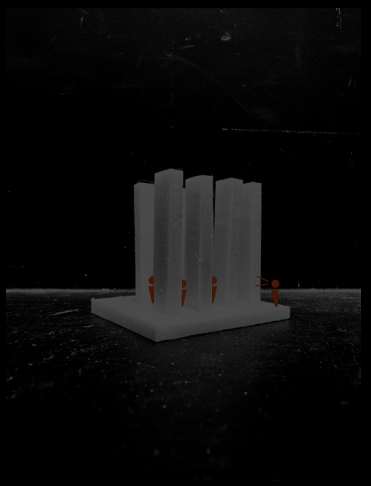


Ascending encounters

Constriction as a prelude to collective space

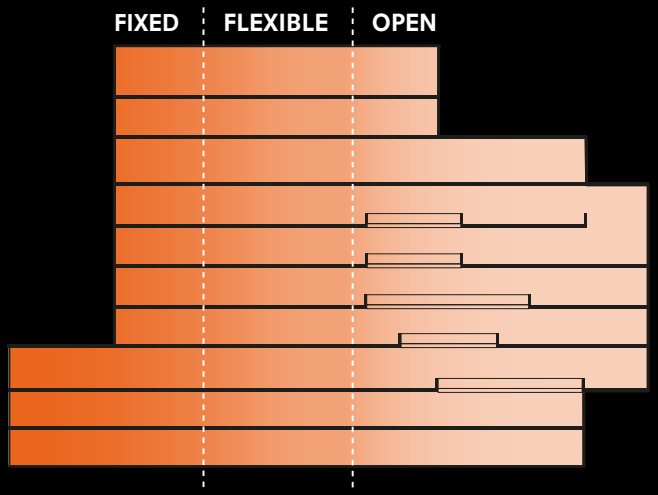


Illumination as a guide to engagement



Pull of semi-open

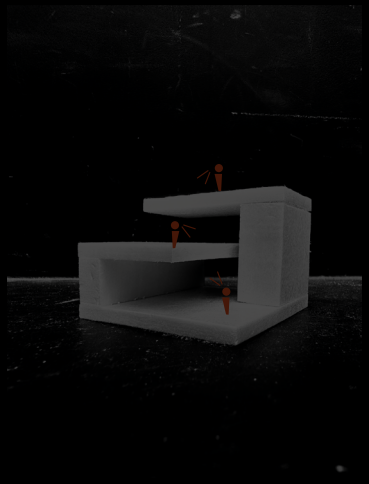
TRANSITION IN EXPERIENCE



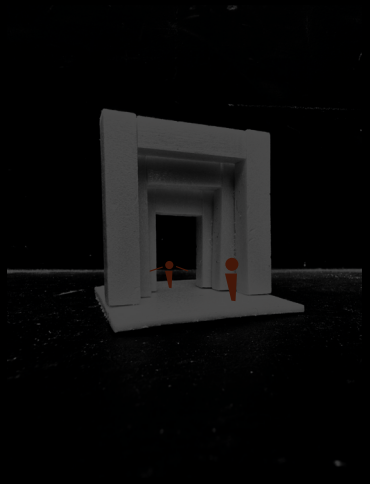
A transition from **private** zones to **public** spaces.

Concept

ILLUMINATION

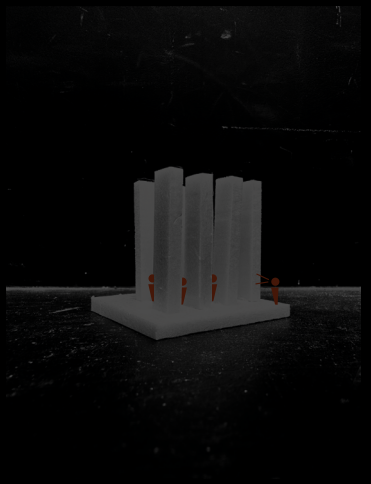


Ascending encounters



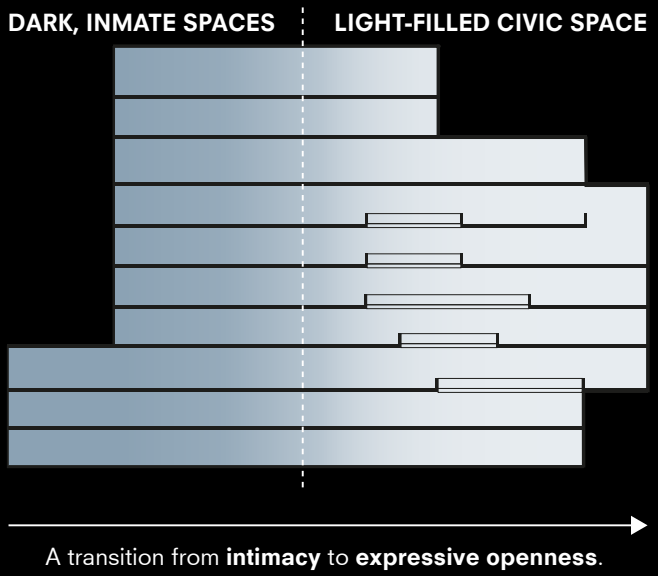
Constriction as a prelude to collective space

Illumination as a guide to engagement



Pull of semi-open

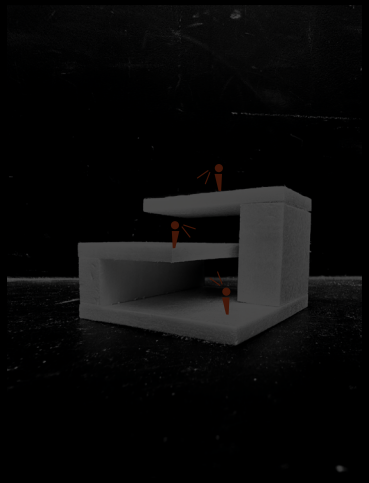
TRANSITION IN EXPERIENCE



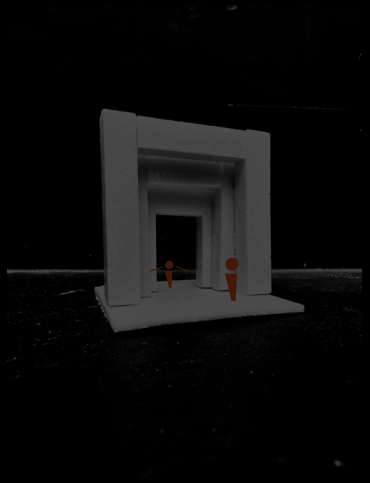
A transition from **intimacy** to **expressive openness**.

Concept

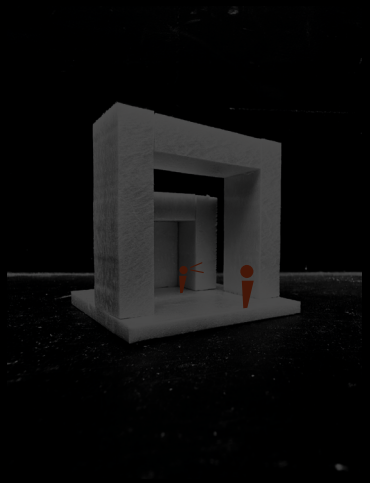
SEMI-OPEN



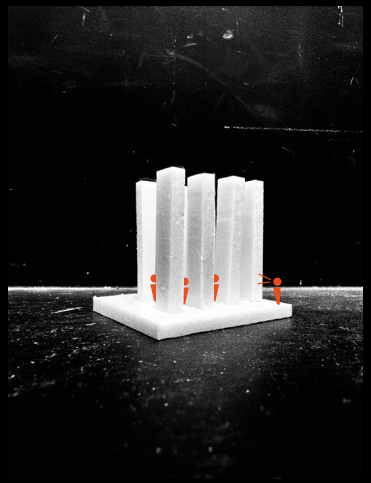
Ascending encounters



Constriction as a prelude to collective space



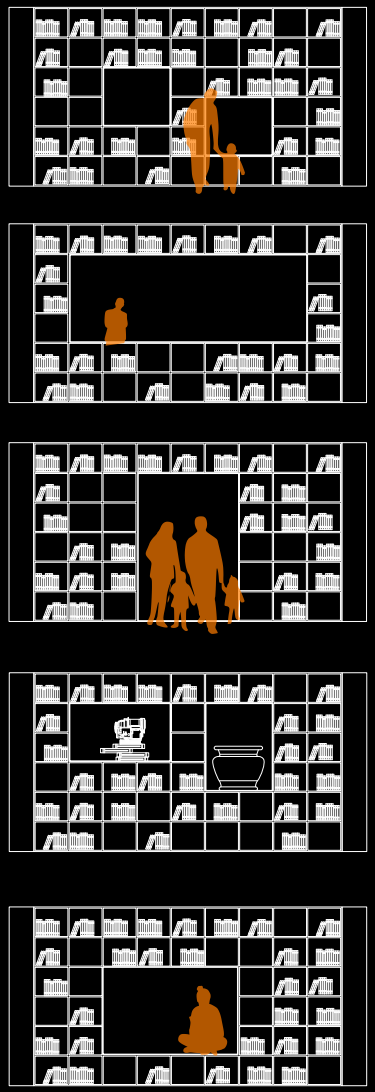
Illumination as a guide to engagement



Pull of semi-open

Concept

INTEGRATED BOOKSHELVES



INTRODUCTION

DESIGN BRIEF

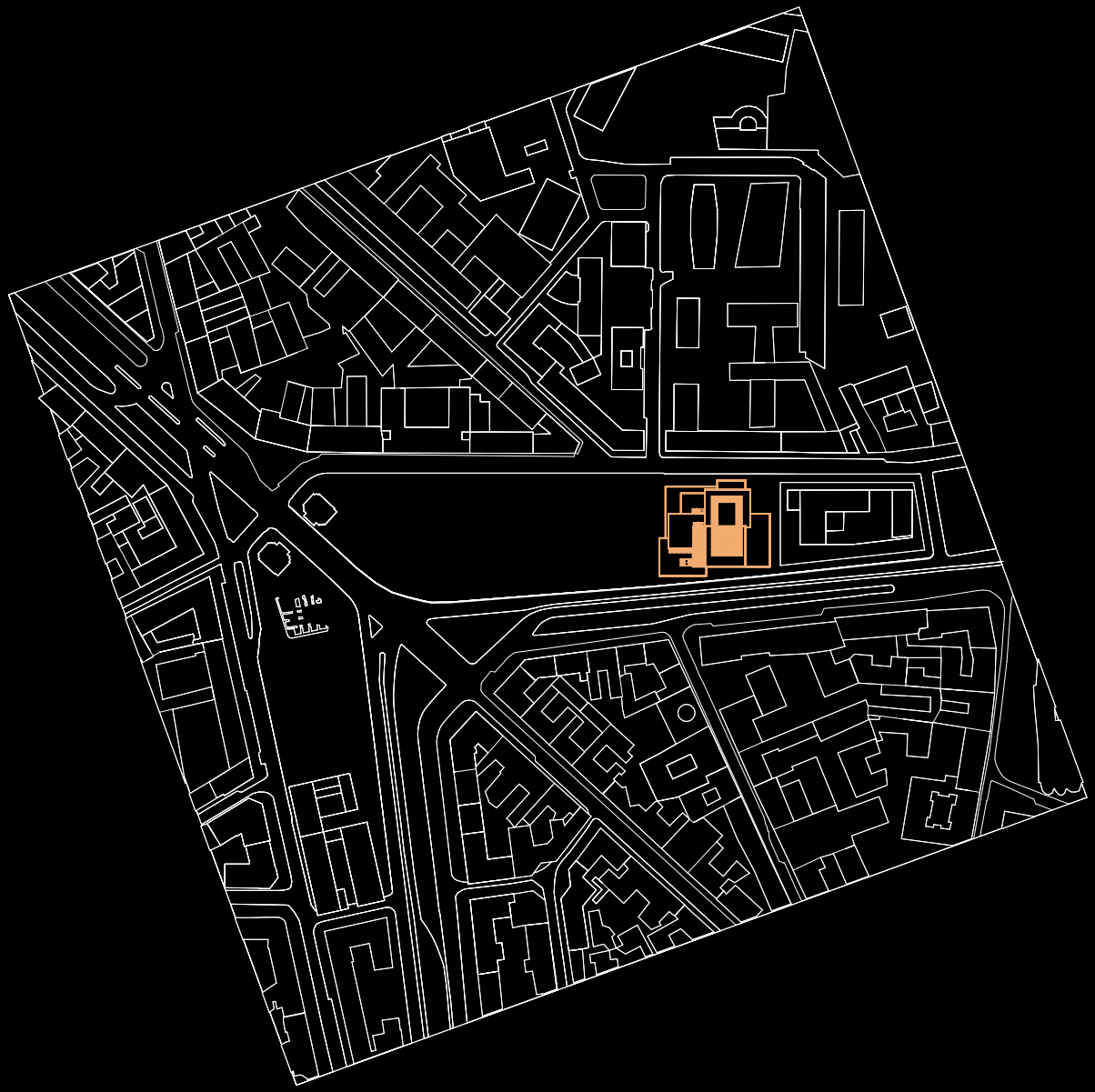
CONCEPT

DESIGN

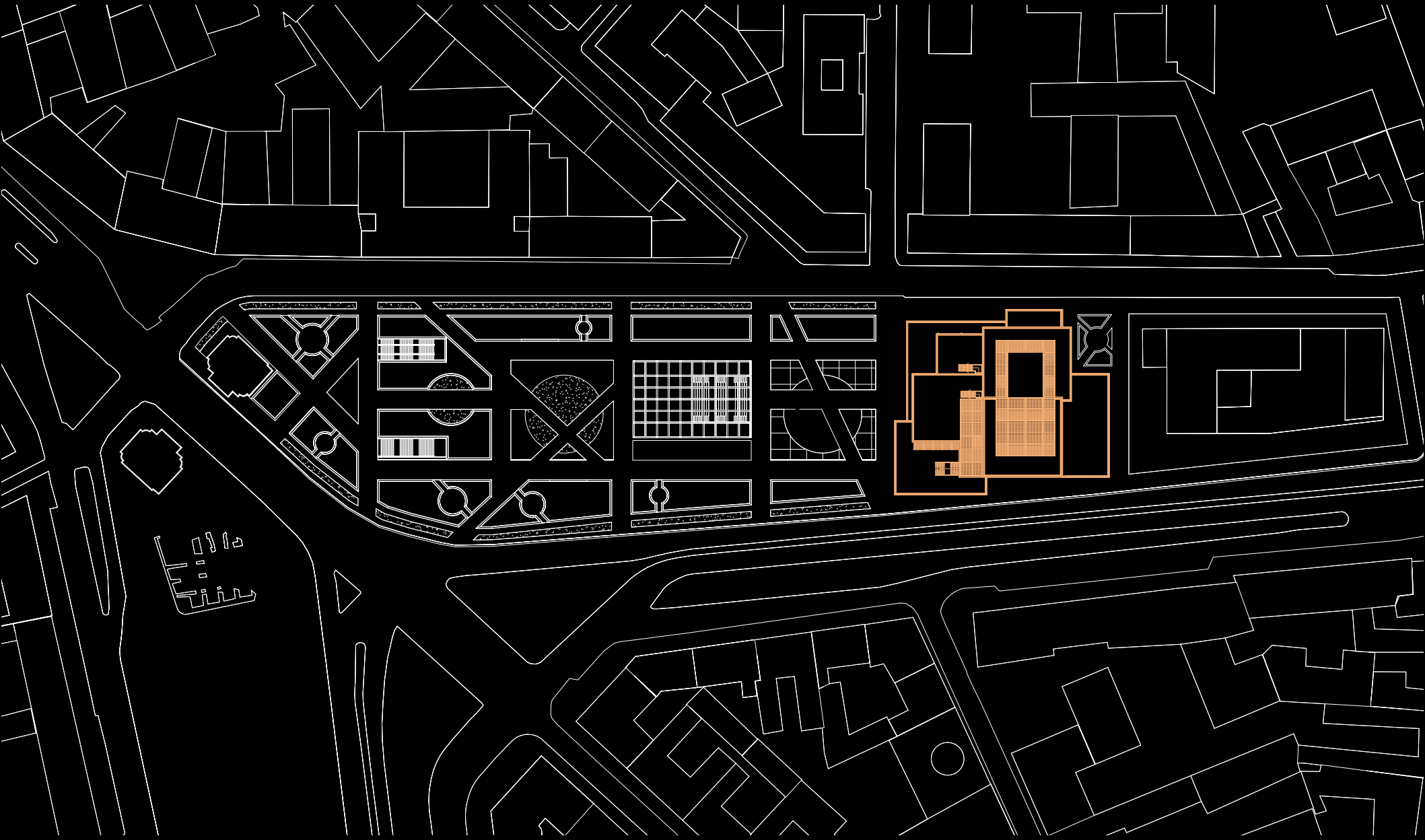
IMPLEMENTATION

CONCLUSION

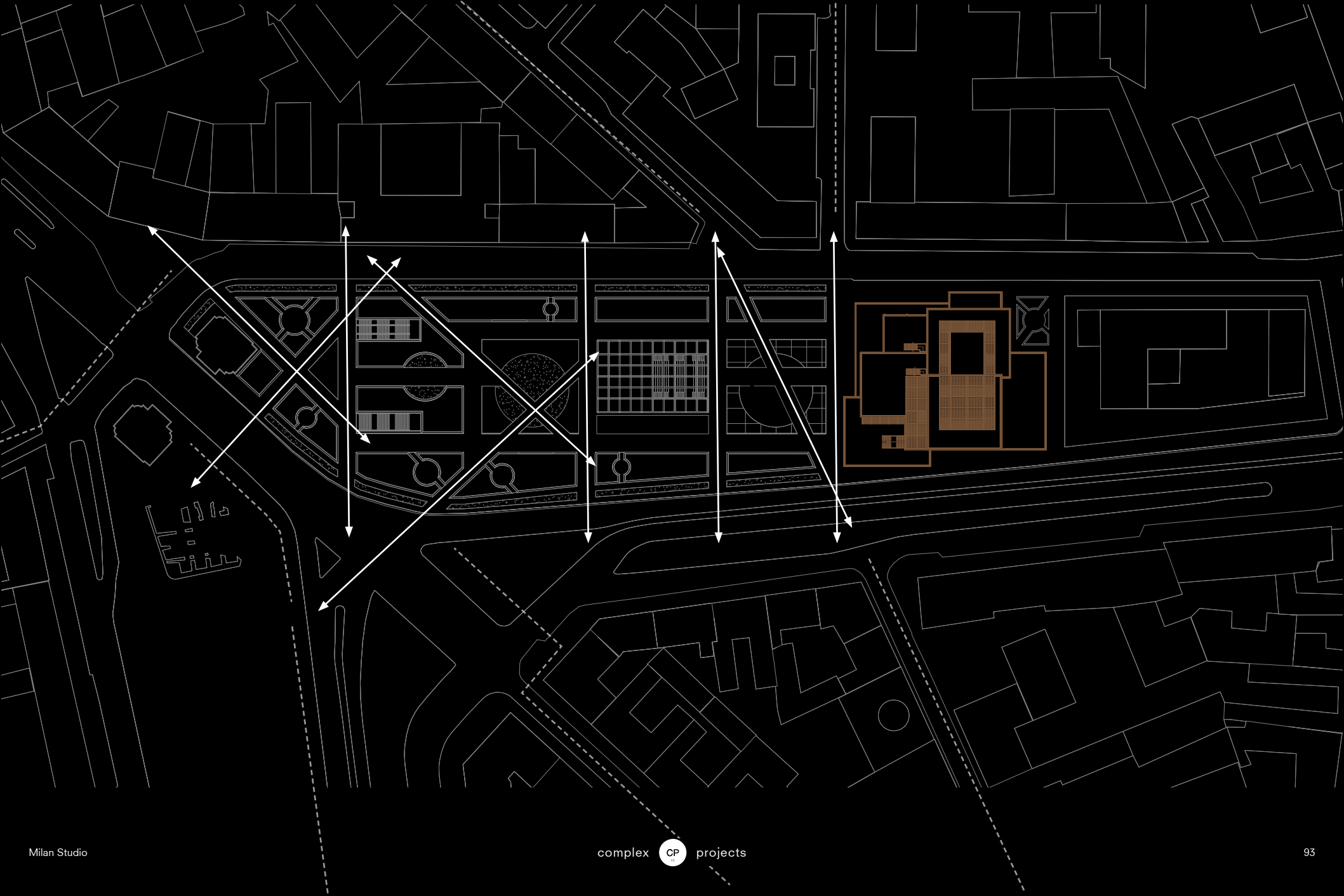
SITE PLAN



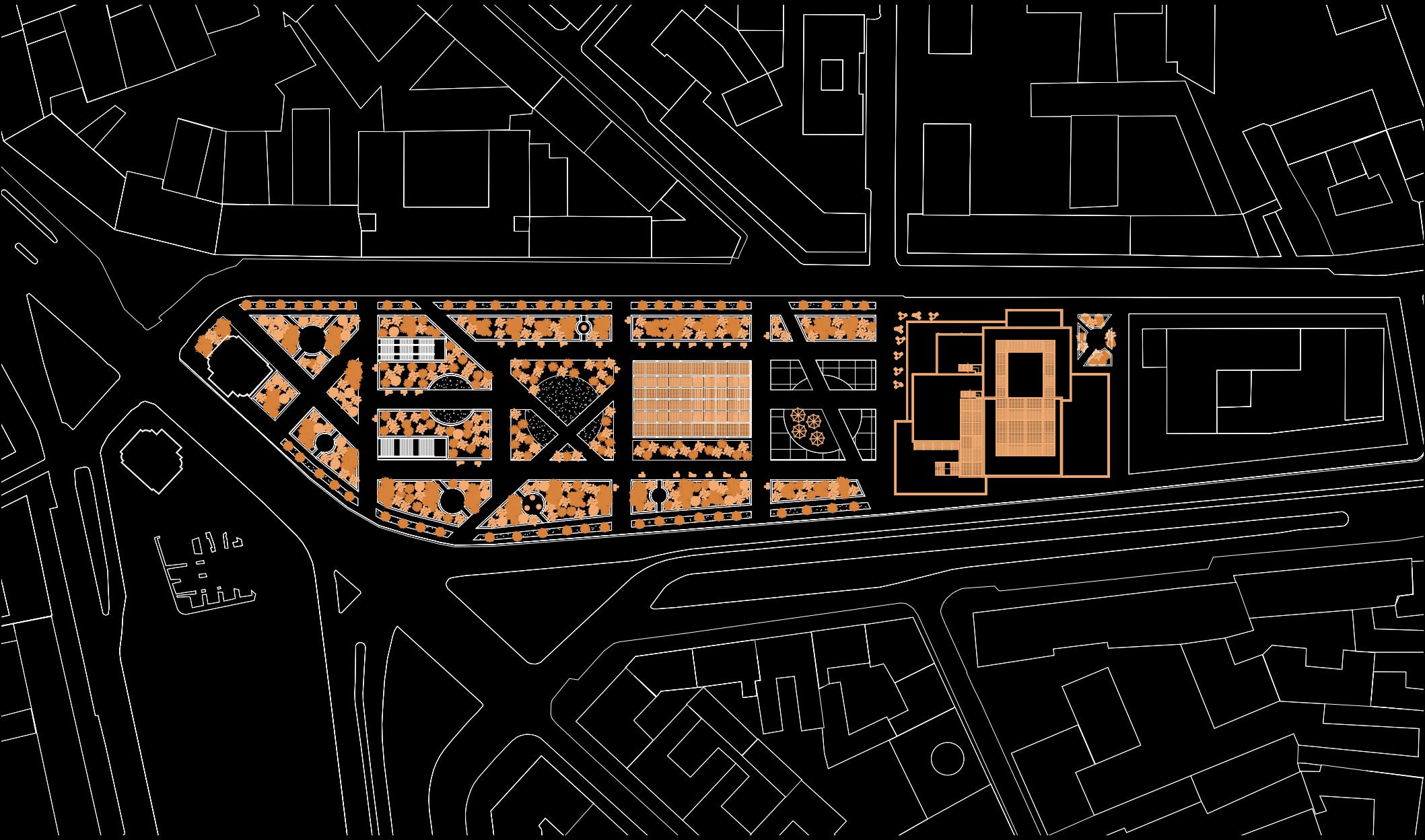
PARK



PARK AS CONNECTOR

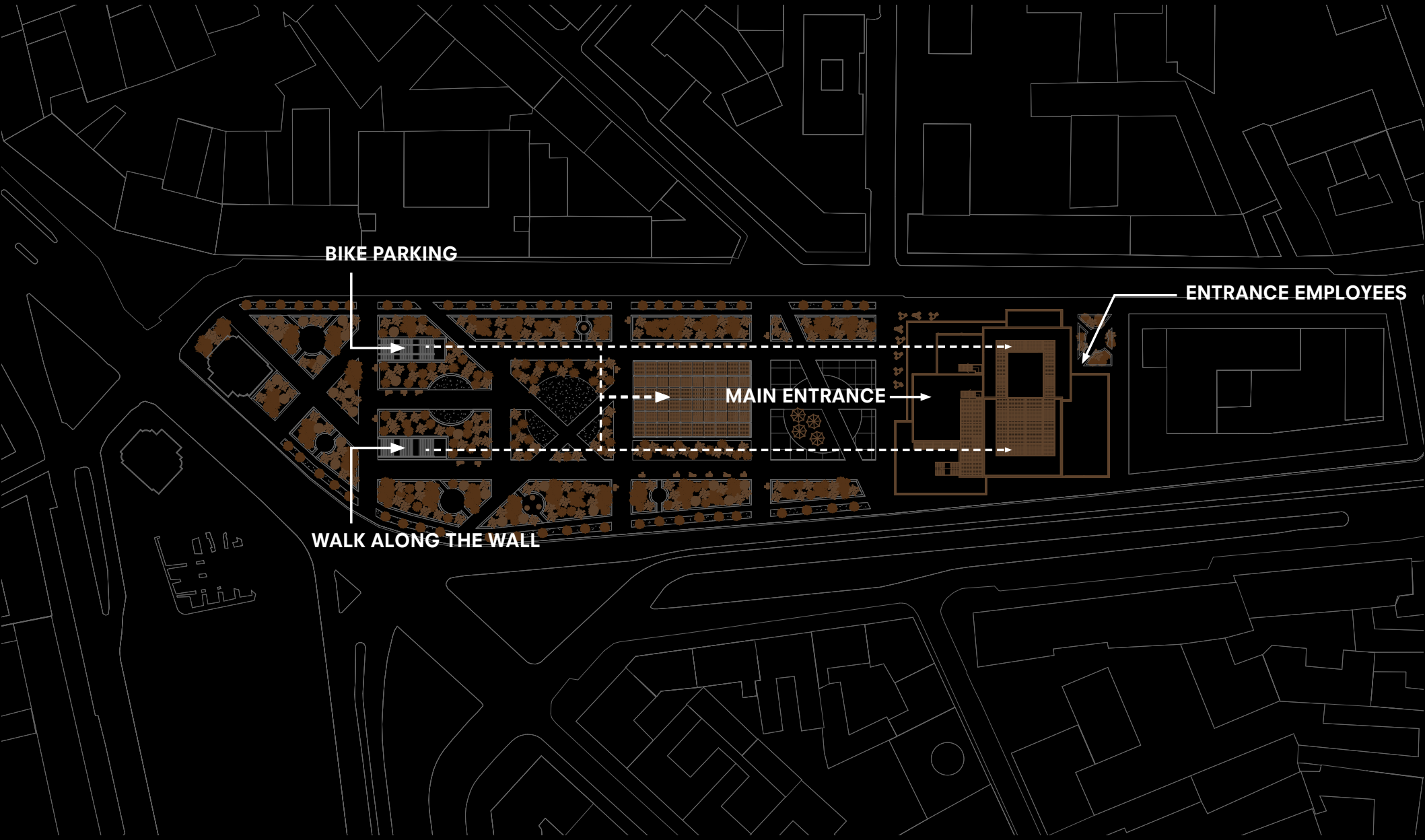


GREENERY

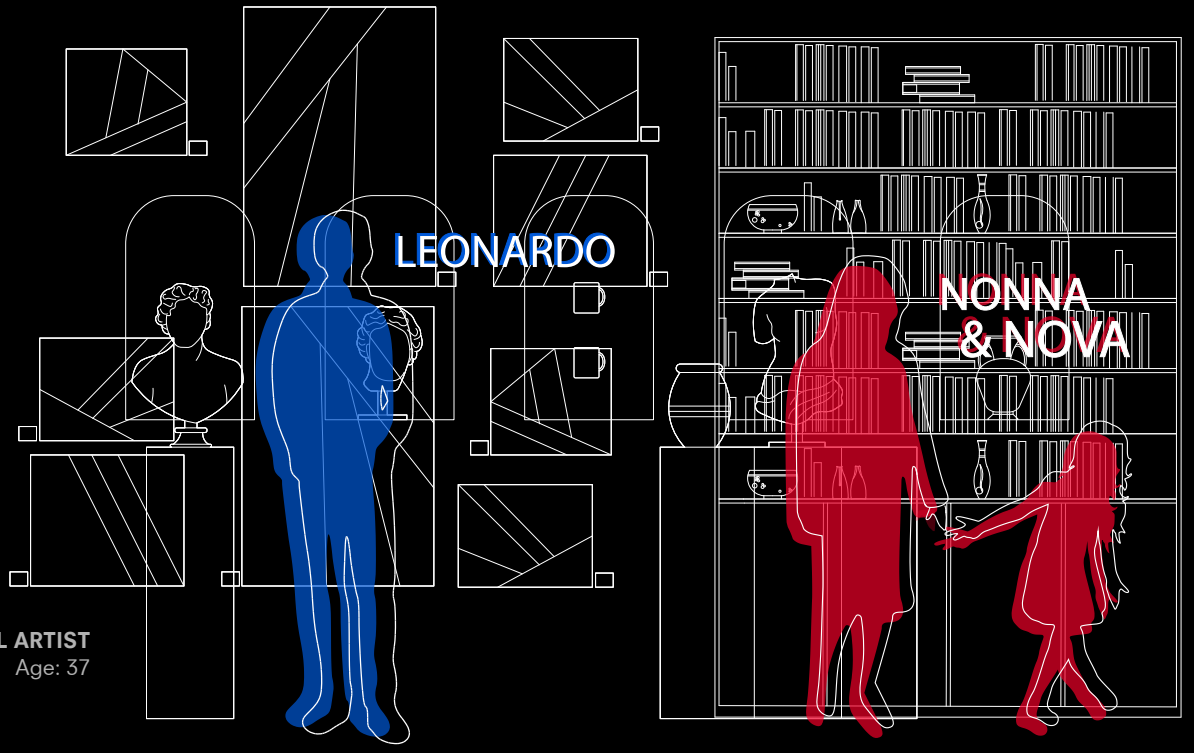


DIVISION OF PARK

ENTRANCES


BIKE PARKING
ENTRANCE EMPLOYEES
MAIN ENTRANCE
WALK ALONG THE WALL

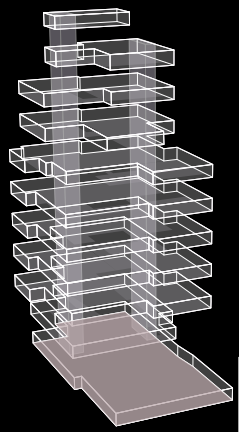
DAY IN THE LIFE OF



LOCAL ARTIST
Age: 37

REGULAR VISITORS
Age: 65 and 8

L -01



ROOFTERRACE
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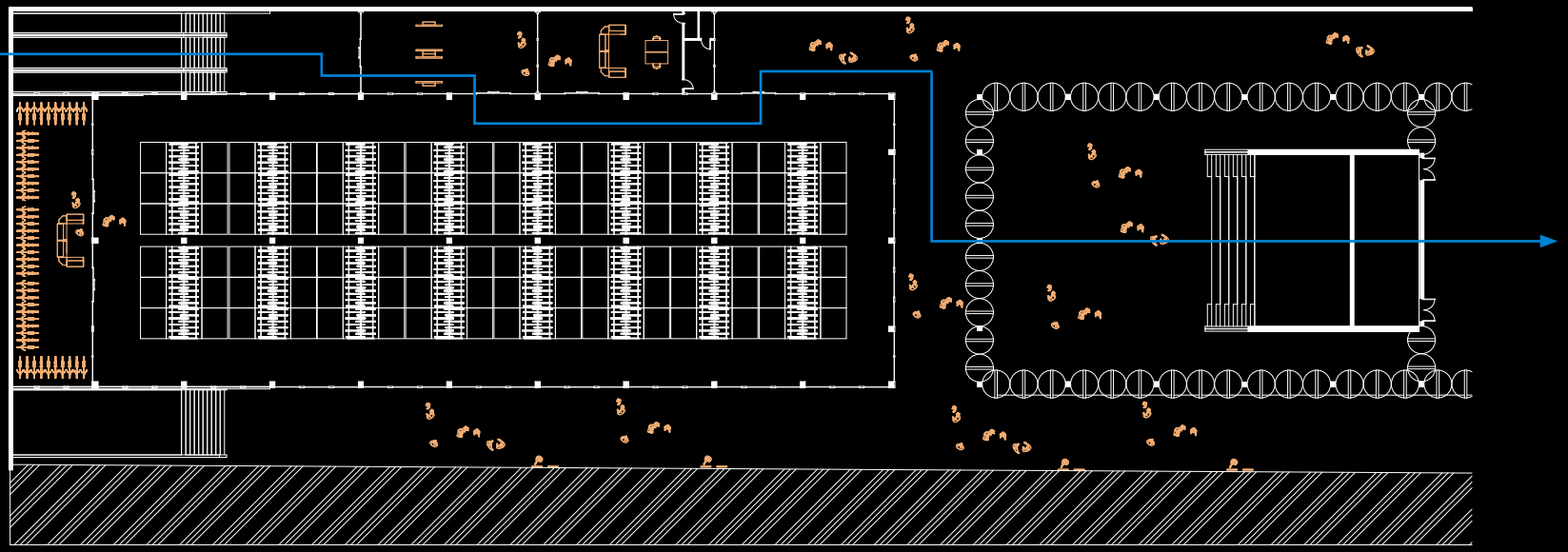
ENTRANCE

FORTRESS LAB
STORY WALL AND EVENT SPACES

- Auditorium
- Foyer
- Story wall
- Large event space
- Public tribune
- Bike parking

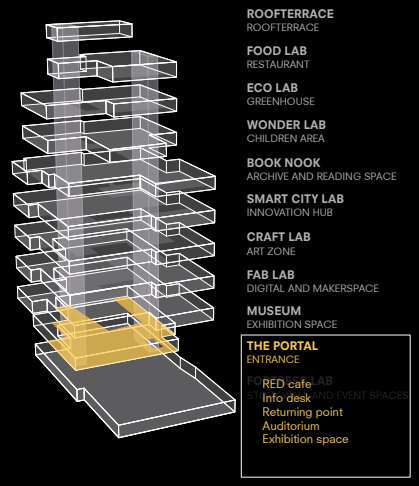
LEONARDO

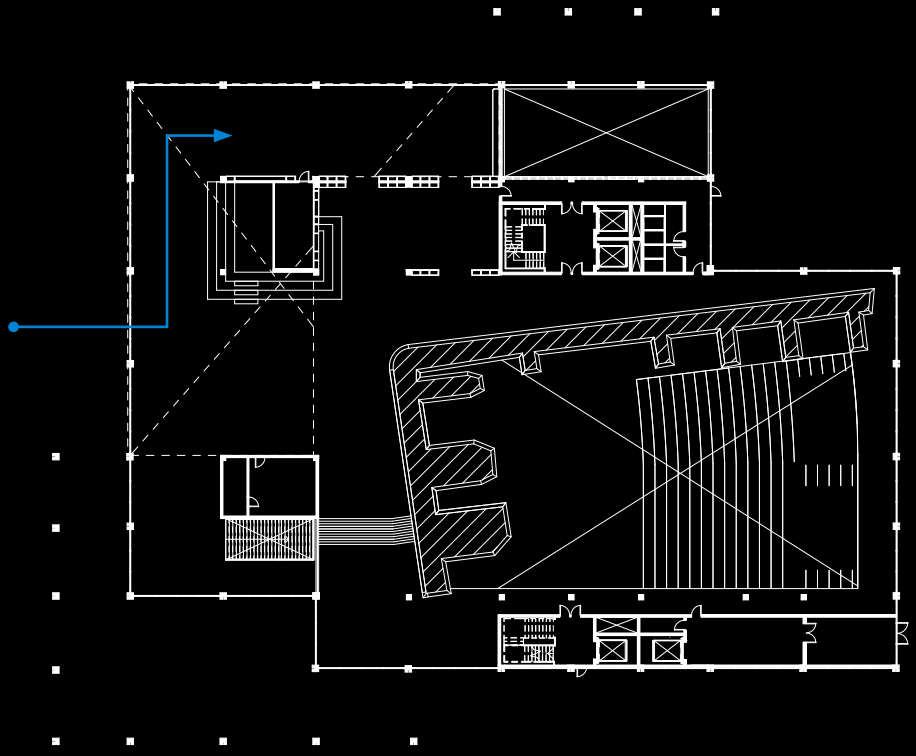


8:00

Parking the bike

L 00

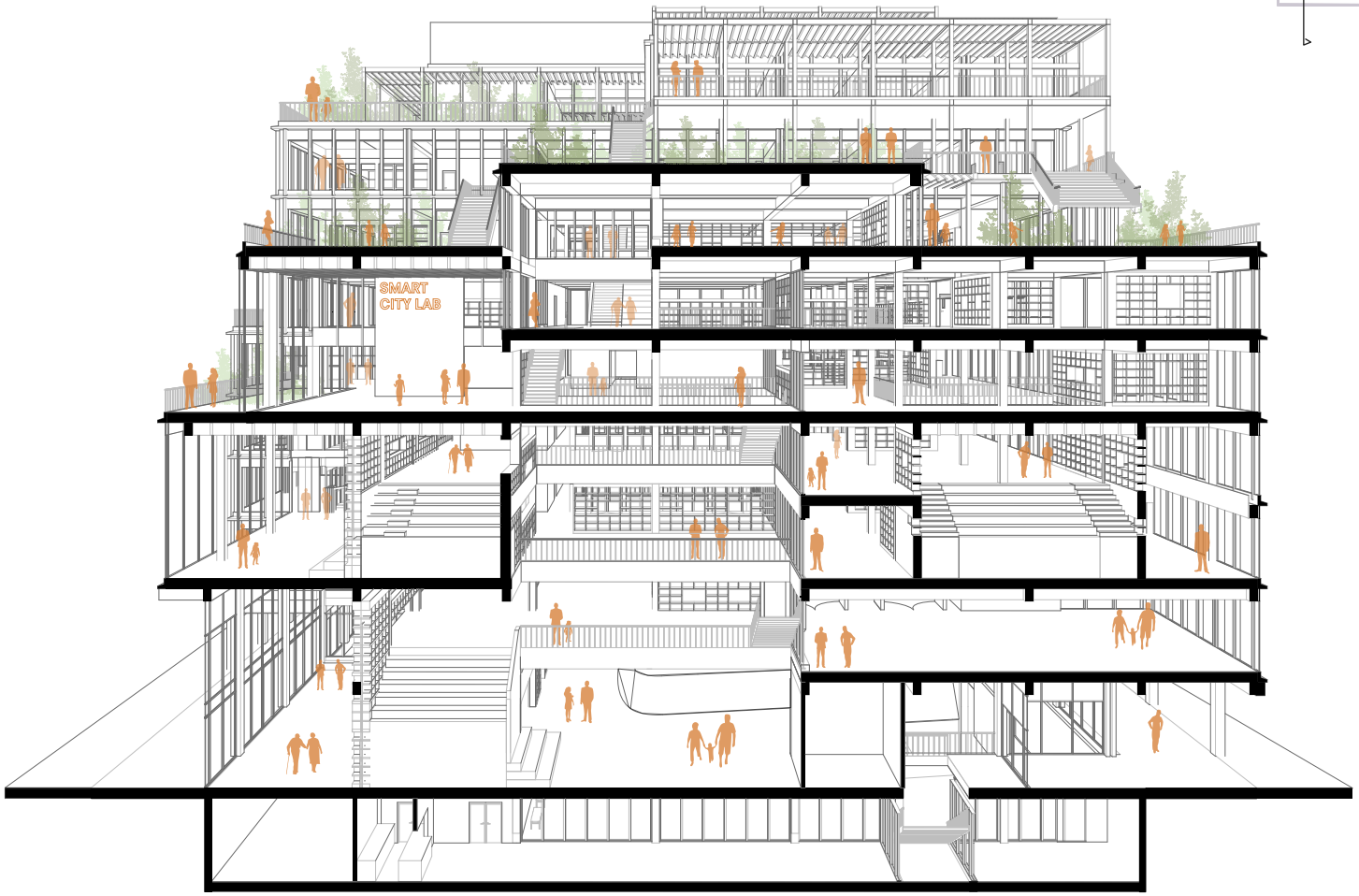




8:00

Entering the building

SECTION AA



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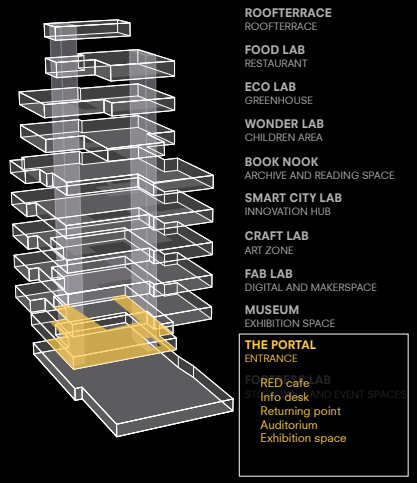
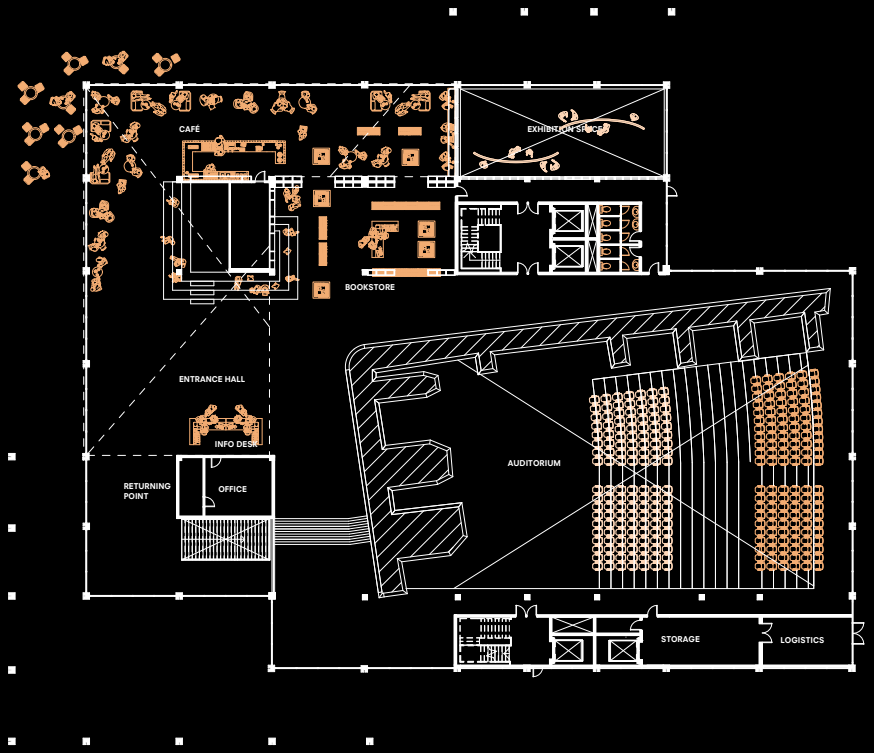
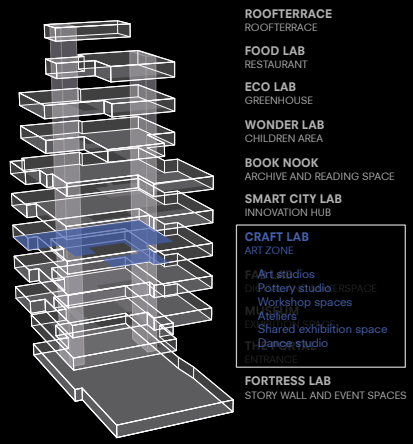


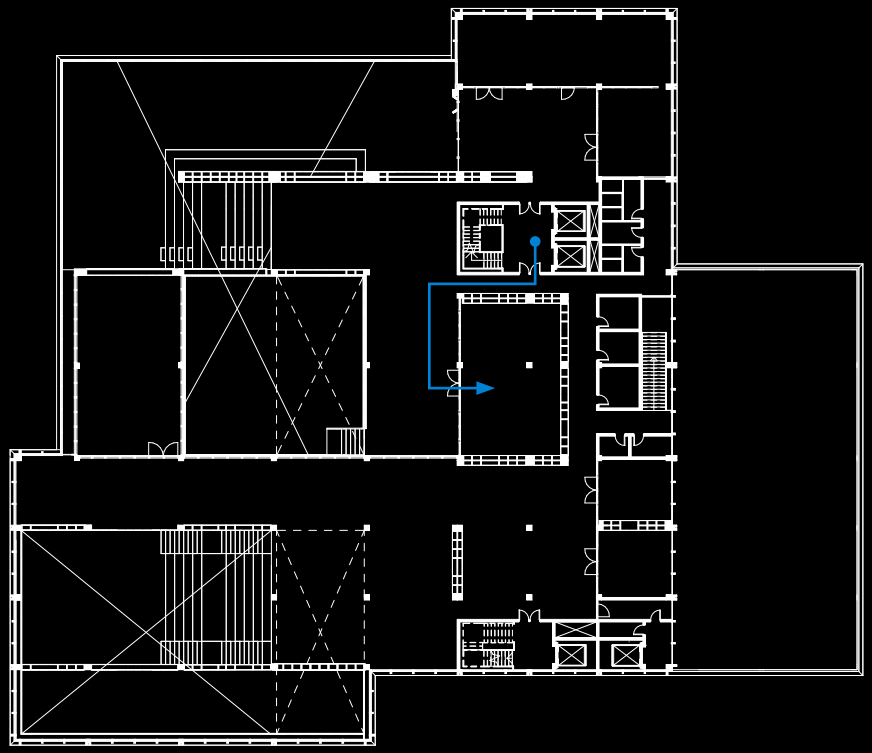


8:30-9:00

Drinking coffee at the café

L 03

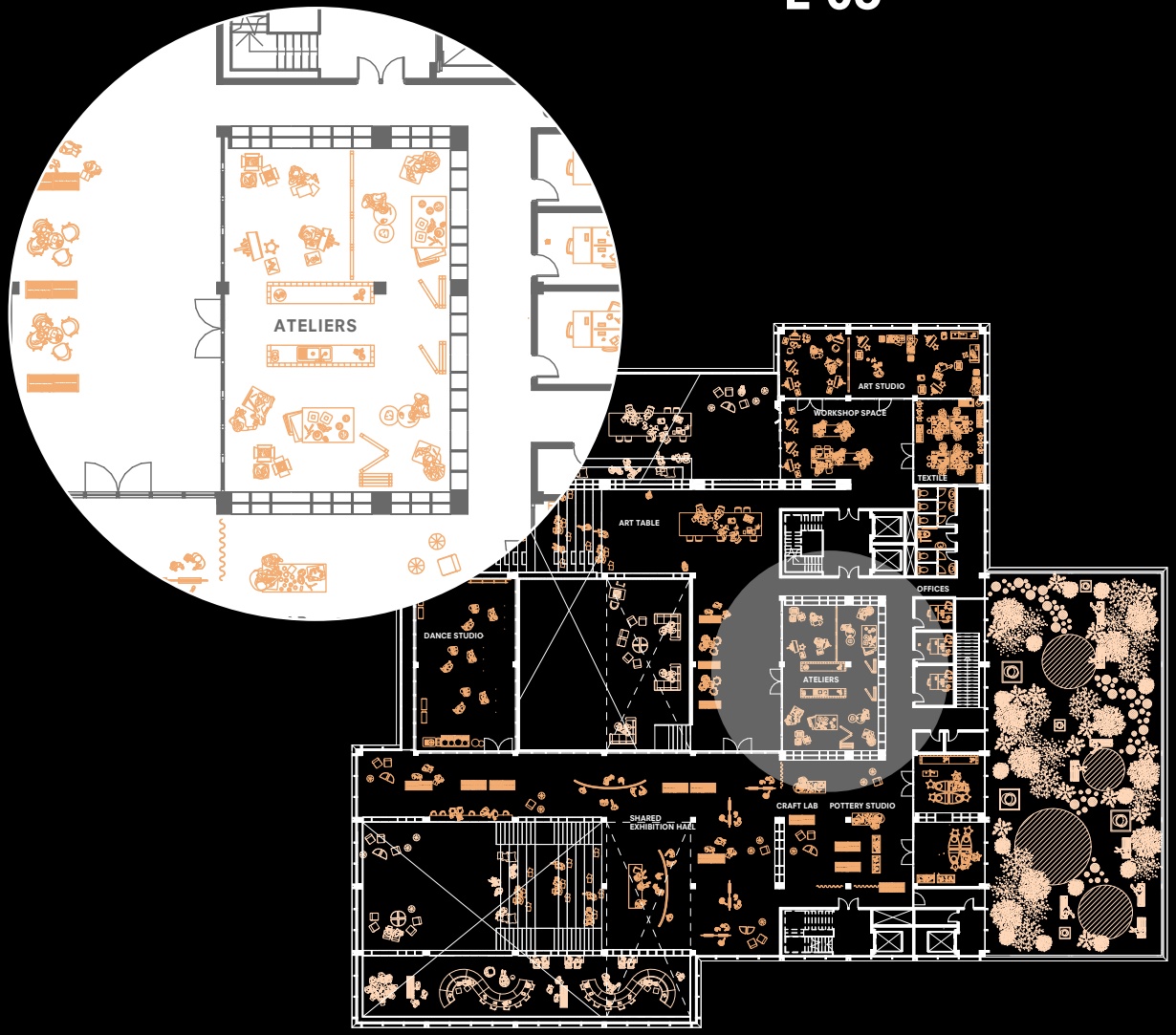


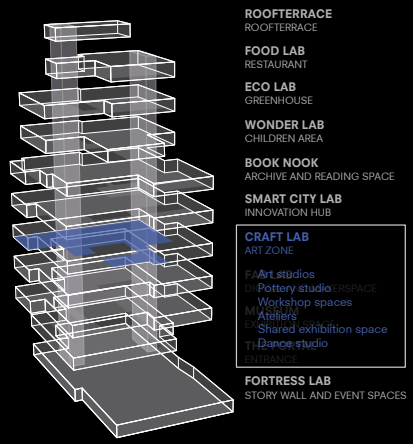


9:00-11:00

Work at personal atelier

L 03

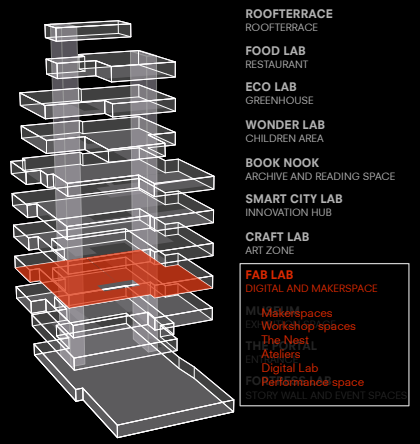


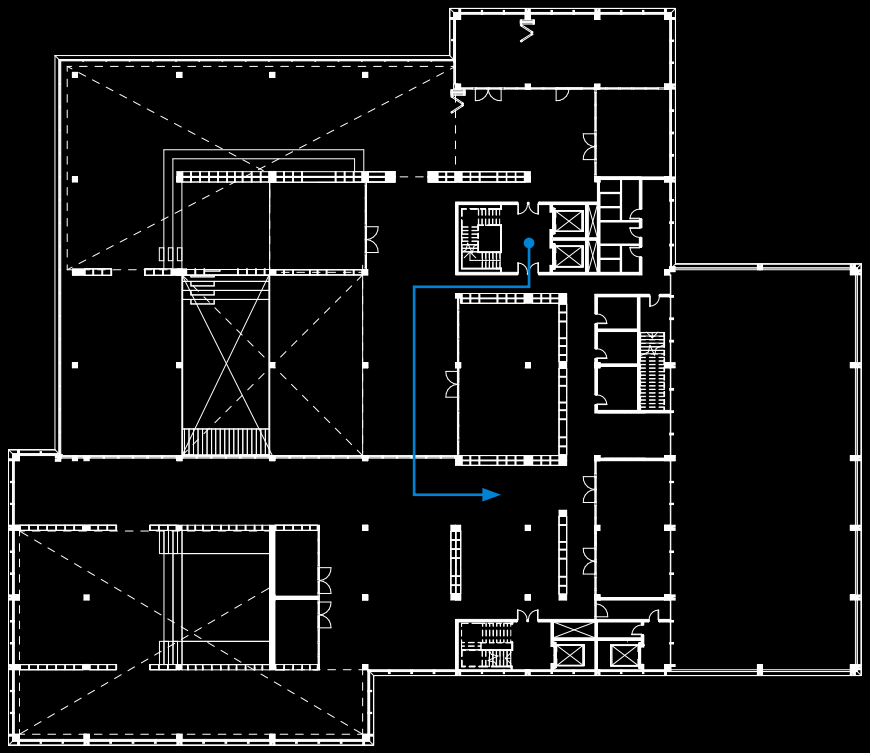


9:00-11:00

Work at personal atelier

L 02

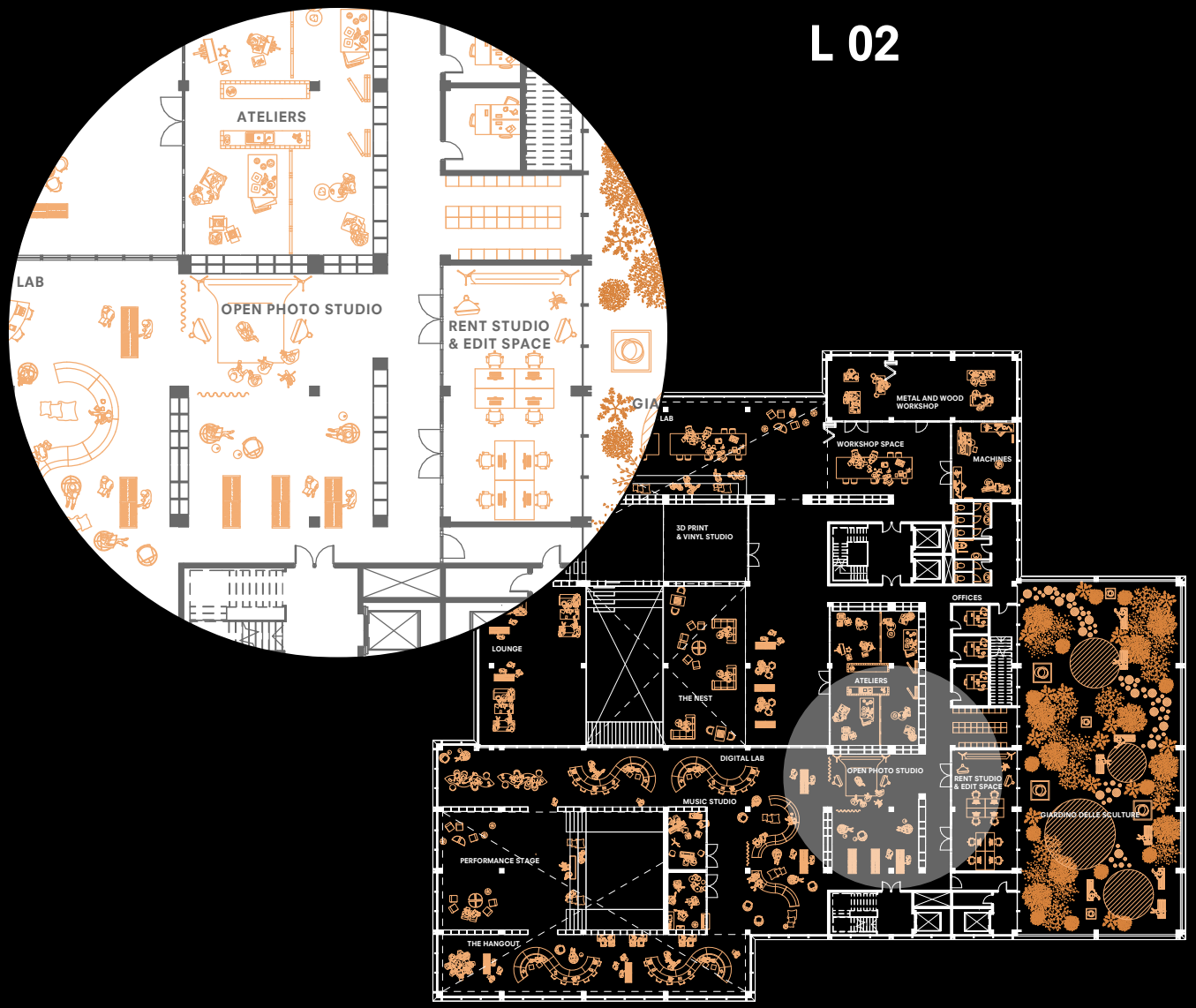


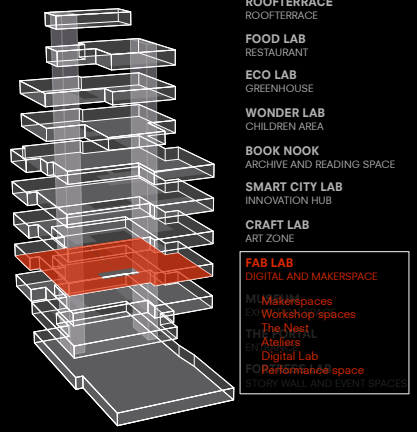


11:00-12:30

Photo studio and editing space

L 02

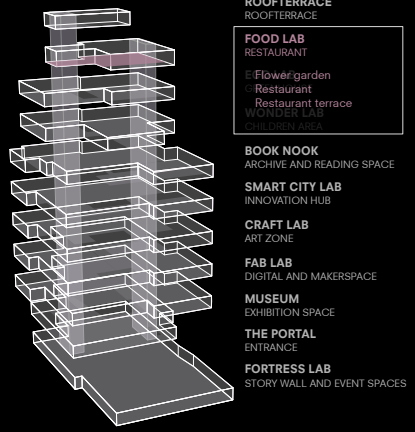


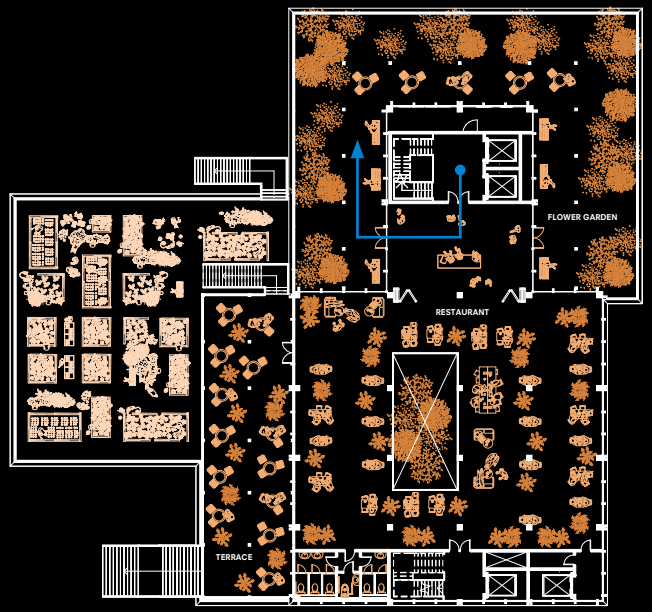


11:00-12:30

Photo studio and editing space

L 08

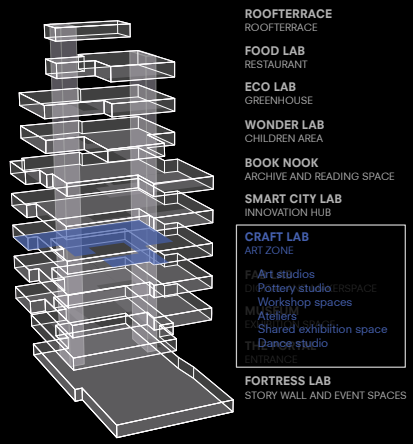


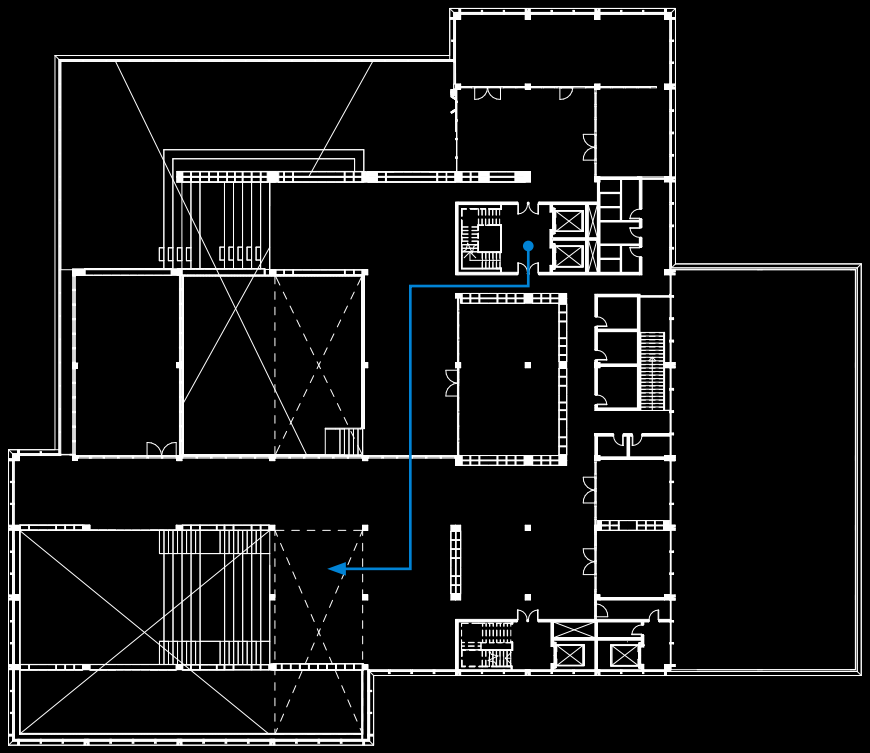


12:30-13:30

Enjoy the flower garden for lunch

L 03

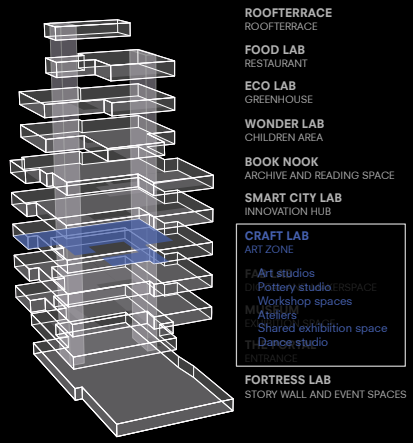


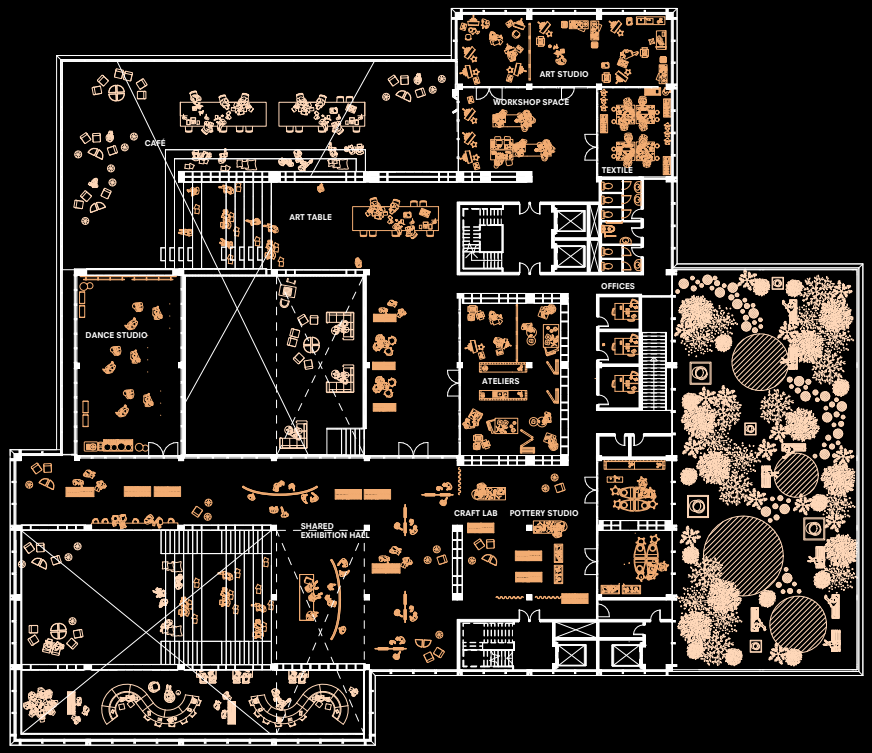


13:30-14:30

Preparing photo exhibition

L 03

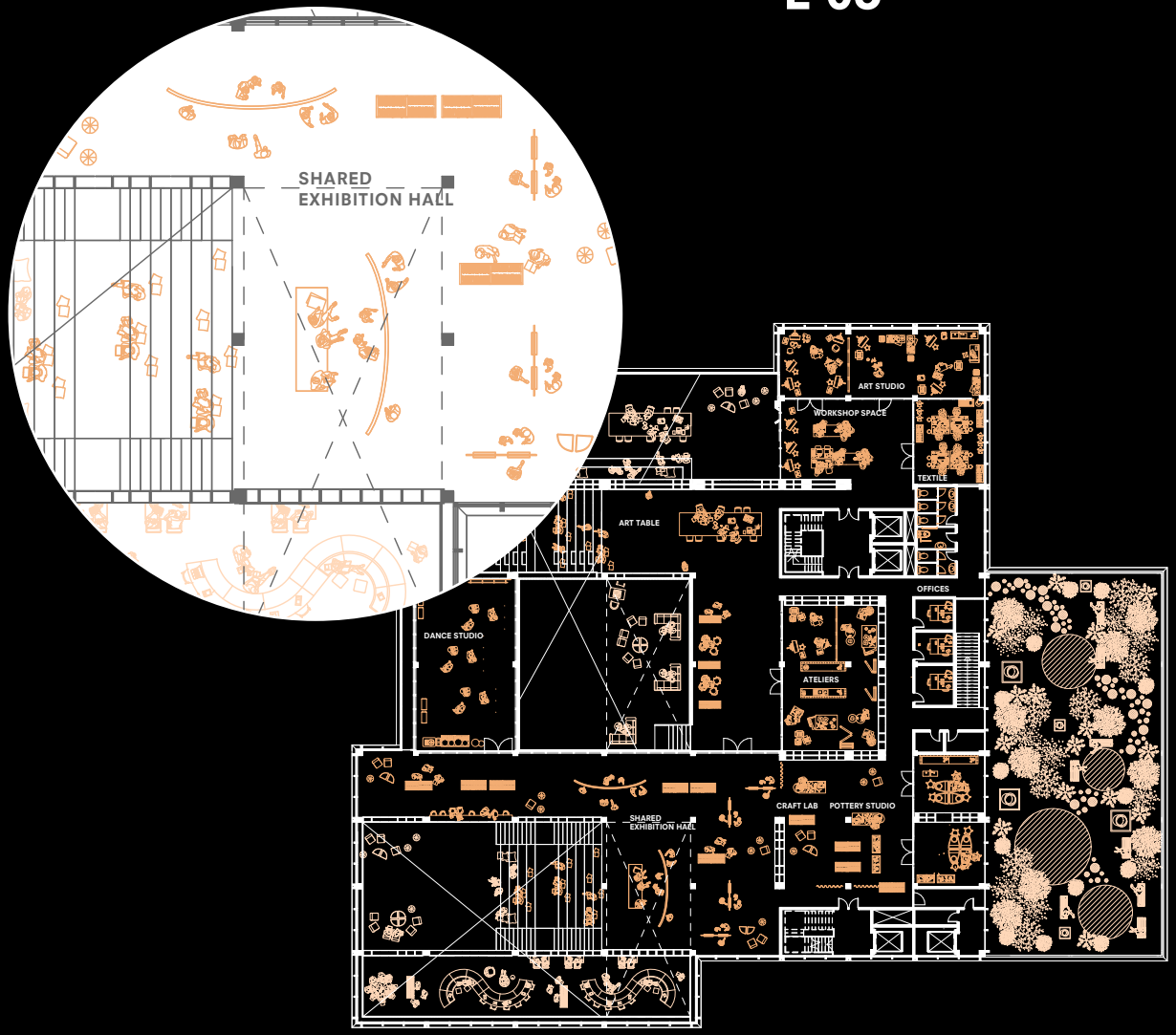


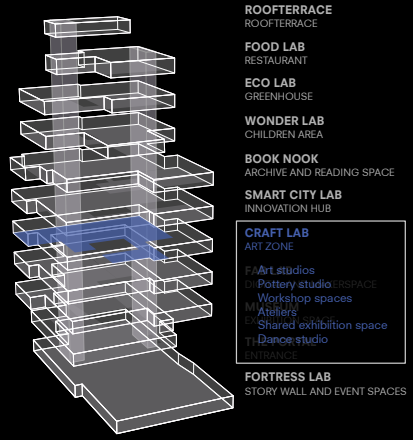


13:30-14:30

Preparing photo exhibition

L 03

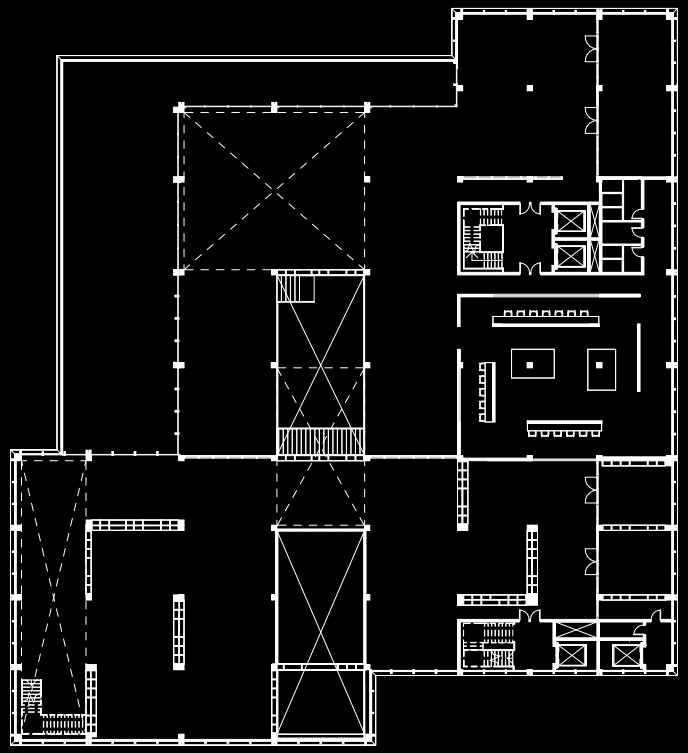


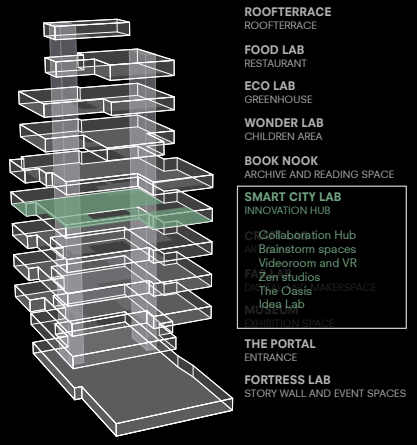


13:30-14:30

Preparing photo exhibition

L 04

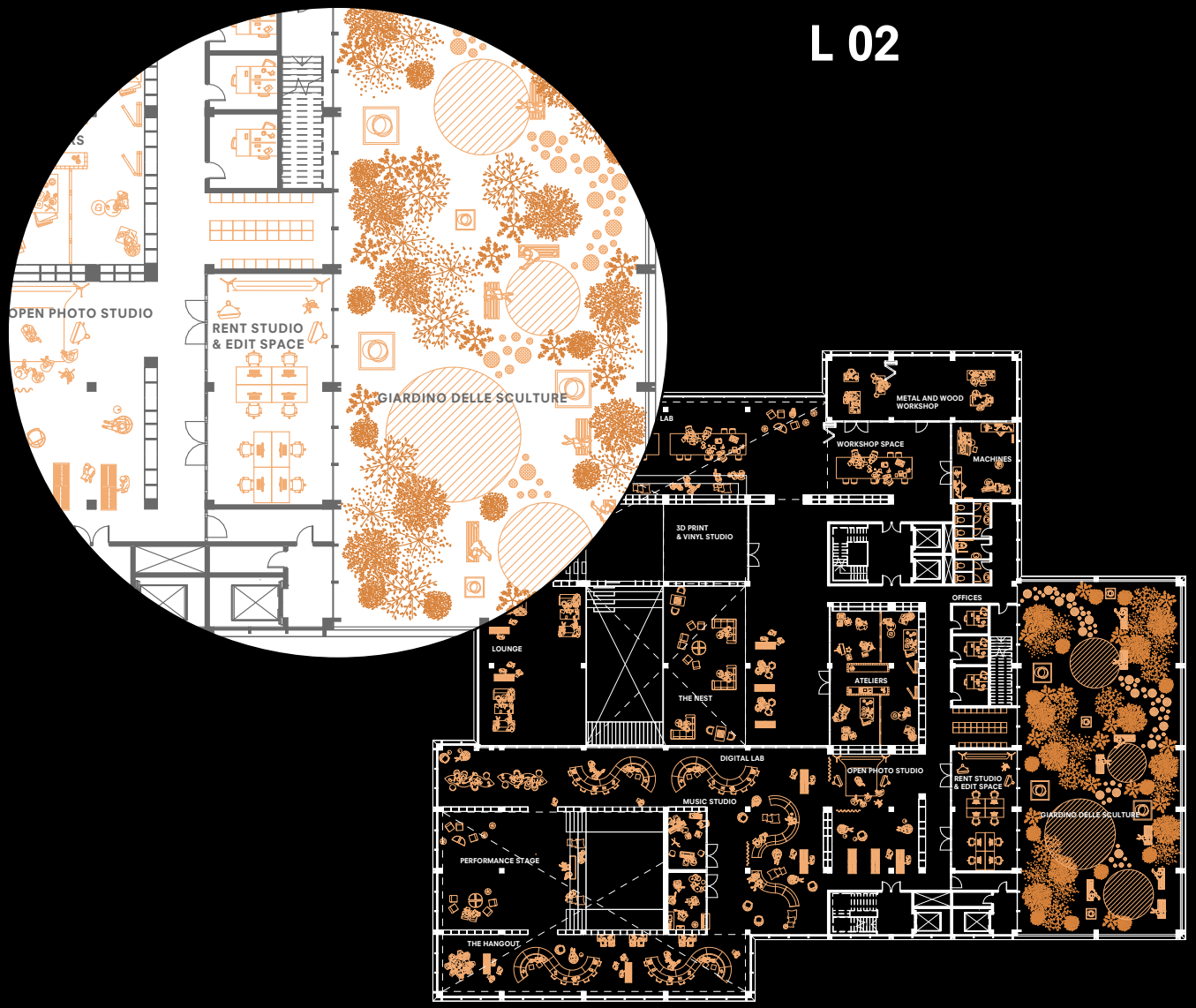


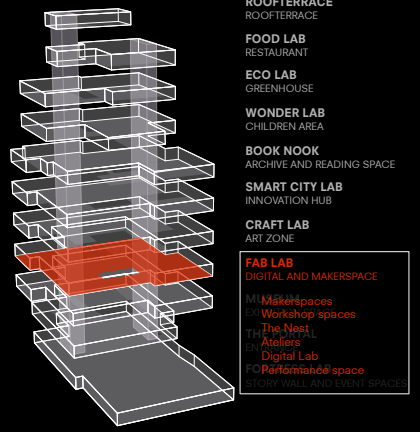


14:30-17:00

Working at the Smart City Lab

L 02

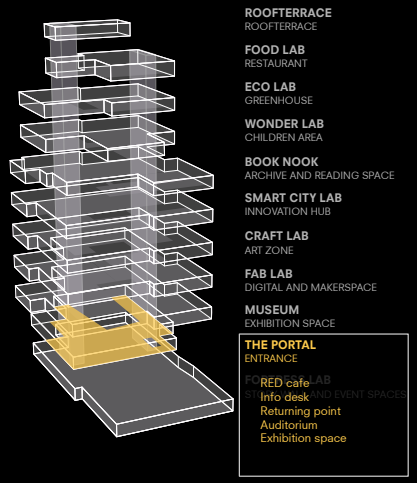


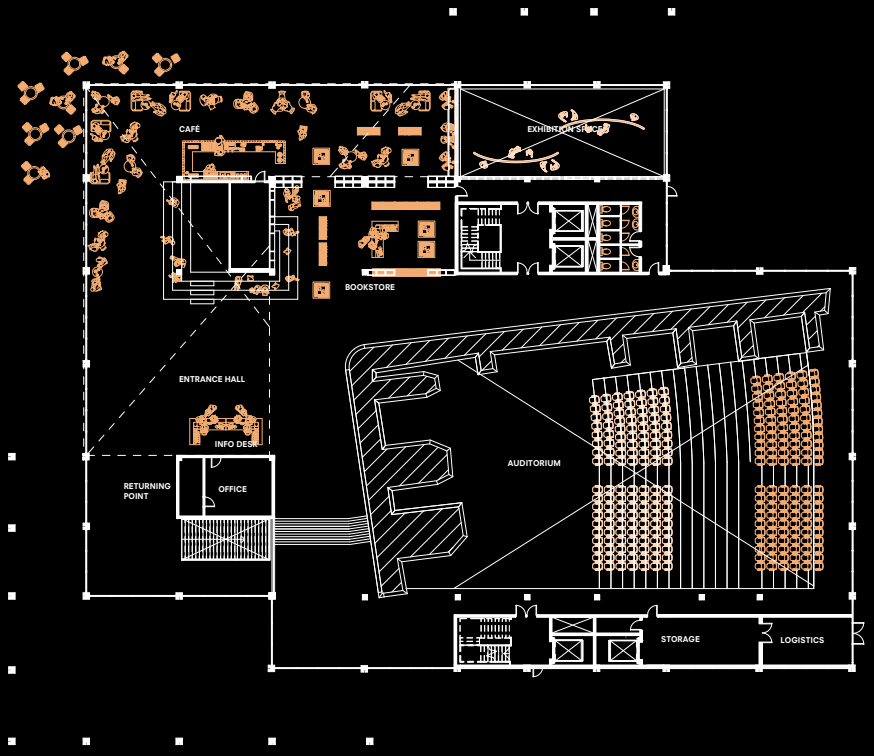


17:30-18:30

Joining a yoga session in the sculpture garden

L 00



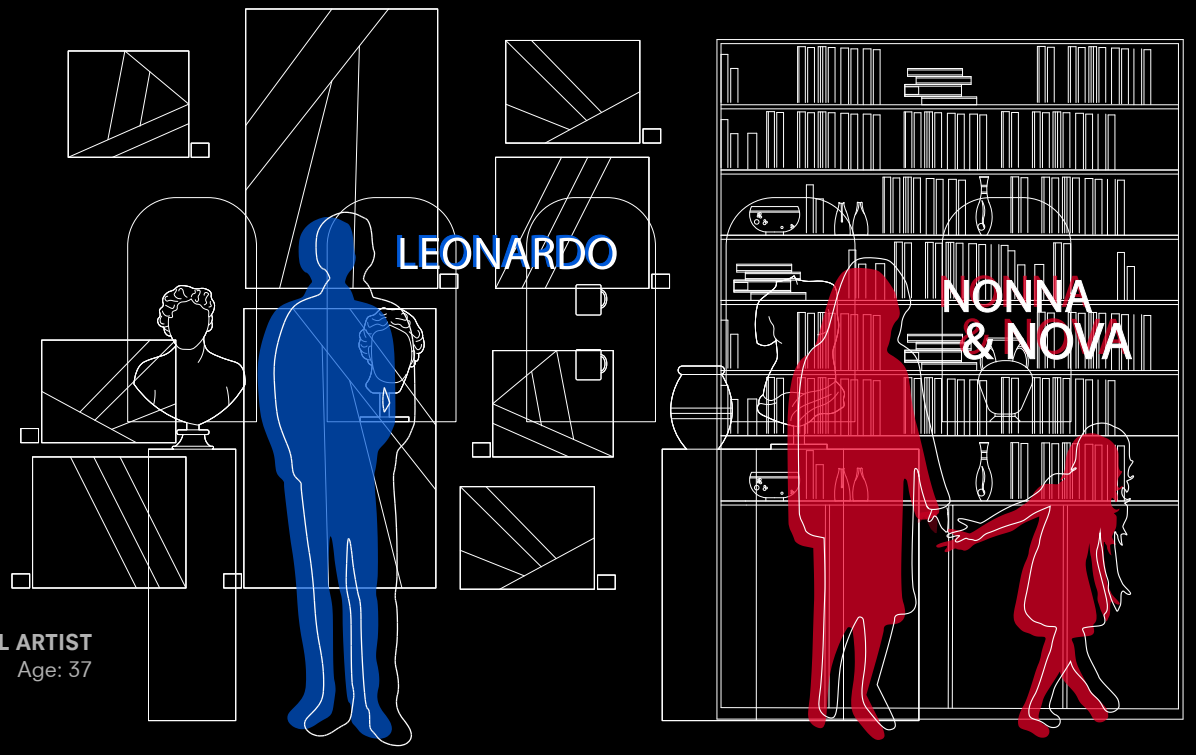


19:30-20:30

Lecture at the auditorium

Fondazione Giangiacomo Feltrinelli
30.10
— ORE 18.30
— FONDAZIONE G. FELTRINELLI
Pensare umano
Dialogo, cura, diversità ai tempi dell'intelligenza artificiale
CHIARA GIACCARDI
MAURO MAGATTI
MACCHINE CELIBI
NE PARLANO
Chiara Giaccardi
Università Cattolica del Sacro Cuore
Mauro Magatti
Università Cattolica del Sacro Cuore
Pier Cesare Rivoltella
Alma Mater Studiorium, Università di Bologna
INTRODUZIONE
Massimiliano Tarantino
Direttore Fondazione G. Feltrinelli
IN OCCASIONE DELLA PUBBLICAZIONE DE
Le Macchine Celibi. Meccanizzare l'umano o umanizzare il mondo? (Il Mulino 2025)
STAGIONE DELLE
SCELTE
Viale Pasubio 5, Milano
Ingresso libero
Prenotazione consigliata
su DICE.fm
fondazionefeltrinelli.it

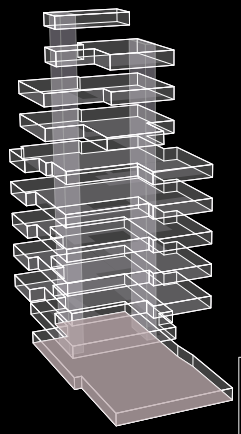
DAY IN THE LIFE OF



LOCAL ARTIST
Age: 37

REGULAR VISITORS
Age: 65 and 8

L -01



ROOFTERRACE
ROOFTERRACE

FOOD LAB
RESTAURANT

ECO LAB
GREENHOUSE

WONDER LAB
CHILDREN AREA

BOOK NOOK
ARCHIVE AND READING SPACE

SMART CITY LAB
INNOVATION HUB

CRAFT LAB
ART ZONE

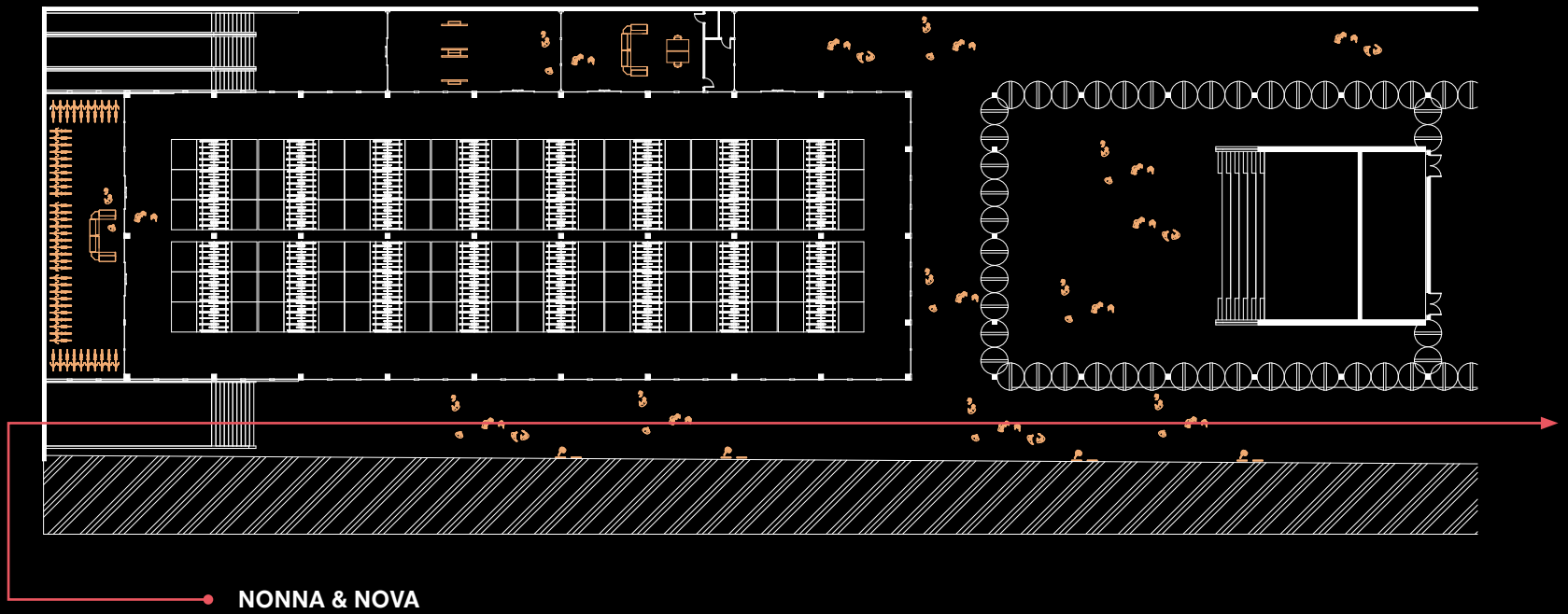
FAB LAB
DIGITAL AND MAKERSPACE

MUSEUM
EXHIBITION SPACE

THE PORTAL
ENTRANCE

FORTRESS LAB
STORY WALL AND EVENT SPACES

- Auditorium
- Foyer
- Story wall
- Large event space
- Public tribune
- Bike parking

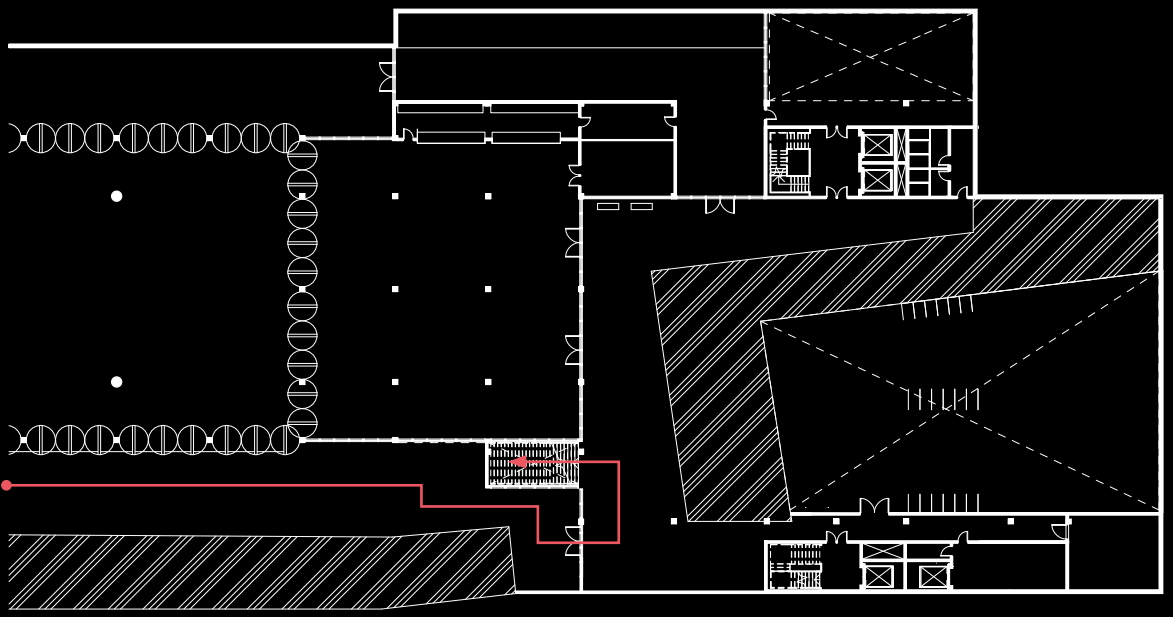


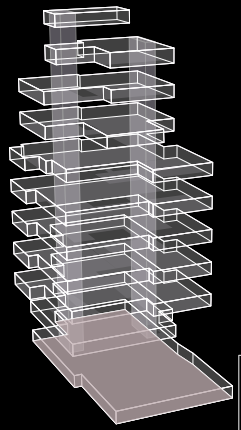
9:30

Walk along the story wall

1535 – Spanish Rule Begins
14th-15th century Medieval Walls
The History of Porta Volta & the Spanish Walls of Milan
The Porta Volta district stands as a vivid reminder of Milan's layered urban history. Once located at the city's northern edge, this gateway formed part of the Spanish Walls, a vast system of fortifications built in the 16th century when Milan was under Spanish rule. The walls, constructed between 1549 and 1562, replaced earlier medieval defenses and were designed both for protection and to symbolize Spanish control over the Lombard capital.

L -01





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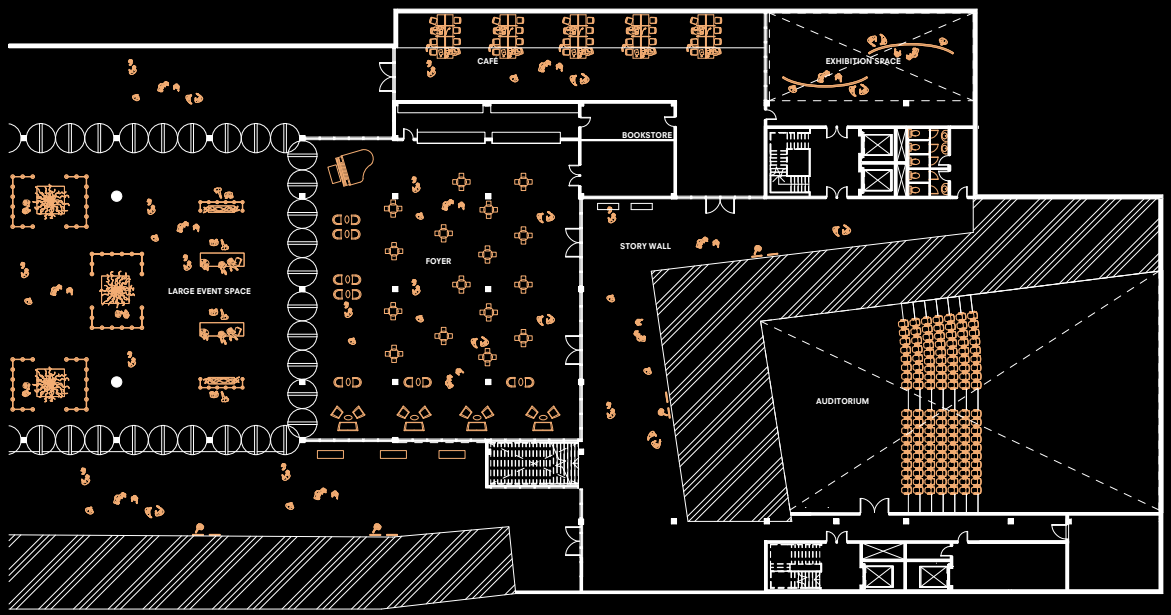
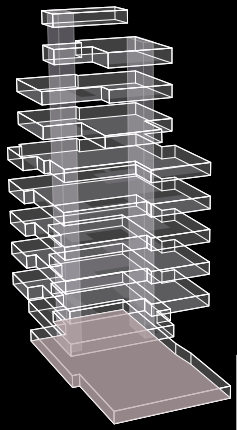
9:30

Walk along the story wall

L -01





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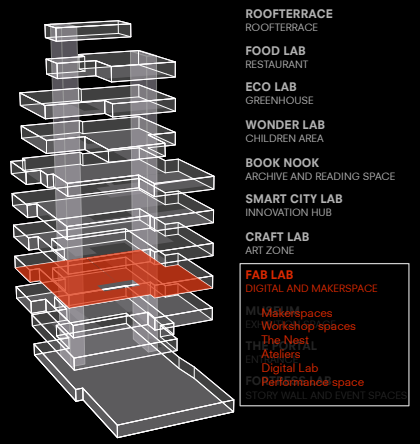
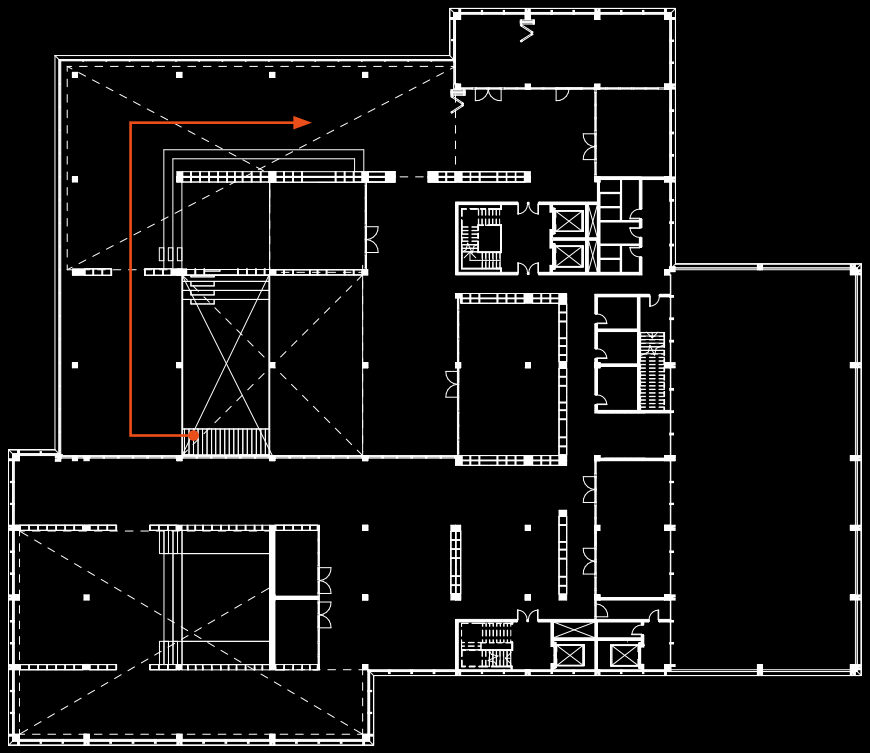
9:30

Walk along the story wall

L 02

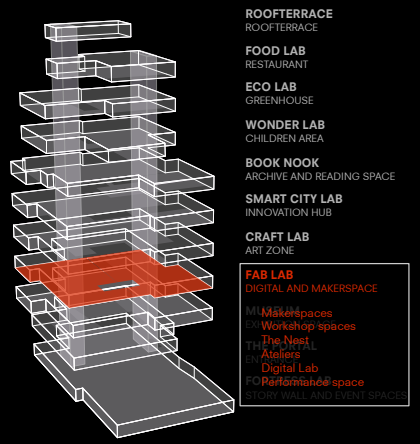


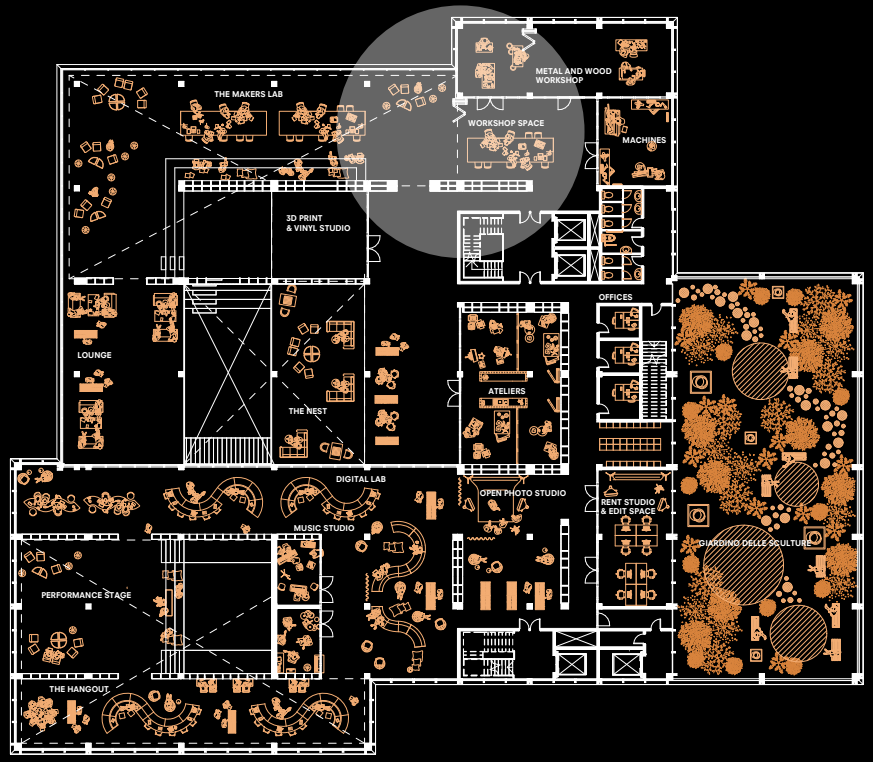


10:00-12:00

Joining a wood workshop at the makerspace

L 02

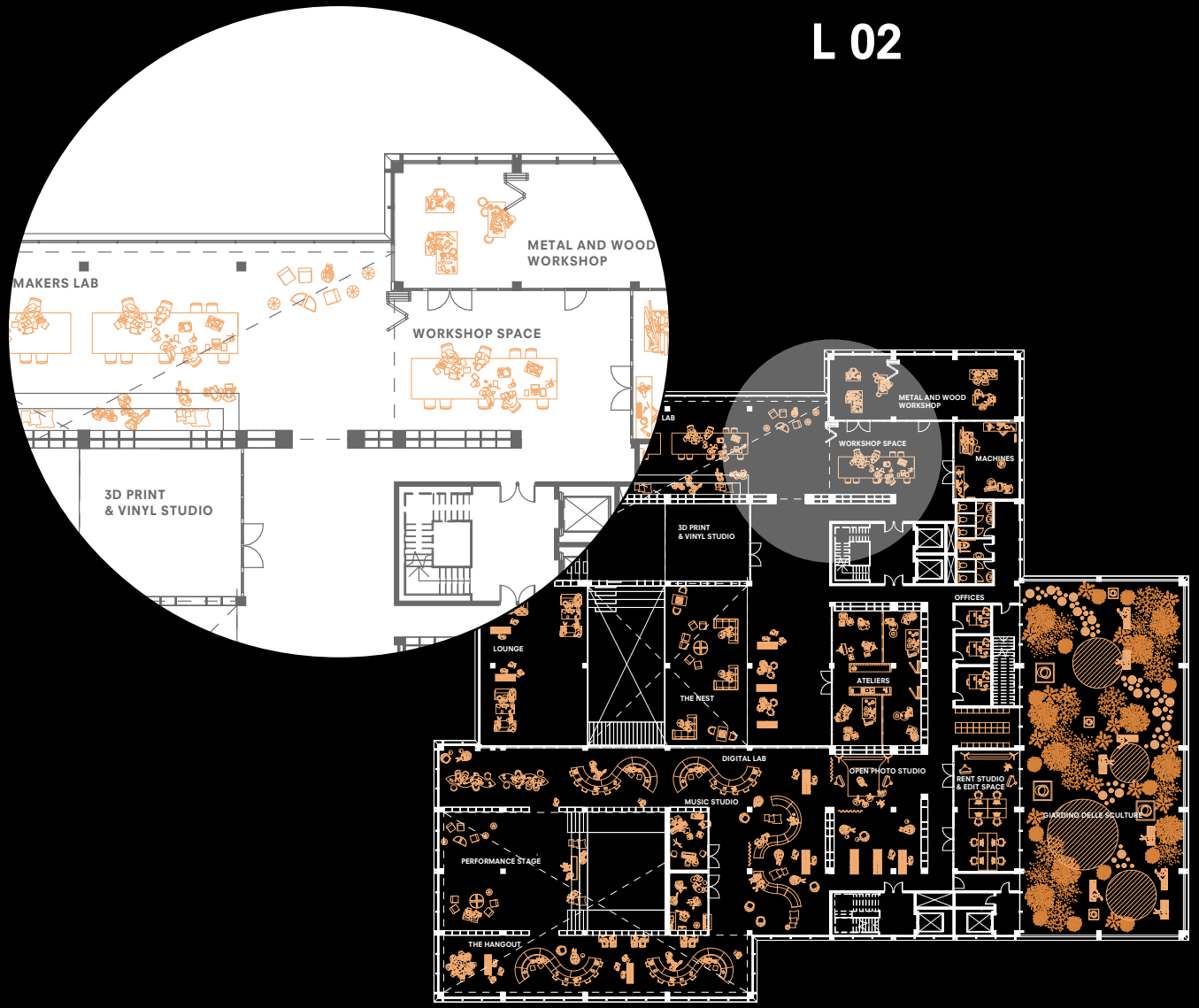


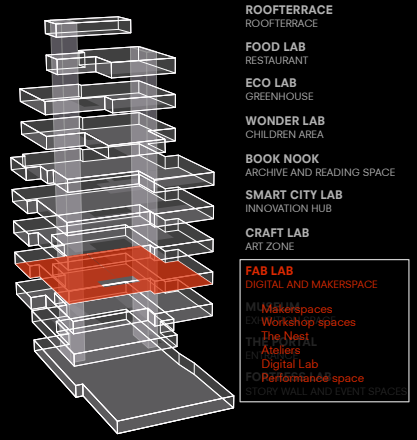


10:00-12:00

Joining a wood workshop at the makerspace

L 02



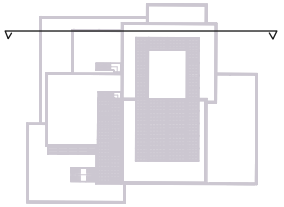


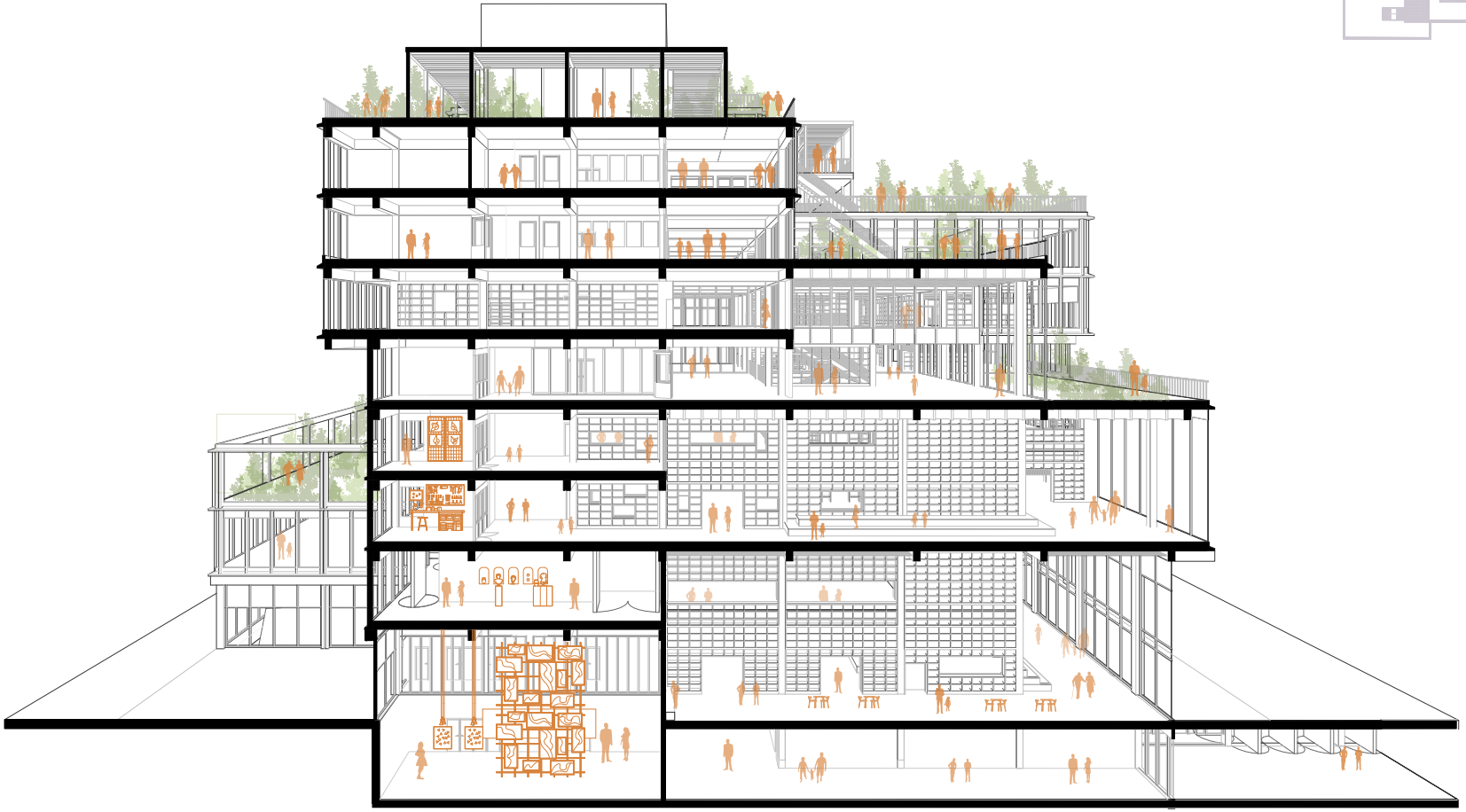
10:00-12:00

Joining a wood workshop at the makerspace

Makers Lab

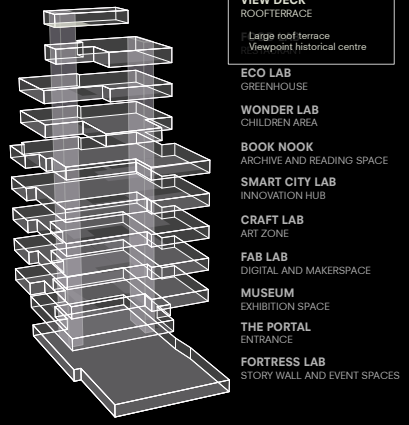
SECTION BB





Makers Lab

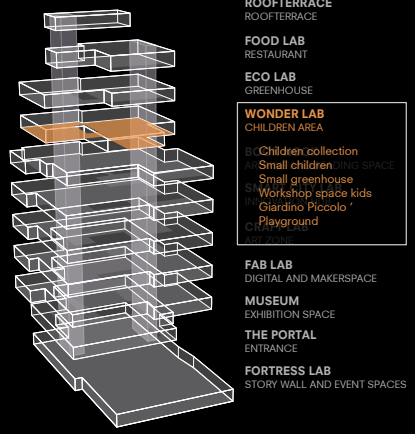
L 09



12:00-13:00

Lunch on the view deck

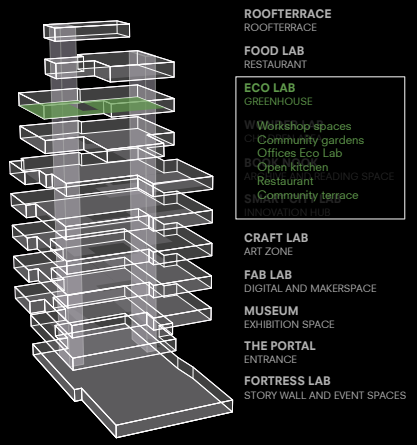
L 06

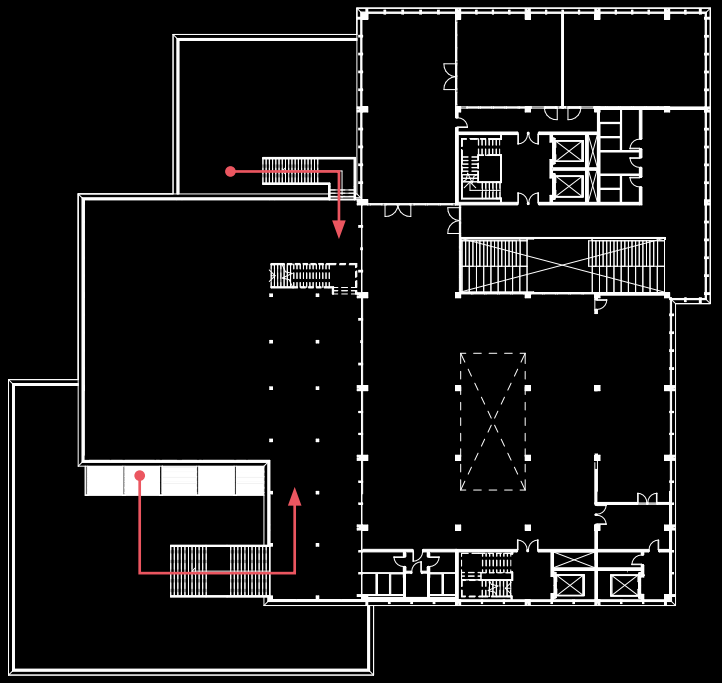


13:00-14:45

Enjoying the Wonder Lab

L 07

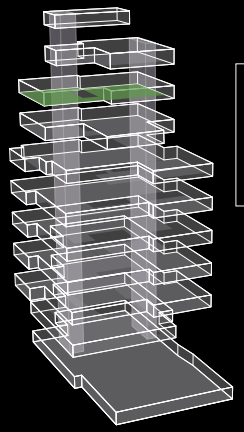




13:45-15:30

Working together in the community garden of Nonna

L 07



ROOFTERRACE
ROOFTERRACE

FOOD LAB
RESTAURANT

ECO LAB
GREENHOUSE
- Workshop spaces
- Community gardens
- Offices Eco Lab
- Open kitchen
- Restaurant
- Community terrace

CRAFT LAB
ART ZONE

FAB LAB
DIGITAL AND MAKERSPACE

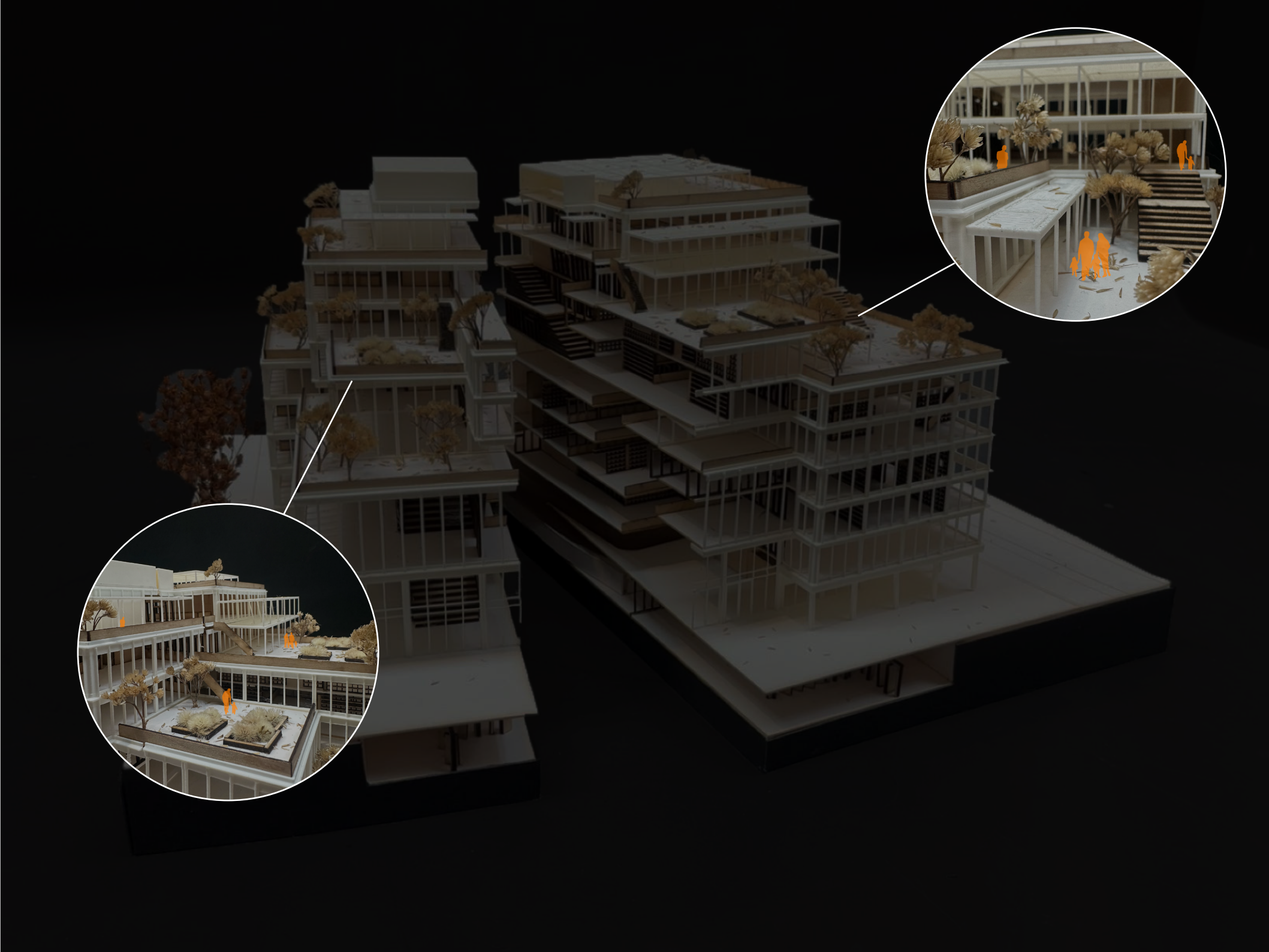
MUSEUM
EXHIBITION SPACE

THE PORTAL
ENTRANCE

FORTRESS LAB
STORY WALL AND EVENT SPACES

13:45-15:30

Working together in the community garden of Nonna



INTRODUCTION

DESIGN BRIEF

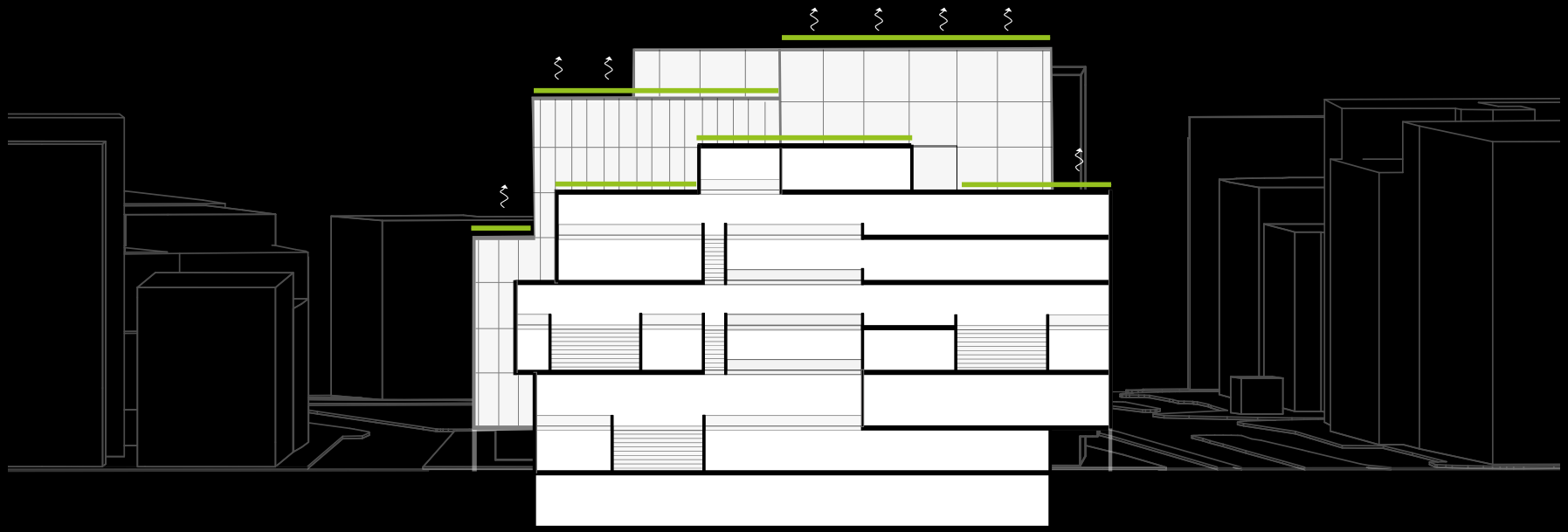
CONCEPT

DESIGN

IMPLEMENTATION

CONCLUSION

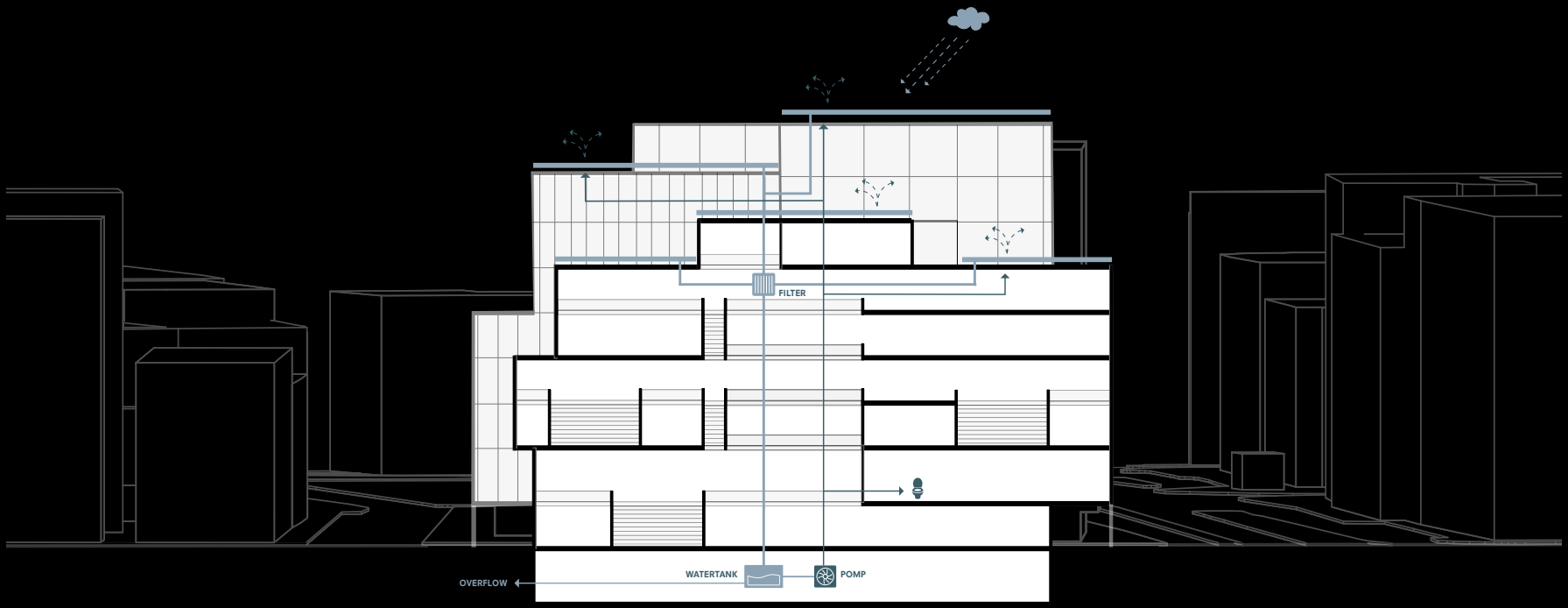
SUSTAINABILITY



GREEN ROOFS

Vegetated roofs that provide thermal insulation, stormwater management and urban cooling

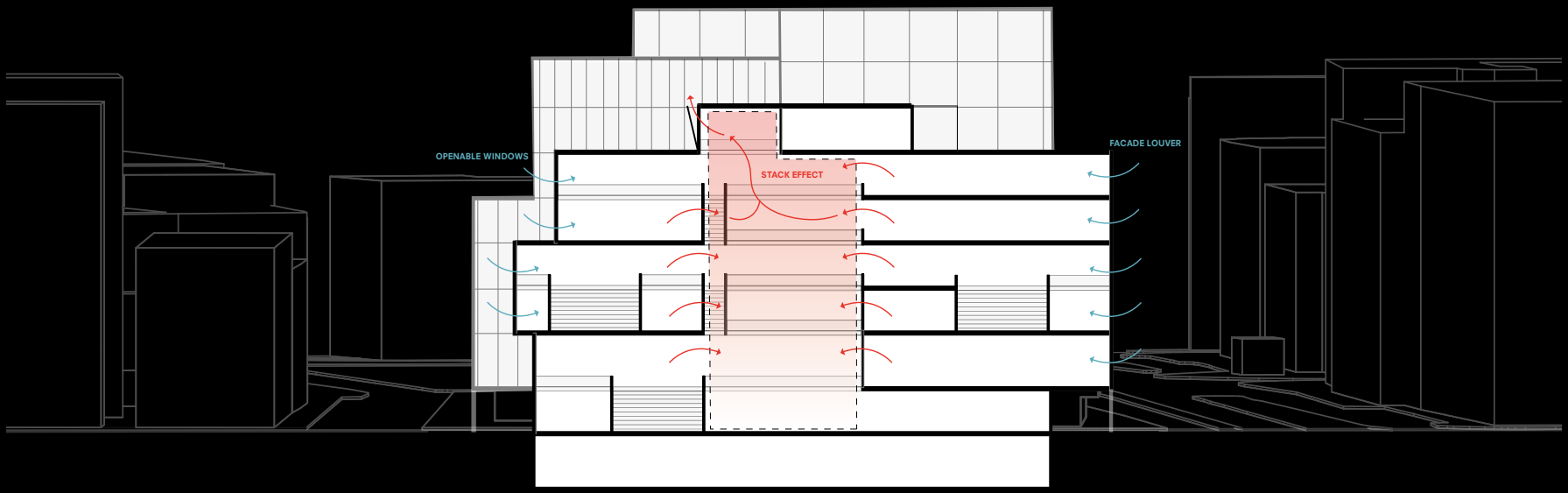
SUSTAINABILITY



RAINWATER HARVESTING

Collection and storage of rainwater from roofs
for reuse in toilets and irrigation

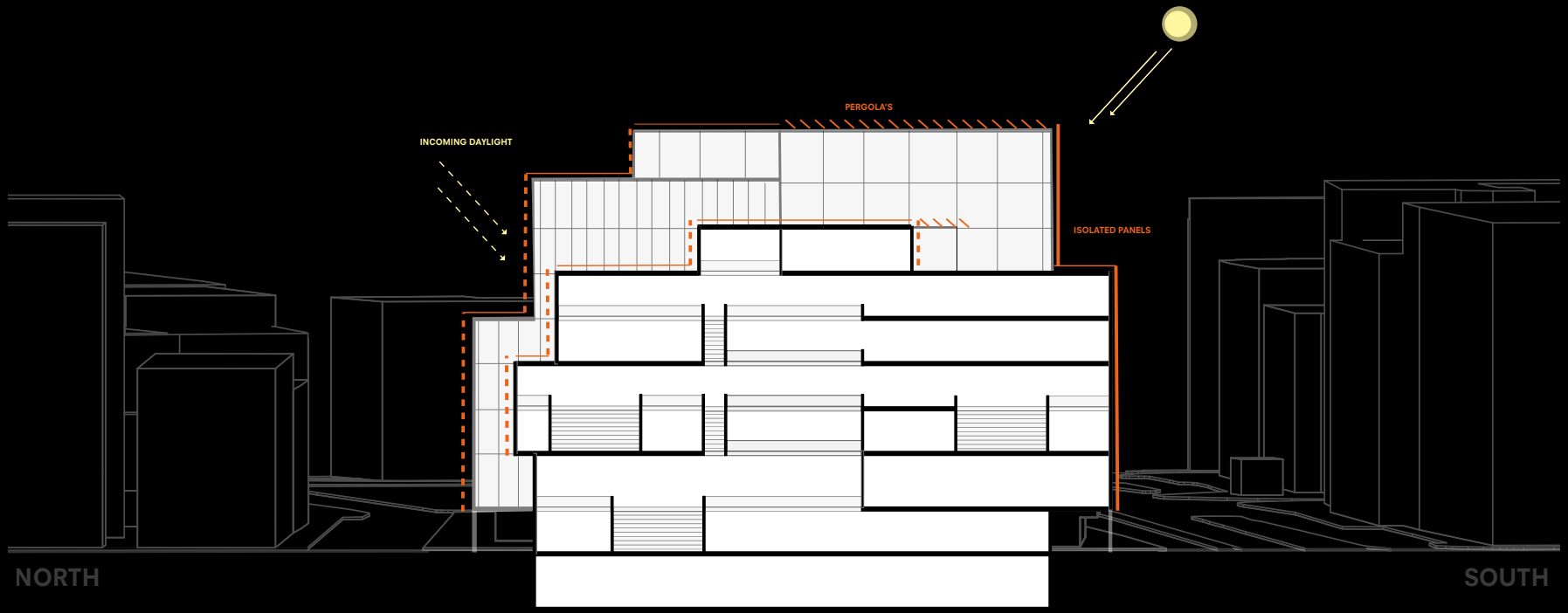
COMFORT



HYBRID VENTILATION

The atrium generates a
stack-effect pressure that drives
natural ventilation

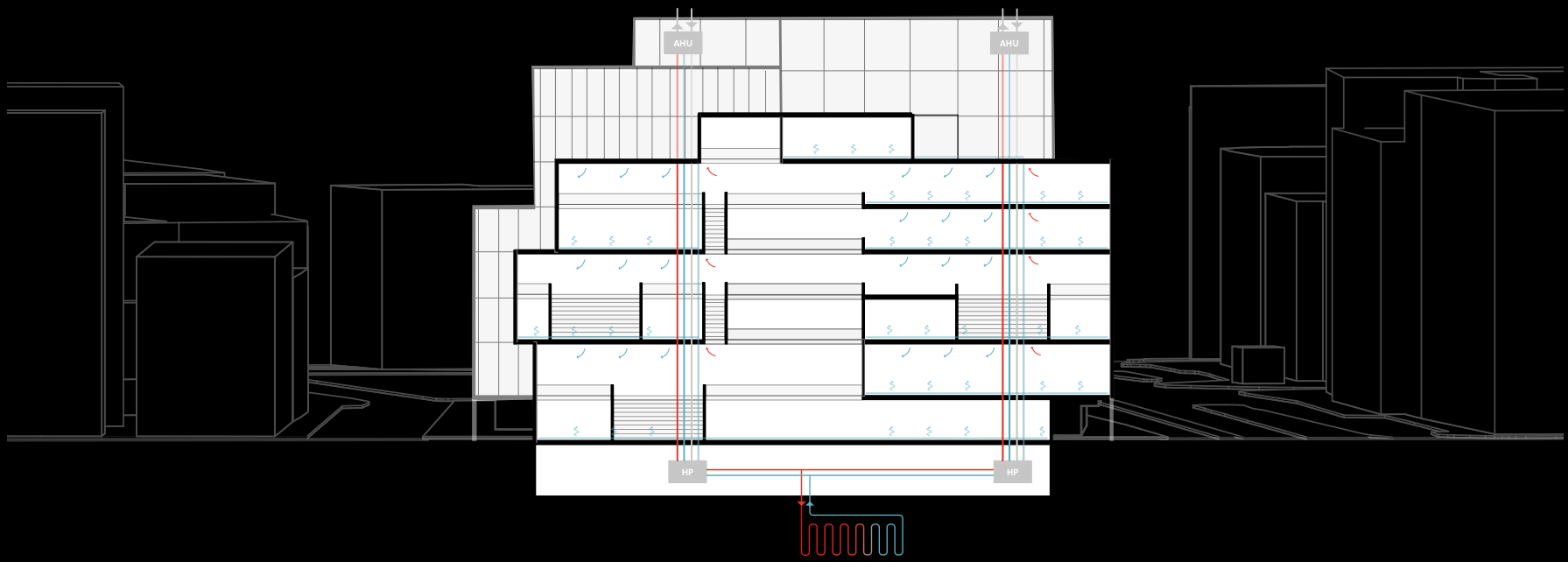
COMFORT



BUILDING ENVELOPE

Highly insulated facades with optimed glazing and shading systems to minimize heating and cooling

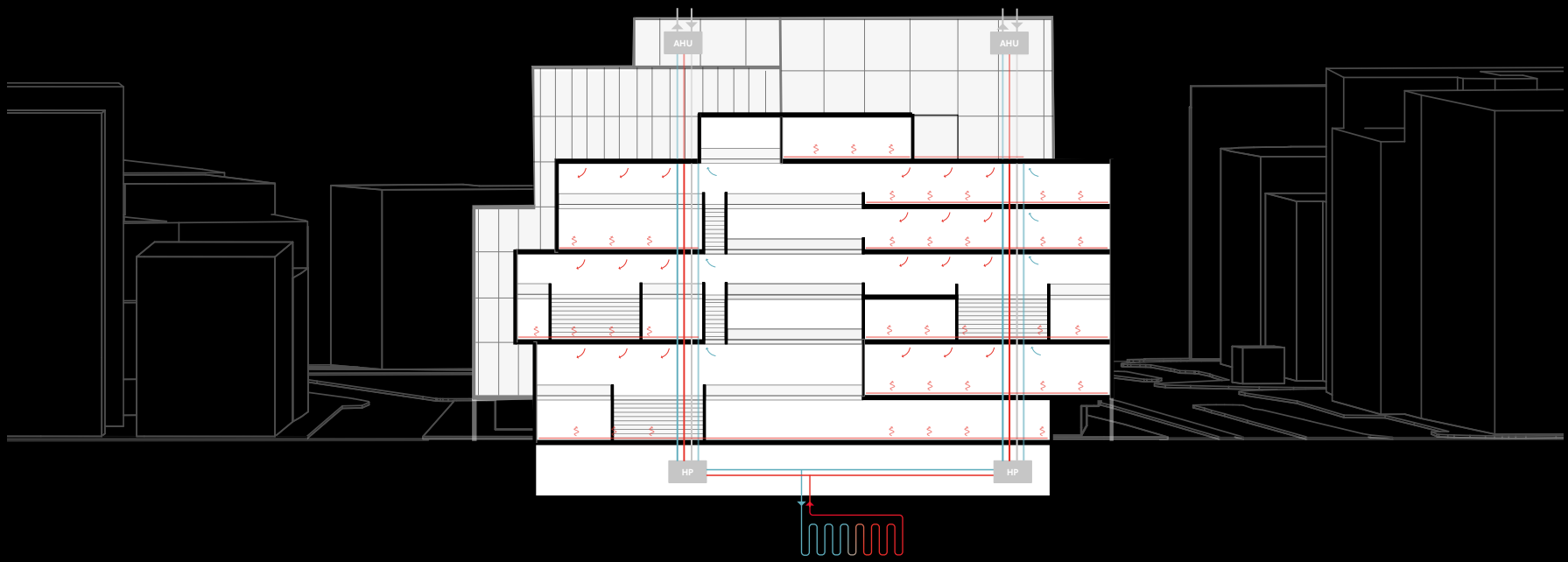
CLIMATE CONTROL



COOLING

Cooling in the summer

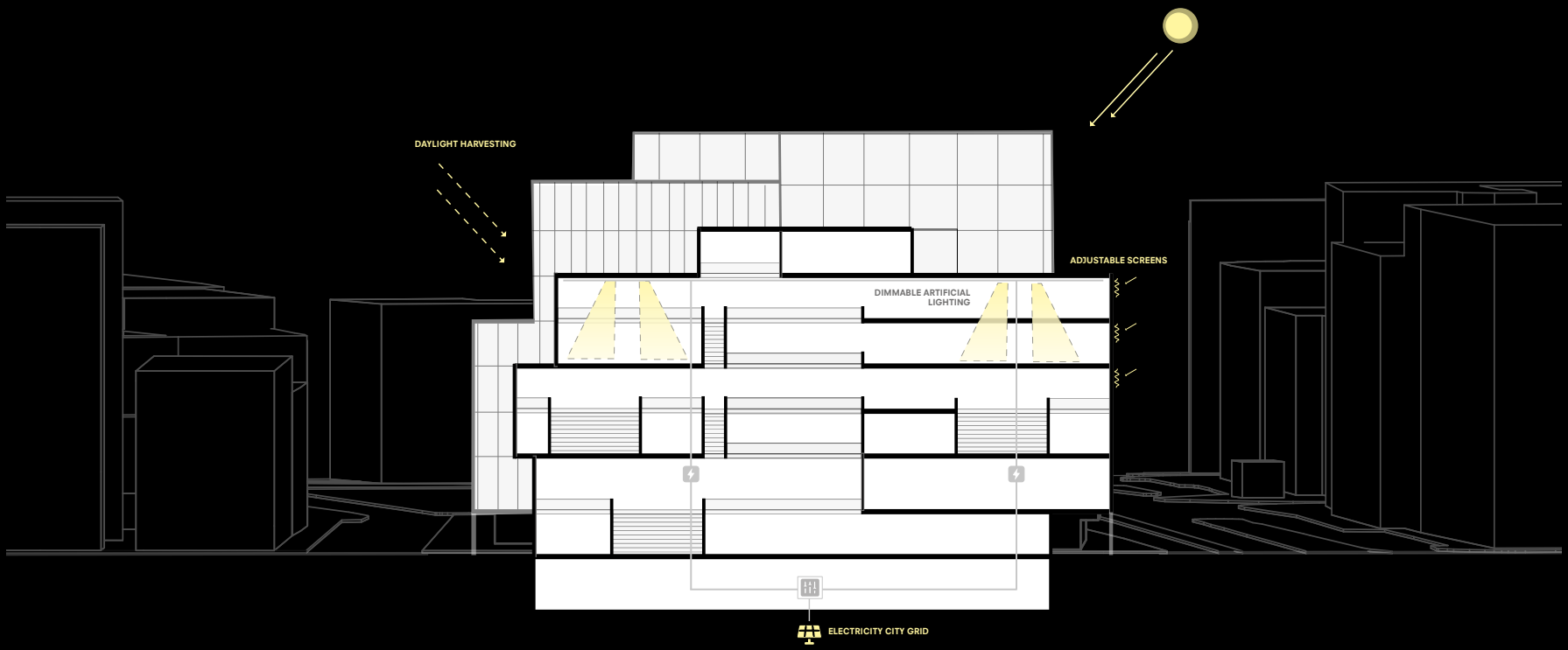
CLIMATE CONTROL



HEATING

Heating in the winter

ENERGY

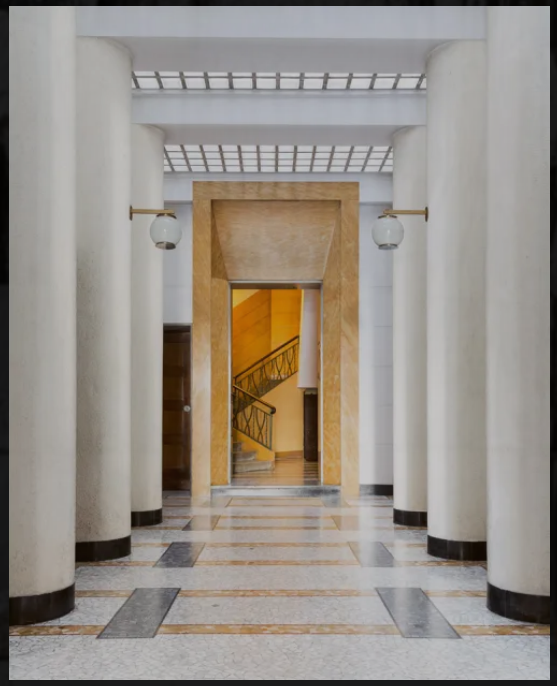


ENERGY GENERATION

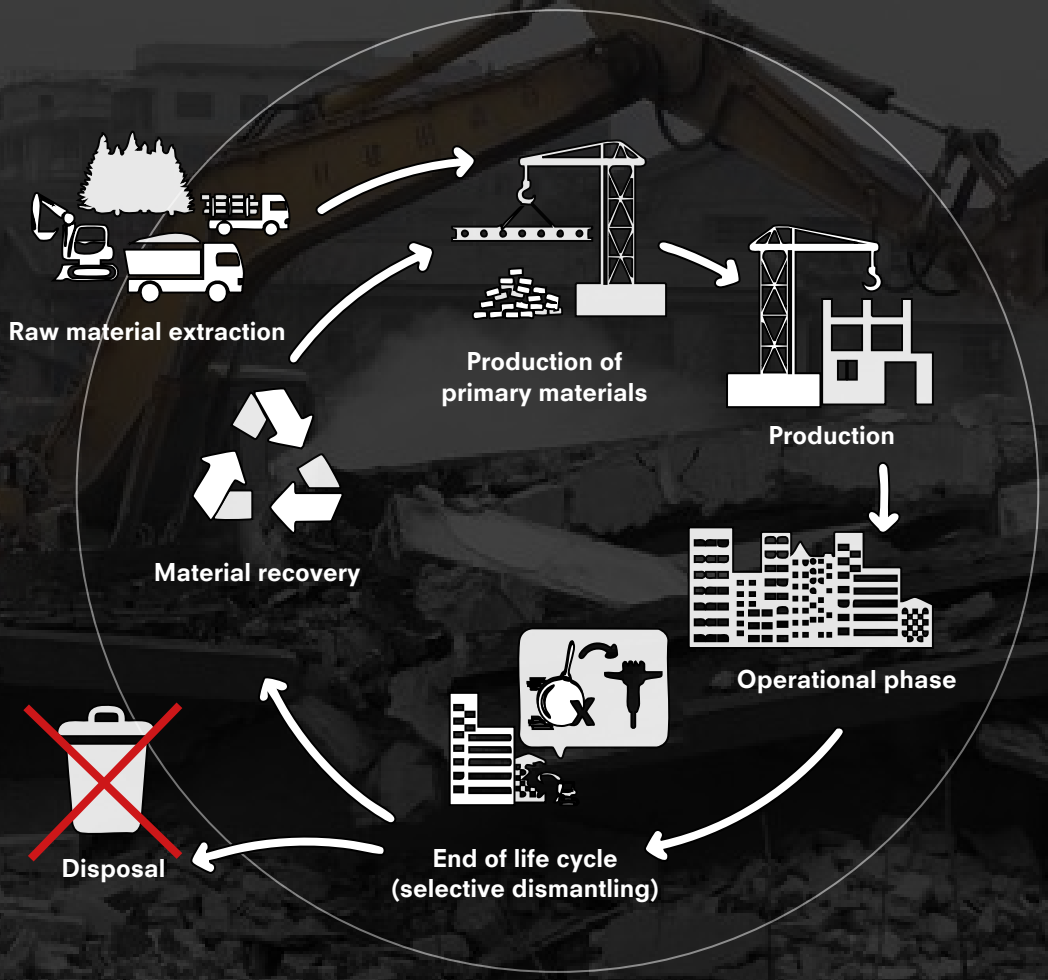
An adaptive lighting system reduces energy use; the remaining demand is supplied by green electricity from the city grid and pv panels pergola

MATERIAL LENS

MILAN IS HISTORICALLY GREAT AT HARVESTING LOCAL RAW MATERIALS...



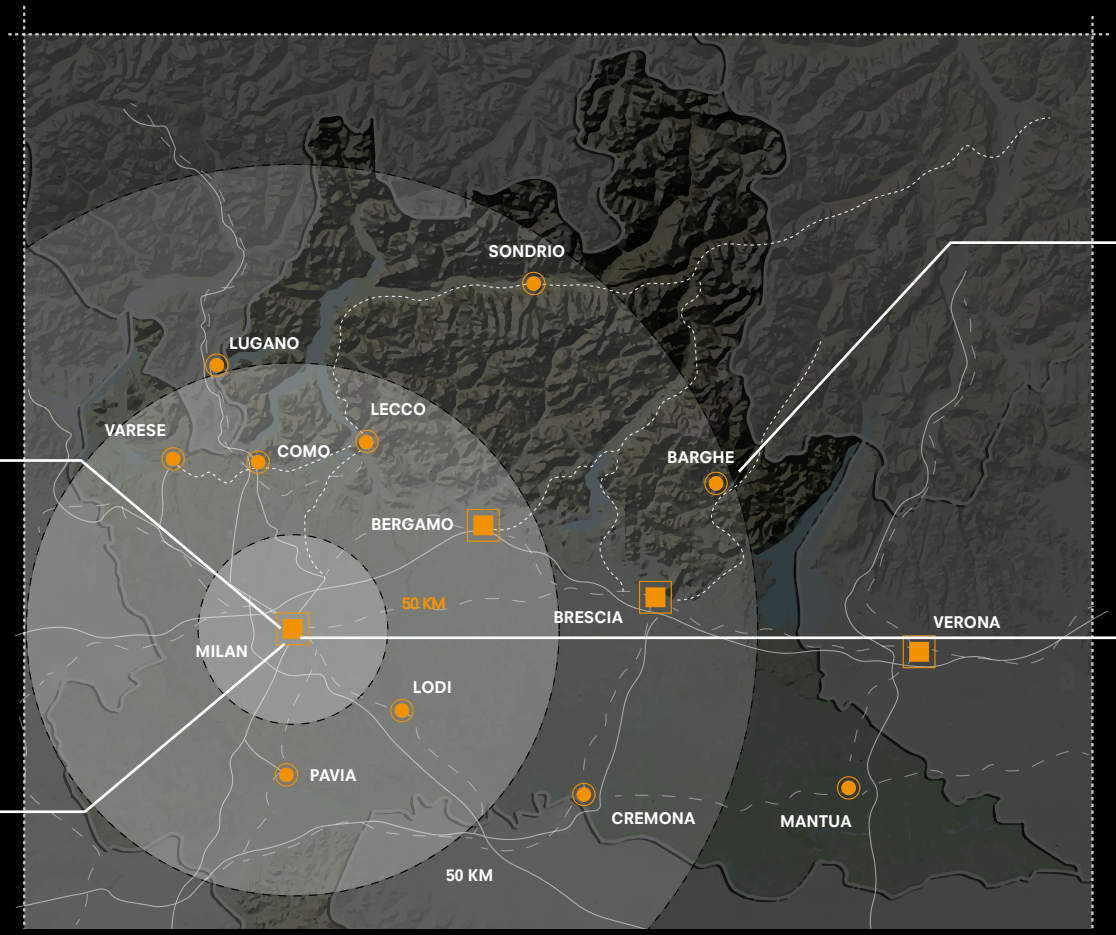
MINIMAL IMPACT ON ENVIRONMENT

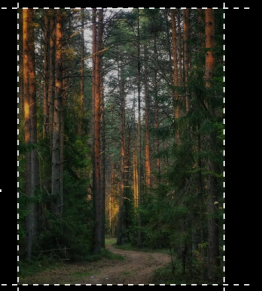


AMBITION

Raw material extraction
Production of primary materials
Production
Operational phase
End of life cycle (selective dismantling)
Disposal
Material recovery

LOCAL MATERIALS



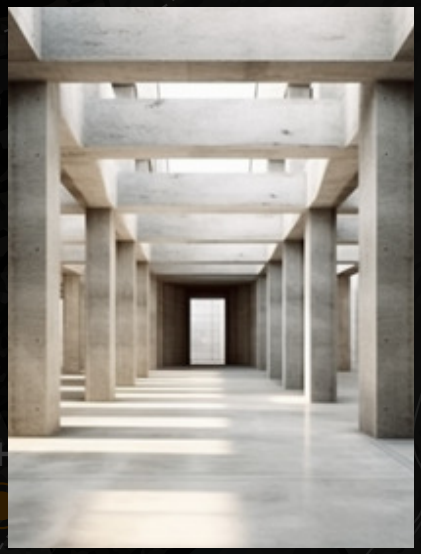


All materials are locally harvested or reclaimed
and processed to ensure a low-impact

RECLAIMED CONCRETE

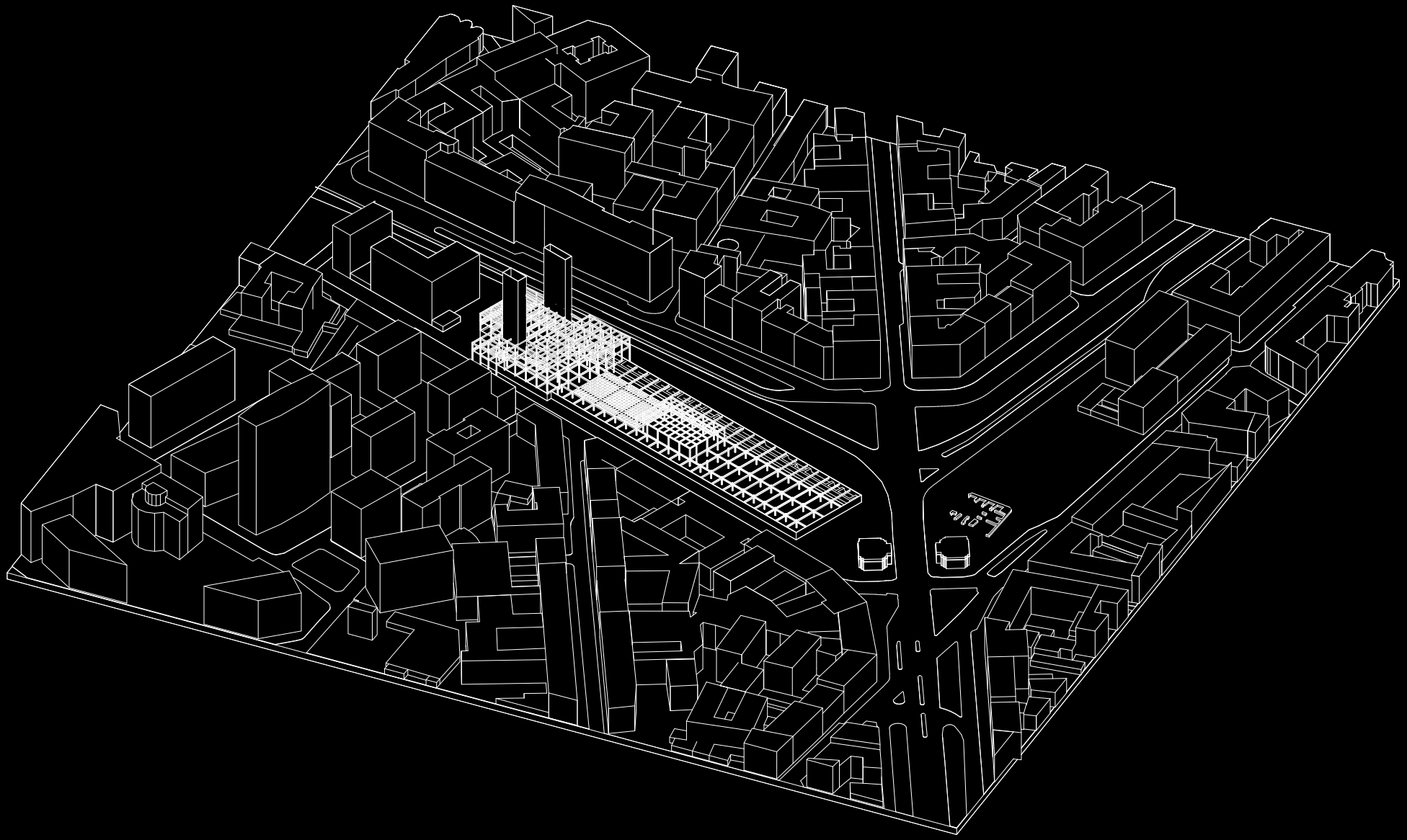
Reclaimed concrete from original site

Low-carbon binder

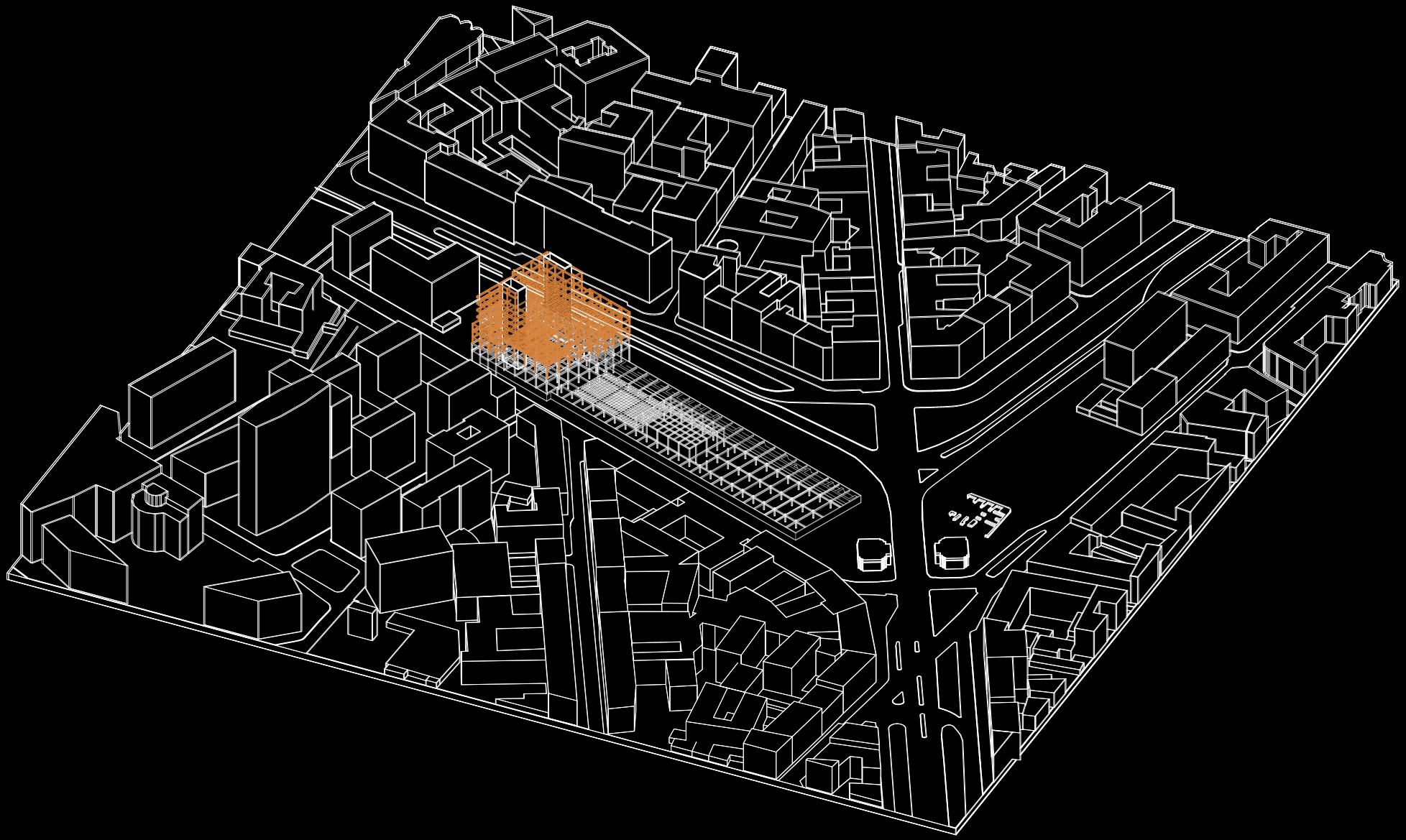


More sustainable concrete structure

CONCRETE ‘TABLE’



TIMBER STRUCTURE



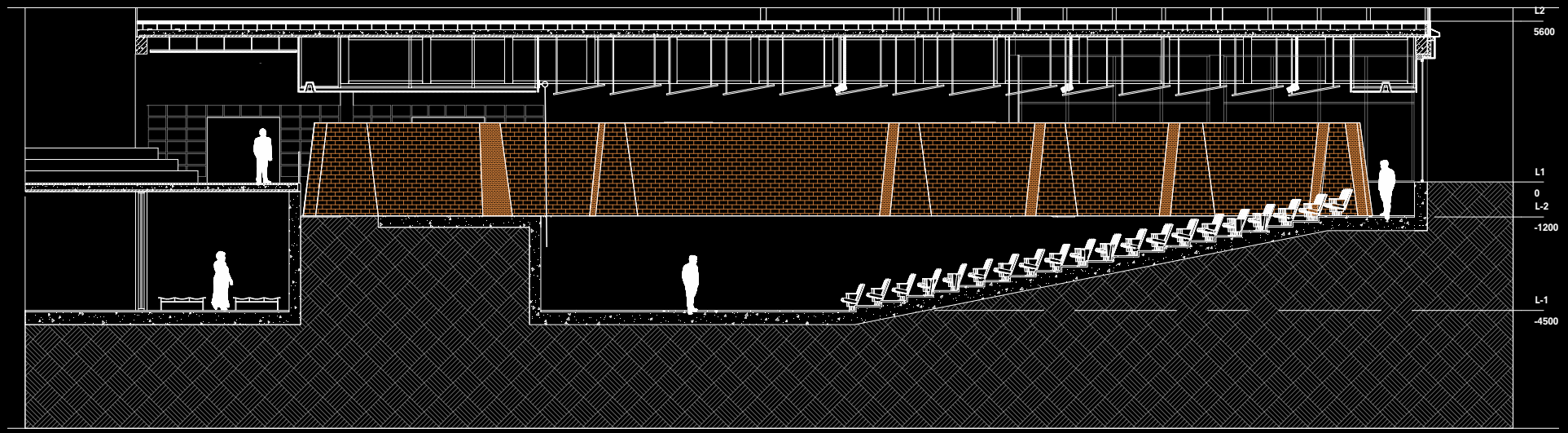
MATERIAL LENS

Alpine spruce

Engineered timber

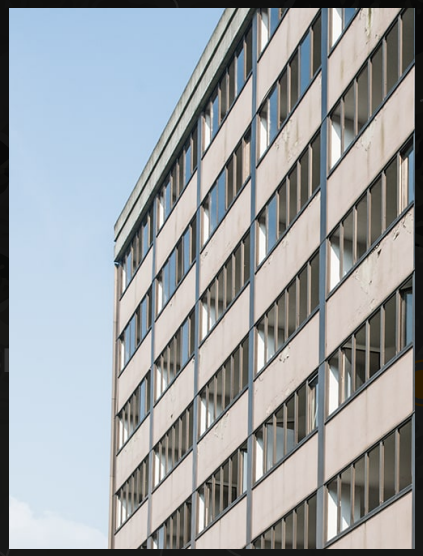
CLT panels,
Glulam columns and beams

INTERIOR FRAGMENT



NORTH WEST ELEVATION

FACADE



Aluminium from renovation and demolition streams

Alloy selection and anodizing

Modular curtain wall system

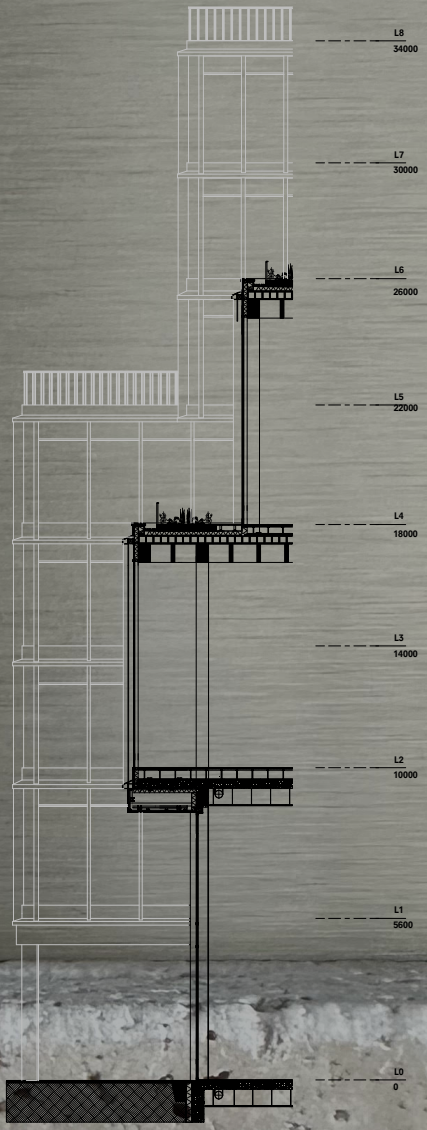
NORTH WEST ELEVATION

MATERIALS FACADE

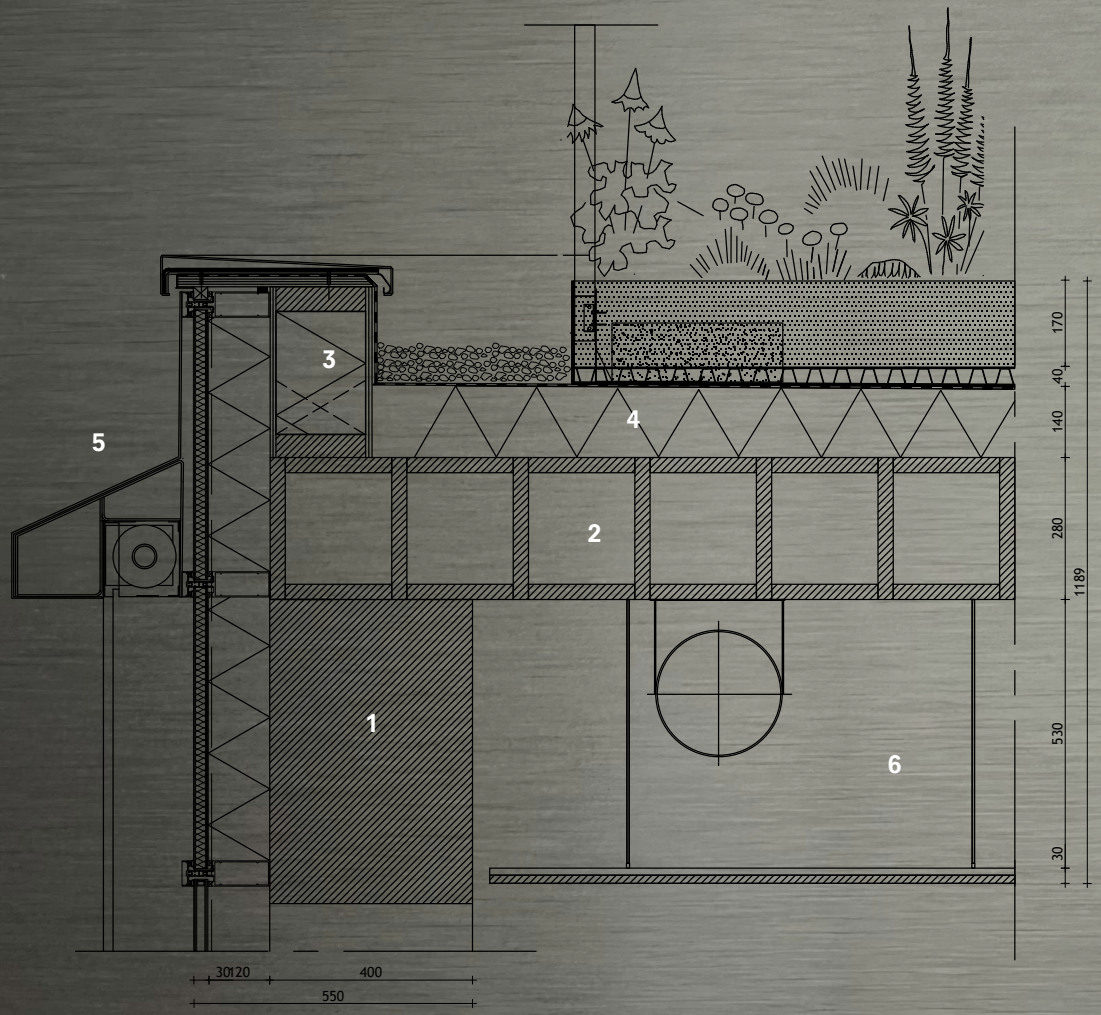
NORTH SOUTH ELEVATION

FACADE MATERIAL

FACADE FRAGMENT

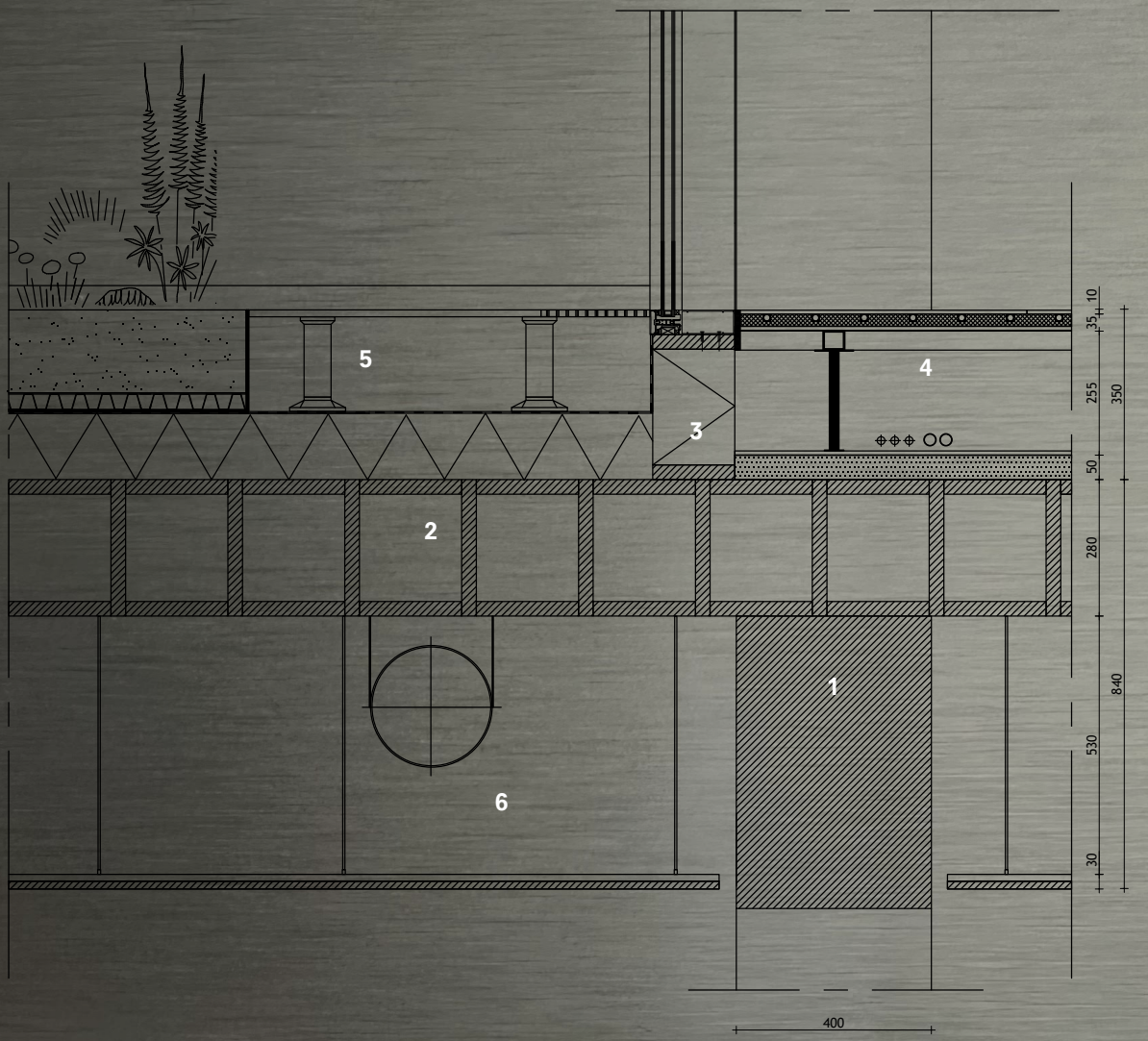


DETAIL 1



1. Timber construction beam 400x600 mm
2. Lignatur surface floor 280 mm
3. HSB-element for roof upstand, aluminium wall covering
4. Ballast layer, vegetation, railing, substrate 170 mm, filter layer, drainage layer, waterproof mechanical protection layer 3 mm, mineral wool insulation 240 mm, vapour barrier layer 3 mm
5. Aluminium curtain wall, with outside shading screens
6. Suspended ceiling, wooden slats, and space for installations

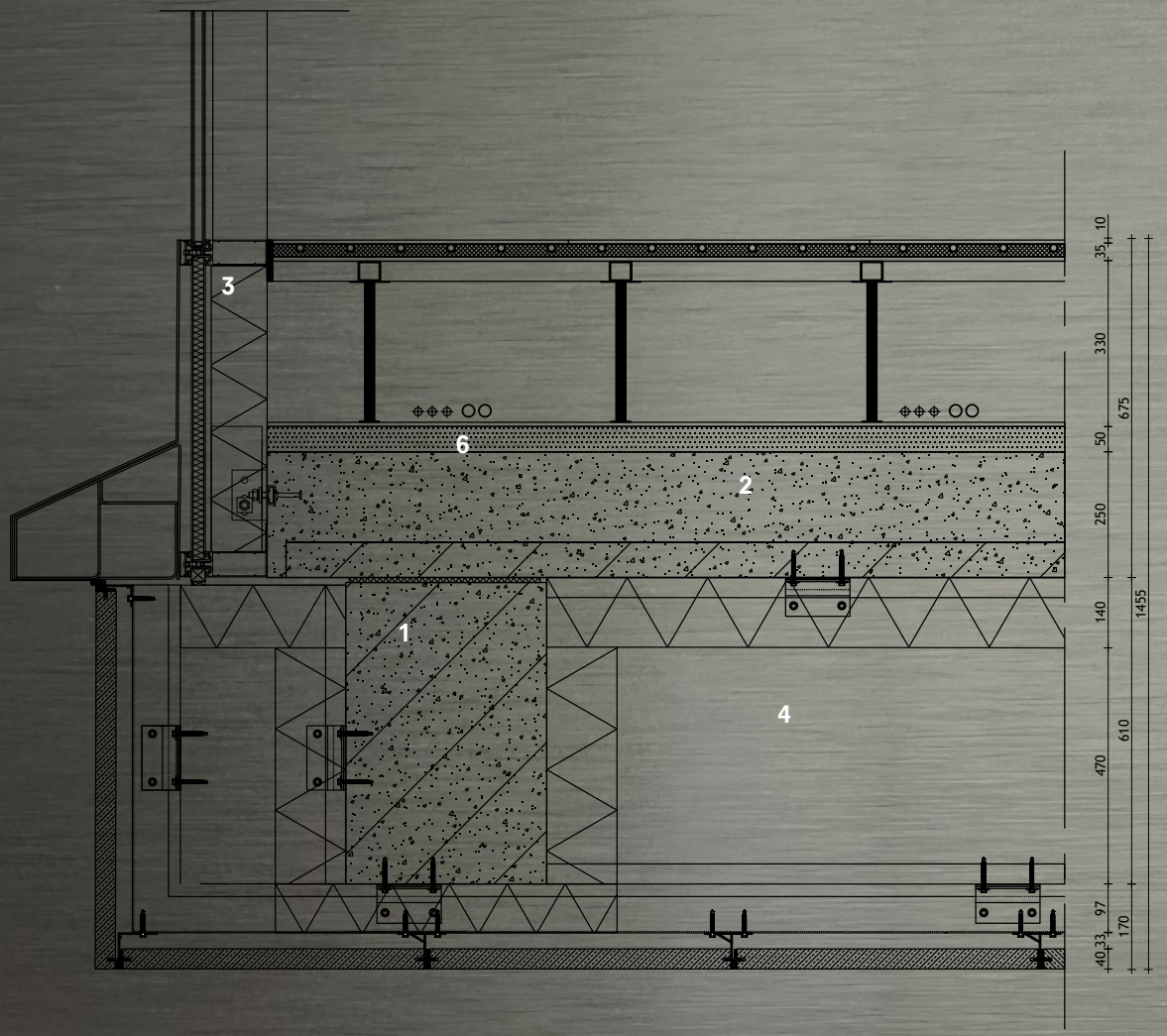
DETAIL 2



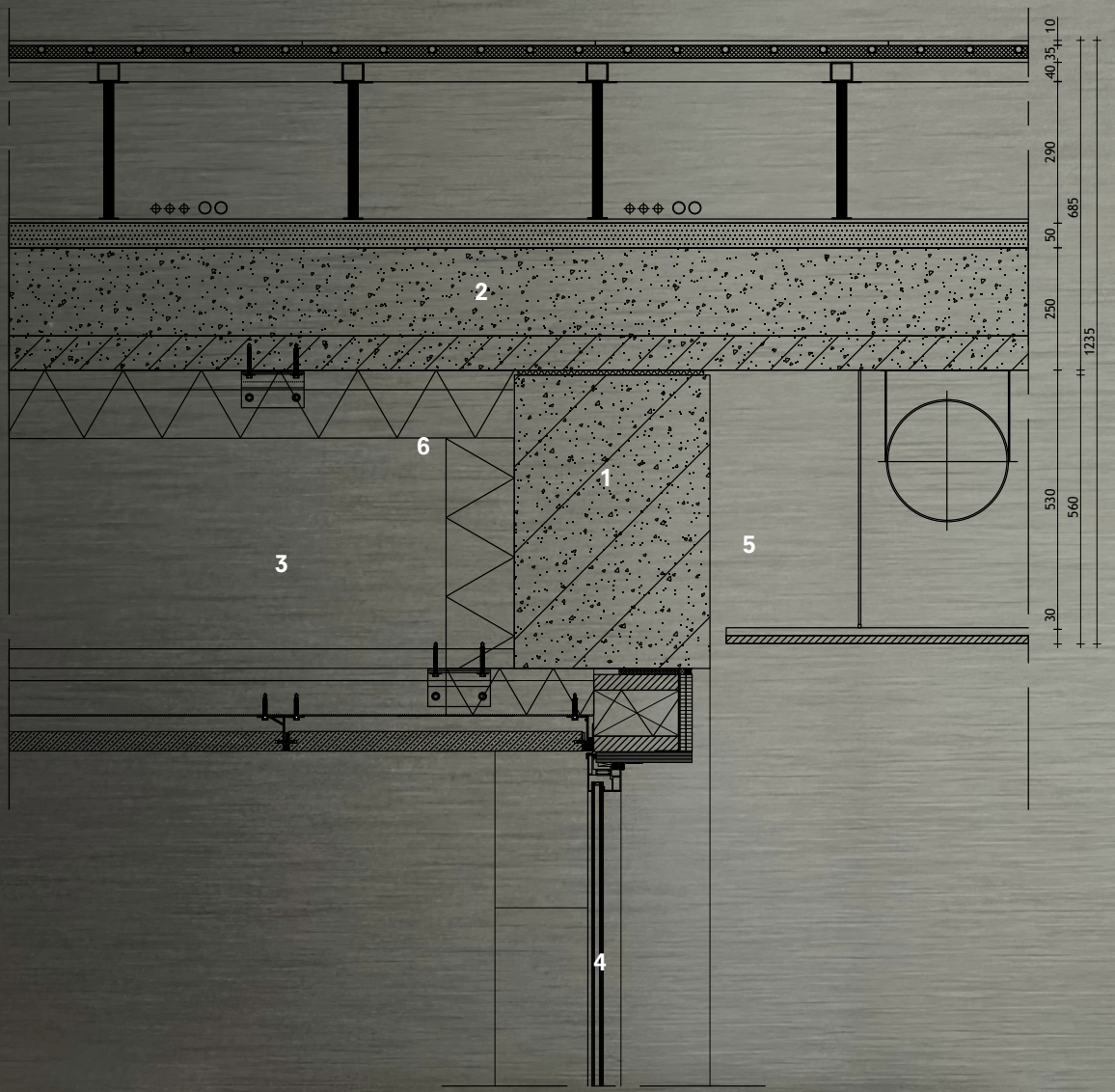
1. Timber construction beam 400x600 mm
2. Lignatur surface floor 280 mm
3. HSB-element, aluminium curtain wall
4. Raised acces floor; marmoleum floor panels 600x600 mm (concrete look), underfloor heating screed 60 mm , stringers (steel profiles), adjustable pedestals (steel columns), rubber acoustic pad, load-bearing leveling layer 50 mm
5. Concrete tiles, tile supporters, threshold drain, waterproof mechanical protection layer 3 mm, mineral wool insulation 240 mm, vapour barrier layer 3 mm
6. Suspended ceiling, wooden slats, and space for installations

DETAIL 3

1. Concrete construction beam 400x600 mm
2. Raised acces floor; marmoleum floor panels 600x600 mm (concrete look), underfloor heating screed 60 mm, stringers (steel profiles), adjustable pedestals (steel columns), rubber acoustic pad, load-bearing leveling layer 50 mm, wide slab floor 250 mm
3. Aluminium curtain wall with anodised aluminium sandwich panels and cover
4. Travertine panel 40 mm, agraffe anchors, T aluminium rails, adjustable brackets, ventilated cavity with thermal insulation 130 mm, weather-resistive barrier, secondary steel frame (cold-formed C-studs), mineral wool insulation 140 mm

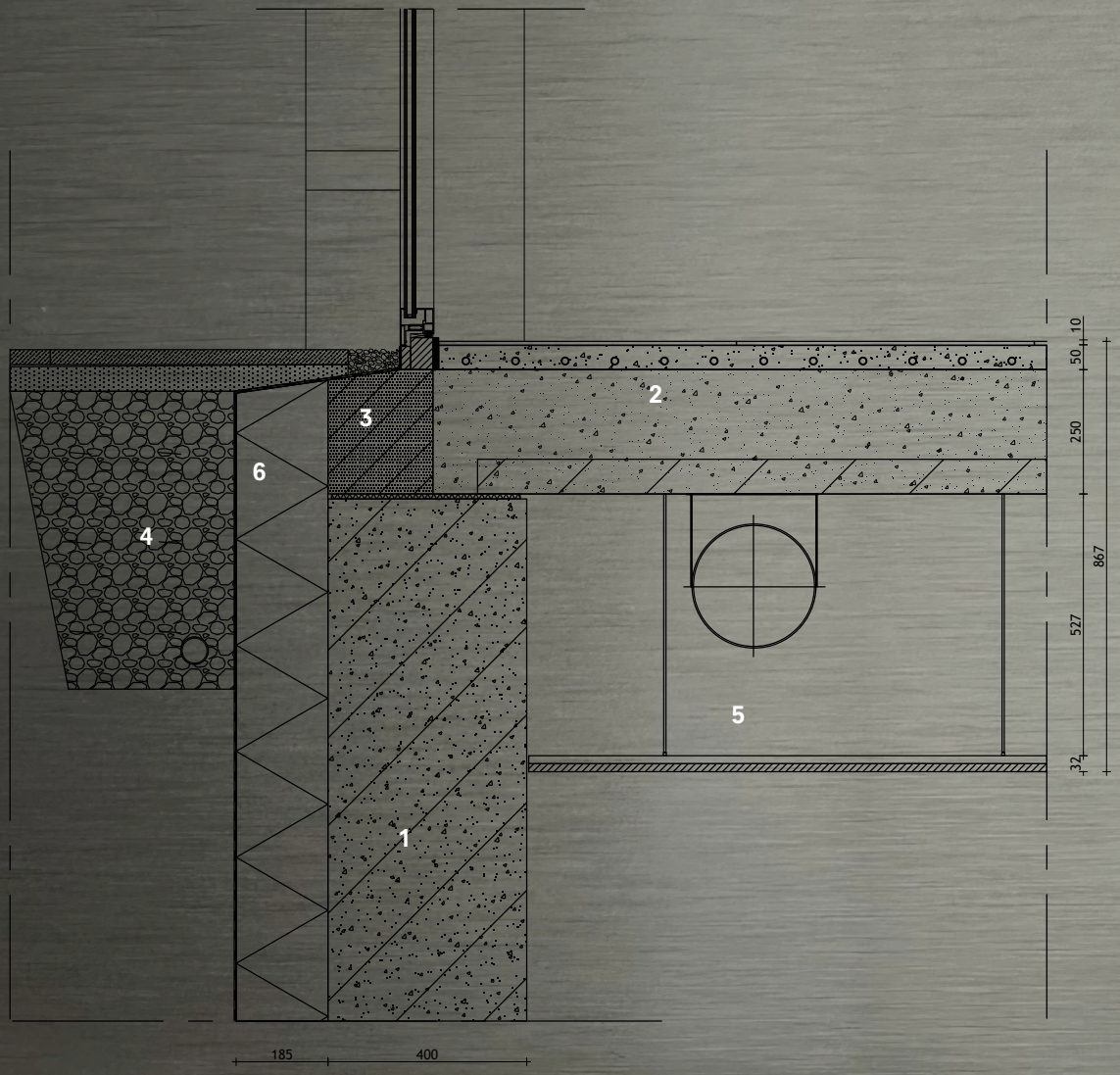


DETAIL 4



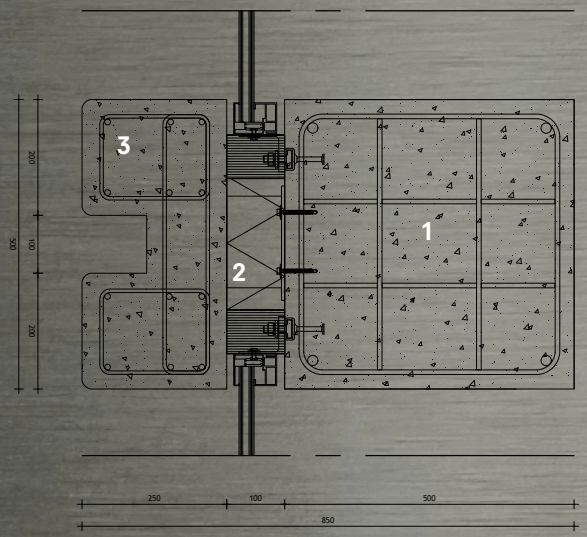
1. Concrete construction beam 400x600 mm
2. Raised acces floor; marmoleum floor panels 600x600 mm (concrete look), underfloor heating screed 60 mm, stringers (steel profiles), adjustable pedestals (steel columns), rubber acoustic pad, load-bearing leveling layer 50 mm, wide slab floor 250 mm
3. A prefabricated reinforced concrete tile with tavertine aggregate surface finish 4 mm, agraffe anchors, T aluminium rails, adjustable brackets, ventilated cavity, weather-resistive barrier, secondary steel frame (cold-formed C-studs), mineral wool insulation 140 mm
4. HSB element with aluminium window wall system installed between structural concrete columns finished with travertine panels
5. Suspended ceiling, wooden slats,

DETAIL 5



1. Concrete structure 400 mm
2. Marmoleum floor panels 600x600 mm (concrete look), floor screed with heating 50 mm, wide slab floor 250 mm
3. Aluminium window wall system installed between structural concrete columns finished with travertine panels, water-resistance layer, thermal insulationg blocks at wall base, thermal insulation 185 mm (mineral wool)
4. Stone tiles 40 mm, compacted sand bed, dranaige layer, water-permeable gravel, backfill soil
5. Suspended ceiling, wooden slats, and space for installations

DETAIL 6



1. Load-bearing structure, reinforced concrete structure 400 mm
2. Aluminium window frames, mineral wool (80kg/m3) 100 mm, Vacuum Insulation Panels (VIP) 100 mm, water-resistance layer
3. A prefabricated reinforced concrete element 250 mm with a travertine aggregate surface finish 4 mm, treated with a hydrophobic coating to provide water repellency and protection against soiling and discoloration

INTRODUCTION

DESIGN BRIEF

CONCEPT

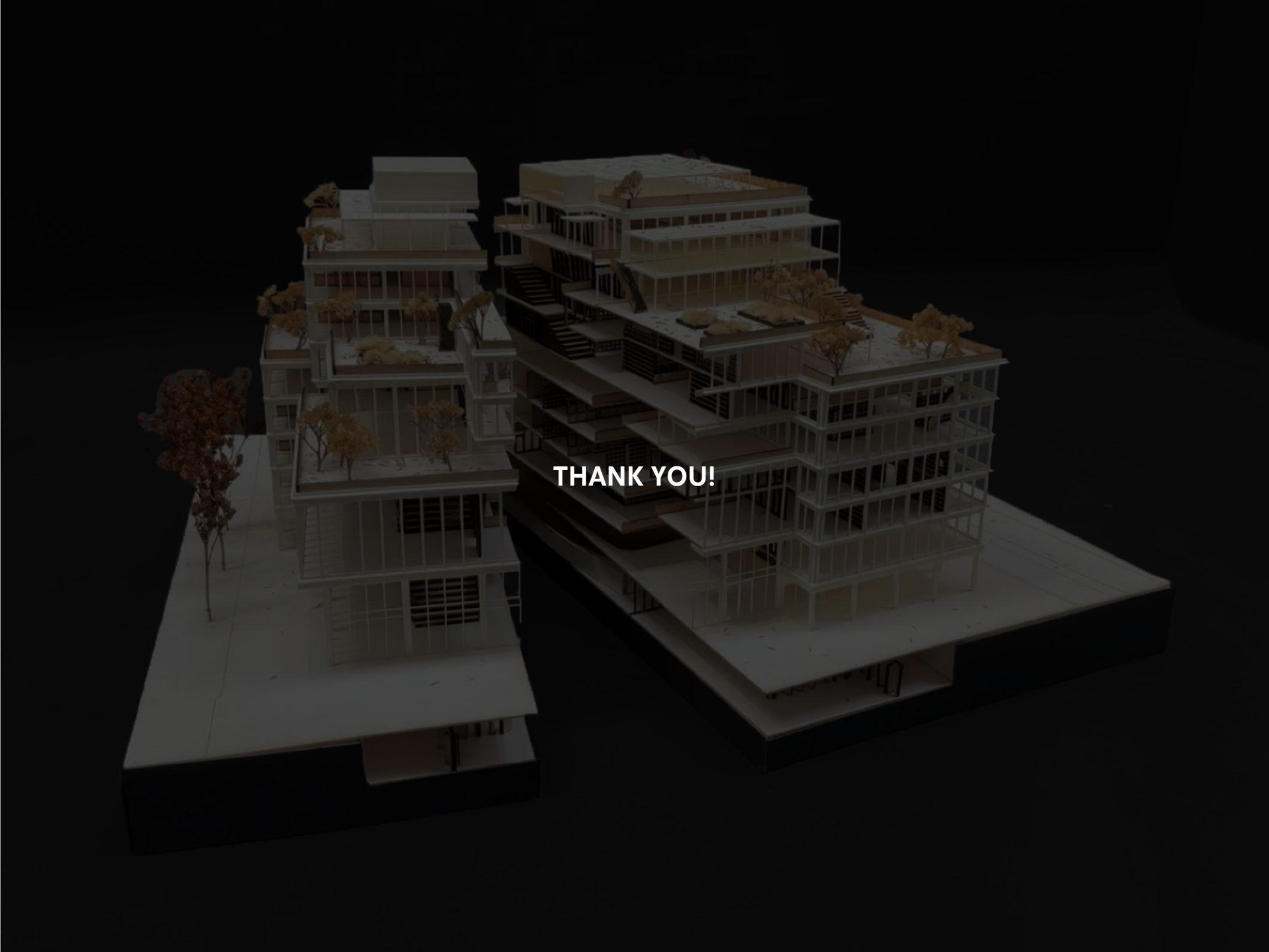
DESIGN

IMPLEMENTATION

CONCLUSION

CoLab

Collaborative Laboratory


THANK YOU!