LIPEDIA
JOHN CHRISTY MURRAY

CLIMBING WITH
MOUNTAIN MEN

URBAN ARCHITECTURE

P5 PRESENTATION
MAAIKE SALTERS

MASTERPLAN

RESEARCH

DESIGN

WARP AND WEFT

EXPLORING THE INTERSECTION OF WEAVING AND ARCHITECTURE

ACTIVE INGREDIENTS

Active ingredients are chemical substances that are responsible for the medicinal effect of a medicinal product. Active ingredients are also known as pharmaceutical ingredients, medicinal substances, or active pharmaceutical ingredients (APIs).

STUDIO INTRODUCTION

‘Urban Architecture studies medium-size urban sites that are inaccessible for the regular tools of urbanism, and where expectations of urban design can only be fulfilled by architecture. Adding a building on these locations thus means (re-)designing an environment.’

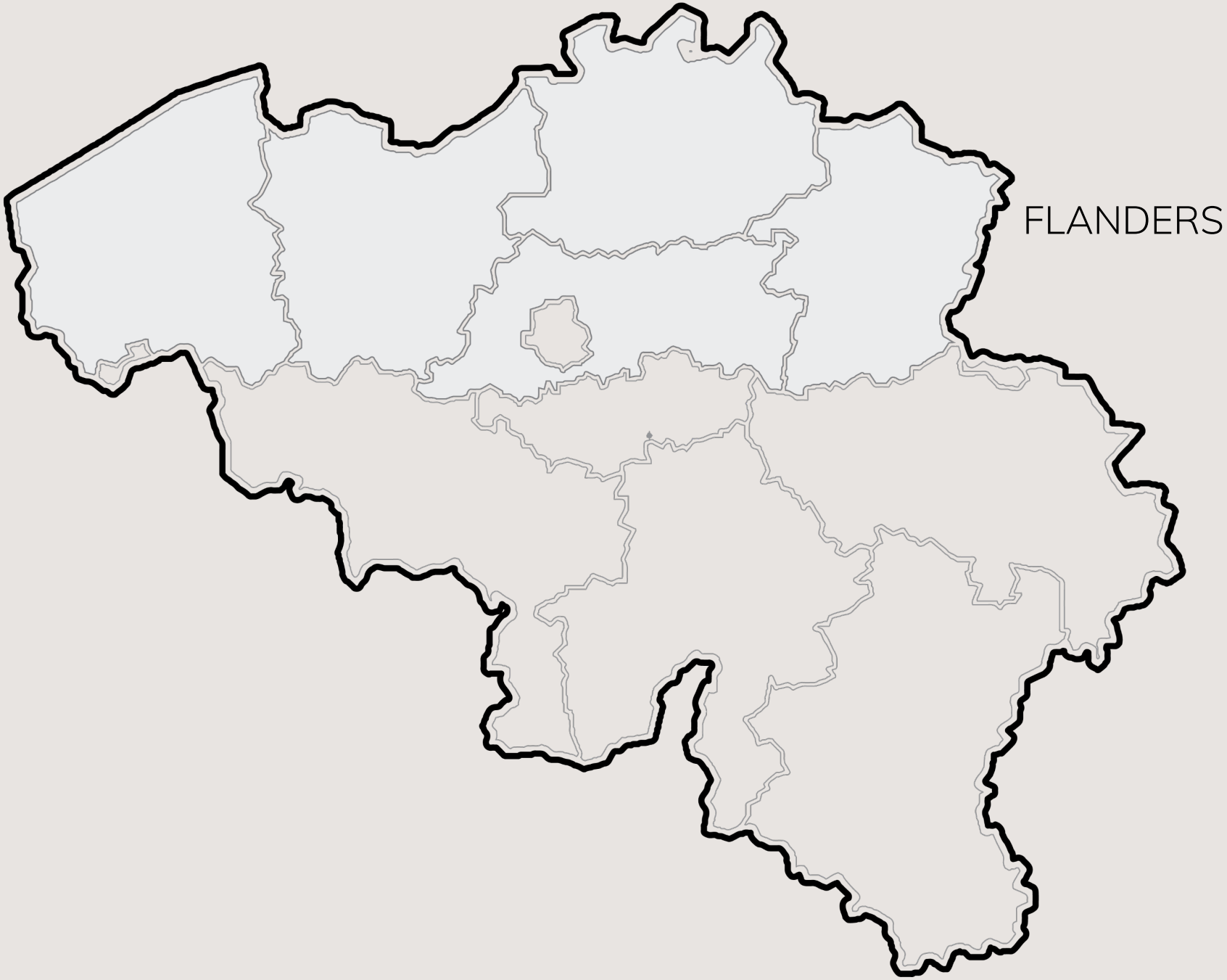
LOCATION

L

LOCATION

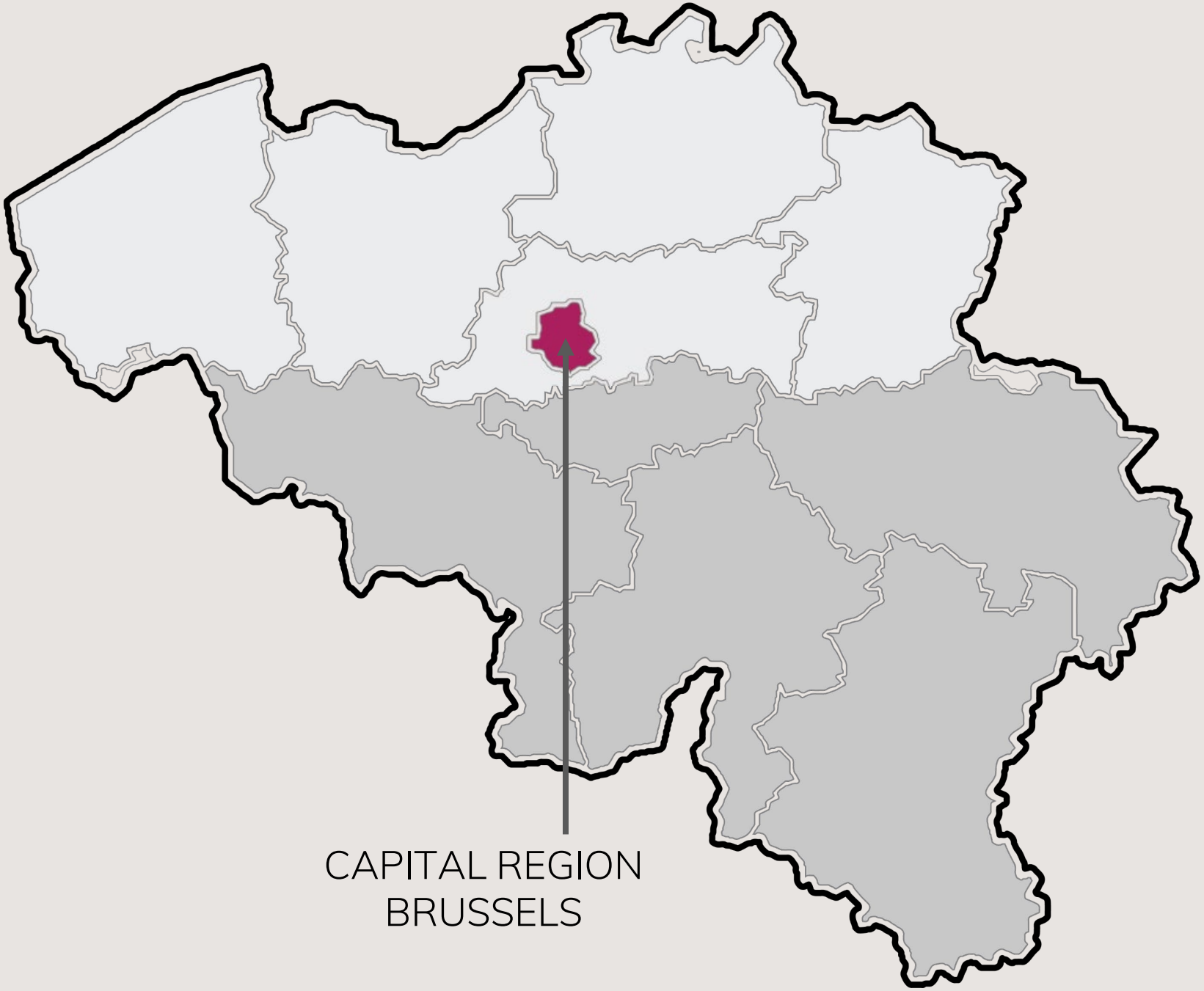
LOCATION

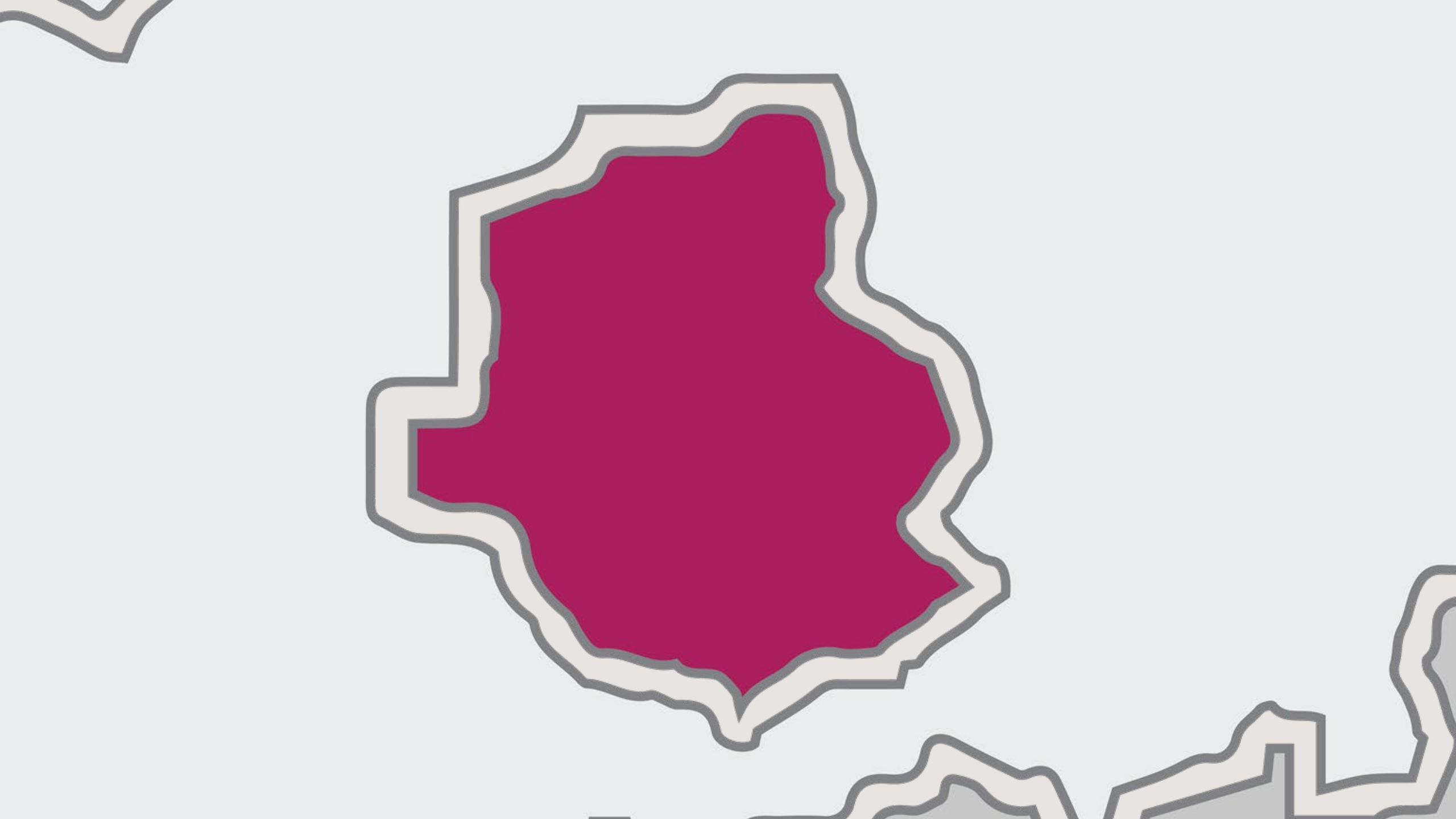
LOCATION



LOCATION

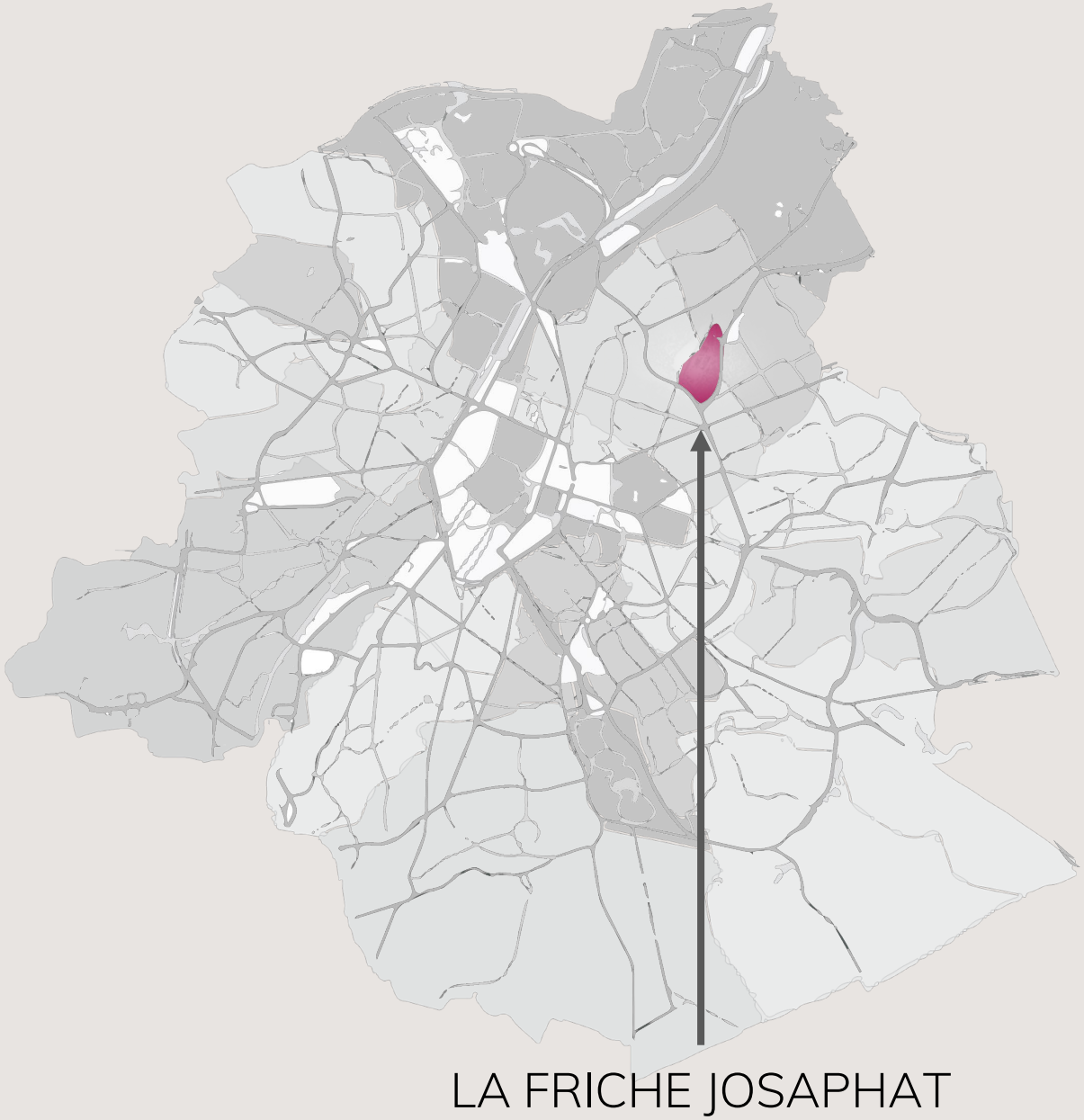
LOCATION

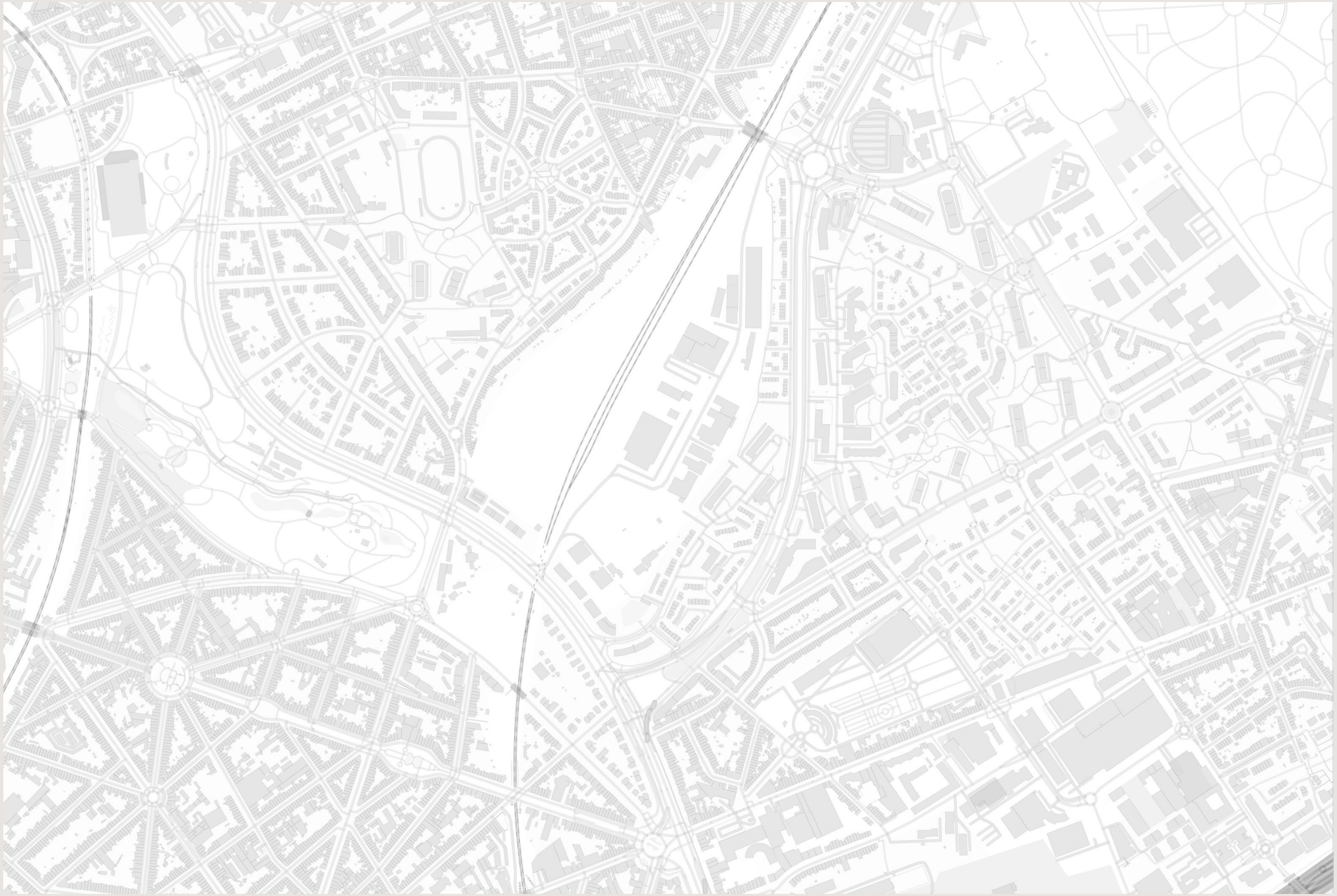


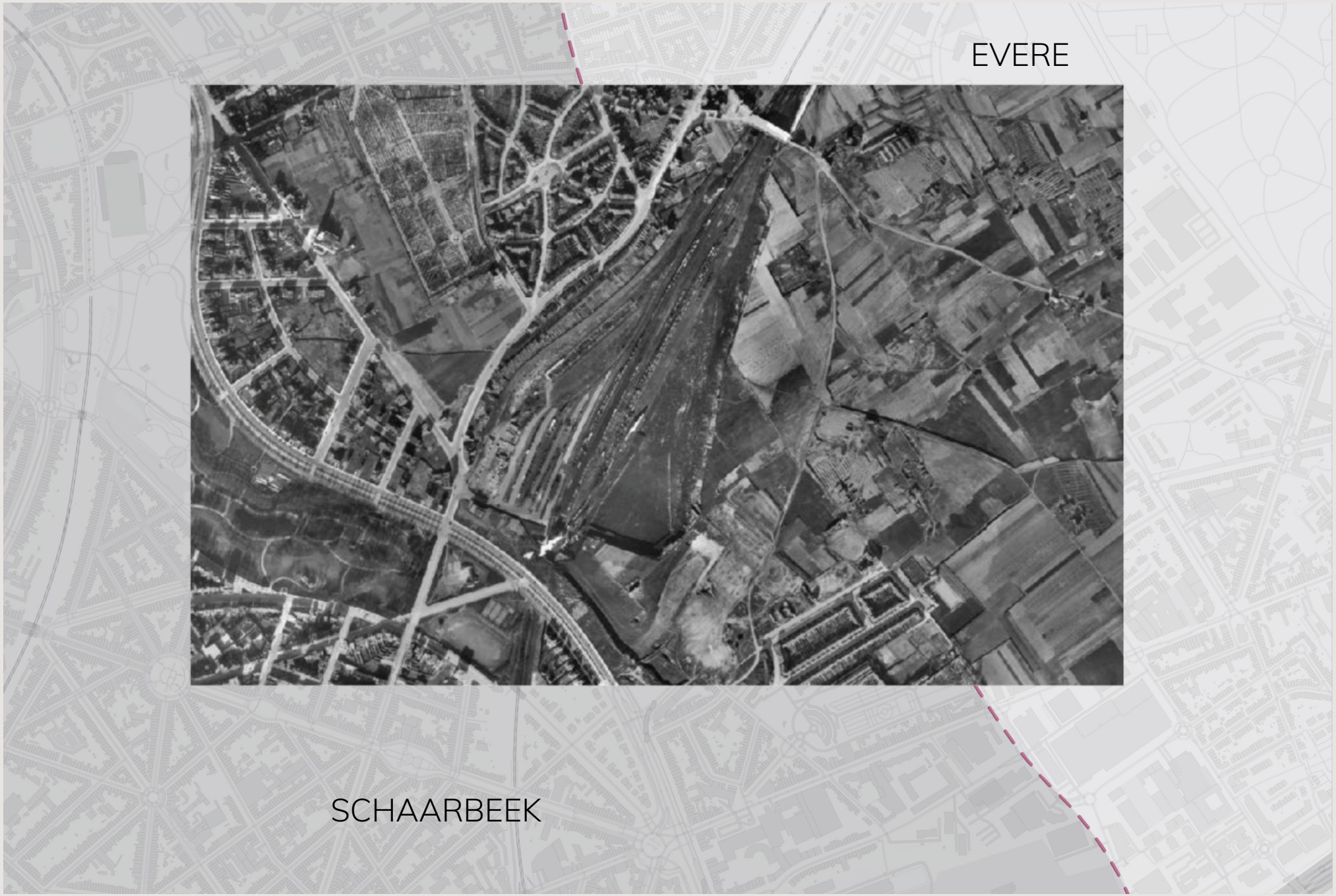


LOCATION

LOCATION






EVERE
SCHAARBEEK


EVERE

LOGBOOK

PRODUCTIVE- CITY P1

PRODUCTIVE- CITY INTRO MASTERPLAN

FINAL MASTERPLAN + DE- SIGN P3

BUILDING TECHNOL- OGY RESEARCH

INDIVIDUAL DESIGN PROCESS

P3 P4 P5

FEB MRC APR MAY JUN

RESEARCH

RESEARCH

RESEARCH

MOTIVATION THEME

RESEARCH QUESTION

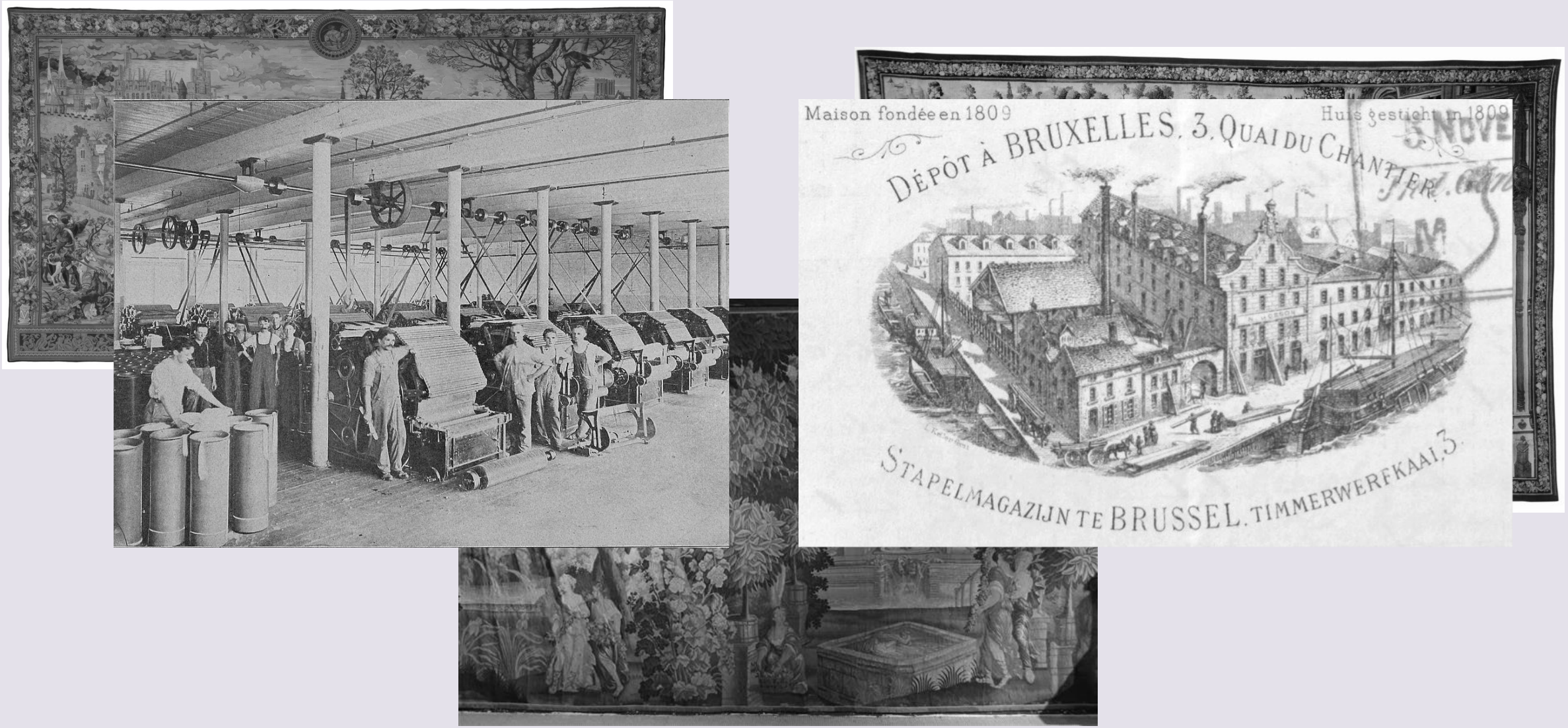
METHOD

RESULTS

MOTIVATION THEME

INTEREST

MOTIVATION THEME



PROBLEM STATEMENT

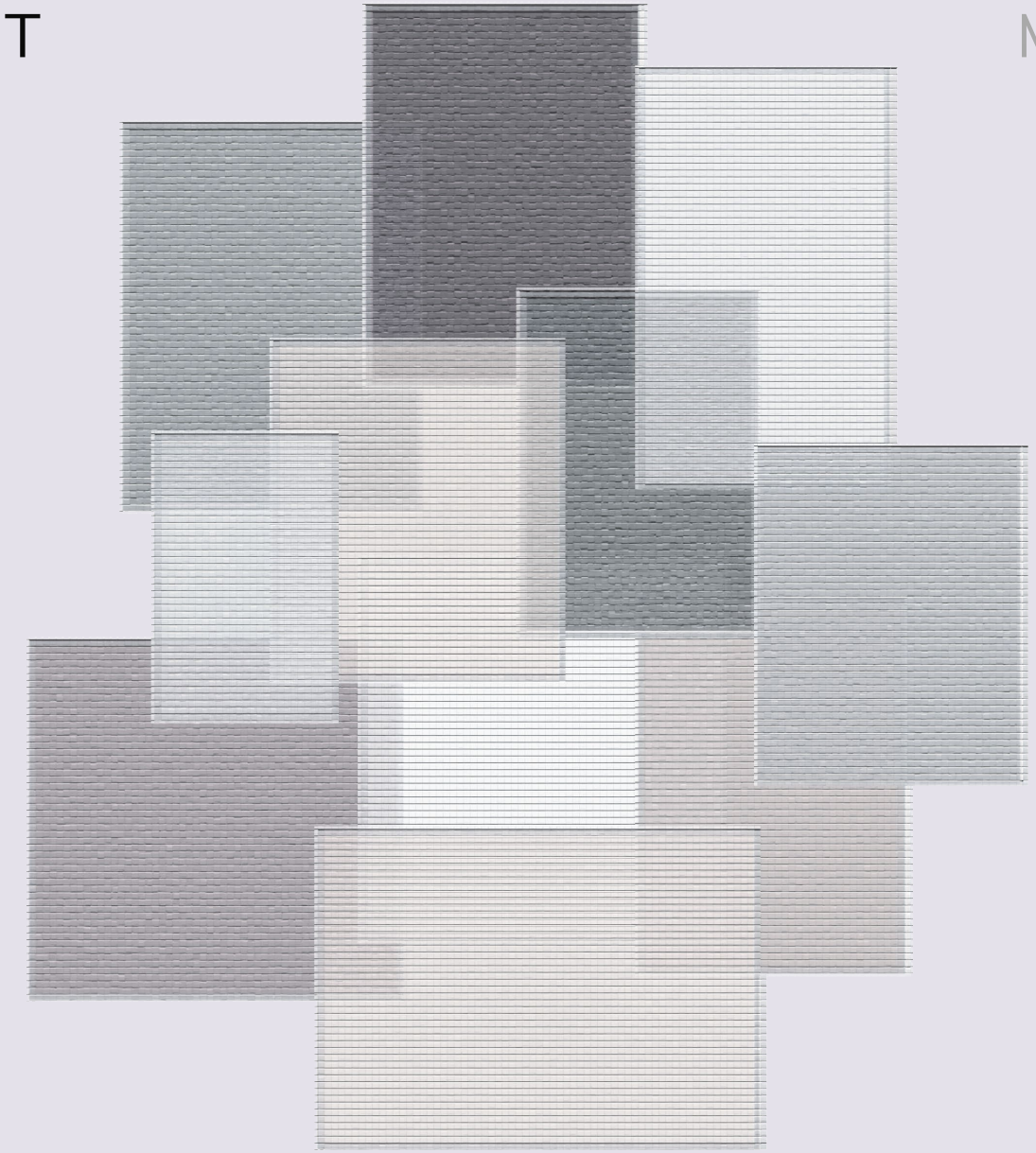
MOTIVATION THEME

BRONXIFICATION

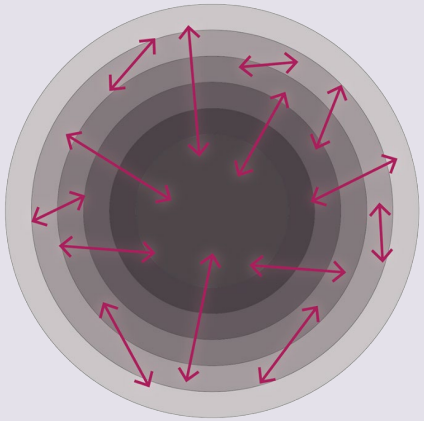
DISNEYFICATION

BRUSSELIZATION

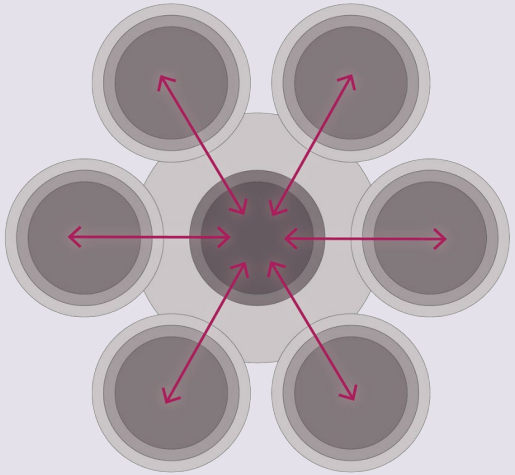
PROBLEM STATEMENT



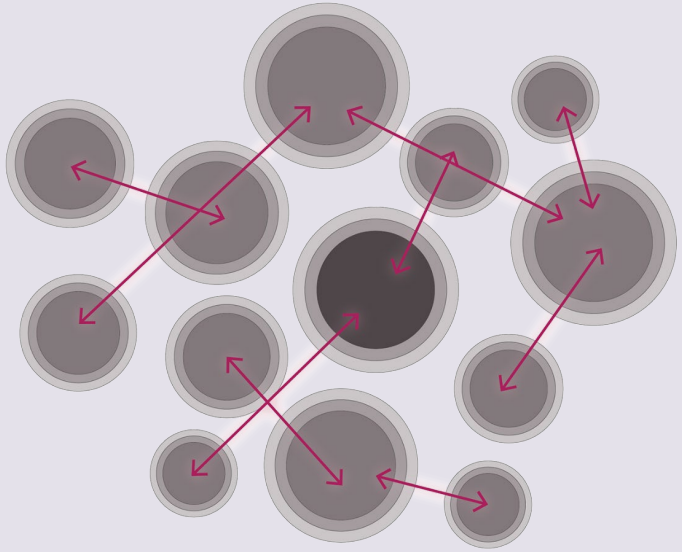
MOTIVATION THEME



MONOCENTRIC
CITY



POLYCENTRIC
CITY



NETWORK
CITY

‘We should reconsider where the most important spaces of the city lie. This always used to be the city center, but what about the edges of the city. The lines and zones that sperate different ethnic communities, economic classes or functional activities?‘ - Richard Sennett

RESEARCH QUESTION

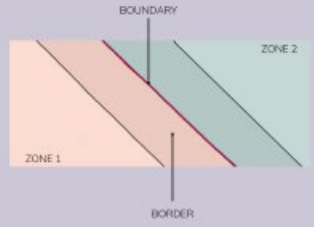
RESEARCH QUESTION

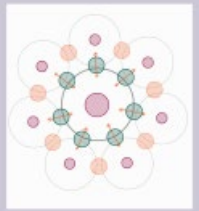
How to redefine the morphological elements that mark (urban) edges and define borderzones to interconnect fragments and counteract capsular urbanism?

METHOD

METHOD

RESEARCH PART 1





INTEGRATION

IMPACT

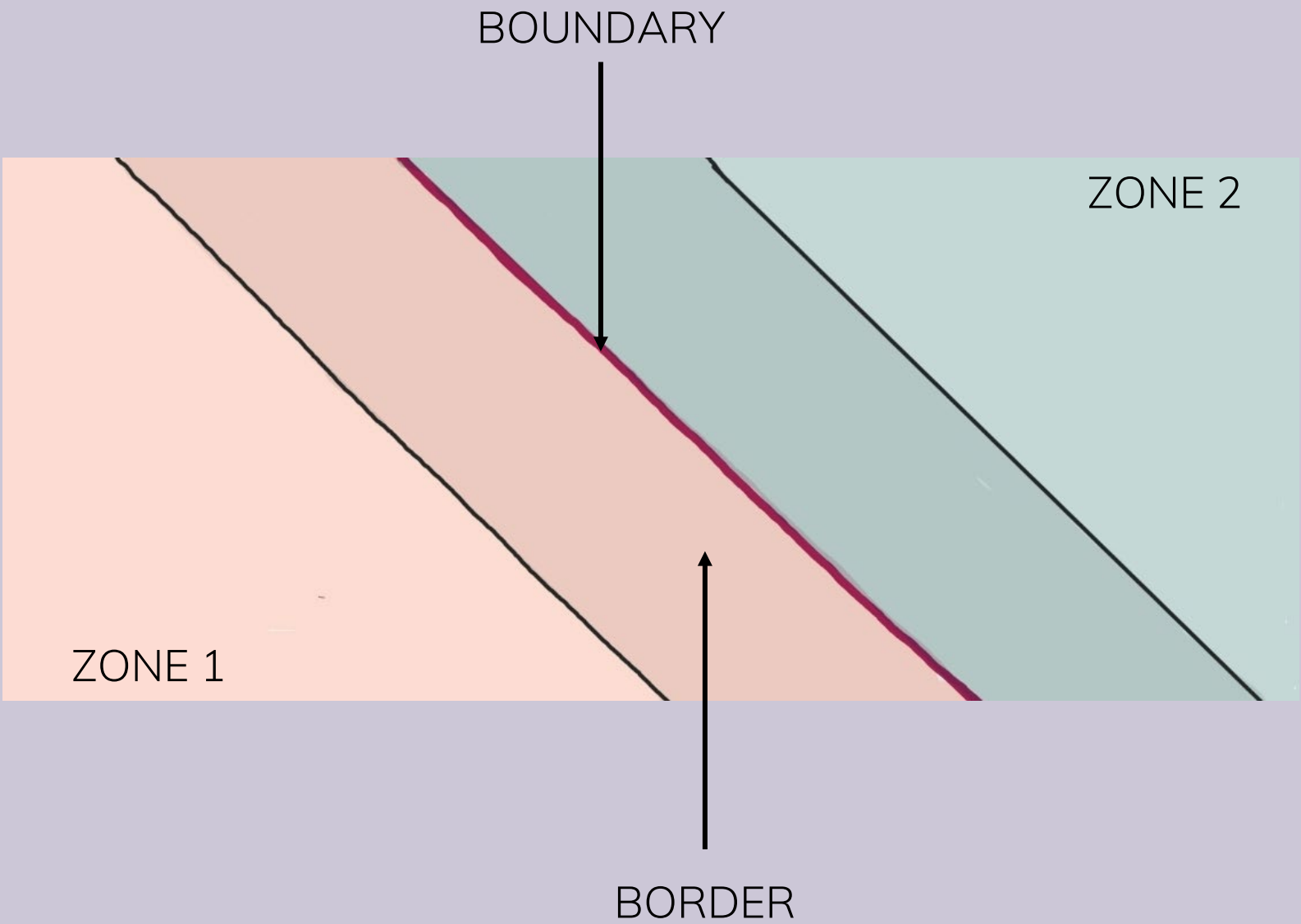
PHYSICAL SITE RESEARCH

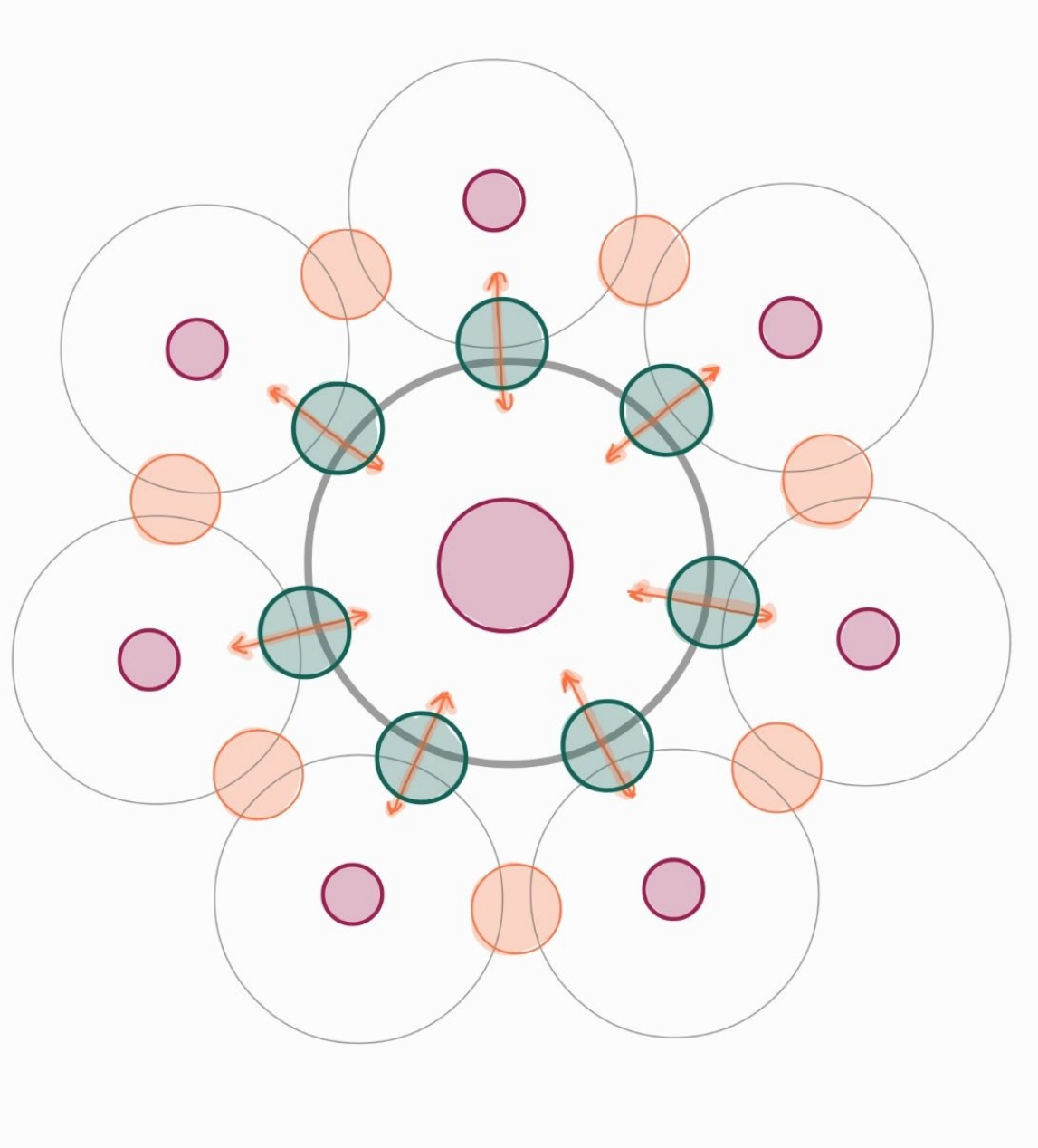
RESEARCH PART 2

INTEGRATION

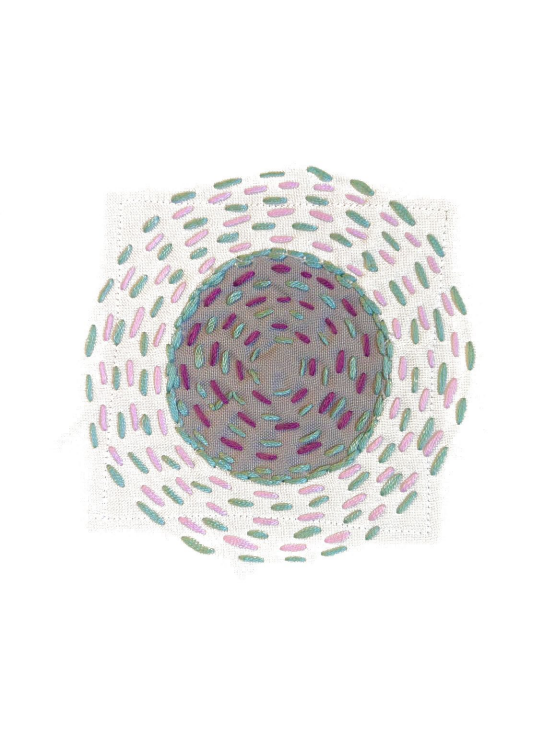
INTEGRATION OVERLAP ORIENTATION WEAVING

METAPHORICAL TEXTILE RESEARCH

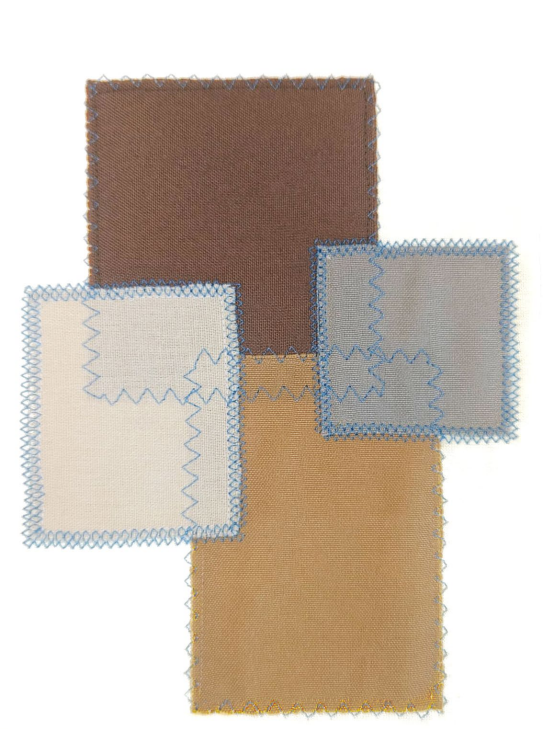

BOUNDARY
ZONE 2
ZONE 1
BORDER



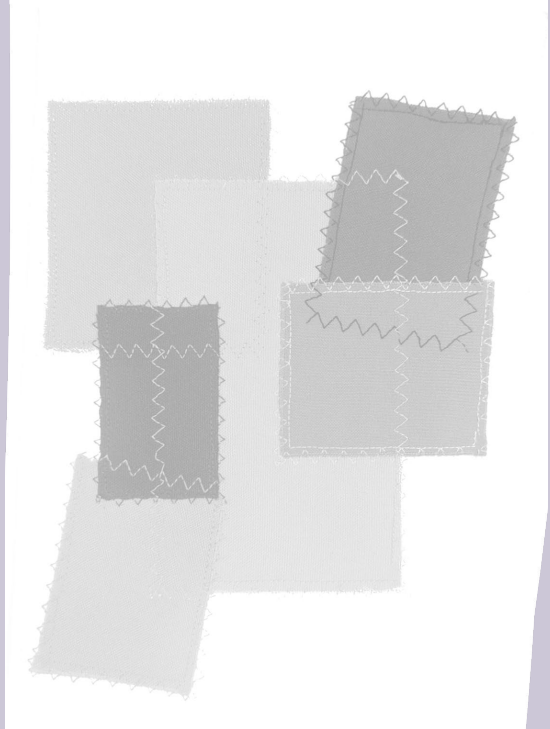
RESEARCH PART 2



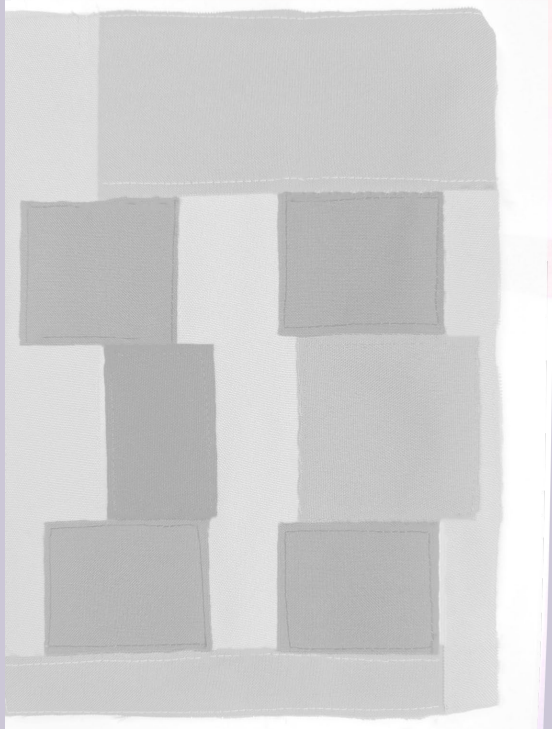
INTEGRATION



OVERLAP



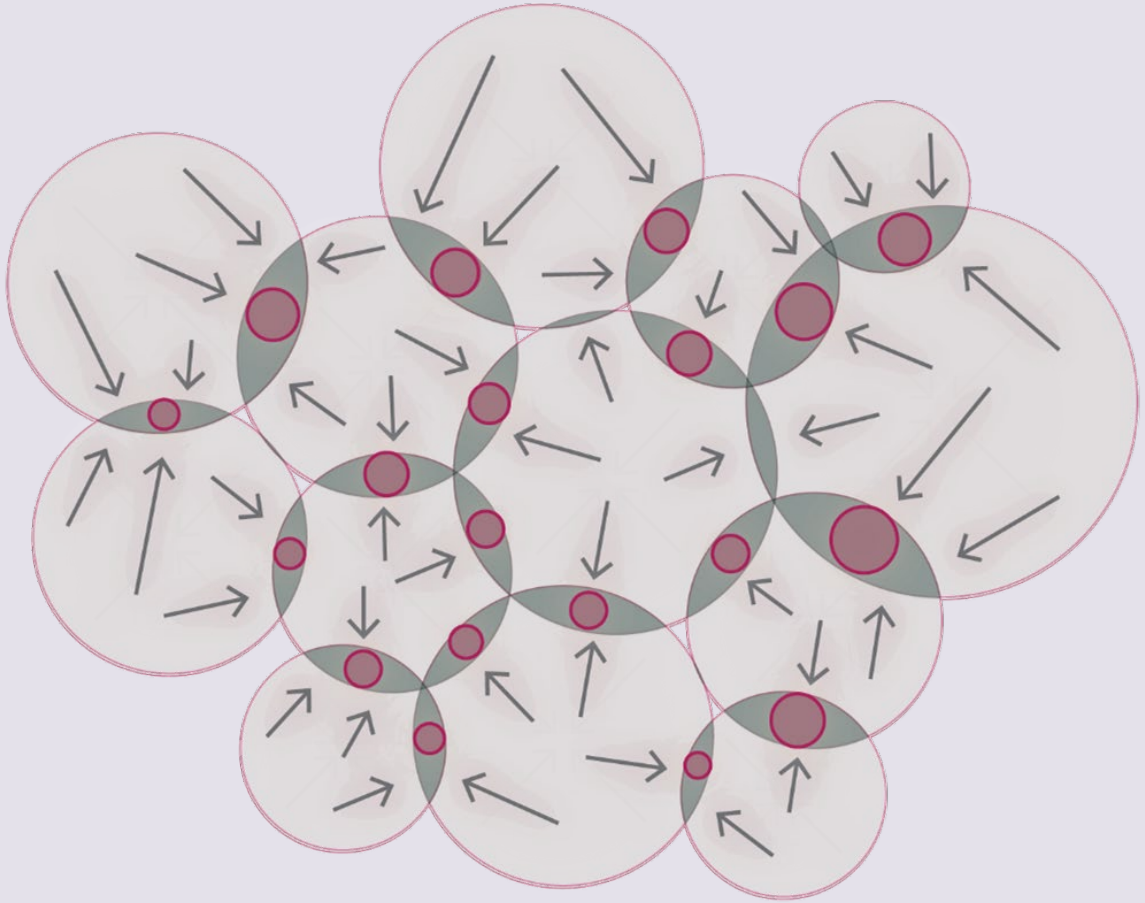
ORIENTATION



WEAVING

RESULTS

LITERATURE RESEARCH



MOTIVATION THEME

PATCHWORK CITY

BORDERS AND BOUNDARIES

TEXTILE

RESEARCH QUESTION

HOW TO REDEFINE THE MORPHOLOGICAL ELEMENTS THAT MARK (URBAN) EDGES AND DEFINE BORDERZONES TO INTERCONNECT FRAGMENTS AND COUNTERACT CAPSULAR URBANISM?

METHOD

RESEARCH PART 1: PHYSICAL BOUNDARIES

RESEARCH PART 2: TEXTILE

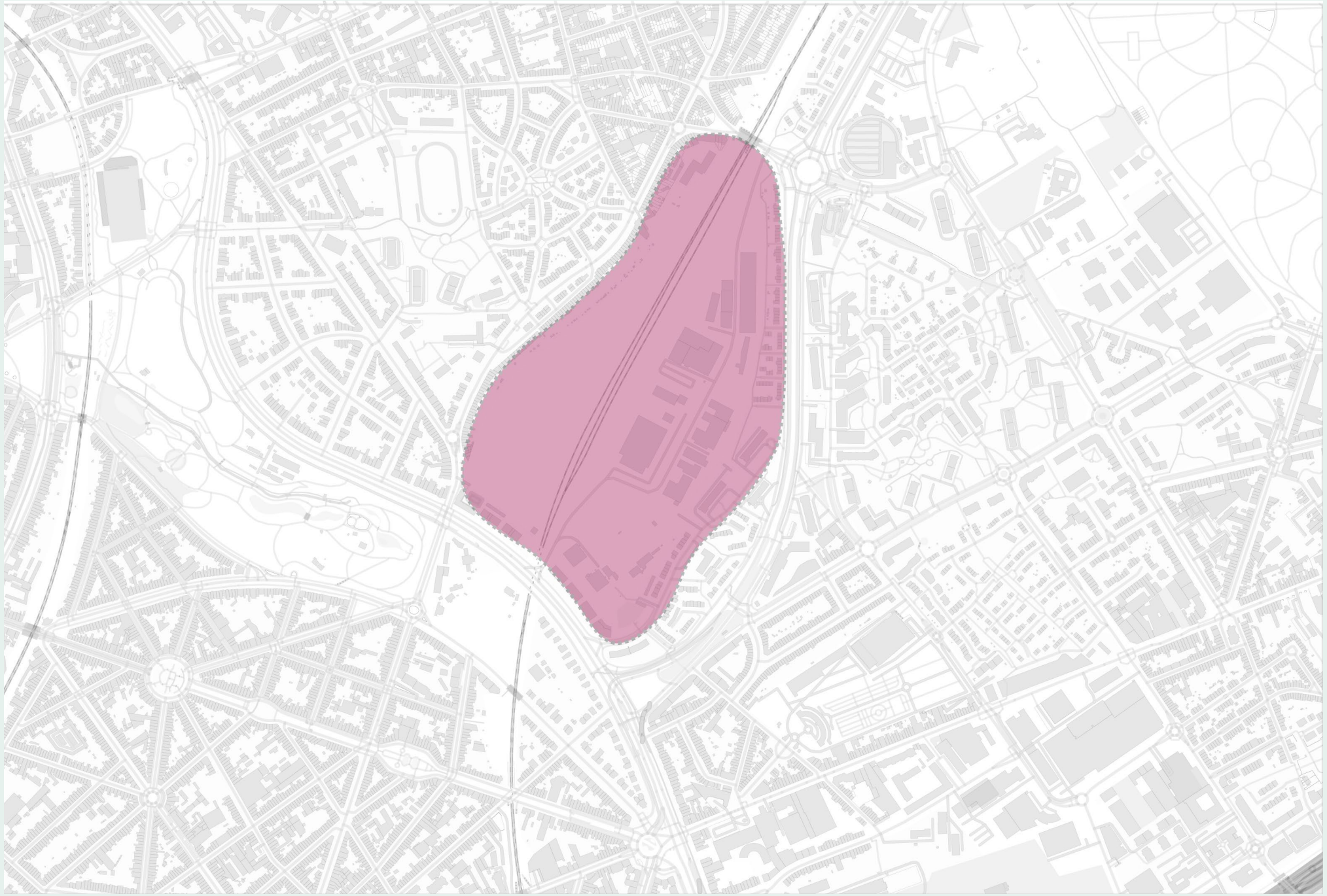
RESULTS

PLACING PUBLIC FUNCTIONS ON URBAN EDGES

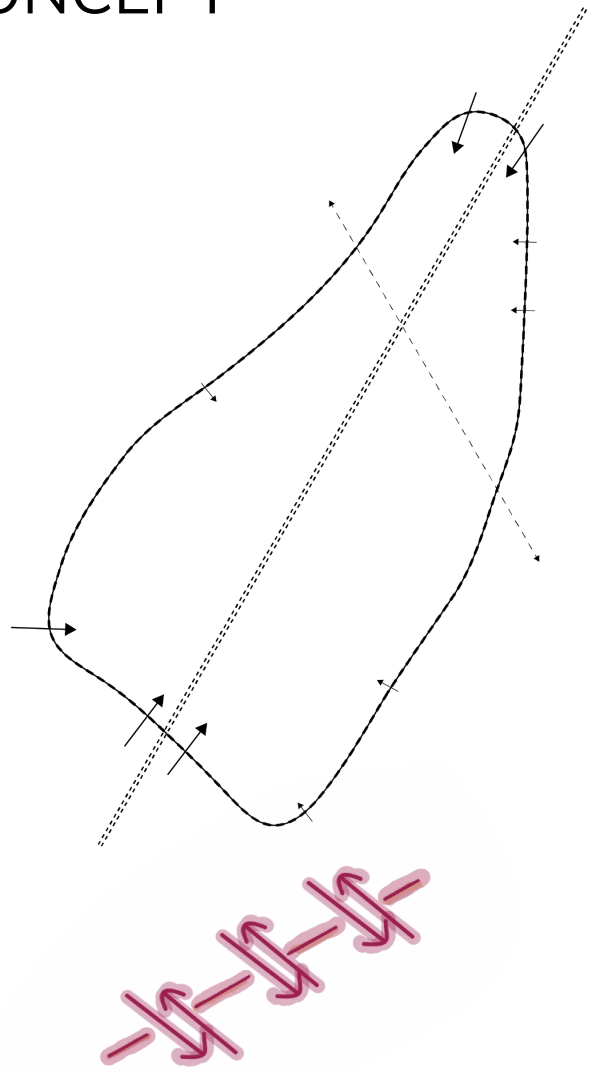
DESIGNING FLOOR PLAN WITH OVERLAPPING SPACE

MASTERPLAN

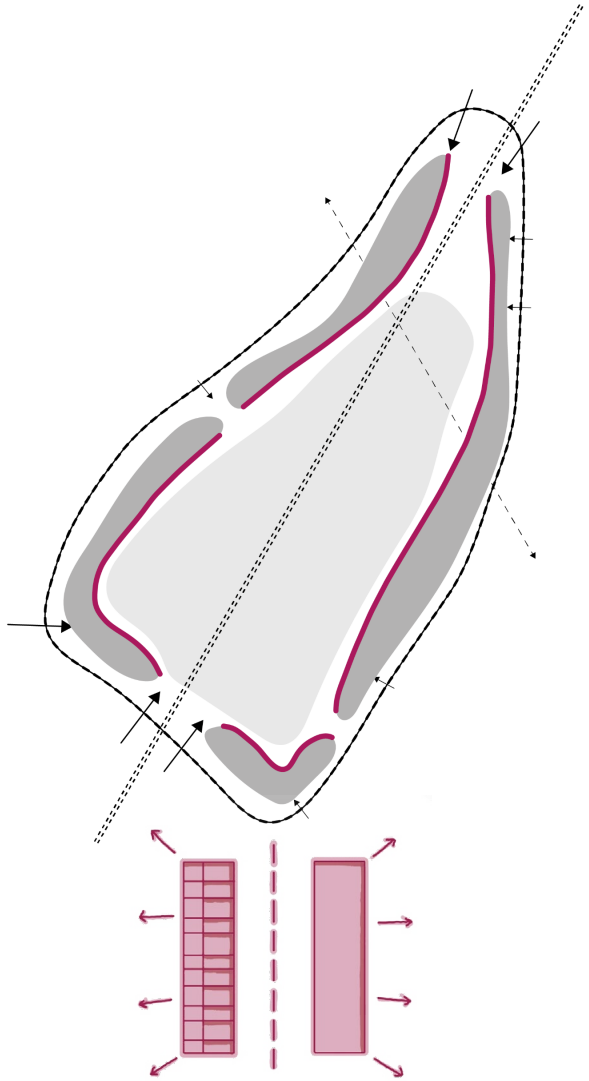
MASTERPLAN



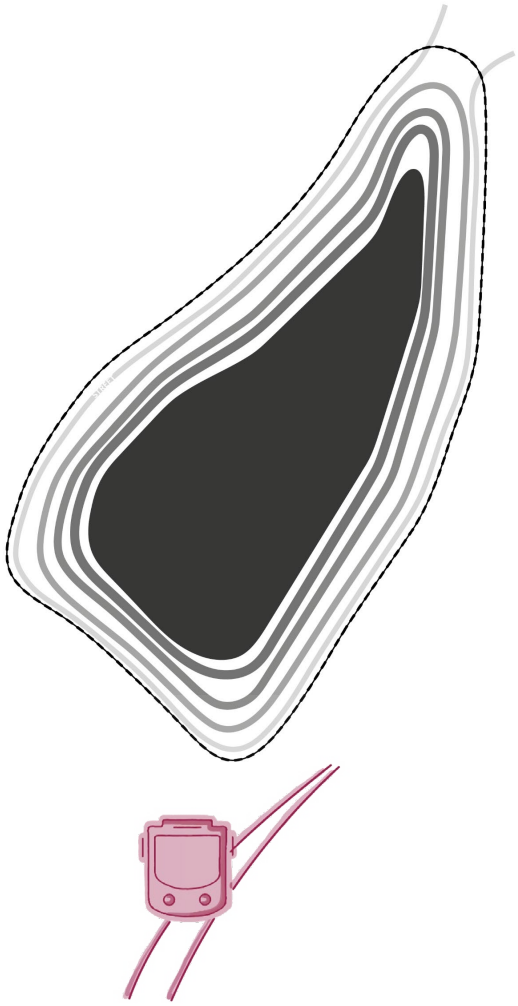
CONCEPT



MAKE BOUNDARY PERMEABLE



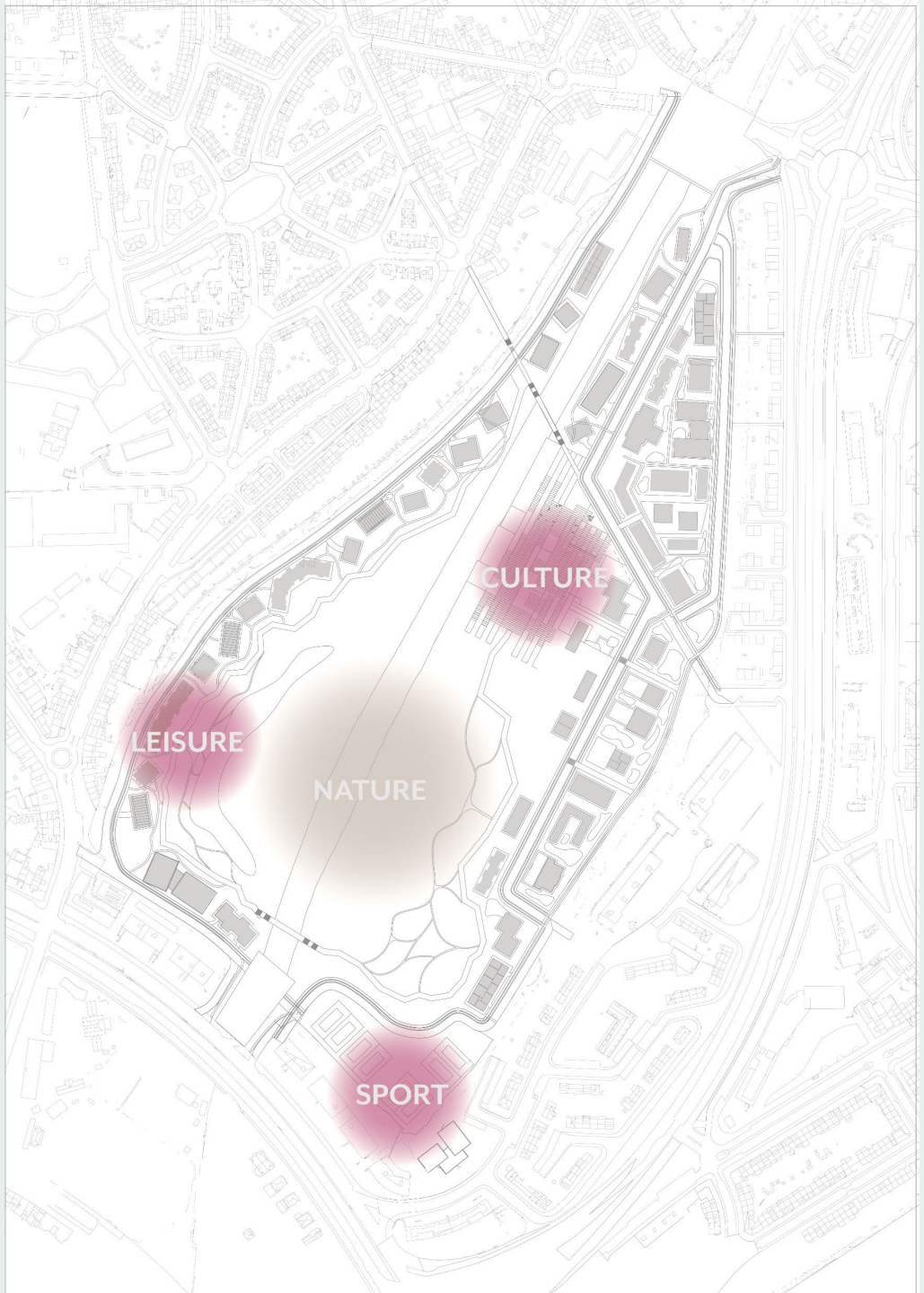
CREATE NEW FRONT FACING THE FRICHE



NEW LAYERS OF GREEN

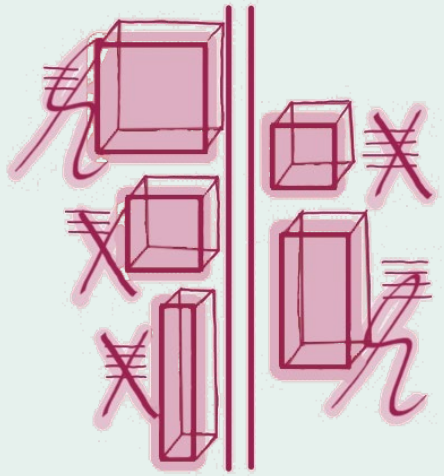
CHOSEN LOCATION

EDGE REVITALIZATION



KEEP/DEMOLISH

TOTAL



VALUATION METHOD

FINAL MASTERPLAN

DESIGN

DESIGN

DESIGN
INTRODUCTION

DESIGN
PRINCIPLES

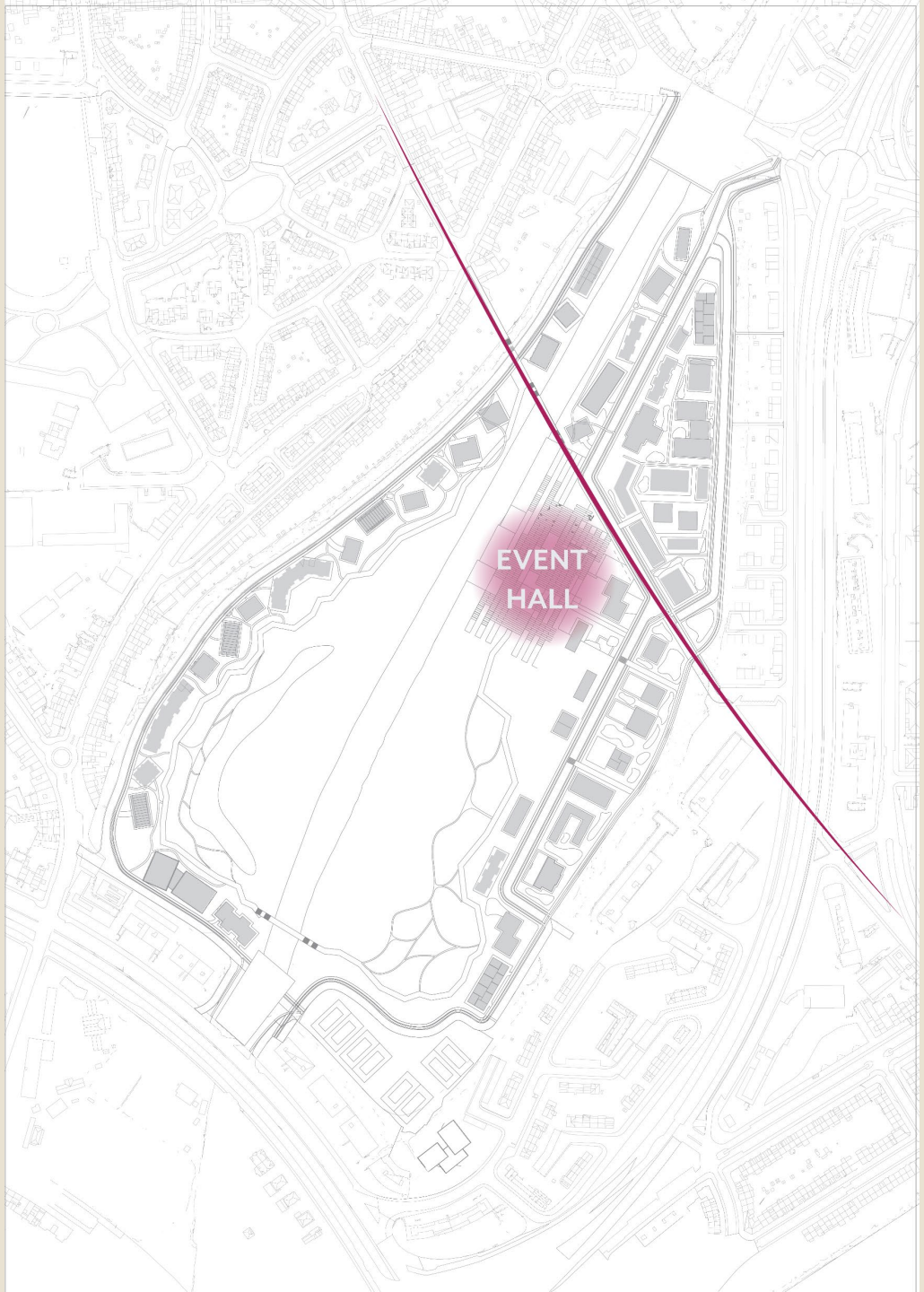
DESIGN
PROCESS

DESIGN
DETAILLING

DESIGN INTRODUCTION

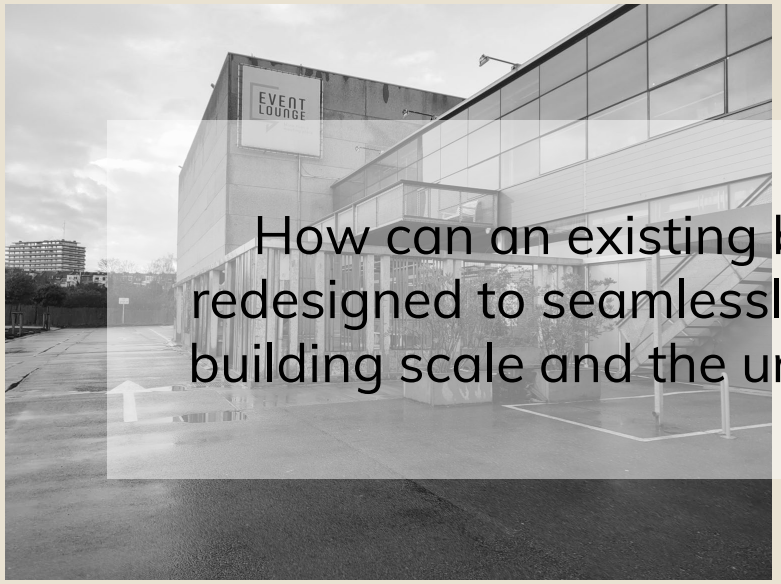
PROPOSAL

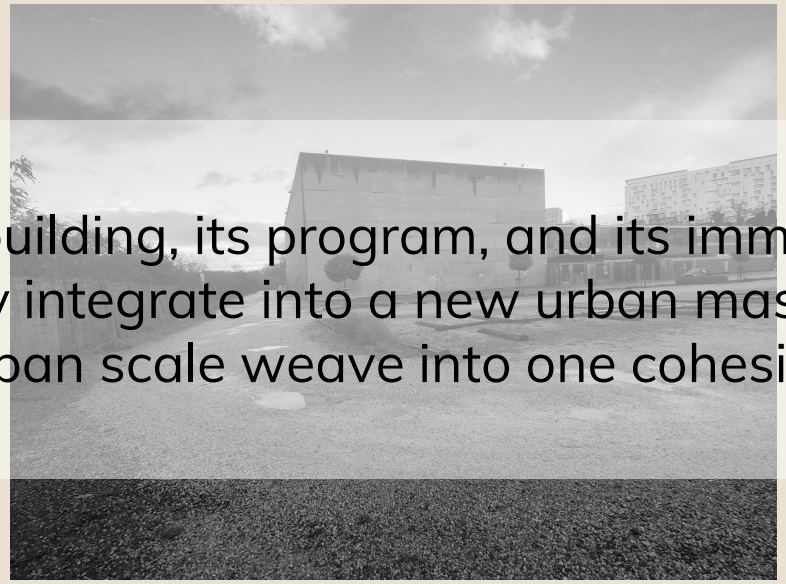
PROPOSAL



PROPOSAL

PROPOSAL

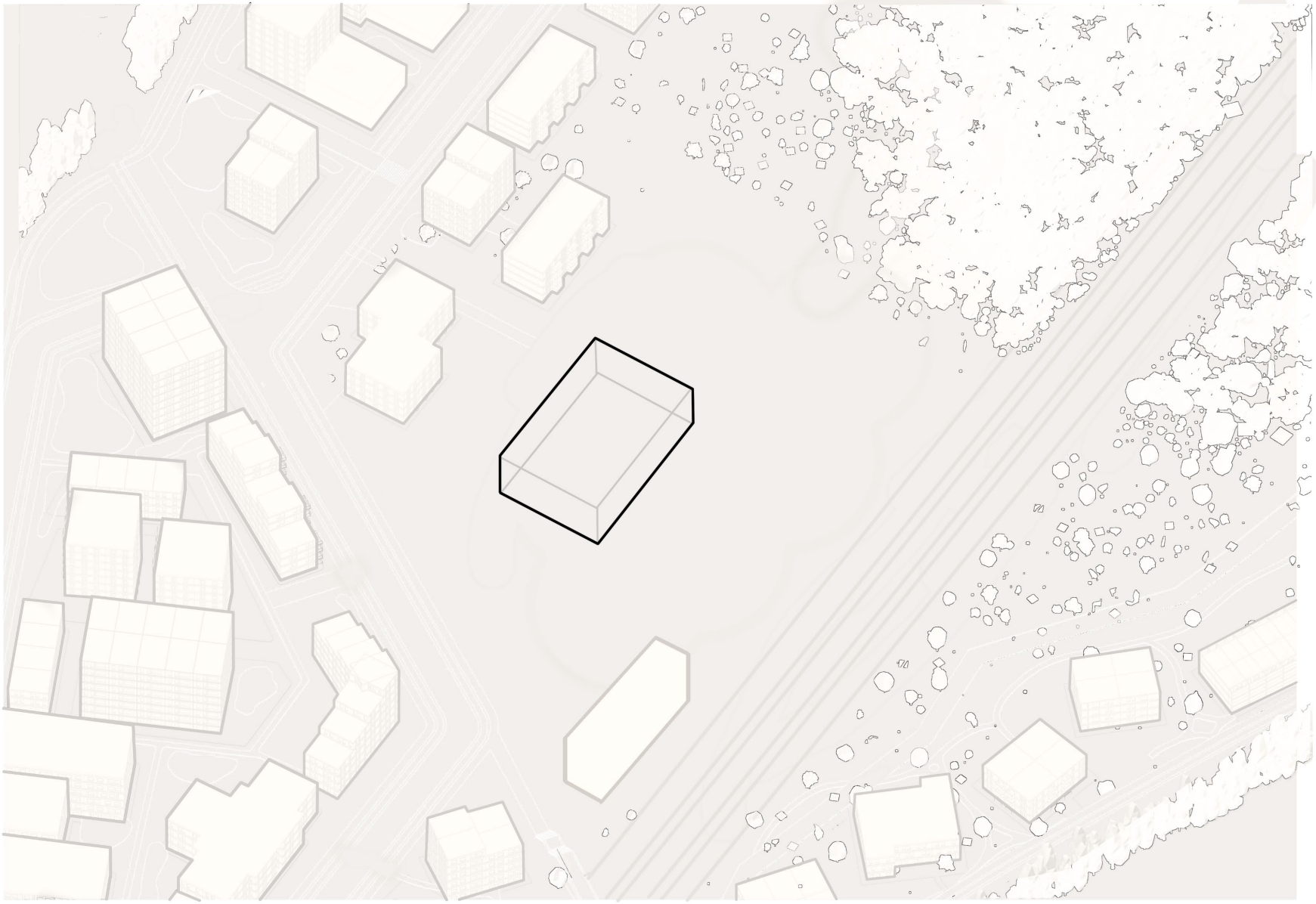




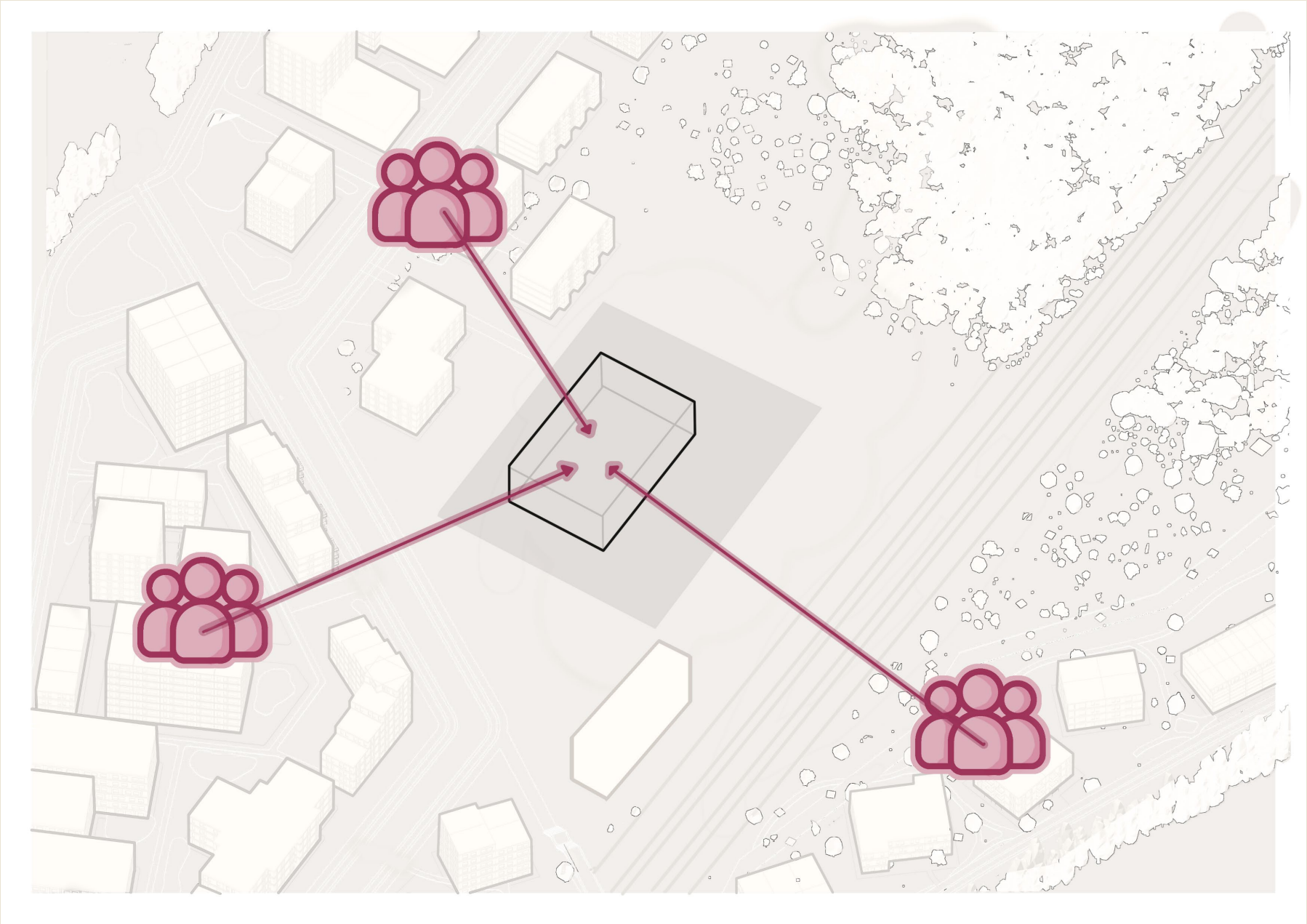
How can an existing building, its program, and its immediate surroundings be redesigned to seamlessly integrate into a new urban masterplan, ensuring that the building scale and the urban scale weave into one cohesive and interwoven fabric?

PROPOSAL

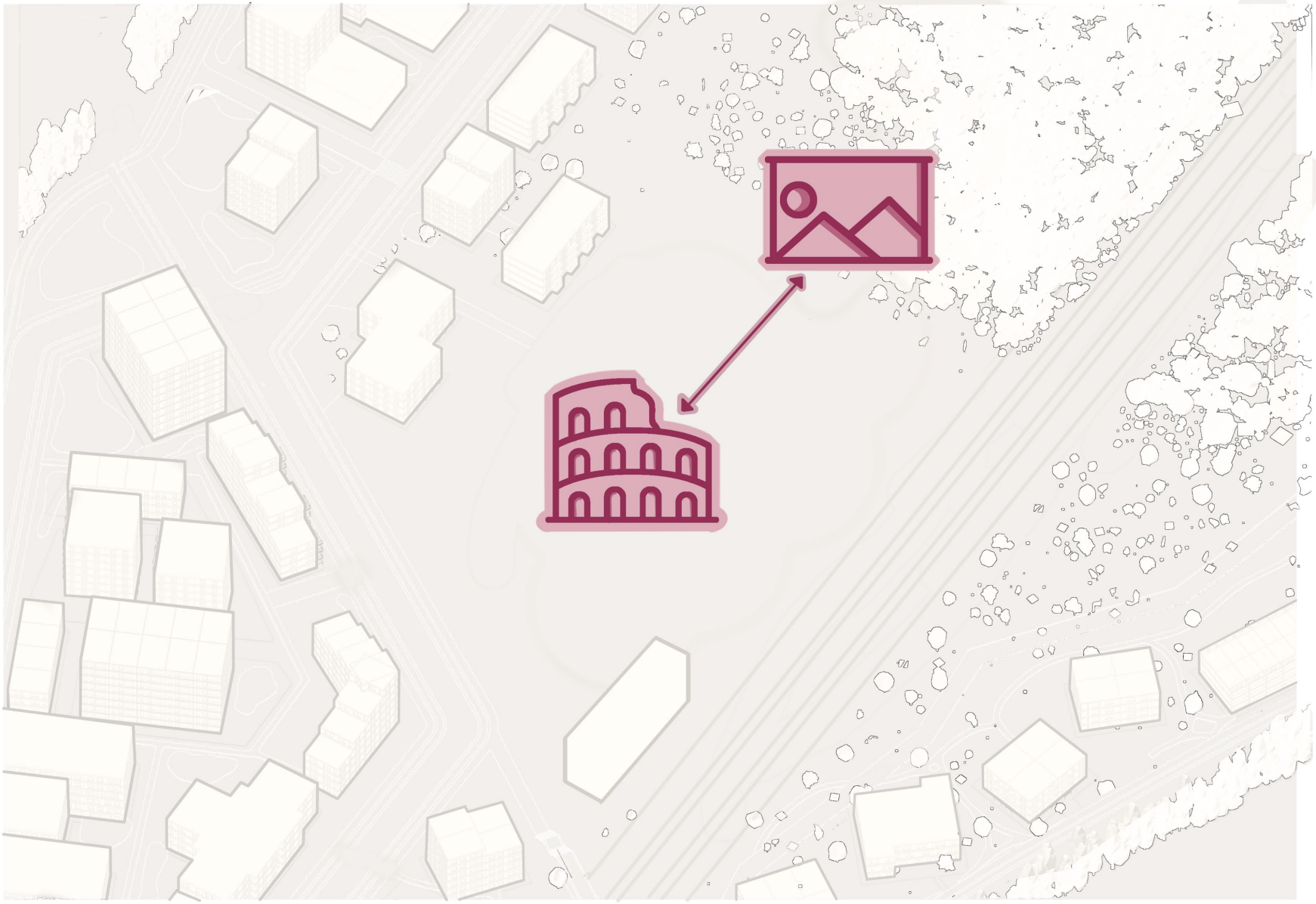
DESIGN PRINCIPLES



MULTIPLE USERS



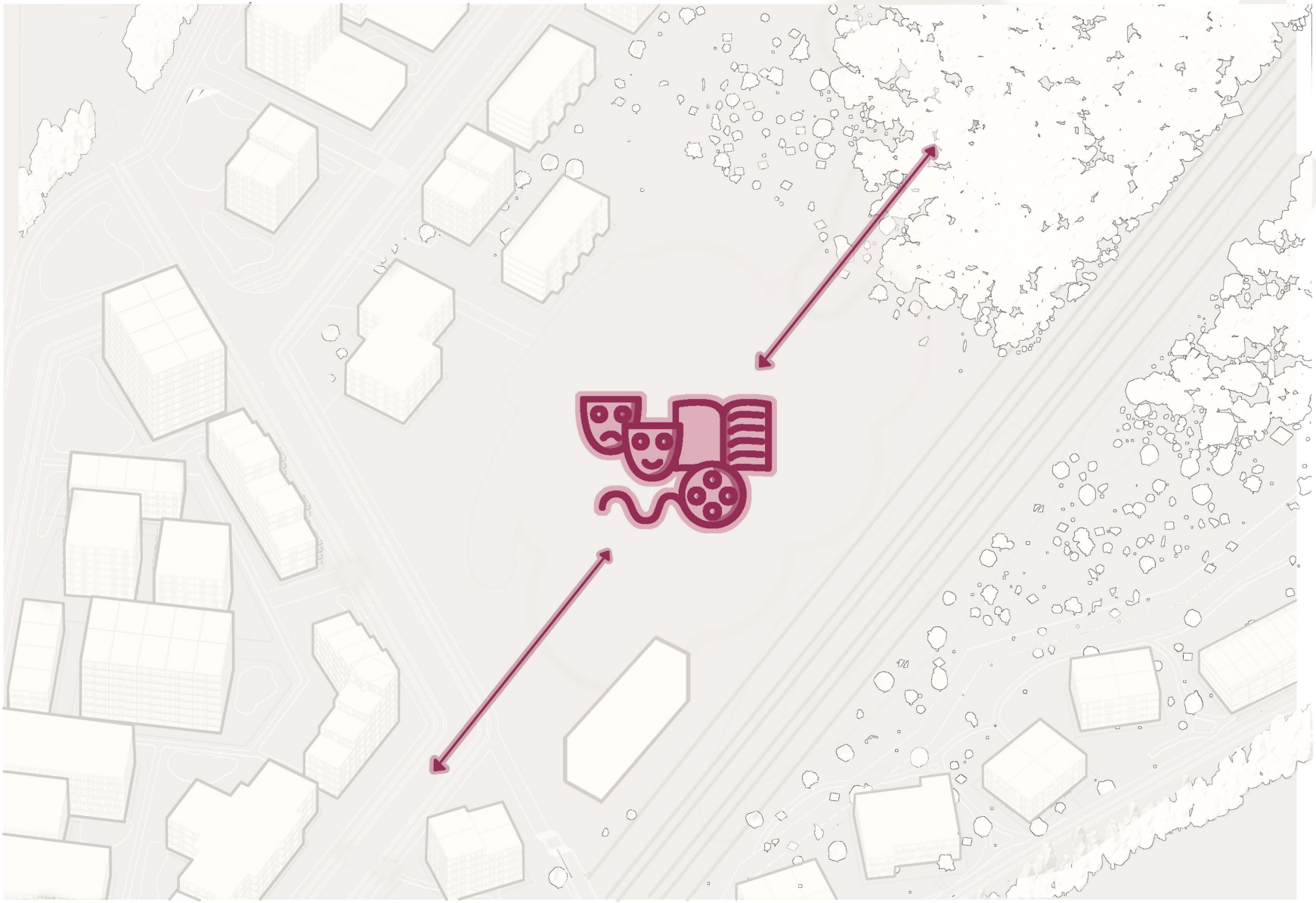
CONNECT NATURE AND CULTURE



CREATE MULTIPURPOSE BUILDING

MAIN PROGRAM:

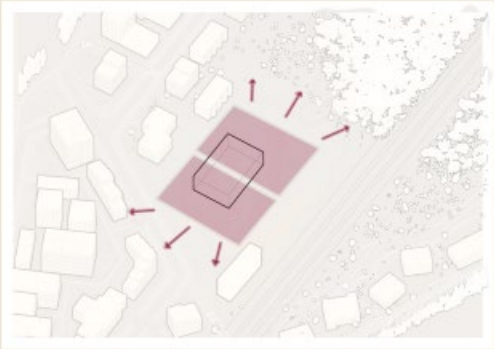
- EXISTING EVENTHALL
- THEATER
- CULTURE CENTER
- LIBRARY
- COMMUNITY CENTER



PARAMETERS

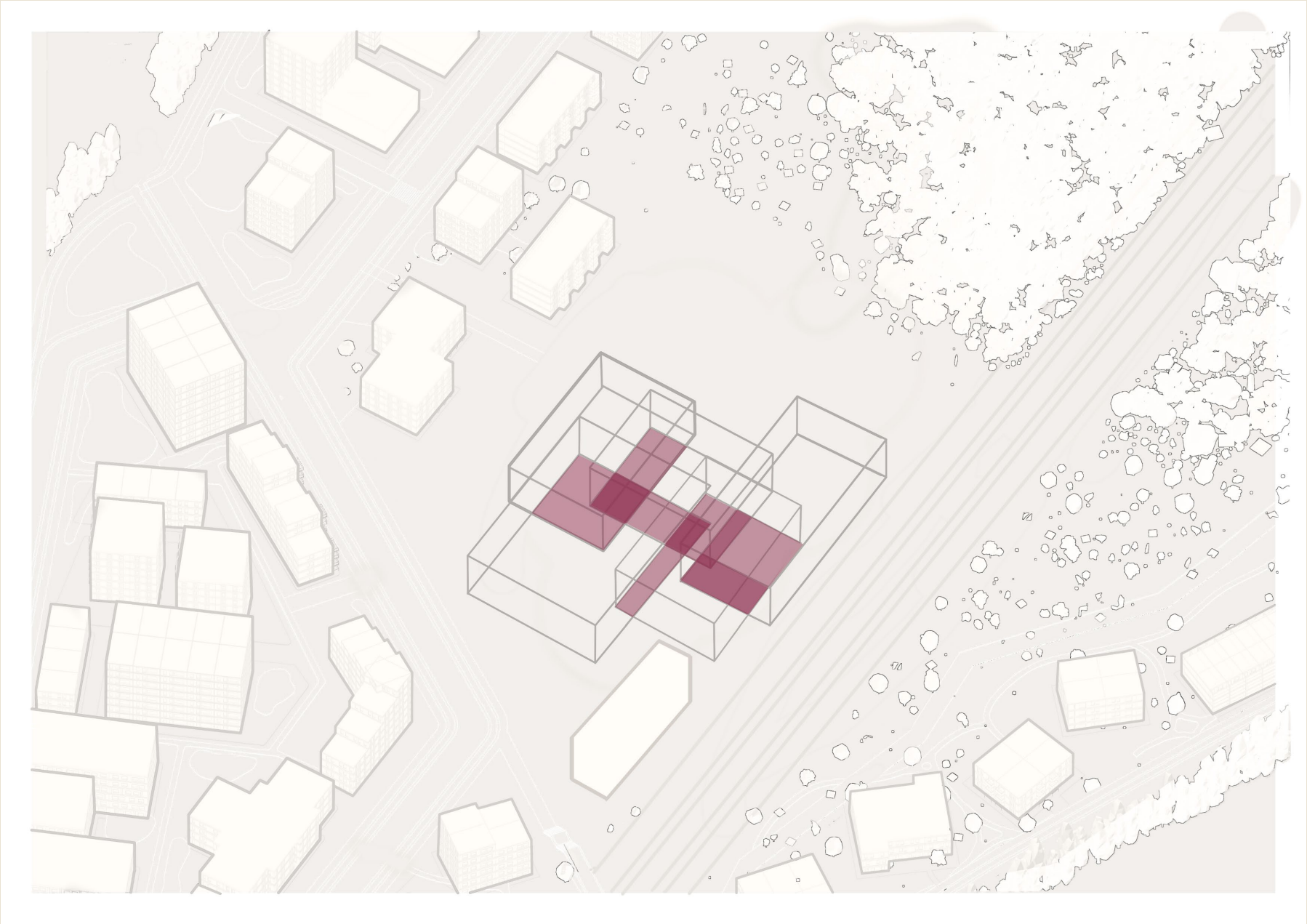
OVERLAPPING SPACE

ORIENTATION

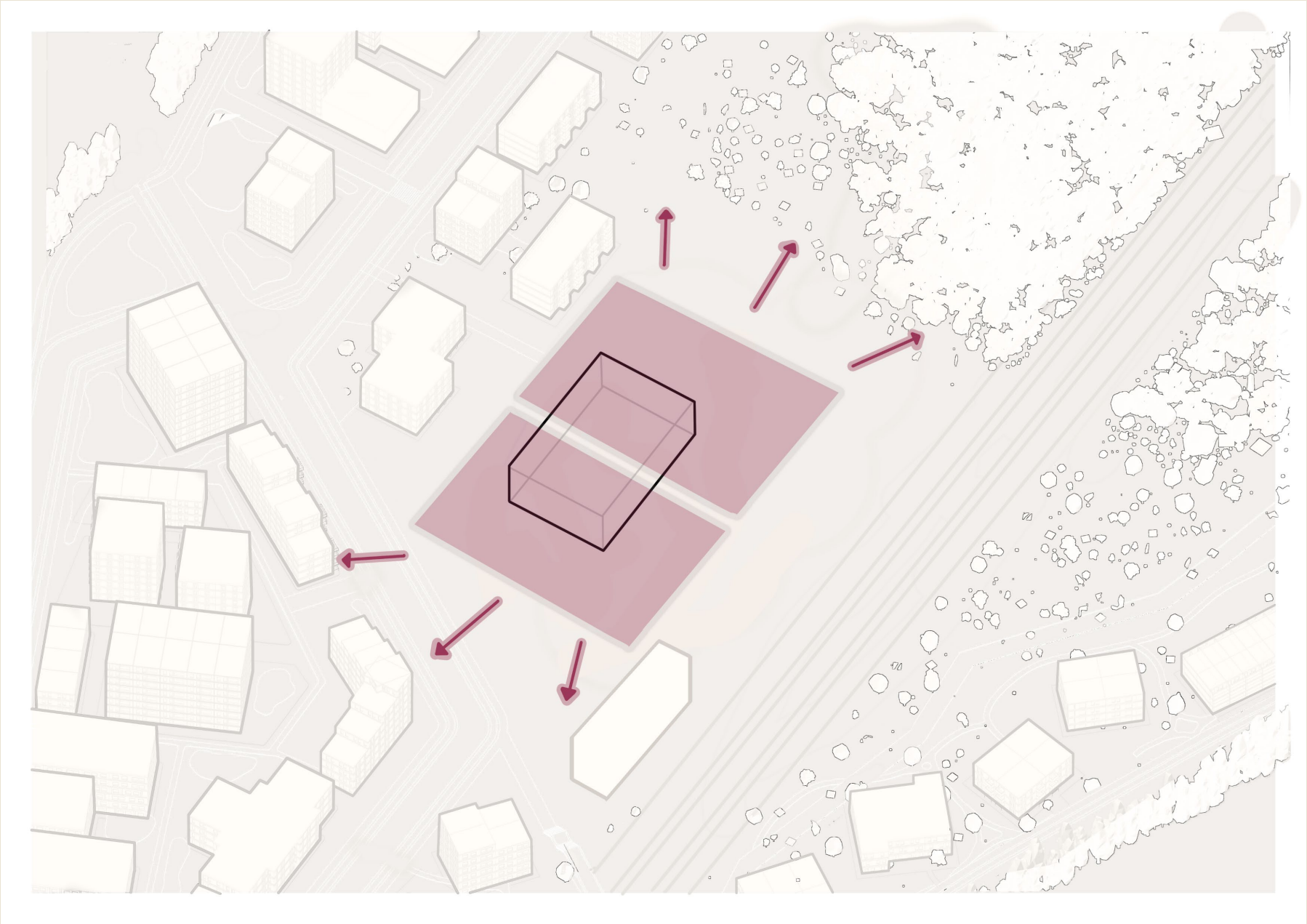


ATRIUM

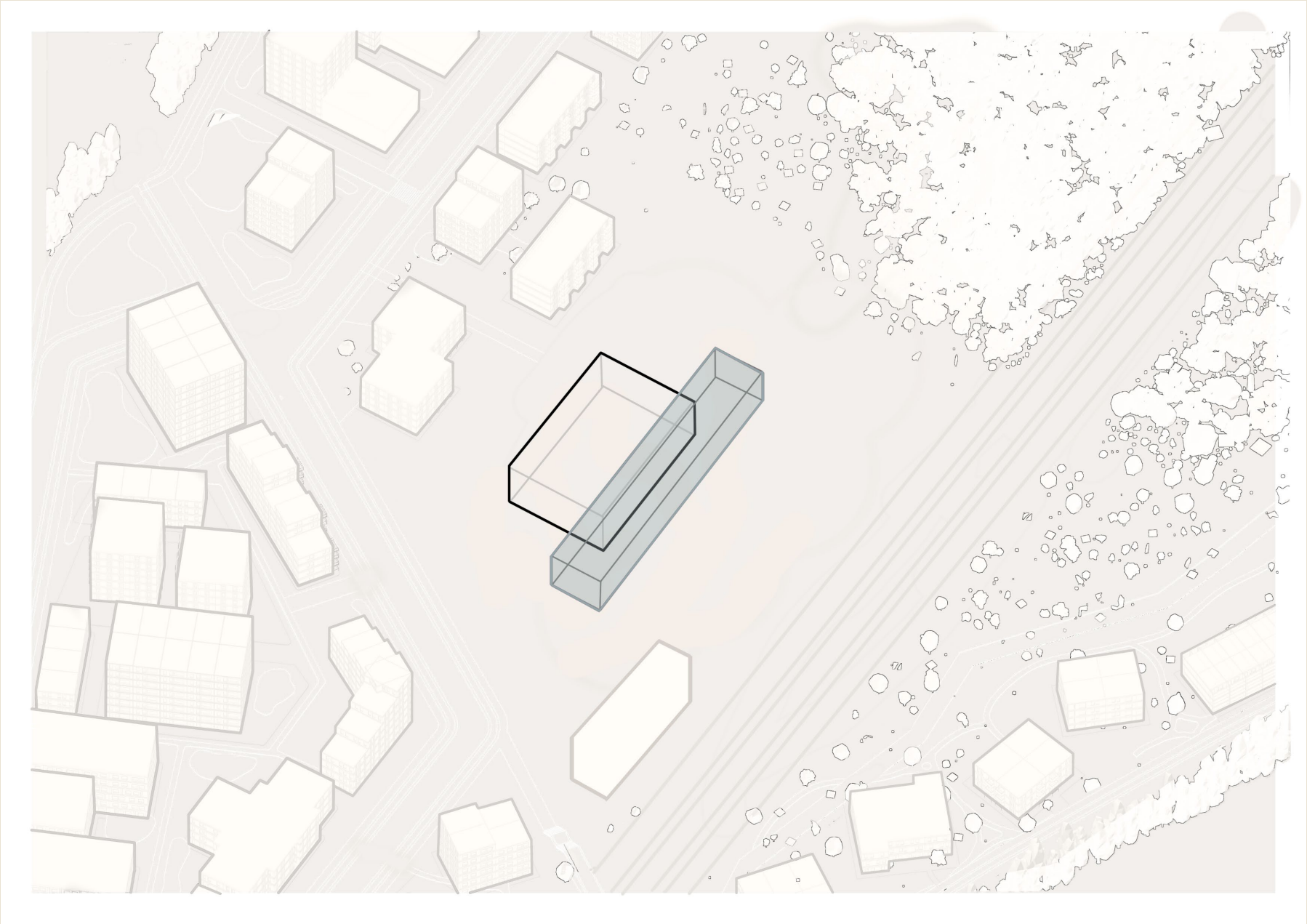
OVERLAPPING SPACE

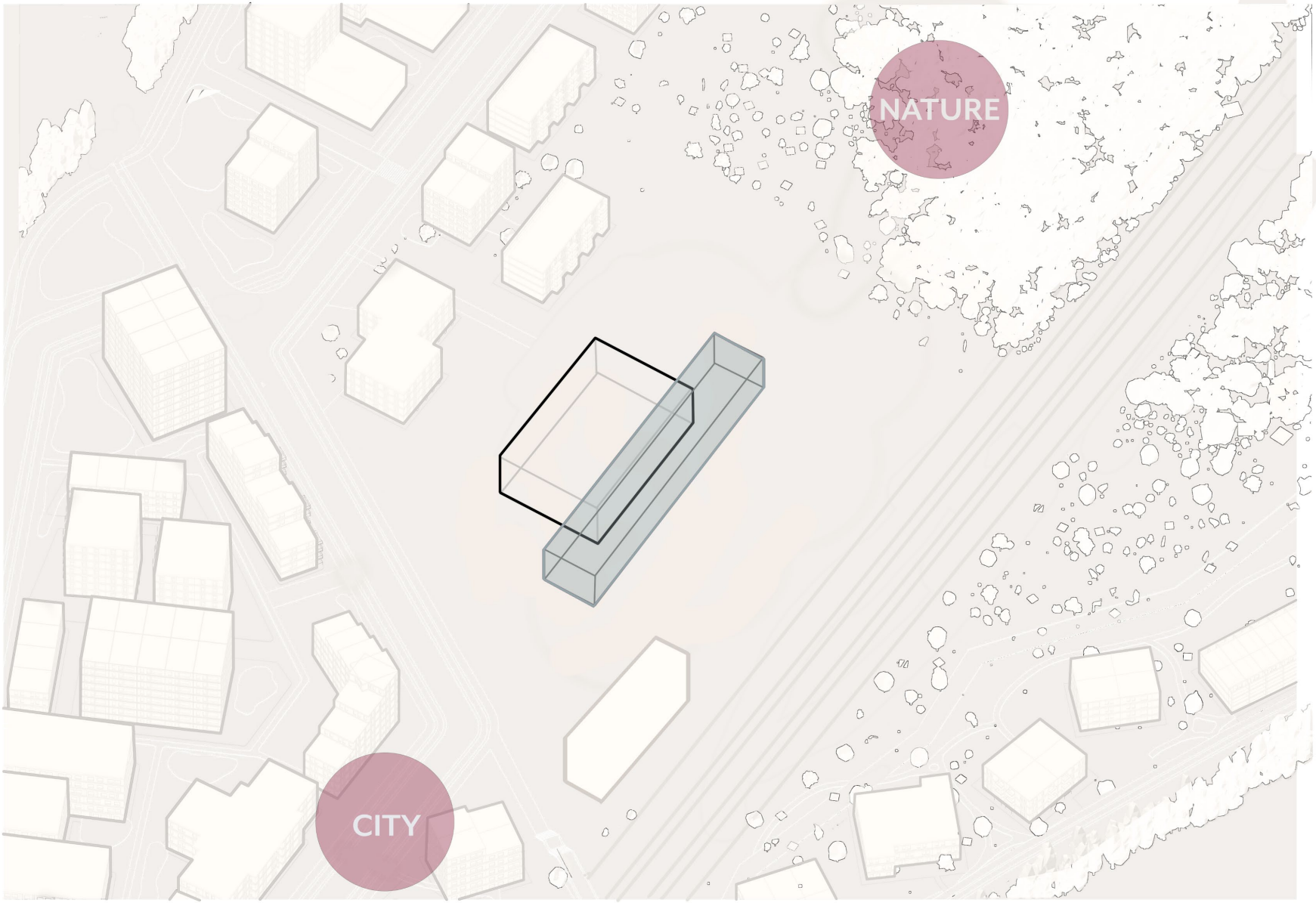


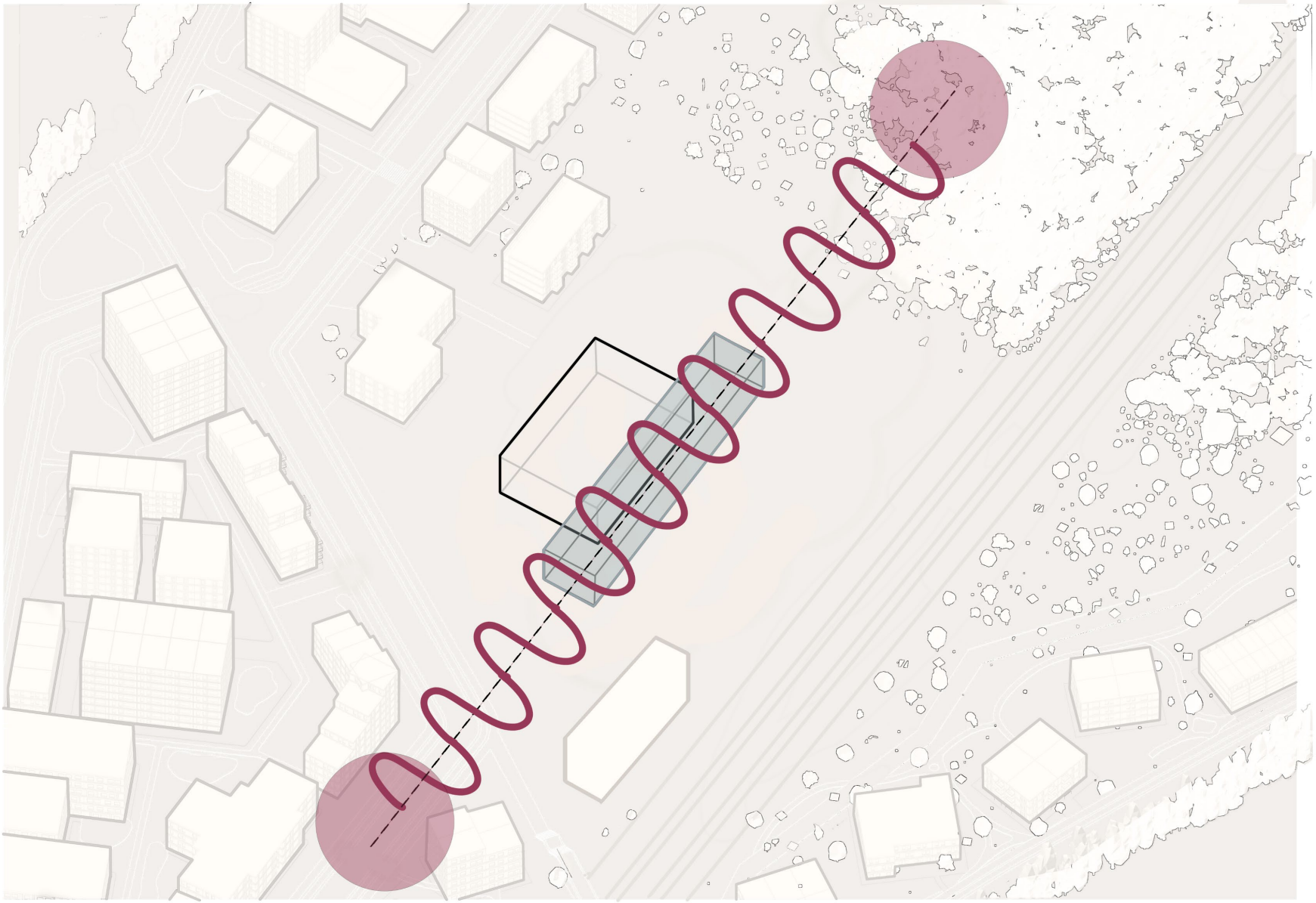
ORIENTATION

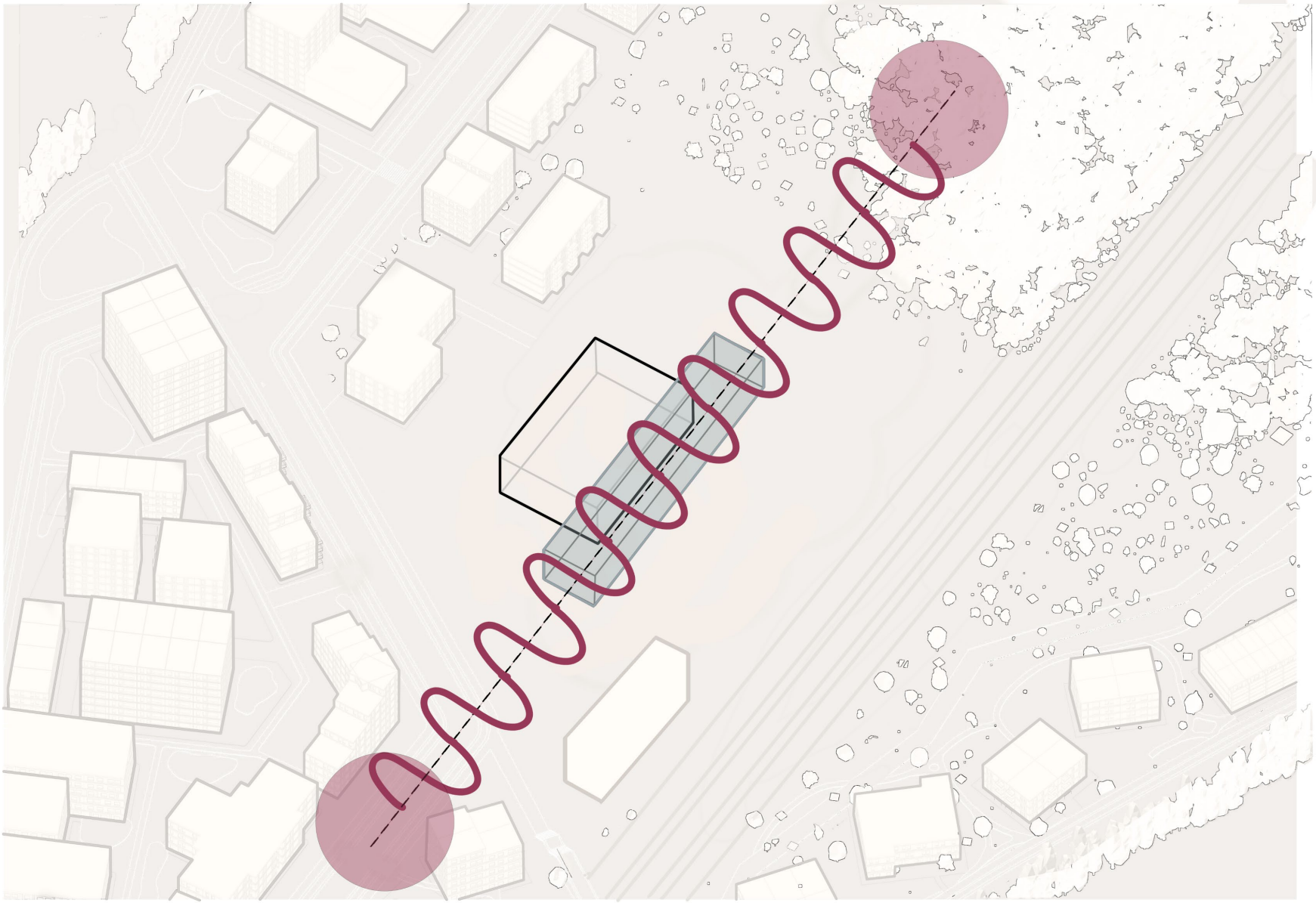


ATRIUM



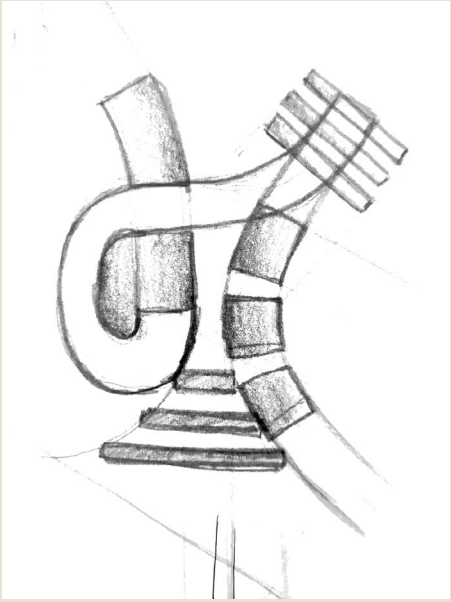

NATURE
CITY

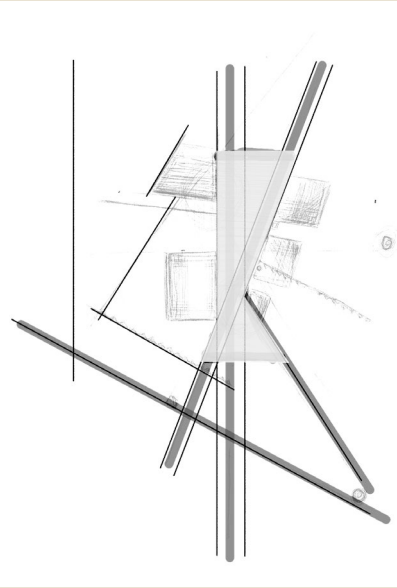


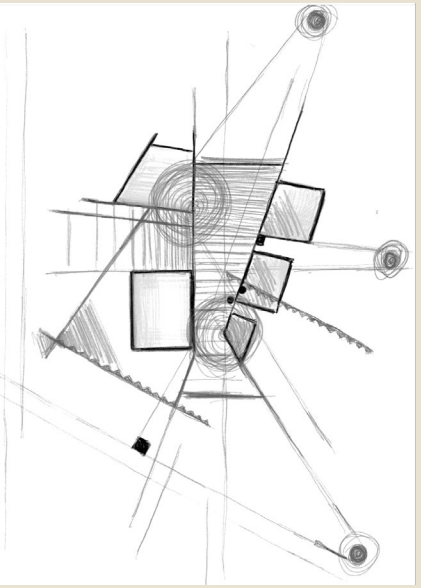


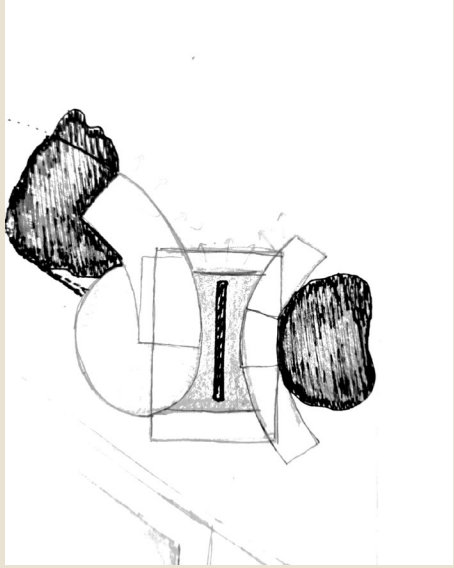
SONIA DELAUNAY

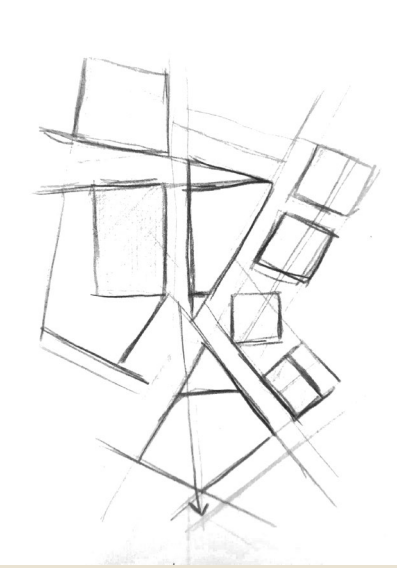
EDUARDO POLOAZZI

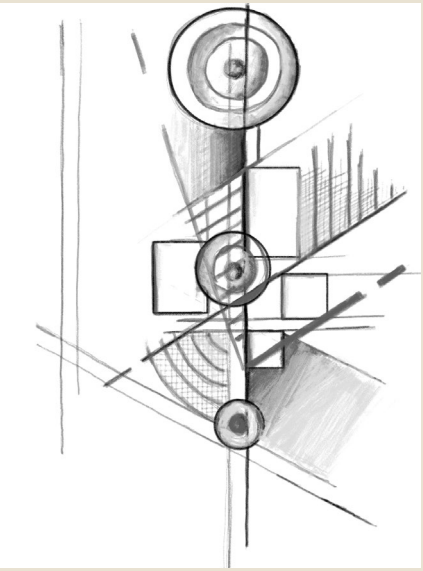








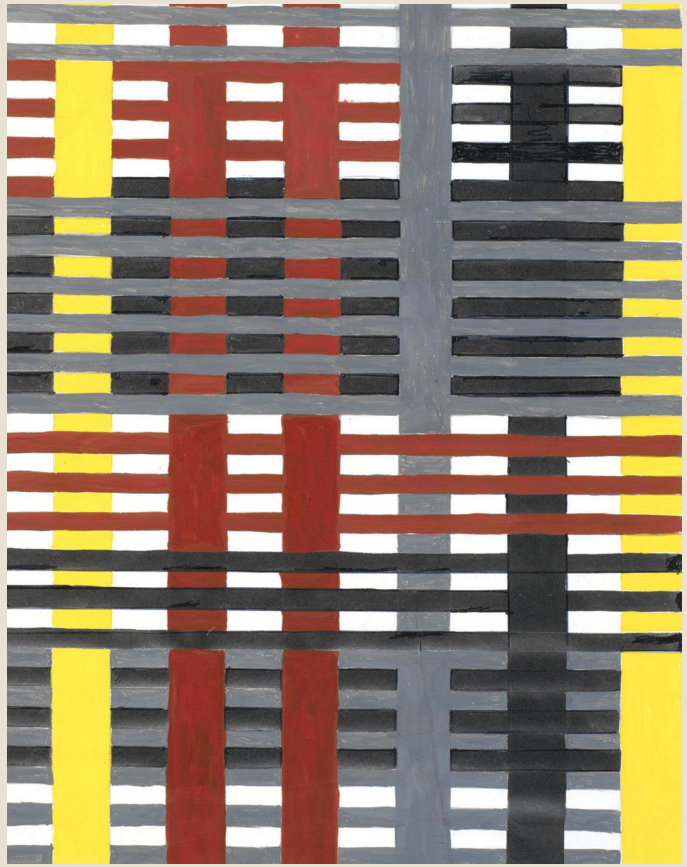


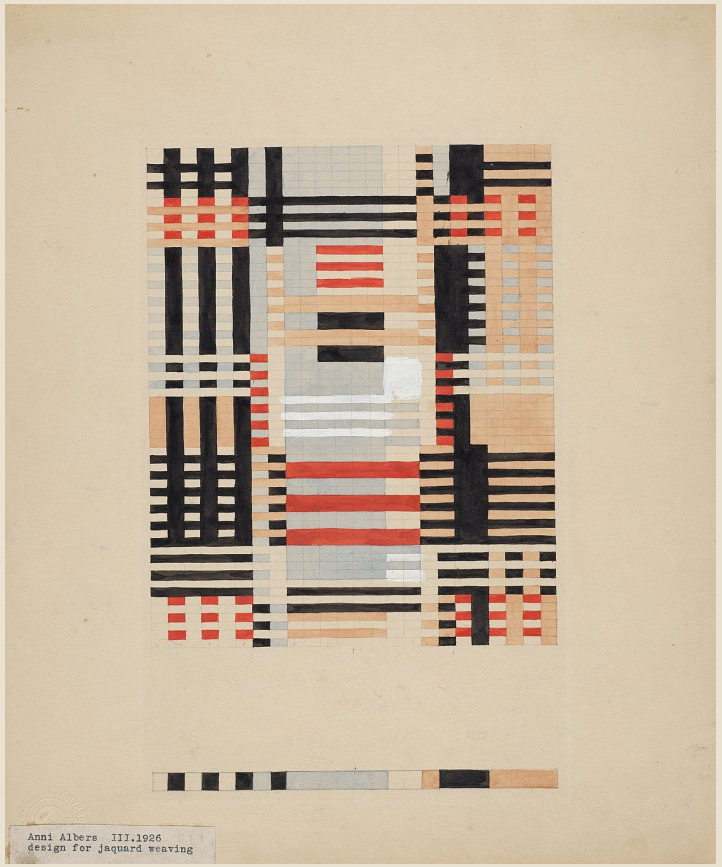


SONIA DELAUNAY

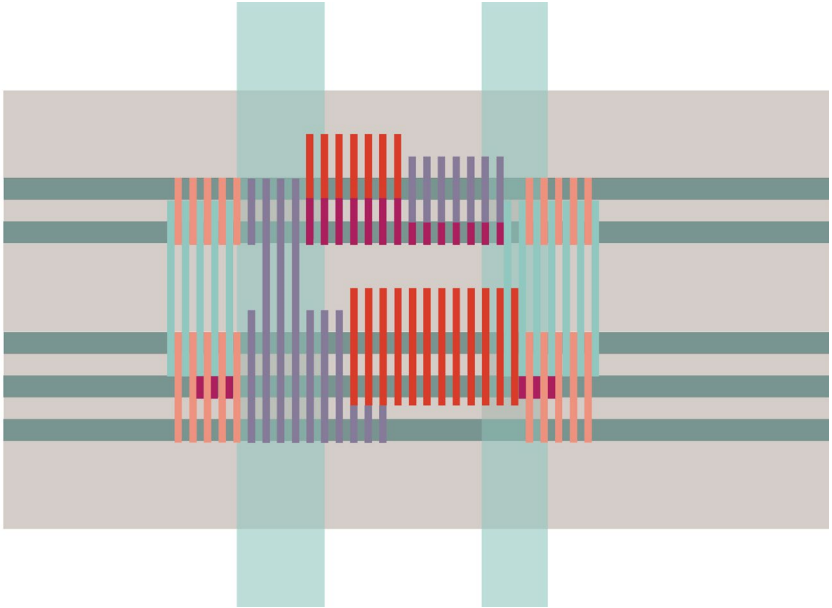
EDUARDO POLOAZZI

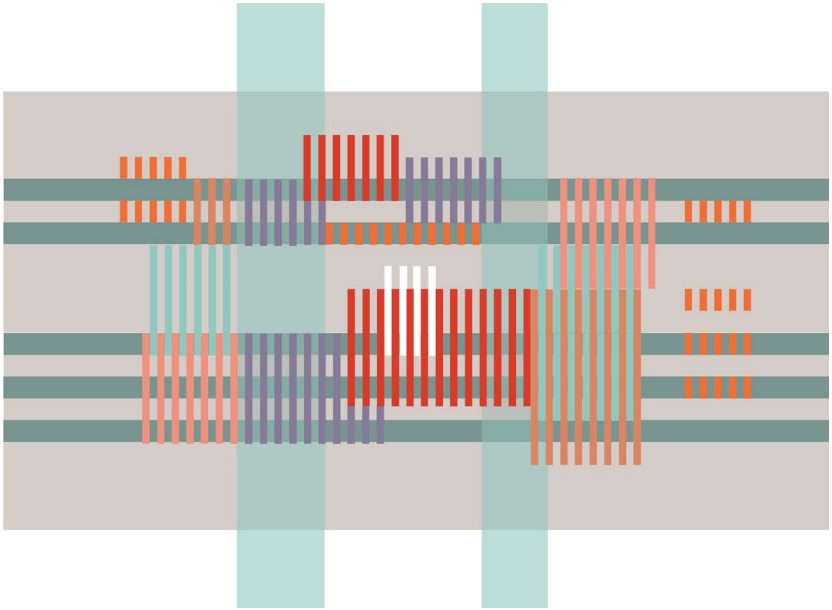
ANNI ALBERS

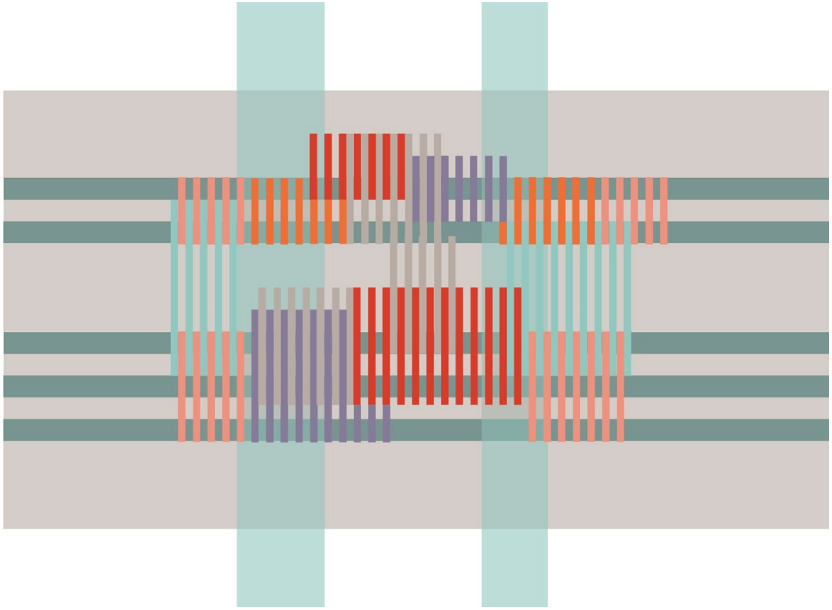


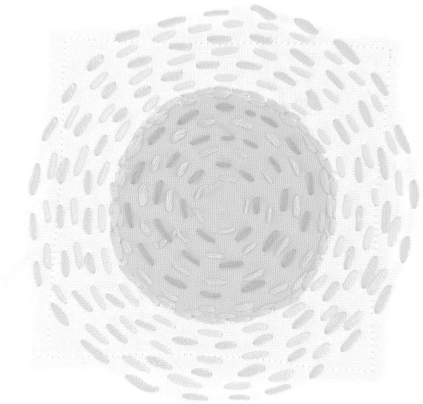


ANNI ALBERS

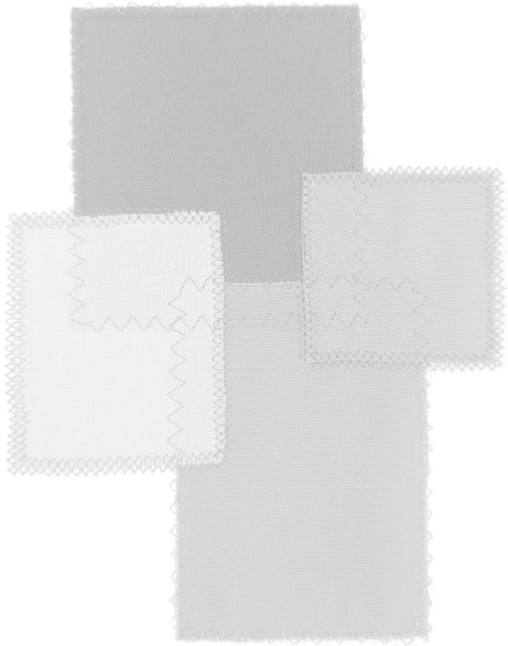








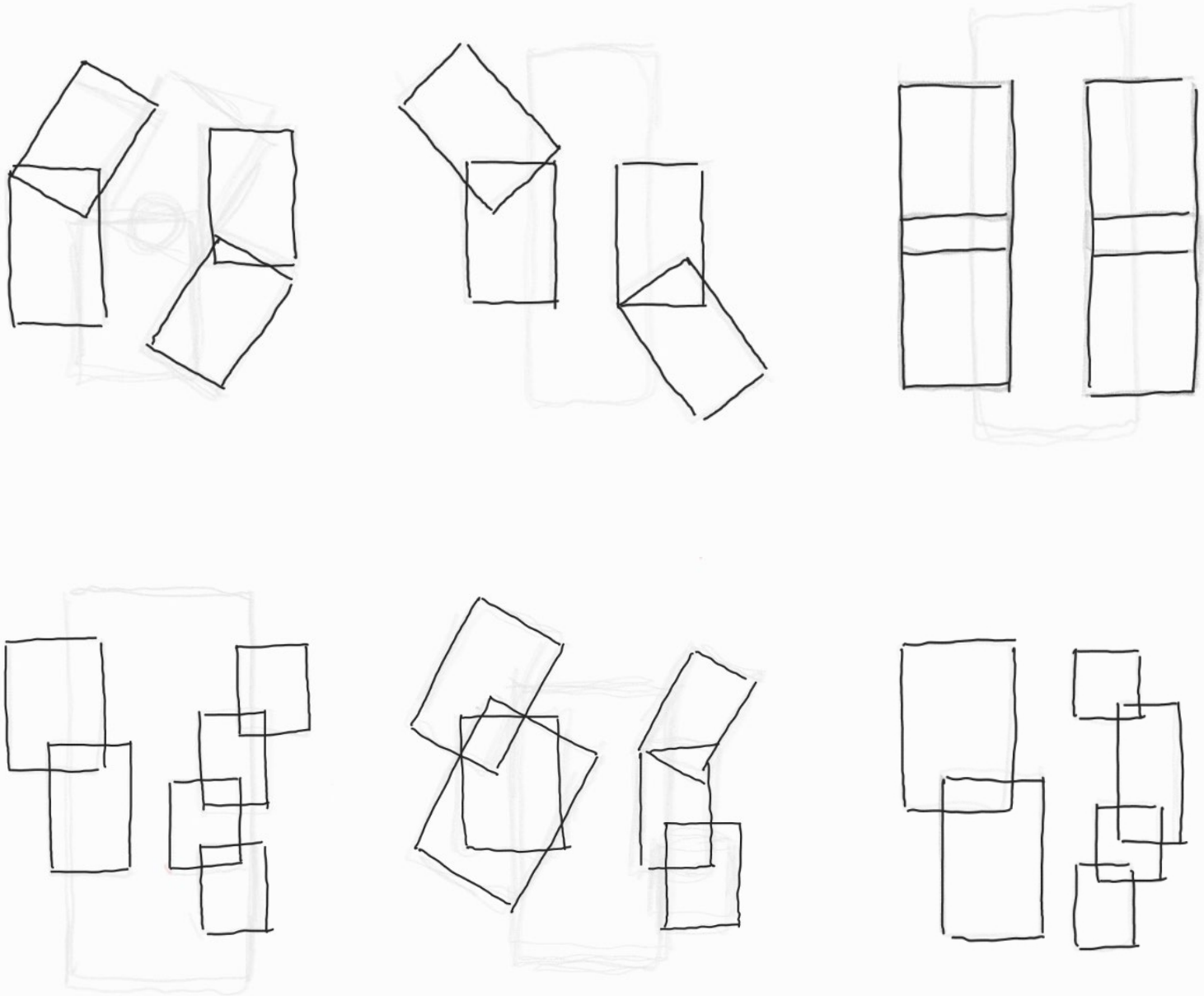
INTEGRATION

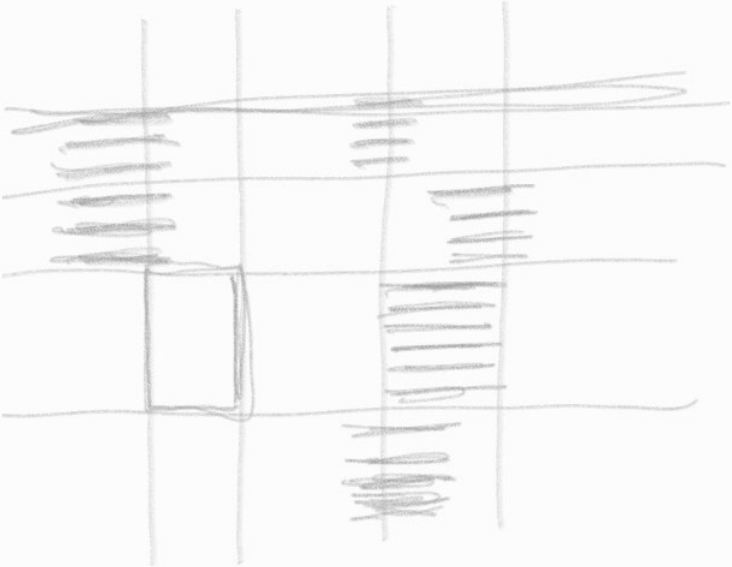


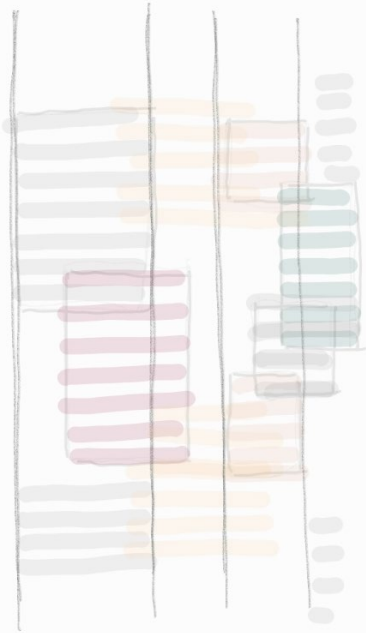
OVERLAP

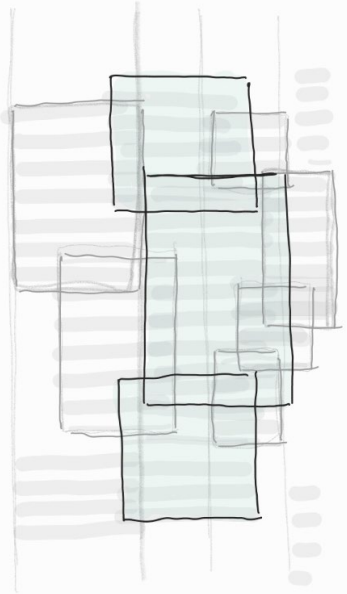
ORIENTATION

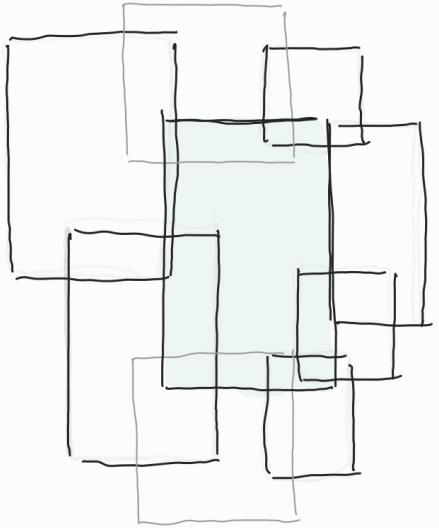
WEAVING

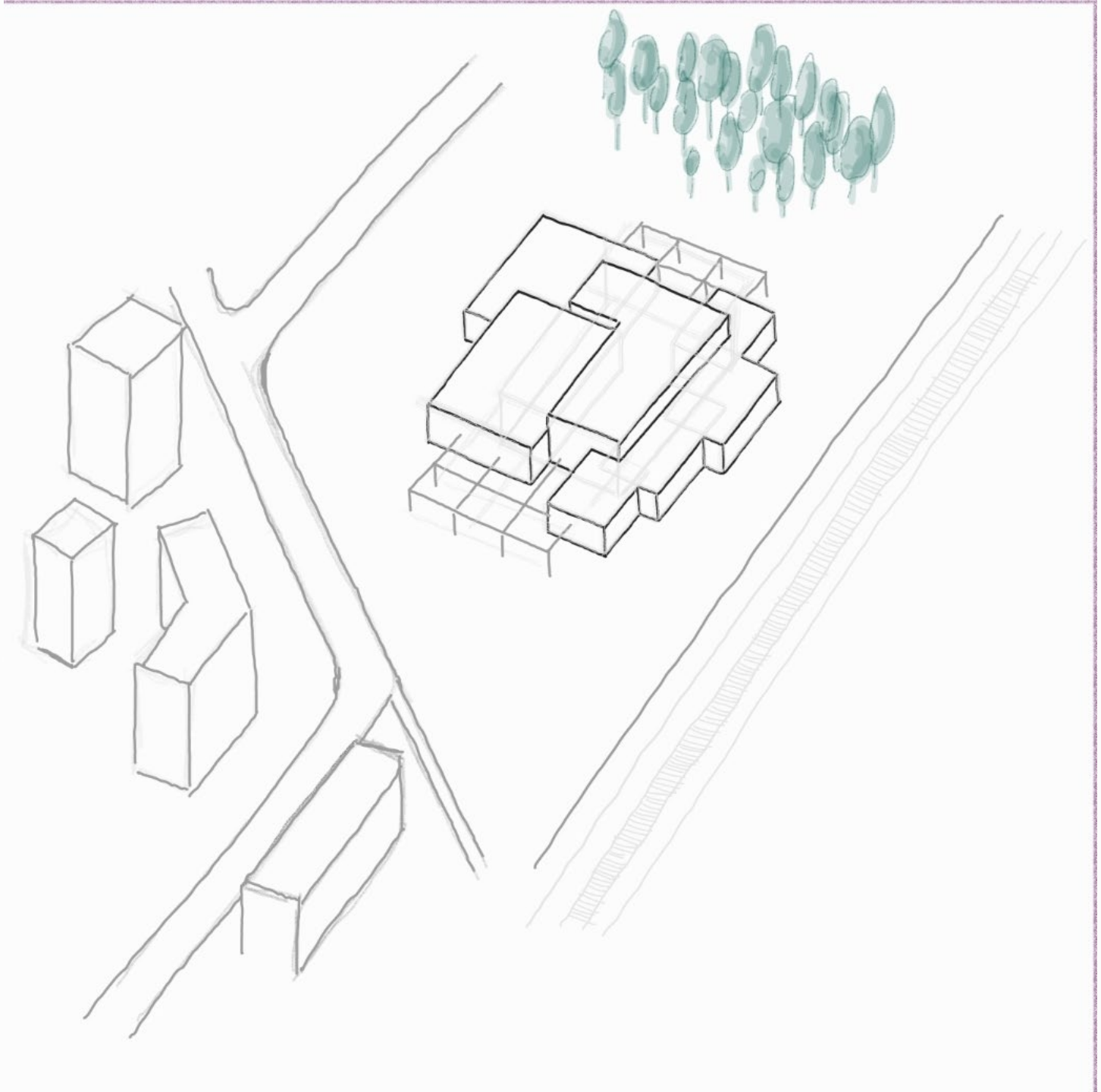






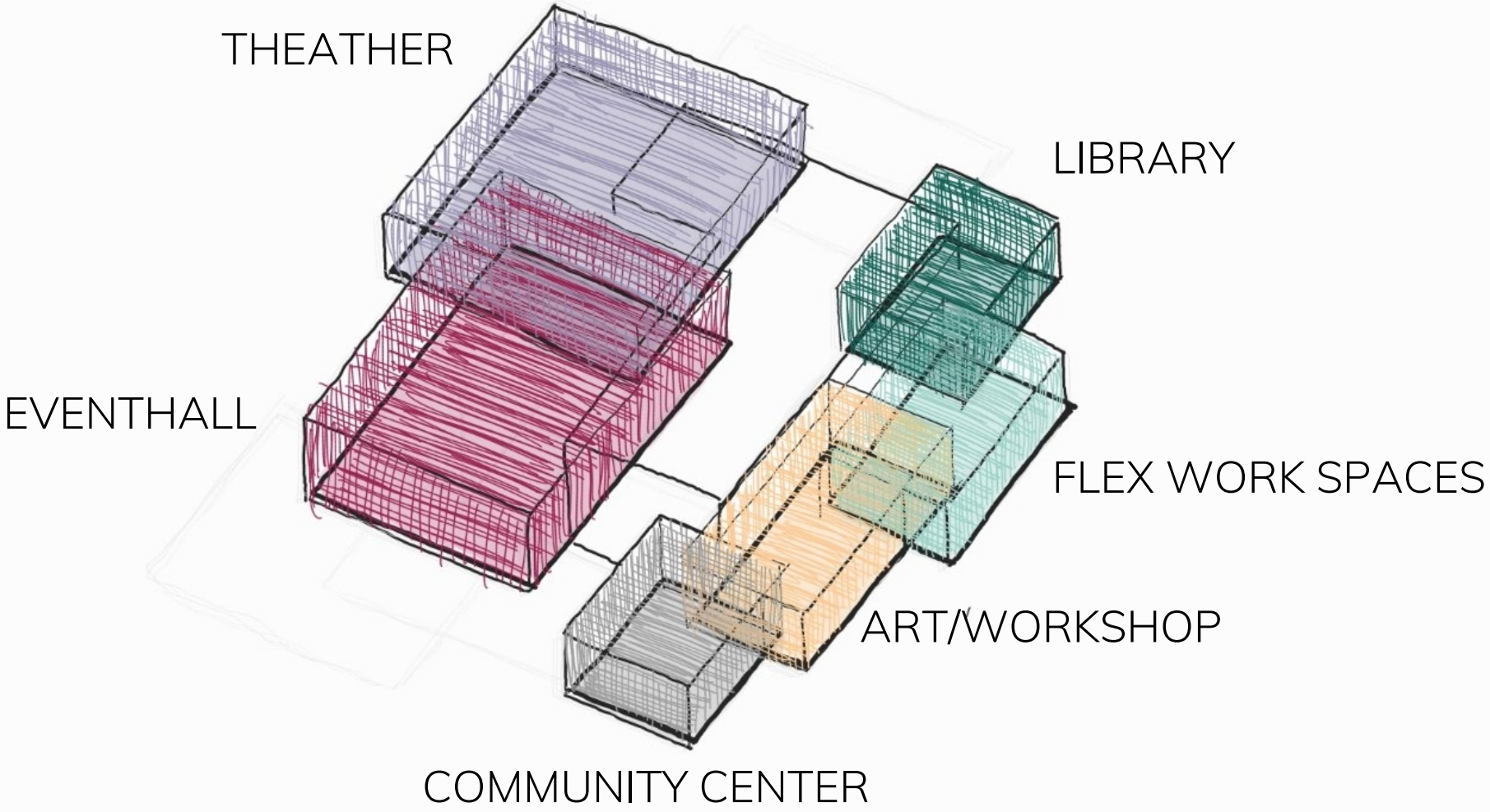


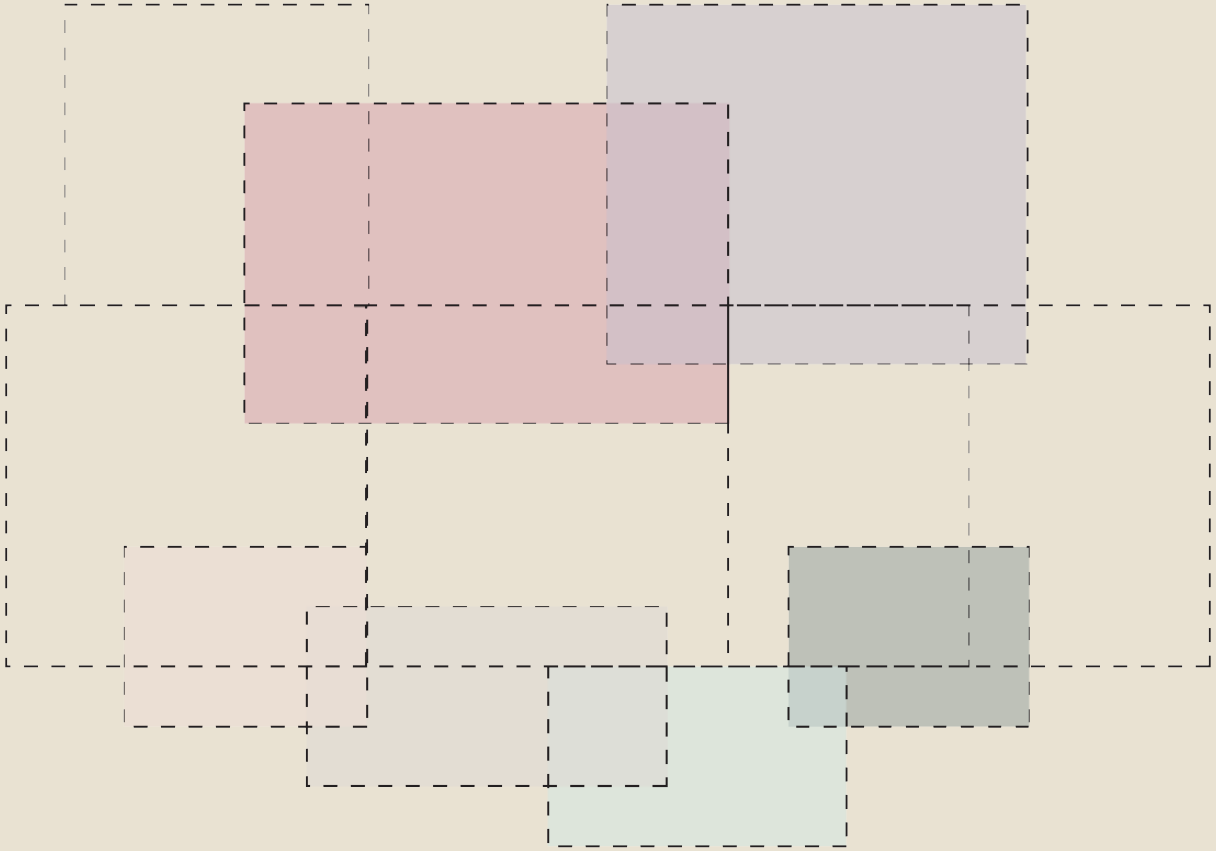


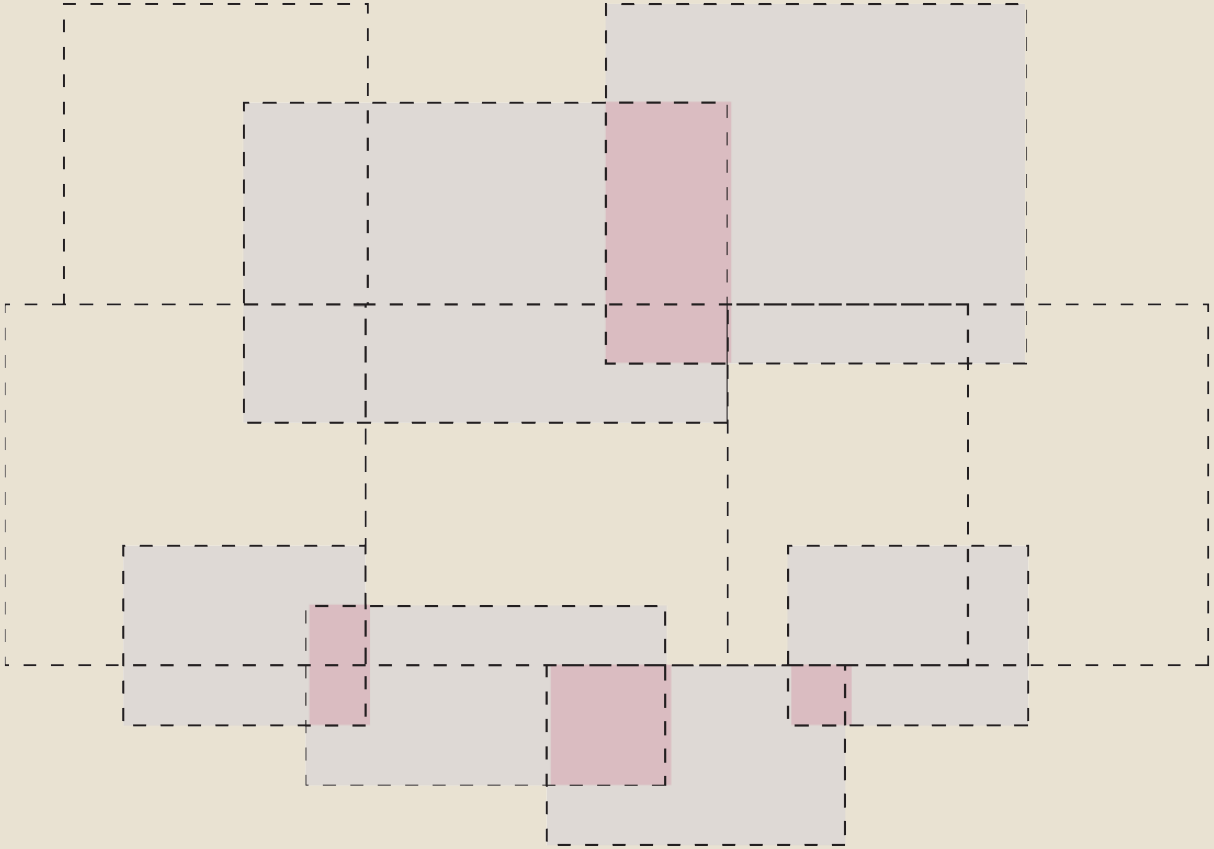


DESIGN PROCESS

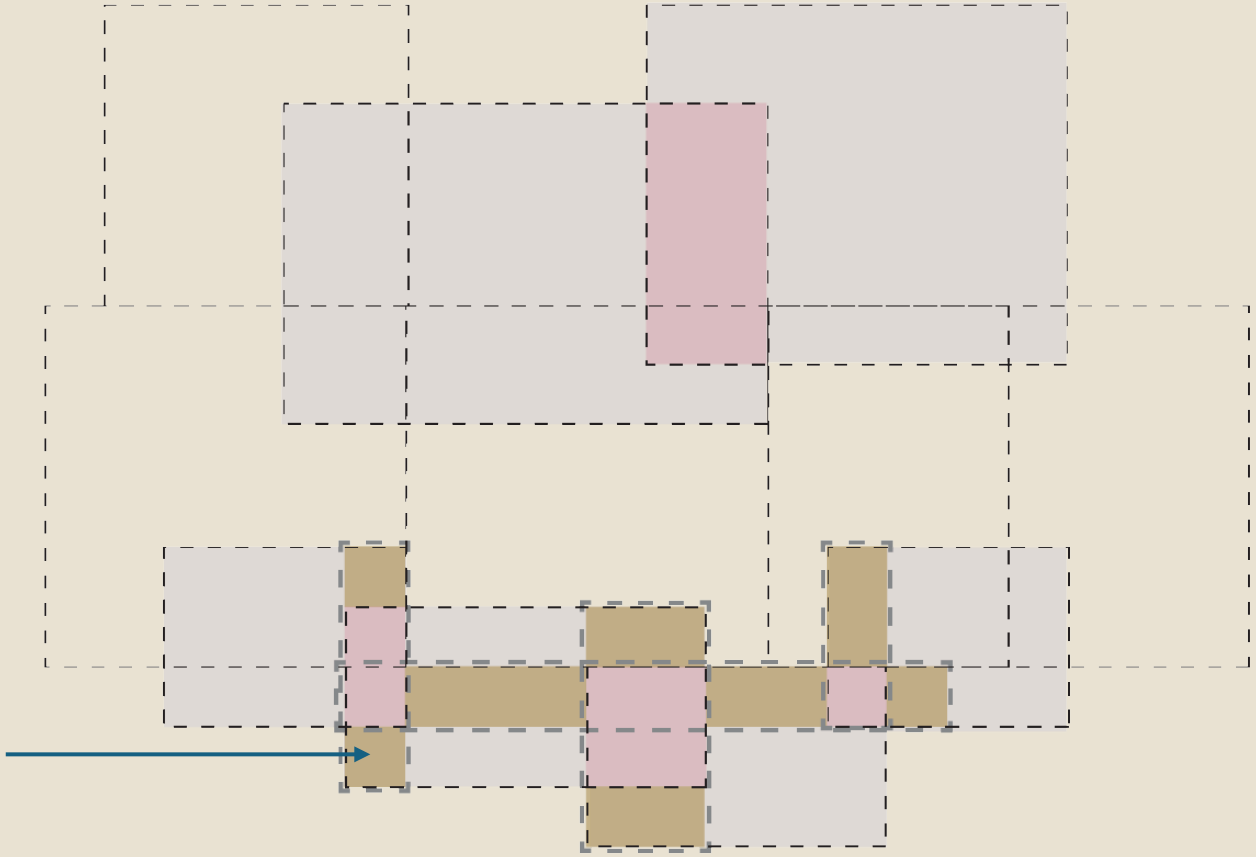
PROGRAM


THEATHER
LIBRARY
EVENTHALL
FLEX WORK SPACES
ART/WORKSHOP
COMMUNITY CENTER

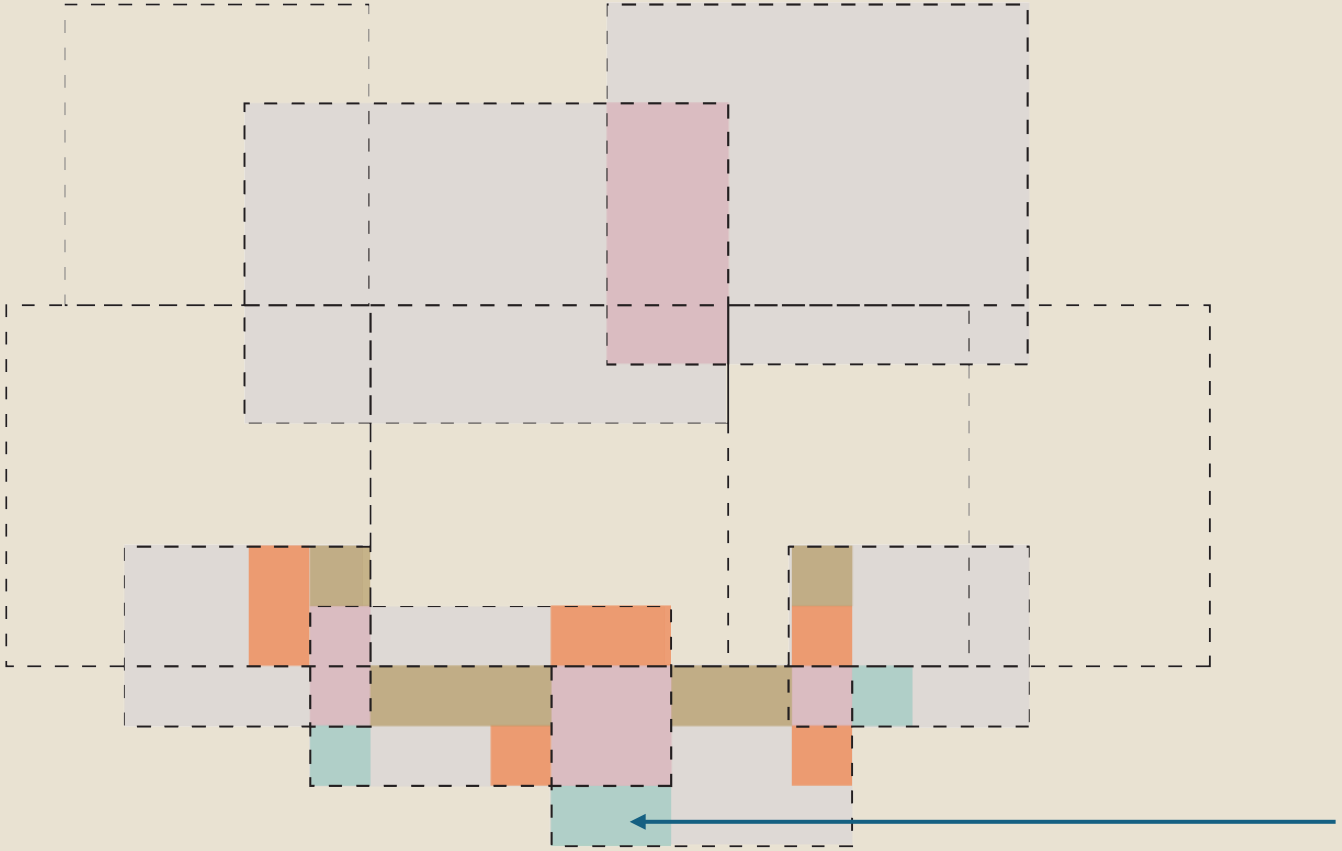




ROUTING

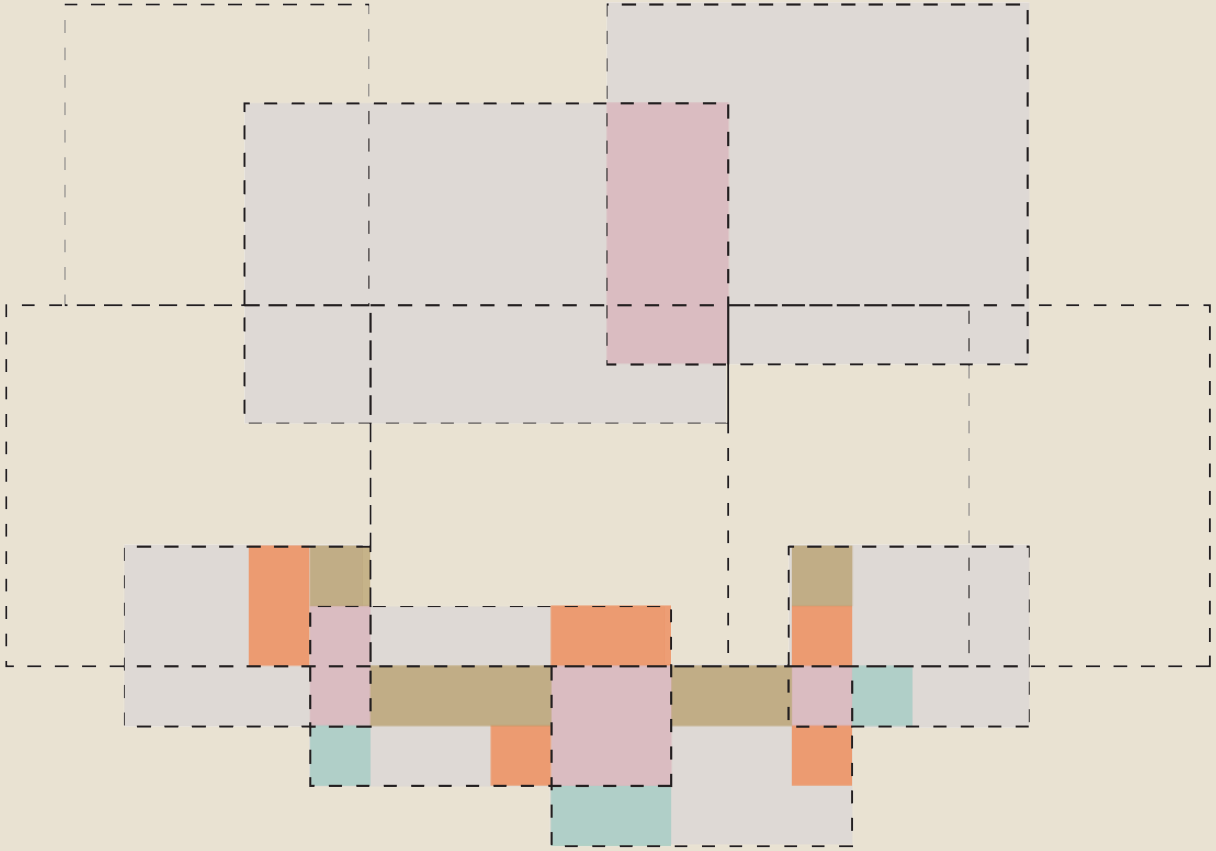


ROUTING



NATURE

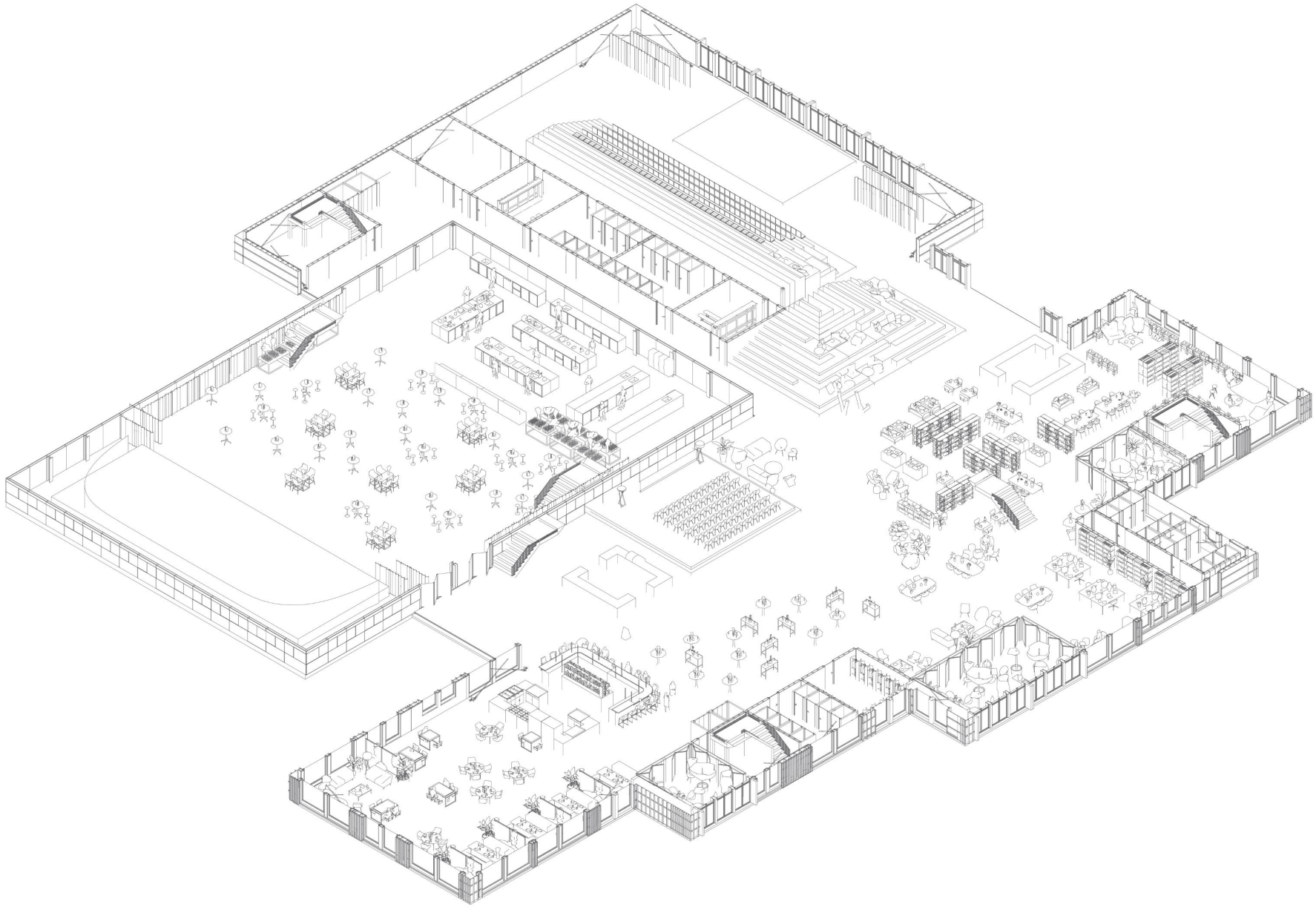
SHARED KITCHEN

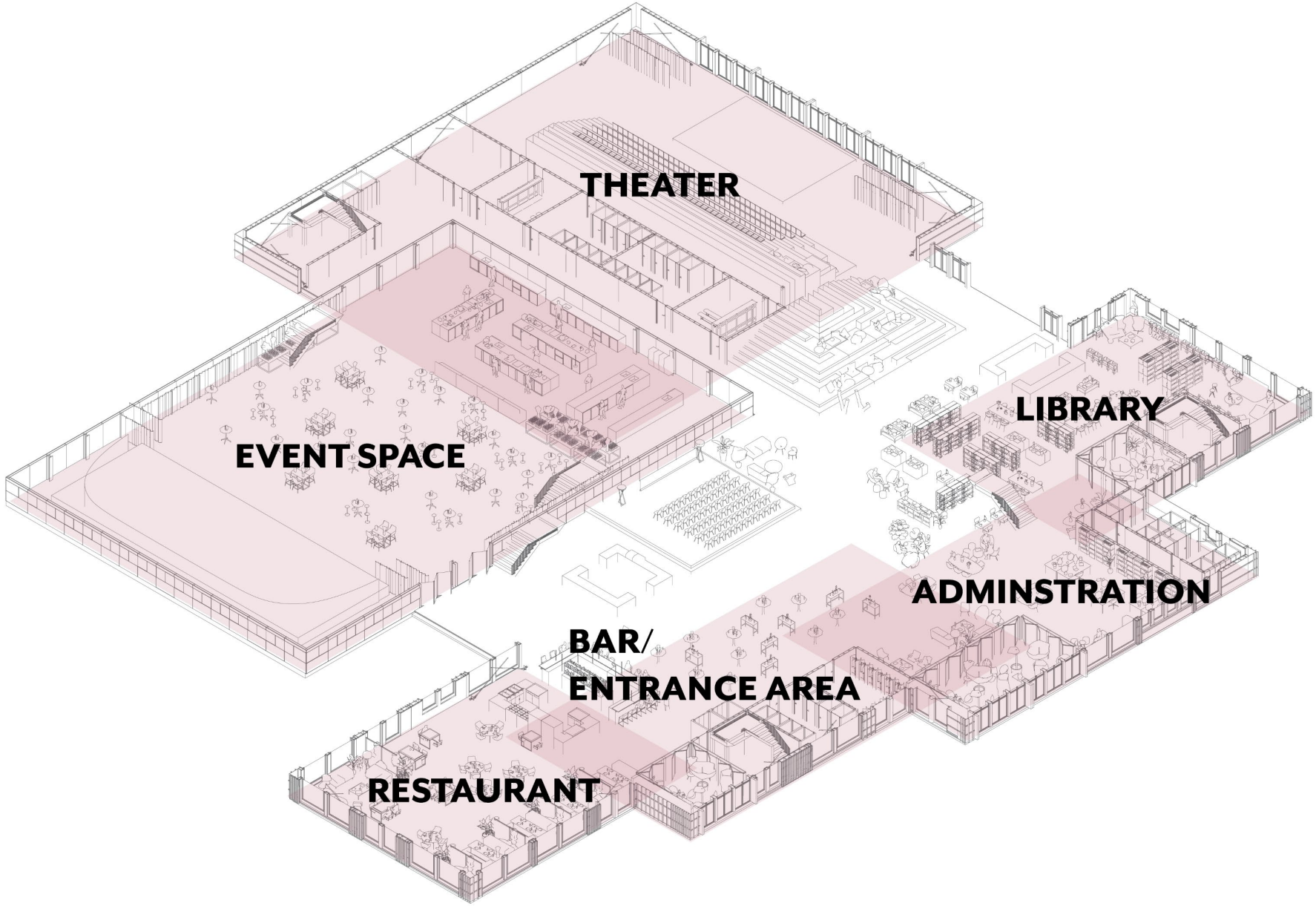


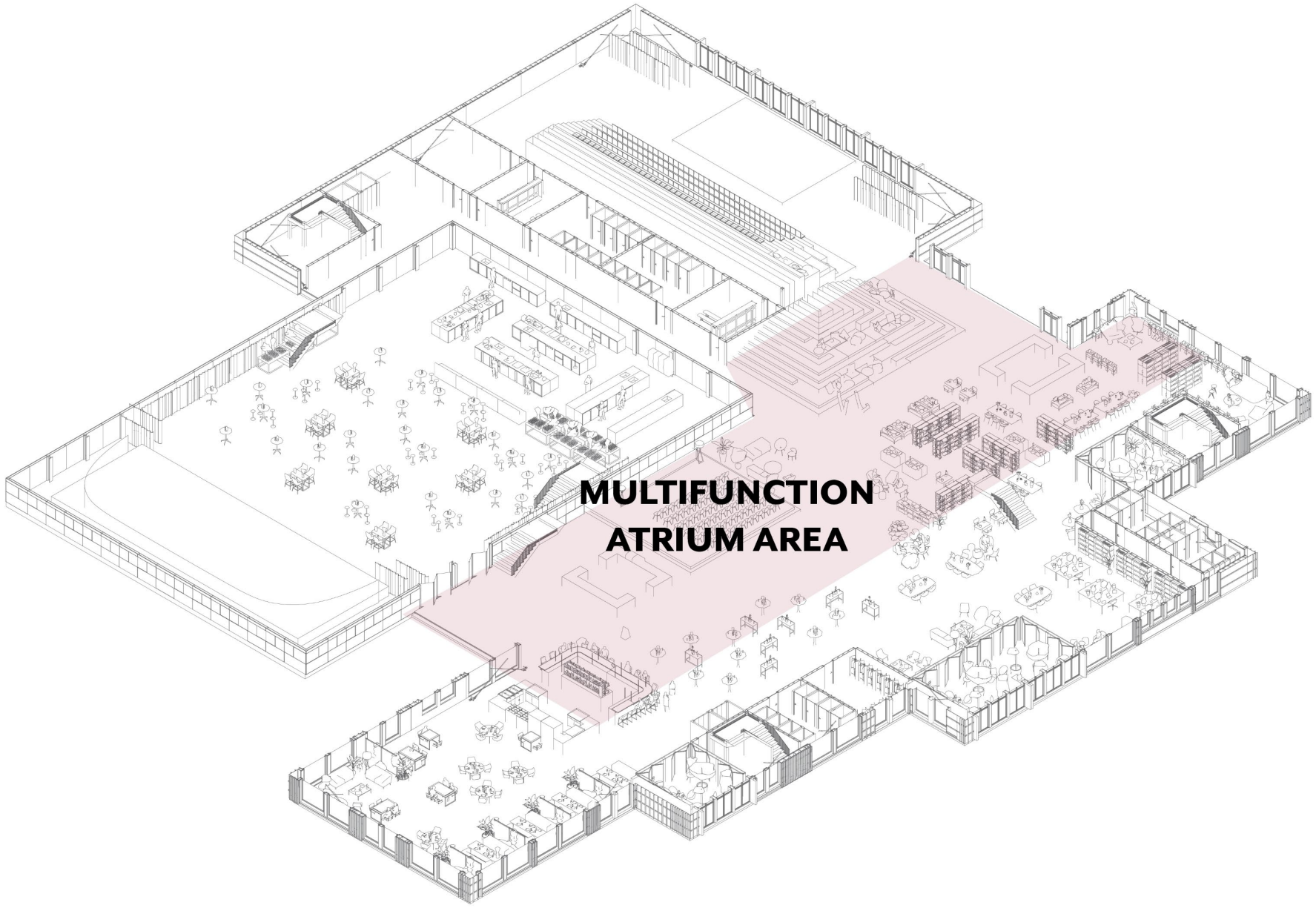
PLAYFUL MEETING AREA'S

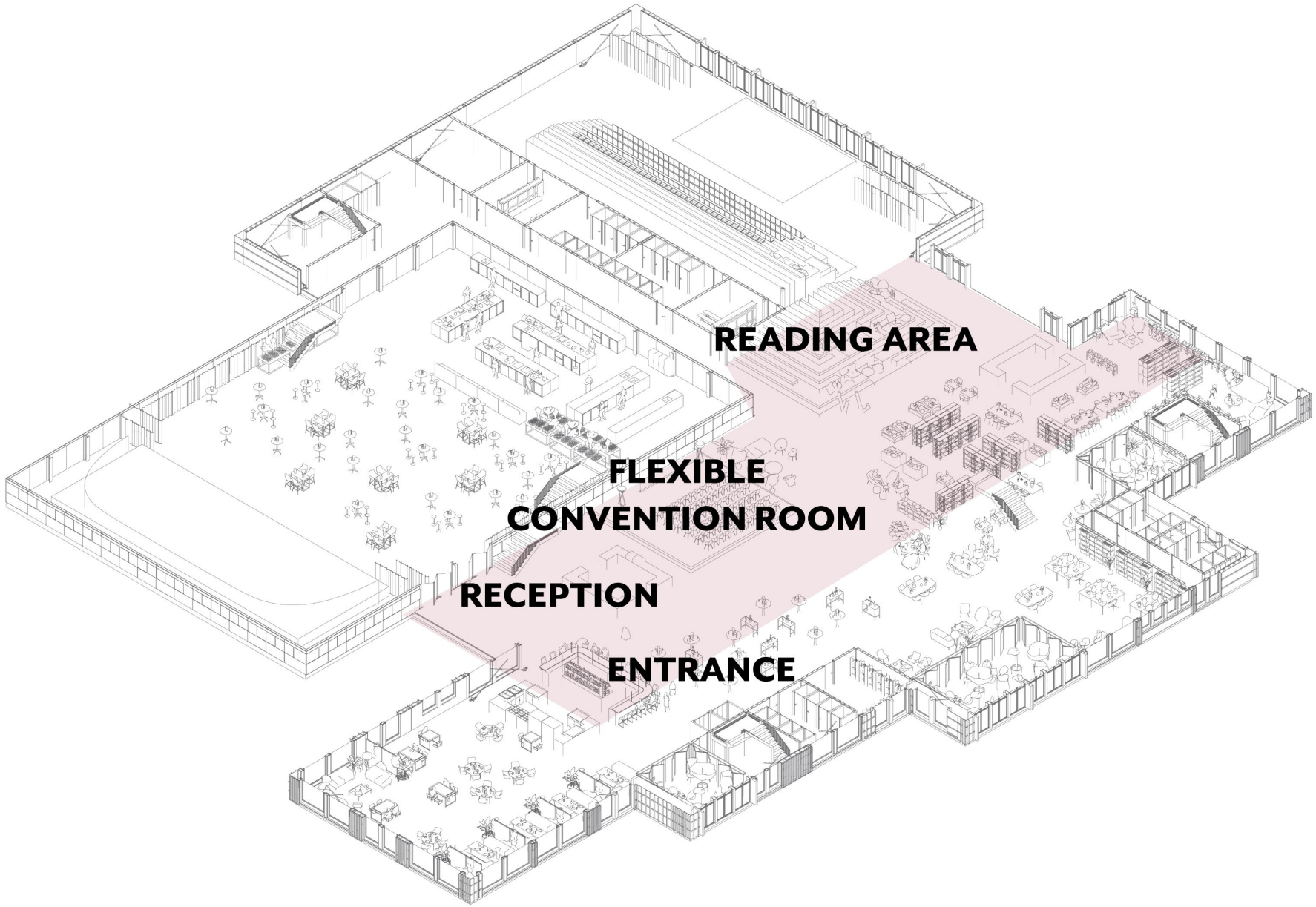
SHARED CLOAK ROOM

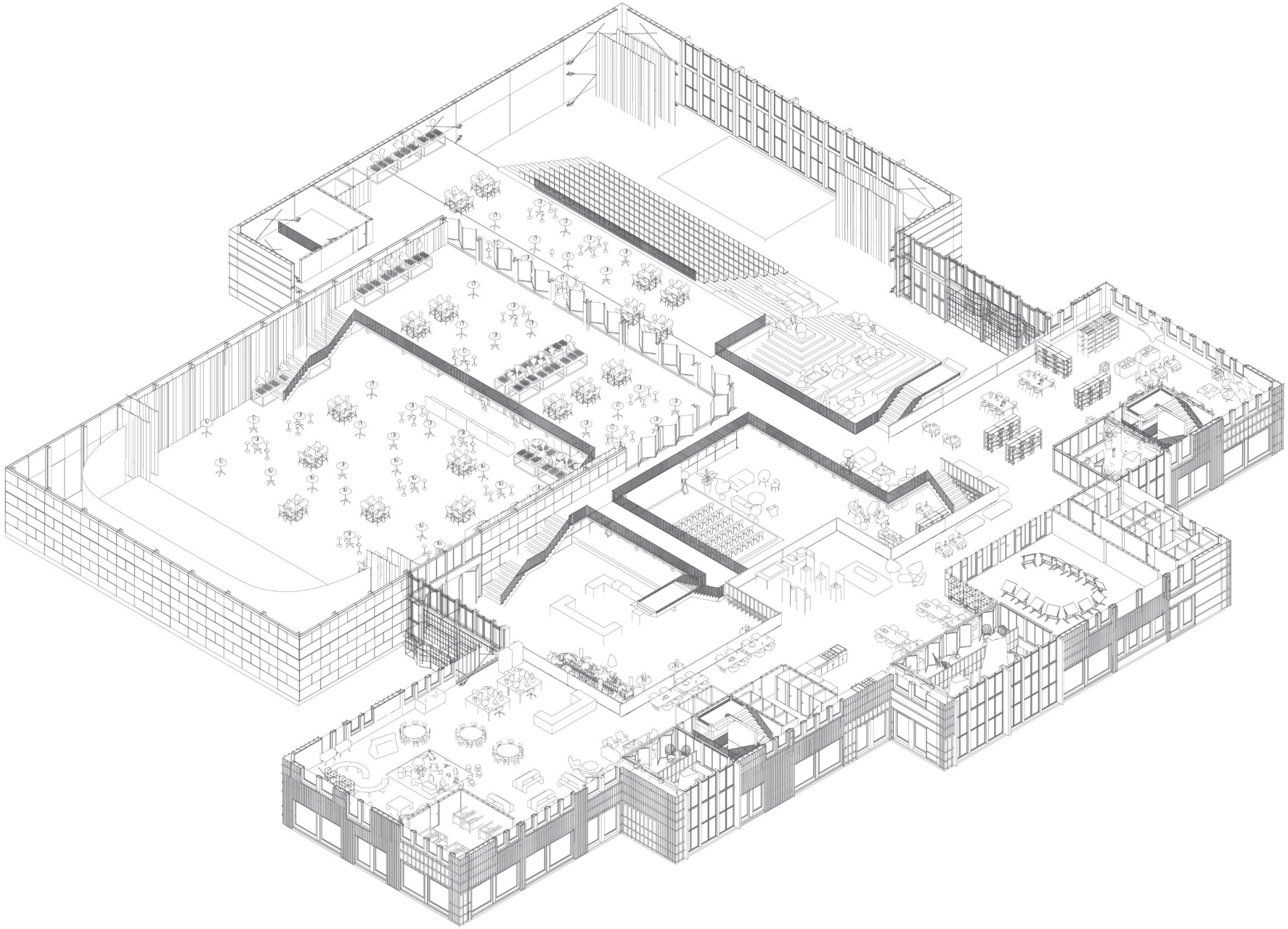
SHARED BATHROOMS

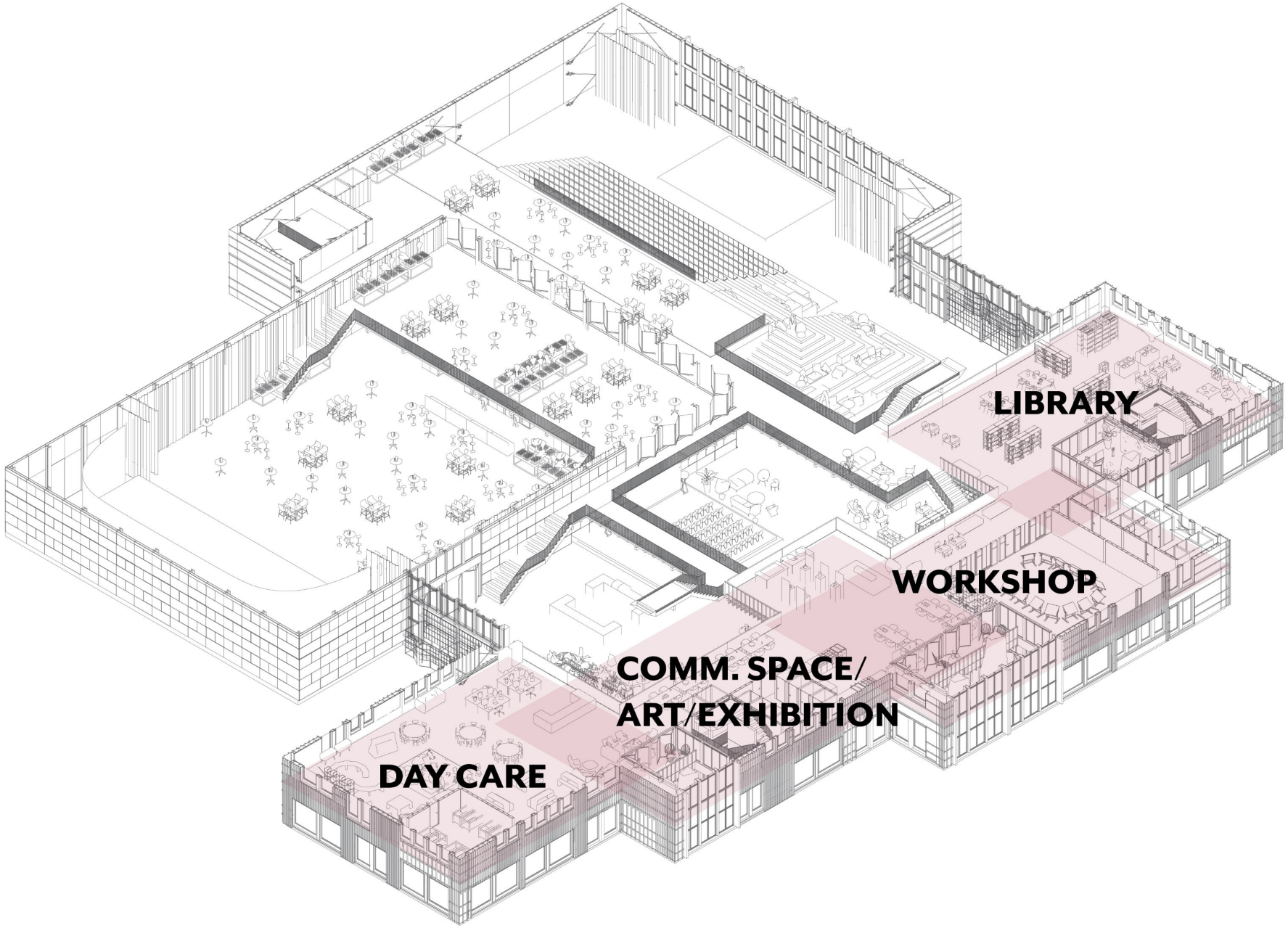


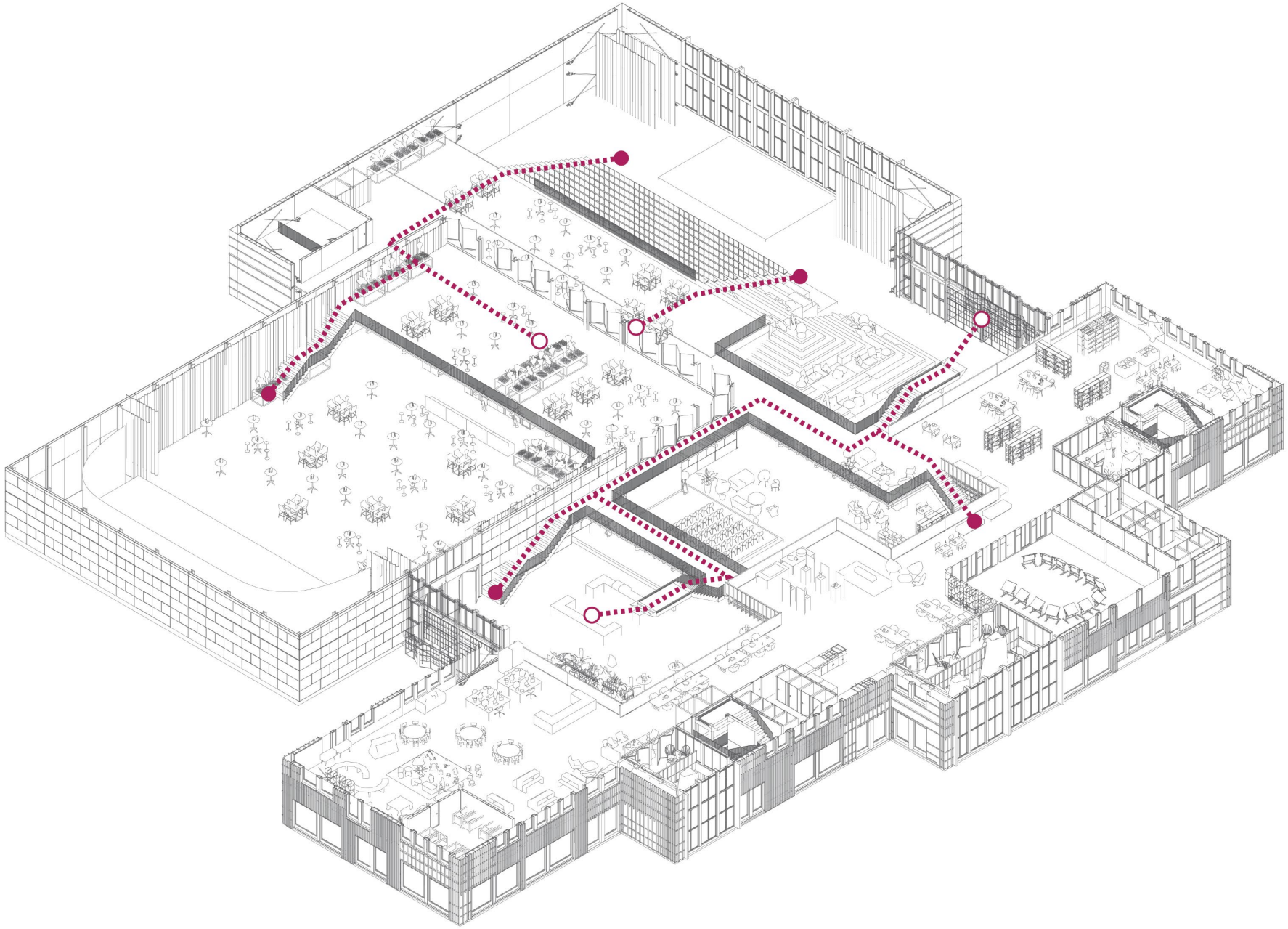

THEATER
EVENT SPACE
LIBRARY
ADMINSTRATION
BAR/
ENTRANCE AREA
RESTAURANT

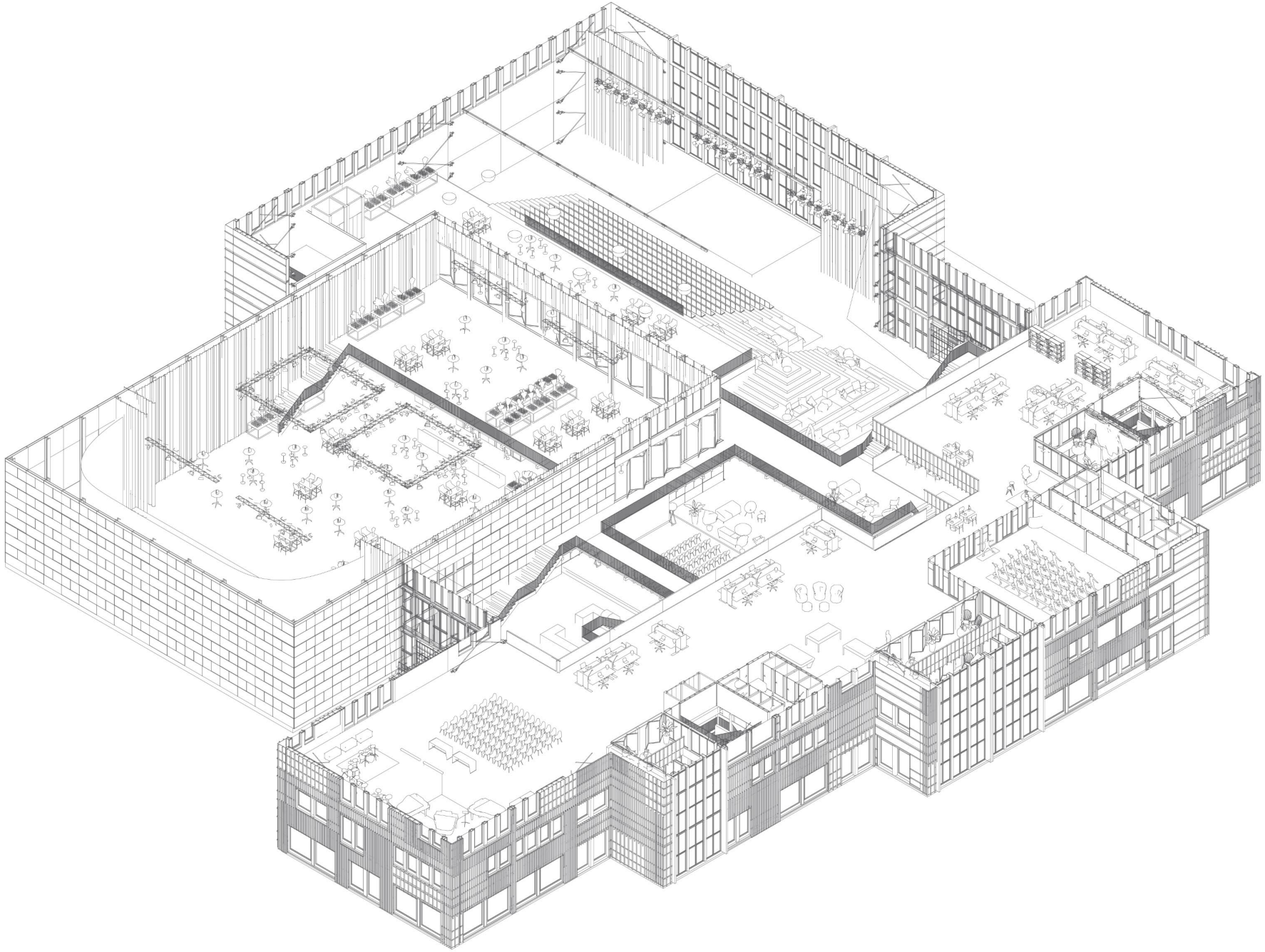

MULTIFUNCTION
ATRIUM AREA

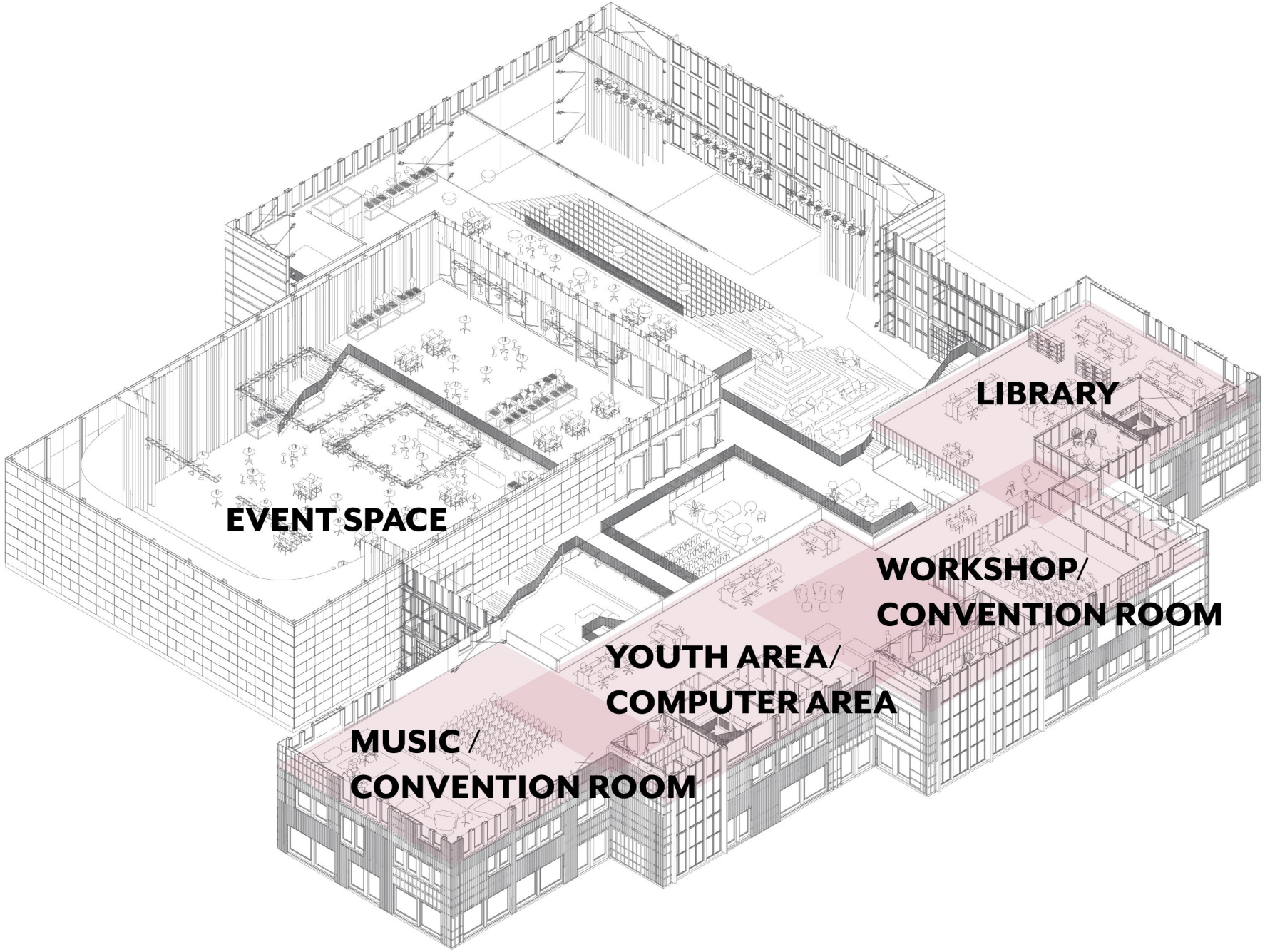

READING AREA
FLEXIBLE
CONVENTION ROOM
RECEPTION
ENTRANCE



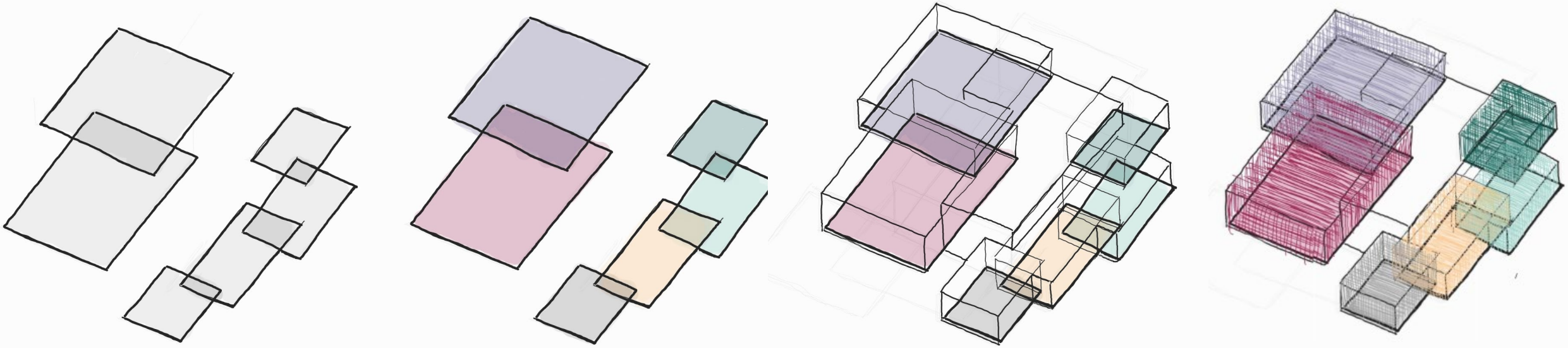

LIBRARY
WORKSHOP
COMM. SPACE/
ART/EXHIBITION
DAY CARE

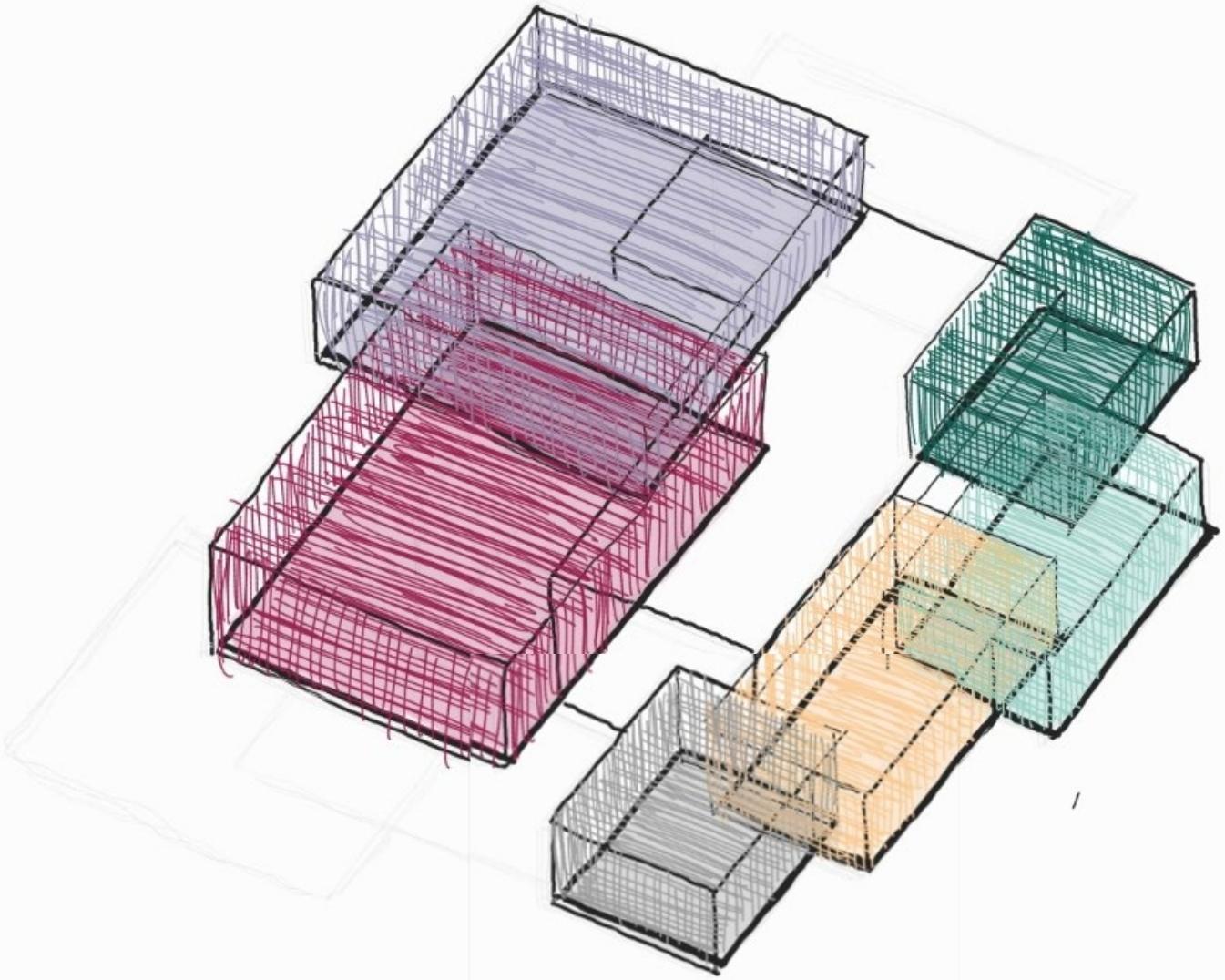


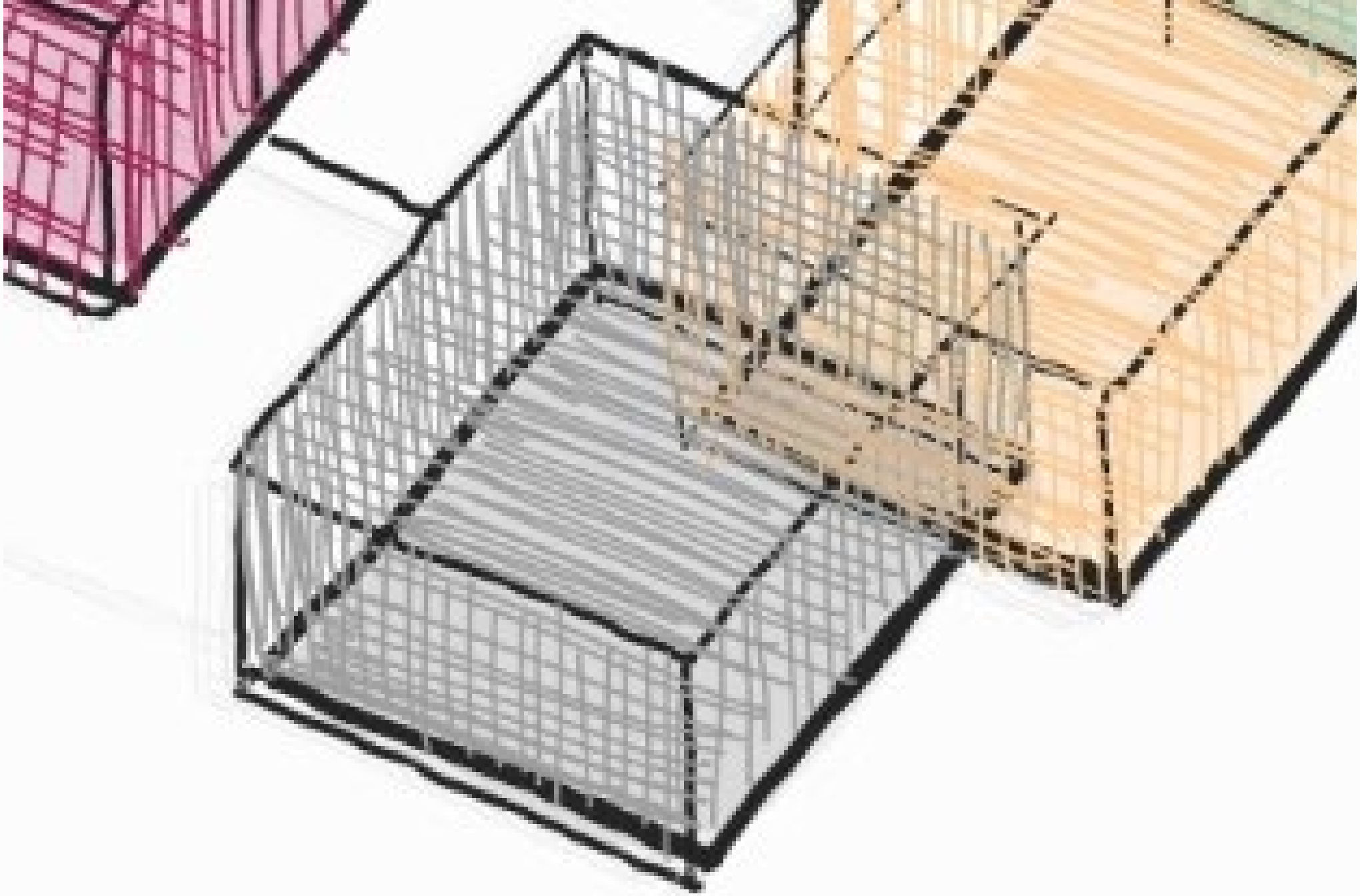


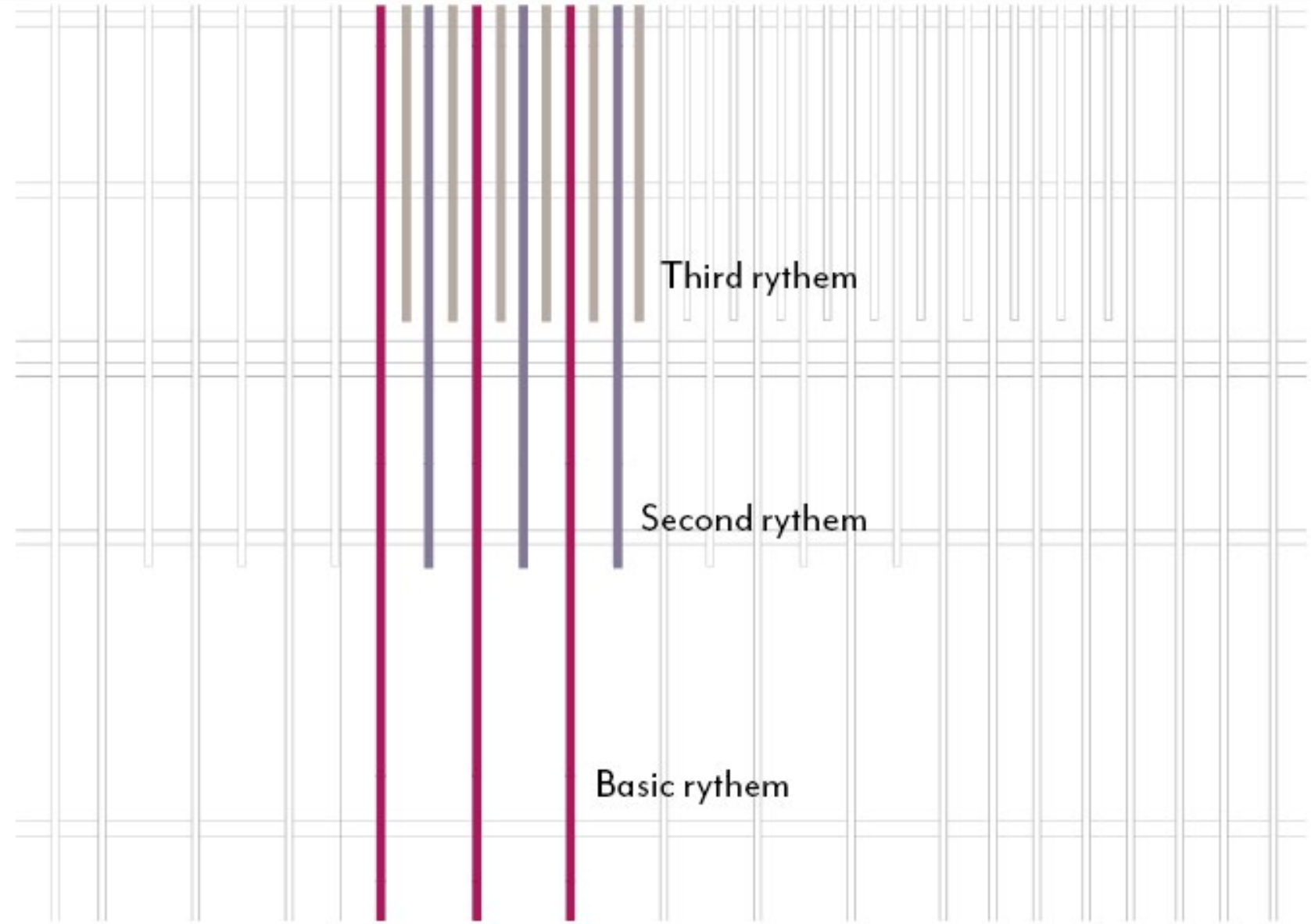

LIBRARY
EVENT SPACE
WORKSHOP/
CONVENTION ROOM
YOUTH AREA/
COMPUTER AREA
MUSIC /
CONVENTION ROOM

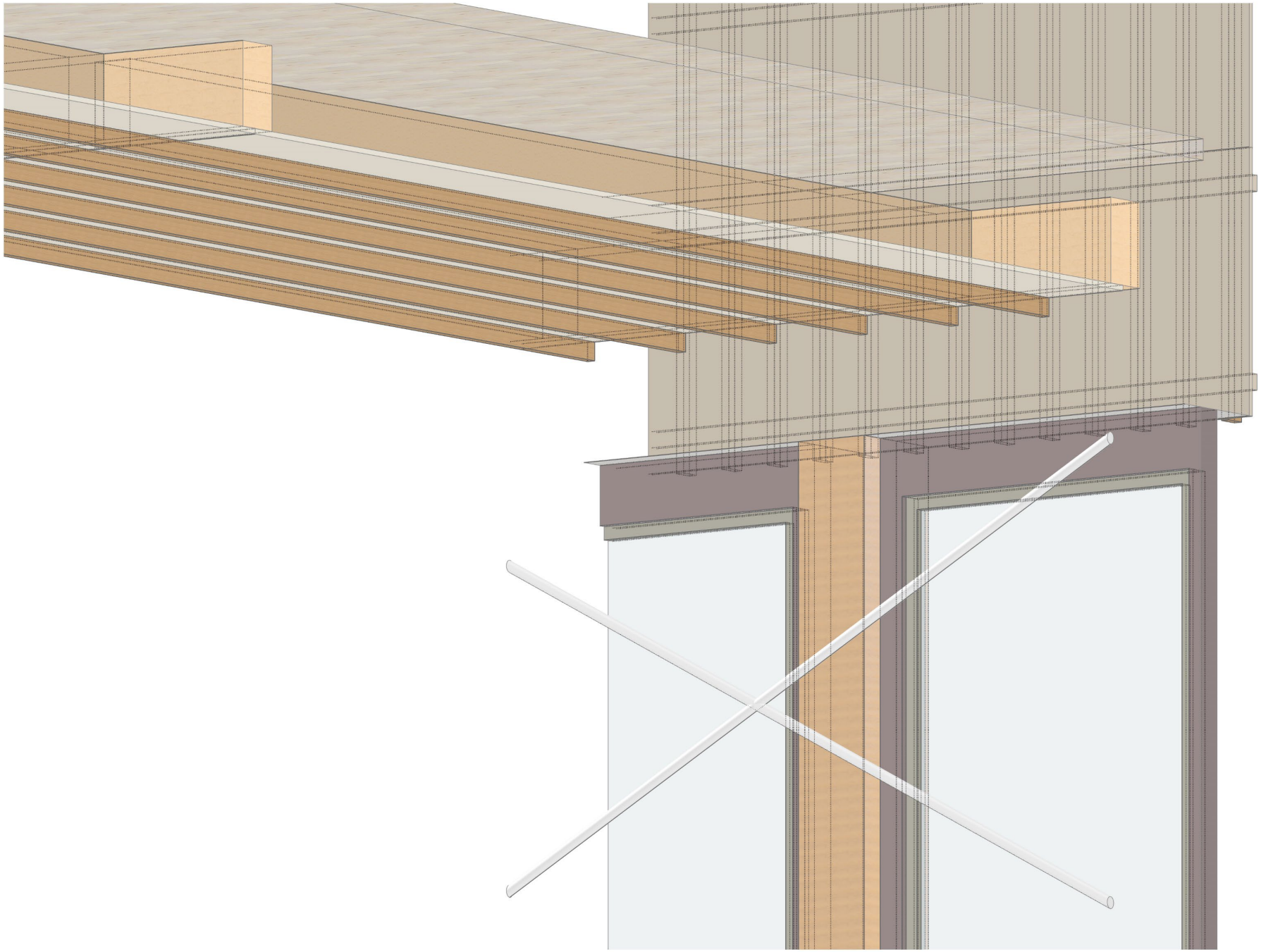
DESIGN DETAILLING

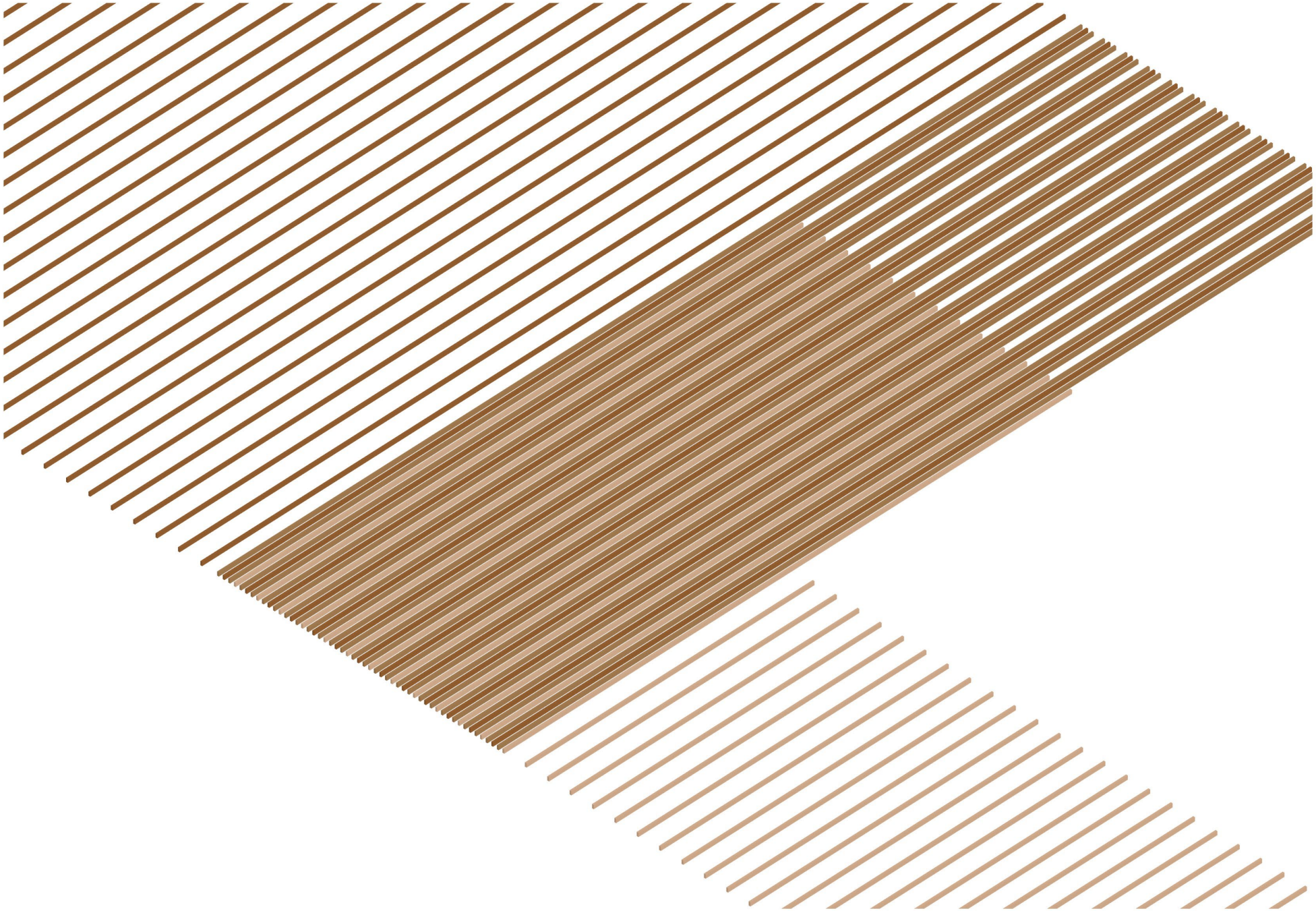


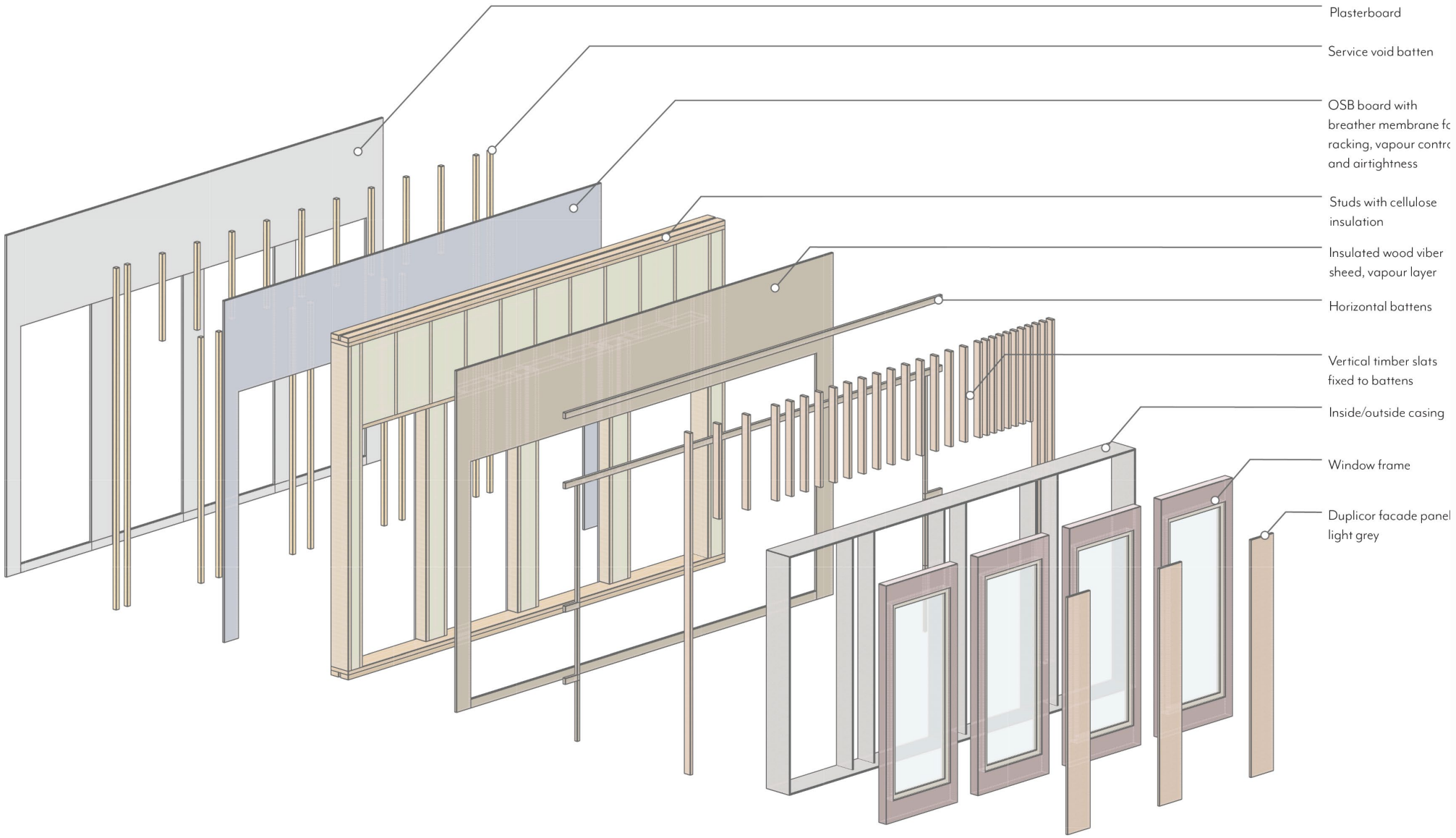




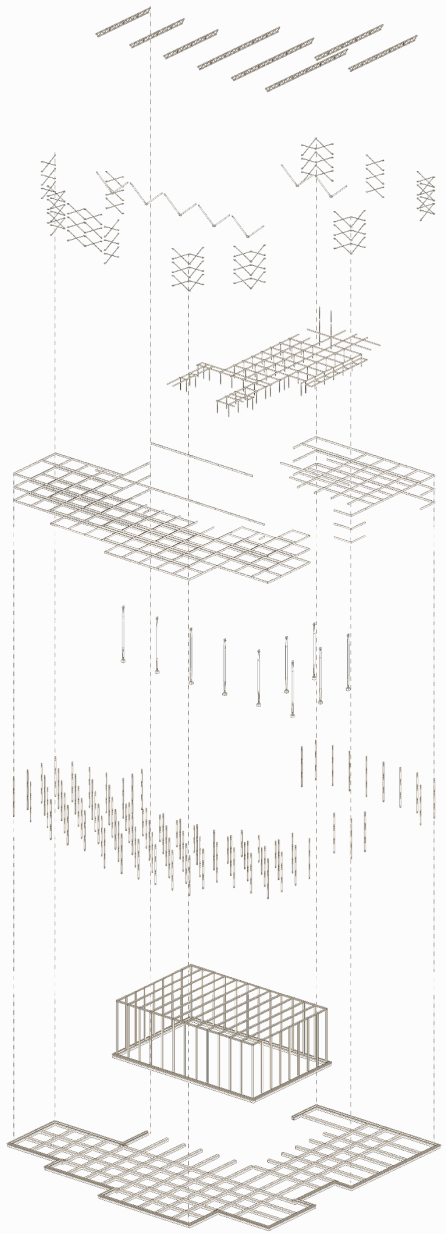

Third rythem
Second rythem
Basic rythem

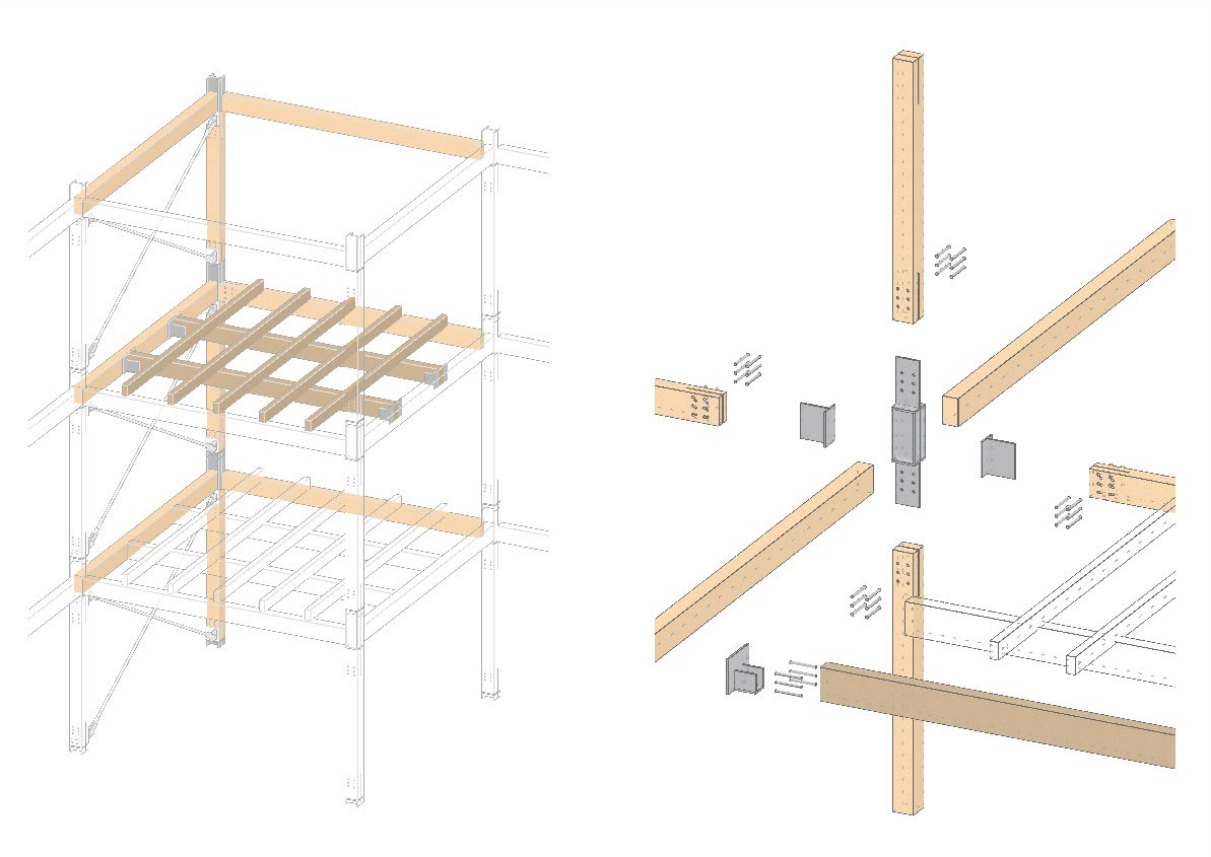





Plasterboard
Service void batten
OSB board with
breather membrane fo
racking, vapour contro
and airtightness
Studs with cellulose
insulation
Insulated wood viber
sheed, vapour layer
Horizontal battens
Vertical timber slats
fixed to battens
Inside/outside casing
Window frame
Duplicor facade panel
light grey

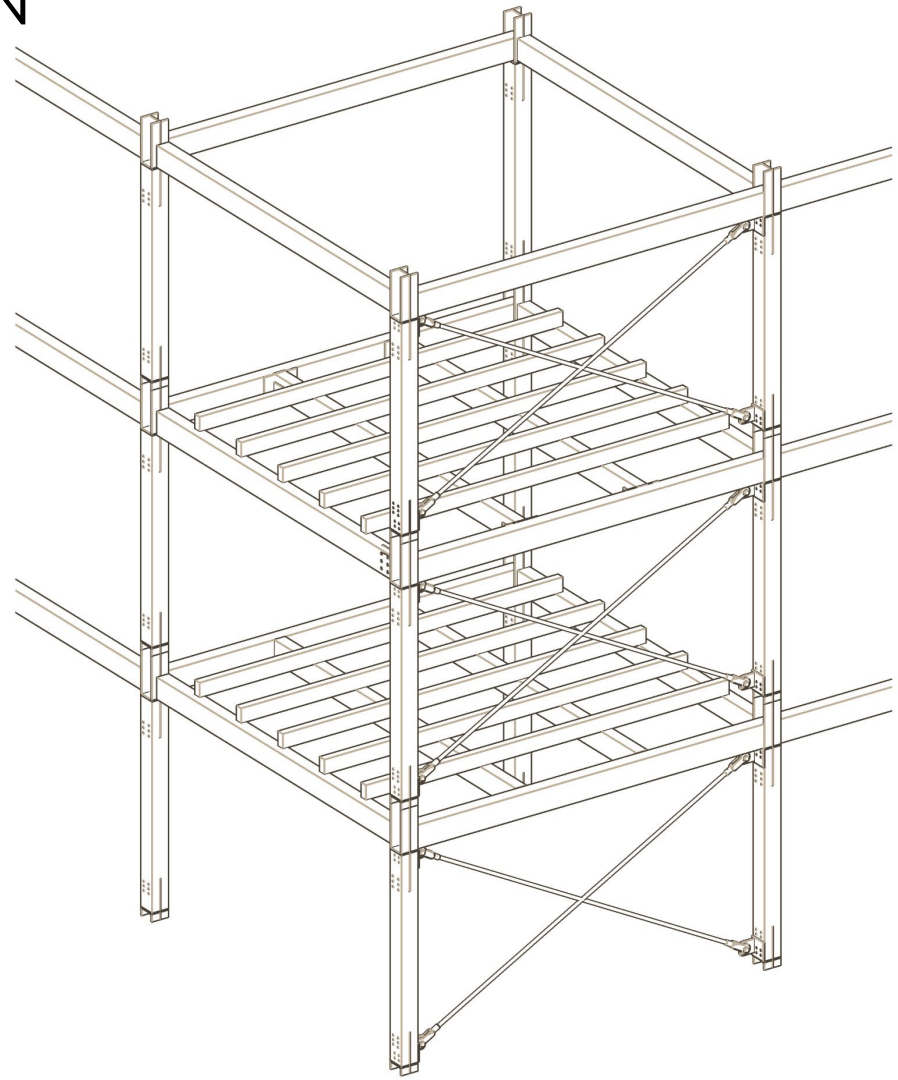
CONSTRUCTION

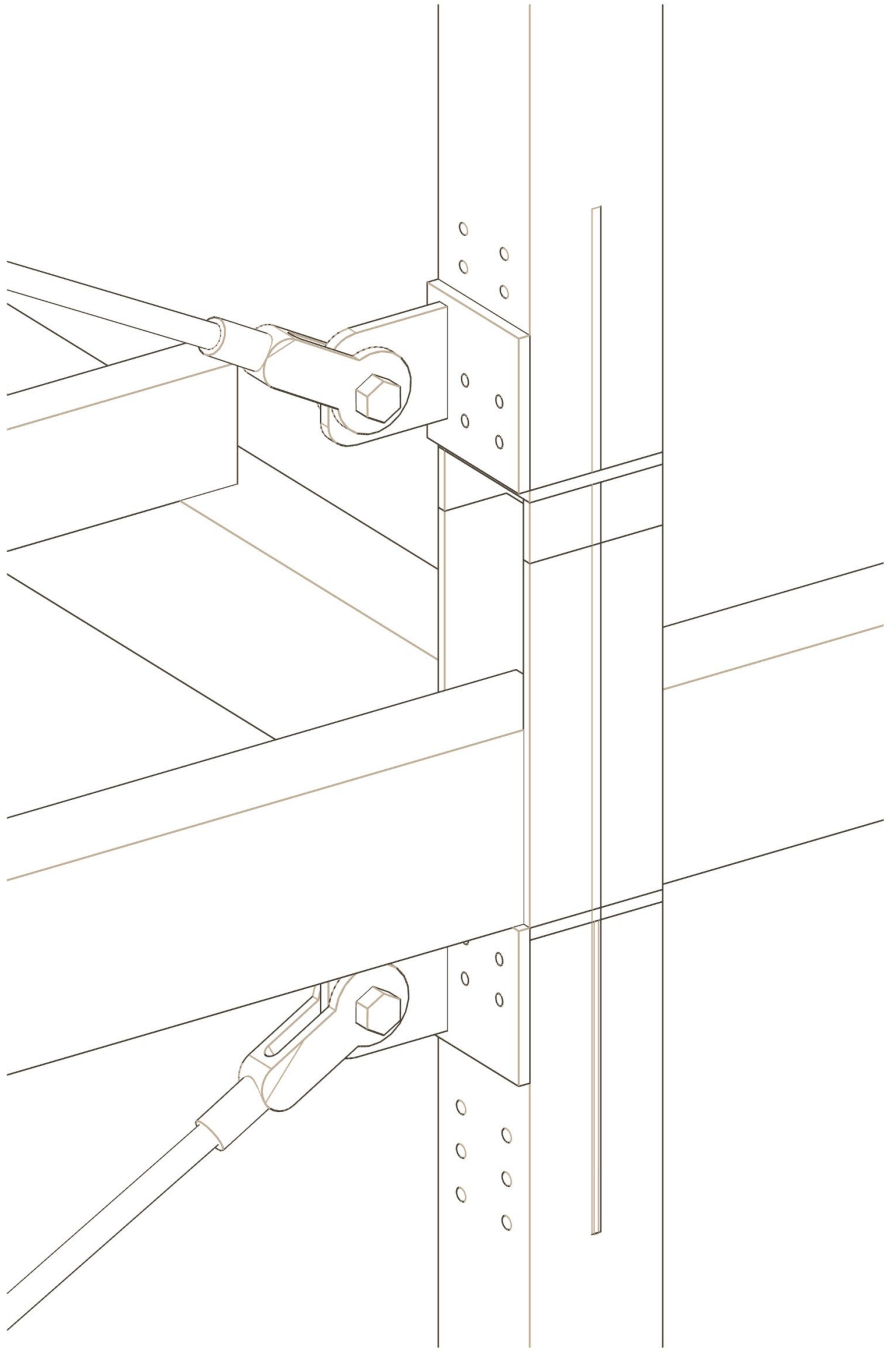




TIMBER FRAME
CONSTRUCTION

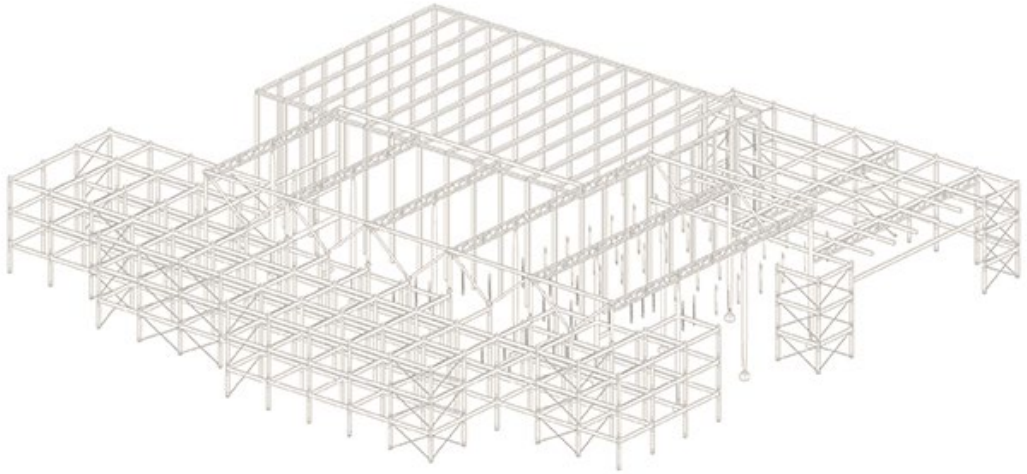
CONSTRUCTION

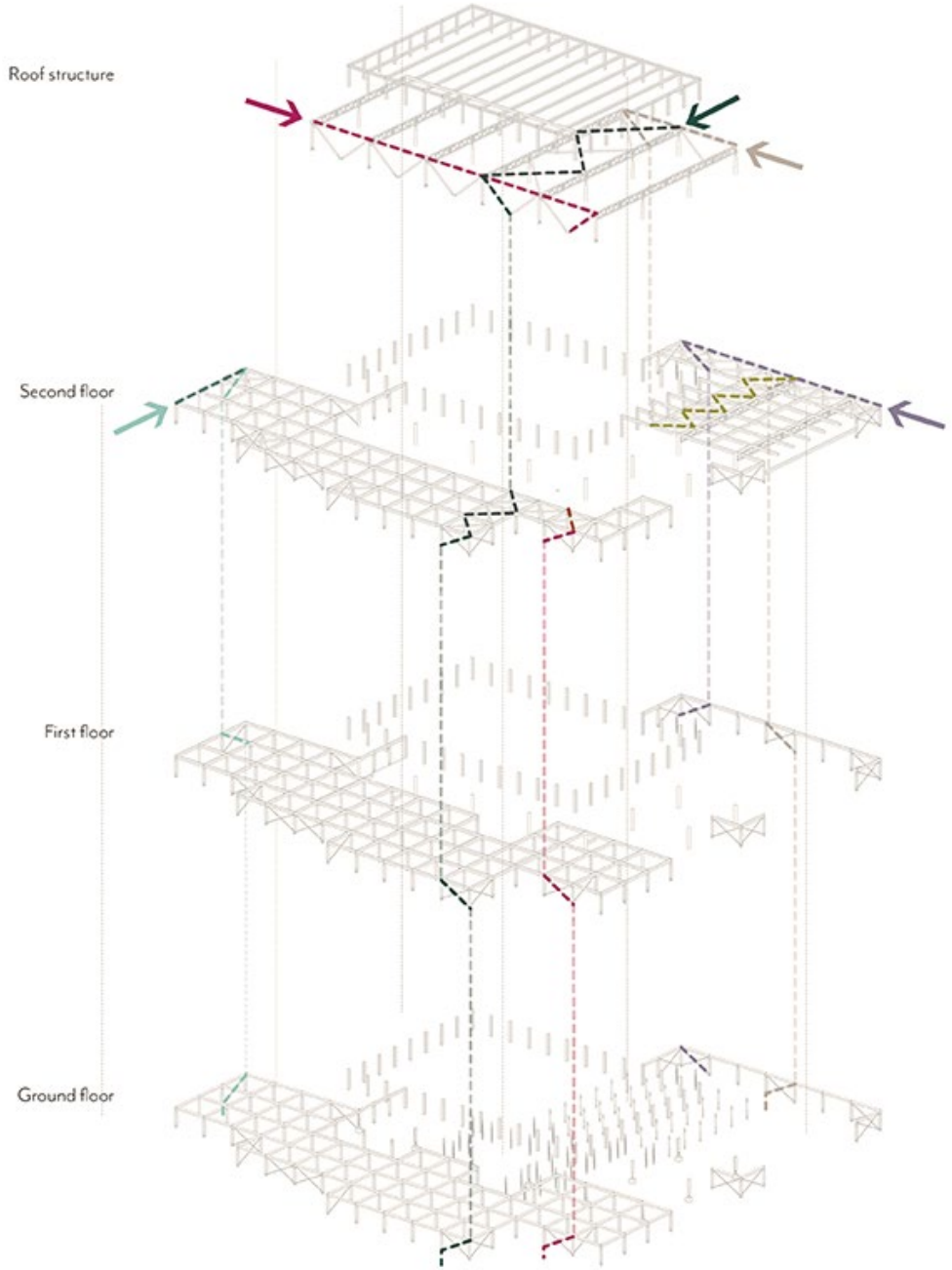




TENSION WIRES

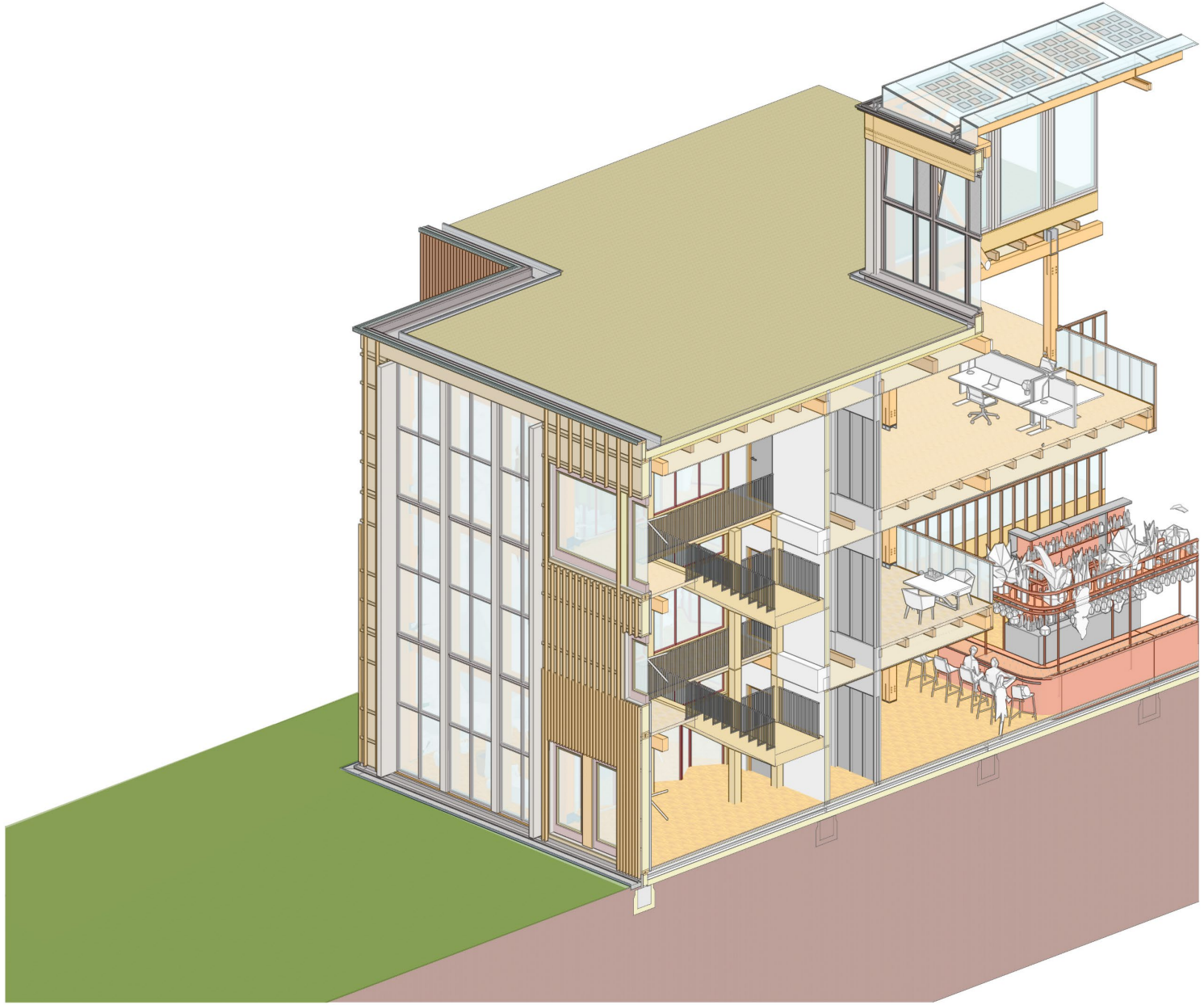
CONSTRUCTION



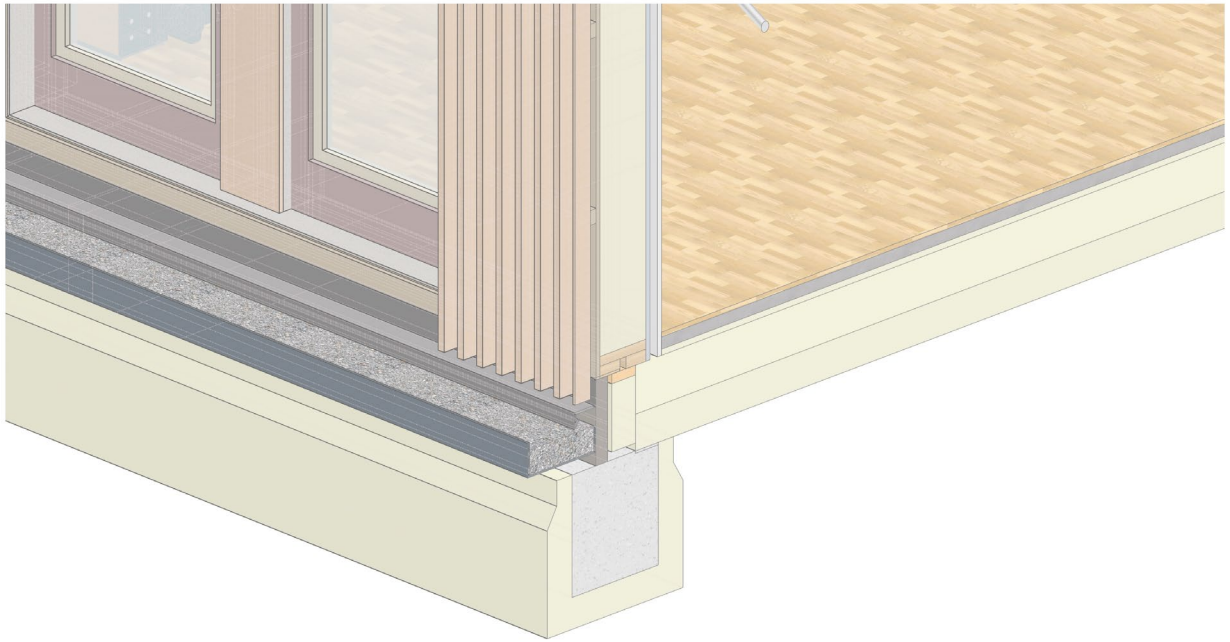


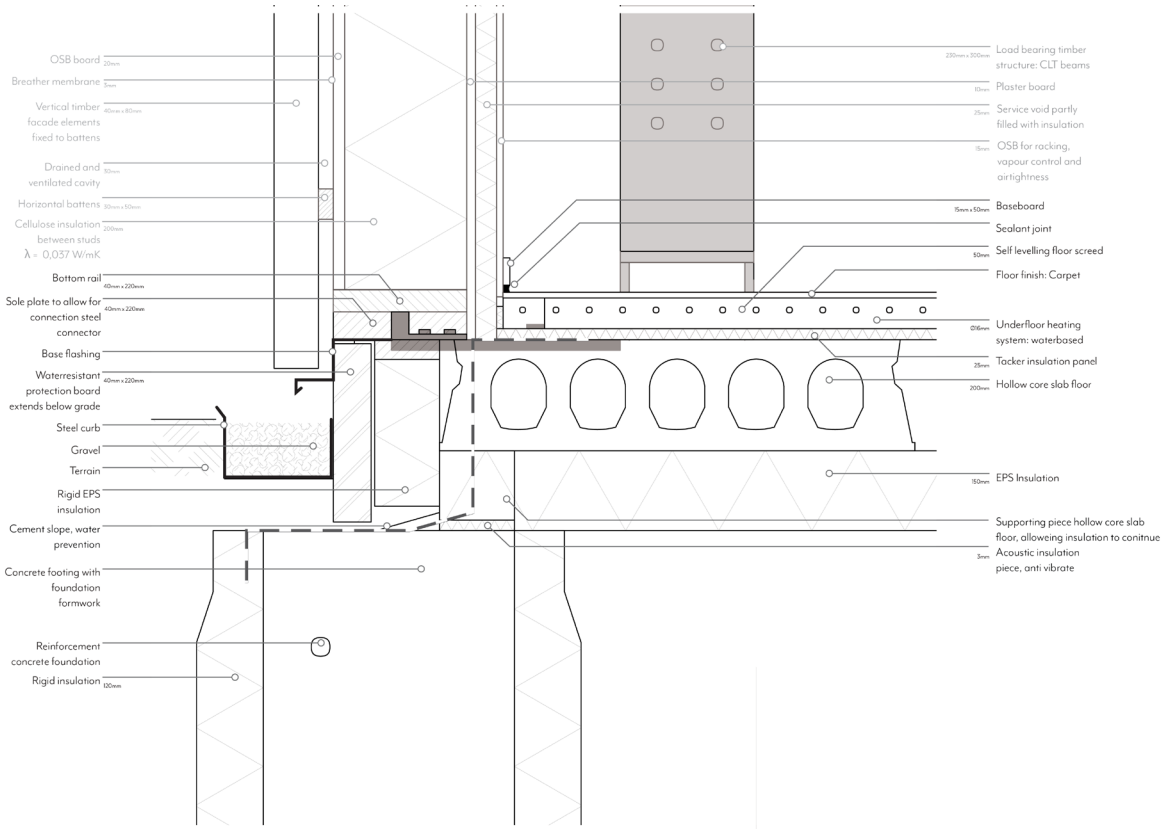
TRANSMITTING
FORCES

DETAILLING

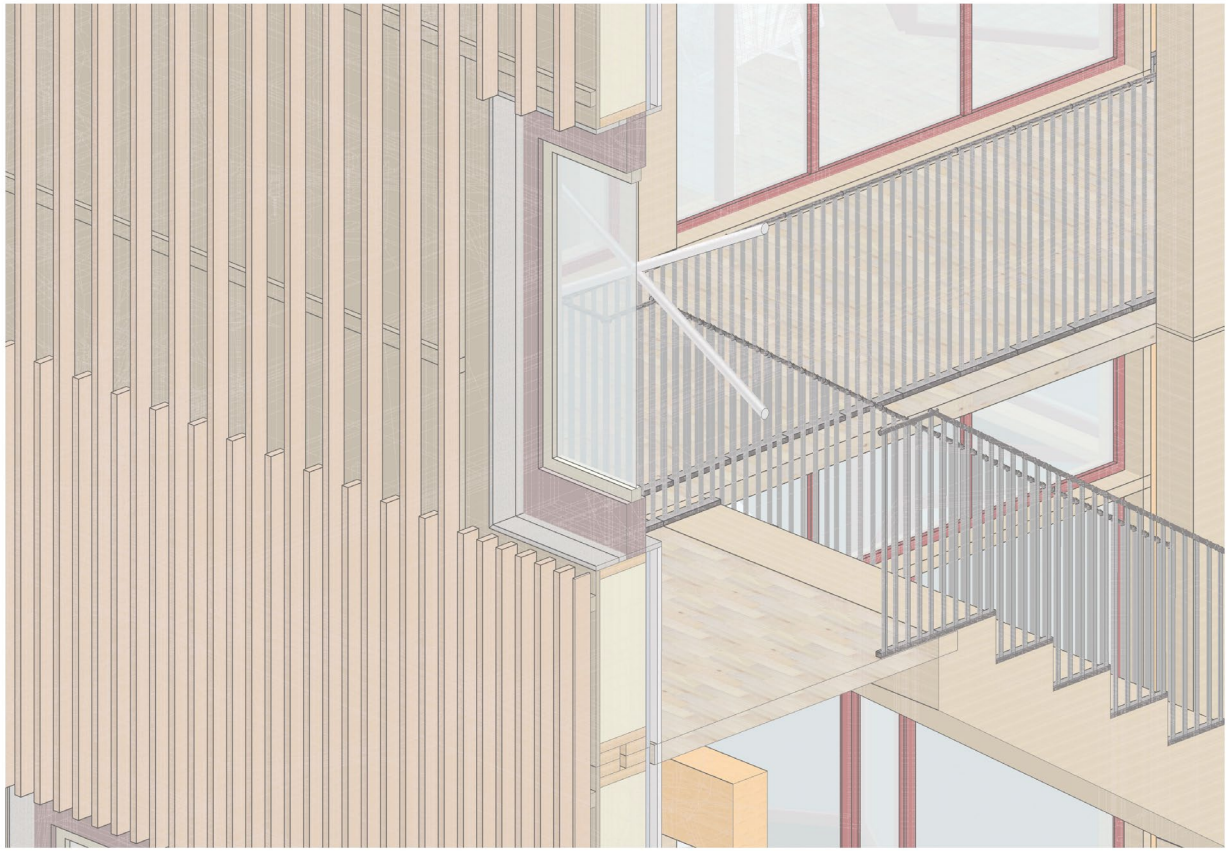


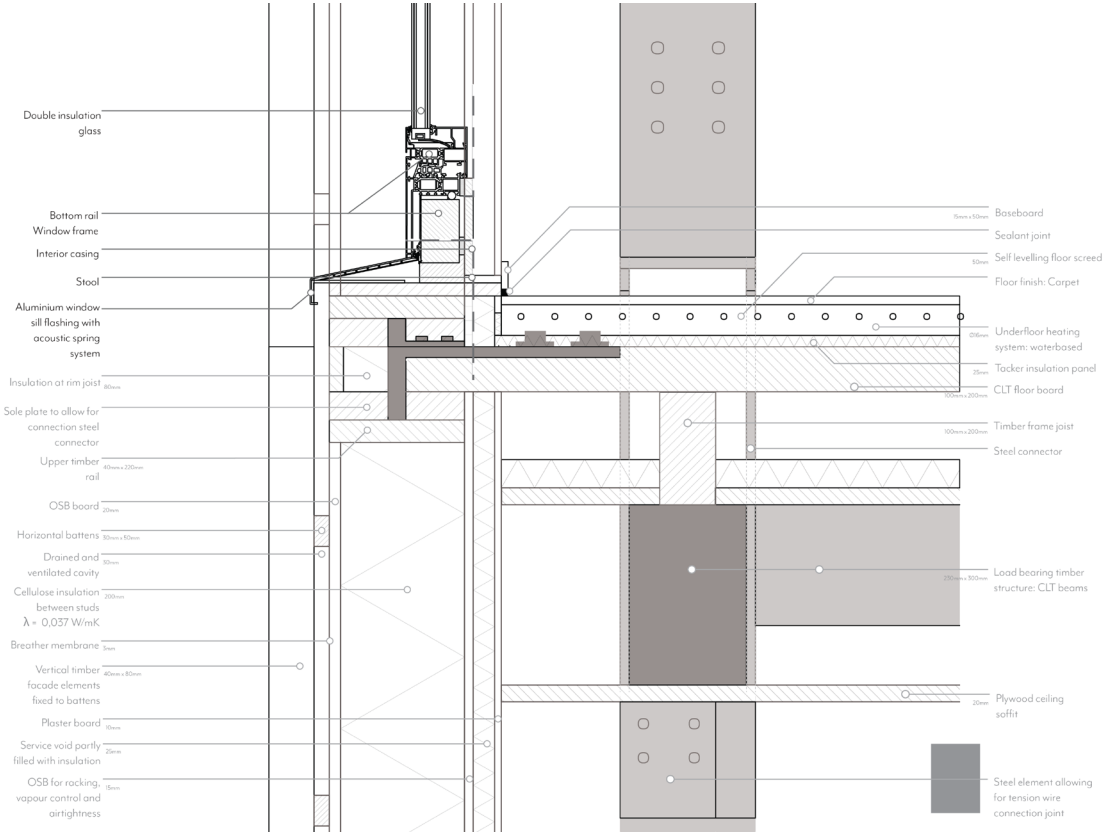
DETAILLING



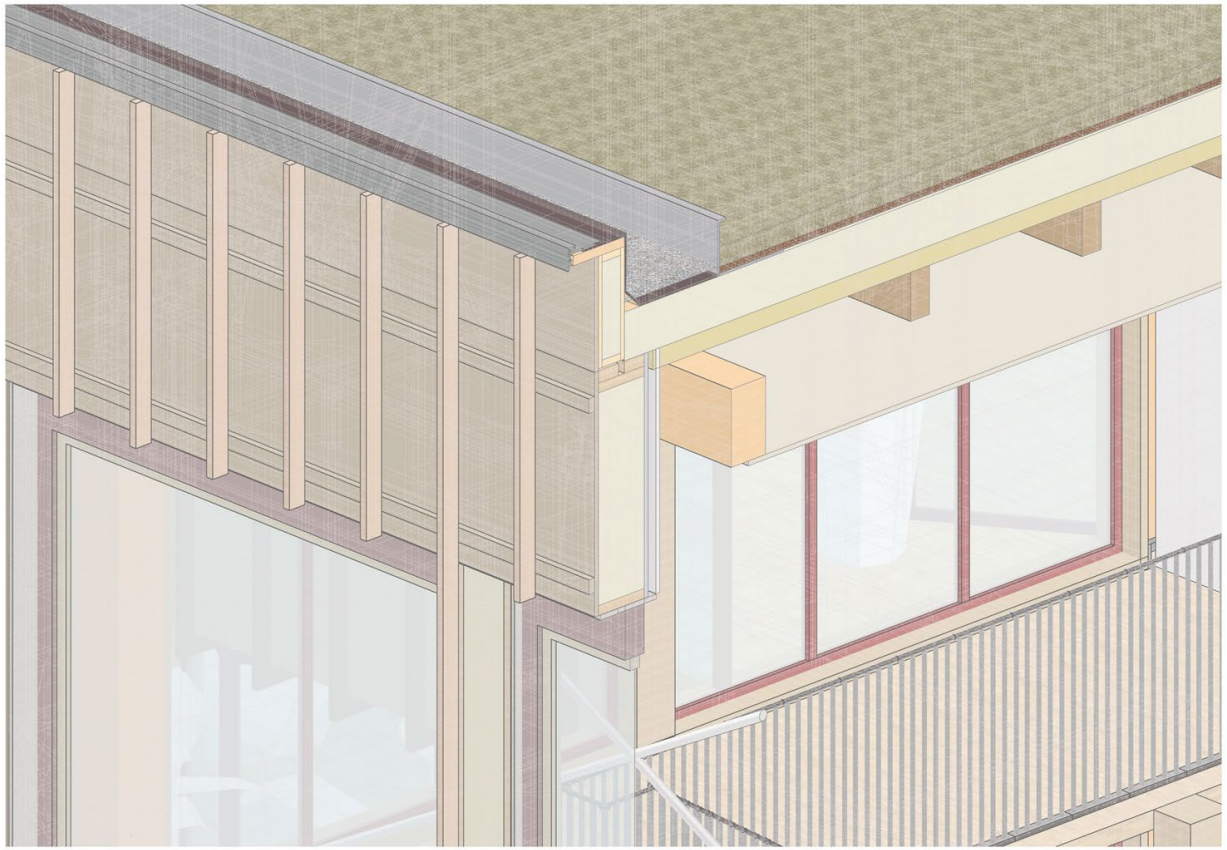

OSB board
20mm
Breather membrane
3mm
Vertical timber facade elements fixed to battens
40mm x 80mm
Drained and ventilated cavity
30mm
Horizontal battens
30mm x 50mm
Cellulose insulation between studs λ = 0,037 W/mK
200mm
Bottom rail
40mm x 220mm
Sole plate to allow for connection steel connector
40mm x 220mm
Base flashing
Waterresistant protection board extends below grade
40mm x 220mm
Steel curb
Gravel
Terrain
Rigid EPS insulation
Cement slope, water prevention
Concrete footing with foundation formwork
Reinforcement concrete foundation
Rigid insulation
120mm
Load bearing timber structure: CLT beams
230mm x 300mm
Plaster board
10mm
Service void partly filled with insulation
25mm
OSB for racking, vapour control and airtightness
15mm
Baseboard
15mm x 50mm
Sealant joint
Self levelling floor screed
50mm
Floor finish: Carpet
Underfloor heating system: waterbased
Ø16mm
Tacker insulation panel
25mm
Hollow core slab floor
200mm
EPS Insulation
150mm
Supporting piece hollow core slab floor, alloweing insulation to conitnue
Acoustic insulation piece, anti vibrate
3mm

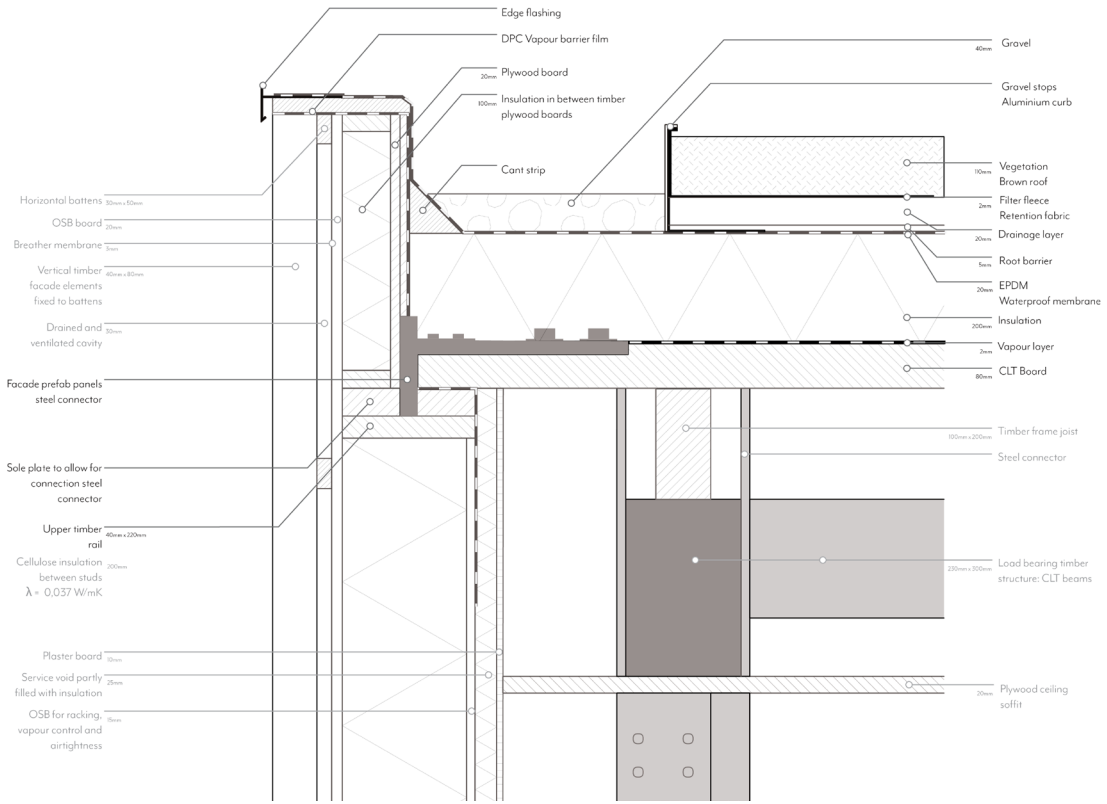
DETAILLING



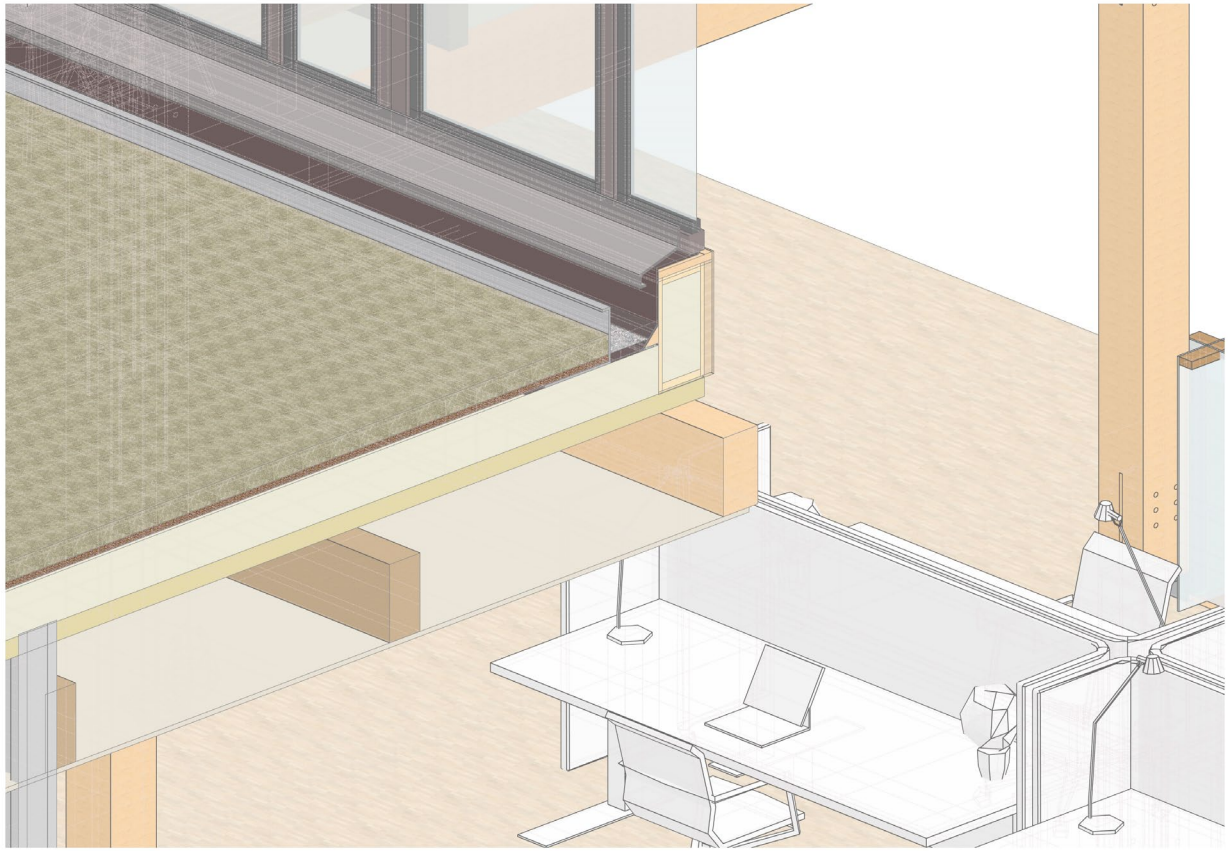

Double insulation glass
Bottom rail
Window frame
Interior casing
Stool
Aluminium window sill flashing with acoustic spring system
Insulation at rim joist 80mm
Sole plate to allow for connection steel connector
Upper timber rail 40mm x 220mm
OSB board 20mm
Horizontal battens 30mm x 60mm
Drained and ventilated cavity 30mm
Cellulose insulation between studs 200mm
λ = 0,037 W/mK
Breather membrane 5mm
Vertical timber facade elements fixed to battens 40mm x 80mm
Plaster board 10mm
Service void partly filled with insulation 22mm
OSB for racking, vapour control and airtightness 15mm
15mm x 50mm Baseboard
Sealant joint
50mm Self levelling floor screed
Floor finish: Carpet
Ø16mm Underfloor heating system: waterbased
35mm Tacker insulation panel
100mm x 200mm CLT floor board
100mm x 200mm Timber frame joist
Steel connector
250mm x 300mm Load bearing timber structure: CLT beams
20mm Plywood ceiling soffit
Steel element allowing for tension wire connection joint

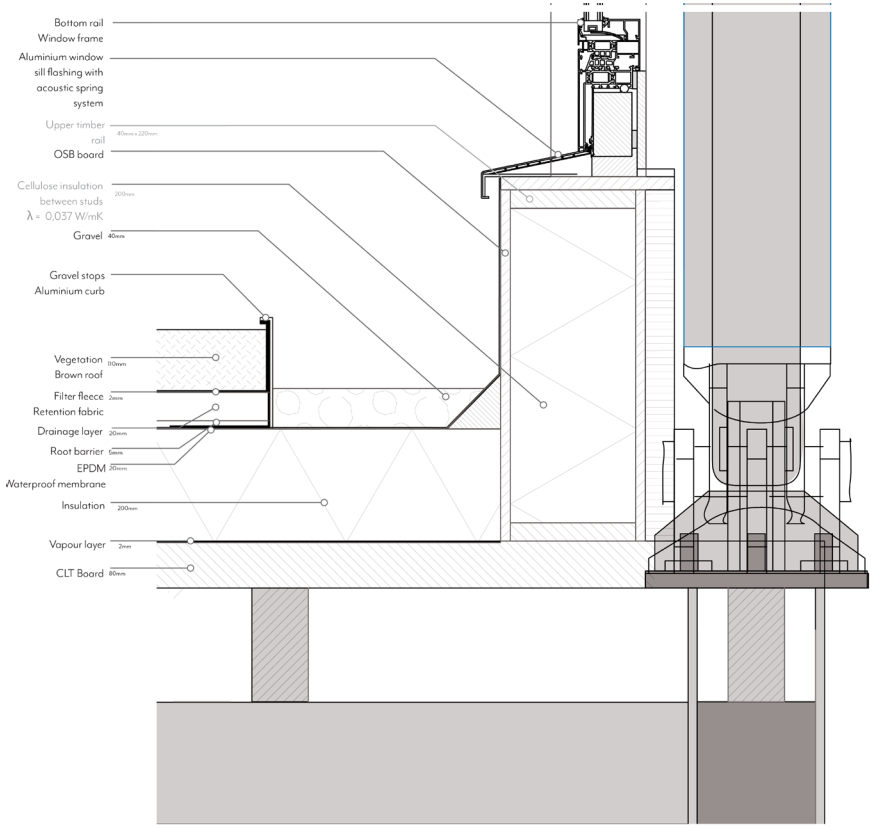
DETAILLING



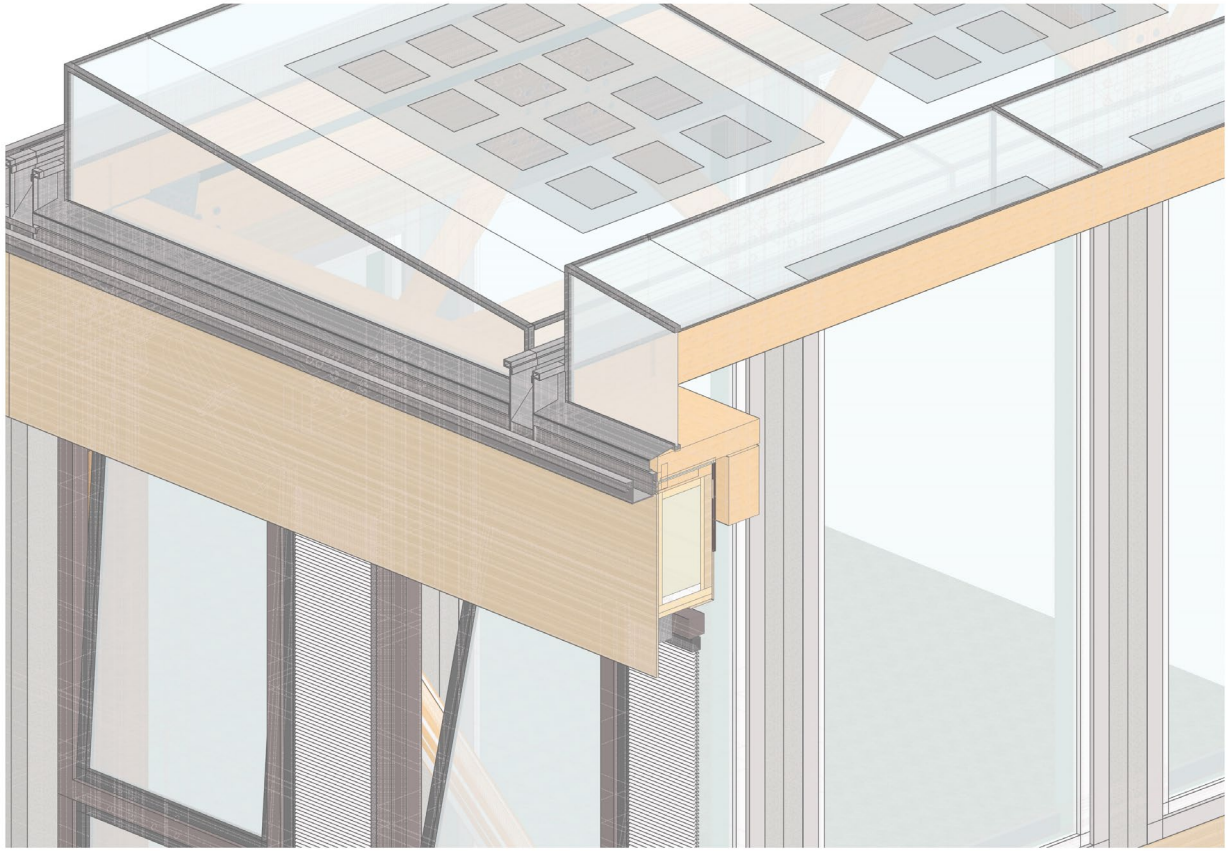

Edge flashing
DPC Vapour barrier film
20mm Plywood board
100mm Insulation in between timber plywood boards
Cant strip
Horizontal battens 30mm x 50mm
OSB board 20mm
Breather membrane 3mm
Vertical timber facade elements fixed to battens 40mm x 80mm
Drained and ventilated cavity 30mm
Facade prefab panels steel connector
Sole plate to allow for connection steel connector
Upper timber rail 40mm x 220mm
Cellulose insulation between studs λ = 0,037 W/mK 200mm
Plaster board 10mm
Service void partly filled with insulation 25mm
OSB for racking, vapour control and airtightness 15mm
40mm Gravel
Gravel stops
Aluminium curb
110mm Vegetation
Brown roof
2mm Filter fleece
Retention fabric
20mm Drainage layer
5mm Root barrier
20mm EPDM
Waterproof membrane
200mm Insulation
2mm Vapour layer
80mm CLT Board
100mm x 200mm Timber frame joist
Steel connector
230mm x 300mm Load bearing timber structure: CLT beams
20mm Plywood ceiling soffit

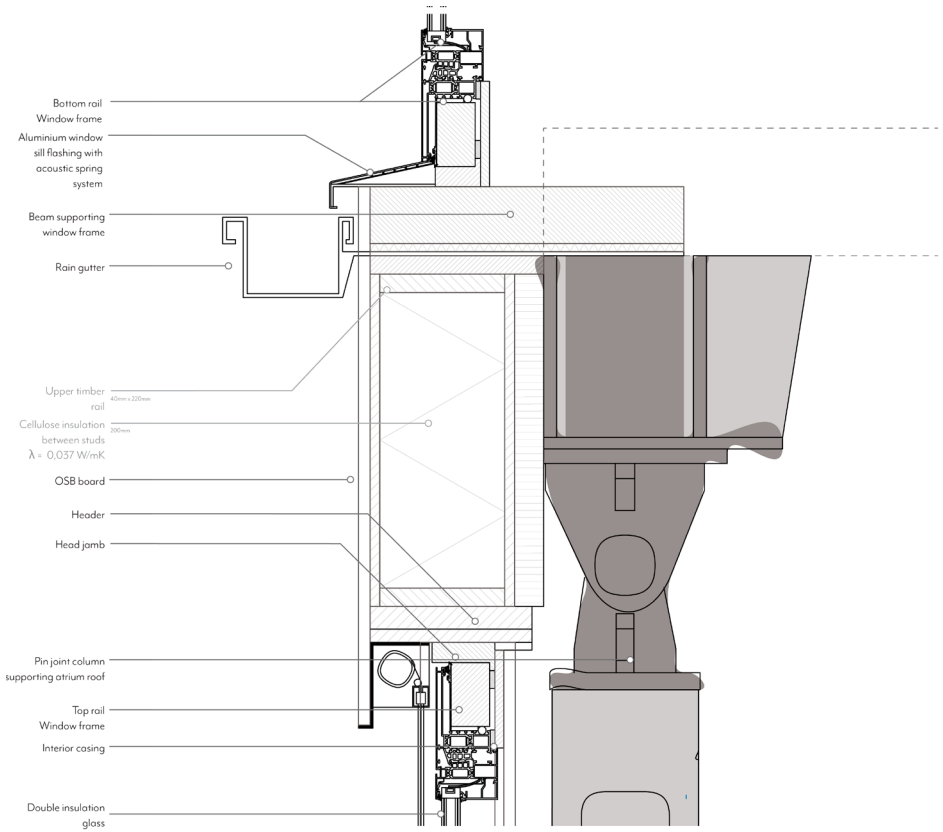
DETAILLING

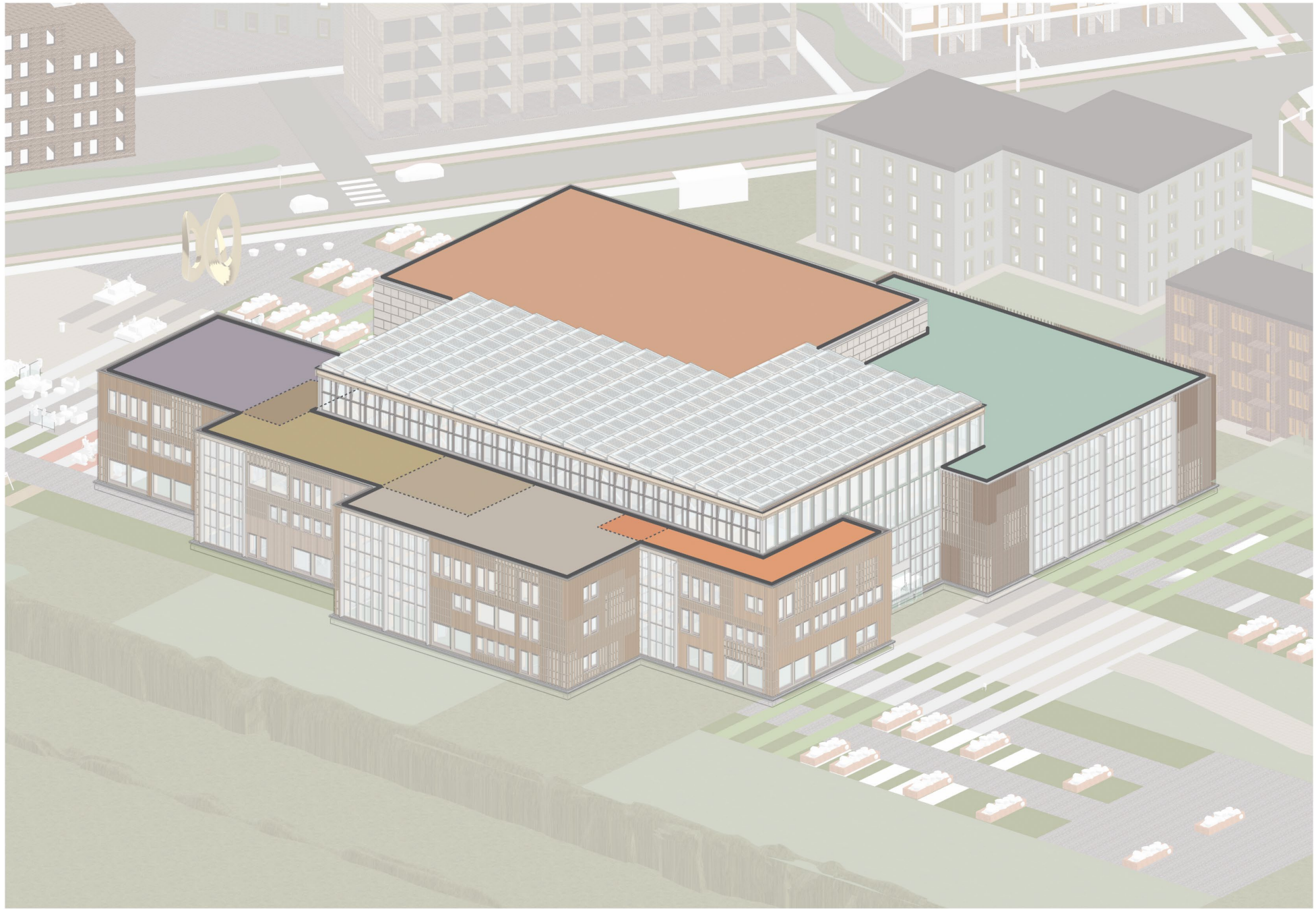


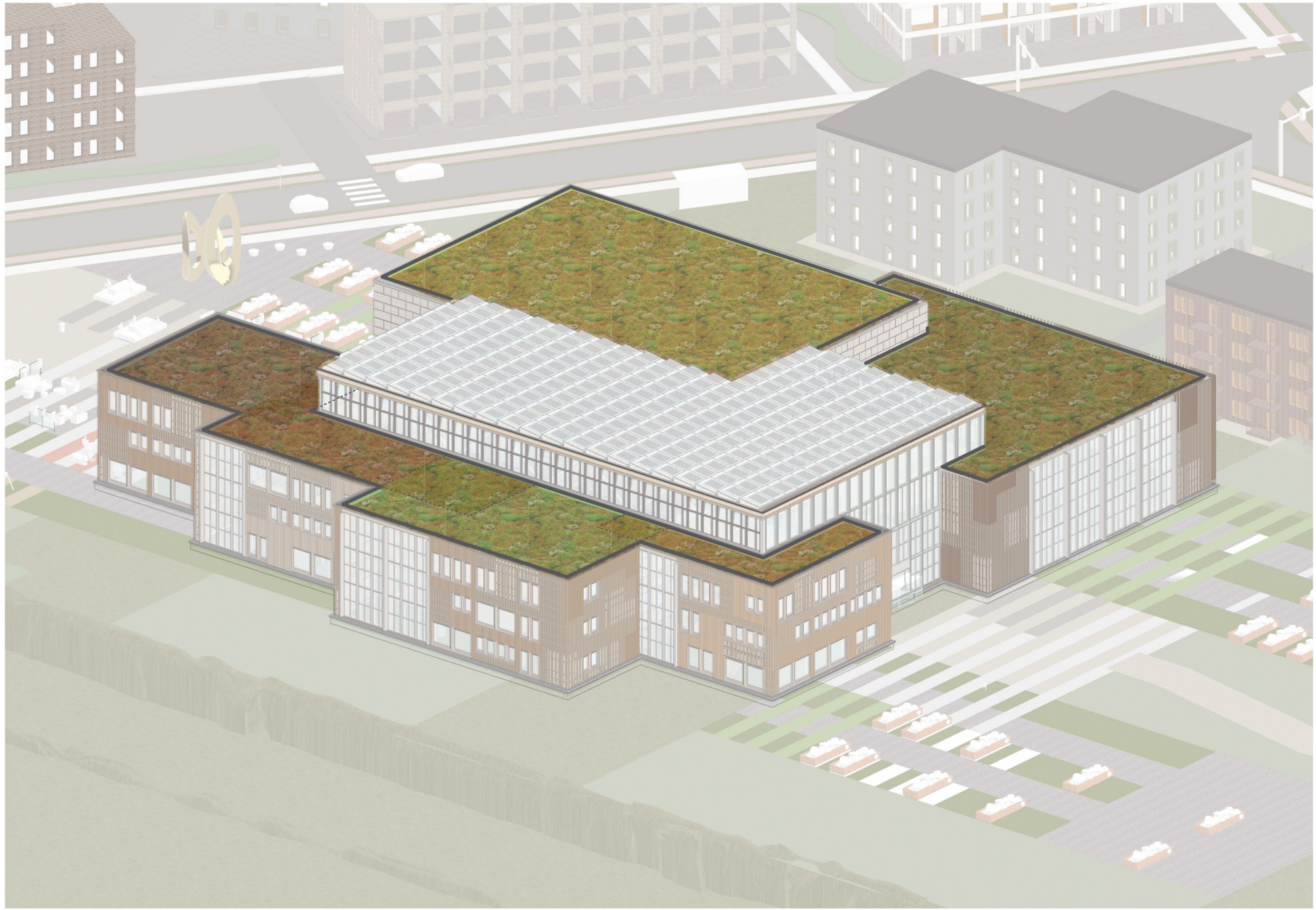

Bottom rail
Window frame
Aluminium window sill flashing with acoustic spring system
Upper timber rail 40mm x 220mm
OSB board
Cellulose insulation between studs 200mm
λ = 0,037 W/mK
Gravel 40mm
Gravel stops
Aluminium curb
Vegetation 110mm
Brown roof
Filter fleece 2mm
Retention fabric
Drainage layer 20mm
Root barrier 5mm
EPDM 20mm
Waterproof membrane
Insulation 200mm
Vapour layer 2mm
CLT Board 80mm

DETAILLING

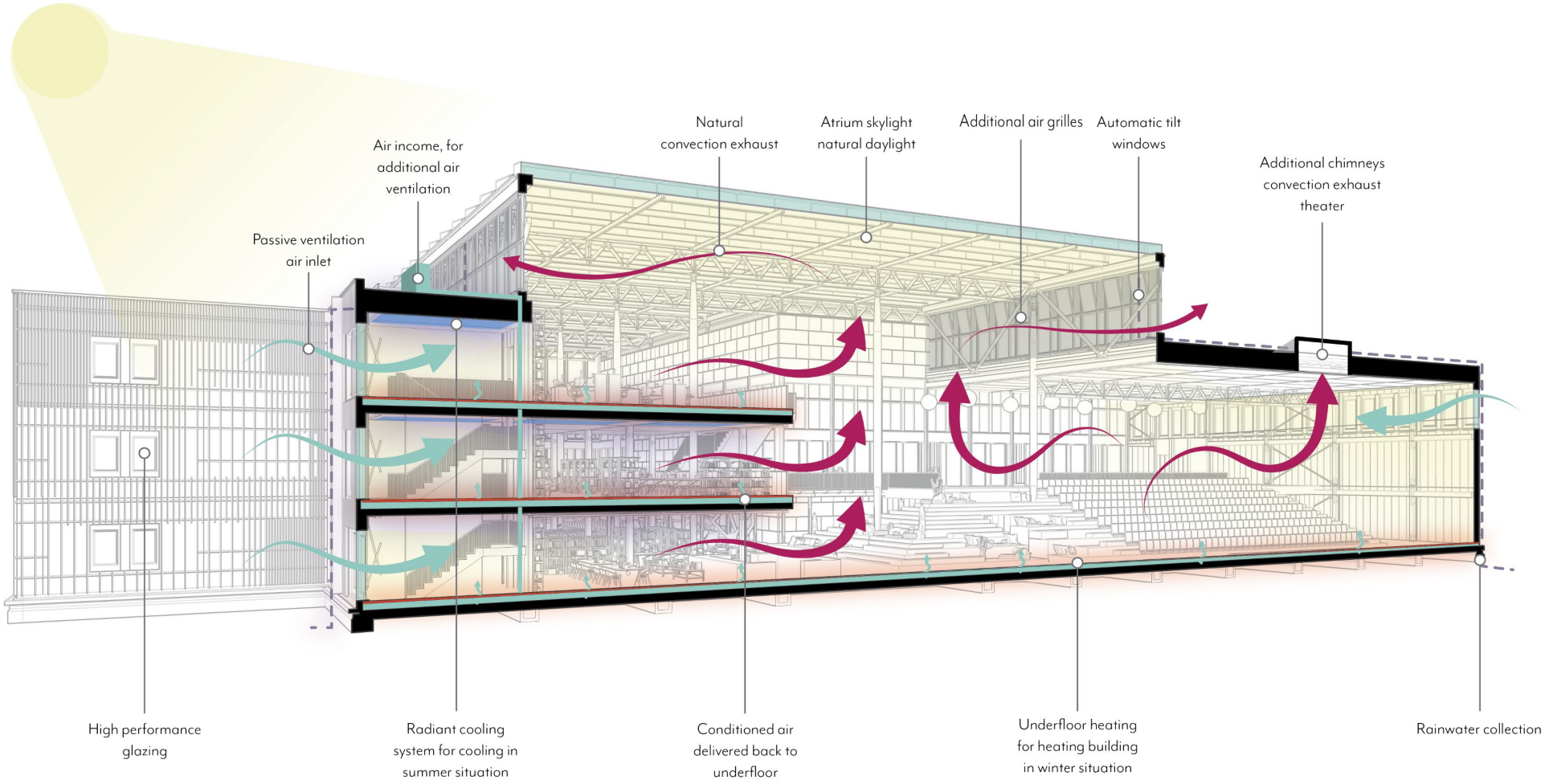



Bottom rail
Window frame
Aluminium window
sill flashing with
acoustic spring
system
Beam supporting
window frame
Rain gutter
Upper timber
rail
40mm x 220mm
Cellulose insulation
between studs
200mm
λ = 0,037 W/mK
OSB board
Header
Head jamb
Pin joint column
supporting atrium roof
Top rail
Window frame
Interior casing
Double insulation
glass

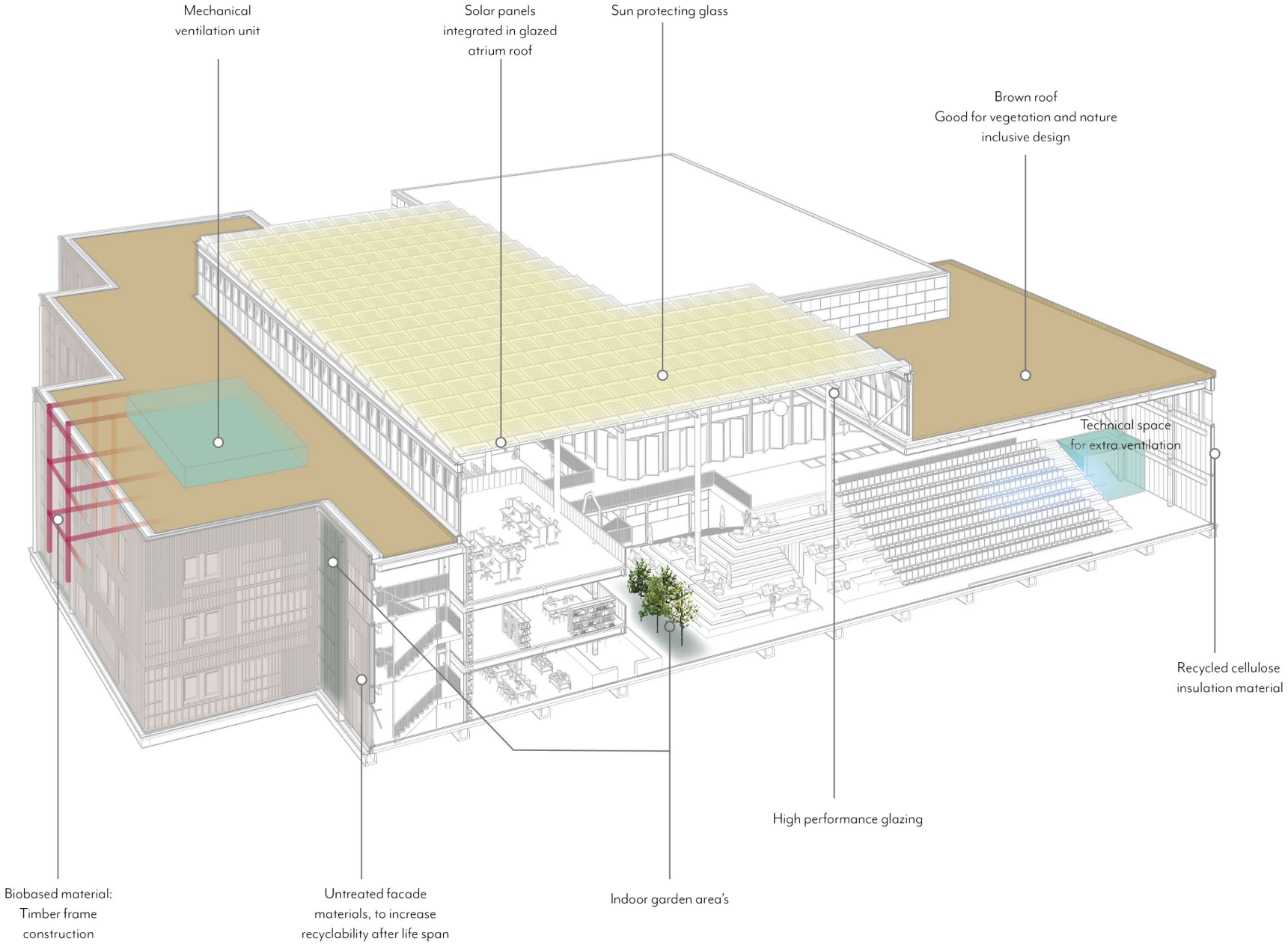




CLIMATE


Air income, for additional air ventilation
Natural convection exhaust
Atrium skylight natural daylight
Additional air grilles
Automatic tilt windows
Additional chimneys convection exhaust theater
Passive ventilation air inlet
High performance glazing
Radiant cooling system for cooling in summer situation
Conditioned air delivered back to underfloor
Underfloor heating for heating building in winter situation
Rainwater collection

CLIMATE


Mechanical ventilation unit
Solar panels integrated in glazed atrium roof
Sun protecting glass
Brown roof
Good for vegetation and nature inclusive design
Technical space for extra ventilation
Recycled cellulose insulation material
High performance glazing
Biobased material: Timber frame construction
Untreated facade materials, to increase recyclability after life span
Indoor garden area's


THE END