



COMPLEX PROJECTS

FASHION LOOP: TEXTILE INNOVATION LAB

P5- PRESENTATION

Yuqi Zhong

03/07/2023

CONTENTS

1. INTRO

2. RESEARCH QUESTION

3. DESIGN BRIEF

4. URBAN STRATEGY

5. CONCEPT & DESIGN

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INTRODUCTION

EMERGING SOCIETY OF ART & TECHNOLOGY



Oct. 4th, 2022 Paris Fashion Week: Bella Hadid closed Coperni's ending display with a spray-on dress.

WHAT IS BERLIN'S STANDING IN THE FASHION WORLD?

1 Paris 135.37	2 New York 130.35	3 Milan 100.42	4 London 90.90	5 Los Angeles 32.83 -7.48%
6 Sydney 24.39 +2.57%	7 Madrid 18.77 -5.93%	8 Tokyo 18.55 -1.57%	9 Moscow 16.87 -3.30%	10 Sao Paulo 14.48 -3.86%
11 Barcelona 14.27 -0.71%	12 Seoul 12.95 -3.45%	13 Amsterdam 12.00 -4.96%	14 Stockholm 10.87 -2.84%	15 Florence 9.65 +3.84%
16 Copenhagen 9.56 -1.43%	17 Munich 9.29 -7.71%	18 Berlin 9.15 -1.25%	19 Beijing 8.60 -6.79%	20 Mexico City 8.44 -2.89%
21 Hamburg 8.38 -0.32%	22 Toronto 8.37 -0.95%	23 Melbourne 7.45 -0.86%	24 Rome 7.13 -1.02%	25 Warsaw 6.88 -4.46%

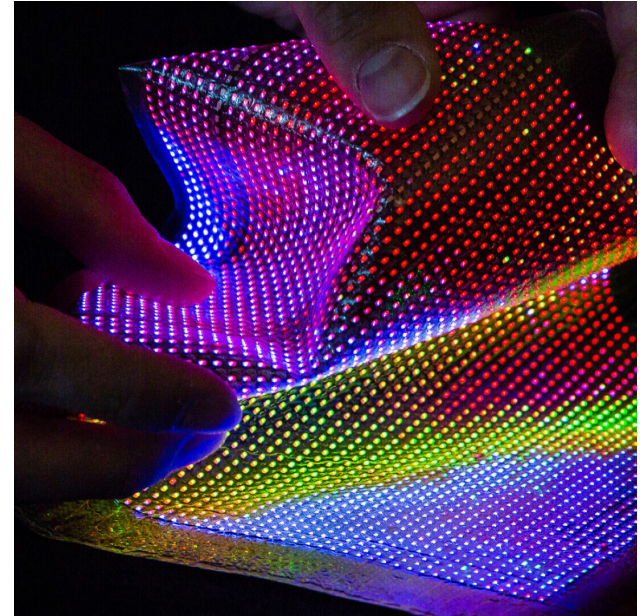
Nowadays, world fashion is dominated by four fashion capitals. Those capitals often have a rich history, famous brands and designers, and a cluster of resources of fashion media and incidental industry.

BERLIN'S FOCUS: FASHION INNOVATION



TEXTILE TECHNOLOGIES:

Investigating regenerative textile material through garment waste and new sustainable material innovation.



FASHION TECH & WEARABLES:

Integrating technology with mainstream clothing and innovating wearable technology.

INTRODUCTION

BERLIN AS AN INNOVATIVE CITY



CREATIVITY: Berlin Techno Music

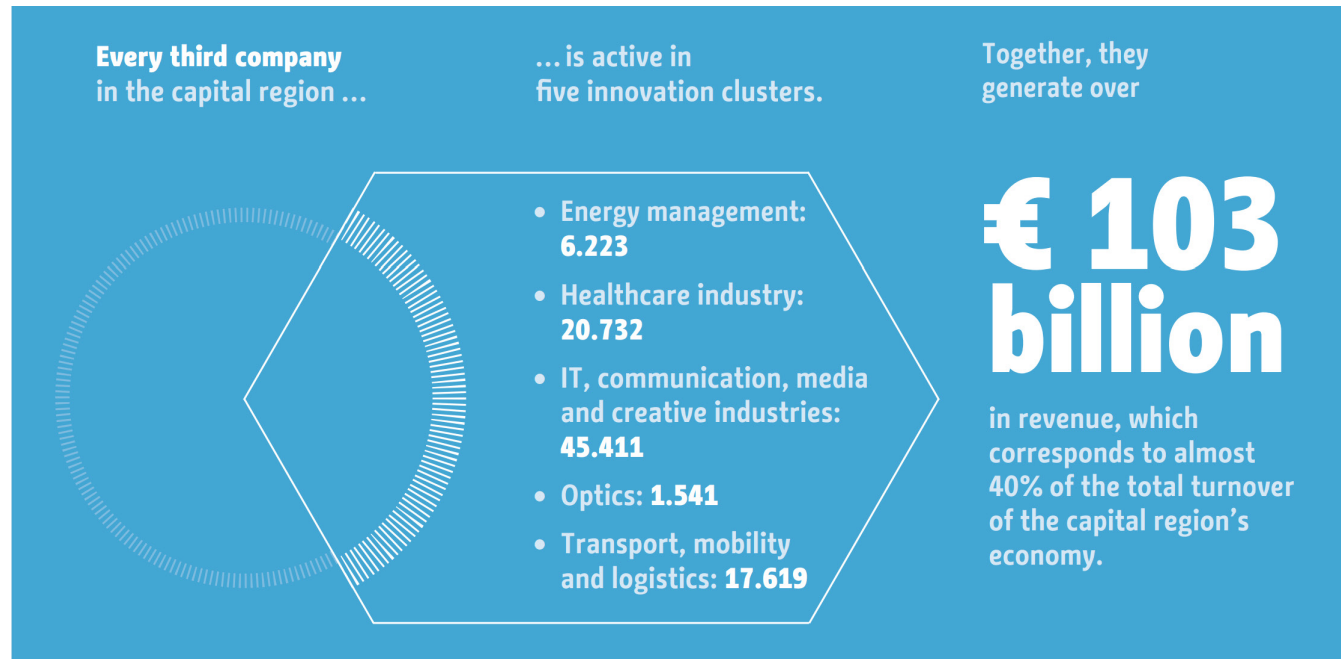


TECHNOLOGY: Adlershof Technology Park

INTRODUCTION

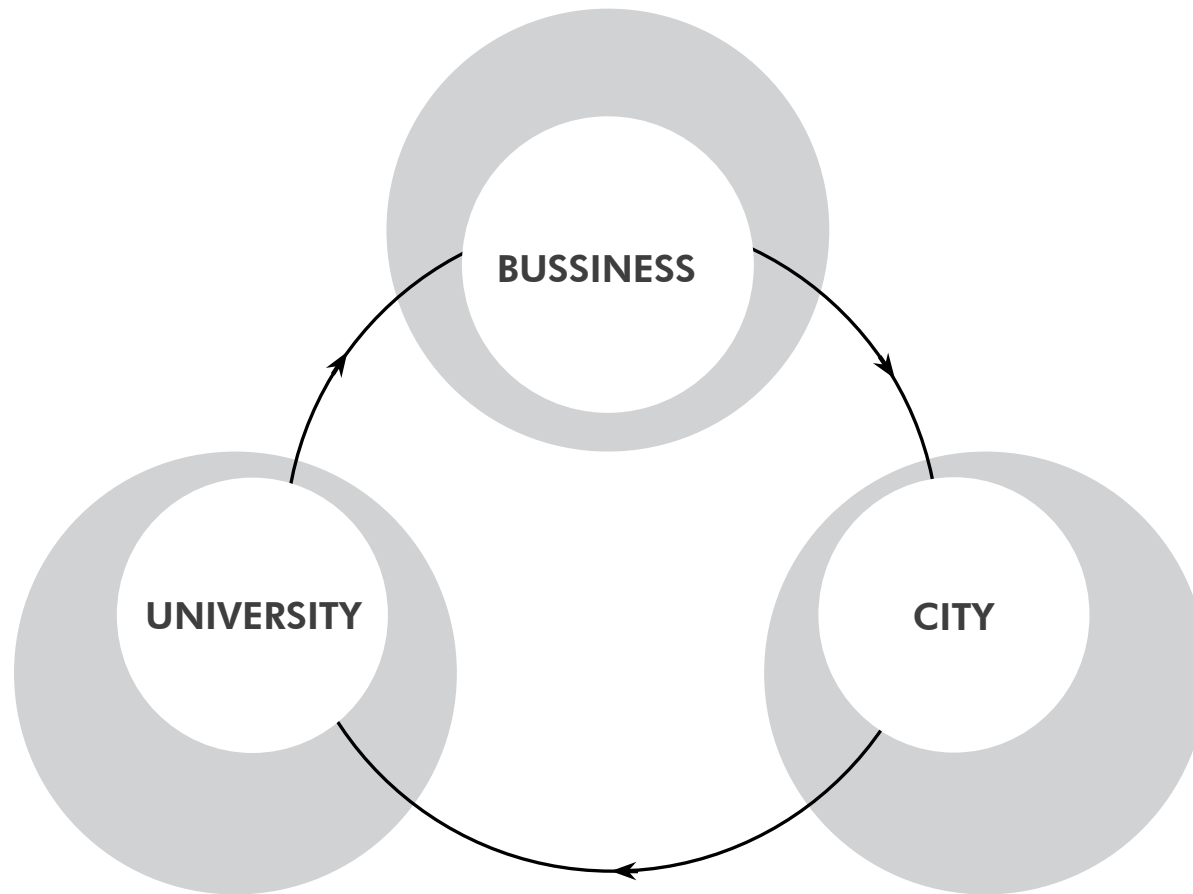
BERLIN STRATEGY:

Strengthening the economy with smart knowledge



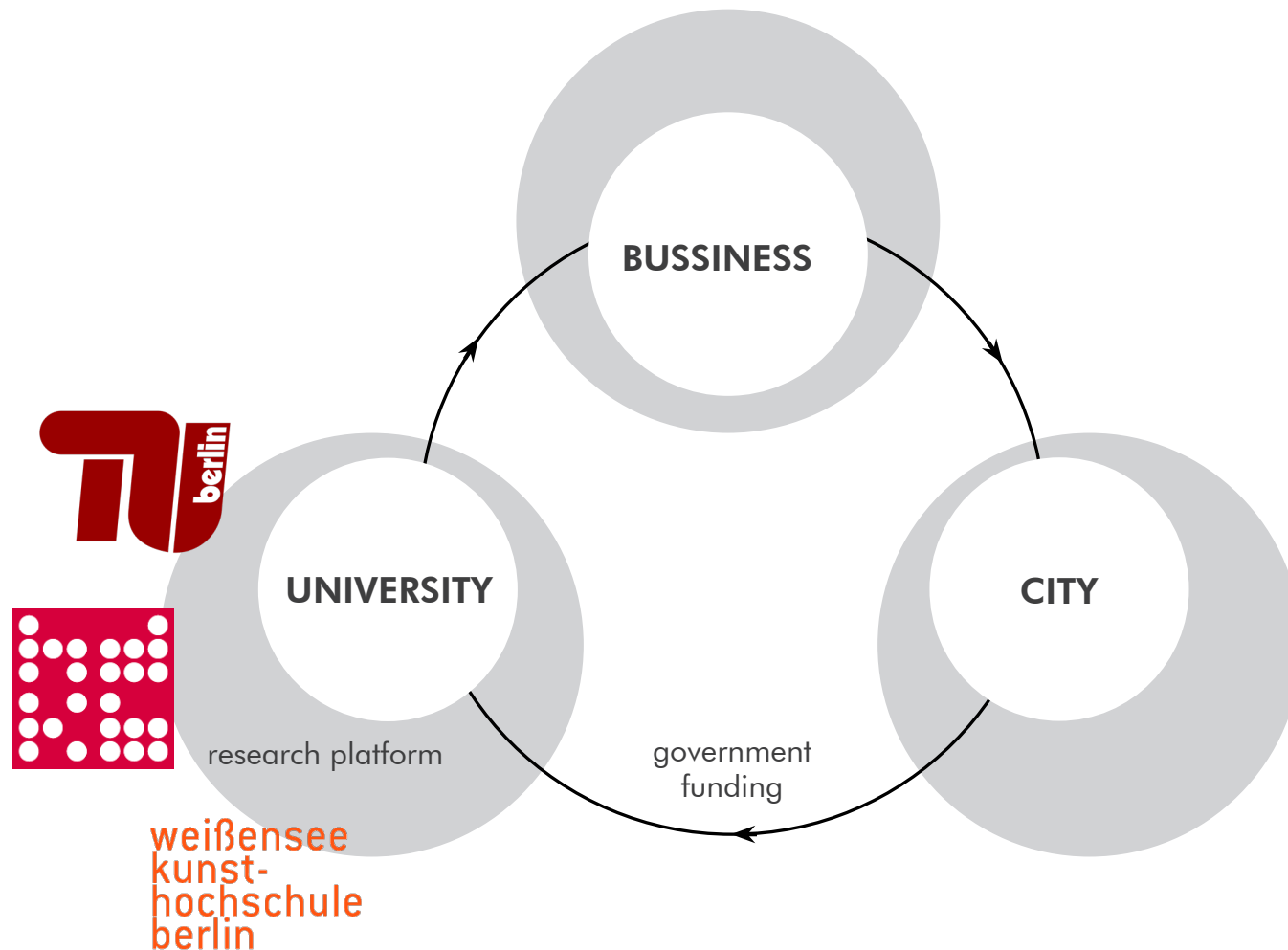
HOW?

Close connection between three parties



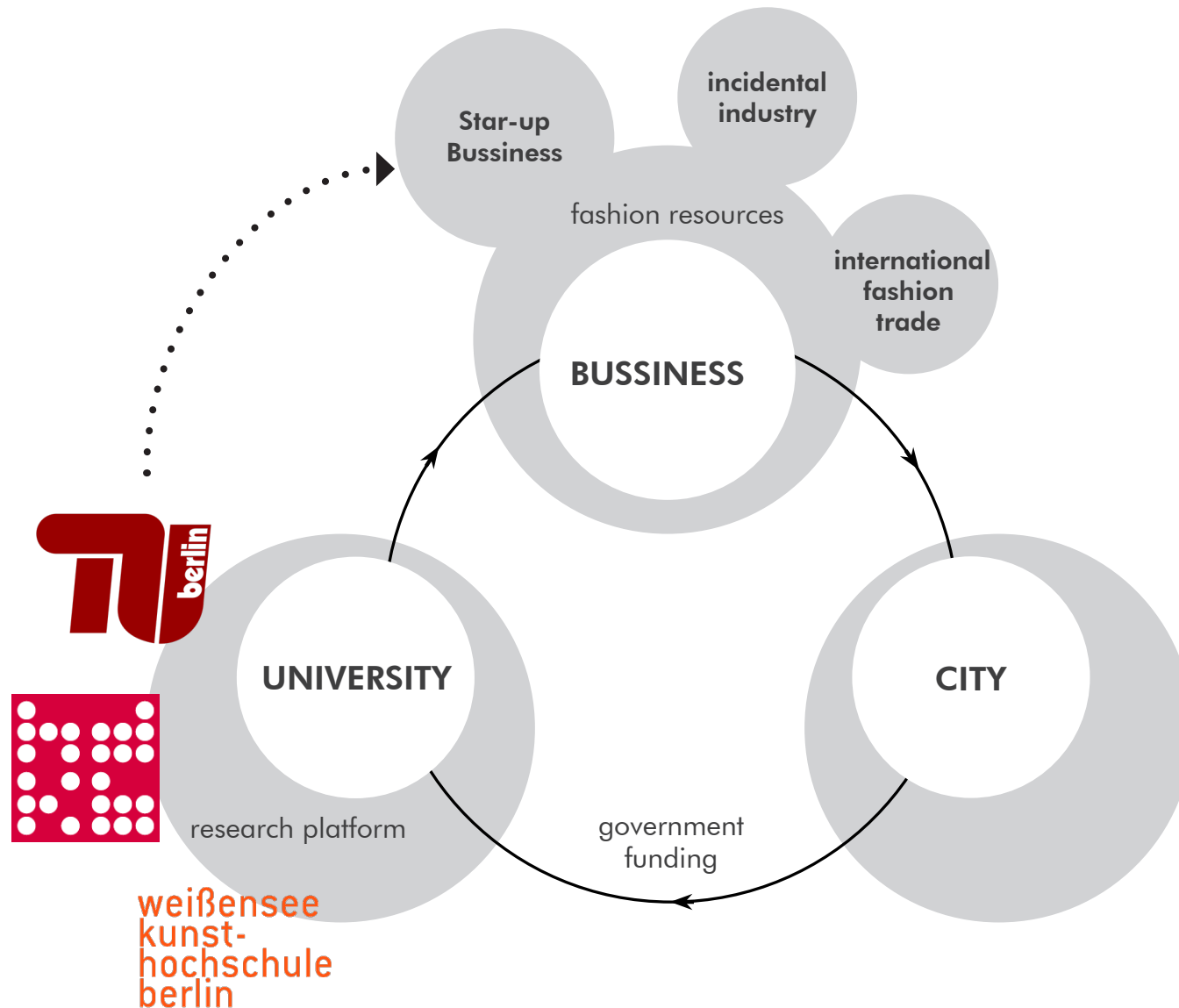
INTRODUCTION
UNIVERSITY

University Platforms + Interdisciplinary Research



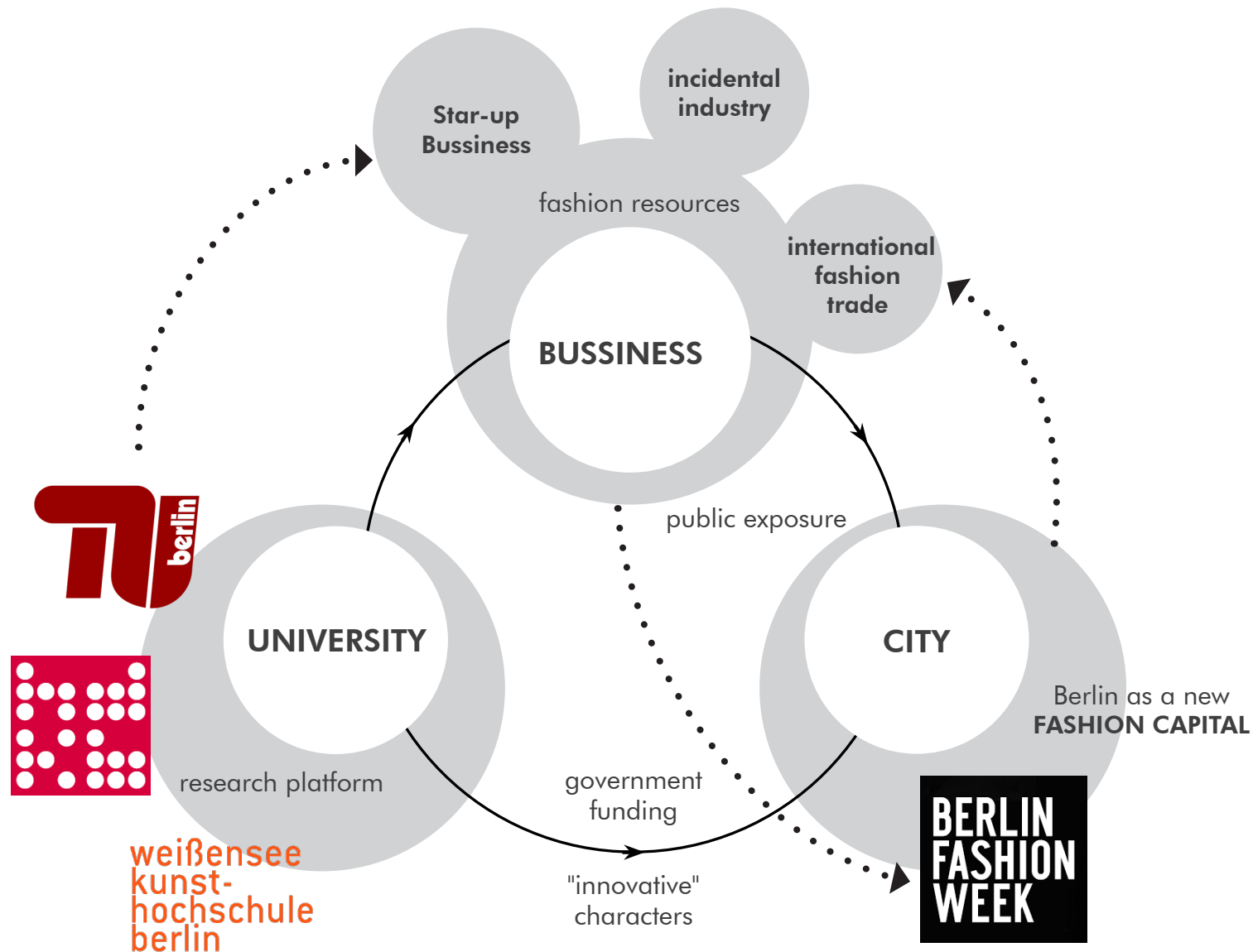
INTRODUCTION
BUSSINESS

Promoting Starups Bussiness



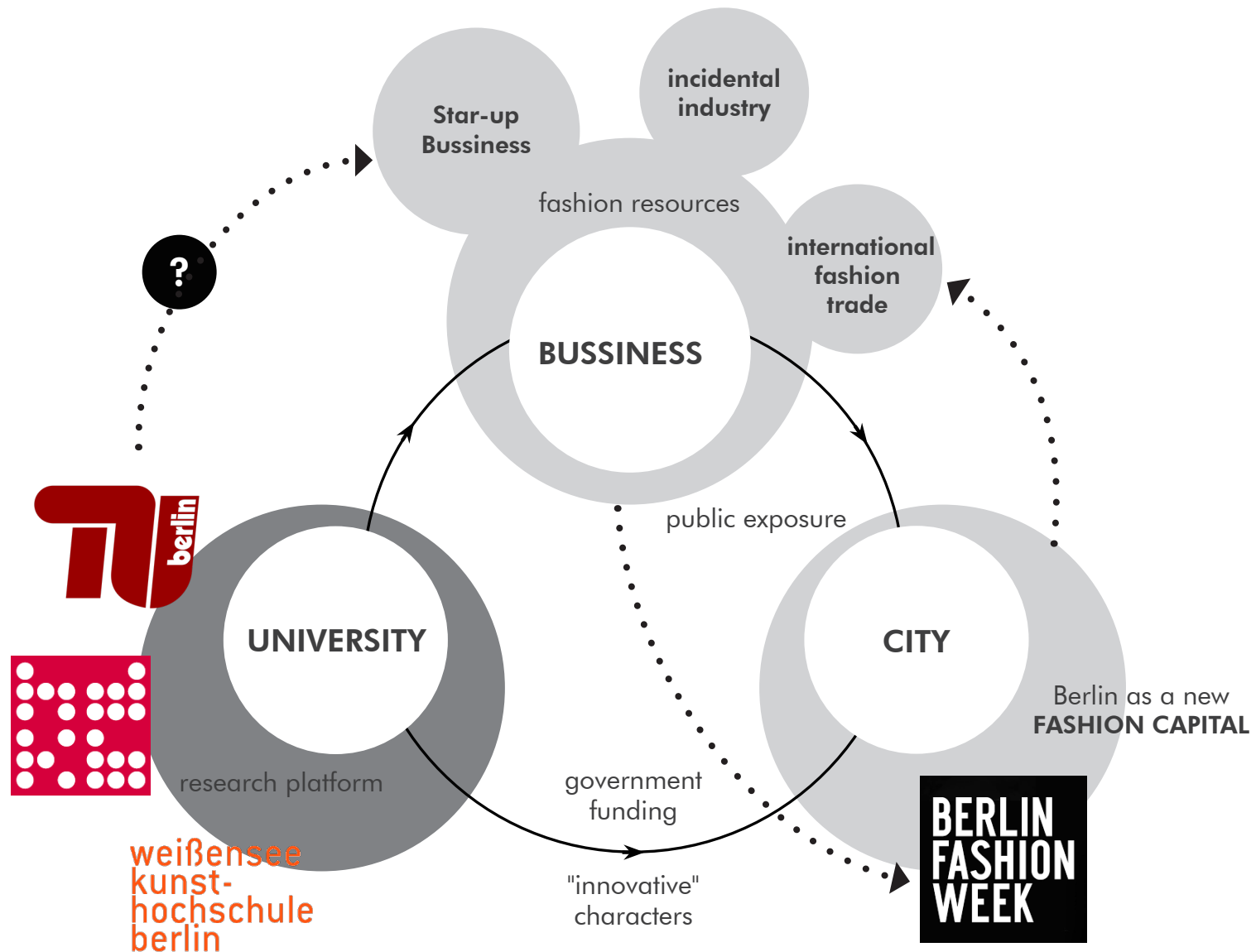
CITY

Using city event to increase public exposure Berlin's fashion



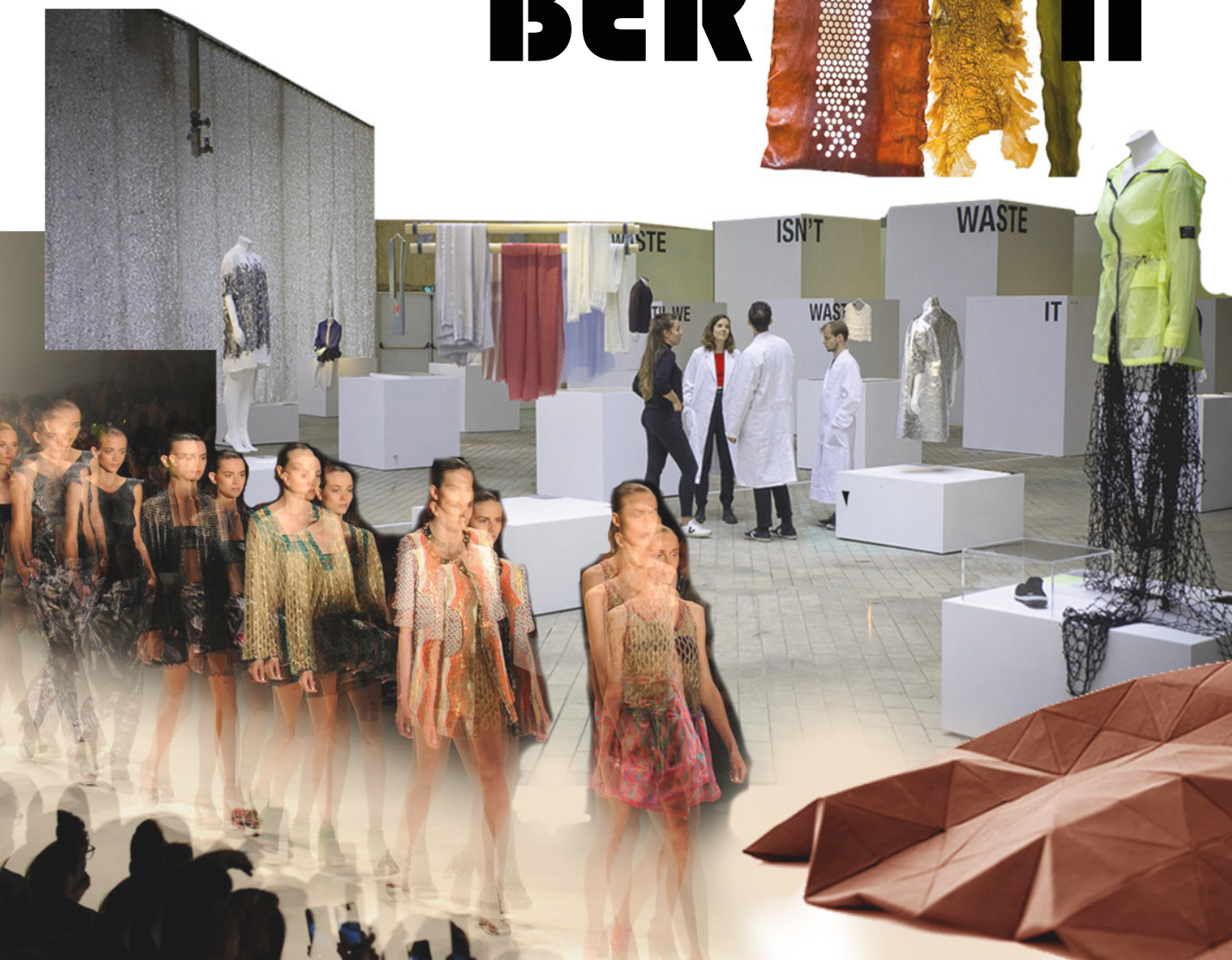
INTRODUCTION

WHAT DOES BERLIN NEED?



TEXTILE INNOVATION LAB

BERN



EDUCATE

**COLLABORATE WITH EXISTING UNIVERSITY RESEARCH PLATFORMS,
IMPROVING NETWORKING BETWEEN LEARNING INSTITUTIONS**



Berlin Centre for
Advanced Studies in
Arts and Sciences



Technische
Universität
Berlin

weißensee
kunst-
hochschule
berlin

Design Research Lab -dUK

DRL is a network of people, organisations, and non-human agents engaged at the intersection of technologies, materials, and social practices.

Hybrid Plattform

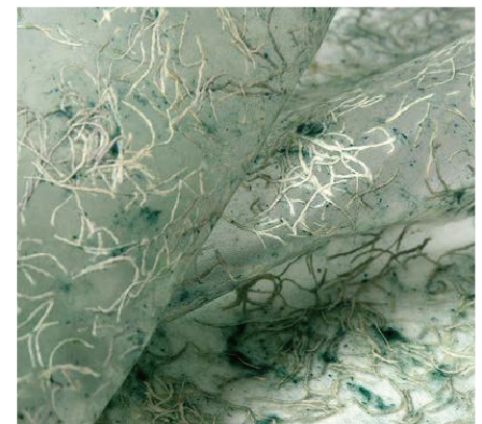
The platform serves the cross-disciplinary exchange of art, science and technology, located at the heart of the Campus Charlottenburg, Berlin.

Textile Prototyping Lab

TPL is a research alliance of five institutions from the fields of textile research, design, and industry. Its aim is to conceive, install, and test a laboratory for textile prototypes based on the idea of open innovation.

RESEARCH

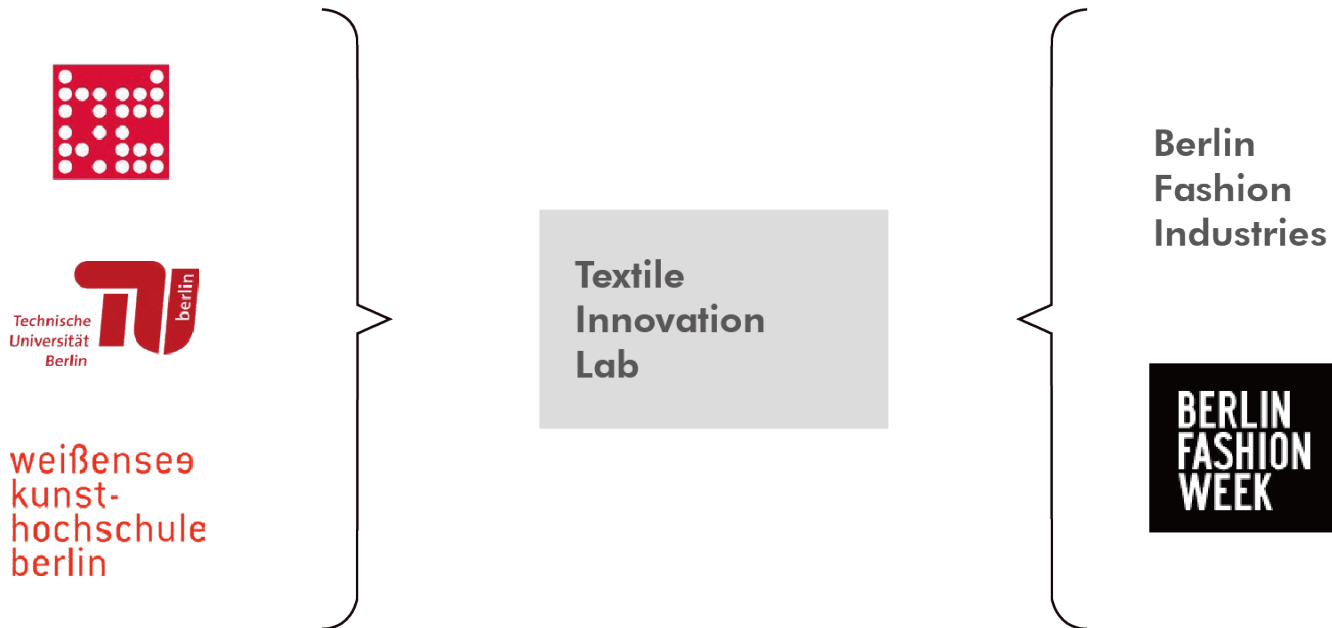
INNOVATIVE & INTERDISCIPLINARY
RESEARCH,
INTENSIFYING KNOWLEDGE AND
TECHNOLOGY TRANSFER



CONNECT

LINK BETWEEN THE RESEARCH AND FASHION BUSSINESS.

ENCOURAGING START-UP BUSINESS.



PROMOTE

INTRODUCE NEW DIRECTION OF
FASHION,
PROMOTING BERLIN AS NEW
FASHION CAPITAL



RESEARCH QUESTIONS

How can a research lab strengthen the fashion development of Berlin?

- 1) What kind of spatial quality and requirement does the building need to accommodate lab researchers and textile-related innovation?**
- 2) How can the lab intensify the communication between researchers and businesses?**
- 3) How does the building satisfy the city's ambition of being one of the futural fashion capitals?**

DESIGN BRIEF



CLIENT



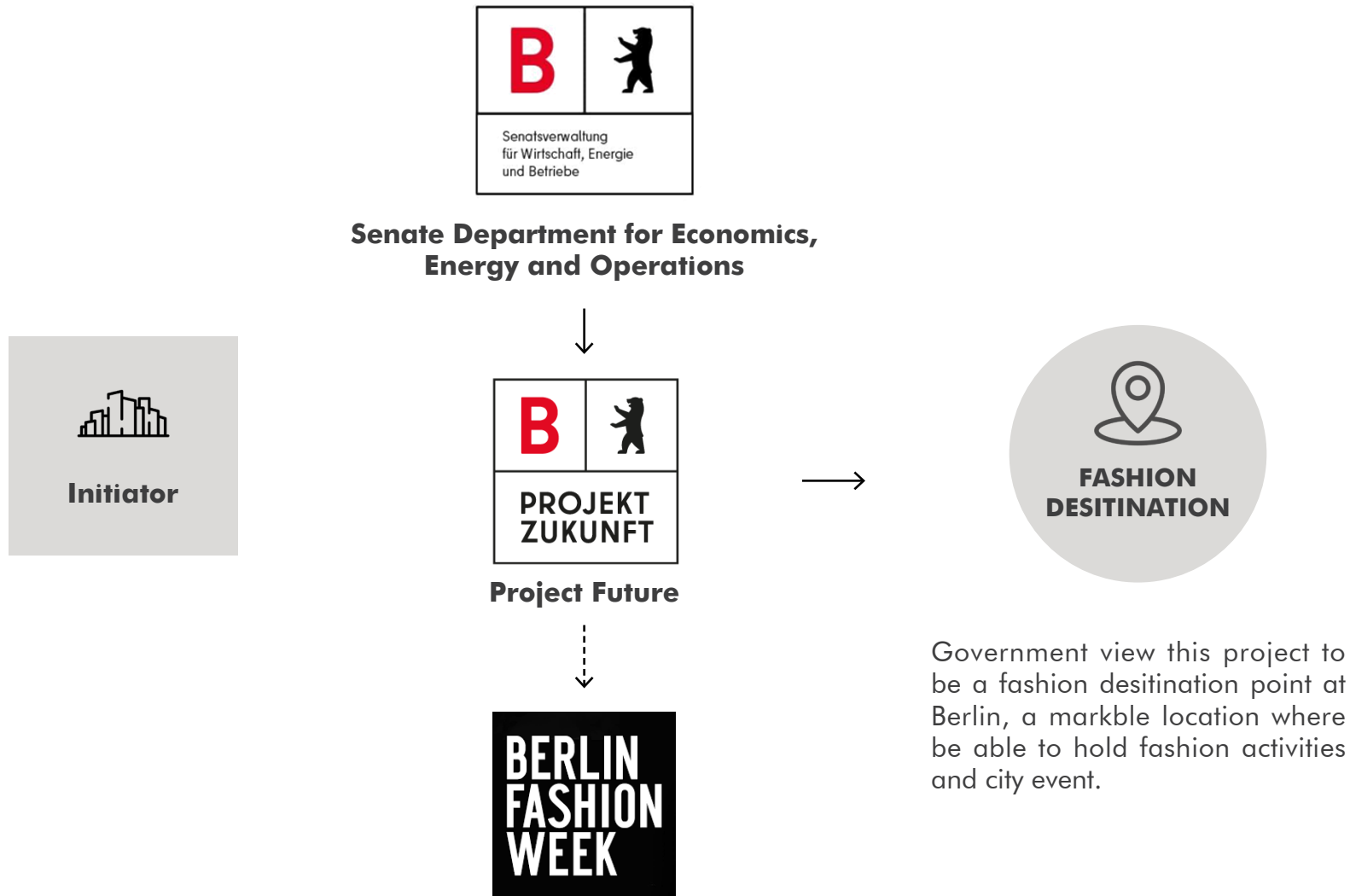
PROGRAM



SITE

CLIENT

INITIATOR: BERLIN GOVERNMENT



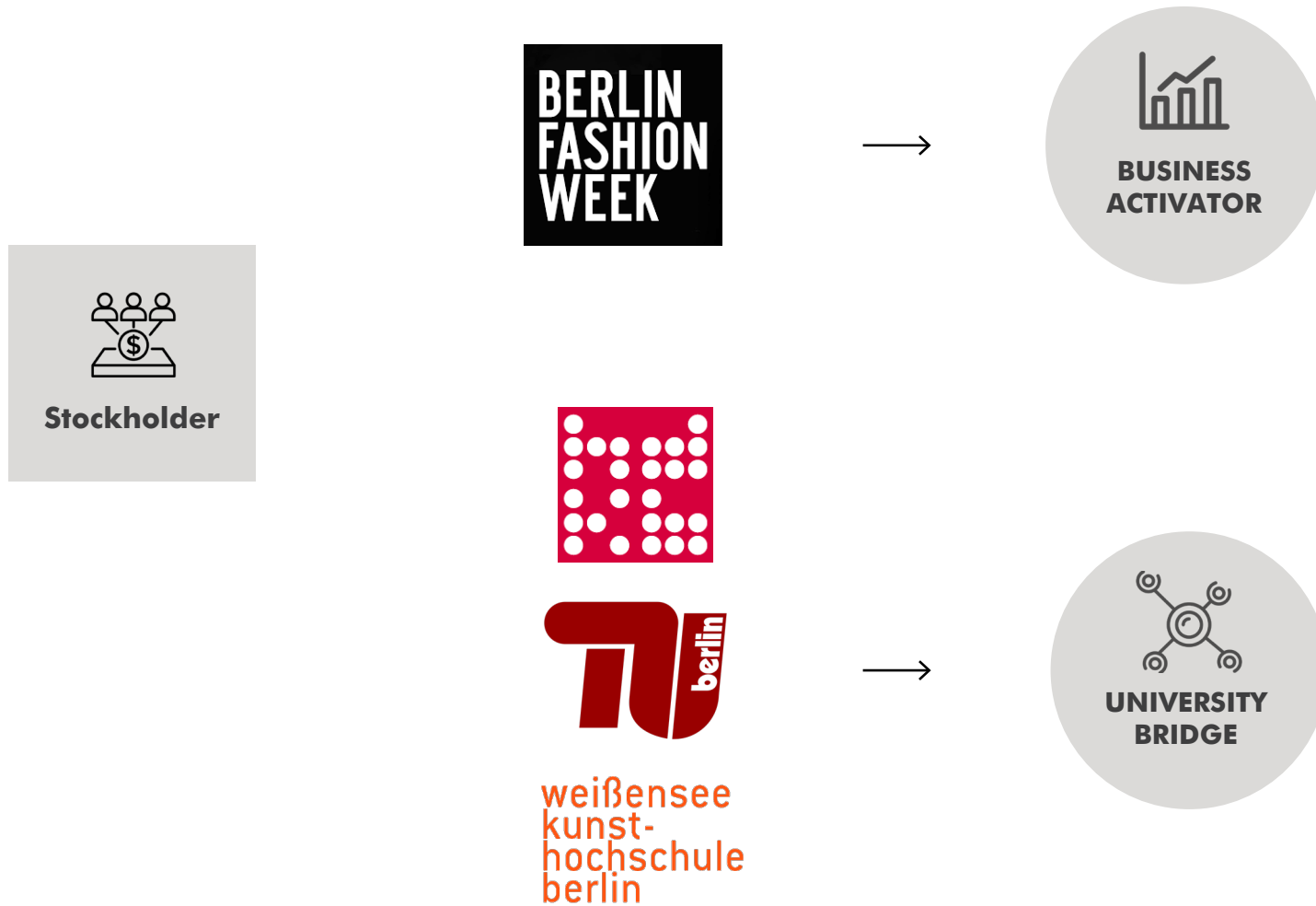
CLIENT

A FASHION DESTINATION

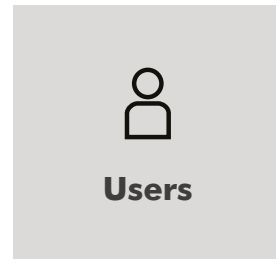


CLIENT

STOCKHOLDER: UNIVERSITY & BERRLIN FASHION WEEK



CLIENT USERS



RESEARCHERS



STUDENTS



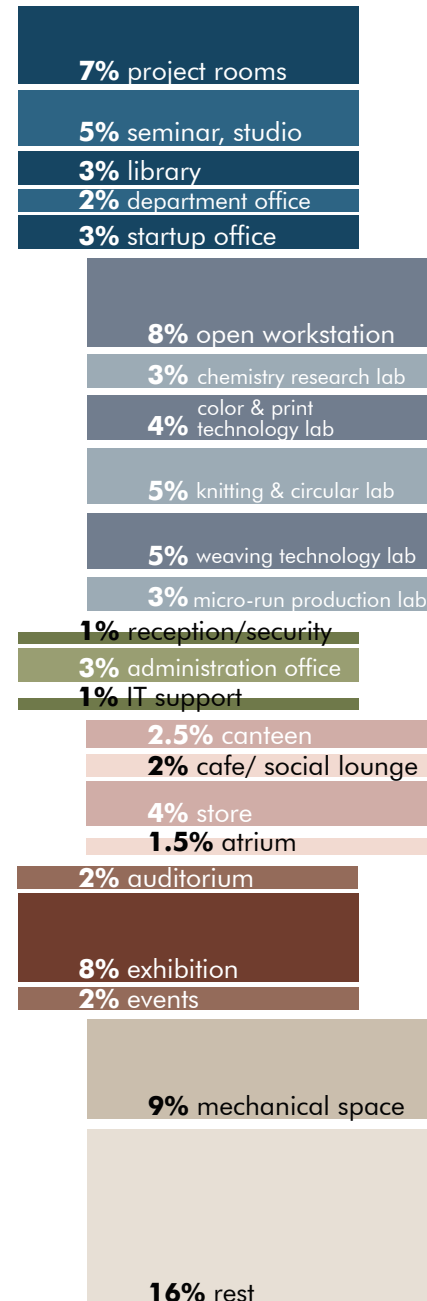
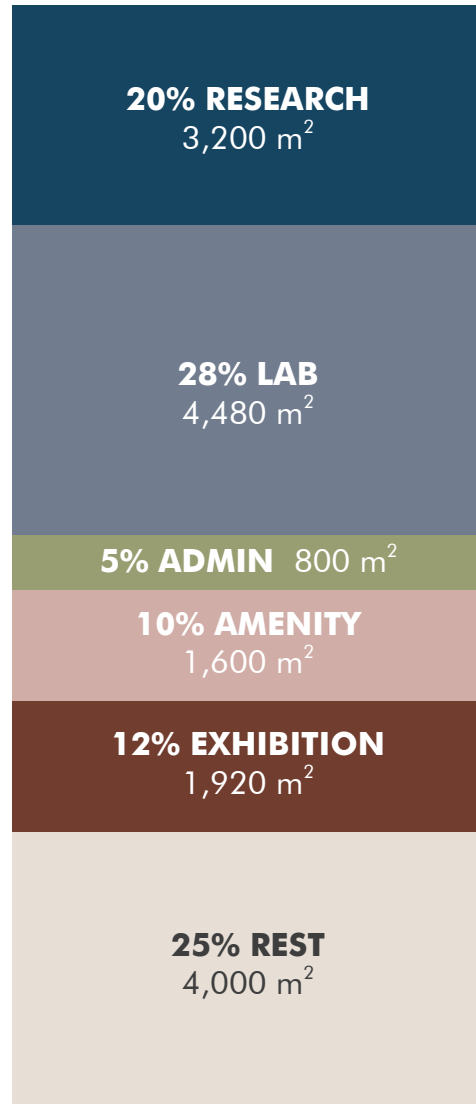
STARTUP COMPANY



PROGRAM PROGRAM BAR

TEXTILE INNOVATION LAB

Floor Area: 16,000 m²



PROGRAM

RESEARCH AREA



PROJECT ROOM



OPEN RESEARCH AREA

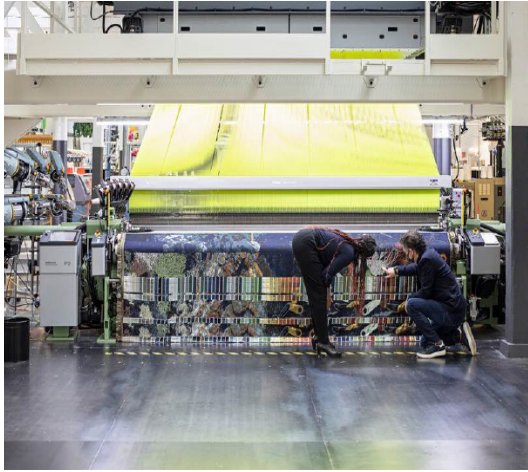


SAMPLE LIBRARY



CONFERENCE ROOM

PROGRAM LAB AREA



WEAVING TECHNOLOGY LAB



OPEN WORKSTATION



CHEMISTRY RESEARCH LAB



MICRO-RUN PRODUCTION LAB



KNITTING & CIRCULAR LAB



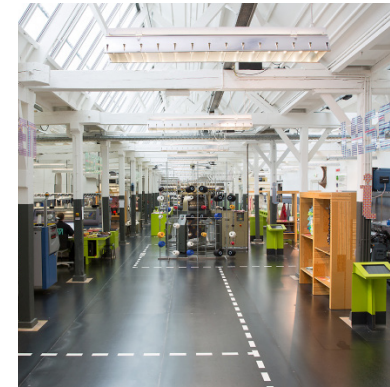
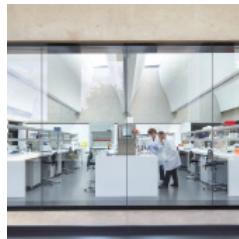
COLOR & PRINT TECHNOLOGY LAB

PROGRAM

KEY SPACE | LAB & RESEARCH



WET LAB:
chemistry



DRY LAB:
large equipment

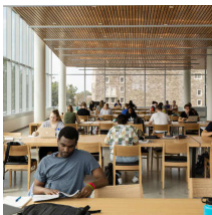
LIBRARY
seminar
STUDIO

color & print
technology **LAB**
+
chemistry **LAB**

project
ROOM

open
WORKSTATION

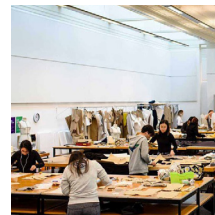
micro-run
production **LAB**
+
weaving
technology **LAB**
+
knitting &
circular **LAB**



OPEN ACCESS to
all the researchers
and students.



**PRIVATE
ACCESS** to
individual
research
group



OPEN ACCESS
to all the
researchers
and students.

AMENITY AREA: Recreational & Social Purpose



SOCIAL LOUNGE



CANTEEN

PROGRAM

"FASHION" RELATED AMENITY FOR PUBLIC



SOCIAL LOUNGE



CANTEEN



POP-UP STORE



LOCAL DESIGNER STUDIO

PROGRAM

ACTIVITIES DURING BERLIN FASHION WEEK



FASHION RUNWAY



EXHIBITION & MUSEUM



FAIRS



PANEL TALK

PROGRAM

"SHOW & DISPLAY" | ATRIUM + EXHIBITION



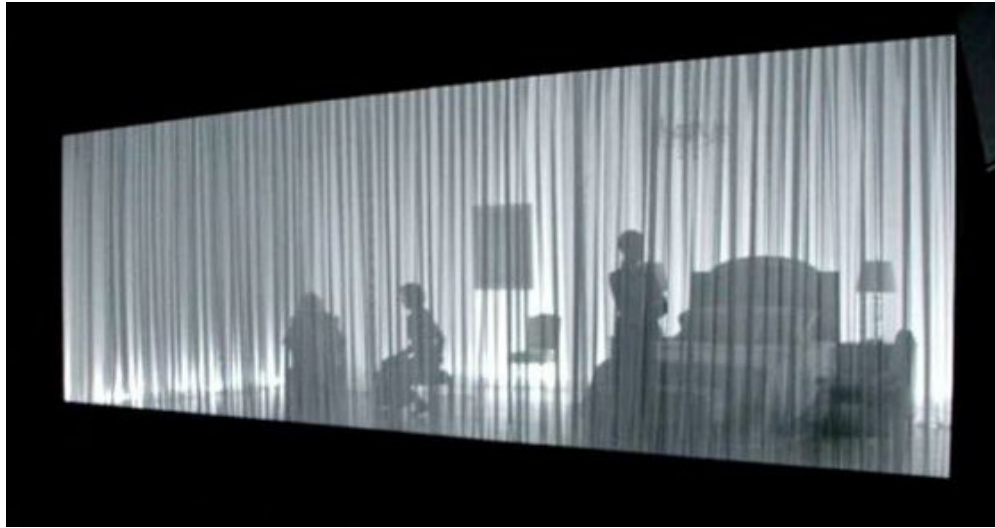
Tate Modern, Little Sun, 2012



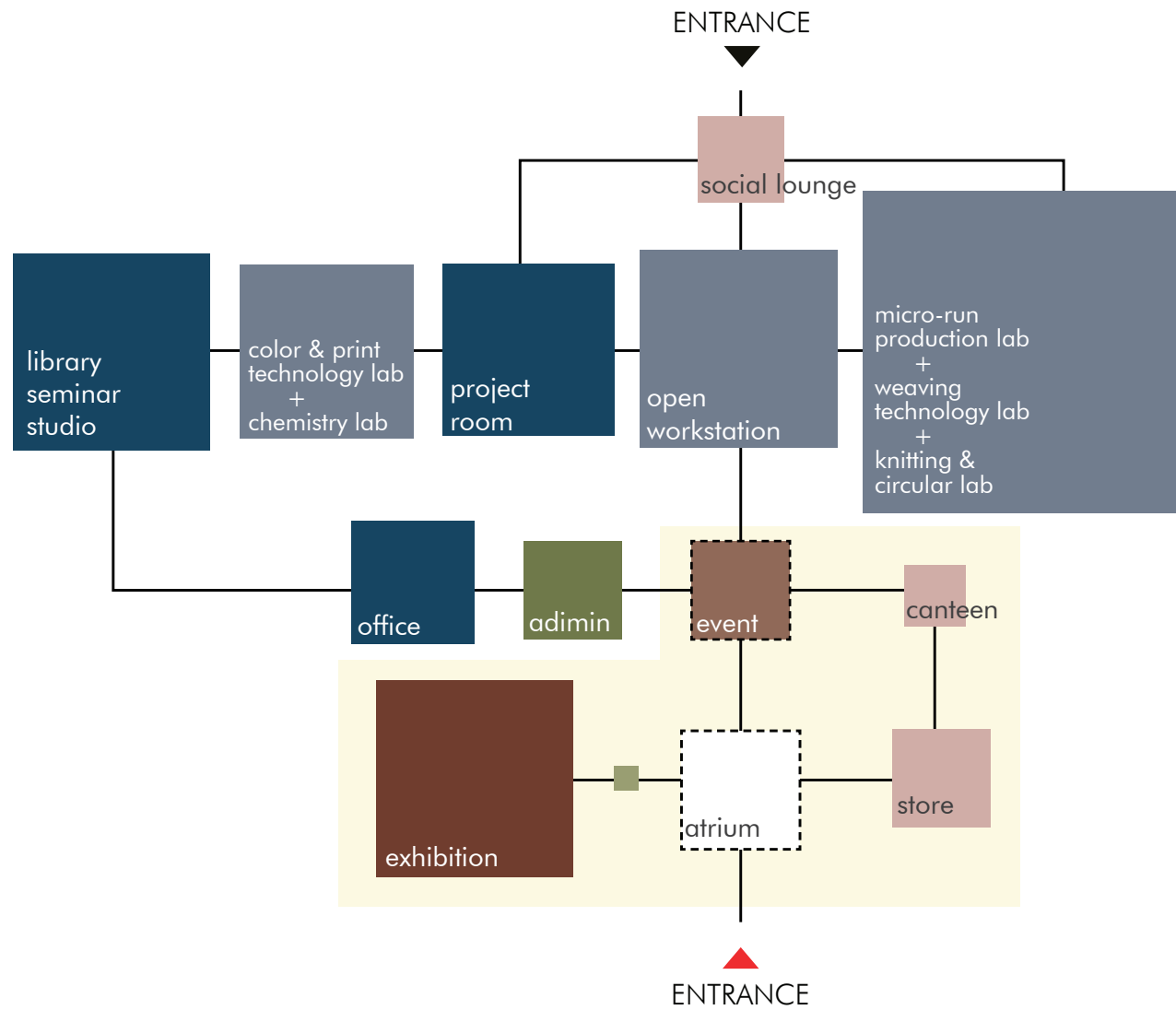
Tate Modern, Little Sun, 2012

PROGRAM

"SHOW & DISPLAY" | LAB + STAGE



PROGRAM PROGRAM RELATION

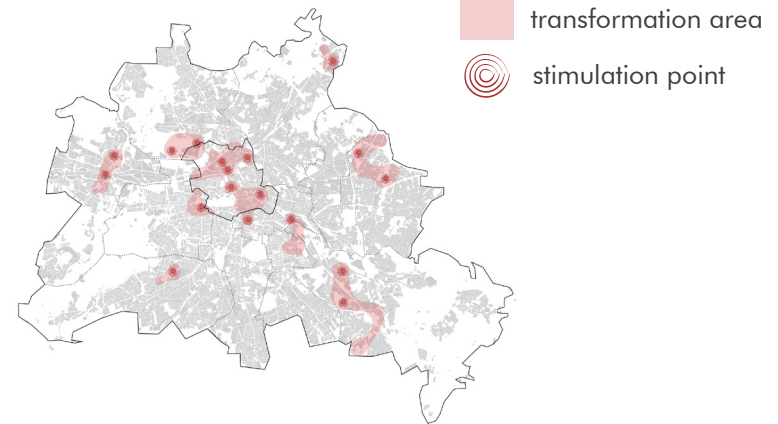


LOCATING SITE WITH THREE PARTIES

CITY

berlin urban strategy

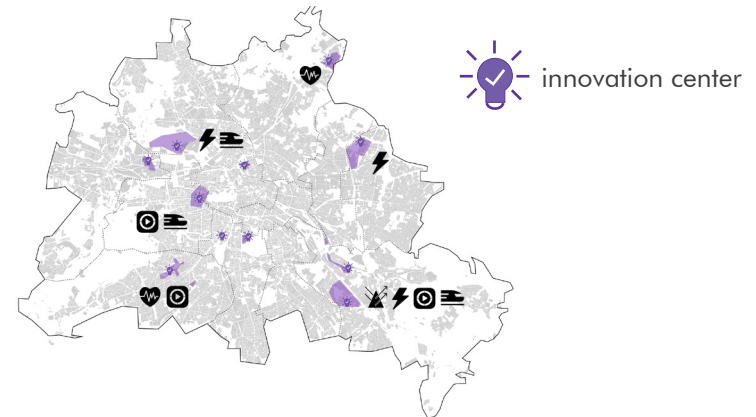
define the transformation area and set geographical priorities that provide a tangible framework for Berlin Strategy 2030



BUSINESS

innovation business cluster

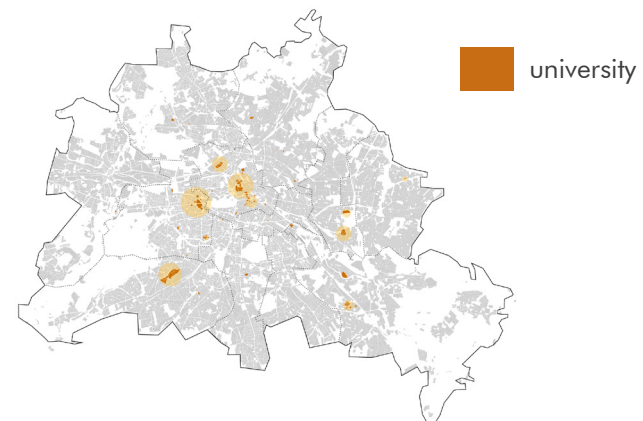
identify the business cluster relates to five Berlin's innovative focuses



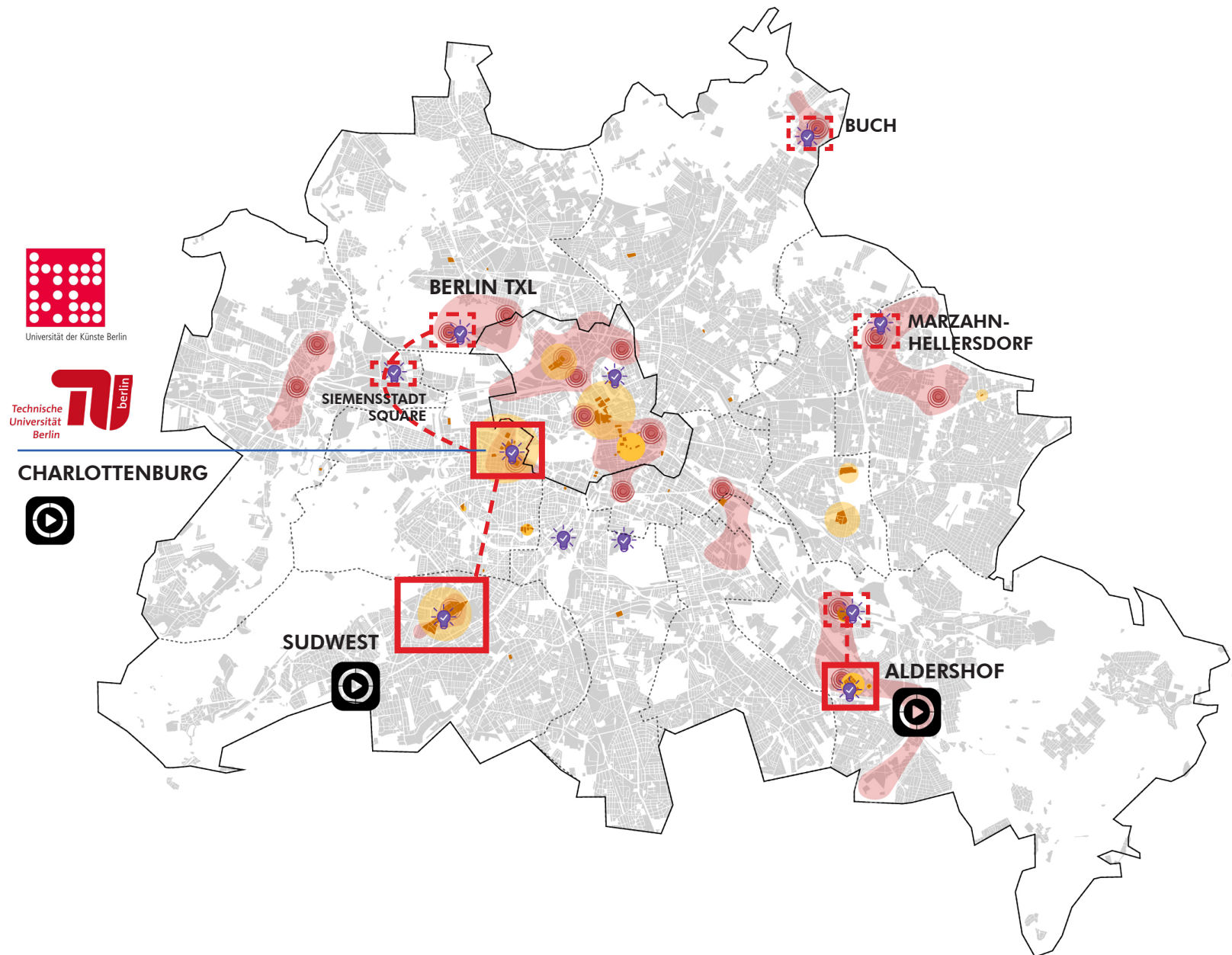
UNIVERSITY

university and student population

identify the location of university and student population.



SITE CHARLOTTENBURG



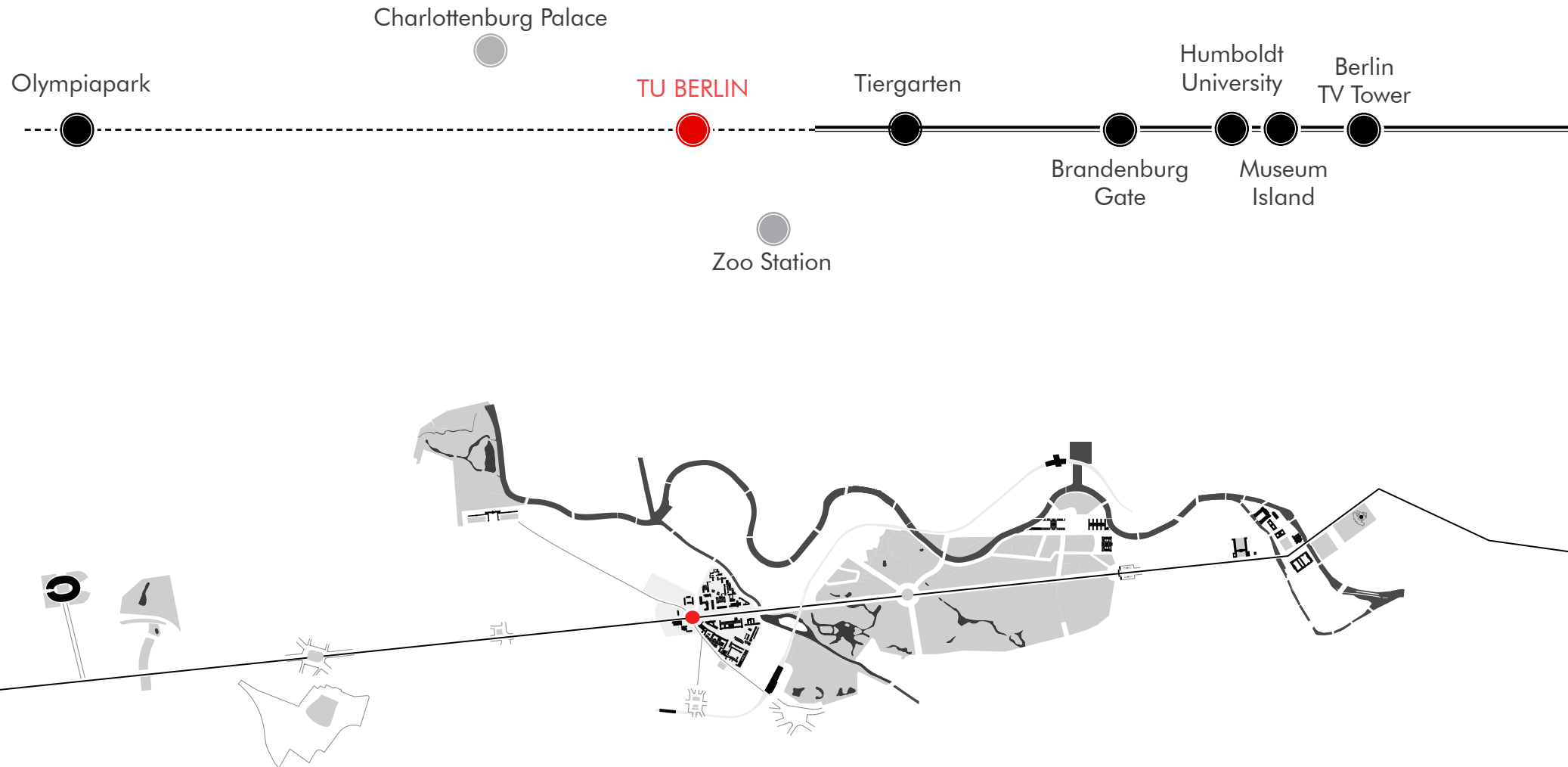
SITE

ERNST-REUTER-PLATZ



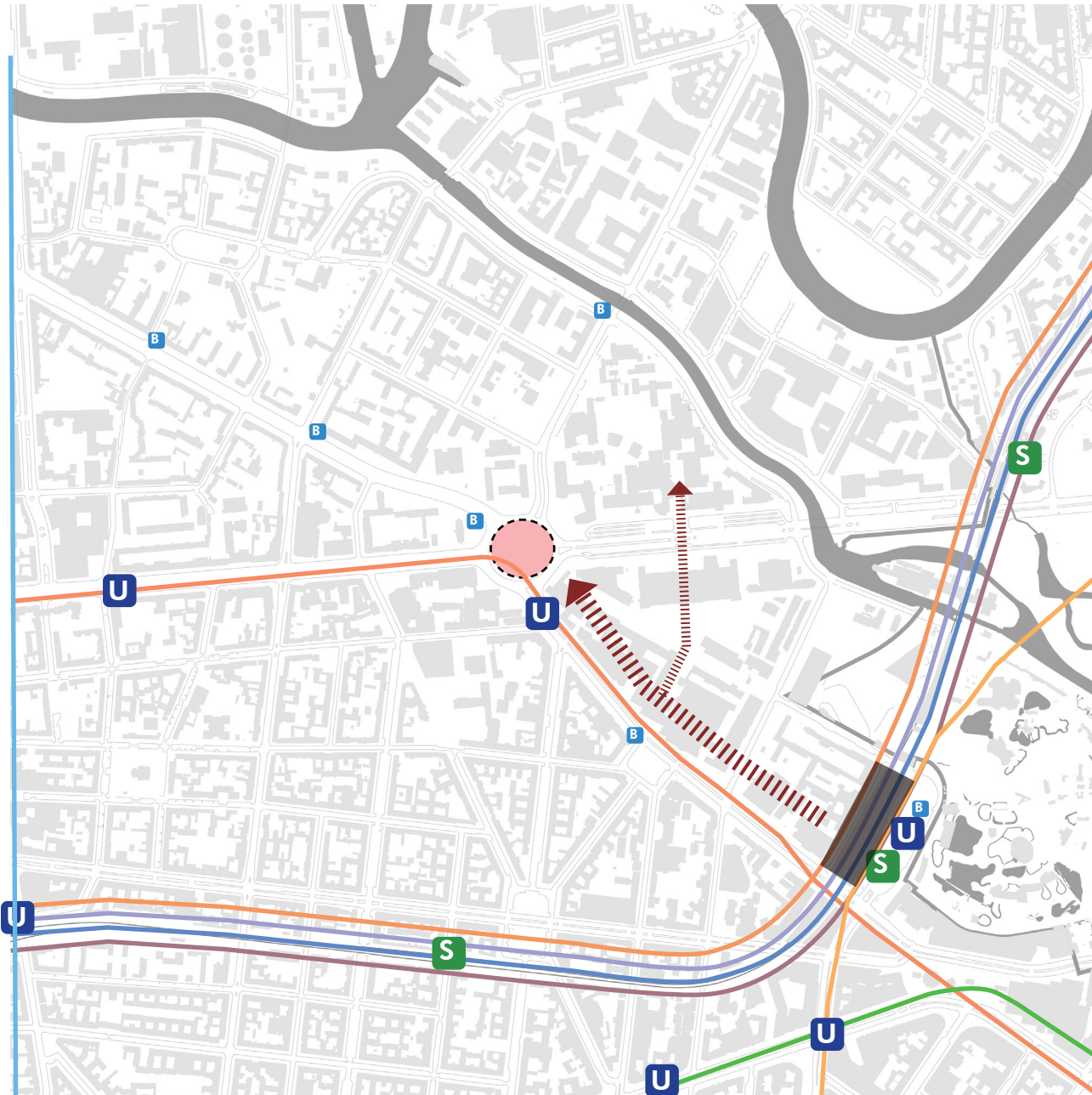
SITE

CITY AXIS: CHARLOTTENBURG & MITTE



SITE

WELL-CONNECTED PUBLIC TRANSPORTATION



STATION:
Ernst-Reuter-Platz

U U-Bahn LINE 2

15 mins walking to ...

TRAIN STATION:
Zoologischer Garten

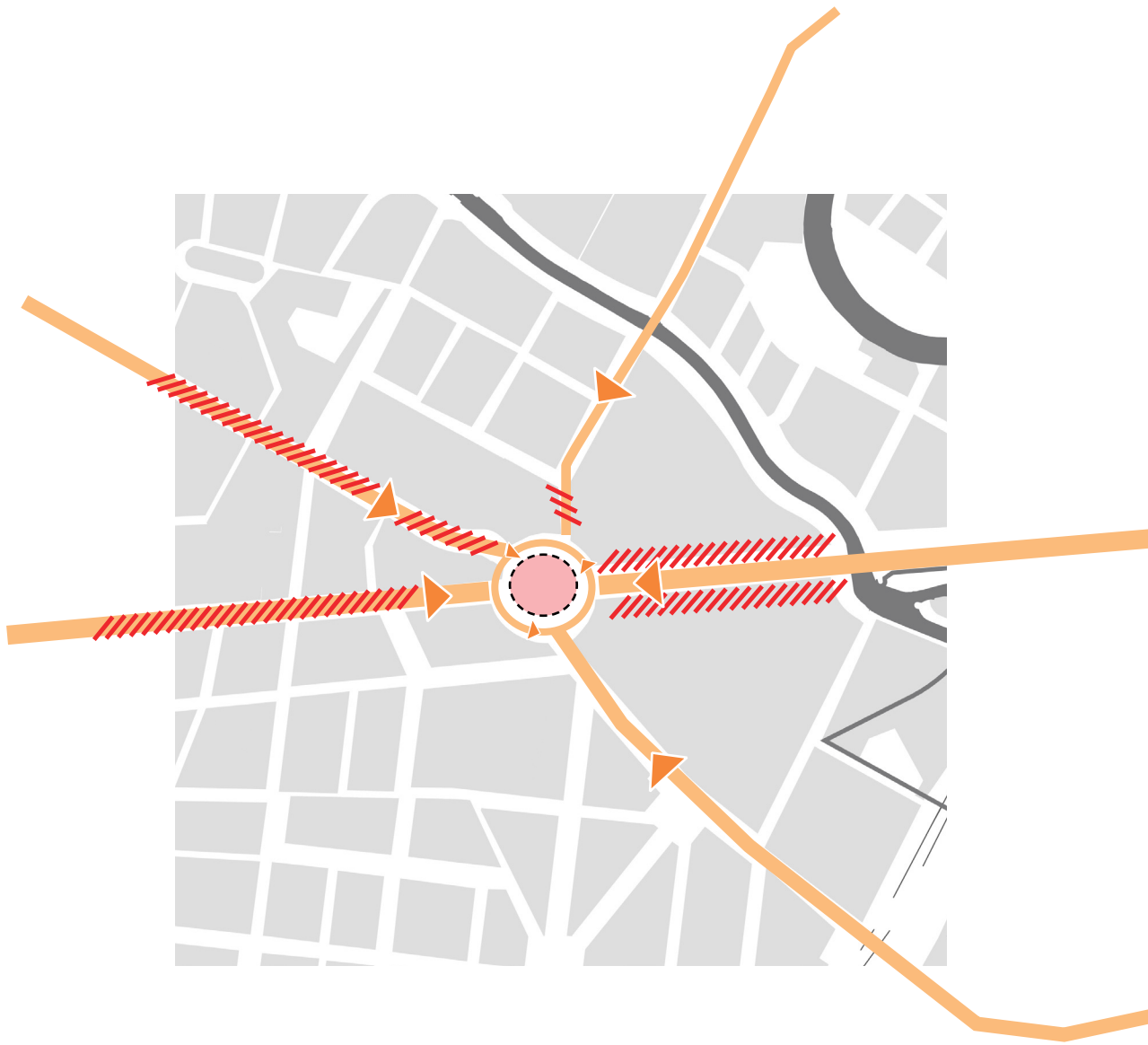
S S3, S5, S7, S9

U U-Bahn LINE 2

B

SITE

BILLBOARD EFFECT, "HIGH EXPOSURE"



road

parking

- maximum speed limit of 50 km/h

CONCLUSION FROM DESIGN BRIEF

**- STRENGTHEN CONNECTION BETWEEN
FASHION, BERLIN, AND RESEARCH**



CONCLUSION FROM DESIGN BRIEF

**- STRENGTHEN CONNECTION BETWEEN
FASHION, BERLIN, AND RESEARCH**

- FASHION DESTINATION



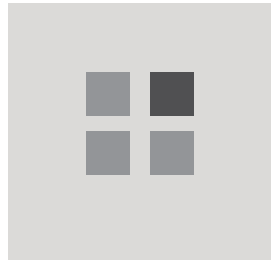
CONCLUSION FROM DESIGN BRIEF

**- STRENGTHEN CONNECTION BETWEEN
FASHION, BERLIN, AND RESEARCH**

- FASHION DESTINATION

- PROGRAM -- SHOW & DISPLAY





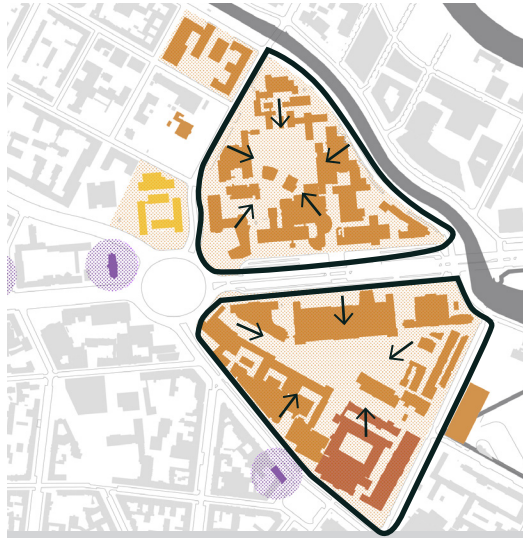
URBAN STRATEGY

current design does not serve its function as "park"

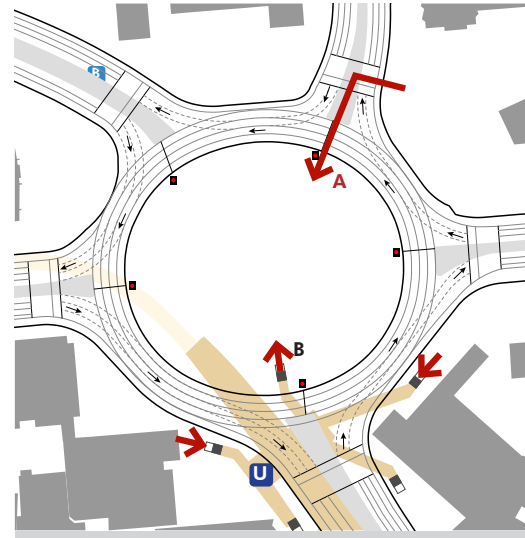


URBAN STRATEGY

EXISTING PROBLEMS



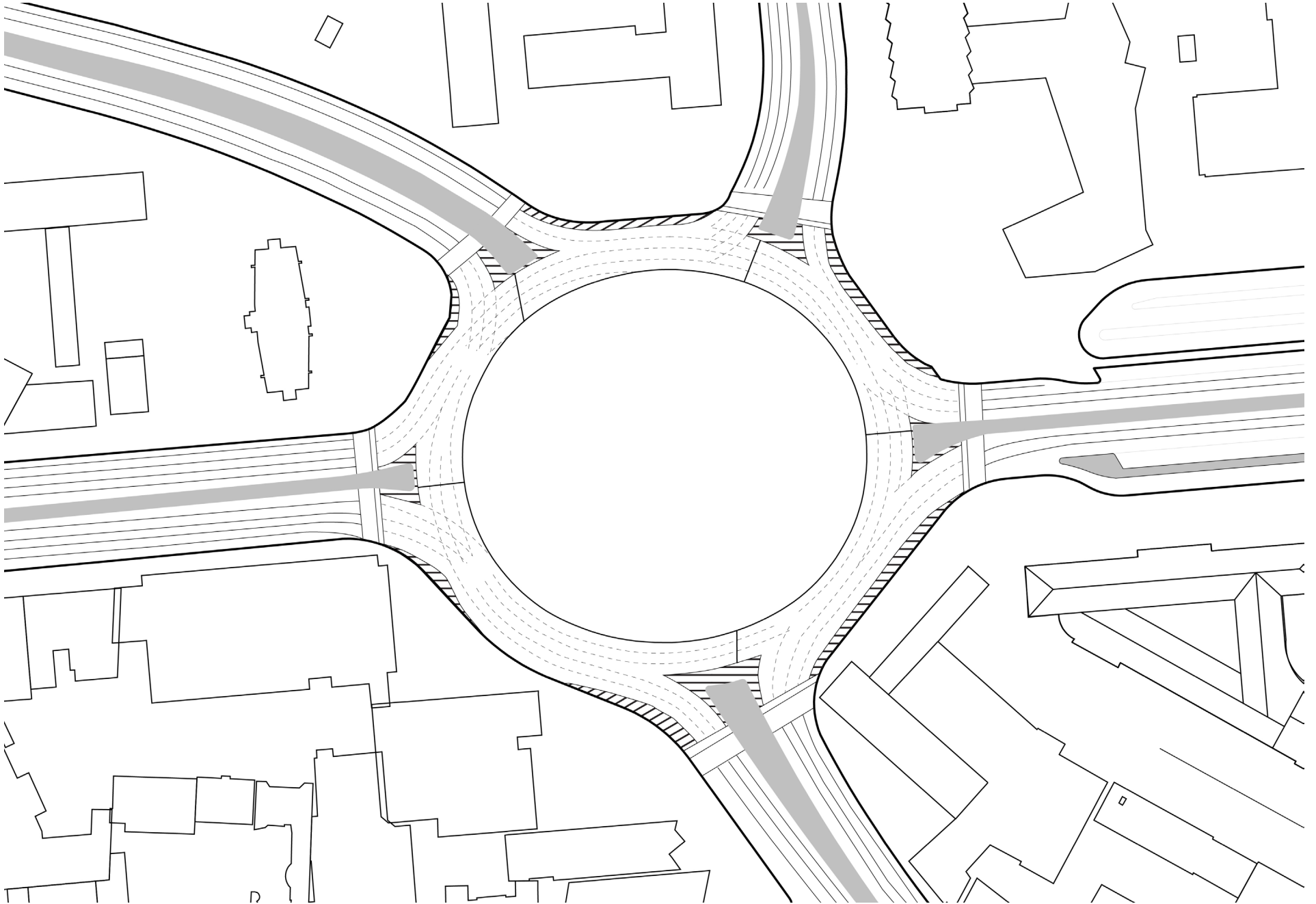
**DISCONNECTION OF
CAMPUS PLANNING**



ACCESSIBILITY



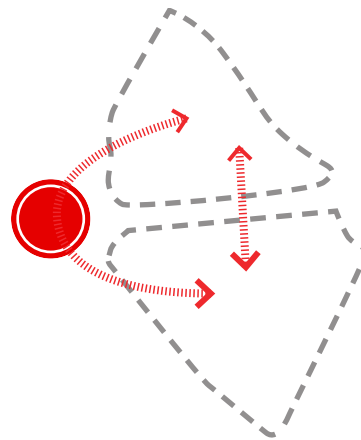
URBAN STRATEGY
EXISTING SITE PLAN



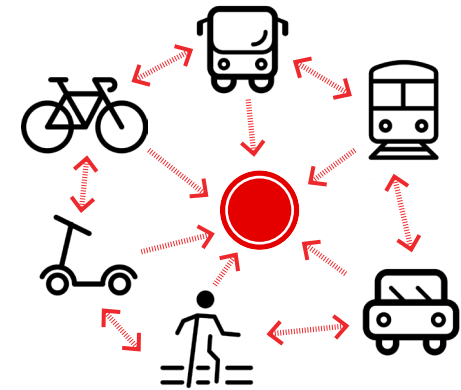
NEW URBAN VISIONS: making connections



CREATING INNER-CITY CAMPUS

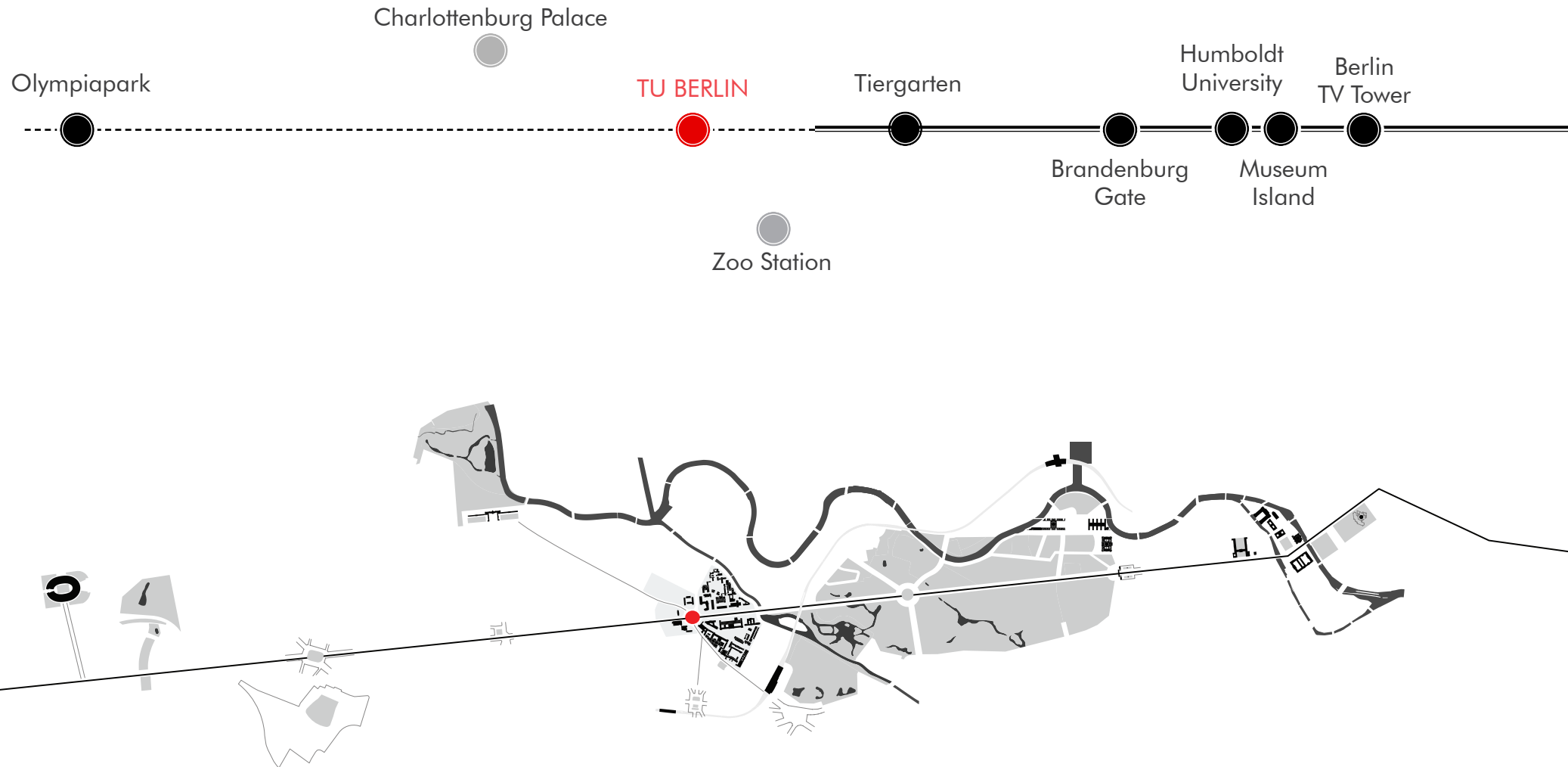


BUILDING CONNECTION WITH CAMPUS

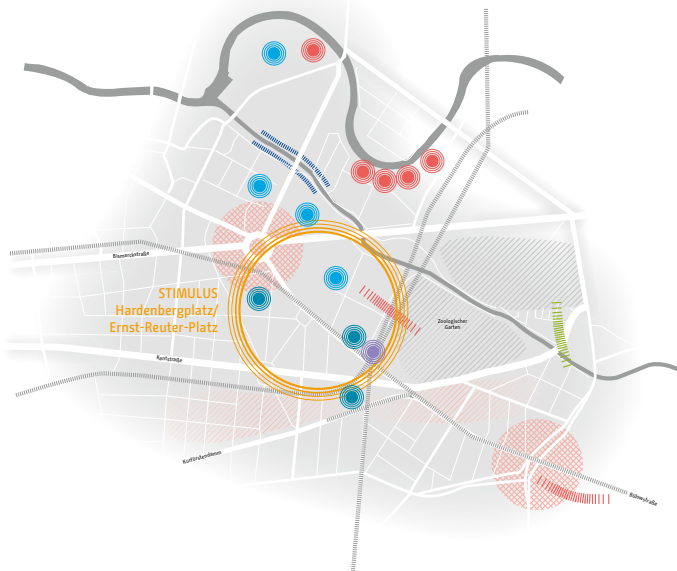
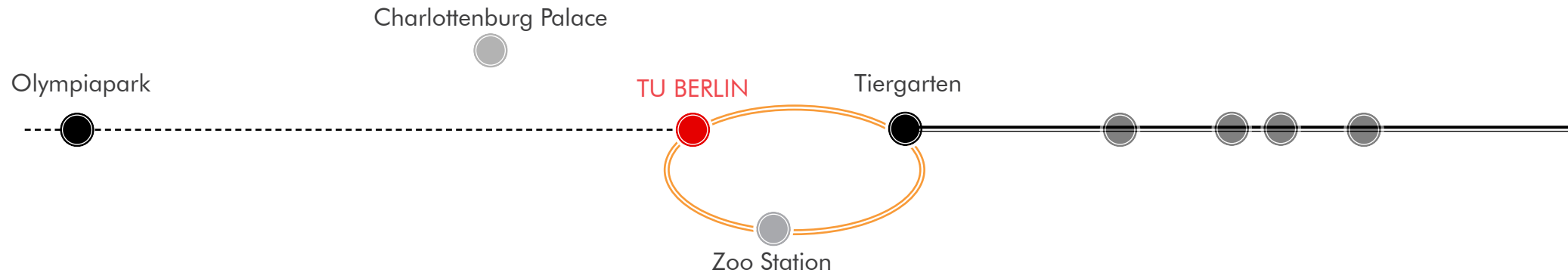


MULTIMODAL CONNECTIVITY

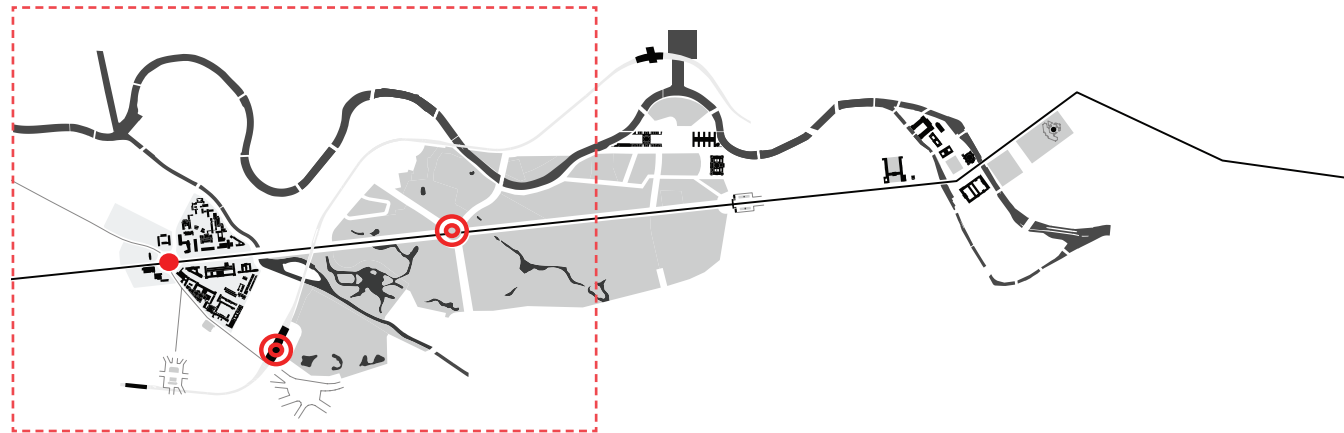
URBAN STRATEGY
CHARLOTTENBURG & MITTE



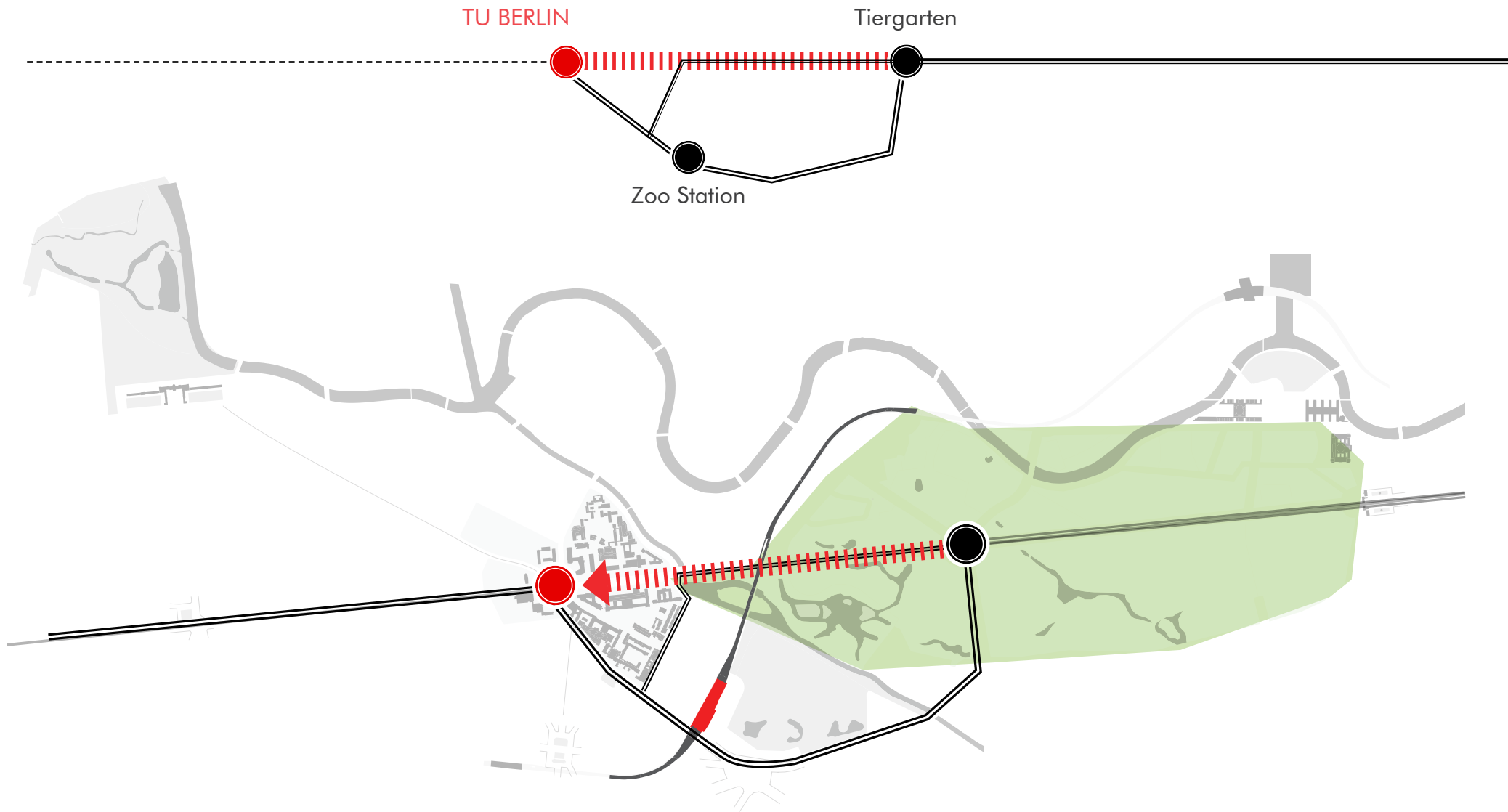
URBAN STRATEGY INNER-CITY CAMPUS



URBAN STRATEGY 2030



URBAN STRATEGY
INNER-CITY CAMPUS



URBAN STRATEGY

GREEN WALK + UNIVERSITY CAMPUS

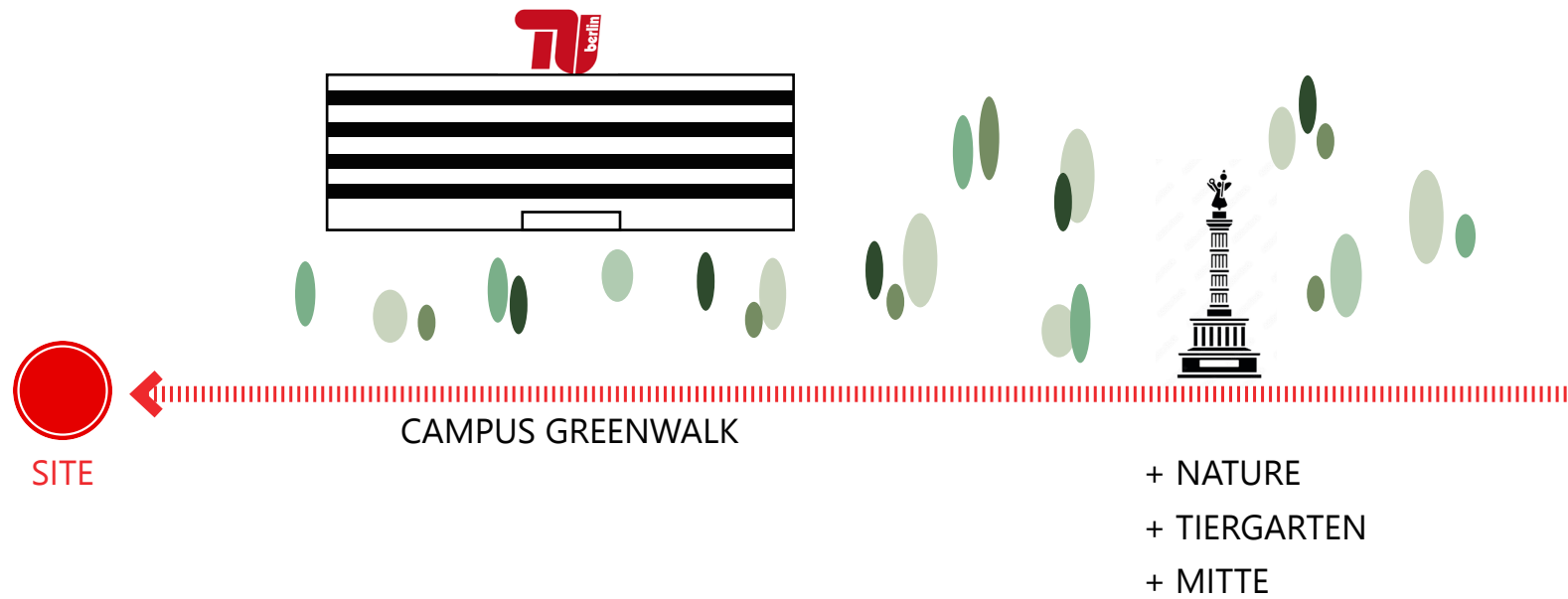


GREEN WALK:
a continuation of Tiergarten, a pedestrian-only street



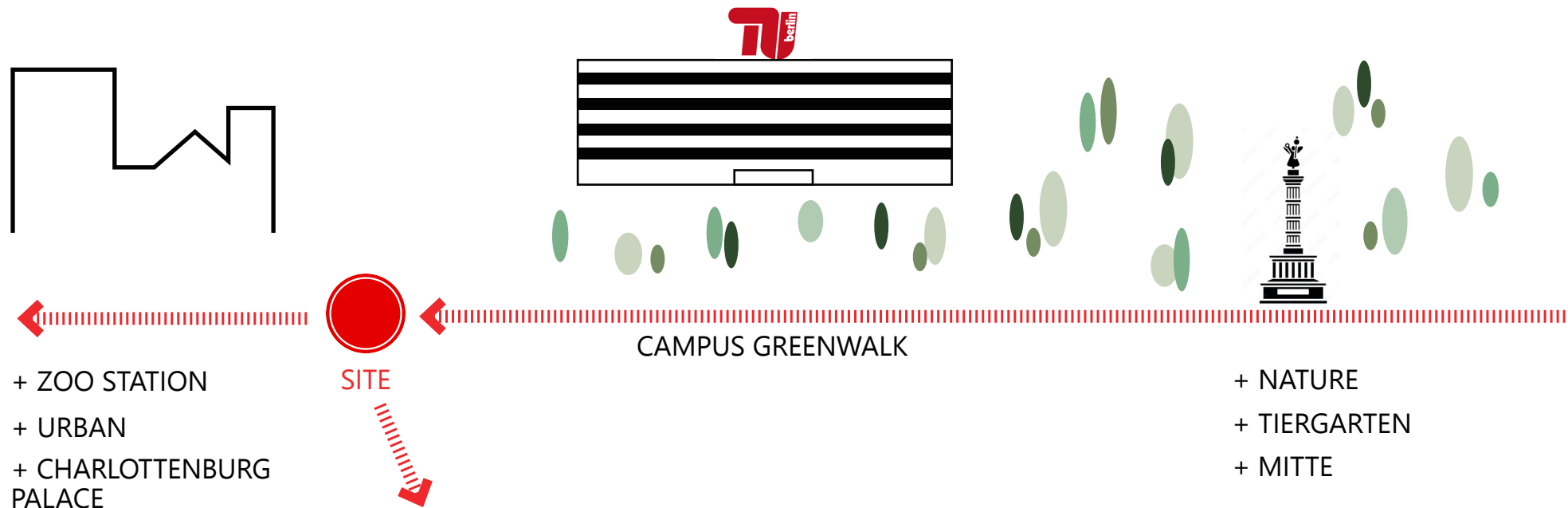
URBAN STRATEGY

TRANSITION FROM WOODS TO URBAN



URBAN STRATEGY

TRANSITION FROM WOODS TO URBAN



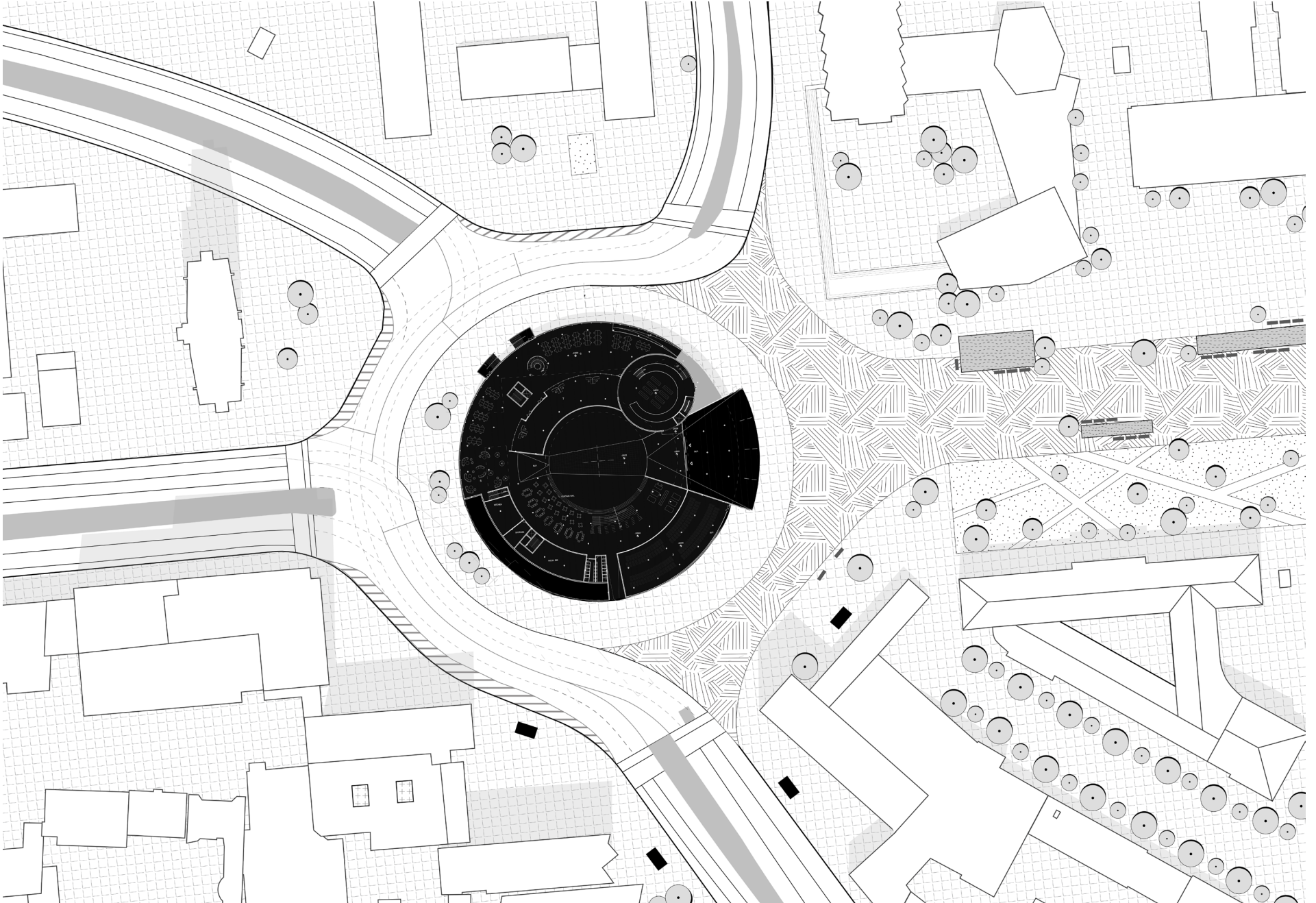
URBAN STRATEGY

MAKING CONNECTION: SITE & CAMPUS

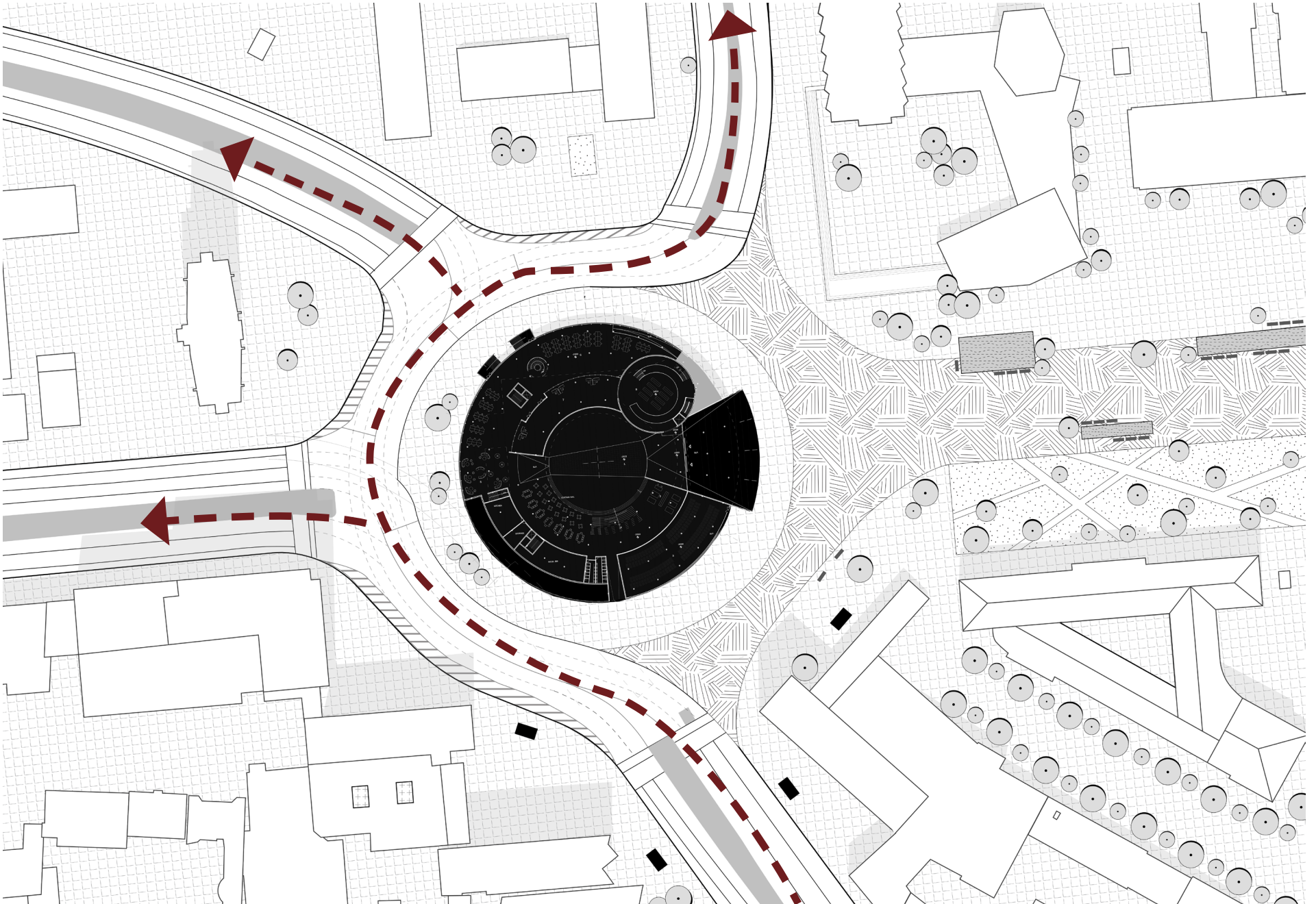


URBAN STRATEGY

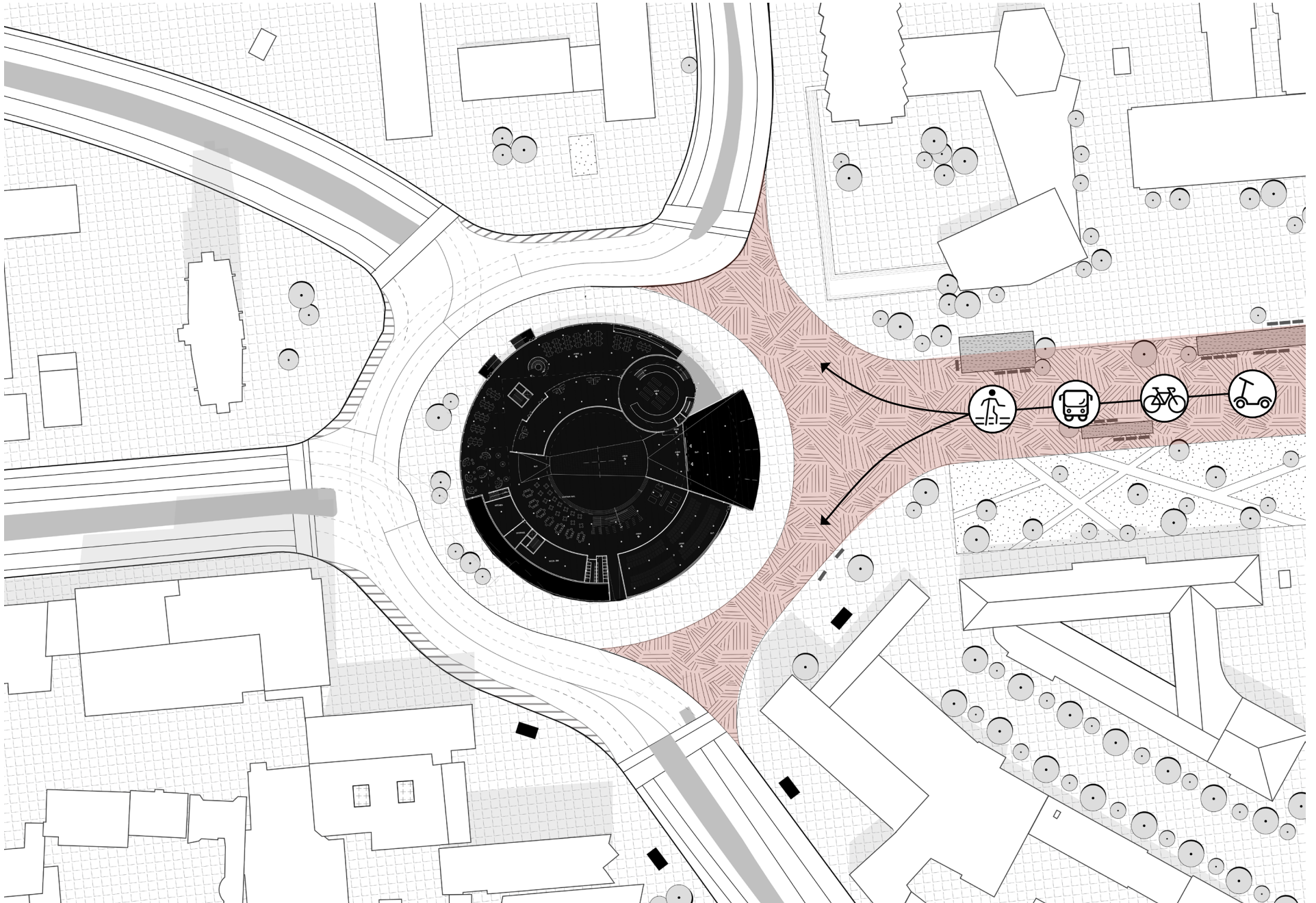
URBAN IMPLEMENTATION

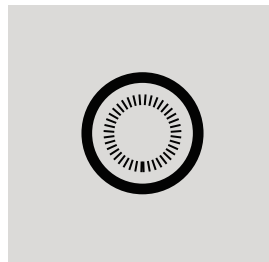


MAKING CONNECTION: CAR CONNECTION



URBAN STRATEGY
LOW TRAFFIC ZONE



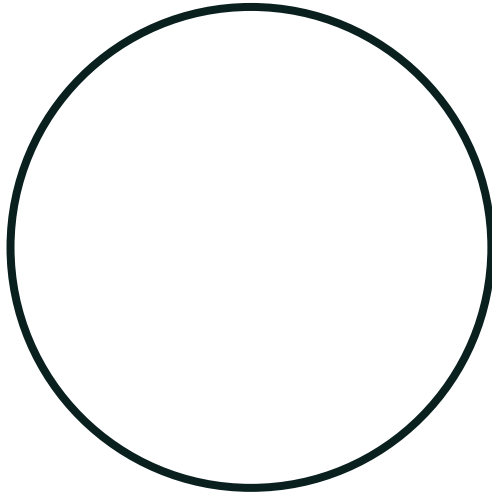


CONCEPT

CONCEPT FORM STUDY

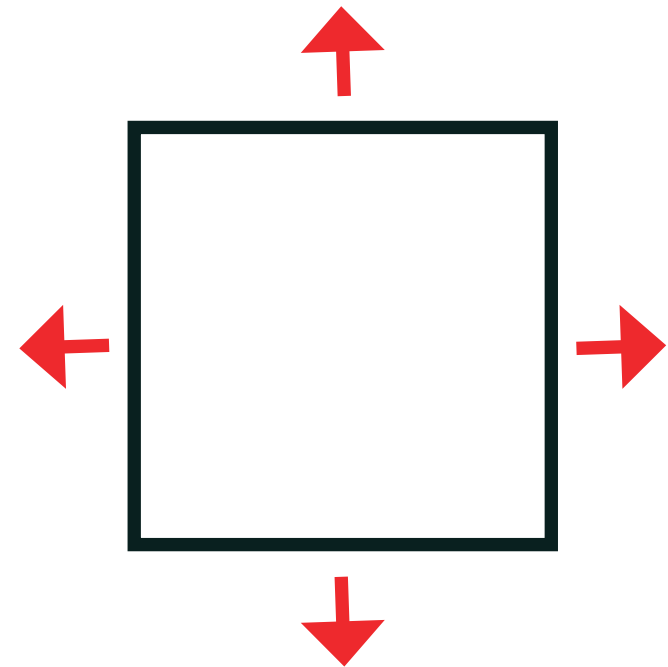
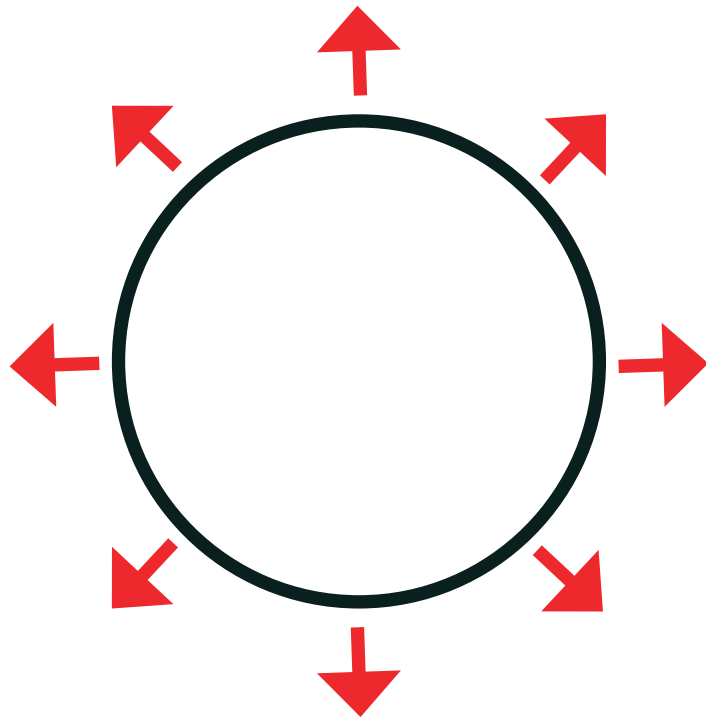


DIFFERENCE BETWEEN SQUARE AND CIRCLE



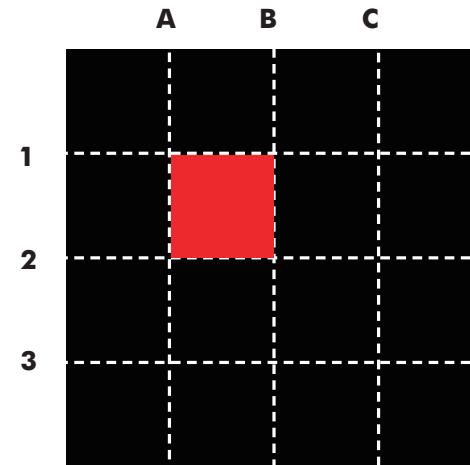
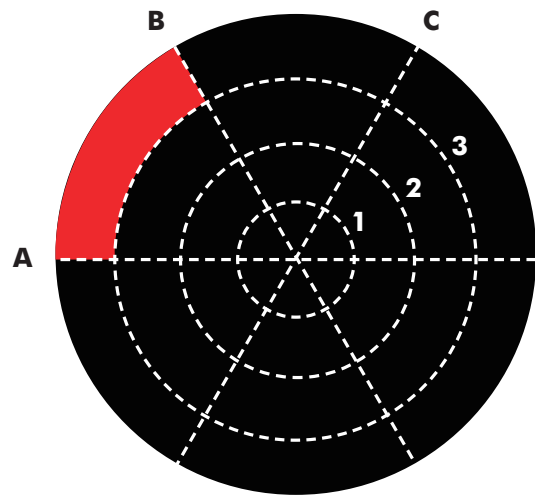
CONCEPT

BOUNDARY & DIRECTION



CONCEPT

AREA & SHAPE



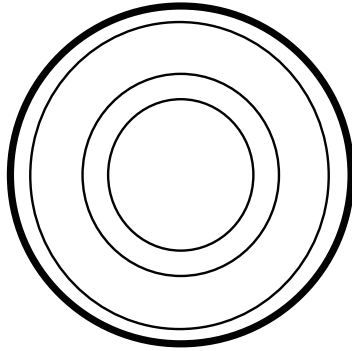
CONCEPT

HOW TO SLICE A CAKE?

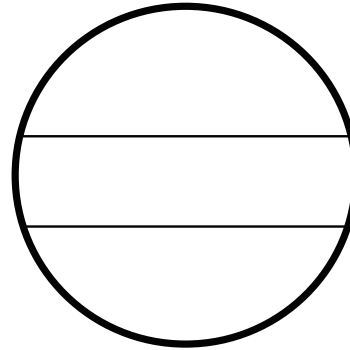


CONCEPT

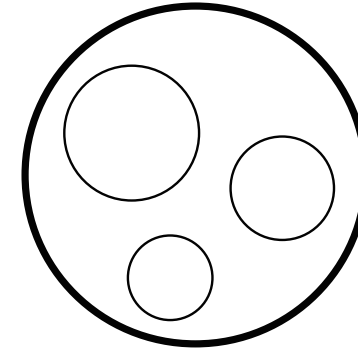
HOW TO CUT A CIRCLE?



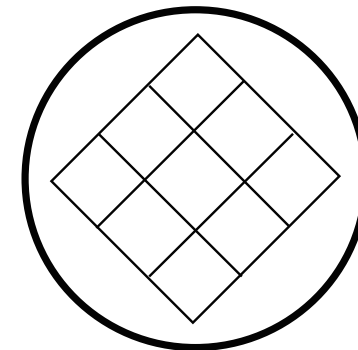
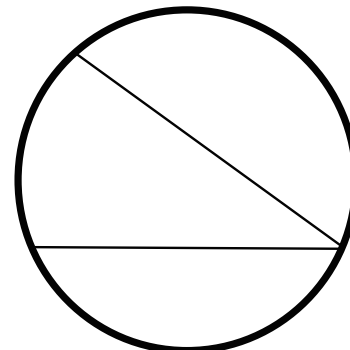
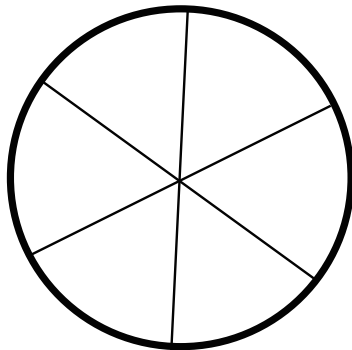
CENTRAL



LINEAR



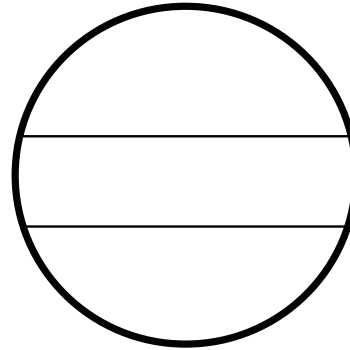
INSERTED



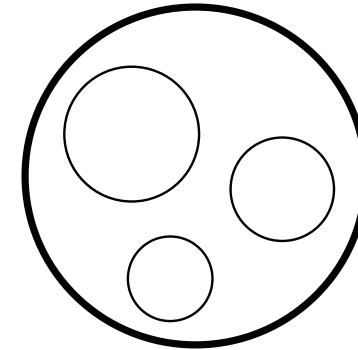
CONCEPT POSSIBILITIES



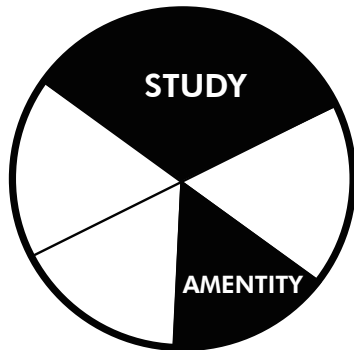
HEART OF THE BUILDING



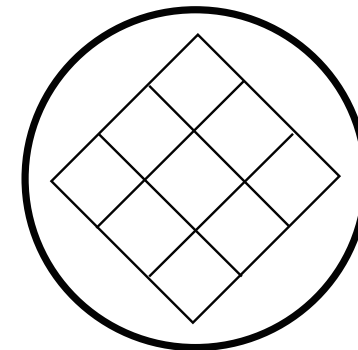
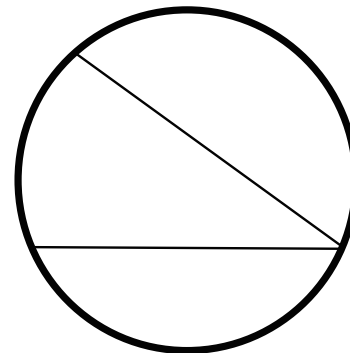
LINEAR



INSERTED



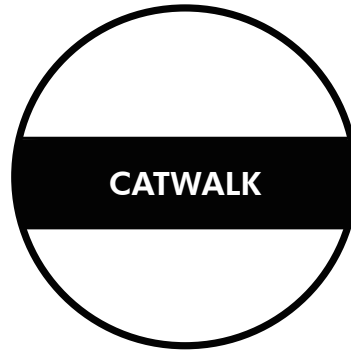
DIVISION



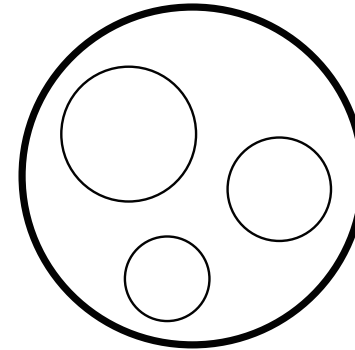
CONCEPT
POSSIBILITIES



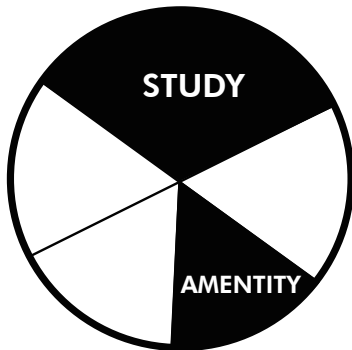
HEART OF THE BUILDING



AXIS & ENTRANCE



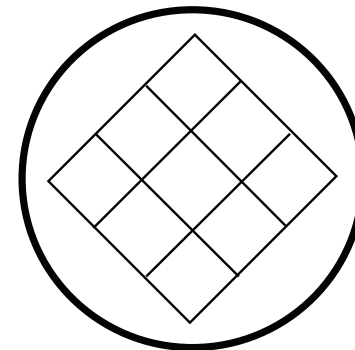
INSERTED



DIVISION



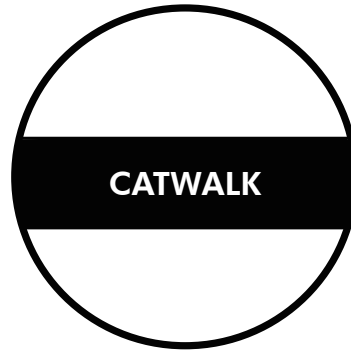
SPATIAL CONTRAST



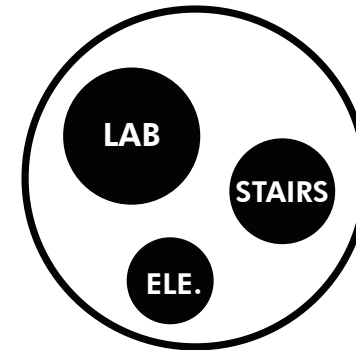
CONCEPT
POSSIBILITIES



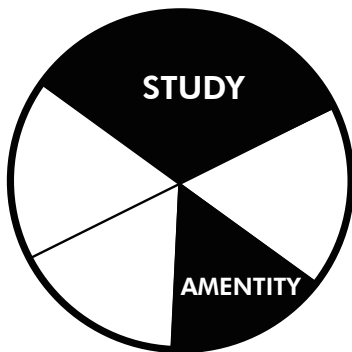
HEART OF THE BUILDING



AXIS & ENTRANCE



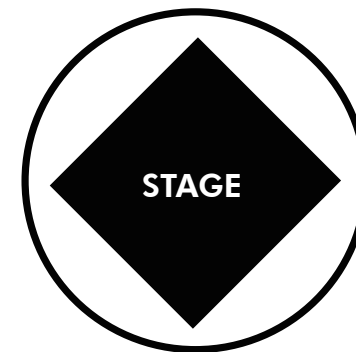
PROGRAM BUBBLES



DIVISION

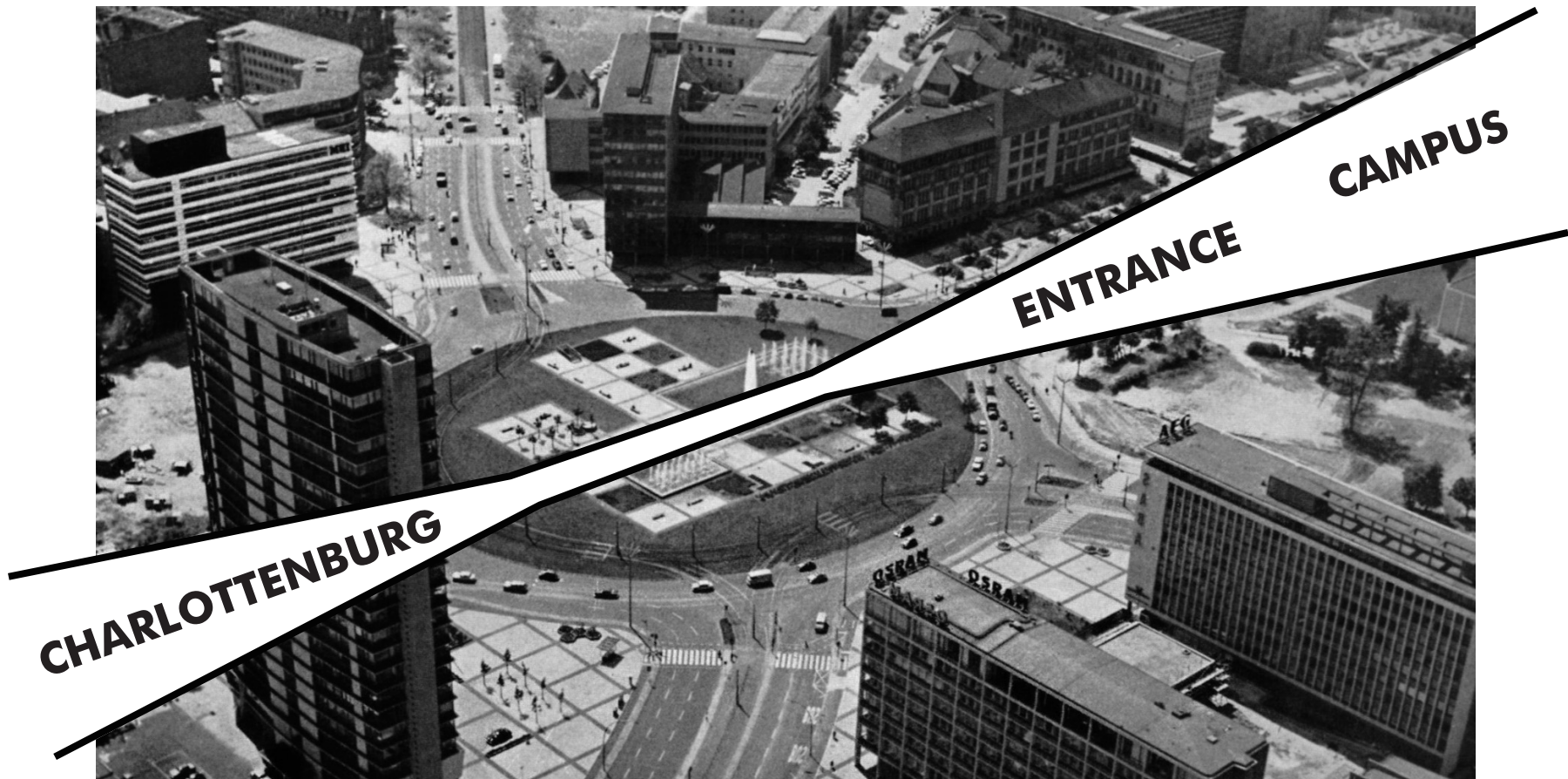
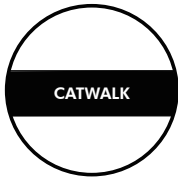


SPATIAL CONTRAST



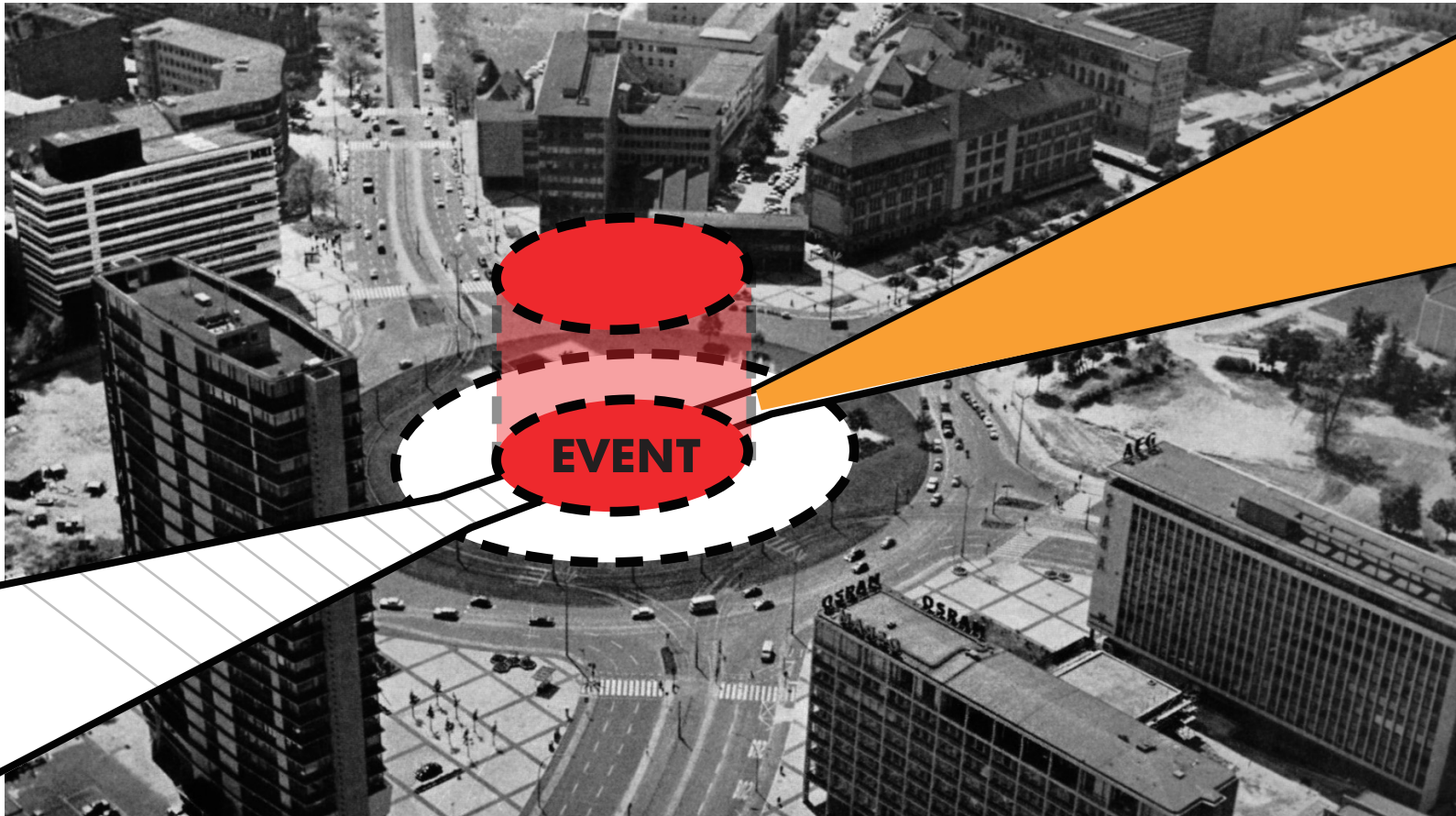
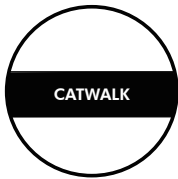
SQUARE IN CIRCLE

CONCEPT ENTRANCE



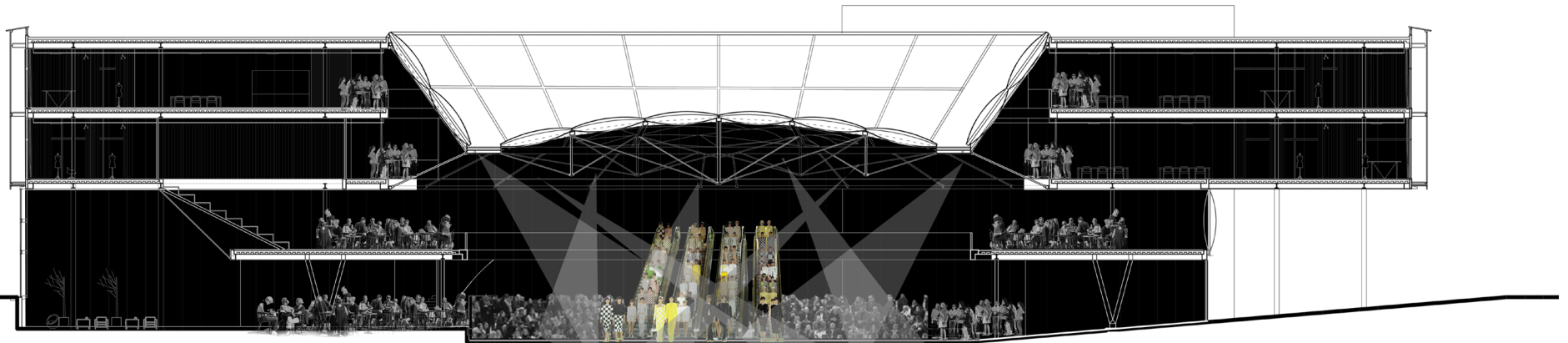
GROUND FLOOR

CONCEPT
ATRIUM EVENT

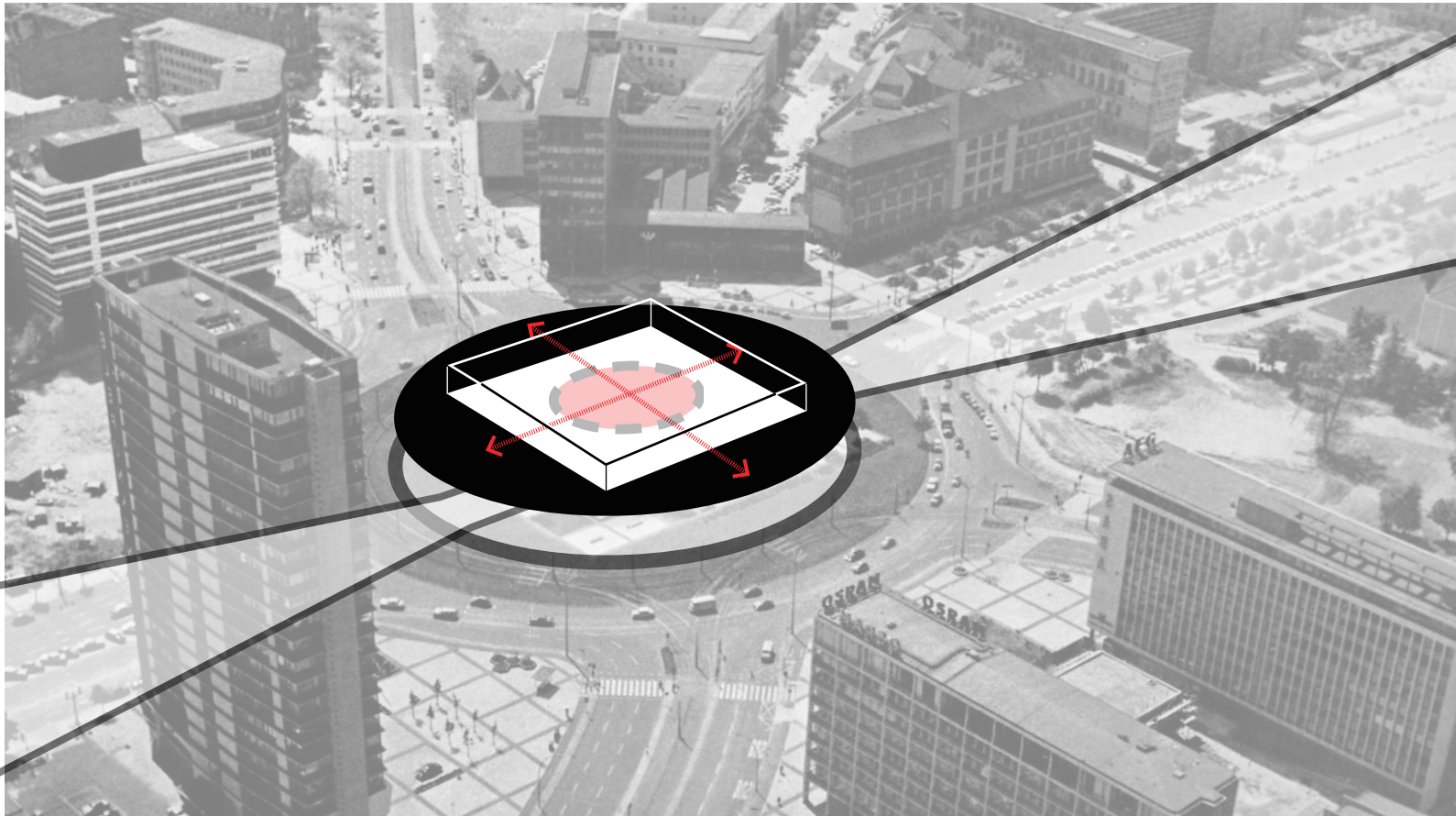
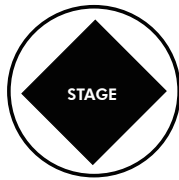


GROUND FLOOR

CONCEPT
VISITUAL CONNECTION

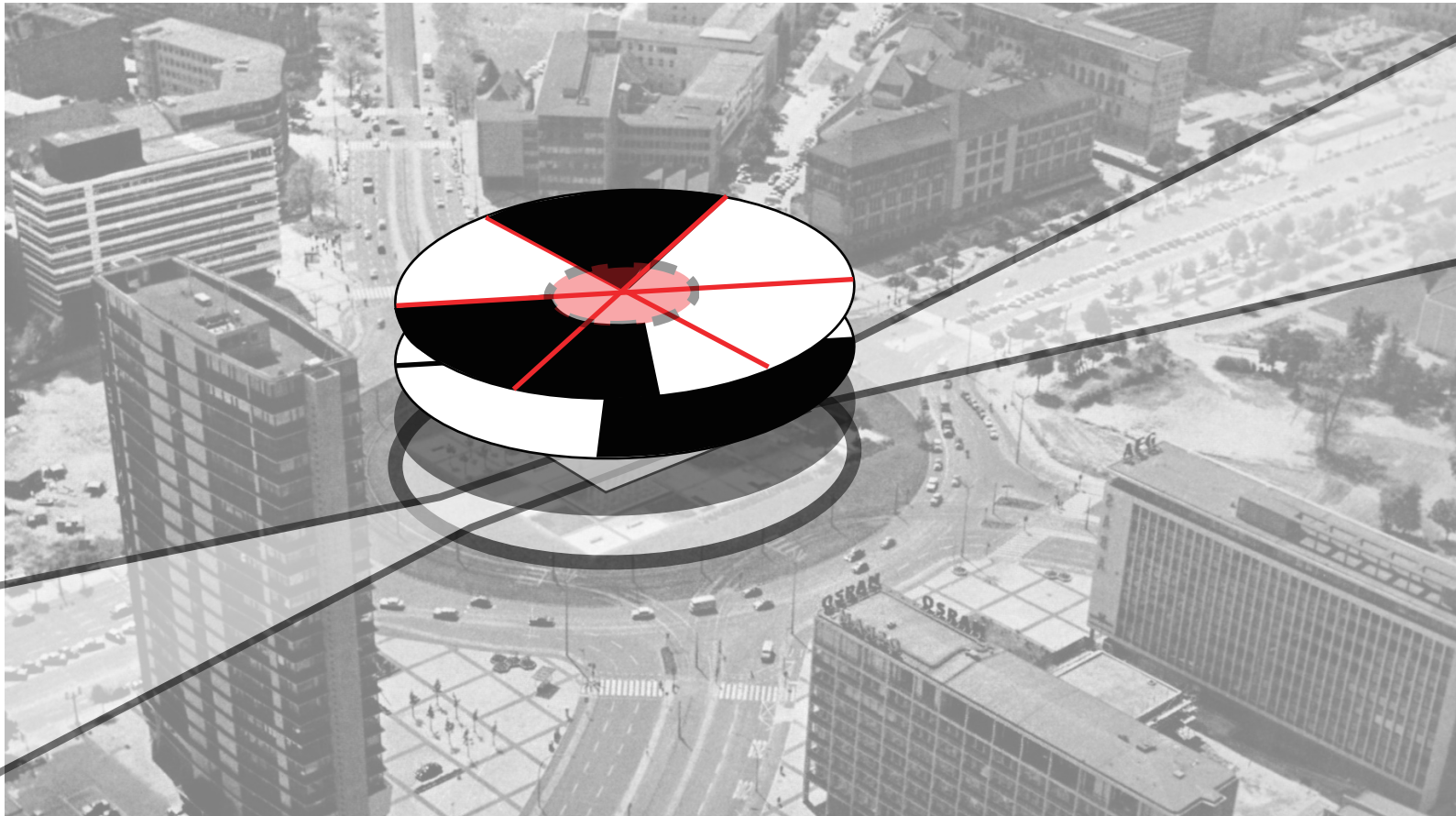
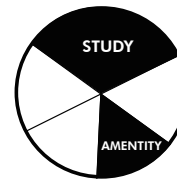
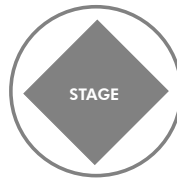


CONCEPT
EXHIBITION + PATIO



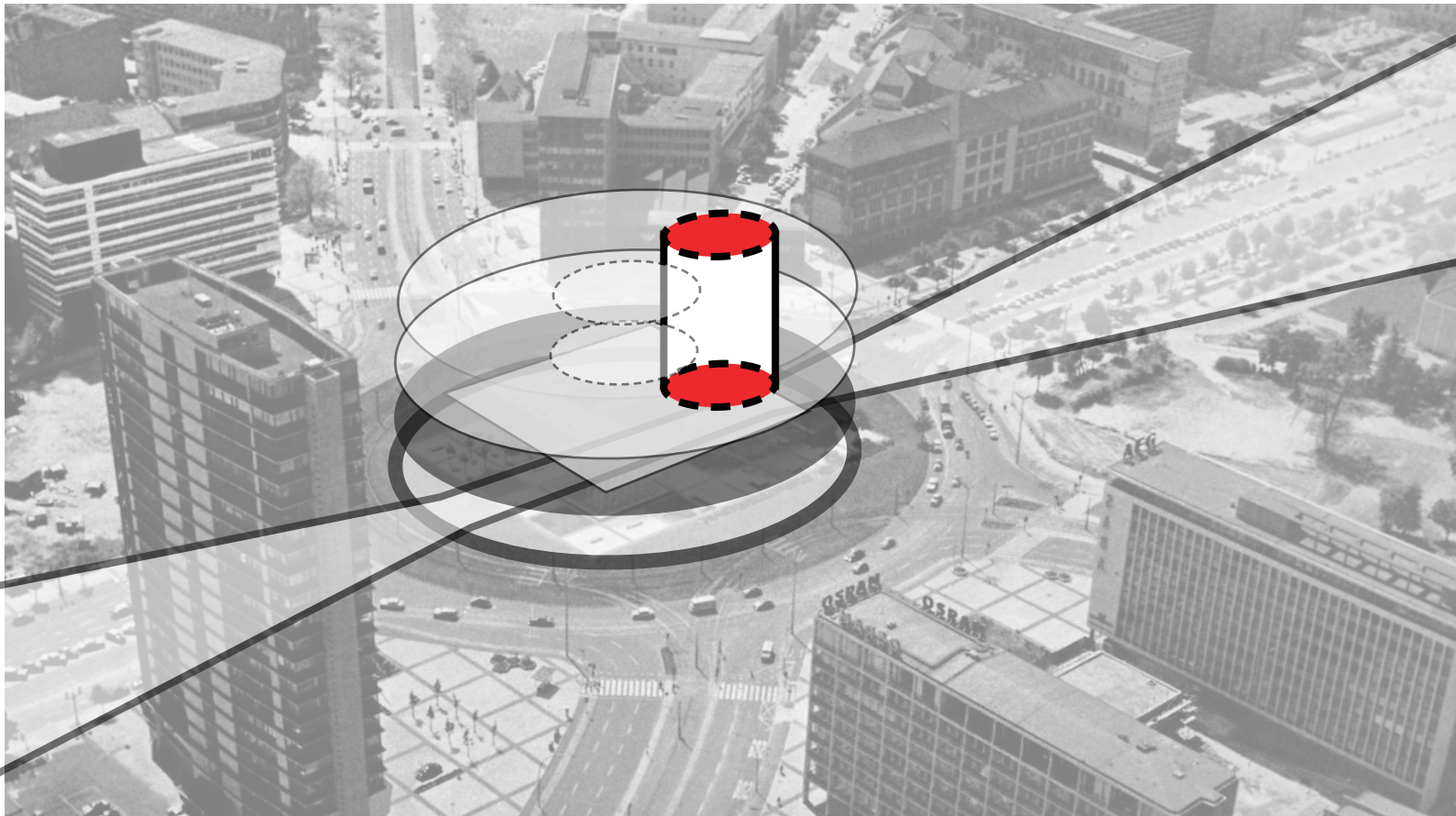
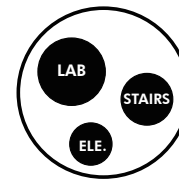
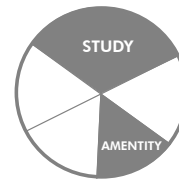
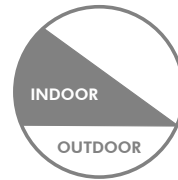
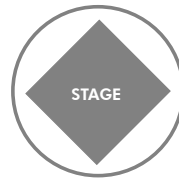
1ST FLOOR

CONCEPT
LAB + RESEARCH

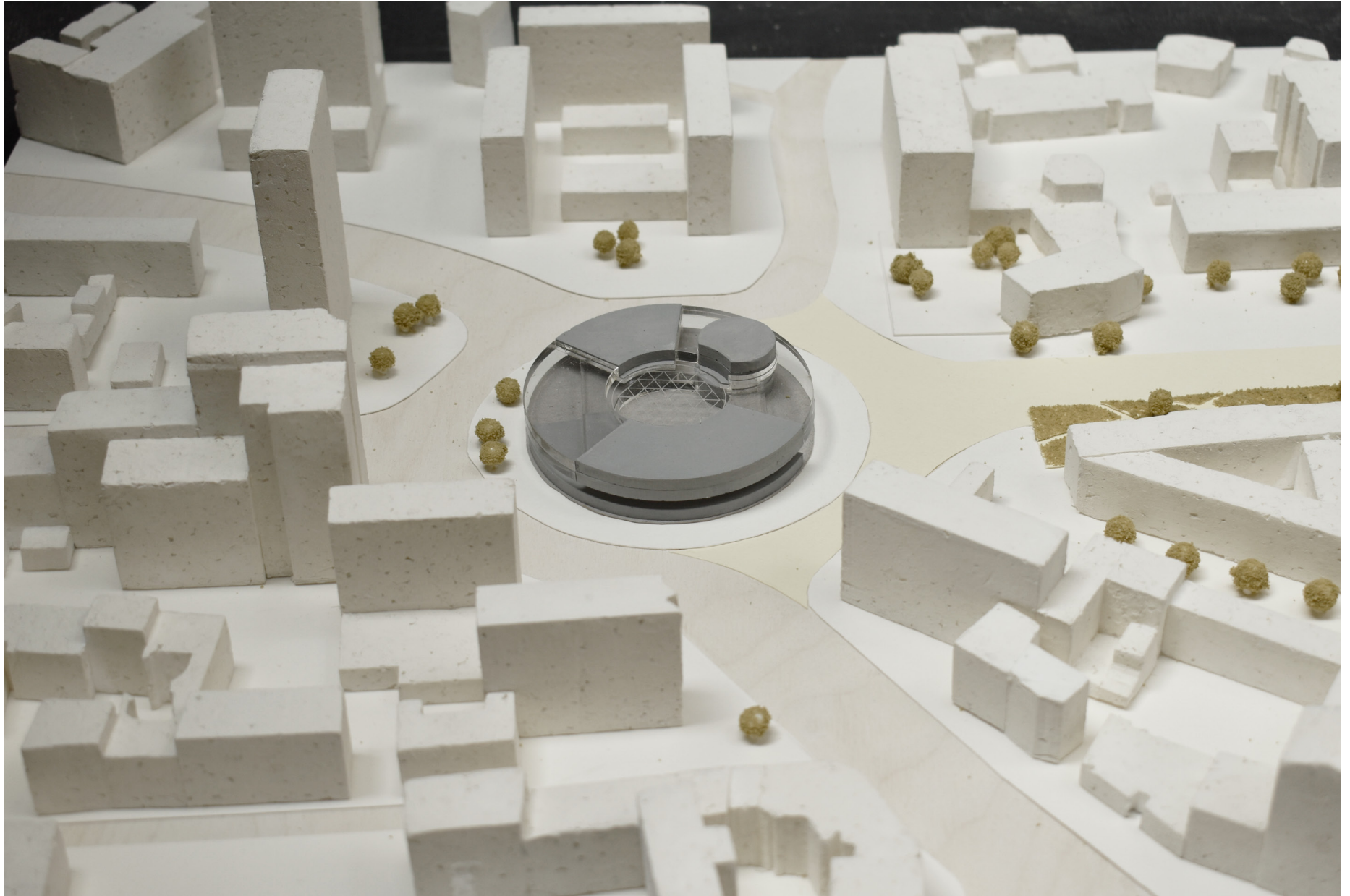


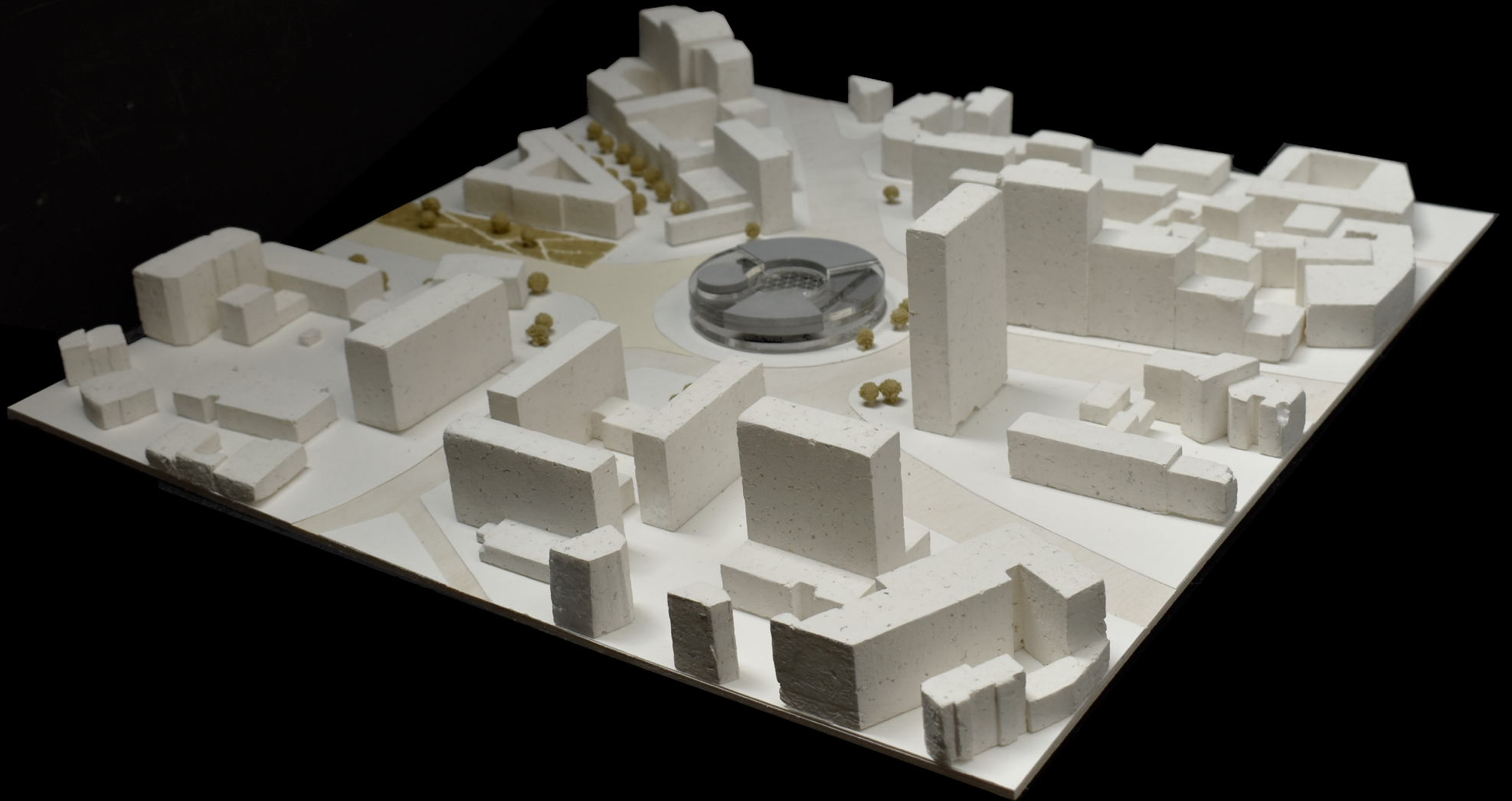
UPPER FLOORS

CONCEPT VERTICAL HINGE



CONCEPT



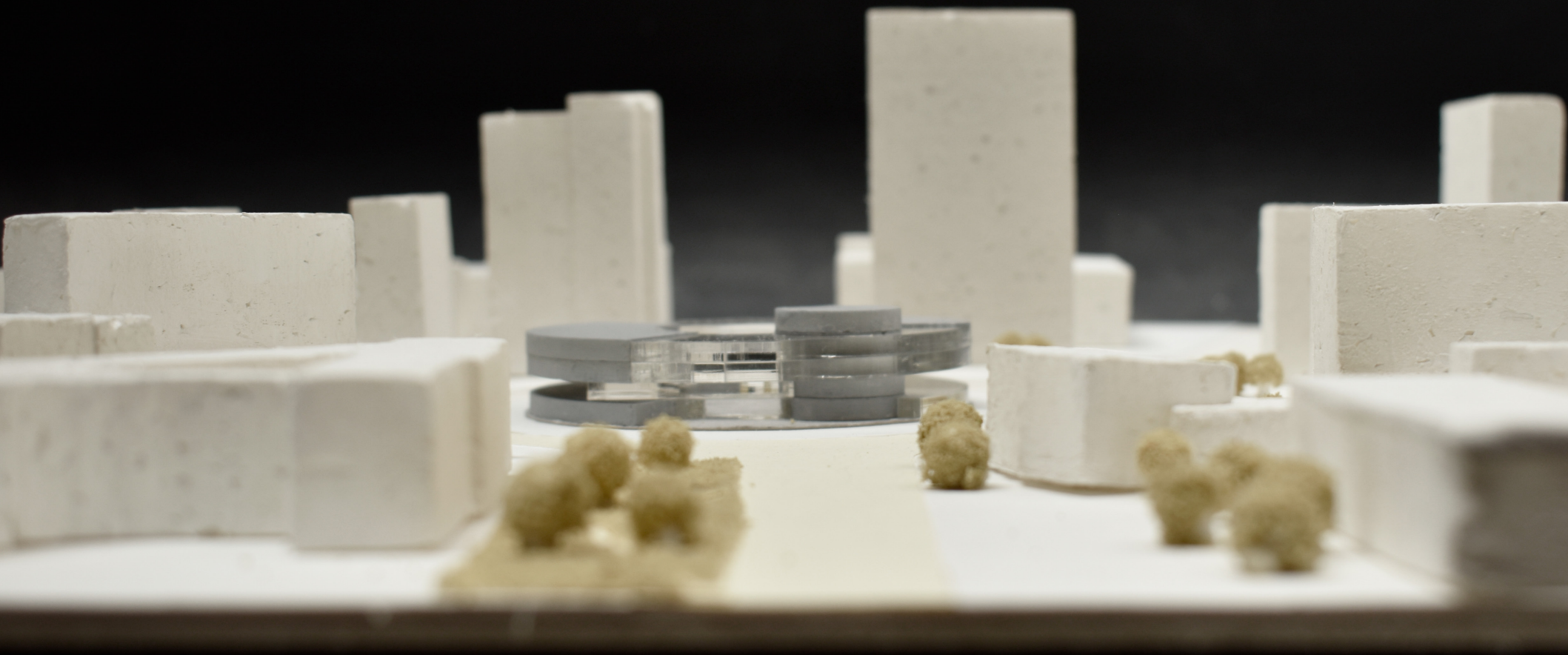


CONCEPT

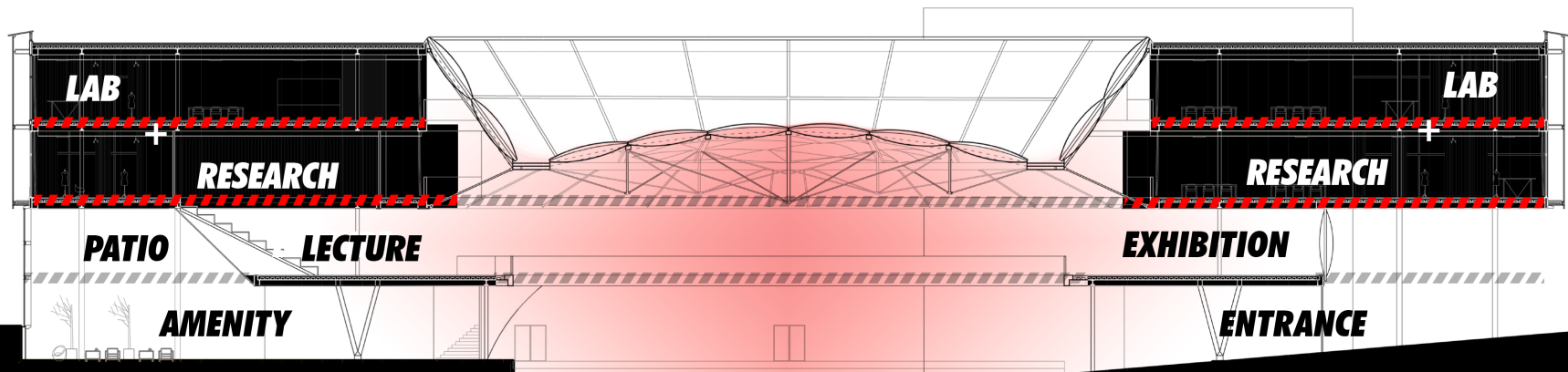
EVENT STAGE AS HEART OF THE BUILDING



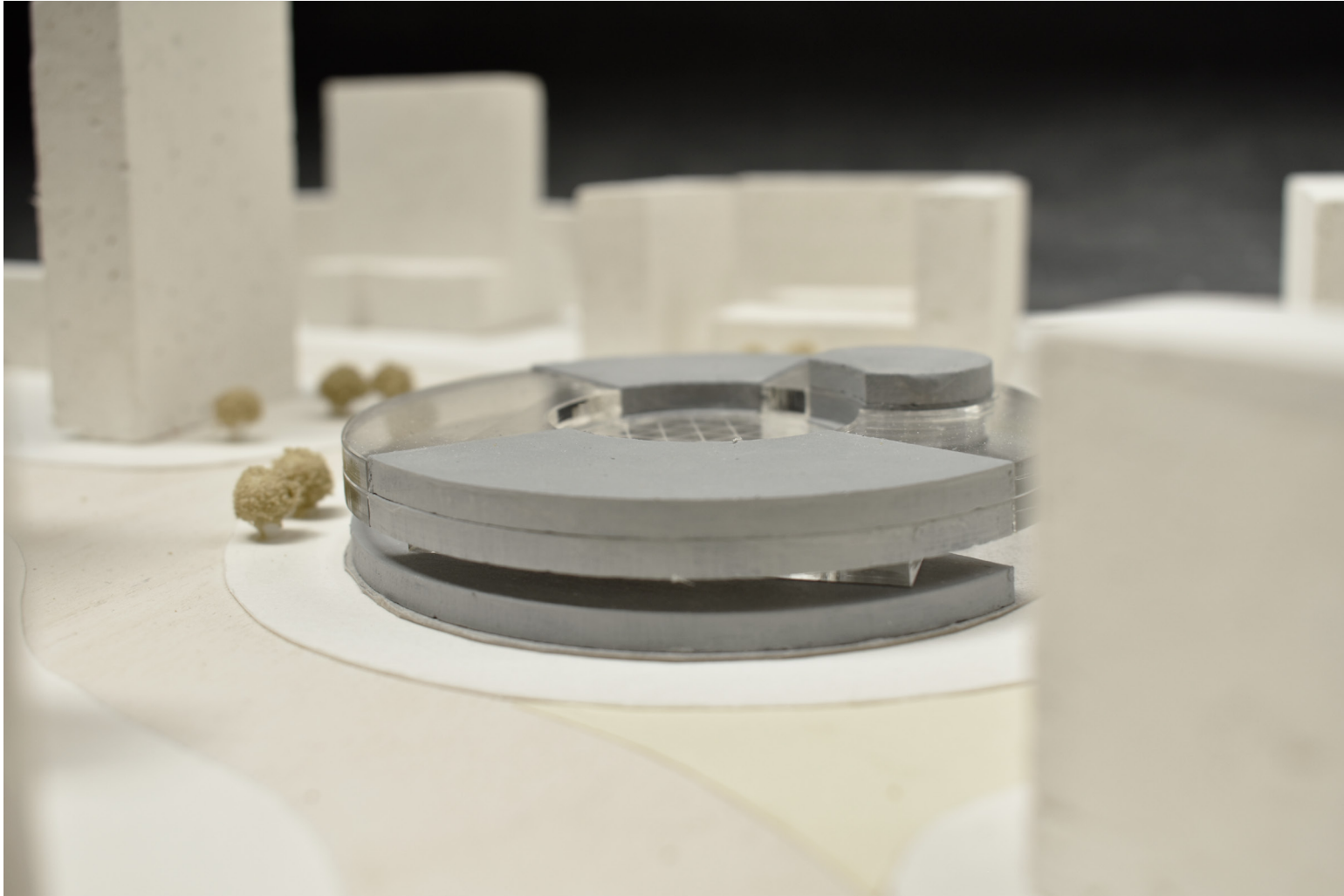




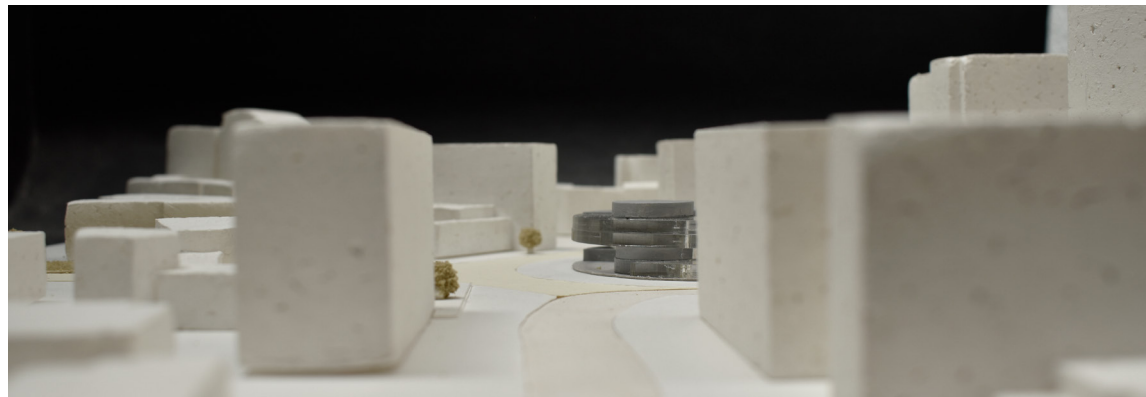
CONCEPT
PUBLIC & SEMI-PUBLIC

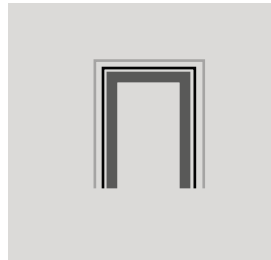


CONCEPT



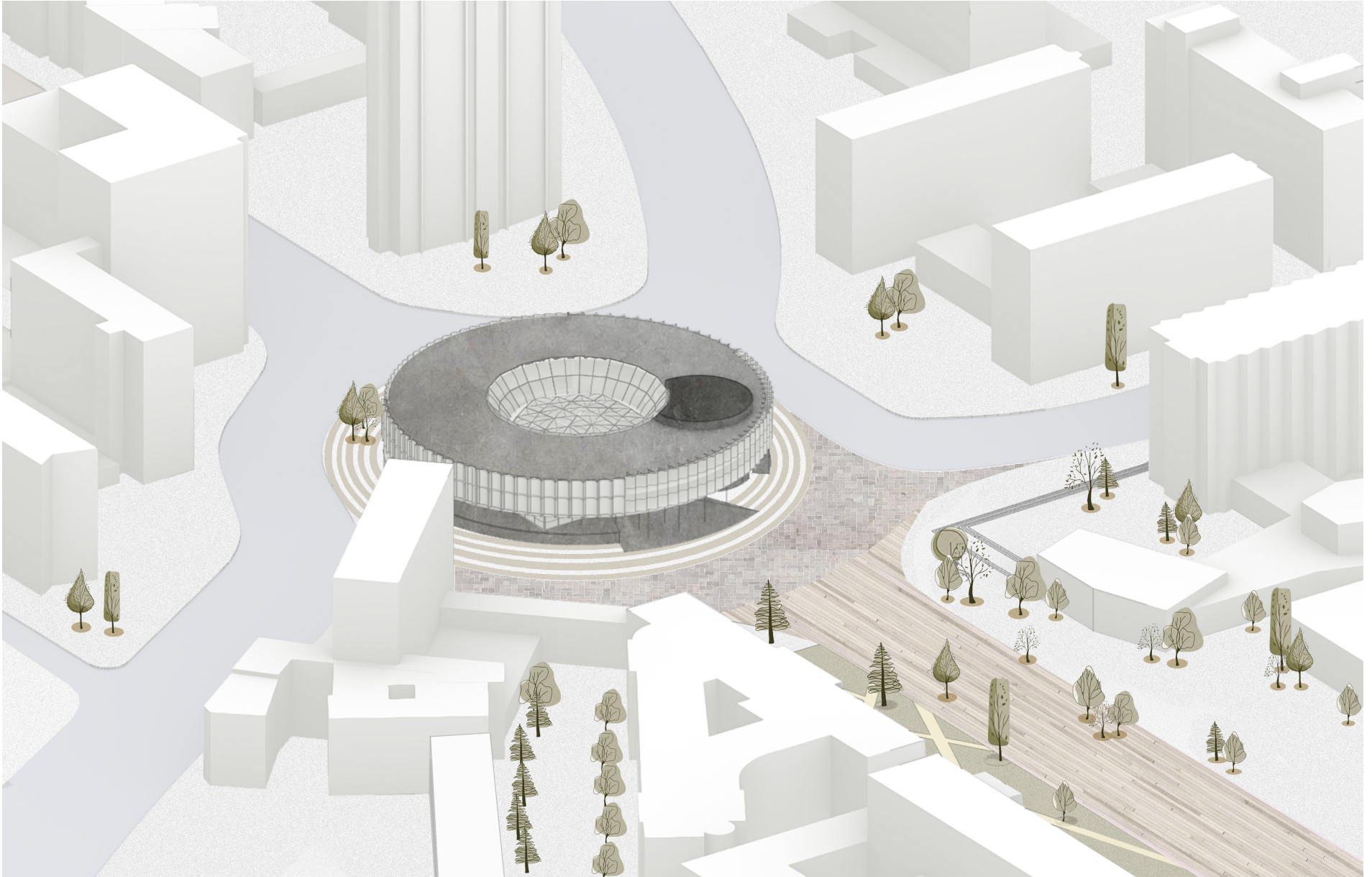
CONCEPT





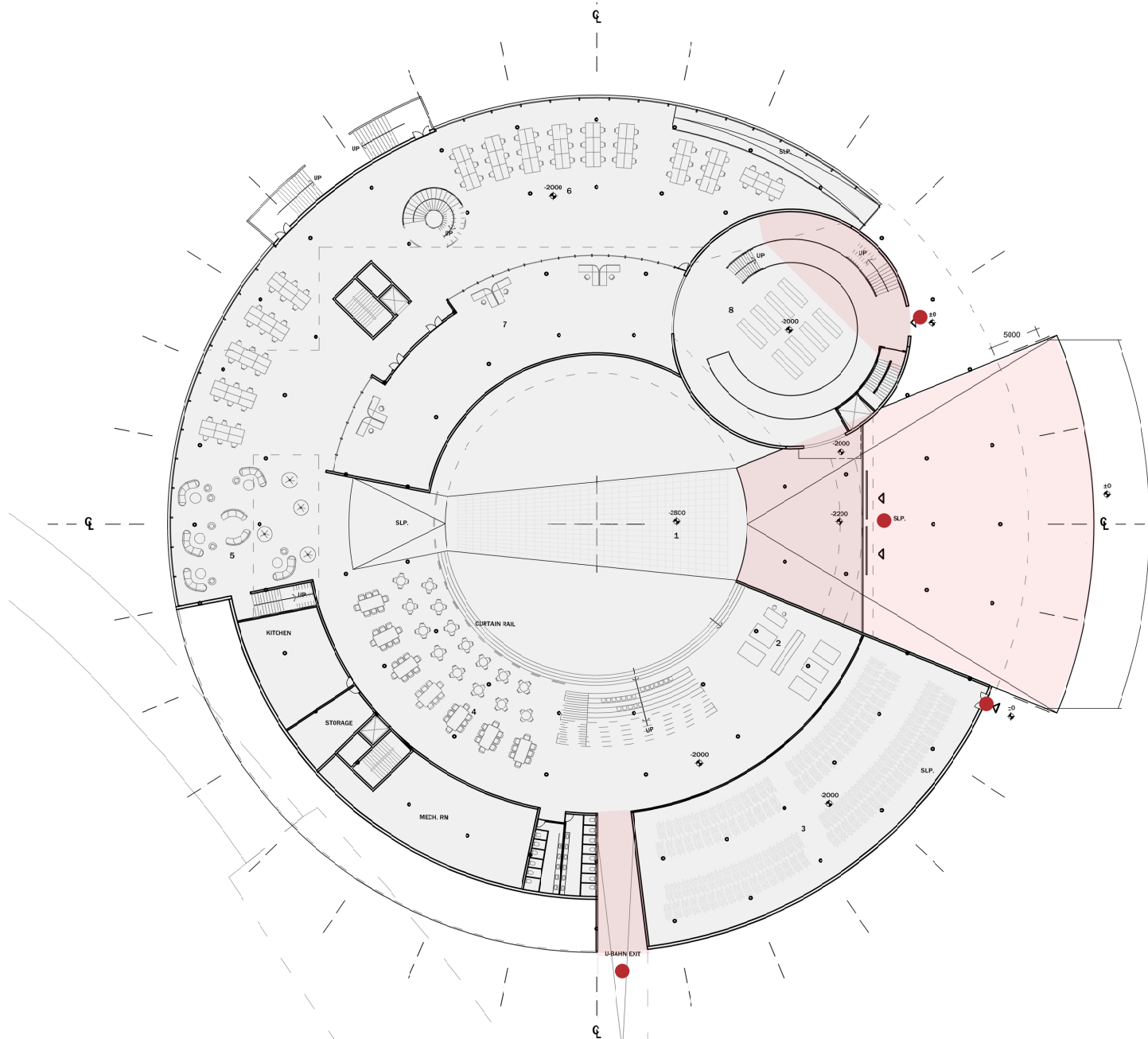
IMPLEMENTATION

CONCEPT
URBAN SITUATION



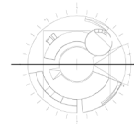
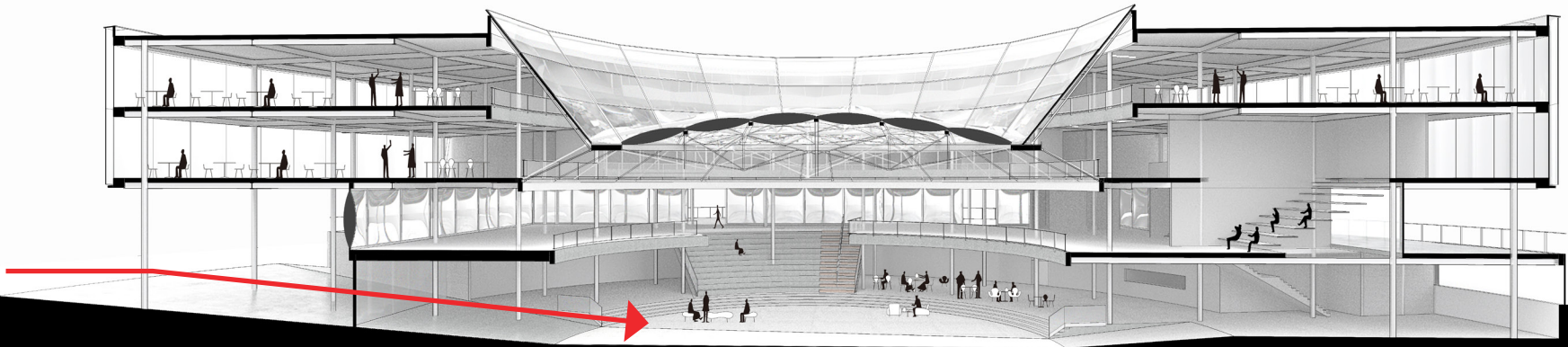
CONCEPT

LEADING TO THE MAIN SPACE OF BUILDING



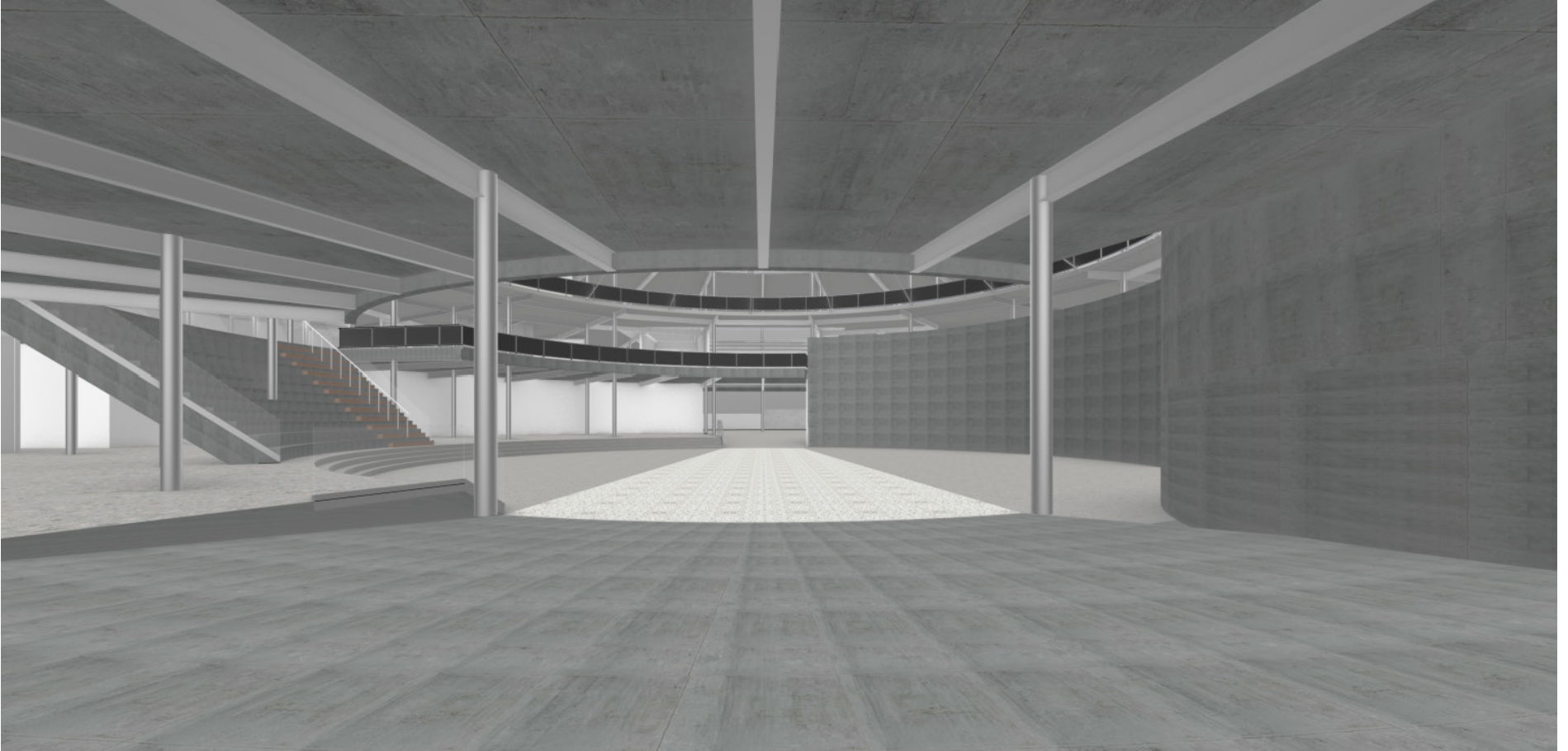
1. LOBBY/ EVENT
2. RECEPTION
3. STORE
4. CANTEEN
5. SOCIAL LOUNGE
6. WORKSTATION
7. PRODUCTION HALL
8. YARN DEPOT

2 GROUND FLOOR PLAN
SCALE: 1:500

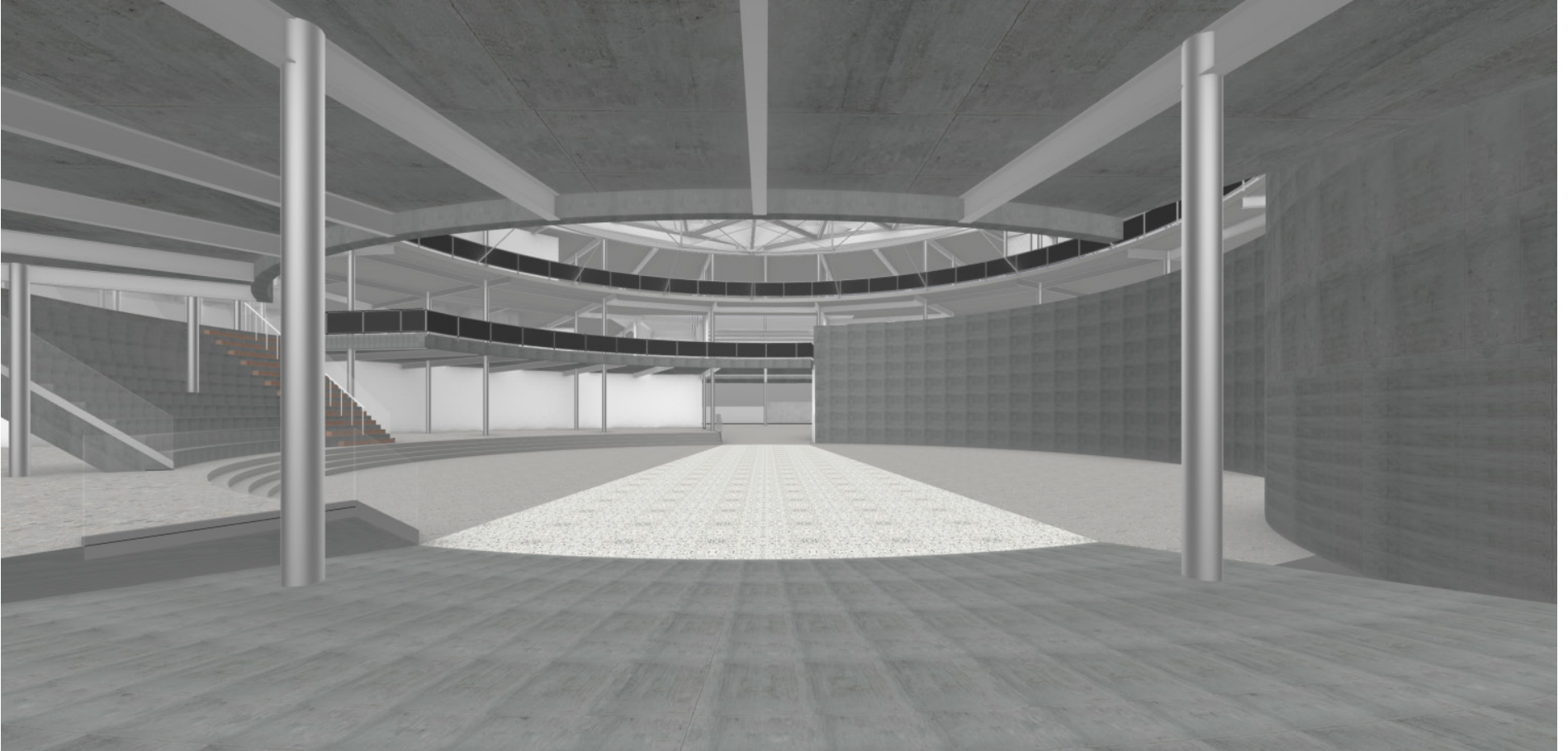


6 SECTION A-A'
SCALE: 1:300

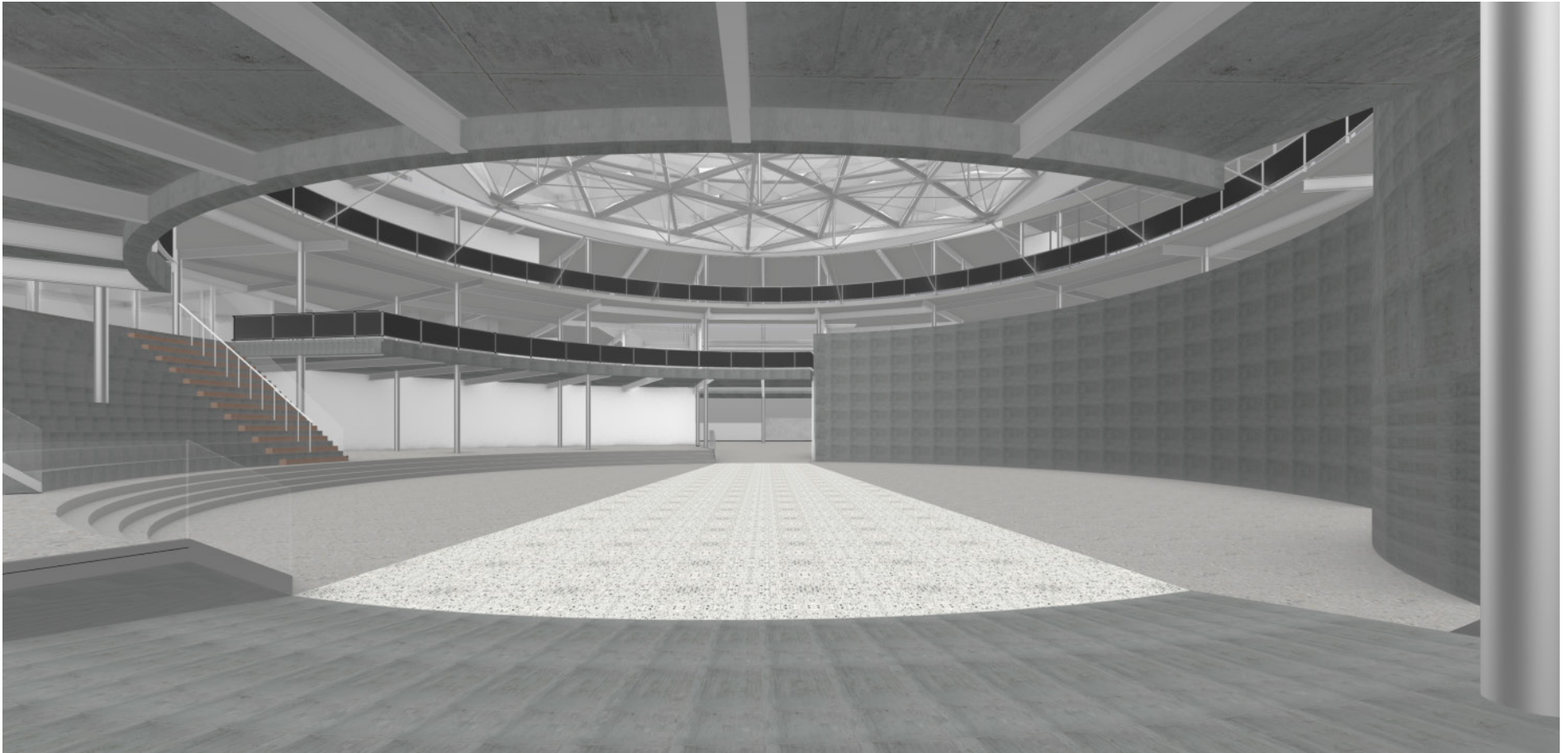
CONCEPT ENTRANCE



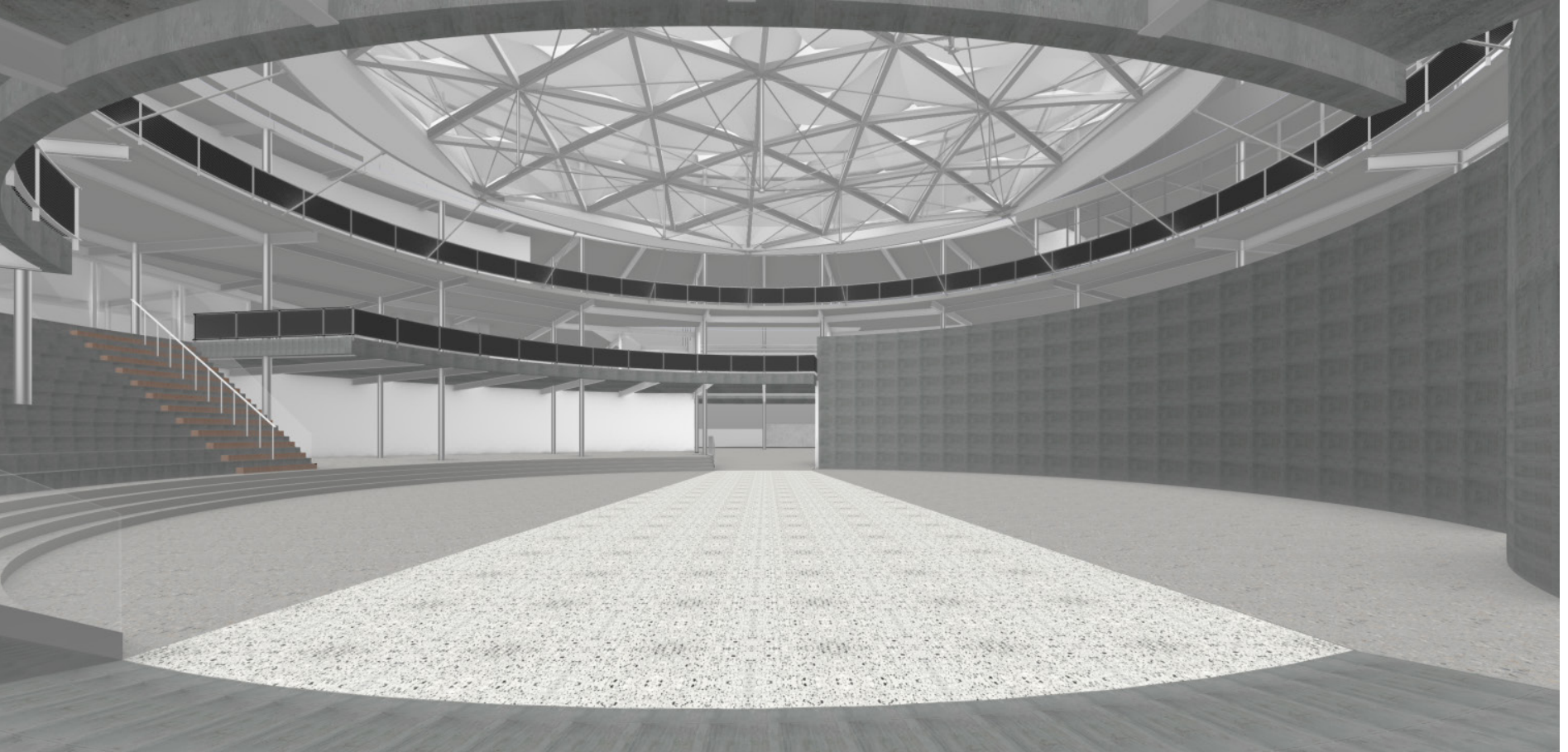
CONCEPT ENTRANCE



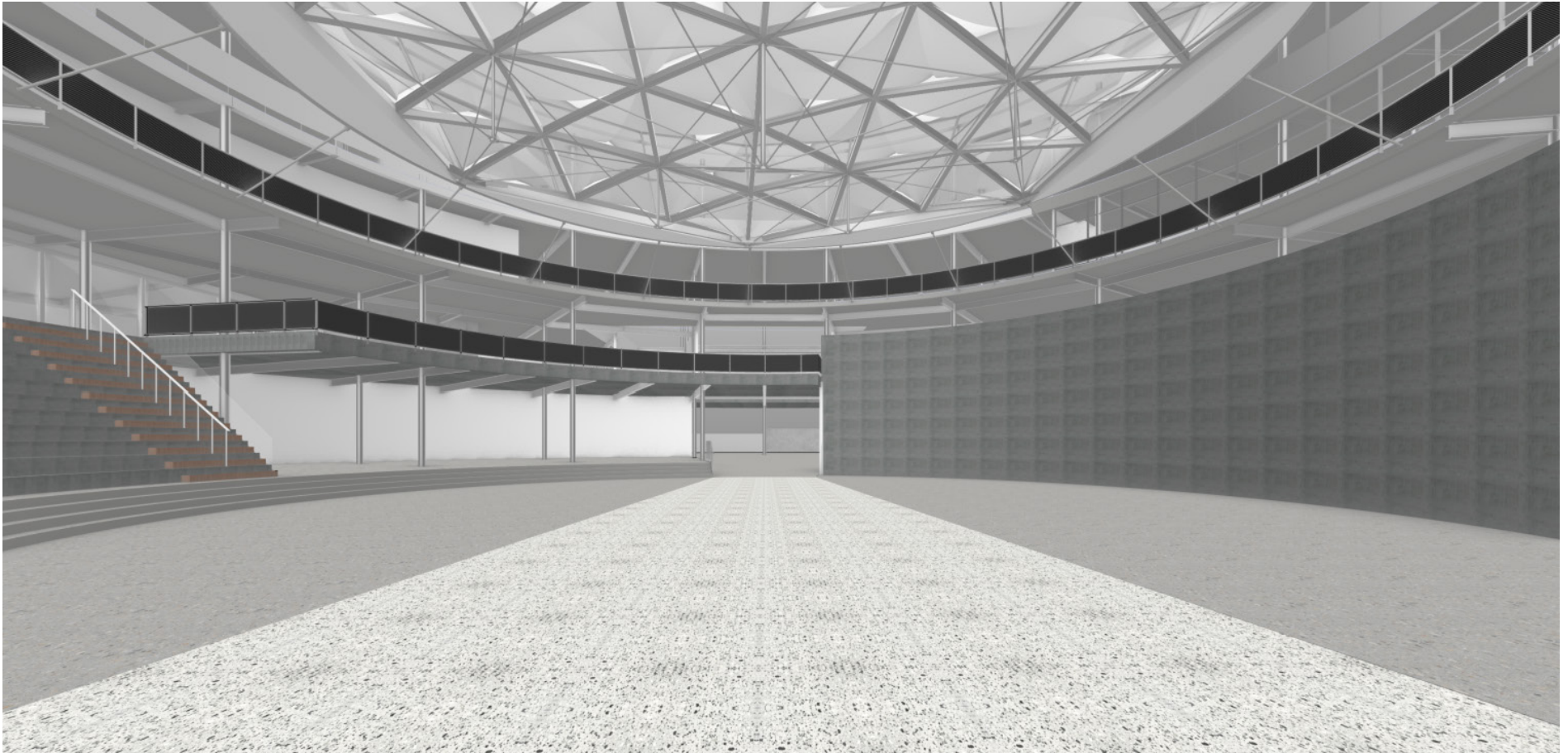
CONCEPT ENTRANCE



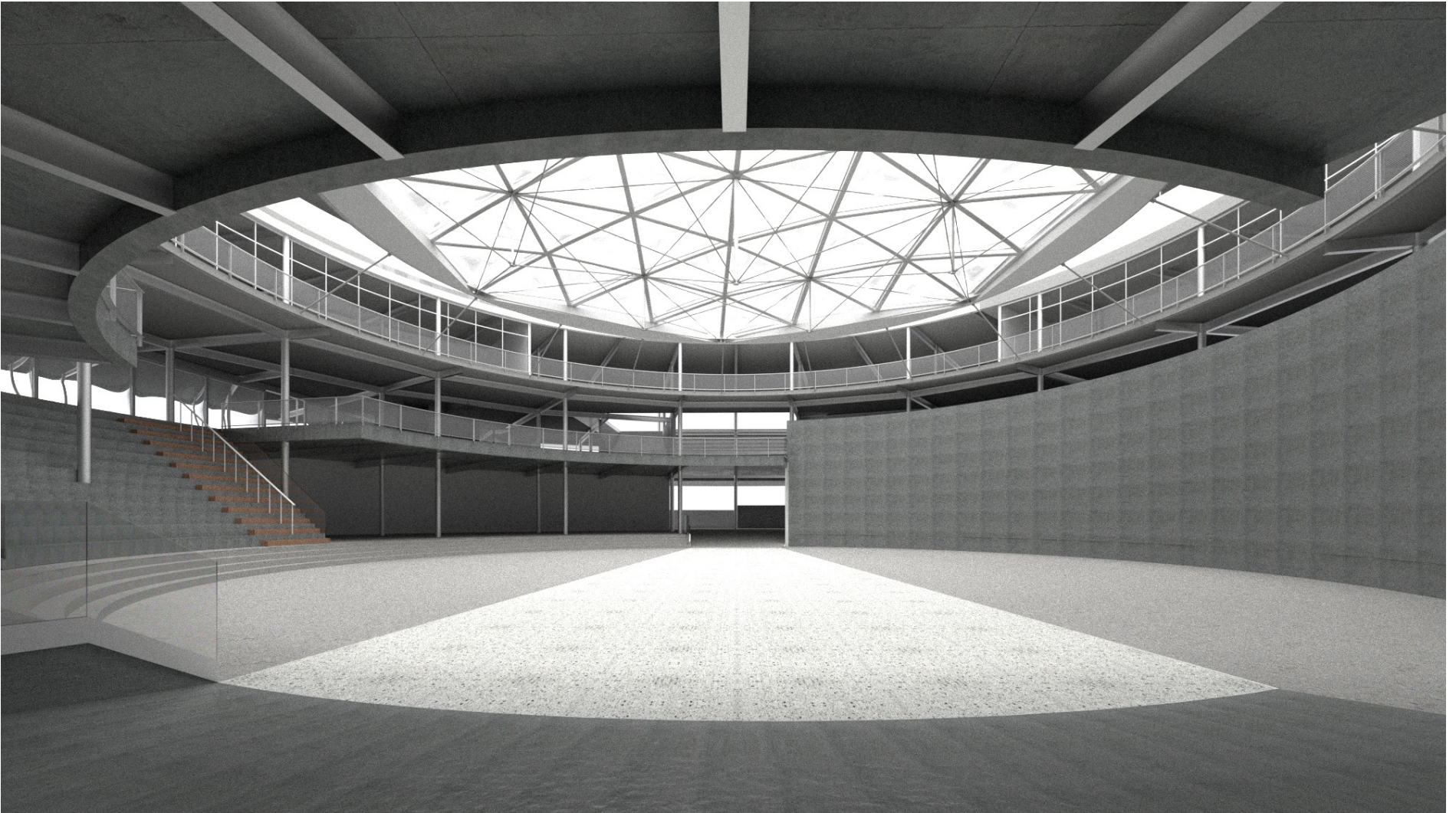
CONCEPT ENTRANCE

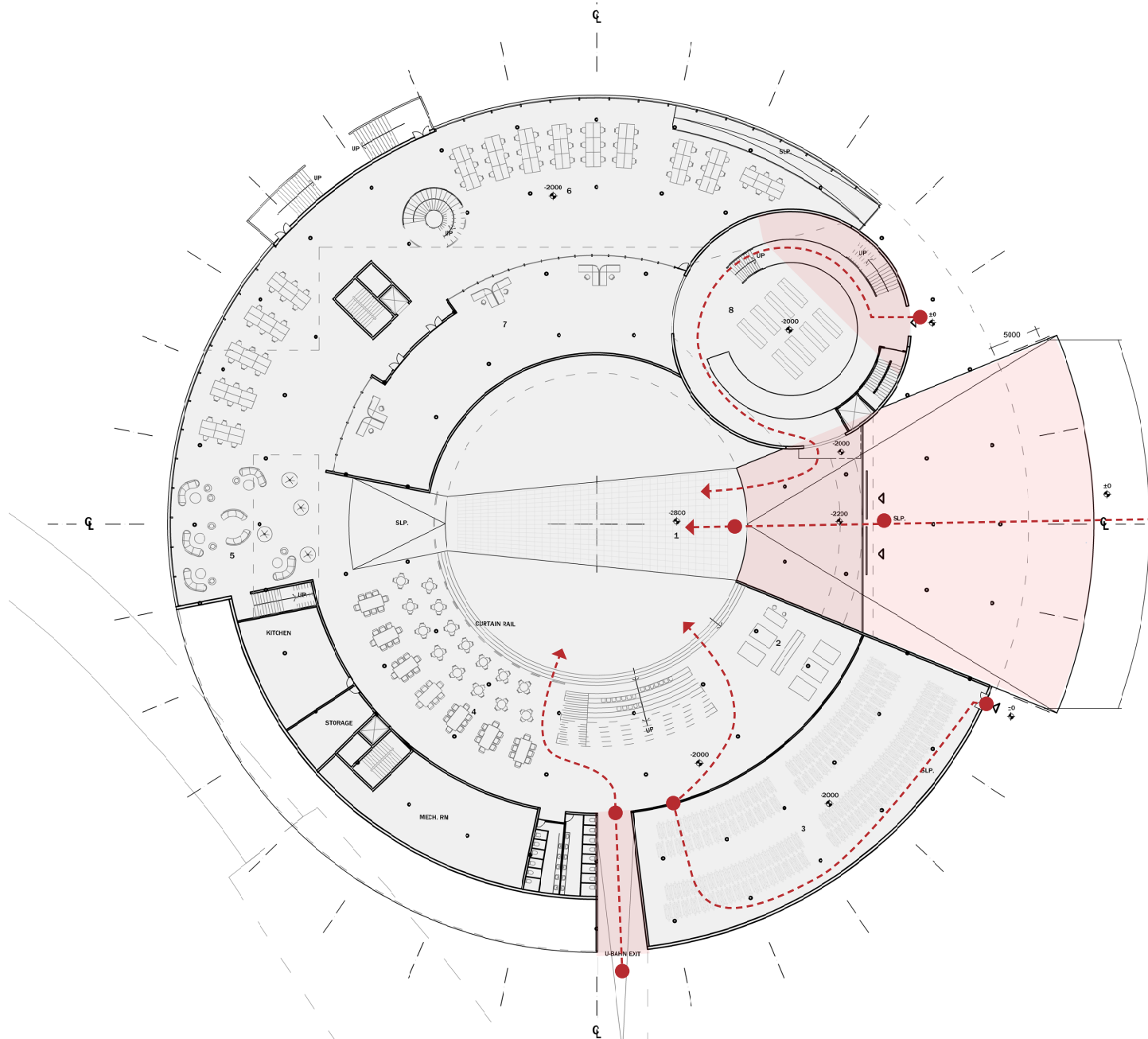


CONCEPT ENTRANCE



CONCEPT
ATRIUM

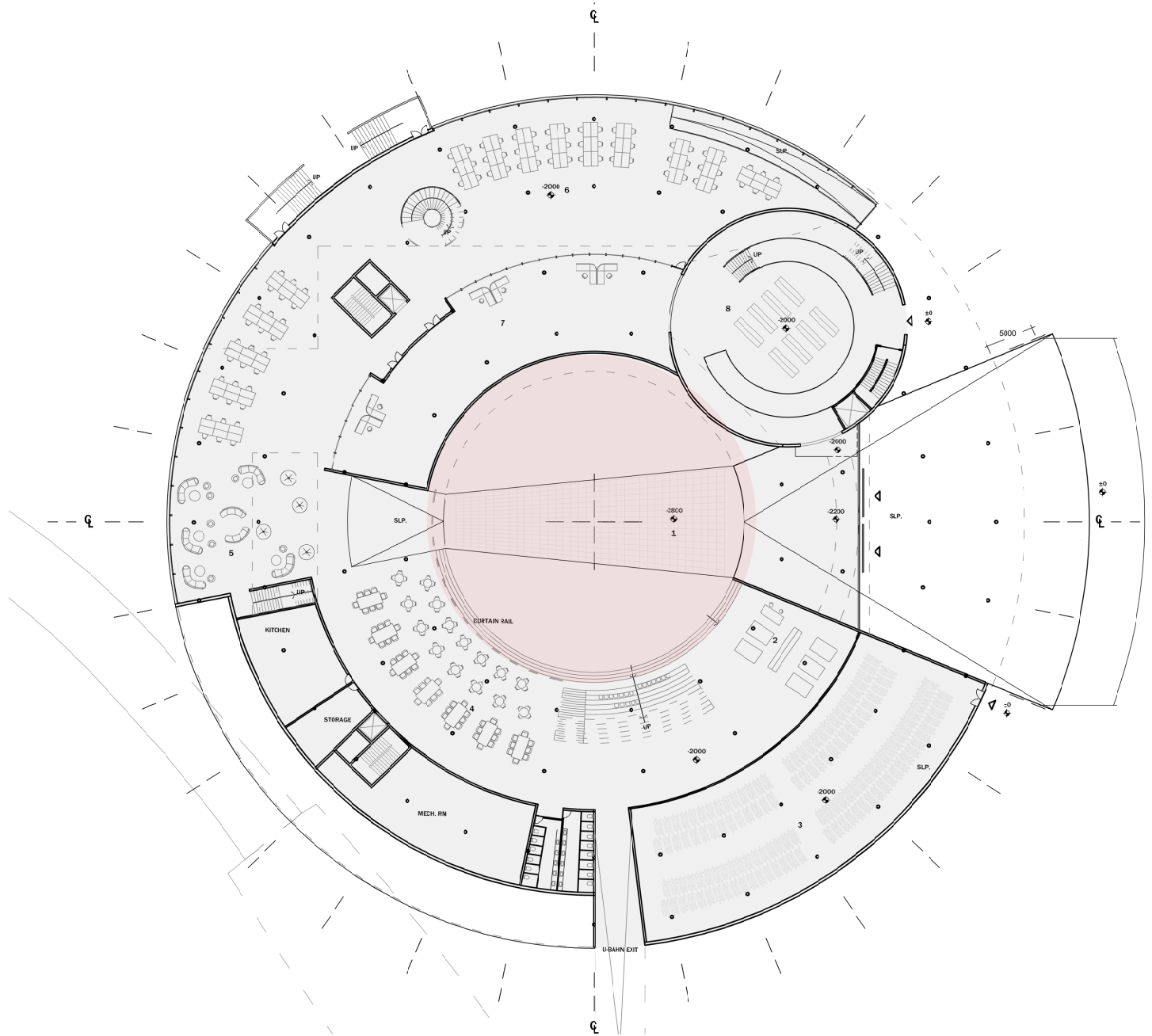




1. LOBBY/ EVENT
2. RECEPTION
3. STORE
4. CANTEEN
5. SOCIAL LOUNGE
6. WORKSTATION
7. PRODUCTION HALL
8. YARN DEPOT

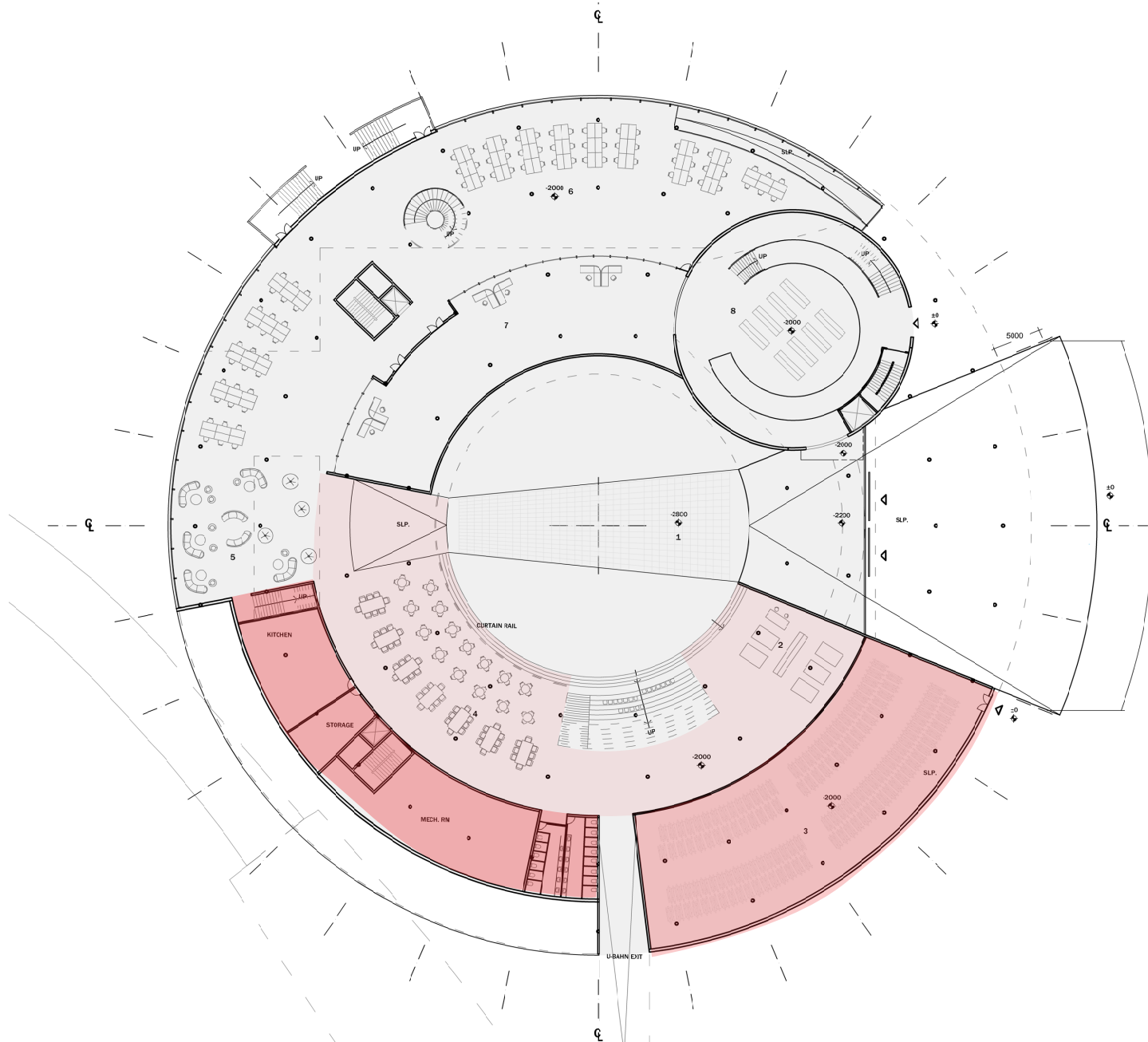
2 GROUND FLOOR PLAN
SCALE: 1:500

CONCEPT

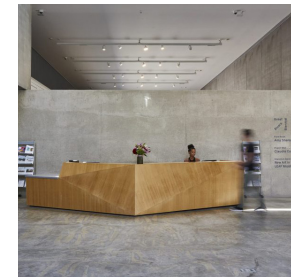


CONCEPT ATRIUM





CANTEEN



RECEPTION

8. YARN DEPOT

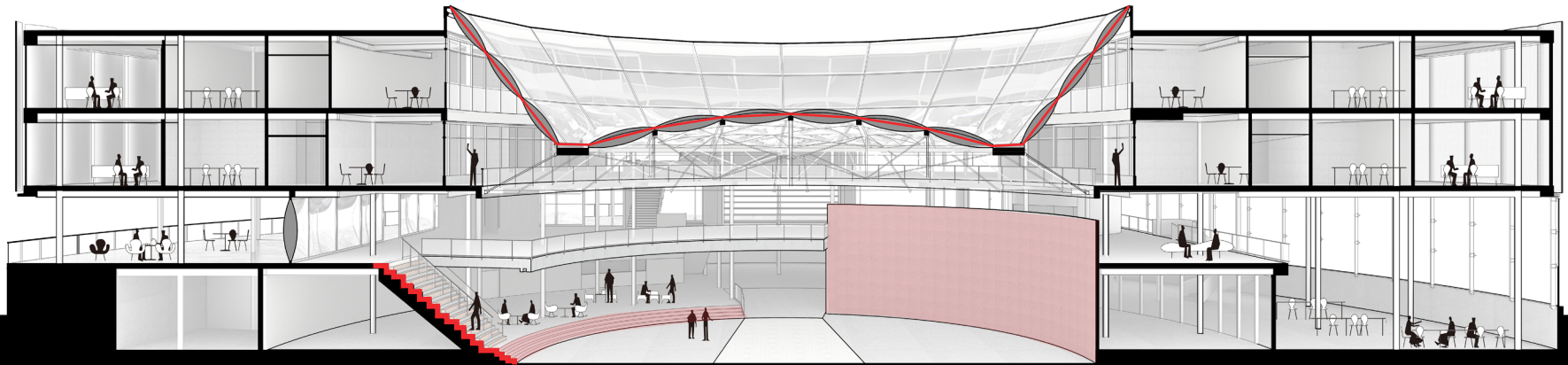


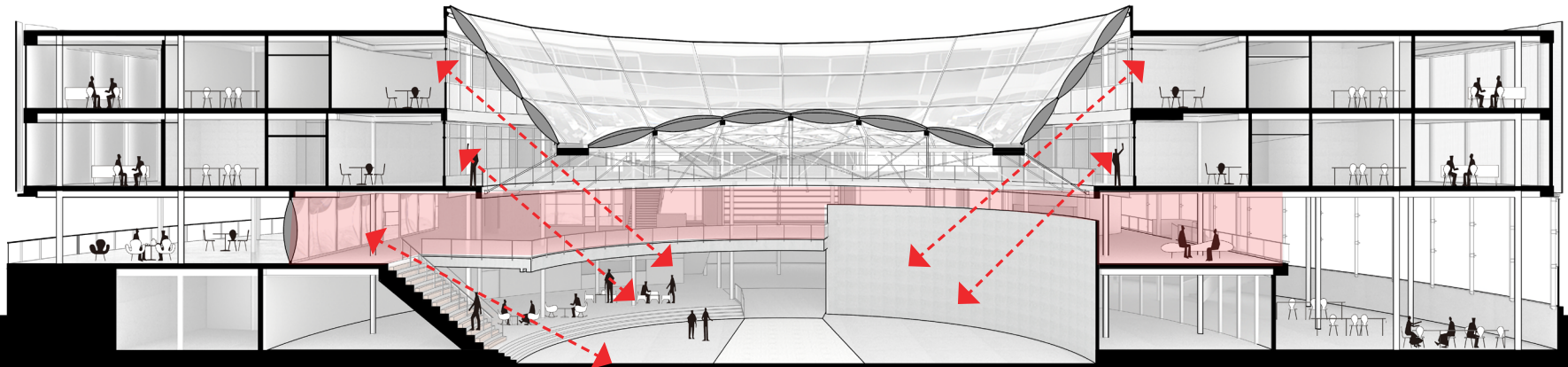
2 GROUND FLOOR PLAN
SCALE: 1:500

CONCEPT FLEXIBLE SPACE



CONCEPT





6 SECTION A-A'
SCALE: 1:300

CONCEPT
ATRIUM



view from first floor, roof to provide daylight from all levels

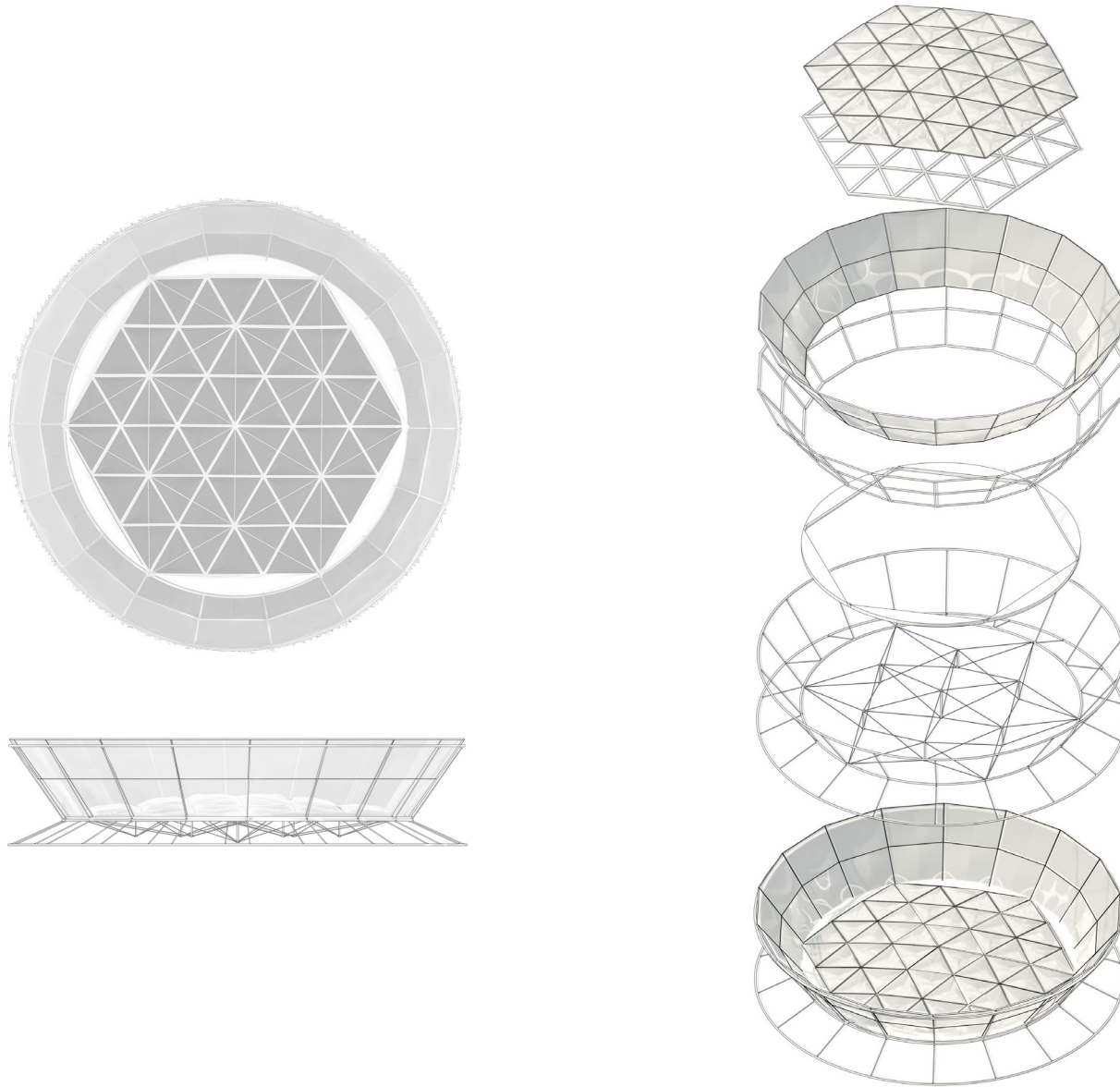
CONCEPT

ROOF STURCTURE: ETFE

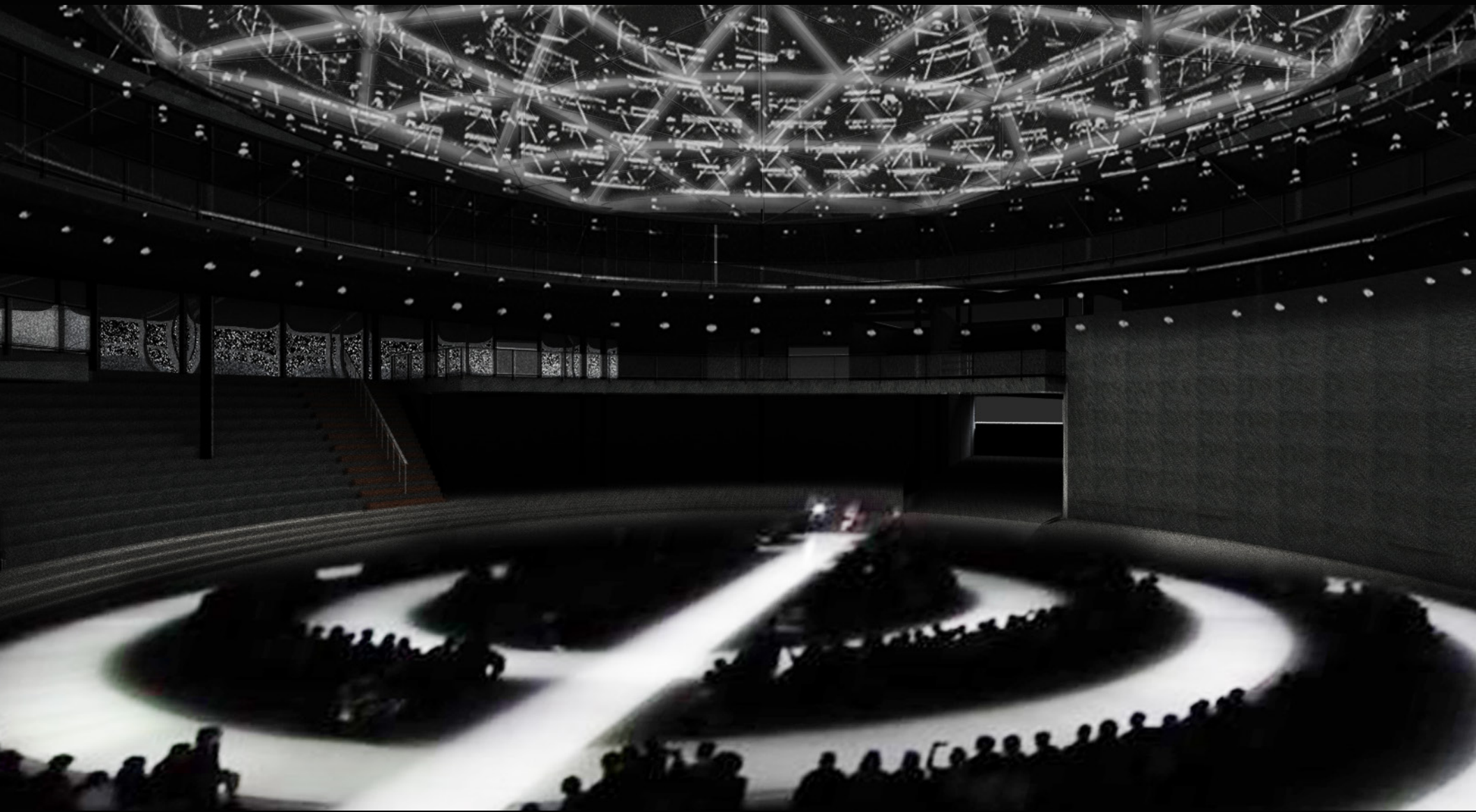


CONCEPT

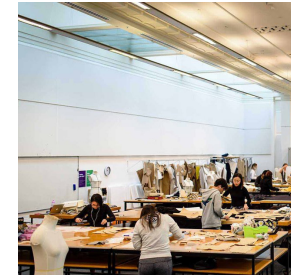
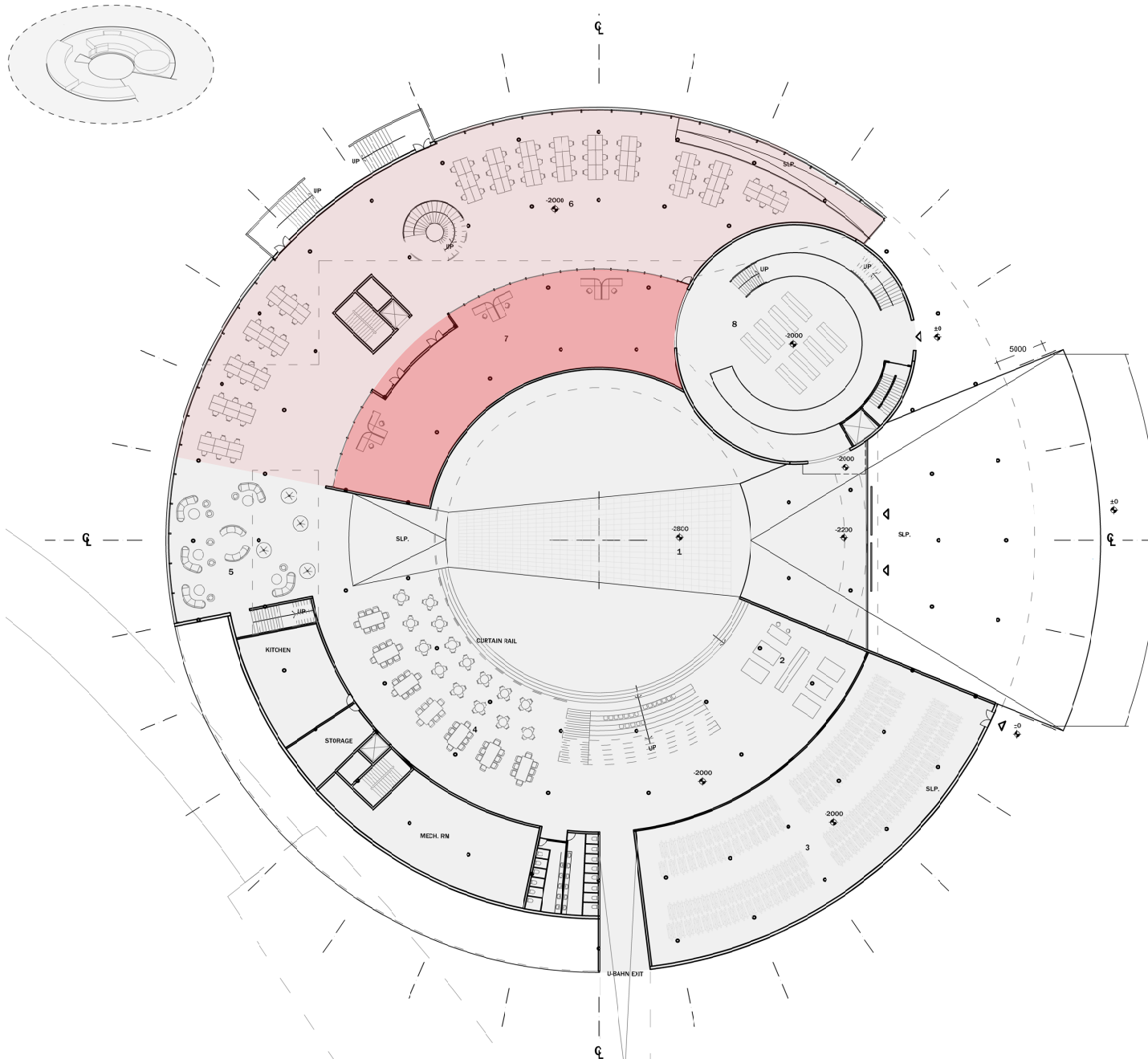








CONCEPT PROGRAM ORGANIZATION



OPEN WORKSTATION



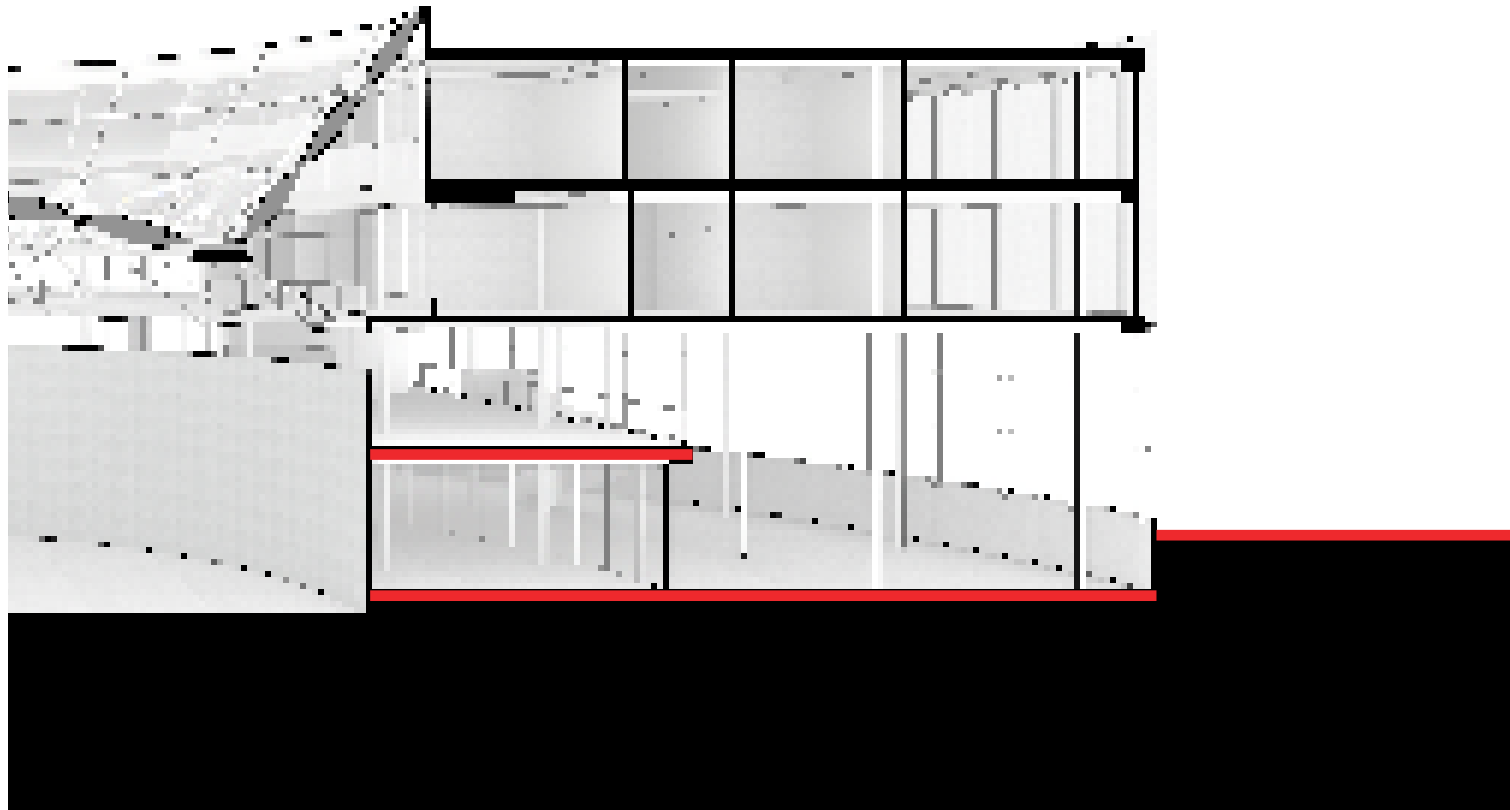
MICRO-RUN PRODUCTION LAB



YARN DEPOT

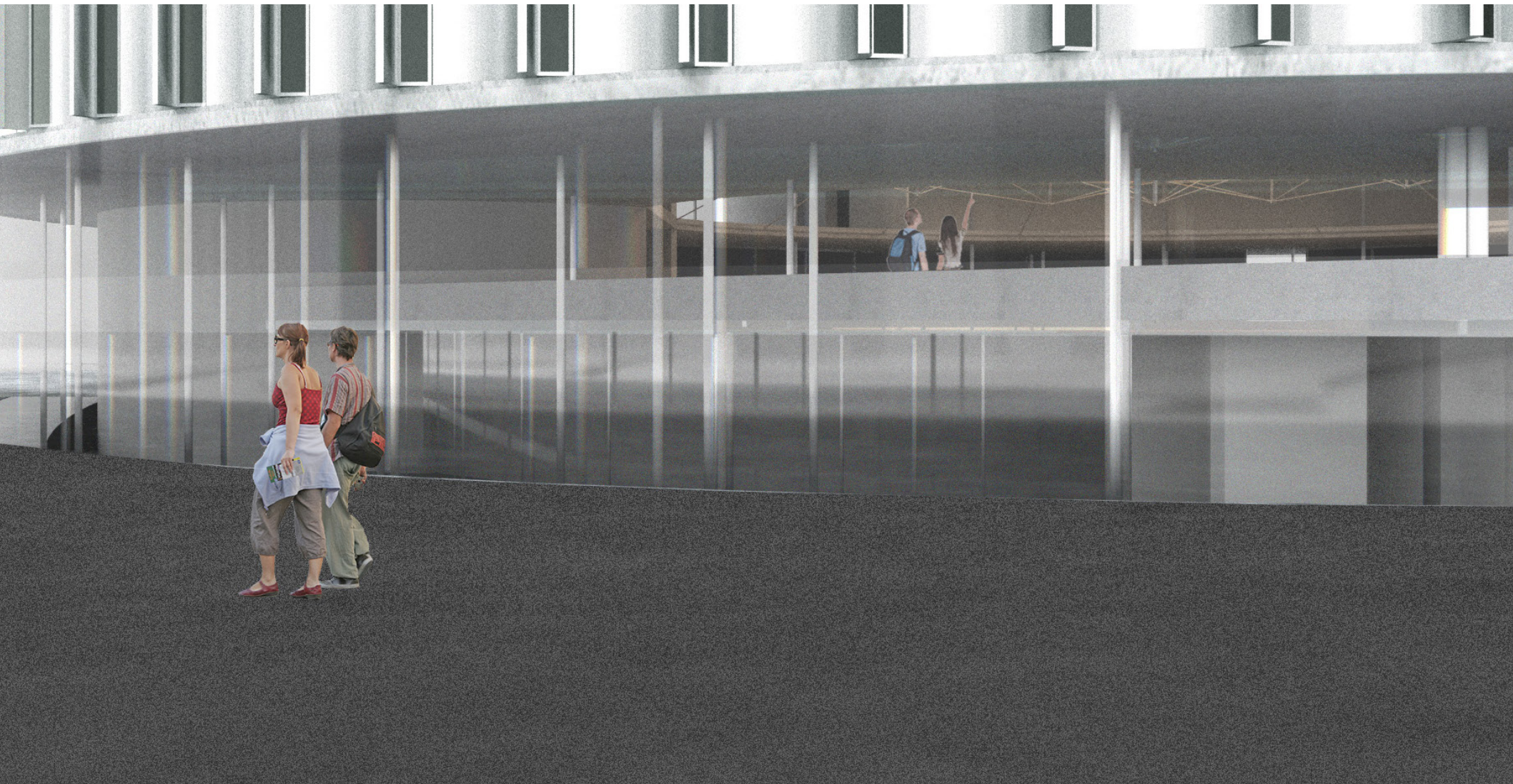
2 GROUND FLOOR PLAN
SCALE: 1:500

CONCEPT

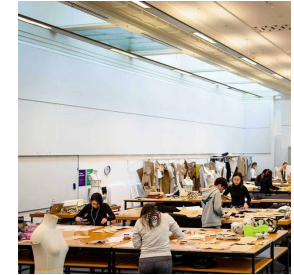
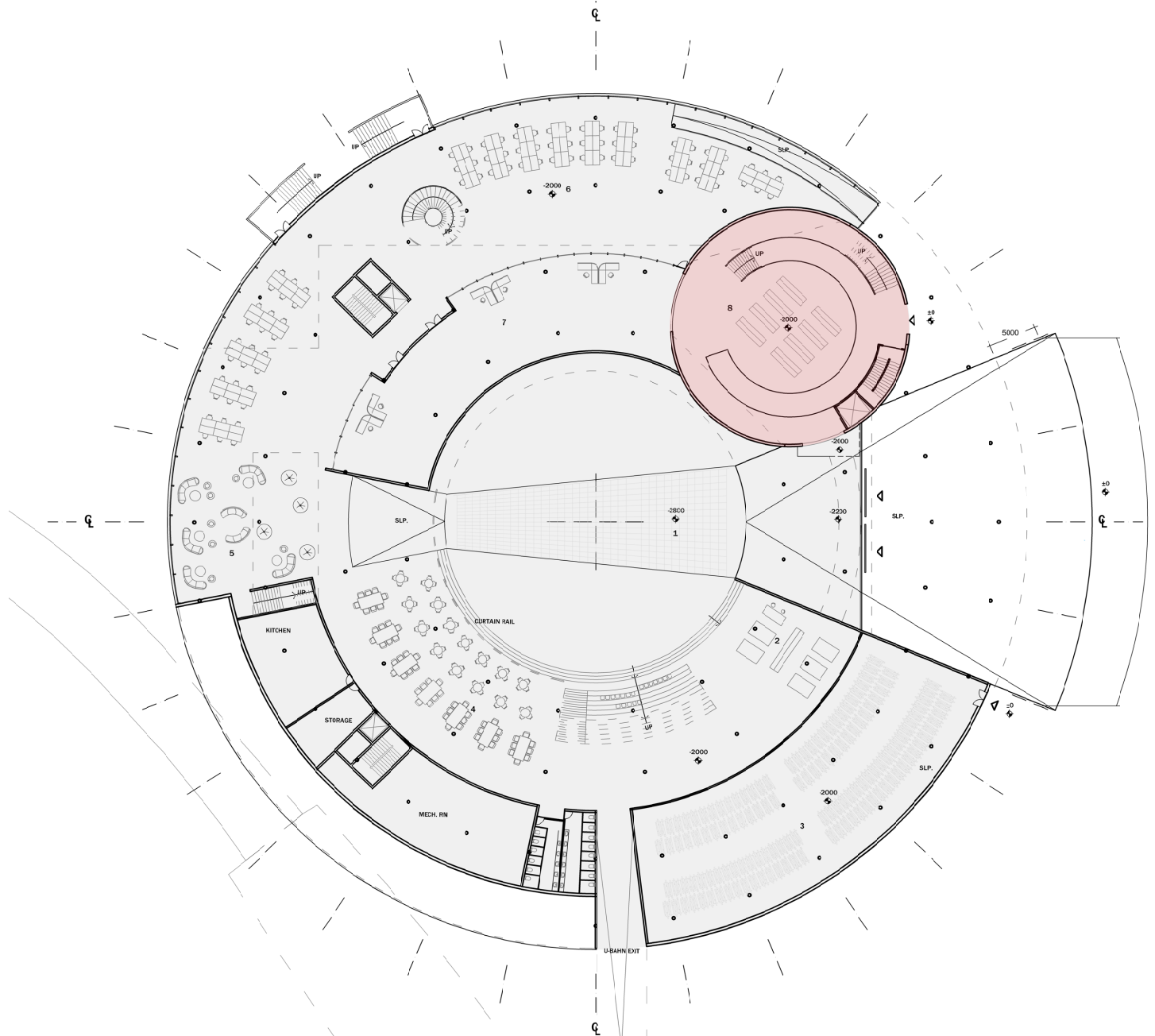


CONCEPT
VISIAL CONNECTION





CONCEPT PROGRAM ORGANIZATION

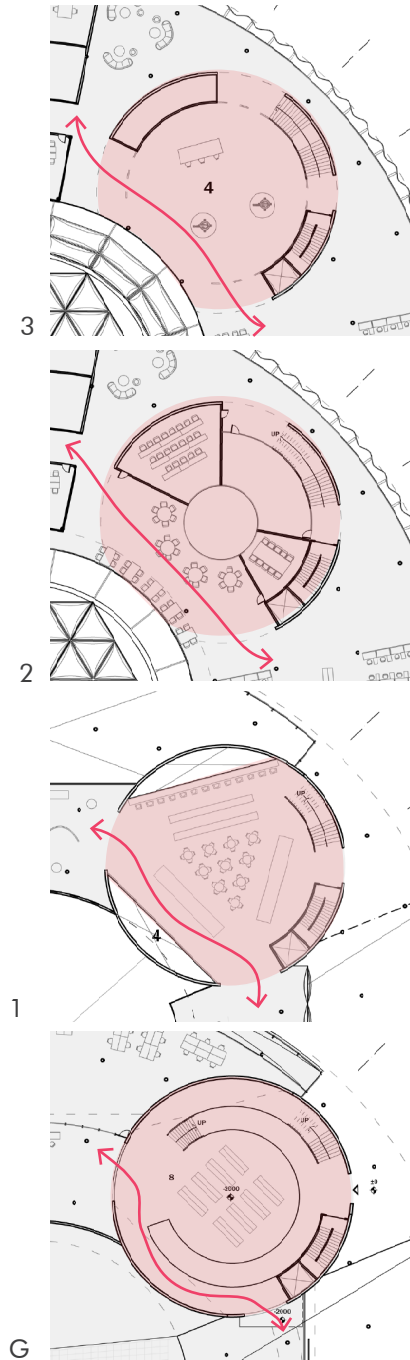
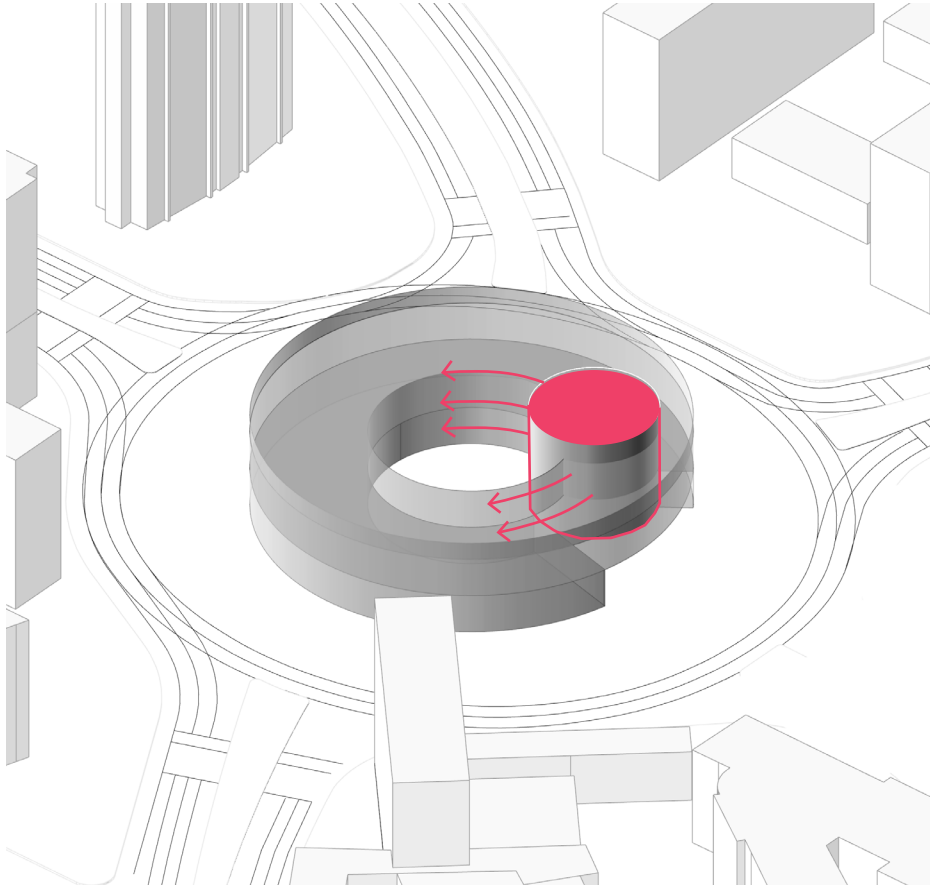


OPEN WORKSTATION

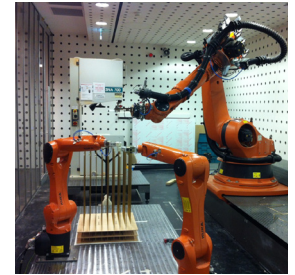
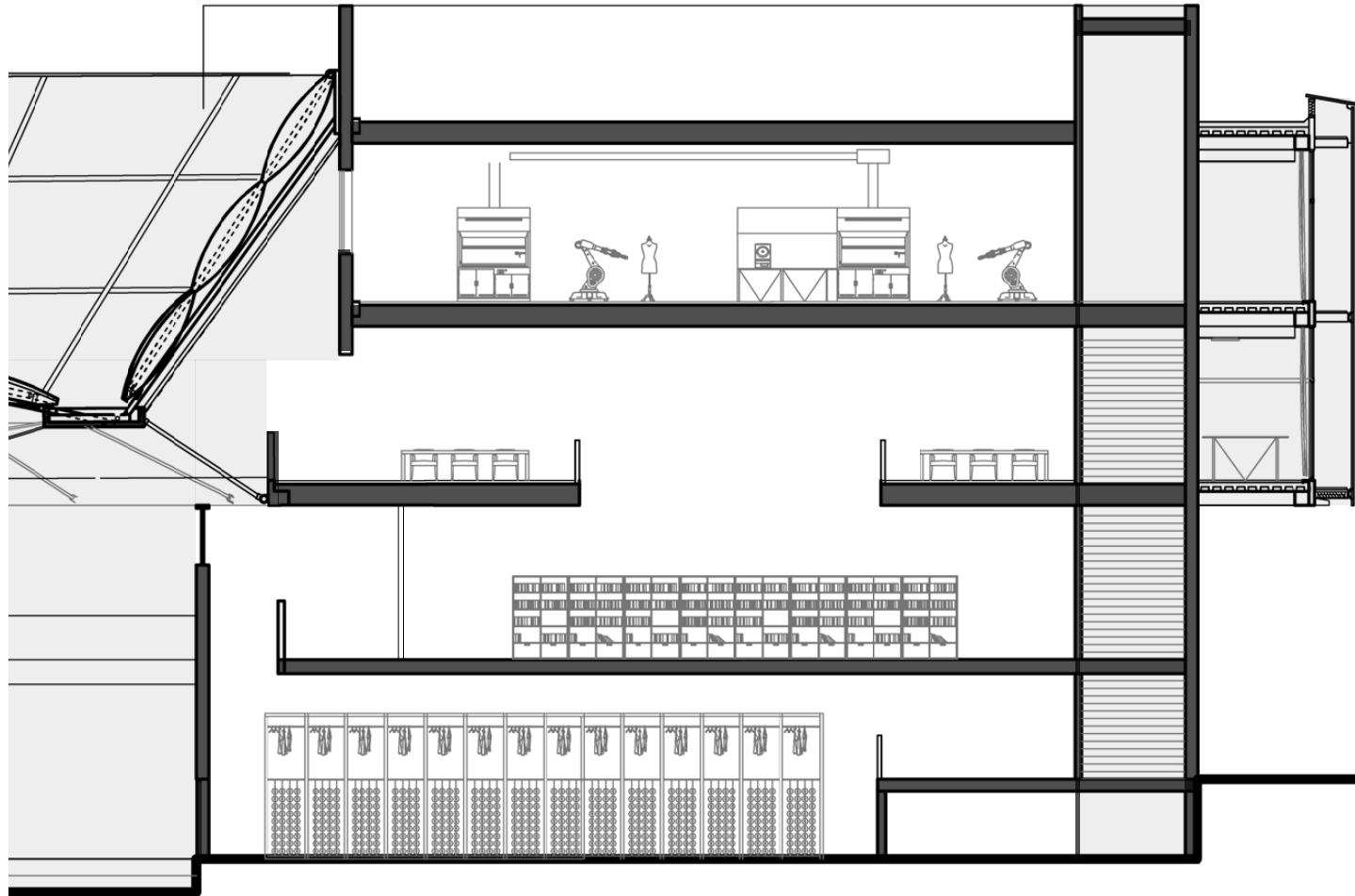


MICRO-RUN PRODUCTION LAB

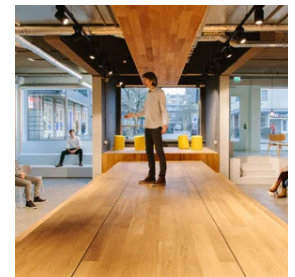




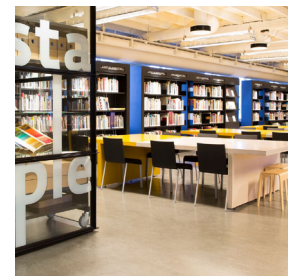
CONCEPT



EXPO LAB



CONFERENCE ROOM

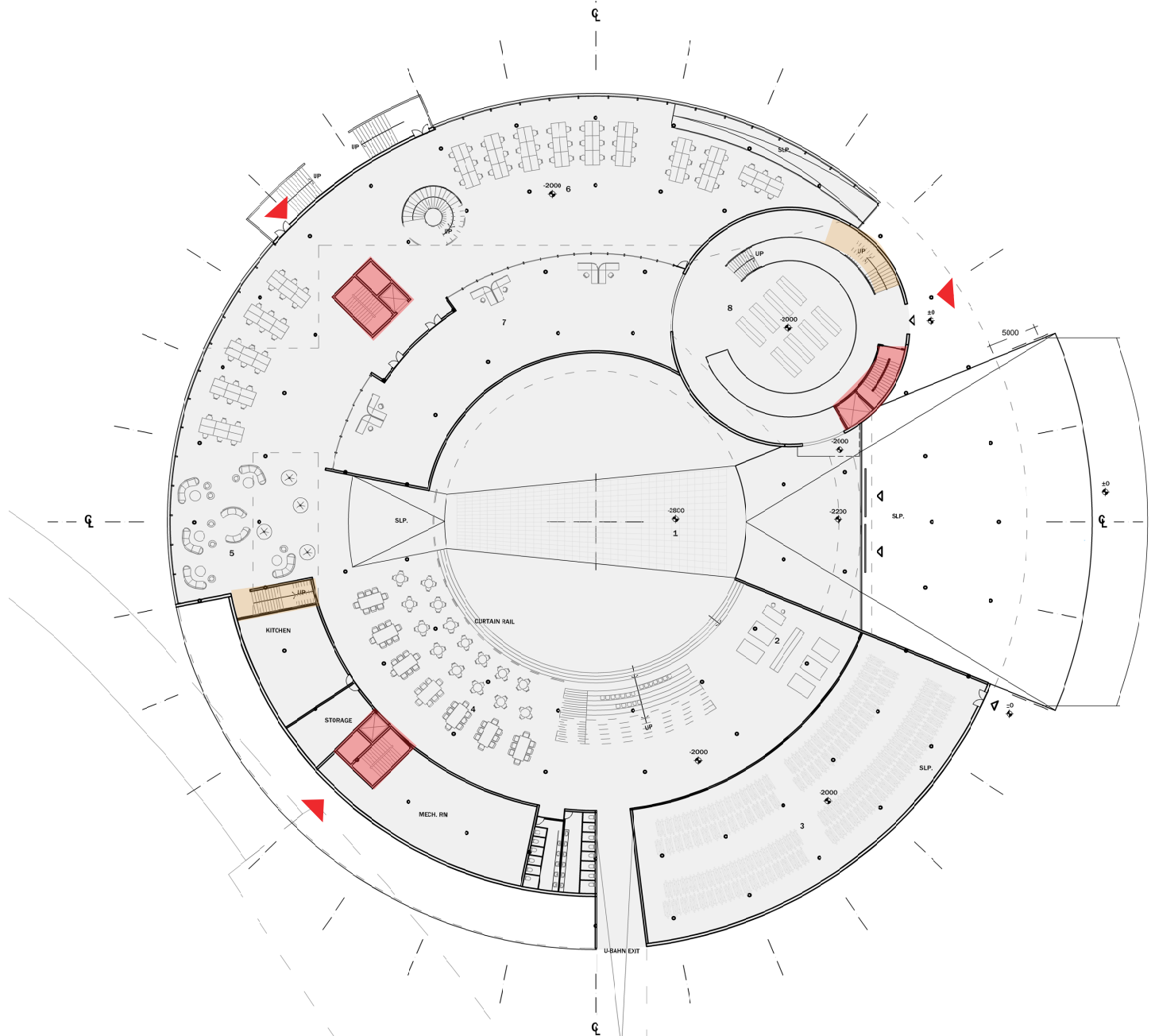


SAMPLE LIBRARY

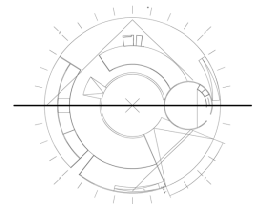
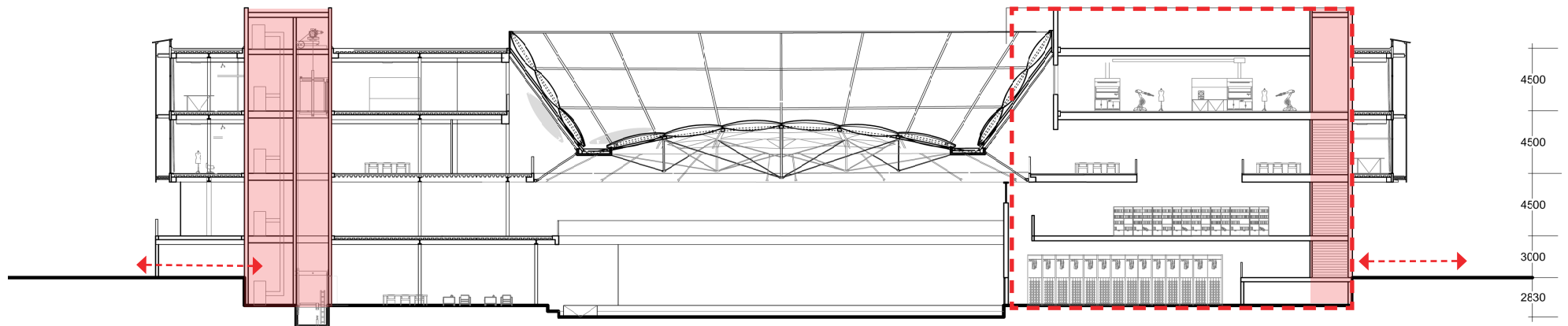


YARN DEPOT

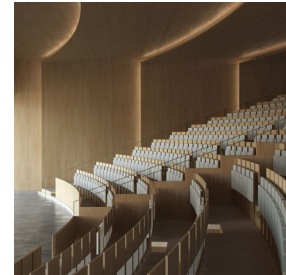
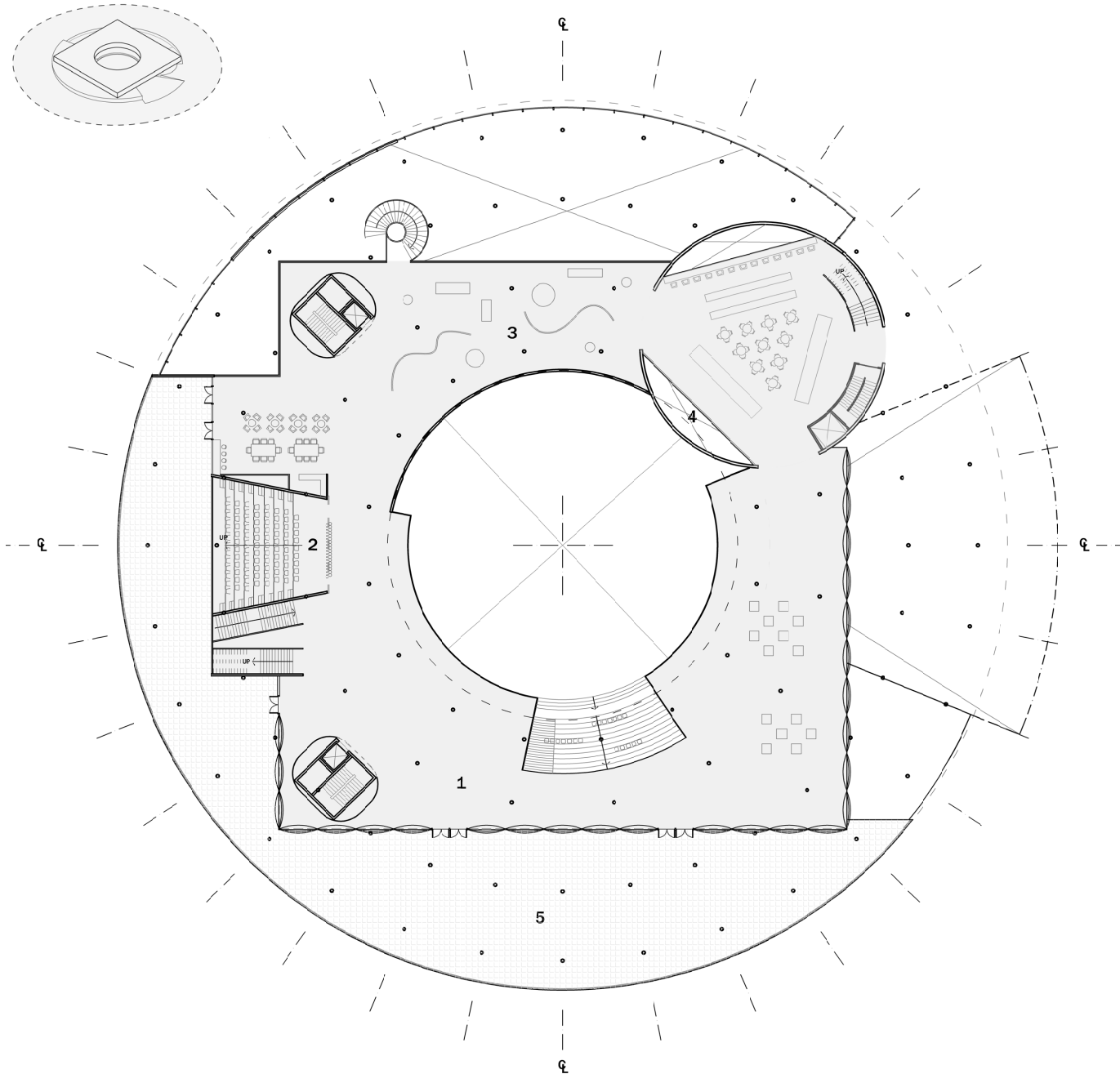
CONCEPT VERTICAL CIRCULATION



CONCEPT VERTICAL CIRCULATION



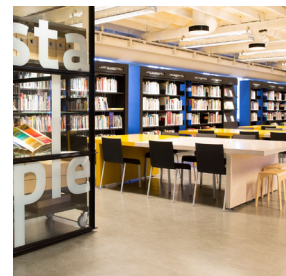
CONCEPT PROGRAM ORGANIZATION



MEDIA ROOM



RESTAURANT



SAMPLE LIBRARY

3

FIRST FLOOR PLAN

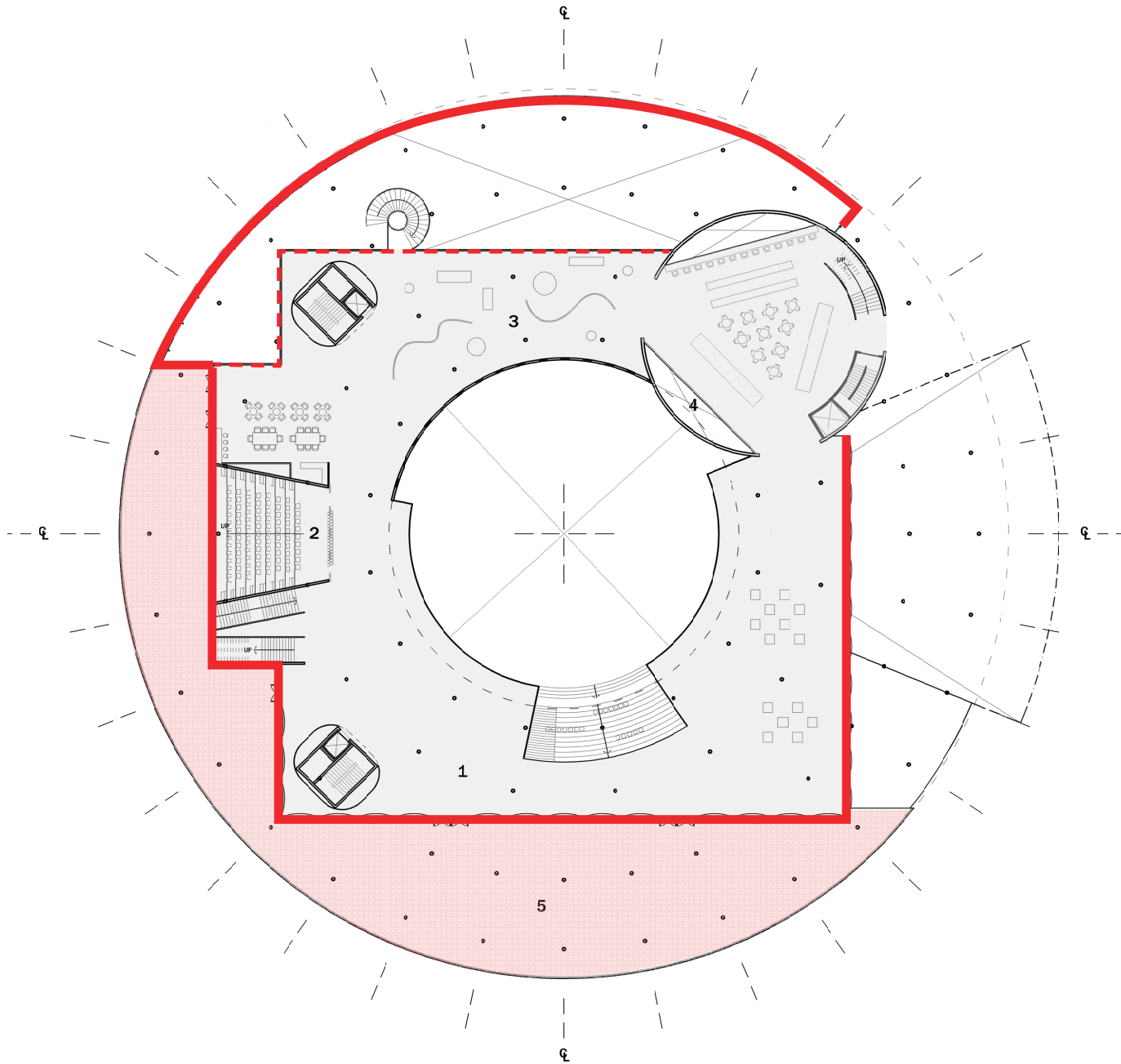
SCALE: 1:500

CONCEPT
GALLERY SPACE

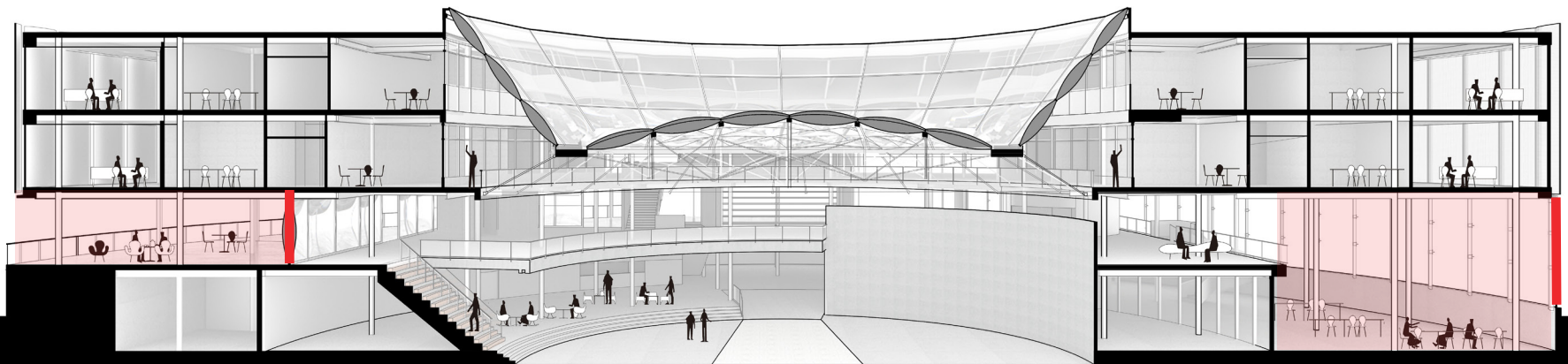


CONCEPT
GALLERY SPACE

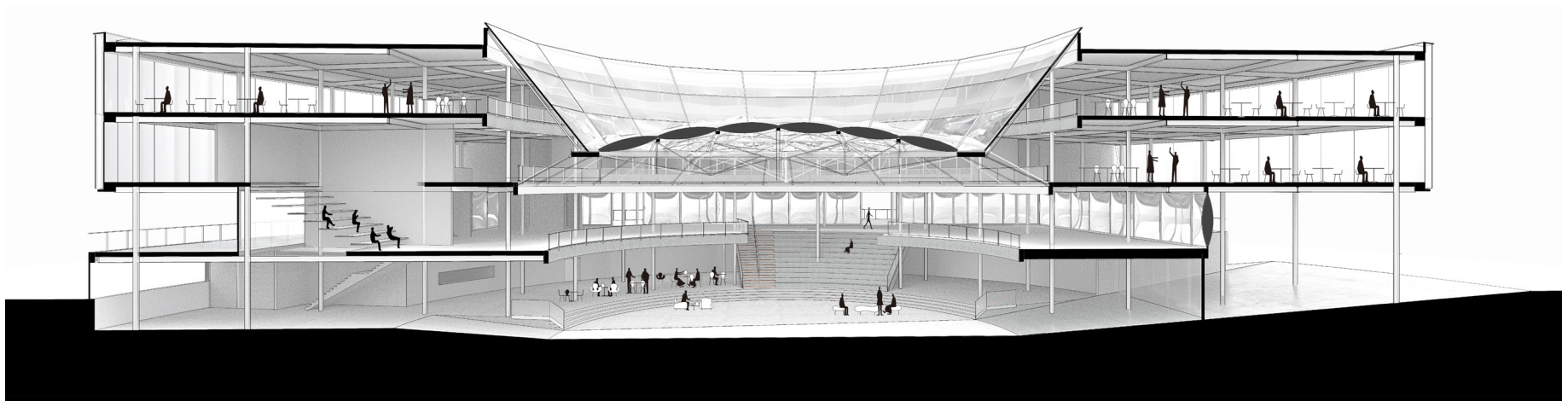
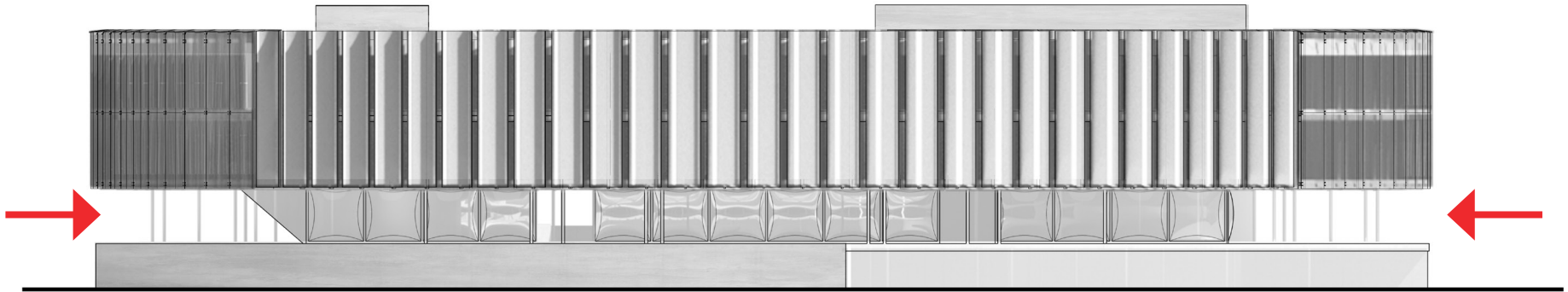




CONCEPT



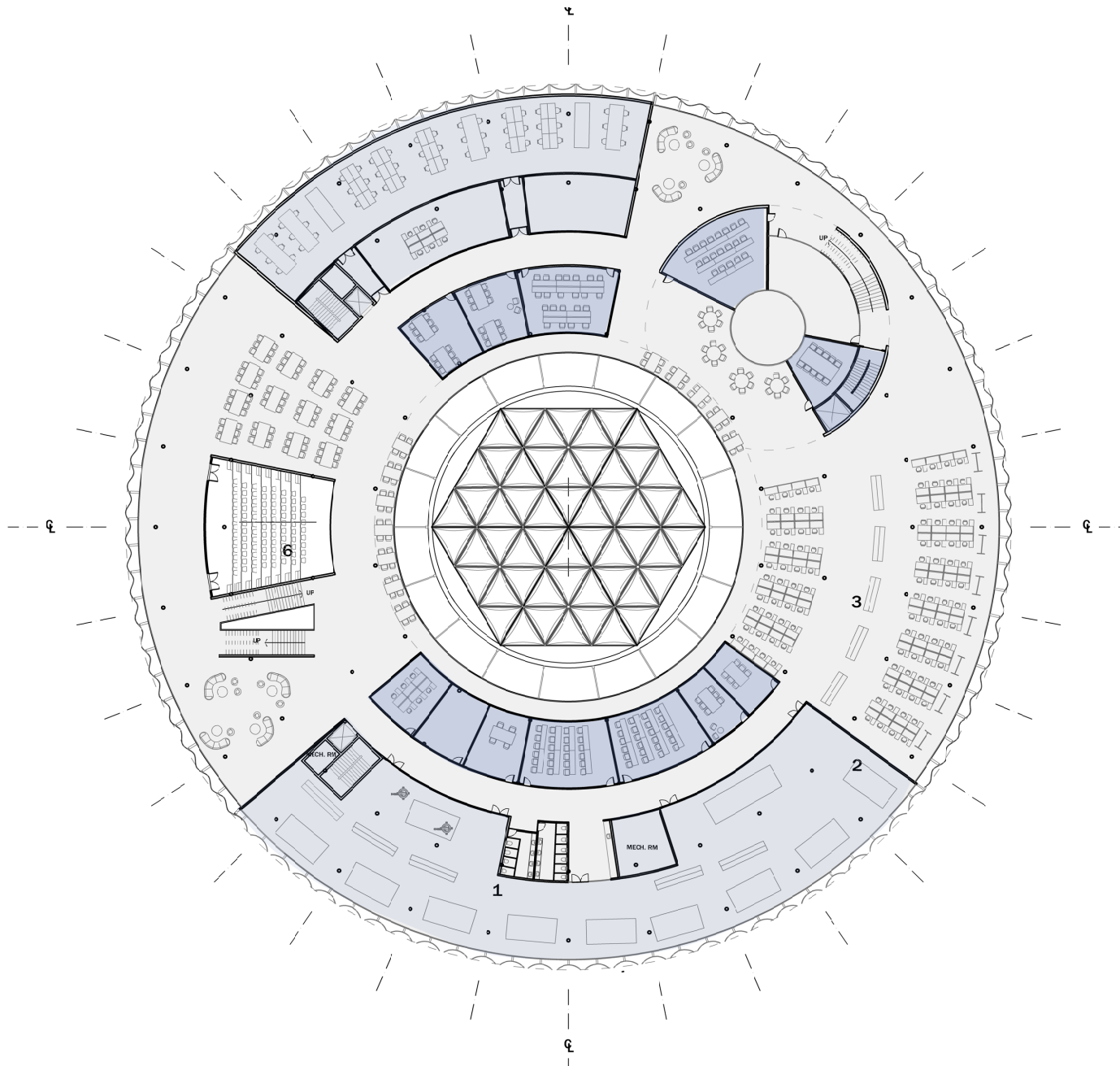
CONCEPT OFFSET PATIO



CONCEPT
PATIO



CONCEPT RESEARCH AREA



color & print
technology **LAB**
+
chemistry **LAB**



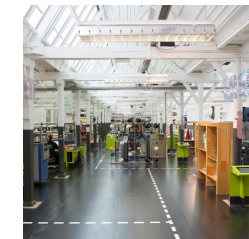
WET LAB

project
ROOM



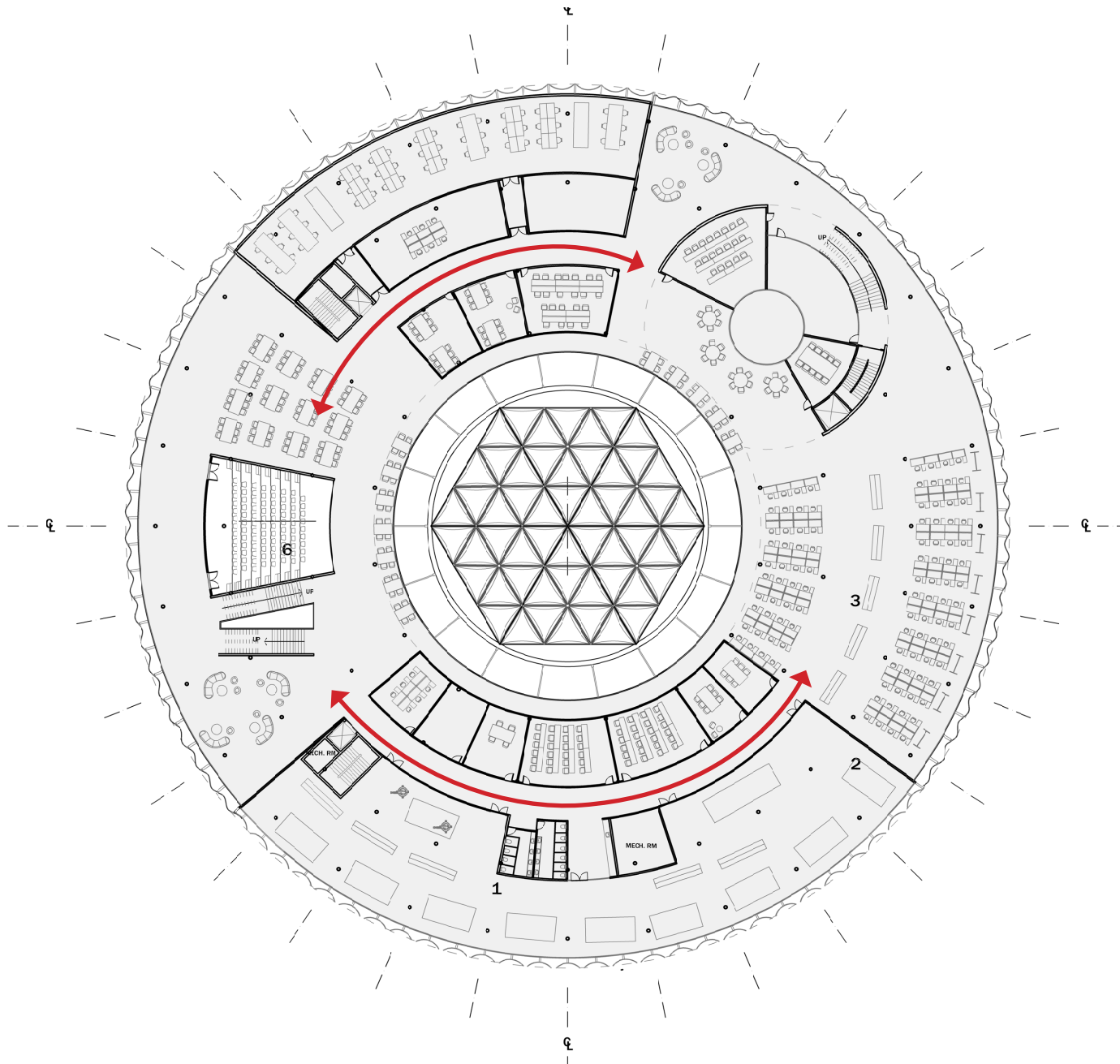
**PRIVATE
ACCESS** to
individual
research
group

Production **LAB**



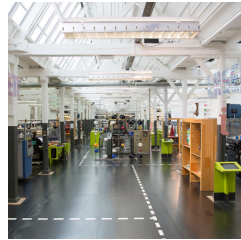
DRY LAB

CONCEPT

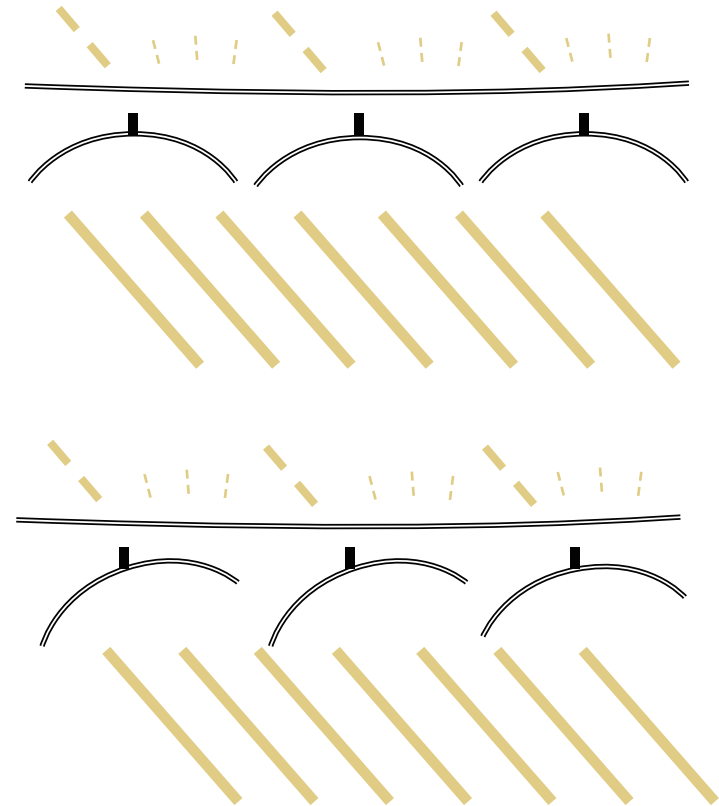
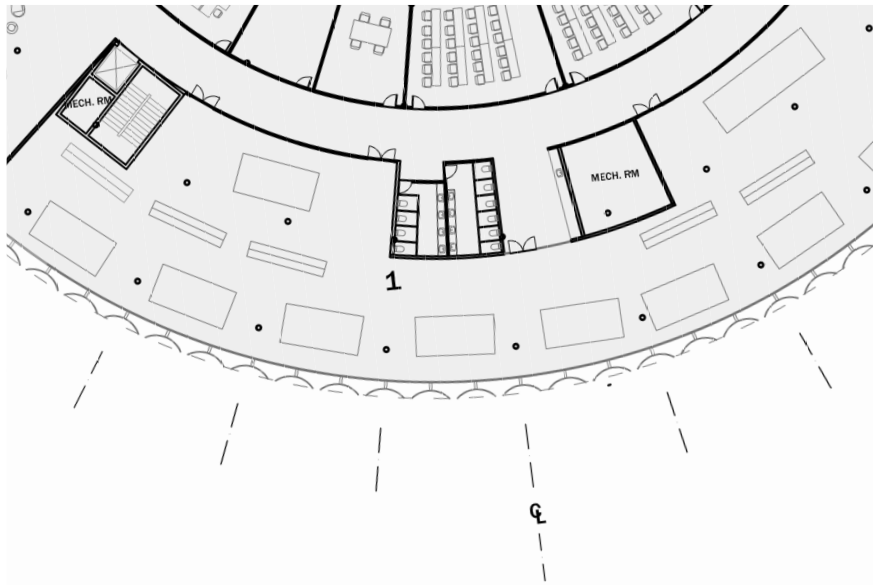


CONCEPT

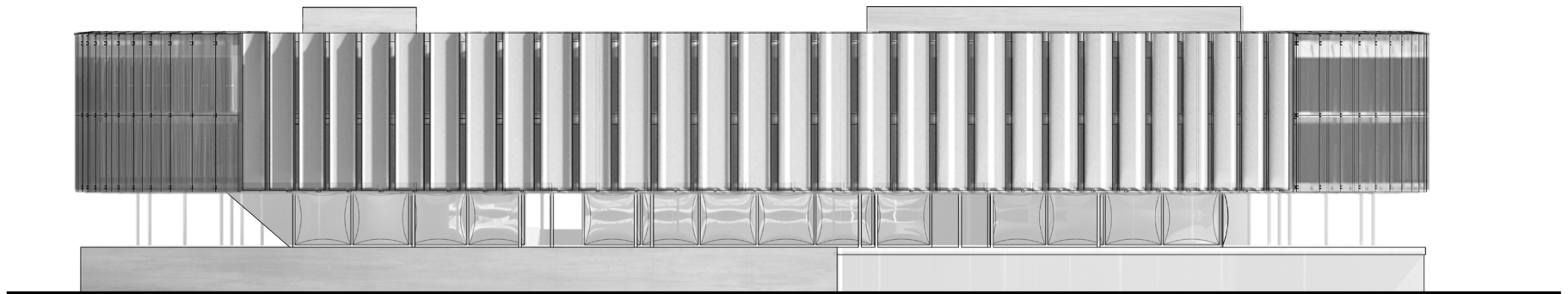
FACADE COMPOSITION: LAB



DRY LAB



CONCEPT MATERIALS

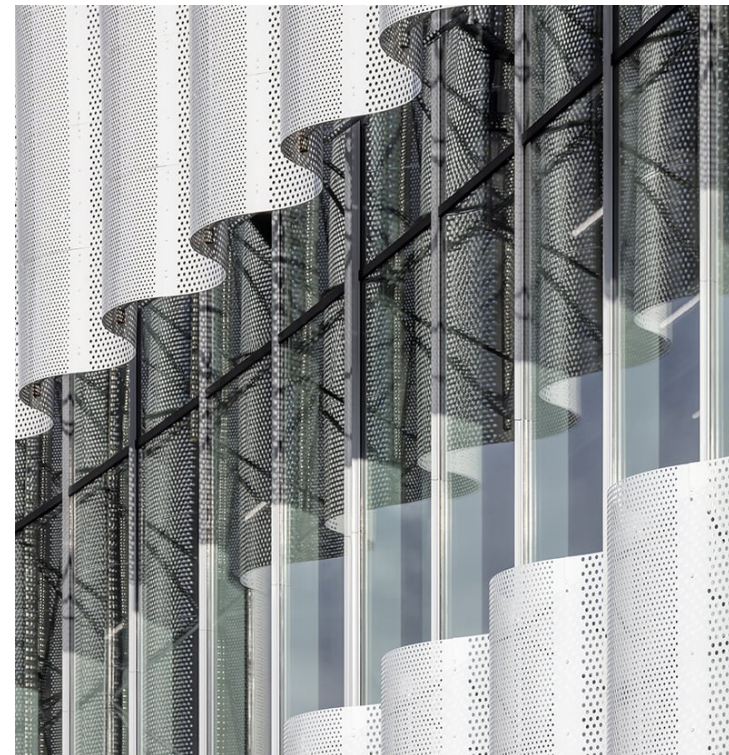
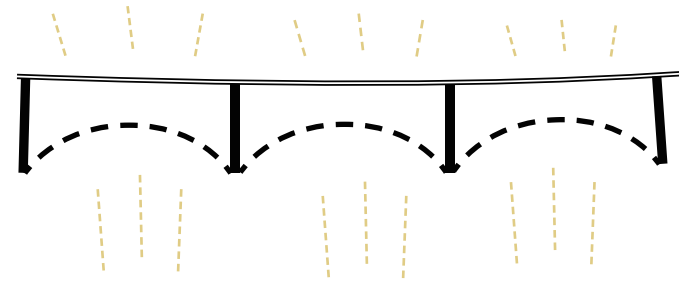
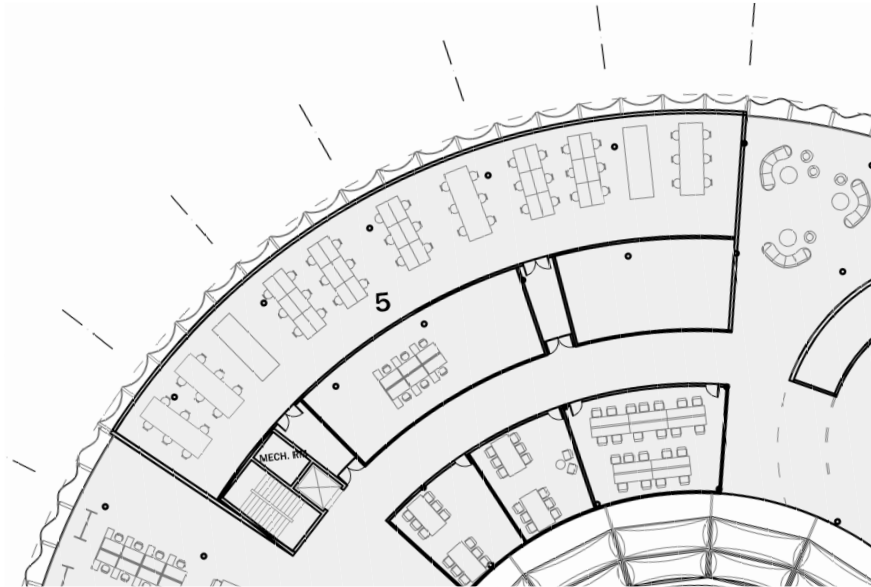




color & print
technology **LAB**
+
chemistry **LAB**

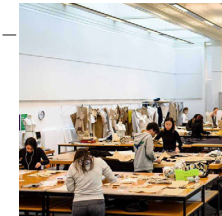
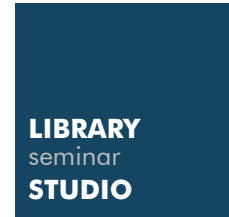
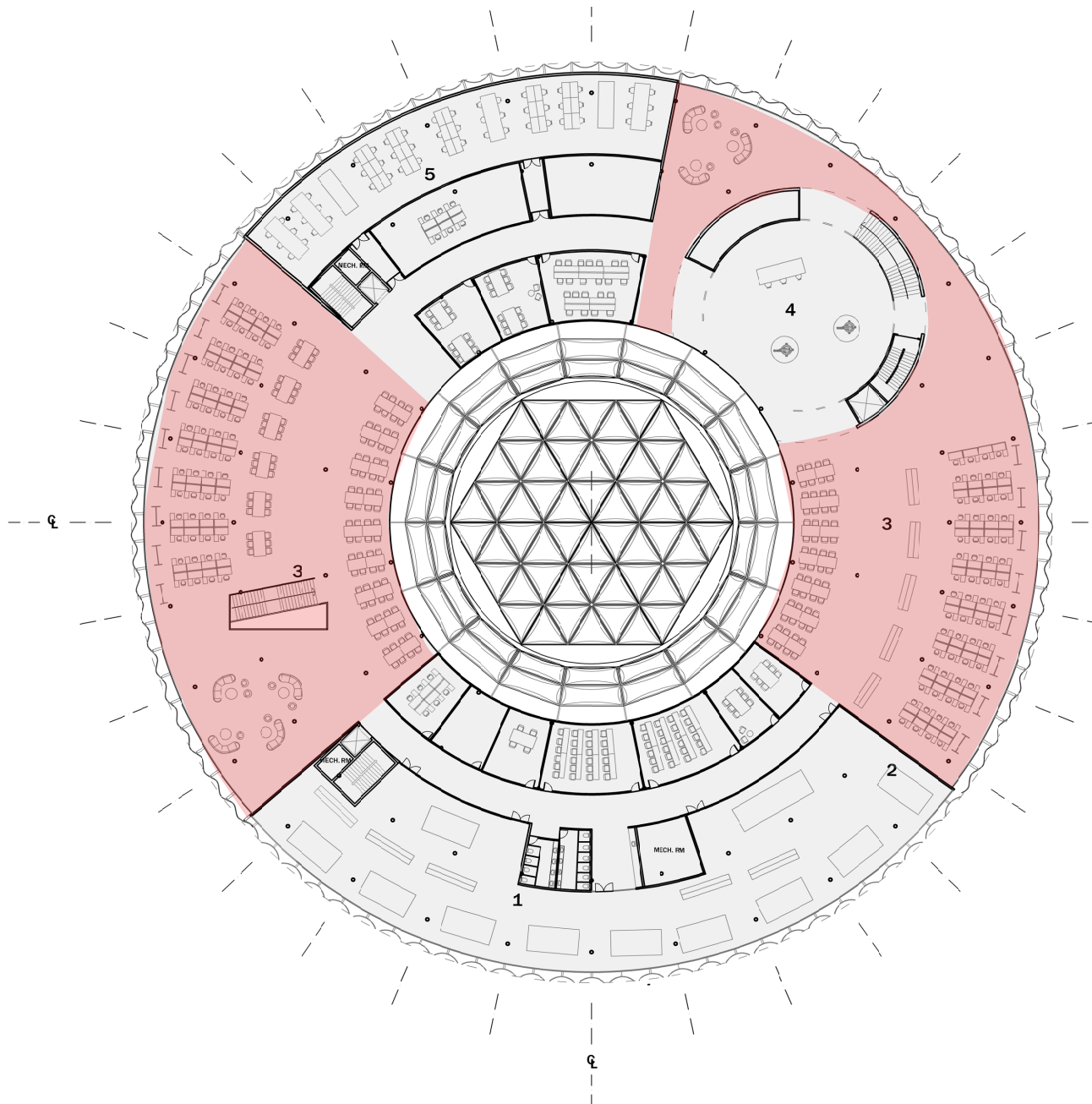


WET LAB



CONCEPT

OPEN RESEARCH AREA



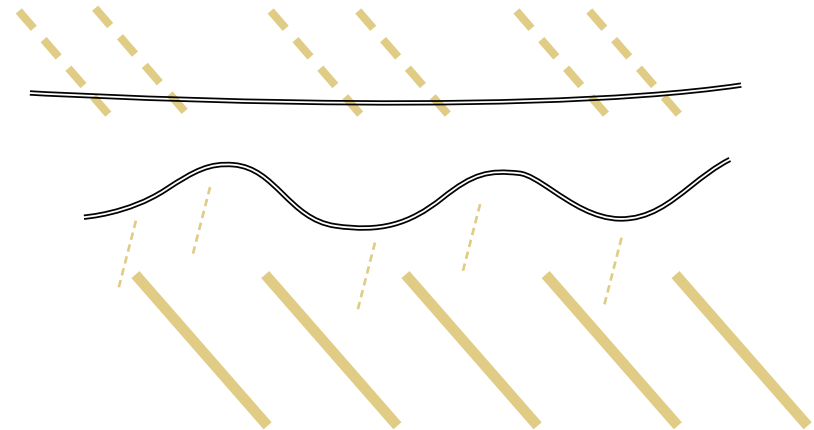
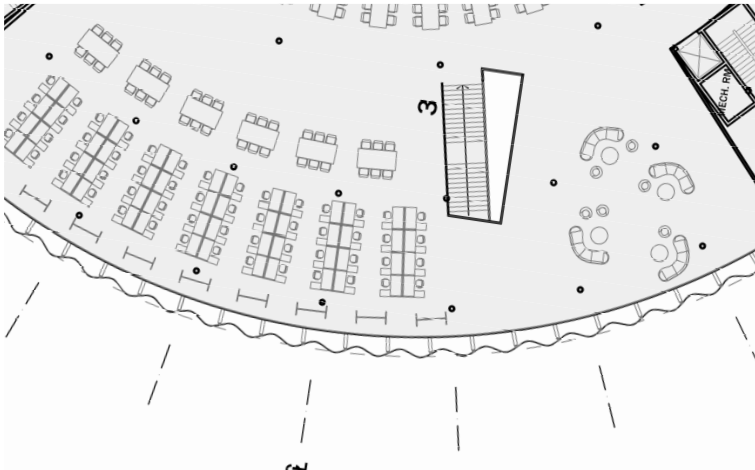
OPEN ACCESS
to all the
researchers
and students.



OPEN ACCESS to
all the researchers
and students.

CONCEPT

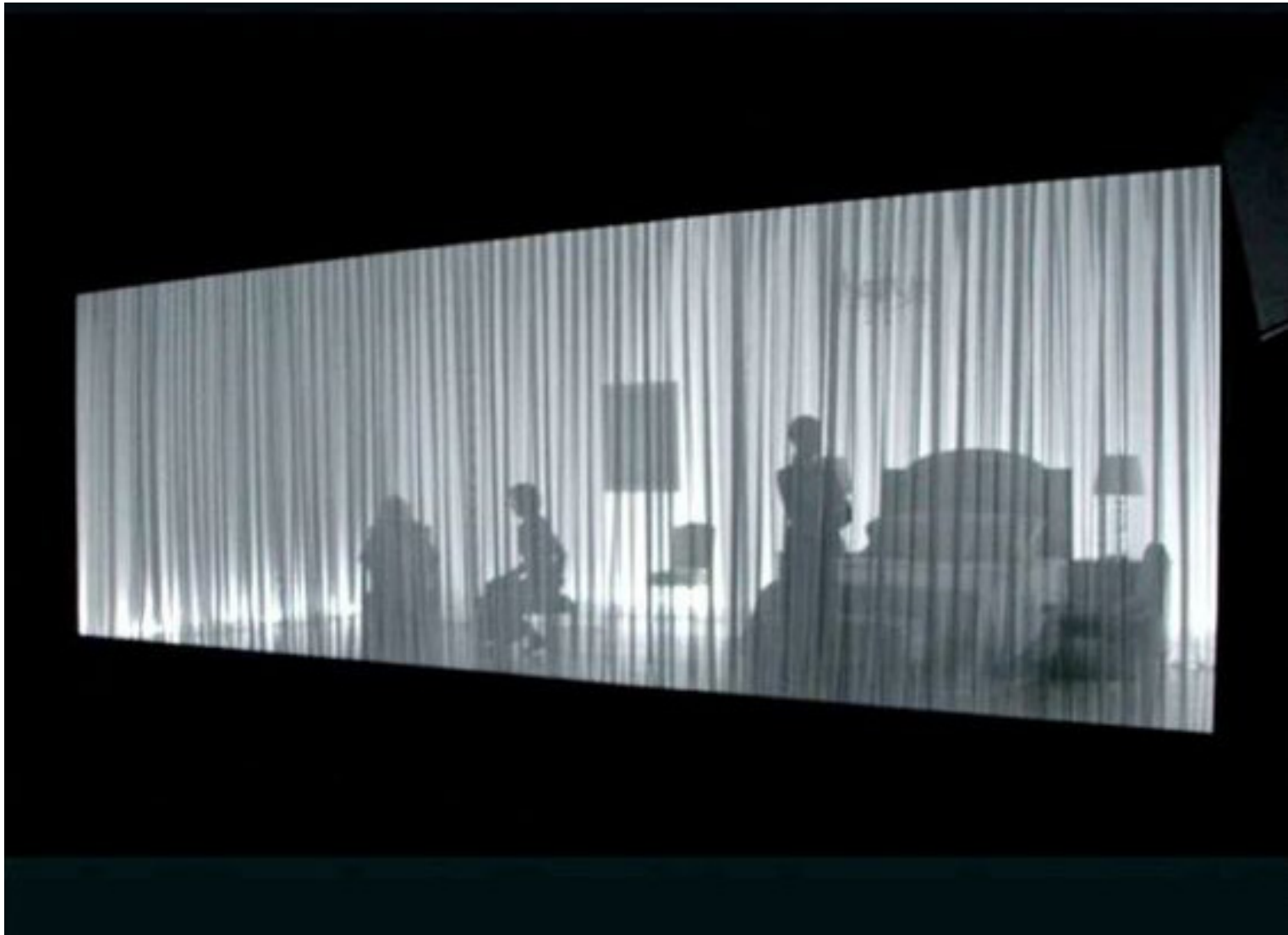
FACADE COMPOSITION: OPEN RESEARCH AREA



CONCEPT MEATERIALS



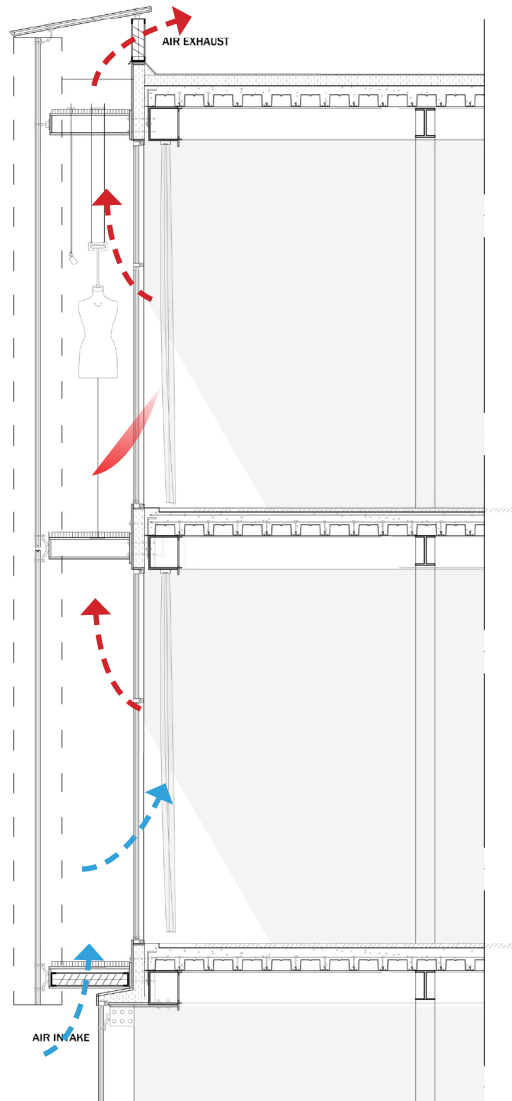
CONCEPT
LANTERN EFFECT



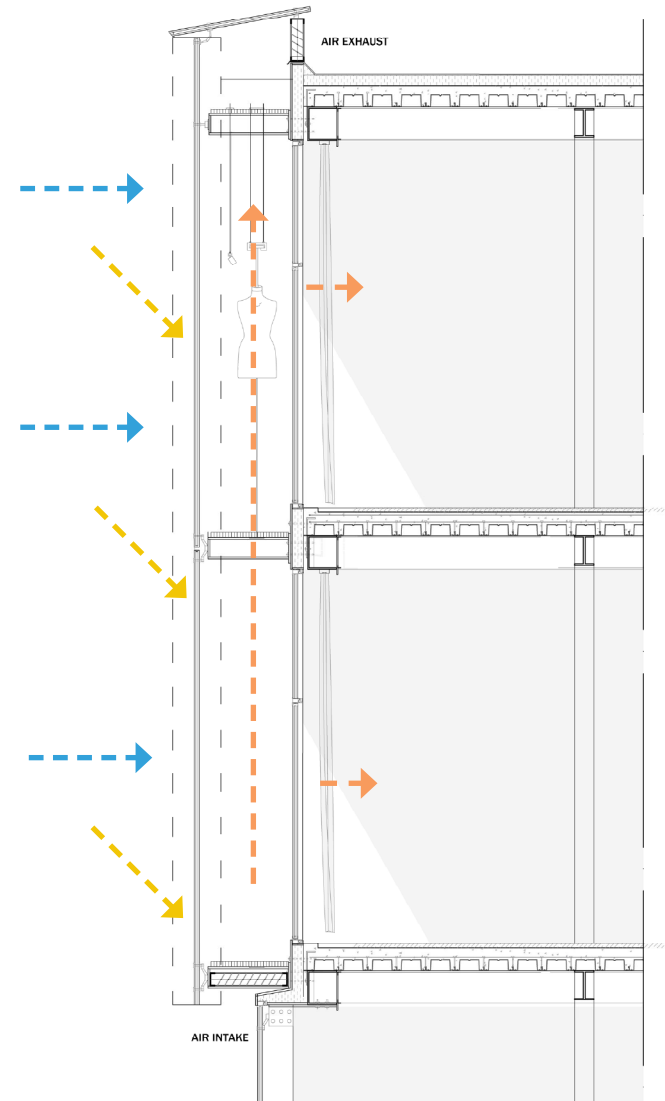


CONCEPT DOUBLE FACADE

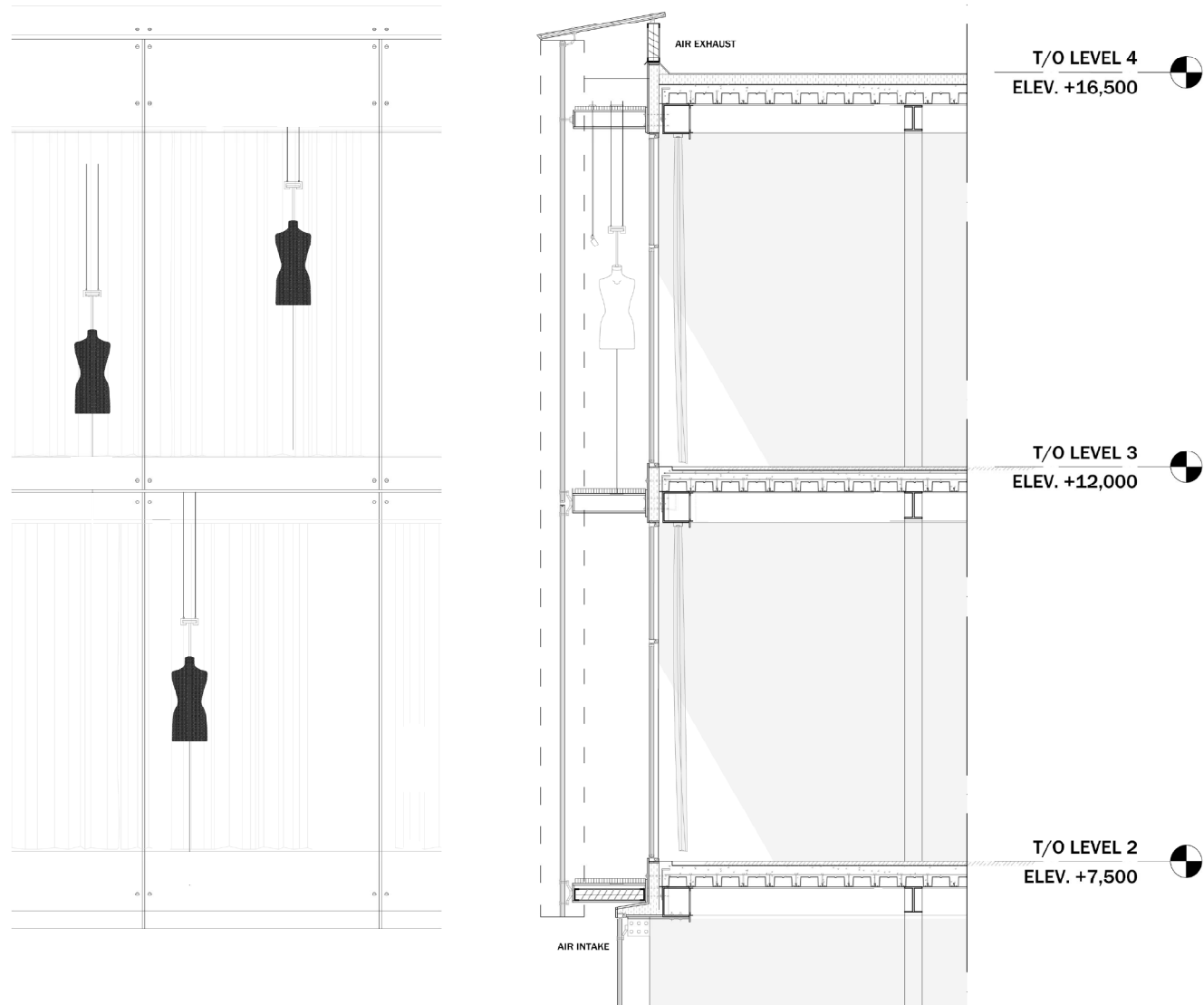
SUMMER

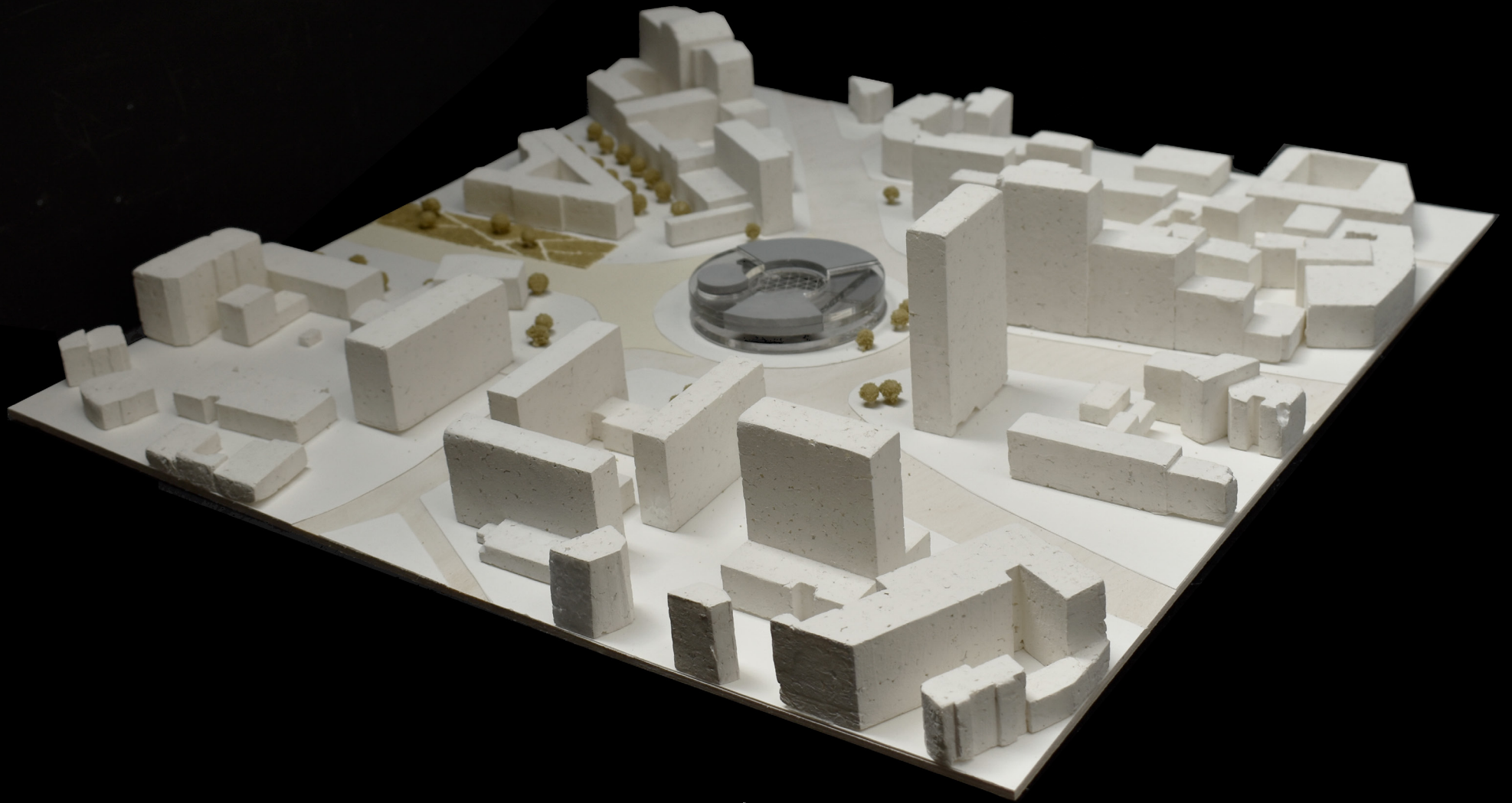


WINTER



CONCEPT SHOW WINDOW

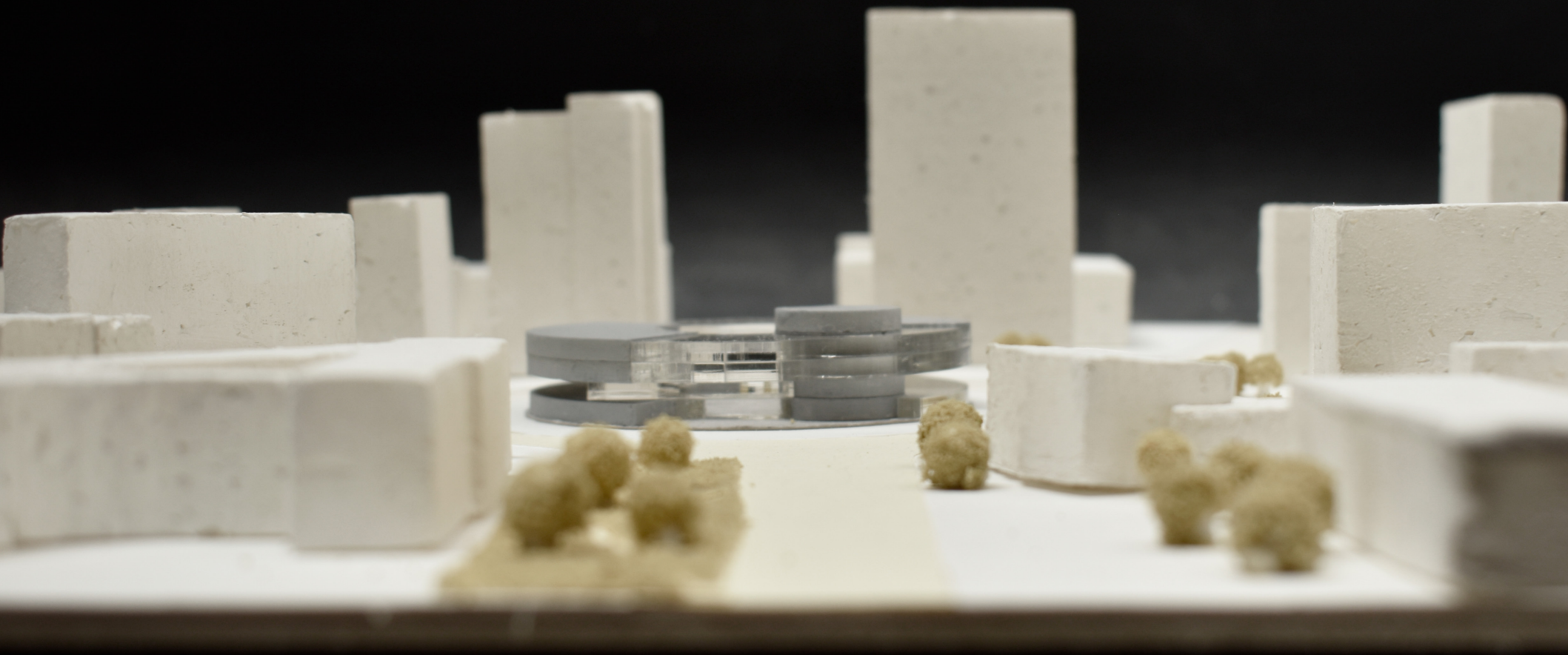




CONCLUSION



CONCLUSION





CONCLUSION



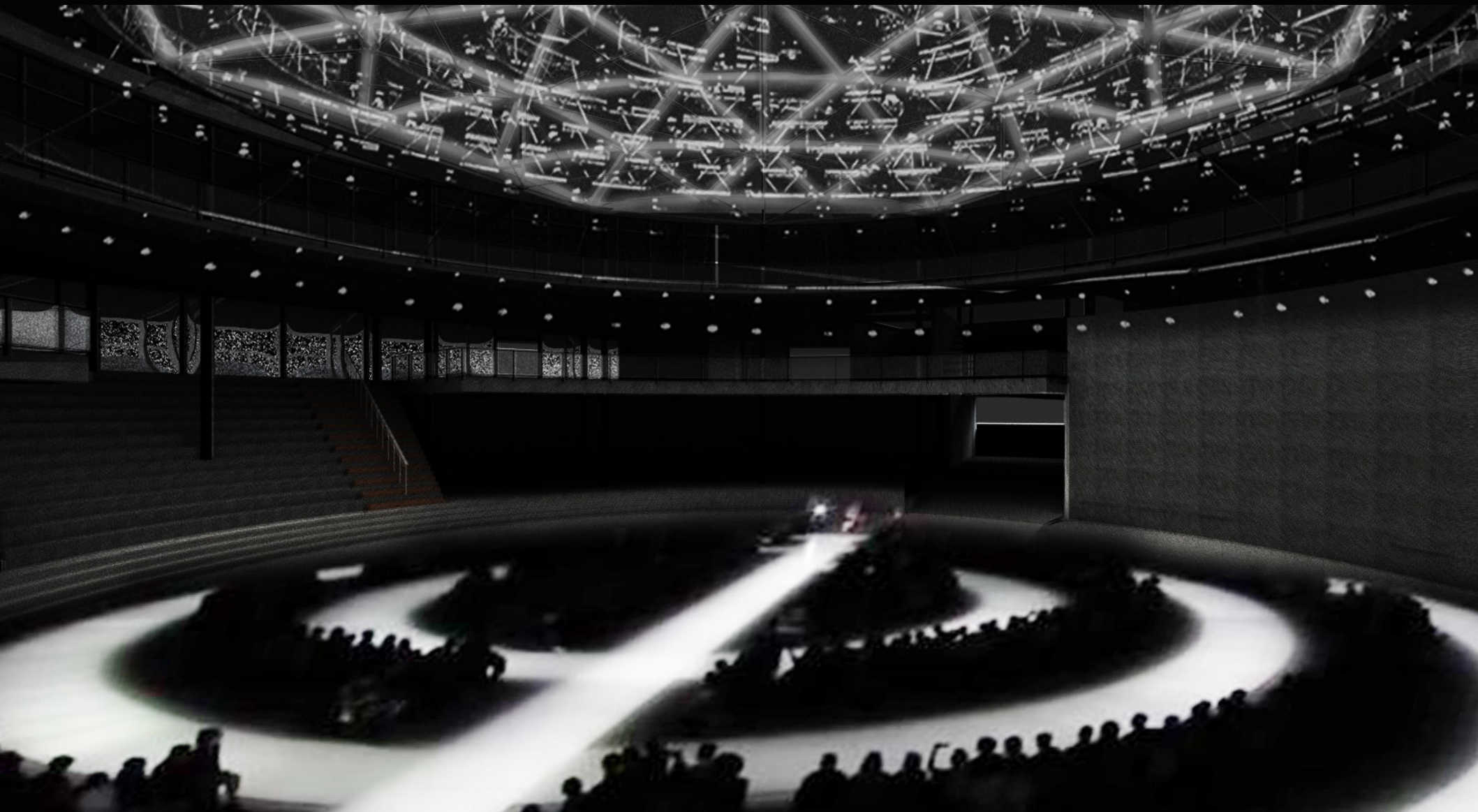
CONCLUSION



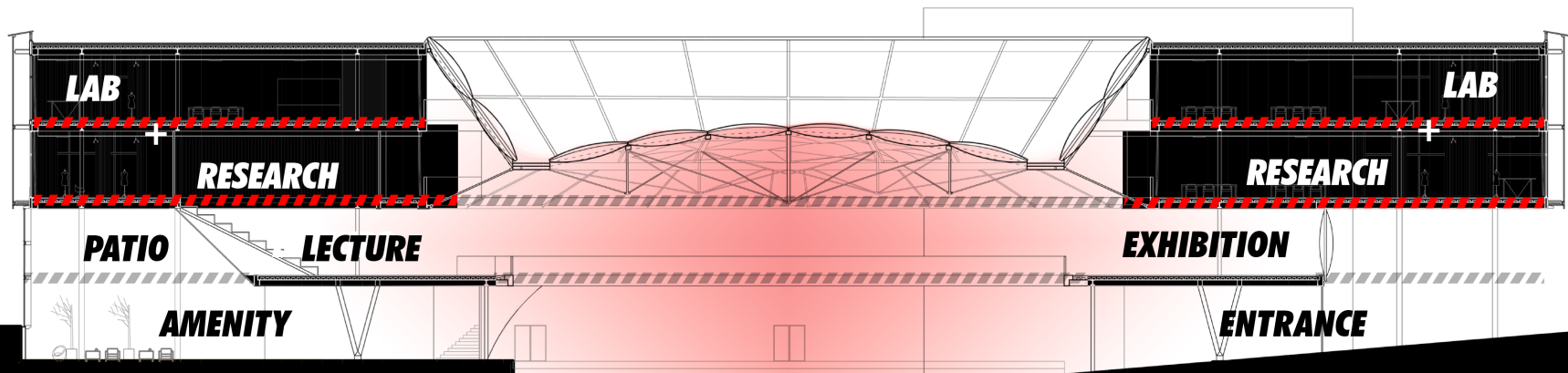
CONCLUSION



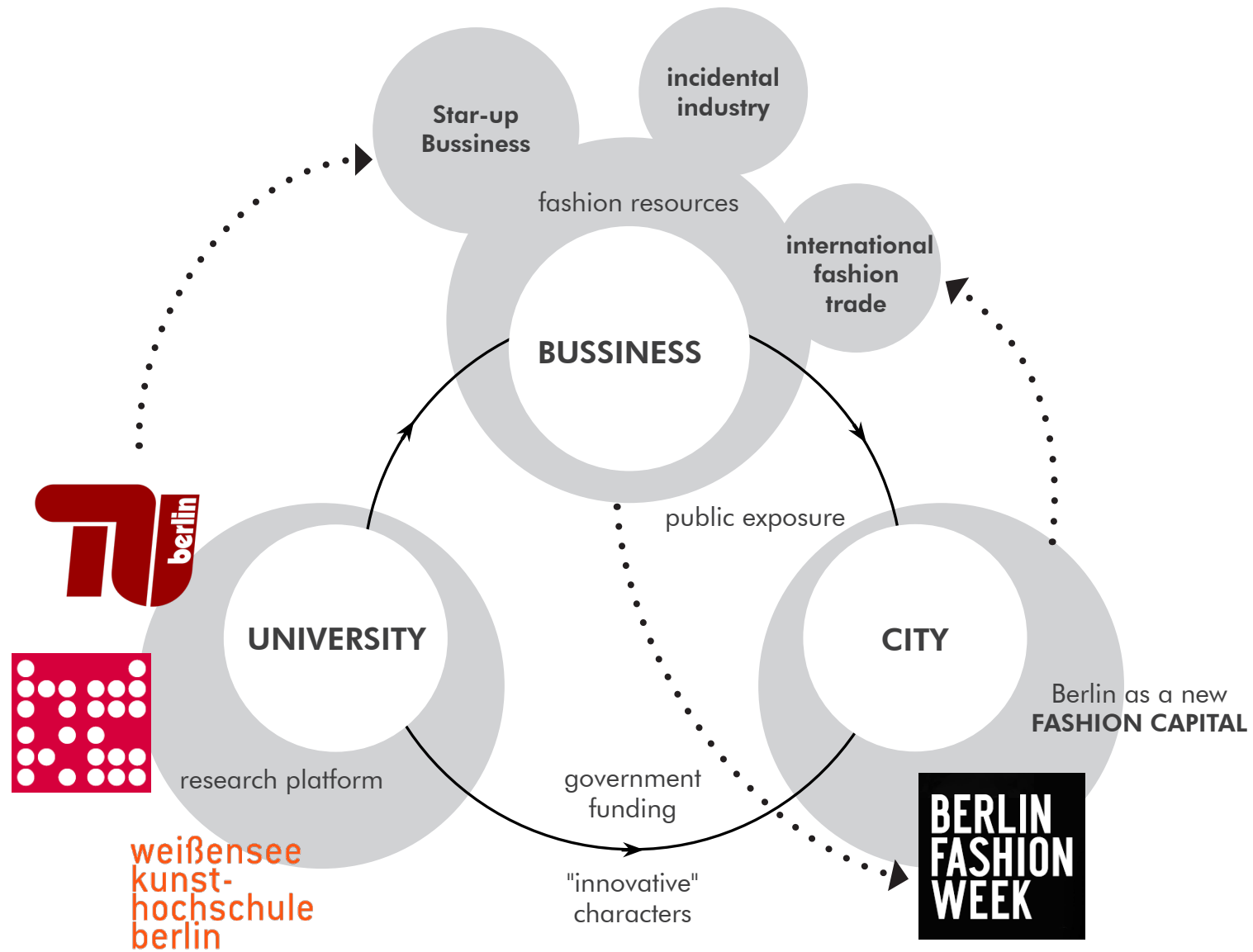
CONCLUSION



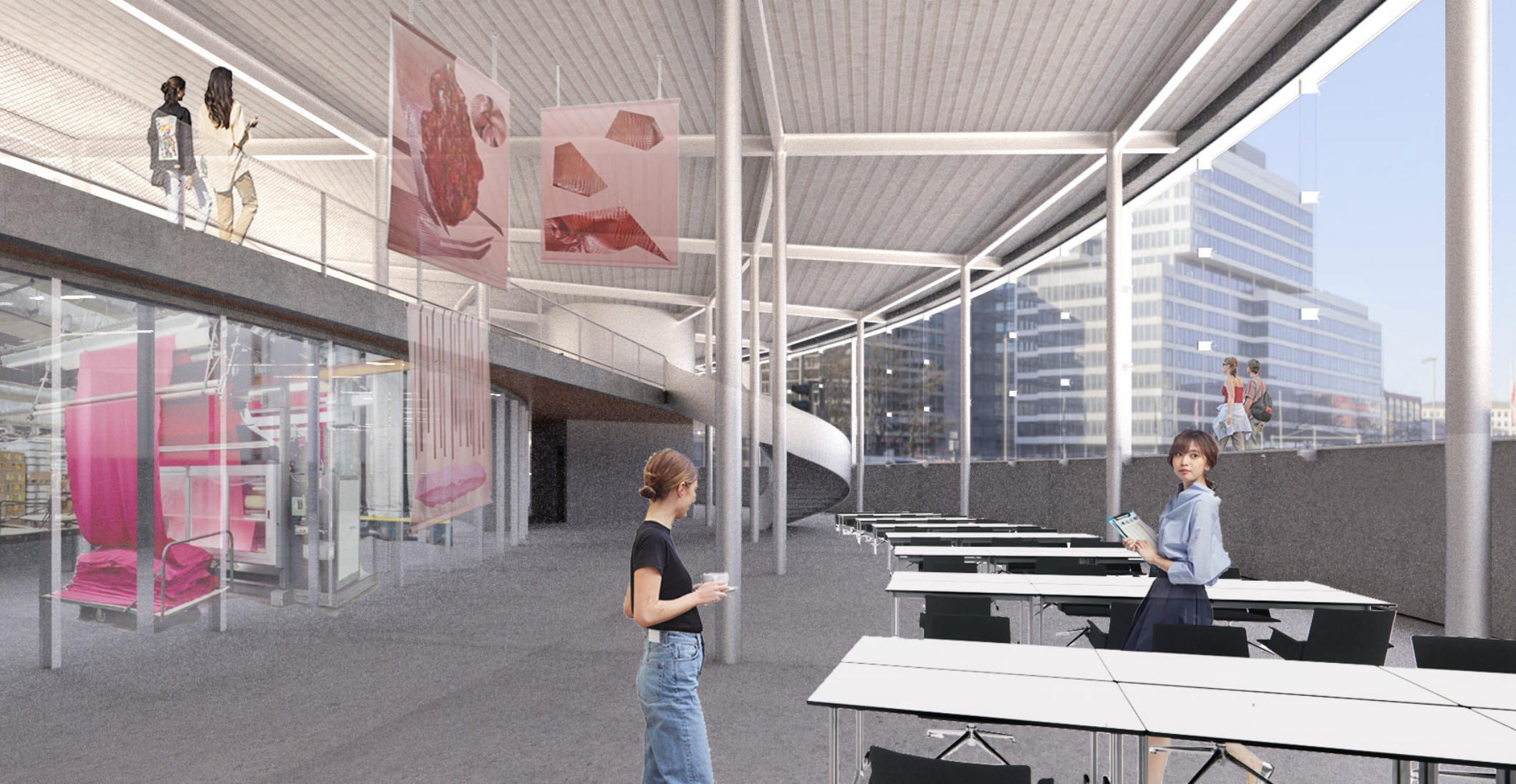
CONCLUSION



CONCLUSION



CONCLUSION



CONCLUSION



CONCLUSION



How can a research lab strengthen the fashion development of Berlin?

- 1) What kind of spatial quality and requirement does the building need to accommodate lab researchers and textile-related innovation?**
- 2) How can the lab intensify the communication between researchers and businesses?**
- 3) How does the building satisfy the city's ambition of being one of the futural fashion capitals?**