



LEBANON DANCE THEATER

THE BEIRUT MOSAIC
LEISURE / FRANCESCA GUARNIERI
P5 / 08.11.2022



A SIMPLE SOLUTION

a simple solution

INSTITUTE FOR LEBANESE DANCE



OFFICIAL INSTITUTION

- recognised and subsidised by the government



INTERNATIONAL RECOGNITION

- dancers can develop within their society, and from there expand to the world,
 - less need of importing performances
- Introductory platform for **young artists' talent supported by recognised institution**



HOUSE DIVERSITY OF FORMS OF DANCE, OF DANCERS, OF AUDIENCE

- preserve tradition and explore innovation
 - reach a broader audience
- **high level** of dance expertise in education & connections

a simple solution

USER



PUBLIC & AUDIENCE

passionates, changing



PARTNERSHIP OF DANCERS ASSOCIATIONS & COMPANIES

professional, permanent

- Beirut Dance Company
- Al-Madina Theater Association
for Arts & Culture
- Beirut Contemporary Ballet
 - Citerne
 - Les Ateliers De Vie

a simple solution
STAKEHOLDERS



client

**LEBANESE DANCE
INSTITUTION**

composed of **partnership** of
dancers associations



developer

CITY OF BEIRUT

CHARACTER



official but approachable



funds

**INTERNATIONAL
CULTURAL
ASSOCIATION**

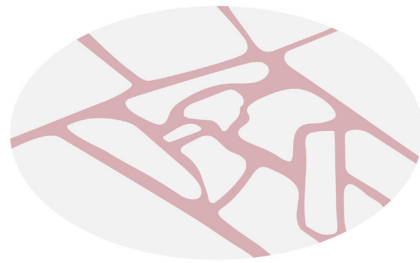
Theater Relief Group
The Arab Fund for Arts and
Culture The Lutfia Rabbani
Foundation
Culture Resource
RELIEF Centre
UNESCO – Li-Beirut
+ patronage of the Ministry of
Culture
Institut Francais Liban
+ supporters

a simple solution

AMBITION WITHIN THE BEIRUT MOSAIC



**ENHANCE
MOSAIC
CHARACTER**



**PEDESTRIAN FRIENDLY
CONNECTIONS**



**2 KEY PUBLIC
SPACES: BEACH &
PARK**



**AFFORDABLE
HOUSING &
EDUCATION**

a simple solution

AMBITION WITHIN THE BEIRUT MOSAIC



ENHANCE
MOSAIC
CHARACTER



PEDESTRIAN FRIENDLY
CONNECTIONS



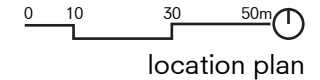
**2 KEY PUBLIC
SPACES: BEACH &
PARK**



AFFORDABLE
HOUSING &
EDUCATION

a simple solution

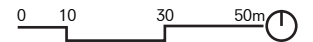
THEATER WITHIN THE BEIRUT MOSAIC



location plan

a simple solution

THEATER WITHIN THE BEIRUT MOSAIC



location plan



THEATER

1. INTRODUCTION

2. RESEARCH SUMMARY

3. BRIEF

4. CONCEPT

5. ARCHITECTURAL DESIGN

6. ARCHITECTURAL ENGINEERING

7. CONCLUSION

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7. CONCLUSION

A COMPLEX CONTEXT

a complex context

STUDIO TOPIC - CATASTROPHE

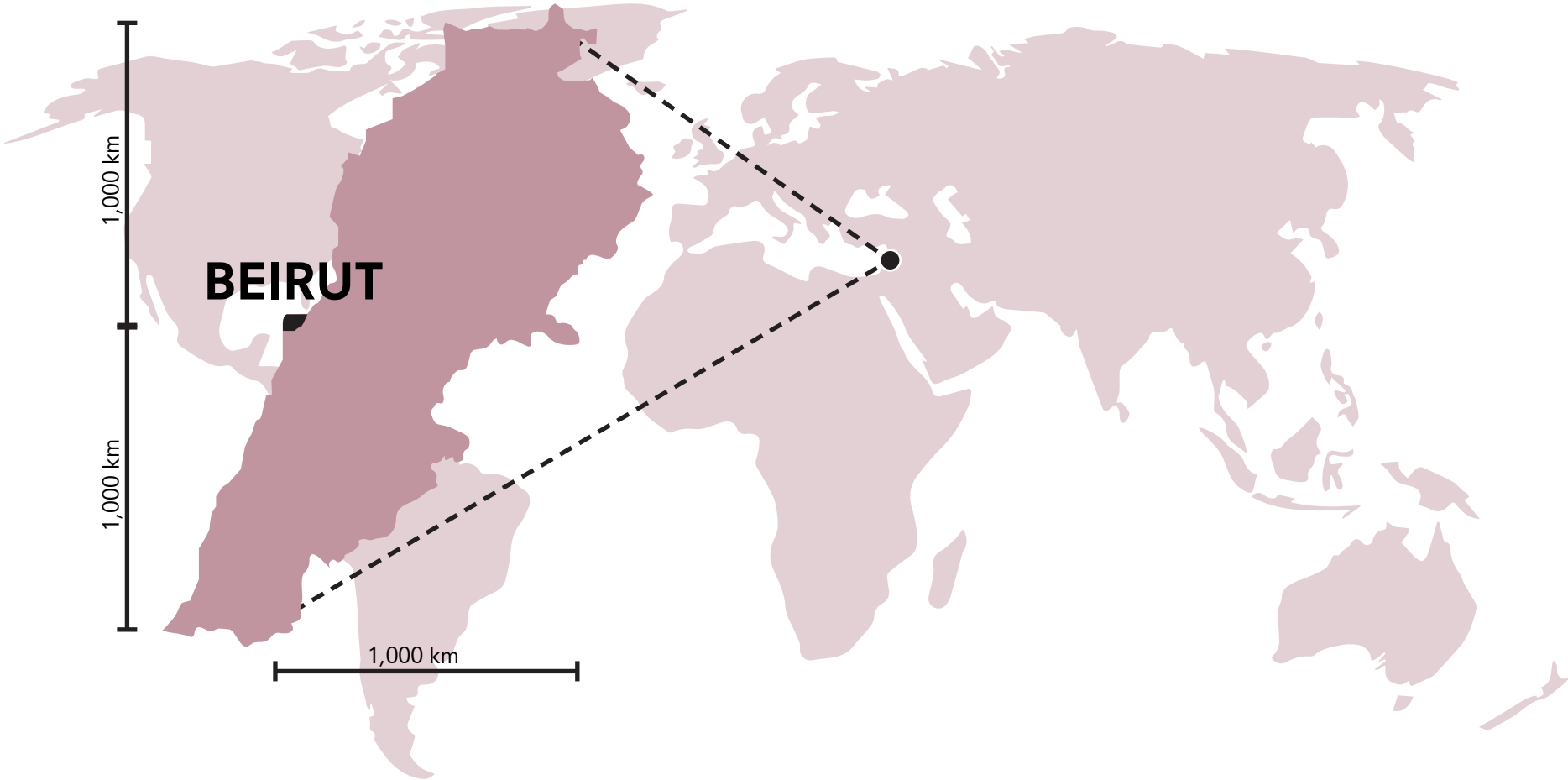


0 1,000 3,000km



a complex context

BEIRUT, LEBANON

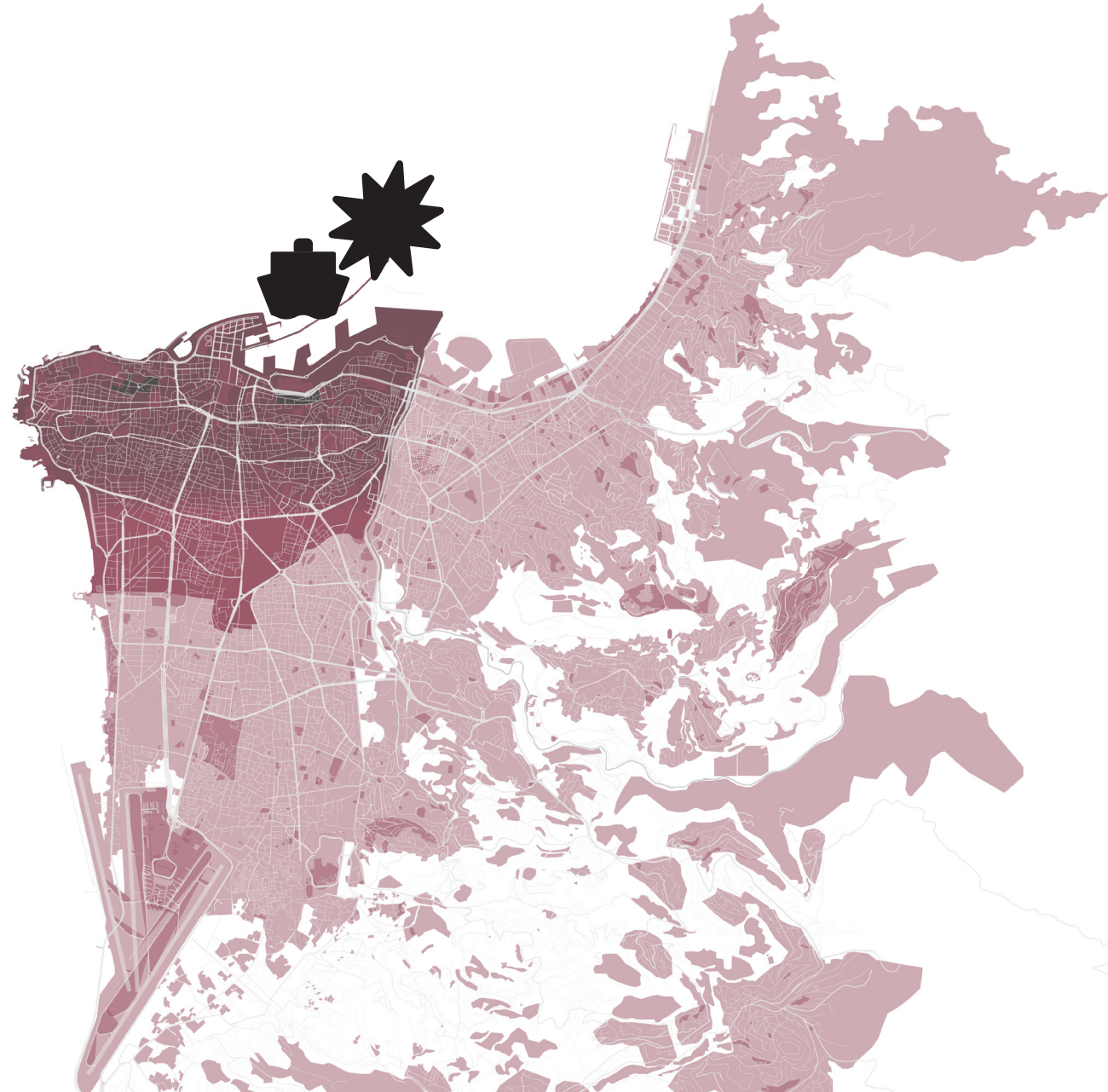


0 1,000 3,000km

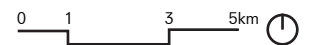


a complex context

PORT EXPLOSION 2020

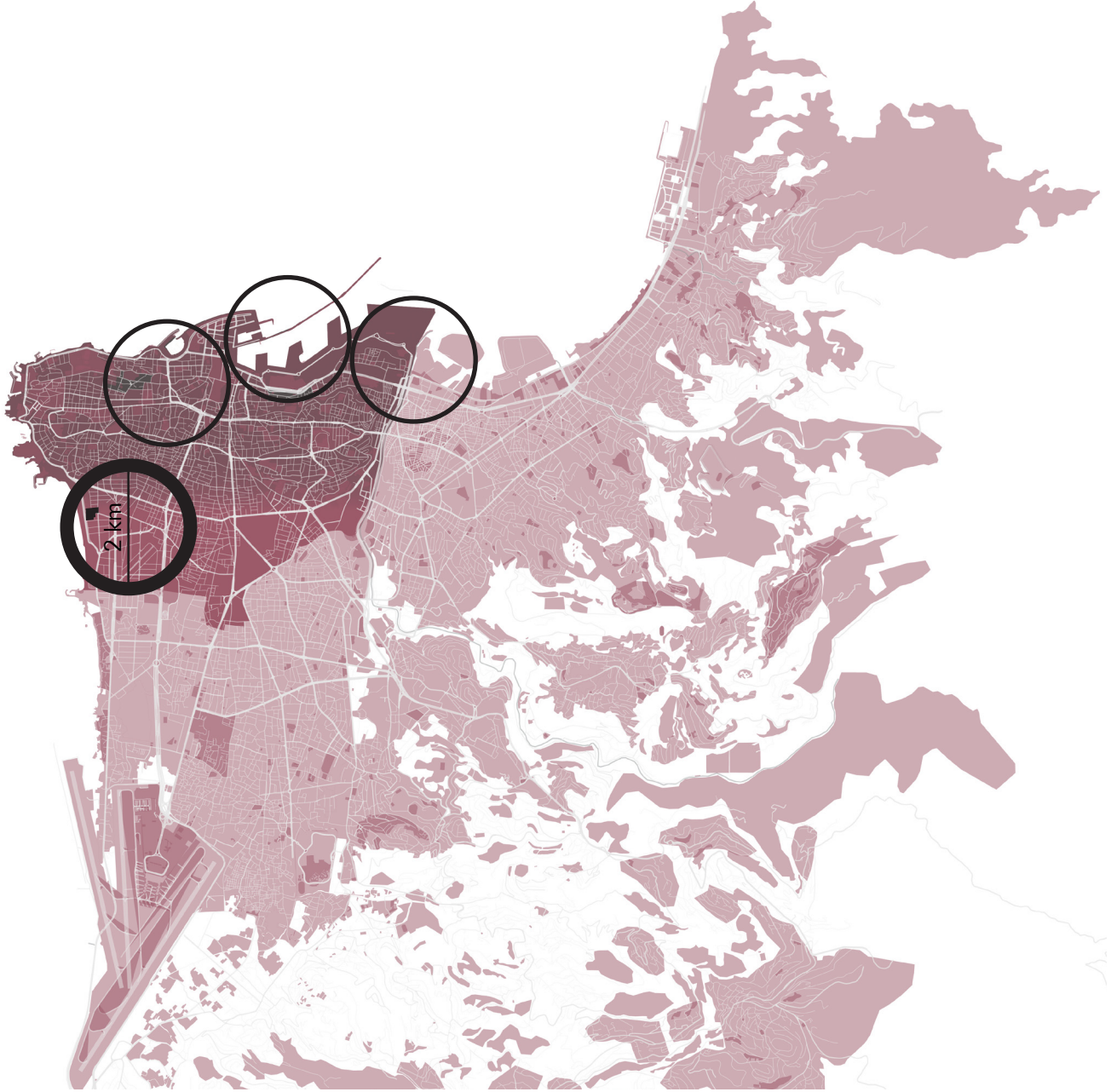


- Explosion
- Beirut
- Greater Beirut Area



a complex context

GROUP 03: THE BEIRUT MOSAIC



■ Beirut
■ Greater Beirut Area

0 1 3 5km

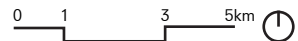
a complex context

ARCHITECTURAL TOPIC - LEISURE

**PEOPLE
YES !**



**FREE OPEN SPACES
NO !**



a complex context

ARCHITECTURAL TOPIC - LEISURE



**MODERN BEIRUT
OFFERS 0.8M2 OF
PUBLIC SPACE/
CAPITA AGAINST
PRESCRIBED NORM
OF 9M2 ACCORDING
TO THE W.H.O.**

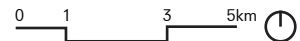
a complex context

PERSONAL TOPIC - DANCE THEATER

**PERFORMERS
YES !**



**PERFORMANCE VENUES
NO !**



a complex context

ARCHITECTURAL TOPIC - LEISURE

Lebanese youth are reclaiming public spaces with arts and dialogue

In a largely privatised Beirut, public spaces remained scarce and inaccessible, until the Lebanese people took to the streets last month.

Soprano singer Monà Hallab from Tripoli, North Lebanon and her friend made their way inside the abandoned Opera House in downtown Beirut, where they shot a short video showing Hallab singing the lyrics of a song written on the spot by another protestor, and praising the newfound unity among Lebanon that crossed all religious, social and geographical lines.



WHAT IS
CONTEMPORARY
BEIRUT ASKING
FOR ITS URBAN
FUTURE OF 2050?

a complex context

PERSONAL TOPIC - DANCE THEATER



DANCE IS INGRAINED
IN THE LOCAL
CULTURE OF LEISURE
BUT A HISTORY OF
CATASTROPHES HAS
LEFT NO VENUES TO
PRACTICE

BEIRUT DANCE TODAY



LIVE ART FORM TO WATCH IN THEATERS

- traditional = historic **exploration**
- contemporary = **evasion** of emotions
- artistic **exchange**



ENCOUNTER ACROSS PUBLIC & PERFORMERS

- tradition of **interaction** between performers and audience
- **unities** religion and culture backgrounds



POPULAR LEISURE ACTIVITY

- catalyst for mingling **in public spaces**

**HOW CAN A DANCE THEATER IN BEIRUT
DEFINE TRANSITIONAL PUBLIC-TO-
PRIVATE SPACE INVITING PEOPLE TO
USE IT FREELY?**

research question



1. INTRODUCTION

2. RESEARCH SUMMARY

3. BRIEF

4. CONCEPT

5. ARCHITECTURAL DESIGN

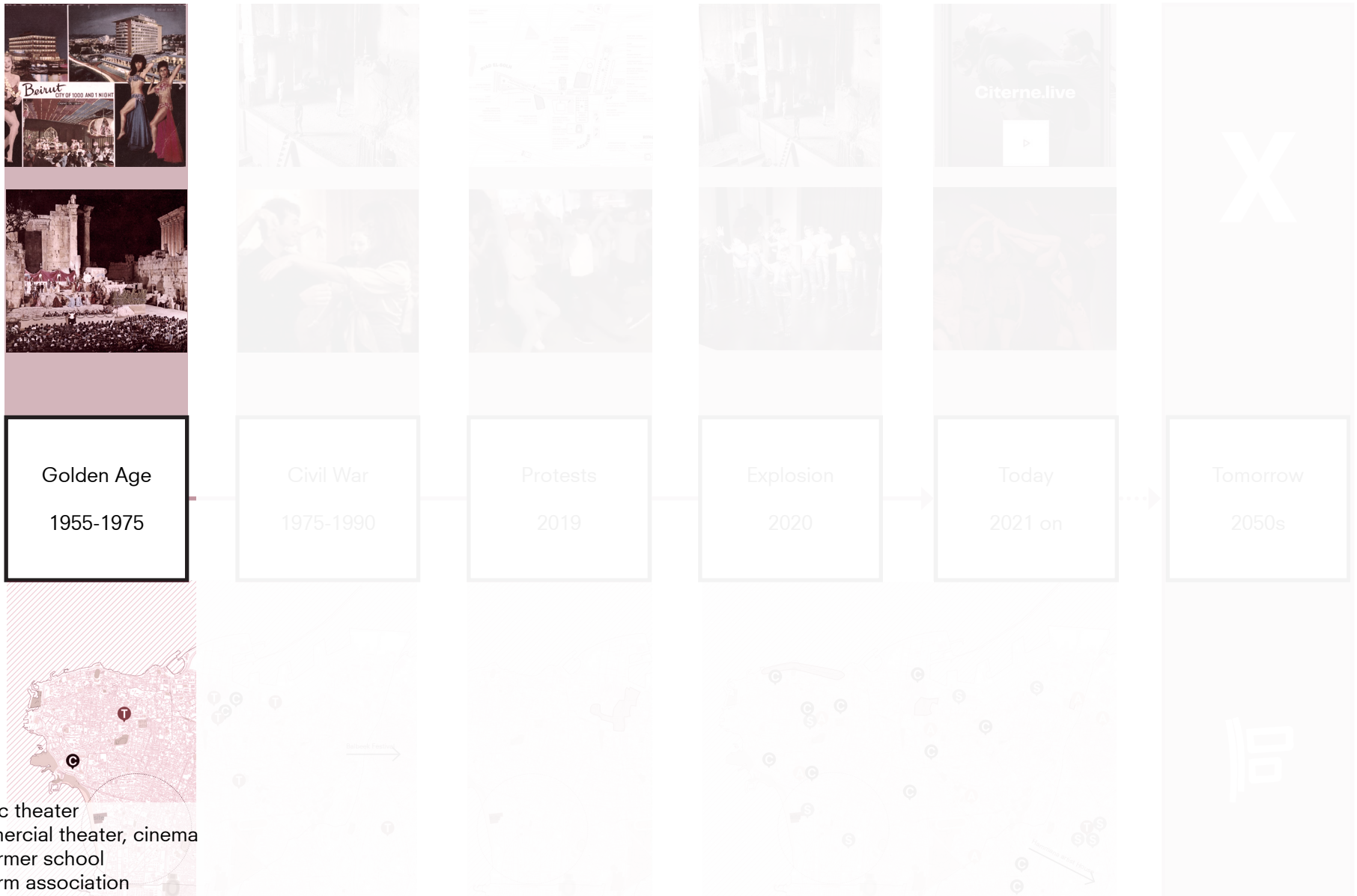
6. ARCHITECTURAL ENGINEERING

7. CONCLUSION

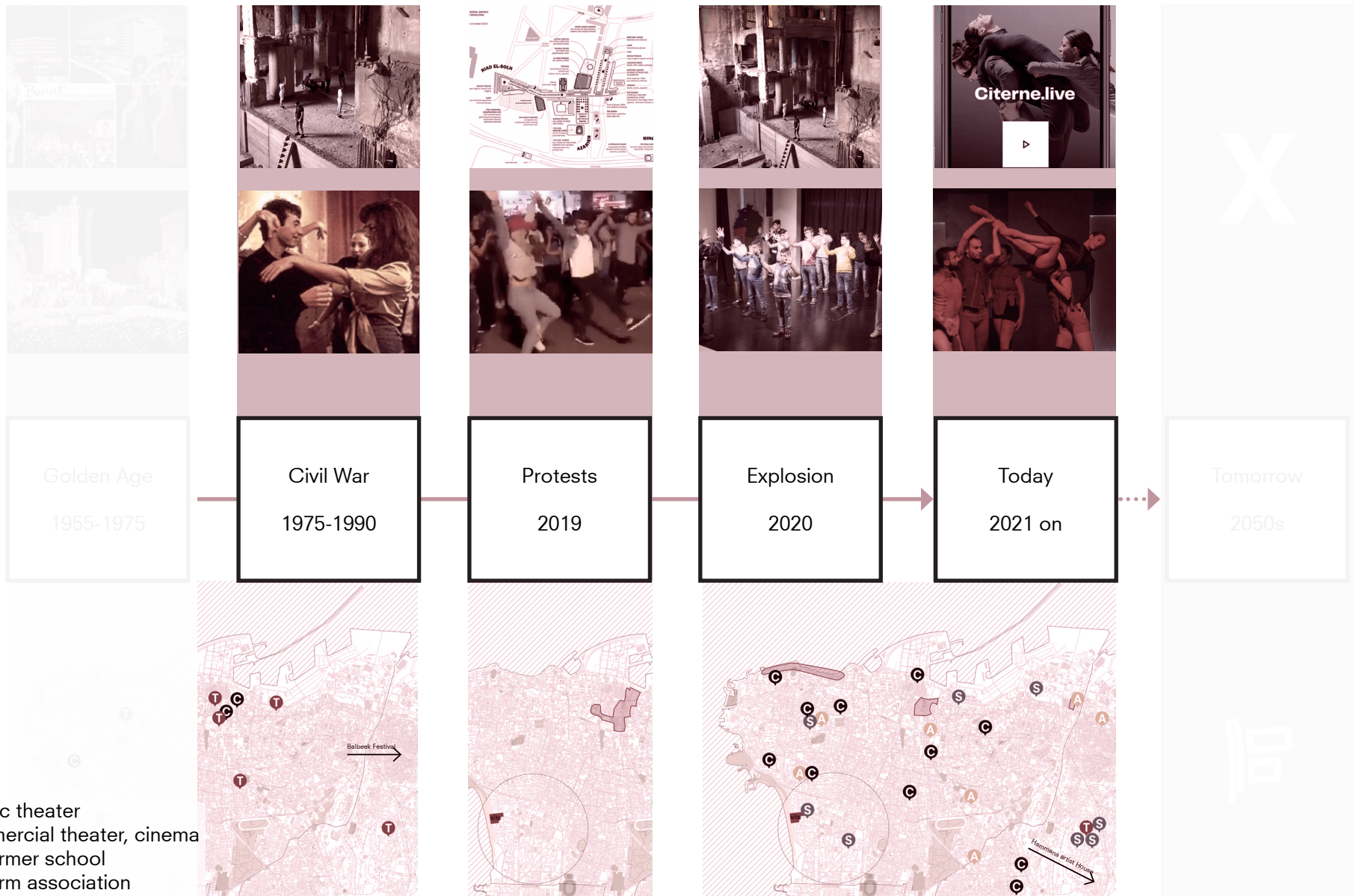
PROJECT'S RELEVANCE



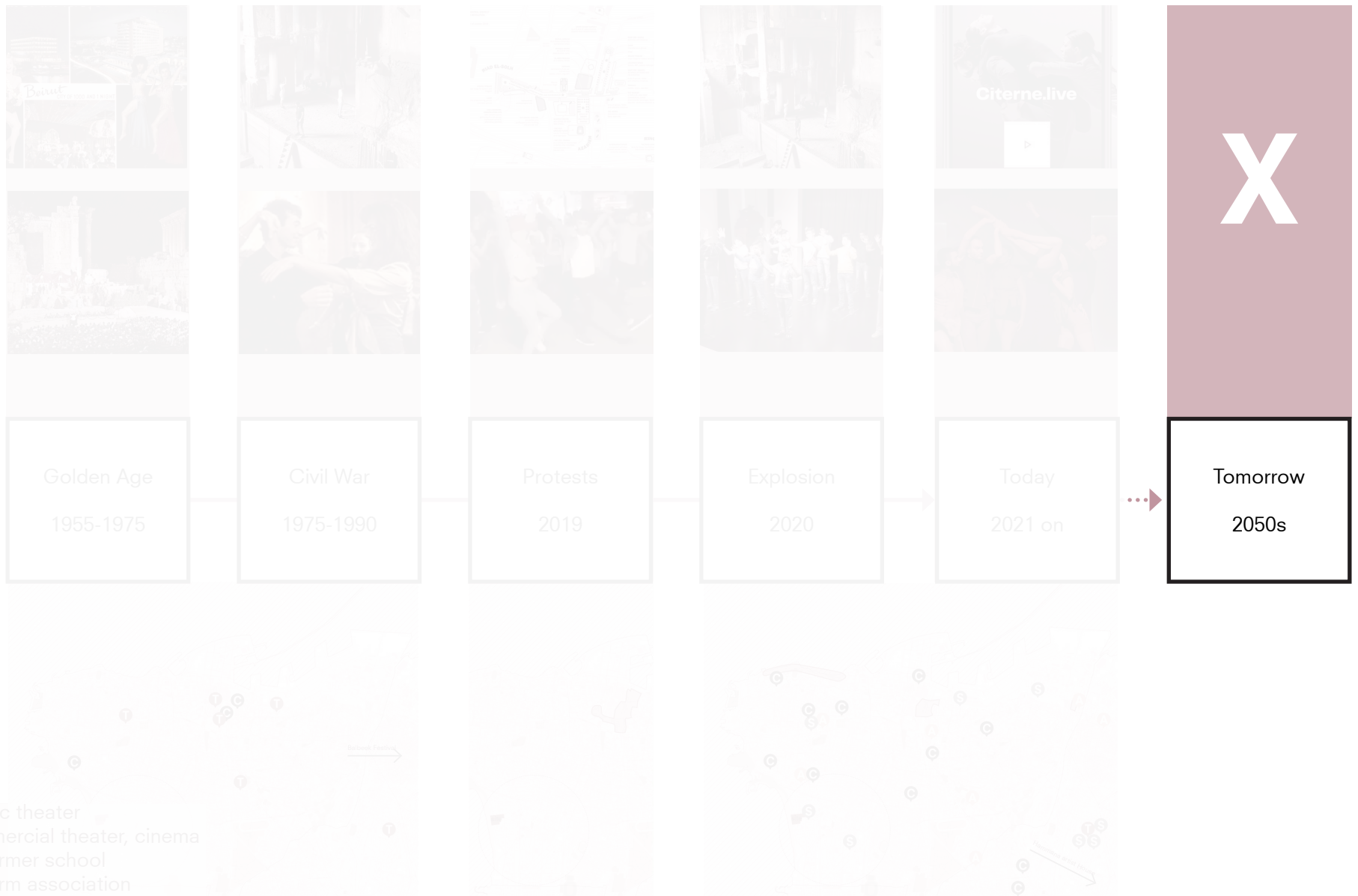
BEIRUT DANCE TIMELINE



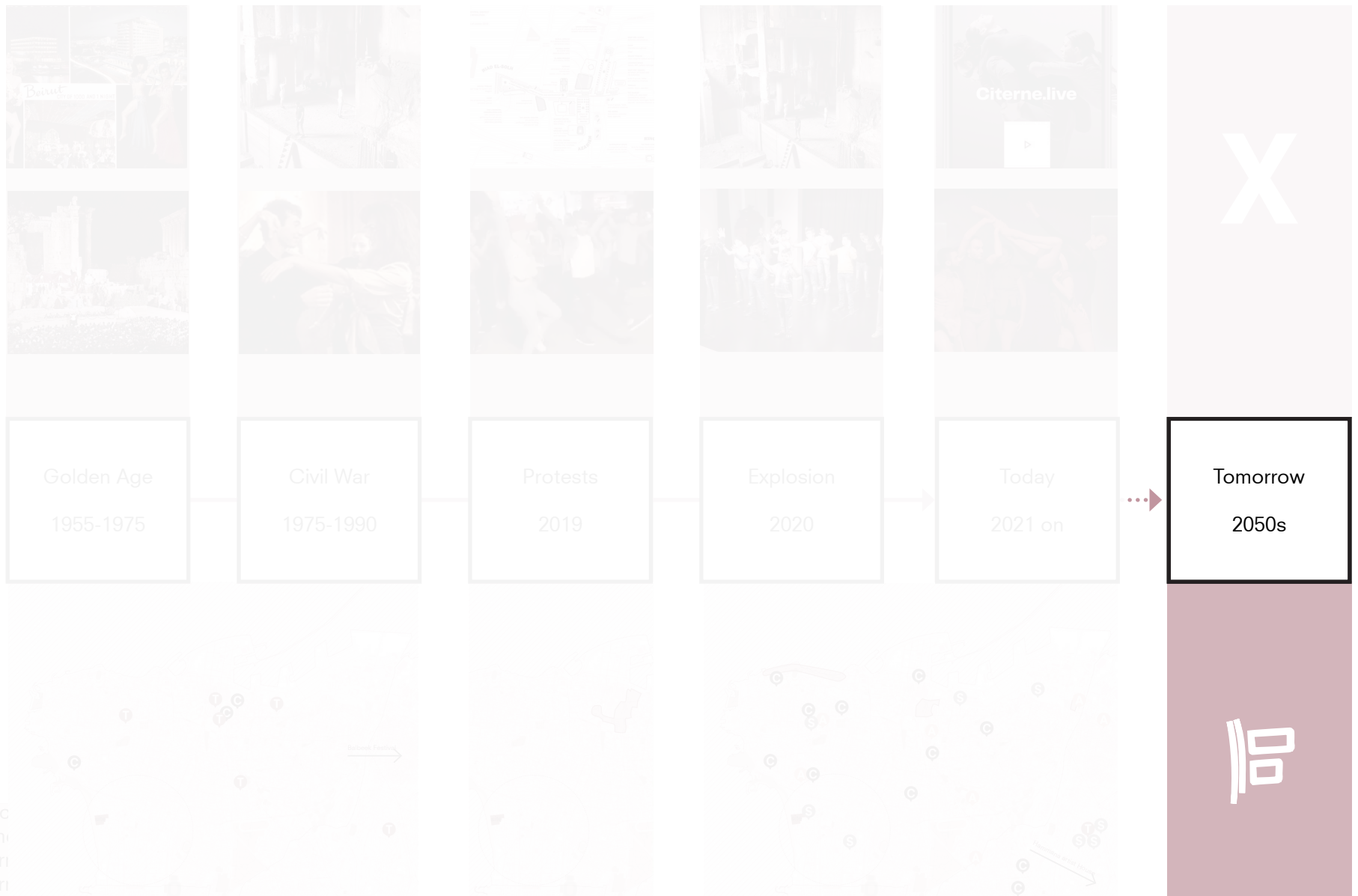
BEIRUT DANCE TIMELINE



BEIRUT DANCE TIMELINE



BEIRUT DANCE TIMELINE



research summary



1. INTRODUCTION

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7. CONCLUSION

PROGRAM SELECTION

program selection

BEIRUT DANCE



BEIRUT DANCE FORMS



ART

- **dance theater** = art of physical and psychological interactions on stage, performed for an audience, choreographed.

- dance types: **classic / modern ballet, modern + folklore**



THERAPY

- **body guided inner exploration** = studio as safe space for feelings & movement, therapist to develop soft skills.

- dance types: **psychotherapy empowerment**



SOCIAL

- **social dance** = without an audience not choreographed.

- dance types: **ballroom, retro, latin, oriental + acrobatic**



FRINGE

- **participation dance** = participants alternate the role of performer or audience.

- dance types: **street dance, cabaret, drag**

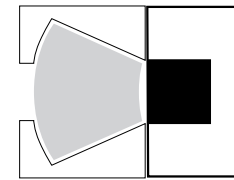
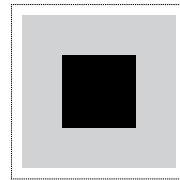
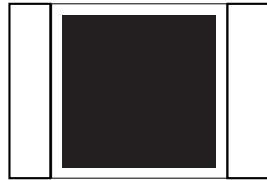
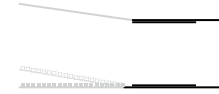
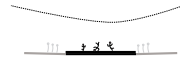
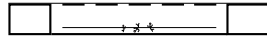
program selection

BEIRUT DANCE VENUES

KEY

■ podium
□ perf. related space

■ auditorium
□ secondary space



STUDIO

OPEN-AIR VENUE

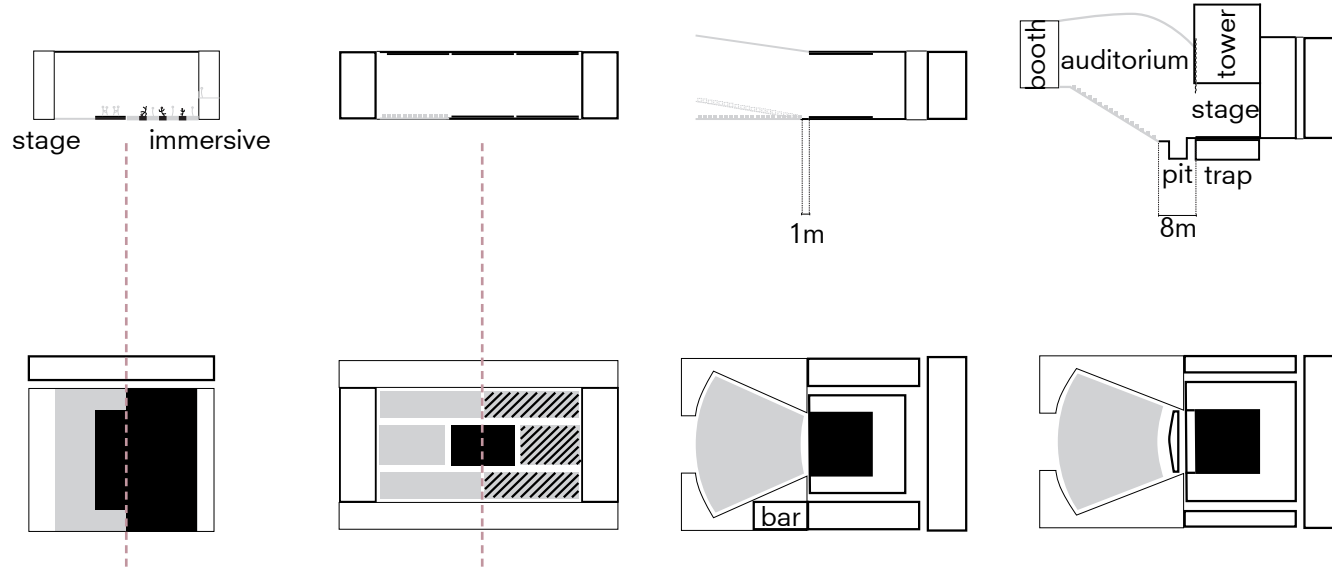
ENCLOSED VENUE

program selection

SELECTED DANCE VENUE

- KEY
- podium
 - perf. related space
 - auditorium
 - secondary space

OPEN, INFORMAL→ CLOSED, FORMAL



**BEACH
AMPHITHEATRE**



**FLEX
FOYER**



**SEA
MULTIFORM
BLACKBOX**



**UNDERGROUND
PROSCENIUM**

PROGRAM REFERENCE

program reference

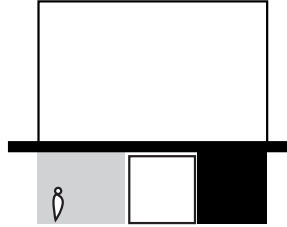
BENCHMARK LOCAL

KEY

- podium
- foyer
- studio



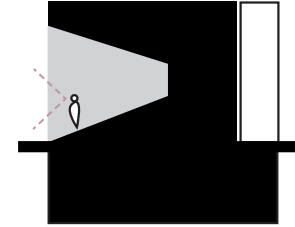
**GRAND THEATRE,
BEIRUT
1929**



**CARACALLA DANCE
THEATER, BEIRUT
1970**



**AL-MADINA
ASSOCIATION, BEIRUT
2005**



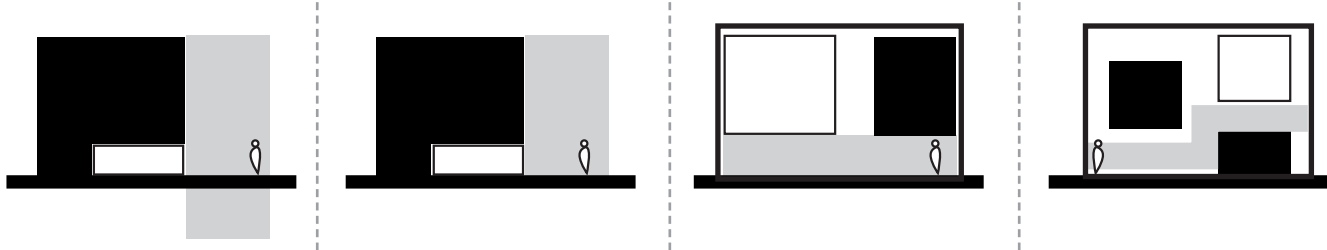
**ARTS AND CULTURE
HOUSE, BEIRUT
2009**

program reference

BENCHMARK EUROPEAN

KEY

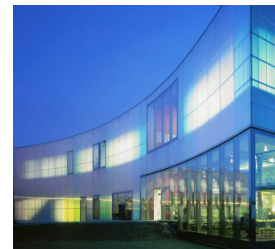
- podium
- foyer
- studio



**NATIONAL BALLET,
AMSTERDAM
1968**



**LUCENT,
THE HAGUE
1987**



**LABAN CENTER FOR
DANCE, LONDON
2000**

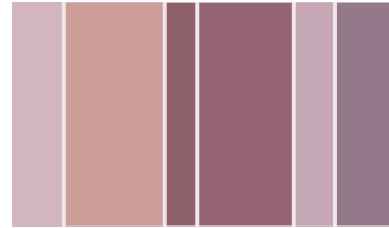


**AMARE,
THE HAGUE
2020**

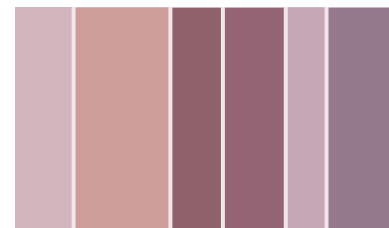
PROGRAM BAR CONCLUSION

KEY

- foyer
- commerce
- podium
- backstage
- auditorium
- rehearsal
- offices + storage



LOCAL

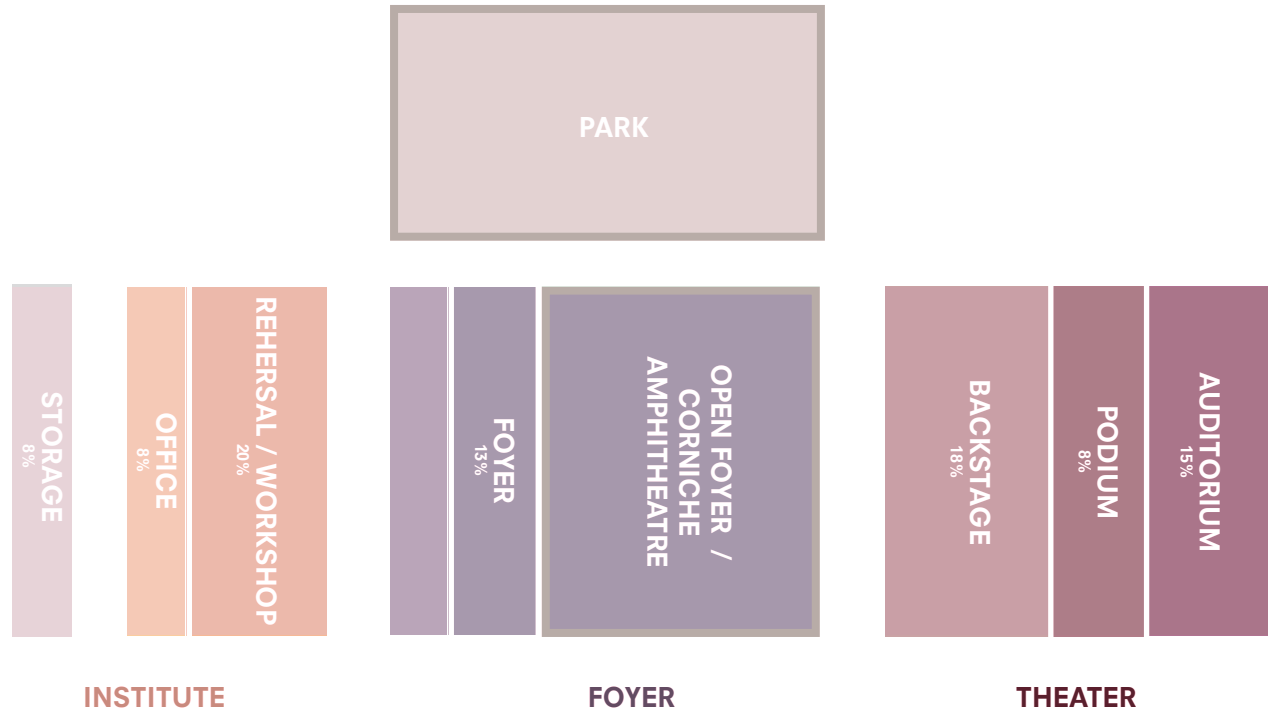


EUROPEAN

PROGRAM PROPOSAL

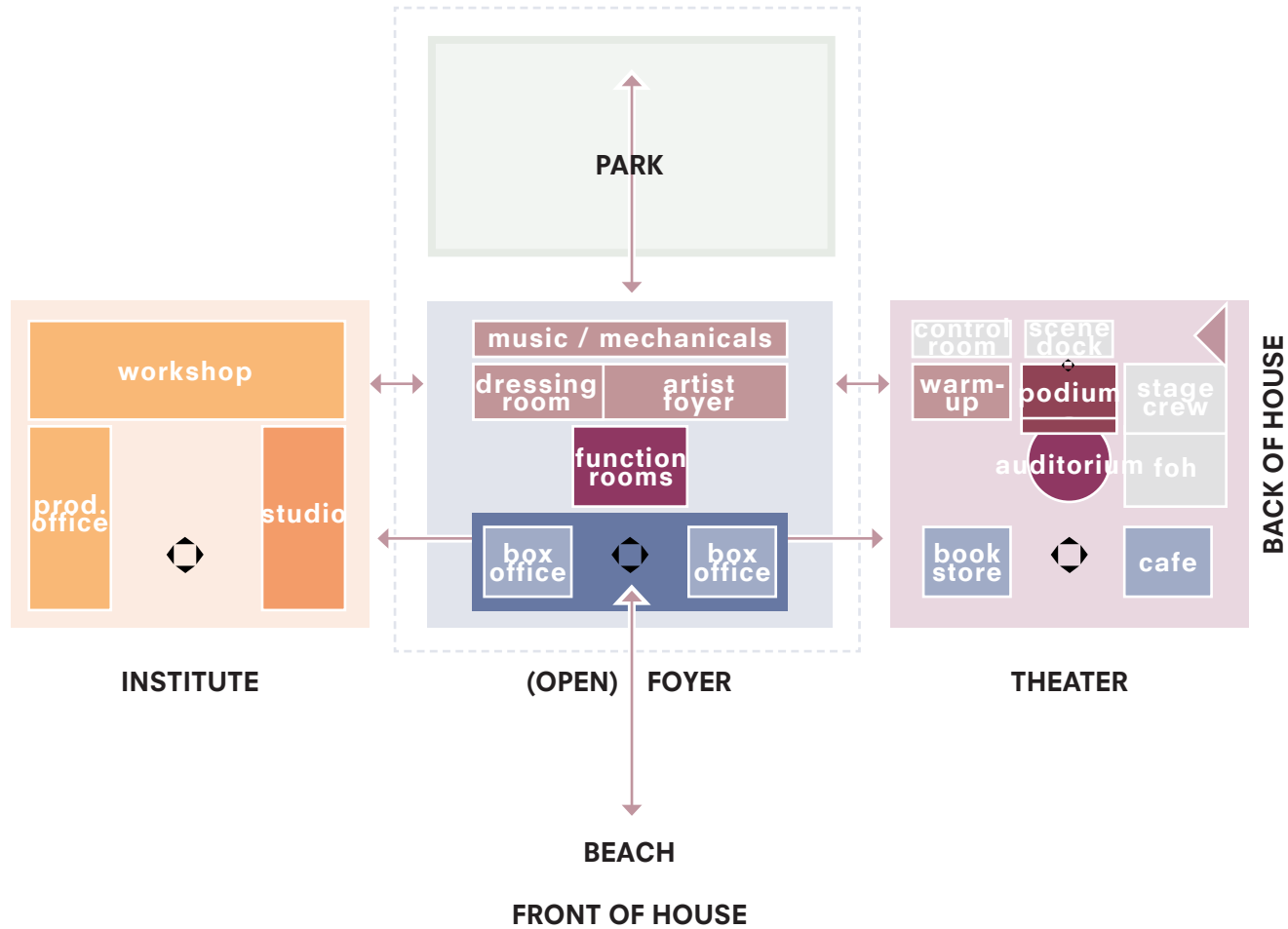
program proposal
PROGRAM BAR

- KEY
- park
 - foyer
 - open foyer
 - commerce
 - podium
 - backstage
 - auditorium
 - rehearsal / workshop
 - offices
 - storage



PROGRAM RELATION

- KEY
- park
 - foyer
 - open foyer
 - commerce
 - podium
 - backstage
 - auditorium
 - rehearsal / workshop
 - offices
 - storage

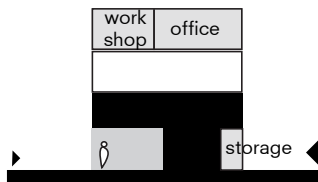


PROGRAM RELATION IN SECTION

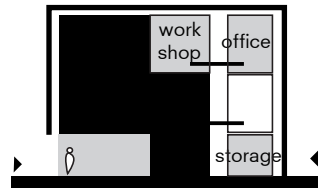
KEY

- podium
- foyer
- studio

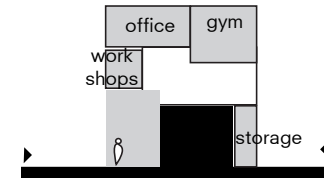
- ▶ front of house
- ▶ back of house



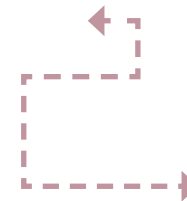
VERTICAL



HORIZONTAL



CLUSTER



PROGRAM RELATION IN SECTION

KEY

■ podium

■ foyer

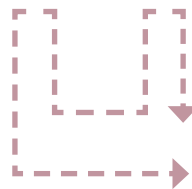
□ studio

▶ front of house

▶ back of house



CONTEXTUALISED CLUSTER



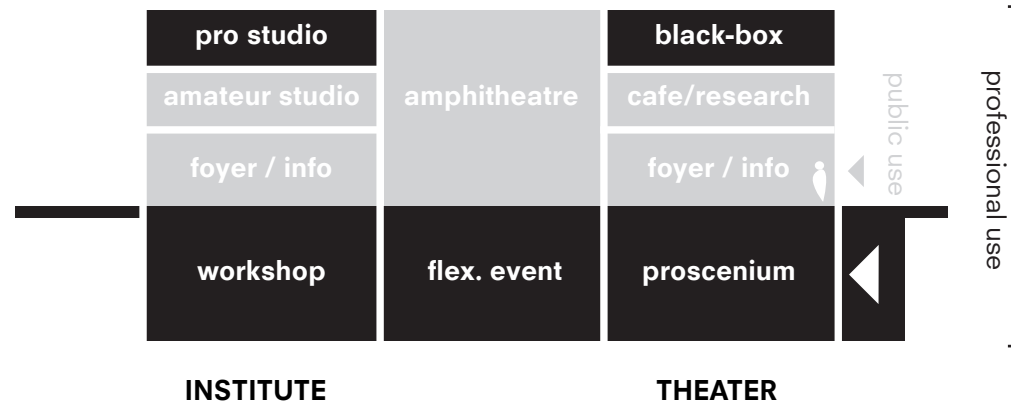
PROGRAM RELATION IN SECTION

KEY

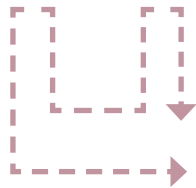
- podium
- foyer
- studio

▶ front of house

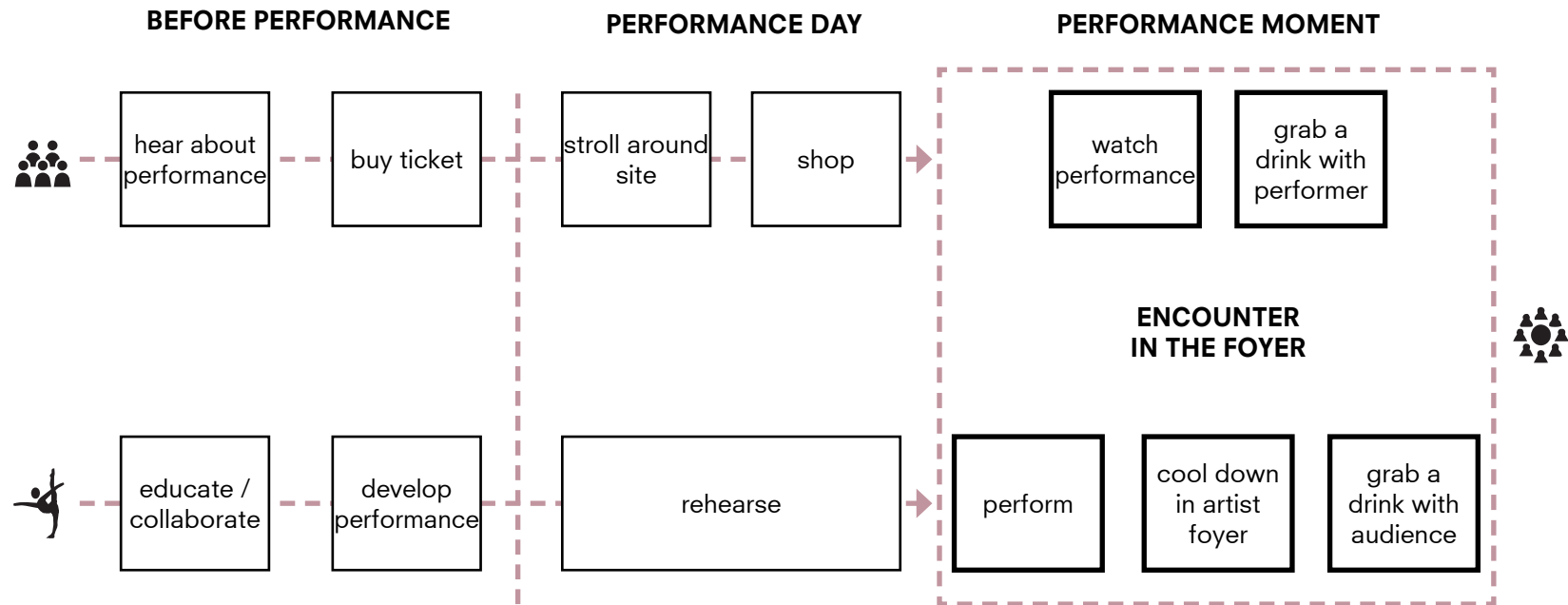
▶ back of house



CONTEXTUALISED CLUSTER



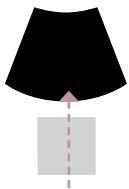
FOYER - AUDITORIUM RELATION



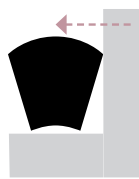
FOYER - AUDITORIUM RELATION

KEY

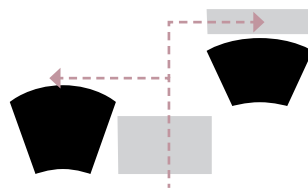
- podium
- foyer



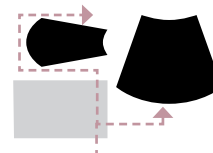
TOYO ITO, MATSUMOTO
PERFORMING ARTS
CENTER, JAPAN



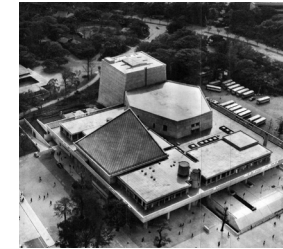
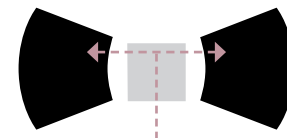
OMA, CASA DA MUSICA,
PORTUGAL



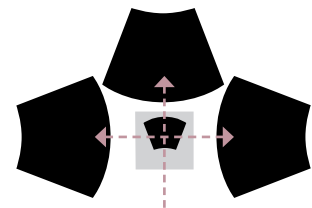
AALVAR ALTO, FINLAND
HALL, FINLAND



JAMES STIRLING SCHWATZ
CENTER FOR PERFORMING
ARTS, USA



KUNIO MAEKAWA,
TOKYO METROPOLITAN
FESTIVAL HALL, JAPAN

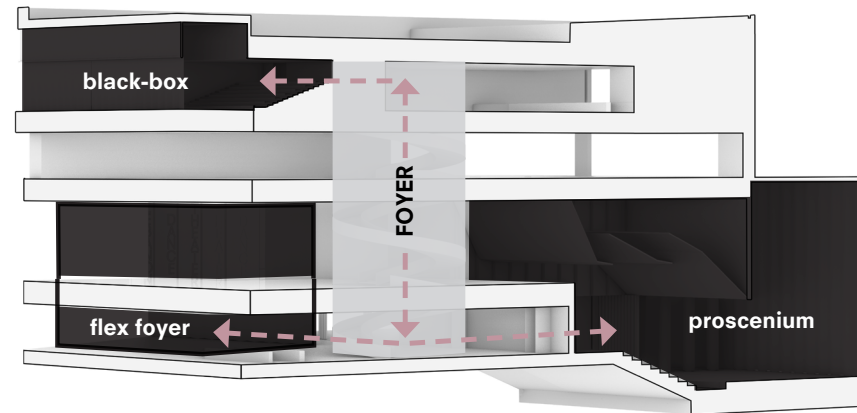
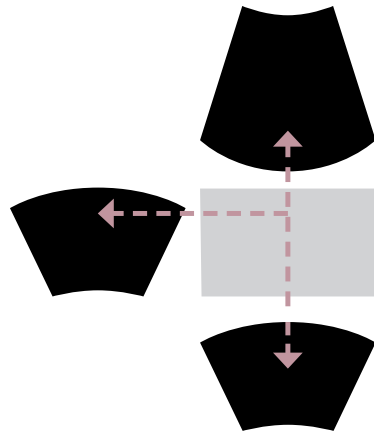


RPBW, PARCO DELLA
MUSICA, ITALY

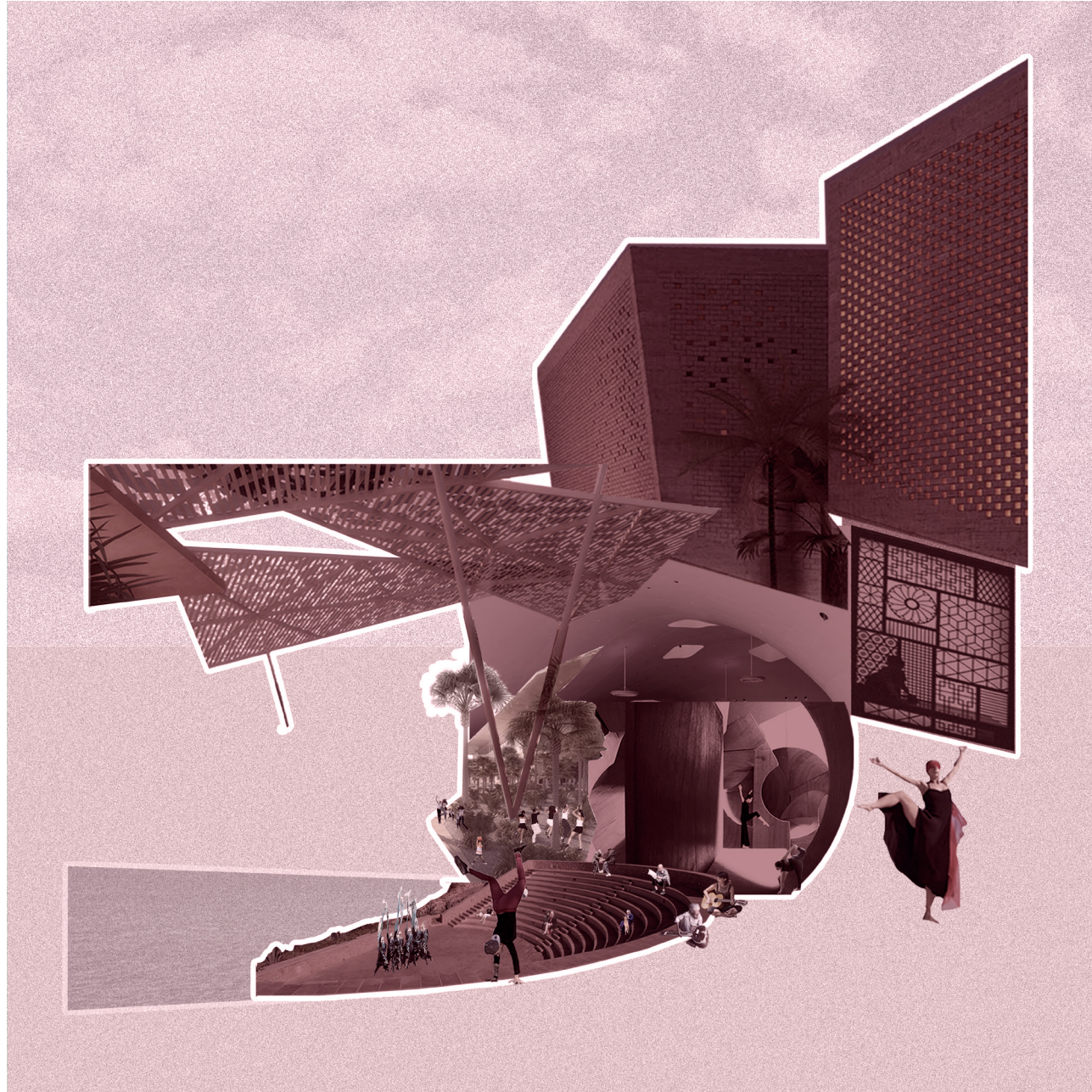
FOYER - AUDITORIUM RELATION IN PLAN

KEY

- podium
- foyer



program brief



SITE SELECTION

RAMLET ALBAIDA TIMELINE: FUTURE VISION



1950s

vibrant



2020s

neglected



2050s

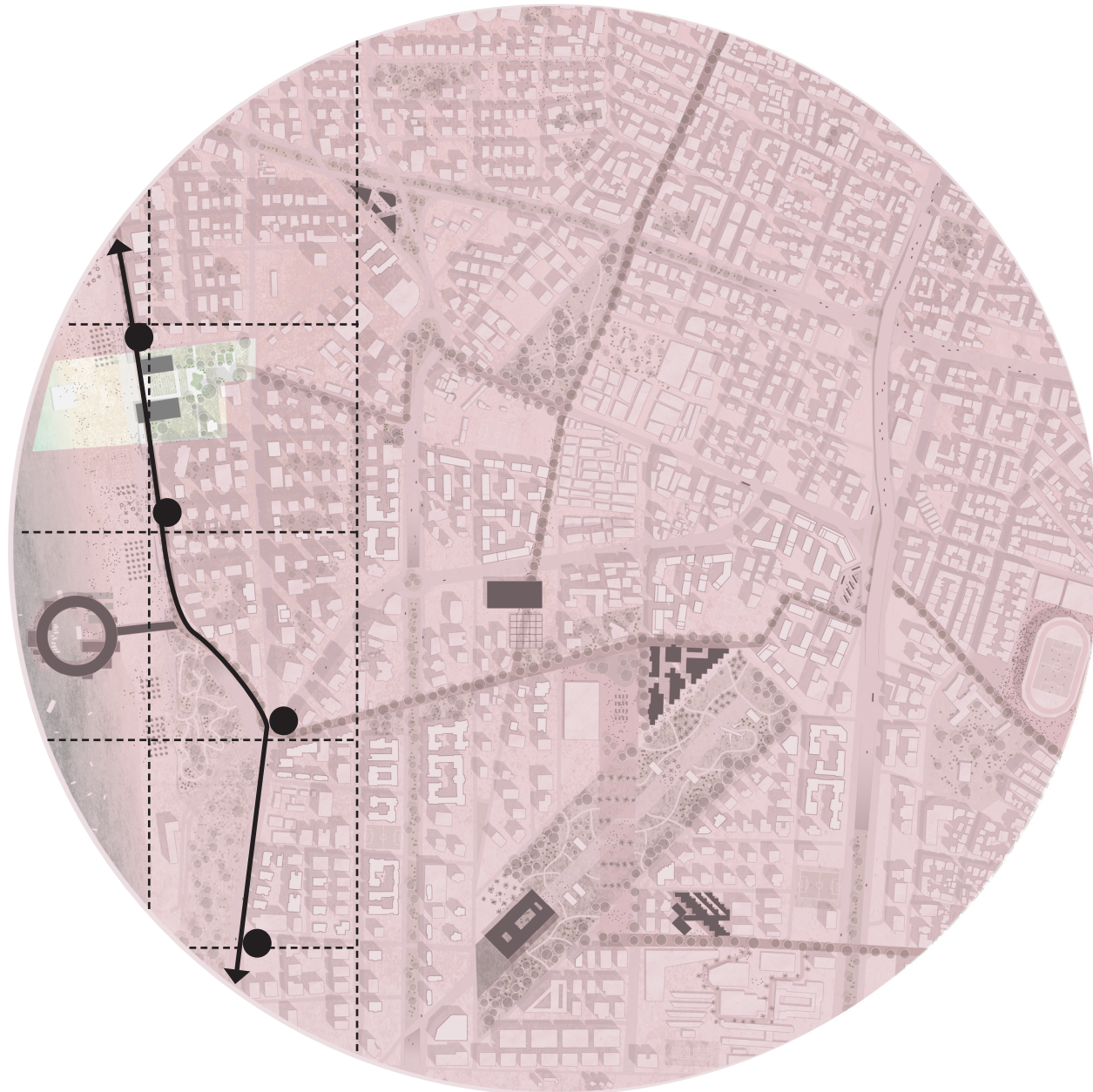
activation through public buildings

site selection
TRAFFIC



site selection

PARKING IN THE BEIRUT MOSAIC



site selection

SLOPE & DERELICT PARK



site selection
CONTEXT



0 10 30m

site plan

site selection

HIGHWAY, BEACH, VIEW TO THE SEA



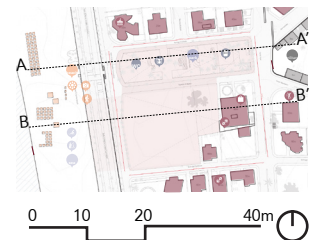
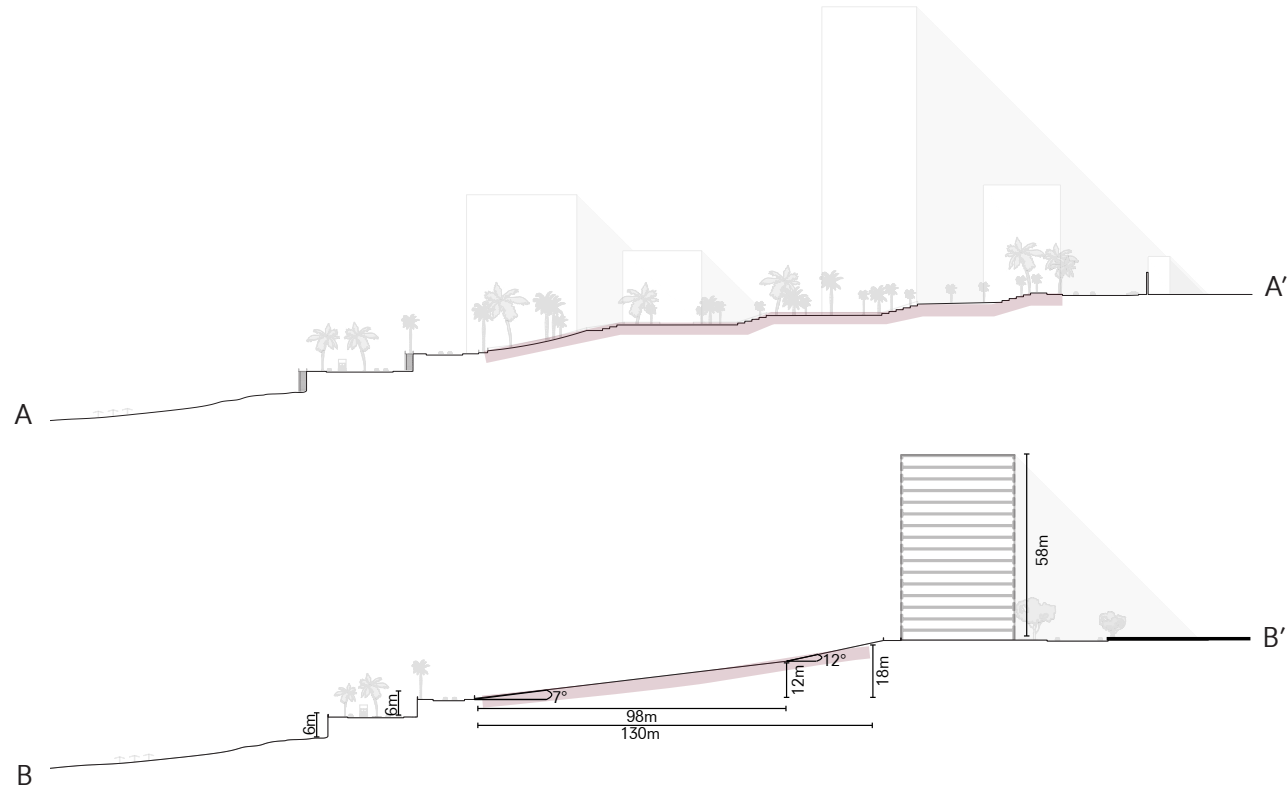
site selection

PLOT



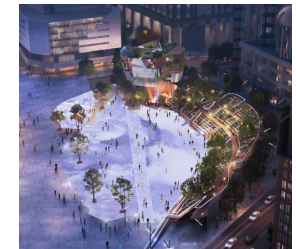
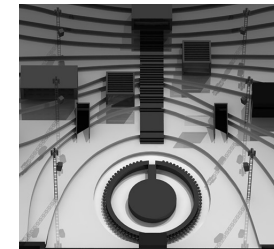
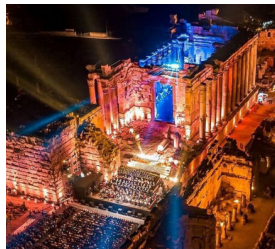
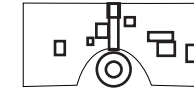
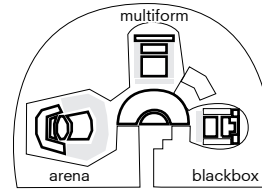
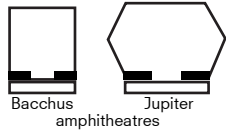
site selection

GROUND USE & TOPOGRAPHY



SITE REFERENCE

BENCHMARK AMPHITHEATRE / SQUARE



EPIDAURUS GREEK AMPHITHEATRE, GREECE, 4C. BC

BAALBEK ROMAN RUINS, LEBANON, 60 AD

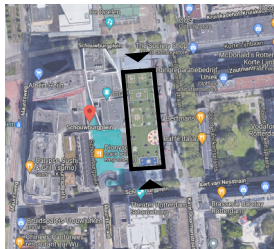
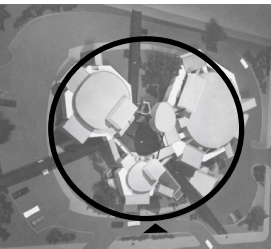
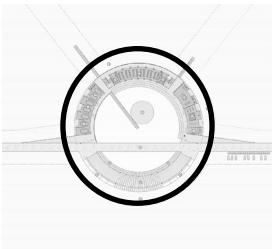
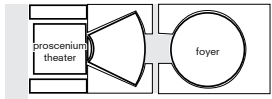
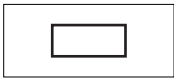
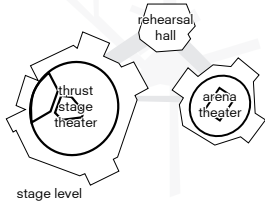
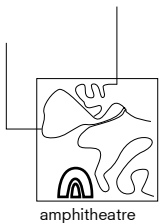
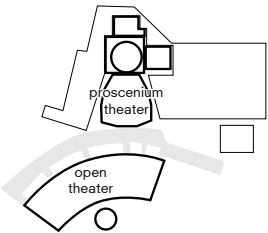
BYBLOS ROMAN AMPHITHEATRE, LEBANON, 3C. AD

PARCO DELLA MUSICA, ITALY 2002

PIER 7, BEIRUT 2009

CENTURY SQUARE, CHINA 202X

BENCHMARK FLOATING & PAVILION THEATRE



BREGENZER FESTIVAL HOUSE, AUSTRIA
1946

LITTLE ISLAND PIER
55, USA
2021

H2O EXPERIENCE CENTER, CHINA
202X

THEATER CENTER, OKLAHOMA
1970

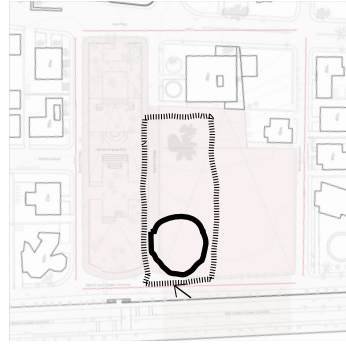
SCHOUWBURGPLEIN, ROTTERDAM
1996

APPLE PARK THEATER, CALIFORNIA
2017

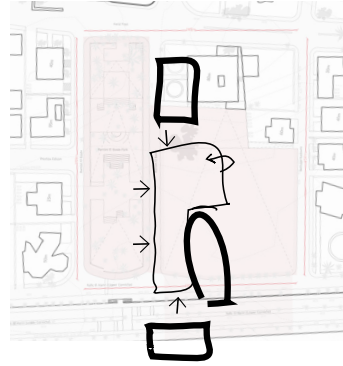
TESTING BENCHMARKS ON SITE



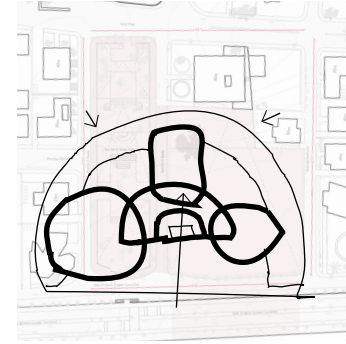
park pavilions



underground theater



theater square



central amphitheatre



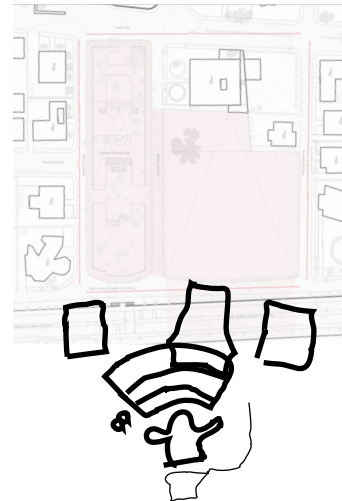
corniche amphitheatre



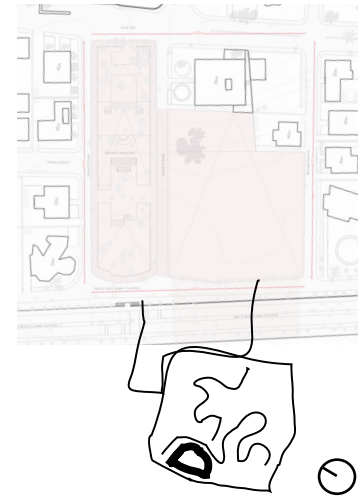
corniche amphitheatre



detached amphitheatre

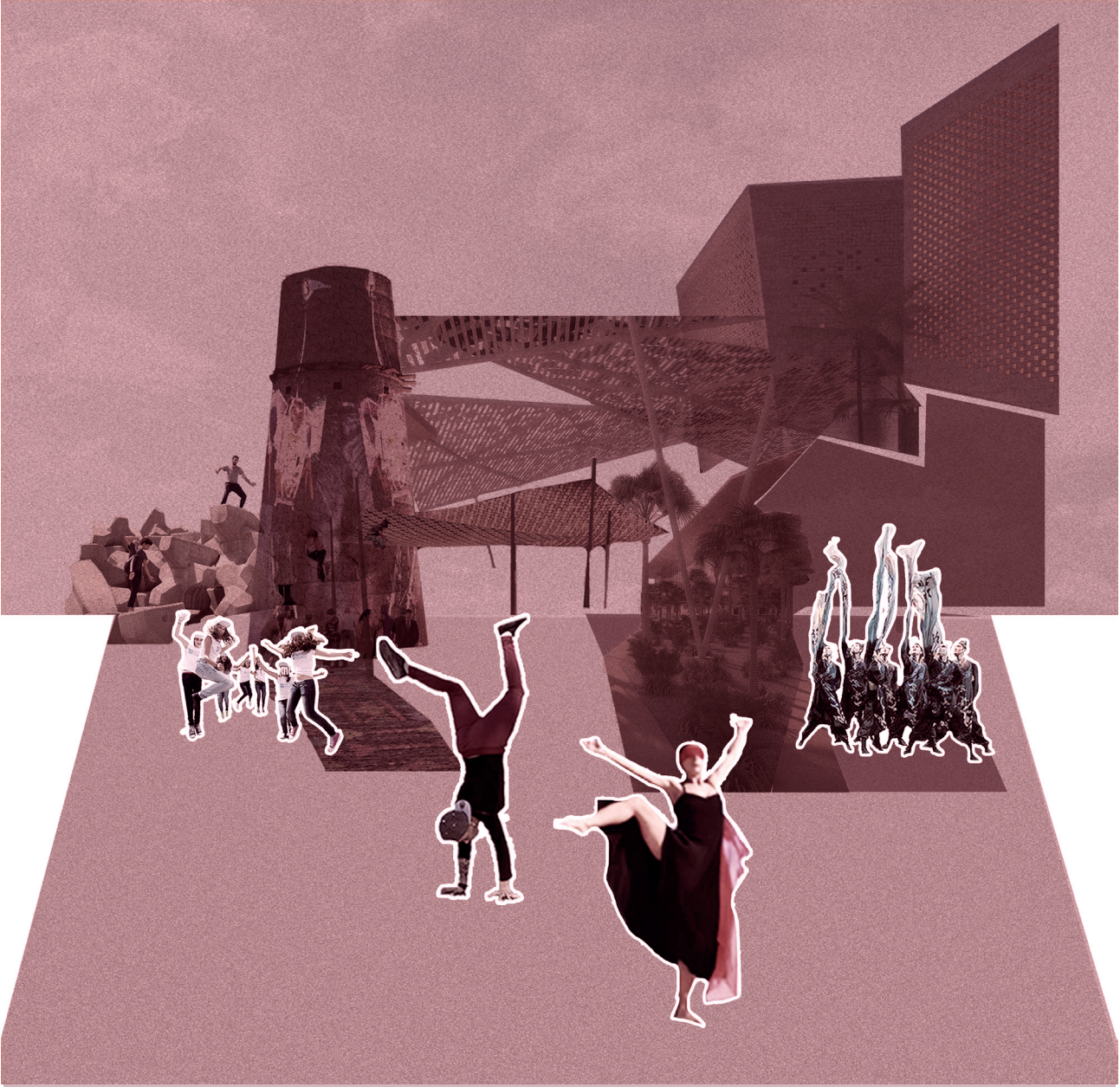


floating platform



floating platform

site brief



1. INTRODUCTION

2. RESEARCH SUMMARY

3. BRIEF

4. CONCEPT

5. ARCHITECTURAL DESIGN

6. ARCHITECTURAL ENGINEERING

7. CONCLUSION

concept

PLAY OF CONTRASTS



concept

PLAY OF CONTRASTS



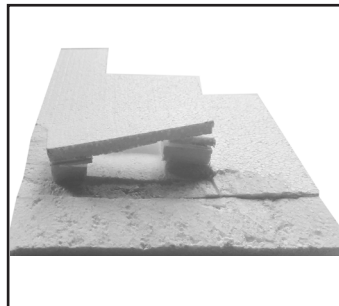
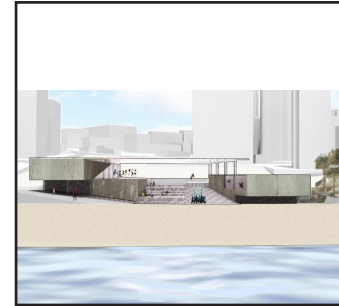
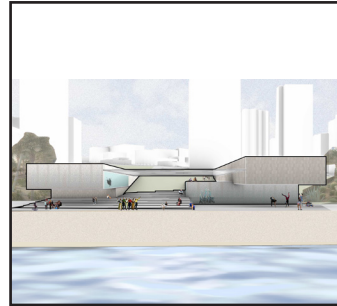
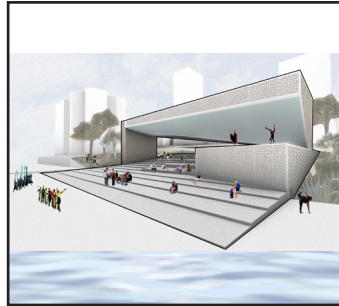
concept

PLAY OF CONTRASTS



concept

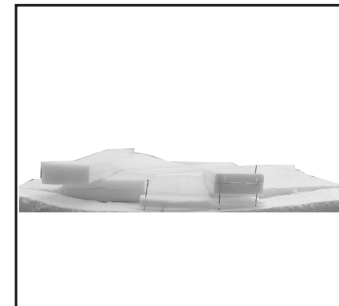
MASSING STUDIES



GATE



LINKER



HYBRID LINKER

AMBITION

ambition

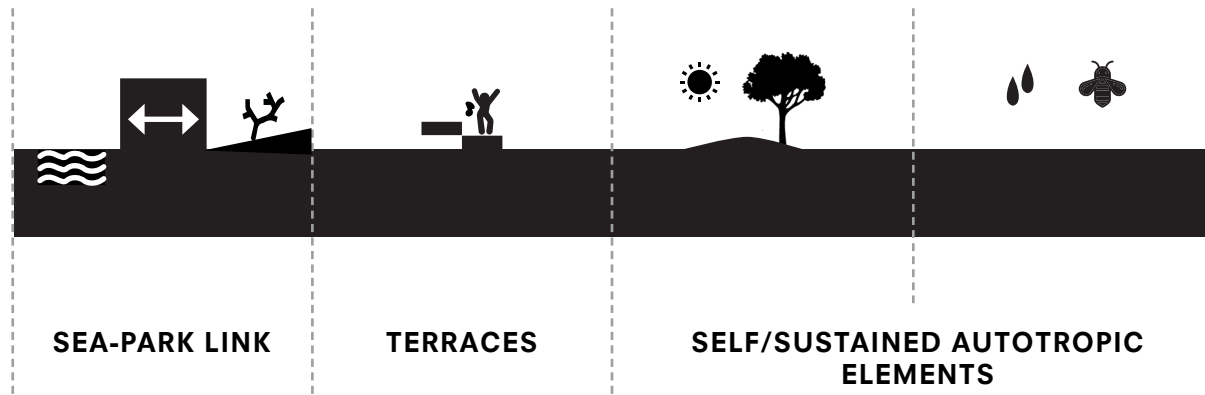
URBAN & LANDSCAPE



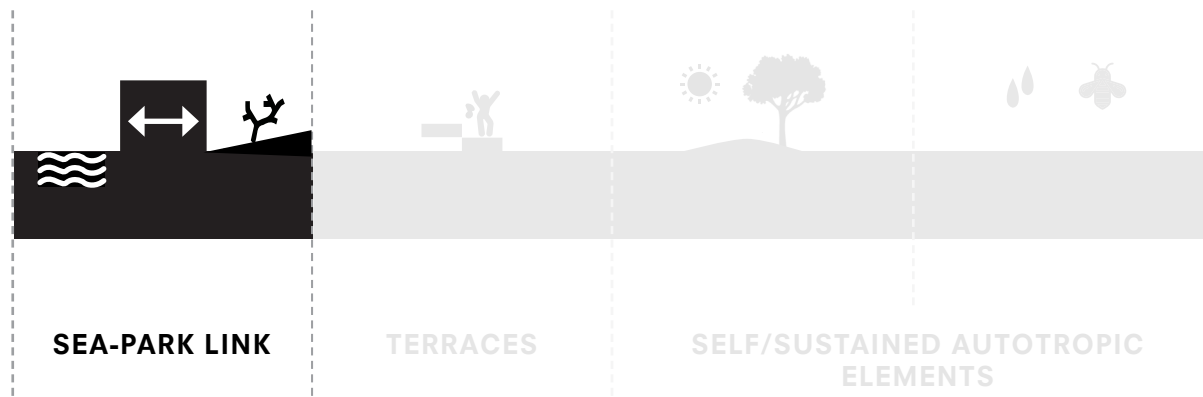
NECESSITY TO VIRTUE

ambition

URBAN & LANDSCAPE



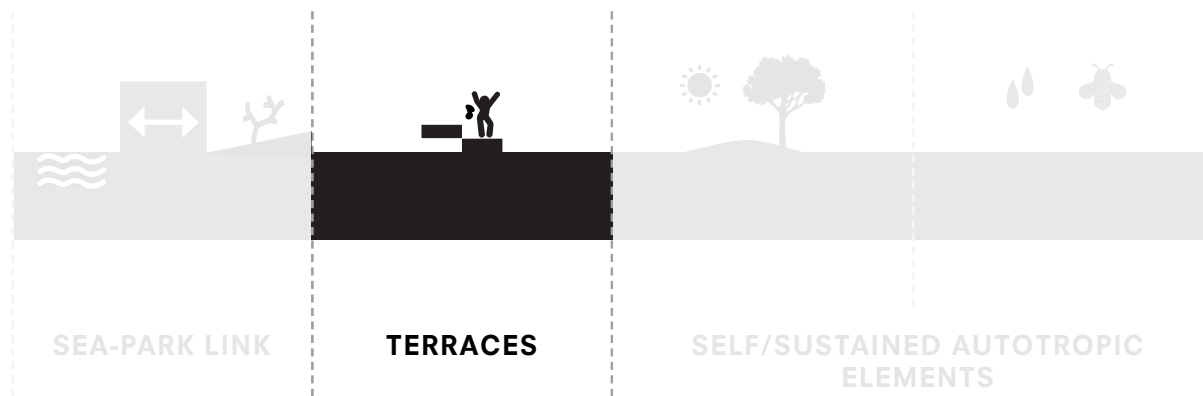
URBAN & LANDSCAPE



- enhance **public use within area of 'legal intervention'**, between first line of construction and water

ambition

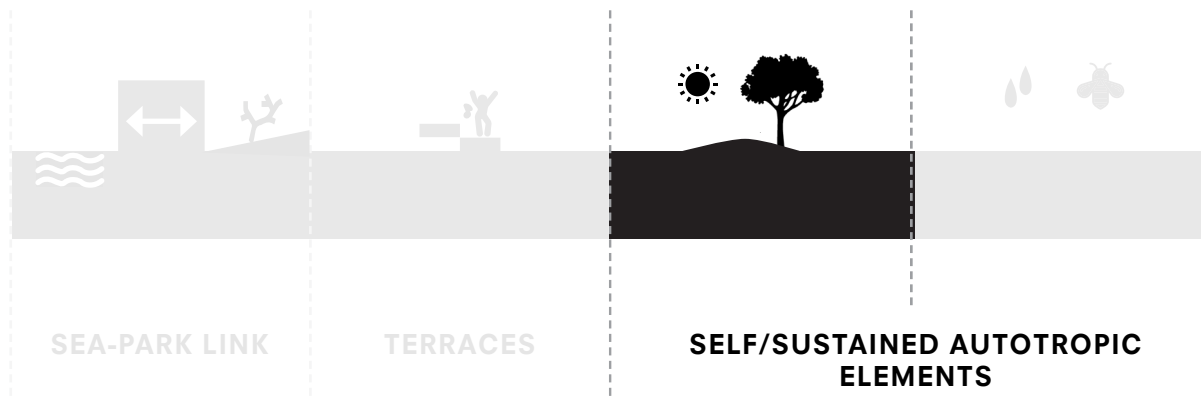
URBAN & LANDSCAPE



- Break topography w. defined terraces to encourage free activities

ambition

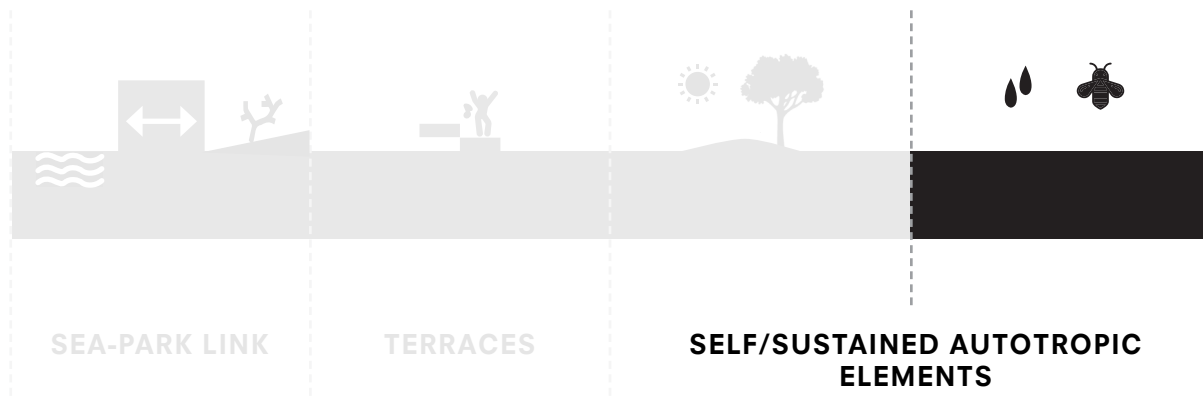
URBAN & LANDSCAPE



- Irrigated with Recycled graywaters to irrigate **sprinkler fountain + drought resistant plants**

ambition

URBAN & LANDSCAPE



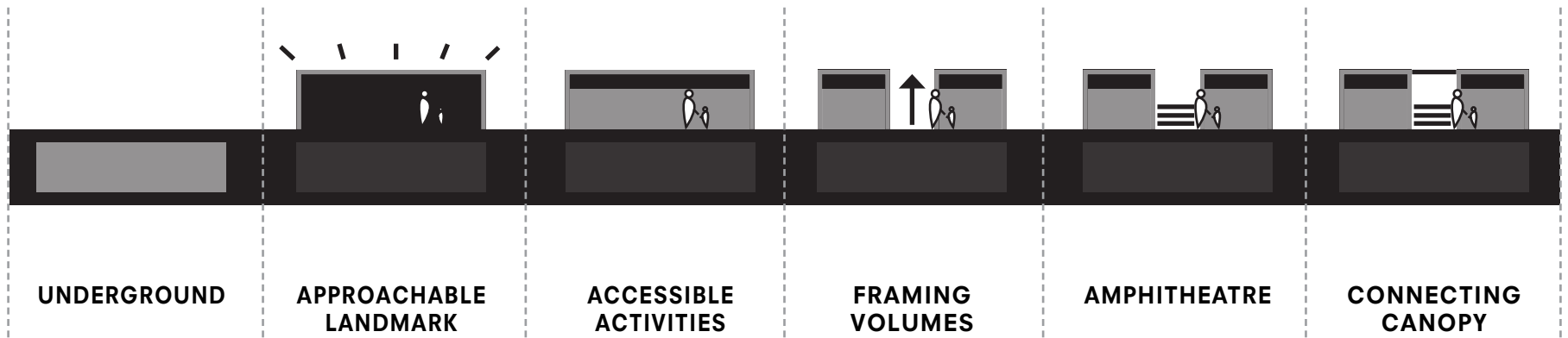
- **Evaporative cooling, shadow, nesting of endemic species** birds, bees and butterflies

ambition

ARCHITECTURE

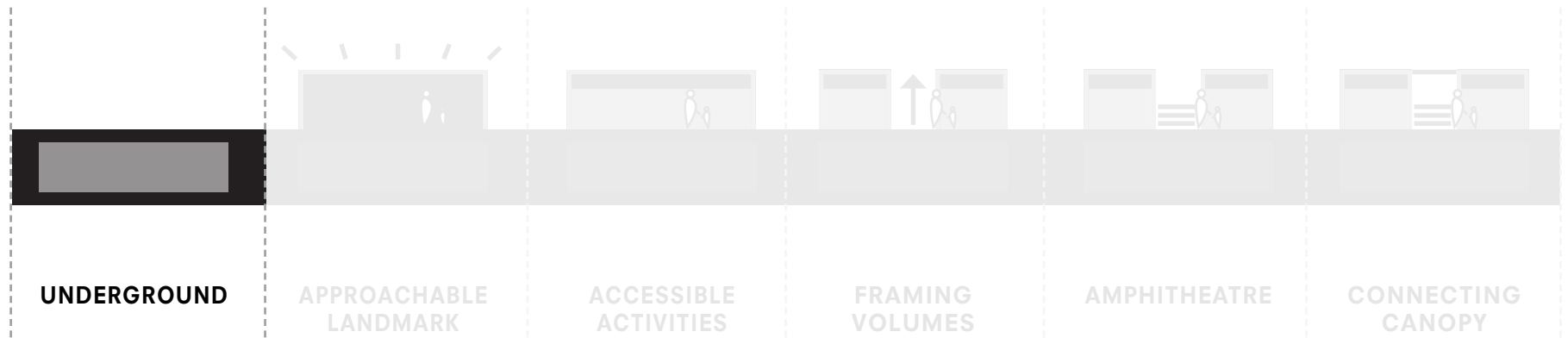


ambition
ARCHITECTURE



ambition

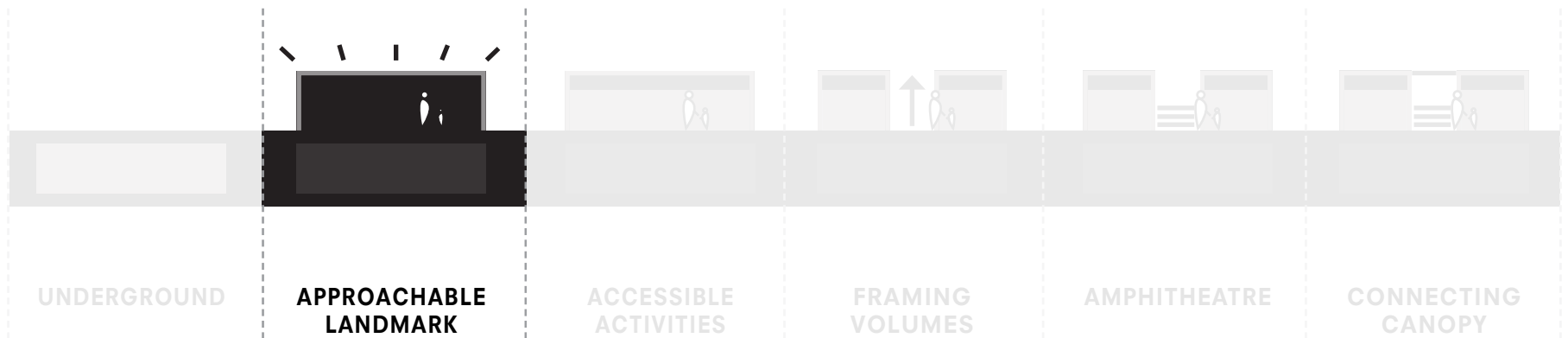
ARCHITECTURE



- Inspired by the **local tradition** to facilitate contact between **audience & performers**

ambition

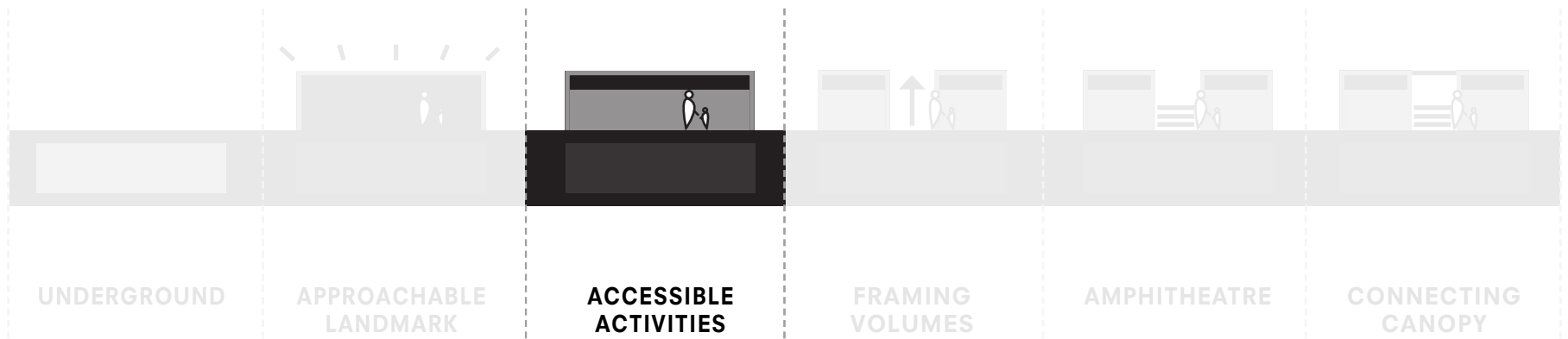
ARCHITECTURE



- **Horizontality**
counteracts
context's alienating
verticality of
surrounding
apartment towers
- **Translucent**
limestone facade
**lightens heavy
monolith** of
traditional
limestone public
buildings

ambition

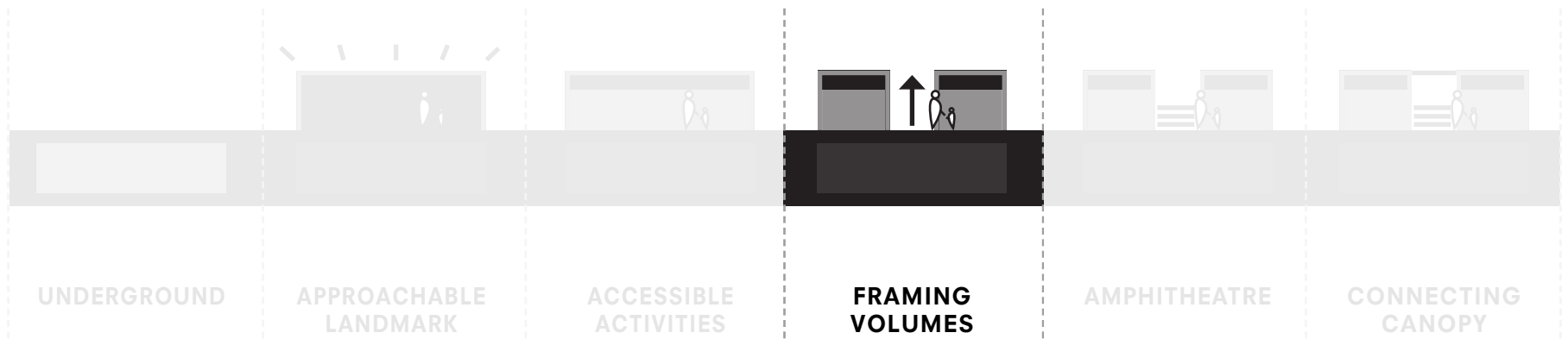
ARCHITECTURE



- **overhang / large opening** to identify entrances

ambition

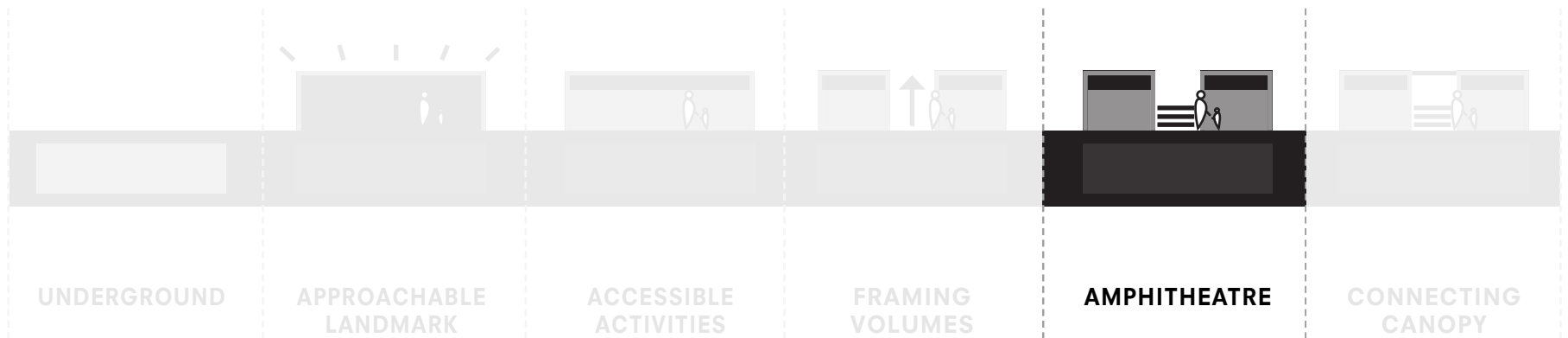
ARCHITECTURE



- Like **cliffs** emerging from the landscape, reflect **distinct functions**
- Framed view between beach & park

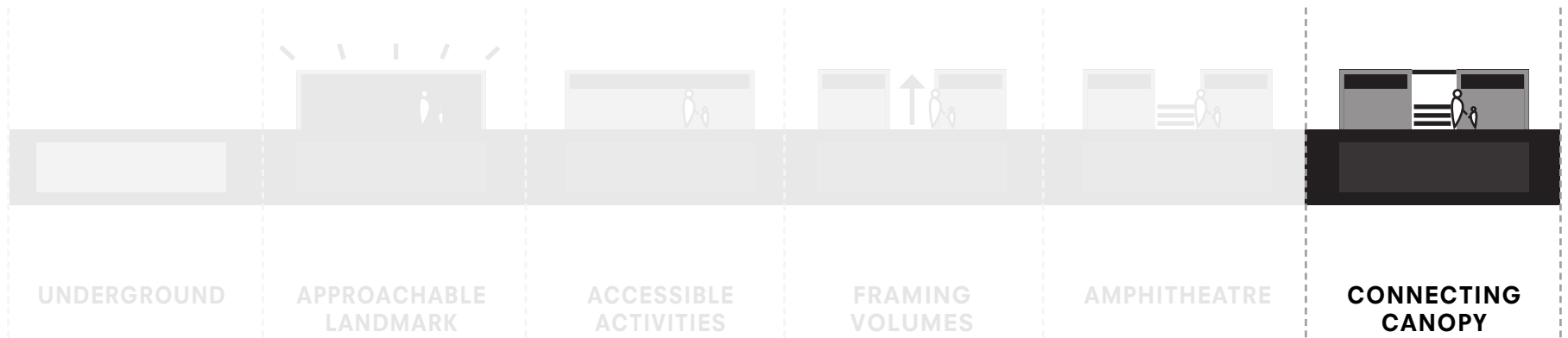
ambition

ARCHITECTURE



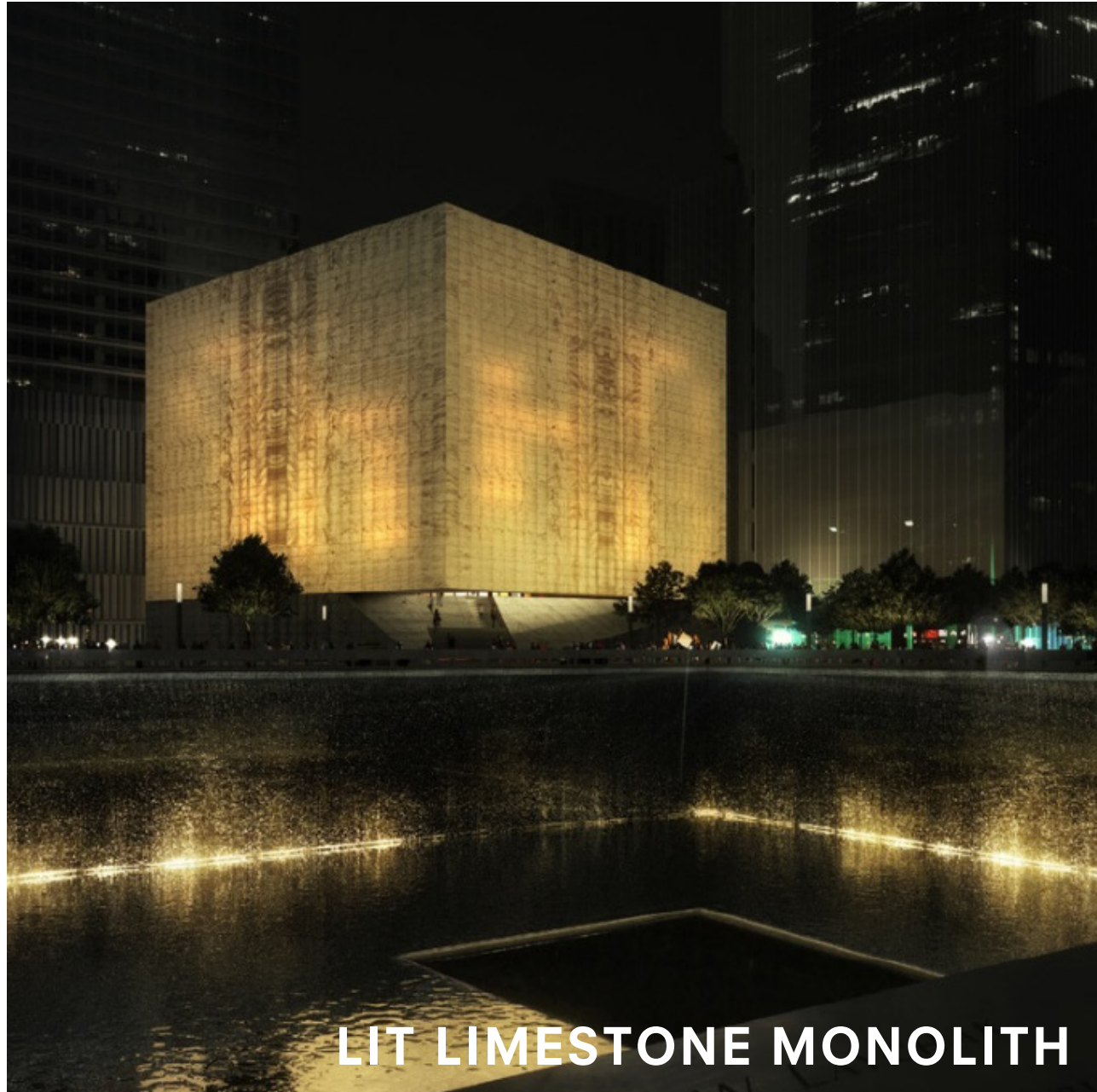
- Linking space activated by **planned and unplanned dance activities & events**
- **Space for people in the center** humanises intervention

ambition
ARCHITECTURE



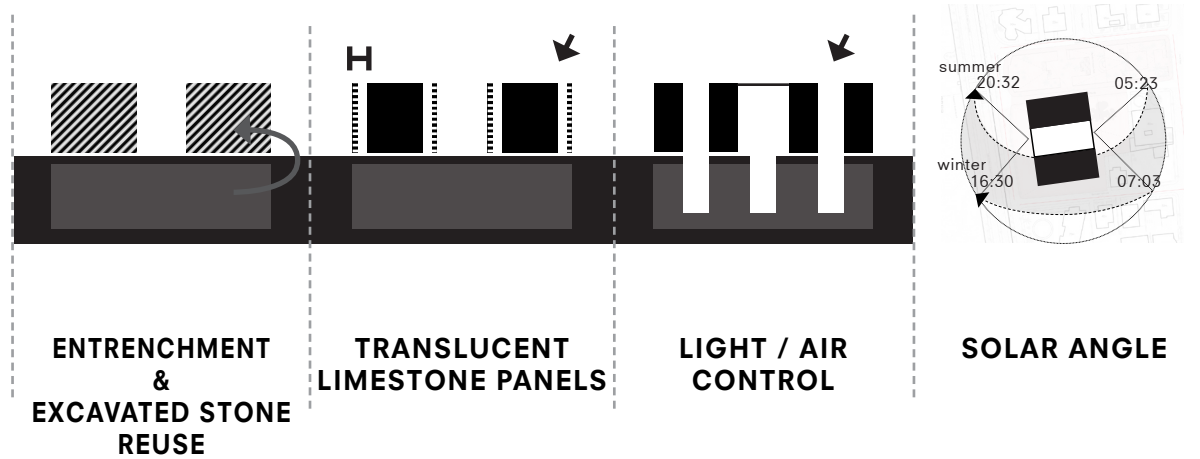
- **Shade + hanging** of dance performance tools / lighting

ambition
ENGINEERING



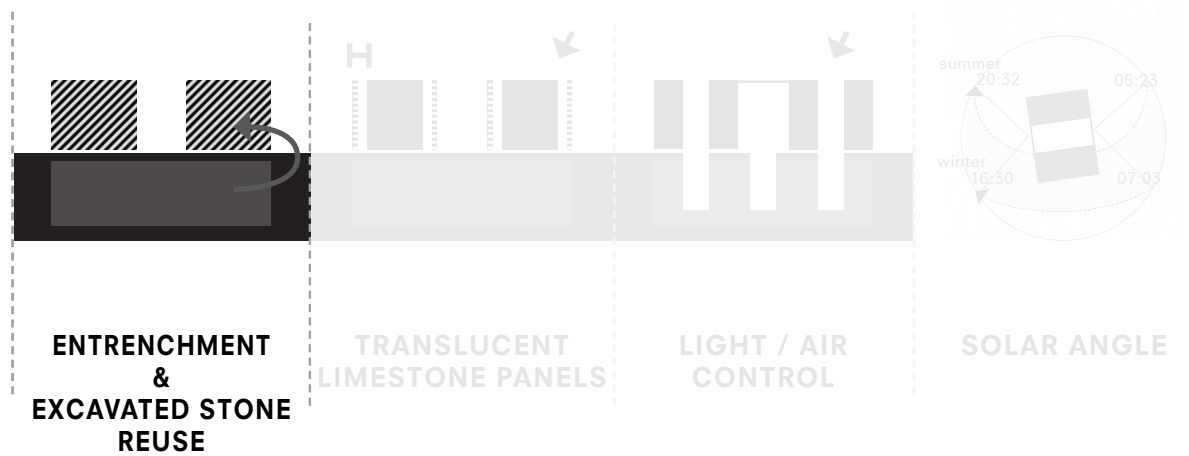
LIT LIMESTONE MONOLITH

ambition
ENGINEERING



ambition

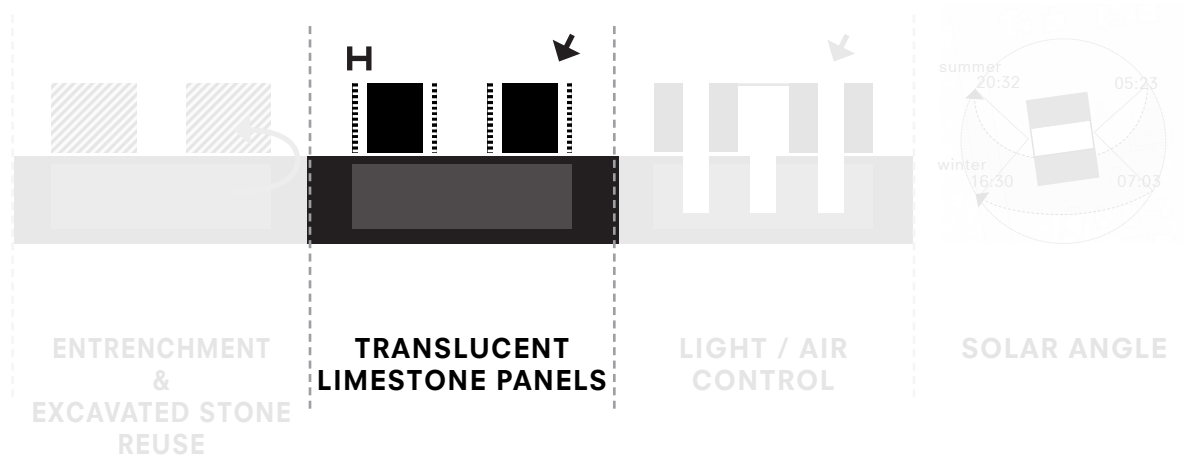
ENGINEERING



- Stability + thermal mass
- **Close ground balance** + material economy from **local manufacture & expertise**

ambition

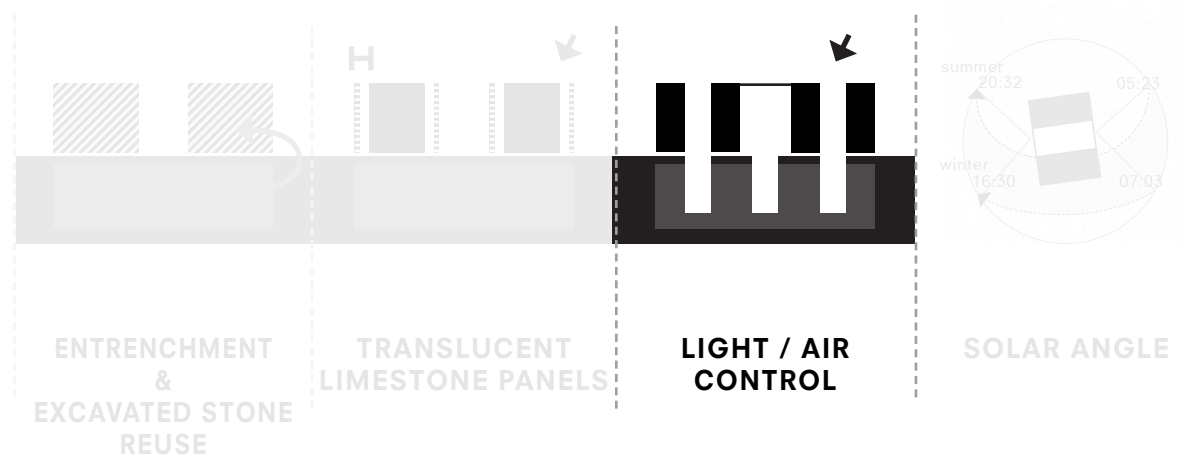
ENGINEERING



- **Ventilated**
gap wall panels
of translucent
limestone to allow
light and ventilation
while mitigating
temperature

ambition

ENGINEERING

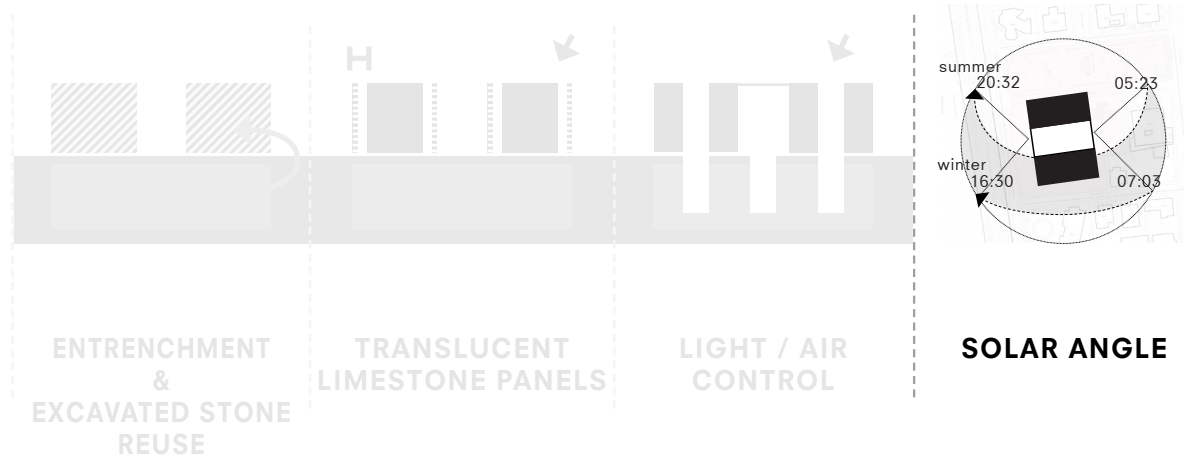


- Atrium in each volume for **natural light channels**

- **Central canopy to reduce heat gain and glare** in amphitheatre & studios

ambition

ENGINEERING

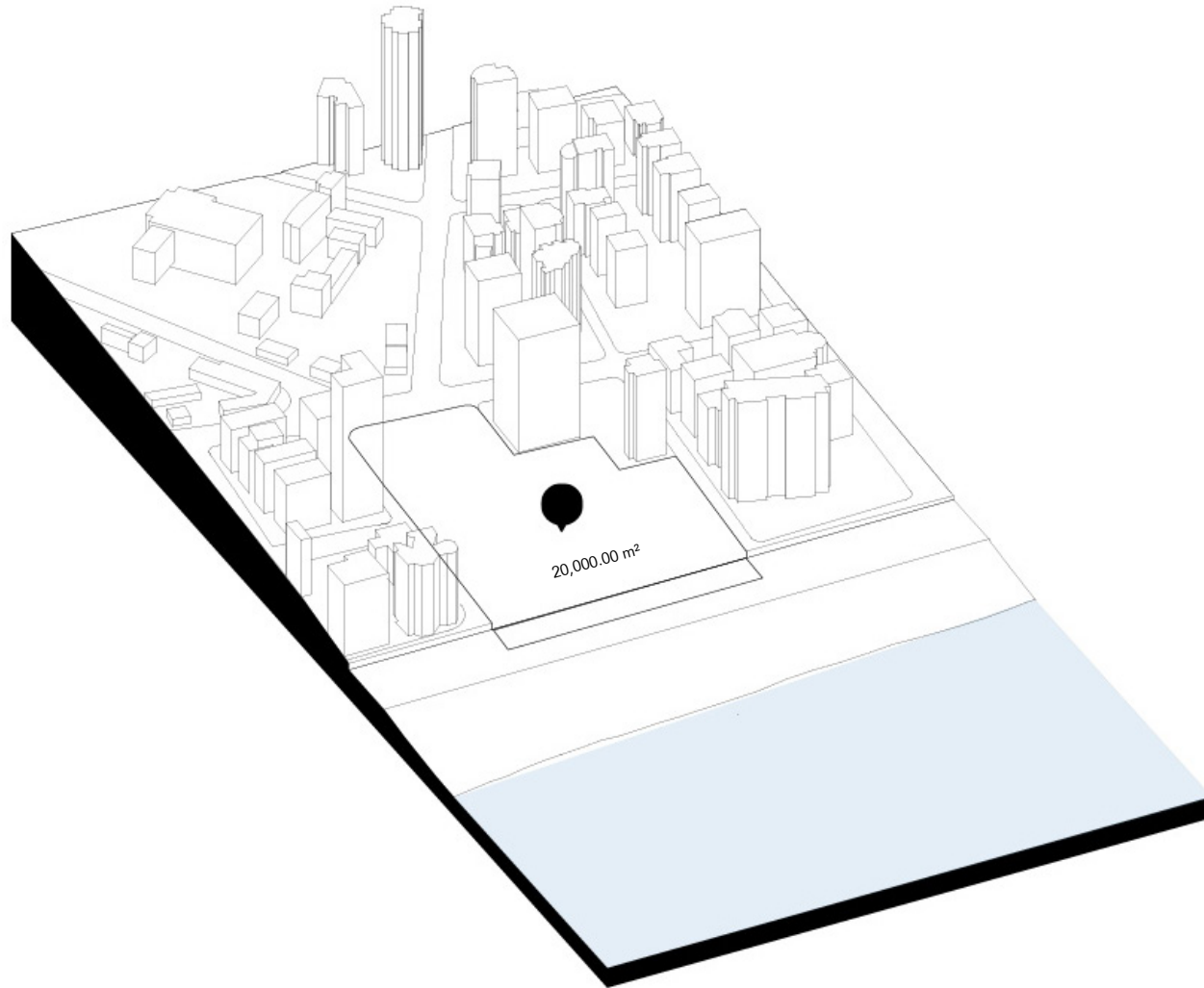


- **Canopy filters sun rays** in the hottest hours

- Morning / evening sun rays can be filtered with curtains

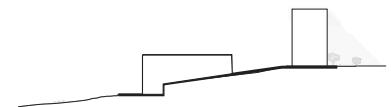
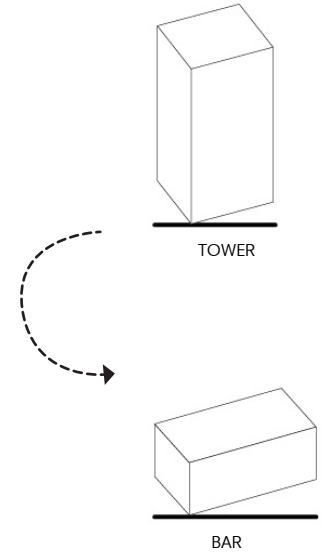
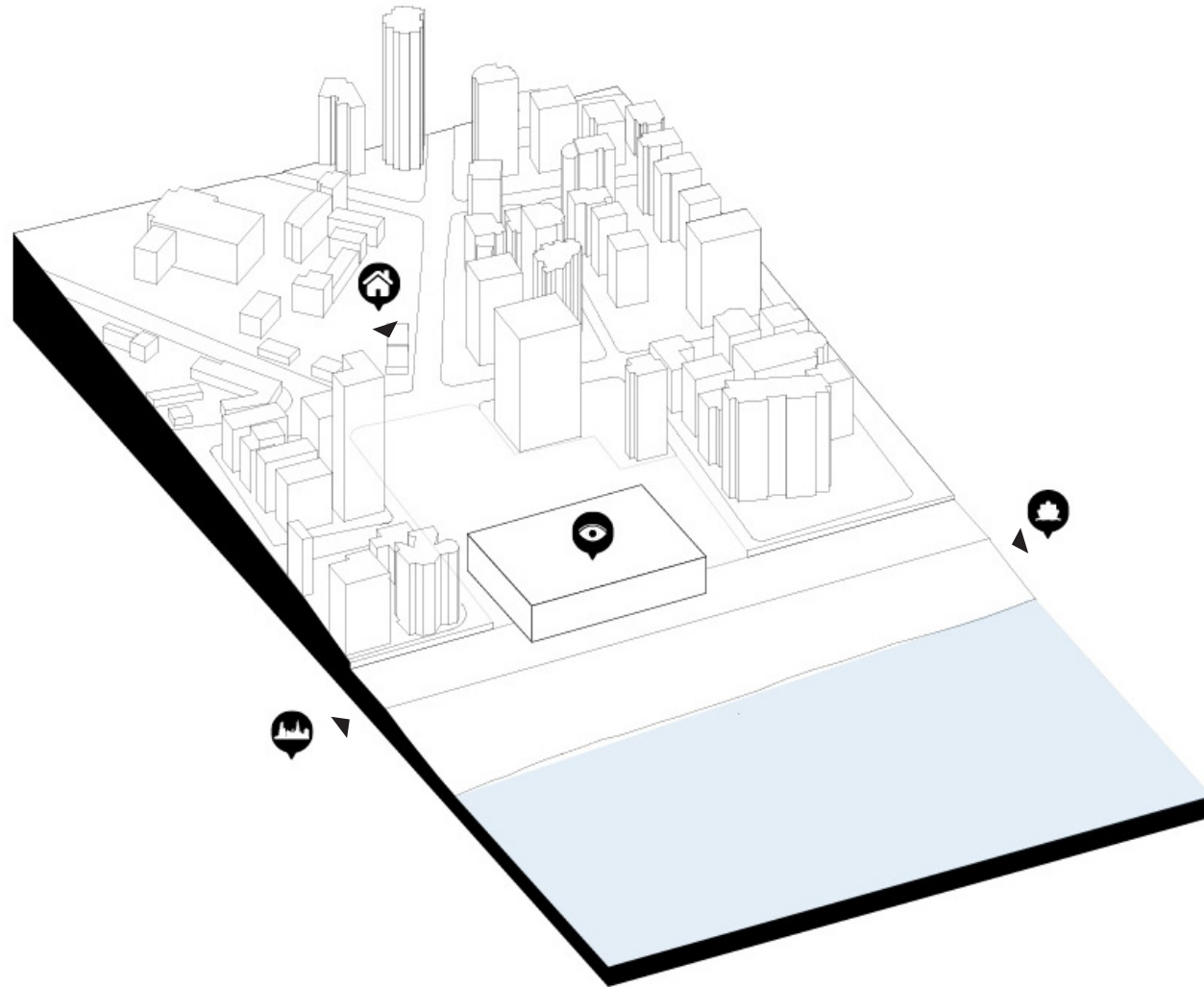
STRATEGY

strategy
PLOT

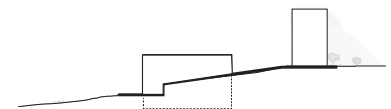
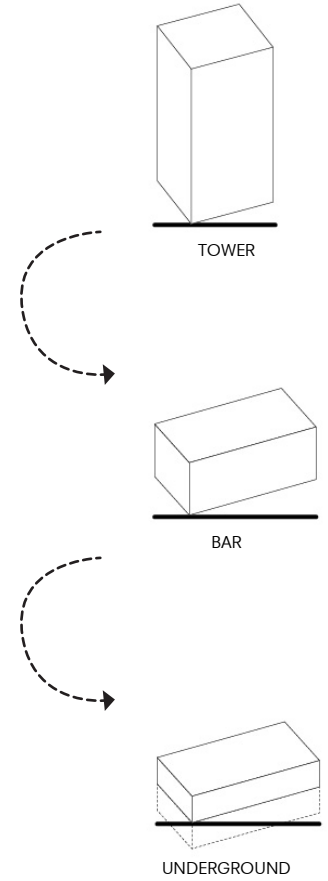
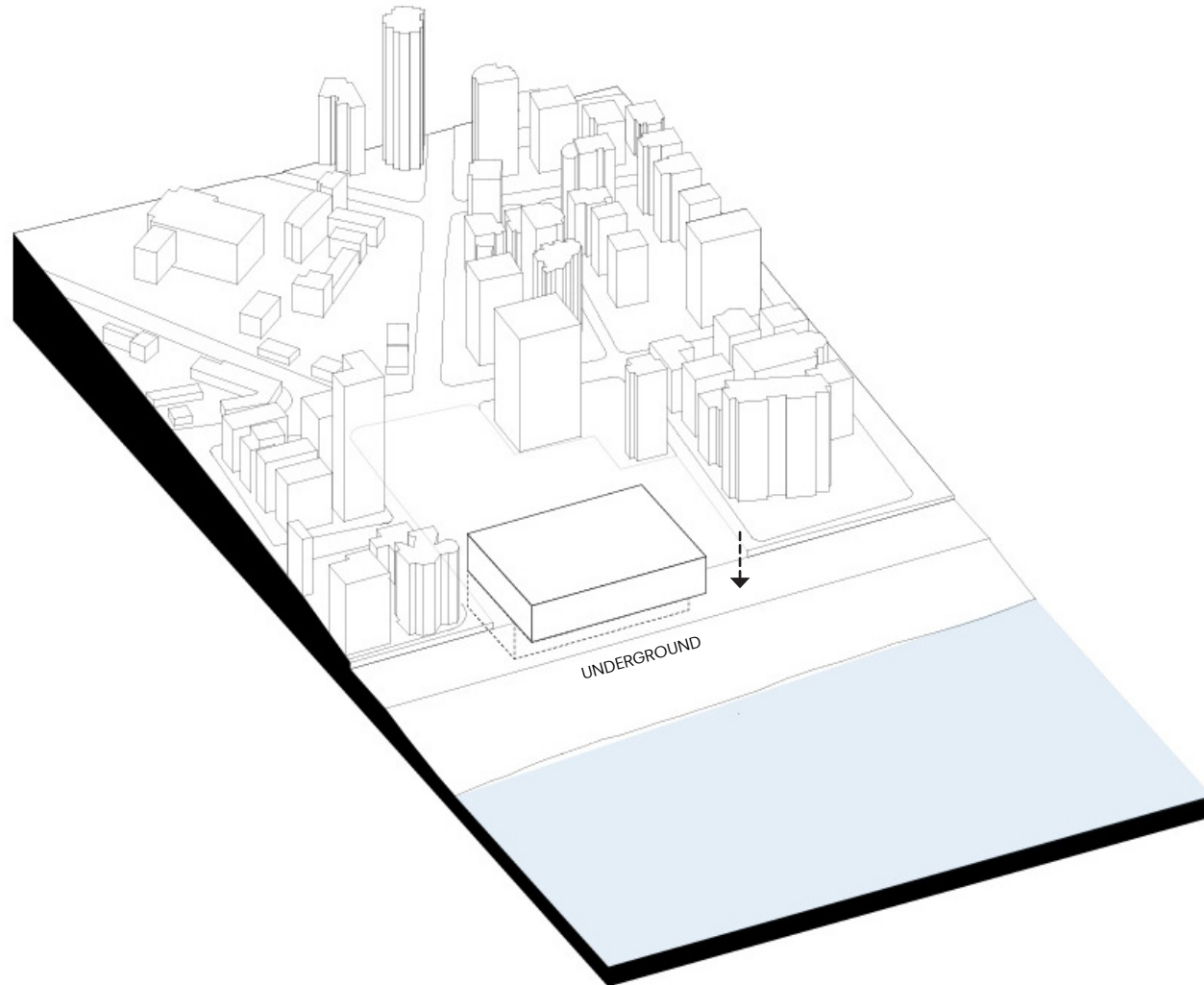


strategy

ALIGNEMENT & VIEWS

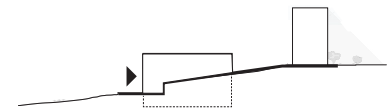
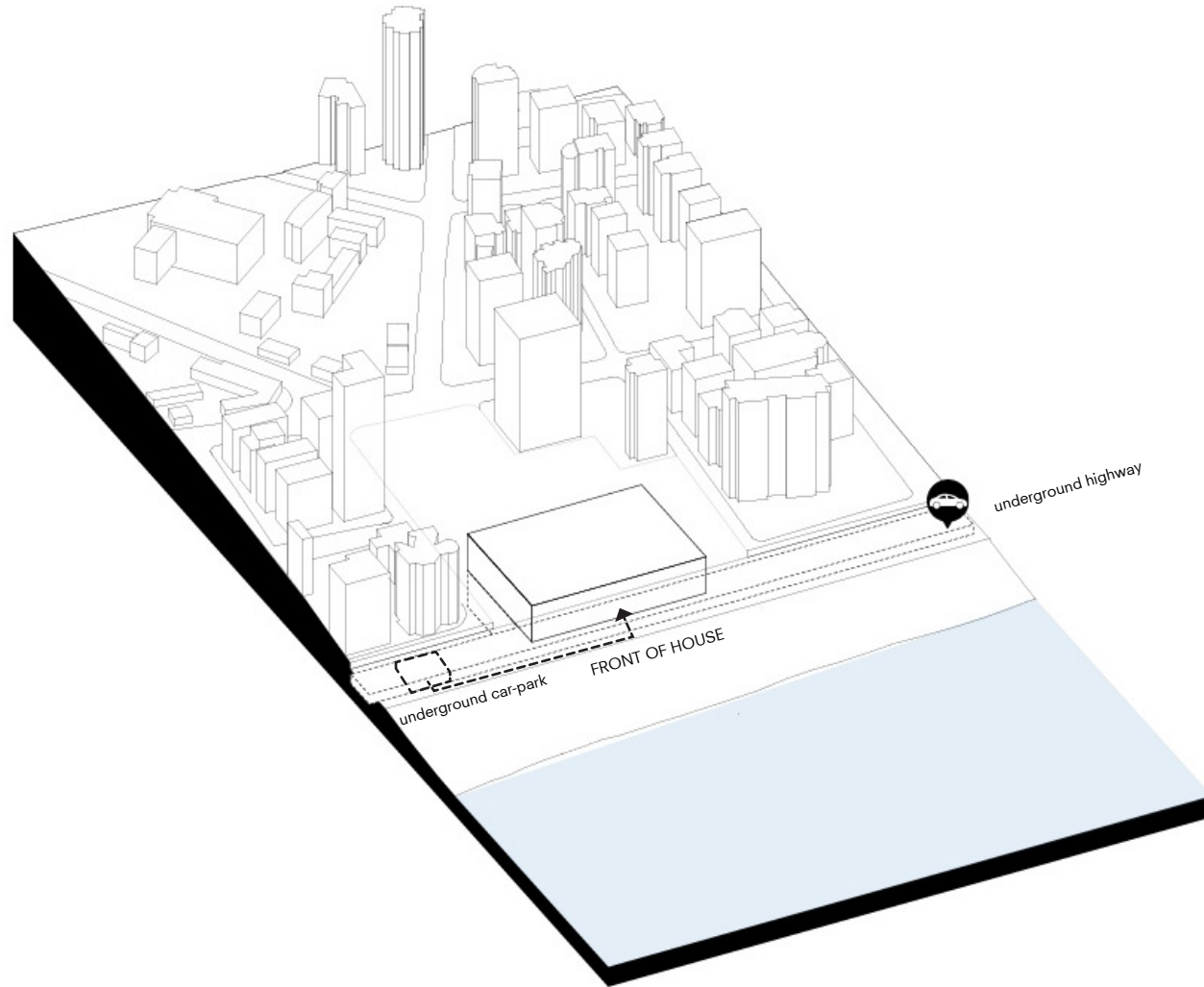


strategy
UNDERGROUND



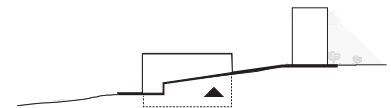
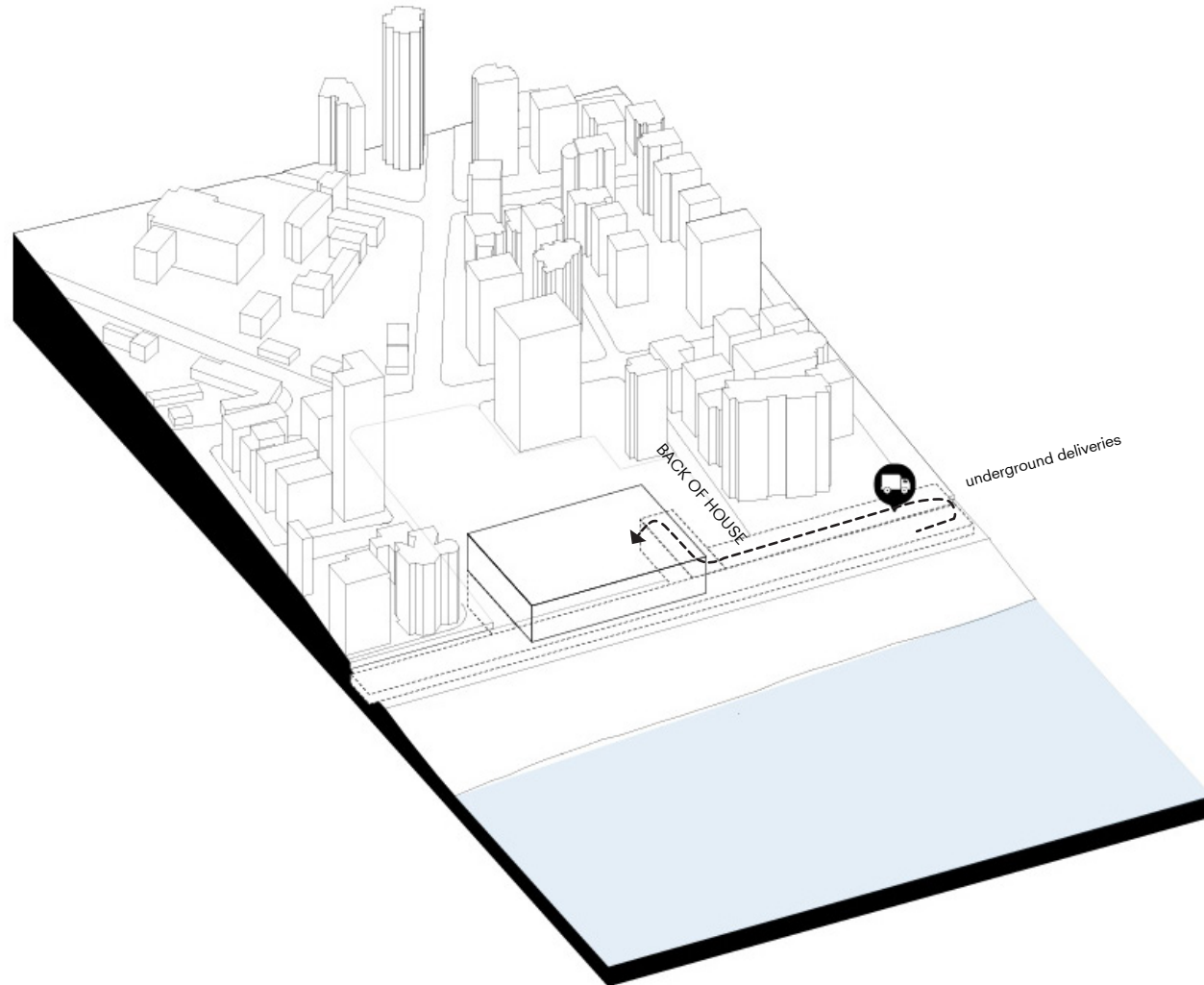
strategy

VEHICULAR ACCESS



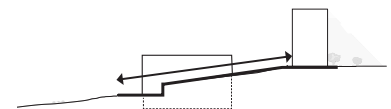
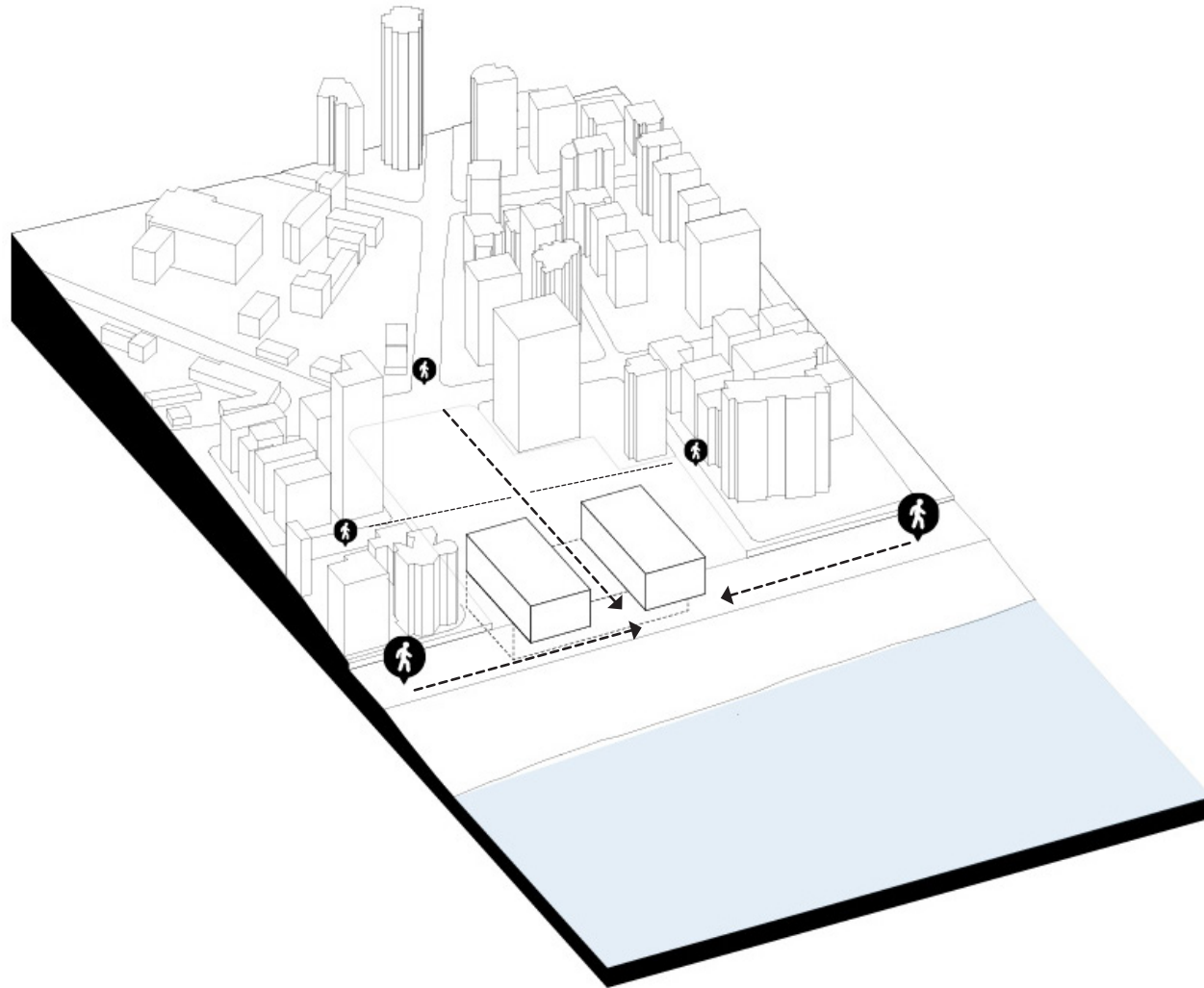
strategy

VEHICULAR ACCESS

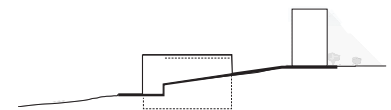
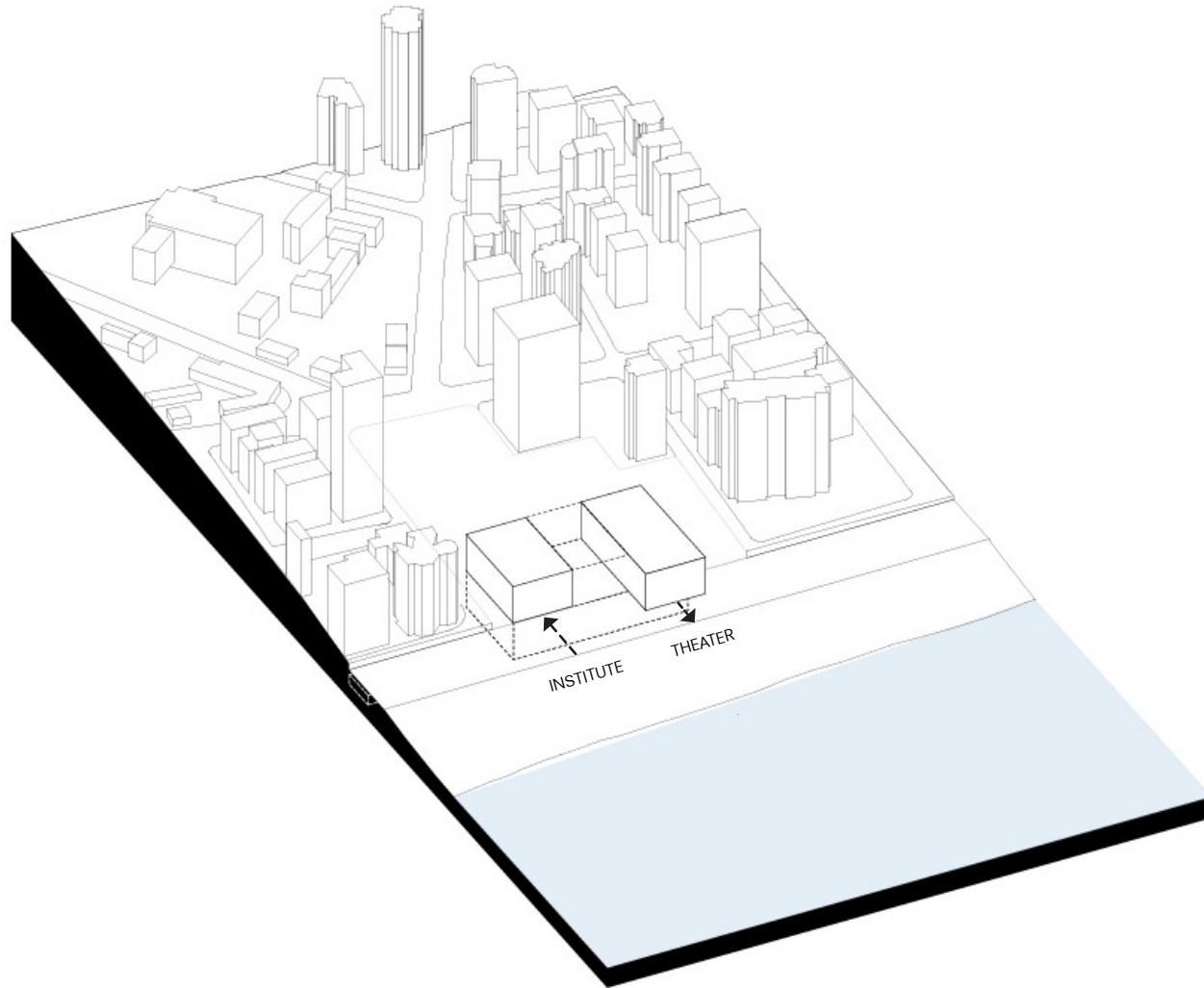


strategy

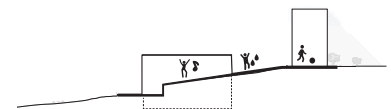
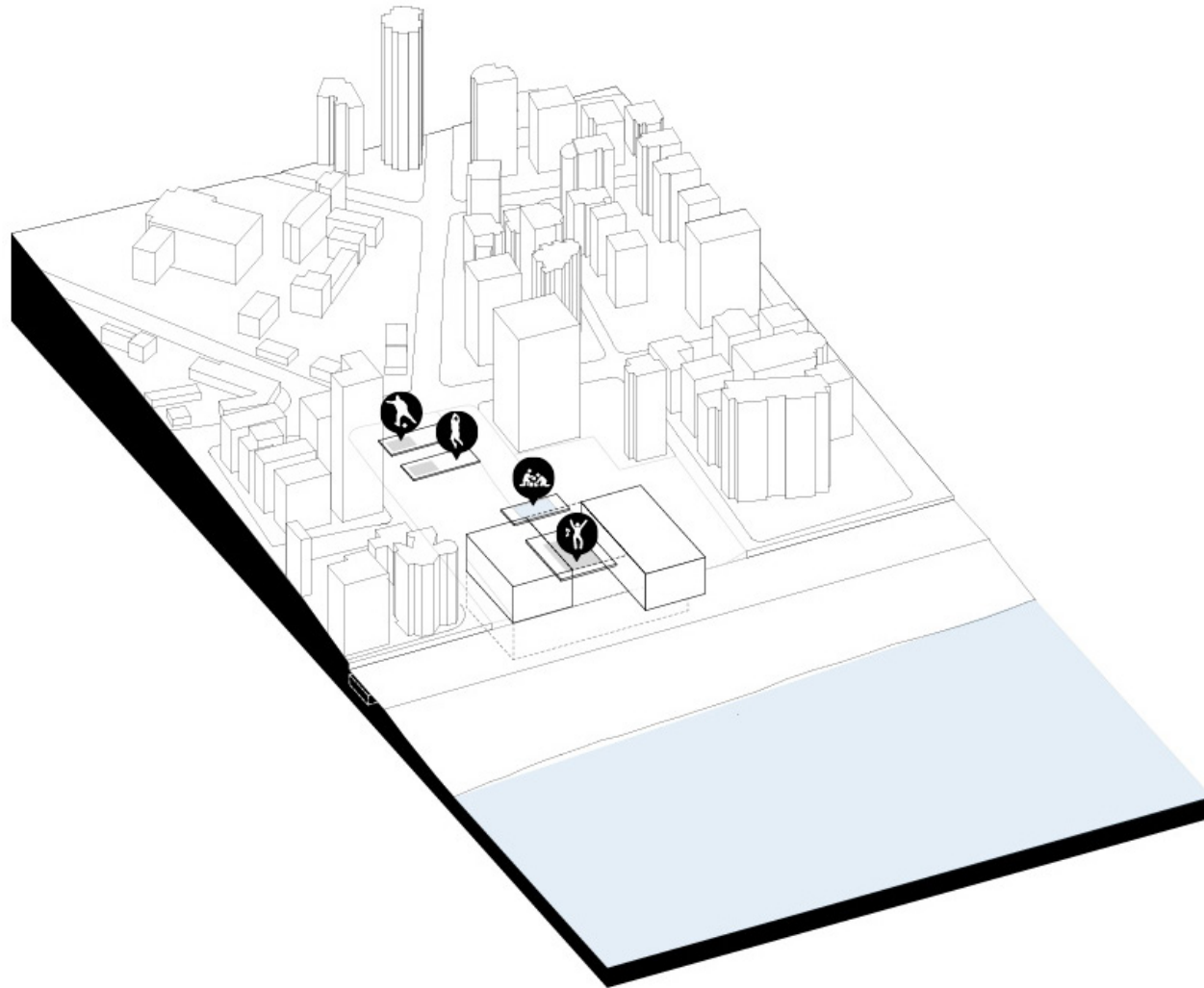
PEDESTRIAN ACCESS



strategy
CANOPY

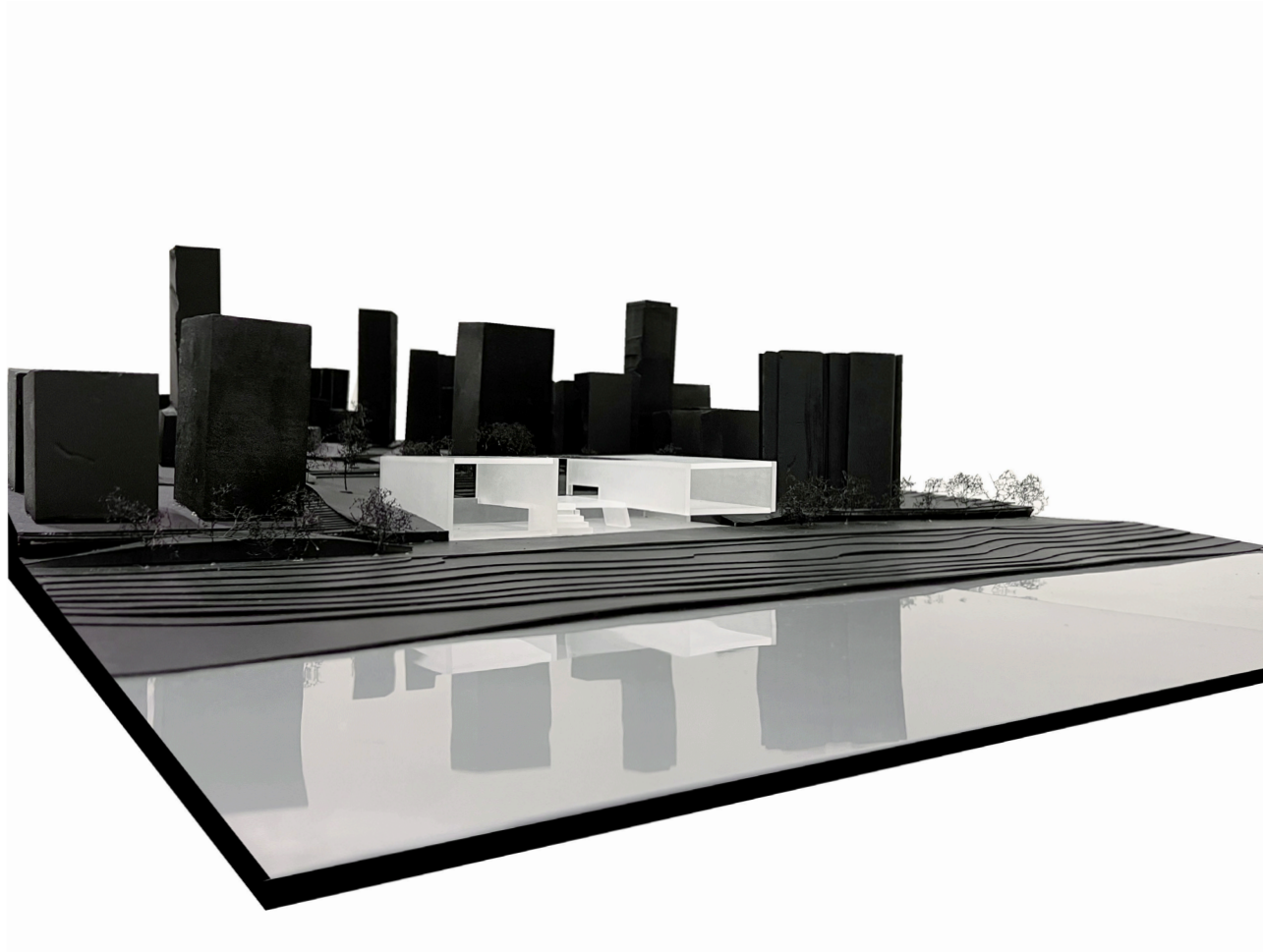


strategy
TERRACES



strategy

1.500 MODEL DAY



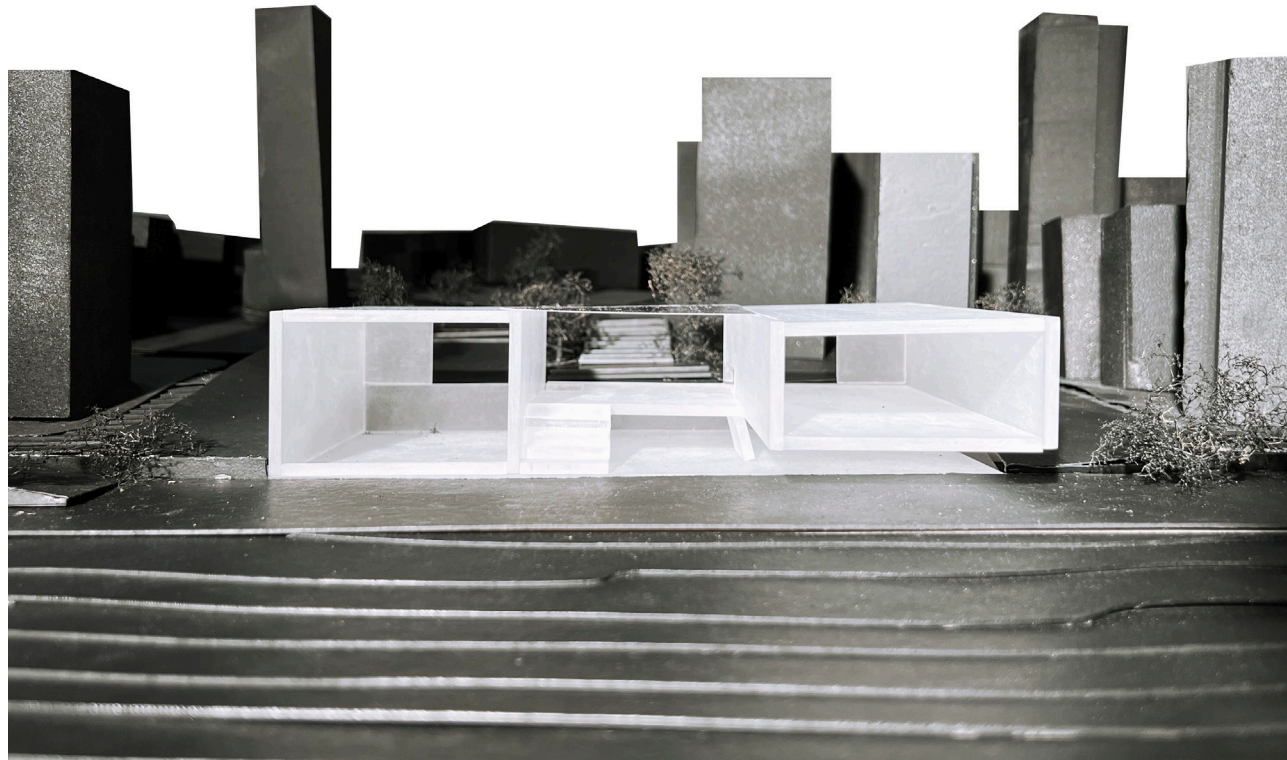
strategy

1:500 MODEL NIGHT



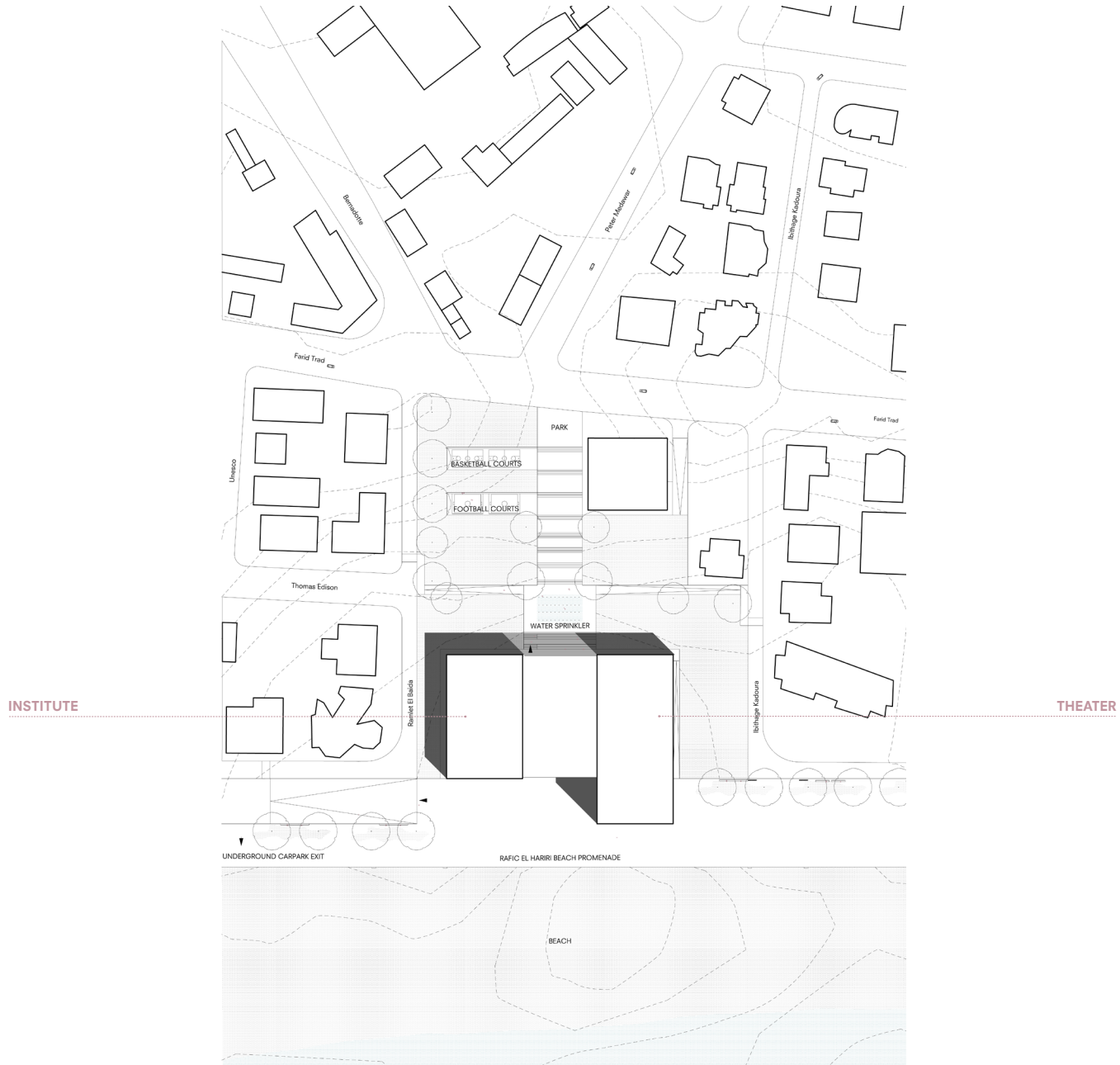
strategy

1:500 MODEL BEACH VIEW



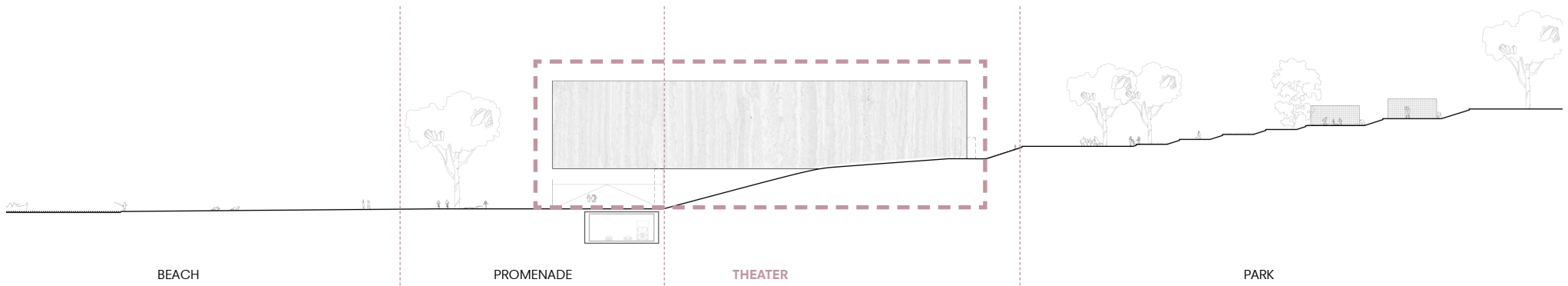
strategy

SITE PLAN



strategy

SITE ELEVATION



1. INTRODUCTION

2. RESEARCH SUMMARY

3. BRIEF

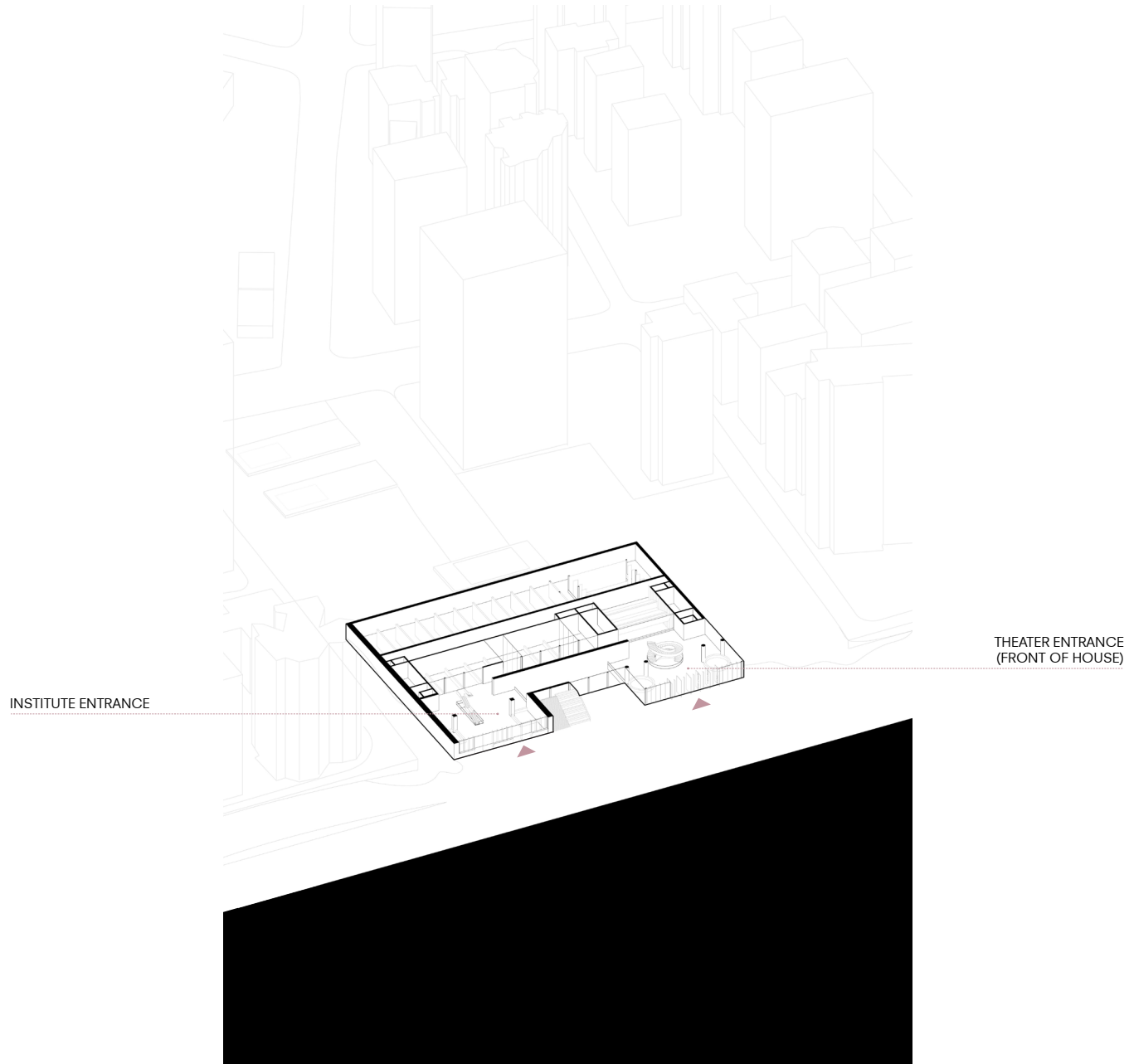
4. CONCEPT

5. ARCHITECTURAL DESIGN

6. ARCHITECTURAL ENGINEERING

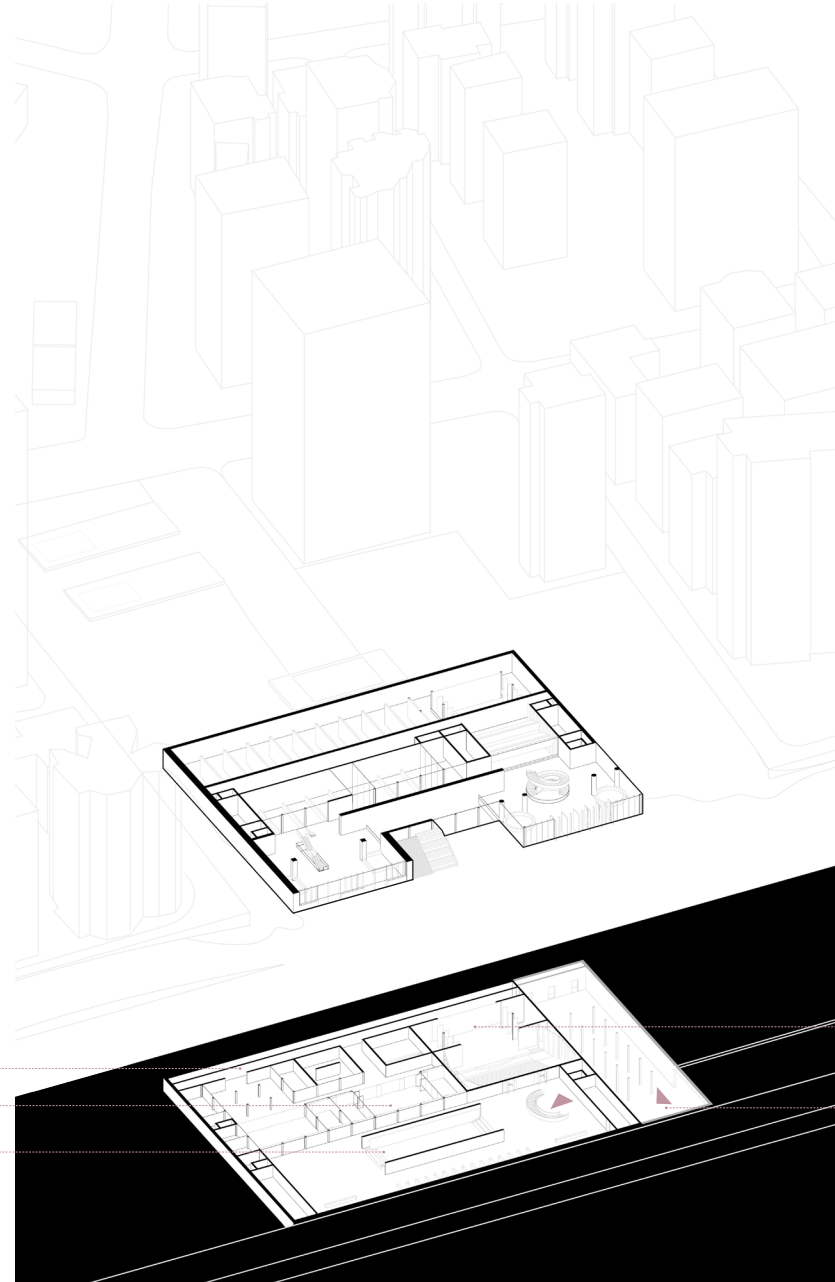
7. CONCLUSION

GROUND FLOOR: ENTRANCES



architectural design

LEVEL -1: PROSCENIUM



WORKSHOPS

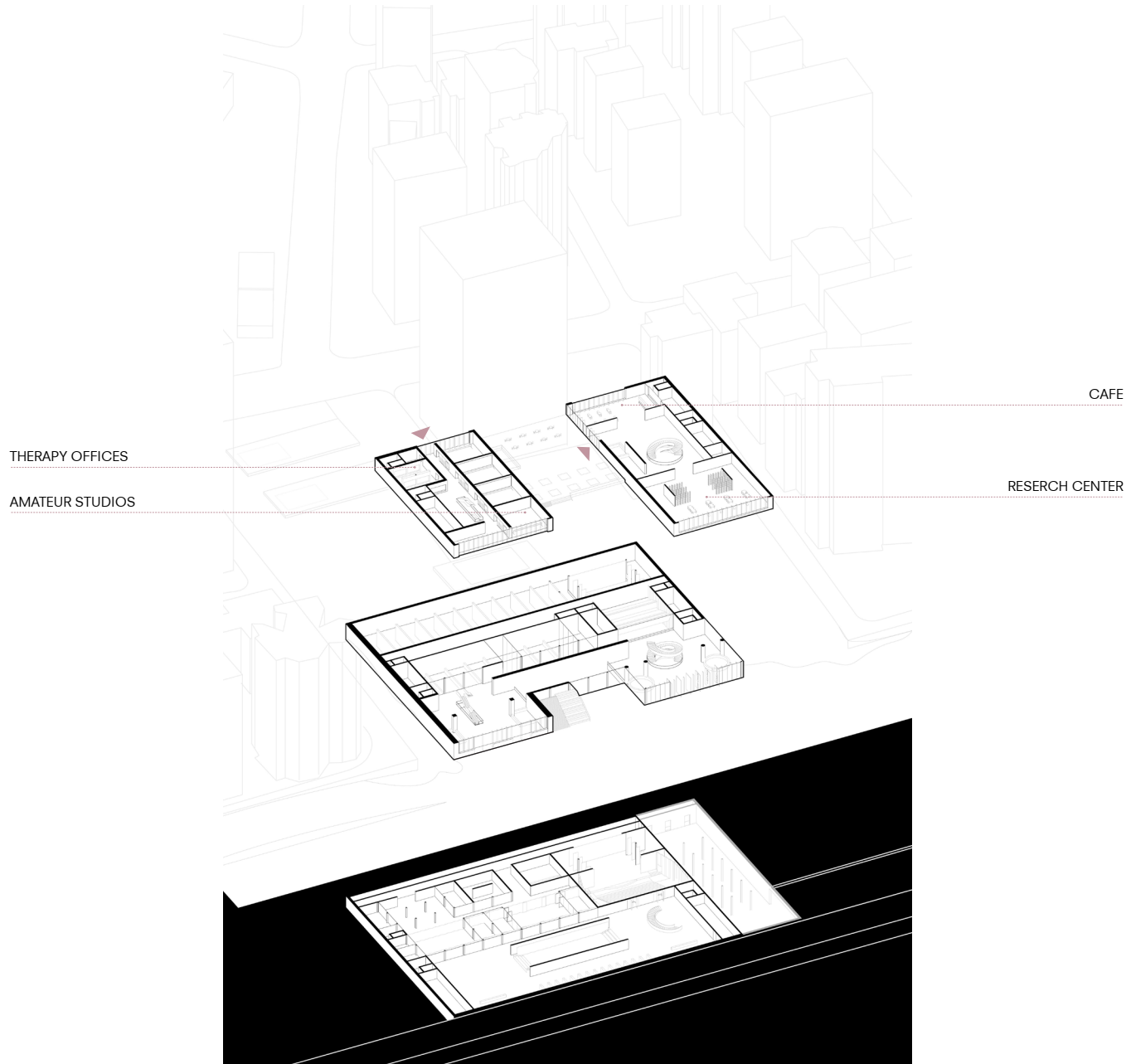
ARTIST FOYER

FLEX-FOYER

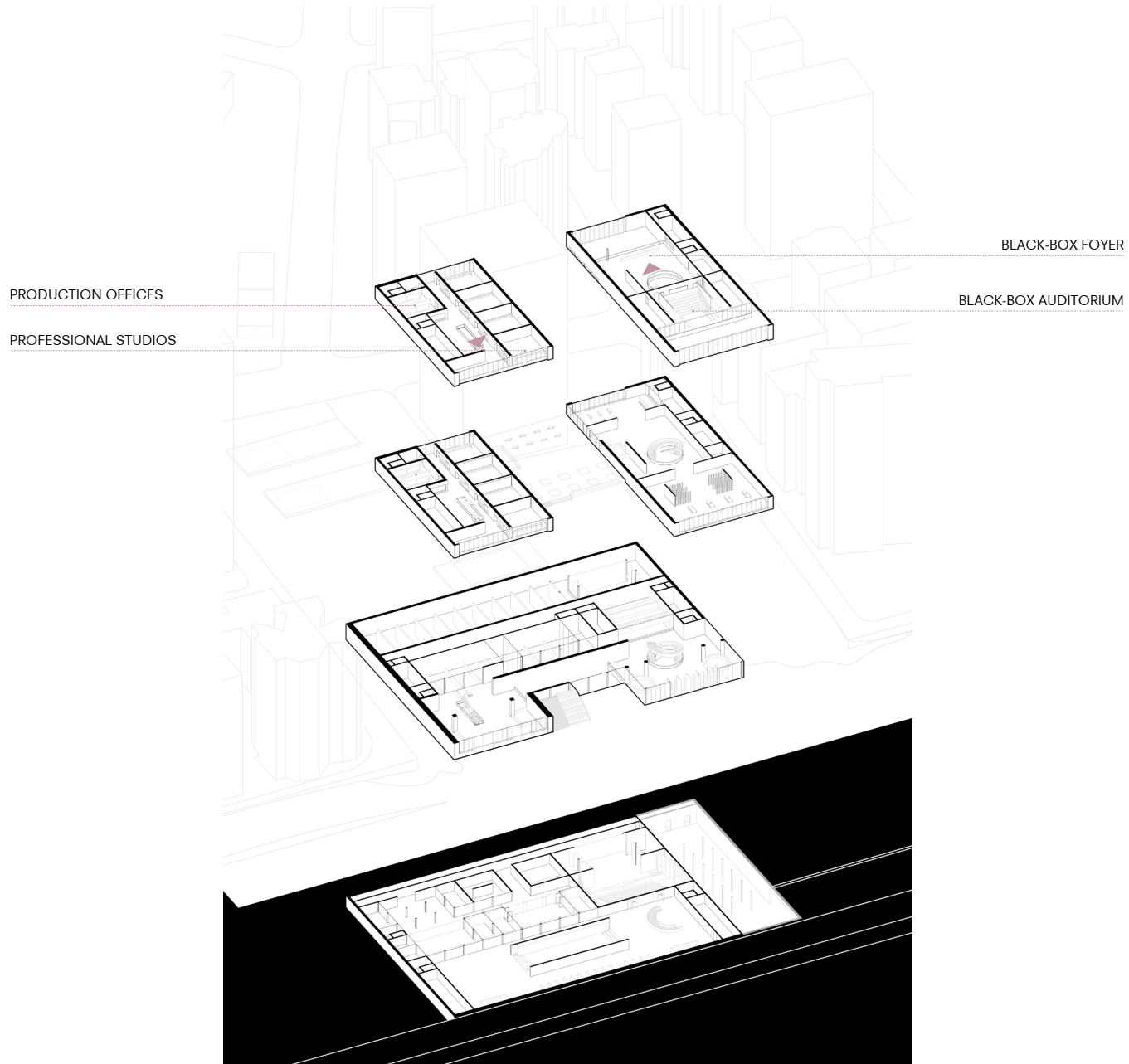
PROSCENIUM AUDITORIUM

SERVICE DELIVERY
(BACK OF HOUSE)

LEVEL +1: AMATEUR STUDIOS + CAFE & RESEARCH CENTER



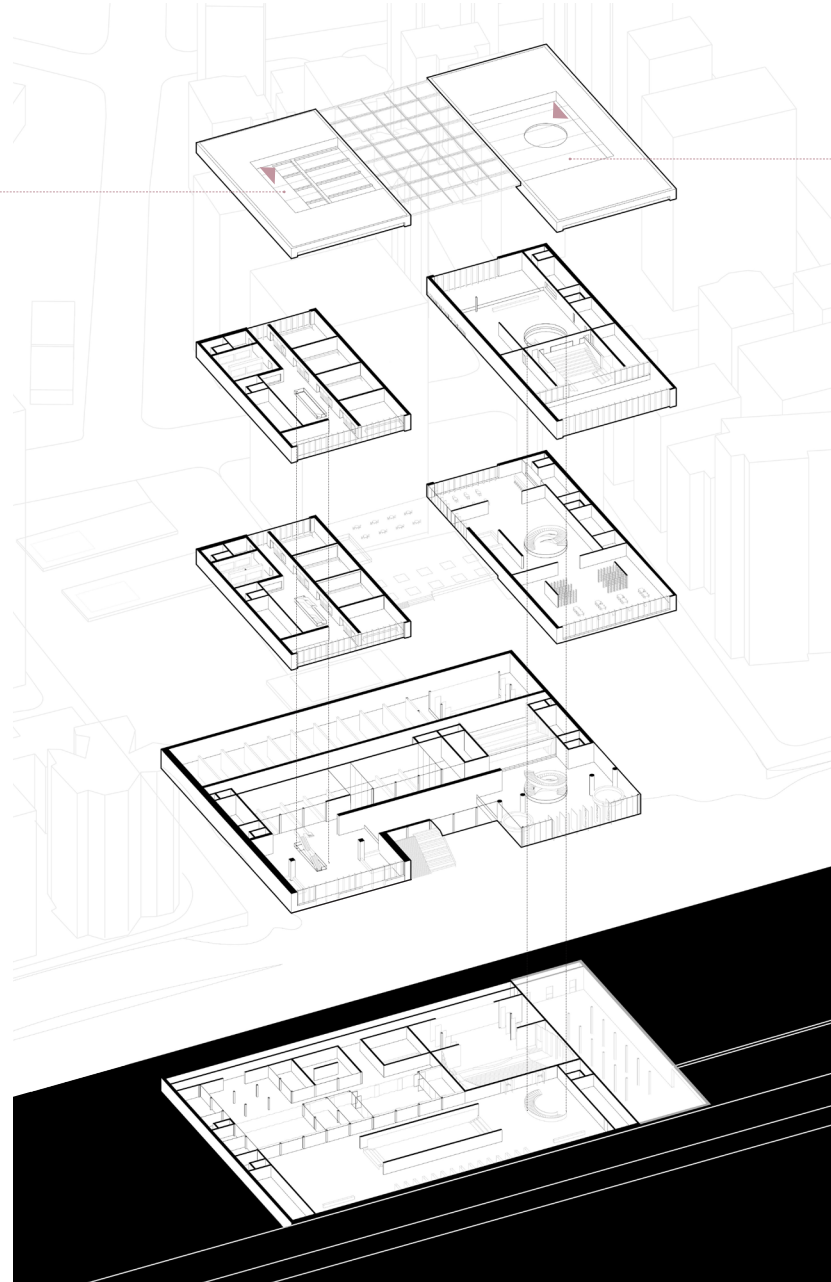
LEVEL +2: PROFESSIONAL STUDIOS + BLACK-BOX THEATER



LEVEL +3: ACCESSIBLE ROOF

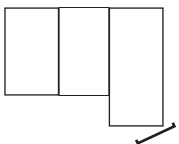
ACCESSIBLE ROOF

ACCESSIBLE ROOF

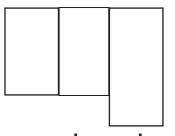


architectural design

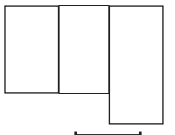
ARRIVAL FROM THE SEA



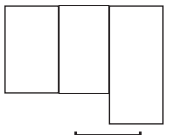
architectural design
BEACH ENTRANCE



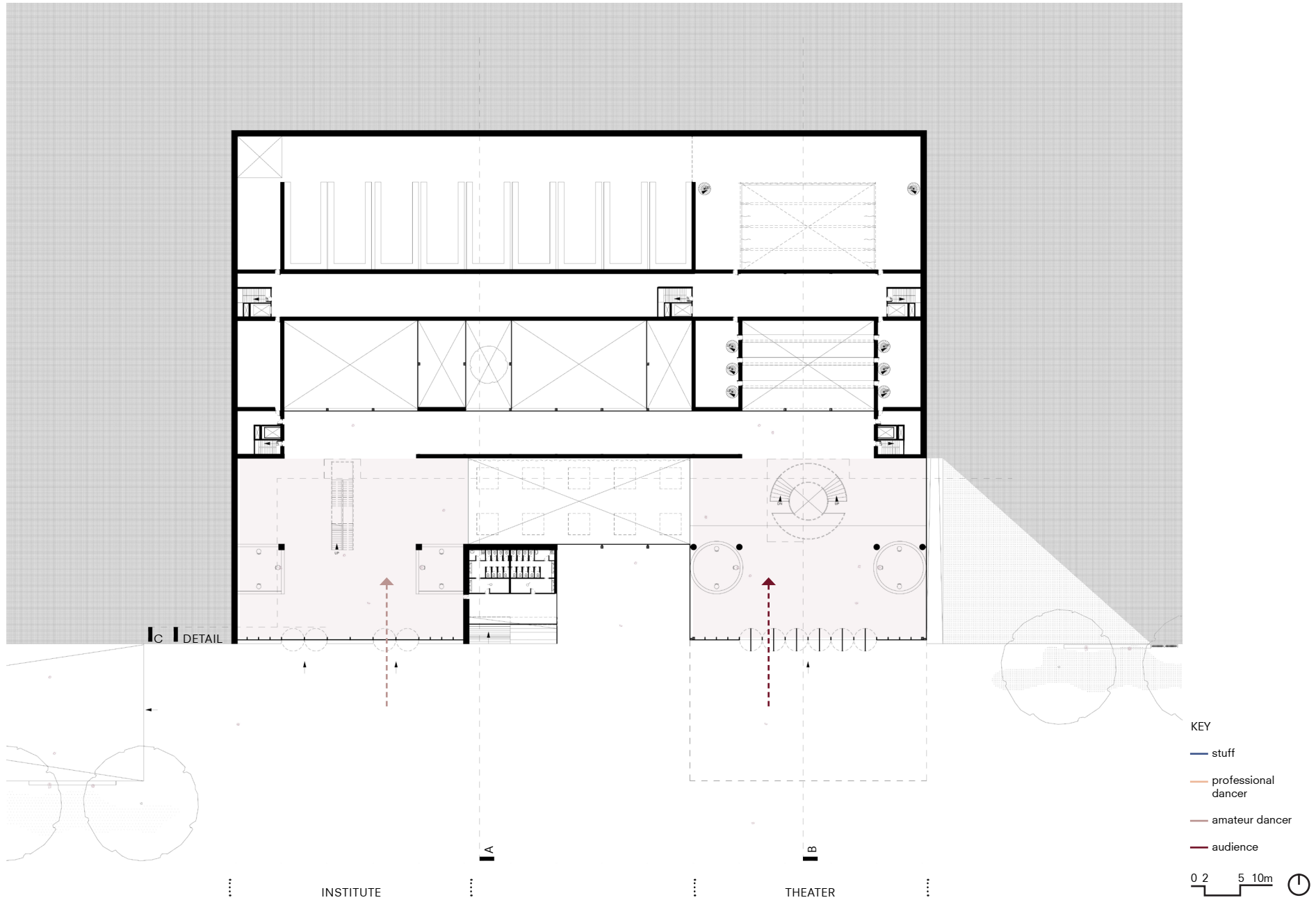
architectural design
BEACH ENTRANCE



architectural design
BEACH ENTRANCE

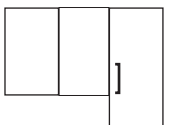


architectural design
+ -0: BEACH ENTRANCE

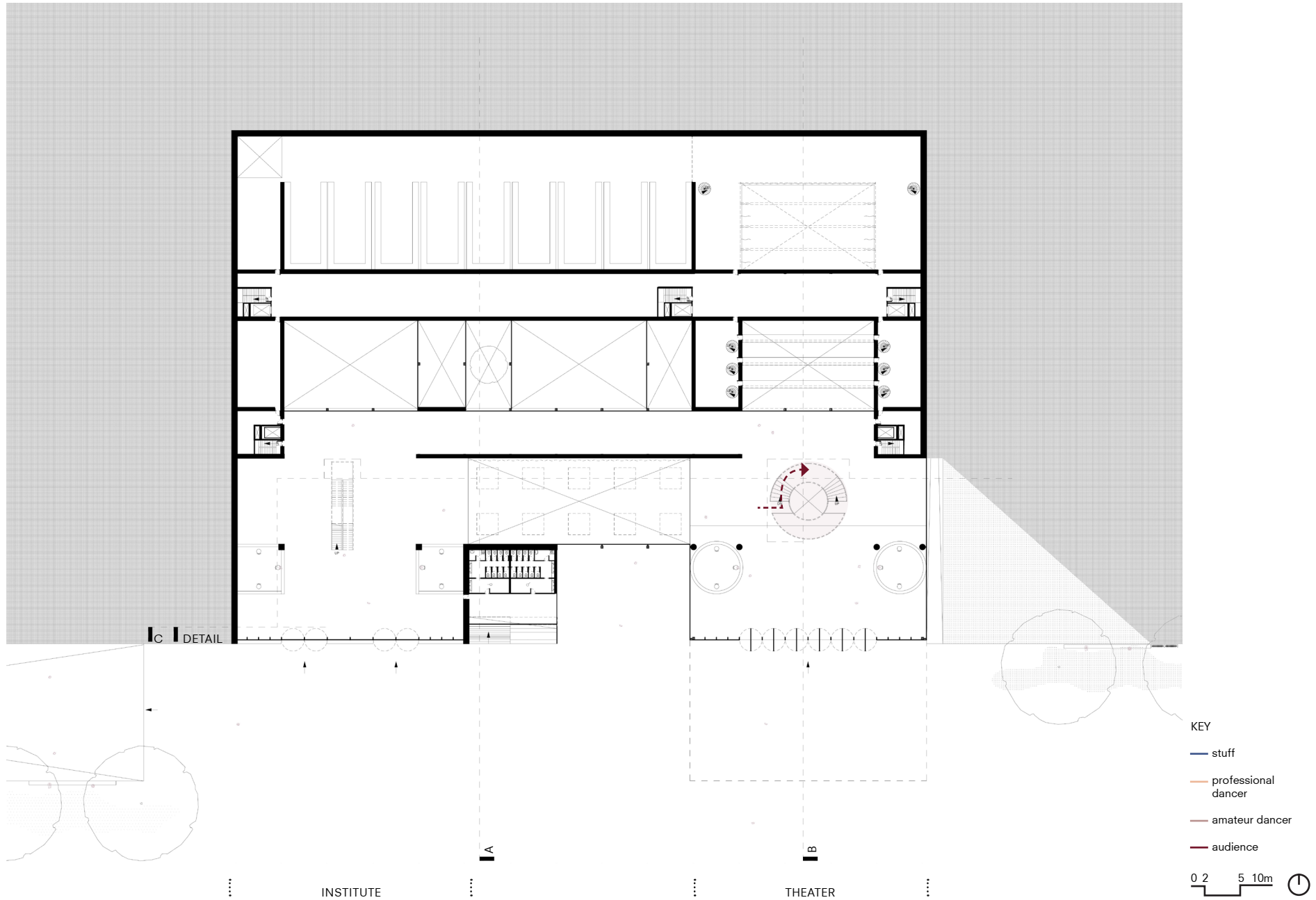


architectural design

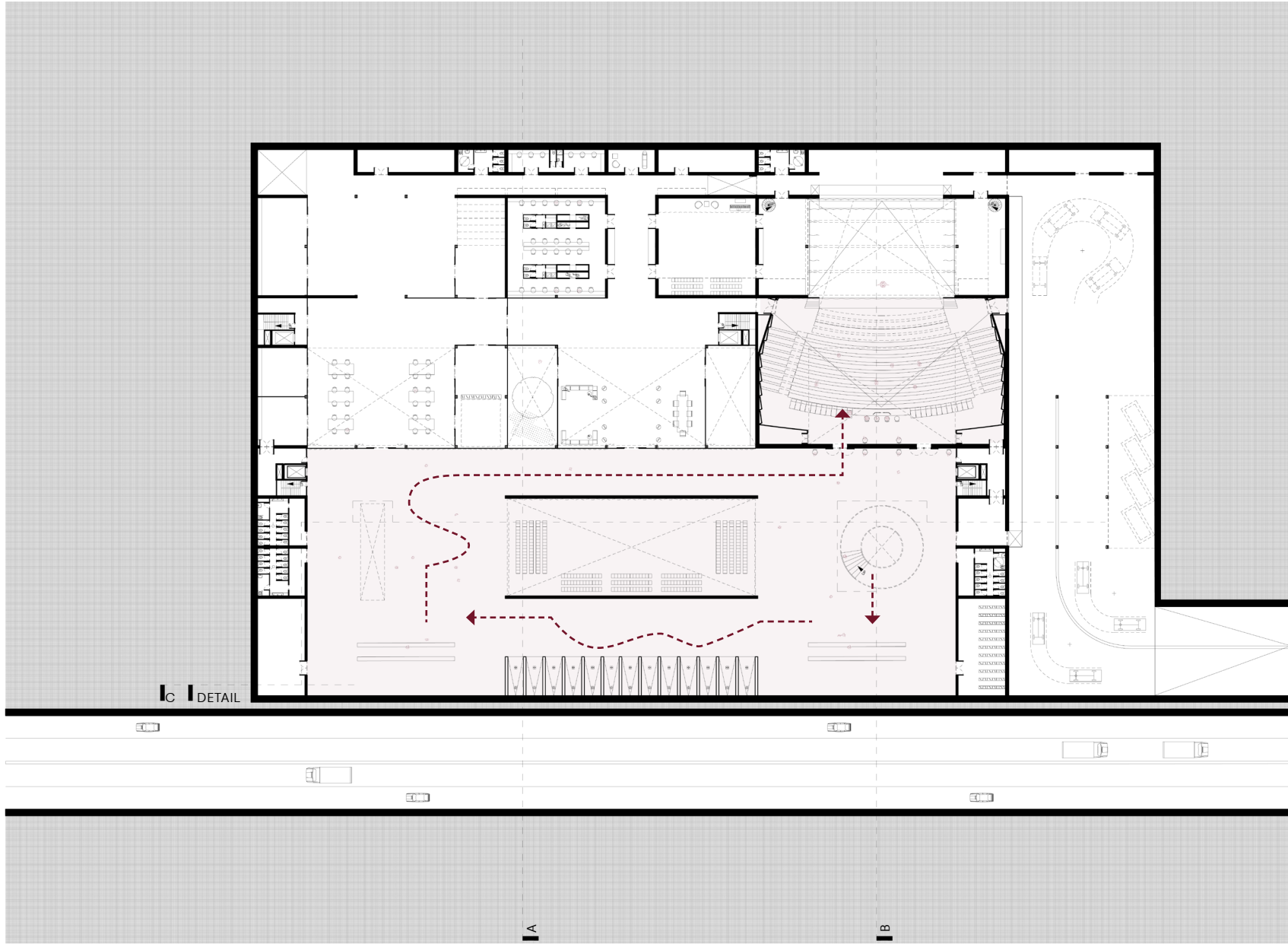
+ -0: FOYER (FRONT OF HOUSE)



architectural design
+ -0: BEACH ENTRANCE

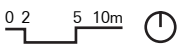


architectural design
-1: PROSCENIUM

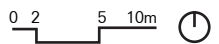
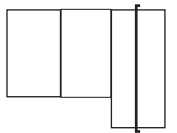
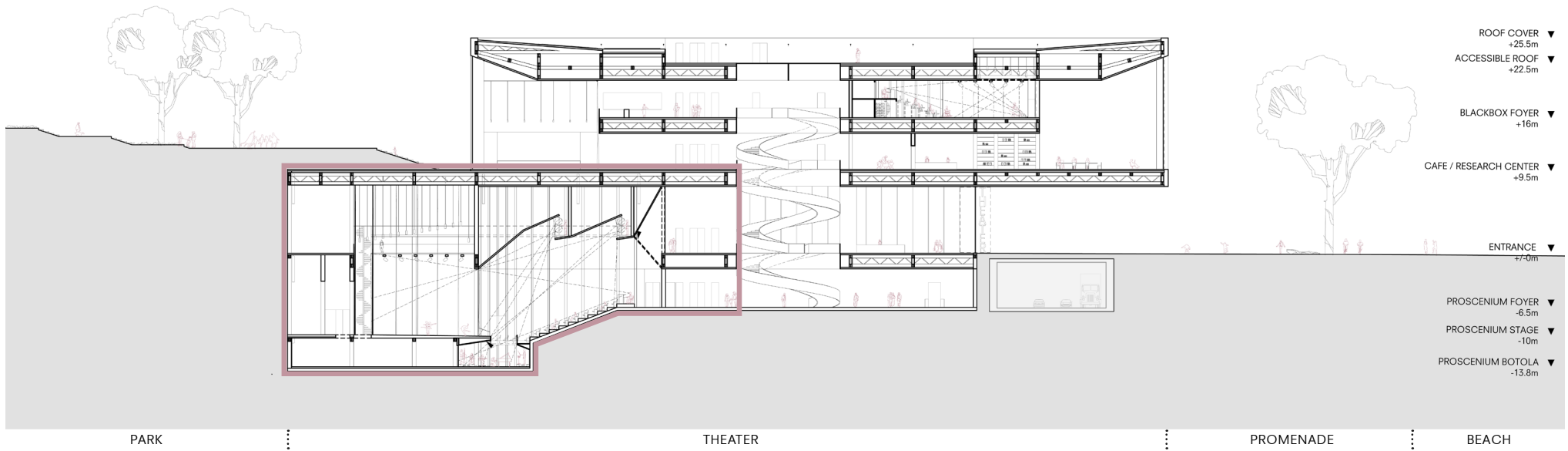


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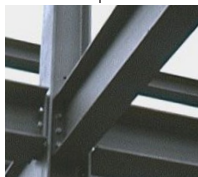
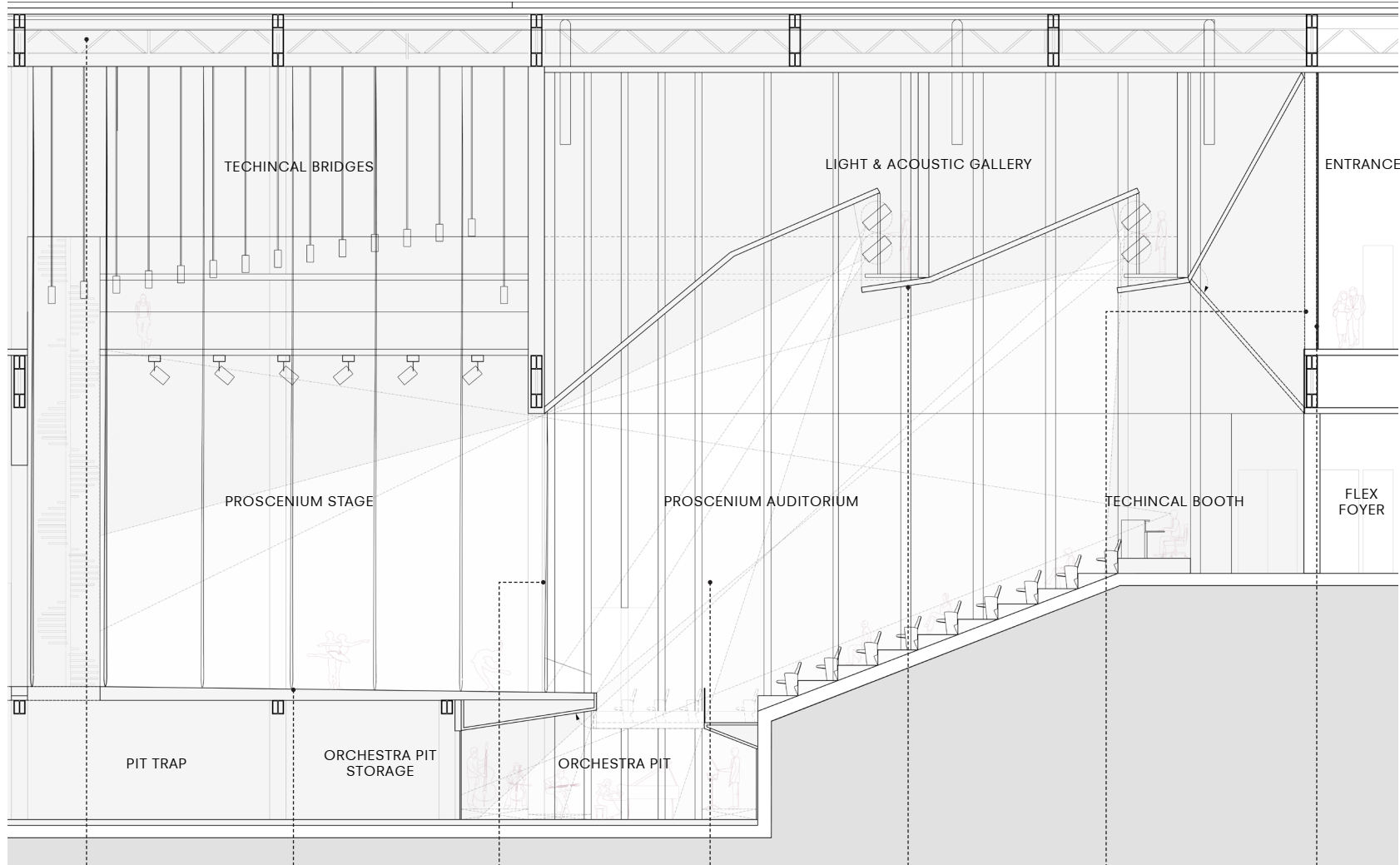
- stuff
- professional dancer
- amateur dancer
- audience



architectural design
THEATER SECTION



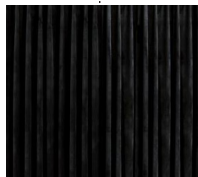
-1: PROSCENIUM AUDITORIUM



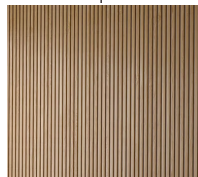
BLACK STEEL FRAME



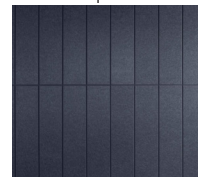
LEBANESE TEAK HARDWOOD



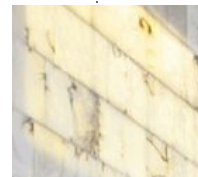
BLACK VELVET CURTAIN



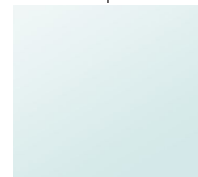
POLISHED LEBANESE TEAK ACOUSTIC PANEL



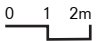
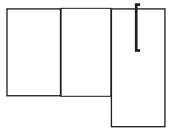
BLACK METAL ACOUSTIC PANEL



TRANSLUCENT LIMESTONE PANEL

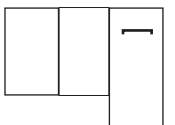


GLASS

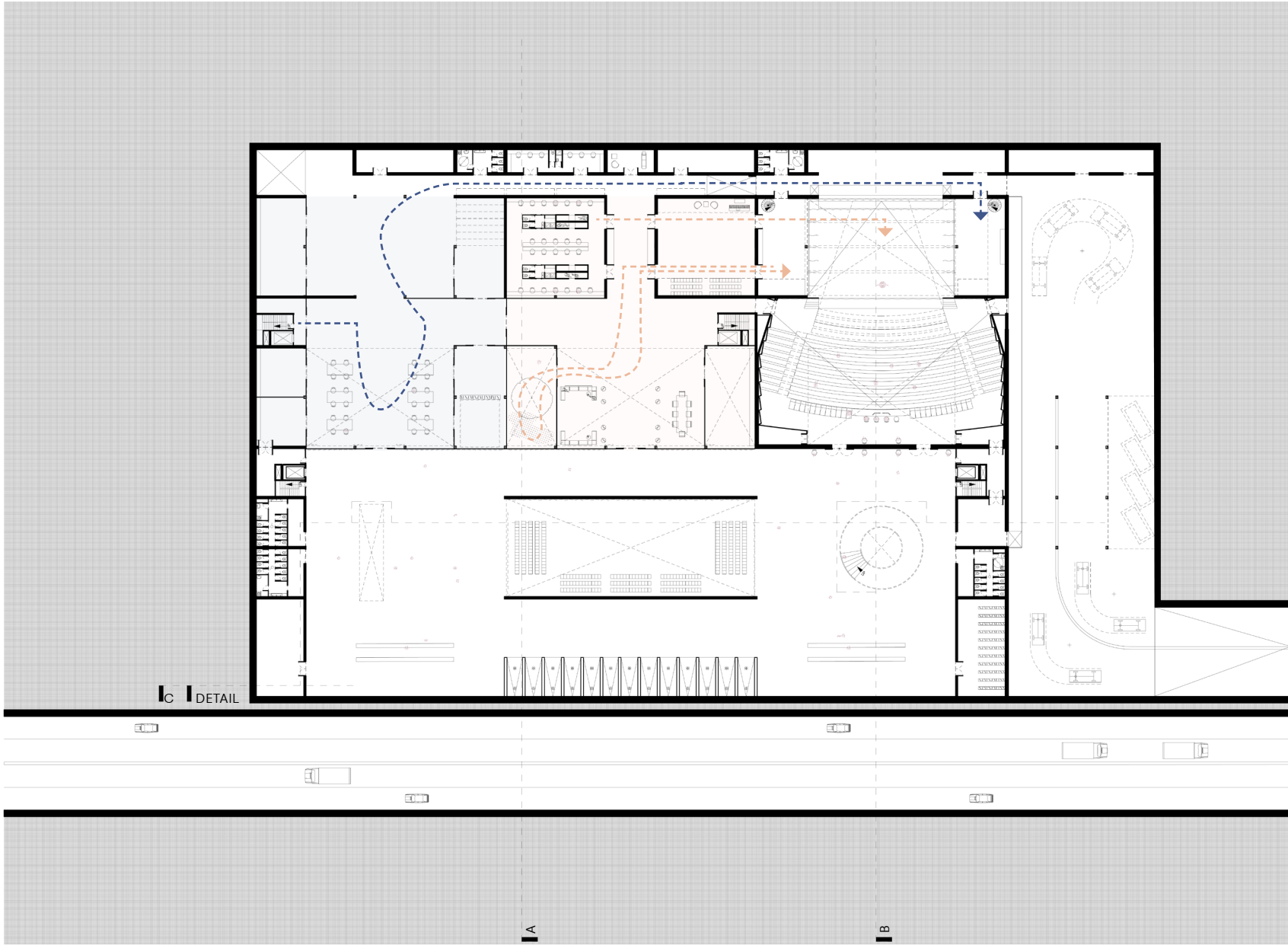


architectural design

-1: PROSCENIUM AUDITORIUM



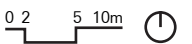
-1: PRODUCTION SPACES



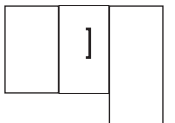
C | DETAIL

KEY

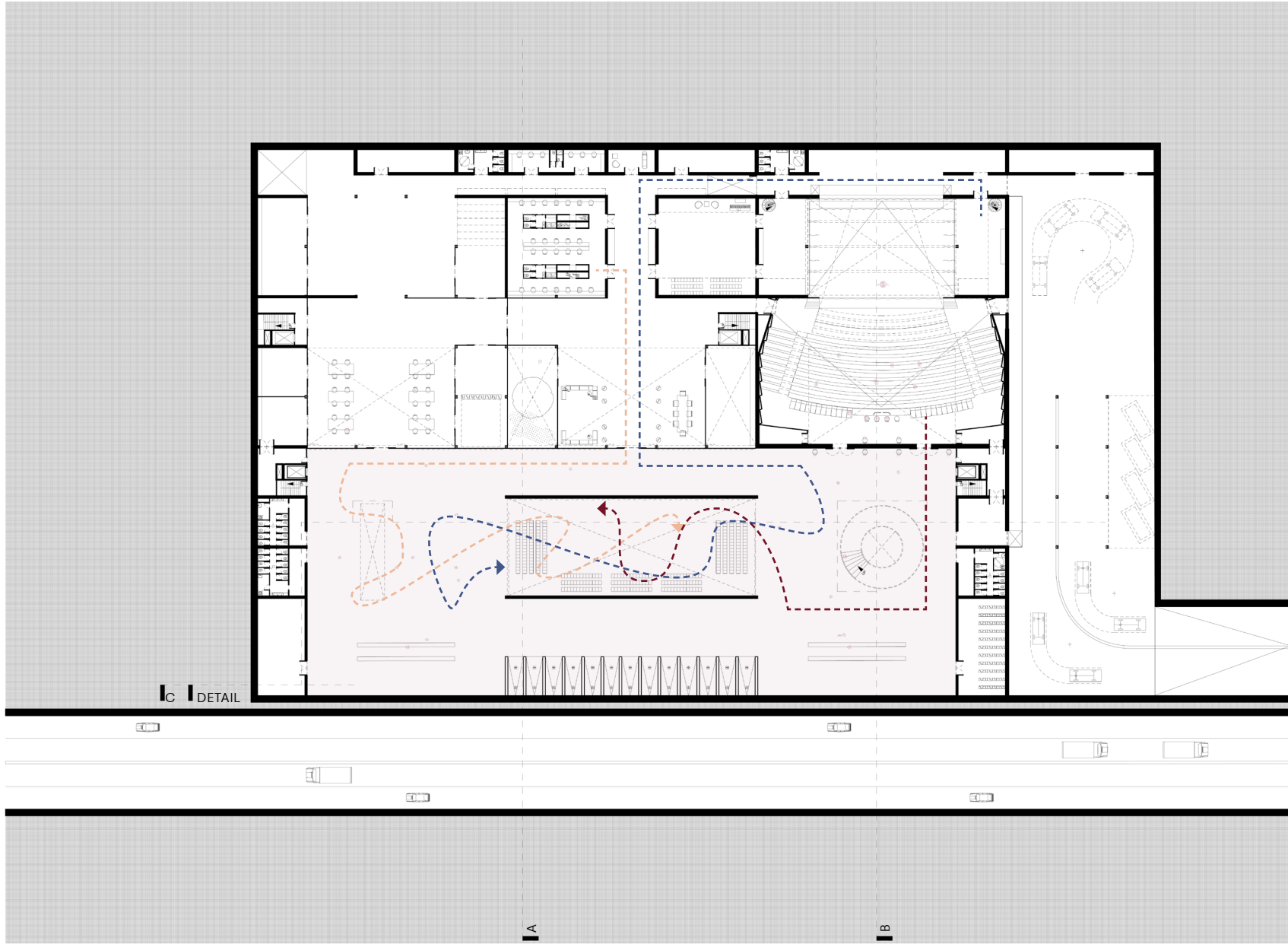
- staff
- professional dancer
- amateur dancer
- audience



-1: ARTIST FOYER (BACK OF HOUSE)



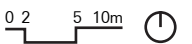
architectural design
-1: FLEX-FOYER



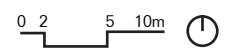
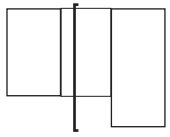
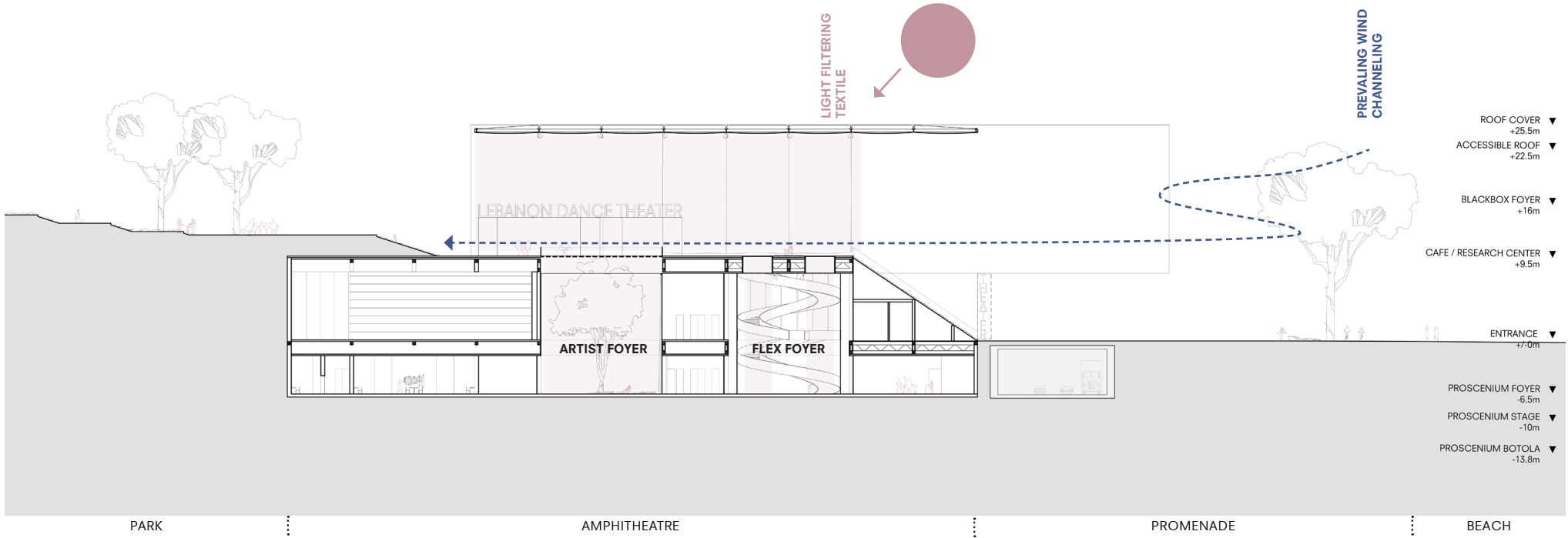
C | DETAIL

KEY

- staff
- professional dancer
- amateur dancer
- audience



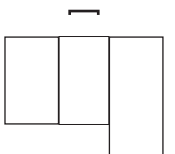
AMPHITHEATRE SECTION, ENVIRONMENT



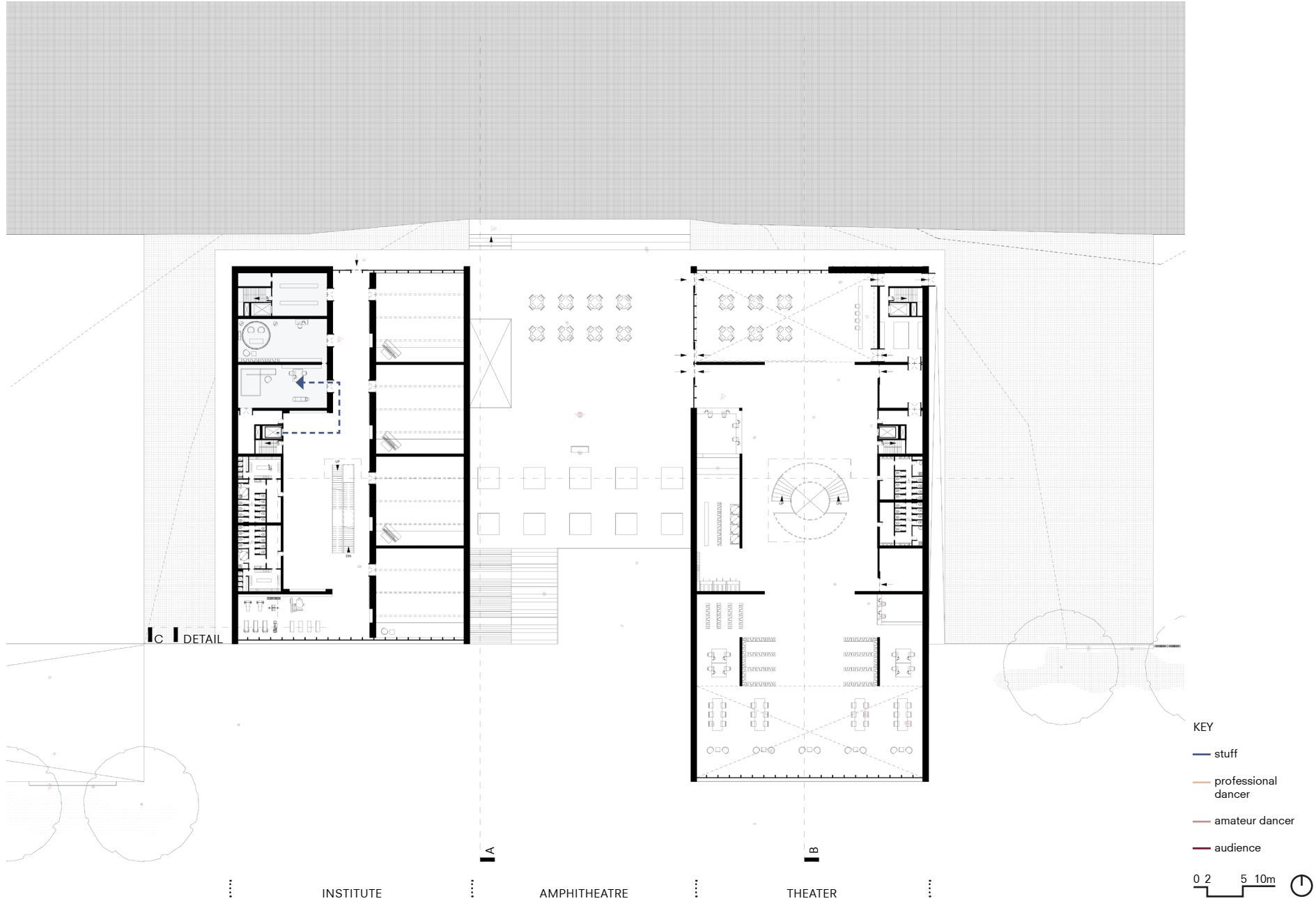
architectural design
+1: AMATEUR STUDIOS



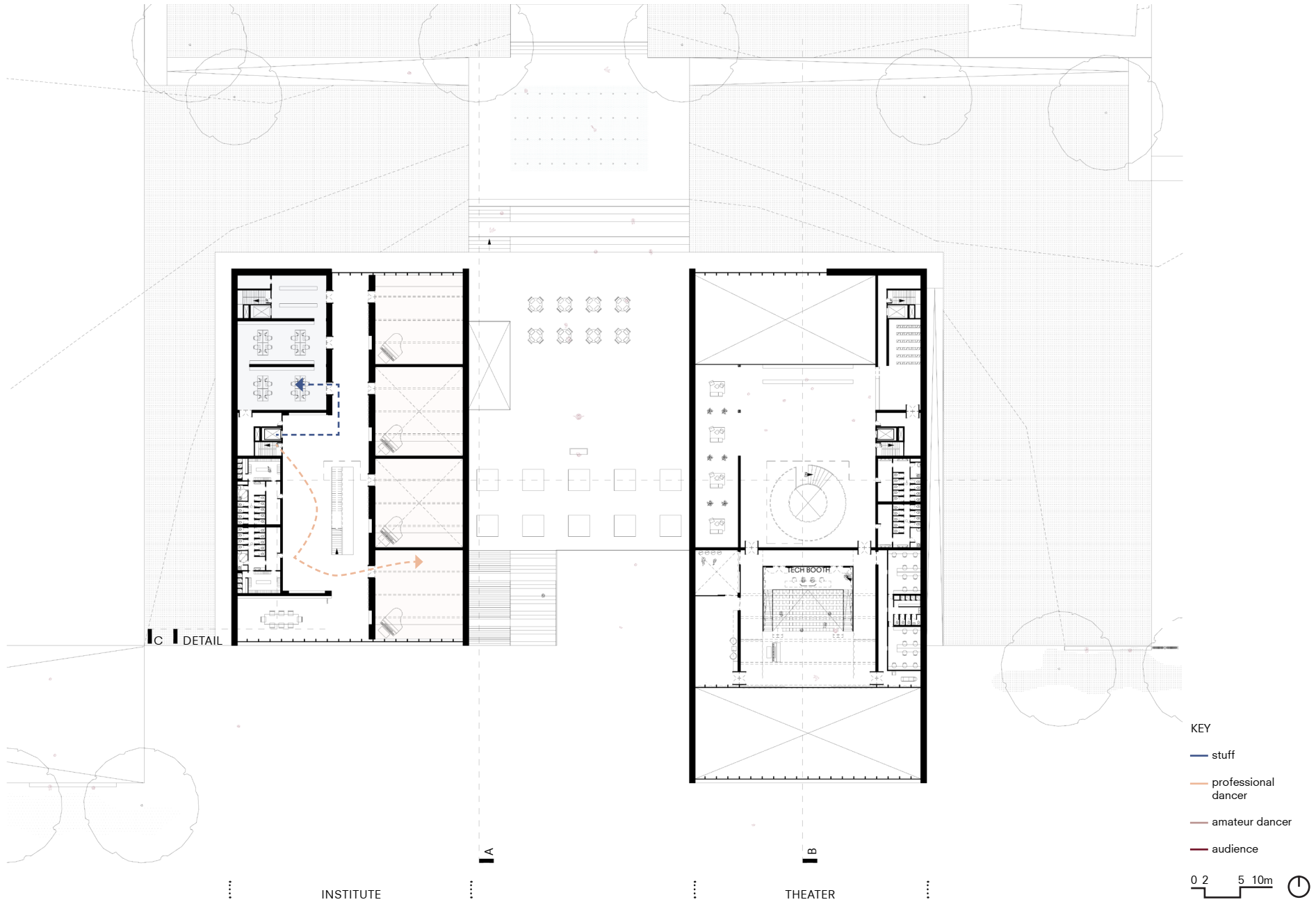
architectural design
+1: PARK ENTRANCE



architectural design
+1: THERAPY

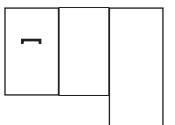


+2: PROFESSIONAL STUDIOS

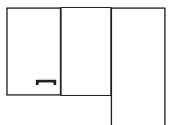


architectural design

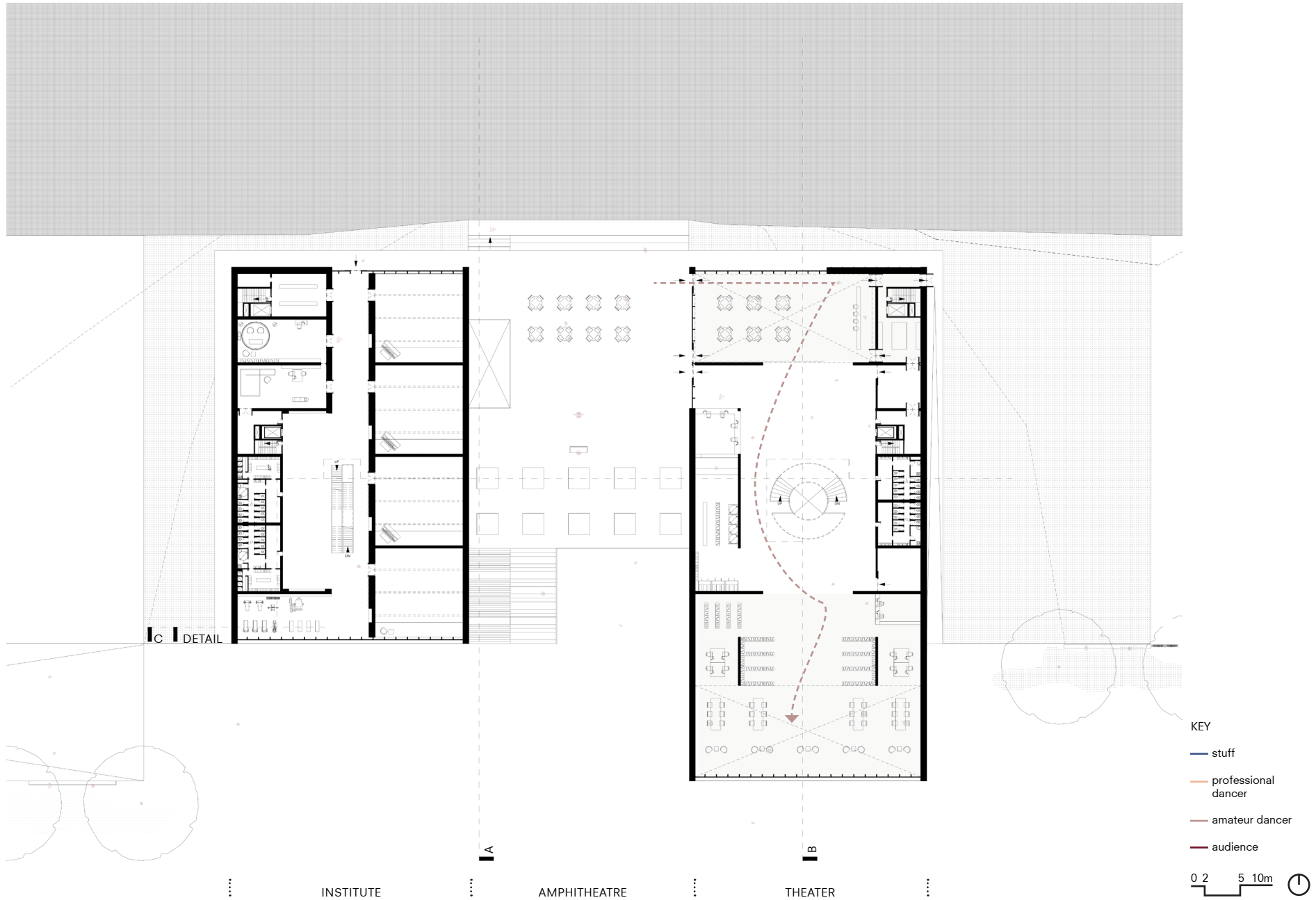
+2: INSTITUTE CORRIDOR



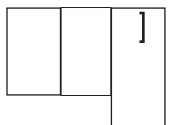
architectural design
+2: PROFESSIONAL STUDIO



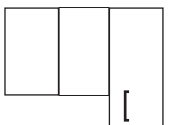
architectural design
+1: PUBLIC USES



architectural design
+1: CAFE

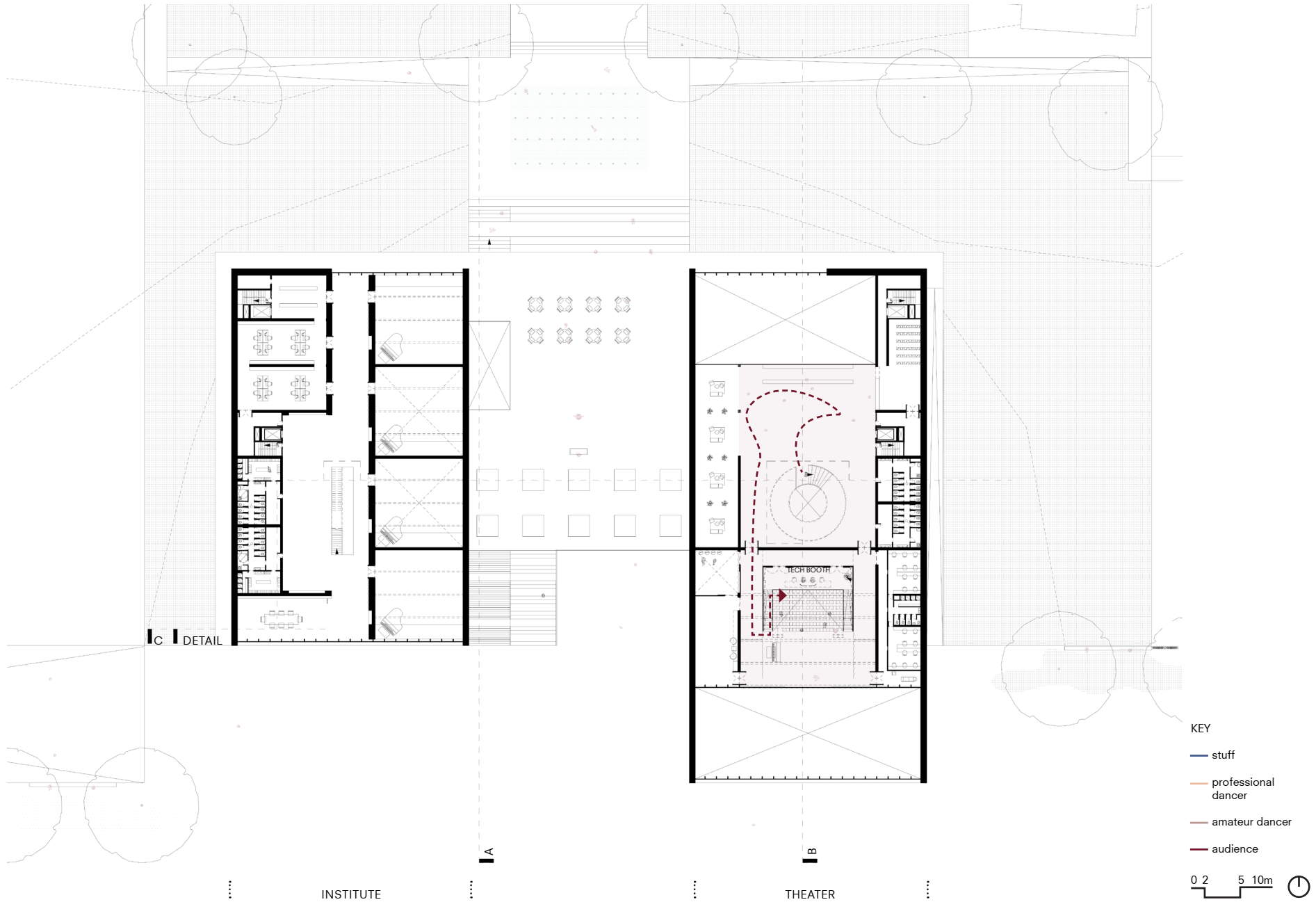


architectural design
+1: RESEARCH CENTER



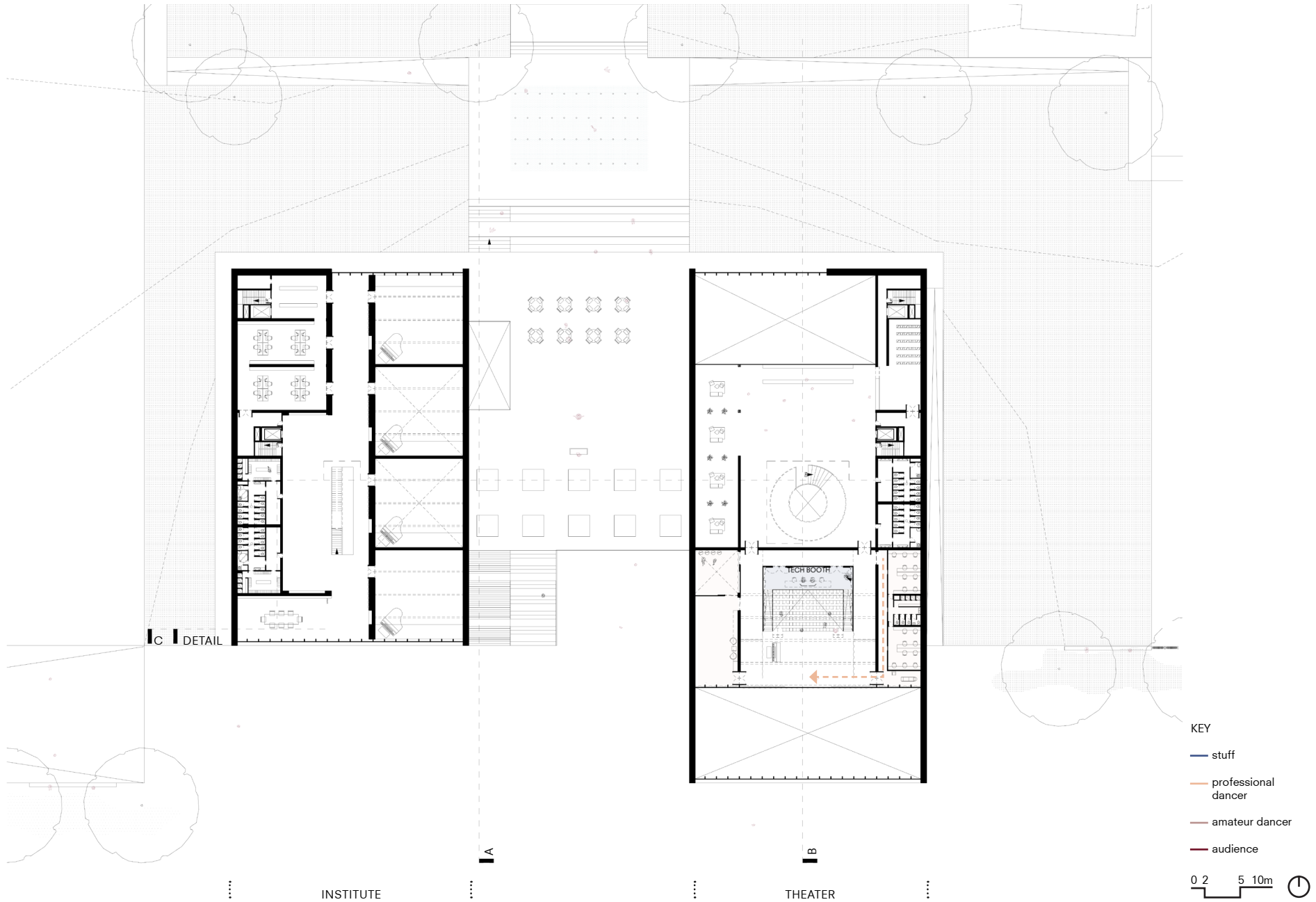
architectural design

+2: BLACK-BOX



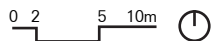
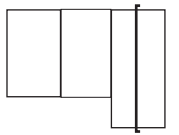
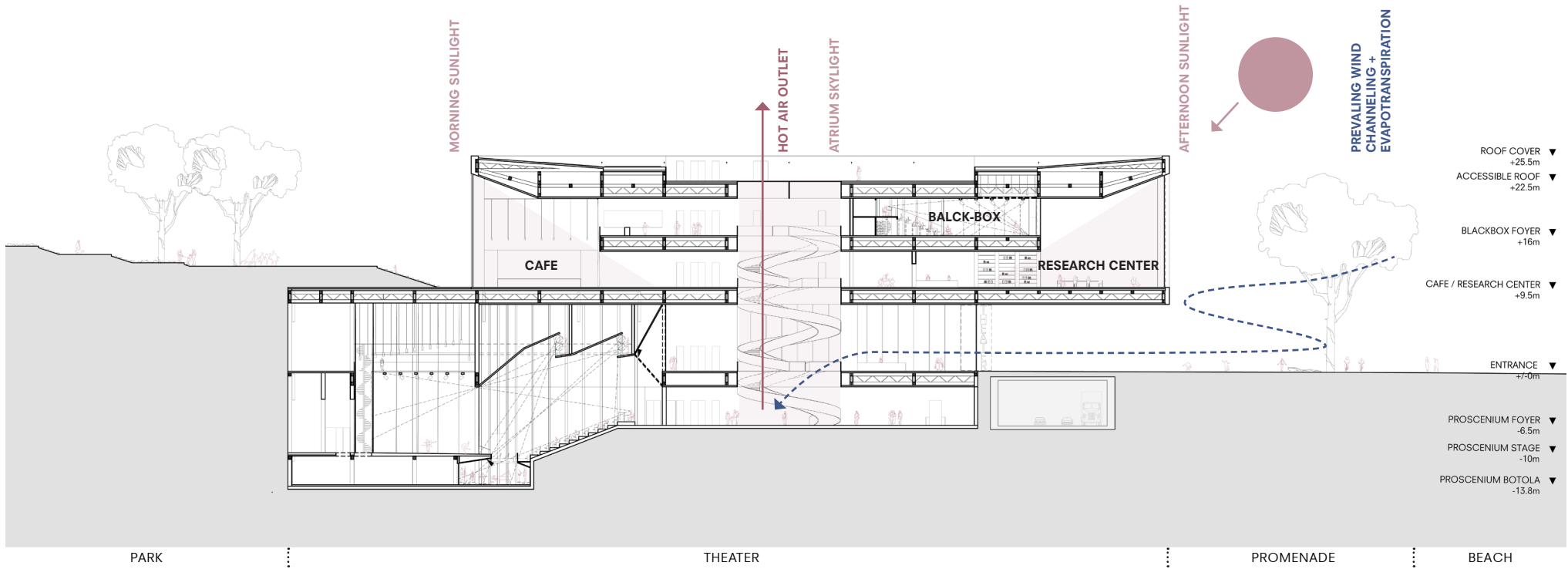
architectural design

+2: BLACK-BOX

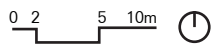
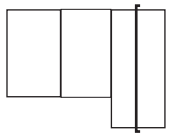
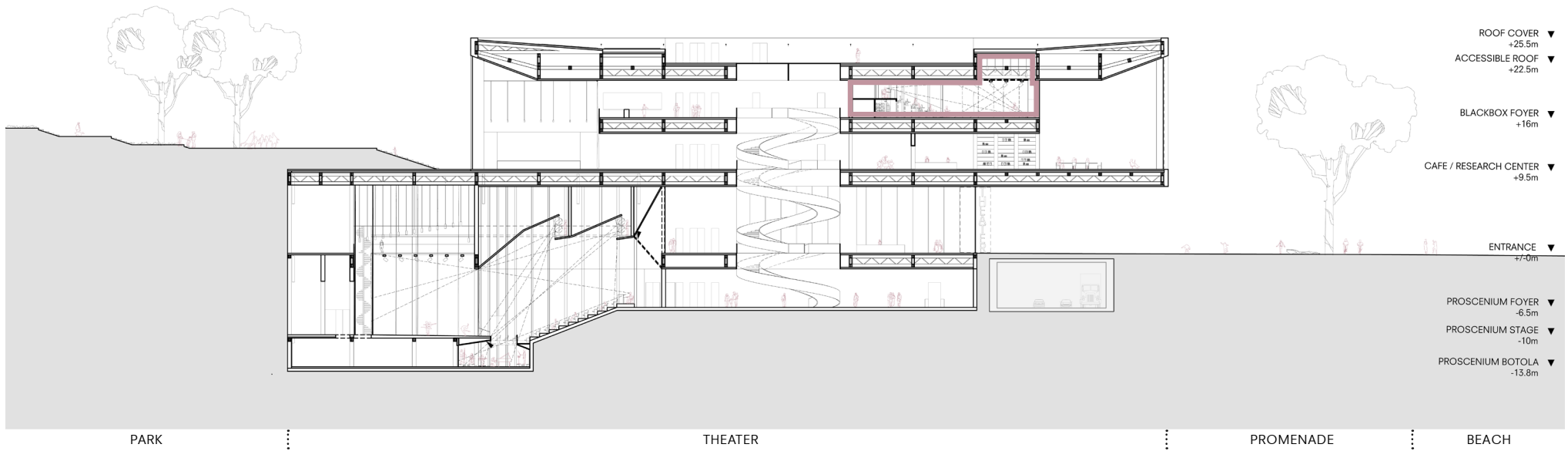


architectural design

THEATER SECTION, ENVIRONMENT

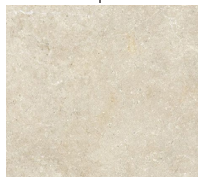
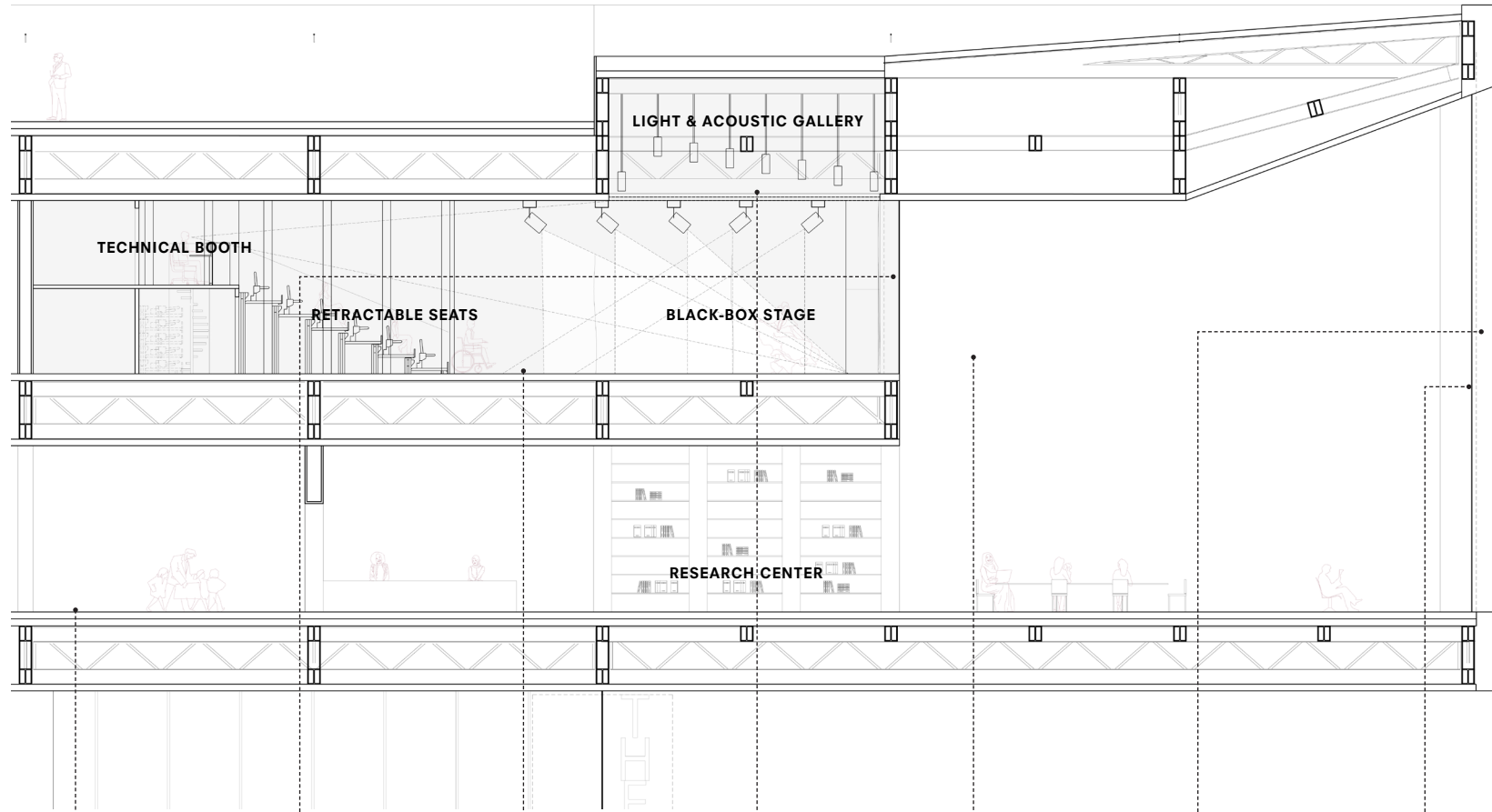


architectural design
THEATER SECTION



architectural design

BLACK-BOX AUDITORIUM



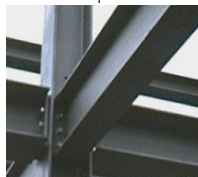
LIQUID LIMESTONE



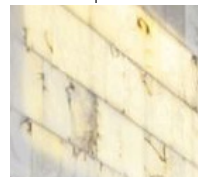
BLACK & WHITE CURTAINS



VINYL FLOORING



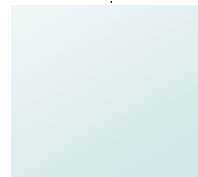
BLACK STEEL FRAME



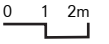
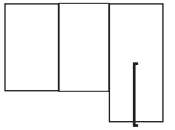
TRANSLUCENT LIMESTONE PANEL



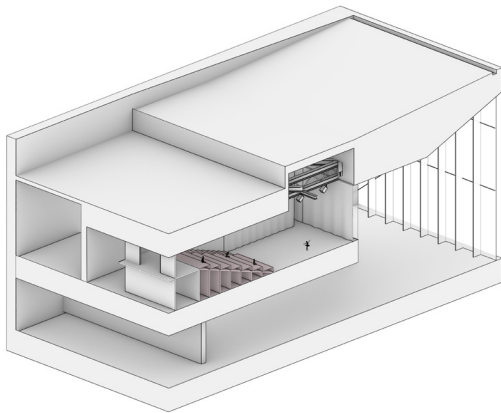
ROLL-DOWN SEE-THROUGH SHADES



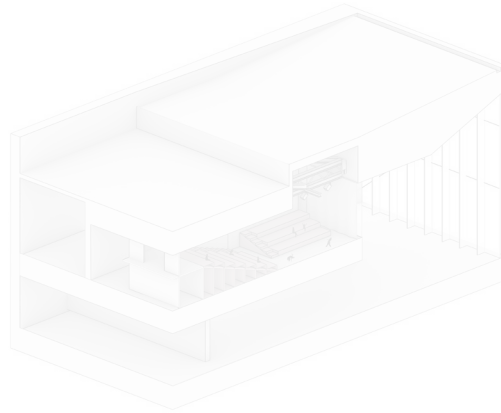
GLASS



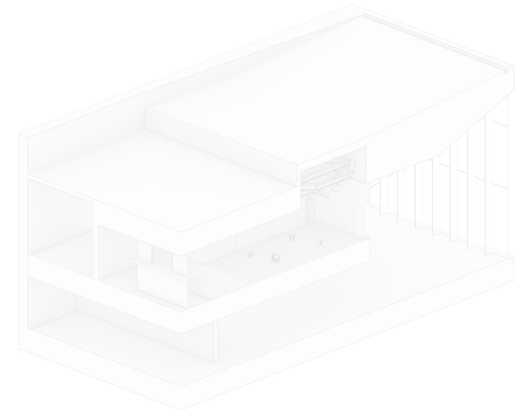
BLACK-BOX AUDITORIUM CONFIGURATIONS



**END-STAGE
CONFIGURATION**

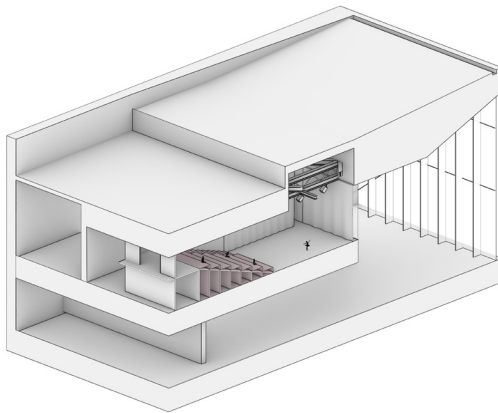


**3/2 THRUST
CONFIGURATION**

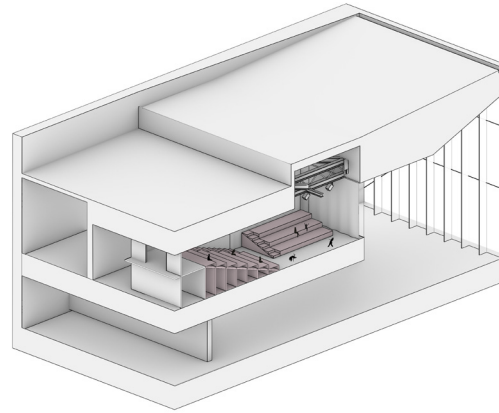


**IMMERSIVE
CONFIGURATION**

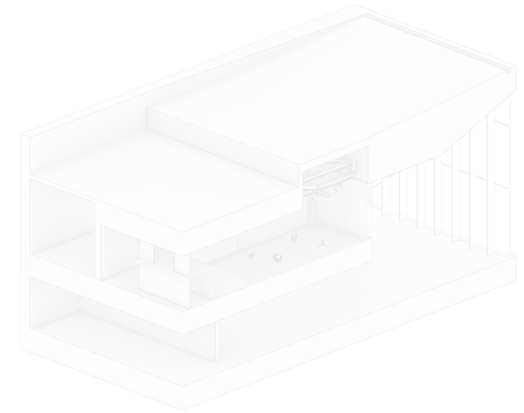
BLACK-BOX AUDITORIUM CONFIGURATIONS



**END-STAGE
CONFIGURATION**

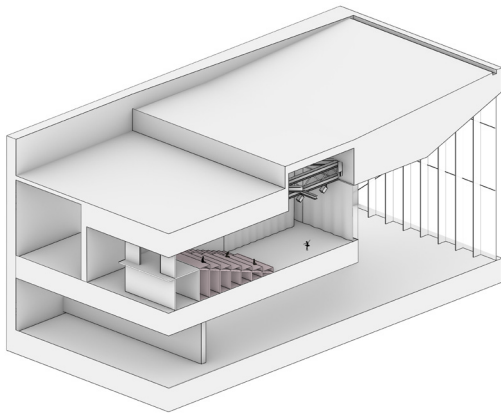


**3/2 THRUST
CONFIGURATION**

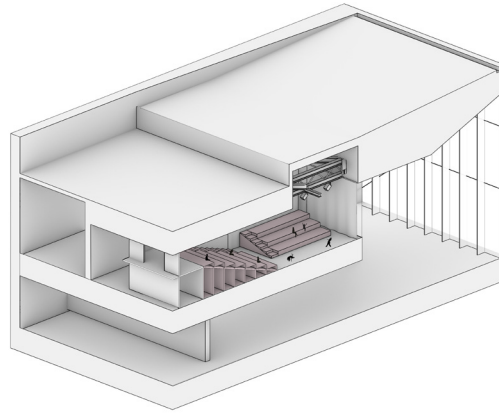


**IMMERSIVE
CONFIGURATION**

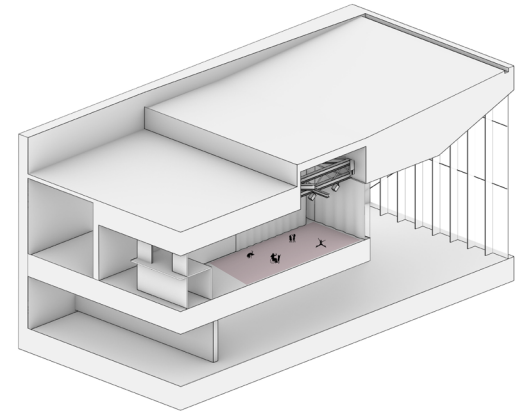
BLACK-BOX AUDITORIUM CONFIGURATIONS



**END-STAGE
CONFIGURATION**



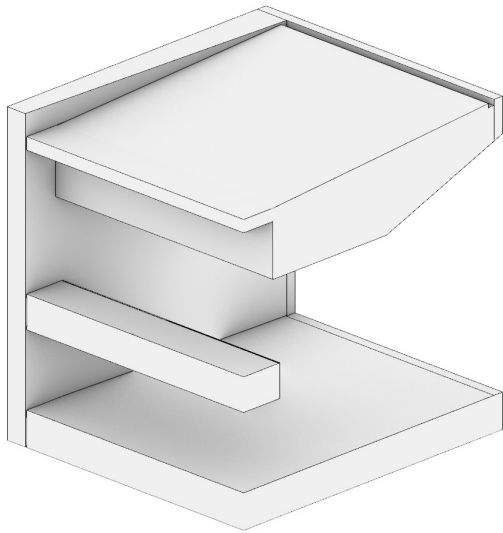
**3/2 THRUST
CONFIGURATION**



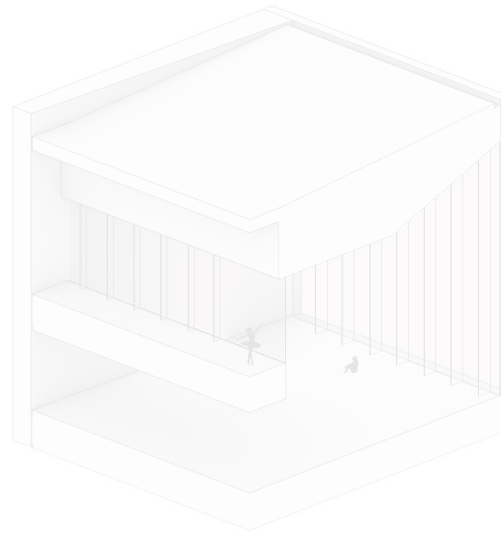
**IMMERSIVE
CONFIGURATION**

architectural design

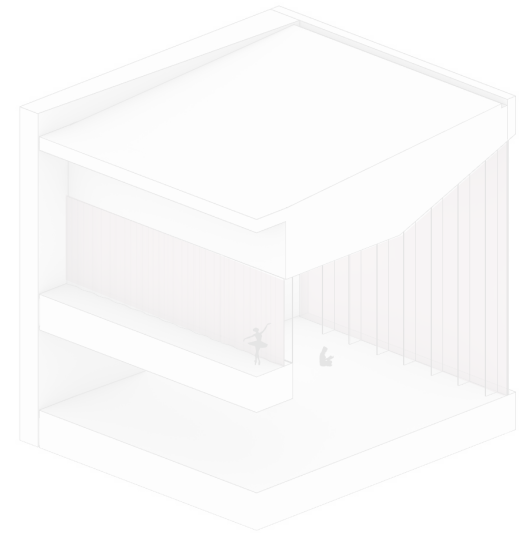
CURTAIN FACADE SYSTEM



LIMESTONE CLADDING
structure

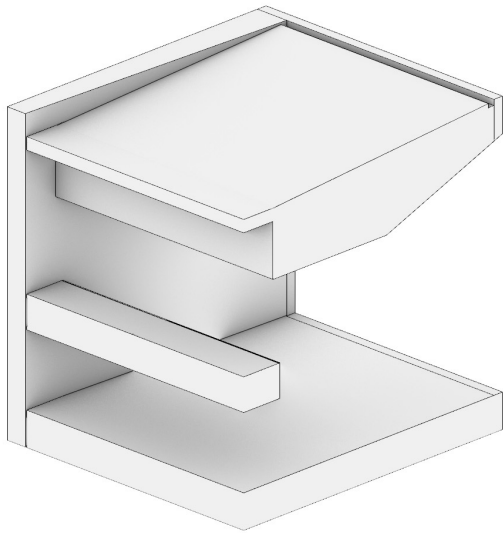


CURTAIN WALLS
transparency

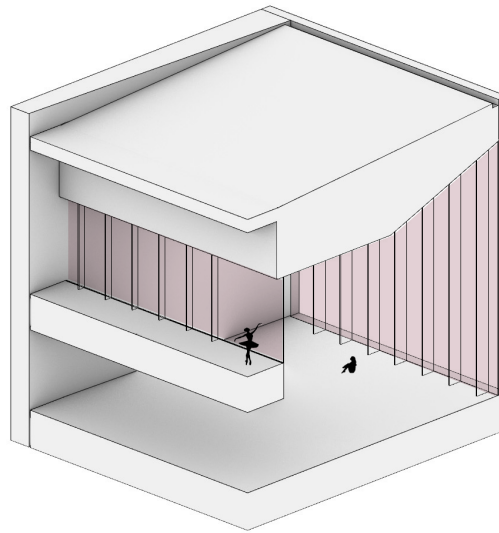


CURTAINS
light & visual control

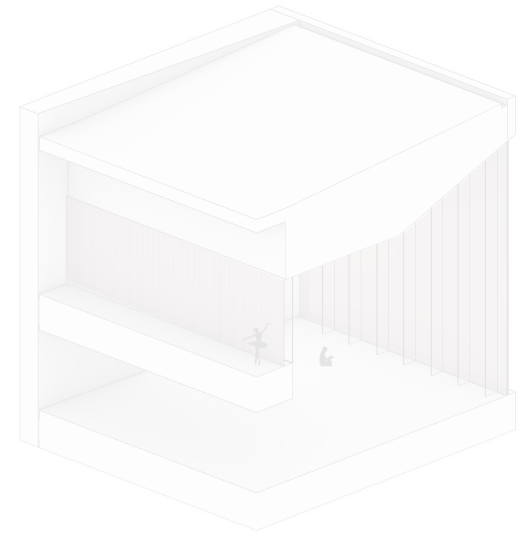
CURTAIN FACADE SYSTEM



LIMESTONE CLADDING
structure



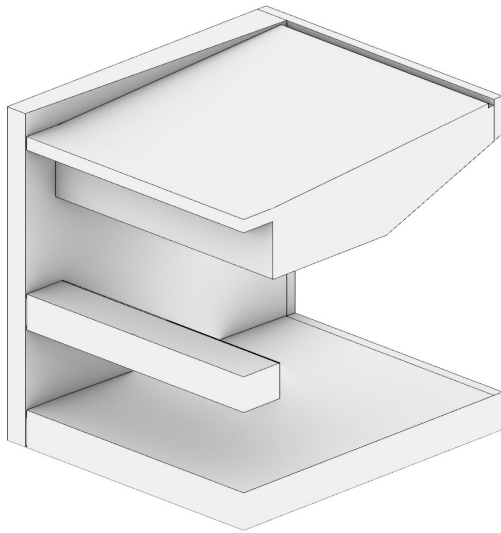
CURTAIN WALLS
transparency



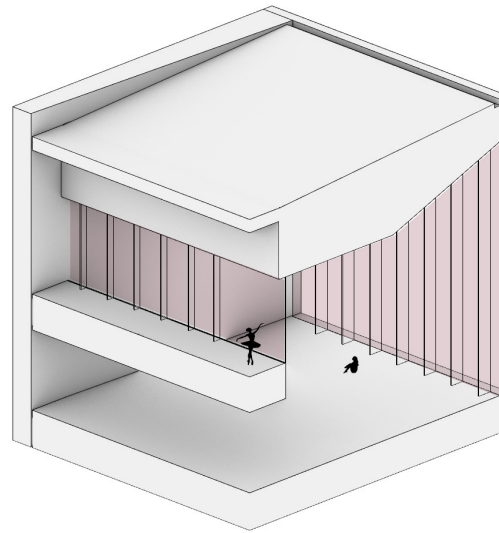
CURTAINS
light & visual control

architectural design

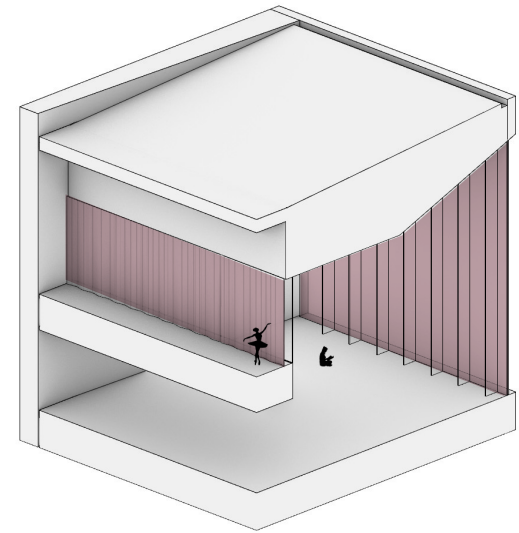
CURTAIN FACADE SYSTEM



LIMESTONE CLADDING
structure



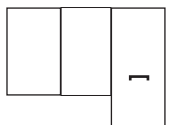
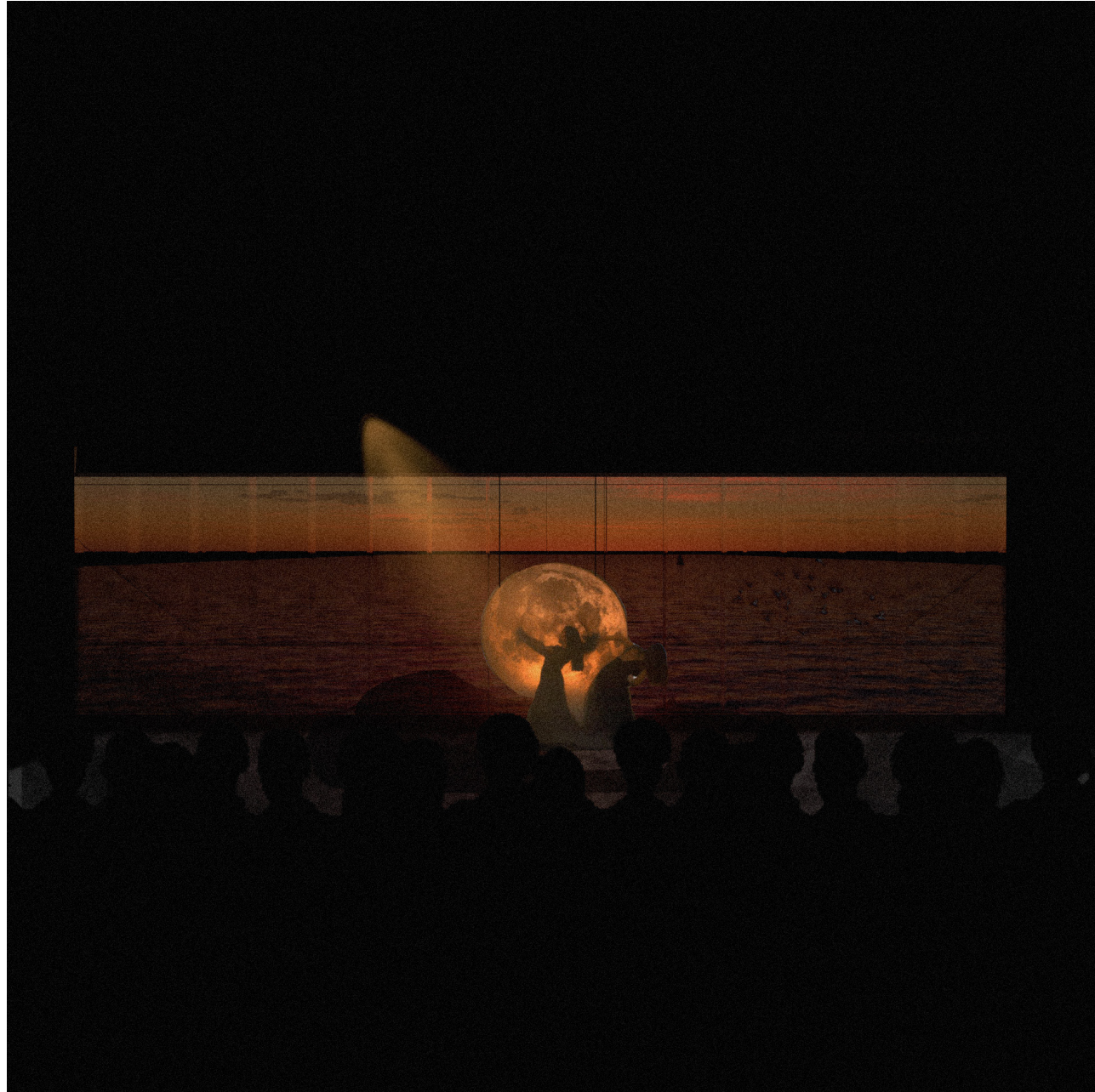
CURTAIN WALLS
transparency



CURTAINS
light & visual control

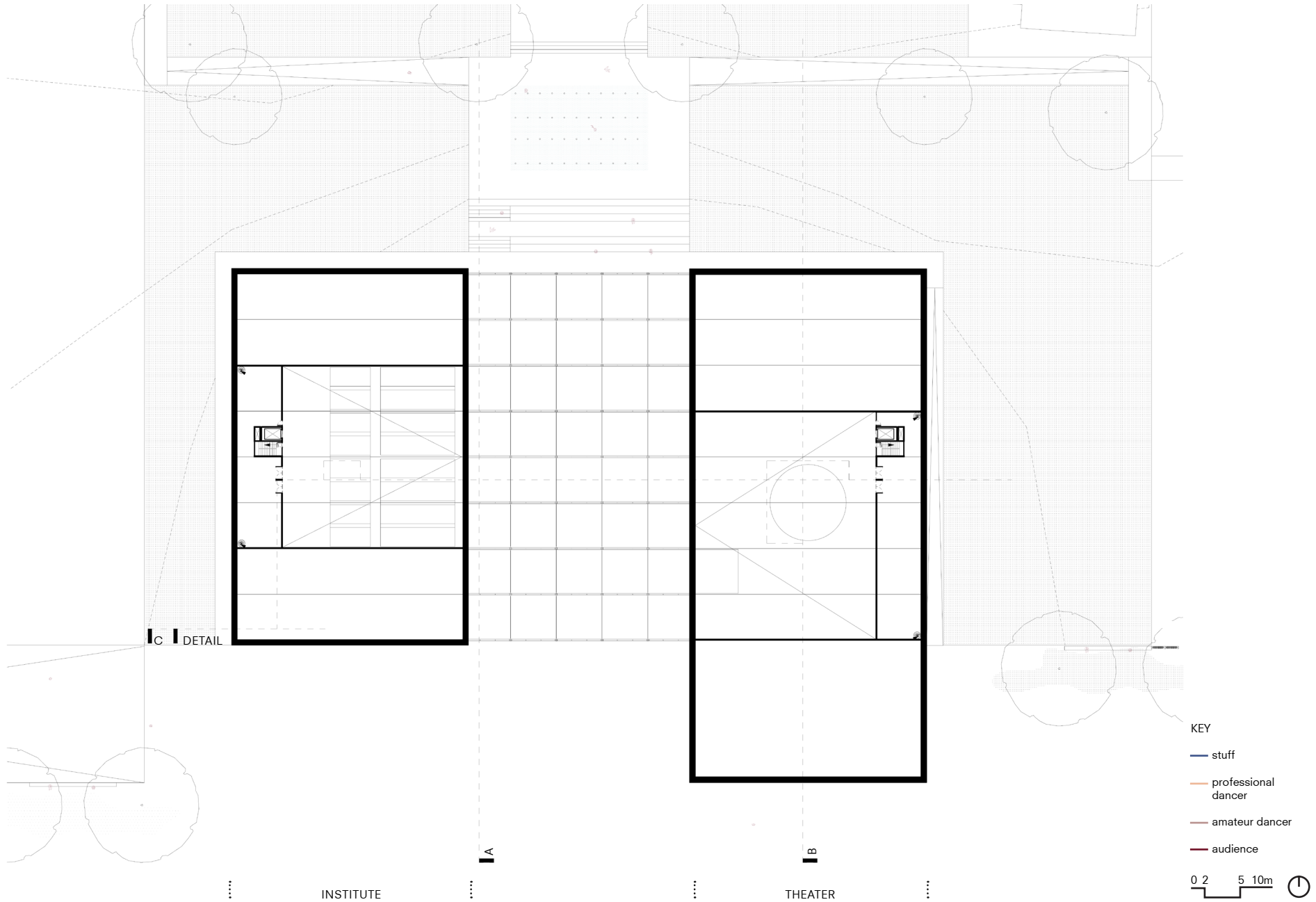
architectural design

BLACK-BOX AUDITORIUM



architectural design

+3 ACCESSIBLE ROOF



1. INTRODUCTION

2. RESEARCH SUMMARY

3. BRIEF

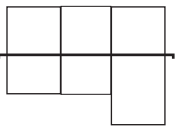
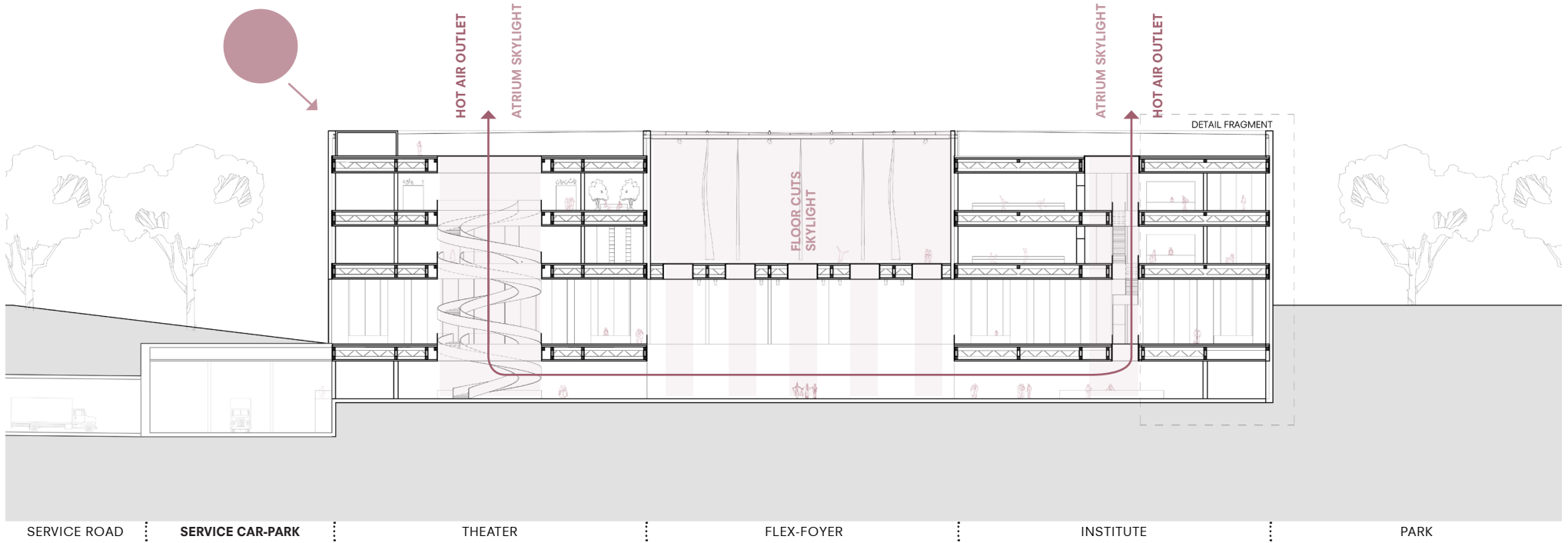
4. CONCEPT

5. ARCHITECTURAL DESIGN

6. ARCHITECTURAL ENGINEERING

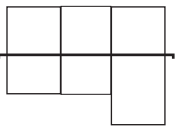
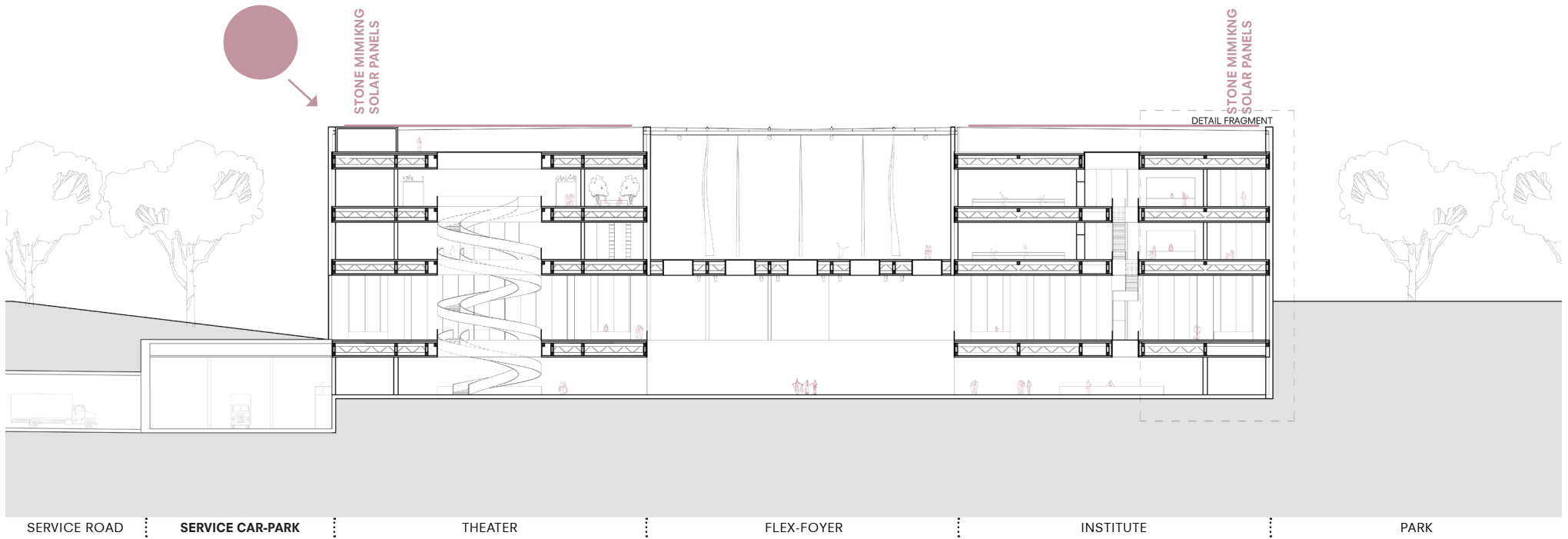
7. CONCLUSION

CROSS SECTION, NATURAL LIGHT



0 2 5 10m

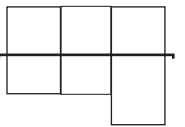
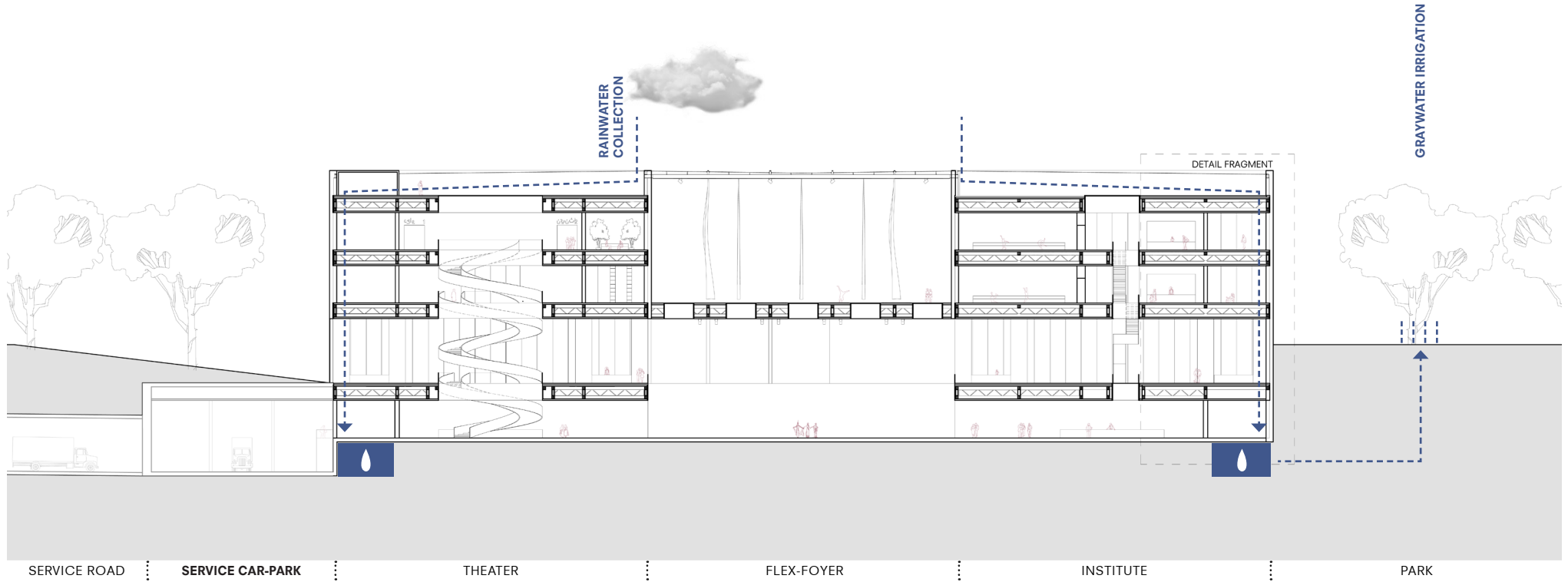
architectural engineering
CROSS SECTION, PVC



0 2 5 10m

architectural engineering

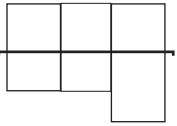
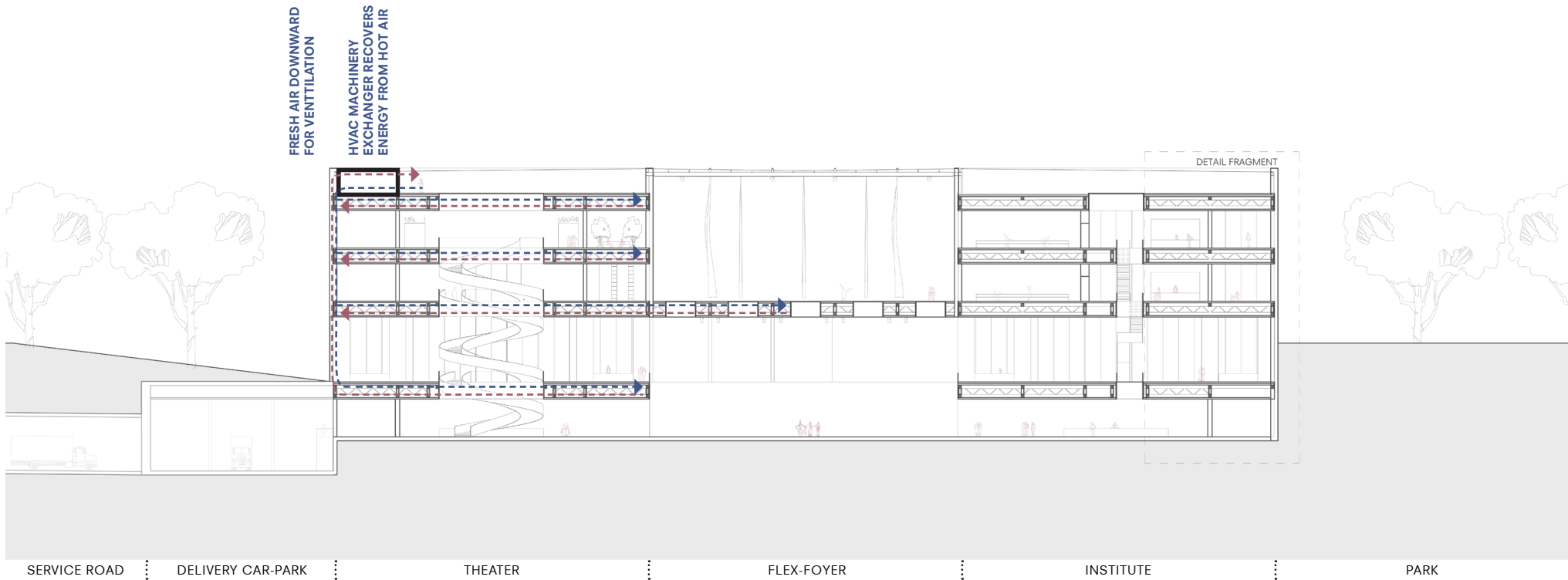
CROSS SECTION, ENVIRONMENT



0 2 5 10m

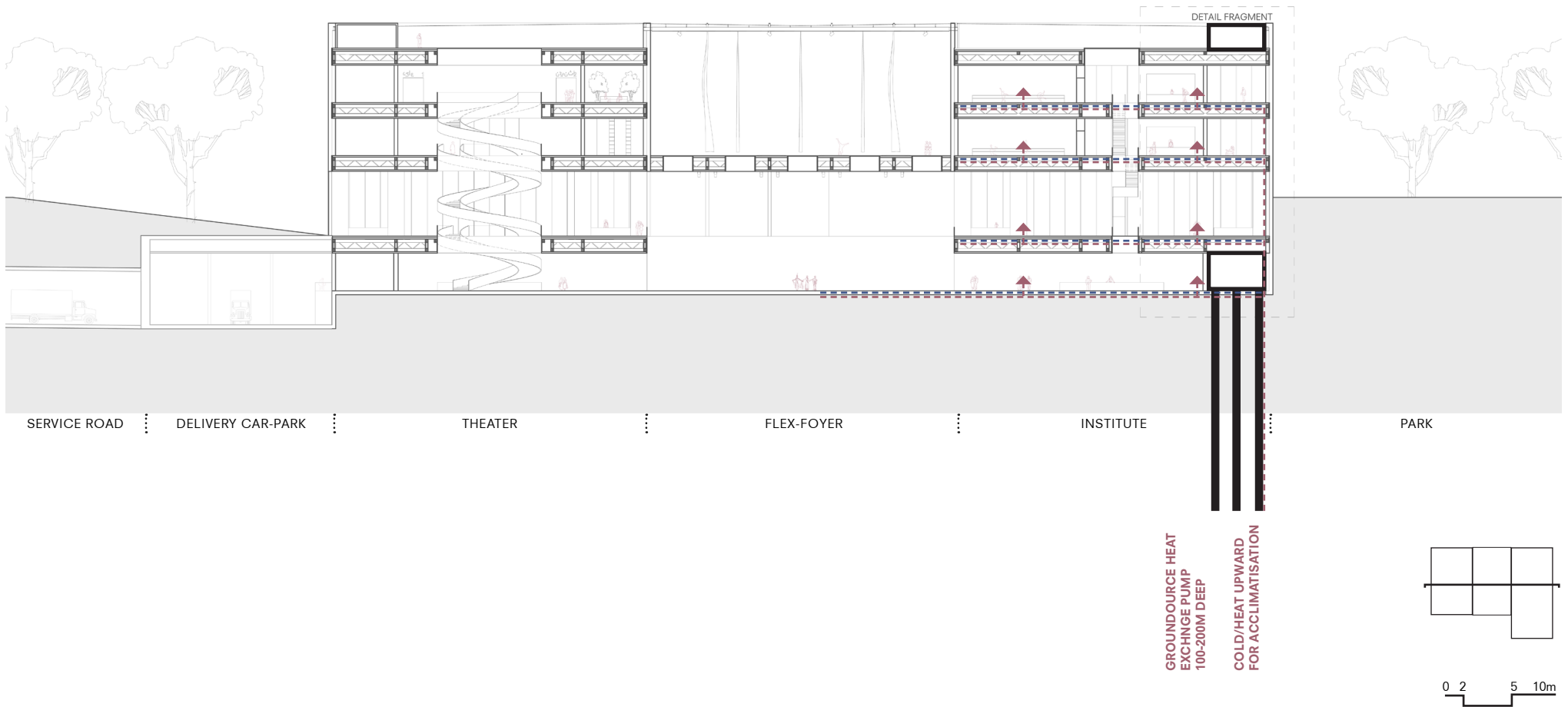
architectural engineering

CROSS SECTION, VENTILATION

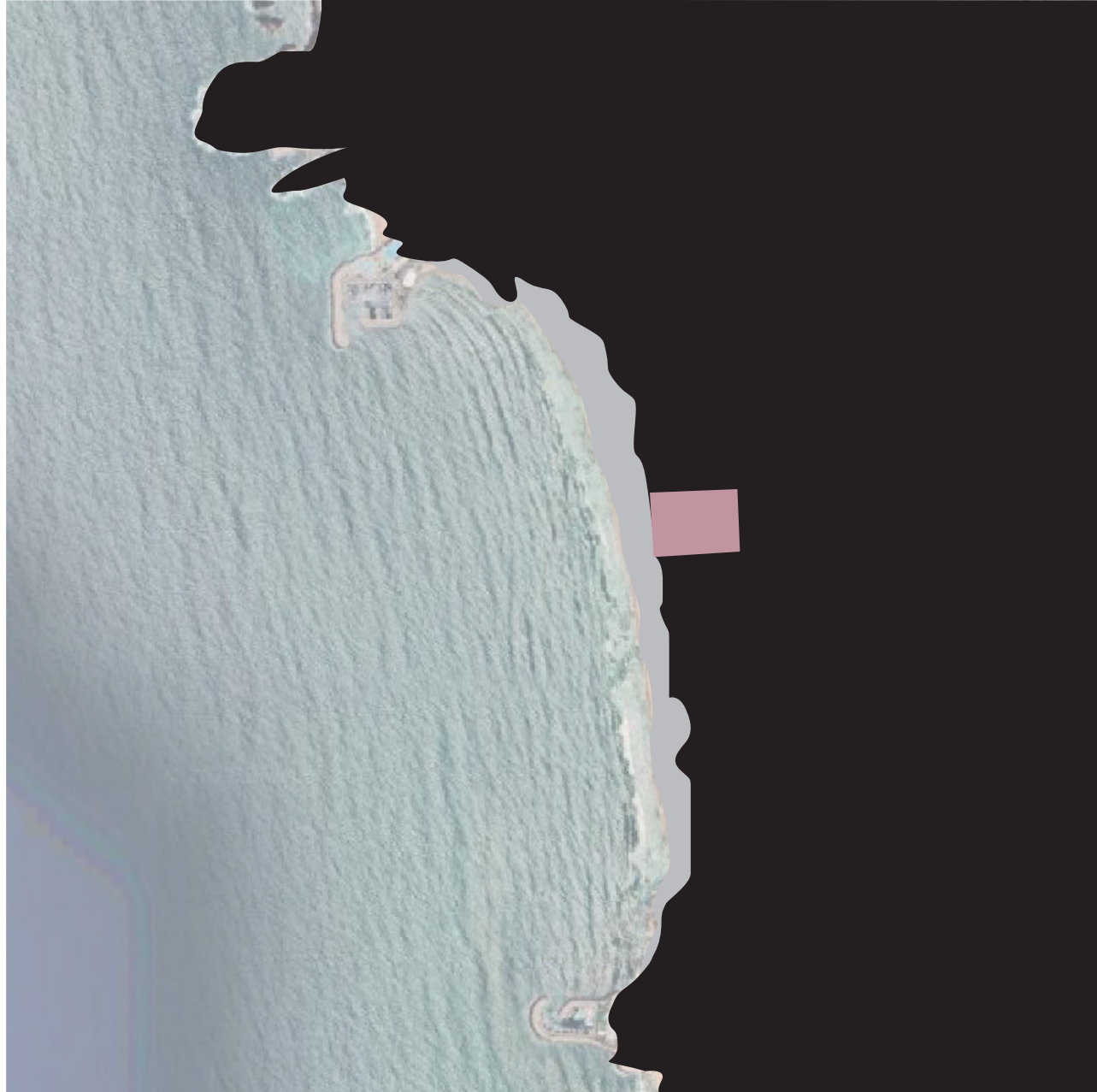


0 2 5 10m

CROSS SECTION, ACCLIMATISATION




MATERIAL: LEBANESE LIMESTONE GEOMORPHOLOGY



KEY

- sand dunes
- limestone terraces at 2m below sea level

0 100 200m 

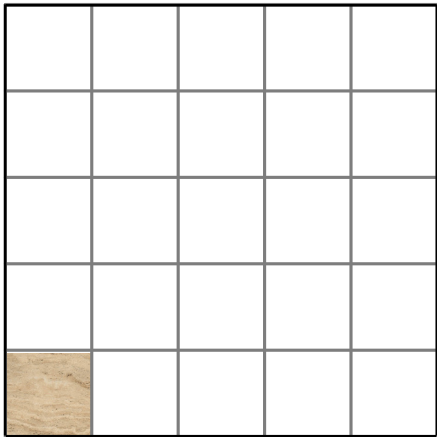
architectural engineering
STRUCTURAL GRID

**TYPICAL
LIMESTONE SLAB**



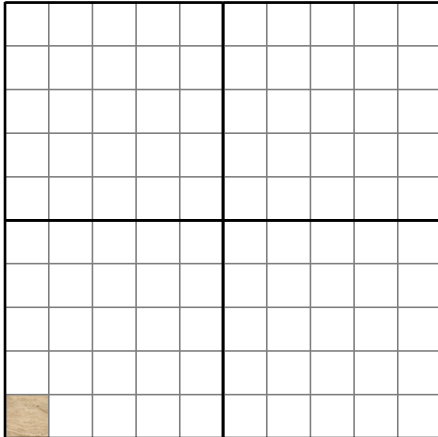
1.5m

**TYPICAL
STEEL FRAME STRUCTURE**



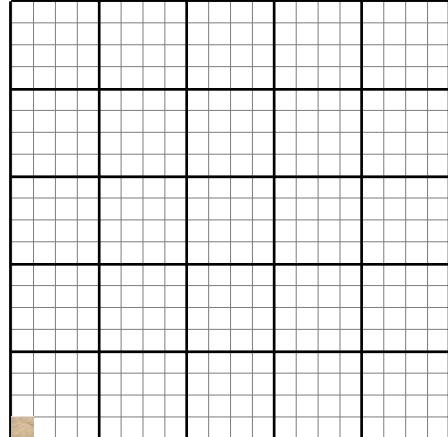
7.5m

**TYPICAL
DANCE STUDIO**

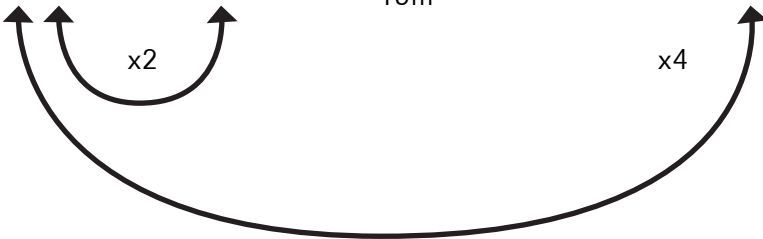
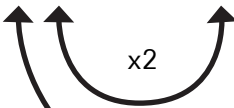


15m

**TYPICAL
PROSCENIUM AUDITORIUM**

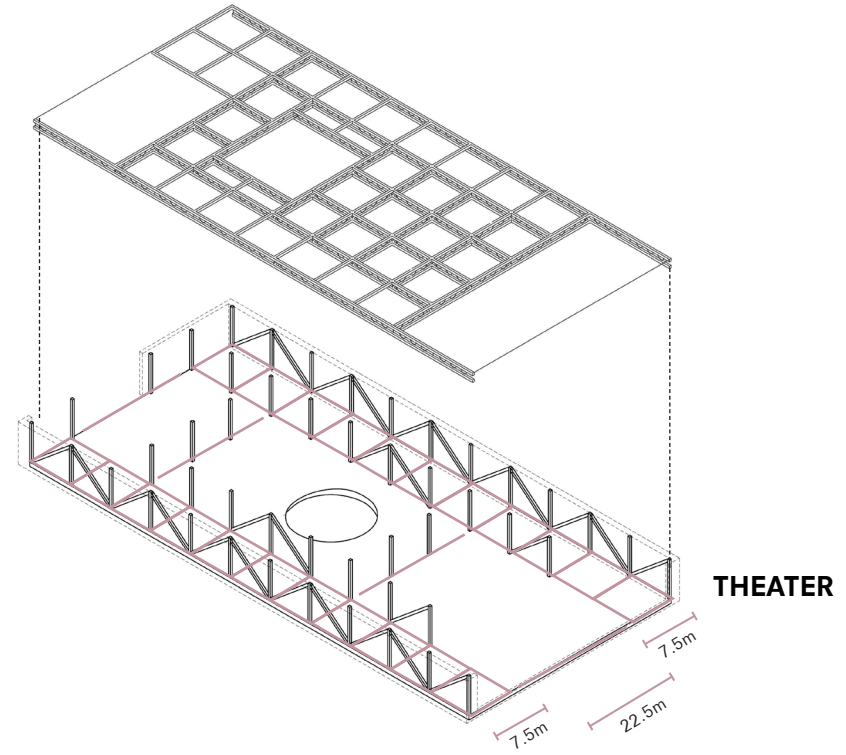
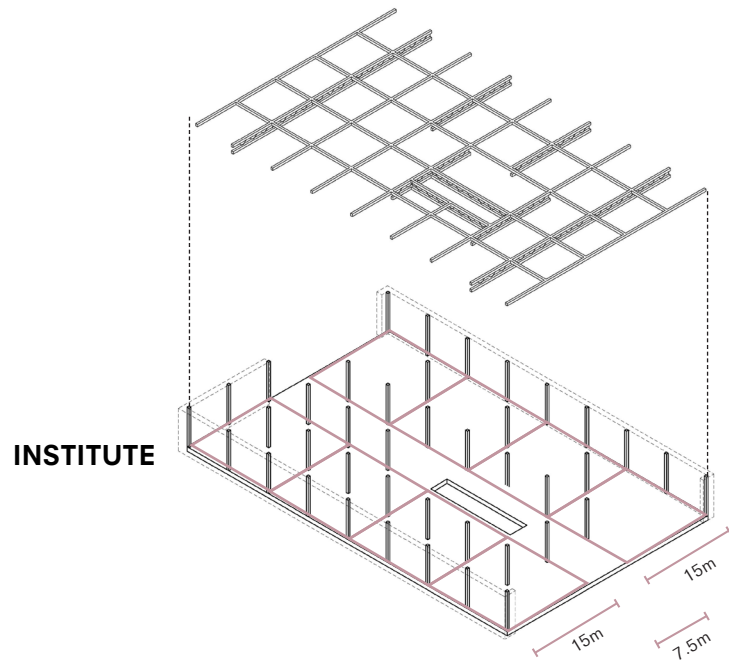


30m

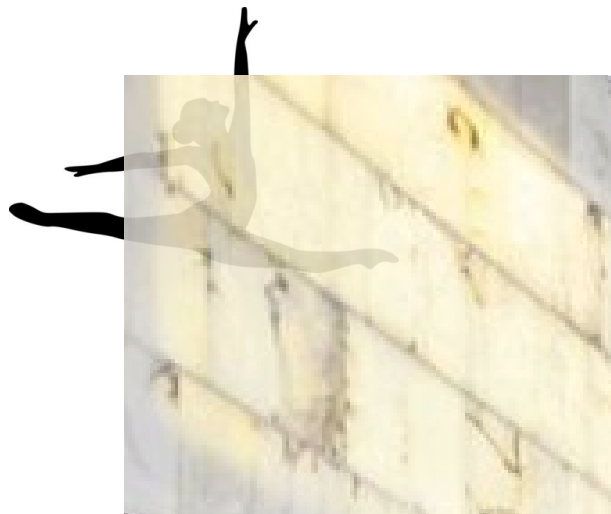


Inspired by the Netherlands Dance Theater by OMA

INVERTED PLANS SYSTEM



EAST & WEST FACADE SYSTEM: LIMESTONE + GLASS

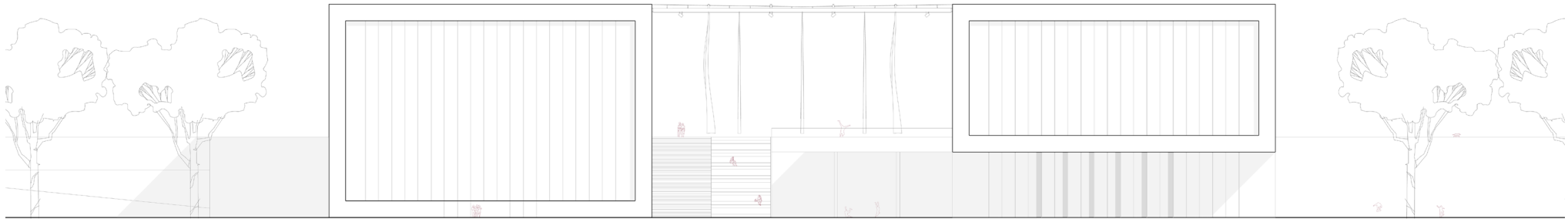


TRANSLUCENT



TRANSPARENT

EAST & WEST FACADE SYSTEM: LIMESTONE + GLASS



BEACH PROMENADE



INSTITUTE



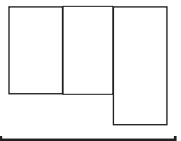
FLEX-FOYER



THEATER

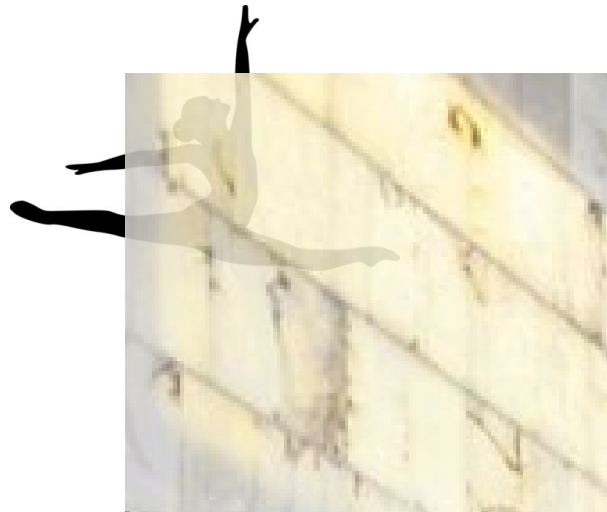


BEACH PROMENADE



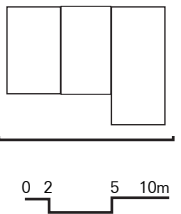
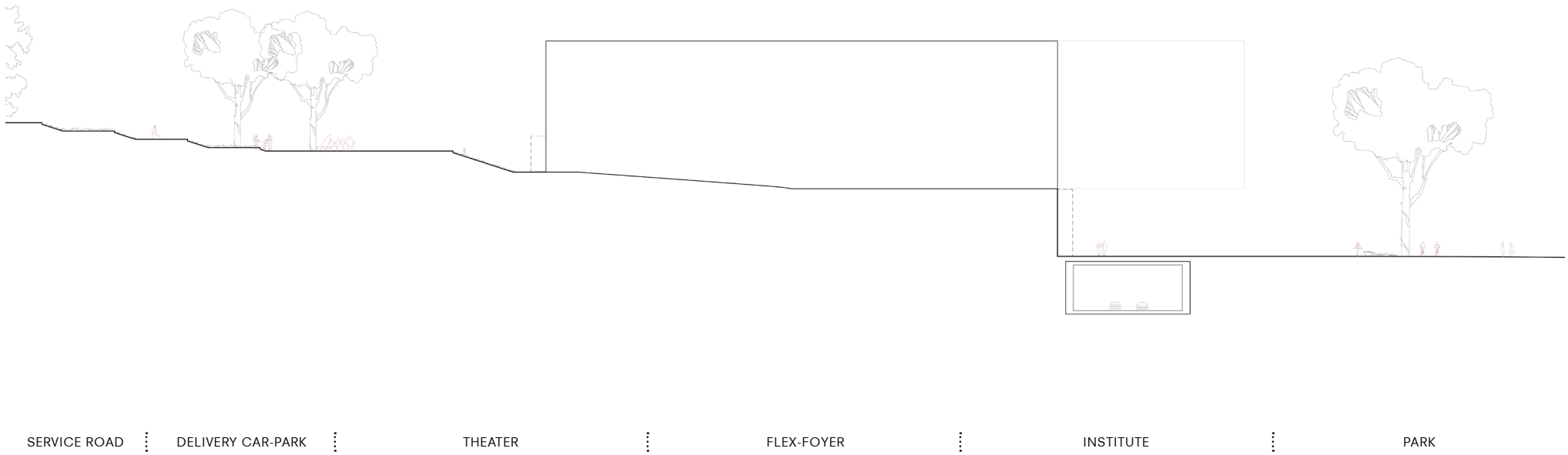
0 2 5 10m

NORTH & SOUTH FACADE SYSTEM: LIMESTONE

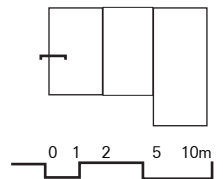


TRANSLUCENT

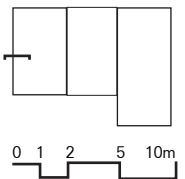
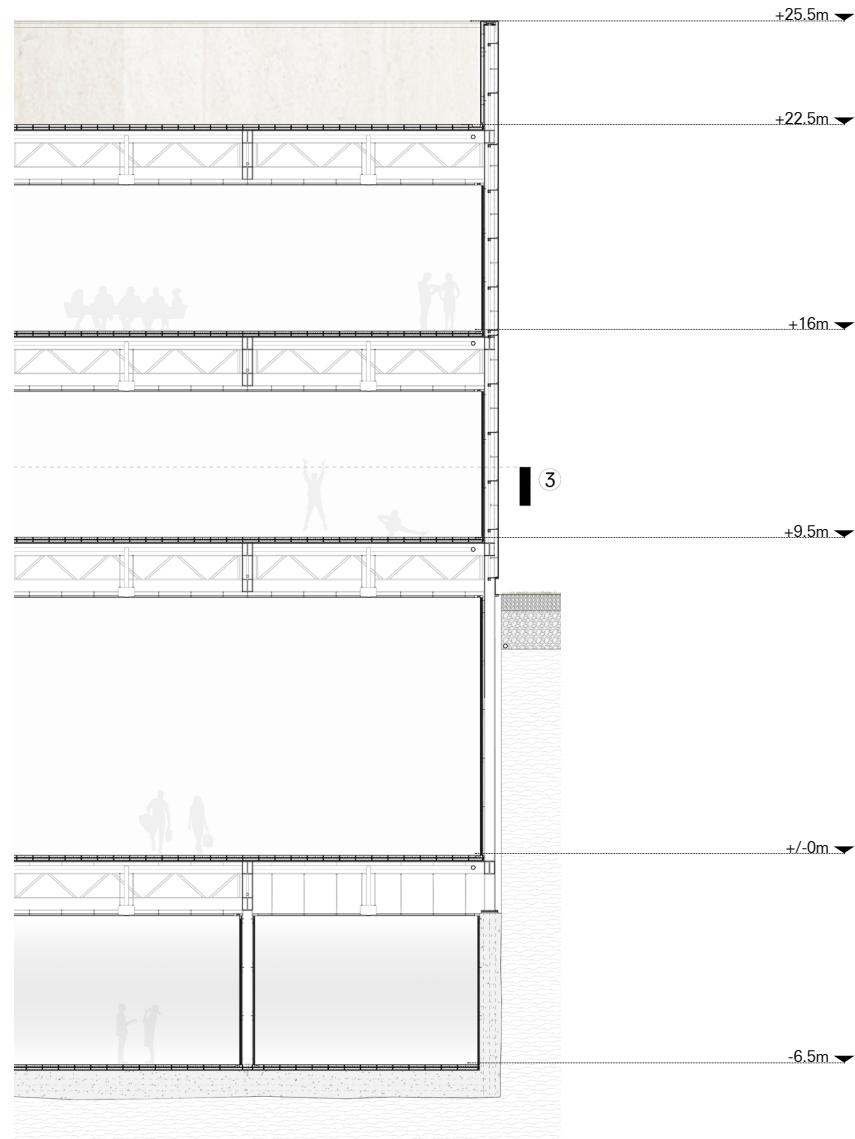
NORTH & SOUTH FACADE SYSTEM: LIMESTONE



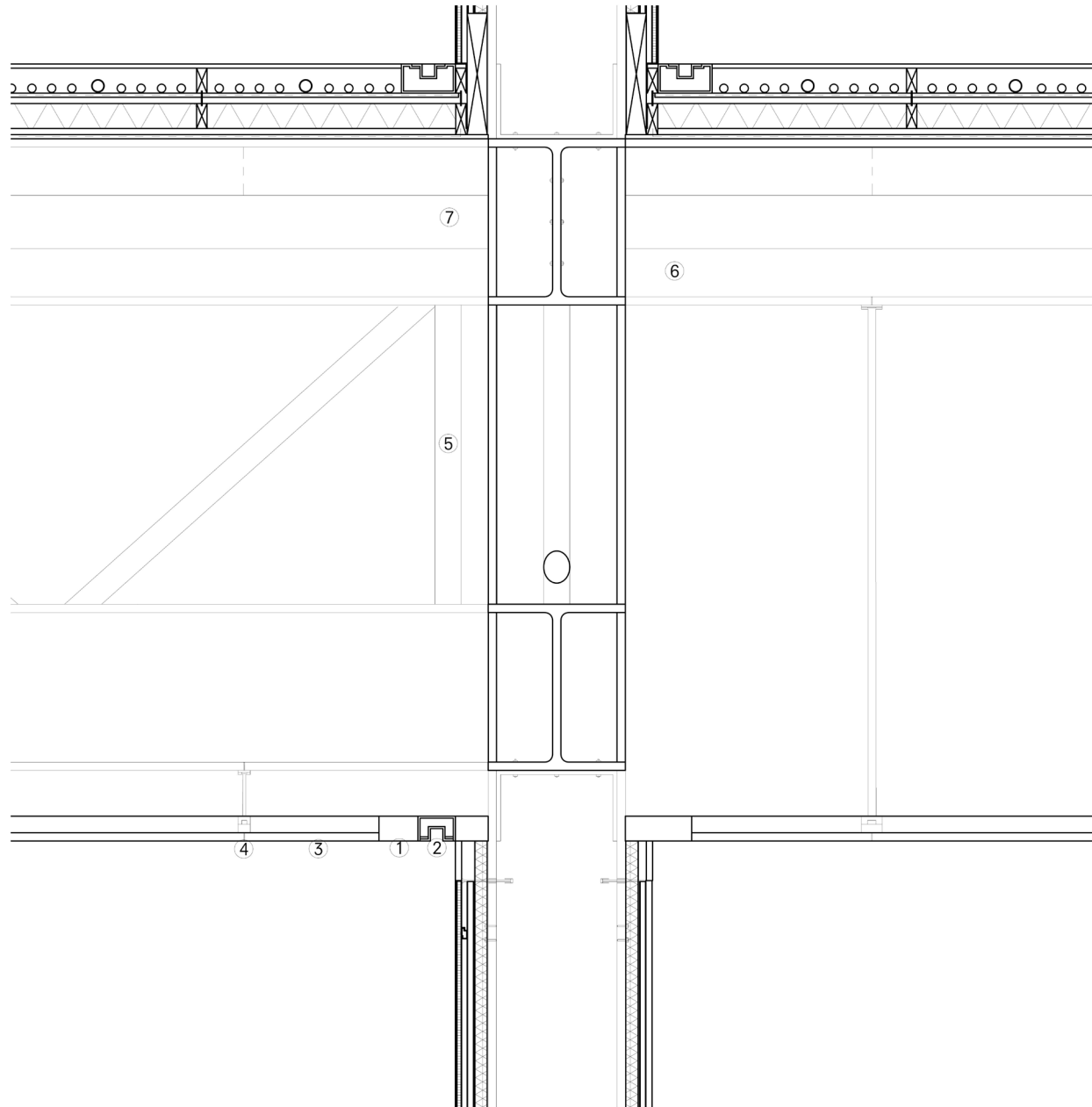
VETICAL FRAGMENT: BACKLIT THIN LIMESTONE PANELS



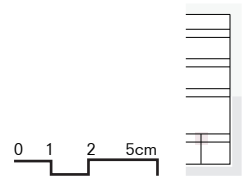
VETICAL FRAGMENT: BACKLIT THIN LIMESTONE PANELS



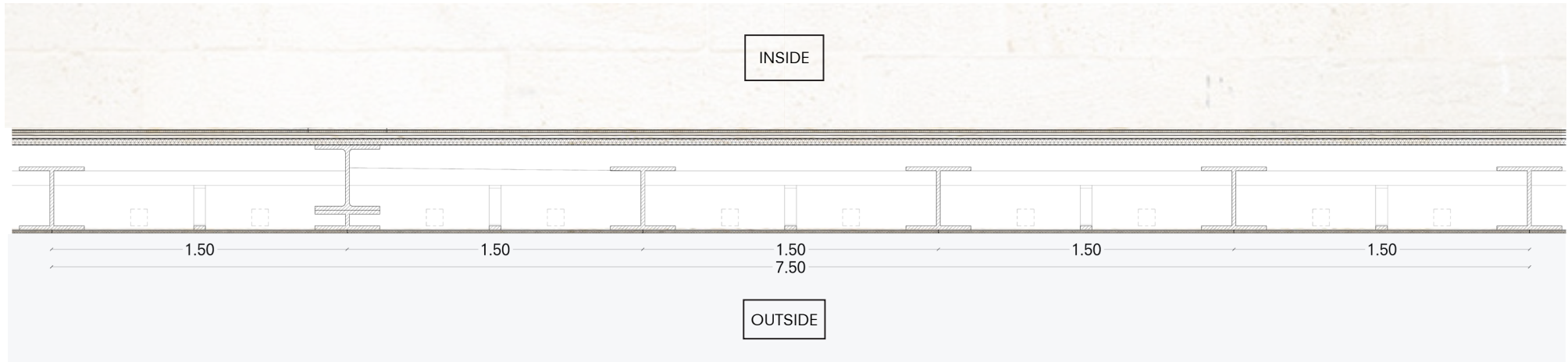
1.5M HIGH SERVICED STEEL BEAMS



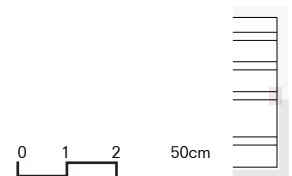
- 1. perimeter channel
- 2. led light channel
- 3. black matte plasterboard ceiling finish screwed to steel beam / truss
- 4. aluminum hangers on faux ceiling substructure
- 5. 150cm steel truss
- 6. 40cm steel beam
- 7. hvac



HORIZONTAL FRAGMENT: BACKLIT THIN LIMESTONE PANELS



3 facade fragment, horizontal section
1:20

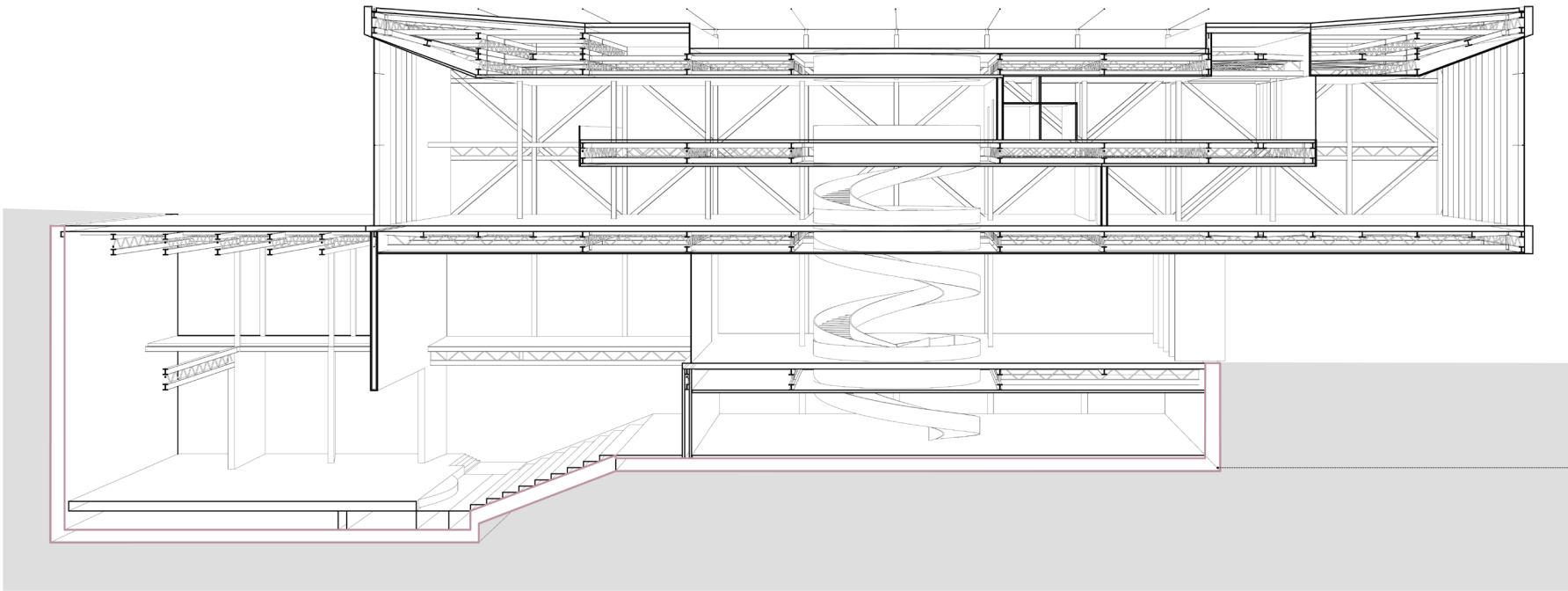


STRUCTURAL PRINCIPLE 1: CANTILEVER

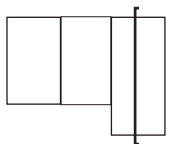


22.5m long cantilever extending from
60m long load-bearing steel frame
supported by continuous **cross-bracing**

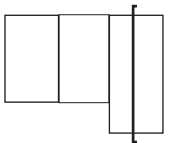
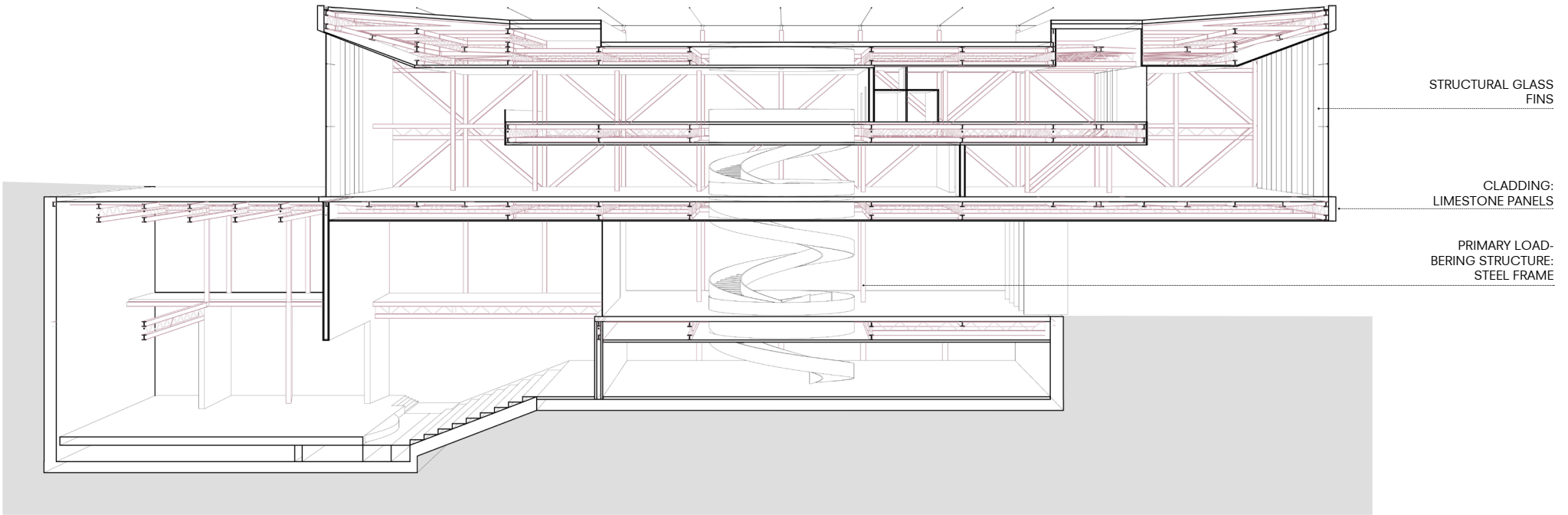
STRUCTURAL PRINCIPLE 1: CANTILEVER



RETAINING WALL
FOUNDATION:
POURED CONCRETE
TO LEVEL THE
EXCAVATED
LIMESTONE

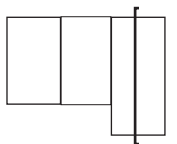
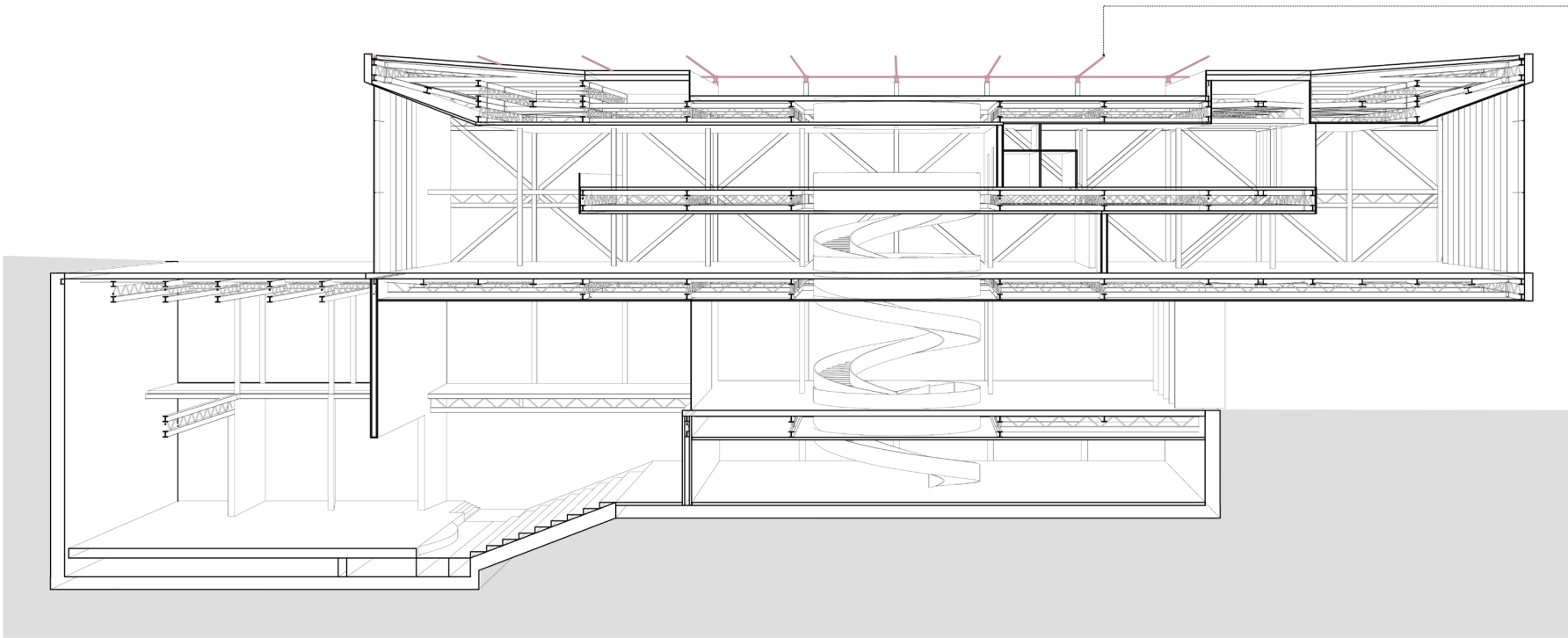


STRUCTURAL PRINCIPLE 1: CANTILEVER

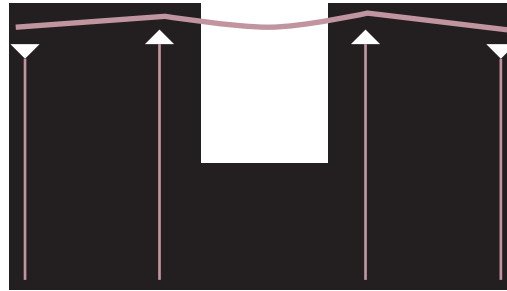


STRUCTURAL PRINCIPLE 1: CANTILEVER

CANOPY STRUCTURE:
UPPER STRESSED
LEVEL SYSTEM



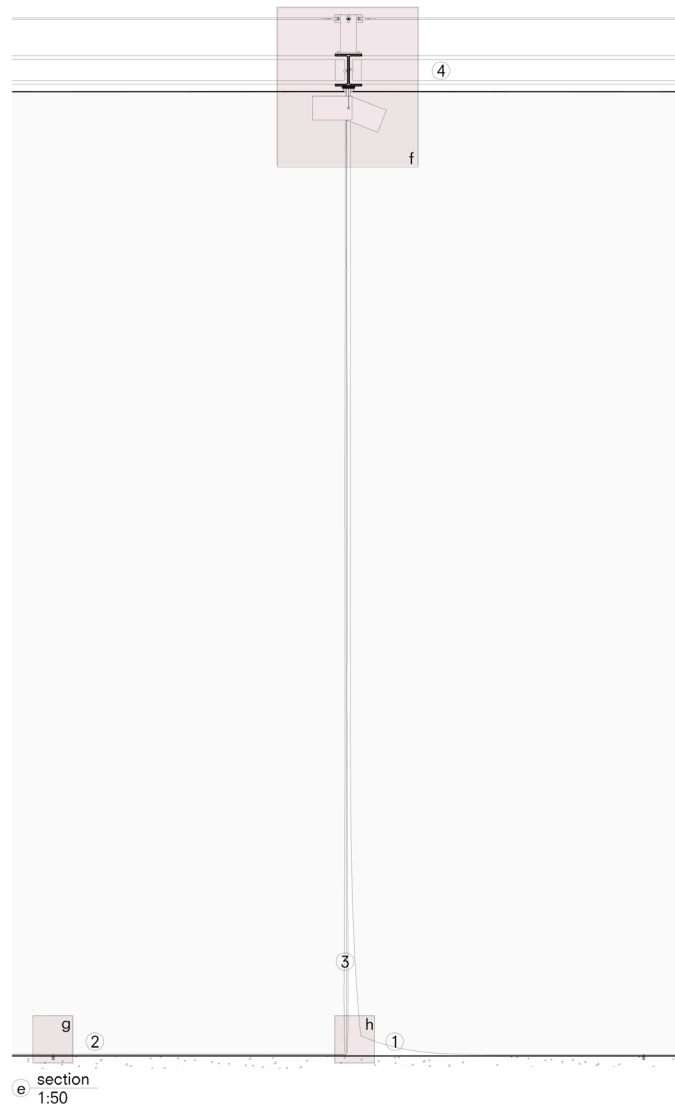
STRUCTURAL PRINCIPLE 2: SUSPENSION CANOPY



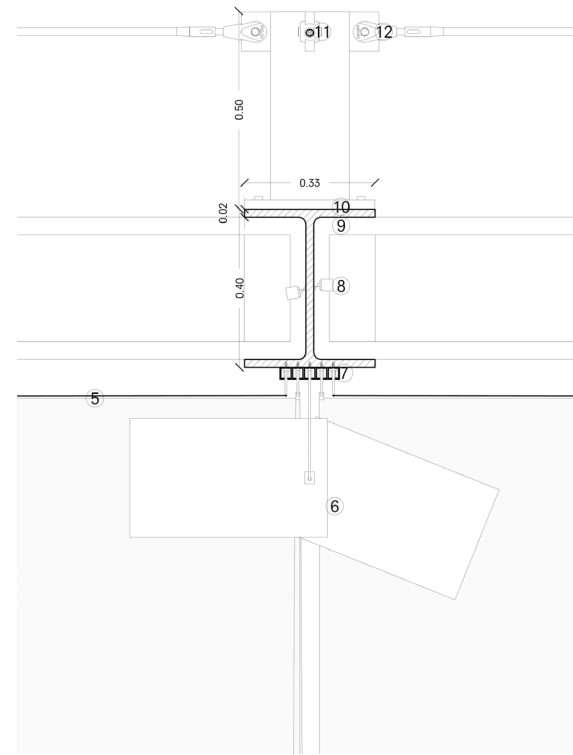
Upper stressed level system
inspired by principle of suspension
bridges (supporting top structure)

architectural engineering

SUSPENSION CANOPY



0 50 150cm



f



g

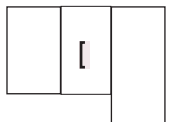
0 10 40cm

- E
1. unhooked partition textile with acoustic properties, moves with wind
 2. hooked large partition textile with acoustic properties, doesn't move with wind
 3. unhooked acrobatic textile, moveable for dance support
 4. canopy understructure with rails to:
 - add / remove textiles
 - slide in position
 - lighting

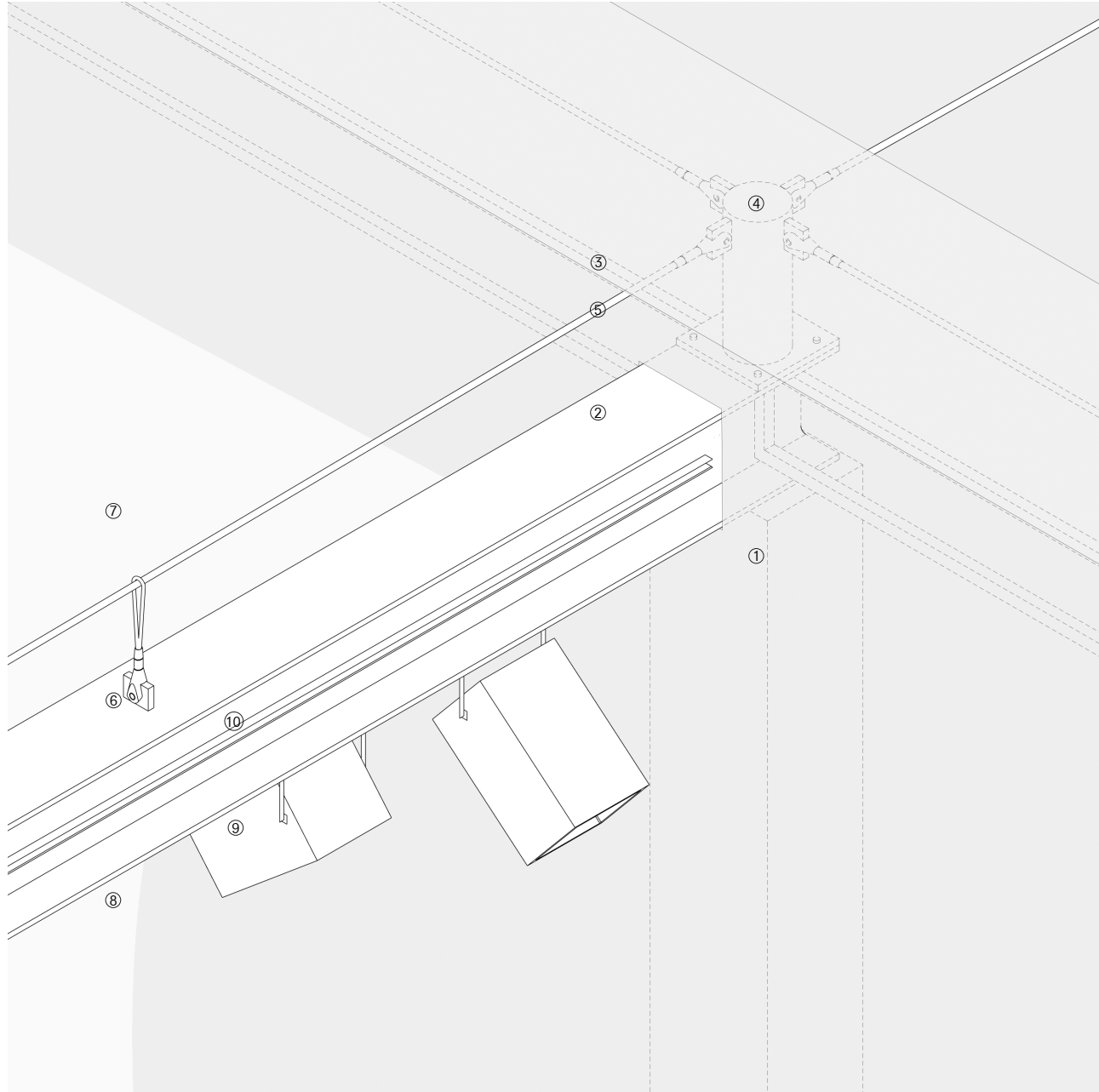
- F
5. removable horizontal textile for shade
 6. moveable, thermally insulated performance lights
 7. steel rail, white coat
 8. moving diffused led light
 9. hollow beam 40mm thick
 10. steel i beam
 11. compression cord
 12. tension cord system

- G
13. hooked textile
 14. tensing wire
 15. extractable metal hook

16. acrobatic textile
17. unhooked textile



CANOPY-TO-STEEL-FRAME CONNECTION

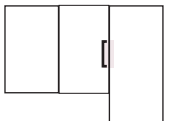


- 1. loadbearing steel frame
- 2. canopy white steel I beam
- 3. canopy hollow beam 40mm high
- 4. canopy compression steel element
- 5. canopy tension cord
- 6. canopy suspension hook
- canopy understructure with rails to add / remove:
- 7. horizontal textile for shade
- 8. vertical textile for partition
- 9. thermally insulated performance lights
- 10. steel rail for moving diffused LED light

canopy structure

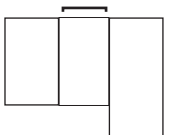
textile

limestone clad volume



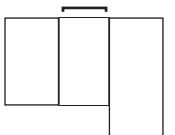
design

AMPHITHEATRE, DAY



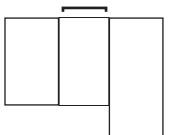
design

AMPHITHEATRE, SUNSET



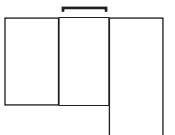
design

AMPHITHEATRE, EVENING



design

AMPHITHEATRE, NIGHT



1. INTRODUCTION

2. RESEARCH SUMMARY

3. BRIEF

4. CONCEPT

5. ARCHITECTURAL DESIGN

6. ARCHITECTURAL ENGINEERING

7. CONCLUSION

RESEARCH QUESTION

**HOW CAN A DANCE THEATER IN BEIRUT
DEFINE TRANSITIONAL PUBLIC-TO-
PRIVATE SPACE INVITING PEOPLE TO
USE IT FREELY?**

conclusion

THE PROJECT AS FUTURE CASE STUDY



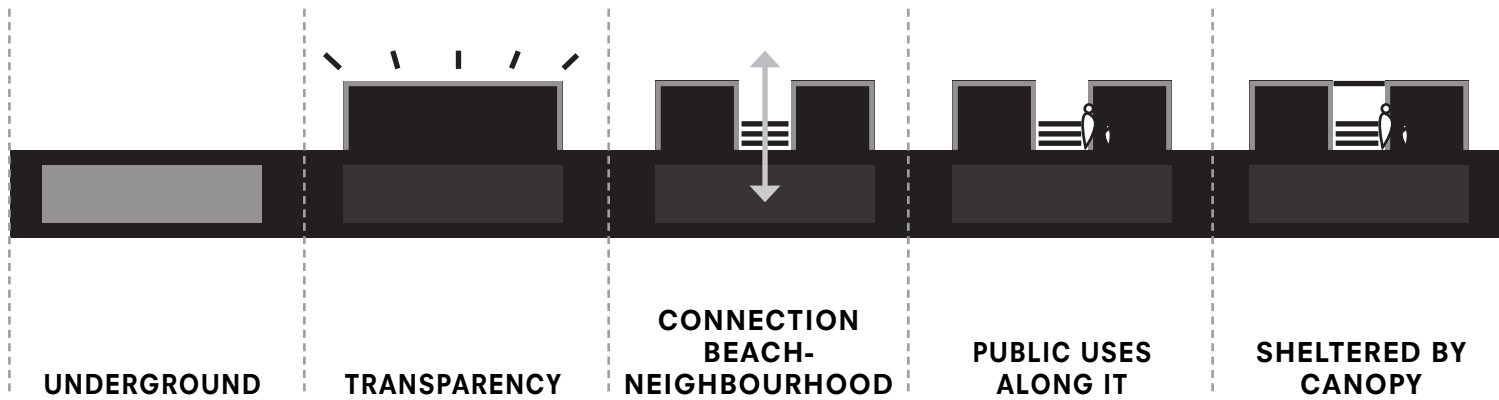
**PROTOTYPE OF REINTERPRETATION OF BEIRUT'S GOLDEN AGE
TRADITIONS AS A CULTURALLY APPROPRIATE DESIGN TOOL
THROUGH THE LENS OF TODAY SOCIAL PRACTICES**

RESEARCH ANSWER

- IT PROVIDES A **DESTINATION** WITHIN THE BIGGER GROUP SCHEME OF **ENHANCING CULTURAL RICHNESS** OF THE SUBURB
- IT DOES SO REACTIVATING A DERELICT PARK WITH DEFINED **PUBLIC SPACE OF QUALITY AND PARTIALLY OF FREE USE** FOR DIFFERENT FRINGES OF THE POPULATION
- IT PROVIDES A **MODEL FOR THE DEVELOPMENT** OF PUBLIC BUILDINGS ALONG THE LAST PUBLIC BEACH OF BEIRUT

conclusion

RESEARCH ANSWER



conclusion

REFLECTION ON GRADUATION



**UPCYCLING ART
SCHOOL,
FROME, UK**

**Bachelor
graduation project**



**COMMUNITY
CENTER, AZRAQ,
JORDAN**

MSc2



**DANCE
INSTITUTE,
BEIRUT, LEBANON**

**Master
graduation project**





THEATER

CE THEATER



CE THEATER



CE THEATER

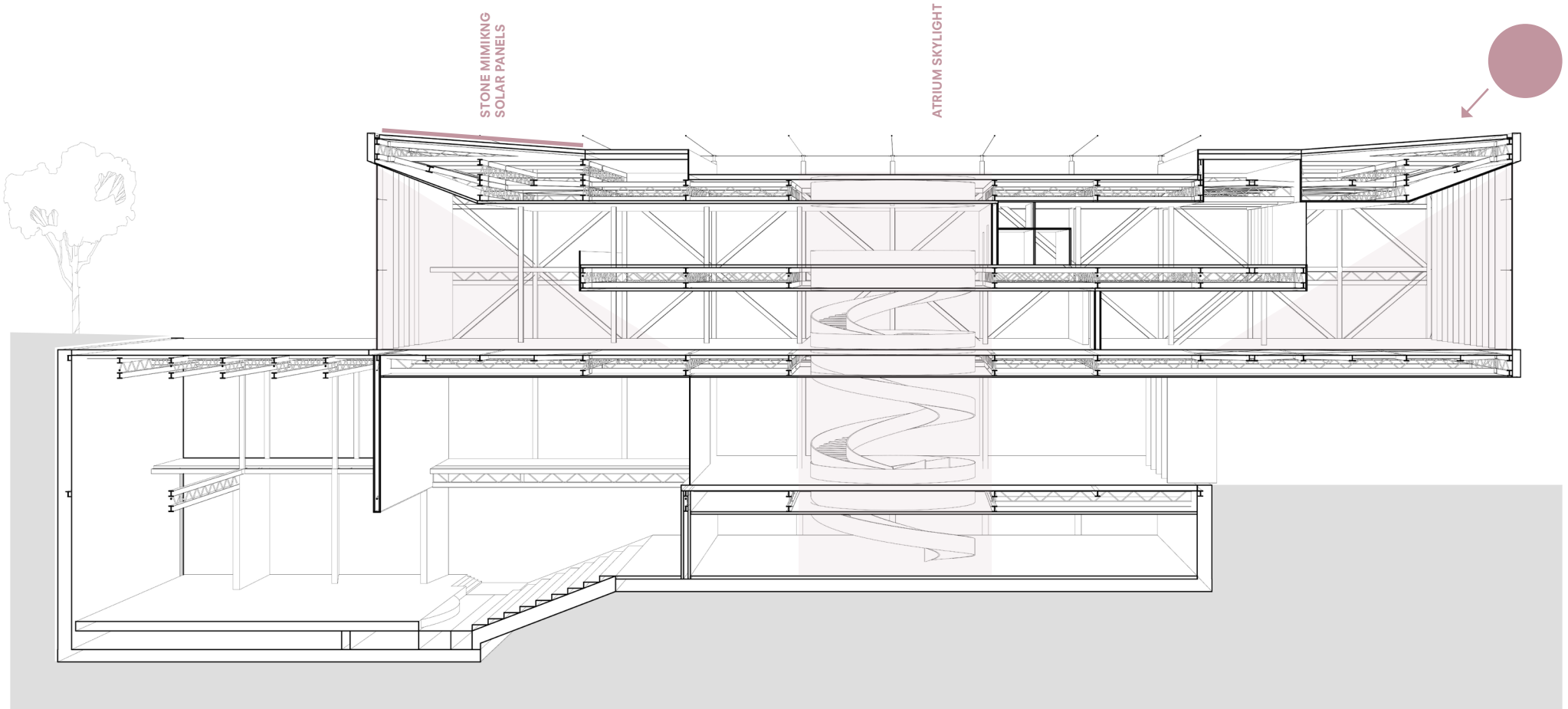


THANK YOU

THEATER

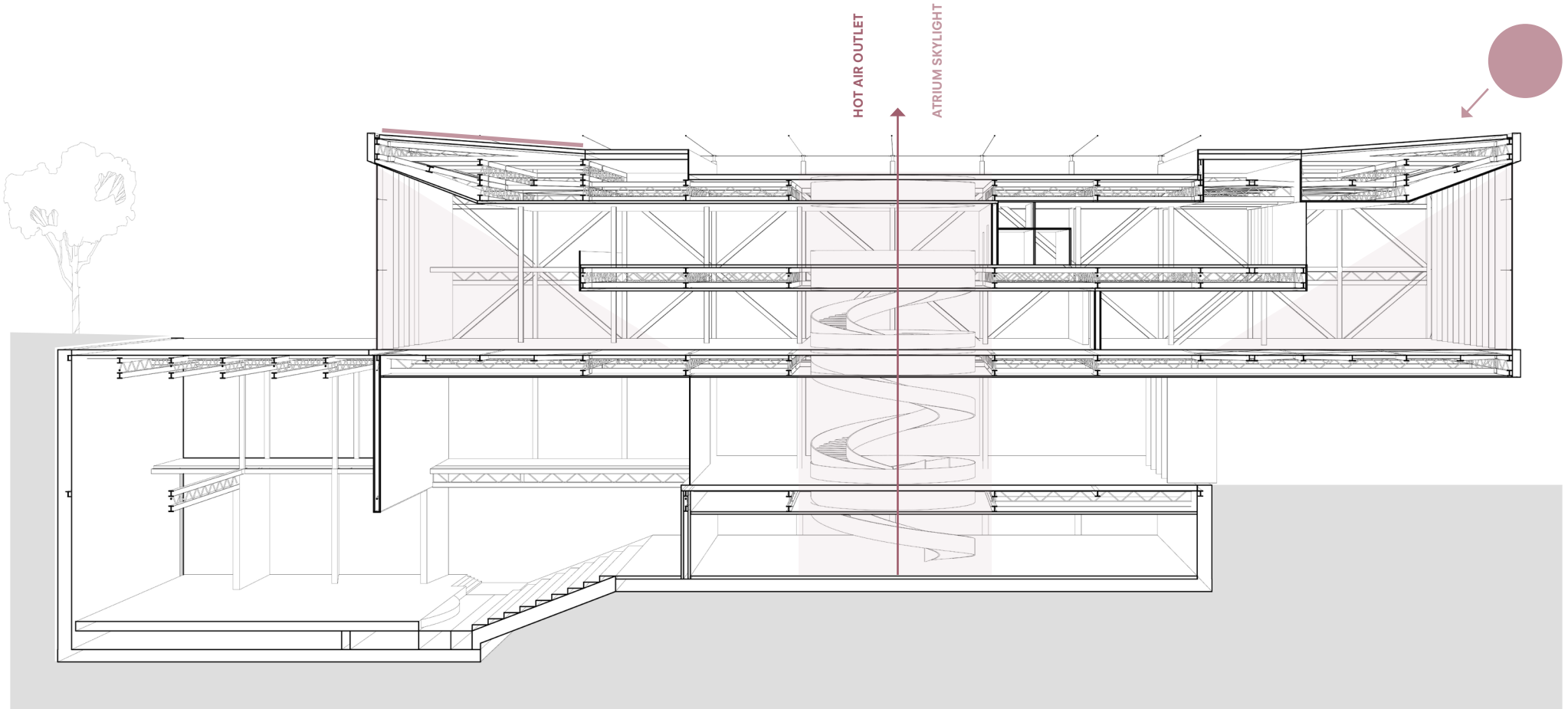


CROSS SECTION, ENVIRONMENT

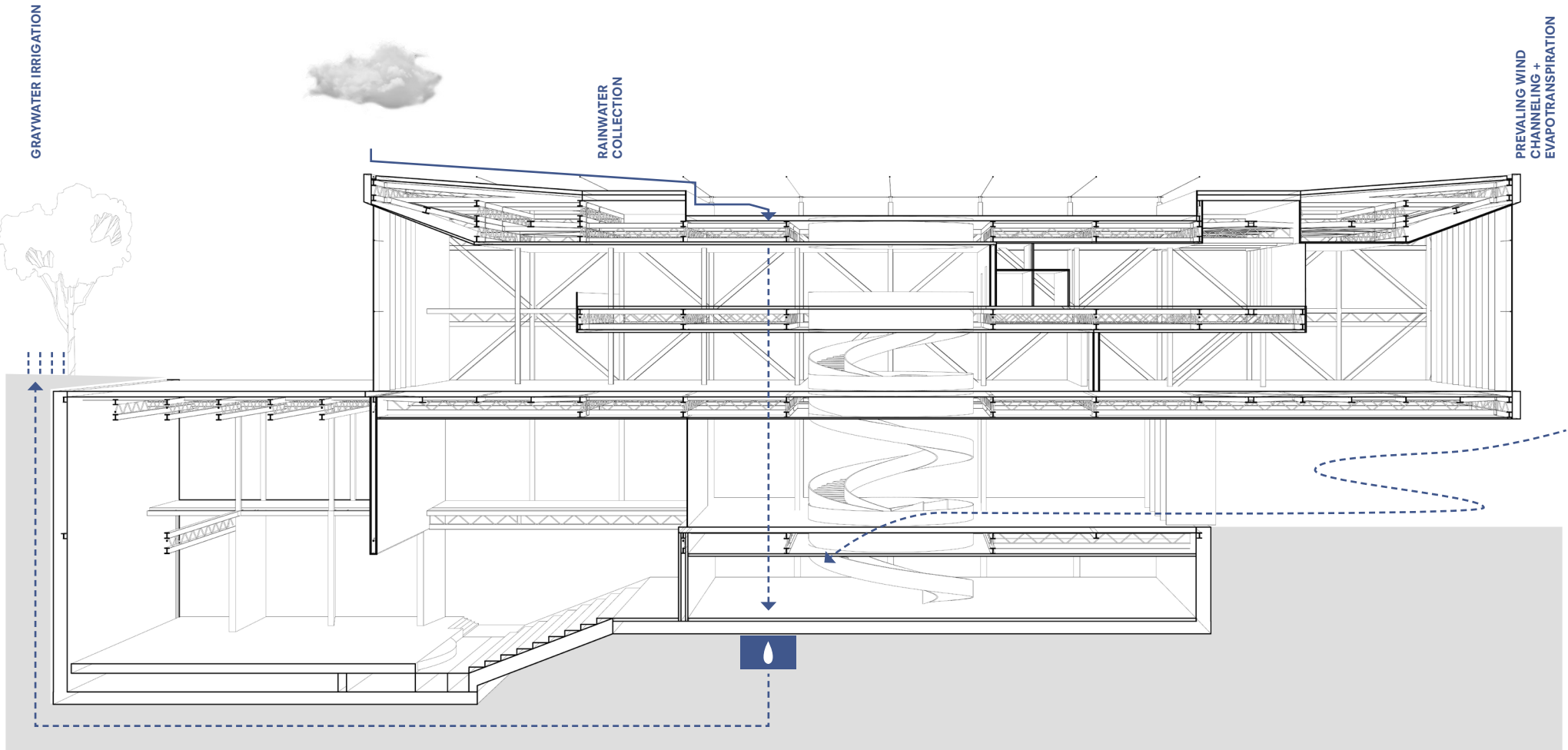


architectural dea architectural engineering sign

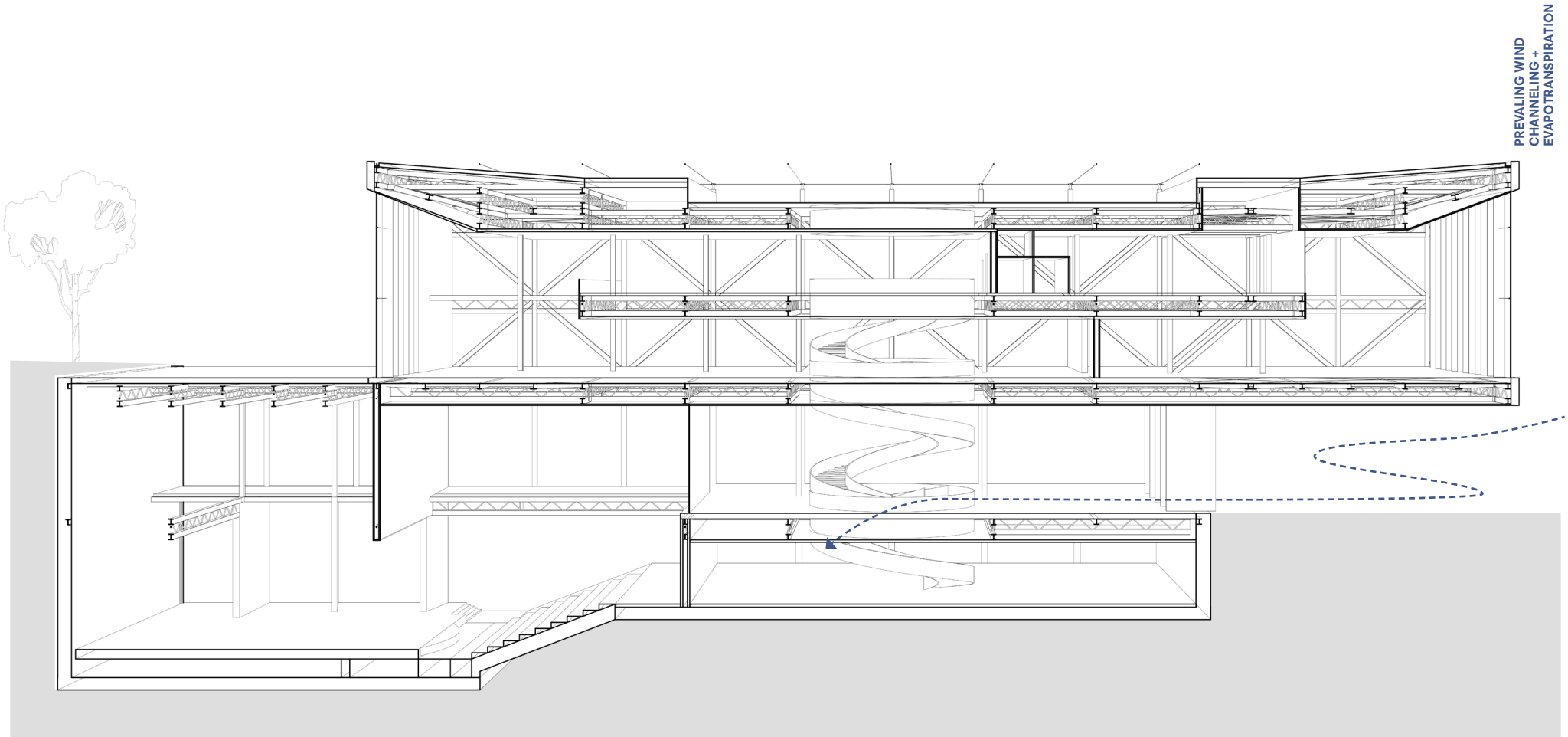
CROSS SECTION, ENVIRONMENT



CROSS SECTION, ENVIRONMENT

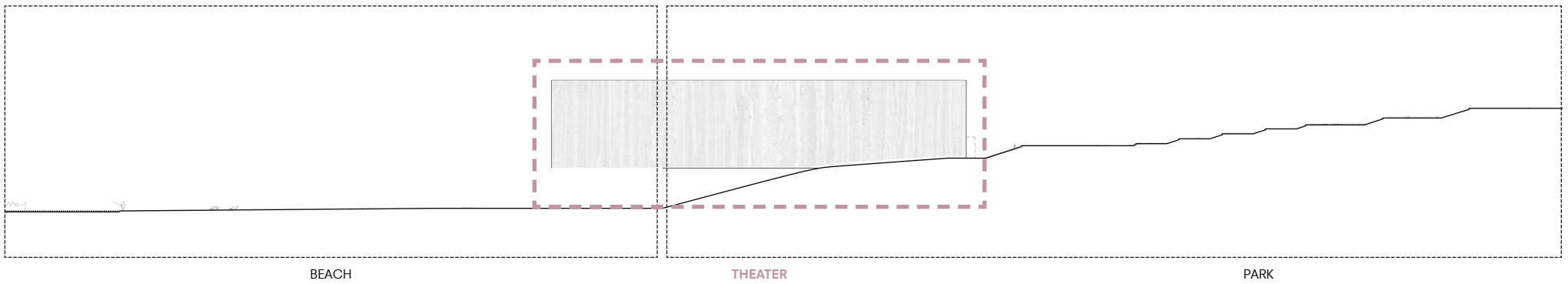


CROSS SECTION, ENVIRONMENT



strategy

SITE ELEVATION



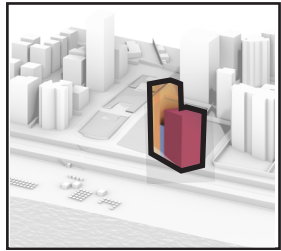
BEACH

THEATER

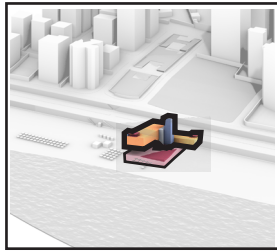
PARK



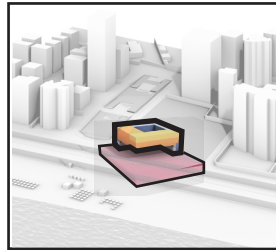
concept
MASSING STUDIES



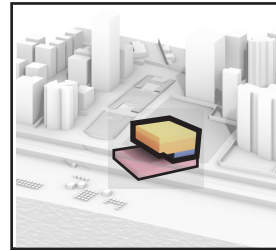
TOWERS



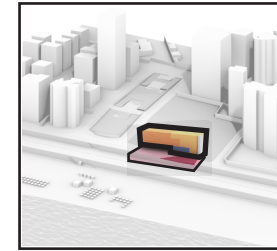
ENSEMBLE



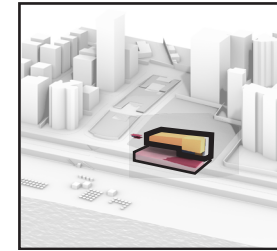
COURTYARD



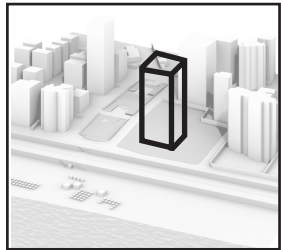
SQUARE



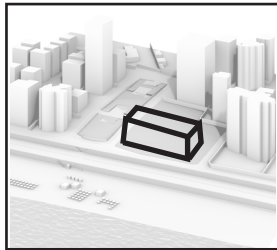
BAR



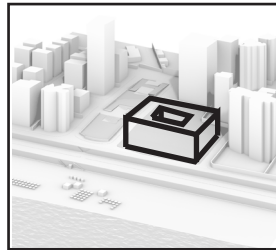
BAR OVERHANG



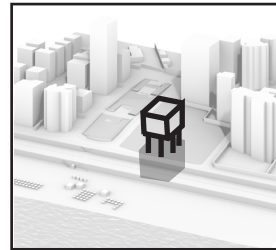
TOWER



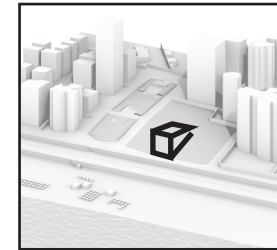
BAR



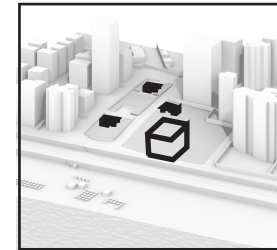
COURTYARD



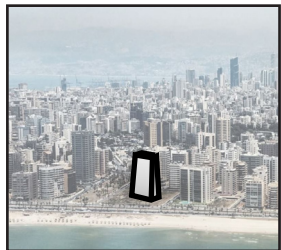
**FREE FLOW+
UNDERGROUND**



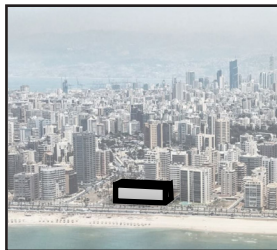
SLOPE



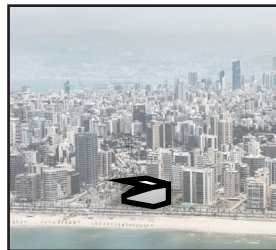
PAVILIONS



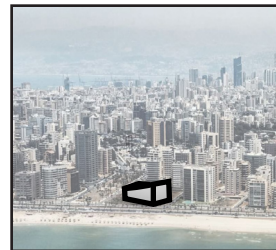
TOWER



**PERPENDICULAR
BAR**



ROOF TERRACE



SLANTED



SLANTED



SLANTED TERRACE

strategy
PRECEDENTS



GATE & SHELTER



OVERHANG



**SEAMLESS
STRUCTURE**



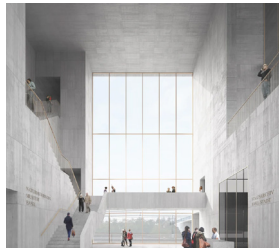
FLOWING TEXTILE



CLOSED TEXTILE



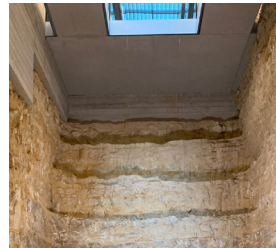
LIT TEXTILE



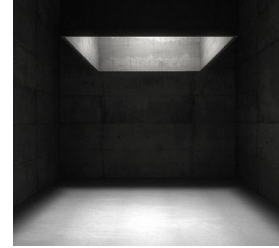
**VIEW-FRAMES
DIRECTION**



**UNDERGROUND
FOYER**



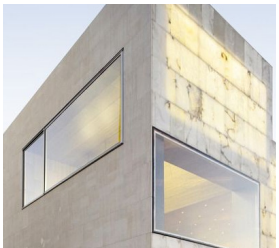
**LIMESTONES
ENCOUNTERS**



INTERIOR ATRIUM



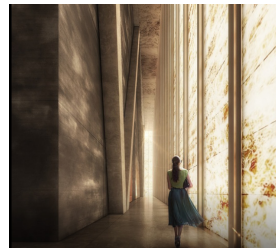
EXTERIOR ATRIUM



OPENINGS



CANOPY



SCALE



PRIVACY



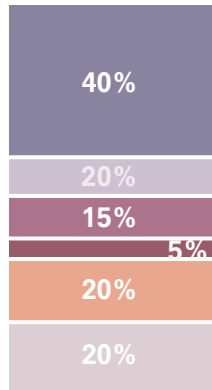
LIGHT CONTROL



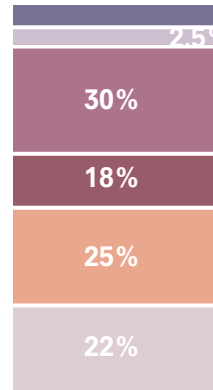
SKY LIGHT

program reference
PROGRAM BAR

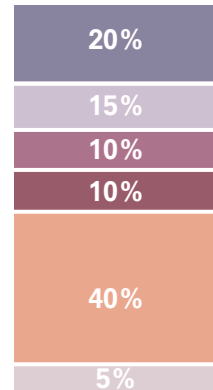
- KEY
- foyer
 - commerce
 - podium
 - backstage
 - auditorium
 - rehearsal
 - offices + storage



TOT. 5,700 m²

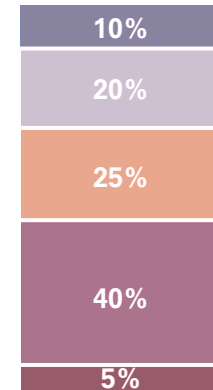


TOT. 1,000 m²

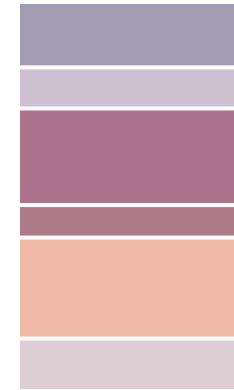


TOT. 1,000 m²

LOCAL



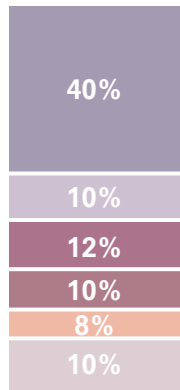
TOT. 7,800 m²



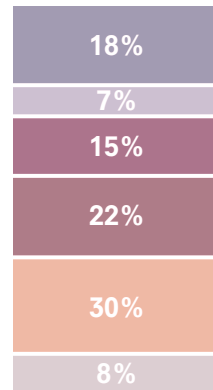
CONCLUSION

EUROPEAN

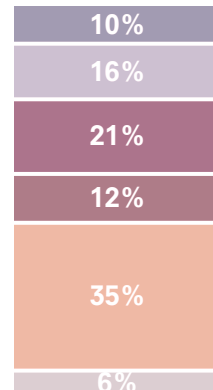
TOT. 77,000 m²



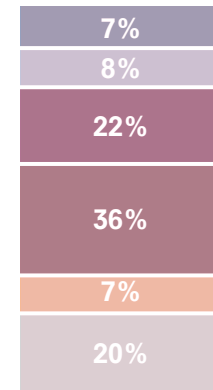
TOT. 15,000 m²



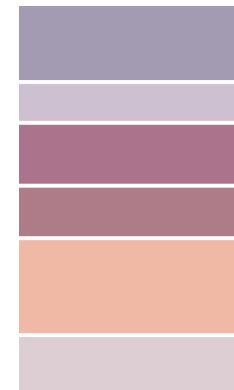
TOT. 11,000 m²



TOT. 54,000 m²



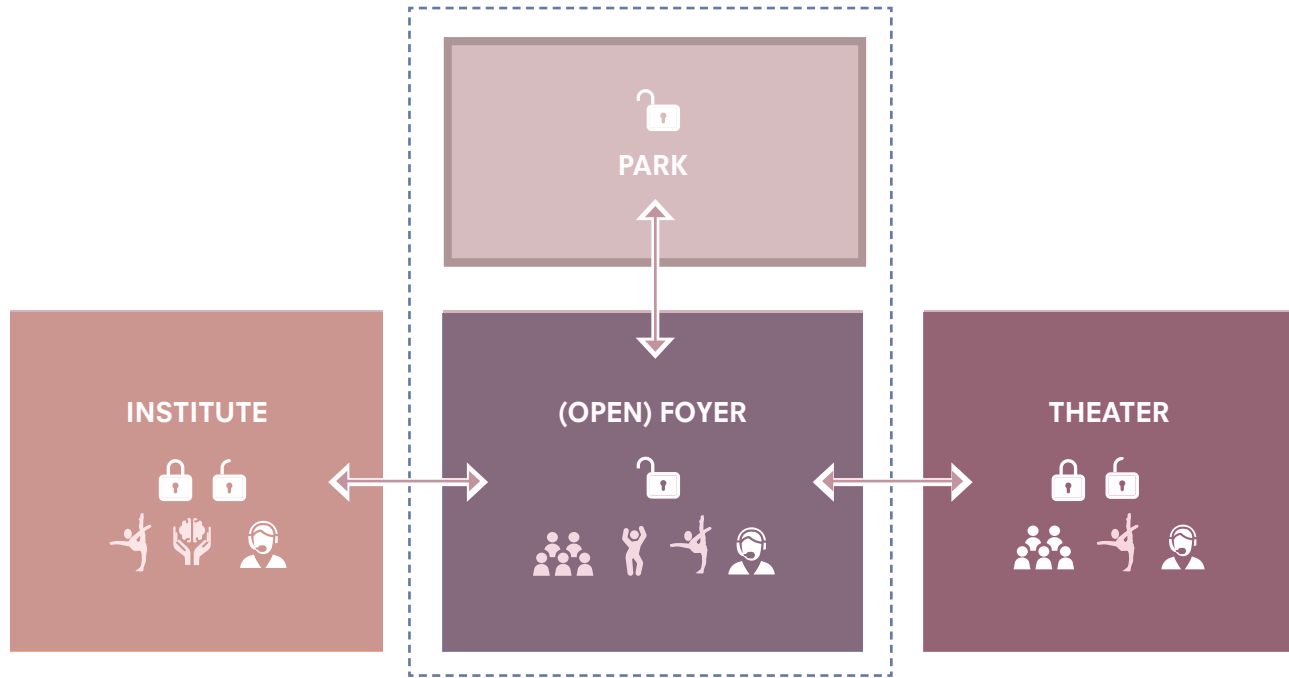
CONCLUSION



PROGRAM RELATION

KEY

- park
- foyer
- open foyer
- commerce
- podium
- backstage
- auditorium
- rehearsal / workshop
- offices
- storage



site selection

HIGH-RISE APARTMENT TOWERS & VIEWS TO THE SEA

