

BOUNCING FORWARD

URBAN REDEFINITION FOR THE RESILIENT CITY: ENSCHEDE



13th of May, 2000







2004

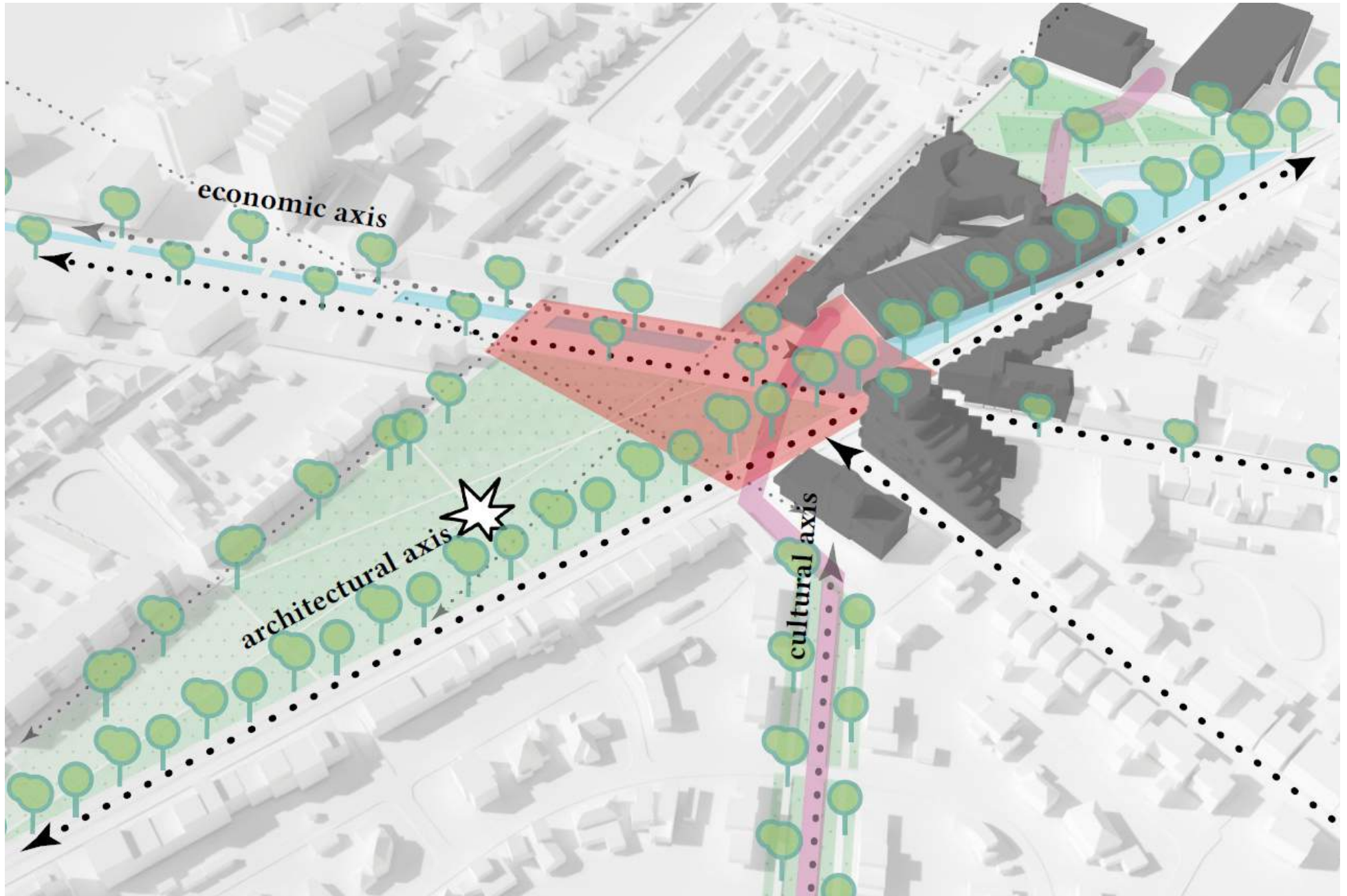
final stitch to the fabric



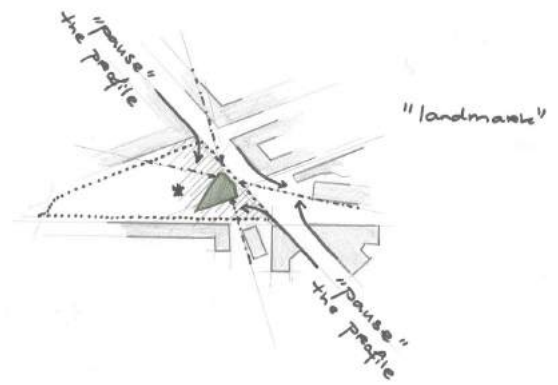
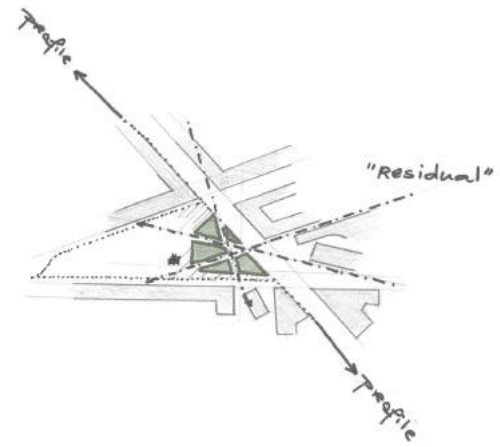
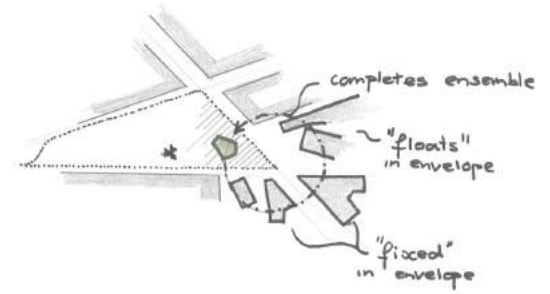
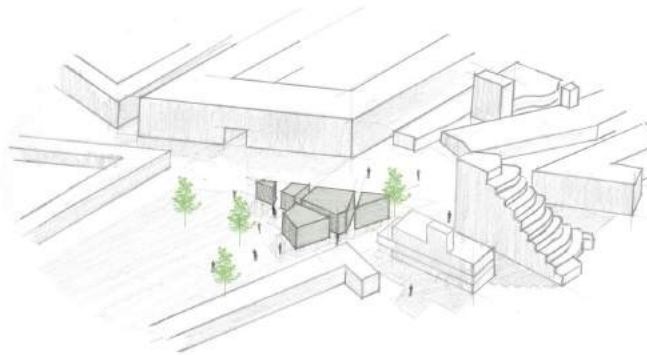
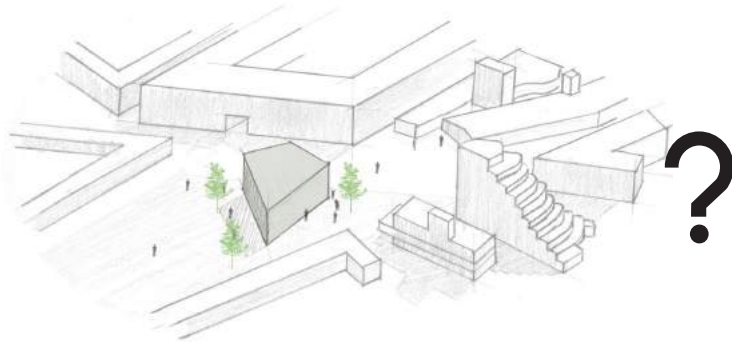
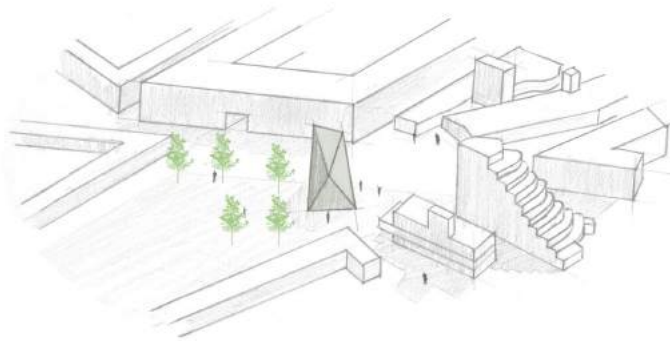
final stitch to the fabric



final stitch to the fabric



new train of thought



urban resilience: turbulent timeline



urban resilience: disaster struck city



Research Question

How can the city redefine itself by learning from its own experience in urban resilience?

Research Question

How can the city redefine itself by learning from its own experience in urban resilience?

The case of Enschede

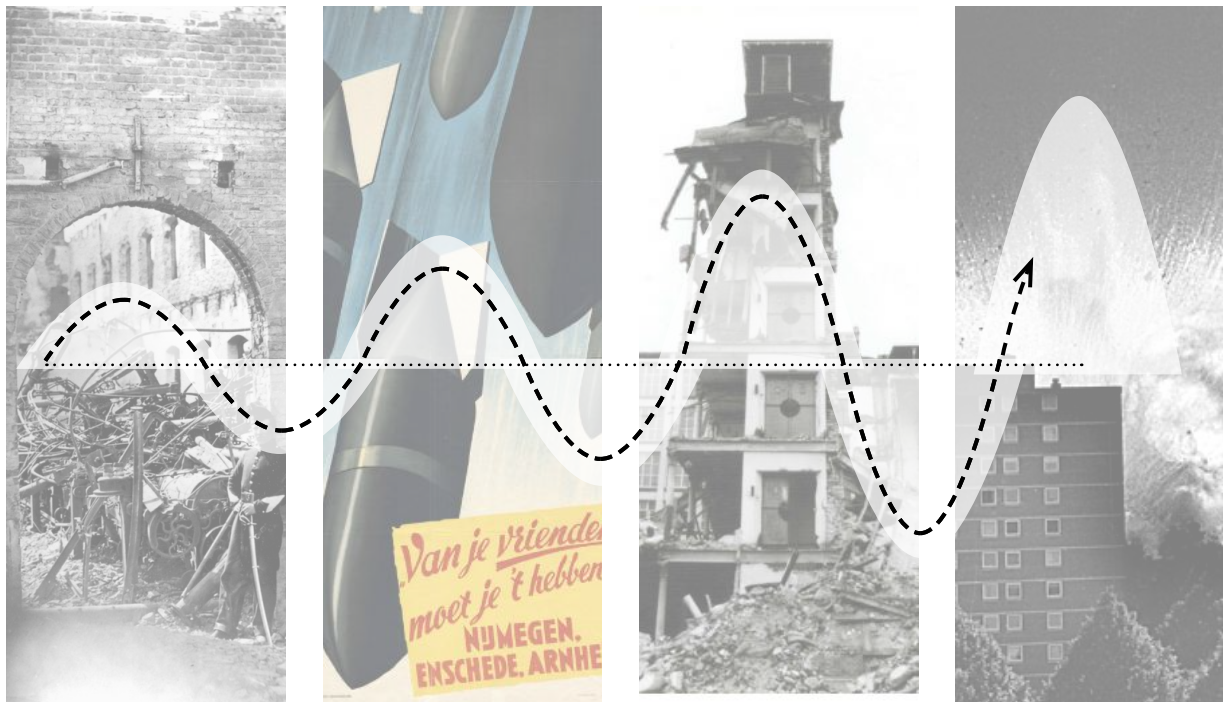
Research Objective

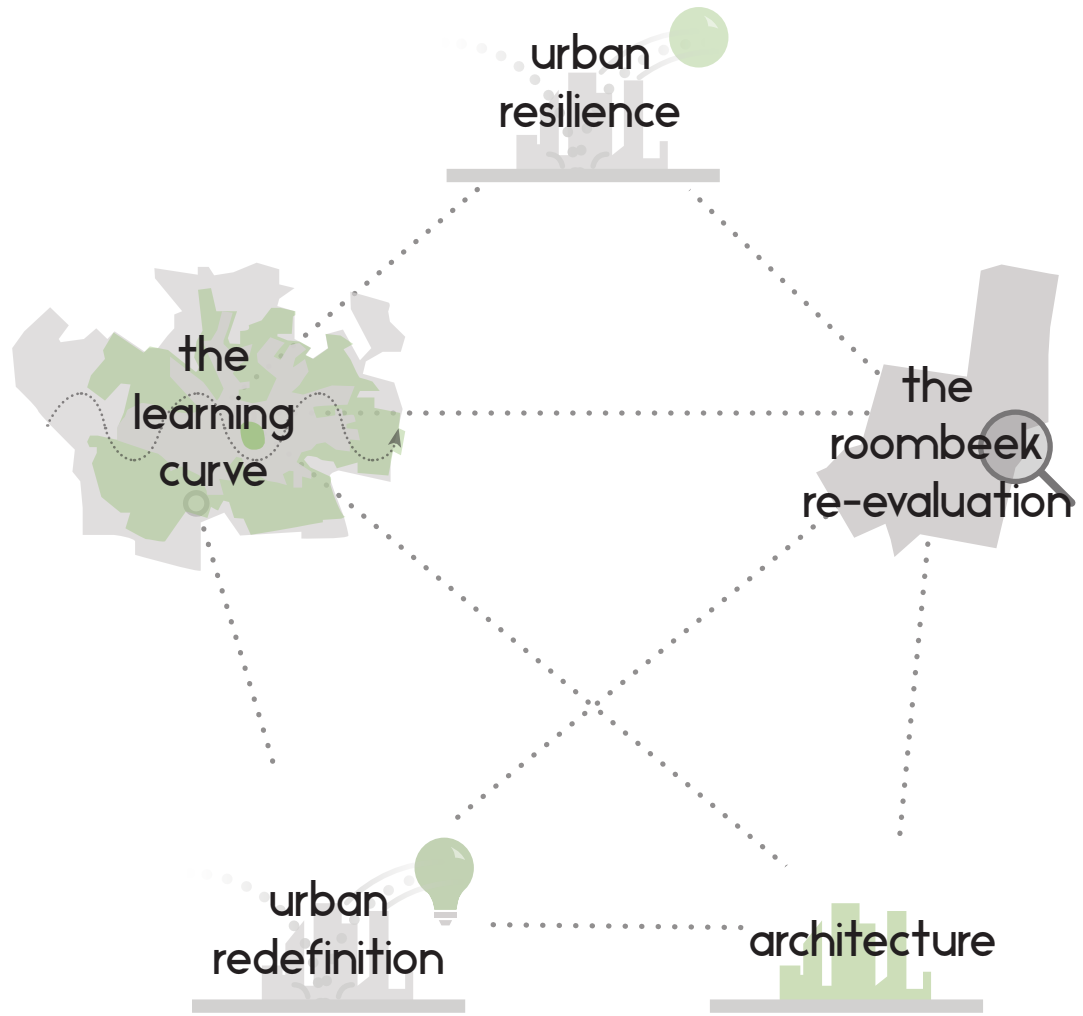
Finding direction for future urban redefinition for the city of Enschede



Research Objective

By learning from its historical moments of destruction and reconstruction



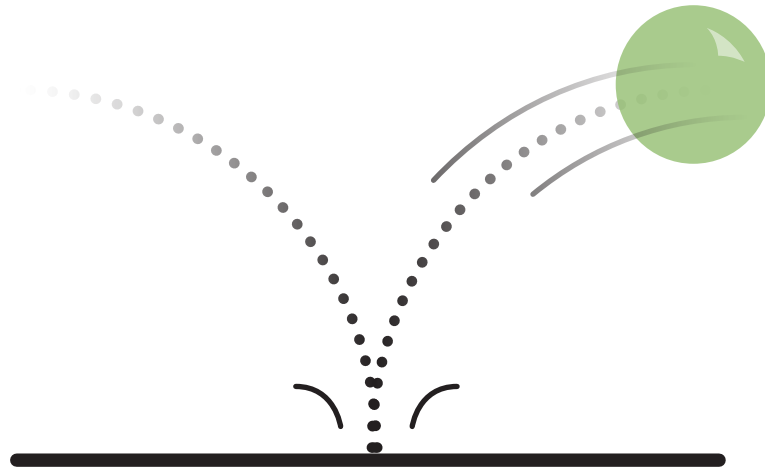


A graphic illustration centered on the page. It features a grey silhouette of a city skyline with several buildings of varying heights. Above the skyline, a series of small grey dots are connected by a thin grey line that curves upwards and to the right, ending in a larger, solid green circle. The text 'urban resilience' is overlaid on the city skyline.

urban
resilience

BOUNCING BACK

Latin: Resilio ("spring back"), from re (back) + salio ("I jump").



urban
resilience



the
learning
curve



the
roombeek
re-evaluation



urban
redefinition



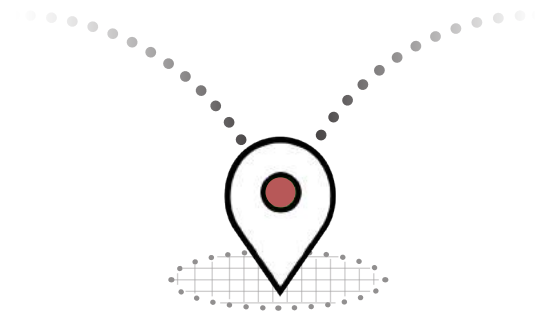
architecture

Vulnerabilities of the place



The main objective for reconstruction should not be just physical recovery, but it should also answer to the urgencies of a place.

...benefit from the opportunity to 'address and rectify the vulnerability found in communities'
- Mannakkara, Wilkinson on "Building Back Better"



Adaptation to environmental situations



“the process of mere rebuilding is a necessary but by itself, insufficient reaction to the “disaster-born opportunity”
- **Lawrence Vale, Thomas Campanella**

“societies’ success or collapse is determined by the human capacities to adapt to different environmental situation”
- **Lorenzo Chelleri on sustainable resilience**



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Catalyzing city development



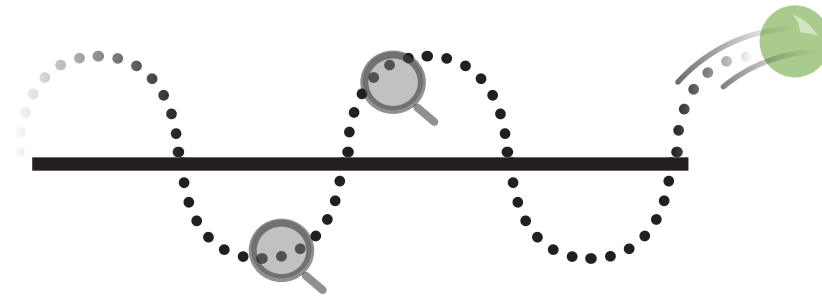
“It aims for purposes beyond the phases of restoration and recovery”

Catalyzing development after disaster should be implicit to the concept of resilience”
- Douglas Paton



The Learning Curve

“a transformative, **‘learning-loop’** attitude for
the long-term development”
- **Lorenzo Chelleri on resilience by adaptivity**



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resilience



the
learning
curve



the
roombeek
re-evaluation

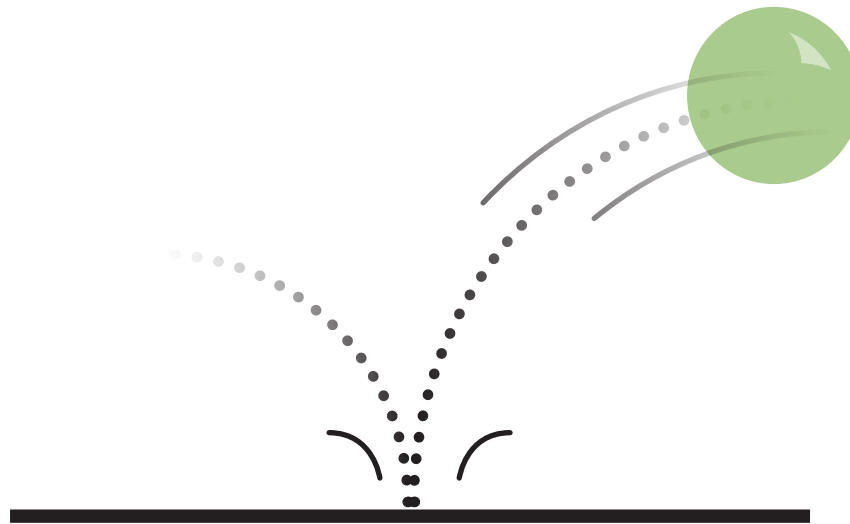


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BOUNCING FORWARD

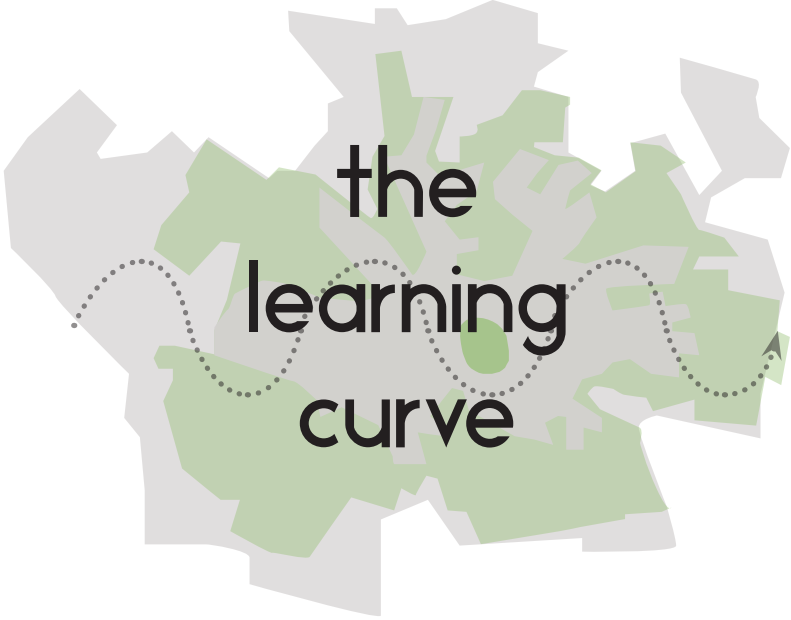


Disaster born opportunity to accelerate urban redefinition

Obligation to predict new societal and environmental requirements

Ability to adapt and predict future vision for the scale of the city

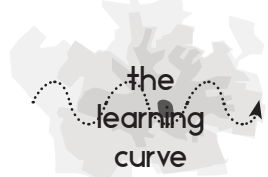
A transformative learning loop attitude



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learning
curve



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resilience



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curve



the
roombeek
re-evaluation

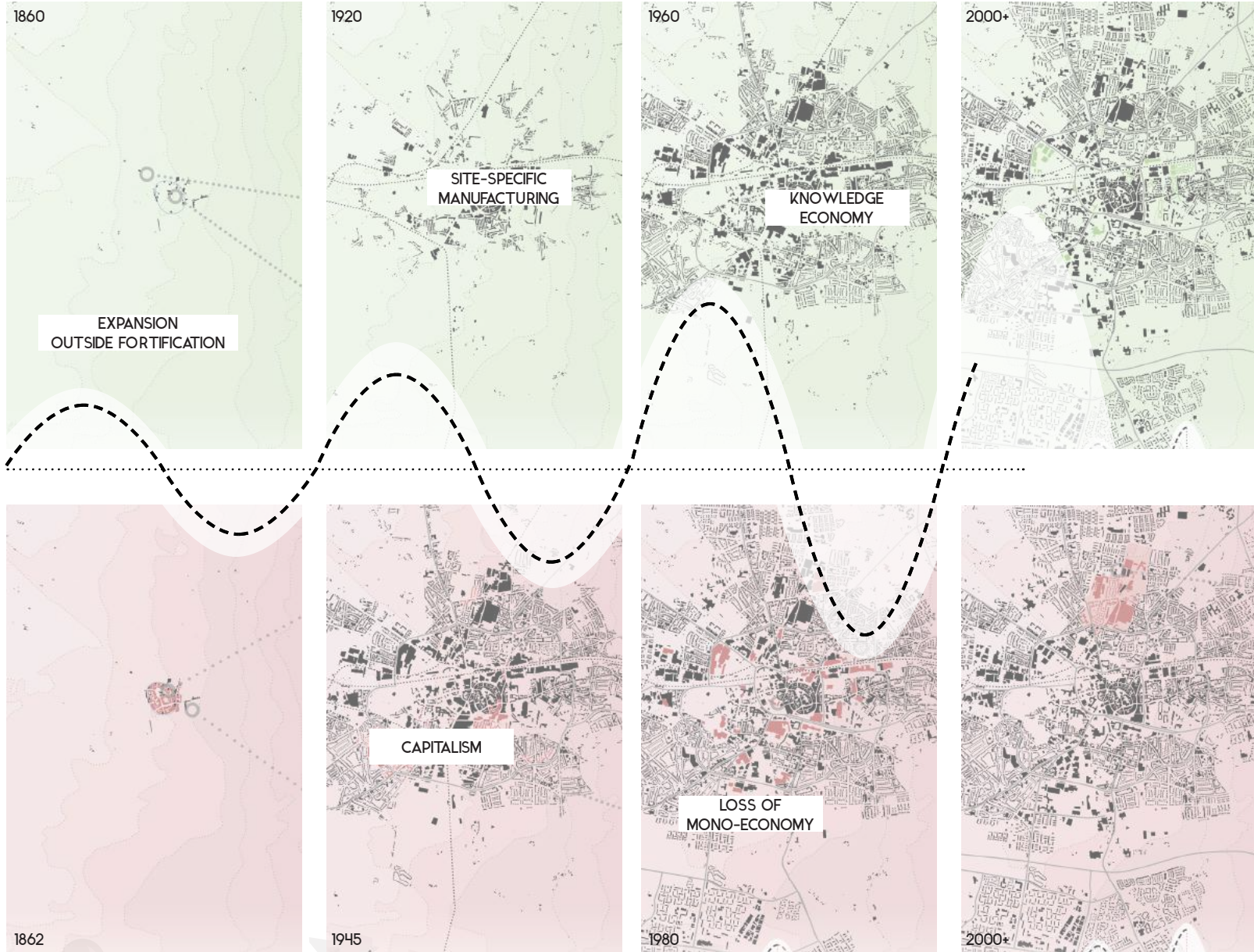


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The Learning Curve: Local Requirements



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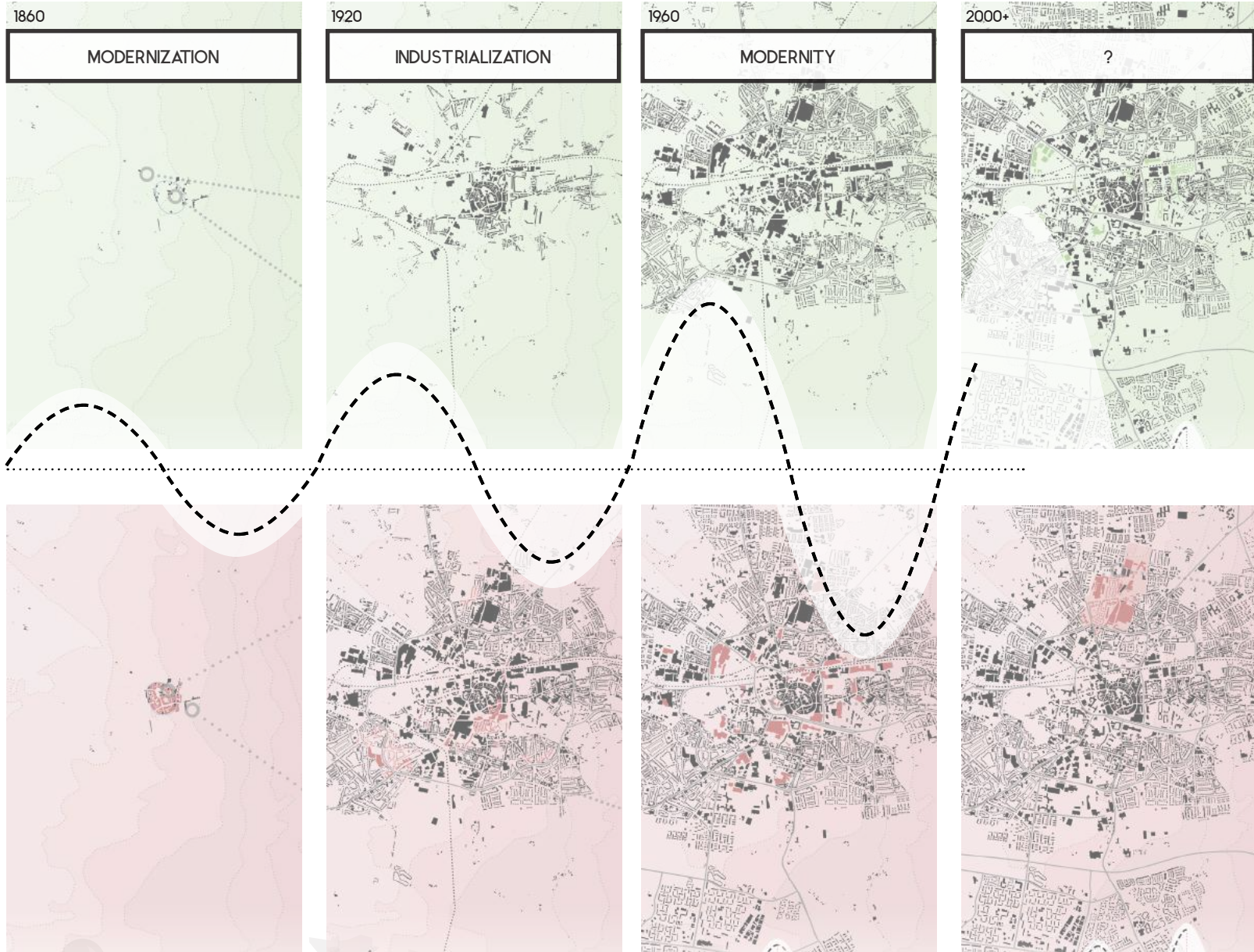
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curve

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The Learning Curve: Paradigm Shifts



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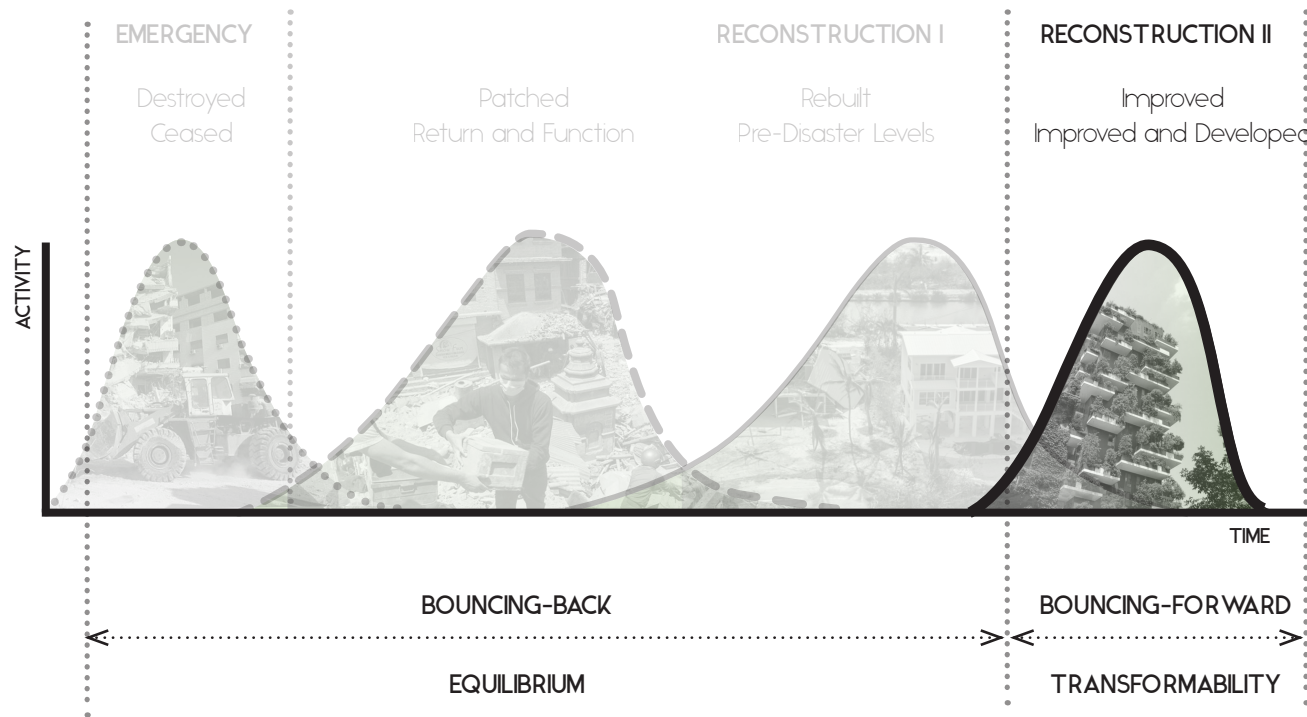
Model of Recovery Activity

Douglas Patton:

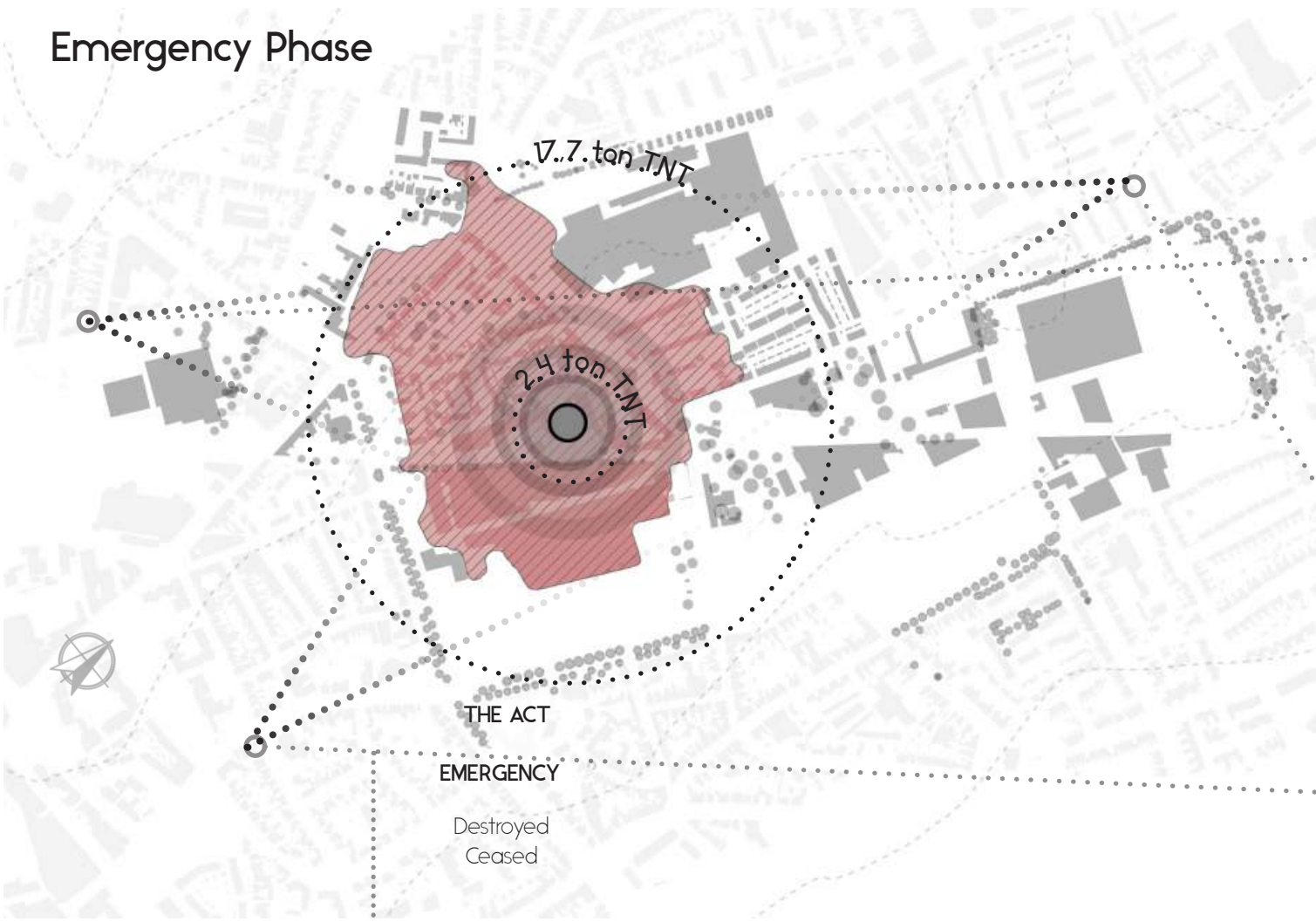
The bouncing forward principle :
aims for purposes beyond the phases of restoration and recovery

Phase 4:

Reconstruction for betterment and development



Emergency Phase



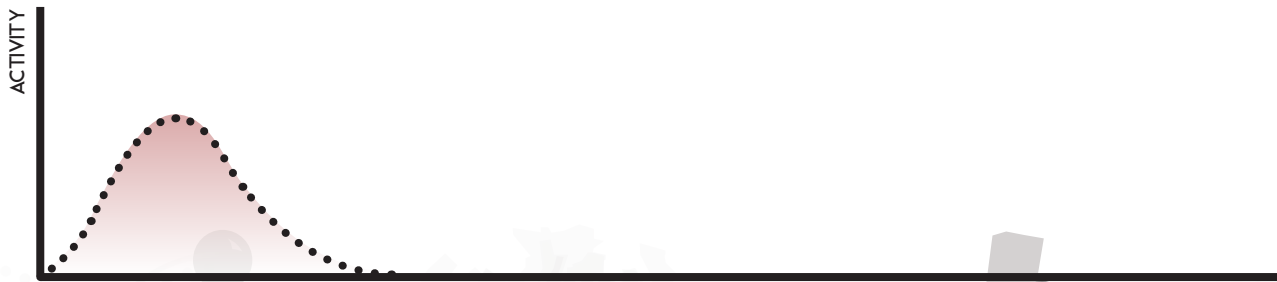
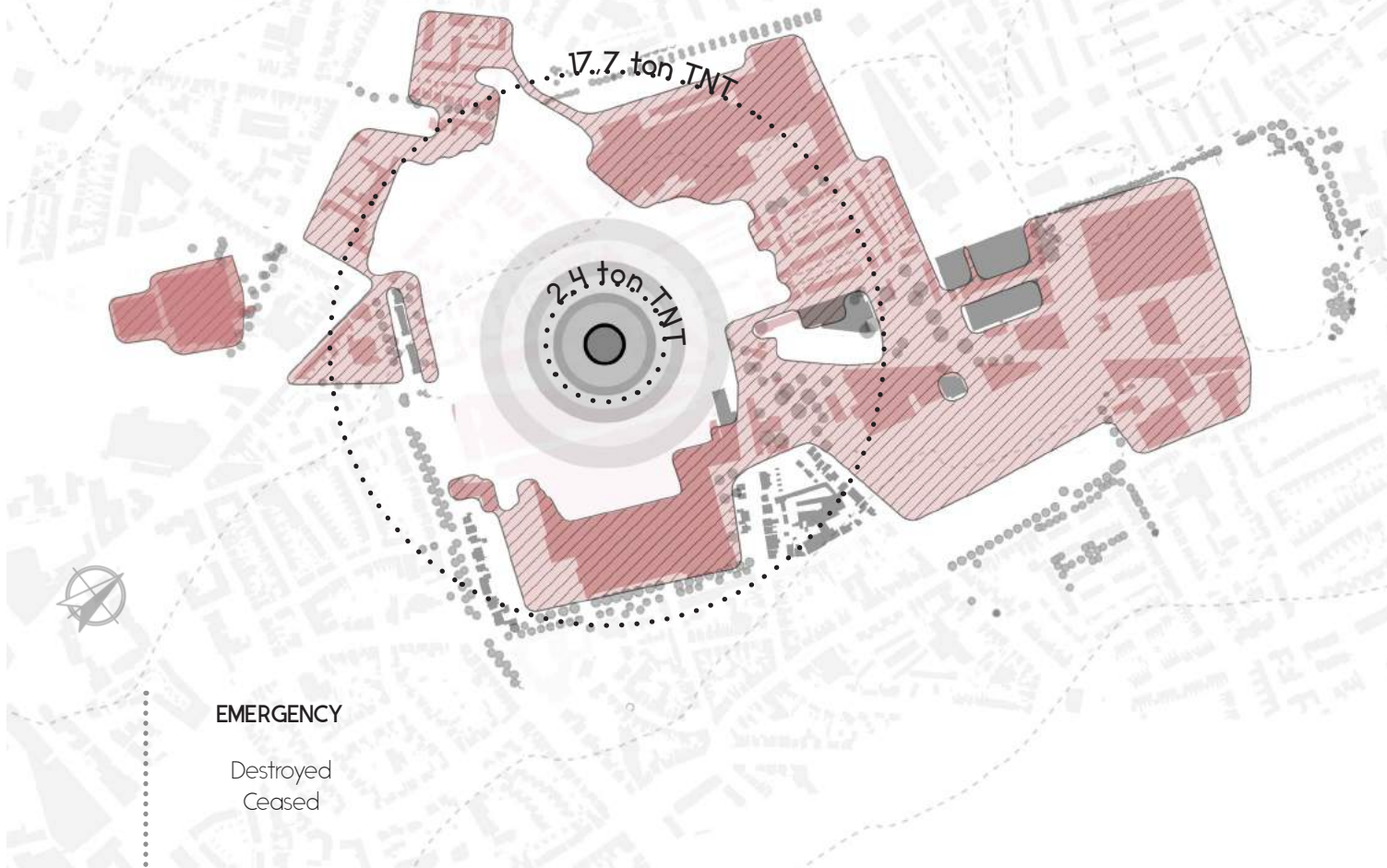
urban
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roombeek
re-evaluation

urban
redefinition

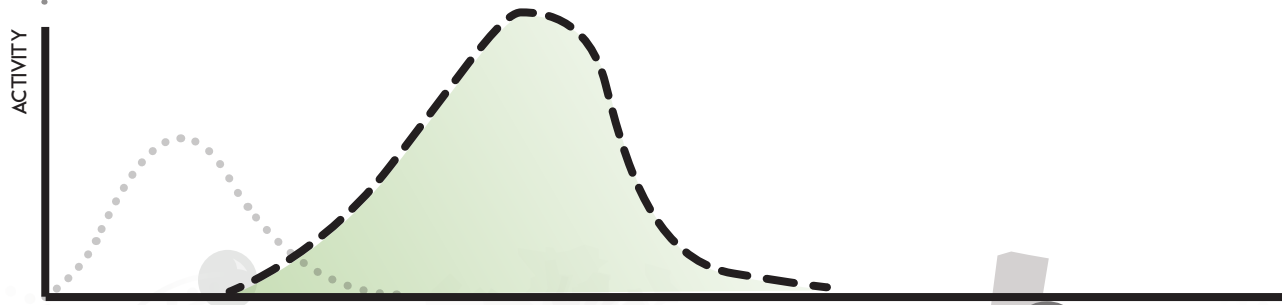
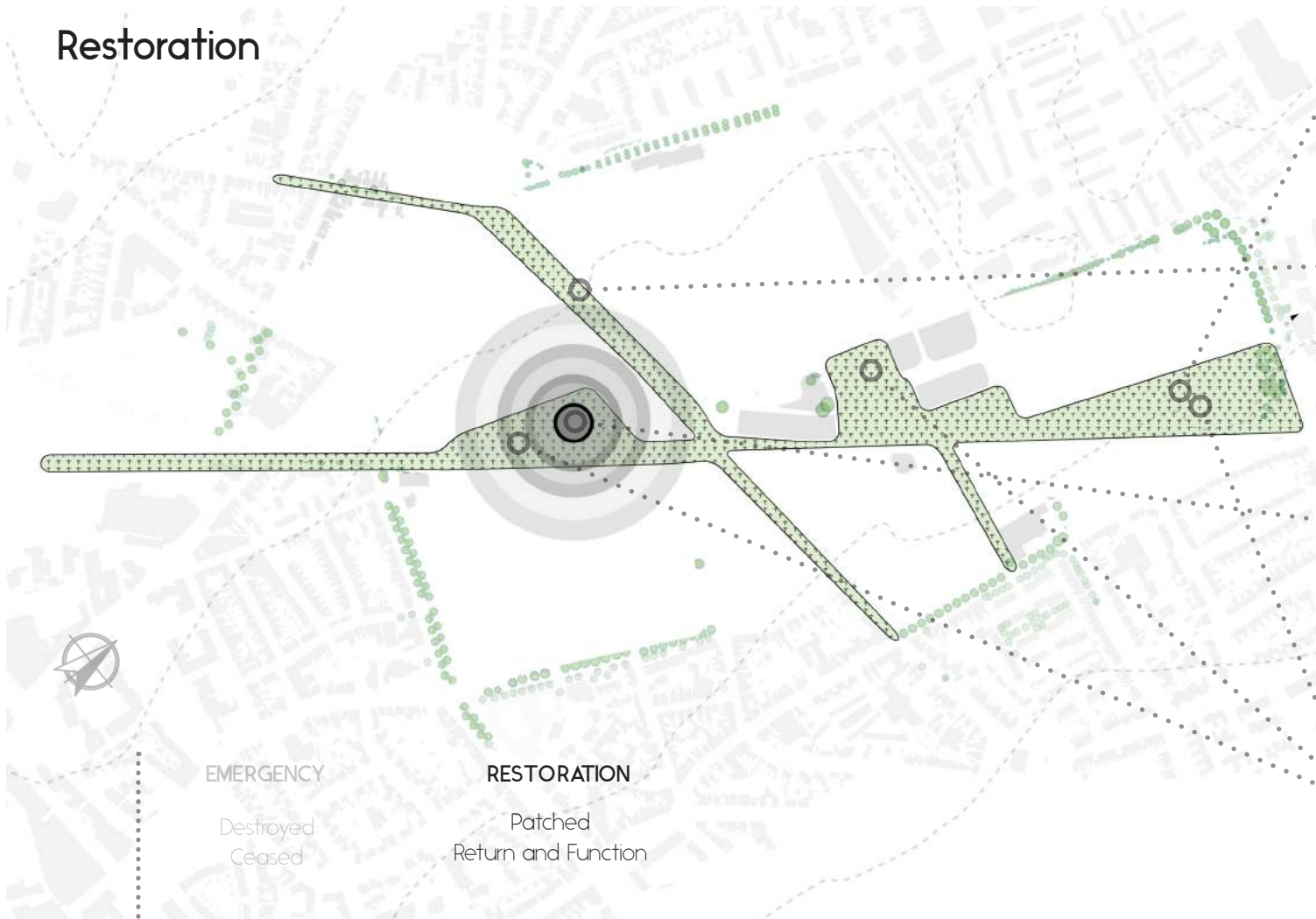
Emergency Phase



urban redefinition

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Restoration



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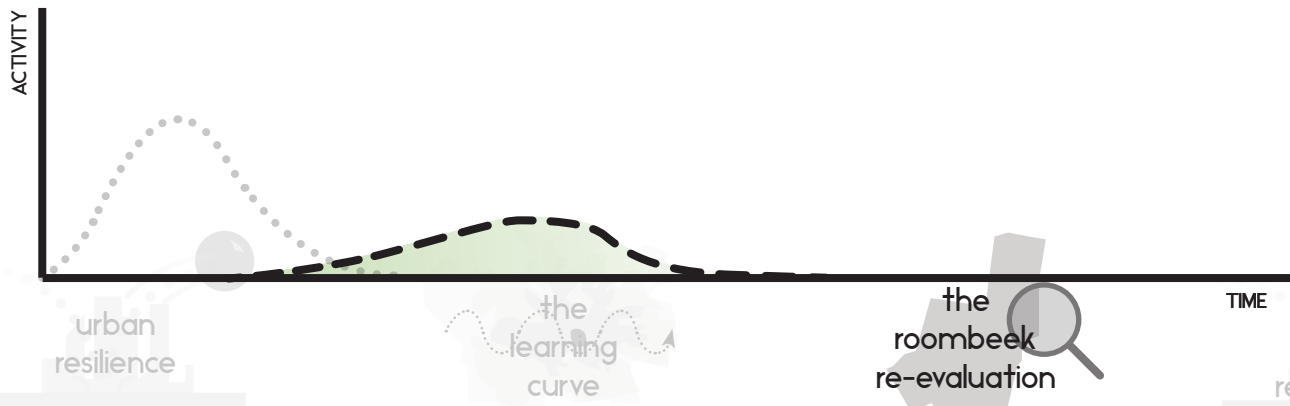
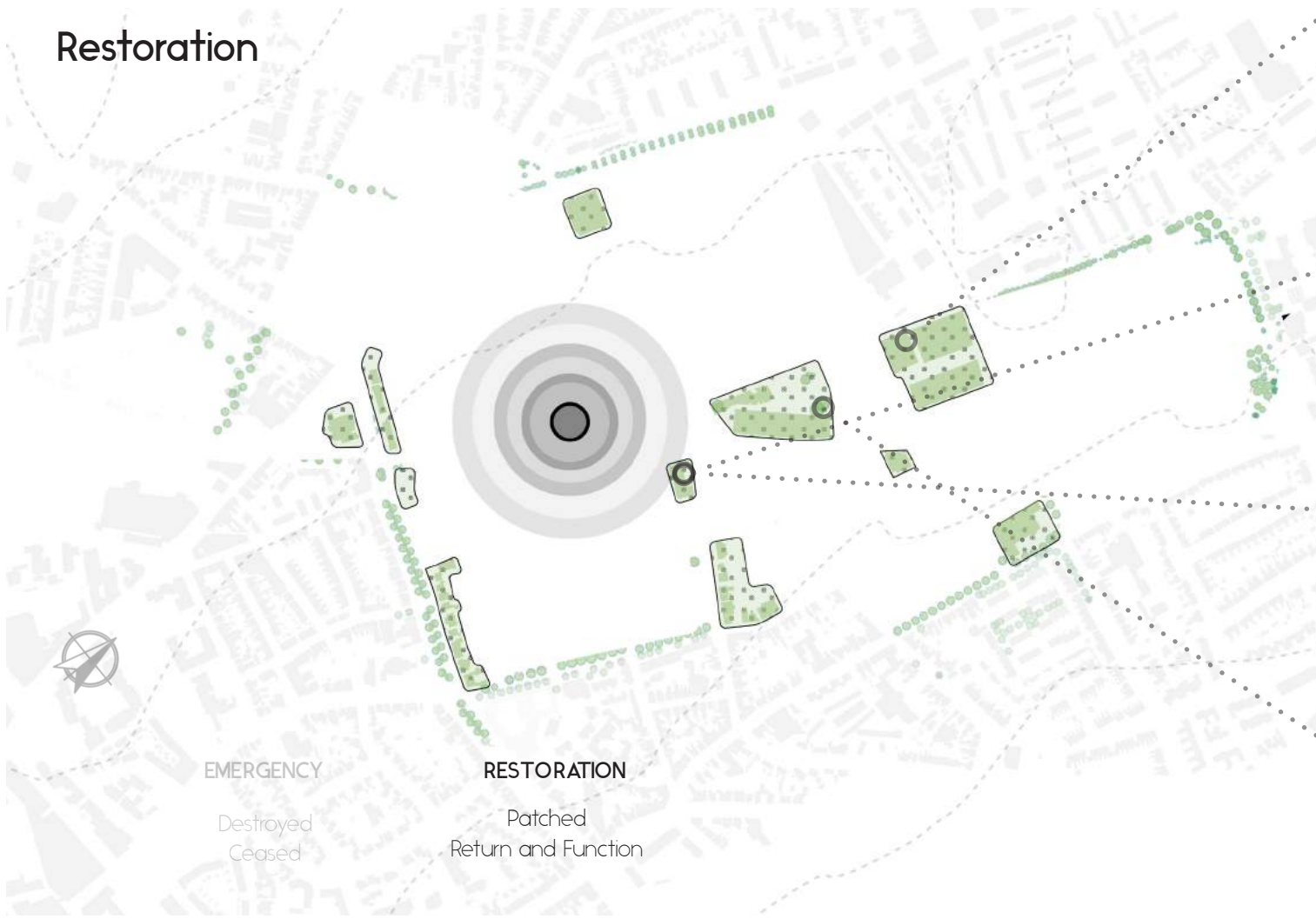
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re-evaluation

TIME

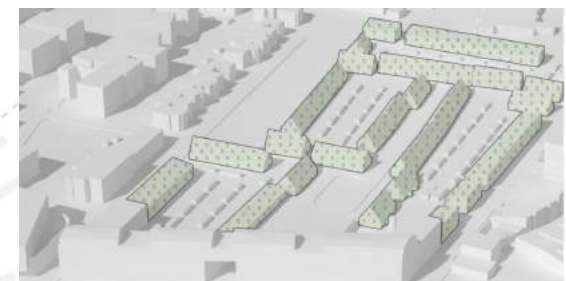
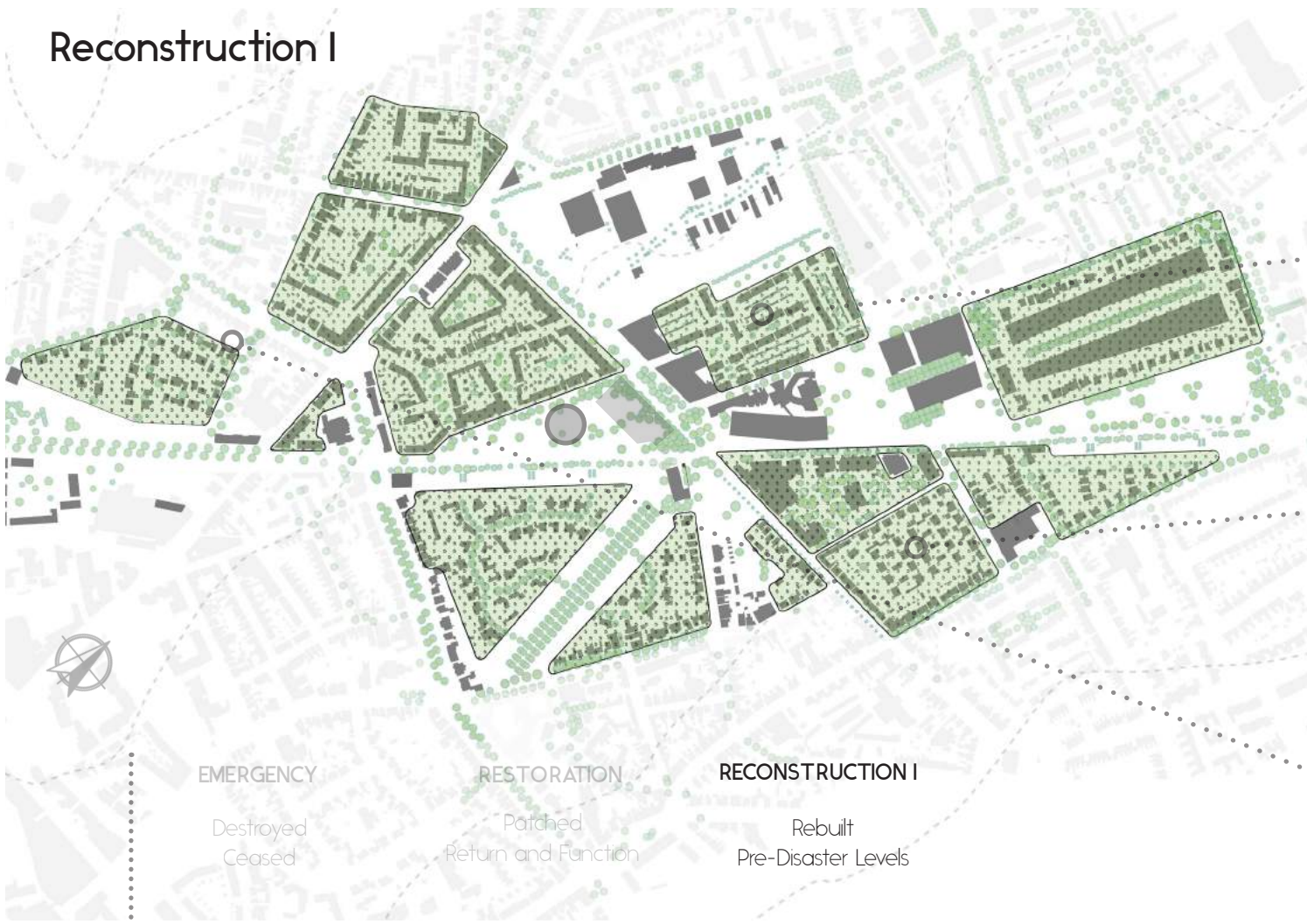
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Restoration



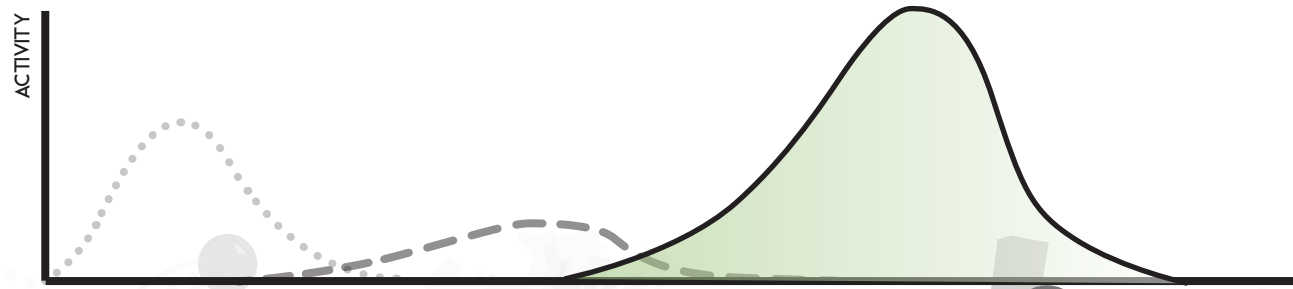
Reconstruction I



EMERGENCY
Destroyed
Ceased

RESTORATION
Patched
Return and Function

RECONSTRUCTION I
Rebuilt
Pre-Disaster Levels



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resilience

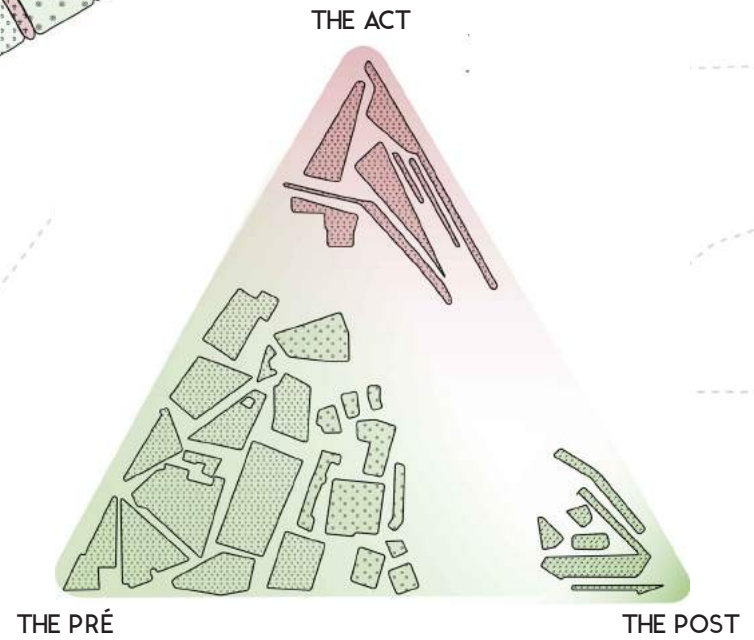
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the
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Therapeutic Townplanning





Centre-piece location provides the opportunity to project a vision for the future.



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redefinition

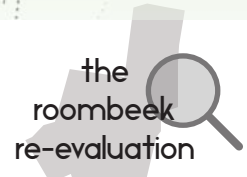
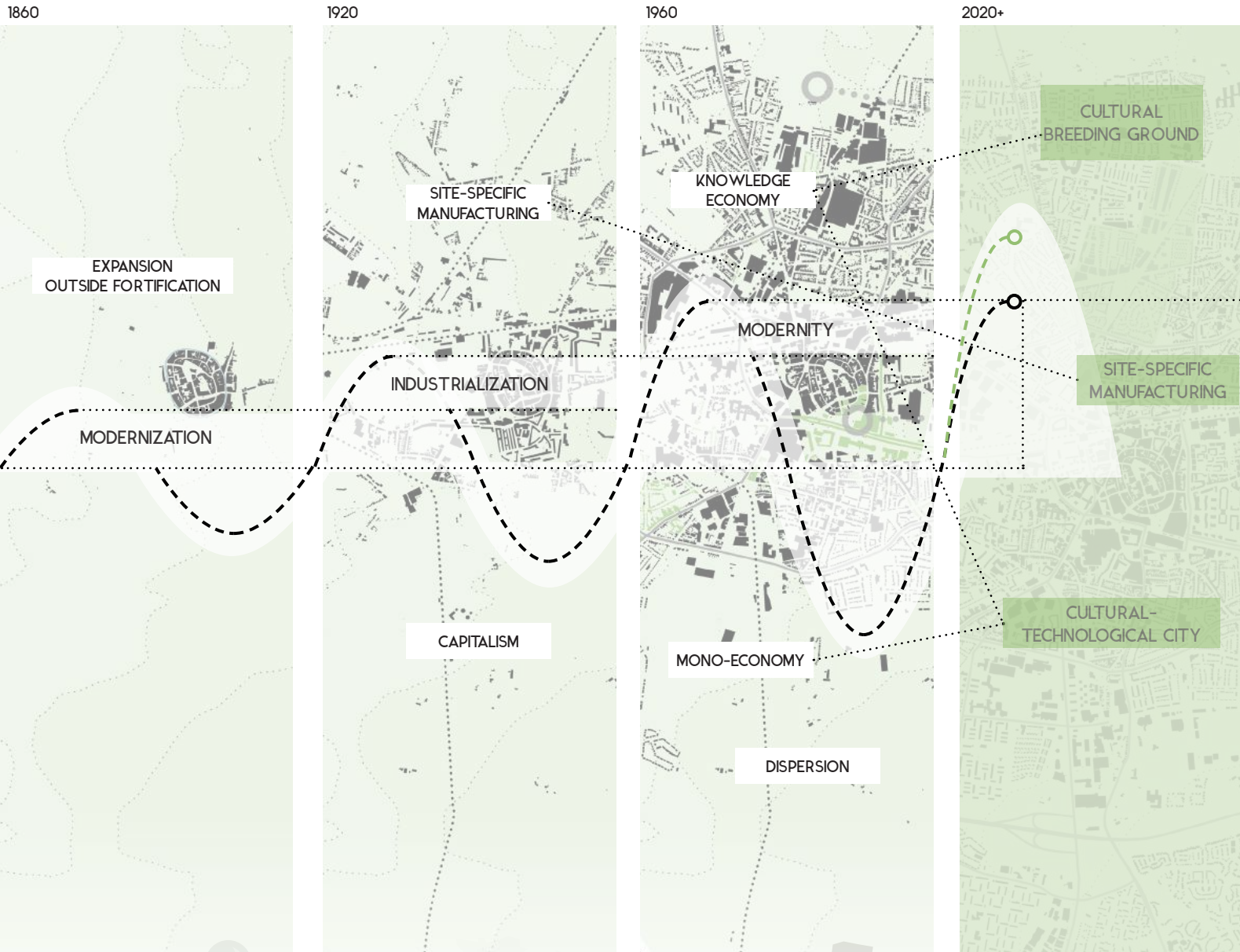


architecture

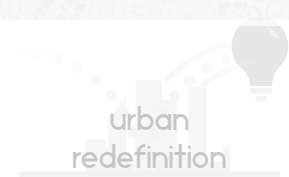
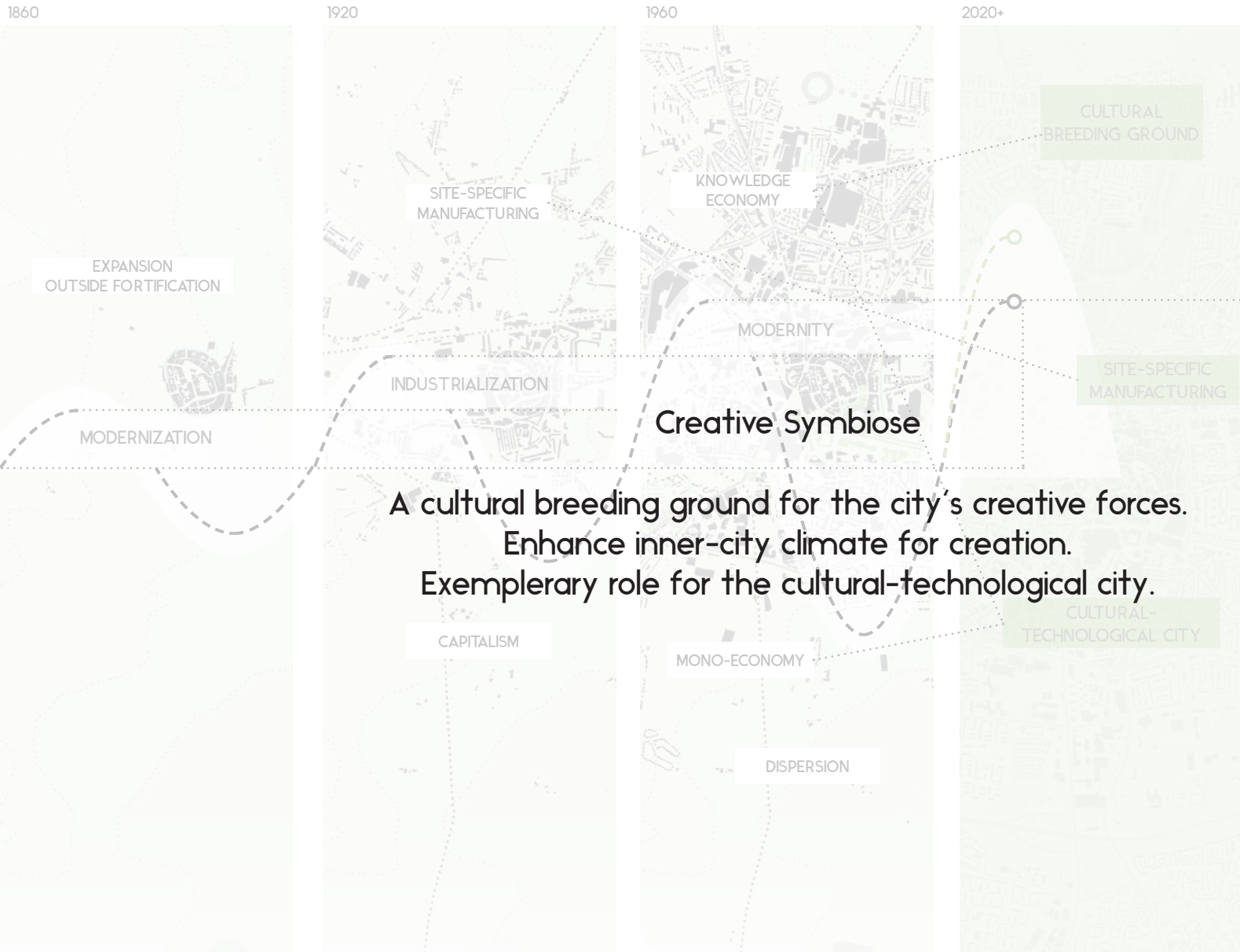
urban
redefinition



Design Objective: Local Scale

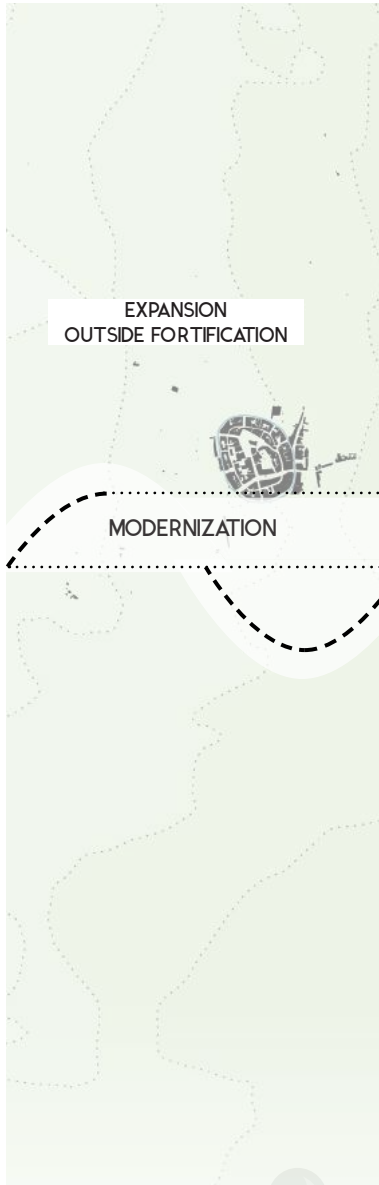


Design Objective: Local Scale

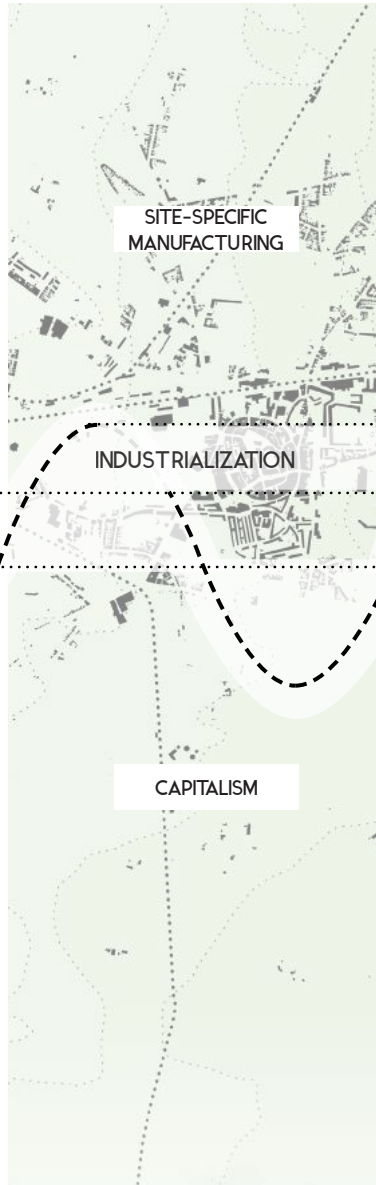


Design Objectives: Paradigm Scale

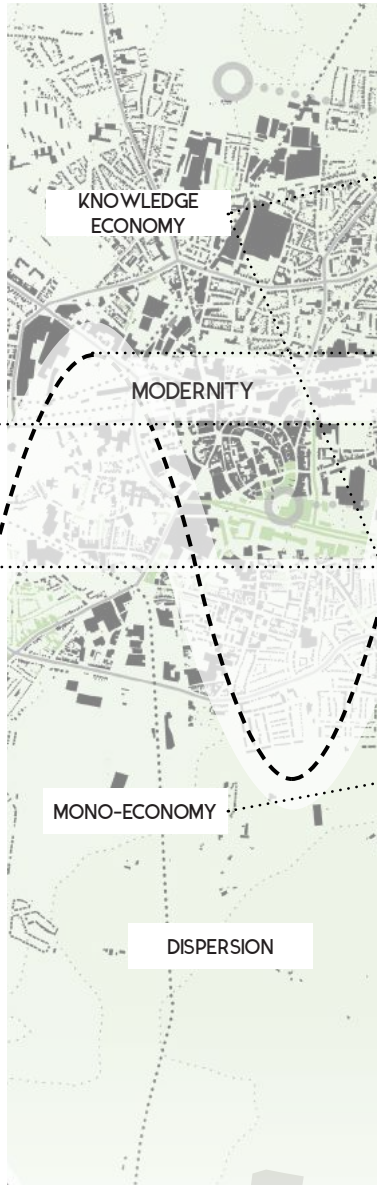
1860



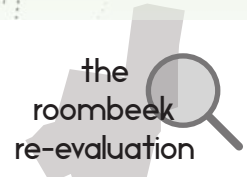
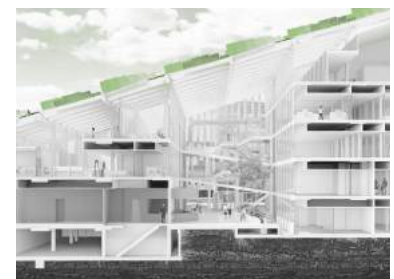
1920



1960



2020+



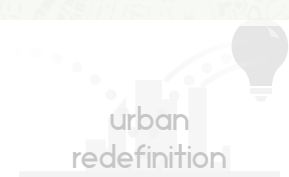
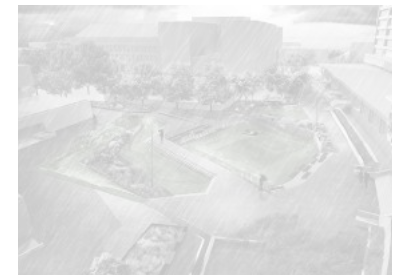
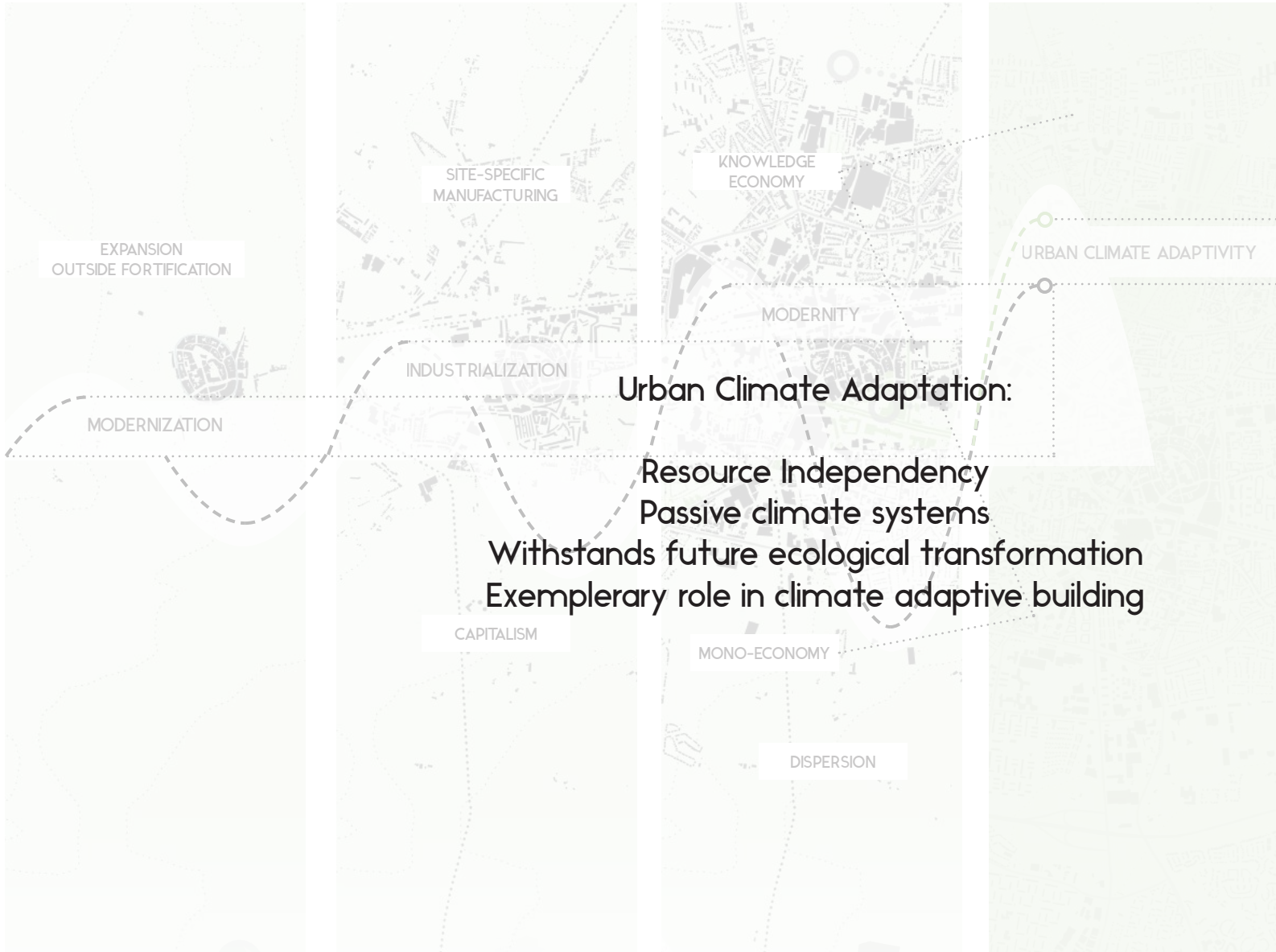
Design Objectives: Paradigm Scale

1860

1920

1960

2020+



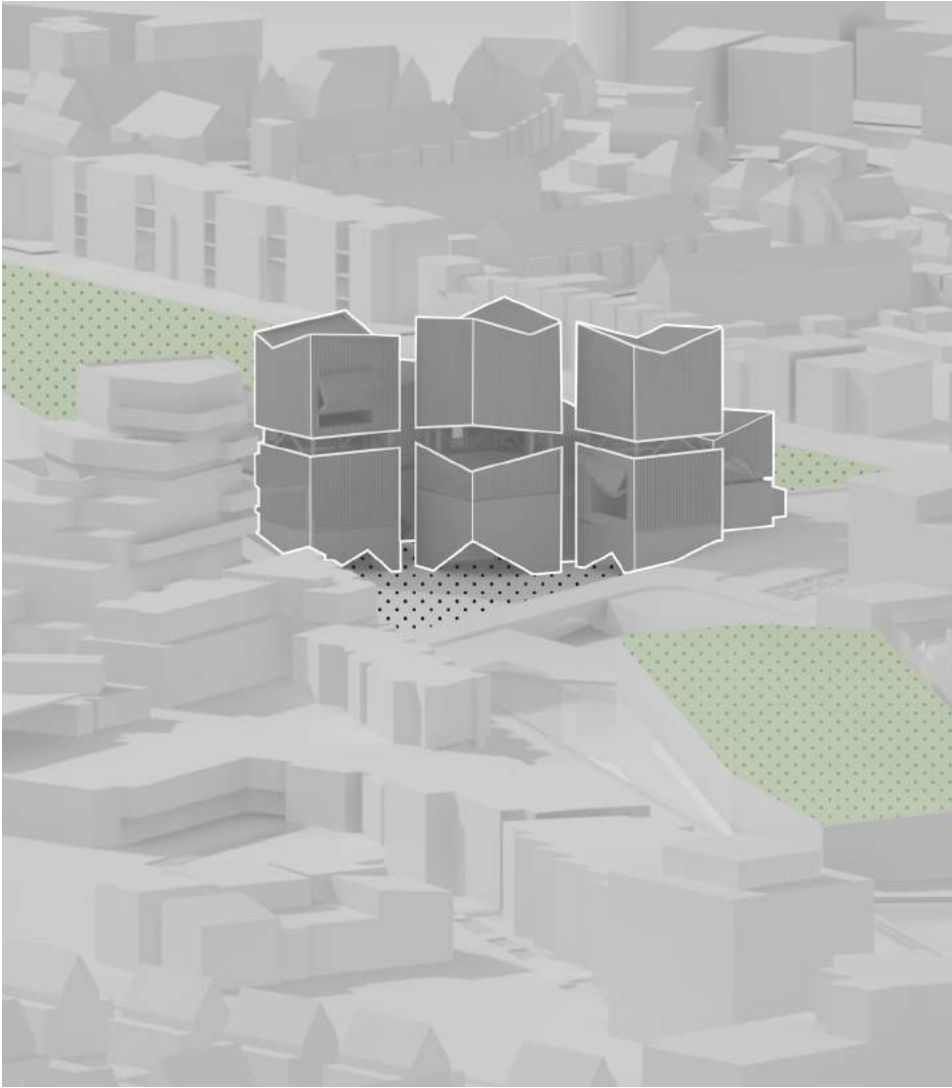
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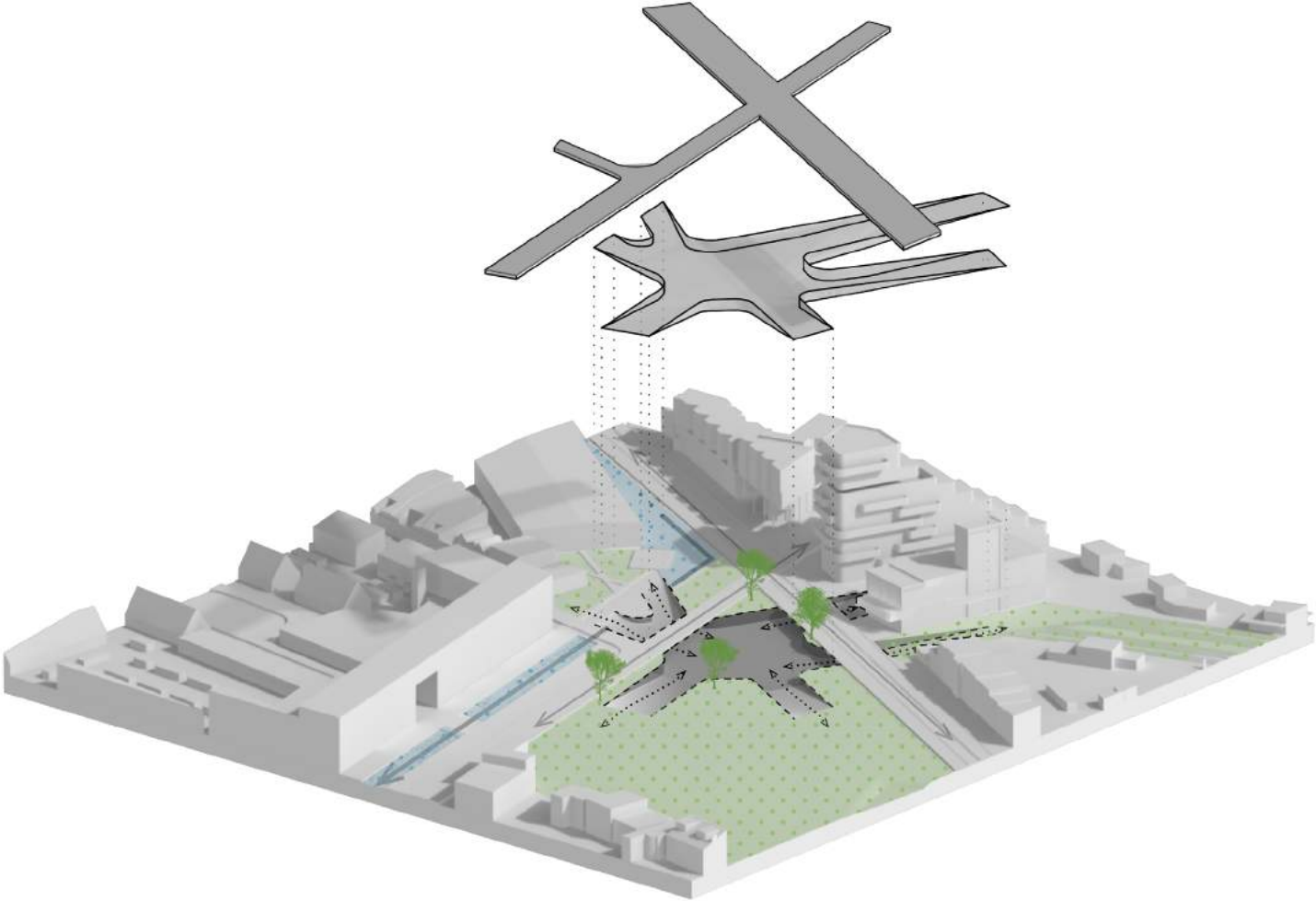
Reconfiguring the city-shape



Reconfiguring the city-shape



The Cultural Hinge



urban
resilience



the
learning
curve



the
roombeek
re-evaluation



urban
redefinition



architecture

Connecting "the Culture-Mile"



Architectural Juxtaposition



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the
learning
curve



the
roombeek
re-evaluation

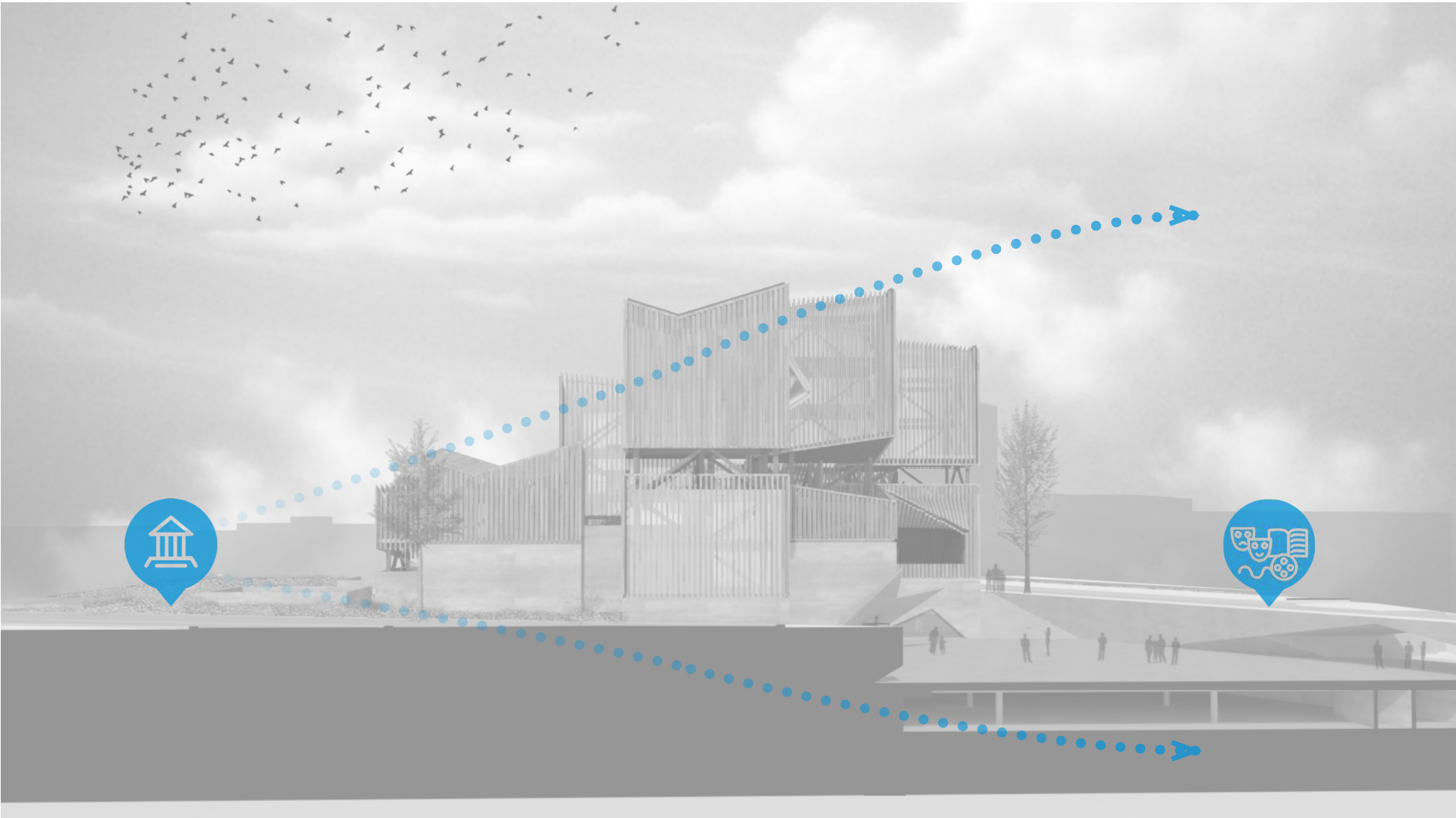


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Gradient: Static to Dynamic



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curve



the
roombeek
re-evaluation

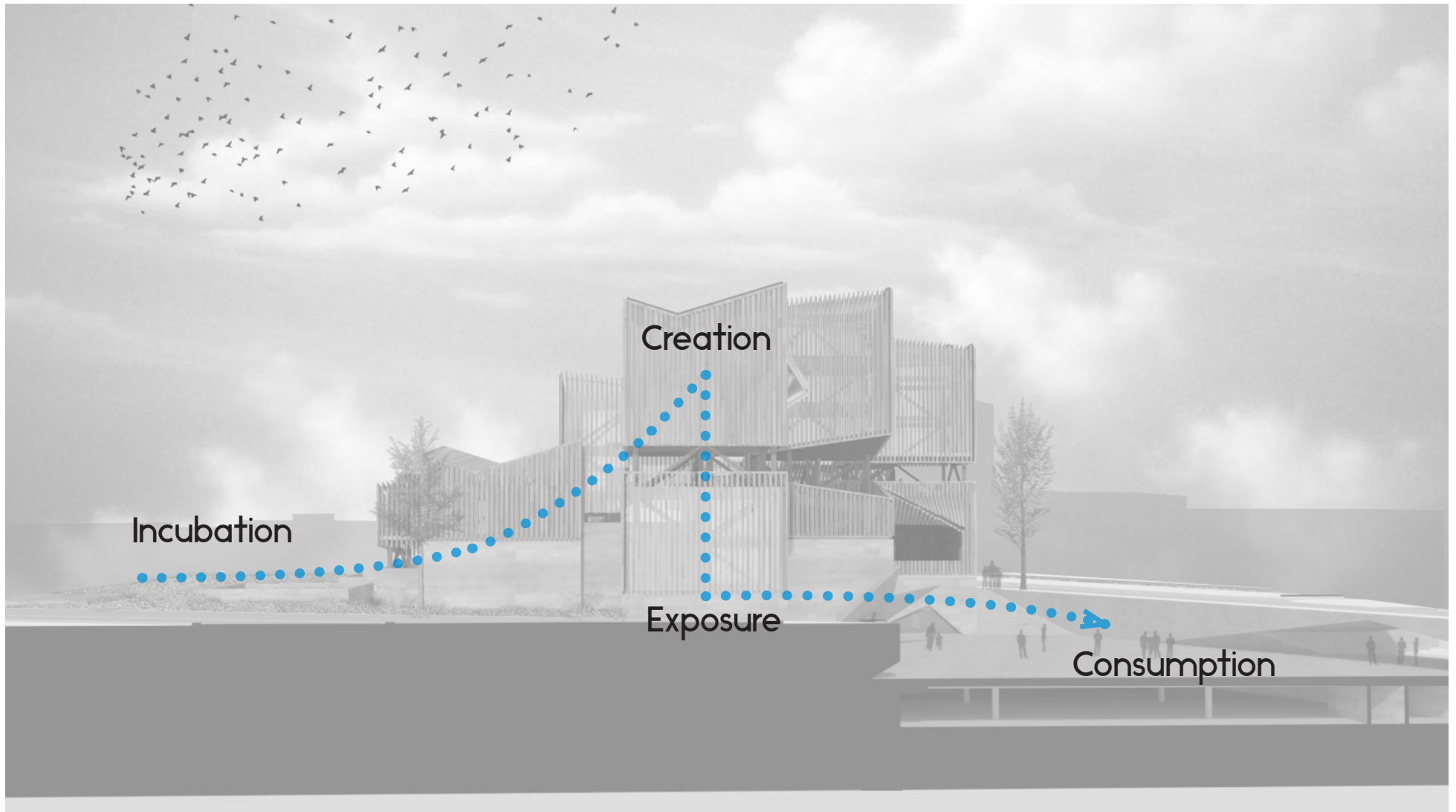


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Stages of Creation



Incubation (Memorial Park)



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curve



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Exposure: Cultural Courtyard



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curve



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re-evaluation



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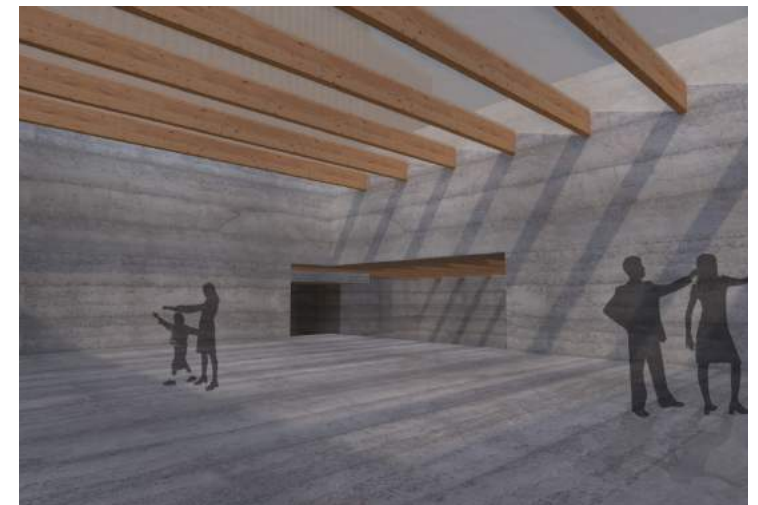
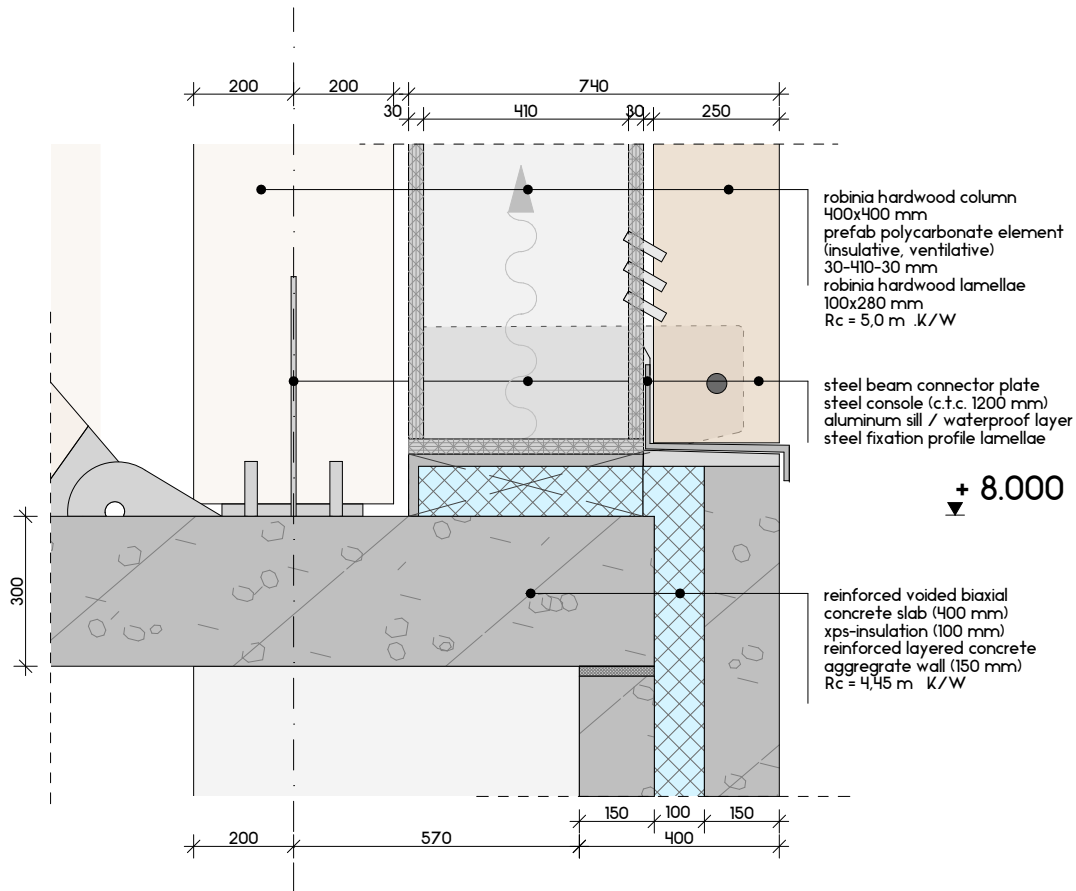
architecture

Exposure: Exhibition Spaces



Exposure: Exhibition Spaces

Rammed Concrete Aggregate



Creation: Urban Farming



Creation: Workshops



urban
resilience



the
learning
curve



the
roombeek
re-evaluation

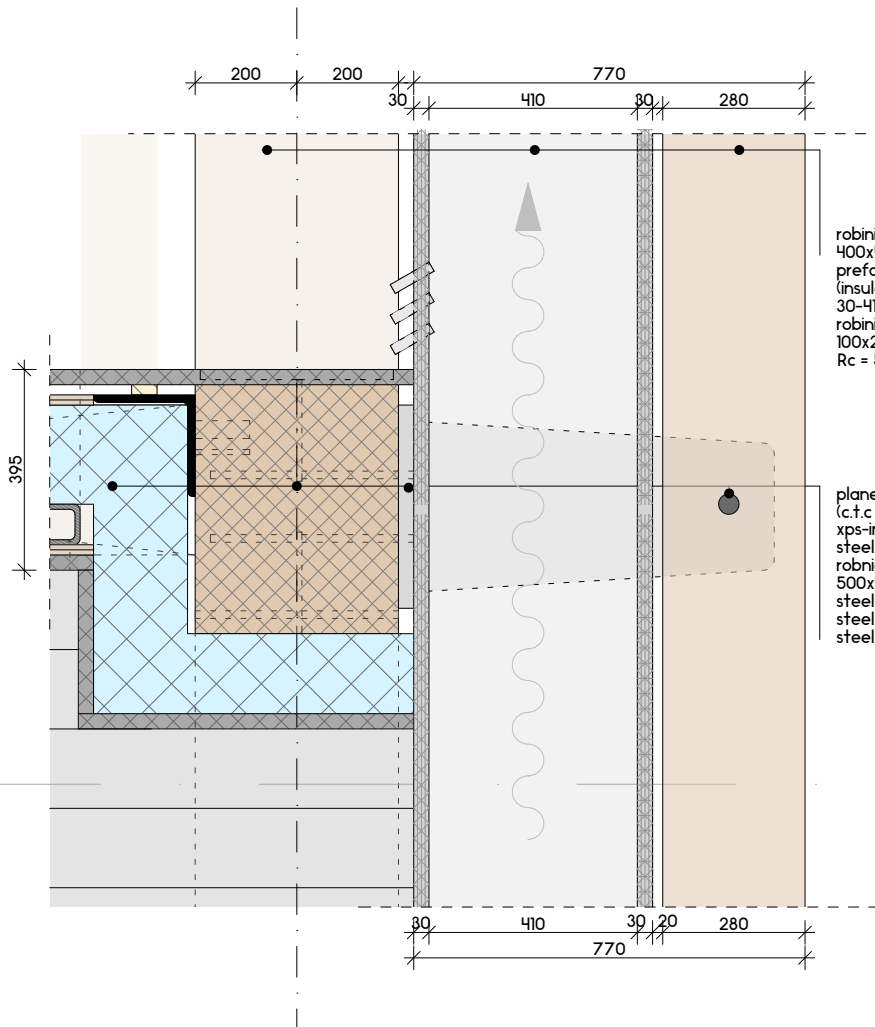


urban
redefinition



architecture

Creation: Workshops



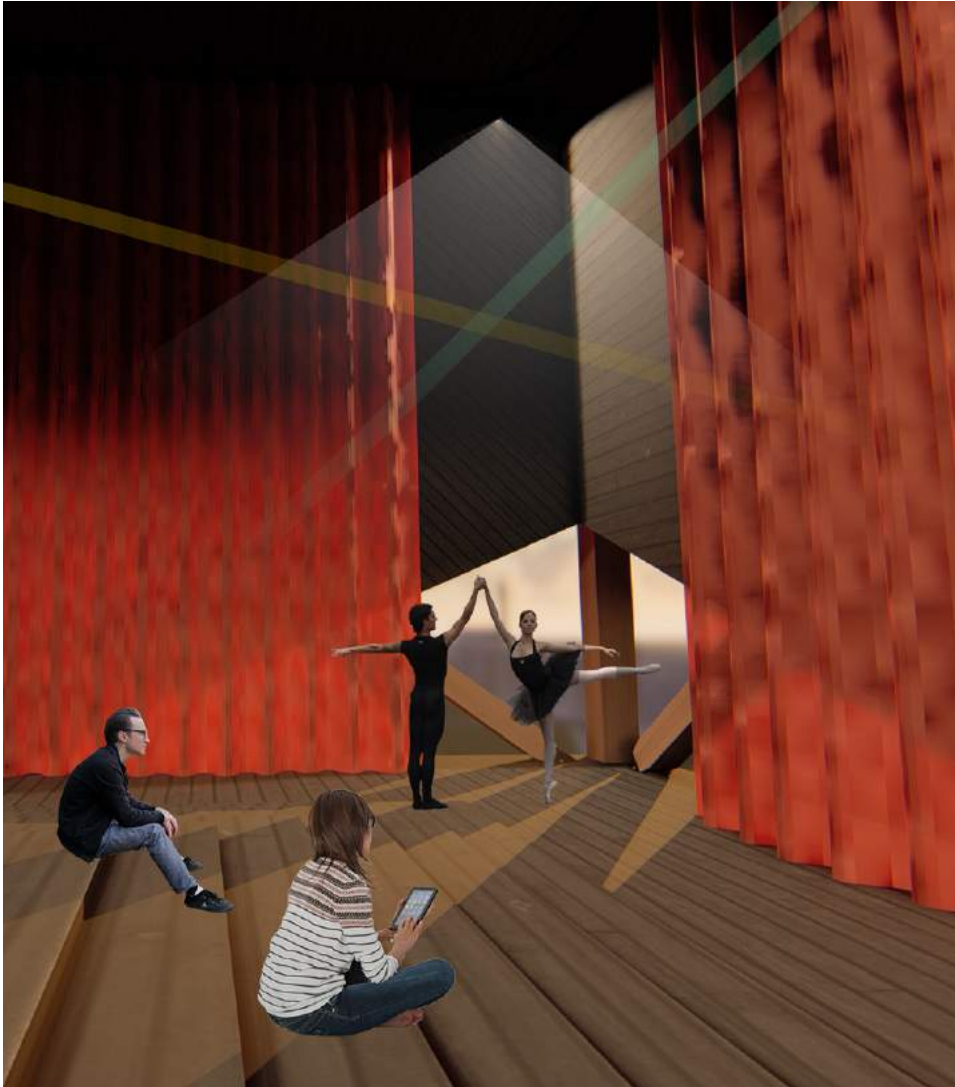
robinia hardwood column
400x400 mm
prefab polycarbonate element
(insulative, ventilative)
30-410-30 mm
robinia hardwood lamellae
100x280 mm
Rc = 5,0 m .k/W ∇ + 14.000

planed pinewood beam 100x275
(c.t.c 1200 mm)
xps-insulation 150 mm
steel L-profile 200x200x20 mm
robinia hardwood beam
500x400 mm
steel beam connector plate
steel console (c.t.c 1200 mm)
steel fixation profile lamellae

Local Hardwood (Robinia) Structure



Creation: Music-Rooms



Creation: Spillover Spaces



Consumption: Market Plaza



urban
resilience



the
learning
curve



the
roombeek
re-evaluation



urban
redefinition



architecture

Consumption: Biological Craft-Beer Café



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the
learning
curve



the
roombeek
re-evaluation



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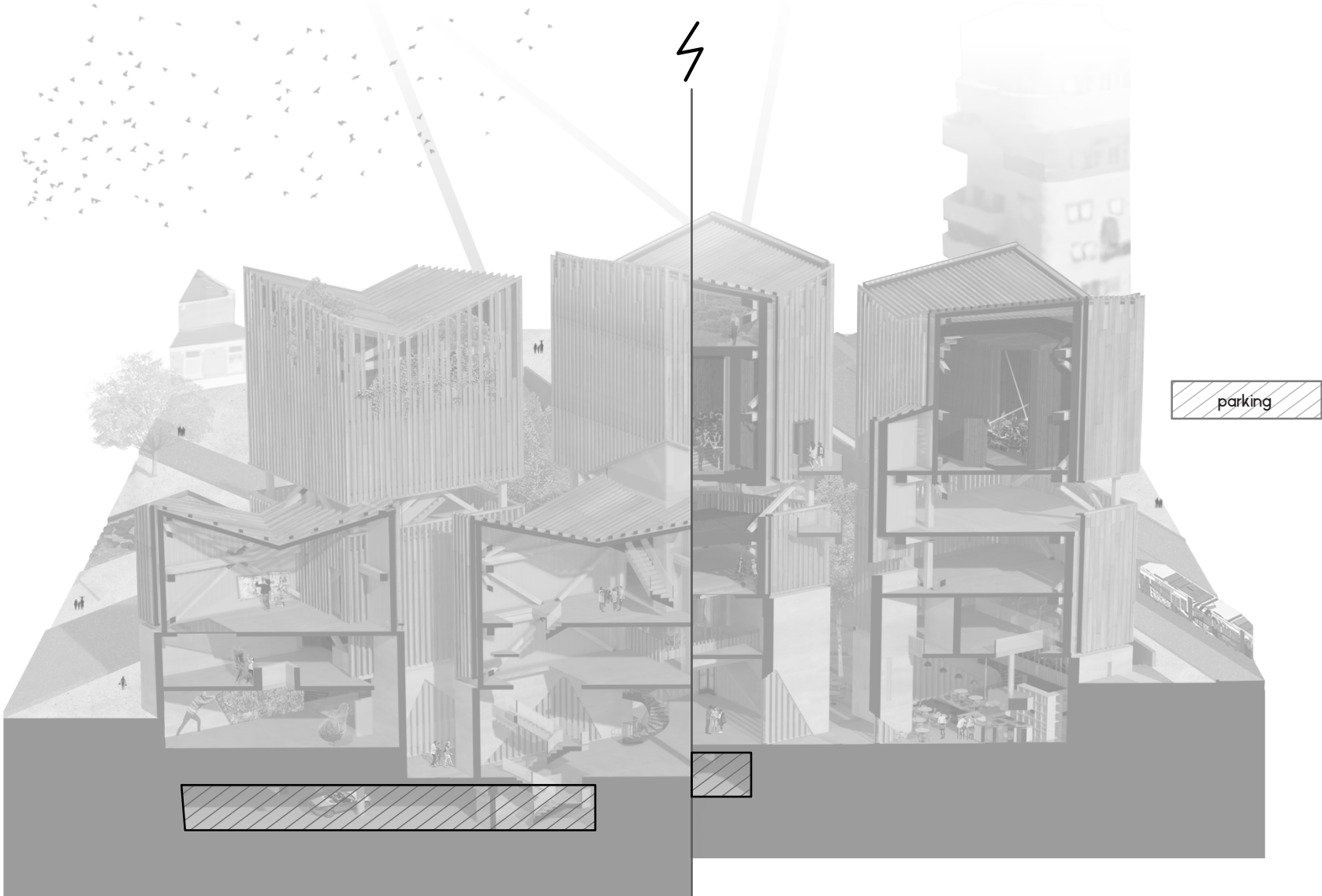


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Programme



Programme: Parking



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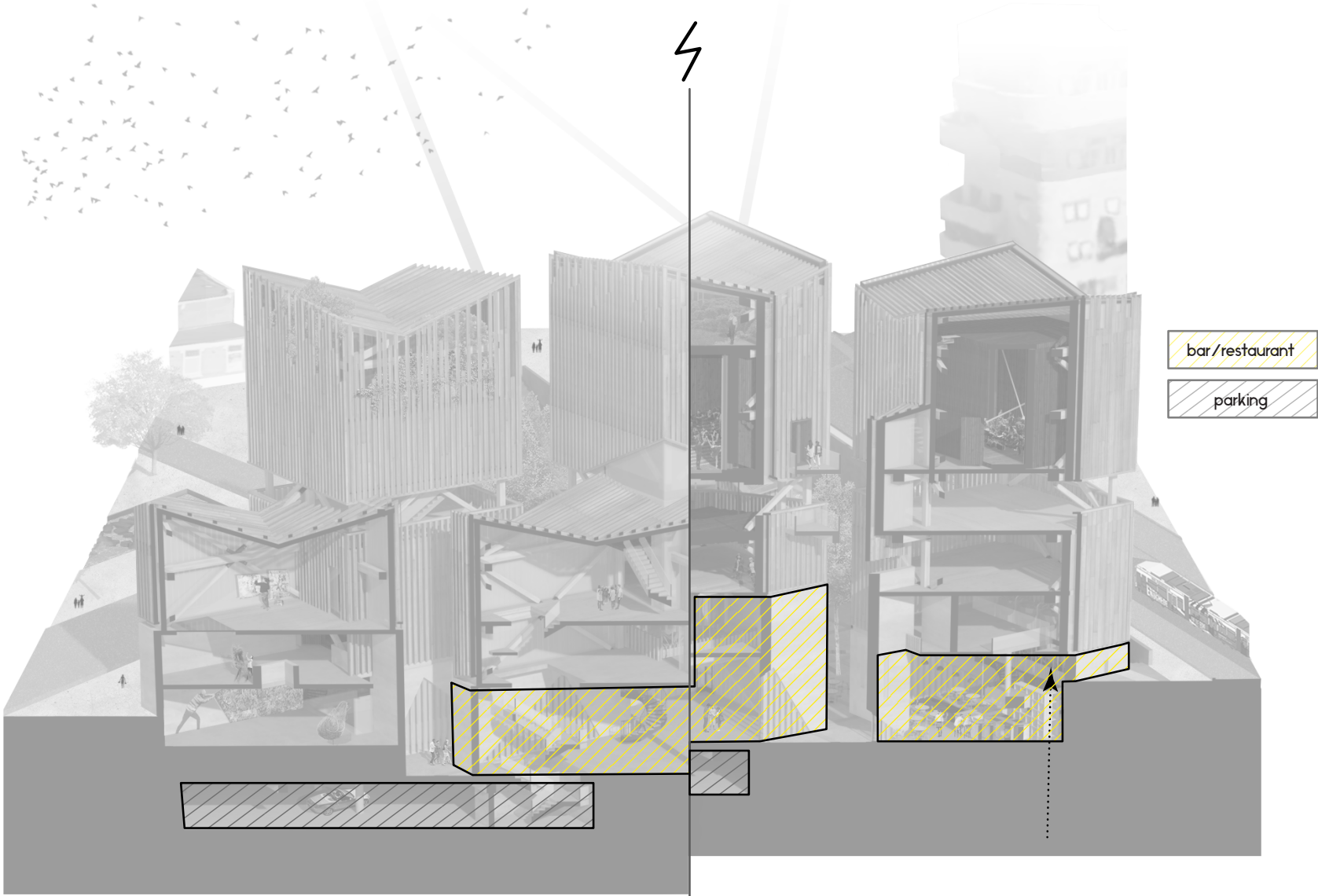


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redefinition

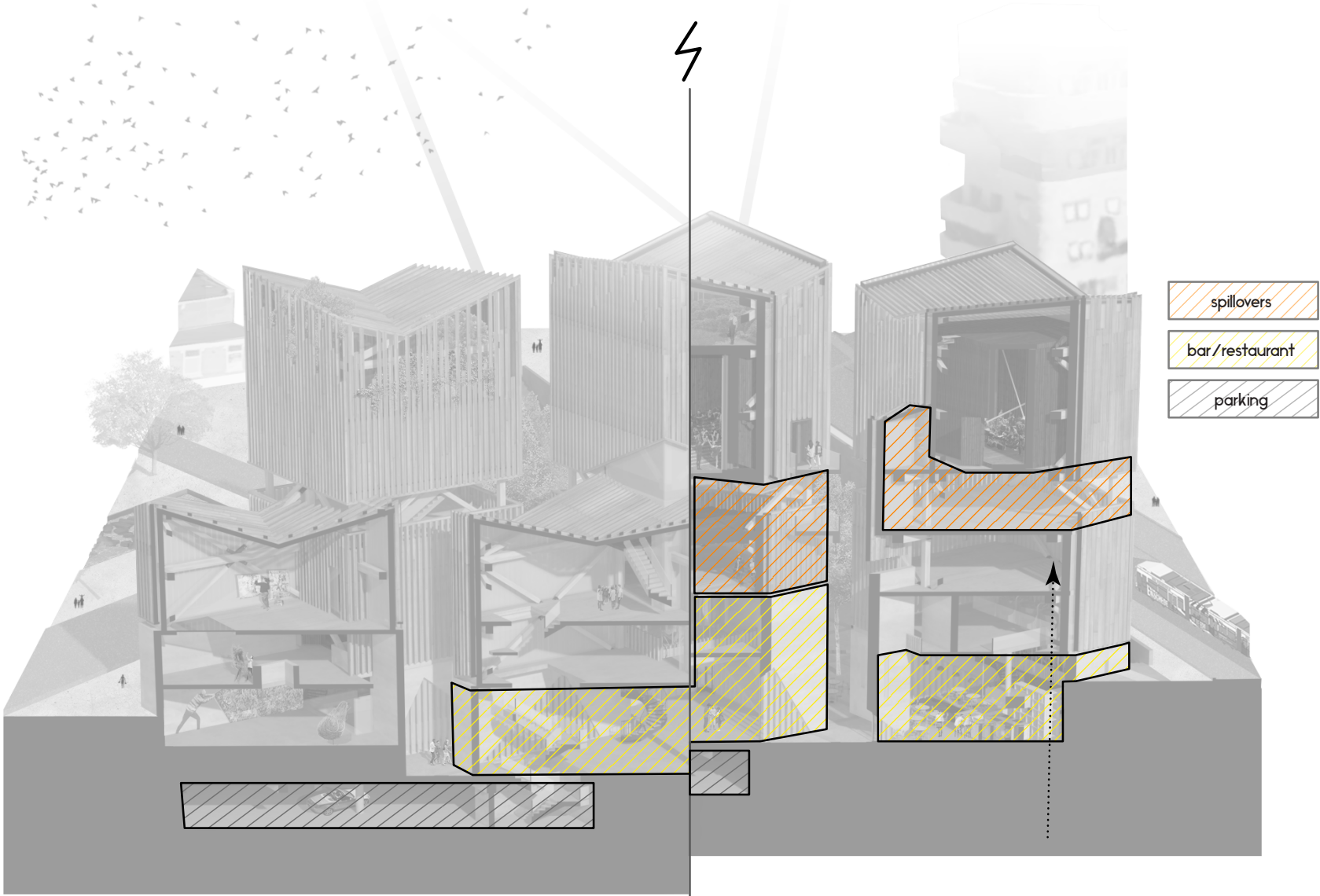


architecture

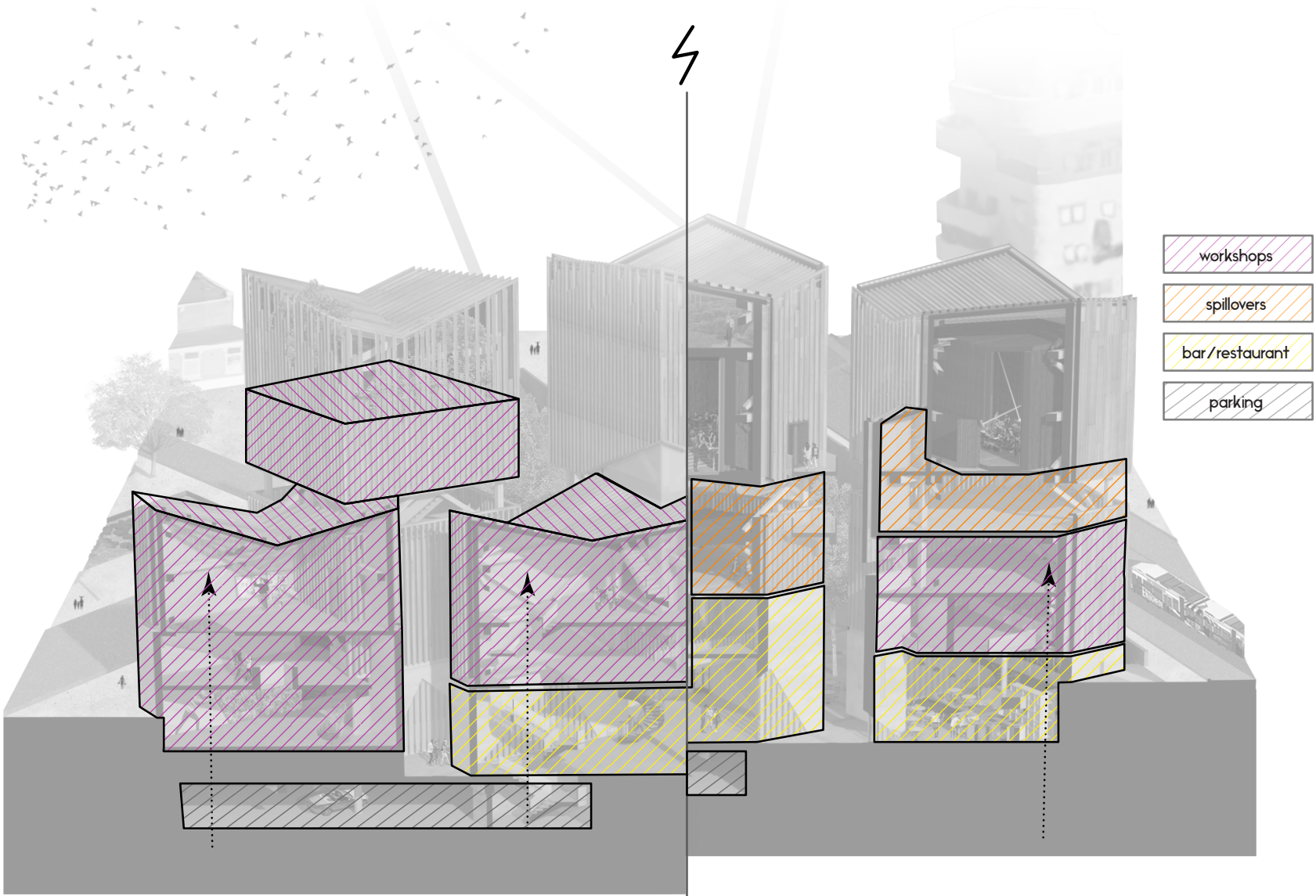
Programme: Bar/Restaurant



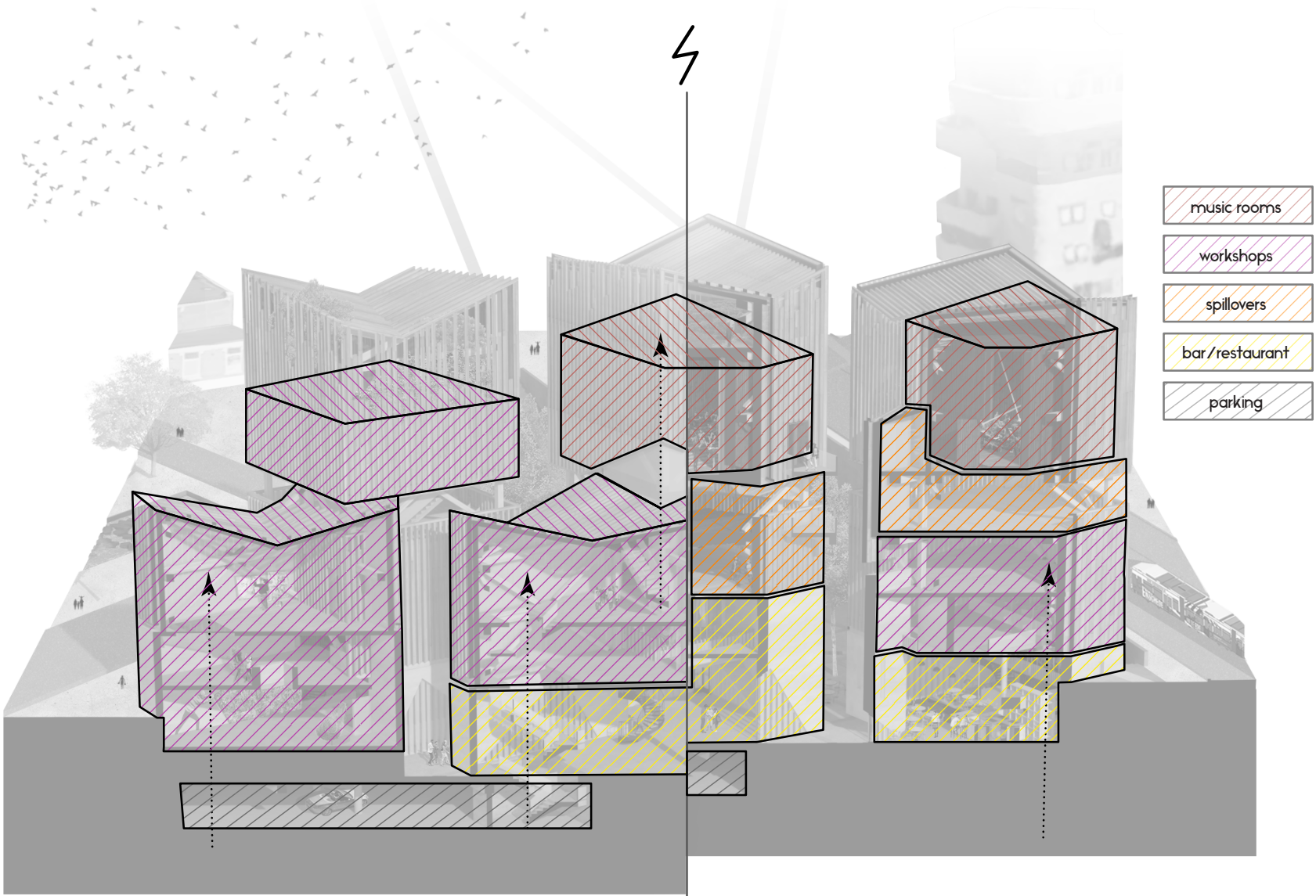
Programme: Spillover Spaces



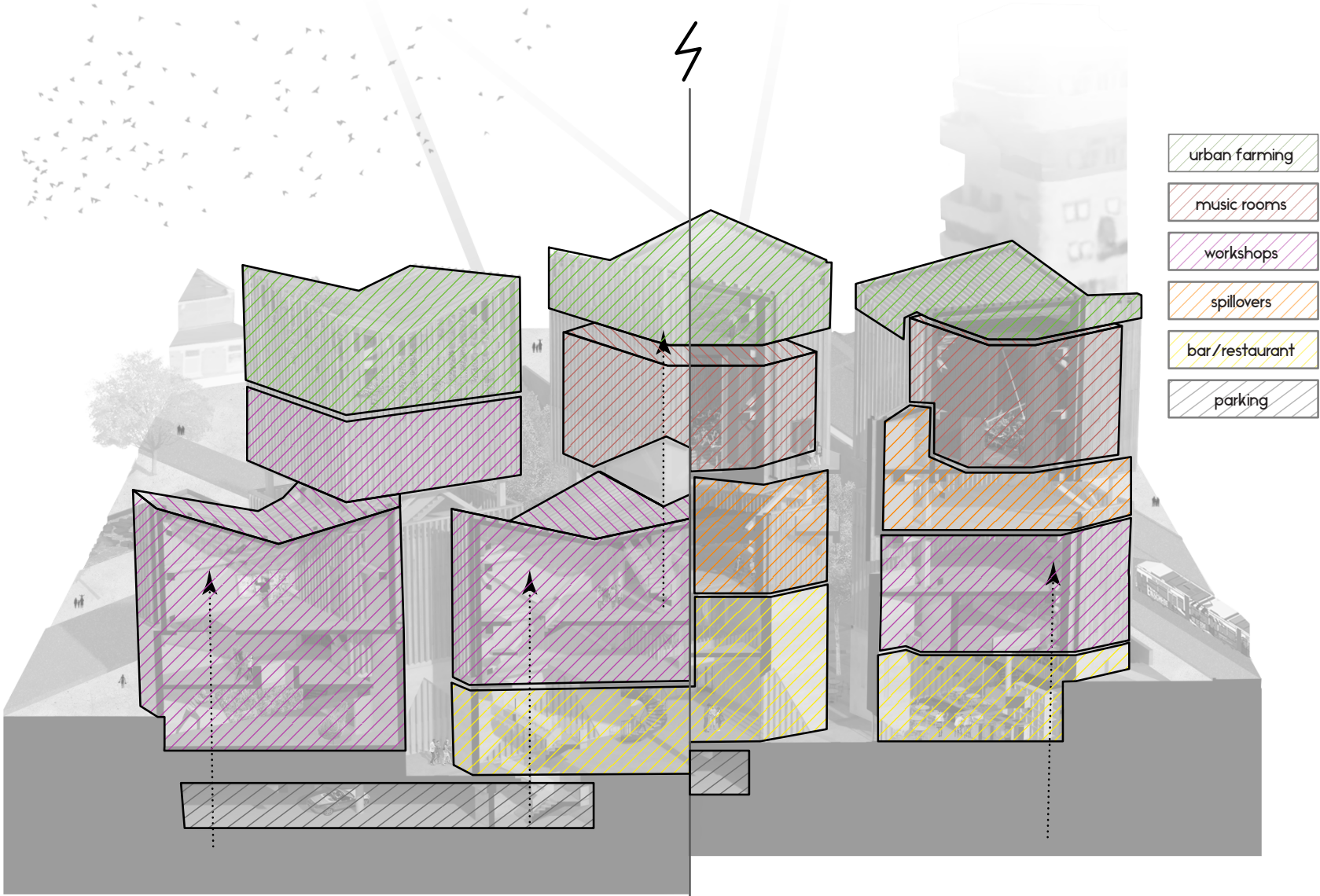
Programme: Workshops



Programme: Music Rooms



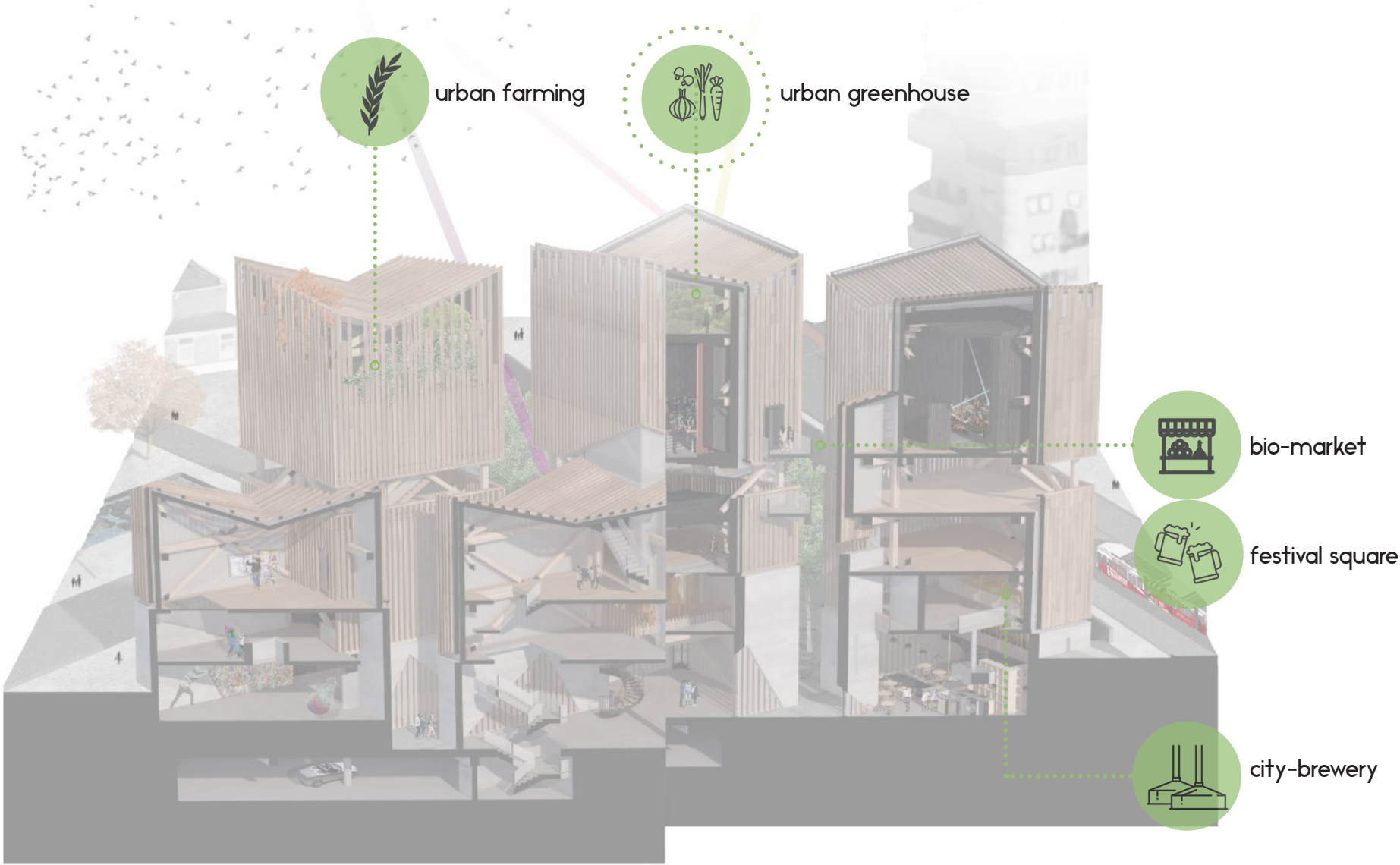
Programme: Urban Farming



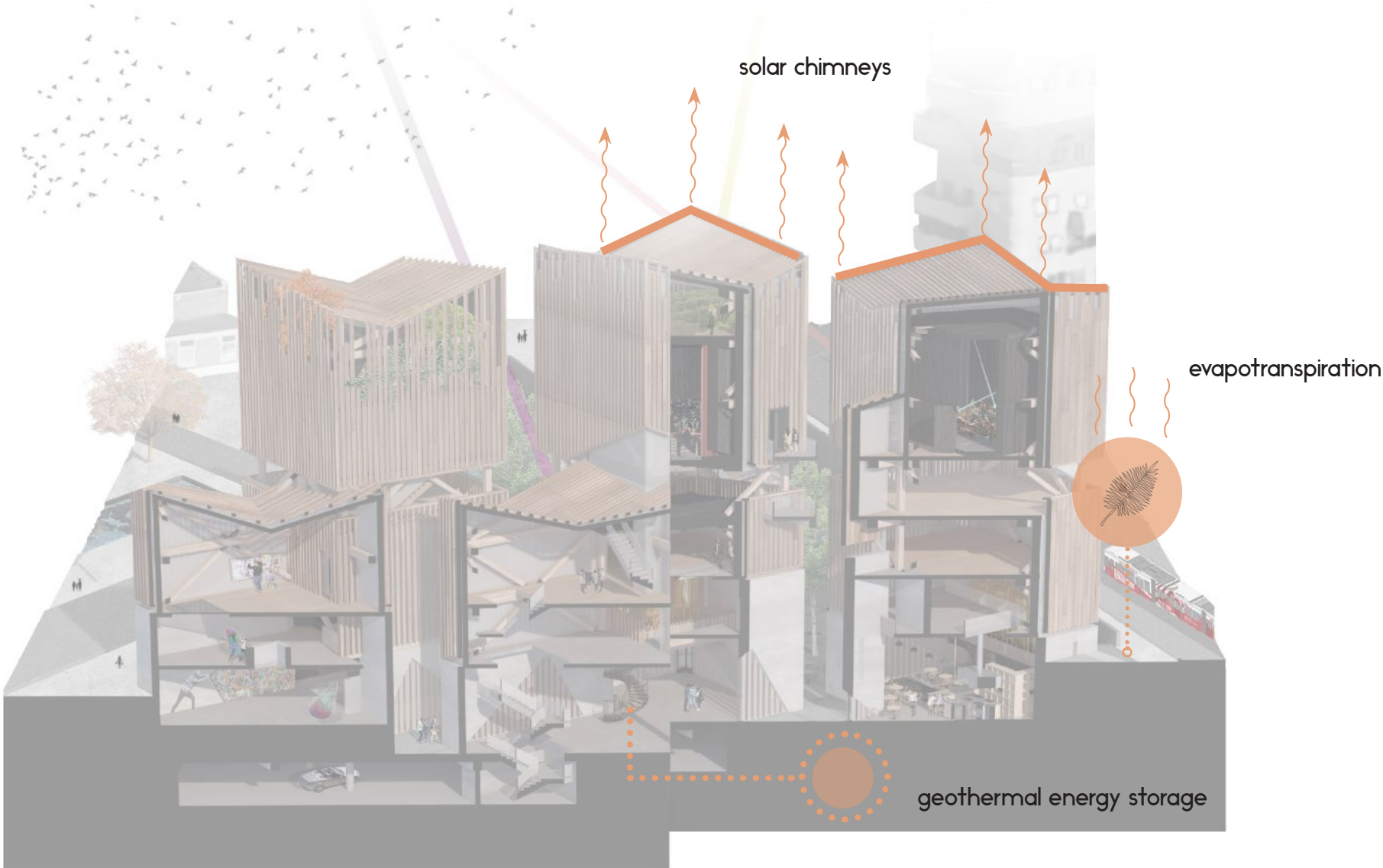
- urban farming
- music rooms
- workshops
- spillovers
- bar/restaurant
- parking



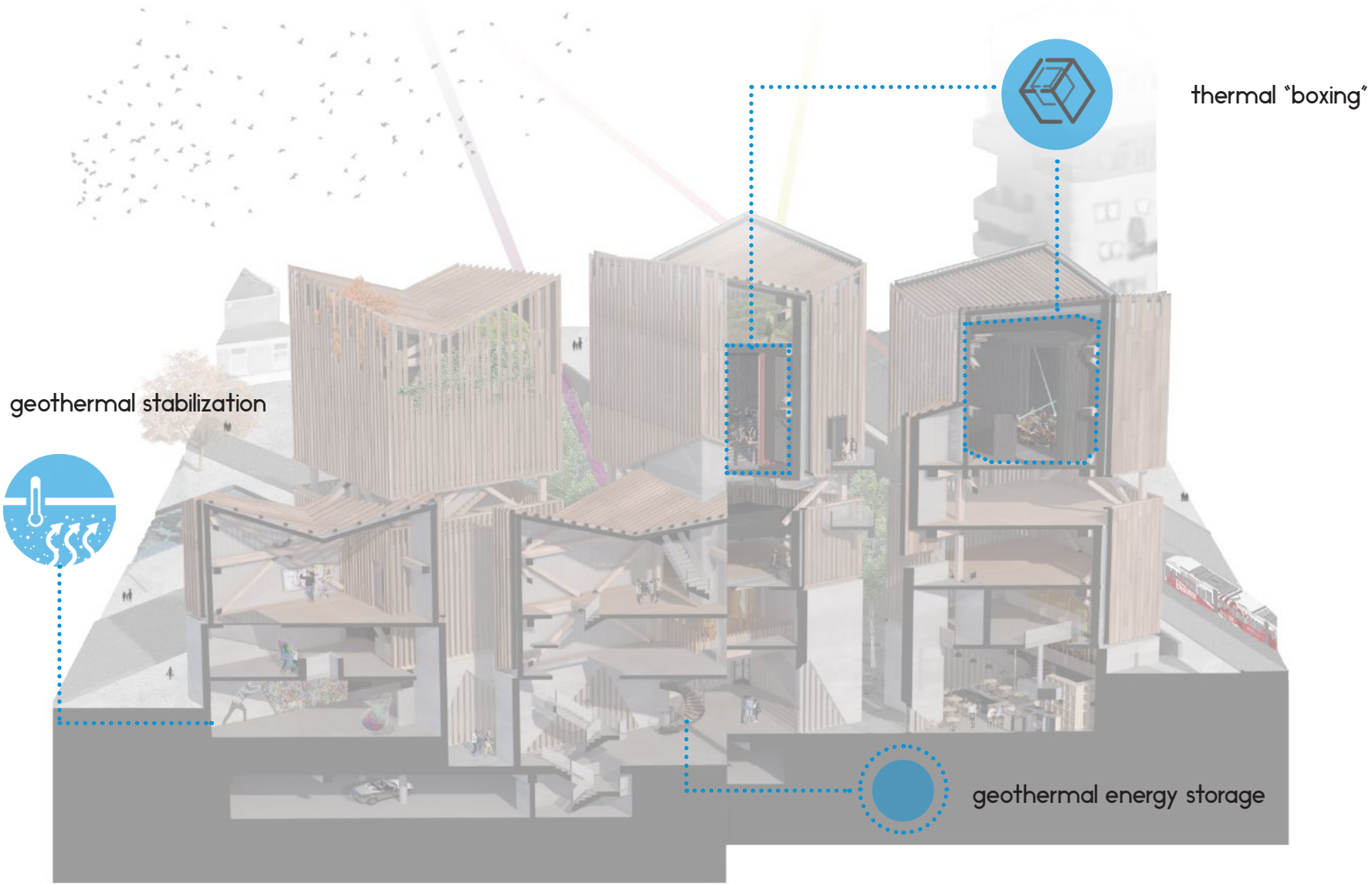
Urban Climate Adaptation: Food



Urban Climate Adaptation: Heat



Urban Climate Adaptation: Cold



Urban Climate Adaptation: Energy

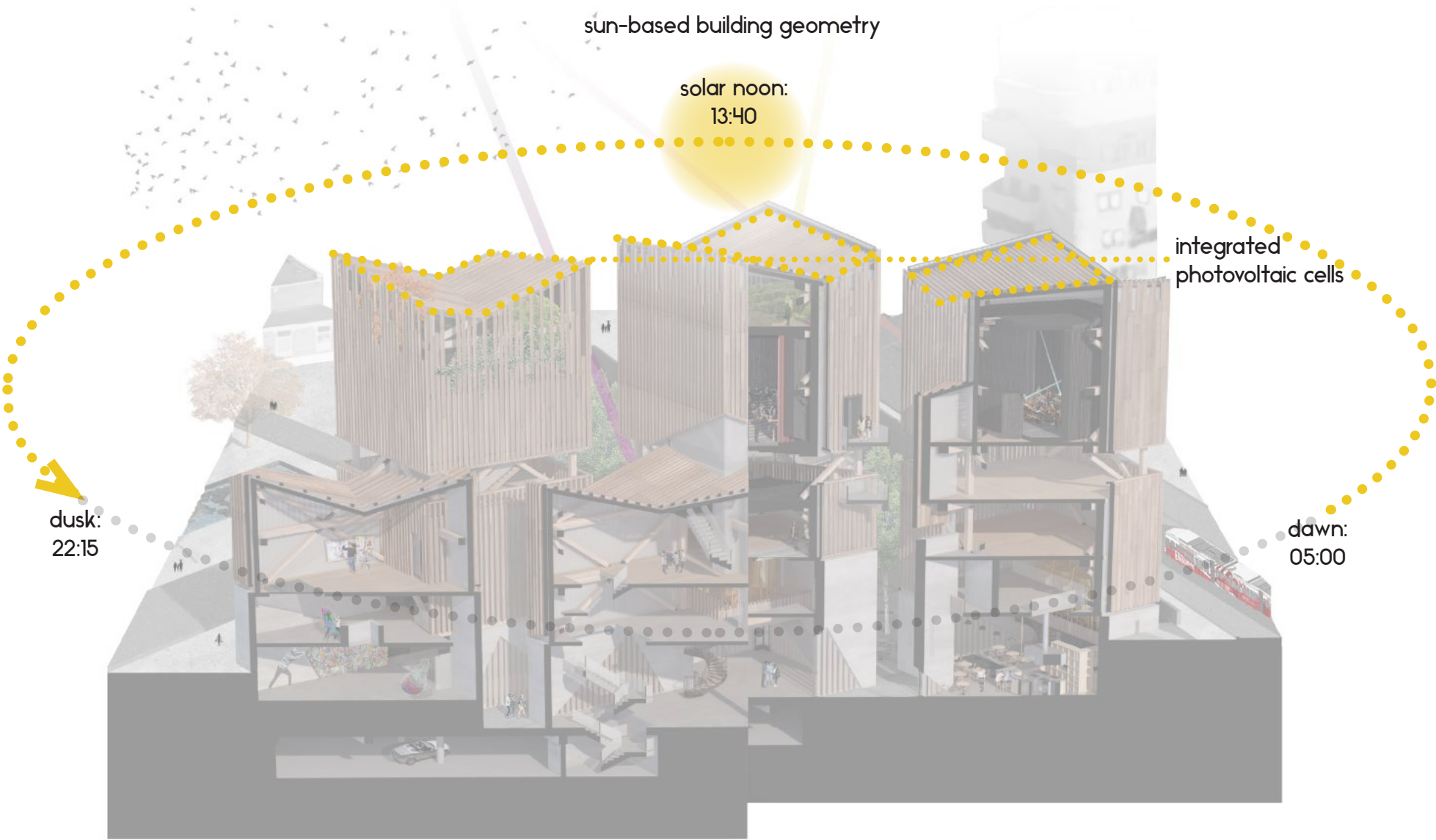
sun-based building geometry

solar noon:
13:40

integrated
photovoltaic cells

dusk:
22:15

dawn:
05:00



urban
resilience



the
learning
curve



the
roombeek
re-evaluation

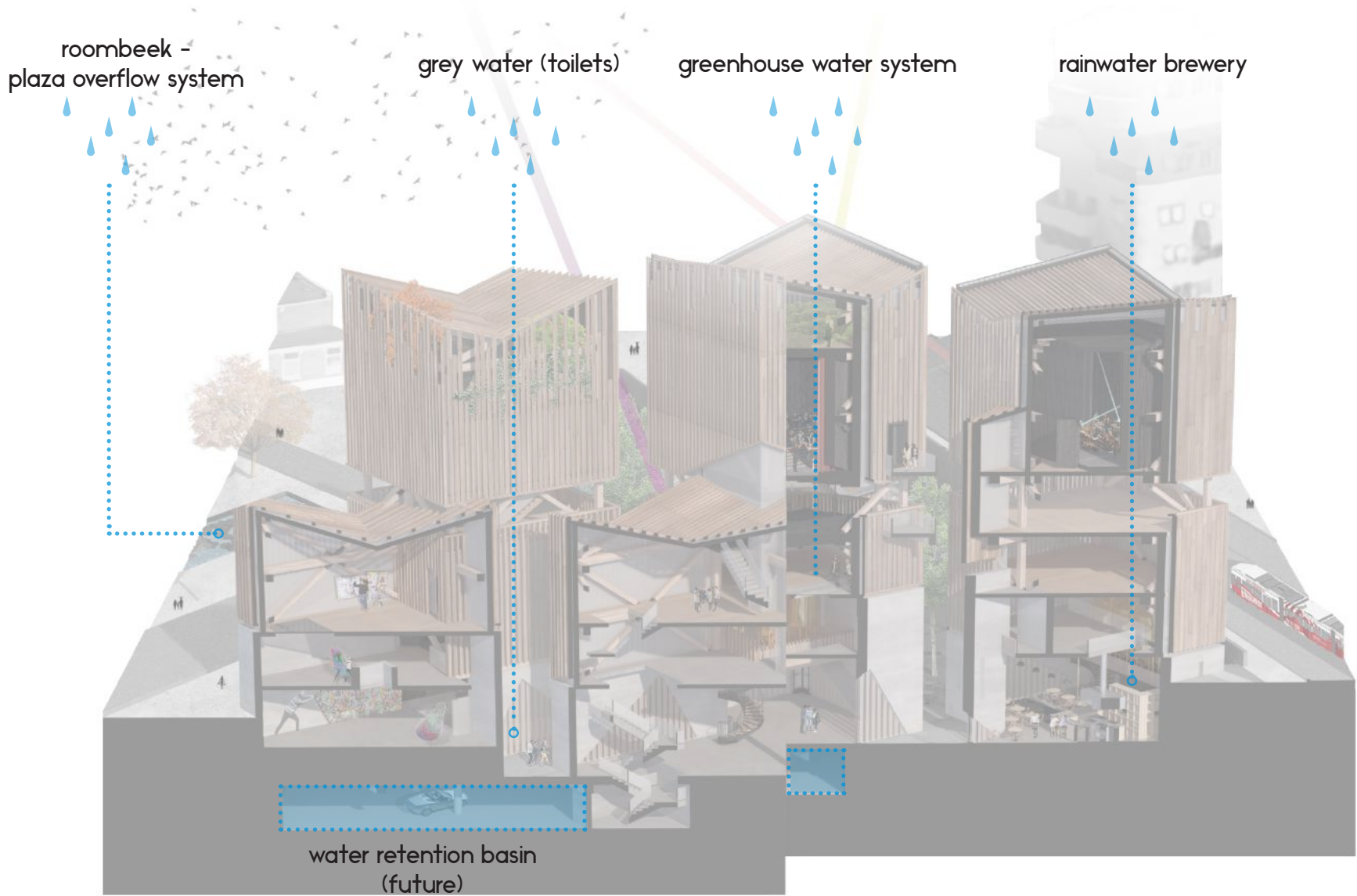


urban
redefinition



architecture

Urban Climate Adaptation: Water



Recap: Objectives

Finding direction for future urban redefinition for the city of Enschede

The building as an example for urban resilience.

Dictated by the requirements of the future.

Direction based on requirements of place and time.

An architectural rendering of a modern building complex. The main structure is composed of several interconnected volumes with facades made of vertical wooden slats. To the right, there is a white, stepped structure. The foreground features a large courtyard with a patterned lawn, concrete walkways, and several trees. The sky is blue with scattered white clouds.

Building for a resilient future.

An architectural rendering of a modern building complex. The central focus is a large, multi-story building with a facade of vertical wooden slats, creating a textured, organic appearance. The building's form is composed of several interconnected volumes of varying heights and widths. To the right, a more traditional, white, stepped building is visible. In the foreground, a large, open courtyard is paved with a pattern of light-colored stones and interspersed with green grass. Several trees and shrubs are planted throughout the courtyard. The sky is a clear blue with scattered white clouds. The overall scene is brightly lit, suggesting a sunny day.

THANK YOU