

MINDSCAPES



Healing Gardens

Nadine Walker

P 05

02 07 20

RESEARCH

01 INTRODUCTION

Fascination

Geography

02 SITE

Societe De La Raffinerie de Dunkerque

03 THEORY

Health

Bioremediation

Gardens

DESIGN

04 CONCEPT

05 LANDSCAPE

Outward-in

06 ARCHITECTURE

Inward-out

07 TECHNOLOGY

08 CONCLUSION

INTRODUCTION

ECOLOGICAL

Territory

SOCIO-CULTURAL

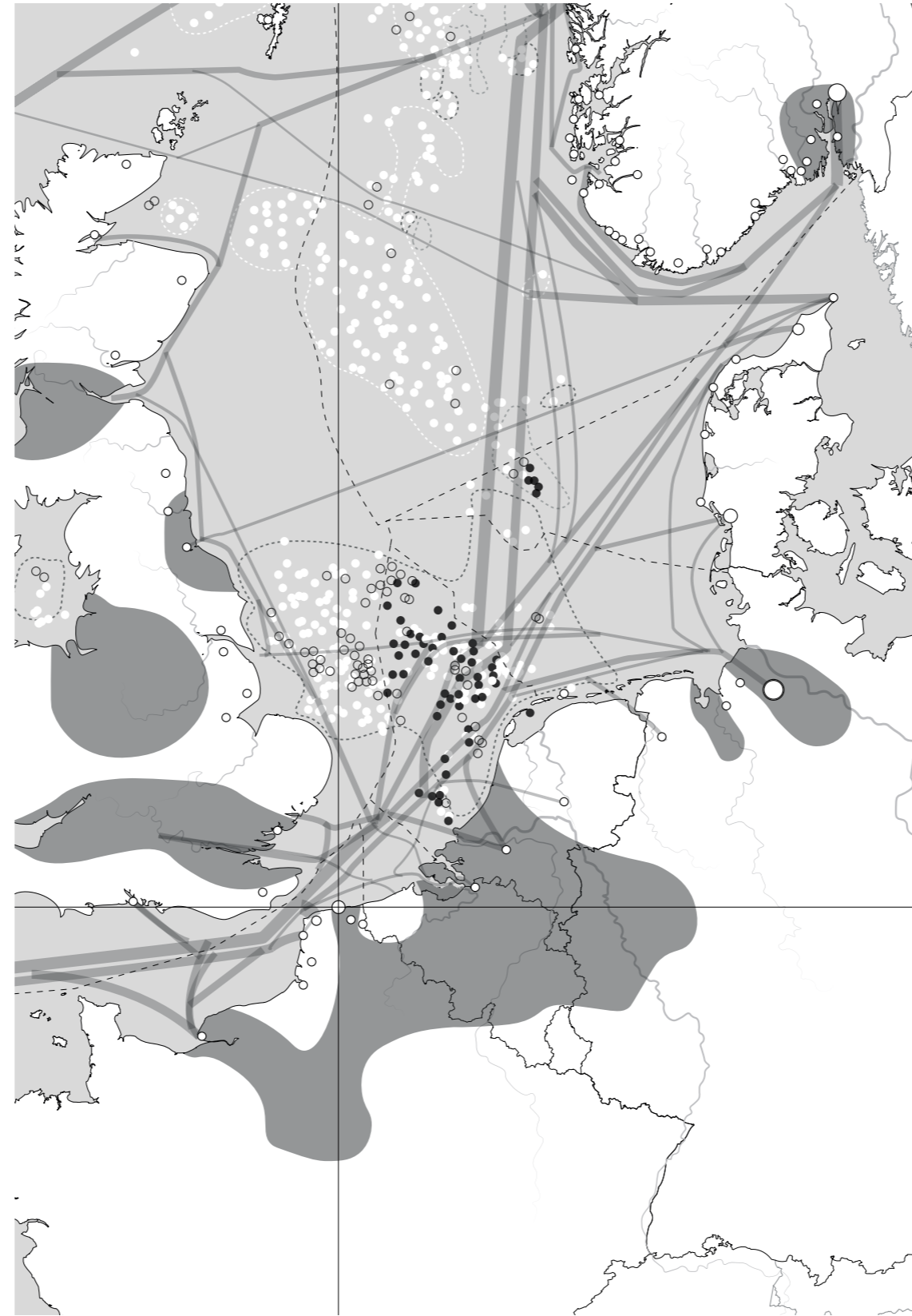
Urban/Landscape

HUMAN

Body & Mind

Fascination: Health

INTRODUCTION



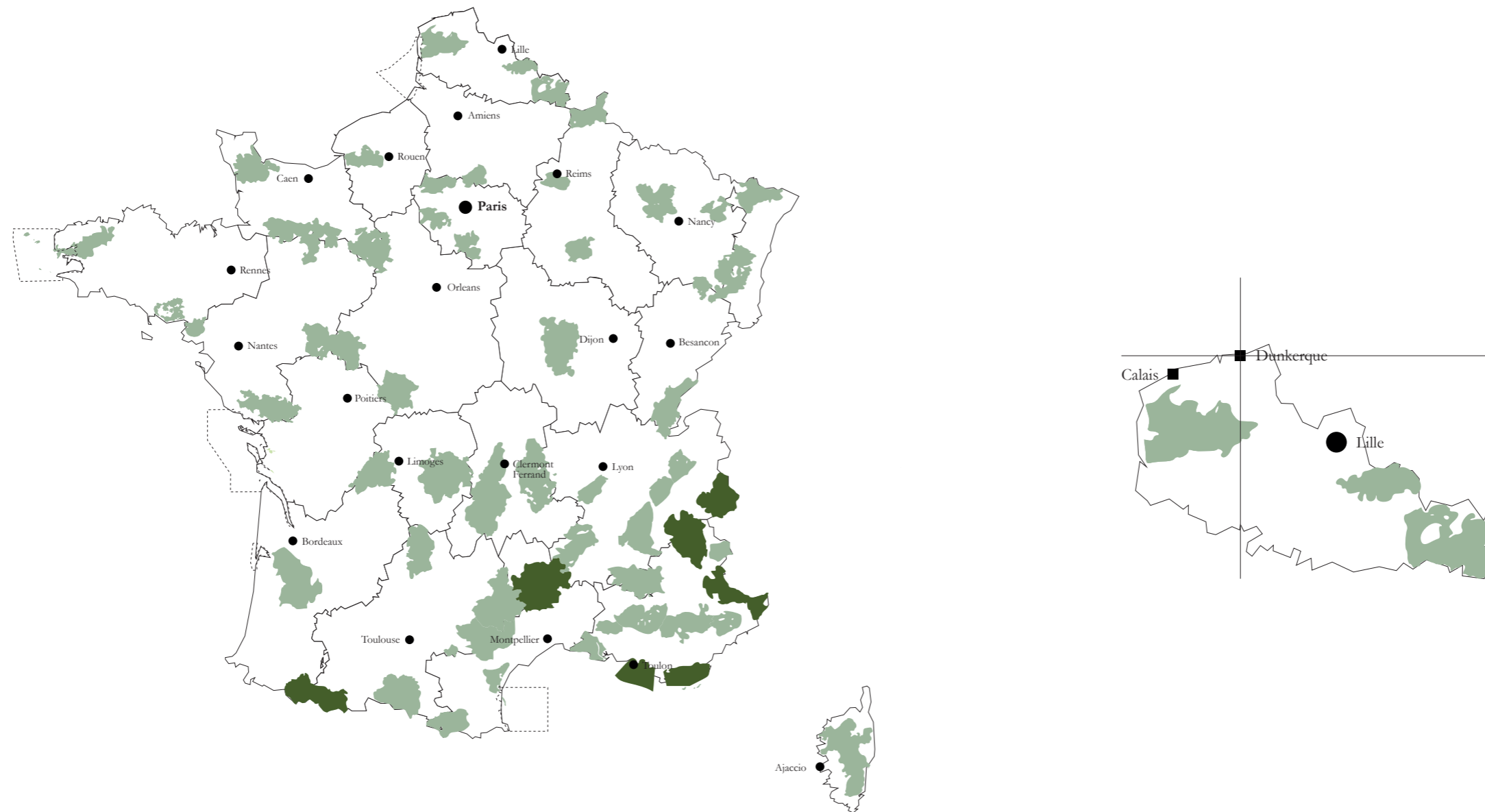
Territorial Analysis
Economy

INTRODUCTION



Territorial Analysis
Ecology

INTRODUCTION



Green Infrastructure in France

RESEARCH QUESTION

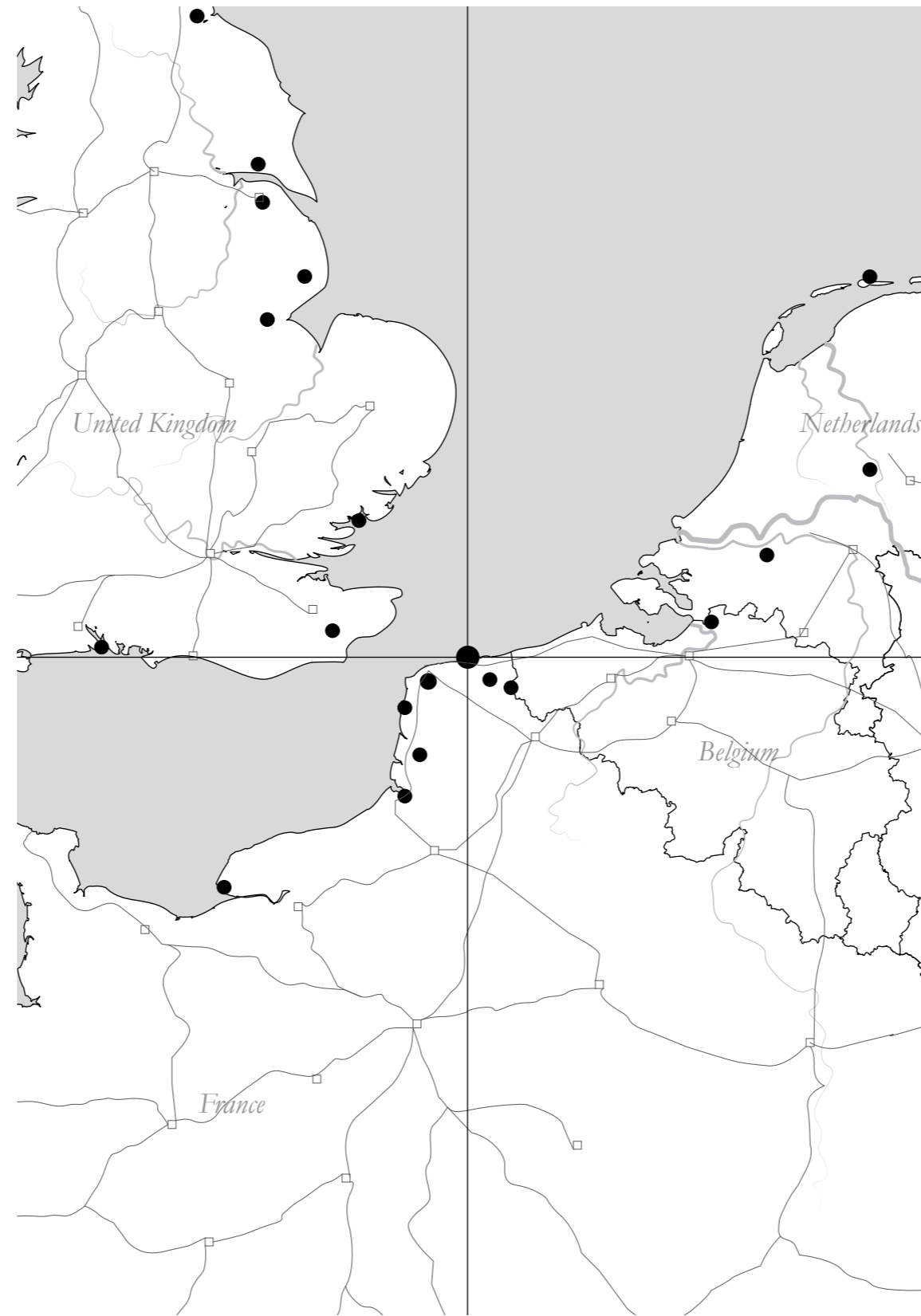
What kind of green infrastructure intervention can foster remediation and decontamination of the North Sea ecosystem of coastal Dunkerque while providing a wider economical benefit?

Territorial Scale

02
SITE

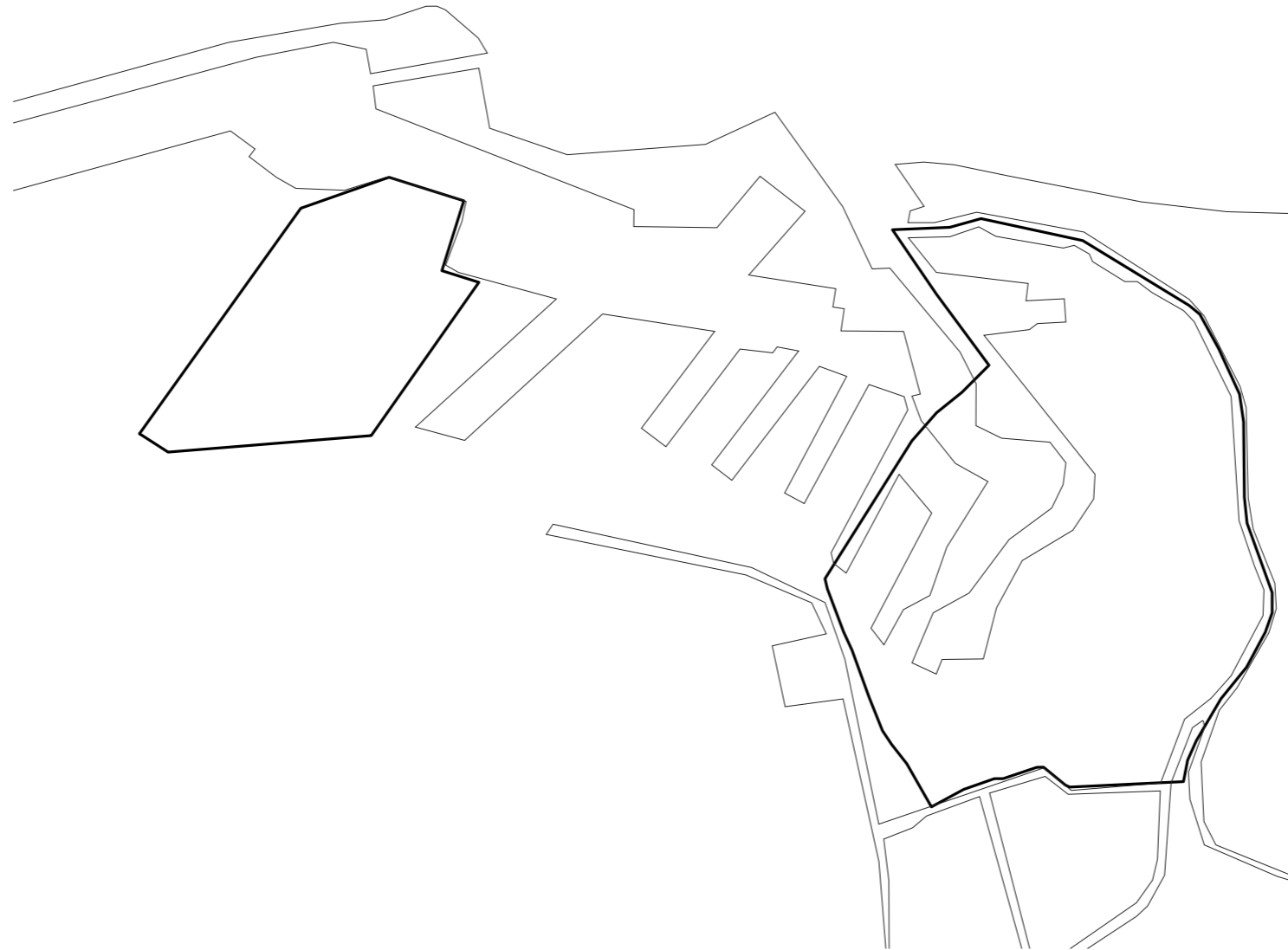
Societe De La Raffinerie de Dunkerque

INTRODUCTION



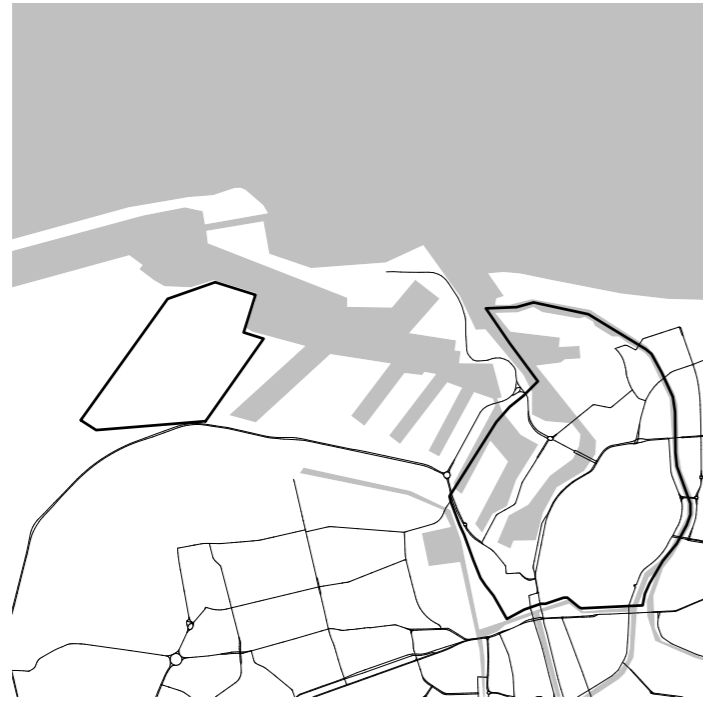
Dunkerque

SITE

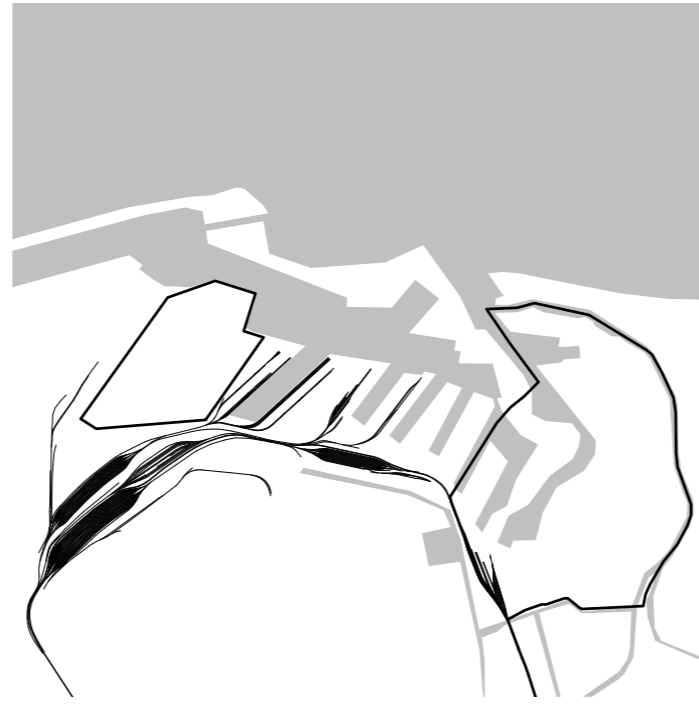


Site – City Centre

SITE



Marginalised foreshore



Abandoned railway line



Lack of green infrastructure

Urban Analysis

SITE



Refinery Grounds

SITE



Existing Structures

RESEARCH QUESTION

- 1. What kind of architectural intervention can 'bridge' the invisible boundary between land and water on one hand, and between the city and the port on the other hand?*
- 2. To what extent can the industrial leftover structures and objects on site, both habitable and inhabitable, become integrative part of the design?*

03

THEORY

Health | Bioremediation | Gardens

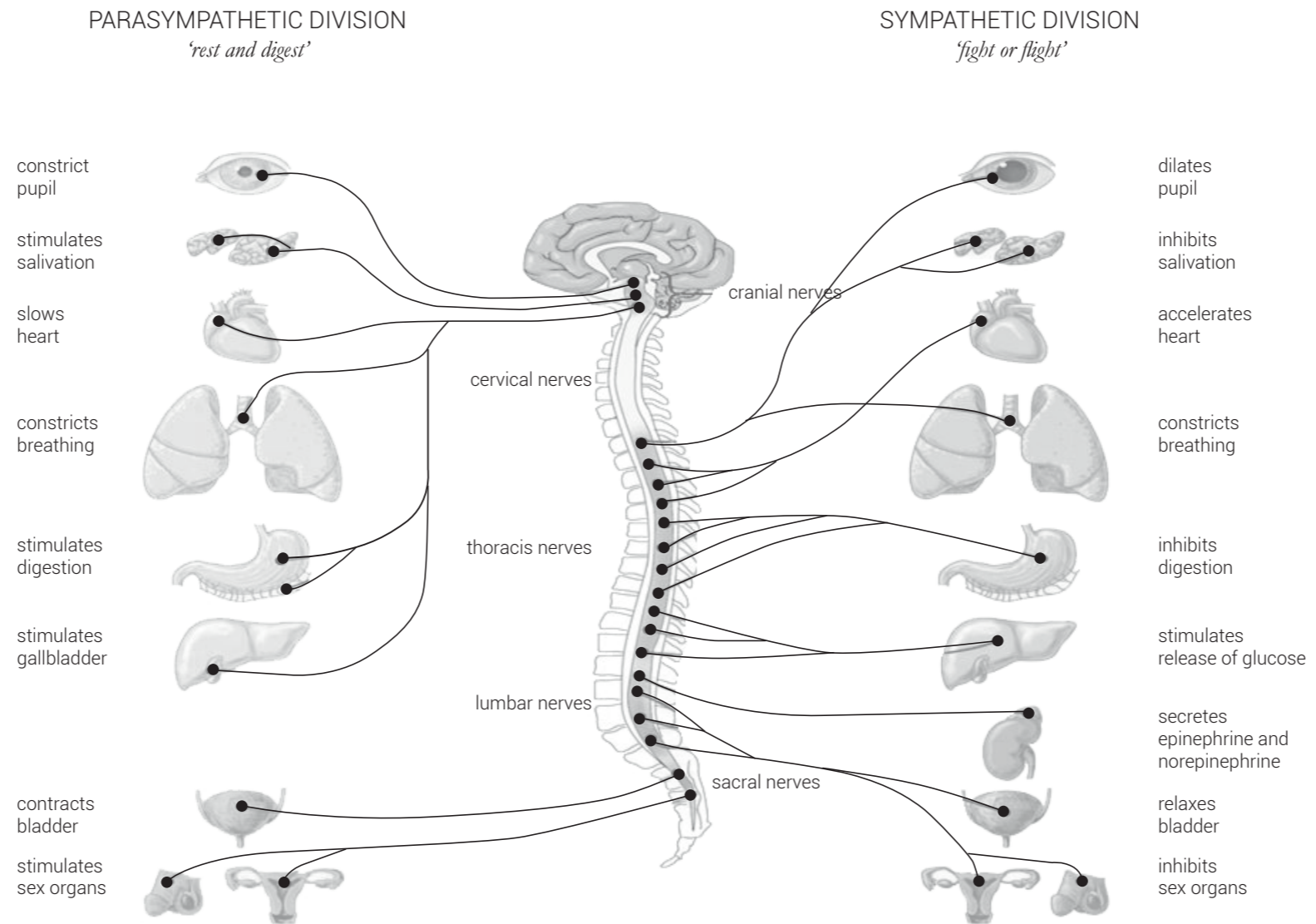
THEORY



Health

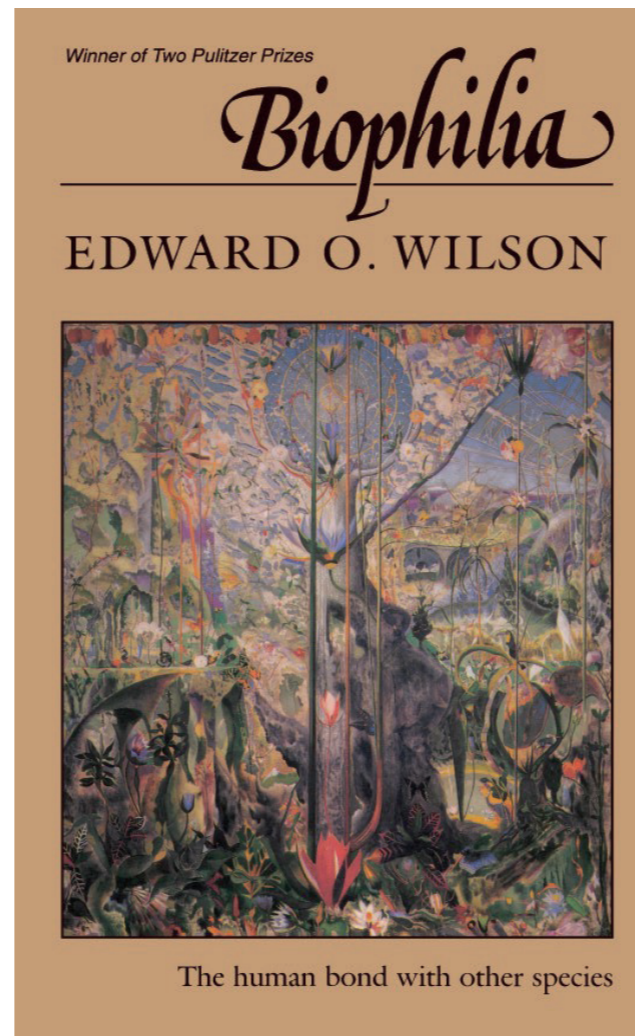
Shinrin-yoku – 'Forest Bathing'

THEORY



Stress

THEORY



Biophilia

Health

THEORY



Horticulture therapy



Sensual experience

Nature as Therapy

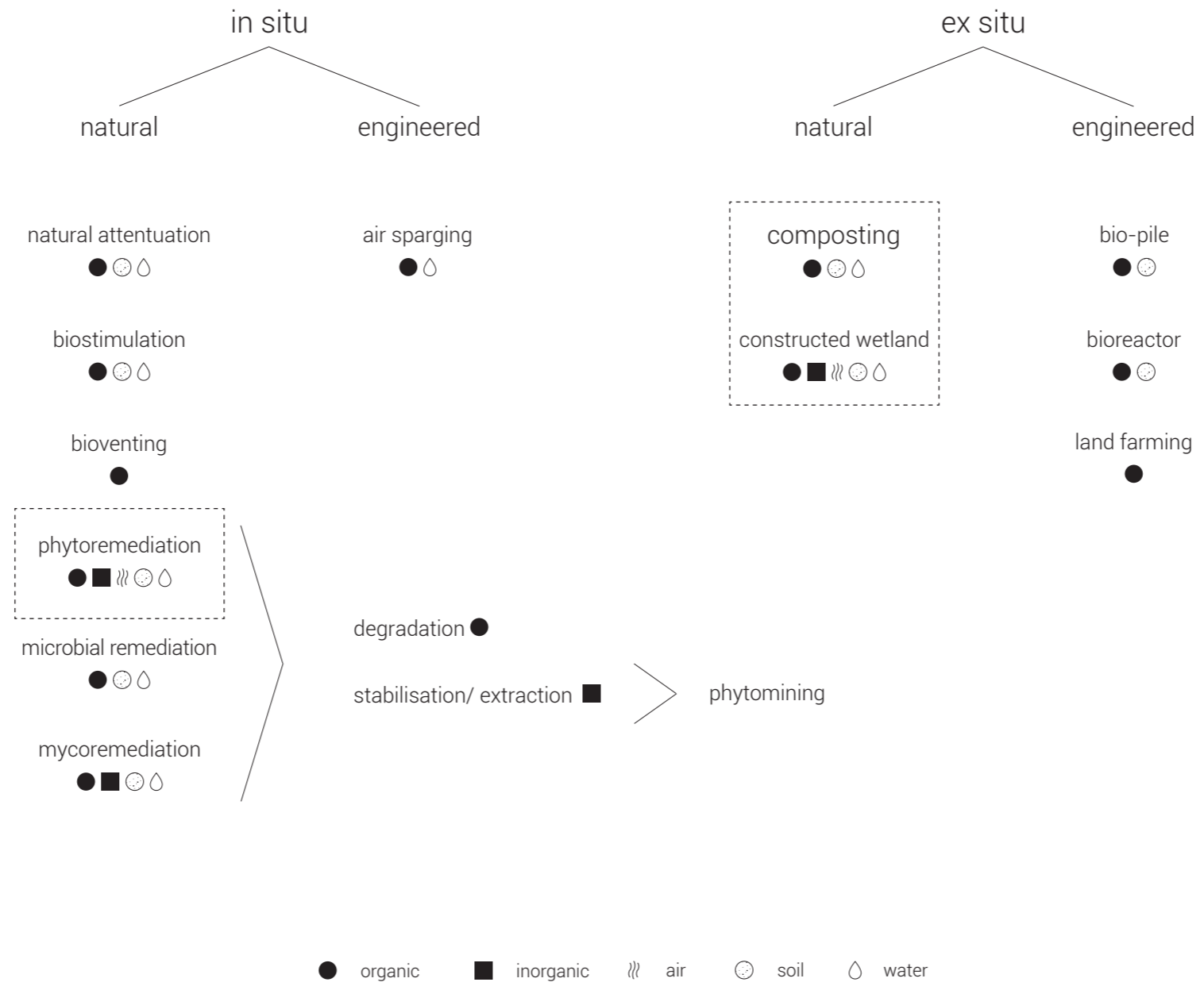
THEORY



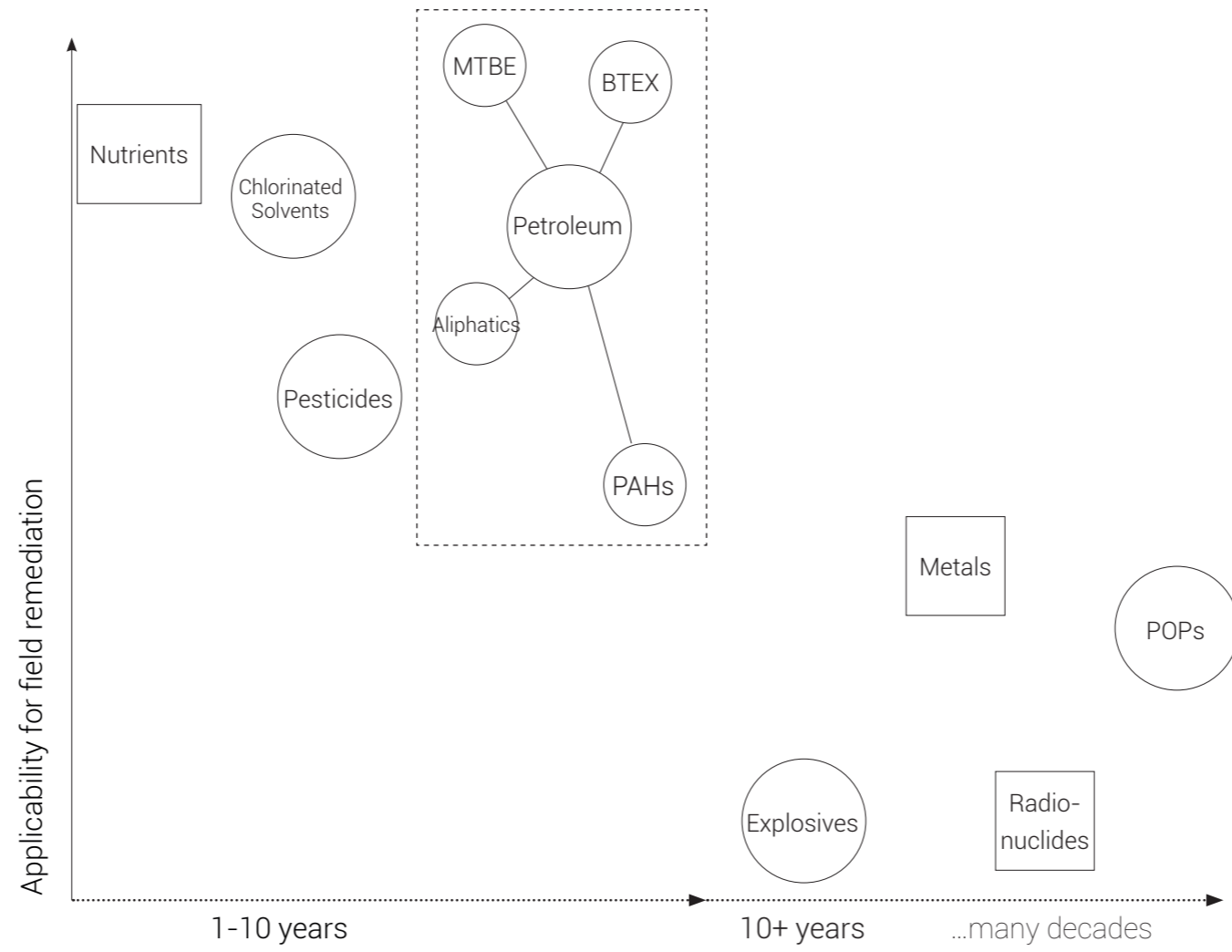
Bioremediation

Landfill Reclamation, James Corner

THEORY



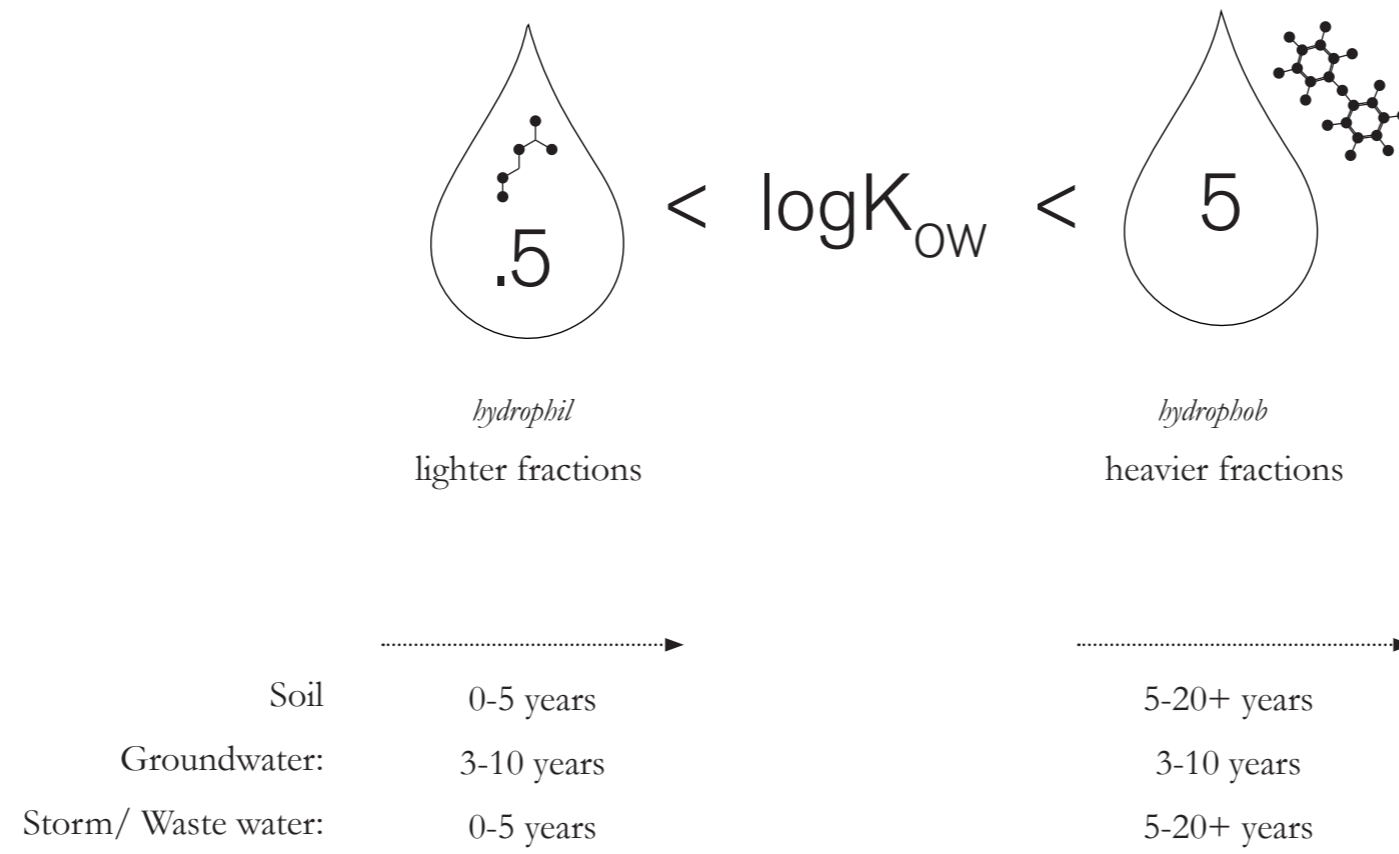
THEORY



● organic ■ inorganic

Bioremediation

THEORY



Petroleum Hydrocarbons

THEORY



Trees



Grasses



Wetland plants

Phytoremediation

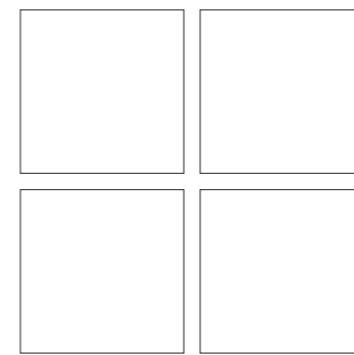
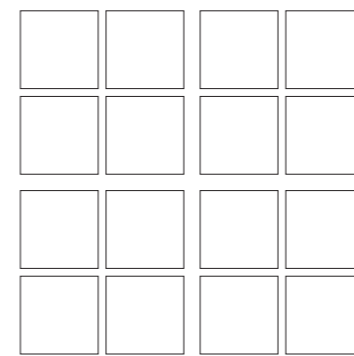
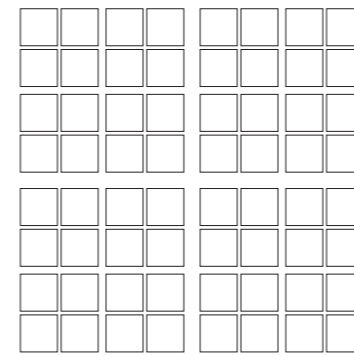
THEORY



Garden

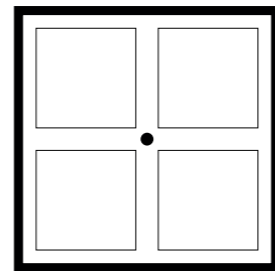
Hortus Conclusus, Peter Zumthor

THEORY

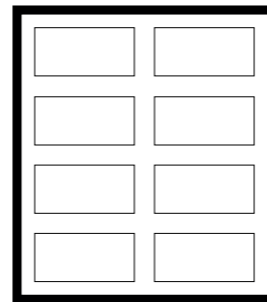


Four-fold Paradise

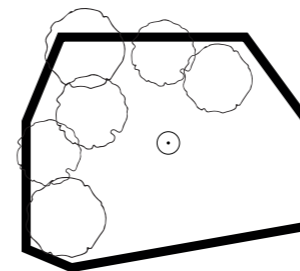
THEORY



Spirituality
hortus contemplationis



Activity
hortus catalogi



Rest
hortus ludis

Functions

THEORY



Third Landscape

RESEARCH QUESTIONS

- 1. How can the existing 'wild' nature and a newly created cultivated one synthesise into novel form of garden, and what would such a garden look like?*
- 2. How does a health-informed programme spatially and structurally manifest within the framework of a garden?*

04

CONCEPT

From the Territory to the Mind.

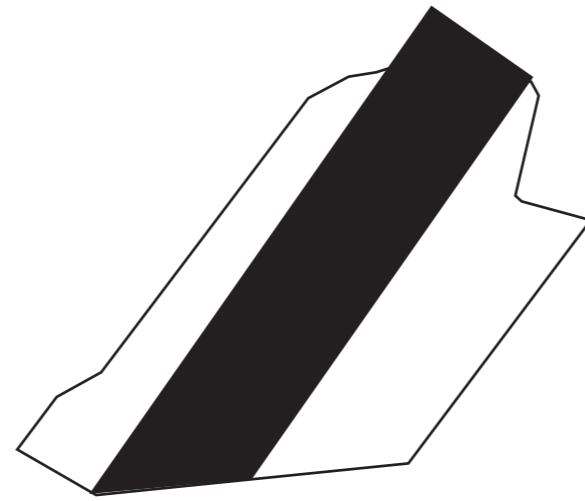
CONCEPT

1. Remediate ground

2. Redefine boundaries

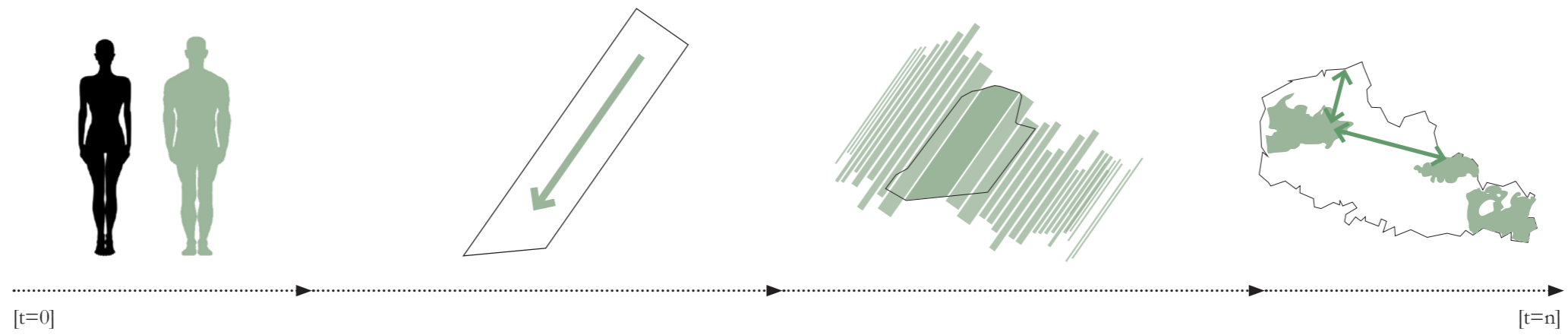
3. Reconcile inhabitants and their environment

CONCEPT



Fragment

CONCEPT



Body & Mind

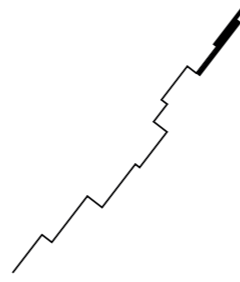
Fragment

Urban

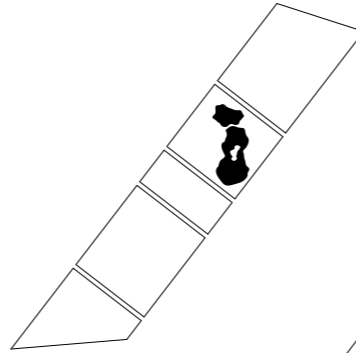
Territory

Temporal Dimension

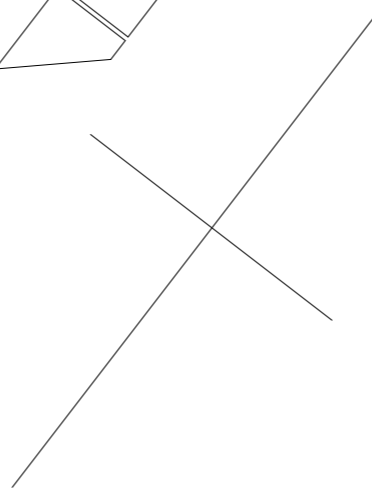
CONCEPT



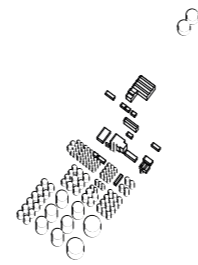
Architecture



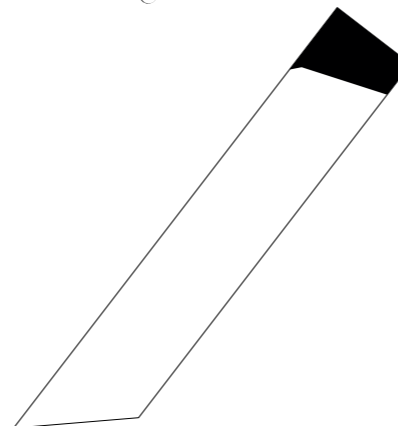
Gardens



Axis



Structures

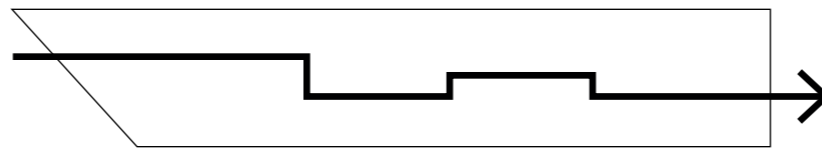


Fragment



CONCEPT

congested
wild
mystical

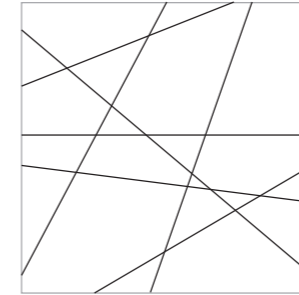
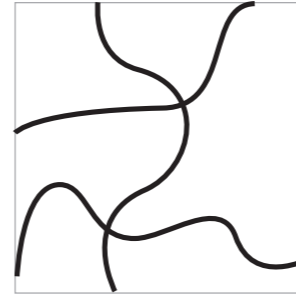
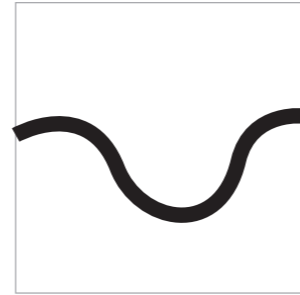


open
tamed
cultivated

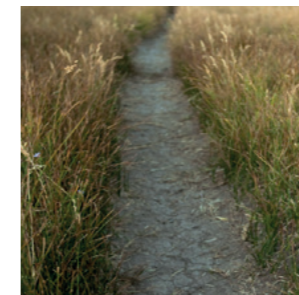
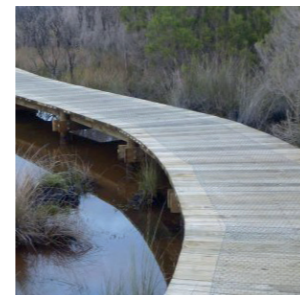
Gradient

CONCEPT

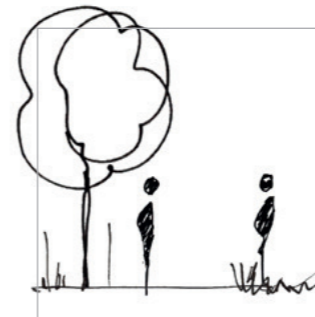
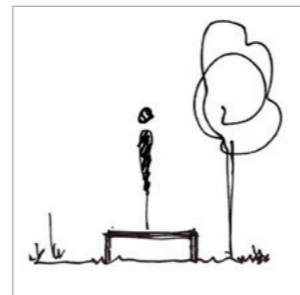
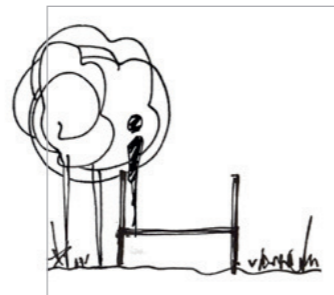
form



materiality



edge



0 years

5 years

10 years

30 years

Path

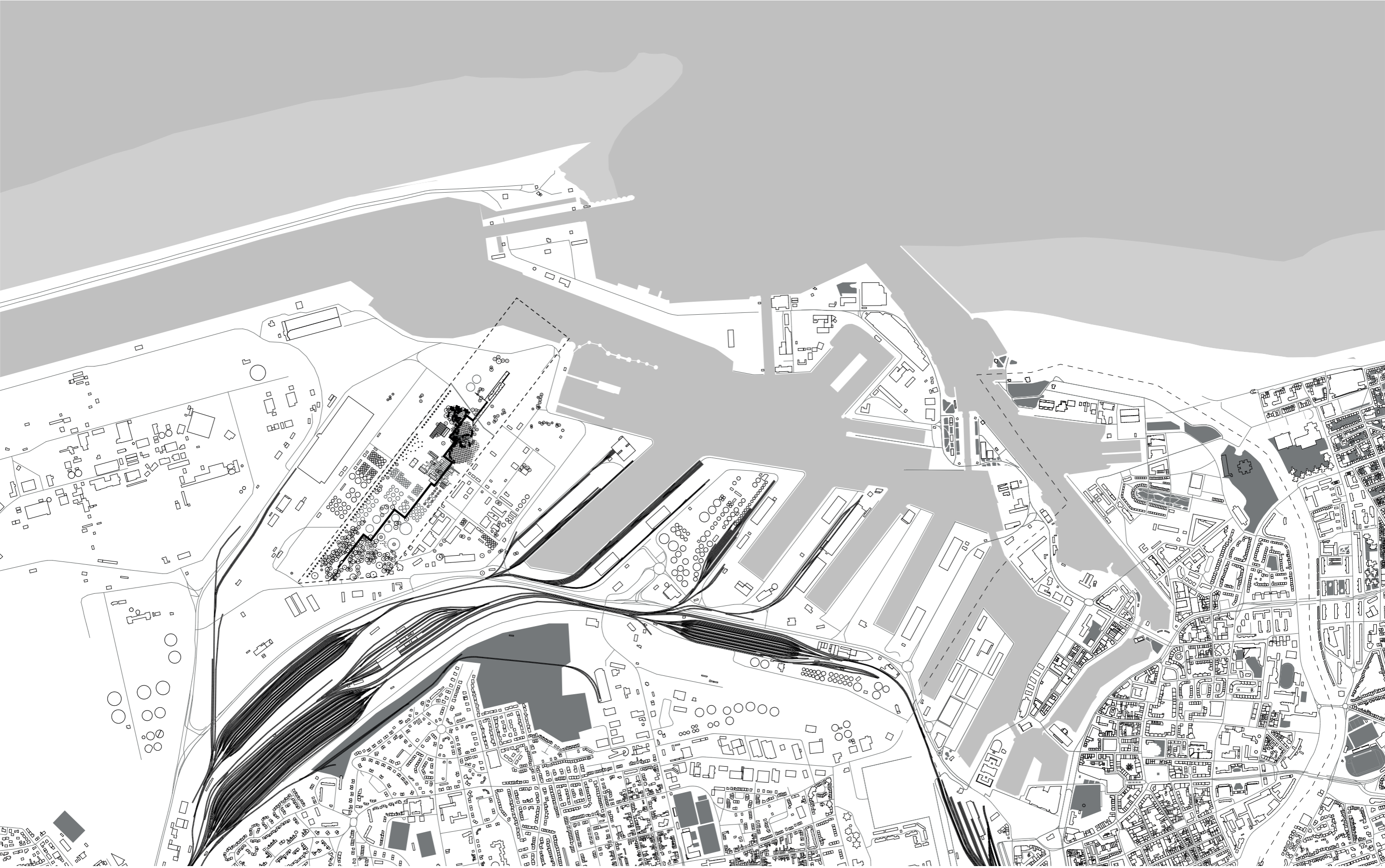
LANDSCAPE

05

LANDSCAPE

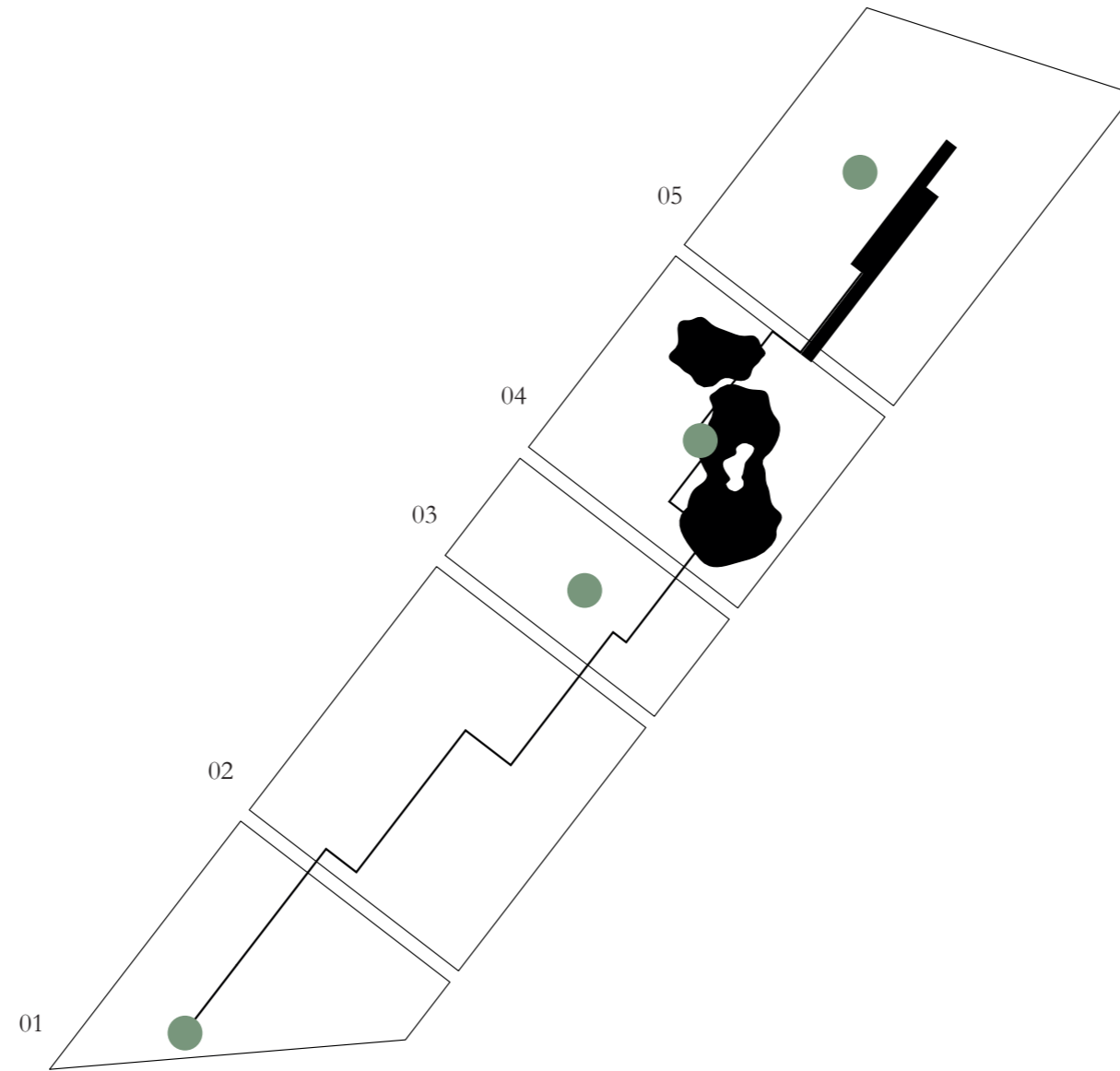
outward-in

LANDSCAPE



Context

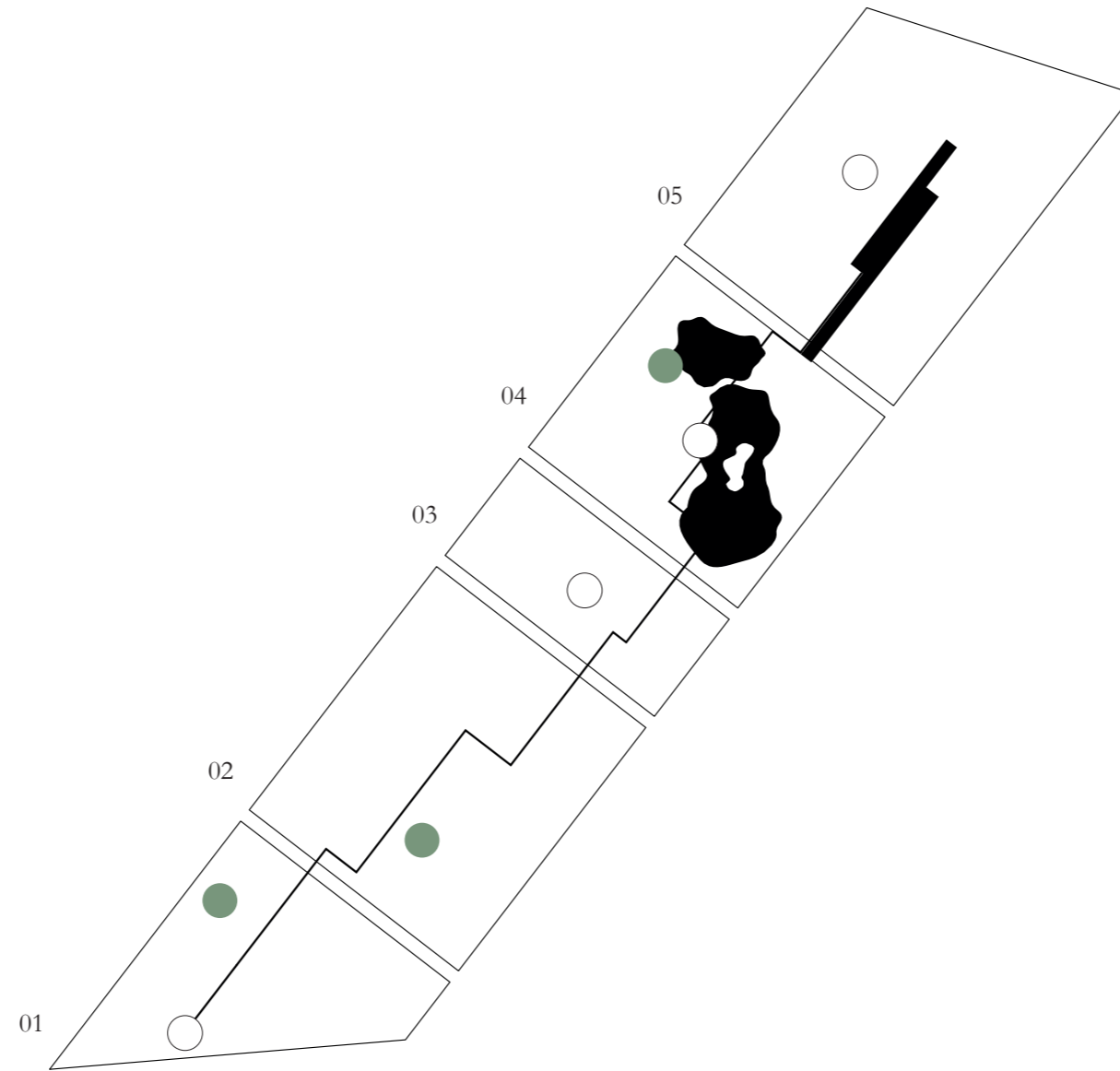
LANDSCAPE



Moments
0 years

01 *Forest Garden* 02 *Wild Garden* 03 *Flower Garden* 04 *Water Garden* 05 *Plain Garden*

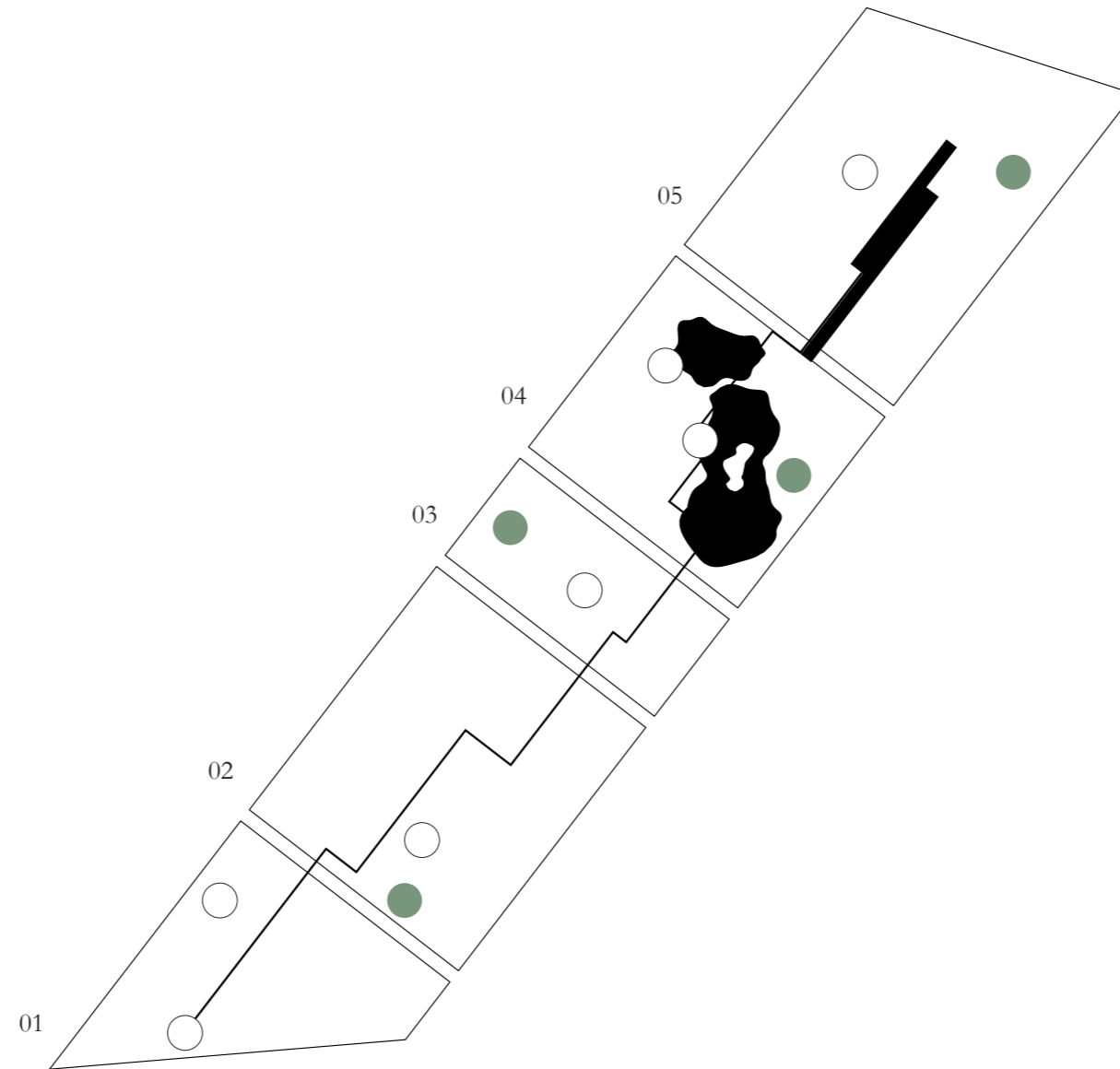
LANDSCAPE



Moments
5 years

01 *Forest Garden* 02 *Wild Garden* 03 *Flower Garden* 04 *Water Garden* 05 *Plain Garden*

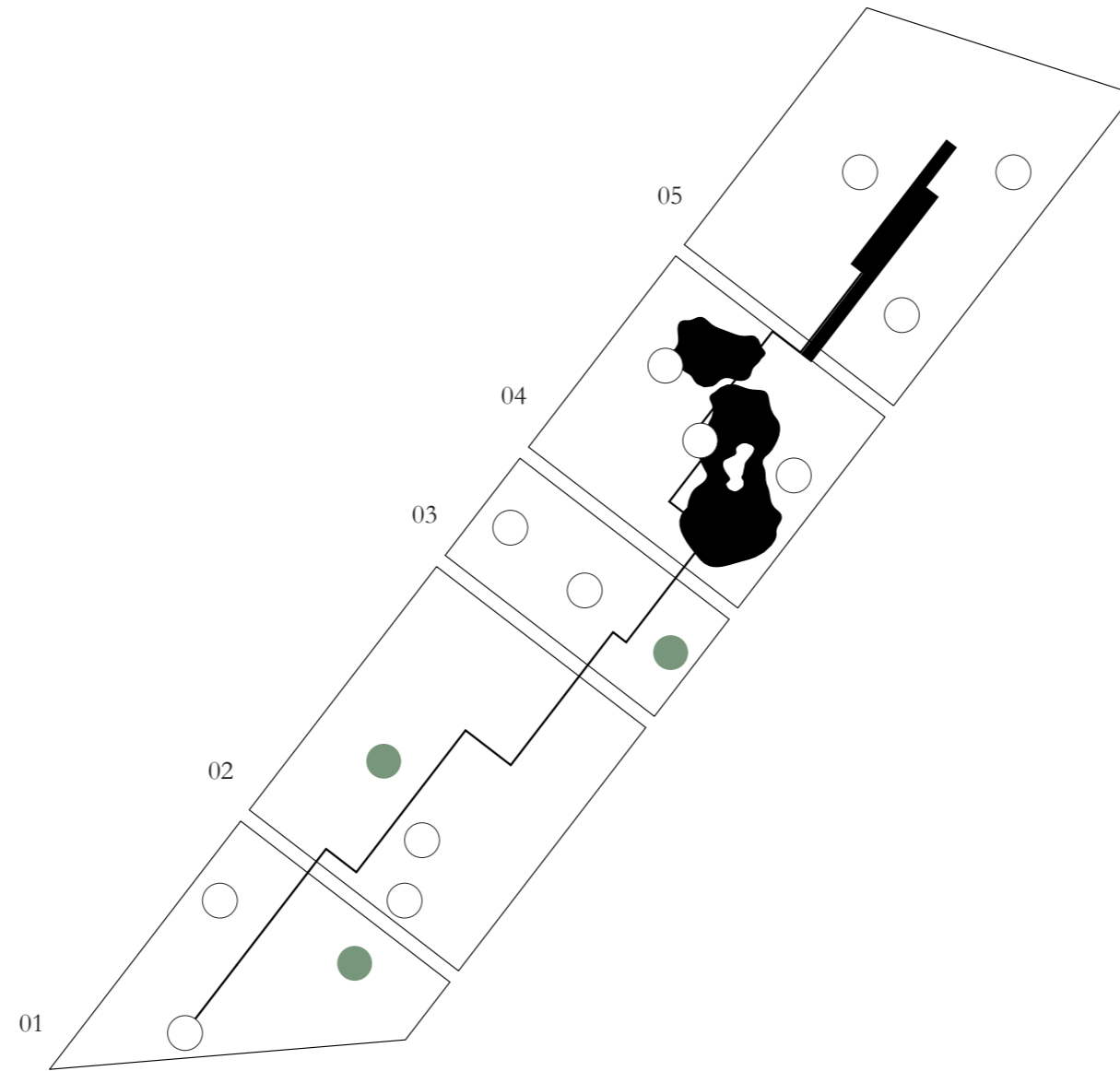
LANDSCAPE



Moments
10 years

01 *Forest Garden* 02 *Wild Garden* 03 *Flower Garden* 04 *Water Garden* 05 *Plain Garden*

LANDSCAPE



Moments
30 years

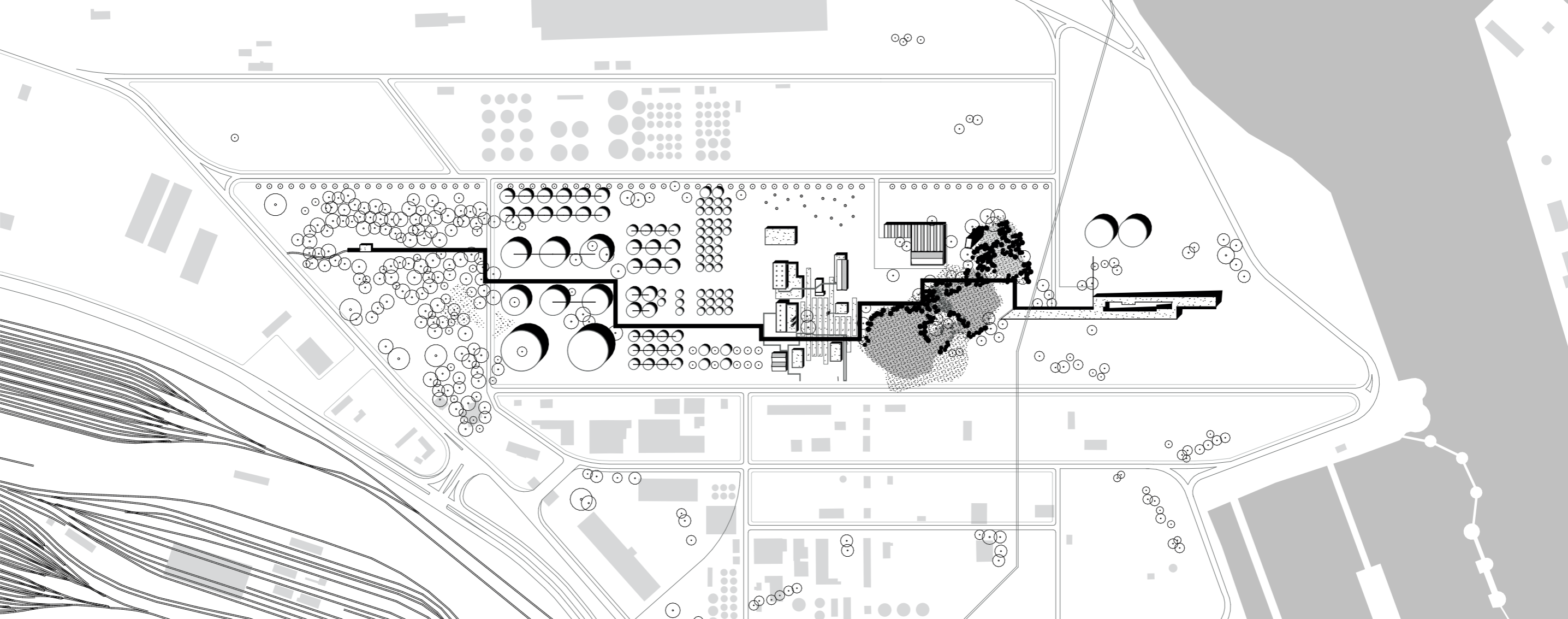
01 *Forest Garden* 02 *Wild Garden* 03 *Flower Garden* 04 *Water Garden* 05 *Plain Garden*

LANDSCAPE



Actors

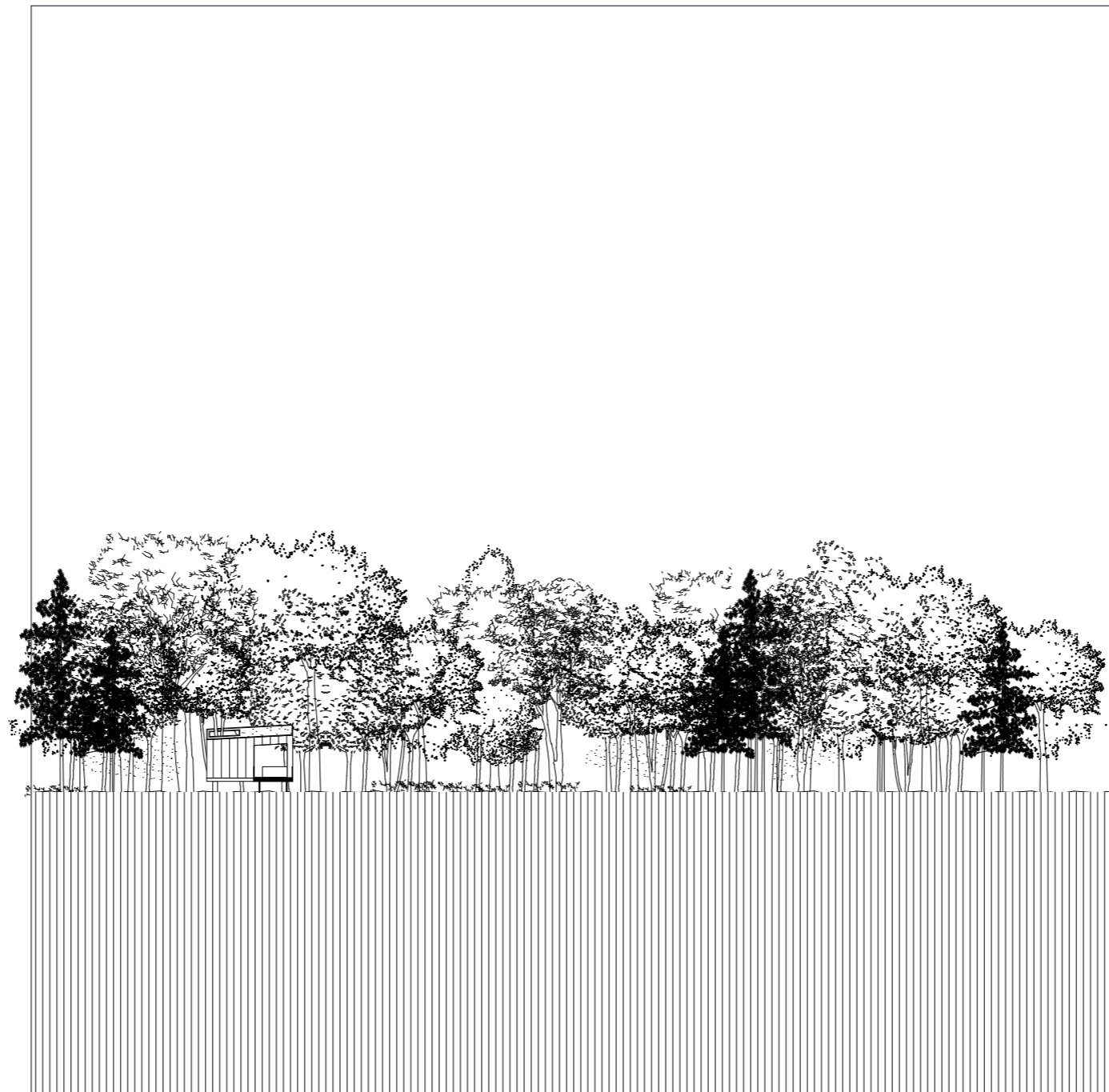
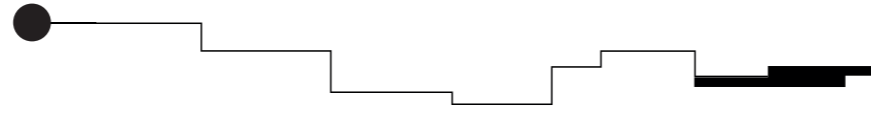
LANDSCAPE



Masterplan – stage I
0 years

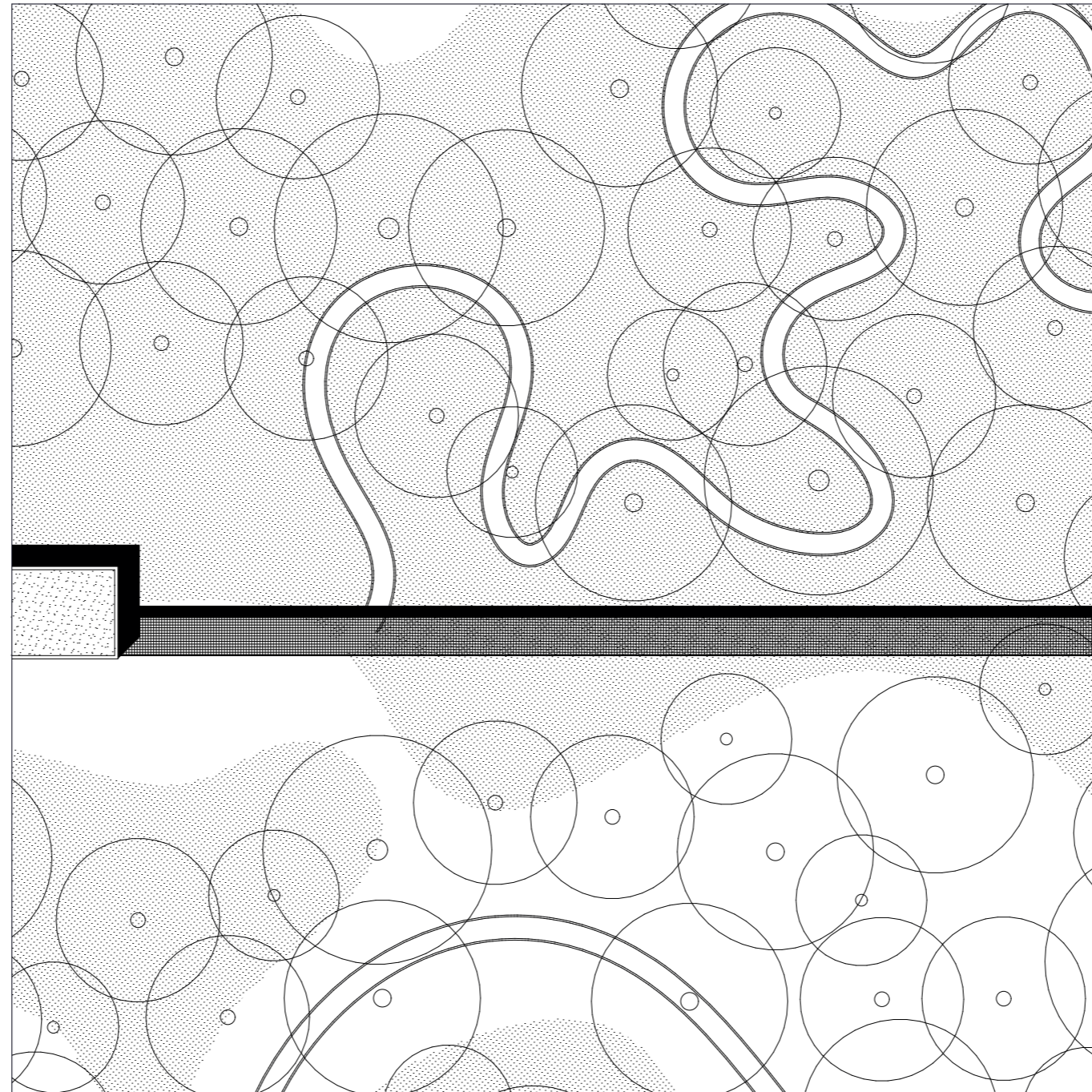


LANDSCAPE



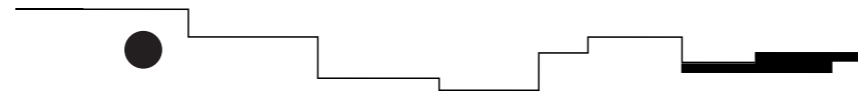
Arrival
Forest Garden – 0 years

LANDSCAPE



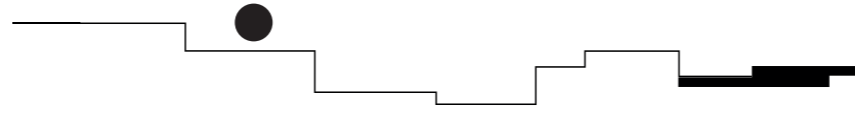
Treetop Walk
Forest Garden – 5 years

LANDSCAPE



Hammocks
Forest Garden – 30 years

LANDSCAPE



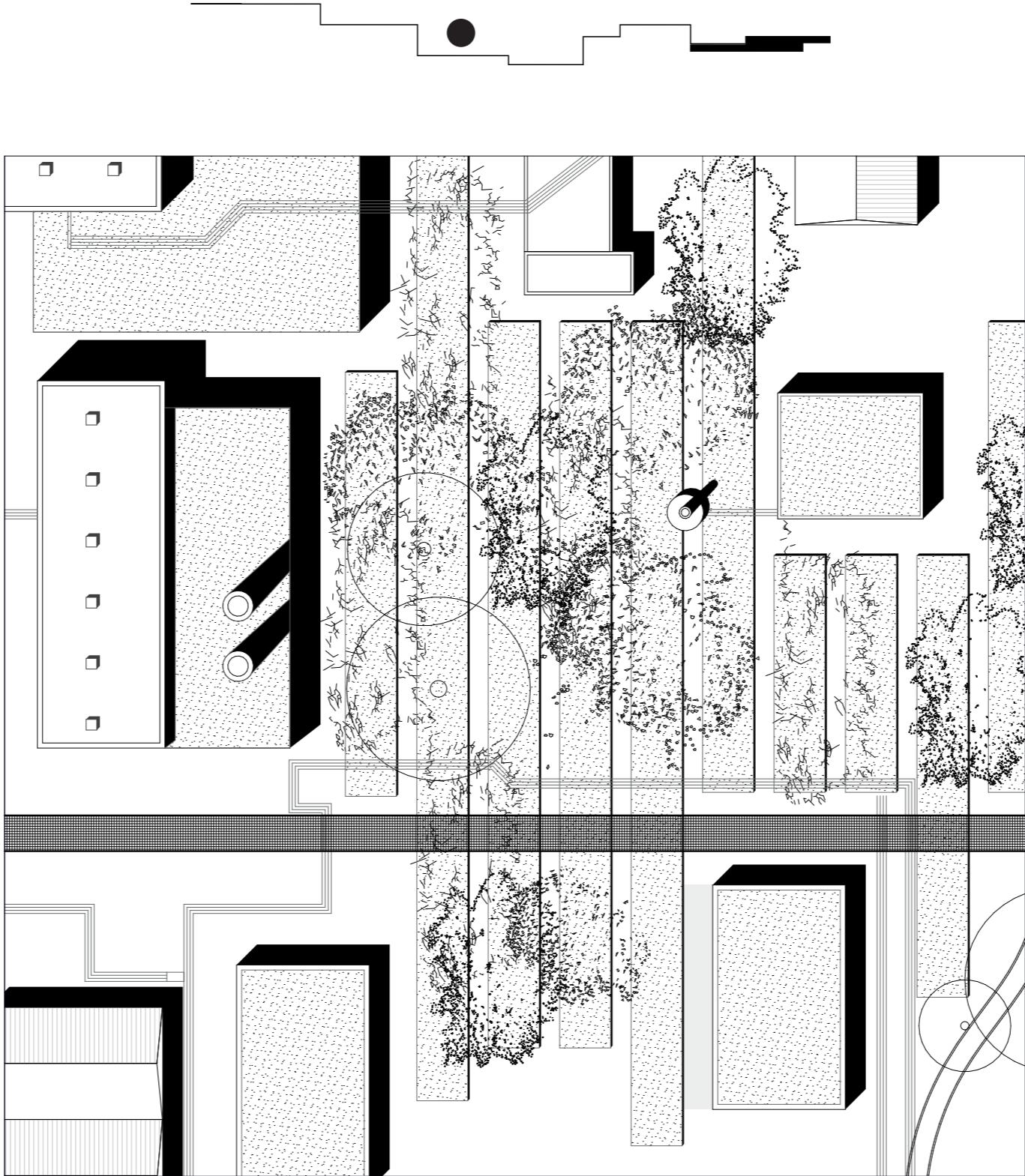
Peak Holes
Wild Garden – 5 years

LANDSCAPE



Hideout
Wild Garden – 30 years

LANDSCAPE



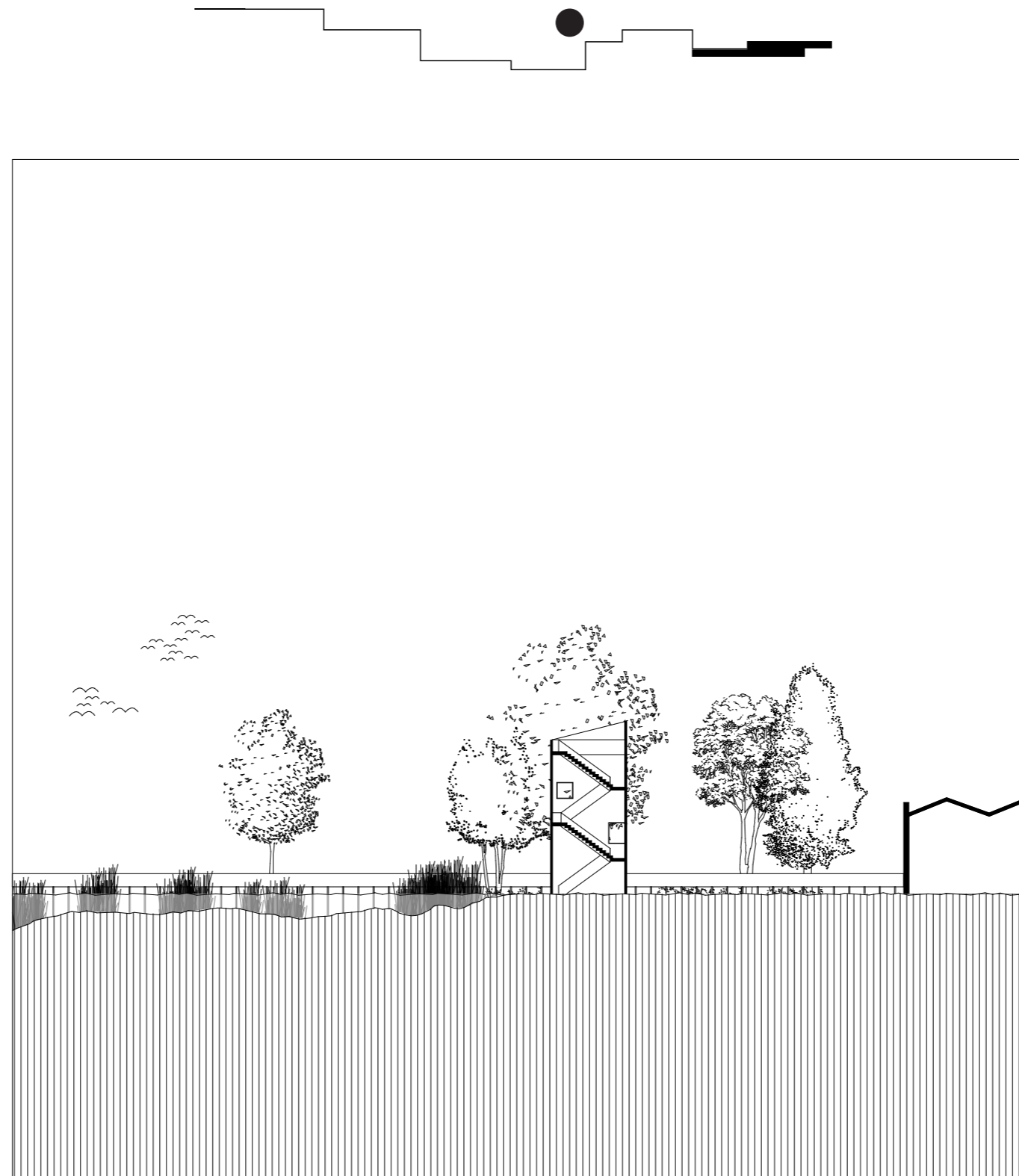
Perennials
Flower Garden – 0 years

LANDSCAPE



Walk along Refinery Structures
Flower Garden – 10 years

LANDSCAPE



Birdwatching Tower
Water Garden – 5 years

LANDSCAPE



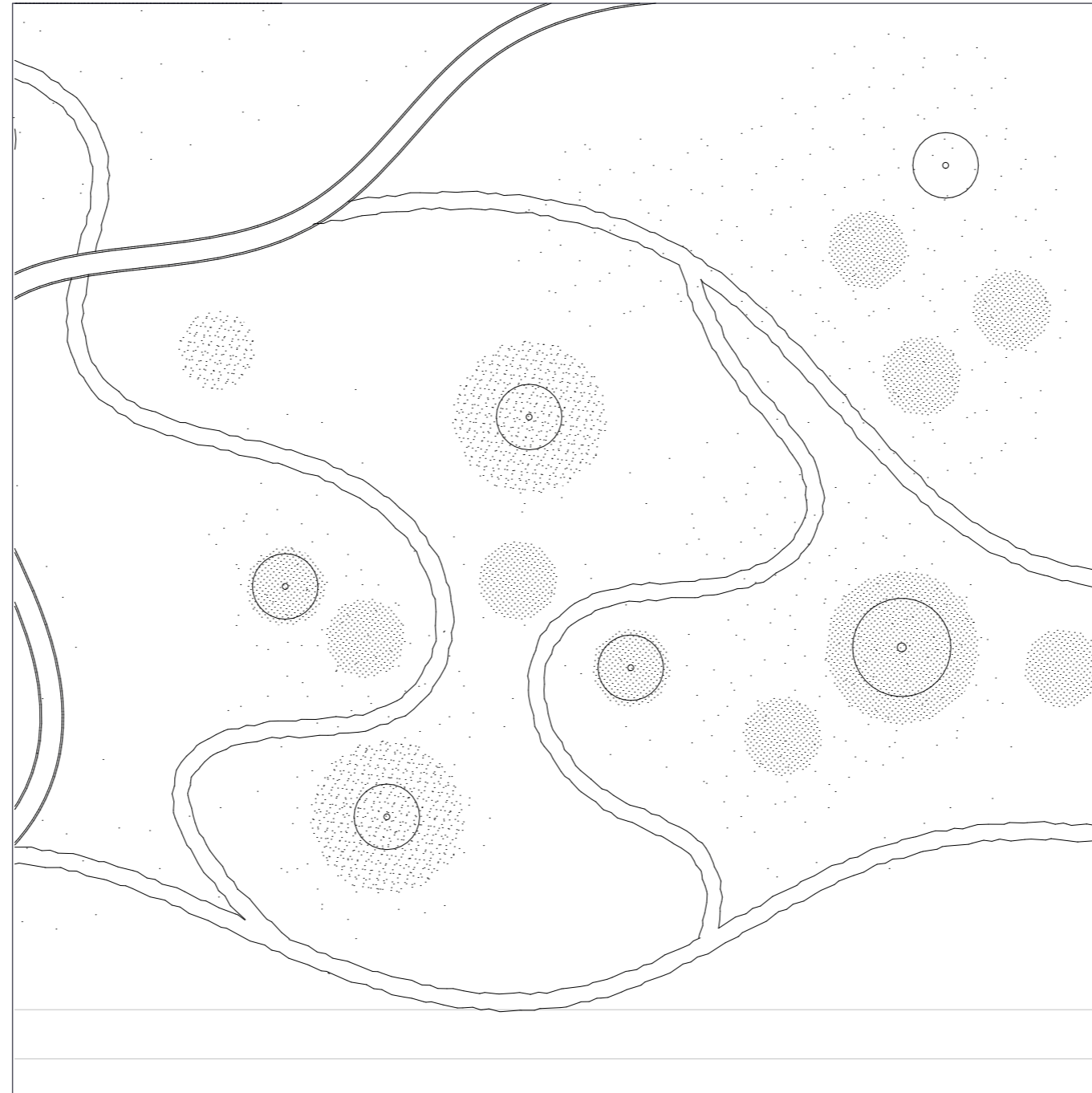
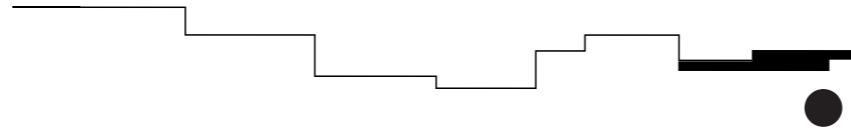
Swings
Water Garden – 10 years

LANDSCAPE



Horticultural Therapy
Plain Garden – 0 years

LANDSCAPE



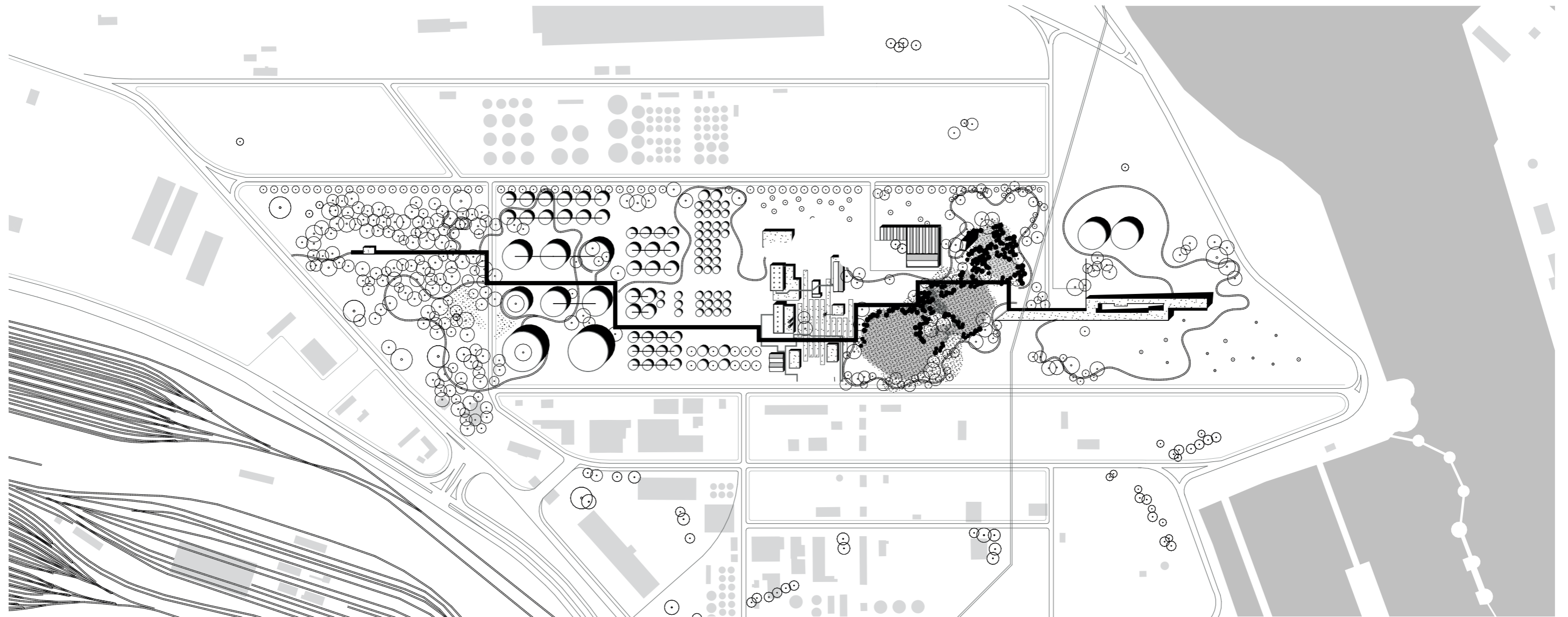
Meditation Field
Plain Garden – 10 years

LANDSCAPE



Meditation Field
Plain Garden – 10 years

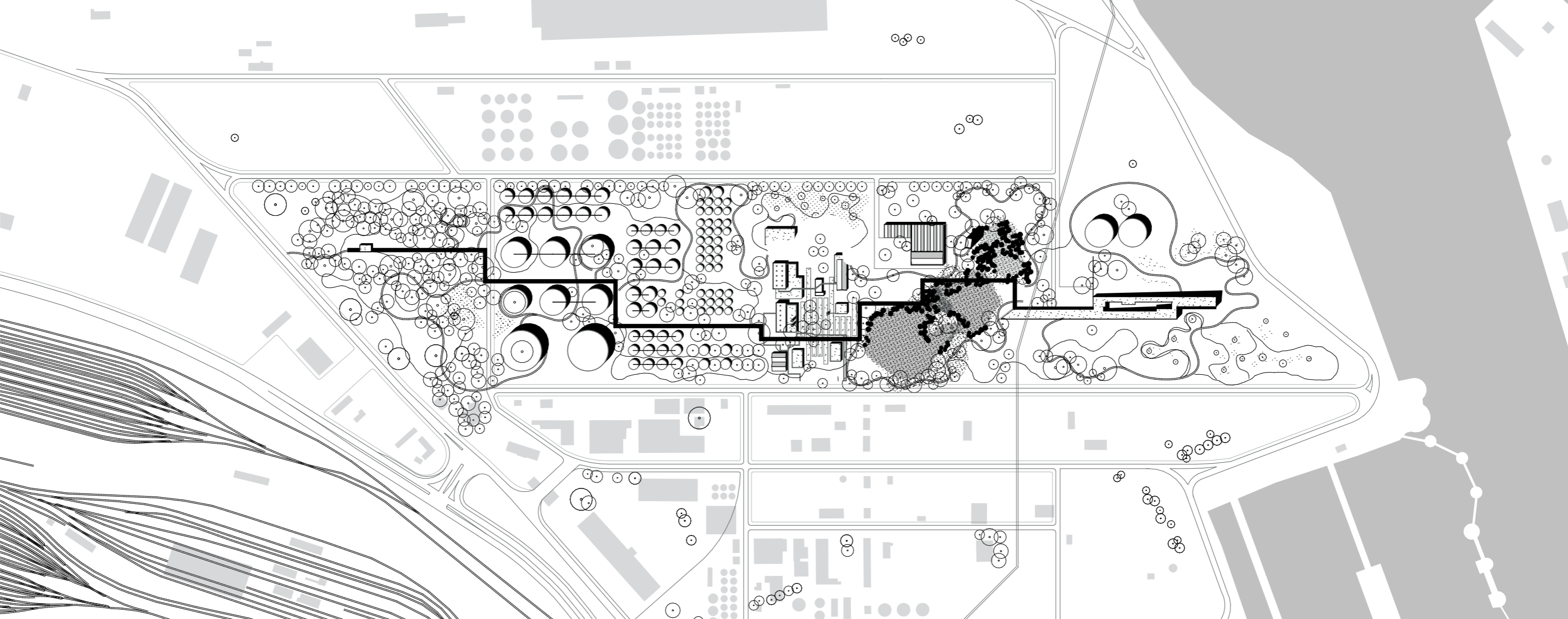
LANDSCAPE



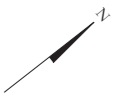
Masterplan – stage II
5 years



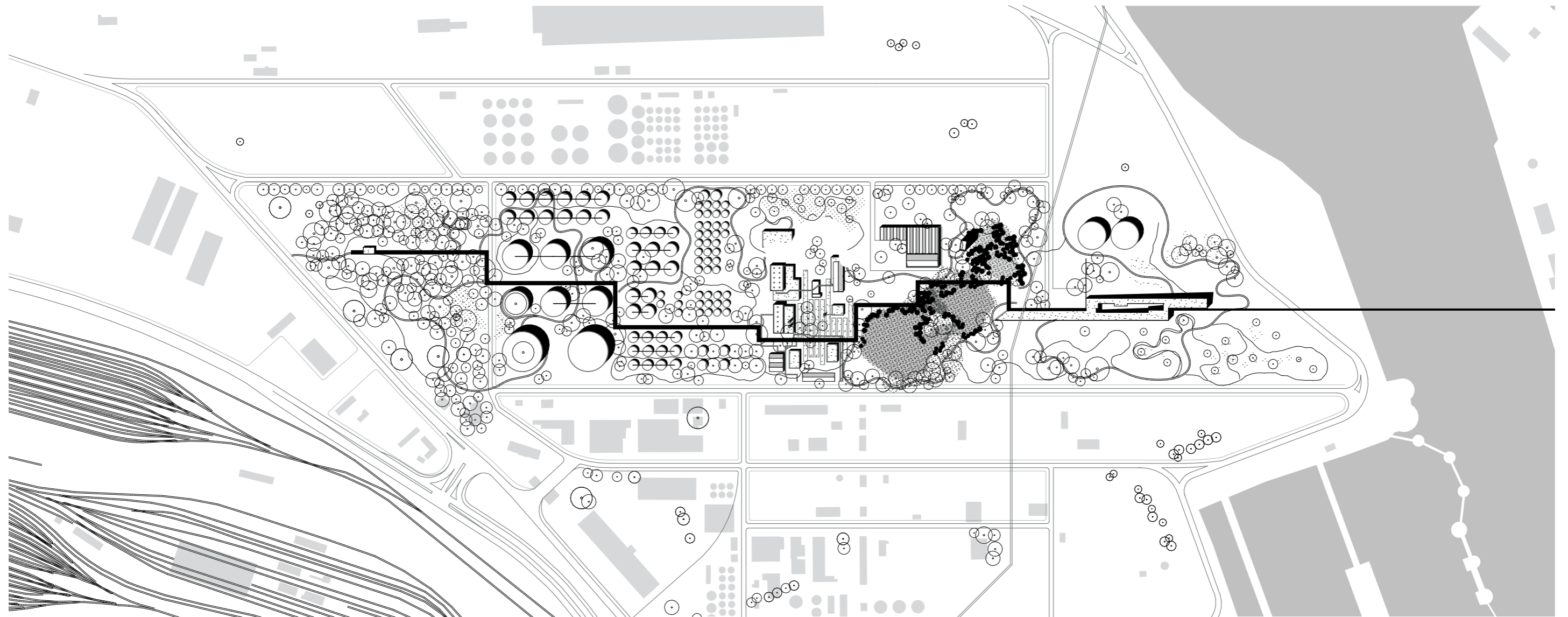
LANDSCAPE



Masterplan – stage III
10 years



LANDSCAPE



Masterplan – stage III
10 years

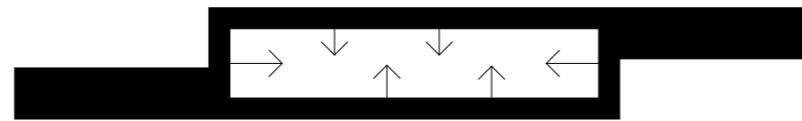
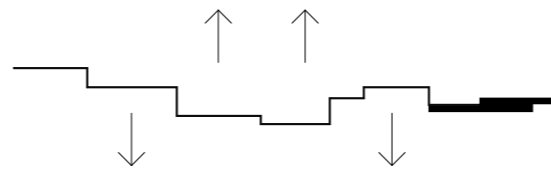


06

ARCHITECTURE

inward-out

ARCHITECTURE



Outward – Inward

ARCHITECTURE



wall



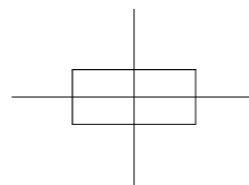
'inhabited wall'



public – private



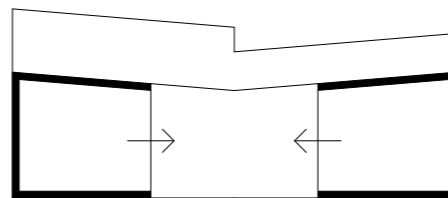
enclosing



centering

Built Form

ARCHITECTURE



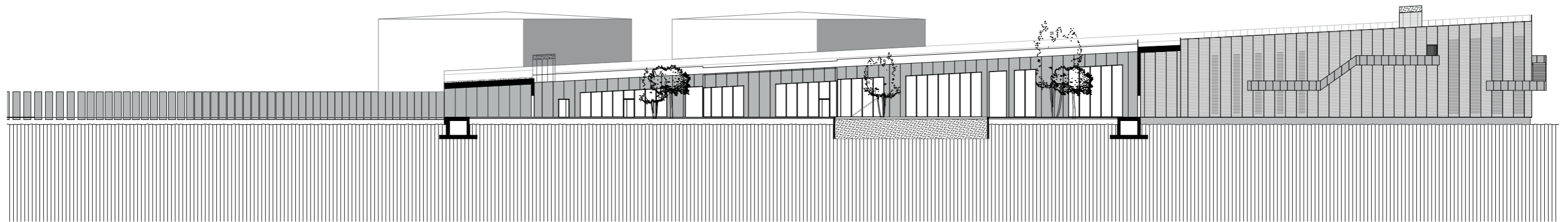
Prospect – Refuge

ARCHITECTURE



Approaching the Visitor Centre

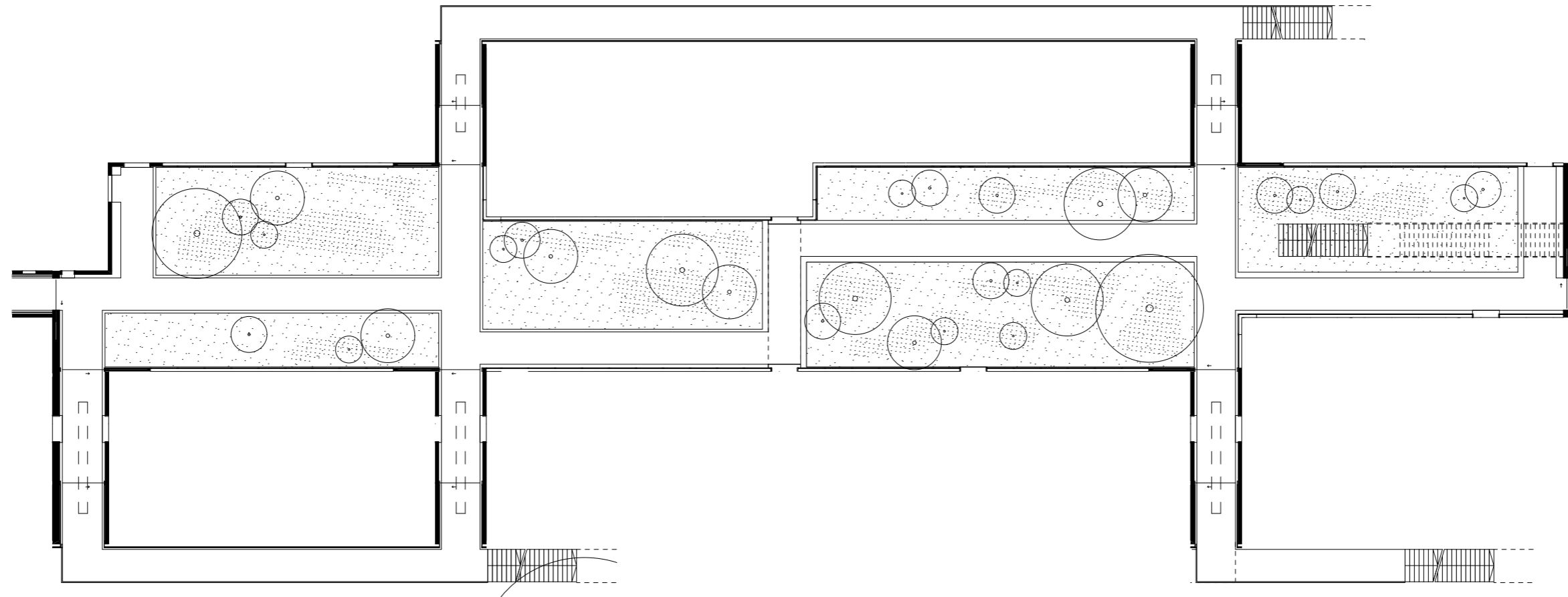
ARCHITECTURE



Inner Garden

‘
*And so we encircle it, ...
the garden turns into a place.*

ARCHITECTURE

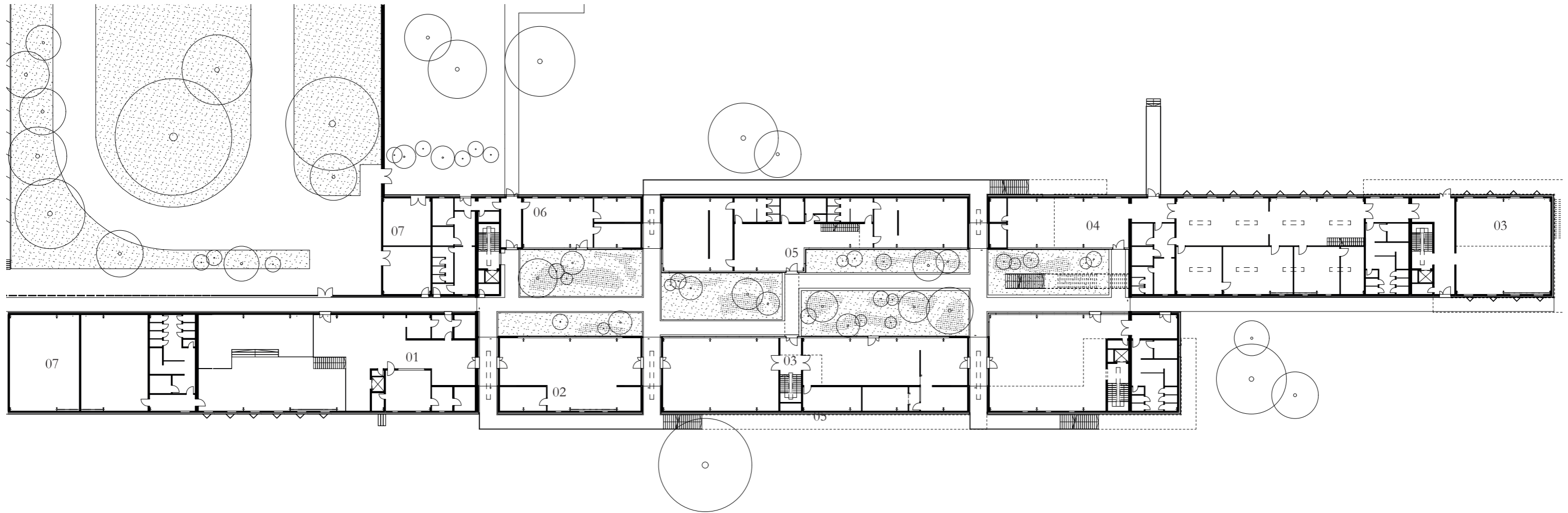


ARCHITECTURE



Inside the internal Garden

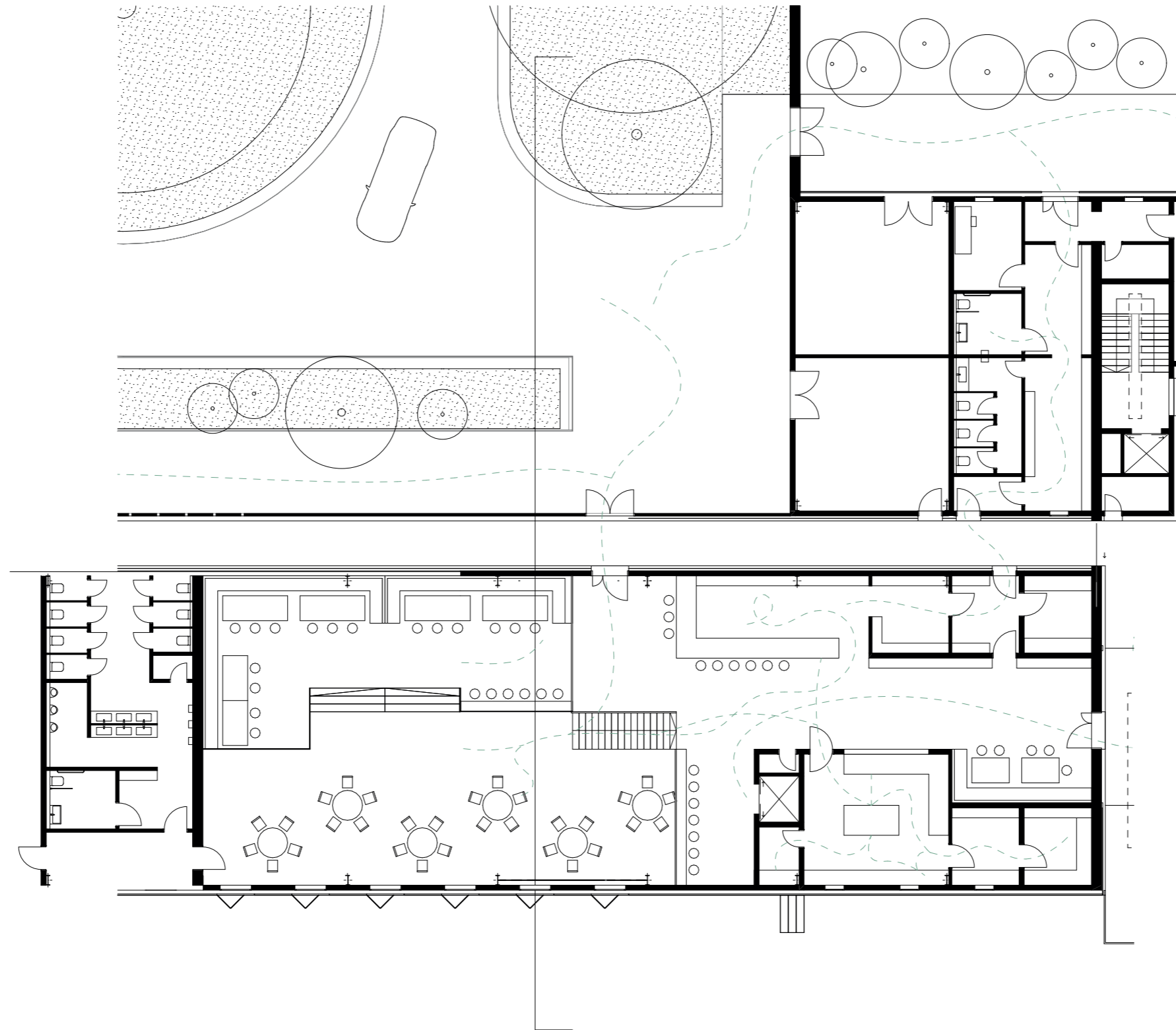
ARCHITECTURE



Programme
Ground Level

01 Café 02 Shop 03 Exhibition 04 Workshop 05 Studios 06 Administration 07 Storage

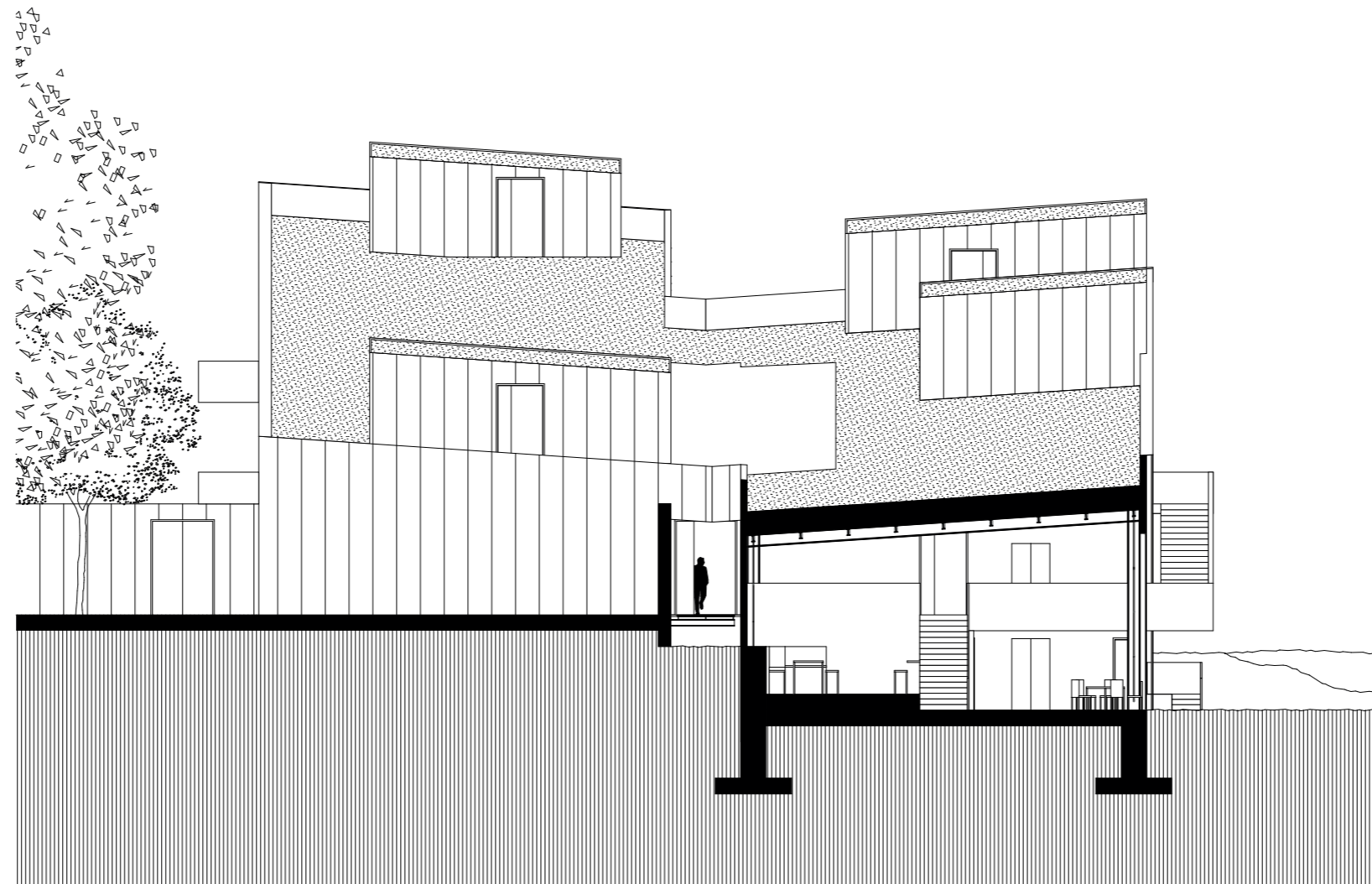
ARCHITECTURE



Café

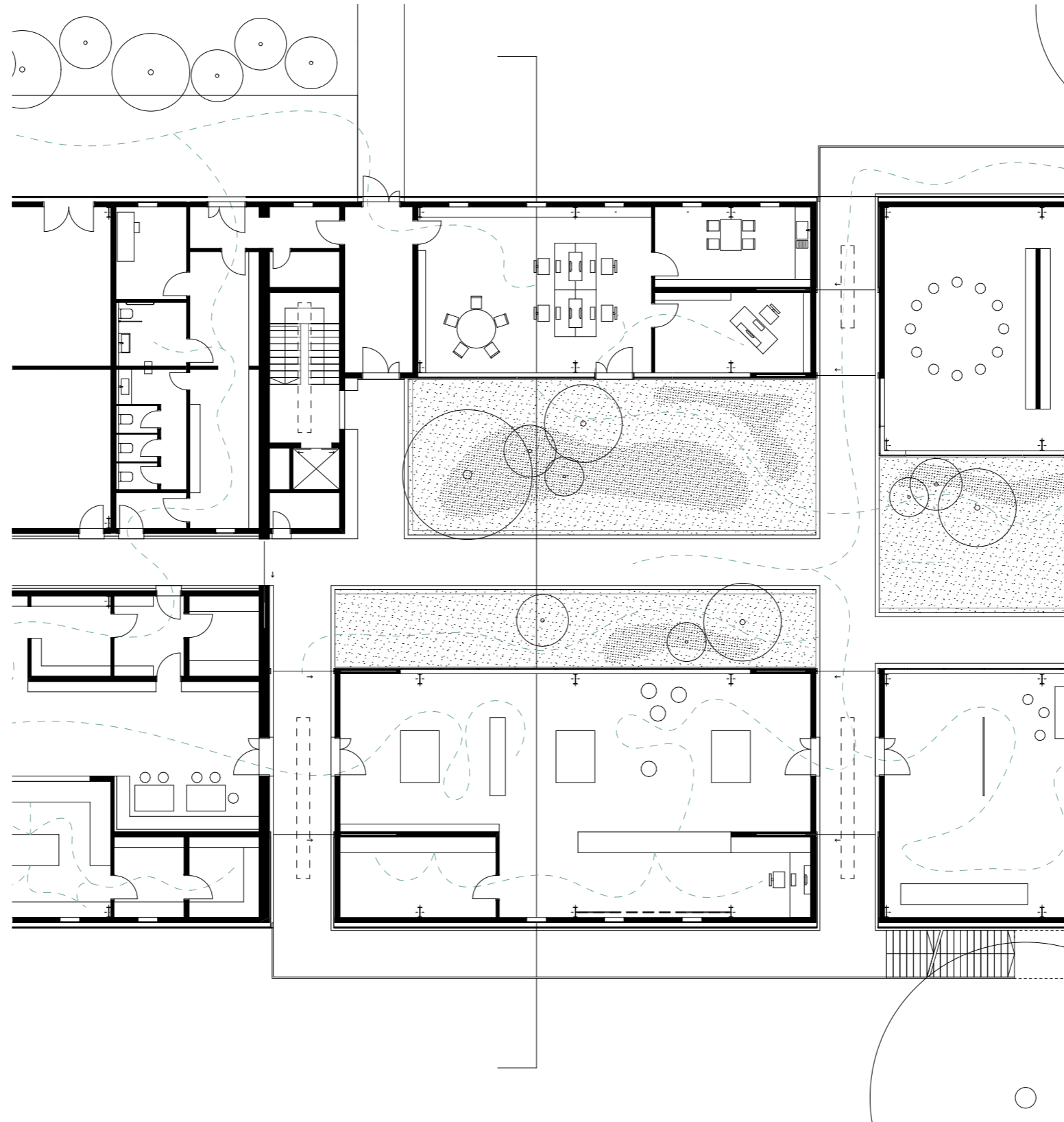


ARCHITECTURE



View onto Rooftop Garden

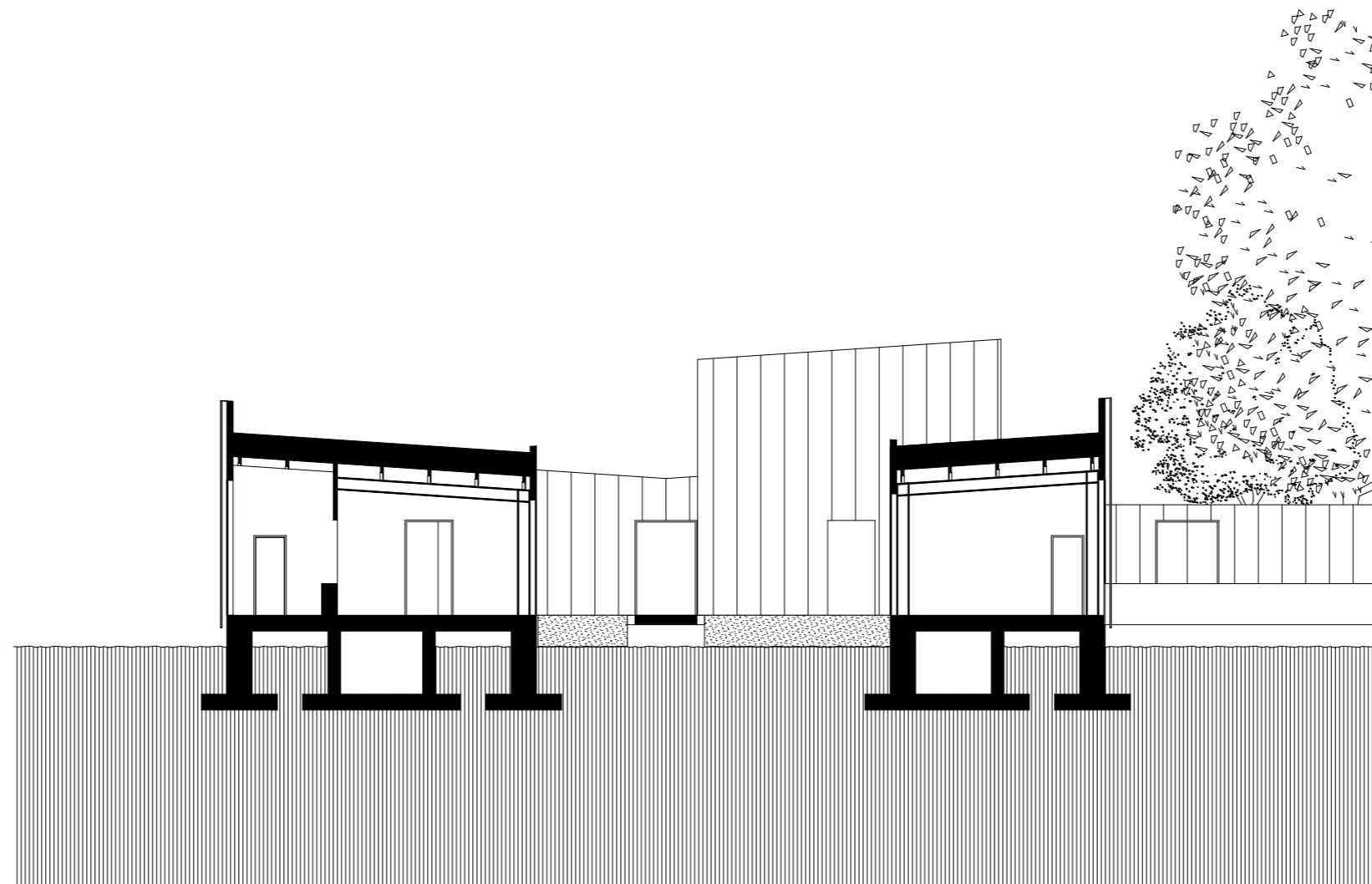
ARCHITECTURE



Administraion & Shop

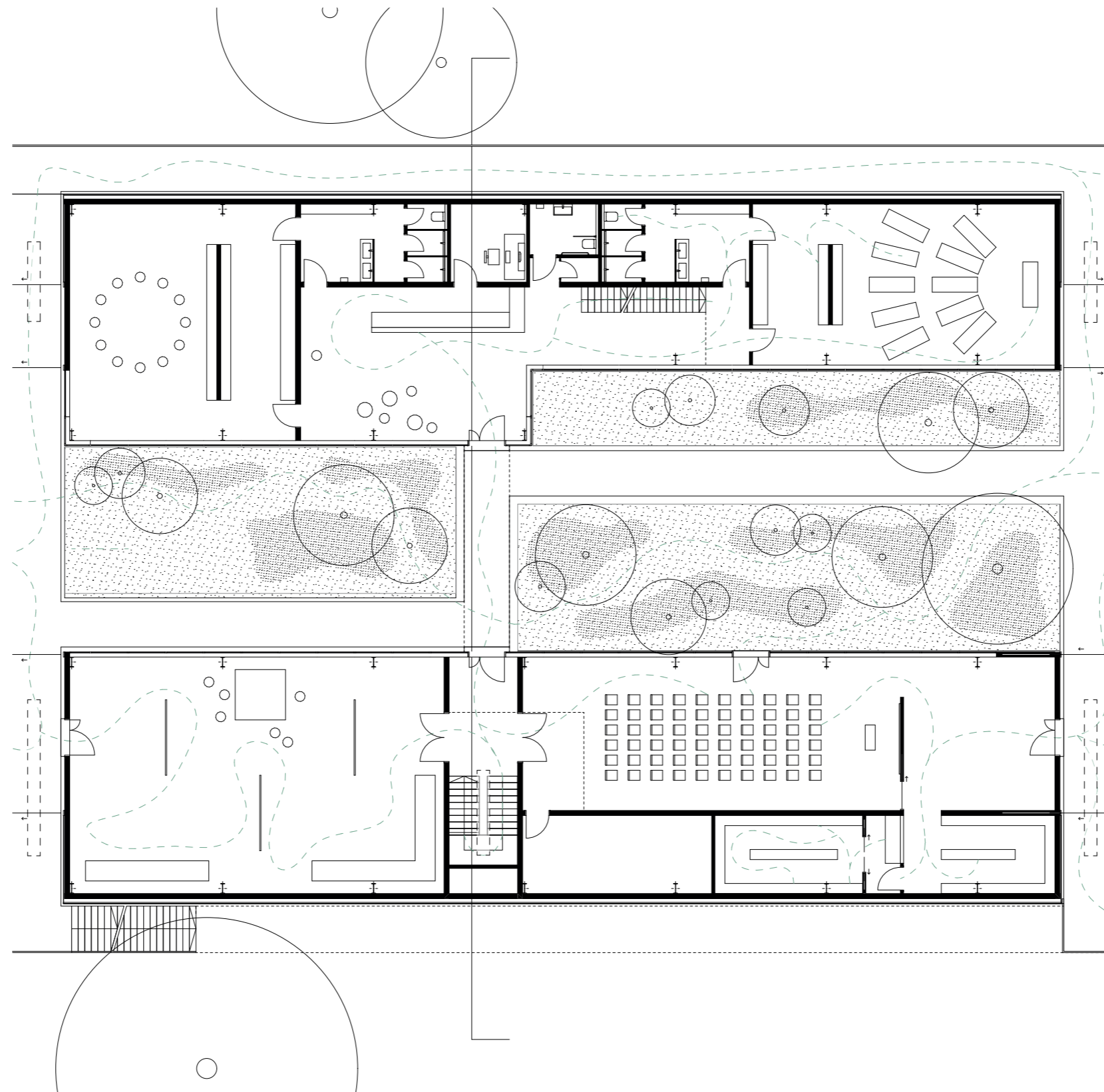


ARCHITECTURE



View towards Entry from Gardens

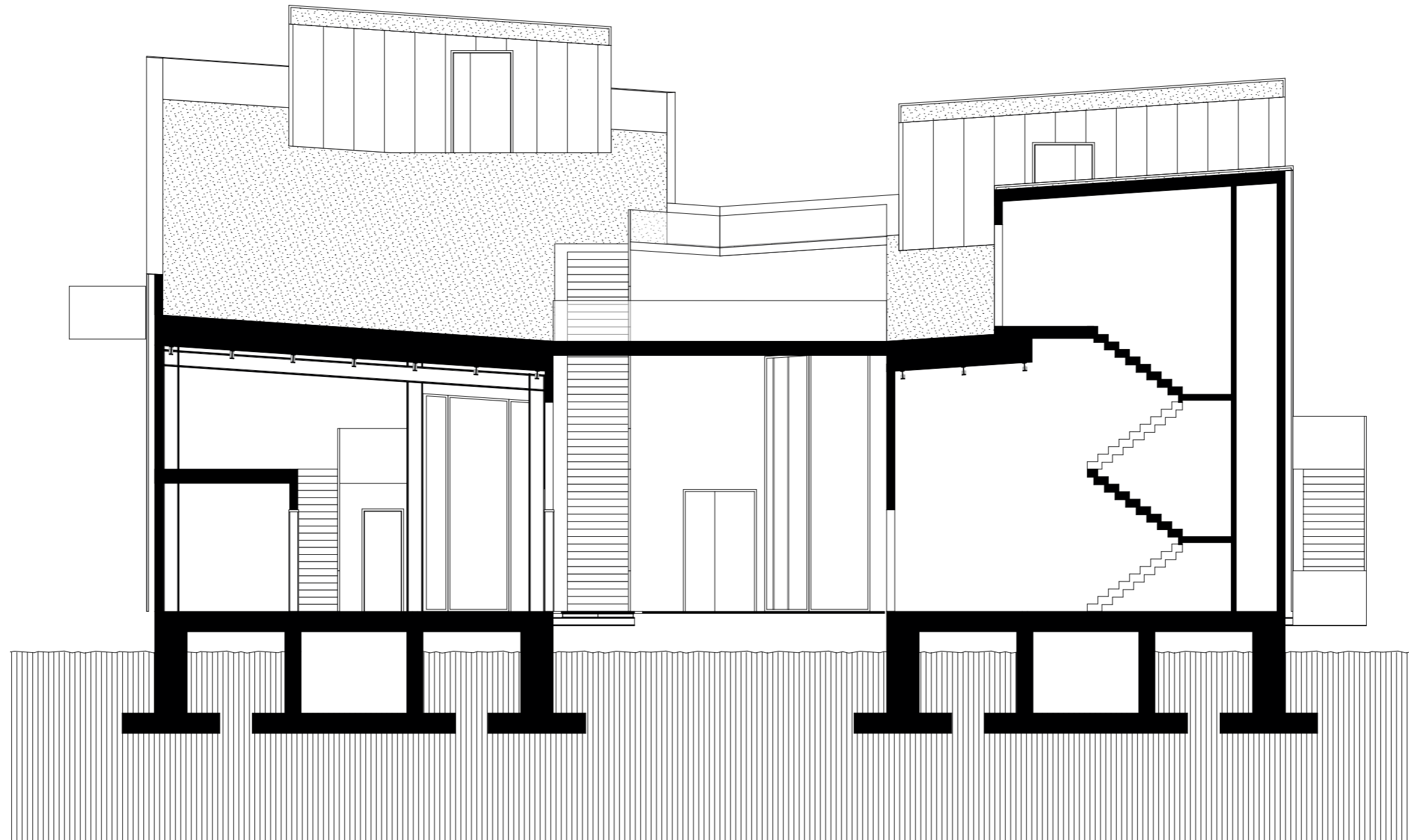
ARCHITECTURE



Studios

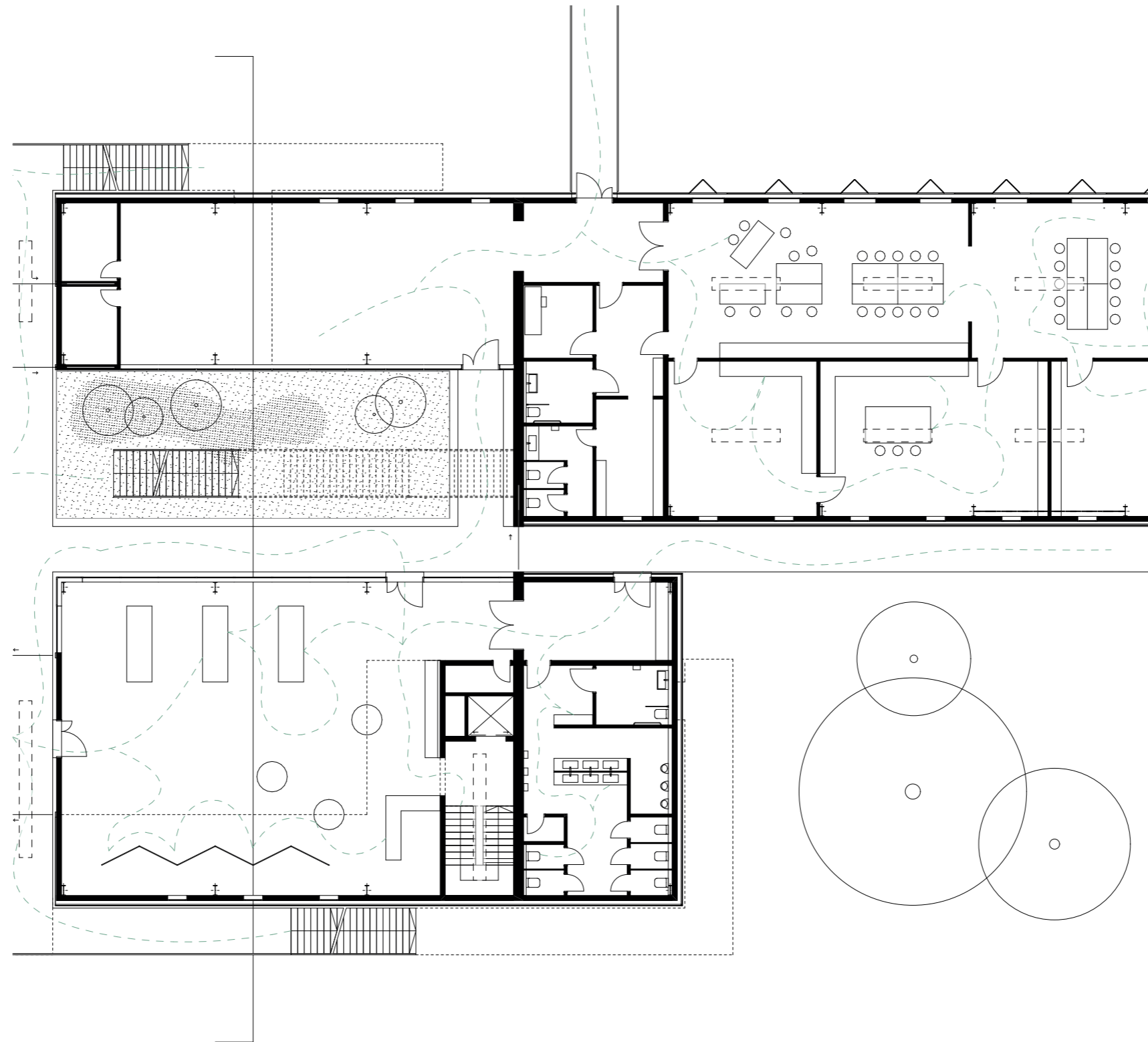


ARCHITECTURE



View towards Entry from Water

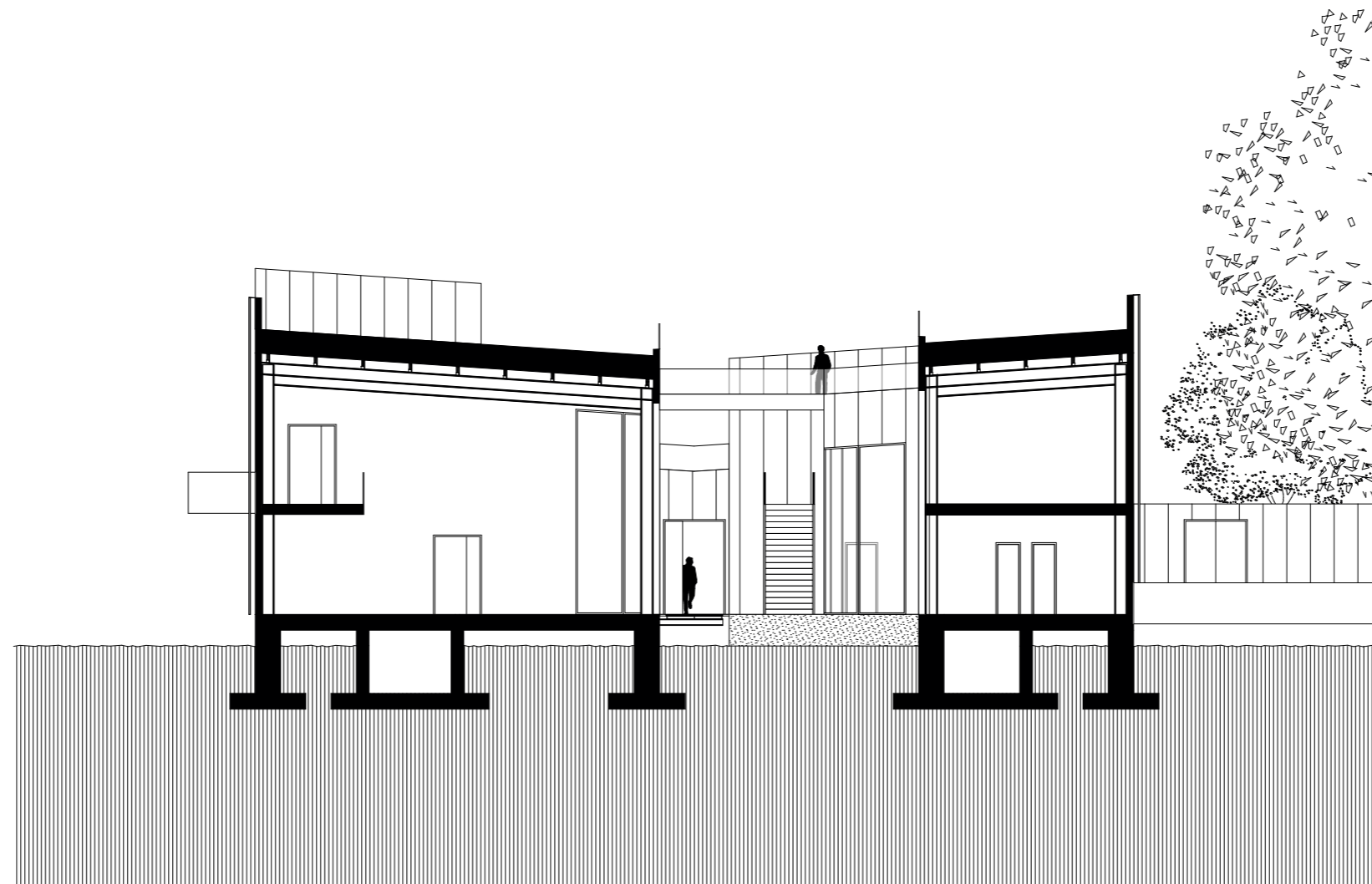
ARCHITECTURE



Exhibition

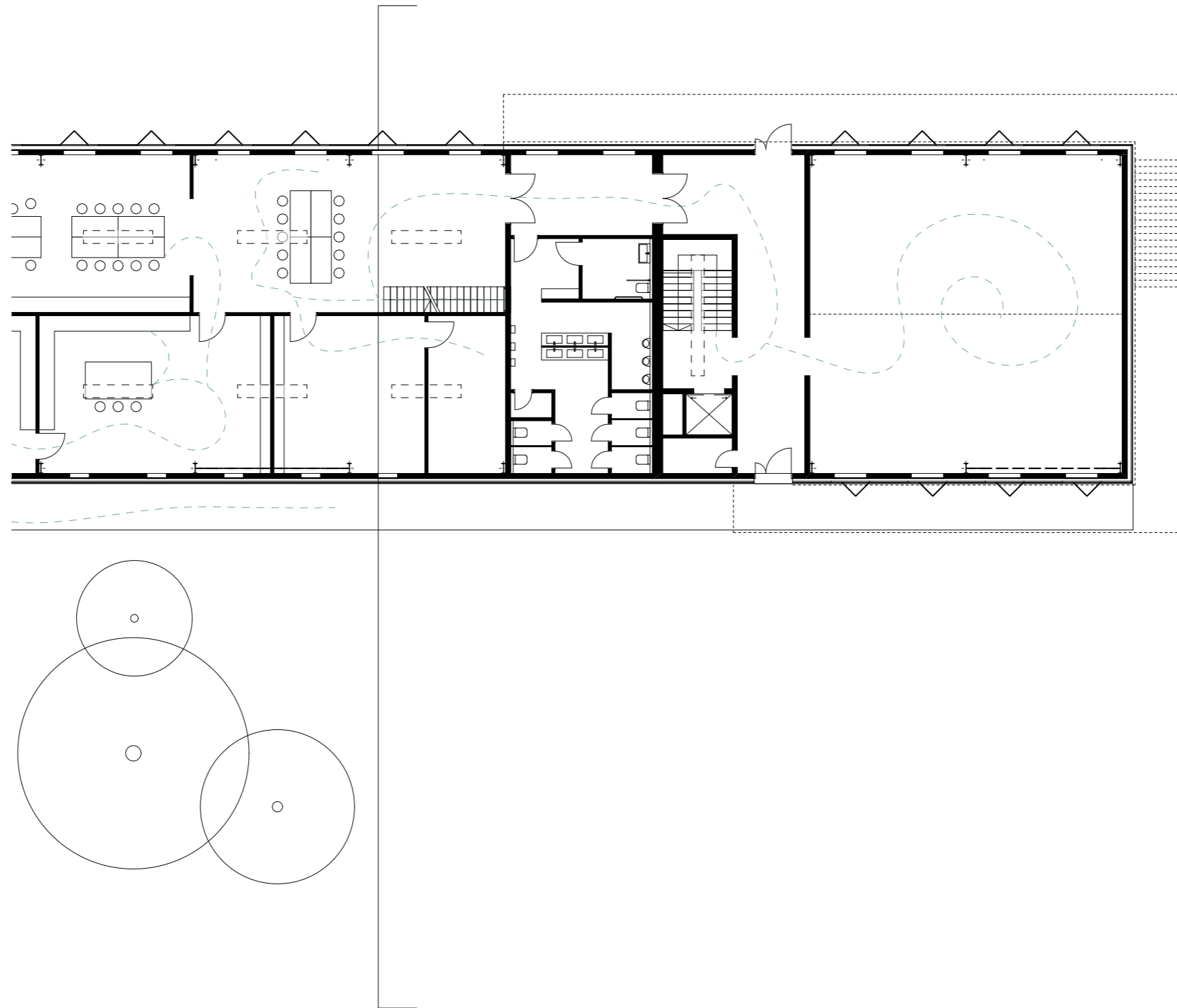


ARCHITECTURE



View of Inner Garden

ARCHITECTURE



Workshop

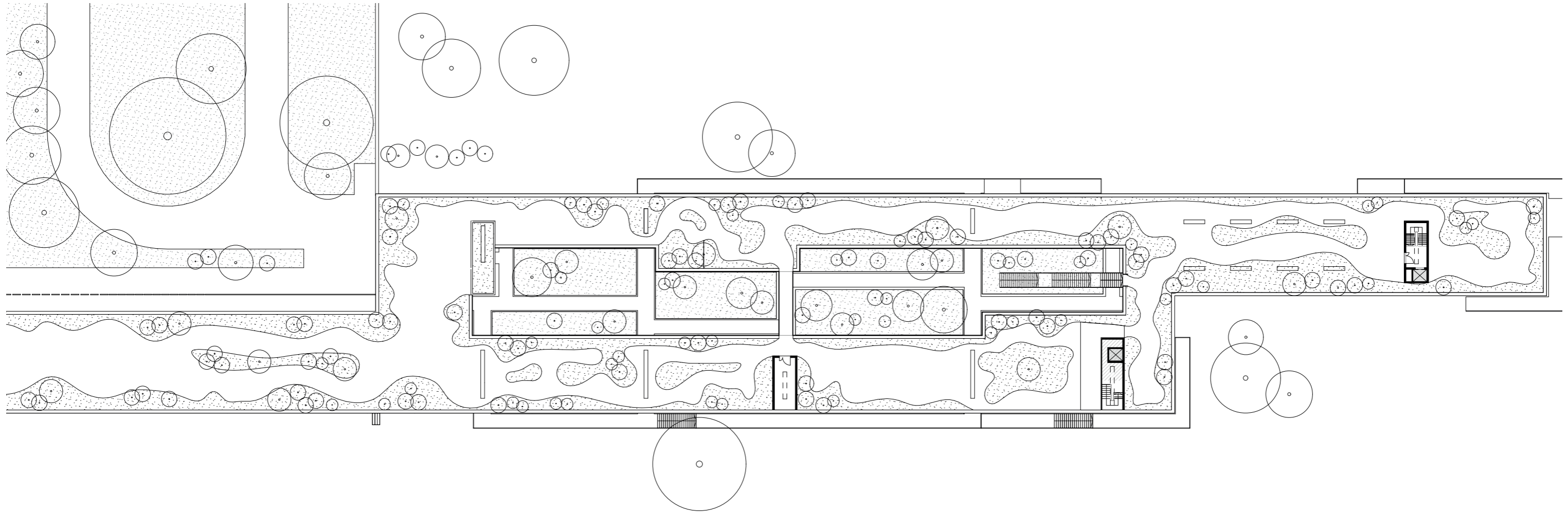


ARCHITECTURE



Stairs towards Rooftop

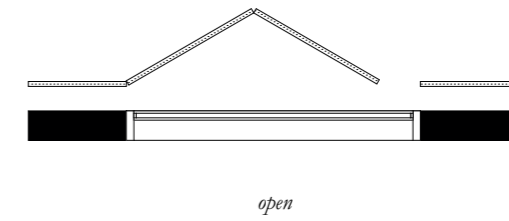
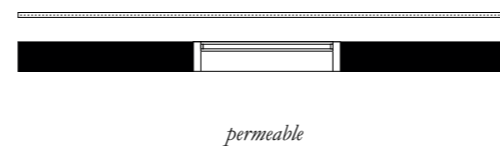
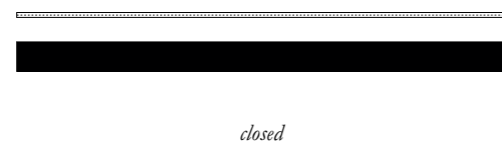
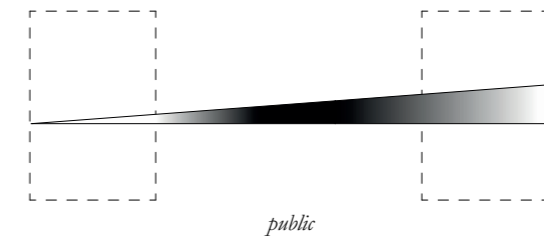
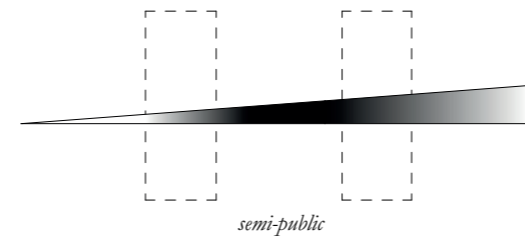
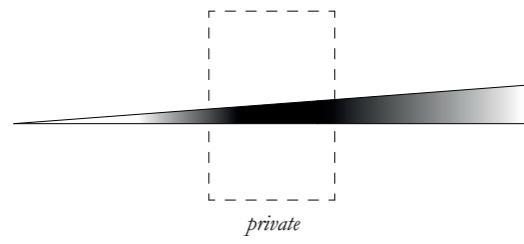
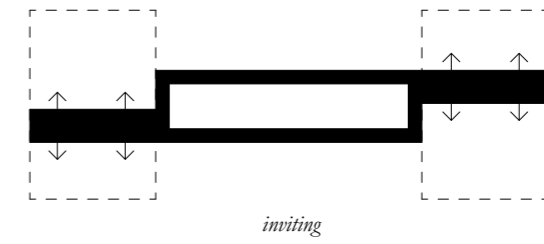
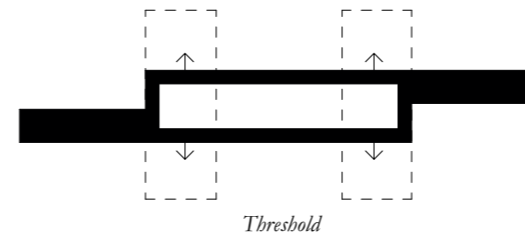
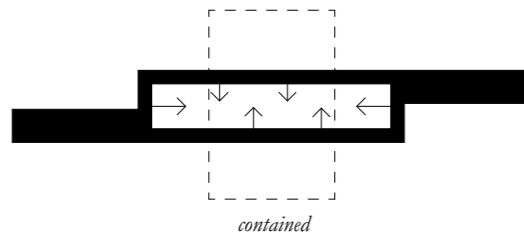
ARCHITECTURE



Rooftop Garden

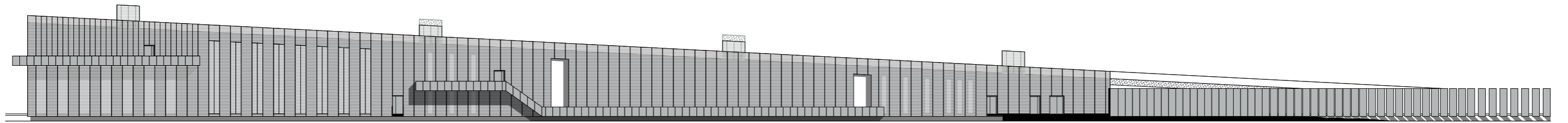


ARCHITECTURE



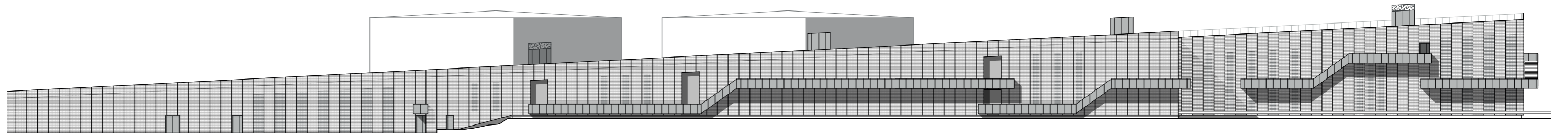
Façade Scheme

ARCHITECTURE



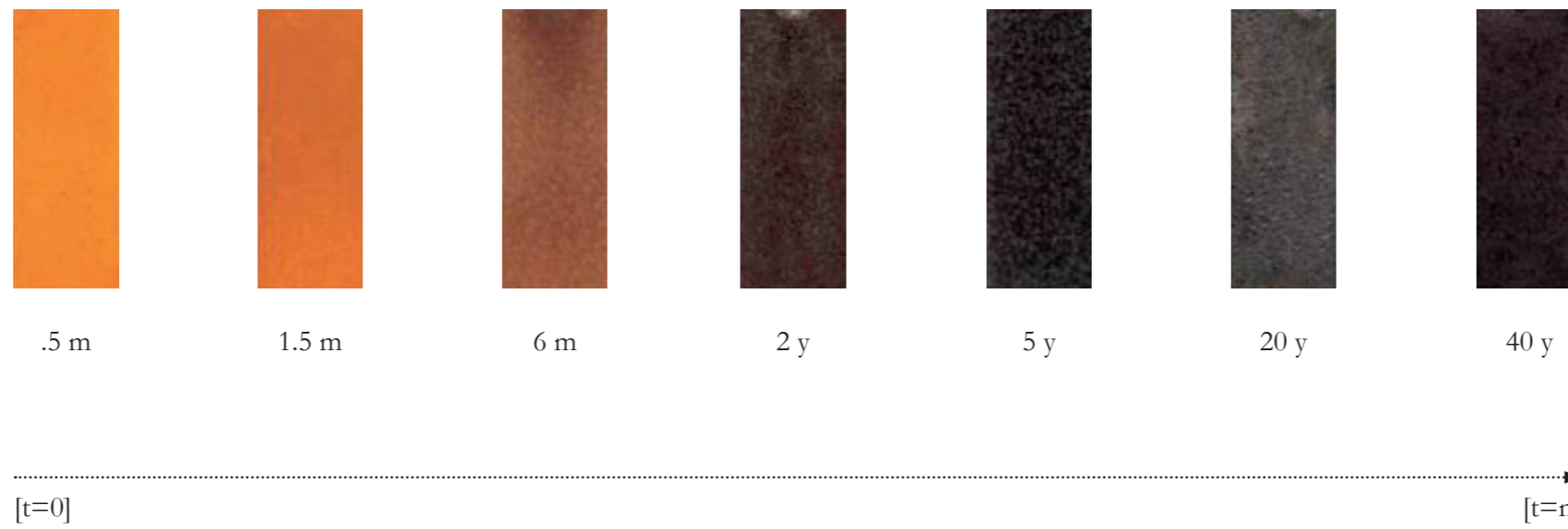
North-West Façade

ARCHITECTURE



South-East Façade

ARCHITECTURE



Ephemerality

ARCHITECTURE

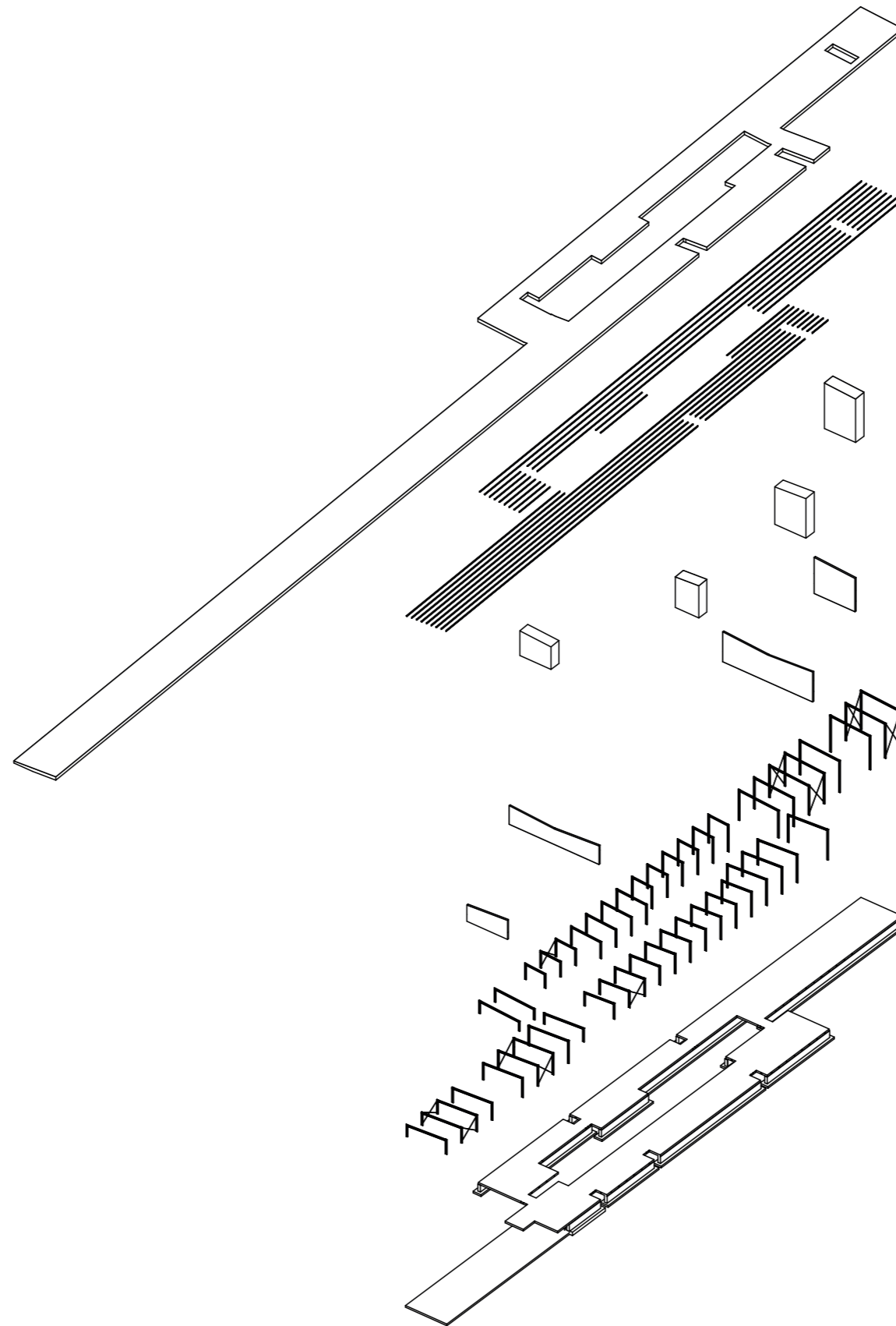


View from North Sea
Plain Garden

07

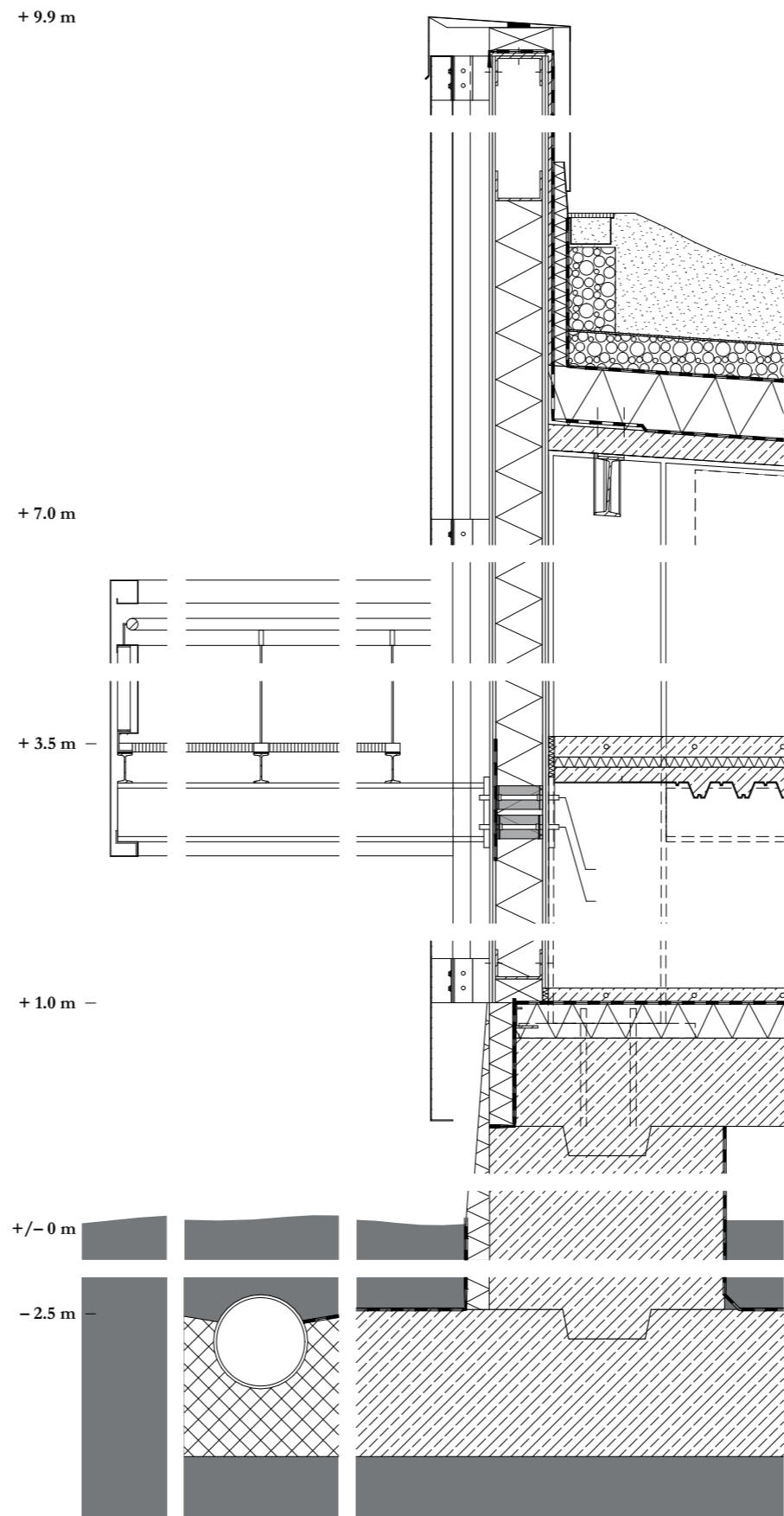
TECHNOLOGY

TECHNOLOGY



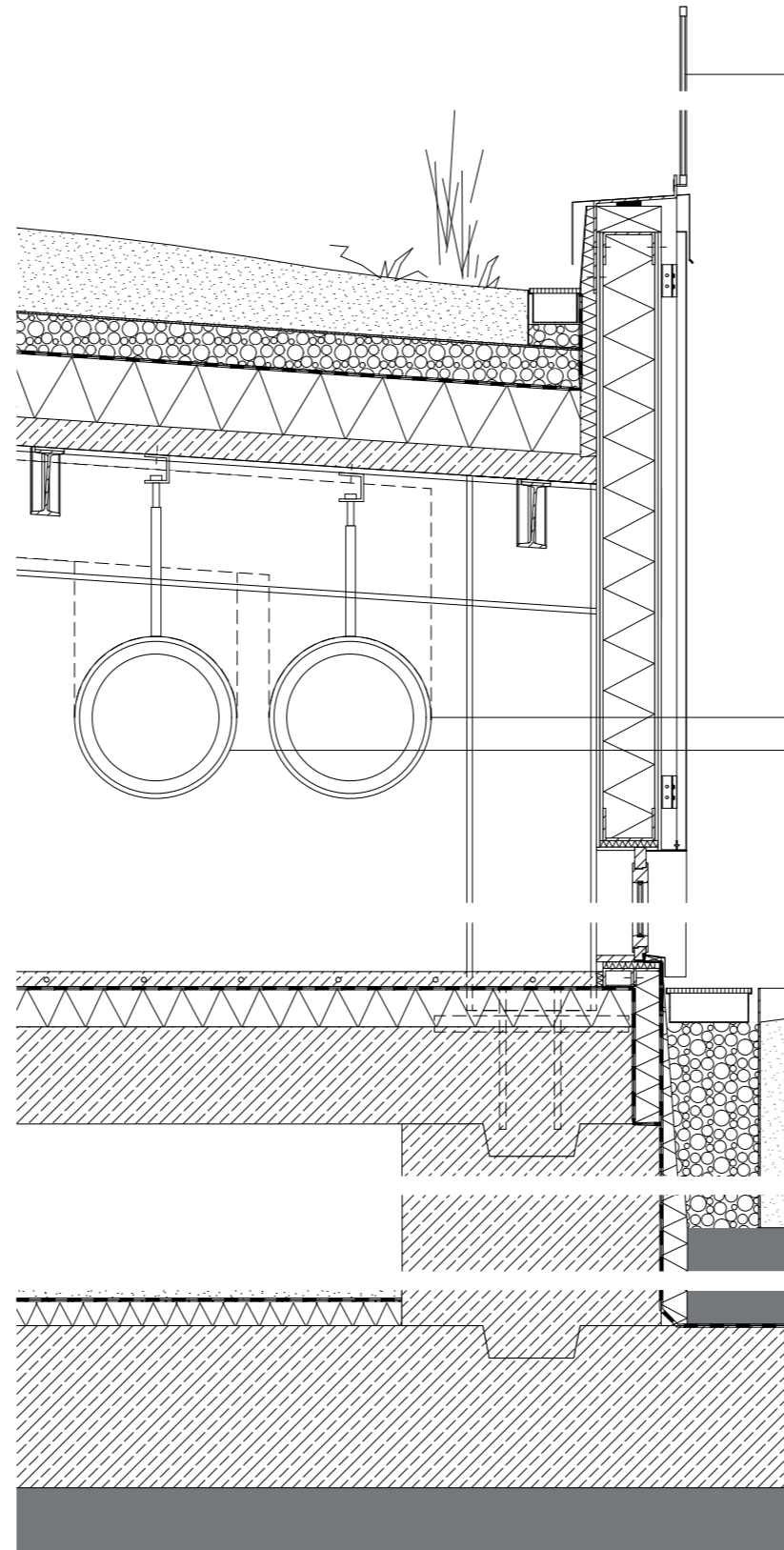
Structural Elements

TECHNOLOGY



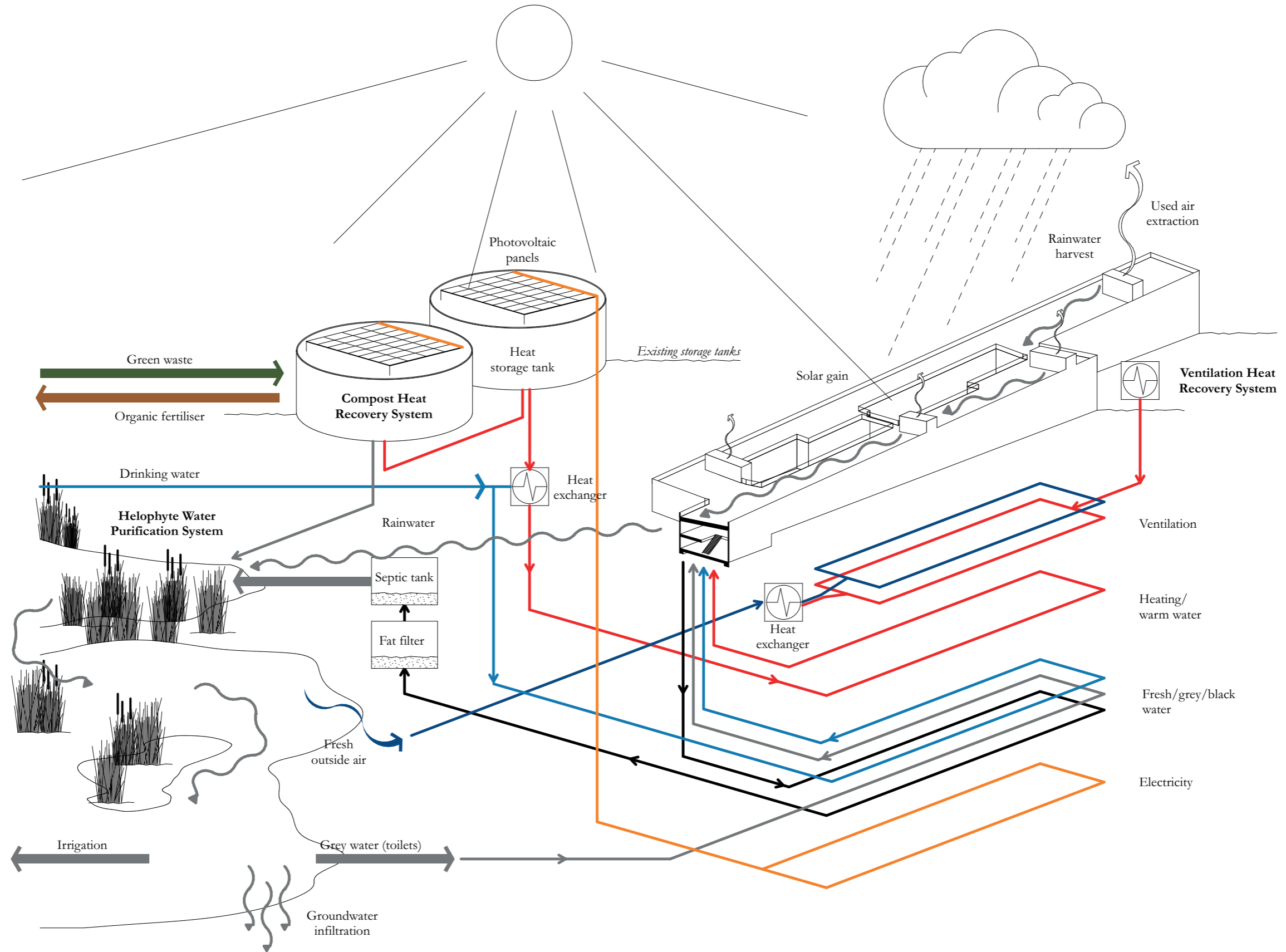
Exterior Façade

TECHNOLOGY



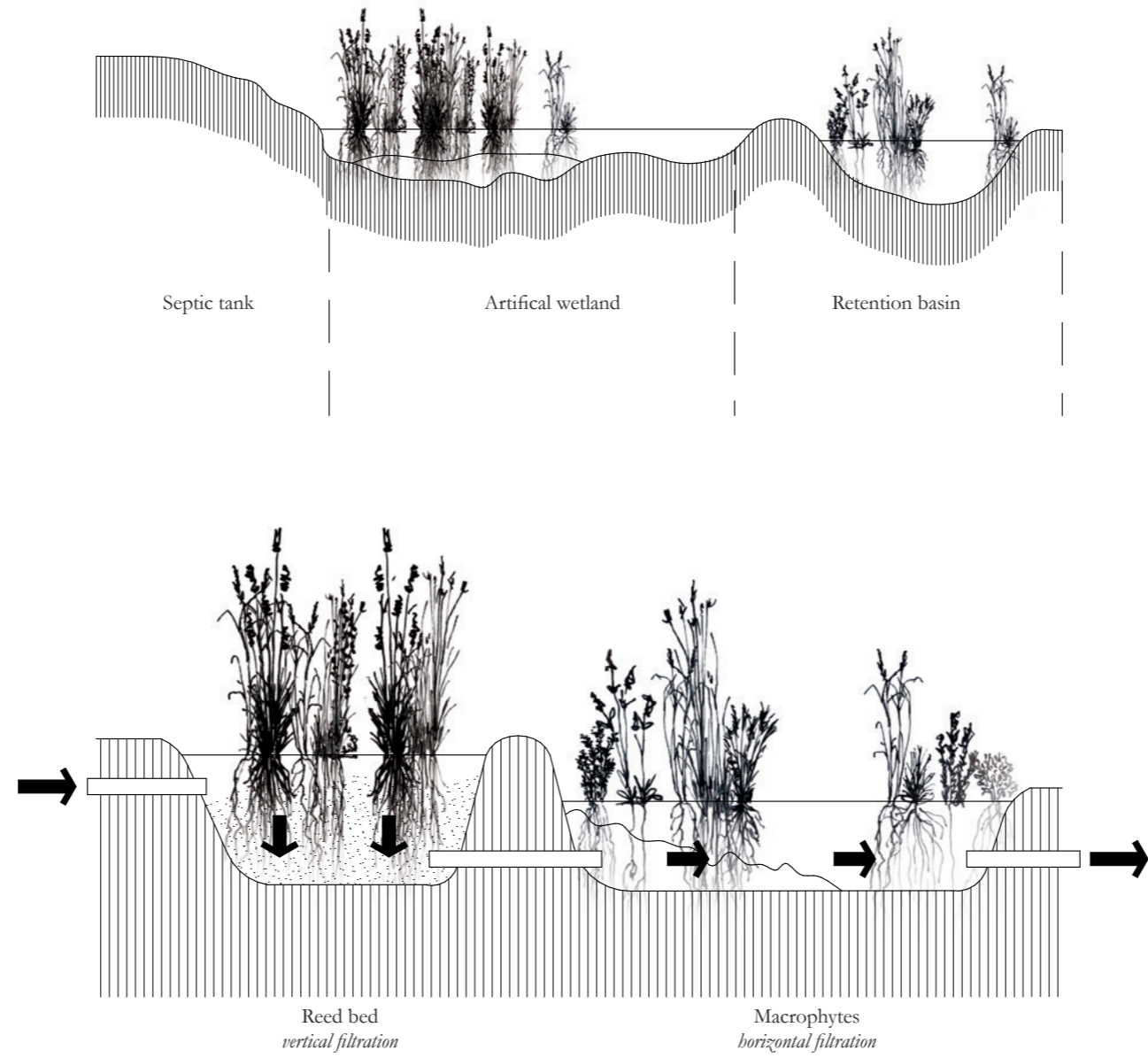
Interior Façade

TECHNOLOGY



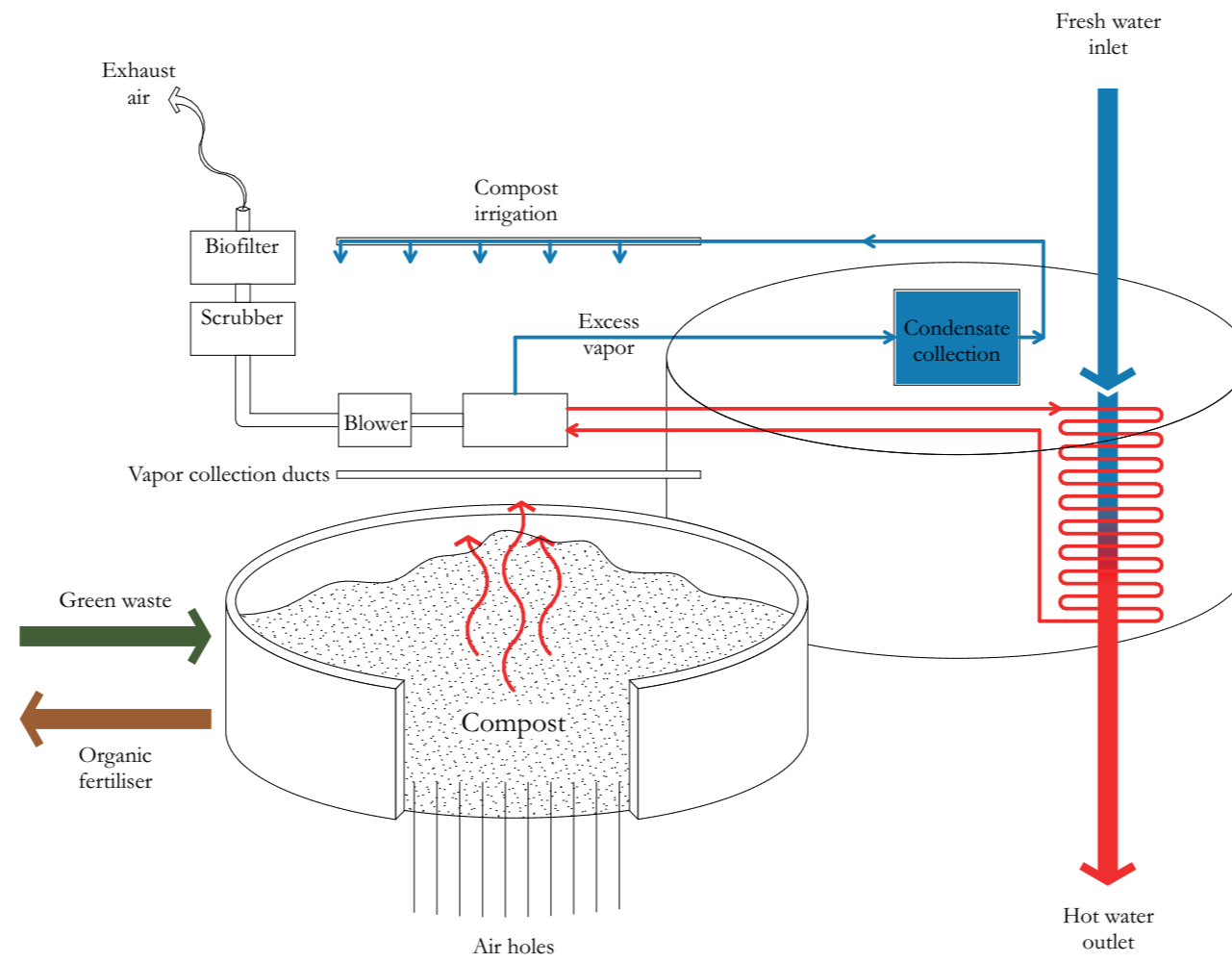
System Flows

TECHNOLOGY



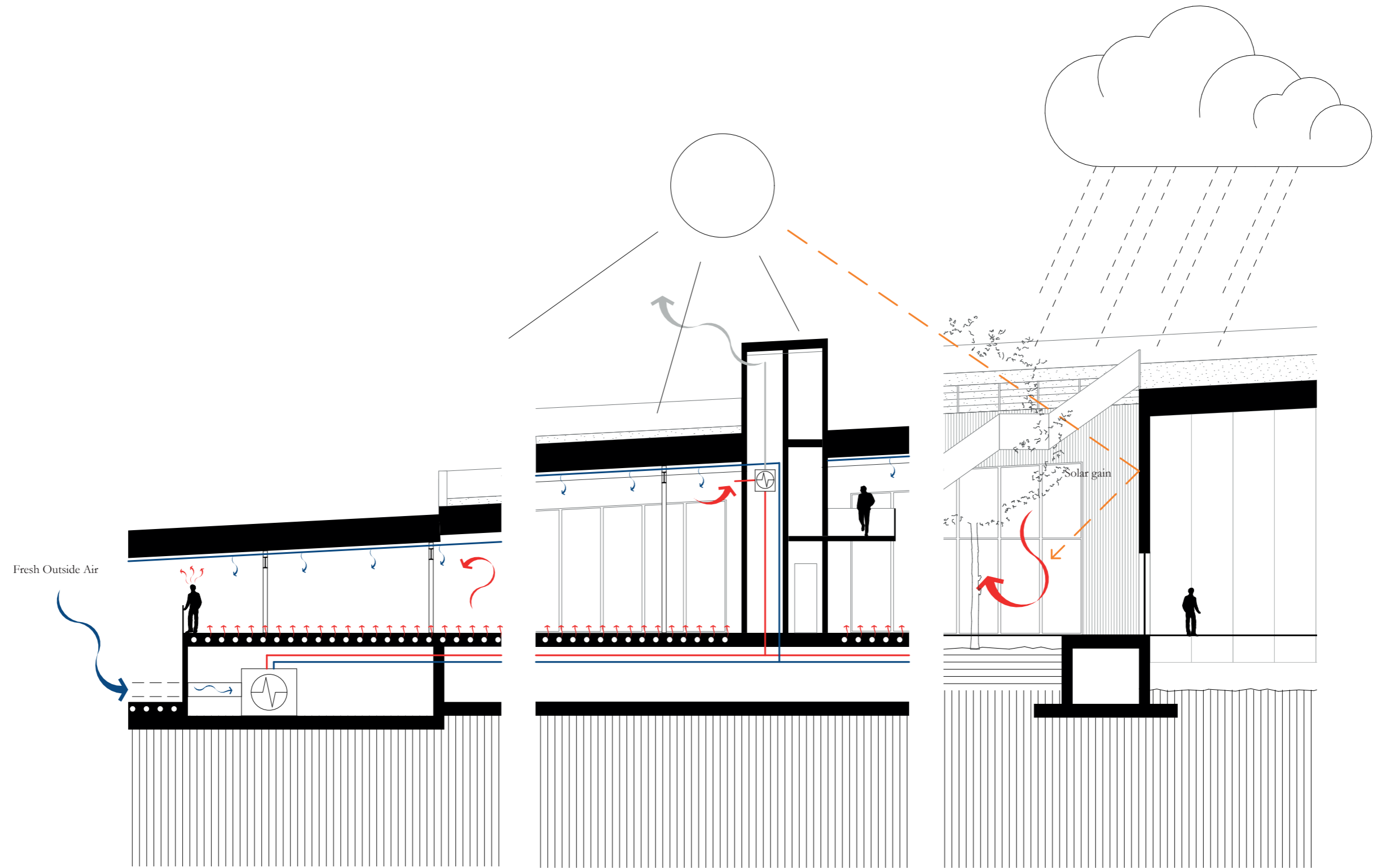
Constructed Wetlands

TECHNOLOGY



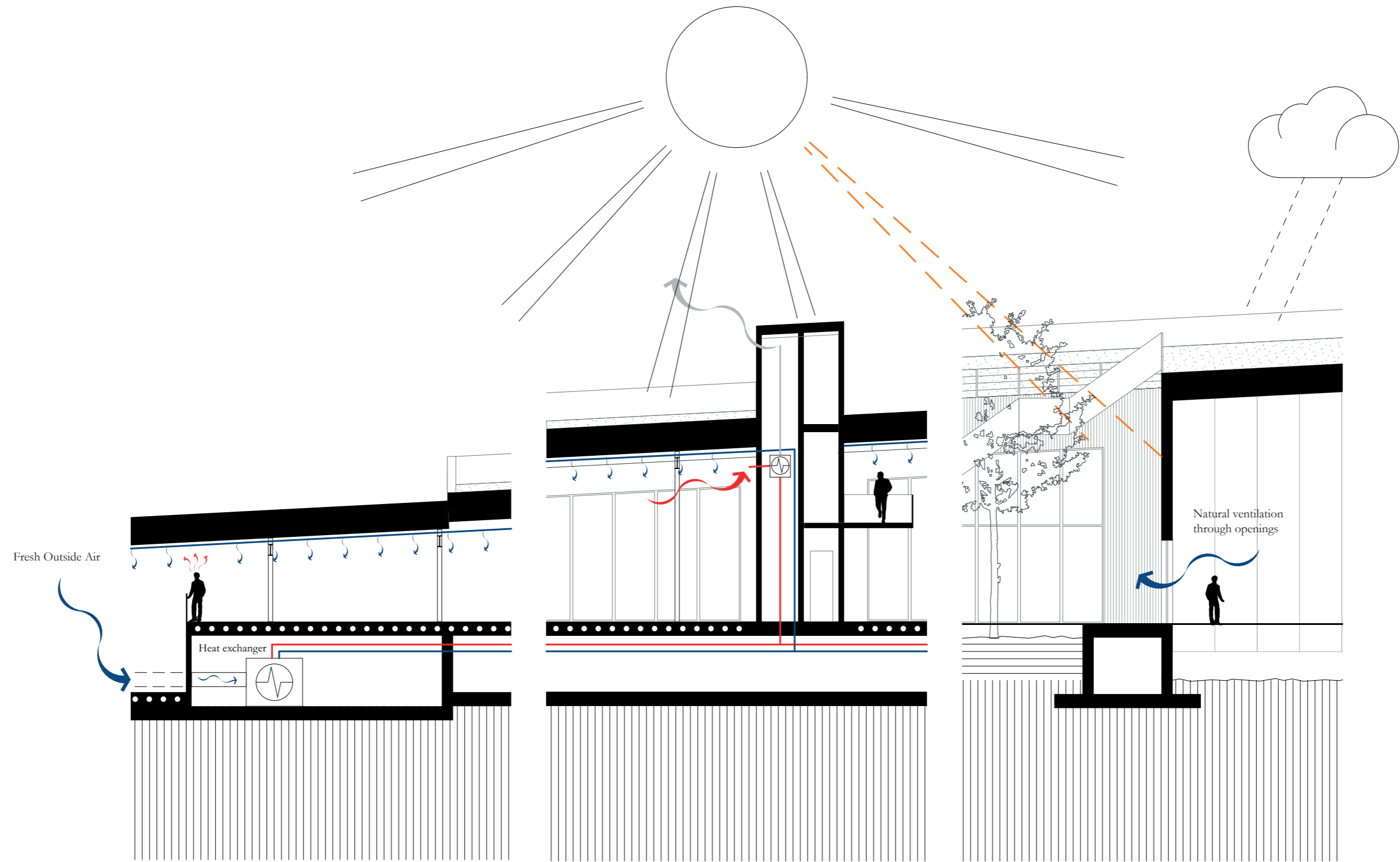
Compost Heat Recovery System

TECHNOLOGY



Climate Scheme
Winter

TECHNOLOGY



Climate Scheme
Summer

08

CONCLUSION

Healing Gardens

CONCLUSION

**REVIVED
ECOSYSTEM**

Territory

**INCREASED
SITE VALUE**

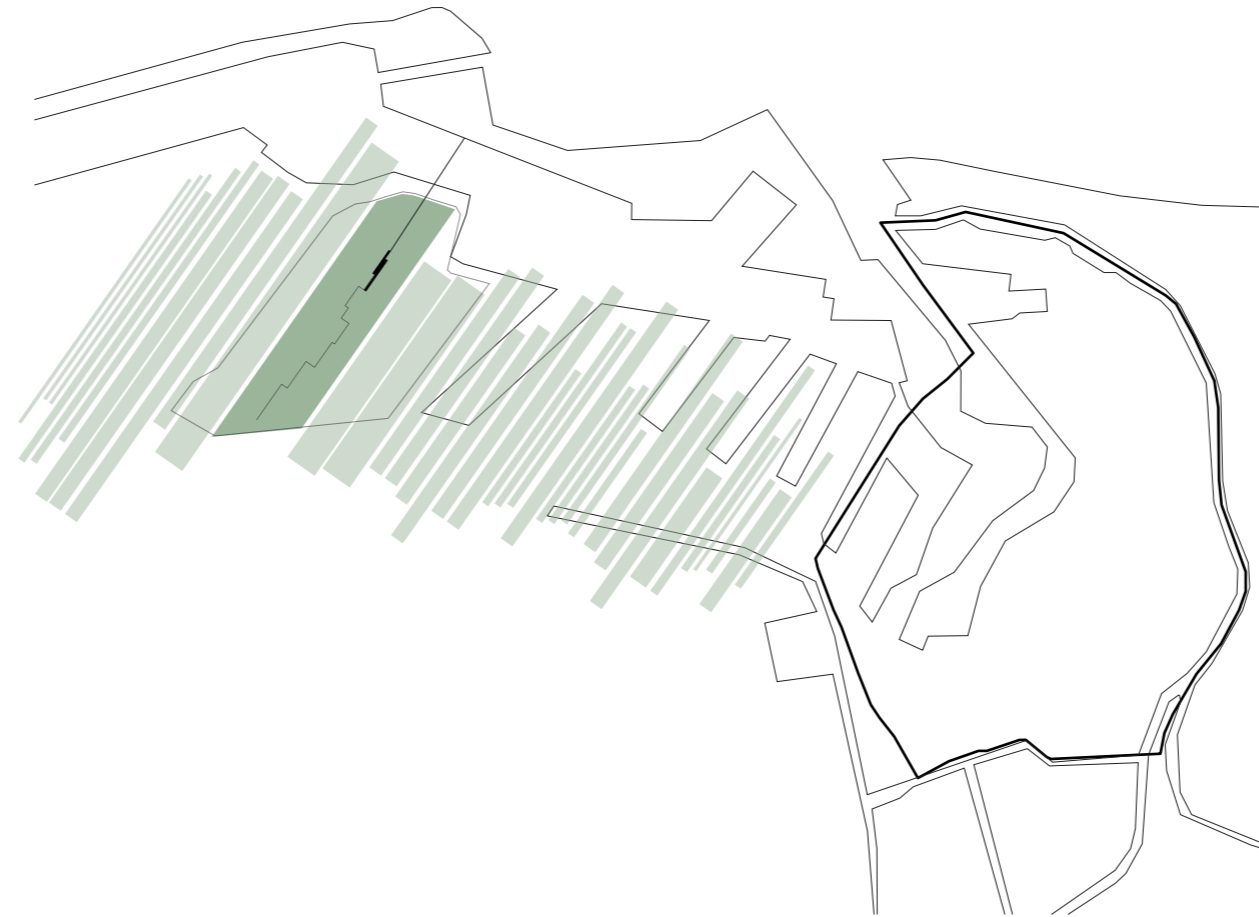
Urban/Landscape

**HEALTHIER
PUBLIC**

Body & Mind

Extended Value

CONCLUSION



Regeneration of the Port

CONCLUSION

**LINKING
ECOSYSTEMS**

Territory

**RENEWABLE
ENERGY SOURCES**

Urban/Landscape

**EDUCATIONAL
EXPERIENCE**

Body & Mind

Unexpected Opportunities

MINDSCAPES



Thank you.