

# Boosting Soil

## **Commons of post-human urbanisation**

Architecture, materiality, synergies

P5 presentation - Lucas Meziere



city



city

Nature



city

Nature

human

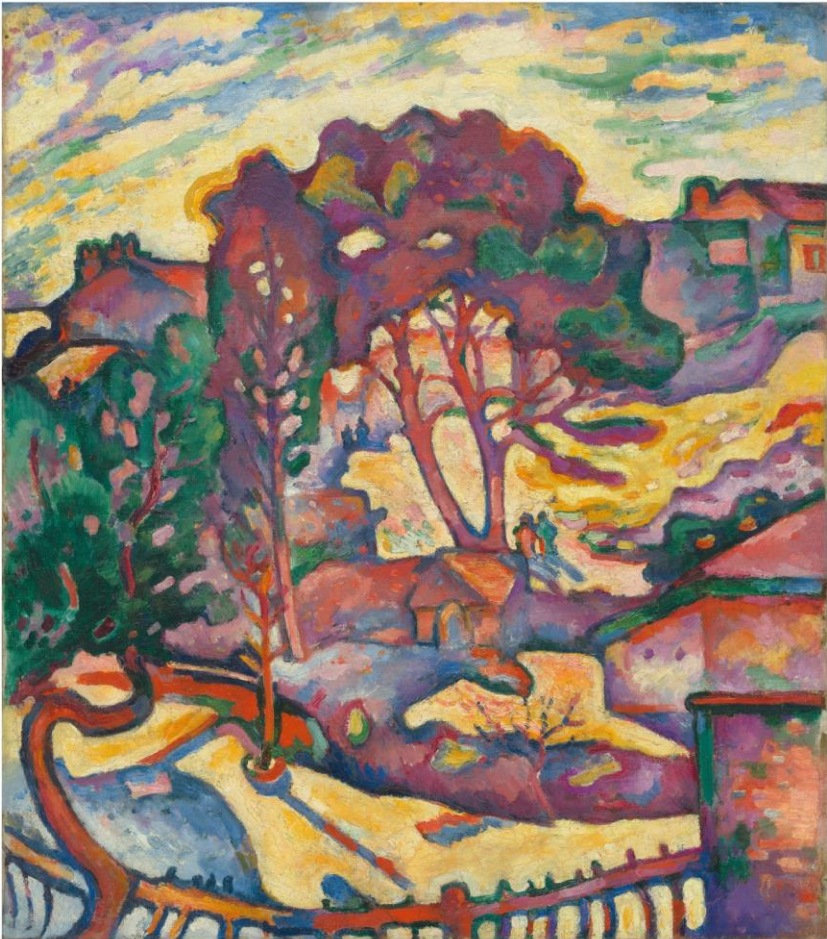


city

Nature

human

artificial



city                      Nature  
human  
artificial                Natural



city

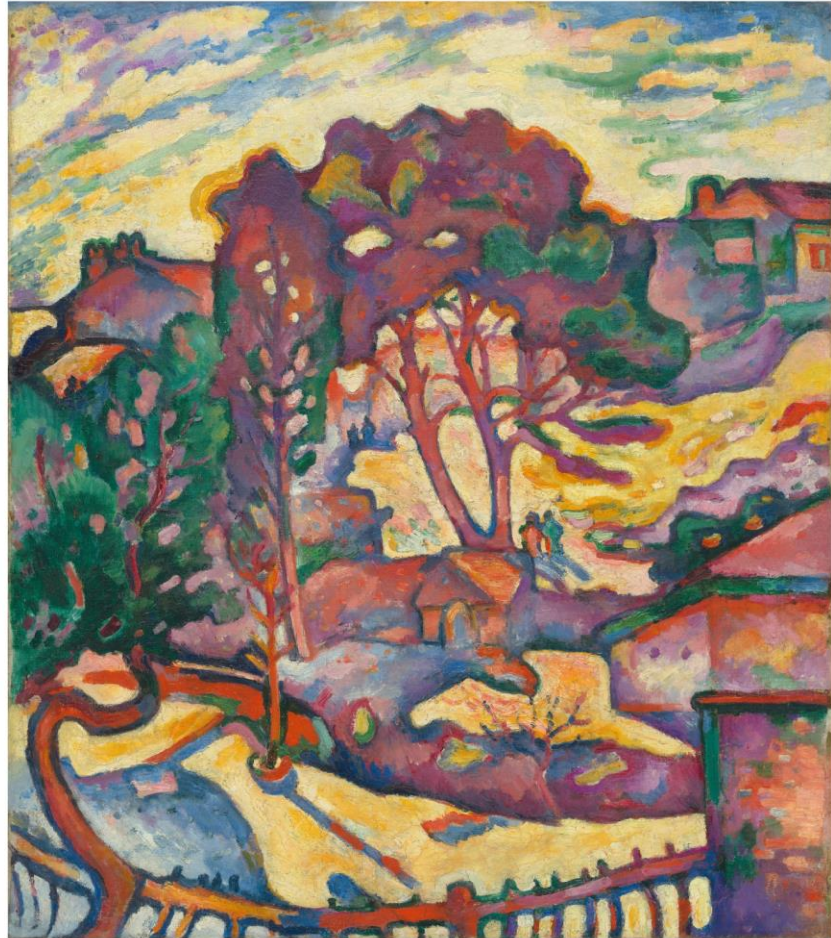
Nature

human

Natural

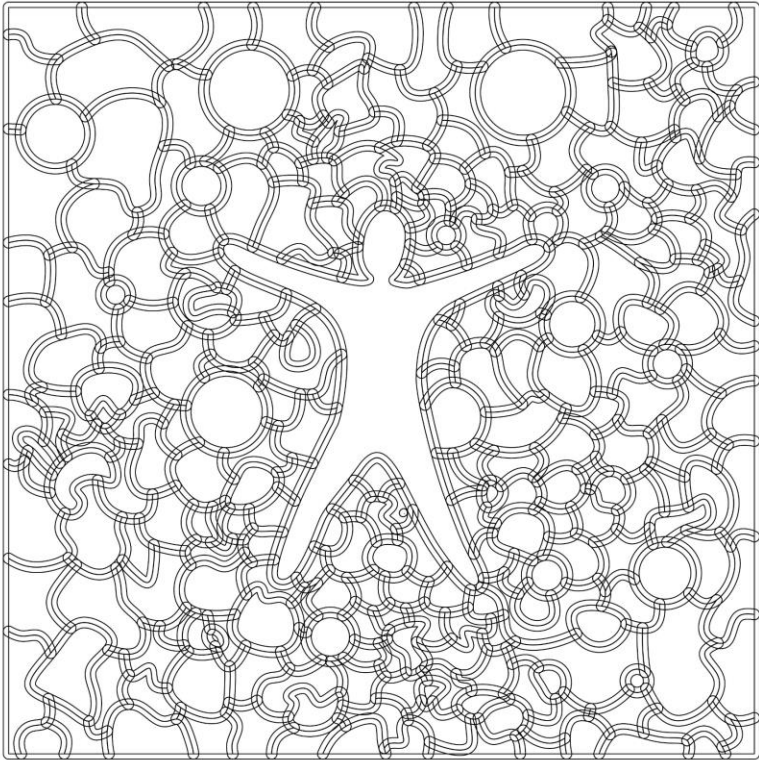
artificial

Dichotomies

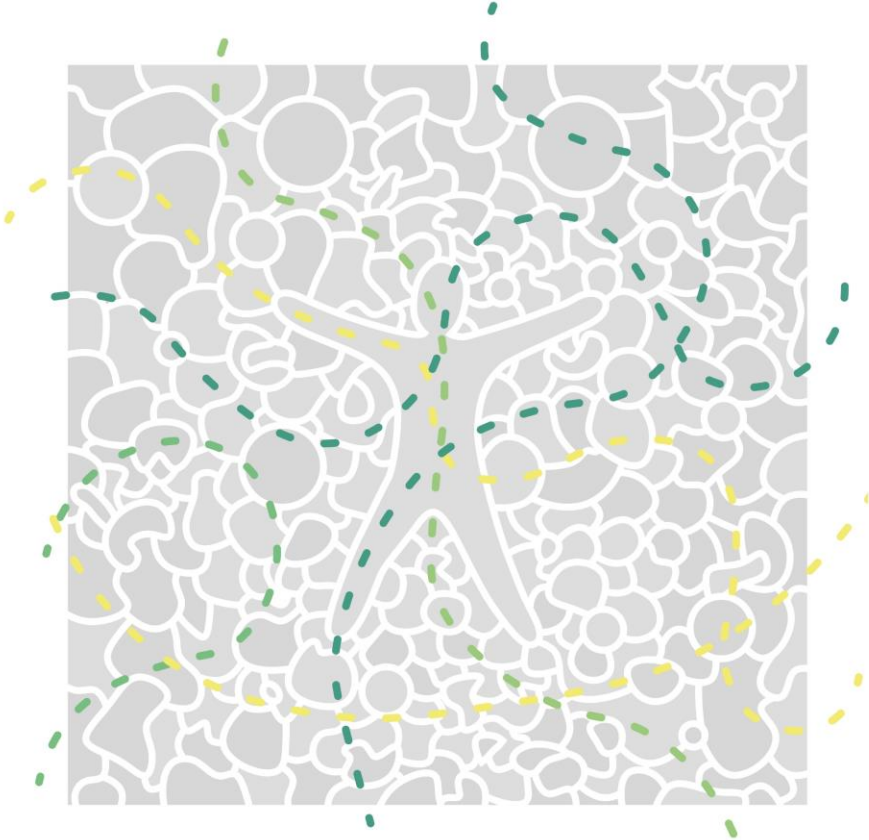
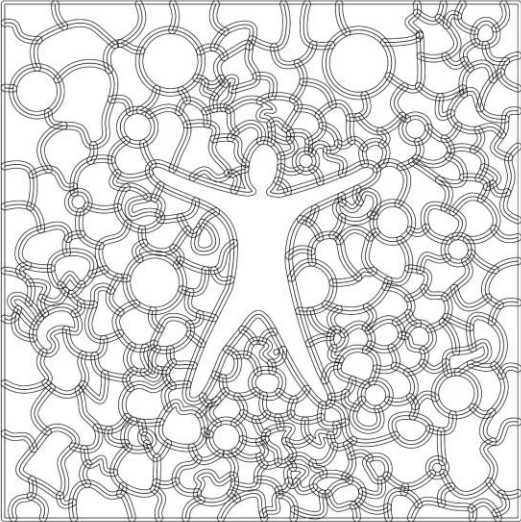




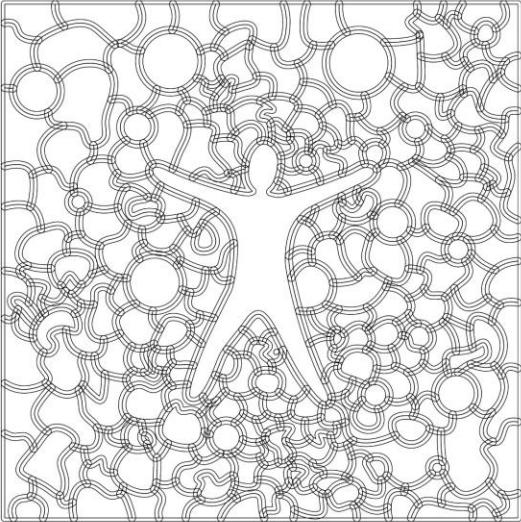
# A world of interconnected bodies



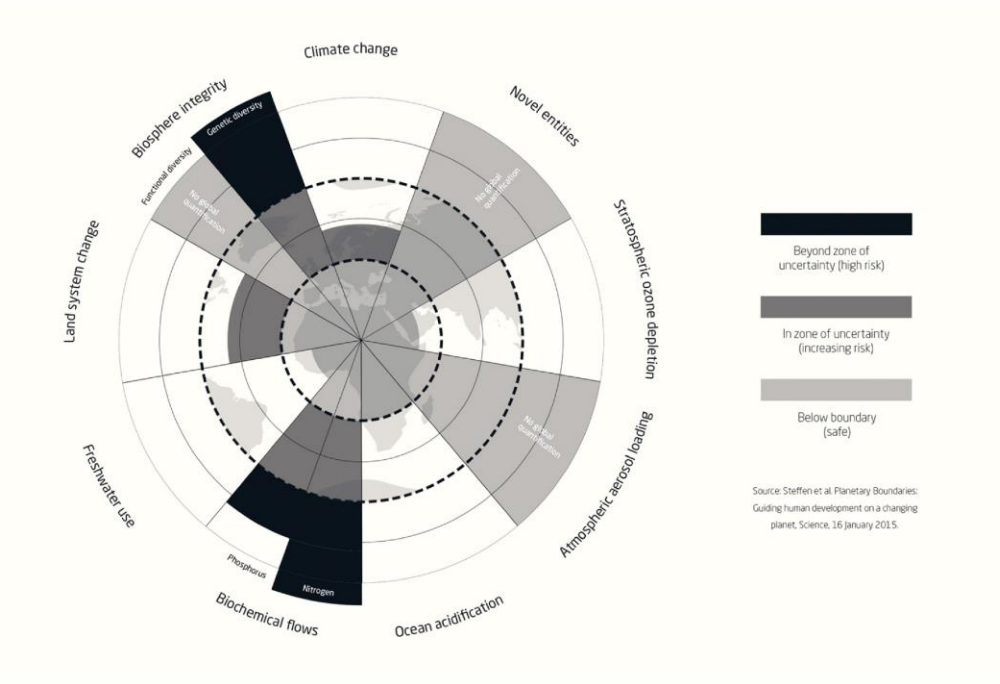
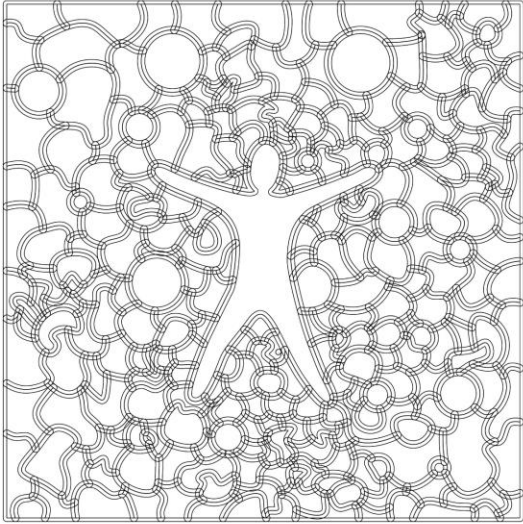
**A world of interconnected bodies**



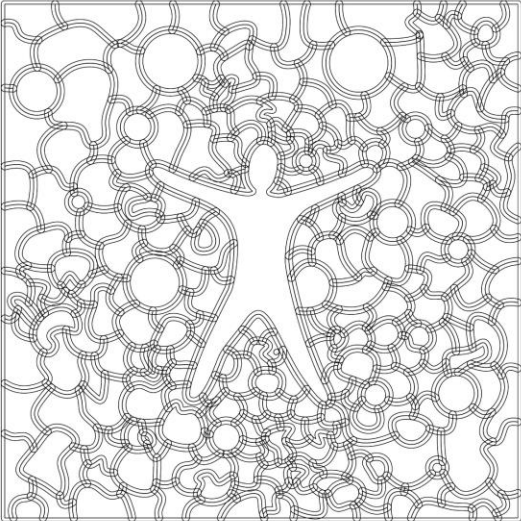
**A world of interconnected bodies**



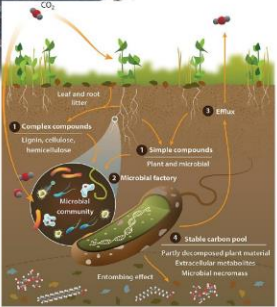
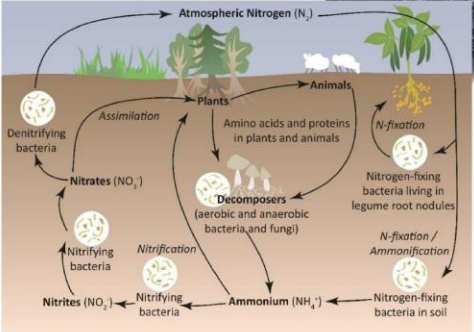
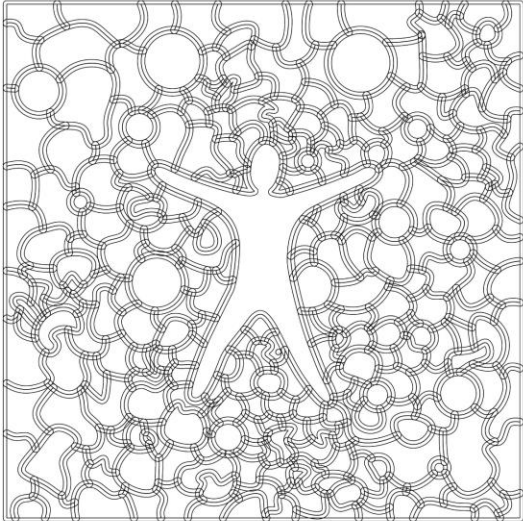
# A world of interconnected bodies



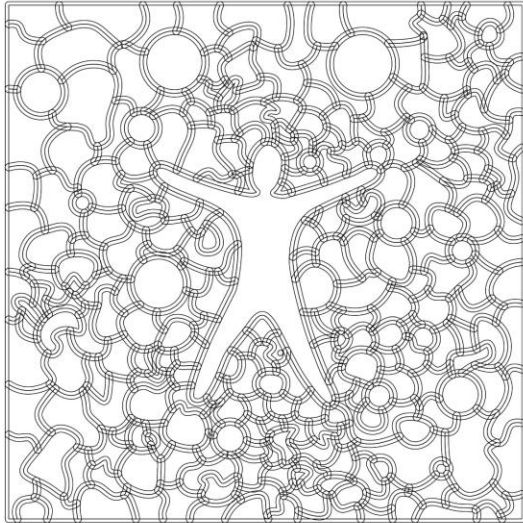
Focus: soil



# Focus: soil



## A world of interconnected bodies



Grow out of an **anthropocentric** point of view

Embrace the **responsibility** of being the dominant species on Earth

Enhance the quality of the **universal commons**.

How can we design a new component of urbanization to integrate this shift?

What kind of architecture would it produce?

## Architecture

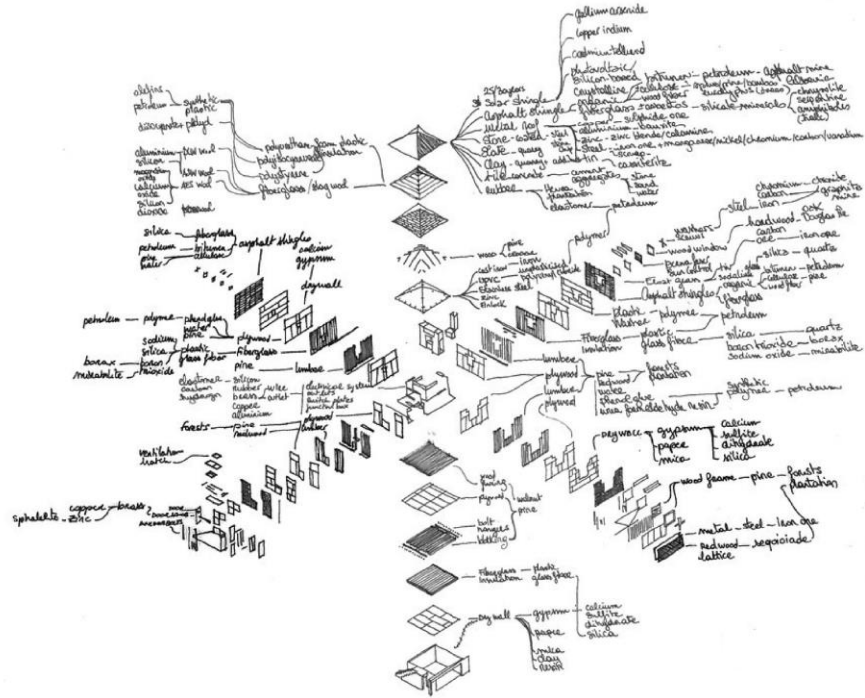
Damage in remote locations (extractive and polluting practice). Be mindful of the material ecology.





# Architecture

Damage in remote locations (extractive and polluting practice). Be mindful of the material ecology.

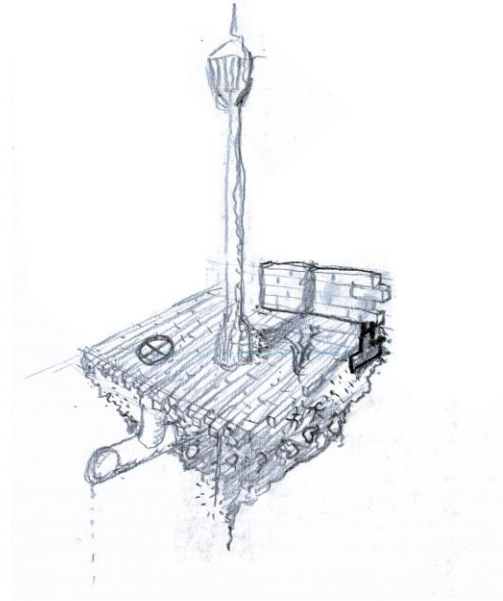


Charlotte Malterre-Barthes, Scales of Extraction

## Architecture

Damage in remote locations (extractive and polluting practice). Be mindful of the material ecology.

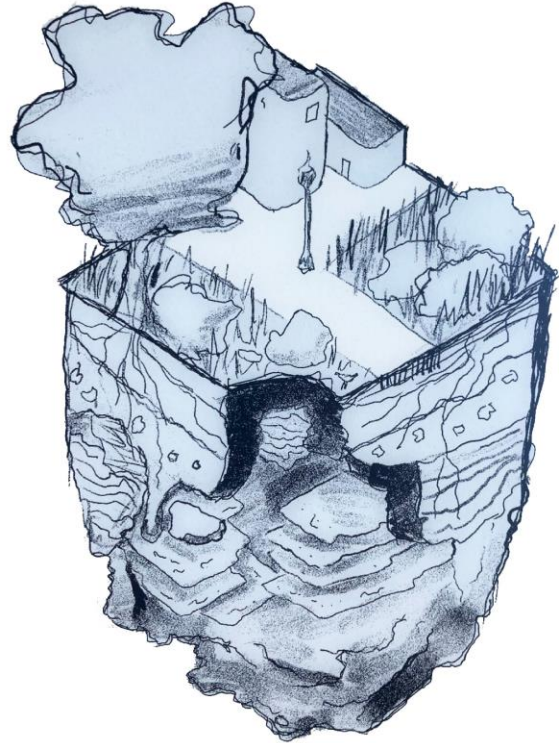
Segregation tendency, and over-control. Mediate the relations with other organisms in smoother ways.



## Architecture

Developing a more careful look over what is happening below our feet.

Generate more interaction with it in the way we construct the landscape.

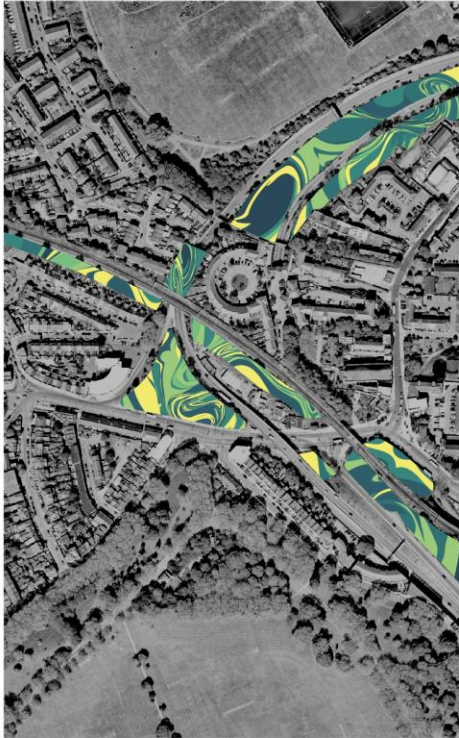
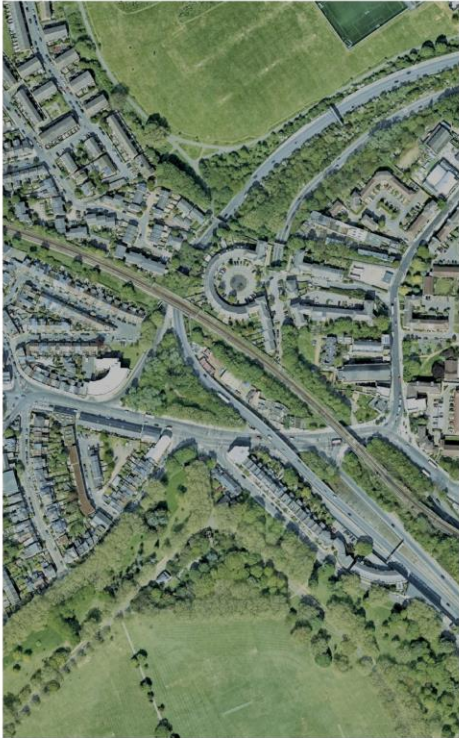
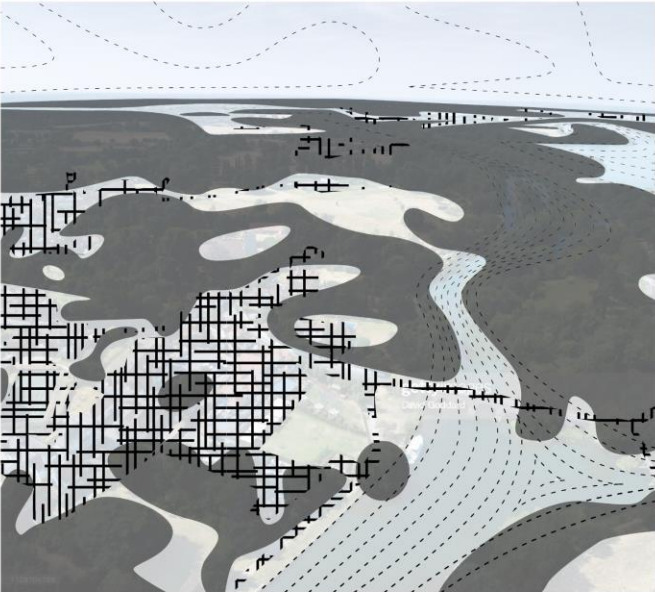


## Architecture

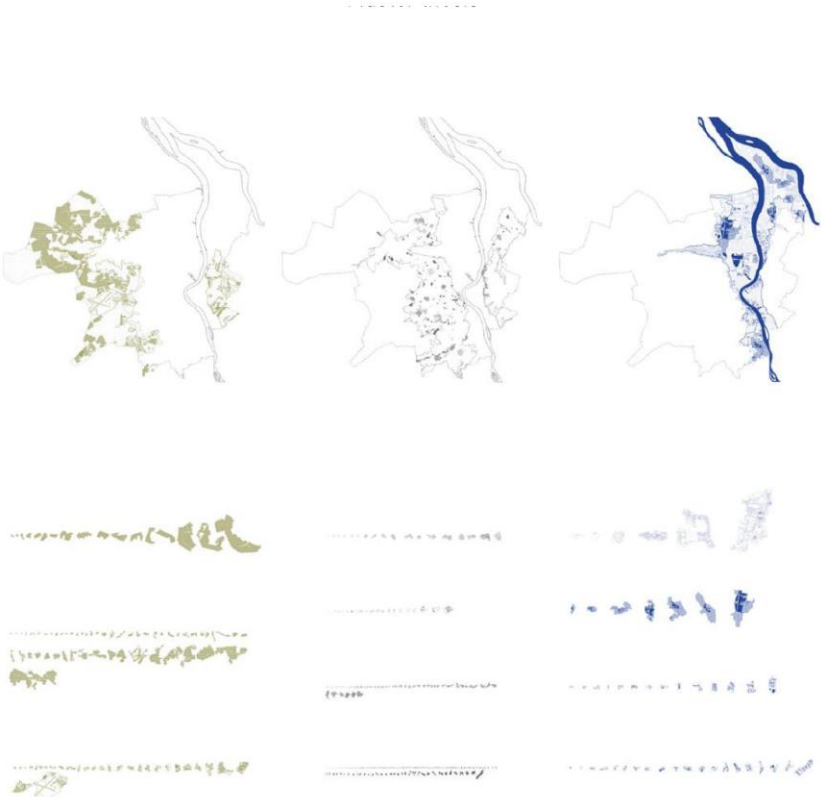
Reference:  
Gilles Clément: third Landscape



# Architecture



Reference:  
Urban green-blue grids, 55.000 hectares for  
Nature, developing the ecosystemic resources, or  
universal commons, in the urban context



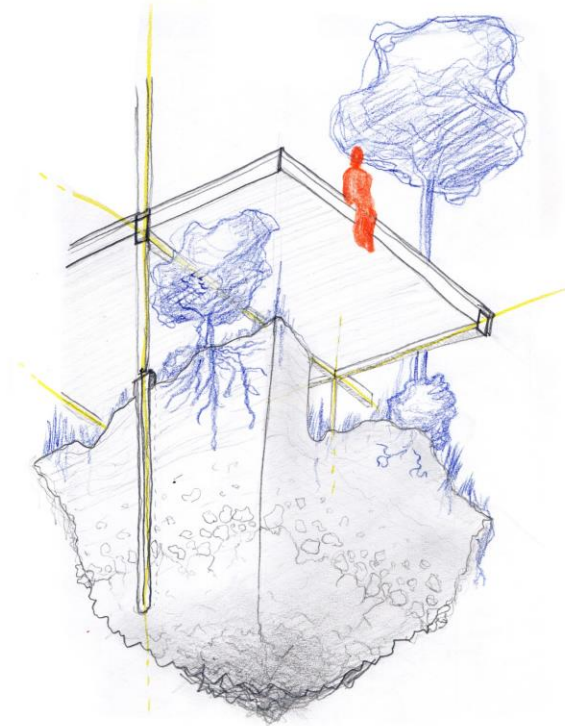
## Project proposal

### Urban scale

Create a new kind of infrastructure, focusing on soil.

### Architectural scale

- Importance of materials
- Mediate between humans and their milieu in smoother way, intensify the interaction with ecosystemic elements. Soil, air, water.



London



## London: dense urban fabric

Intense compatibility with human economy - technologicalisation of landscape

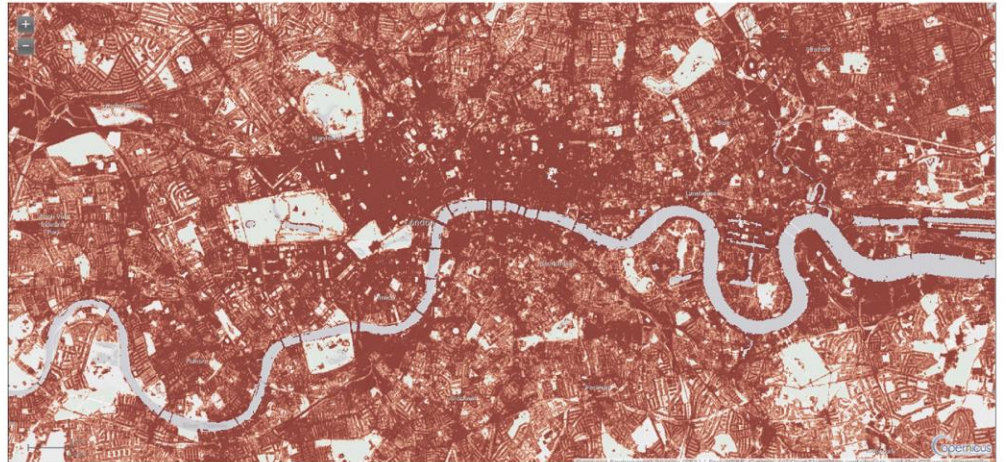


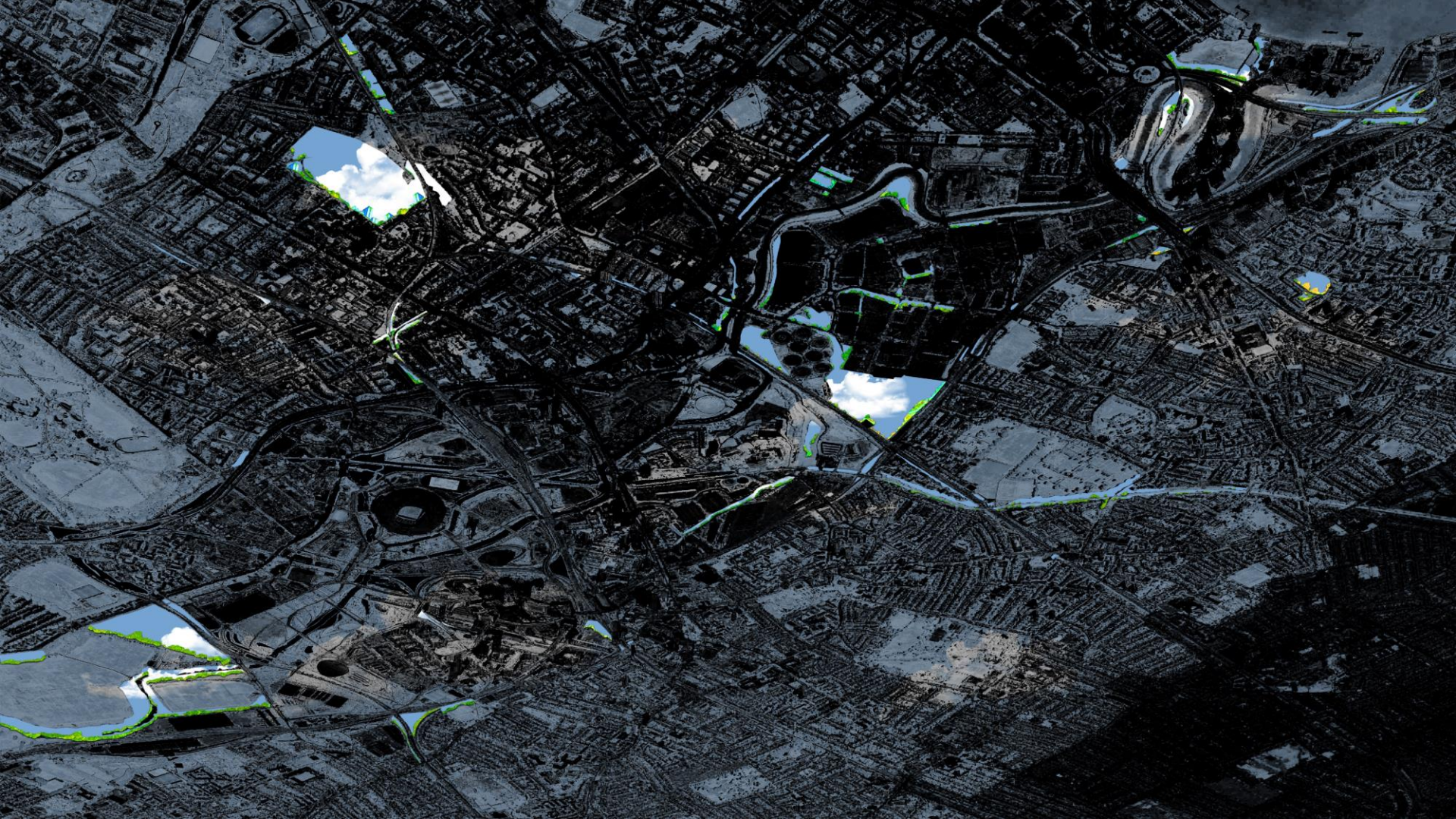
# Disruptive material practices

regimes of control : boundaries and control over land.

Disconnections and imperviousness

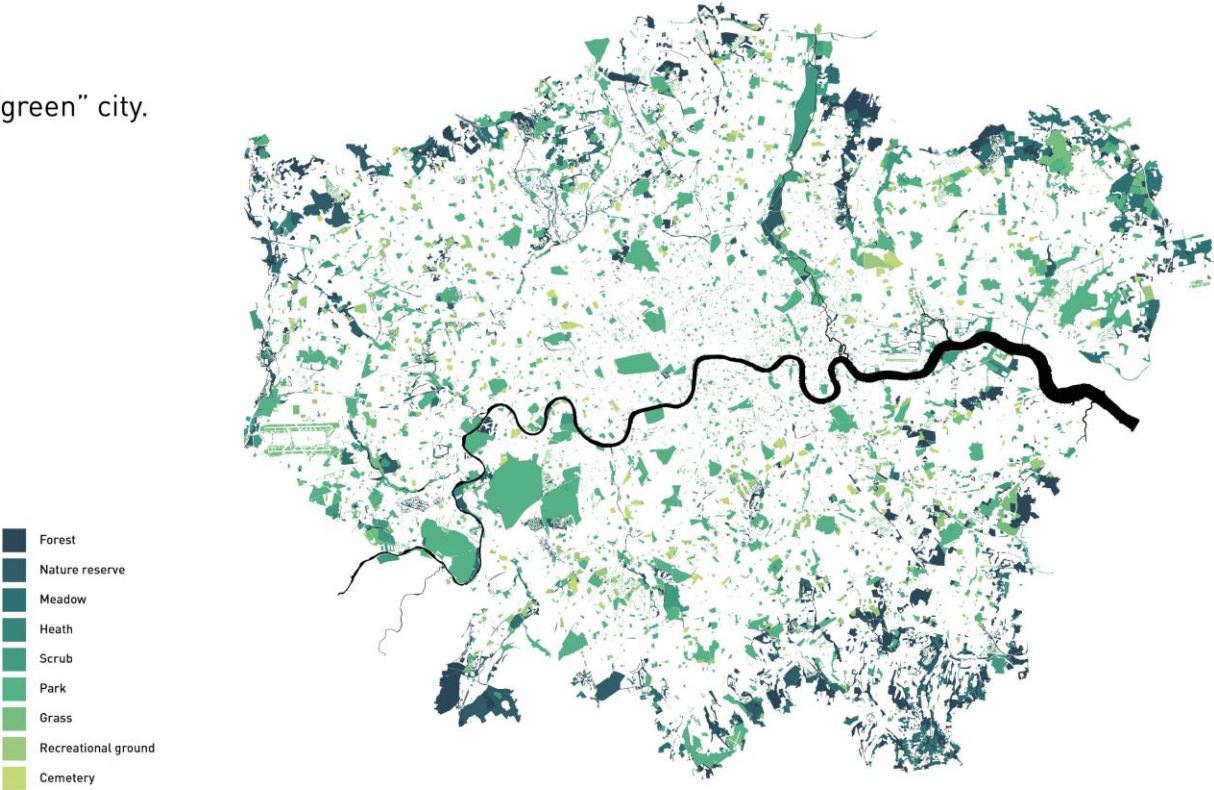
Urban intervention and site





Urban intervention and site

London is qualified as being a very “green” city.  
Many parks



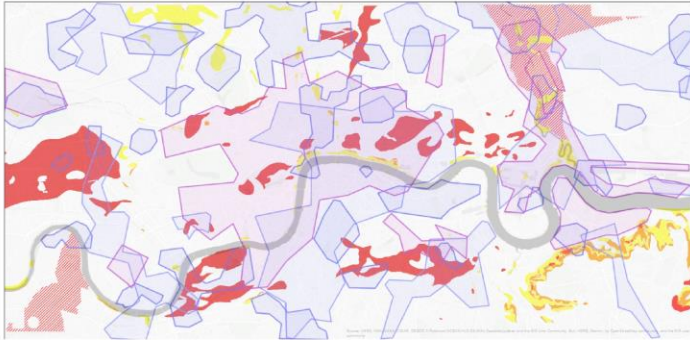
However lot of heavy control, and disconnected

- Forest
- Nature reserve
- Meadow
- Heath
- Scrub
- Park
- Grass
- Recreational ground
- Cemetery



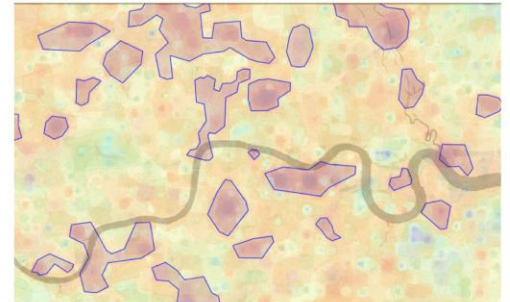
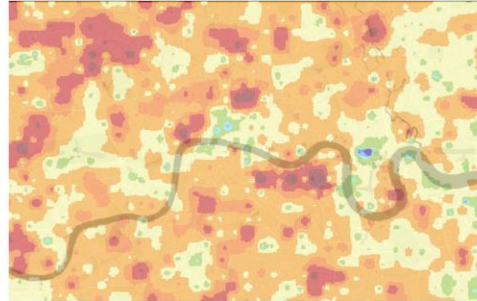
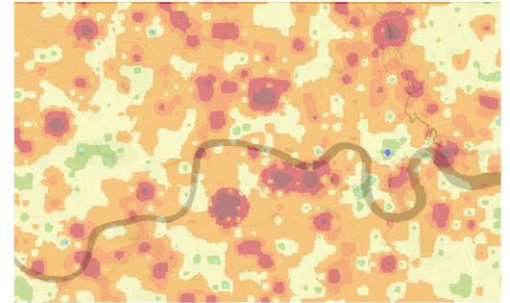
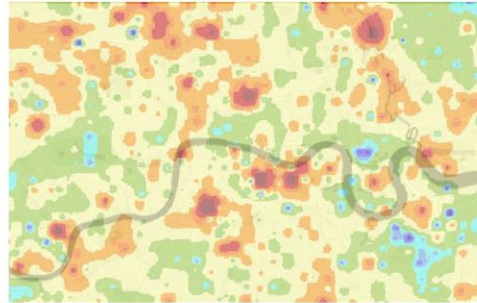
+ industry, pollution, maps

other as nitrate pollution around waterways  
+ weakness linked to geological conditions, such  
as water and wind-caused erosion.

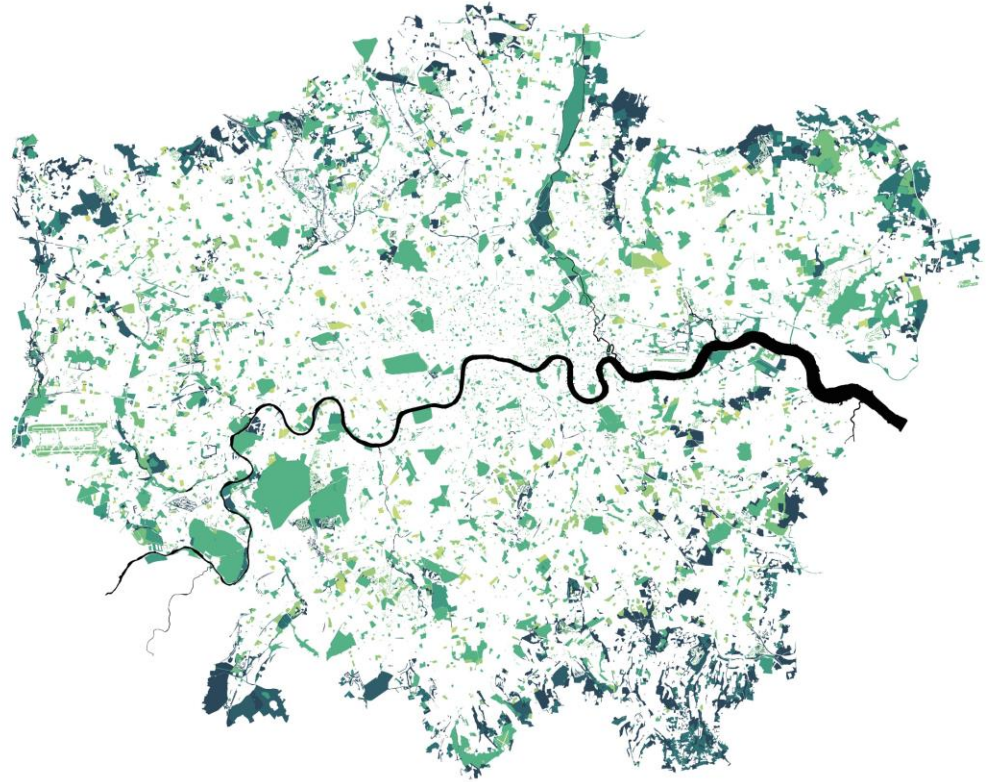


Nickel    Copper  
Lead     Calcium  
Iron     Compil.

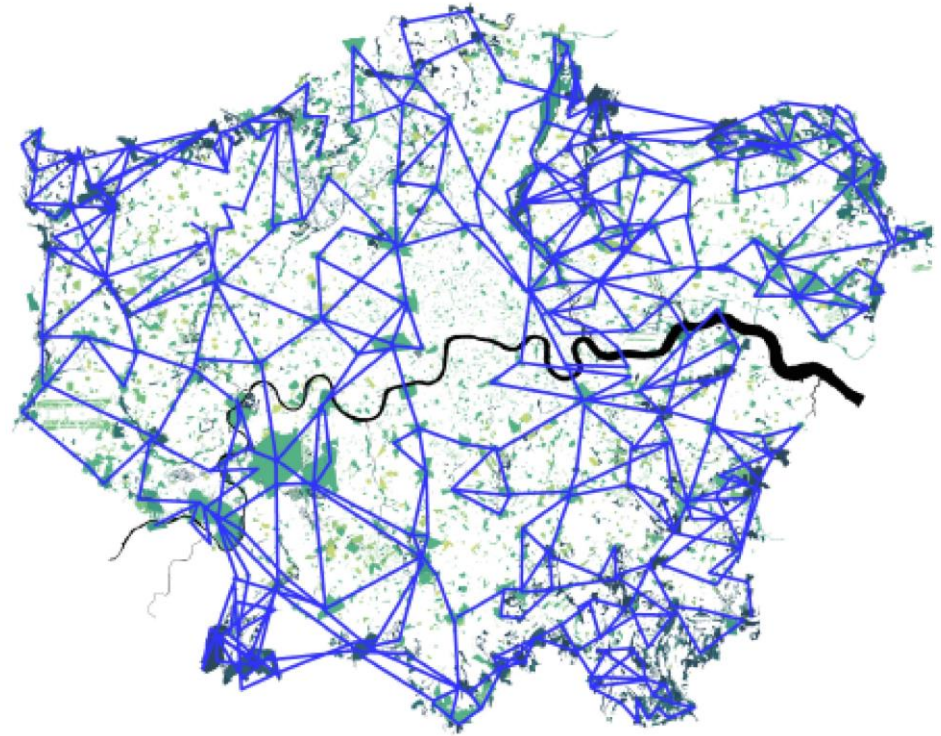
### Urban intervention and site



Urban intervention and site



Urban intervention and site





So, where to start?

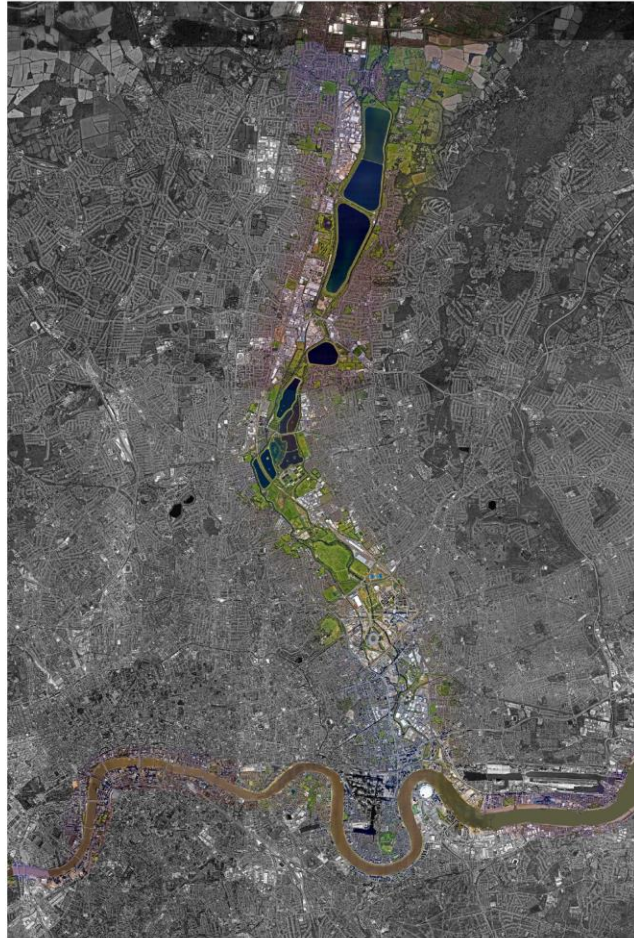
criteria; pollution, soil coverage, connectivity of the ecosystemic matrix of the greater London.

The valley formed by the river Lea, an affluent of the Thames.



## The lea Valley

Geological landmark, affluent of the Thames.

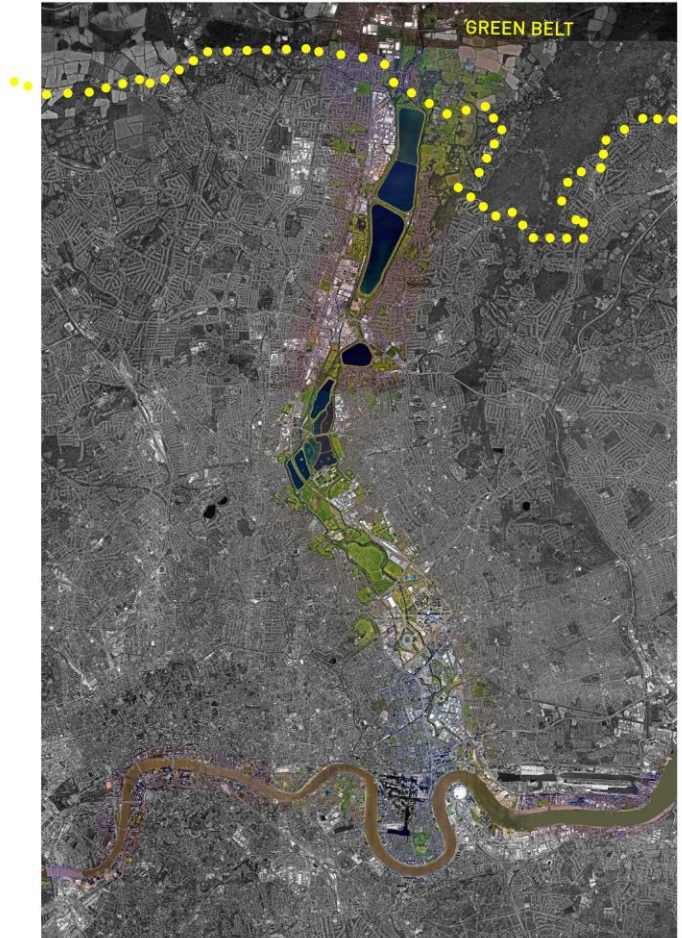


## The lea Valley

Geological landmark, affluent of the Thames. .

In terms of connectivity, it is a good place to start as the foundation of a metropolitan soil mesh. Ecological corridor between the green belt (what is green belt) and the thames, can be enhanced.

Urban intervention and site



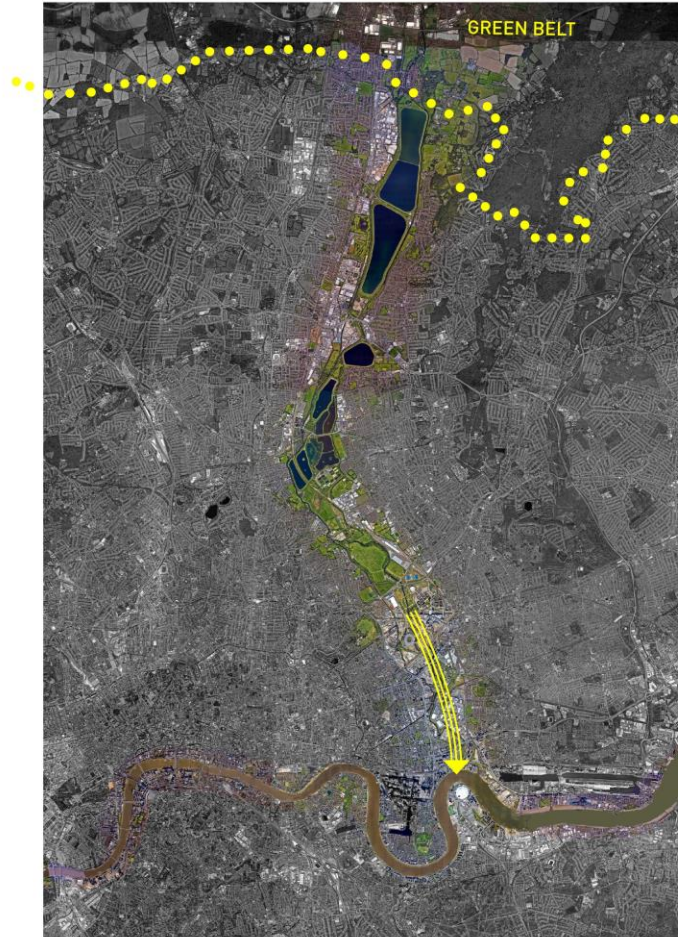
## The lea Valley

Geological landmark, affluent of the Thames. .

Ecological corridor between the green belt and the thames, can be enhanced.

Lower part more industrialized.

Urban intervention and site



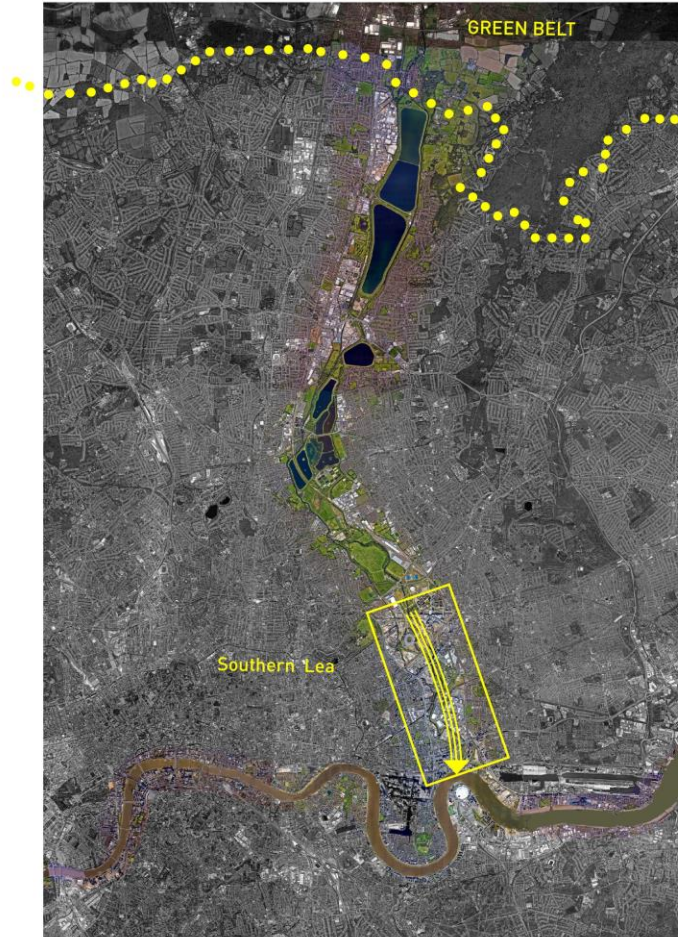
## The lea Valley

Geological landmark, affluent of the Thames. .

Ecological corridor between the green belt and the thames, can be enhanced.

Lower part more industrialized.

Urban intervention and site



## Southern Lea Valley



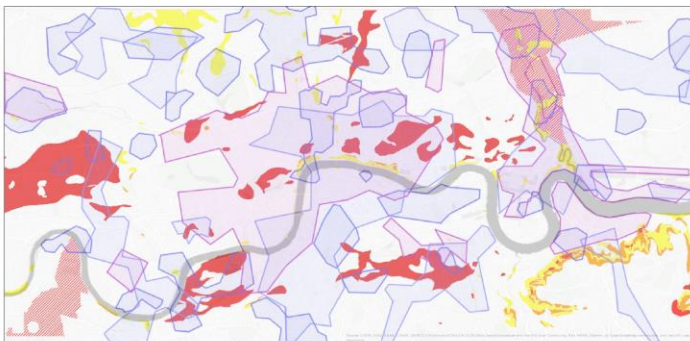
Third Landscape as a base for an ecological matrix



## Three Mills Island

Central position

Shows signs of concern in terms of soil pollution





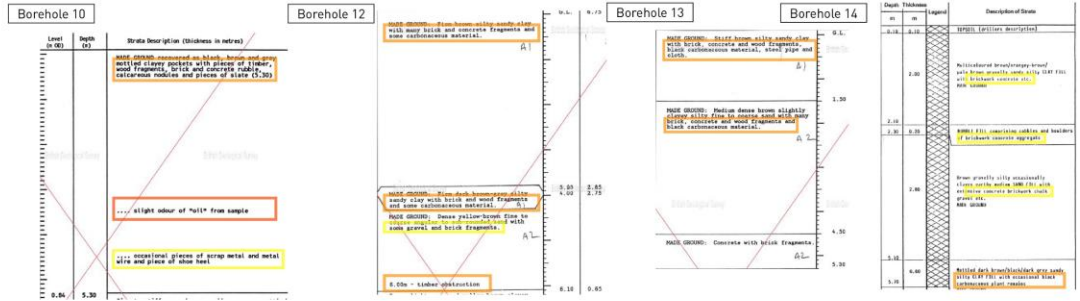
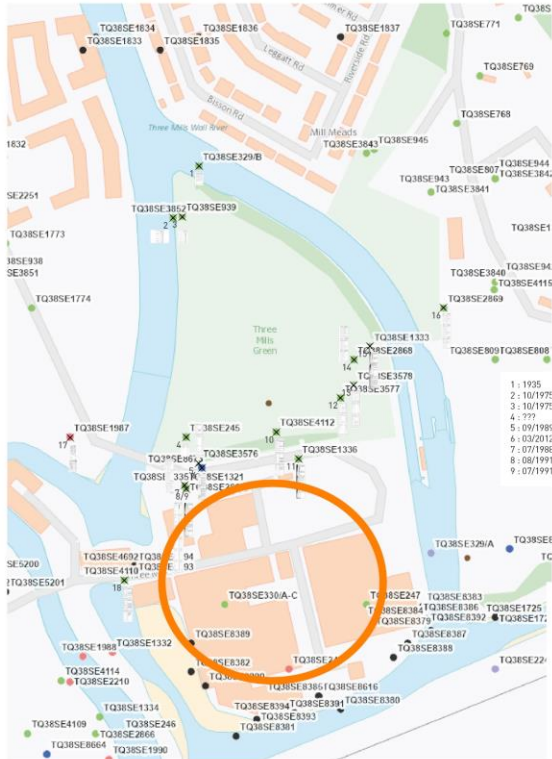
## Three Mills Island



# Three Mills Island

# Soil Pollution

Complementary study of the soil on site through borehole records



The soil analysis: made ground and layers of pollution

miscellaneous materials found:

- brick, concrete or metal (safe for use)
- wood, leather, cloth (require segregation)

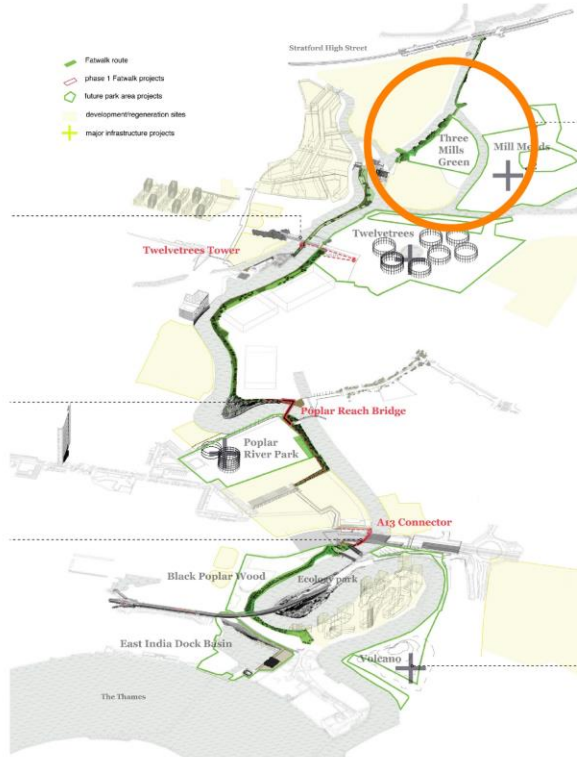
# Three Mills Island

## Past: Industrial Zone



Urban intervention and site

## Three Mills Island

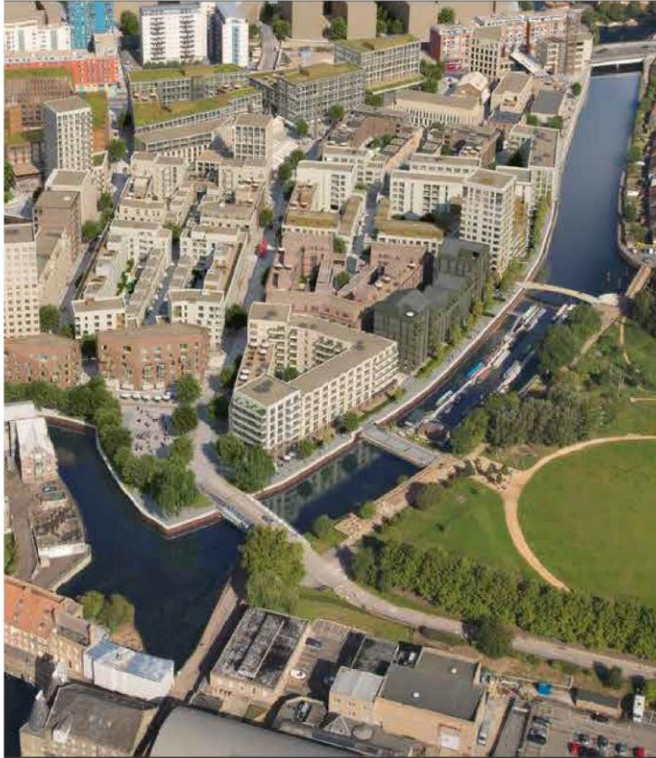


Present: new public dynamic



Urban intervention and site

## Three Mills Island

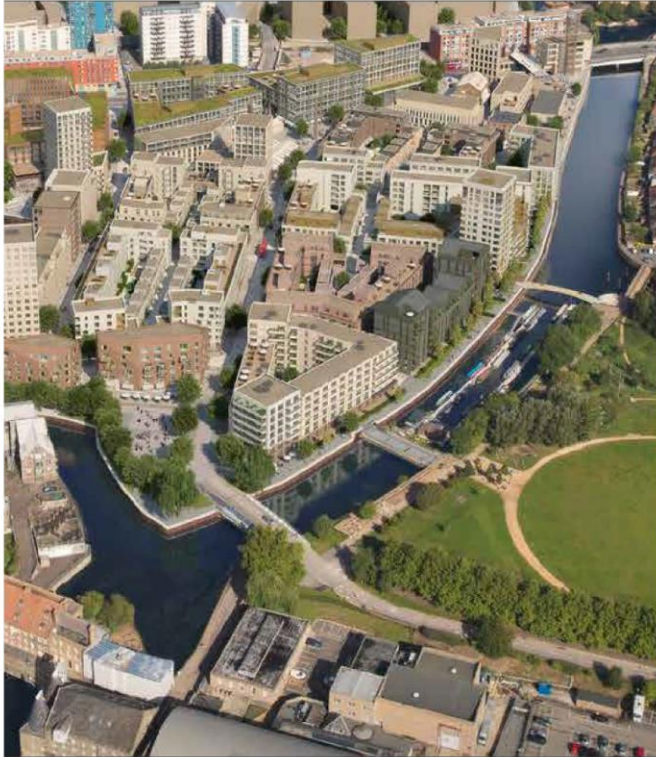


Present: new public dynamic



Urban intervention and site

## Three Mills Island



Present: new public dynamic



Sugar house island  
**2640** people

Local architectural intervention

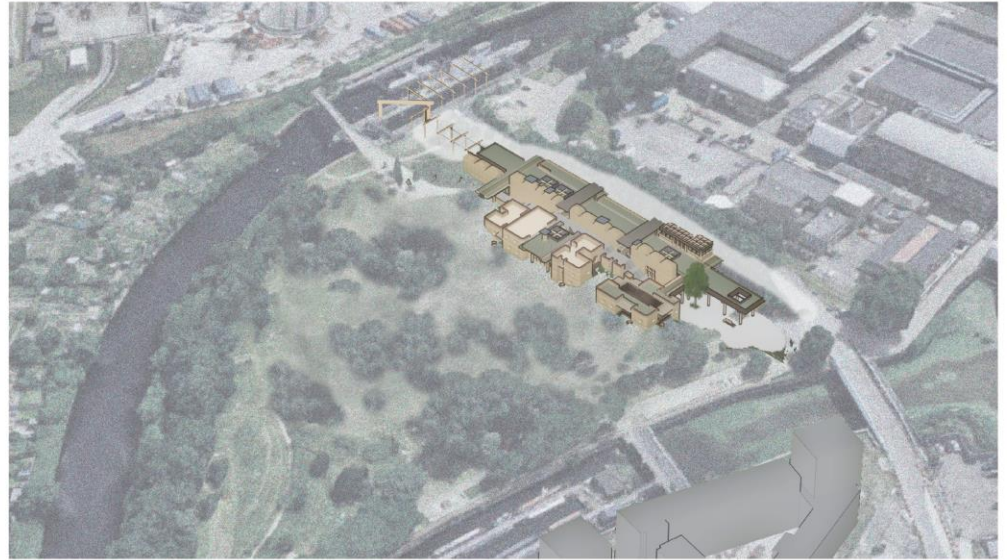
## Program of the intervention

Earth Mill

Public interface

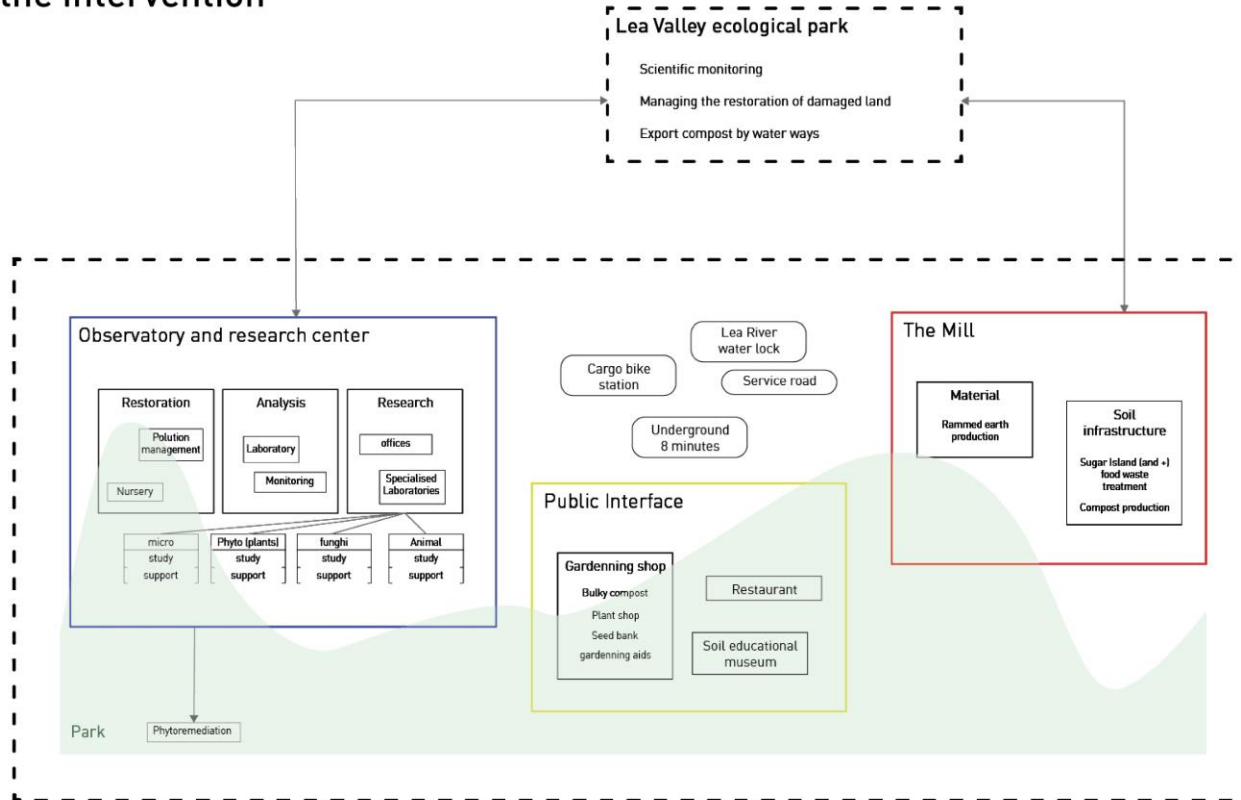
Ecosystem observatory and Soil  
research center

Mosaic park



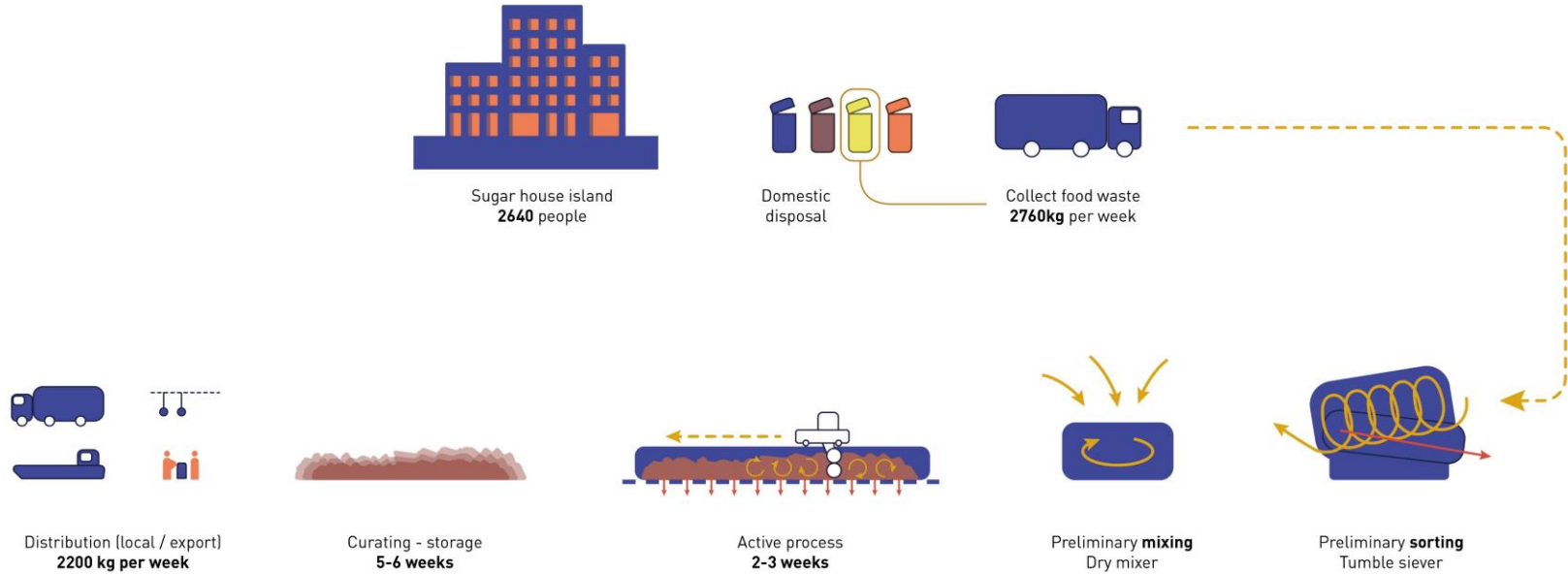


## Program of the intervention

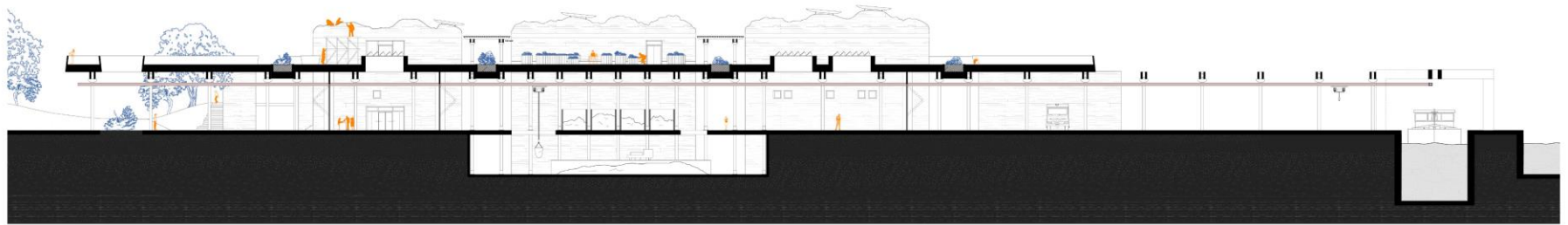




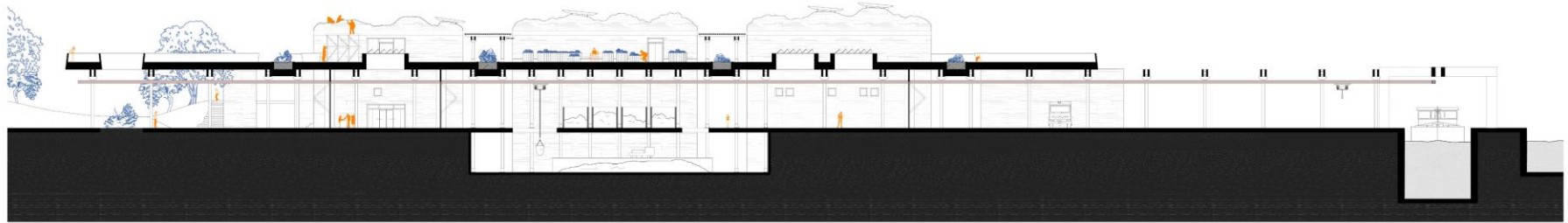
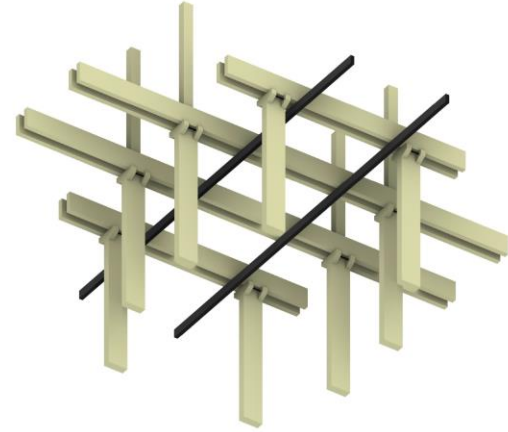
# The earth mill



# The earth mill

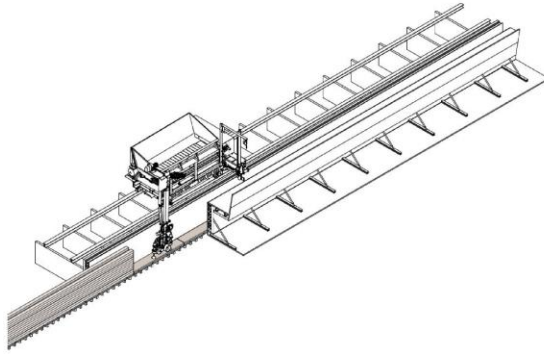


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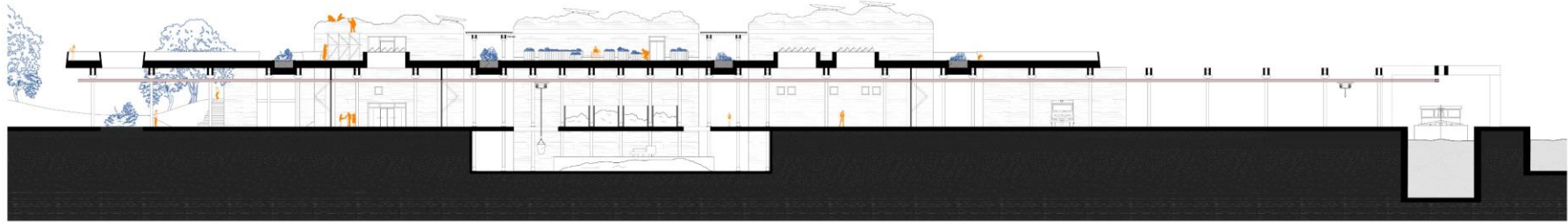
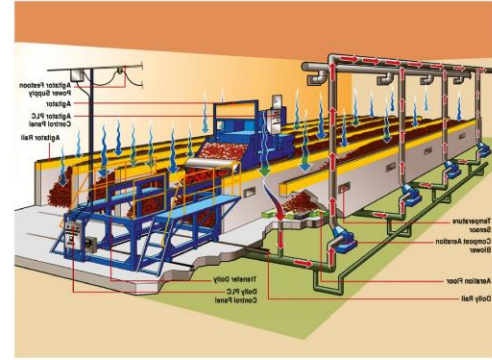


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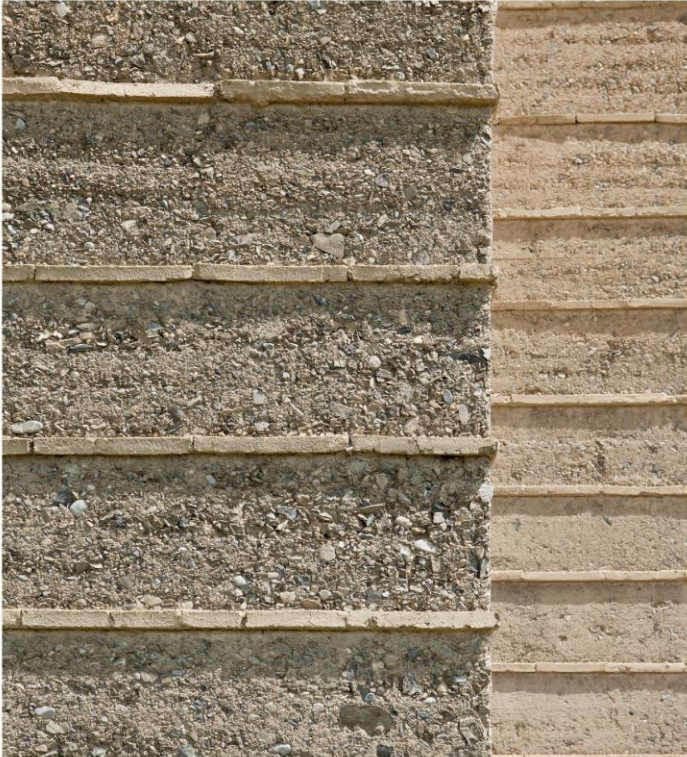
Rammed earth pre-fabrication



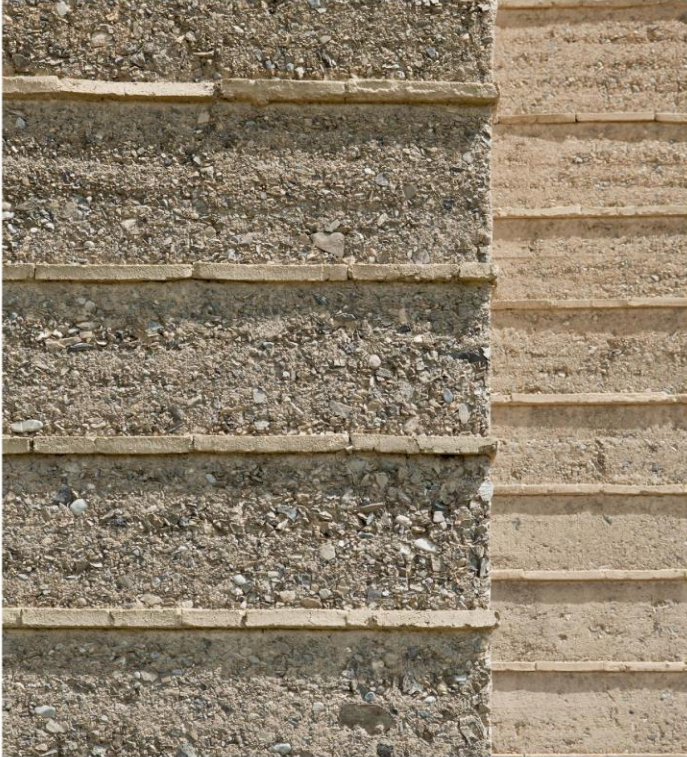
Tunnel composting



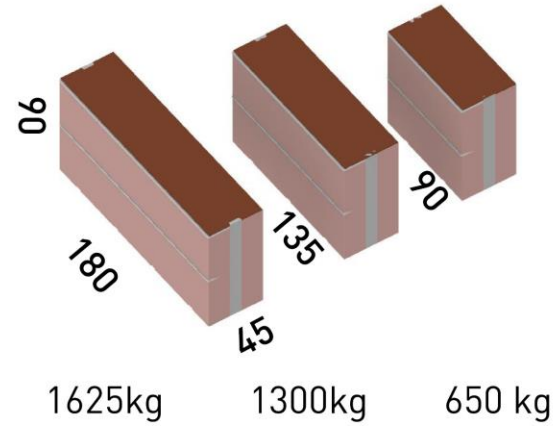
## Material focus



## Material focus



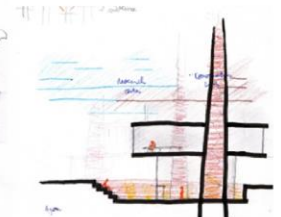
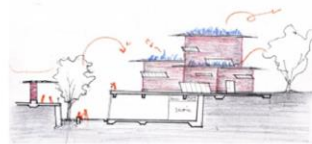
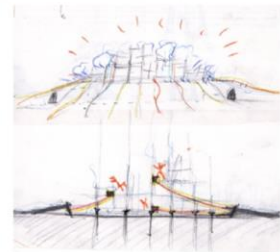
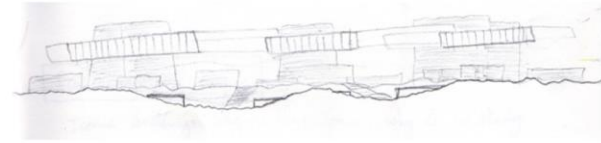
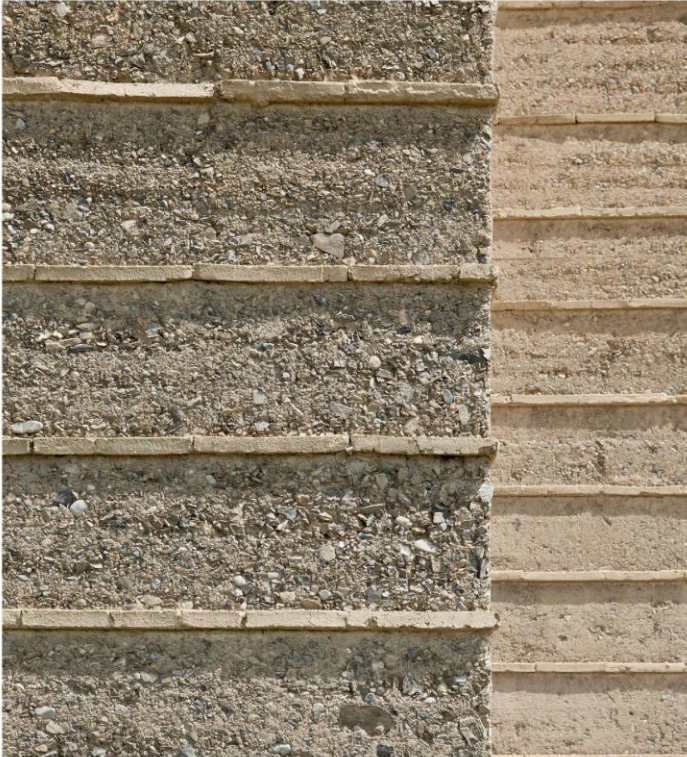
rammed earth = 1800kg/m<sup>3</sup>



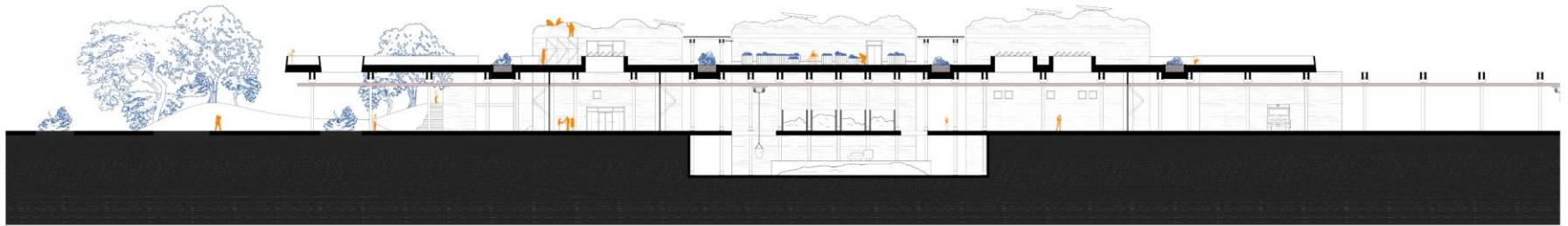




## Material focus



# The earth mill

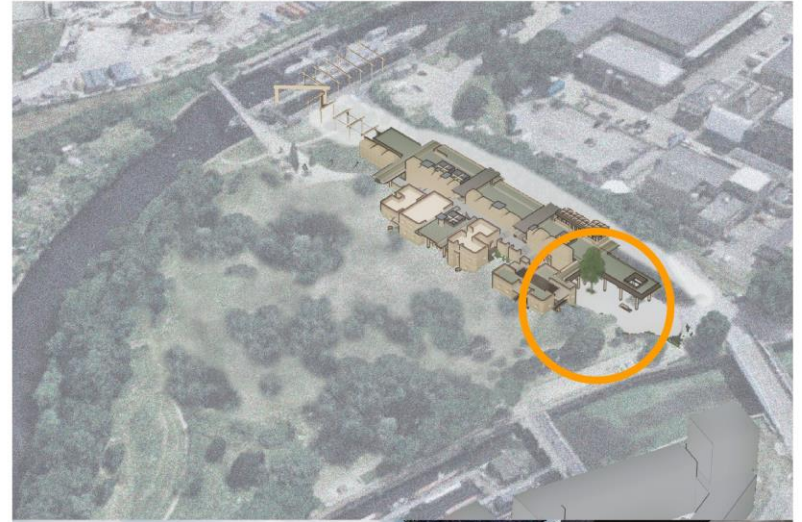
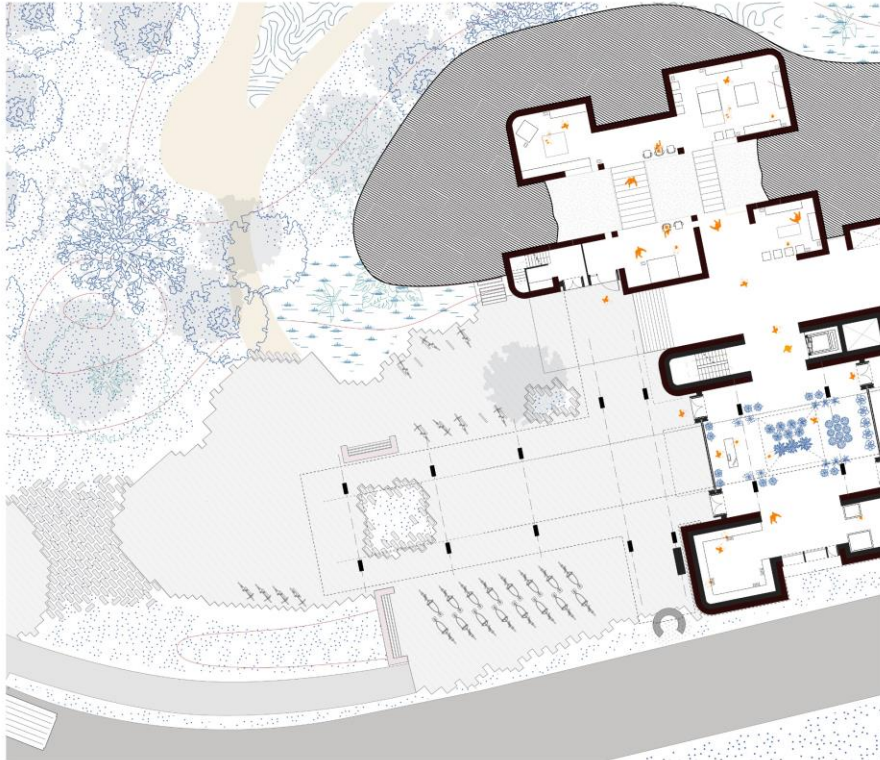


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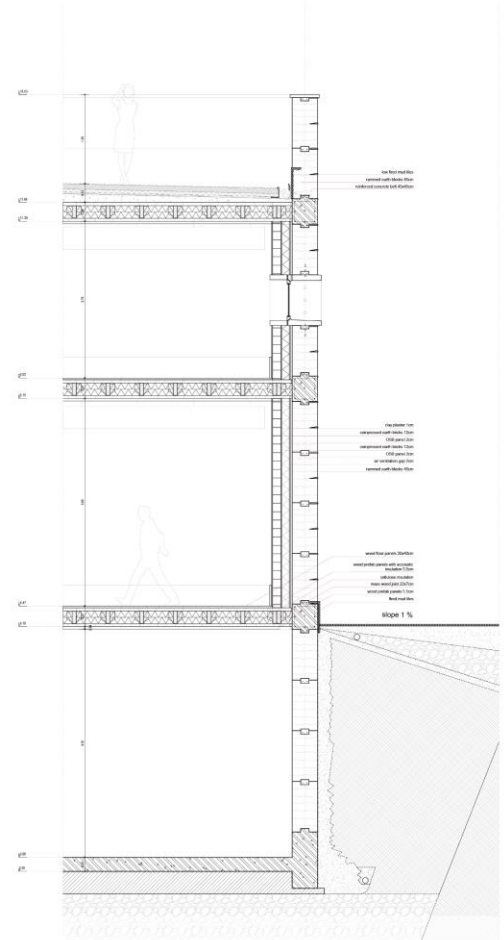
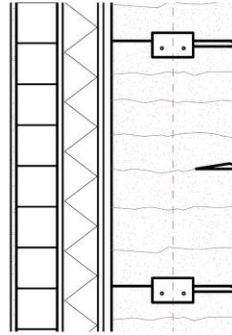


## Public Interface



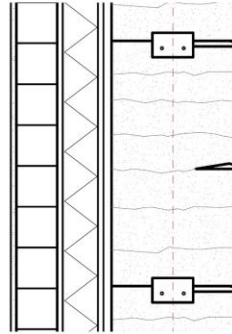


Local Architectural intervention

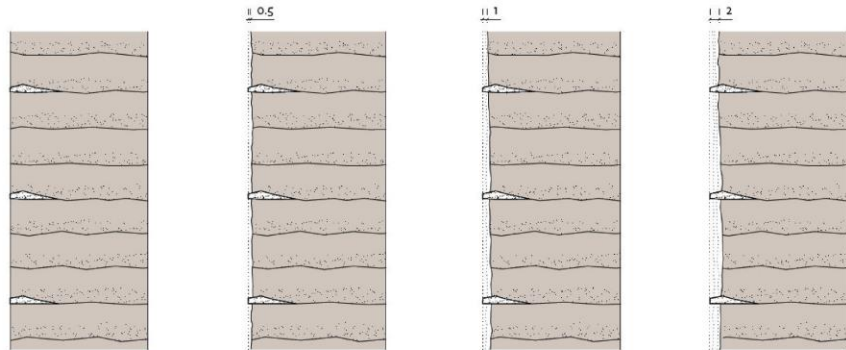




## Local Architectural intervention



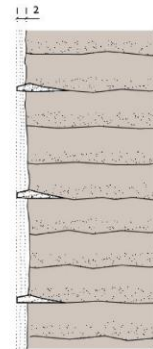
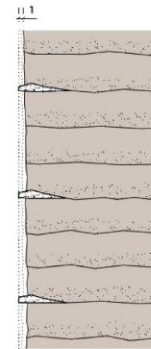
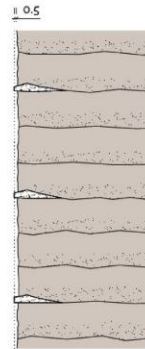
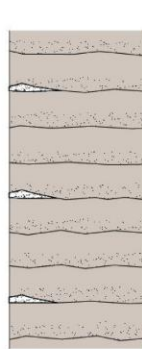
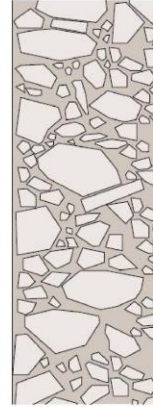
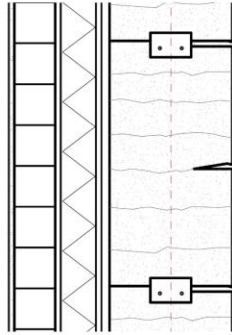
Reference: work of  
Martin Rauch and  
Lehm ton Erde





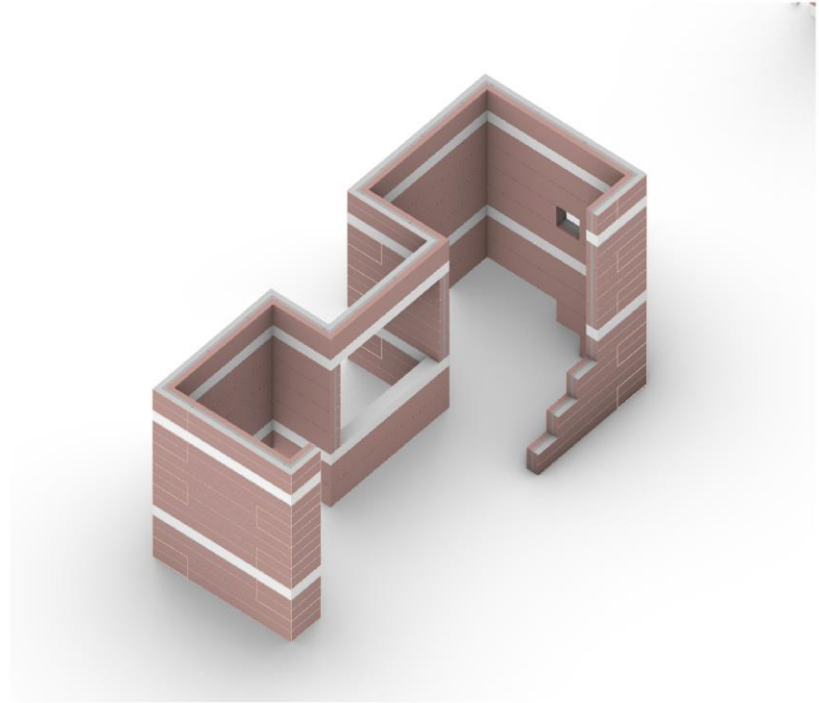


### Local Architectural intervention



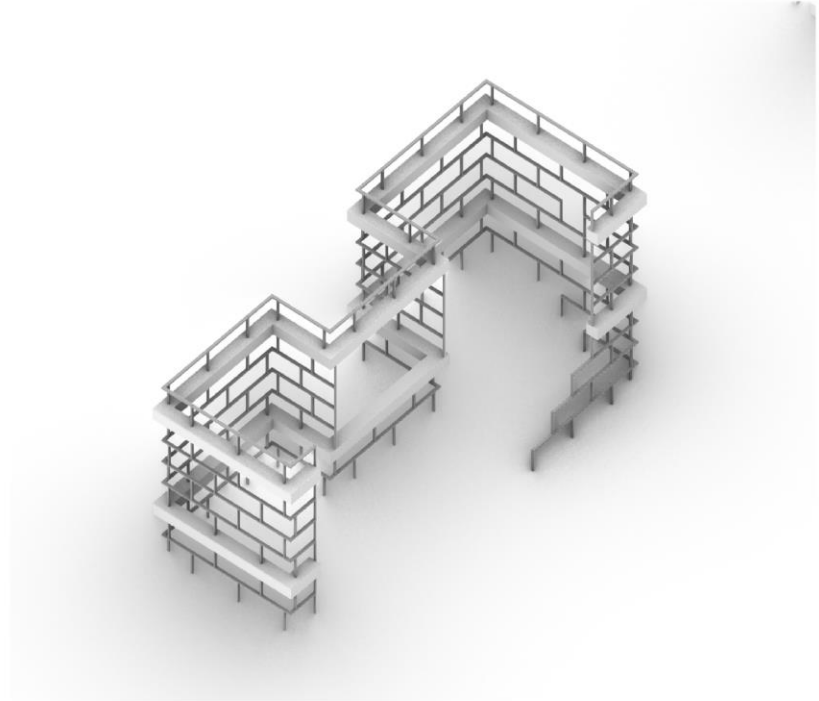


Local Architectural intervention



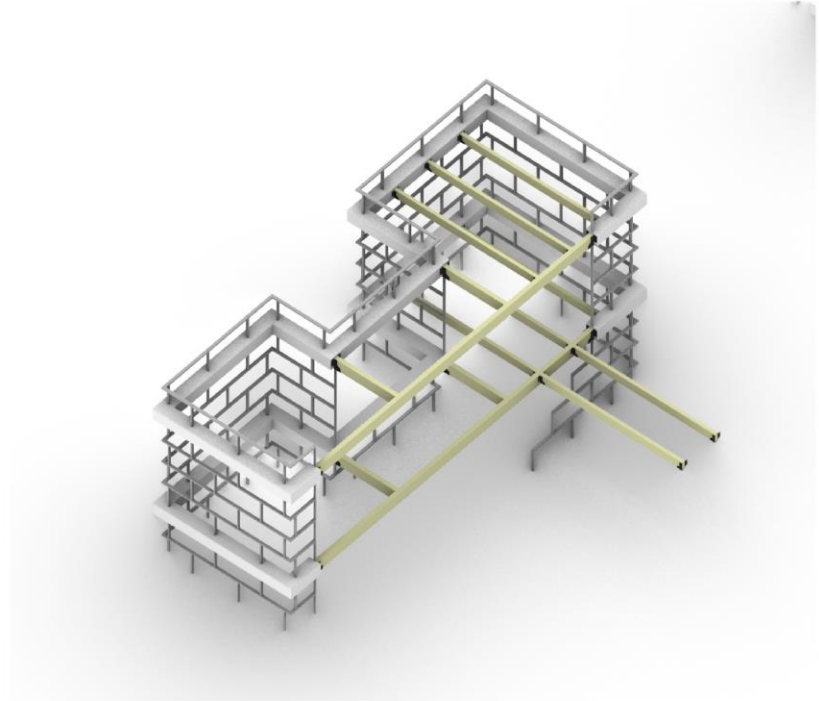


Local Architectural intervention



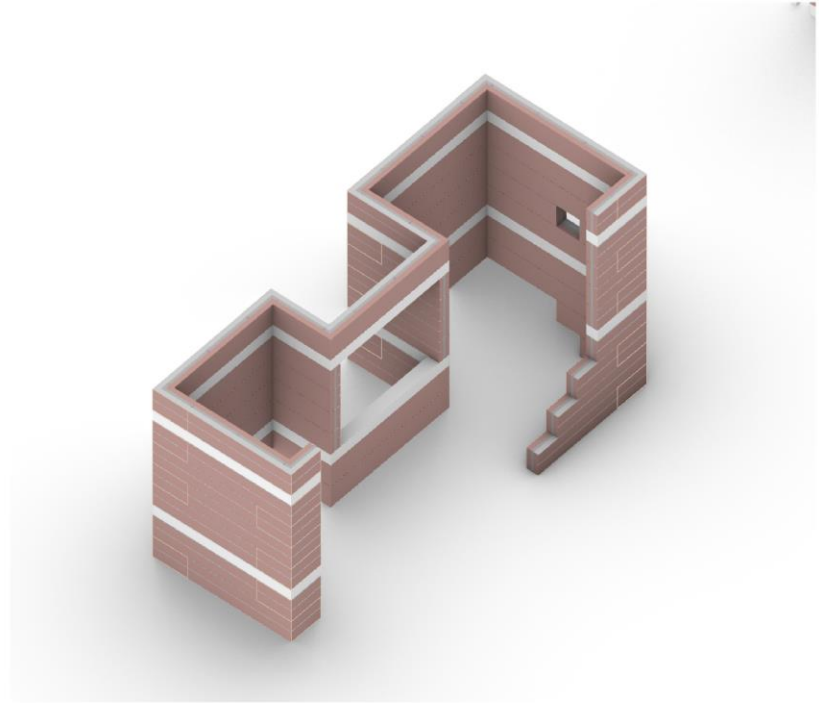


Local Architectural intervention



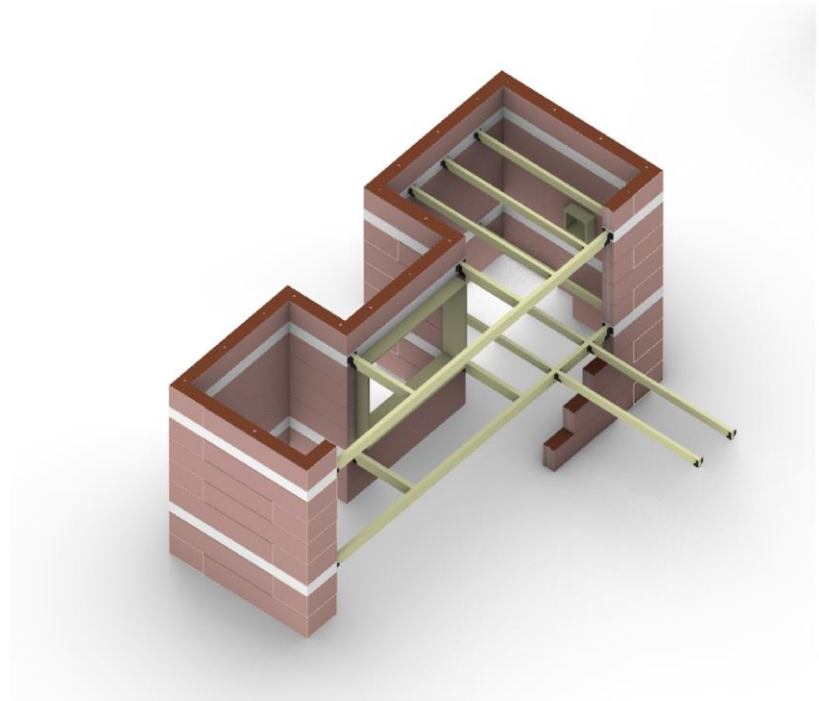


Local Architectural intervention



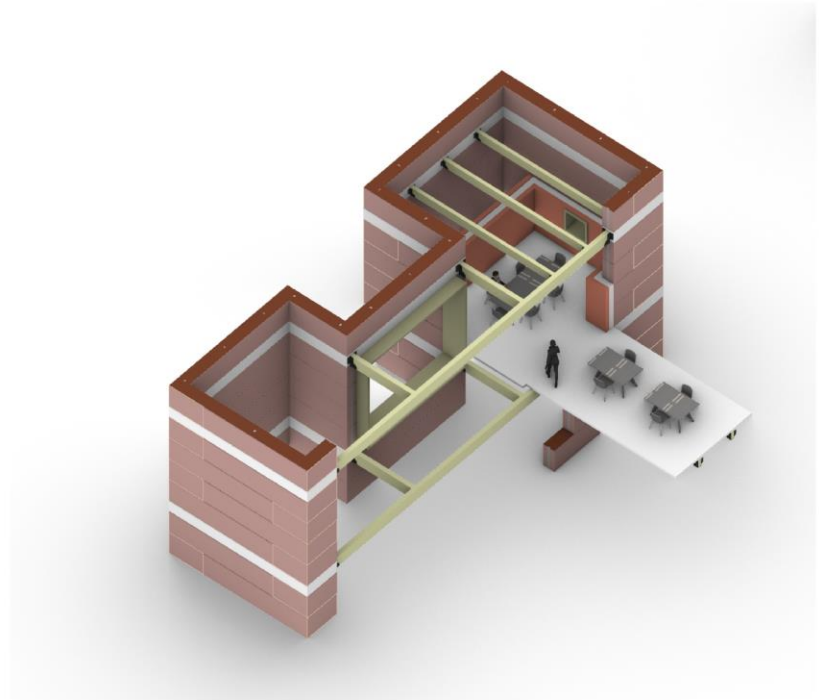


Local Architectural intervention





Local Architectural intervention

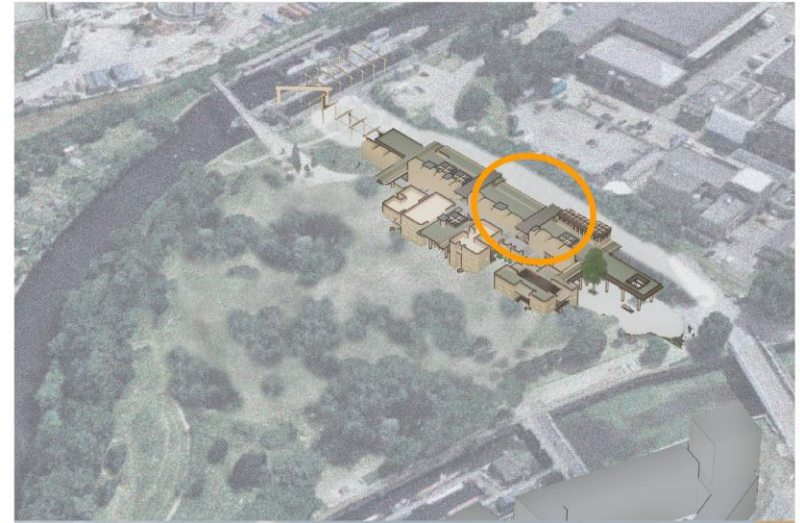




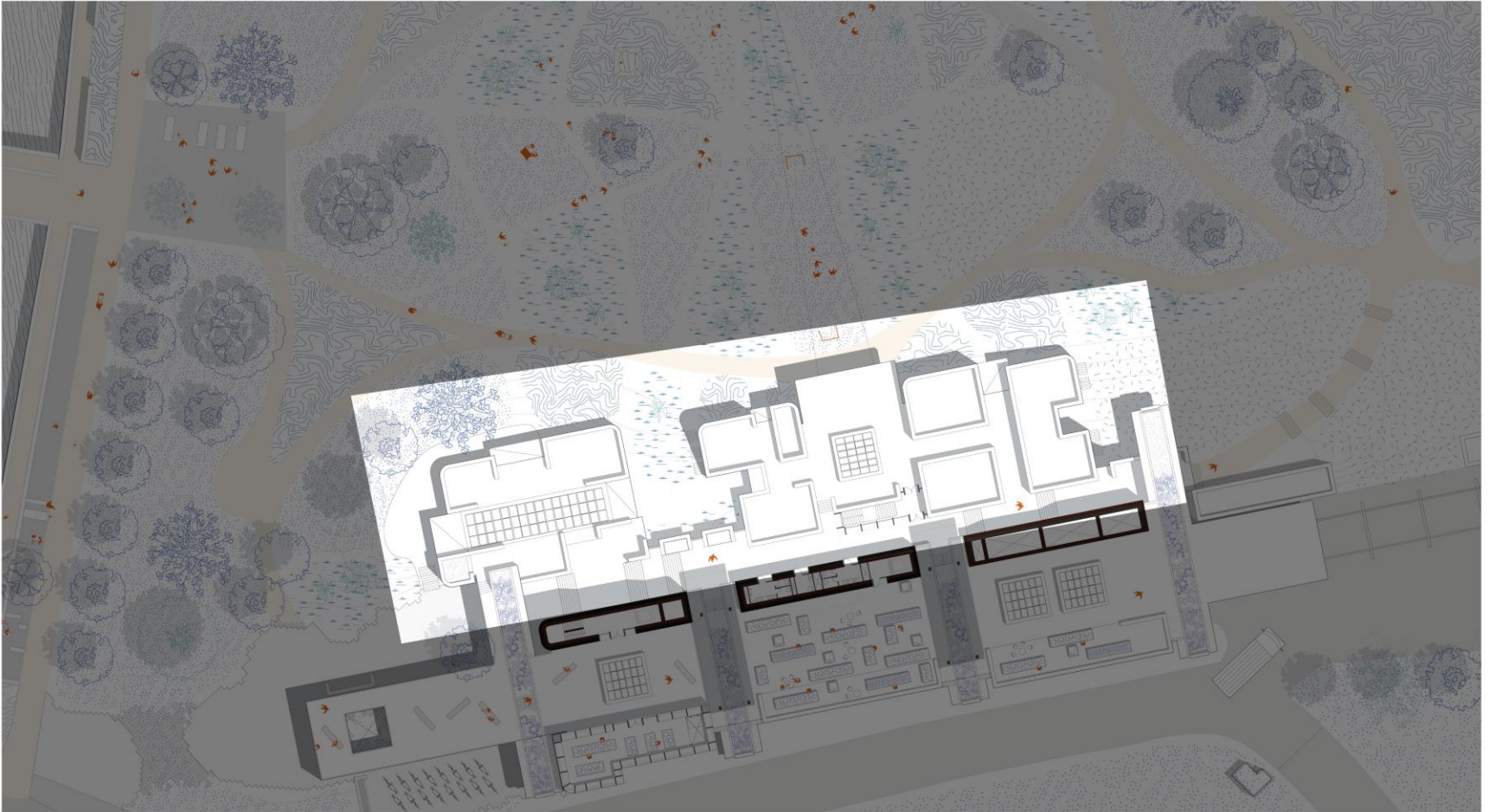




## Public roof

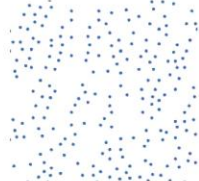


## Local Architectural intervention

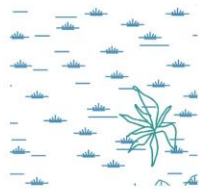


Local Architectural intervention

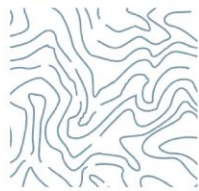
**high maintenance**  
grass carpet, occasional  
trees for shade



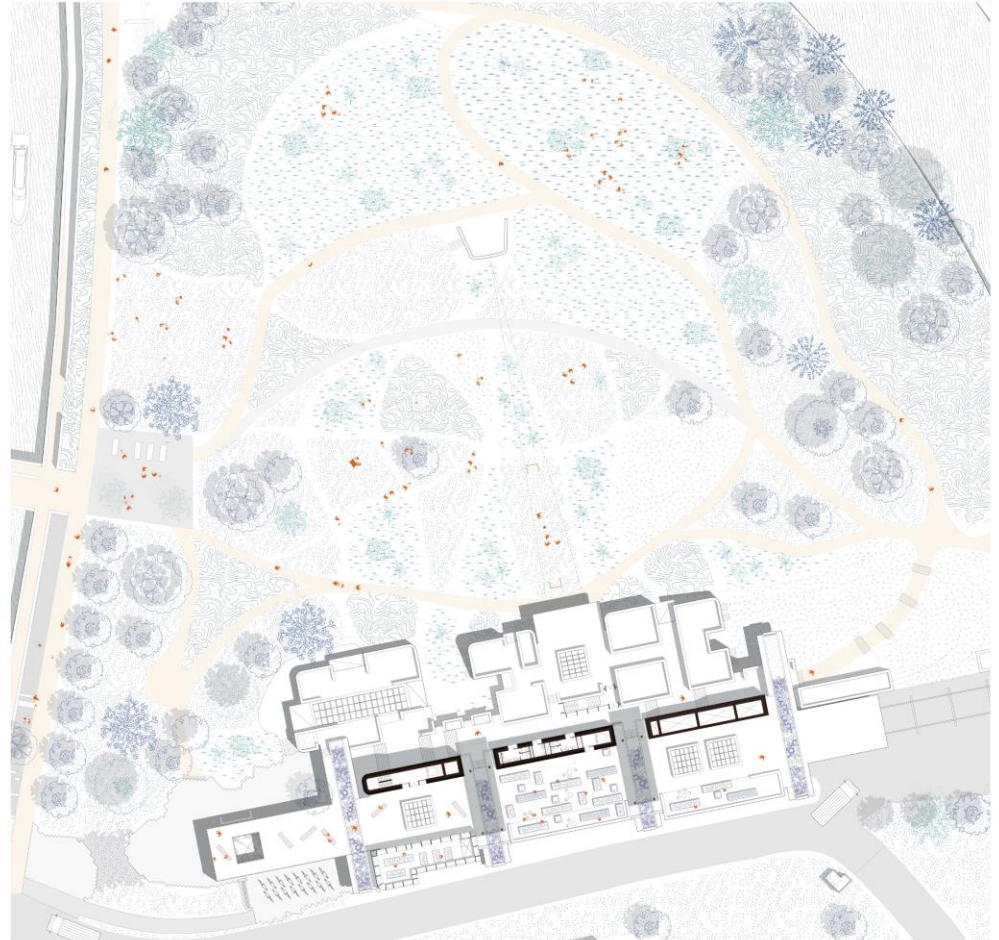
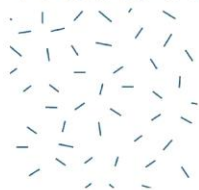
**low maintenance**  
(graminae, bushes,  
occasional grass patch)



**wild, third landscape**  
free development  
ecosystem

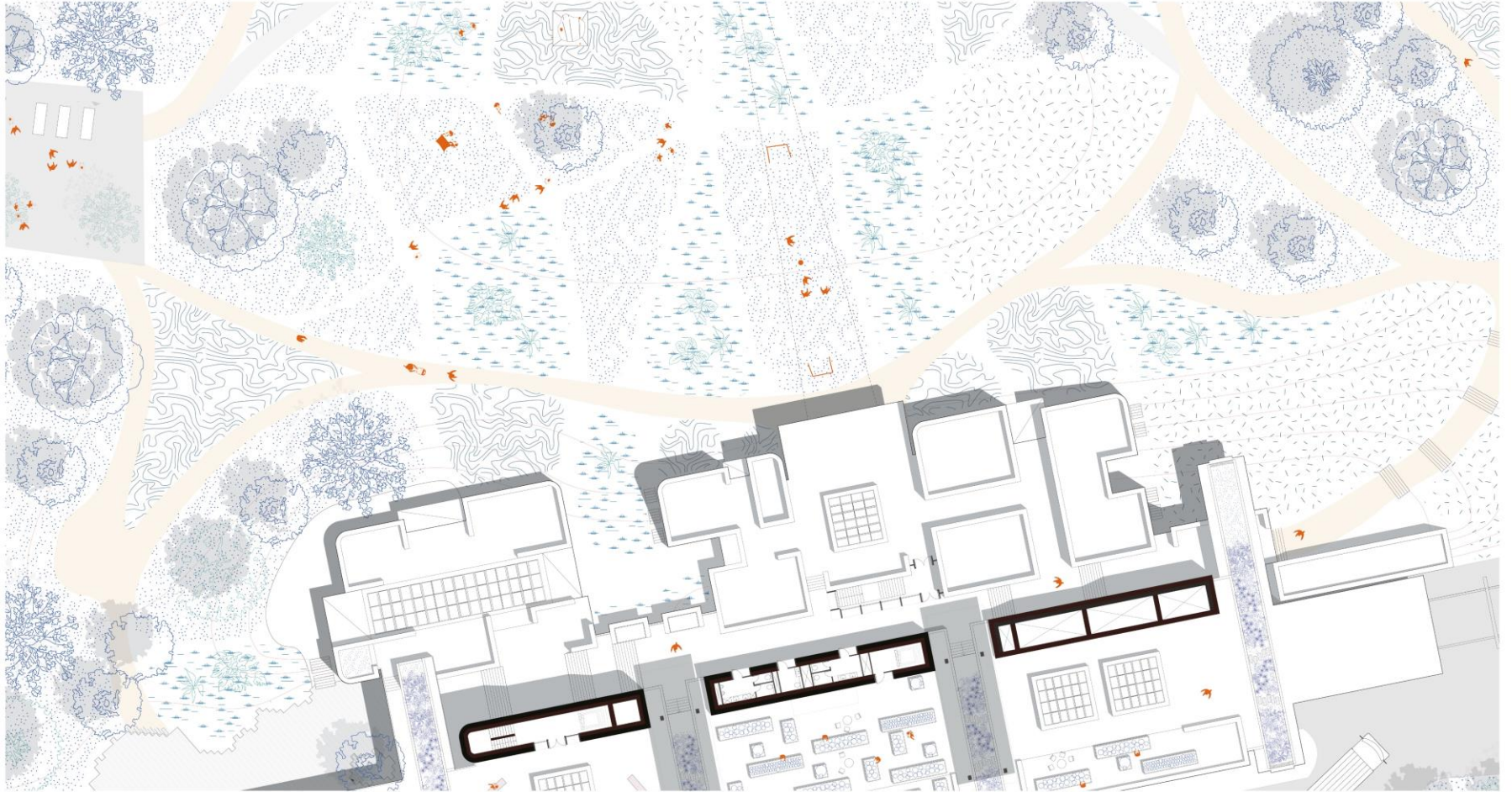


**bio-remediation**  
/ scientific  
experimental field



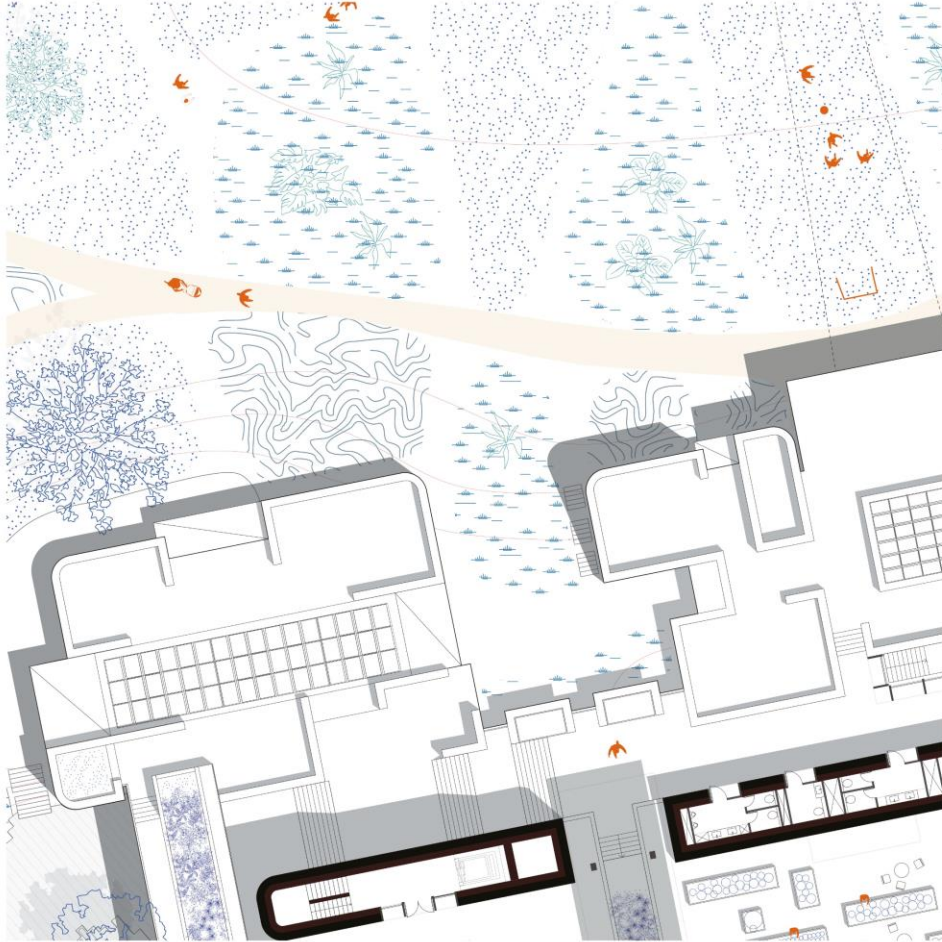


# Local Architectural intervention



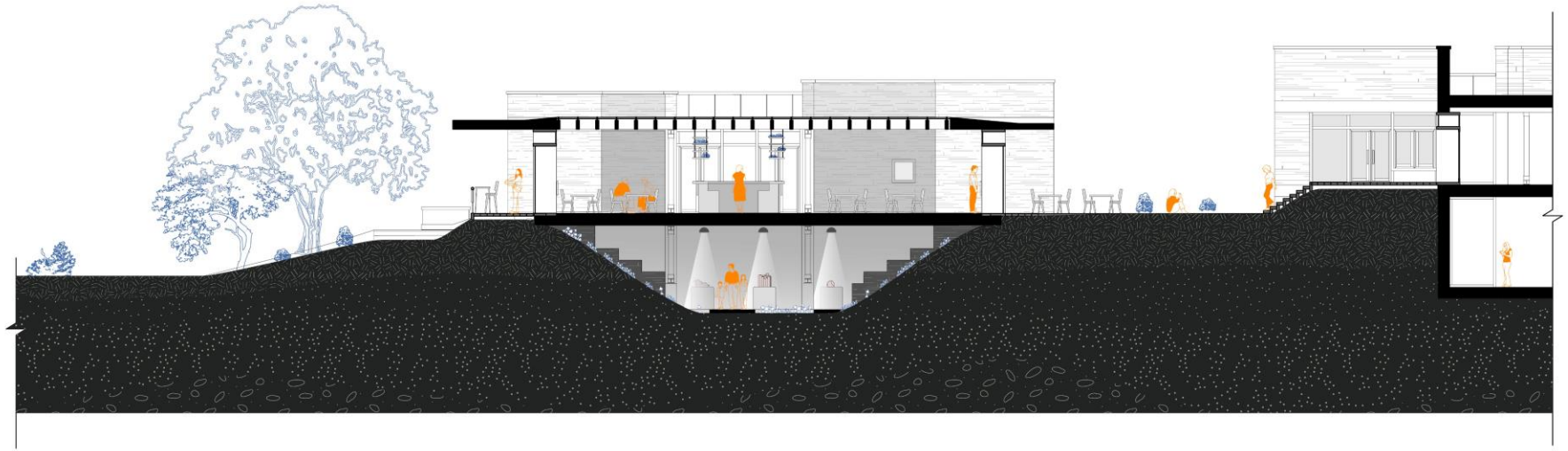


## Local Architectural intervention

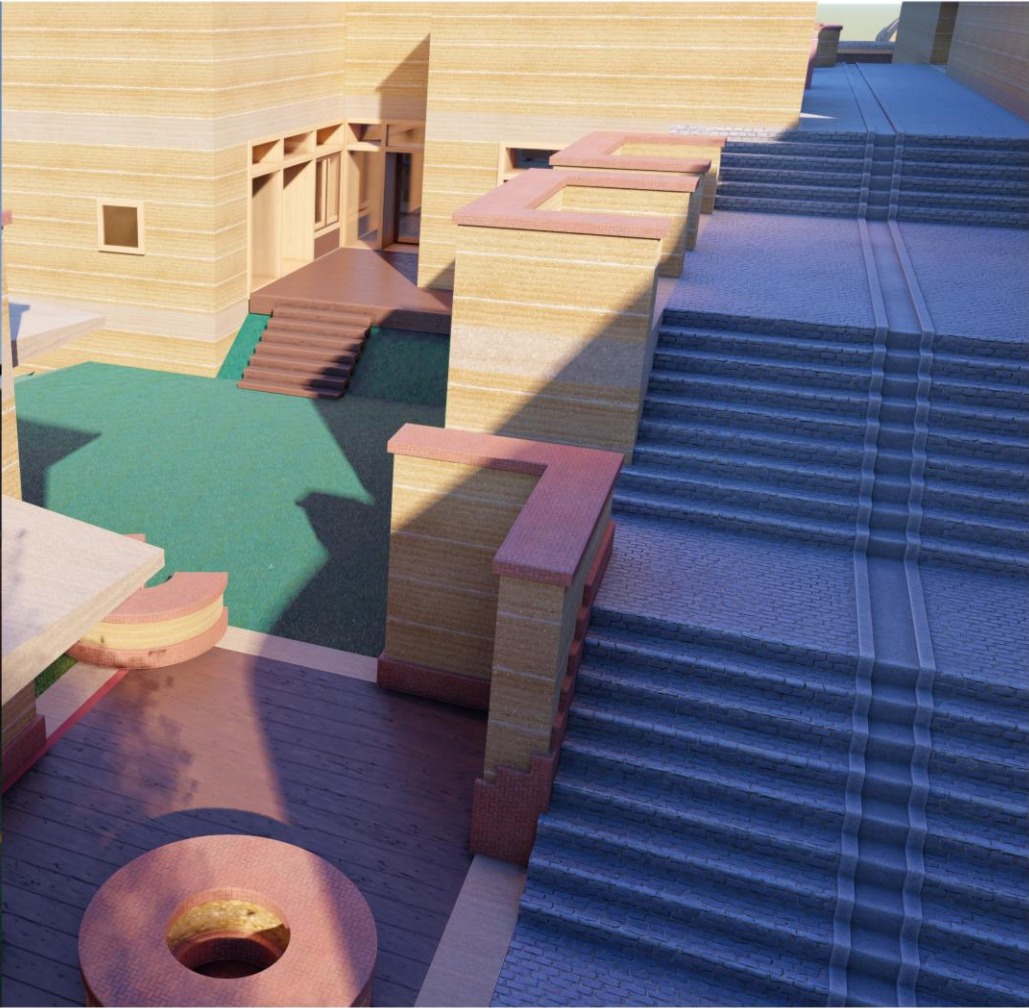




Local Architectural intervention





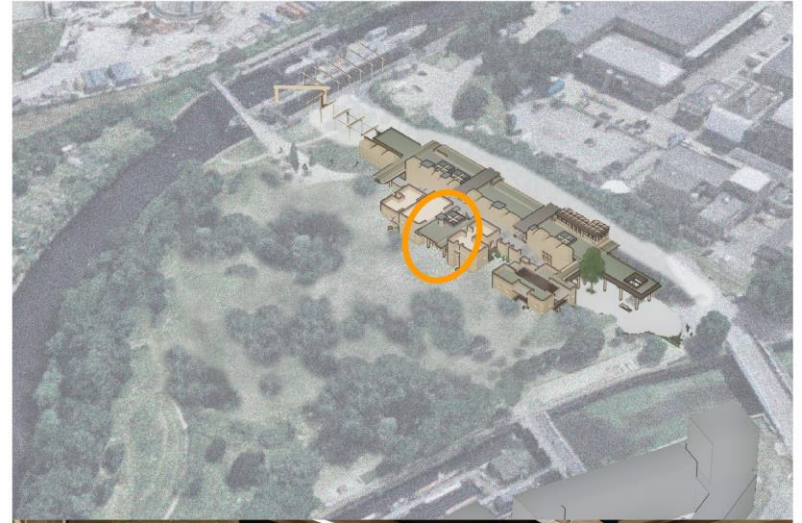
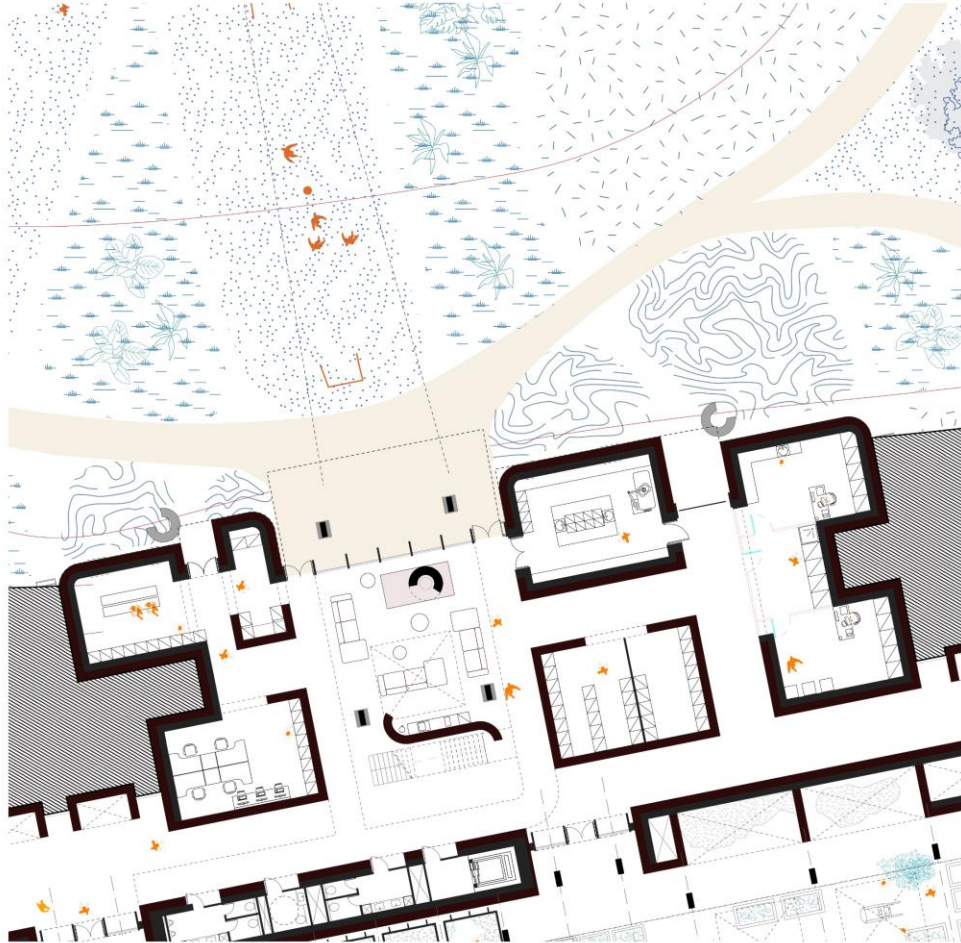








Local Architectural intervention







THANK YOU!

Local Architectural intervention

