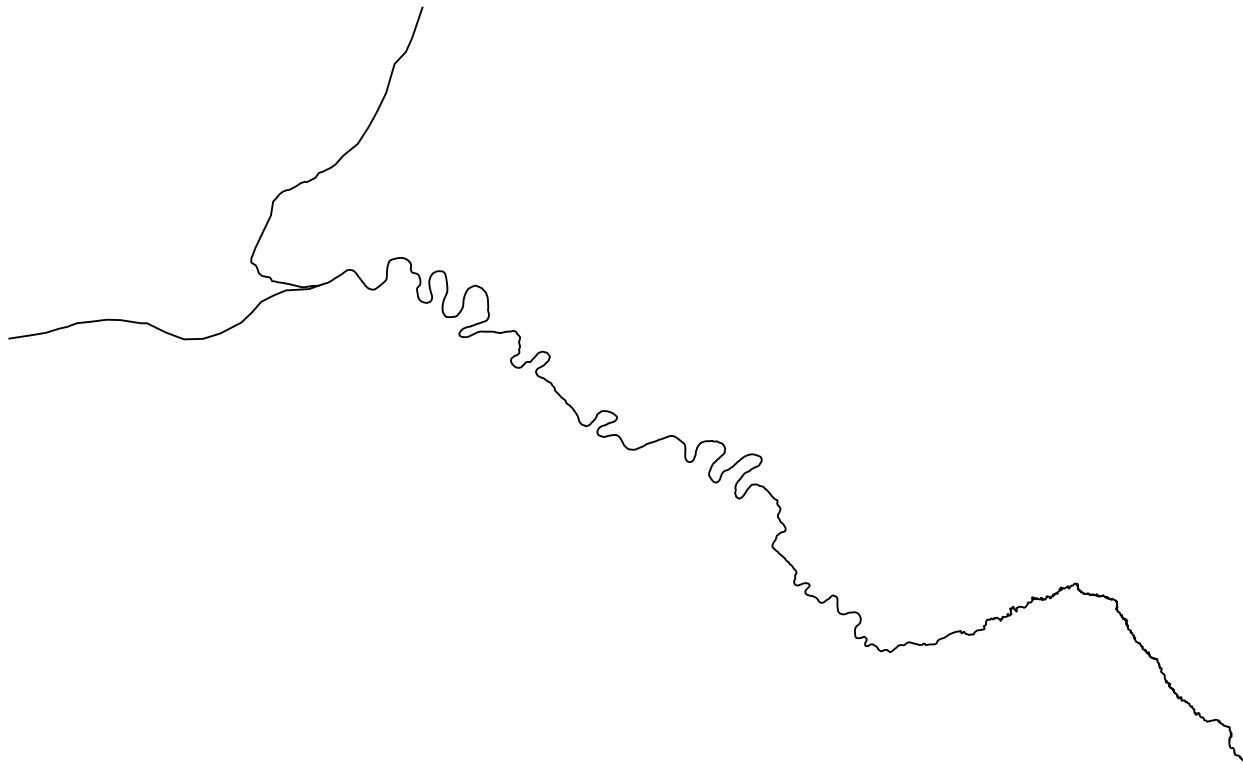


# From Matter to Urban Politics

## Confronting the Grand Paris Urban Project to the Seine River Basin

Toward Reparative Ecologies in the Riverine Territory



Hadrien Cassan  
Transitional Territories

P5 Presentation  
July 2021

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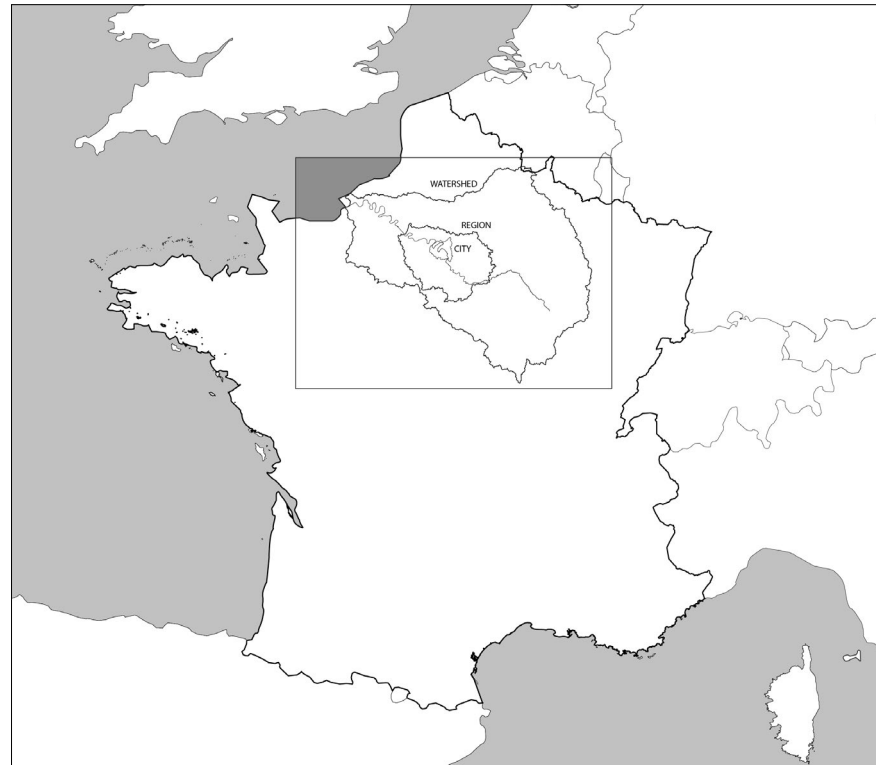
1 - Atlas of Deconstruction

2 - Forensic Exploration

3 - Reparative Design

Conclusion

# INTRODUCTION



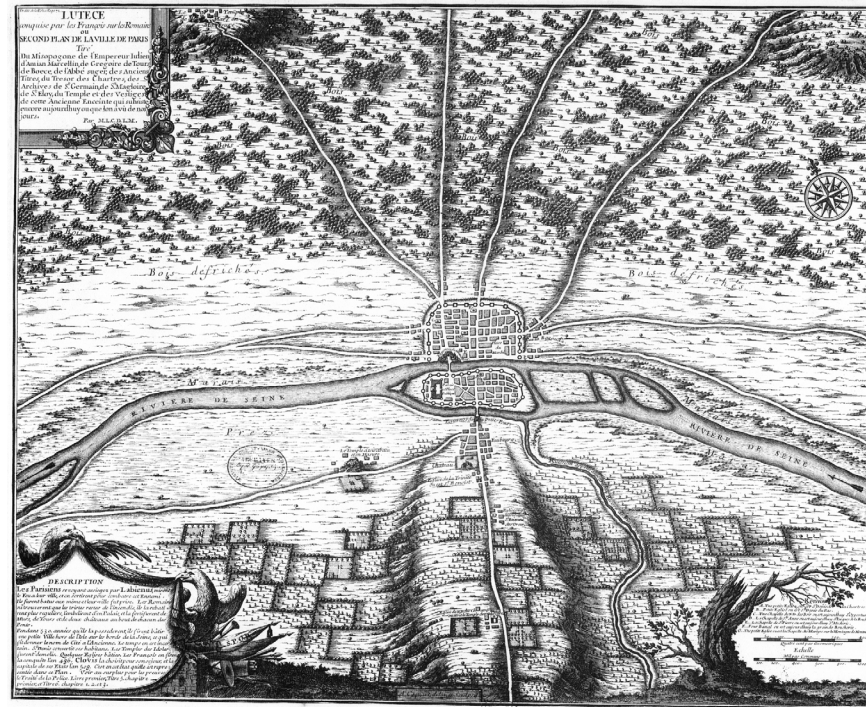
## RESEARCH LOCATION

# INTRODUCTION



EIFFEL TOUR (1887-89)

# INTRODUCTION



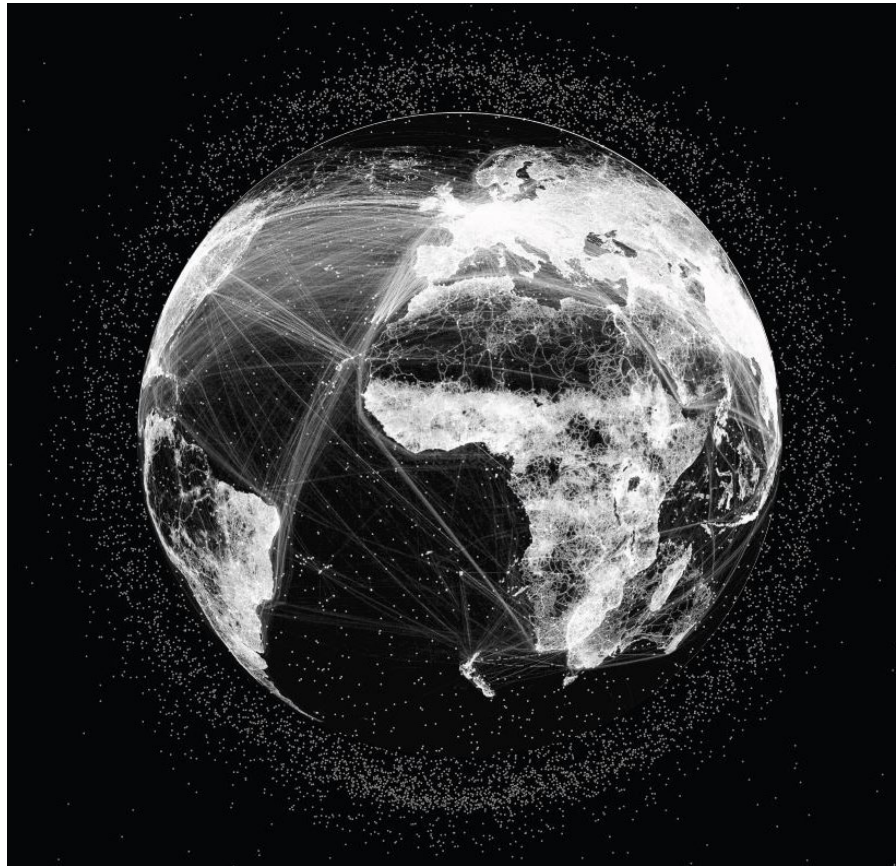
LUTECE (360)

# INTRODUCTION



PILES OF SAND (1933)

# POSITION



## PLANETARY URBANISM

## POSITION



## DAMAGED NATURE

## POSITION



NEW CLIMATIC REGIME

# PROBLEMATICS



ARTIFICIAL RIVERINE ENVIRONMENT

# PROBLEMATICS



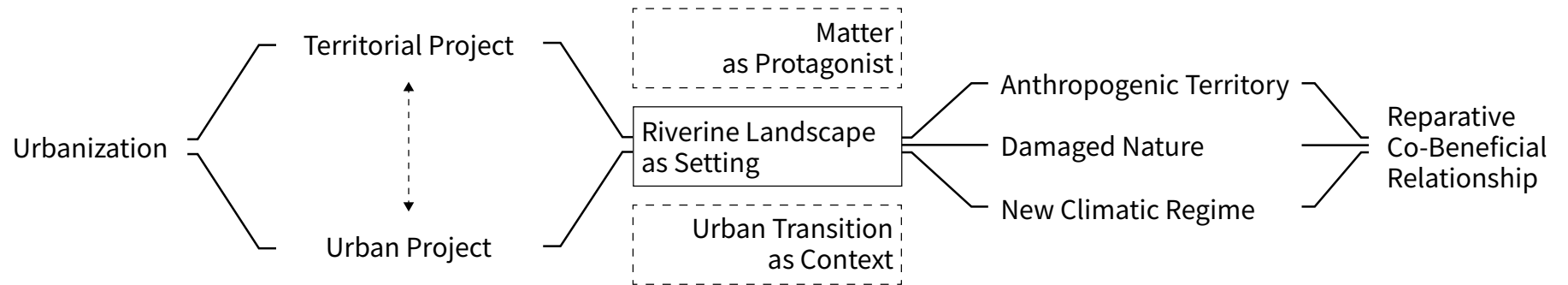
## URBANIZATION

# PROBLEMATICS



## EXTRACTIVISM

# PROPOSITION



## RESEARCH QUESTION

*How can the process of constructing the Grand Paris become a catalyst for repair of damaged landscapes in the Seine River Basin towards a co-beneficial relationship between the urban and the territorial?*

# SUBQUESTIONS

**1** **Expose** - To what extend is the urban project of the Grand Paris a territorial project in the Seine River basin?

- + Relational Analysis
- + Critical Representation

**2** **Politicize** - How does matter become a physical agent for socio-cultural and ecological transformation? What externalities derive in the process?

- + Theoretical Review
- + Forensic Exploration

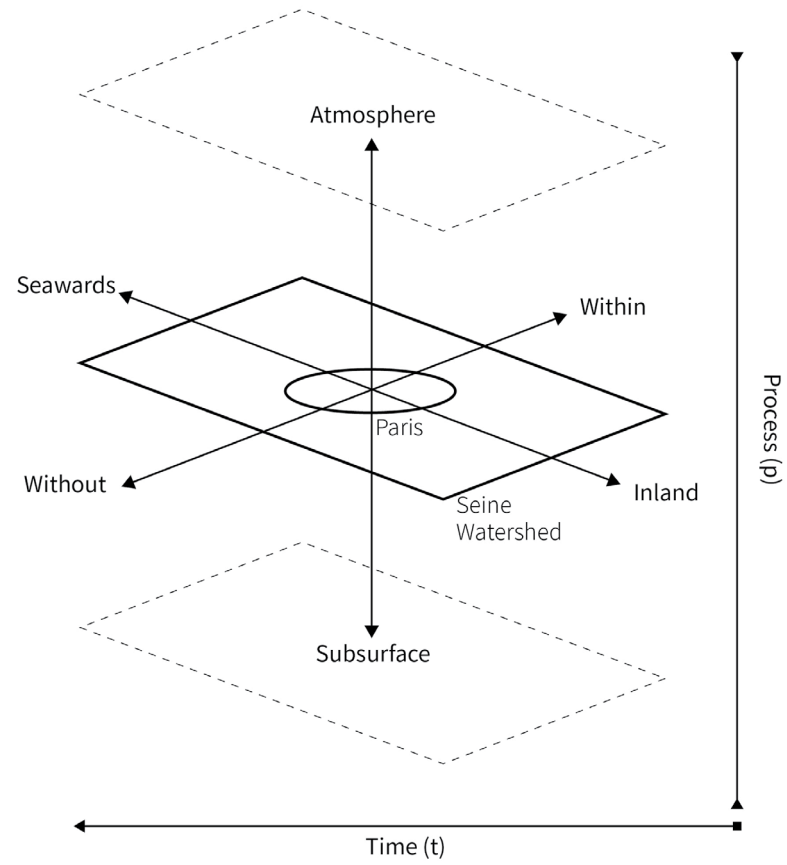
**3** **Propose** - Can an alternative material practice based on care foster renewed qualities of life in damaged landscapes? What benefits derive in the process?

- + Conceptual Proposition
- + Spatial Design

# OUTPUTS

- 1 Atlas of Critical Cartography
- 2 Forensic Exploration of Matter and Urban Politics
- 3 Reparative Vision of Landscapes of Extraction

# TRANSECT OF THE CRITICAL ZONE

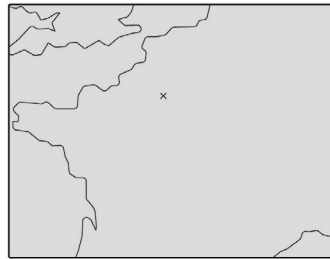


# 1. ATLAS OF CRITICAL CARTOGRAPHY

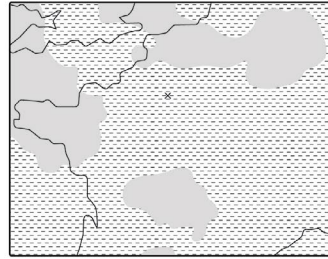
Expose - To what extent is the urban project of the Grand Paris a territorial project in the Seine River Basin?



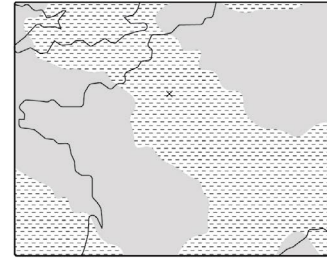
## 1.1 MATTER



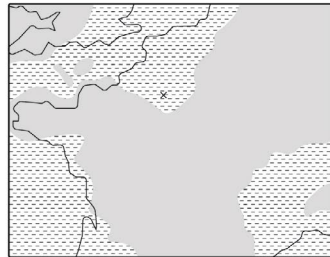
Triassic - 240 Myr (0:00)



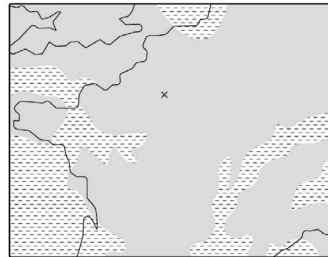
Jurassic - 200 Myr (4:00)



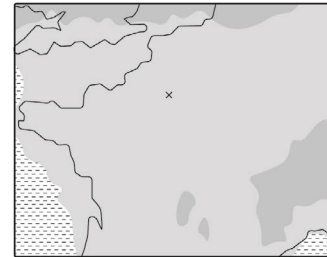
Cretaceous - 135 Myr (10:30)



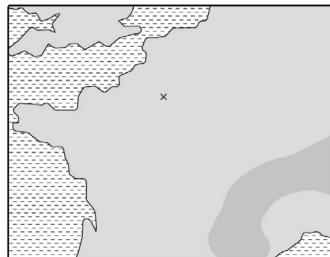
Paleogene - 65 Myr (17:30)



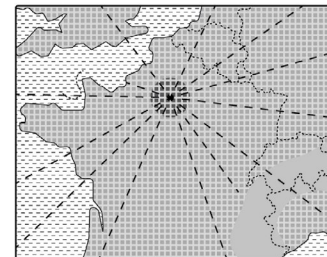
Neogene - 23 Myr (22:00)



Quaternary - 1.65 Myr (23:54)



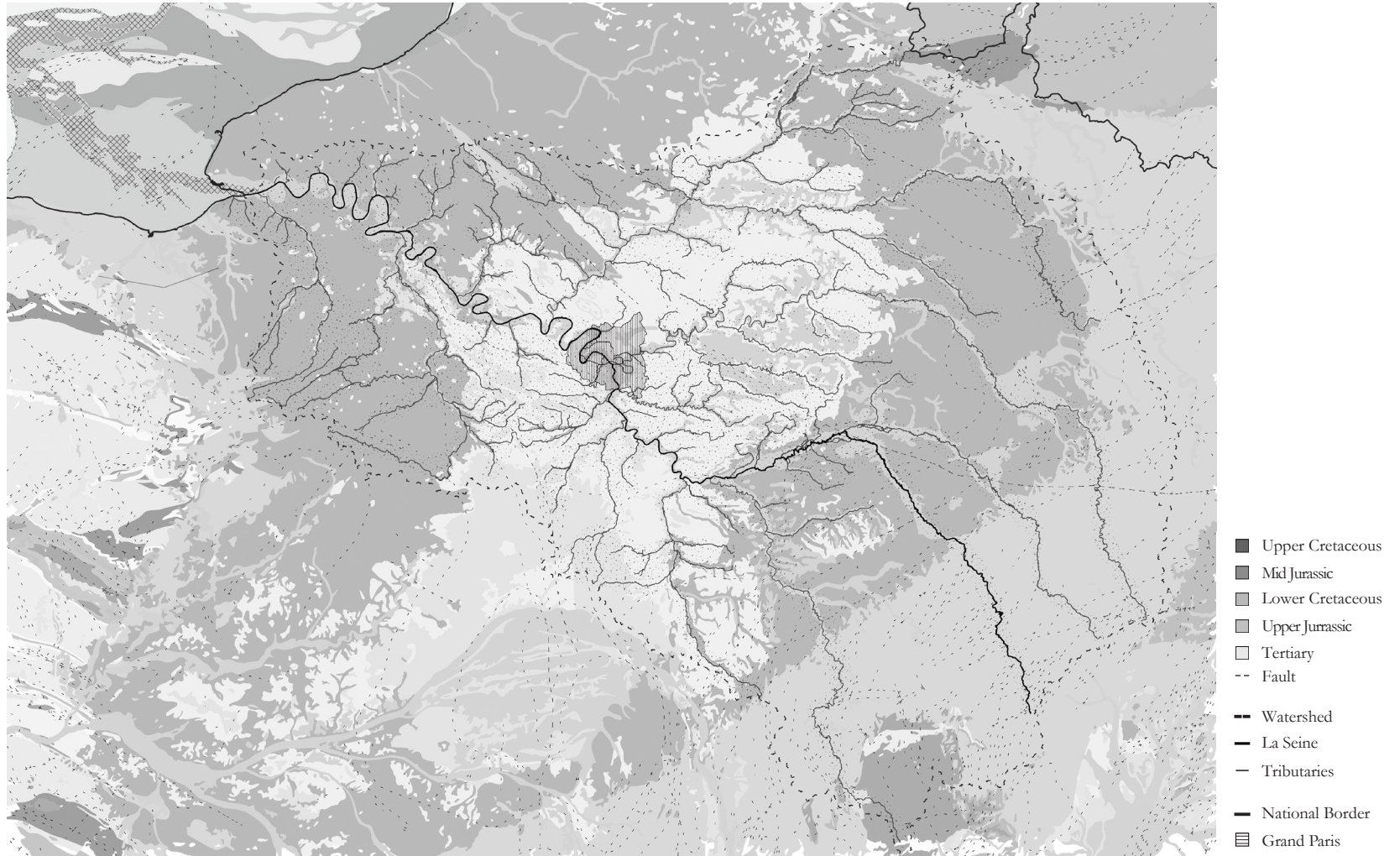
Holocene - 11.8 Kyr (23:59)



Anthropocene - 75 yr (23:59:59)

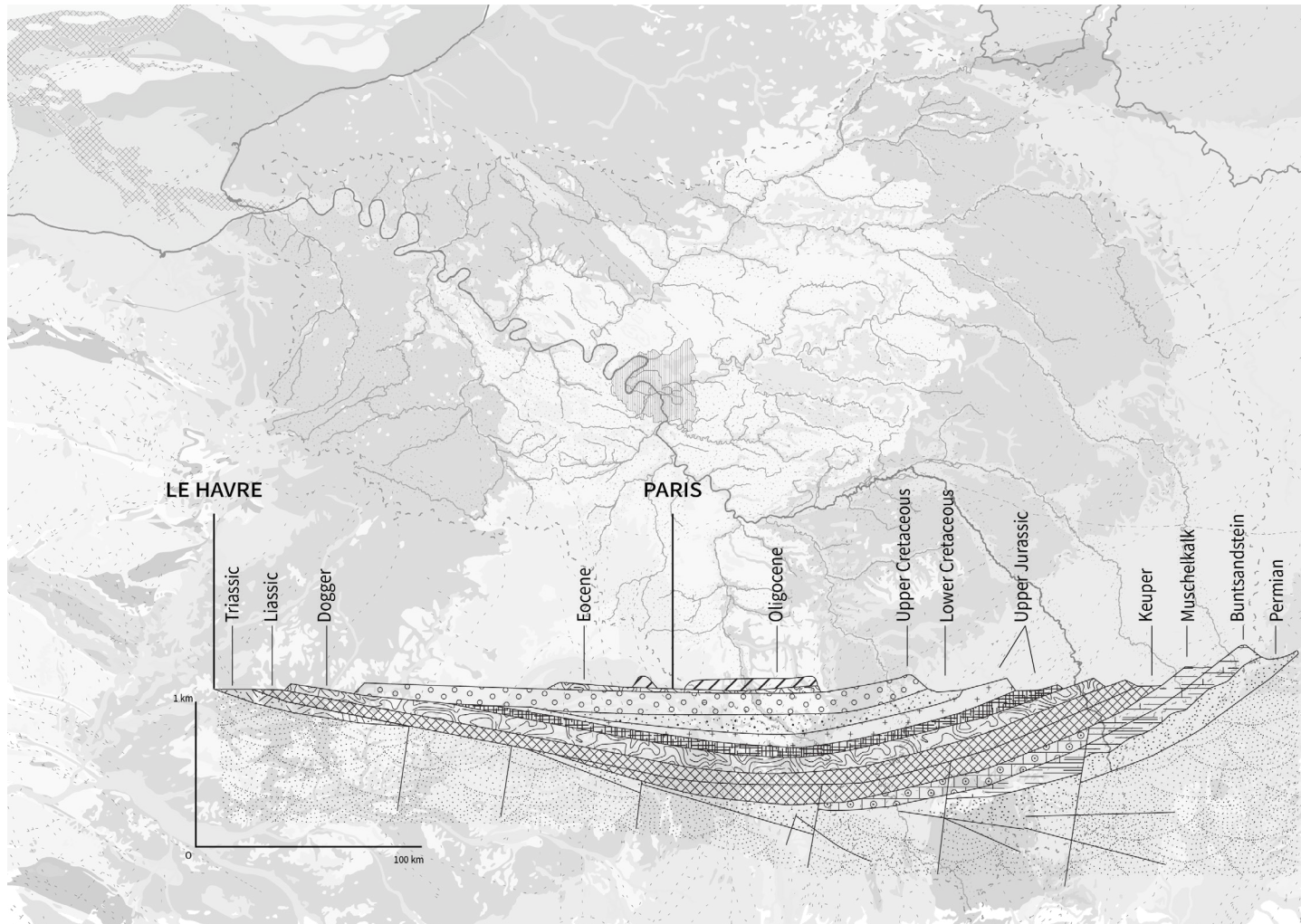
## GEOLOGICAL FORMATION

## 1.1 MATTER



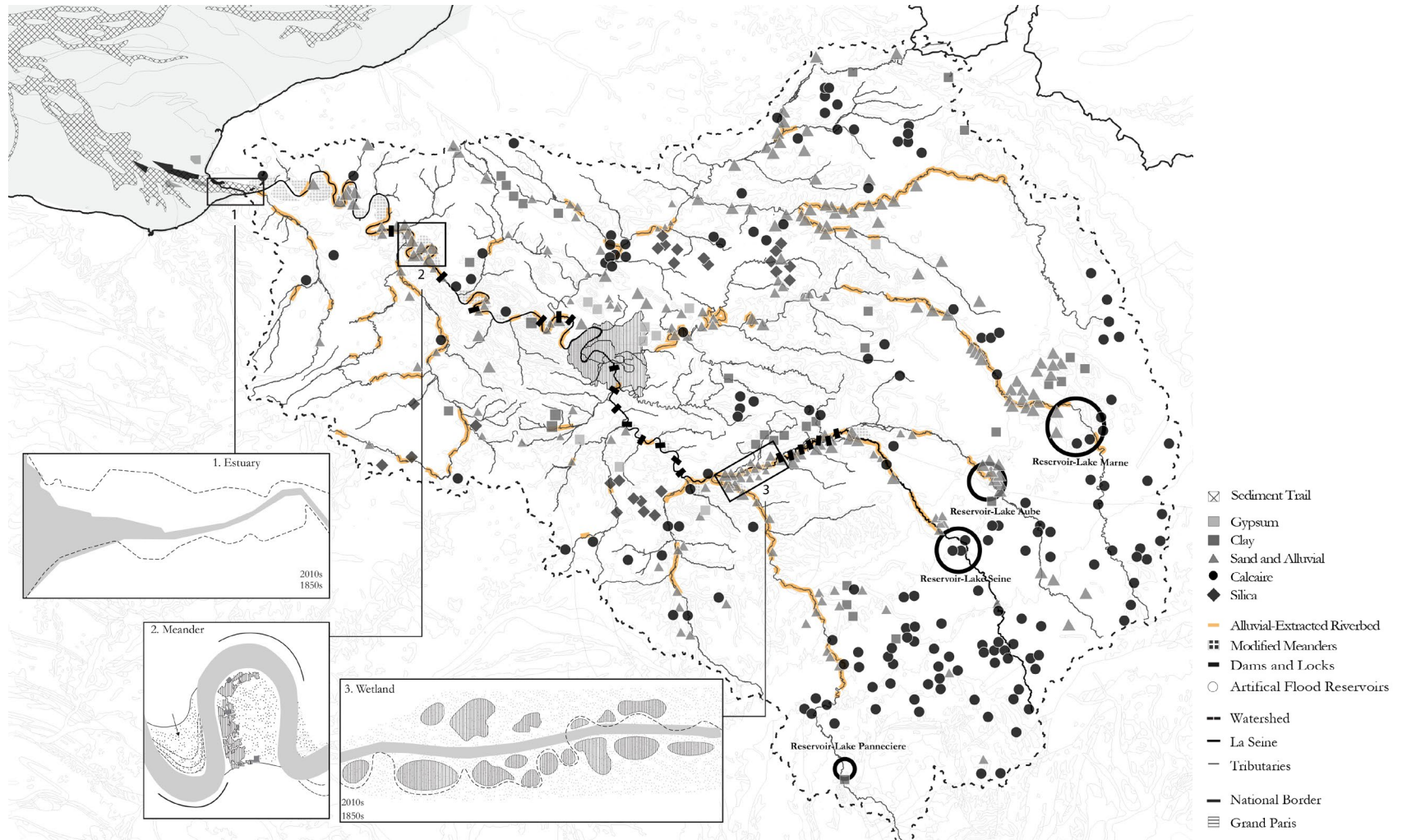
## COMPOSITION

## 1.1 MATTER



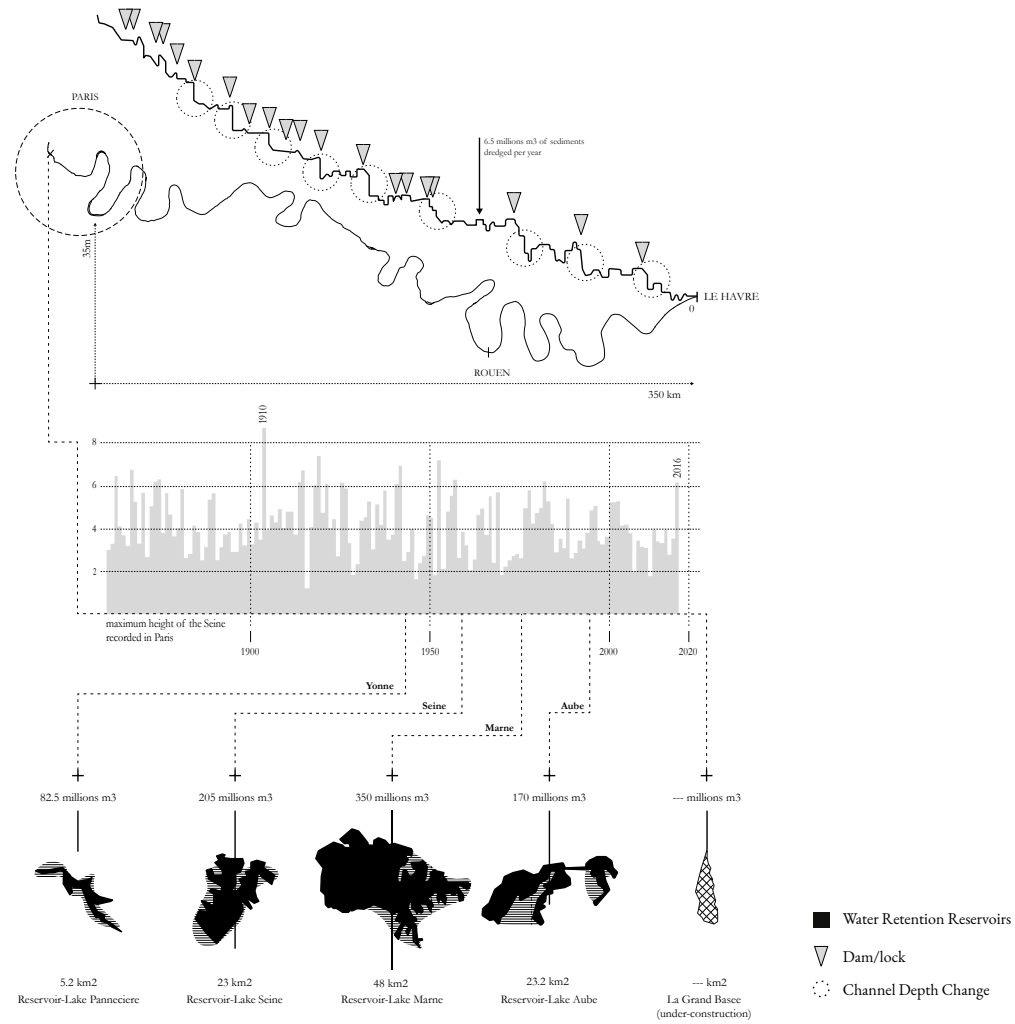
## COMPOSITION

## 1.2 TOPOS



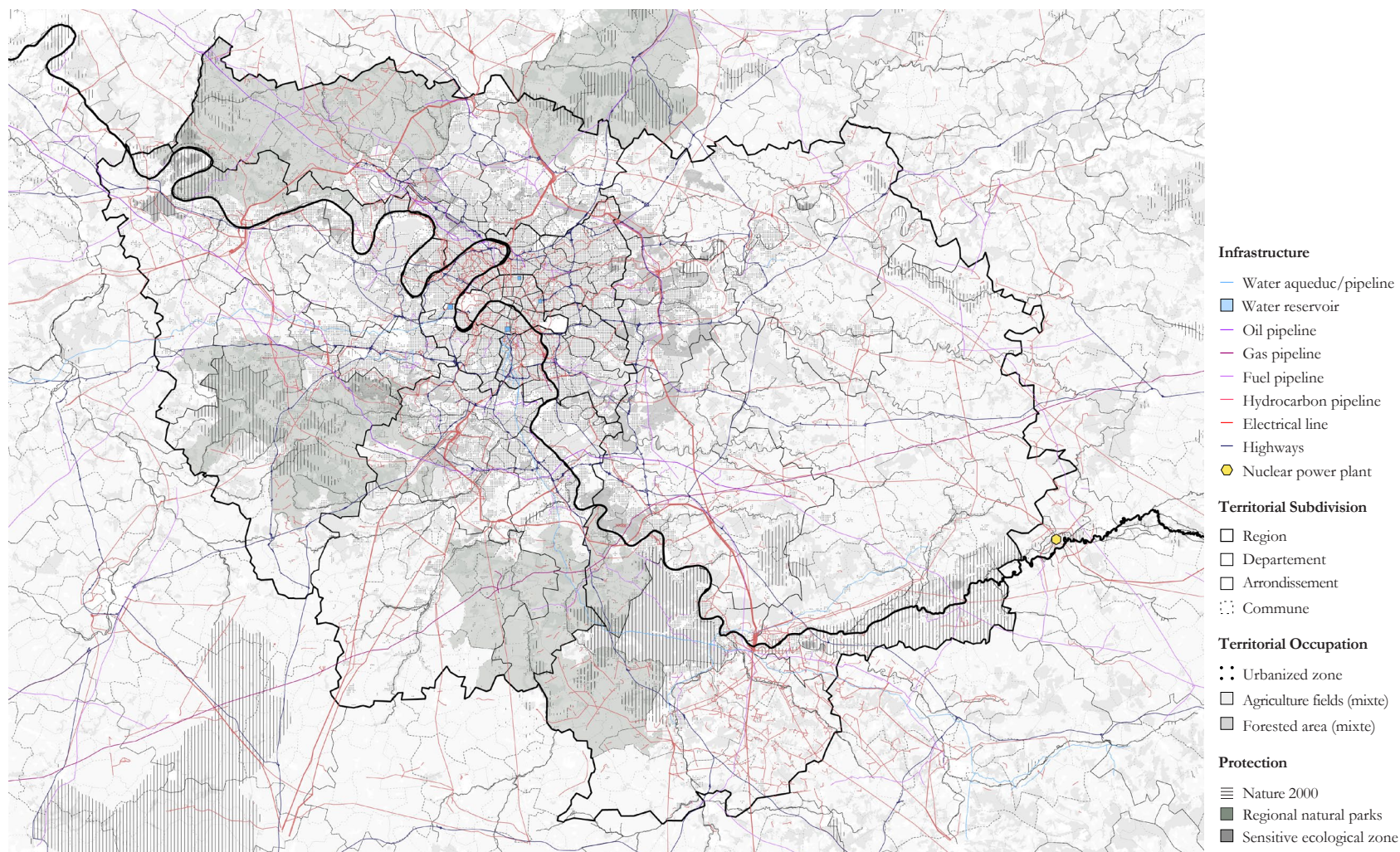
## COMPOSITION

## 1.2 TOPOS



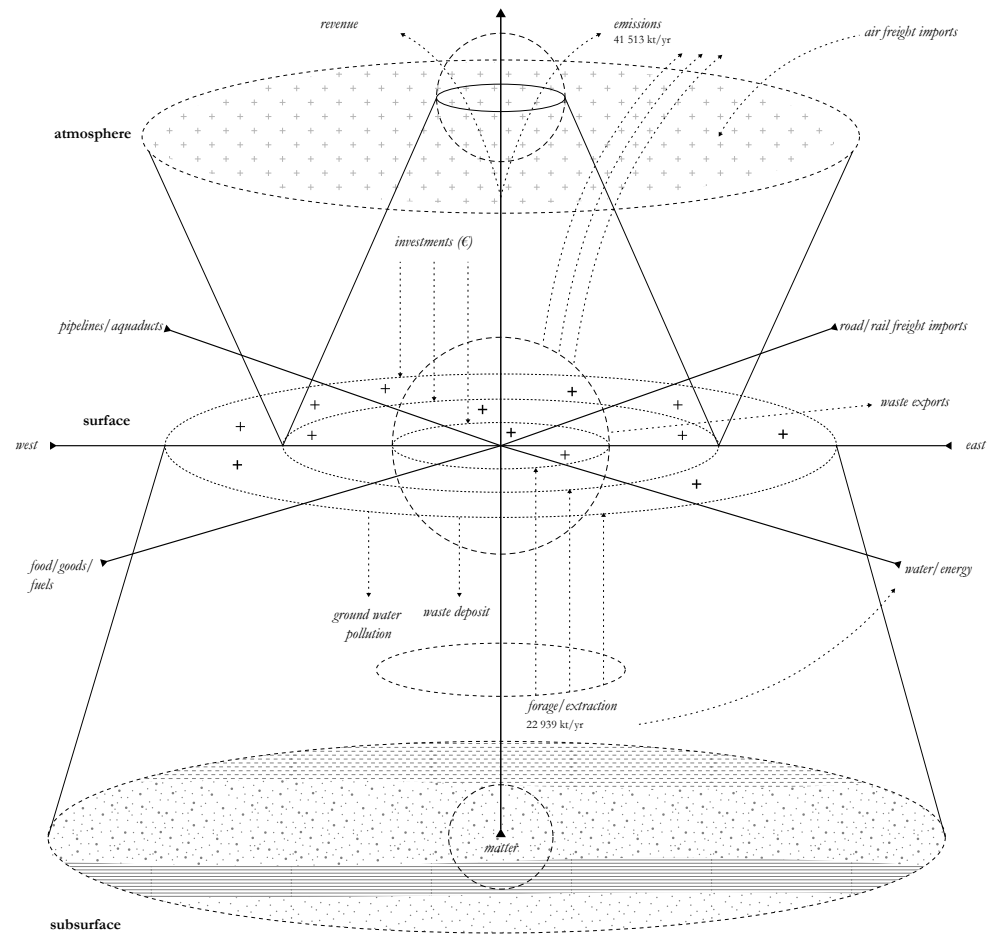
## LIMITS

## 1.3 HABITAT



## COMPOSITION

## 1.4 GEOPOLITICS



## ALTERATIONS

# 1.0 ATLAS CONCLUSIONS

**Expose - To what extend is the urban project of the Grand Paris is a territorial project in the Seine River Basin?**

**The Territorial and Urban relationship can be classified as unilateral and damaging:**

- (1) uneven exchange of benefits and externalities
- (2) significantly altered landscapes with a single use perspective
- (3) onthologically modified the functioning of non-human systems

**The Watershed as Serving Territory for the Urban:**

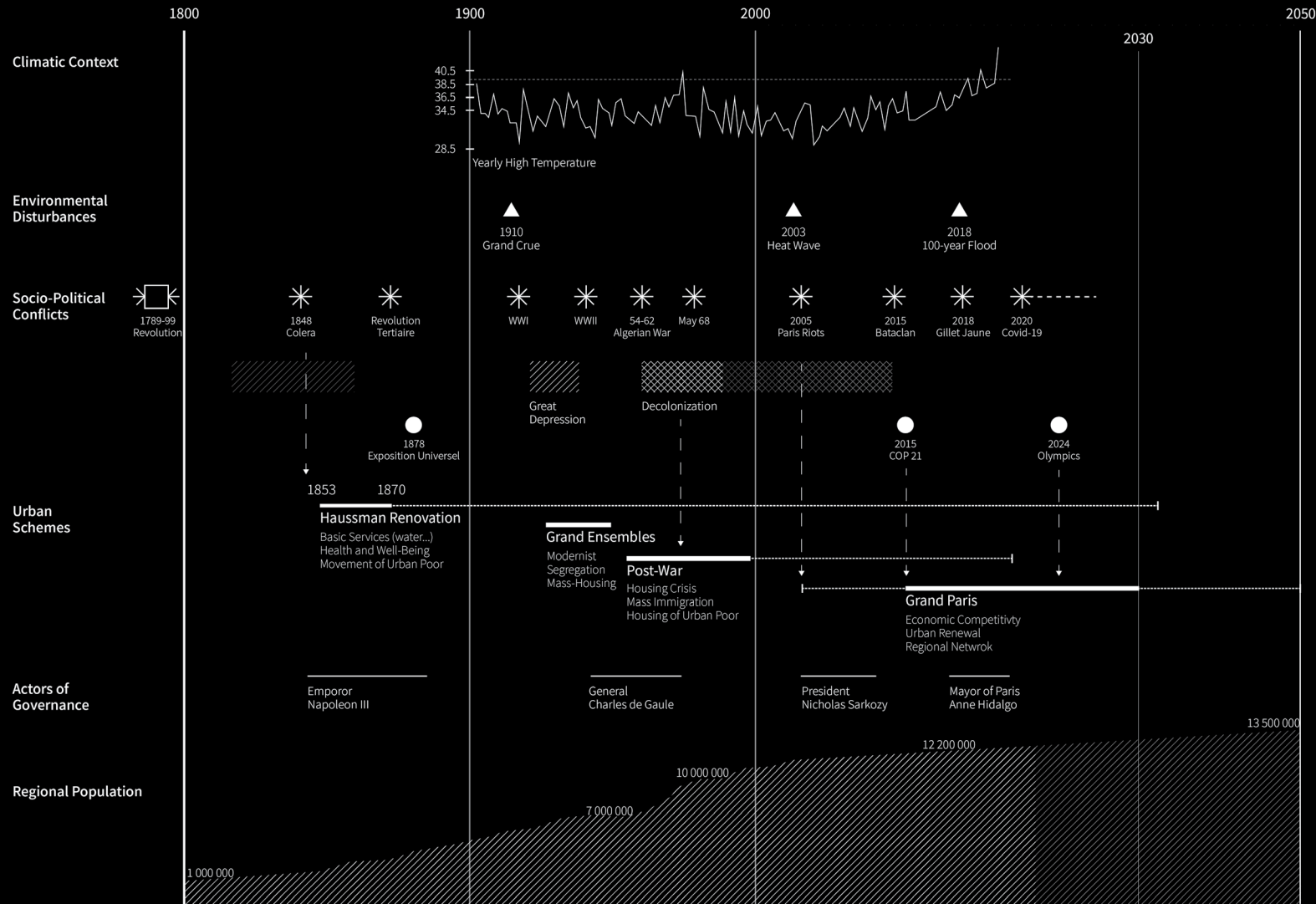
- (1) Associating geological composition with mineral extraction: from matter to material
- (2) Artificializing the River for ease of navigation and trade creating a cascade of complications: the acentuation of flood risks and need for further artificialization, the deterioration of non-human habitat, and the suppression of hydrological and geological interactions (sedimentation)
- (3) Growing urban demands for housing (and miss-management of existing stock) are further developing a utilitarian perspective of the river as a source of material and exhausting its resources
- (4) The Grand Paris, due to its concentration of 'urban' has centralized flows and infrastructures and has become an anthropogenic gravitational point in the watershed

## 2. FORENSIC EXPLORATION

**Politicize** - How does matter become a physical agent for socio-political restructuring in the Grand Paris and for ecological transformation in the Territory?



## 2.1 HISTORICAL BACKGROUND



### URBANISM AND CRISIS

## 2.1 HISTORICAL BACKGROUND



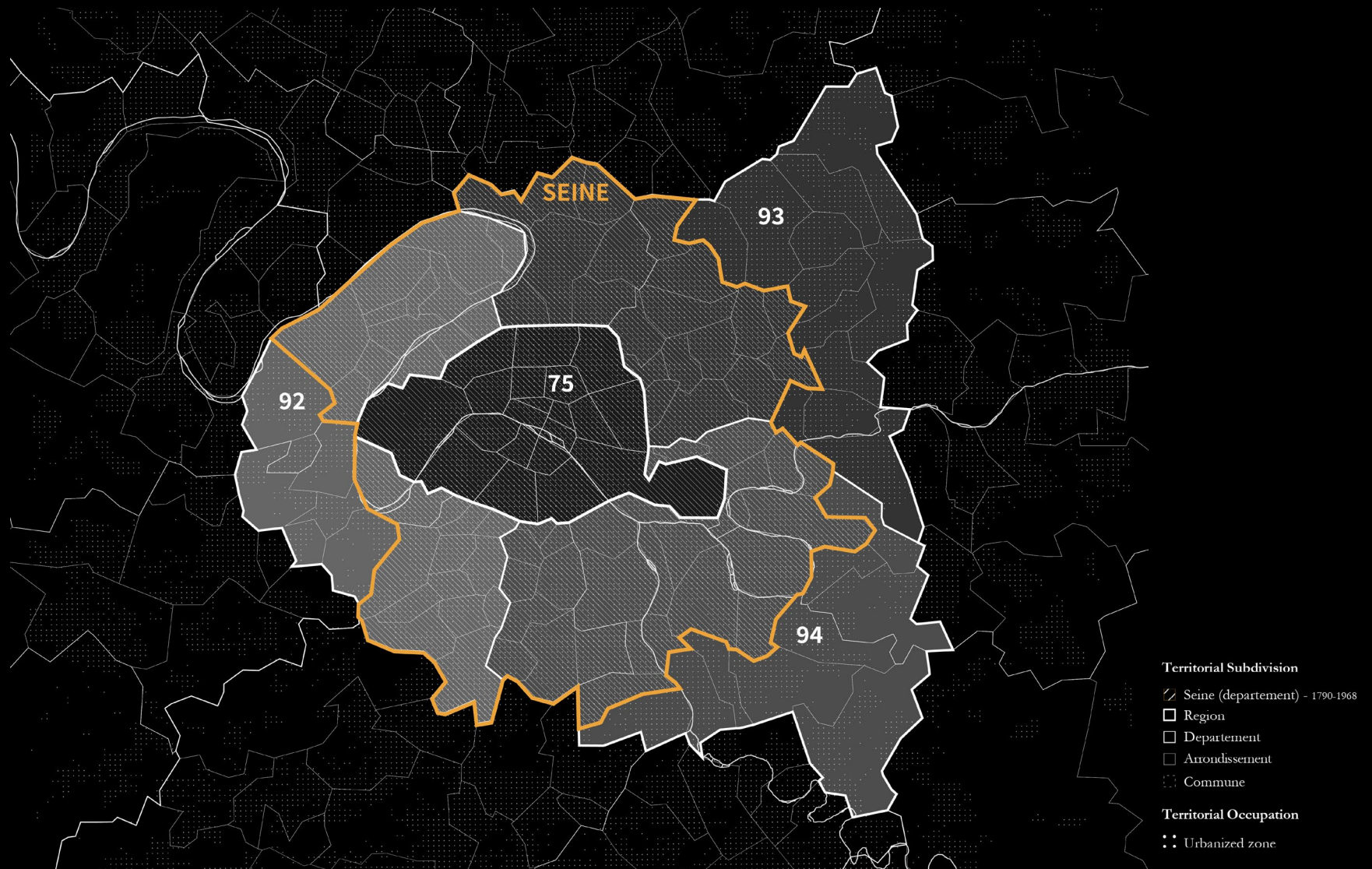
HAUSSMANN RENOVATIONS (1853-1870)

## 2.1 HISTORICAL BACKGROUND



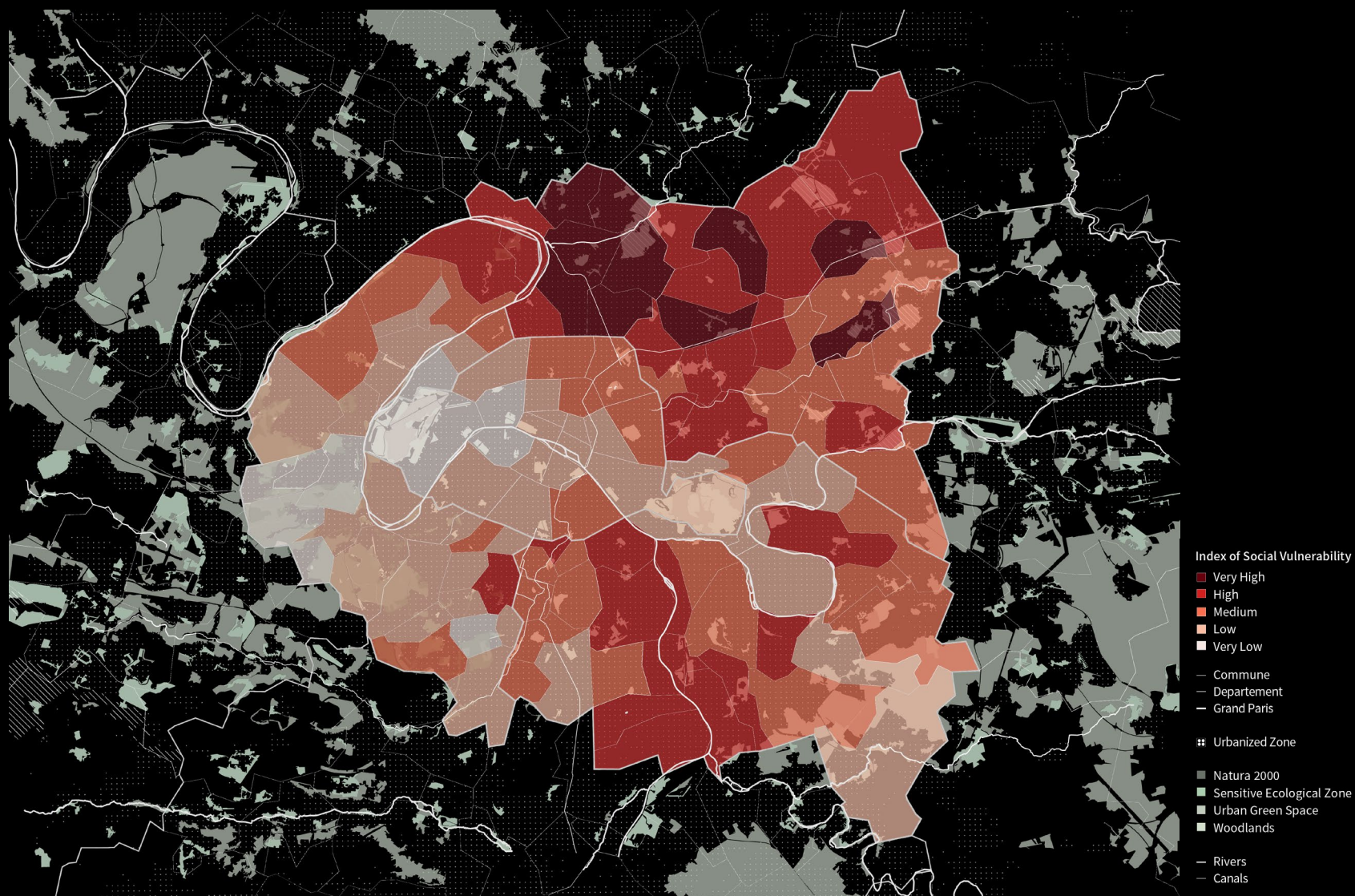
### HAUSSMANN RENOVATIONS (1853-1870)

## 2.2 HISTORICAL BACKGROUND



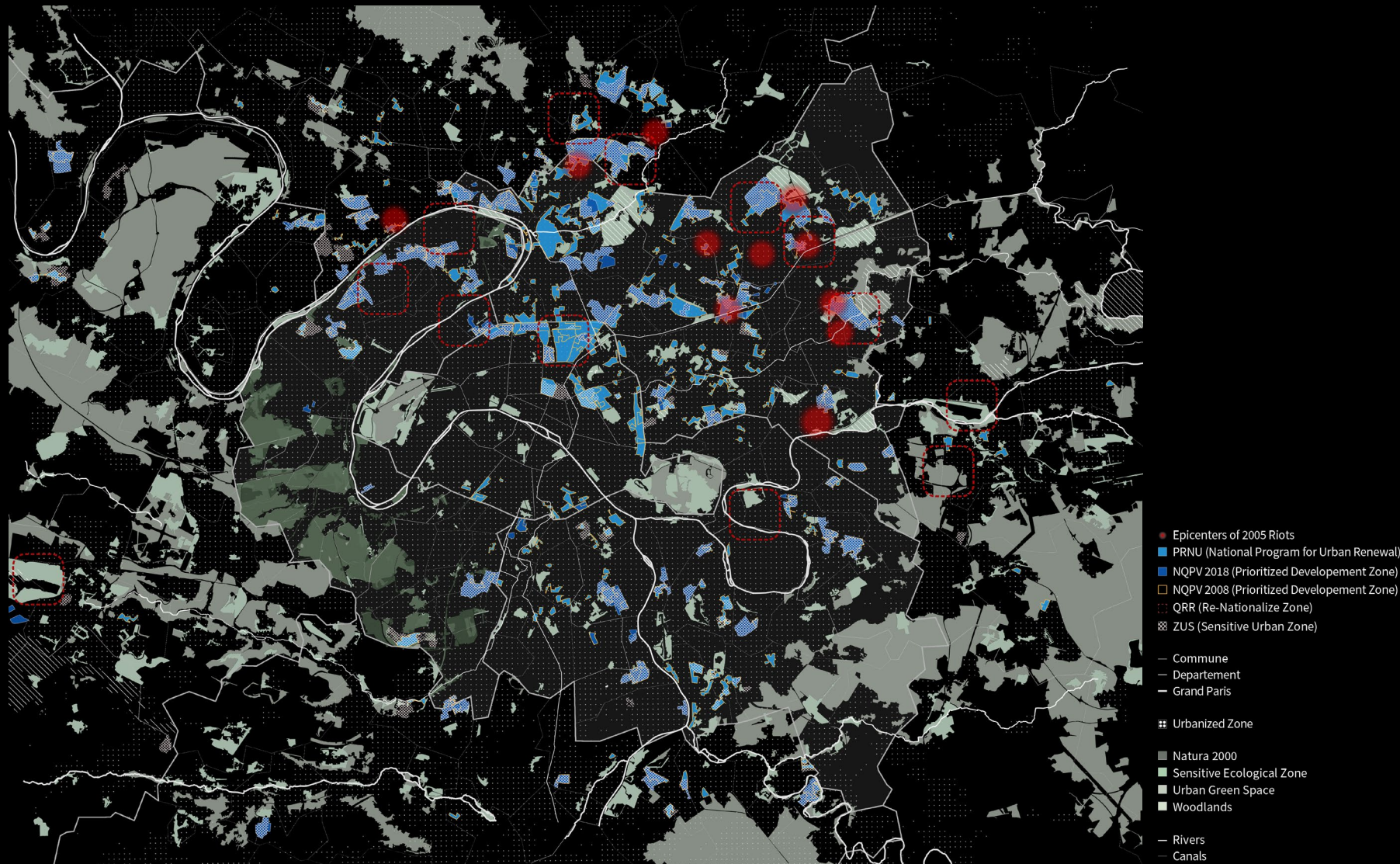
ADMINISTRATIVE LANDSCAPE

## 2.2 CURRENT URBAN LANDSCAPE



SOCIAL VULNERABILITY INDEX

## 2.2 CURRENT URBAN LANDSCAPE



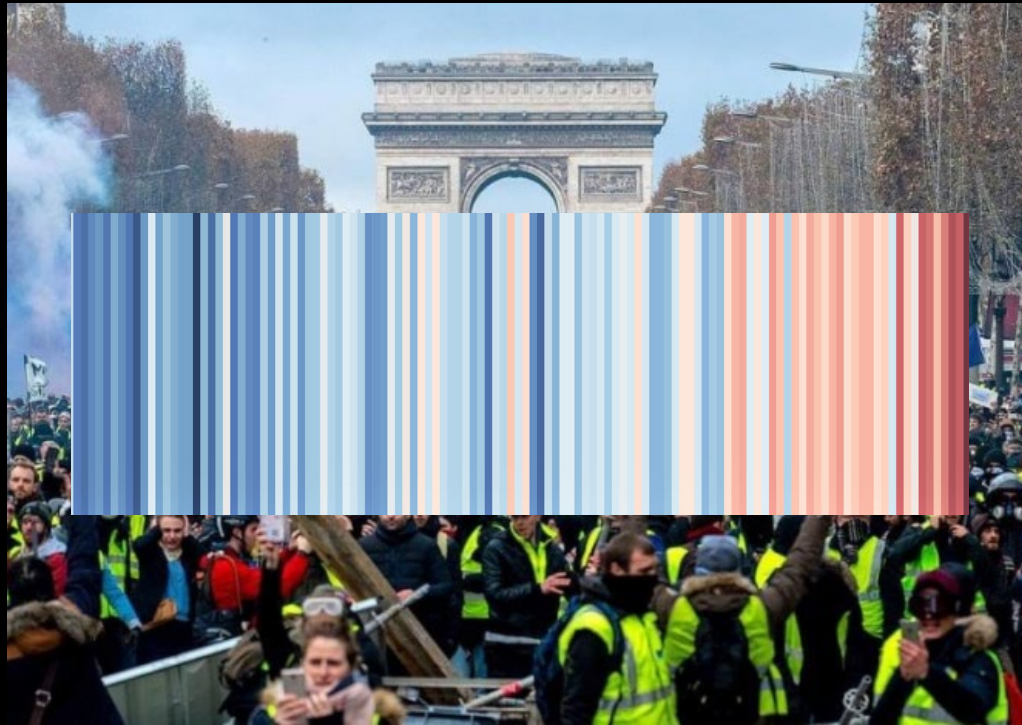
### URBAN CLASSIFICATION

## 2.3 CURENT CRISIS



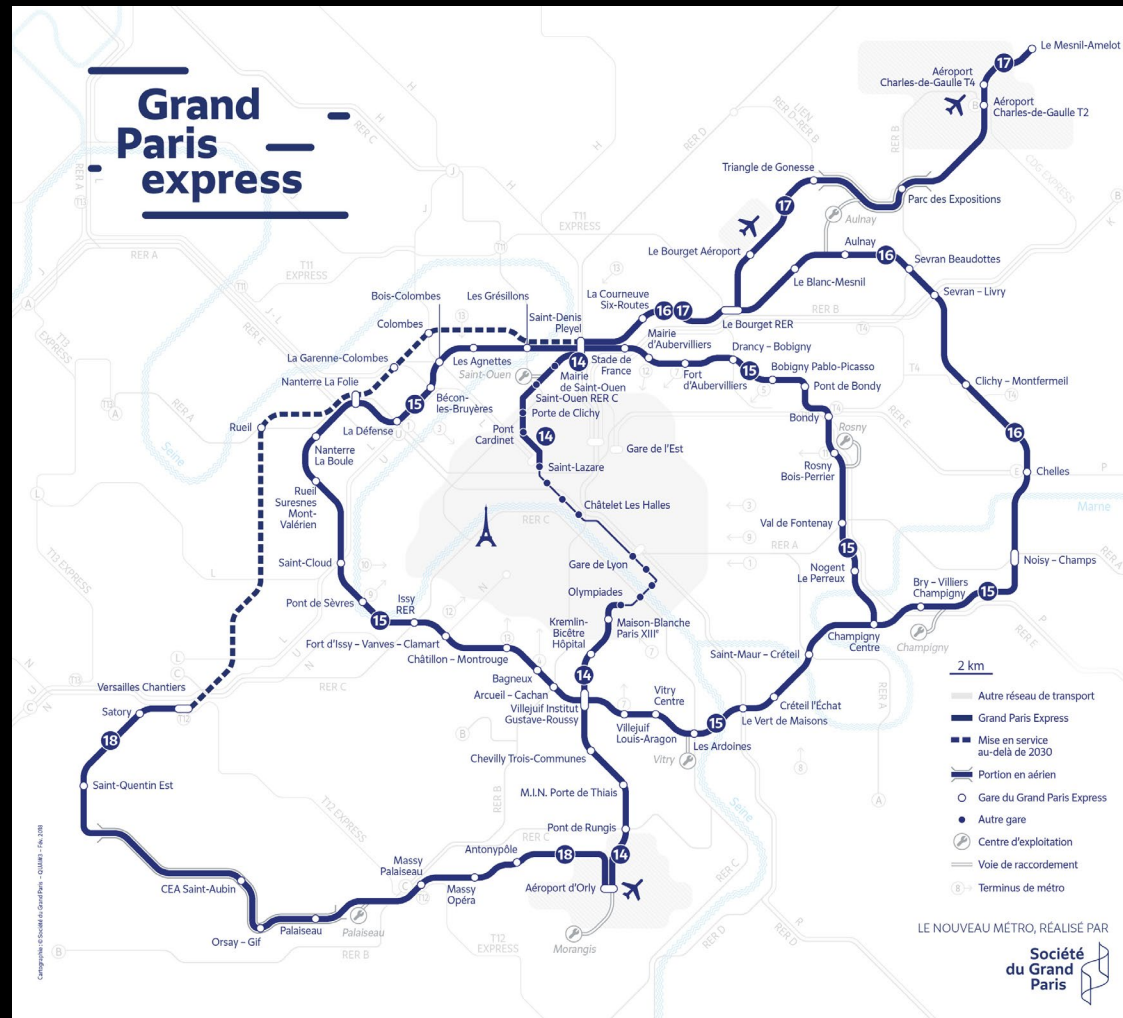
SOCIO-CULTURAL IDENTITY

## 2.3 CURENT CRISIS



ENVIRONMENTAL

## 2.4 URBAN TRANSITION

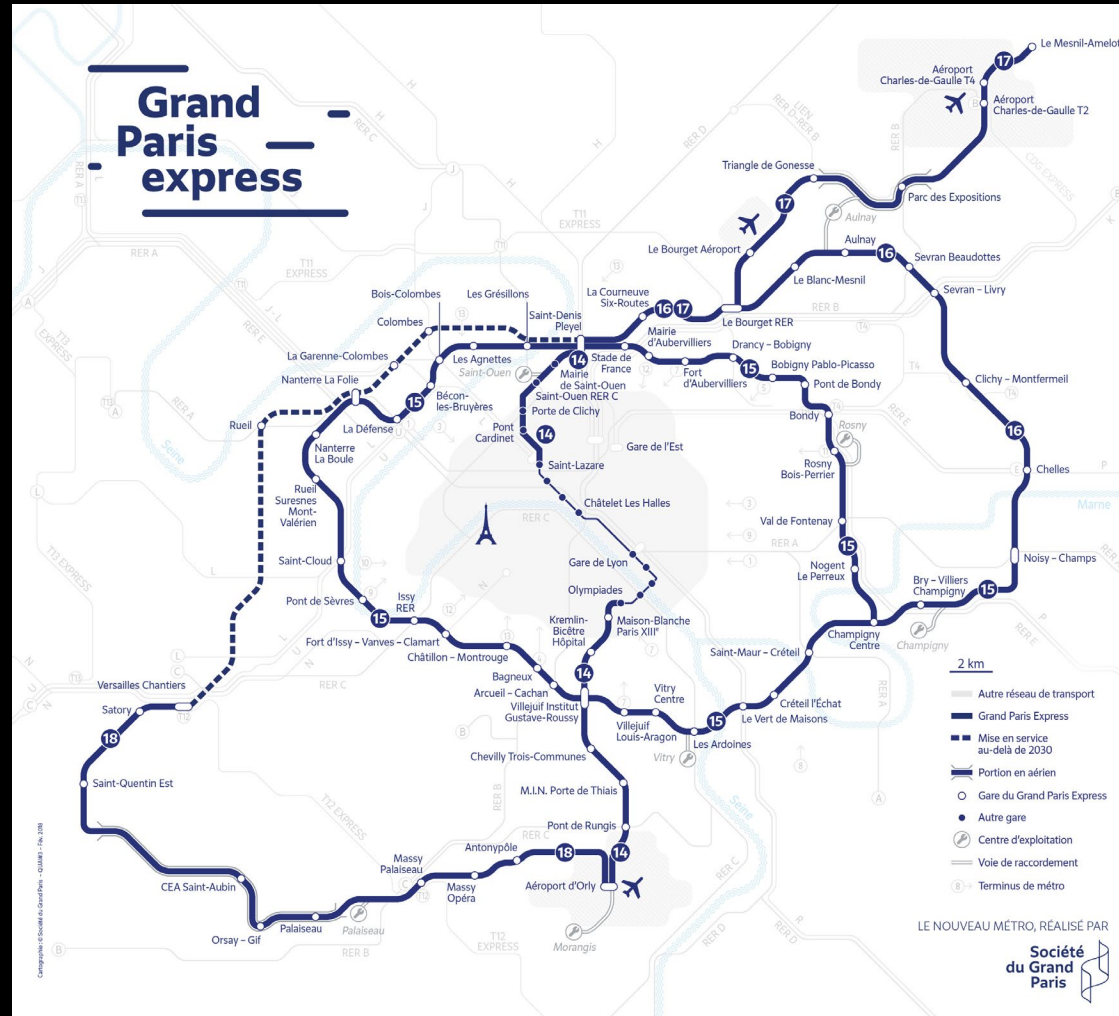


## THE GRAND PARIS EXPRESS

## 2.4 URBAN TRANSITION

70 000  
units/yr  
(2020-30)

€40 bn  
investment in GPE



200 km  
underground metro

68  
station  
neighborhoods

## RELATED URBAN OUTCOMES

## 2.4 URBAN TRANSITION

70 000  
units/yr  
(2020-30)

€40 bn  
investment in GPE

500 000 000 t  
construction debris  
(2020-35)

### Bouygues wins €181 million Grand Paris project

By Mike Hayes | 19 May 2020

NEWS

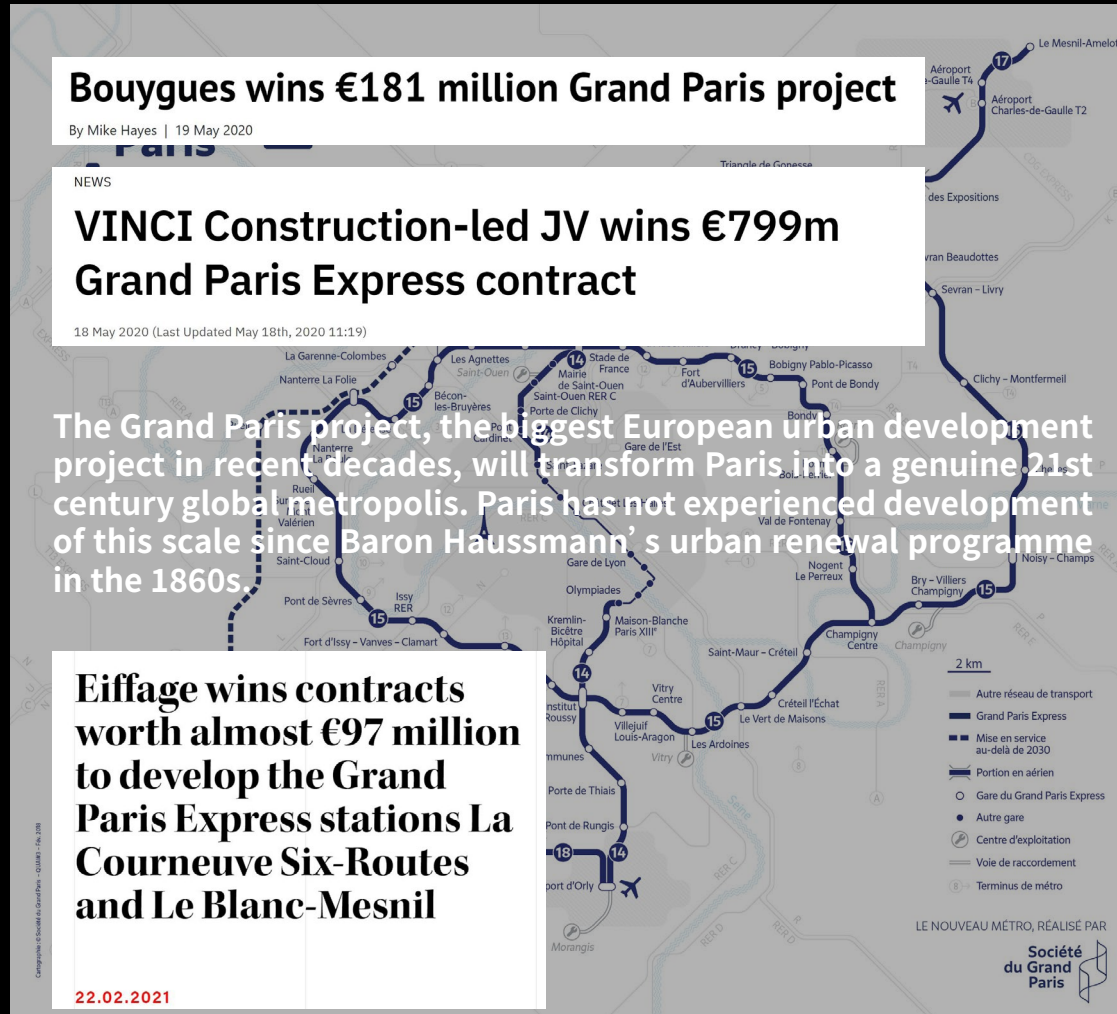
### VINCI Construction-led JV wins €799m Grand Paris Express contract

18 May 2020 (Last Updated May 18th, 2020 11:19)

The Grand Paris project, the biggest European urban development project in recent decades, will transform Paris into a genuine 21st century global metropolis. Paris has not experienced development of this scale since Baron Haussmann's urban renewal programme in the 1860s.

### Eiffage wins contracts worth almost €97 million to develop the Grand Paris Express stations La Courneuve Six-Routes and Le Blanc-Mesnil

22.02.2021



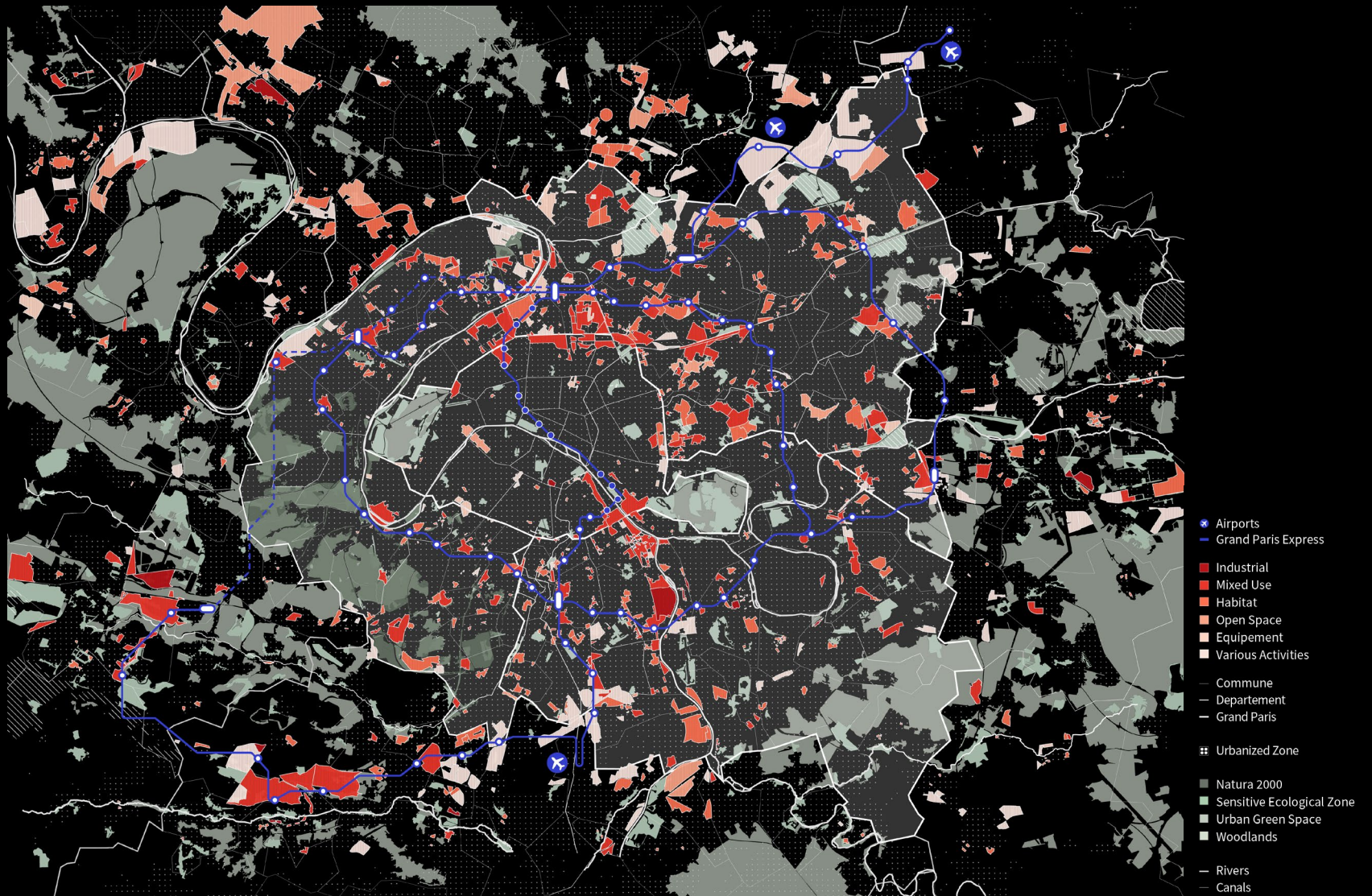
200 km  
underground metro

68  
station  
neighborhoods

45 000 000 t  
excavated soil  
(2020-30)

## OUTCOMES FOR THE CONSTRUCTION INDUSTRY

## 2.4 URBAN TRANSITION



## CONSTRUCTIONS AND DEMOLITIONS

## 2.4 URBAN TRANSITION



ECONOMIC DEVELOPMENT

## 2.4 URBAN TRANSITION



LA DEFENSE (2020)

## 2.5 FROM POLITICAL AGENDAS TO MATERIAL REALITIES



## 2.5 MATERIAL DATABASE

The true origins of a building is underground: it is the extraction of natural resources, the geology that lies below our feet that forms the city

Lara Almarcegui (2017)



MATERIAL DATABASE OF THE ILE-DE-FRANCE

## 2.5 MATERIAL DATABASE

After water, concrete is the most widely used substance on Earth. If the cement industry were a country, it would be the third largest carbon dioxide emitter in the world with up to 2.8bn tonnes, surpassed only by China and the US.

Jonathan Watts

<b>Concrete</b> 800 000 kt	
<b>Construction Debris</b> 500 000 000 tonnes (2020-30)	<b>Excavated Dirt + Limestone</b> 45 000 000 tonnes (2020-30)  66% inertes 12% sulfated 20% non-inertes, non dangerous 2% polluted

MATERIAL DATABASE OF THE GRAND PARIS

## 2.5 MATERIAL PRACTICE: 21th CENTURY



## 2.5 MATERIAL PRACTICE: 21th CENTURY



## 2.5 MATERIAL PRACTICE: 21th CENTURY



## 2.5 MATERIAL PRACTICE: 21th CENTURY



## 2.5 MATERIAL PRACTICE: 21th CENTURY



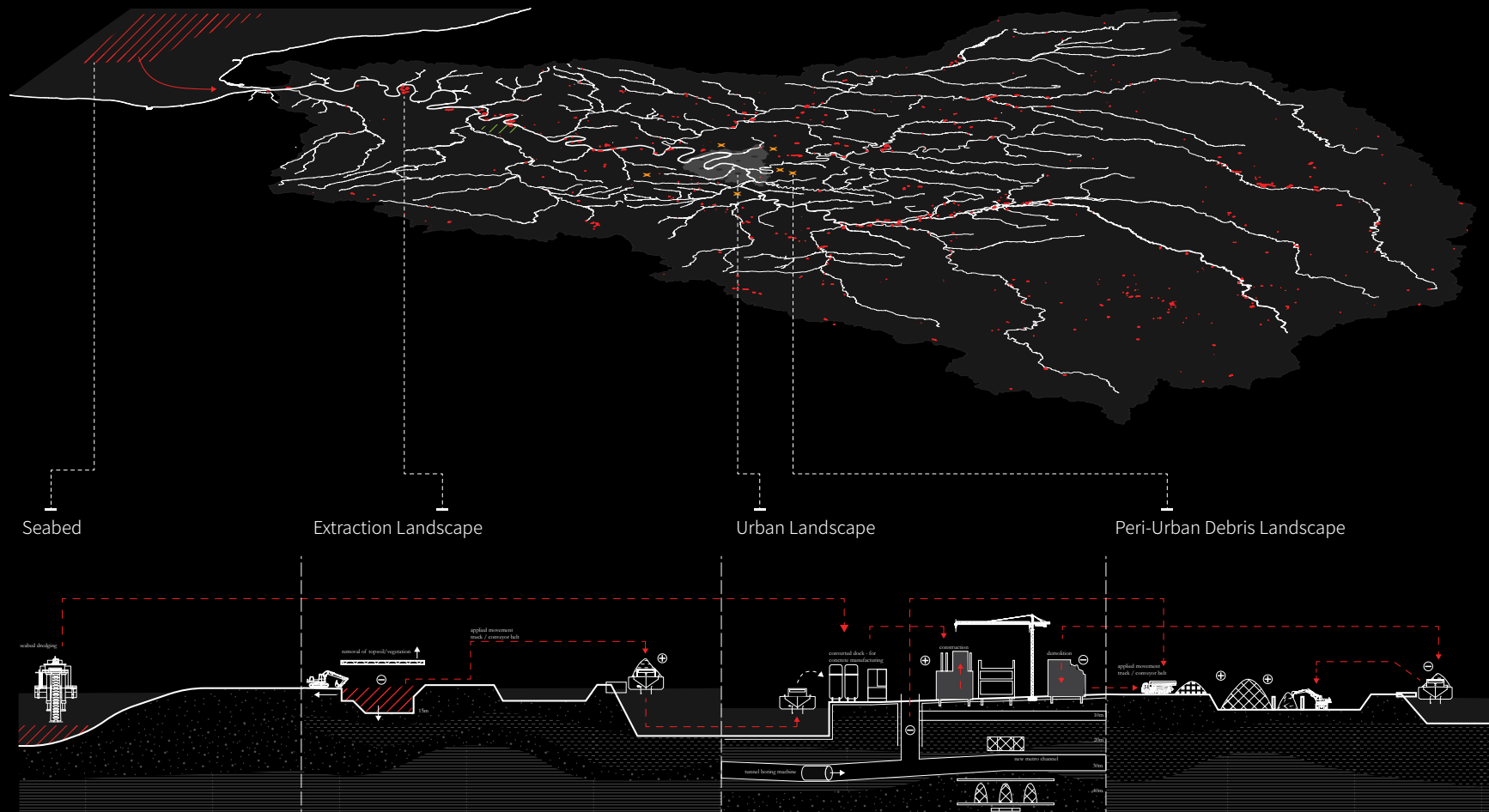
## 2.5 MATERIAL PRACTICE: 21th CENTURY



## 2.6 FROM MATERIAL PRACTICES TO SPATIAL EXTERNALITIES



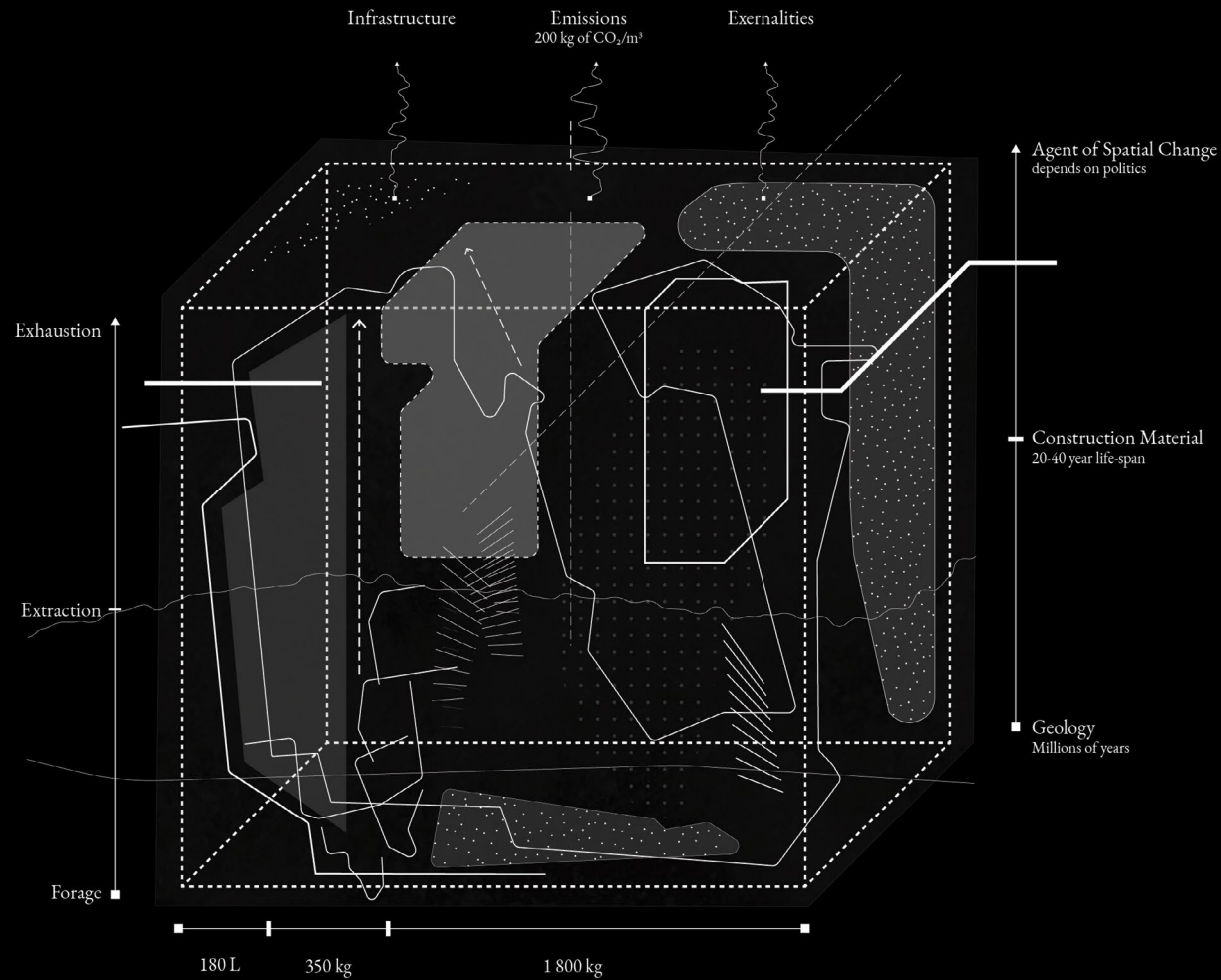
## 2.6 FROM MATERIAL PRACTICES TO SPATIAL EXTERNALITIES



PROCEDURAL TRANSECT

## 2. FORENSIC CONCLUSIONS

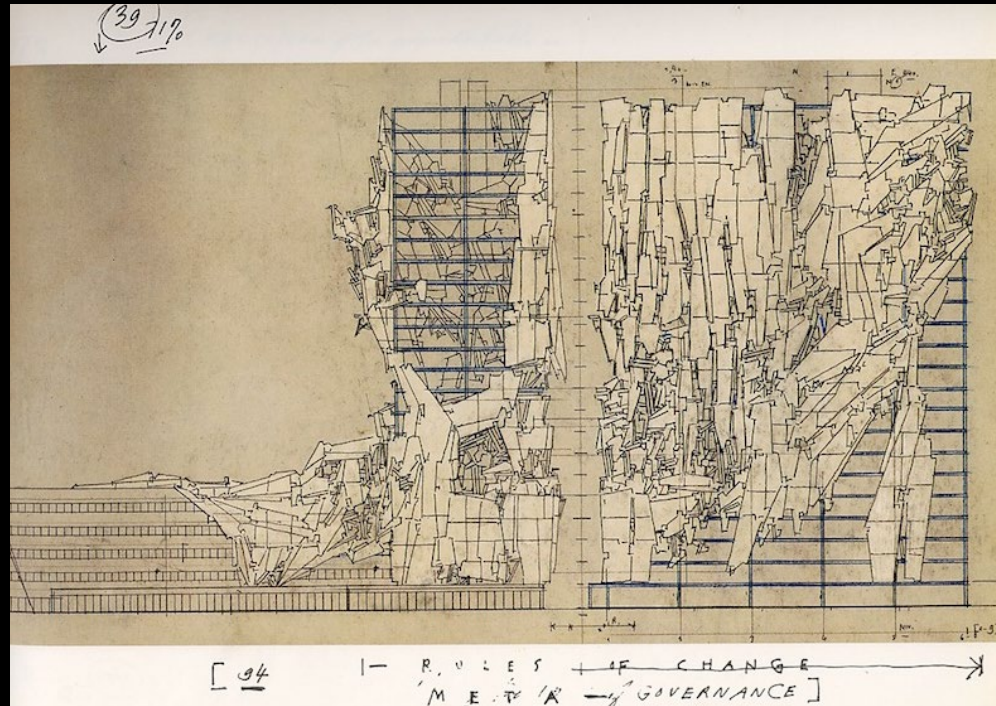
Politicize - How does matter become a physical agent for socio-political and ecological transformation in the Grand Paris ?  
What externalities derive in the process?



URBAN MATTER

### 3. REPARATIVE RIVERINE VISION

Propose - Can an alternative material practice based on care foster repair of qualities of life in damage landscapes?  
What co-benefits can derive in the process



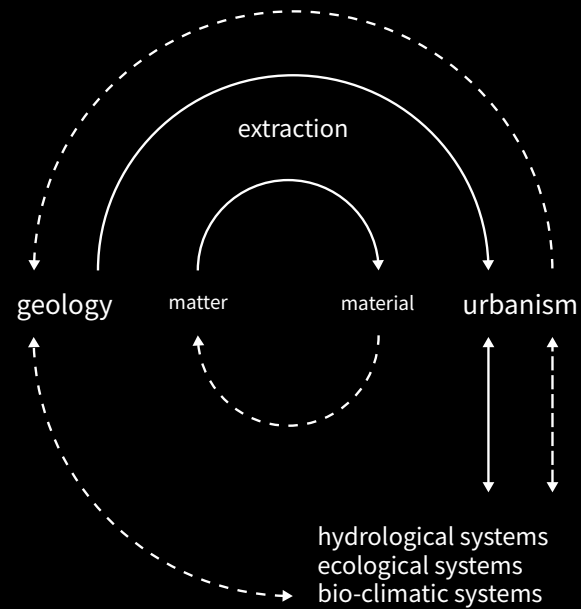
1. Define Reparative Design as Material Practice
2. Understanding the physical and systemic state of damage
3. Work with different forms of knowledge toward renewing qualities of productive fertility
4. Offer co-benefits for both Humans and Non-Humans and both the Territorial and the Urban

### 3.0 POSITIONING THE DESIGN PROJECT

Intervention in Space and in the Construction Process

The Urbanist as an Agent of Repair

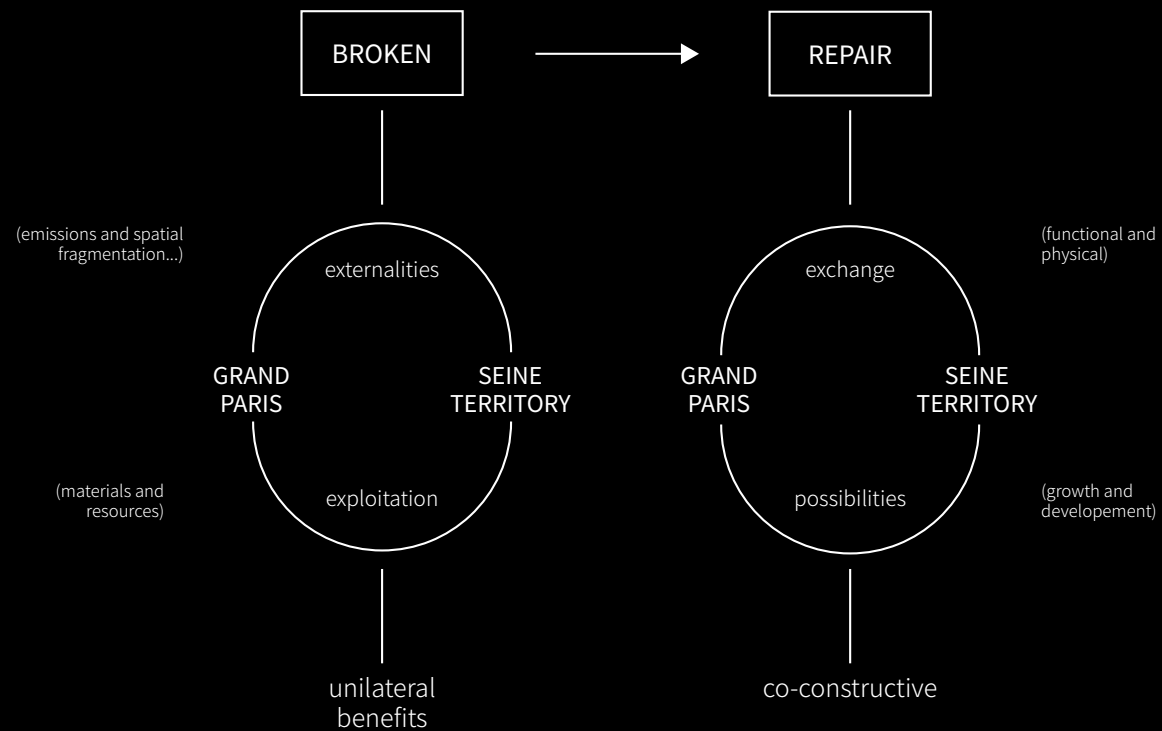
Design as Facilitator of Reparative Processes



POSITION

### 3.1 REPAIR AS MATERIAL PRACTICE

SUBJECTIVE REPAIR  
OBJECTIVE REPAIR



### 3.1 REPAIR AS MATERIAL PRACTICE

The laws we have are not rising to the threats we face. Legal structures that **treat rivers and nature as an object for human exploitation are enabling today's crises**. A Rights of Nature approach offers transformative change at a time where it could not be needed more.

Monti Aguirre, Latin America Coordinator at International Rivers.



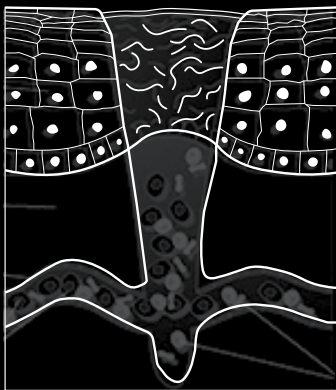
Sequena Healing Shrine, 1st Century BC

SUBJECTIVE REPAIR

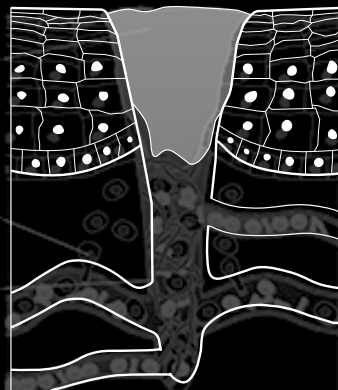
### 3.1 REPAIR AS MATERIAL PRACTICE

The notion of ‘reparative’ holds strings with the reparative system that an organism starts when damage is experienced. Thinking-with this biological, cultural, and performative, we propose the reparative as **the starting point for learning to notice life-giving potentialities in the Anthropocene [...]** Understanding what emerges in the ruins and exploring whether there are possibilities of life that goes beyond the Anthropocene.

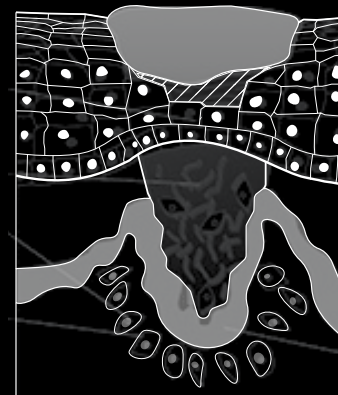
Emmy Laura Perez Fjalland and Kristine Samson (2018)



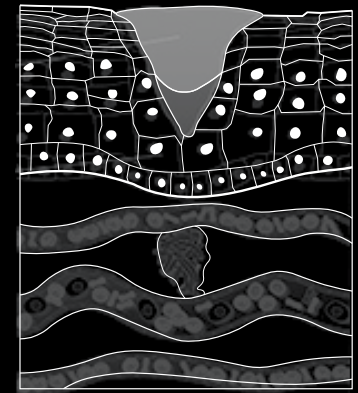
inflammation



reconstruction



proliferation

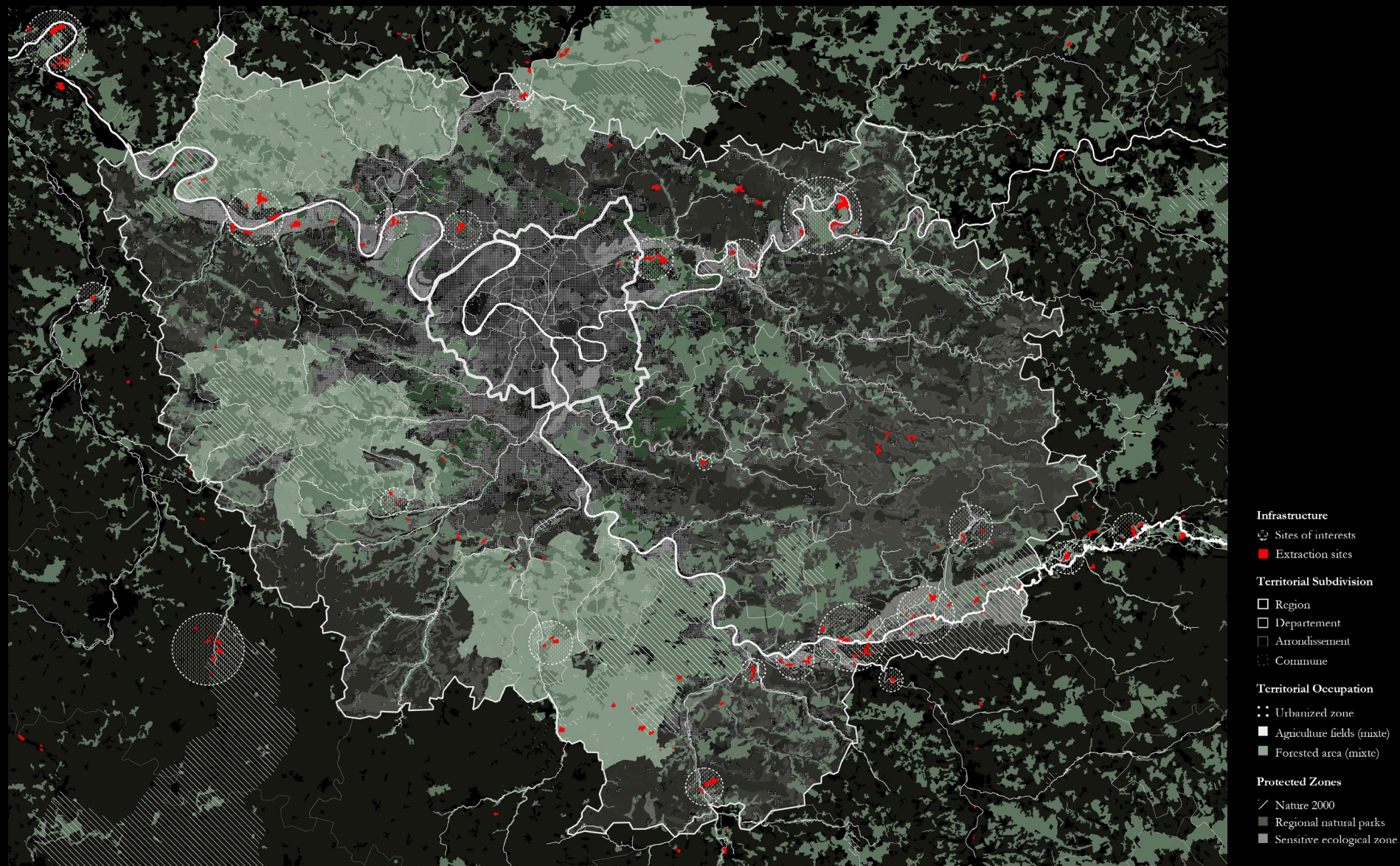


maturation

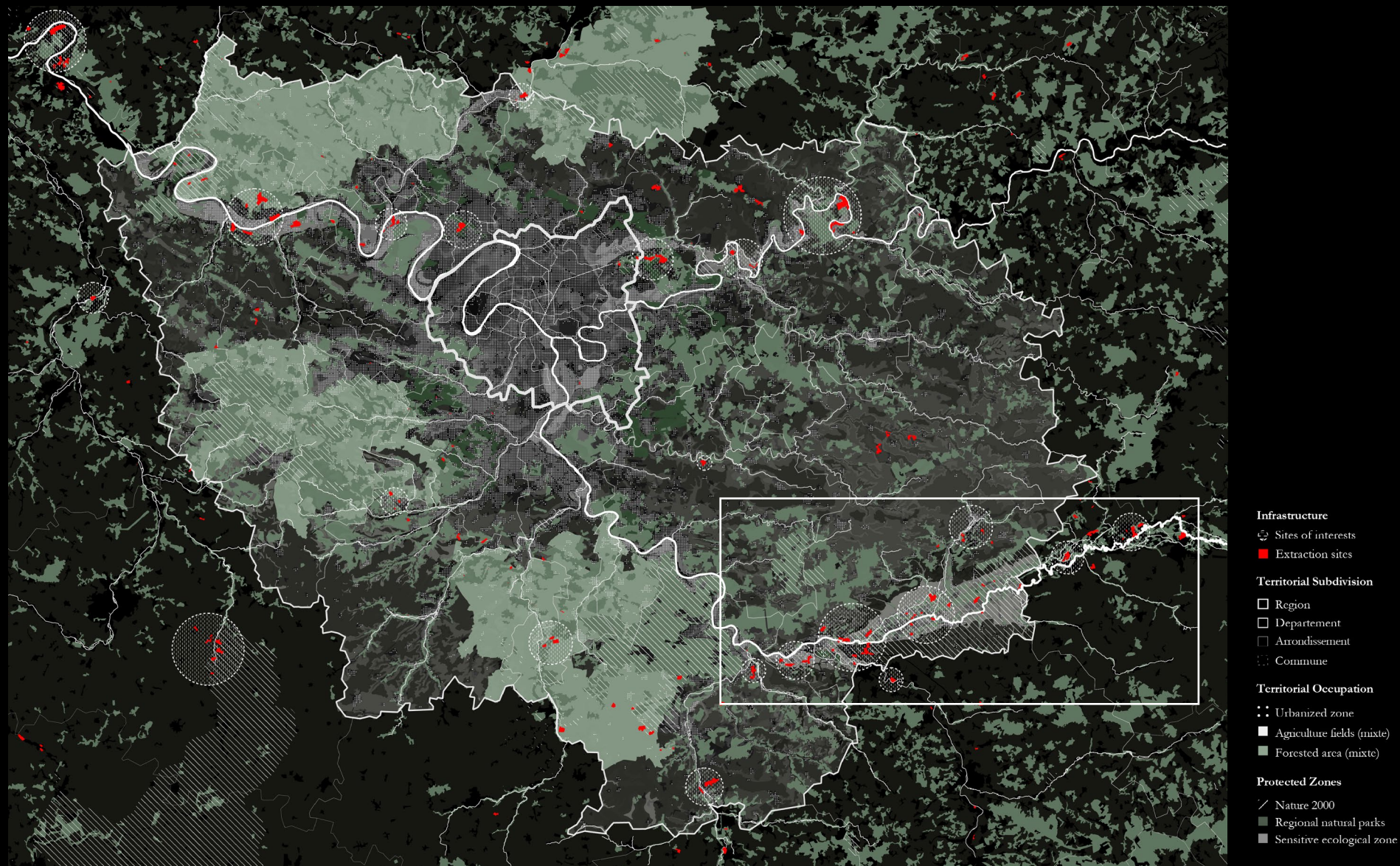
Diagram of the Human Reparative System

#### PHYSICAL REPAIR

### 3.3 REGIONAL OPPORTUNITIES



### 3.4 LA BASSÉE



### 3.4 LA BASSÉE

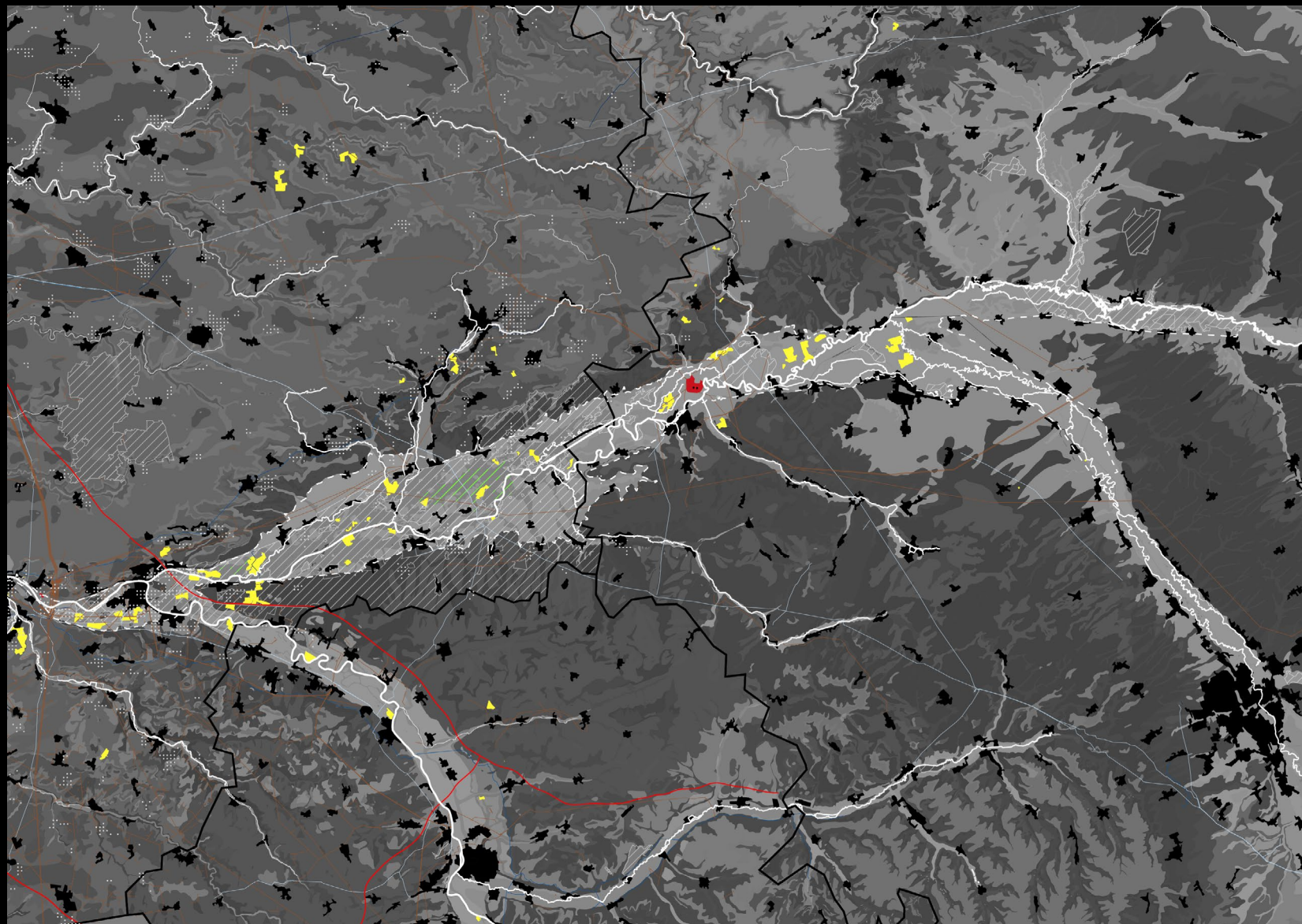


### 3.4 LA BASSÉE



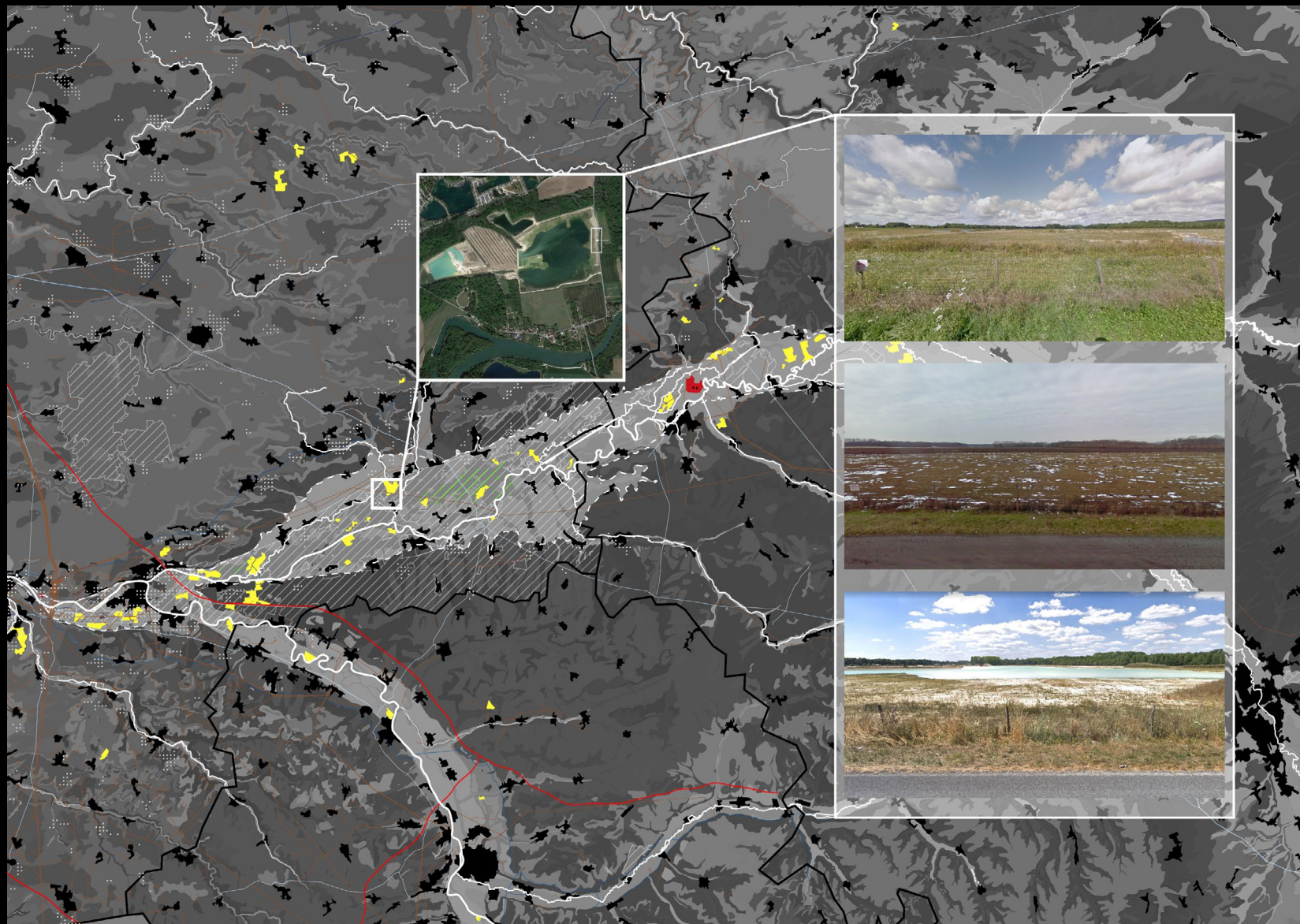
REGIONAL IMPORTANCE

### 3.4 LA BASSÉE



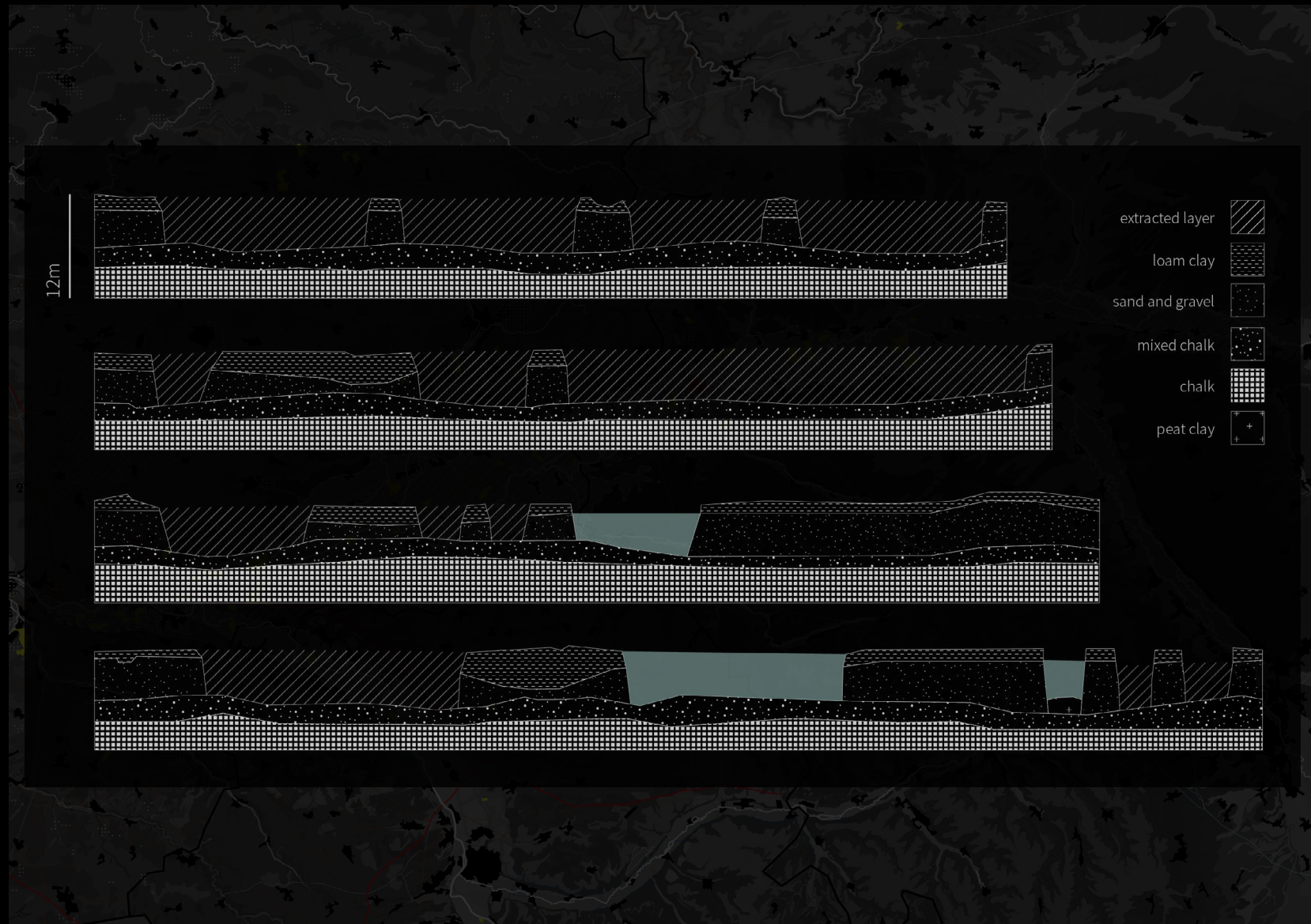
MACRO SCALE

### 3.4 LA BASSÉE



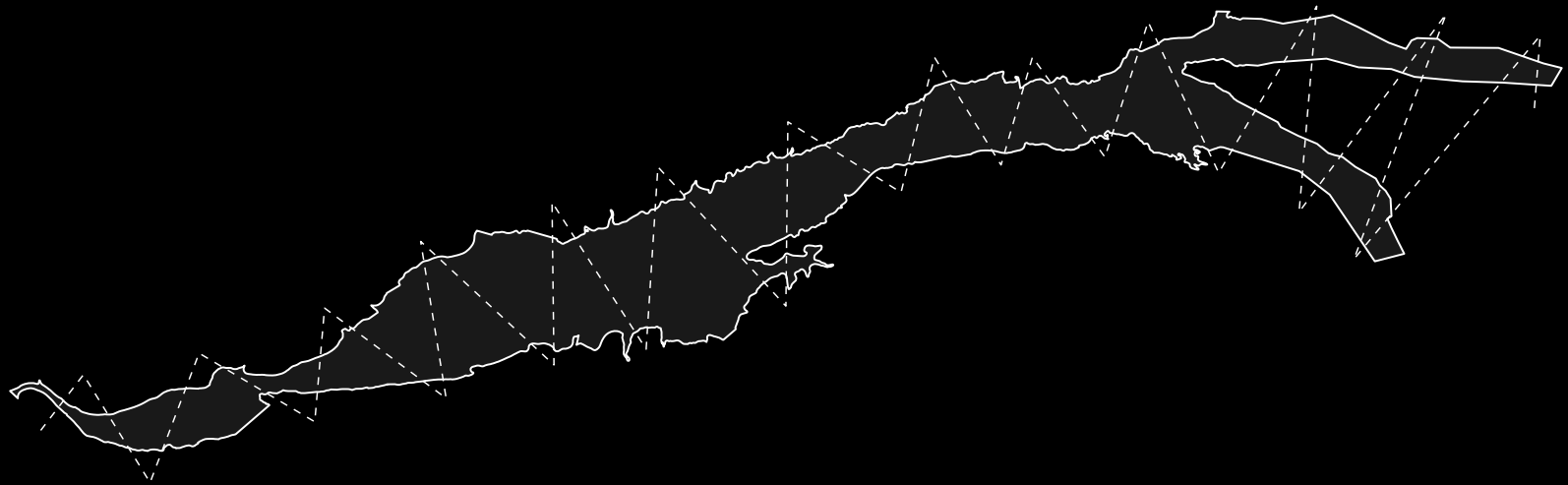
LANDSCAPE DEVELOPMENT

### 3.4 LA BASSÉE

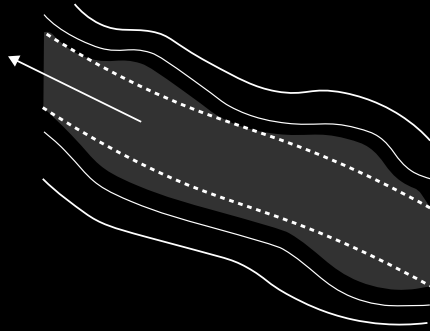


GEOLOGICAL COMPOSITION AND EXHAUSTION

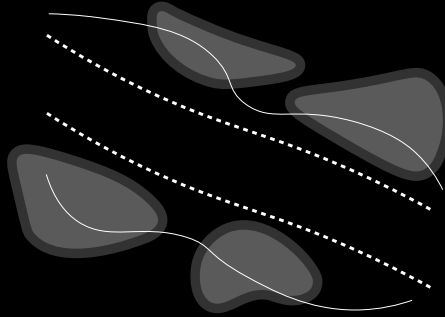
### 3.5 REPAIRING LA BASSÉE



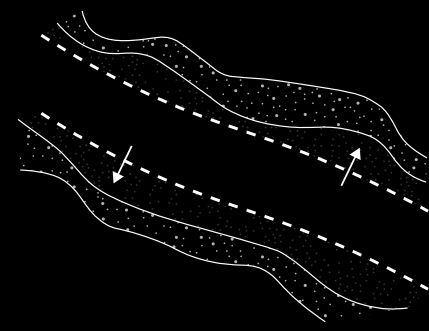
### 3.5 REPAIRING LA BASSÉE



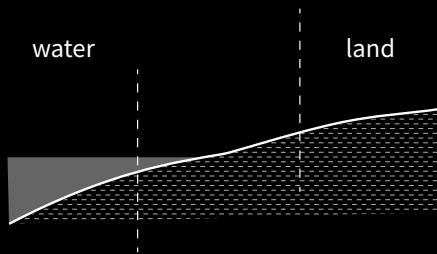
Gradient of Wetness



Water Retention



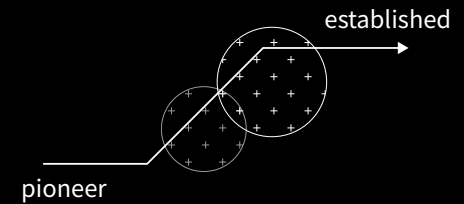
Sedimentation Exchange



Critical Transitional Zone



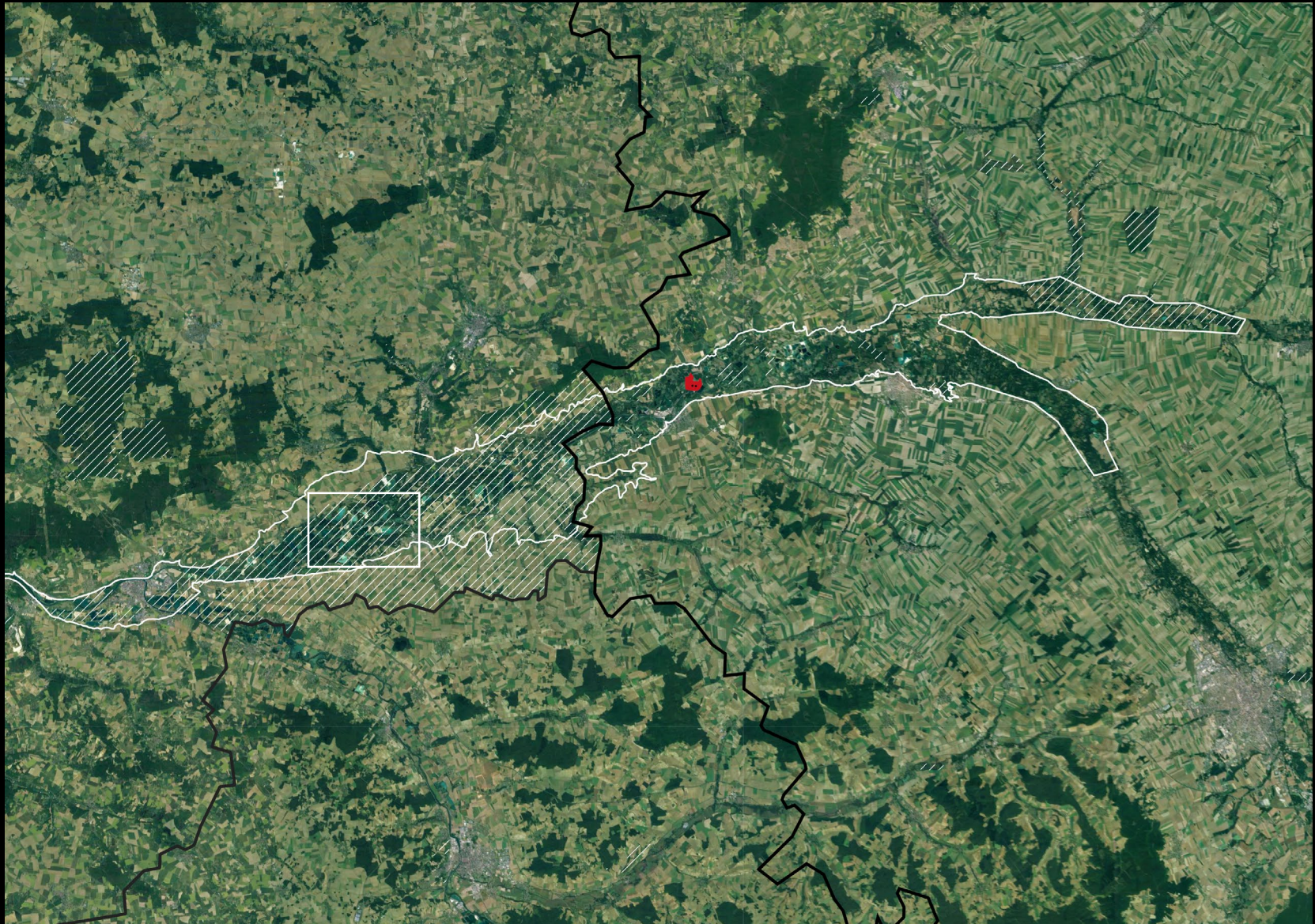
Soften Edges



Growth of Ecologies

### SPATIAL STRATEGIES

### 3.5 REPAIRING LA BASSÉE



AREA OF FOCUS

### 3.5 REPAIRING LA BASSÉE



SPATIAL STRATEGIES

### 3.5 REPAIRING LA BASSÉE



ACTIVE QUARRIES

### 3.5 REPAIRING LA BASSÉE



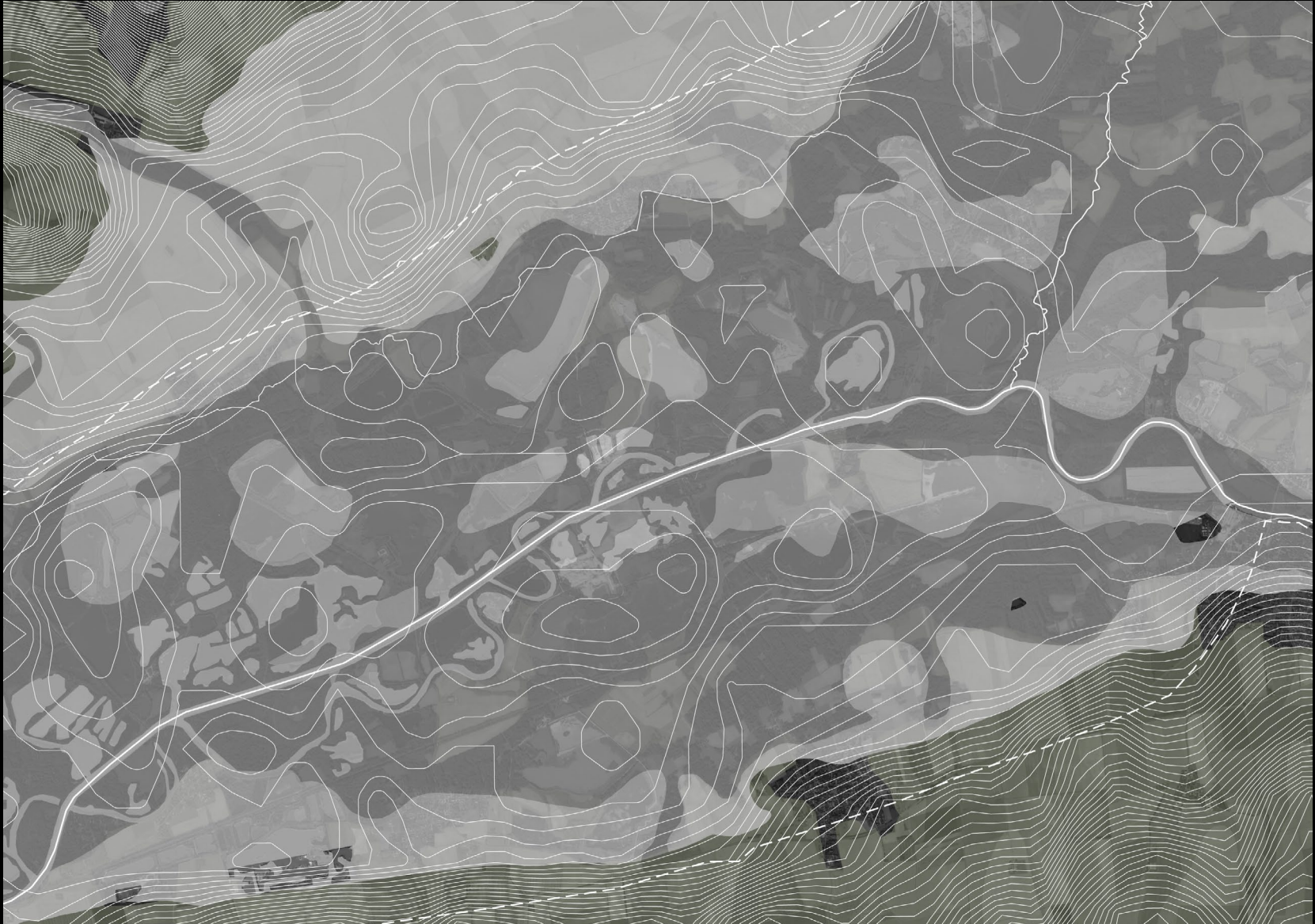
INUNDATED EXHAUSTED QUARRIES

### 3.5 REPAIRING LA BASSÉE



RIVERINE MORPHOLOGY

### 3.5 REPAIRING LA BASSÉE



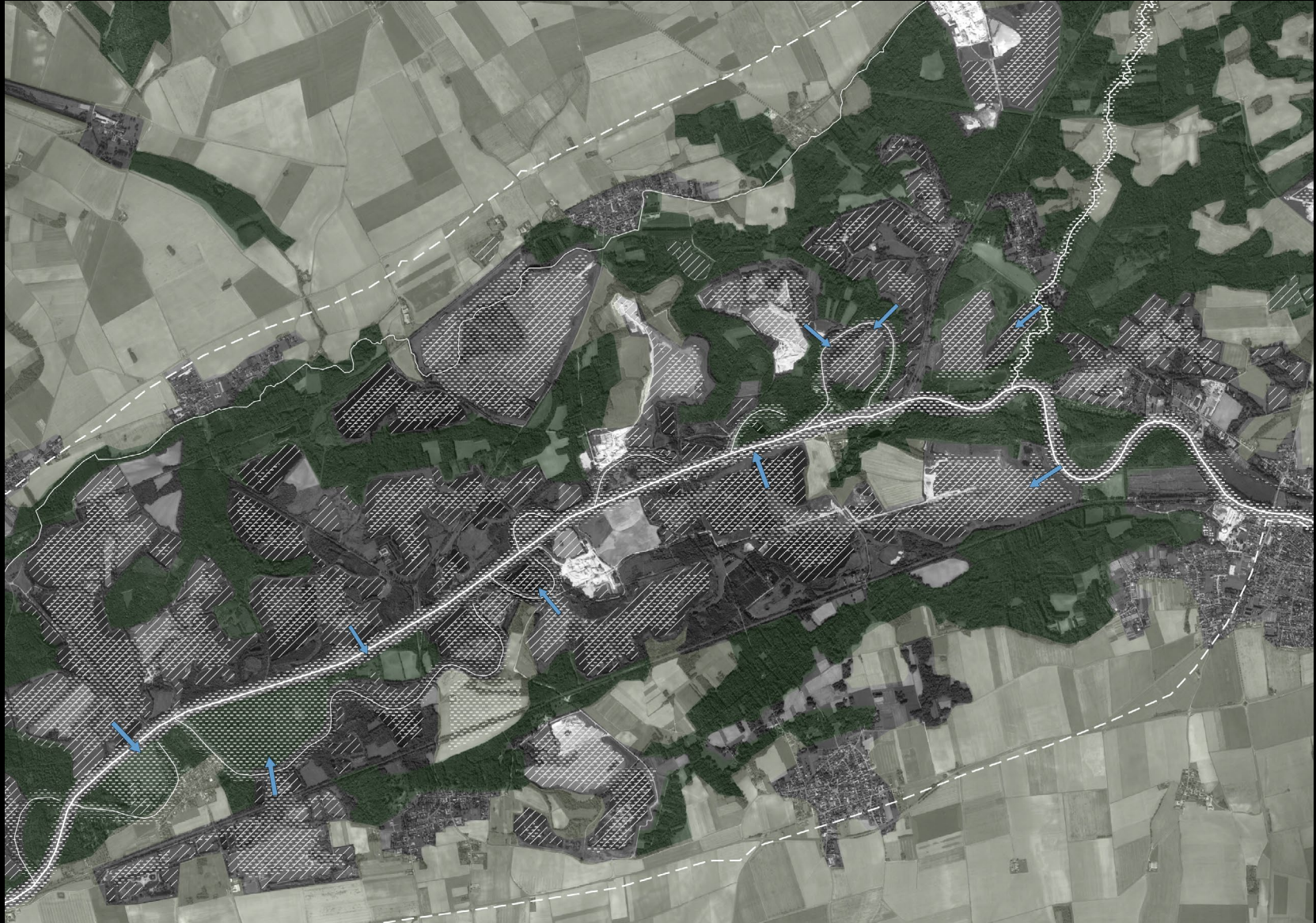
GEOMORPHOLOGY

### 3.5 REPAIRING LA BASSÉE



POSSIBILITY FOR ALTERNATIVE WATER MOVEMENT

### 3.5 REPAIRING LA BASSÉE



ENTRY POINTS

### 3.5 REPAIRING LA BASSÉE



FLOOD EVENTS

### 3.5 REPAIRING LA BASSÉE



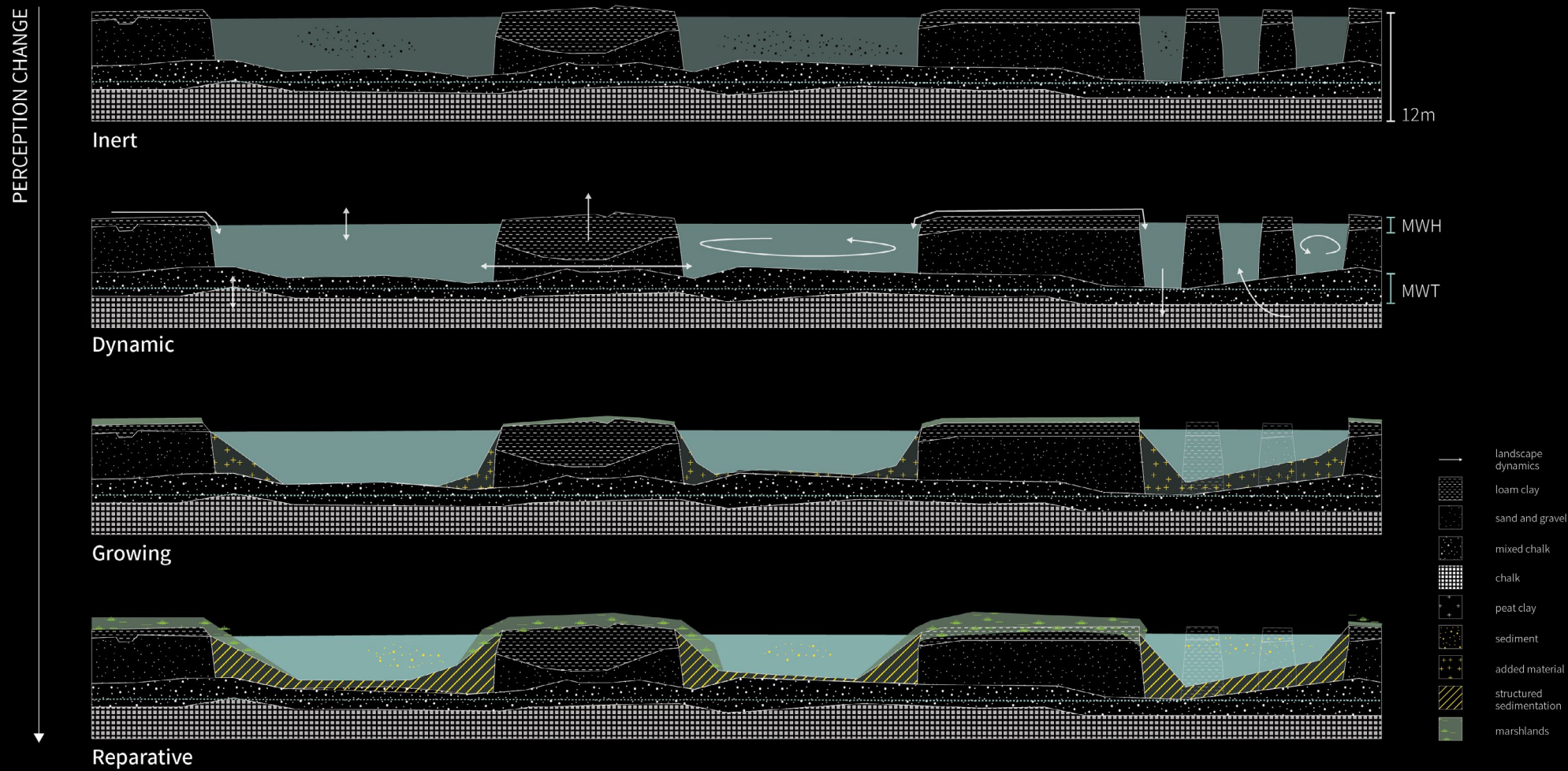
DEGREES OF WETNESS

### 3.5 REPAIRING LA BASSÉE



REHABILITATED VEGETATED NETWORKS

### 3.5 REPAIRING LA BASSÉE



## REPARATIVE DEVELOPMENT

### 3.5 REPAIRING LA BASSÉE



CURRENT STATE

### 3.5 REPAIRING LA BASSÉE



CURRENT STATE

### 3.5 REPAIRING LA BASSÉE



PIONEER STATE (2-3 YRS)

### 3.5 REPAIRING LA BASSÉE



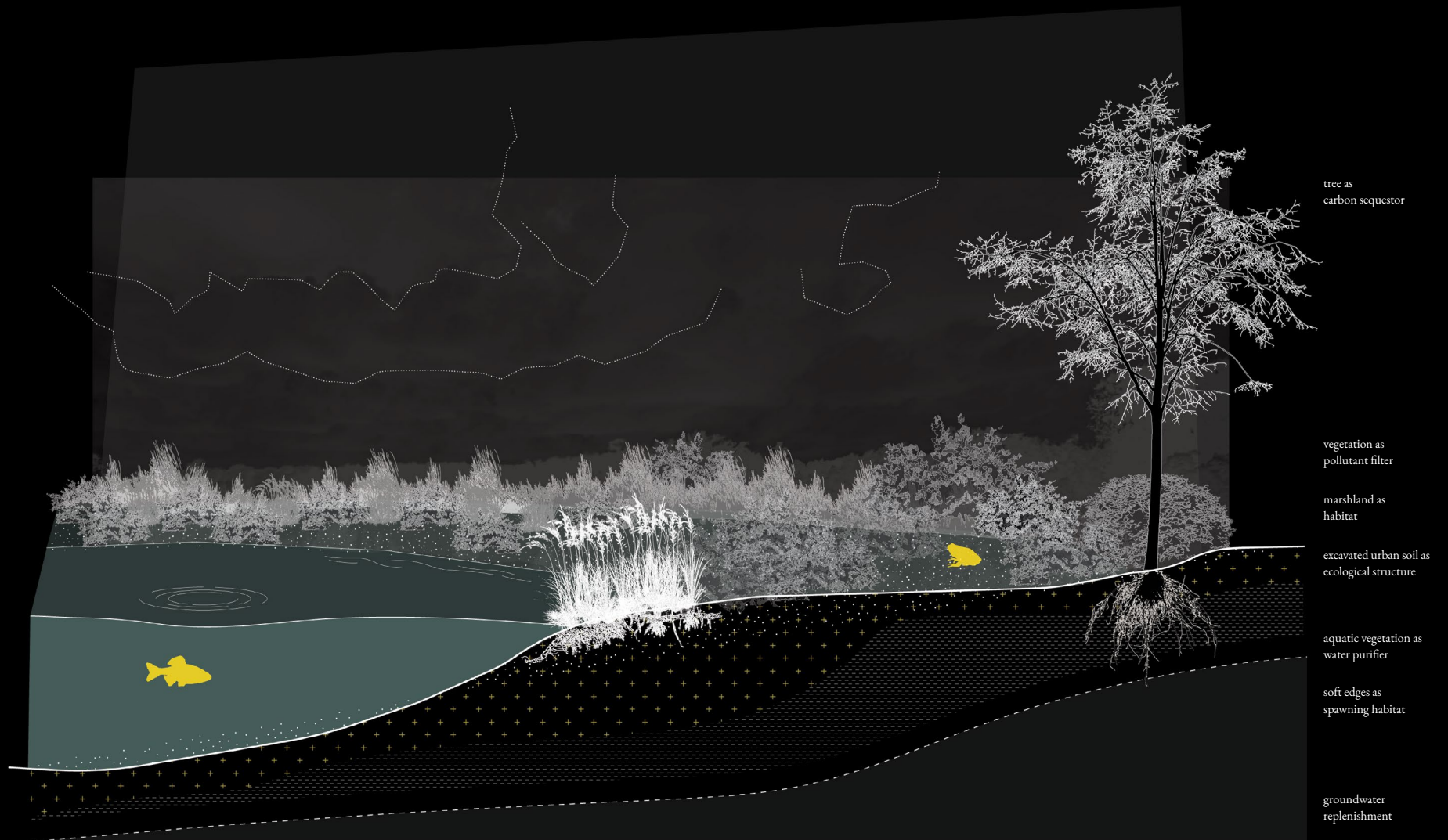
ESTABLISHED STATE (5-10 YRS)

### 3.5 REPAIRING LA BASSÉE



FLOOD EVENT (5-10 DAYS)

### 3.5 REPAIRING LA BASSÉE



WETLAND

### 3.5 REPAIRING LA BASSÉE



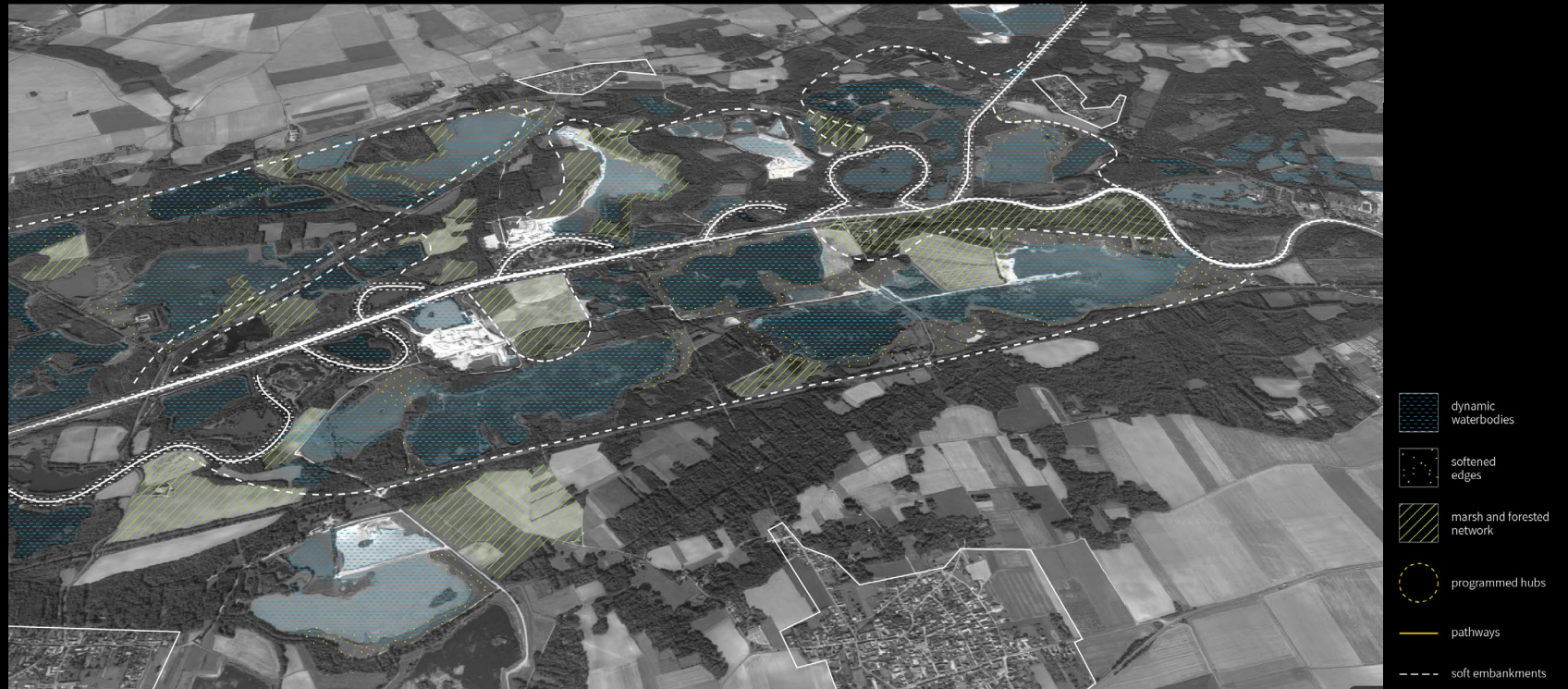
ALLUVIAL FOREST

### 3.5 REPAIRING LA BASSÉE



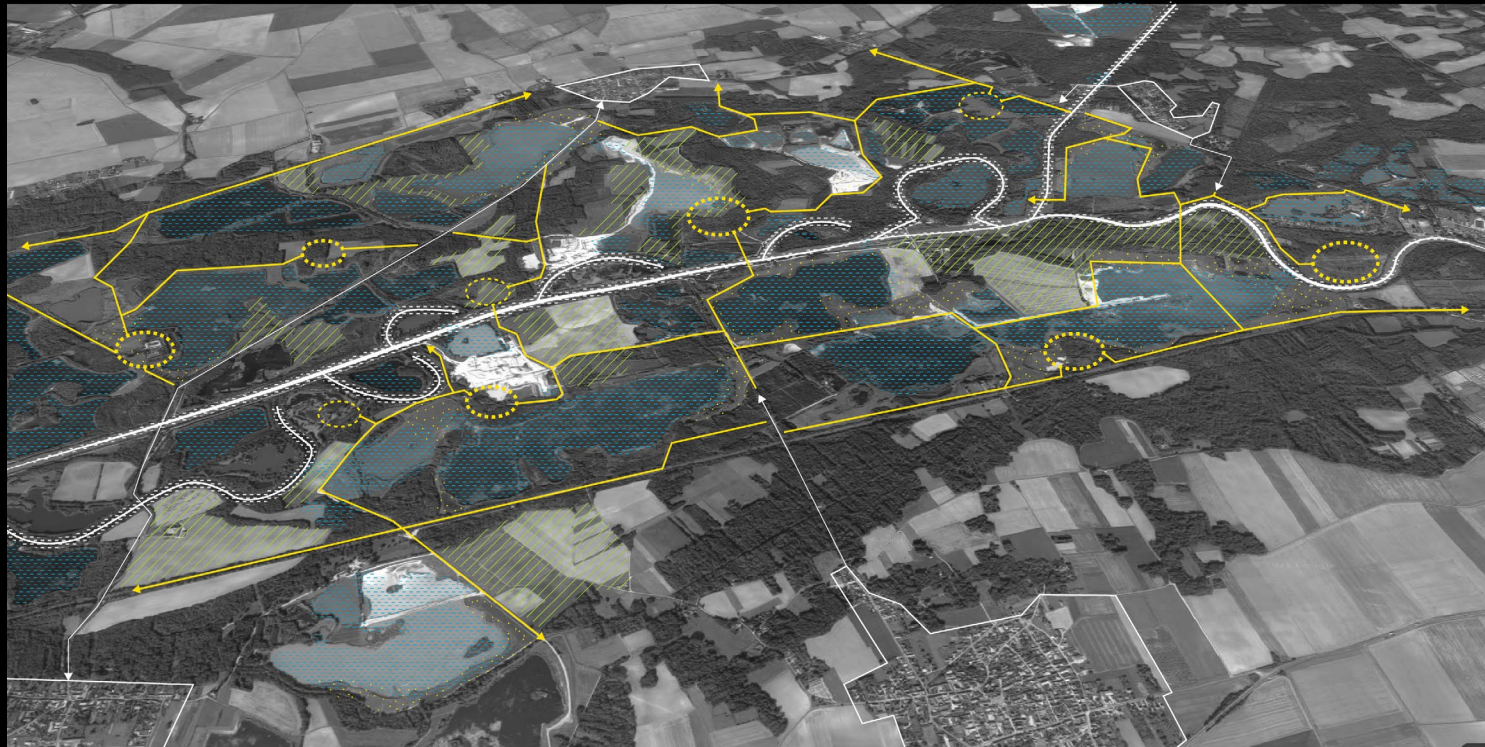
INTERACTING

### 3.5 REPAIRING LA BASSÉE



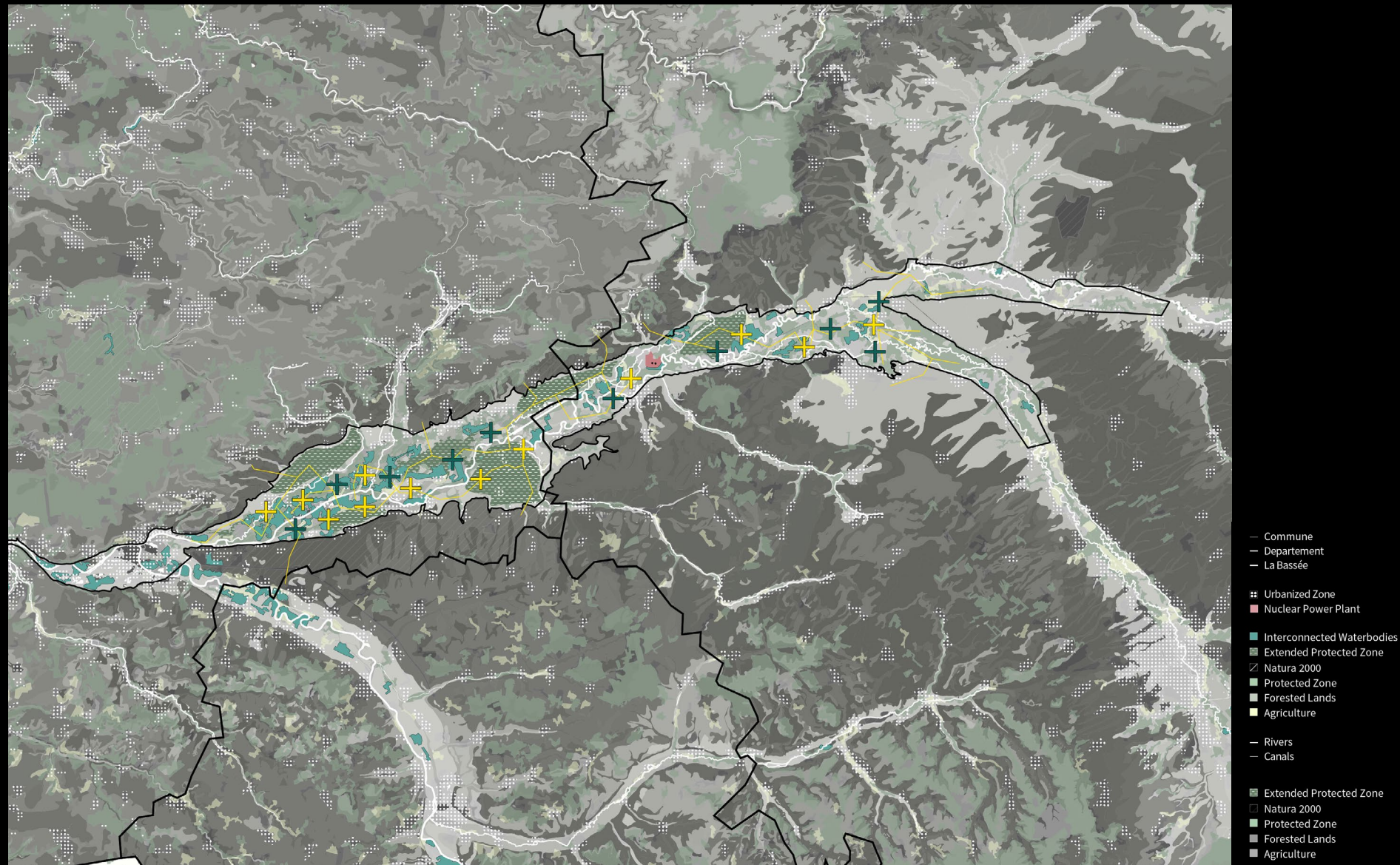
CONSTRUCTED LANDSCAPE

### 3.5 REPAIRING LA BASSÉE



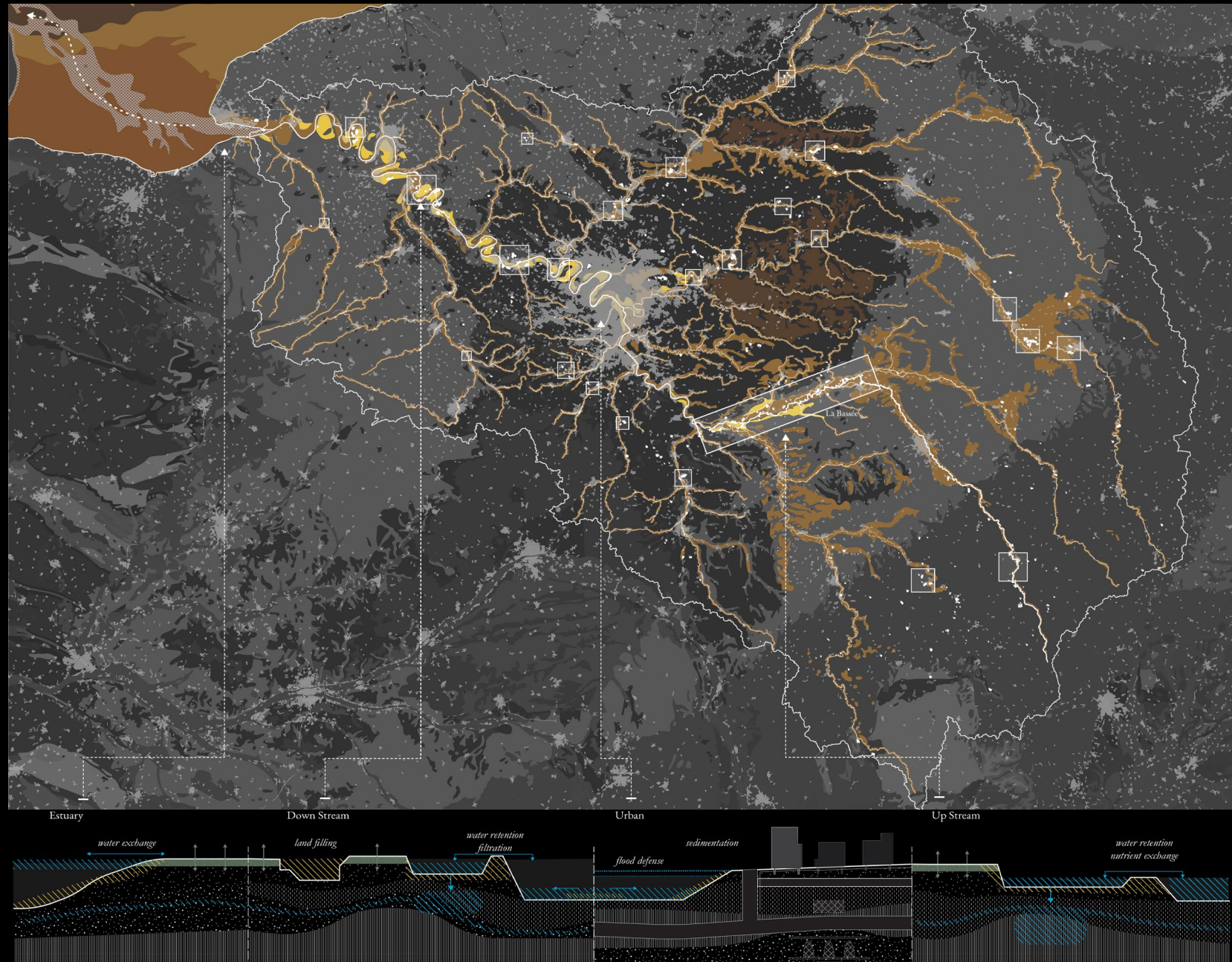
ANTHROPOGENIC STITCHING

### 3.6 REPARATIVE LA BASSÉE

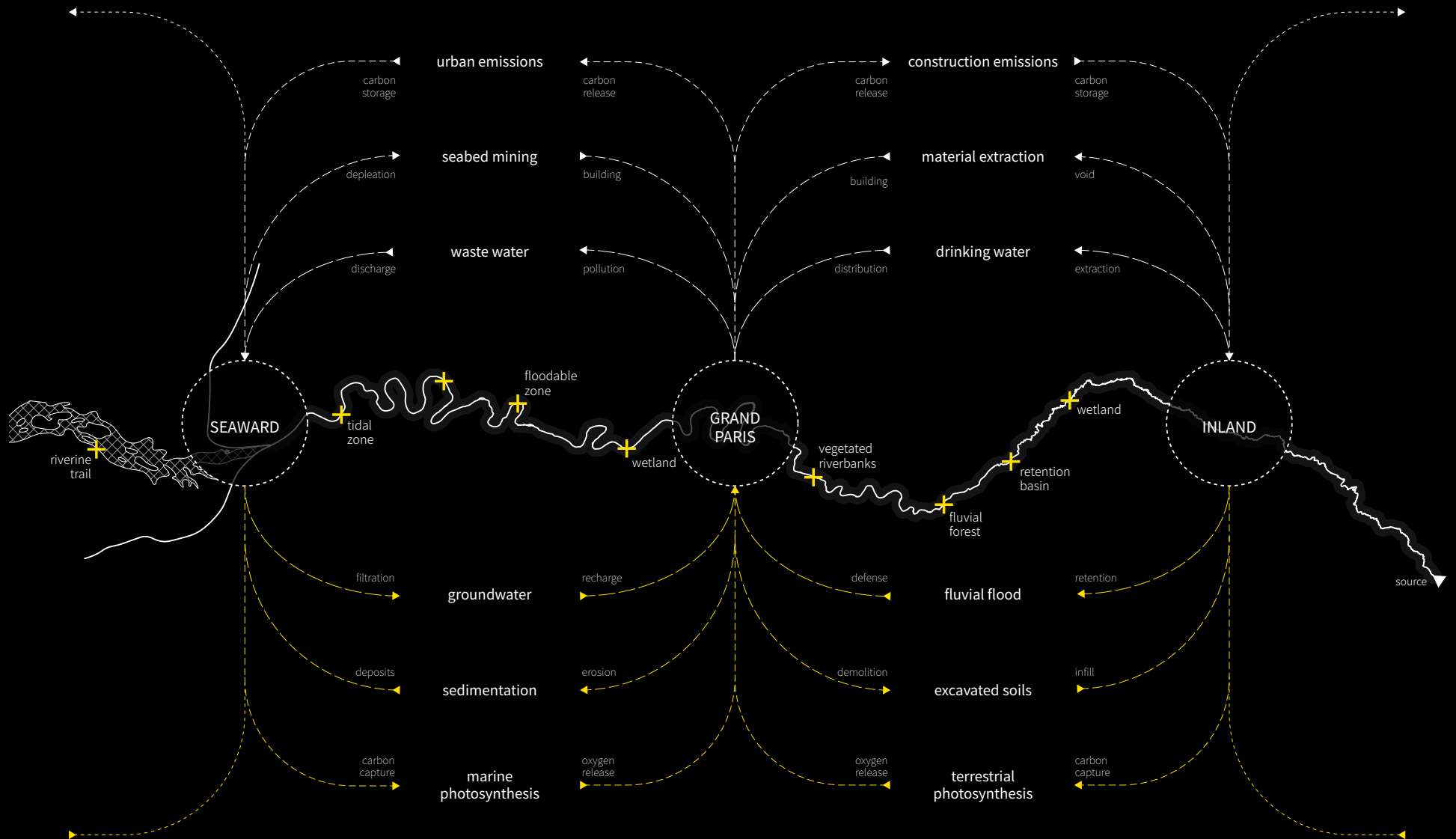


MACRO SCALE

### 3.7 REPARATIVE WATERSHED

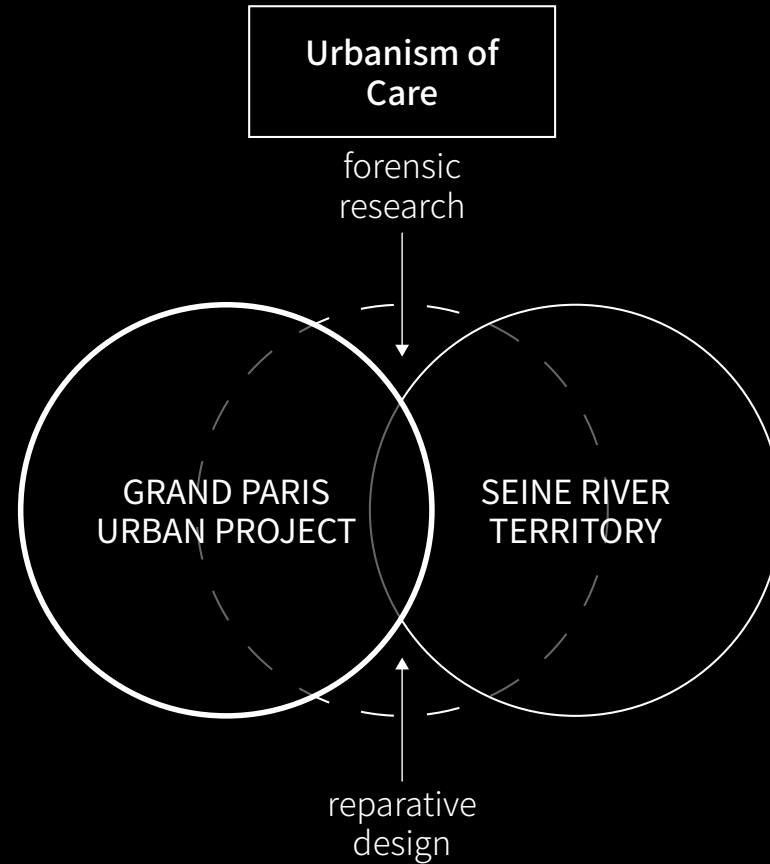


### 3.8 SYSTEMIC SYNTHESIS

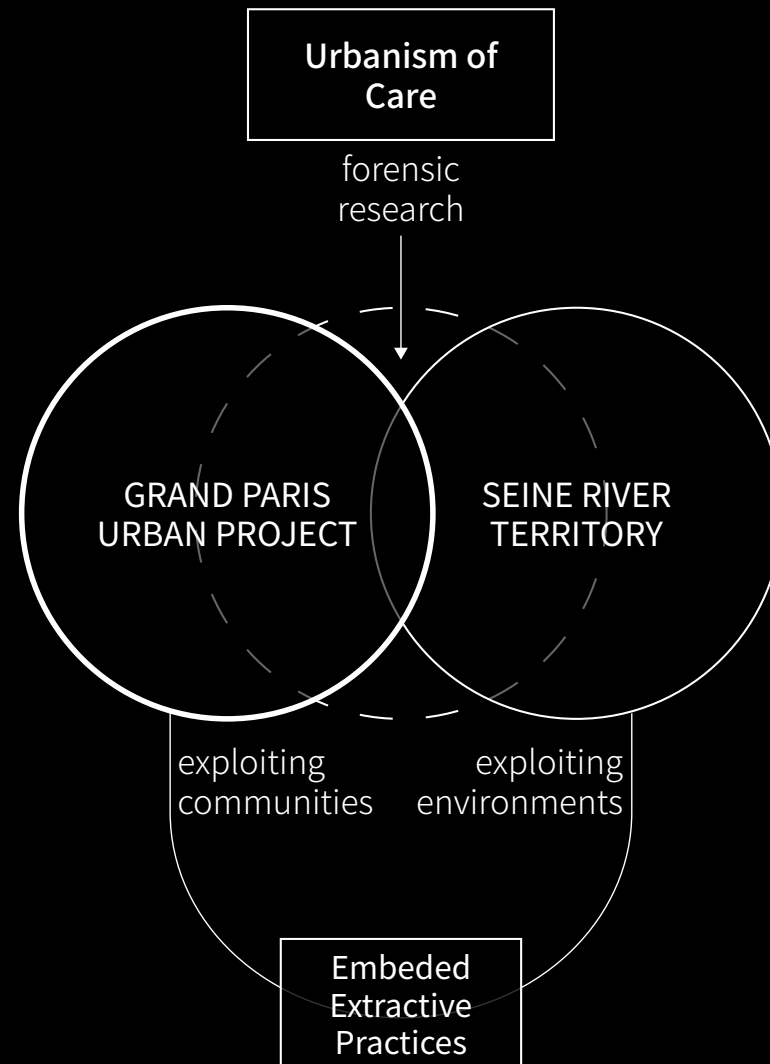


## CONCLUSION (PROJECT)

*How can the process of constructing the Grand Paris become a catalyst for repair of damaged landscapes in the Seine River Basin towards a co-beneficial relationship between the urban and the territorial?*



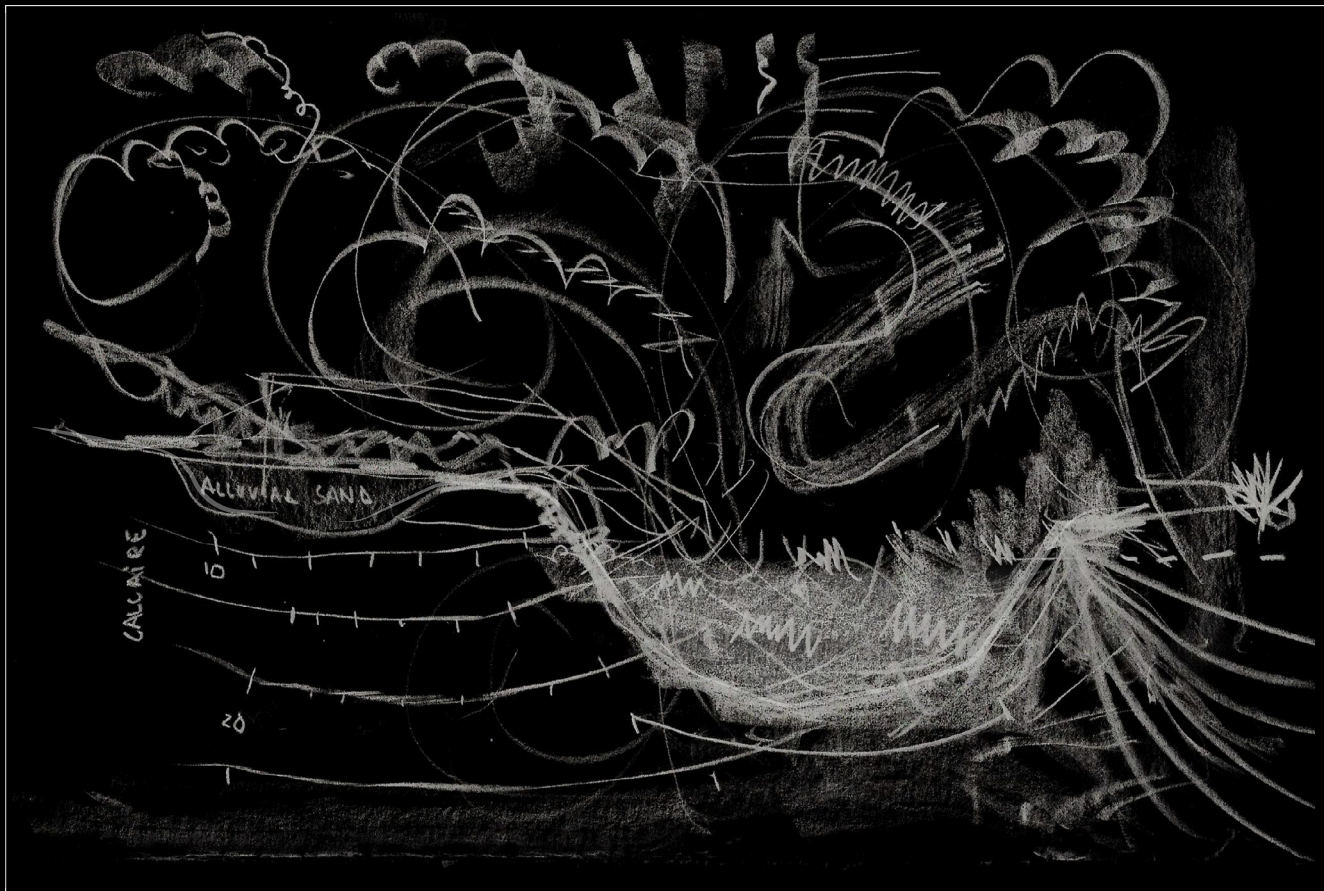
# CONCLUSION (PROJECT)



## CONCLUSION (PROCESS)

**NOUS BLOQUONS ACTUELLEMENT  
LE PORT DE GENNEVILLIERS,  
CŒUR D'APPROVISIONNEMENT DE L'INDUSTRIE  
DE LA CONSTRUCTION D'ILE-DE-FRANCE**





FIN

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