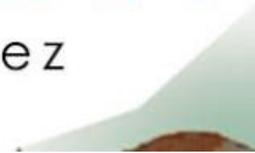


industrial alchemy:

# **K I N E S I S   S T A T E   O F   M E M O R Y**

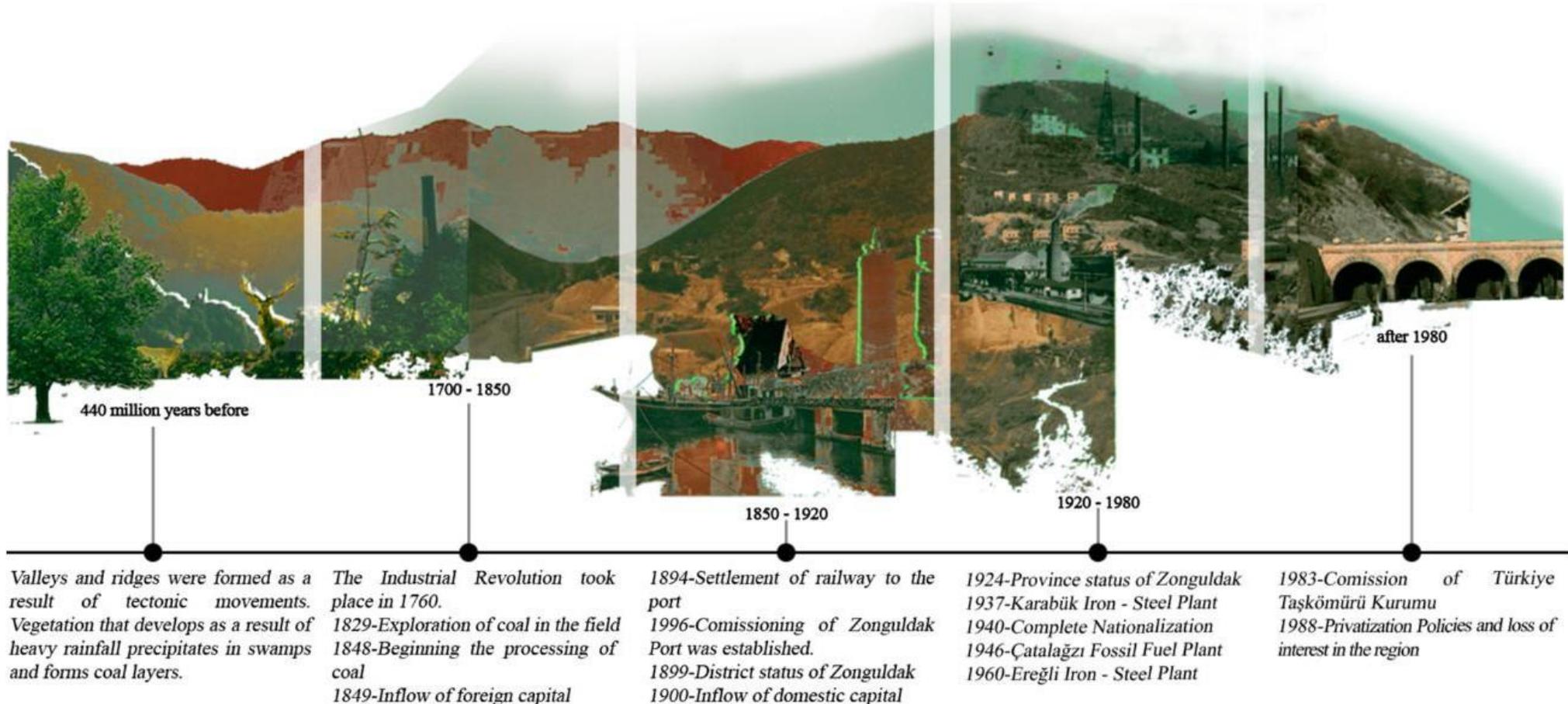
'reconstructing cultural memory of Üzülmöz  
Valley through innovation'



# Phase 1. Initiative to the Field

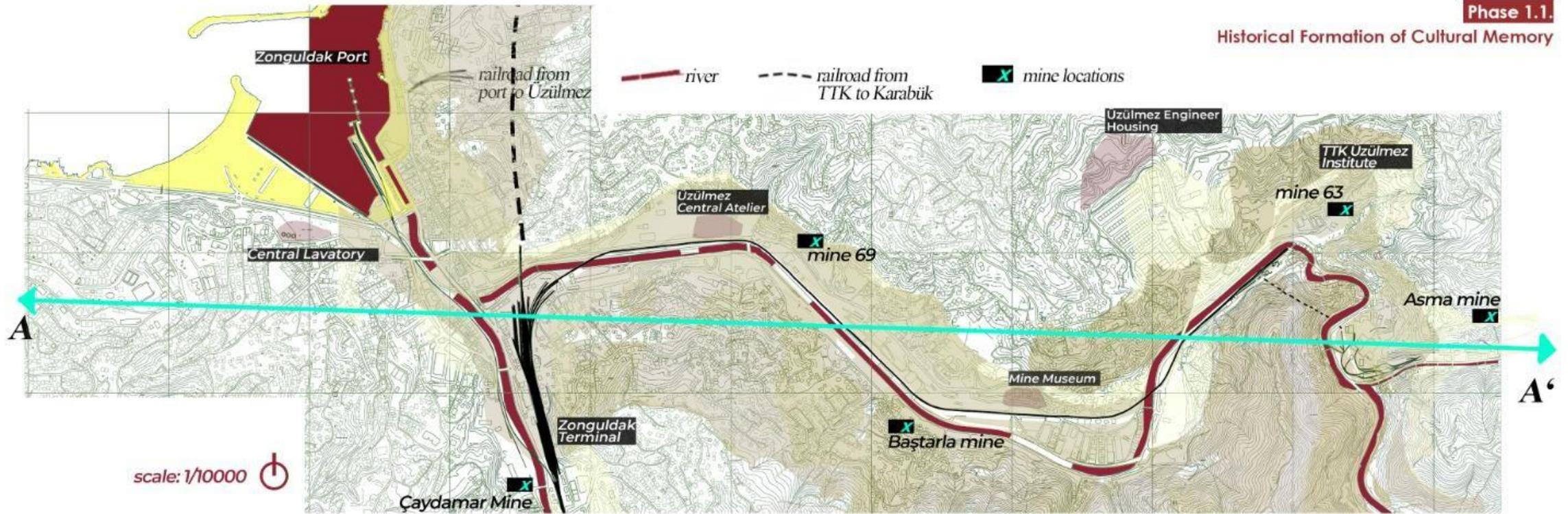
## • 1.1. Cultural Memory

The city of Zonguldak has an identity that is defined as ‘the city of coal’.

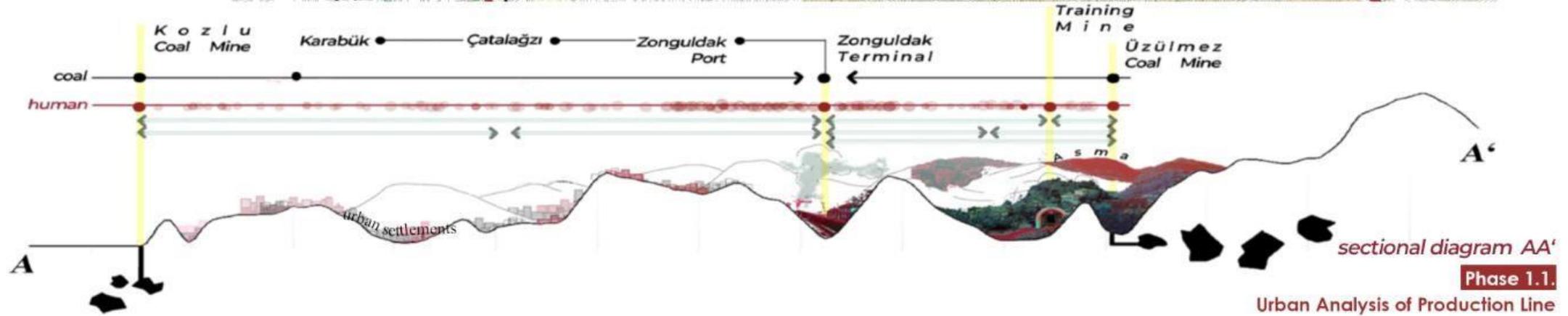


Phase 1.1.

Historical Formation of Cultural Memory



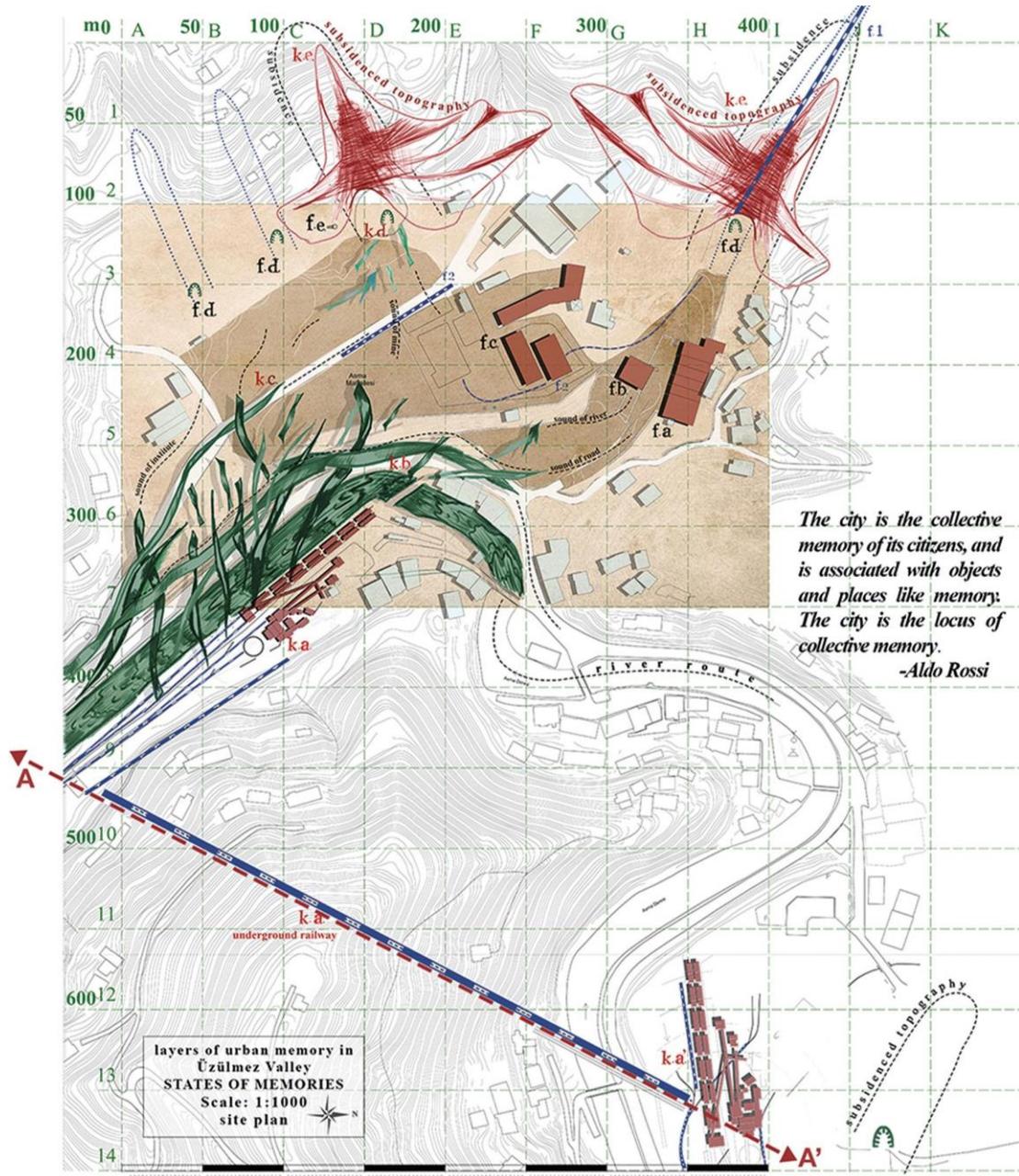
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Phase 1.1.

Urban Analysis of Production Line

# • 1.2. Discussion



## Urban artifacts

Aldo Rossi redefines the architecture of the city with a concentration on 'urban artifacts': a city's monuments, routes, neighborhood, and geographical features that define city's particular culture or locus.

He defines them as the *indispensible part of the city based on the experiences.*

Urban Artifacts can have different functions over the time which are independent of their form and they can shape the city. They are affected by time and space but their primary characteristics are never changed. In this way, the form of the architecture in the city is revealed in its various monuments, and each of the monuments shows us the sequence of the city and finally, it shows us the history of the city.

(The Architecture of the City, 2012, para.7).

With reference to Rossi, the research redefines the urban artifacts as:

### kinesis state of memory:

the condition of an urban component that sympathizes with the origin of its habitual memory.

To be able to read the kinesis states of the valley, the research proposes the opposit condition of the memory as;

### fantasy state of memory:

the condition of an urban component that has lost the origin of its habitual memory. They imitate the original urban characteristic by creating fantasies.

While the museum of mine objects is a state of fantasy; the use of the old railway line as a logistics axis today creates kinesis.

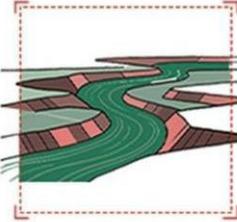
The research aims to preserve the urban memory of Üzülmöz Valley by creating the kinesis states of its habitual memory through the instruments of architecture. It benefits from the experience and the micro-narratives of the valley.

**k.a.** coal institute



The monument is conserved, the memory is active.

**k.b.** river of Asma



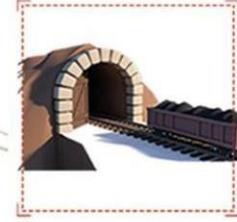
The monument is conserved, the memory is active.

**k.c.** road



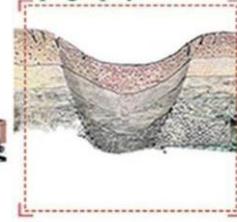
The monument is conserved, the memory is active.

**k.d.** active mine



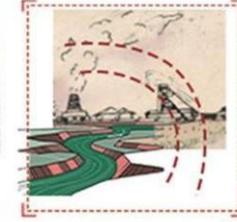
The monument is conserved, the memory is active.

**k.e.** subsided topography



The monument is changing, the memory is active.

**k.f.** soundscape



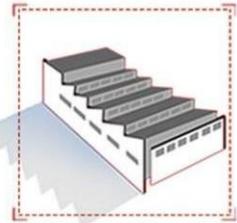
The monument is present, the memory is active.

**f.1.** varagel route



The monument is lost, the memory is lost.

**f.a.** atelier



The monument is conserved, the memory is lost.

**f.b.** rombaki lavatory



The monument is conserved, the memory is lost.

**f.c.** warehouses



The monument is conserved, the memory is lost.

**f.d.** old mines



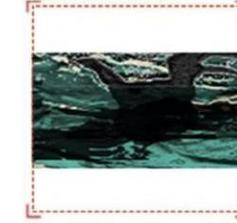
The monument is conserved, the memory is lost.

**f.e.** coke chimney



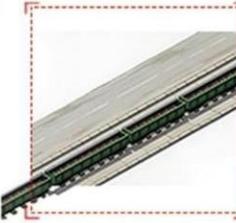
The monument is conserved, the memory is lost.

**f.f.** underground coal formation

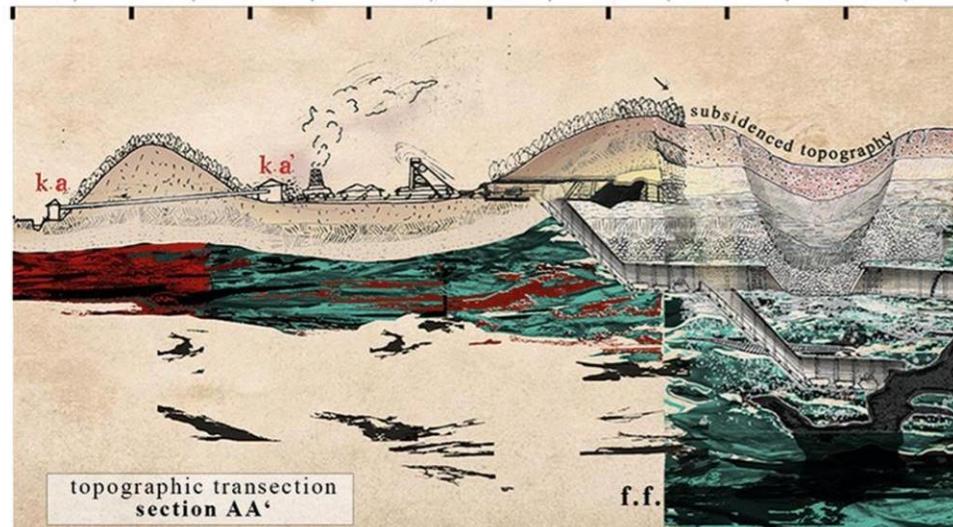


The monument is present, the memory is lost.

**f.2.** routes of railway



The monument is conserved, the memory is lost.



topographic transection section AA'

f.f.

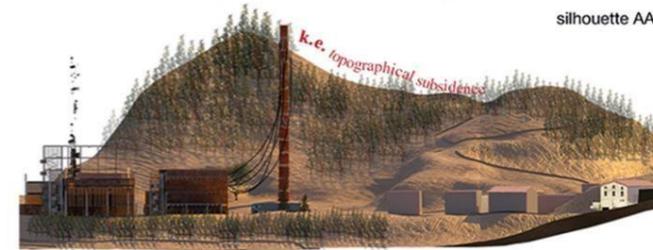
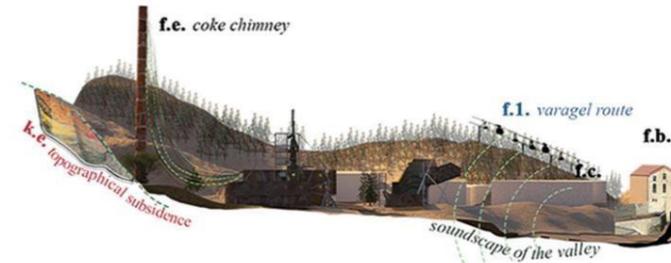
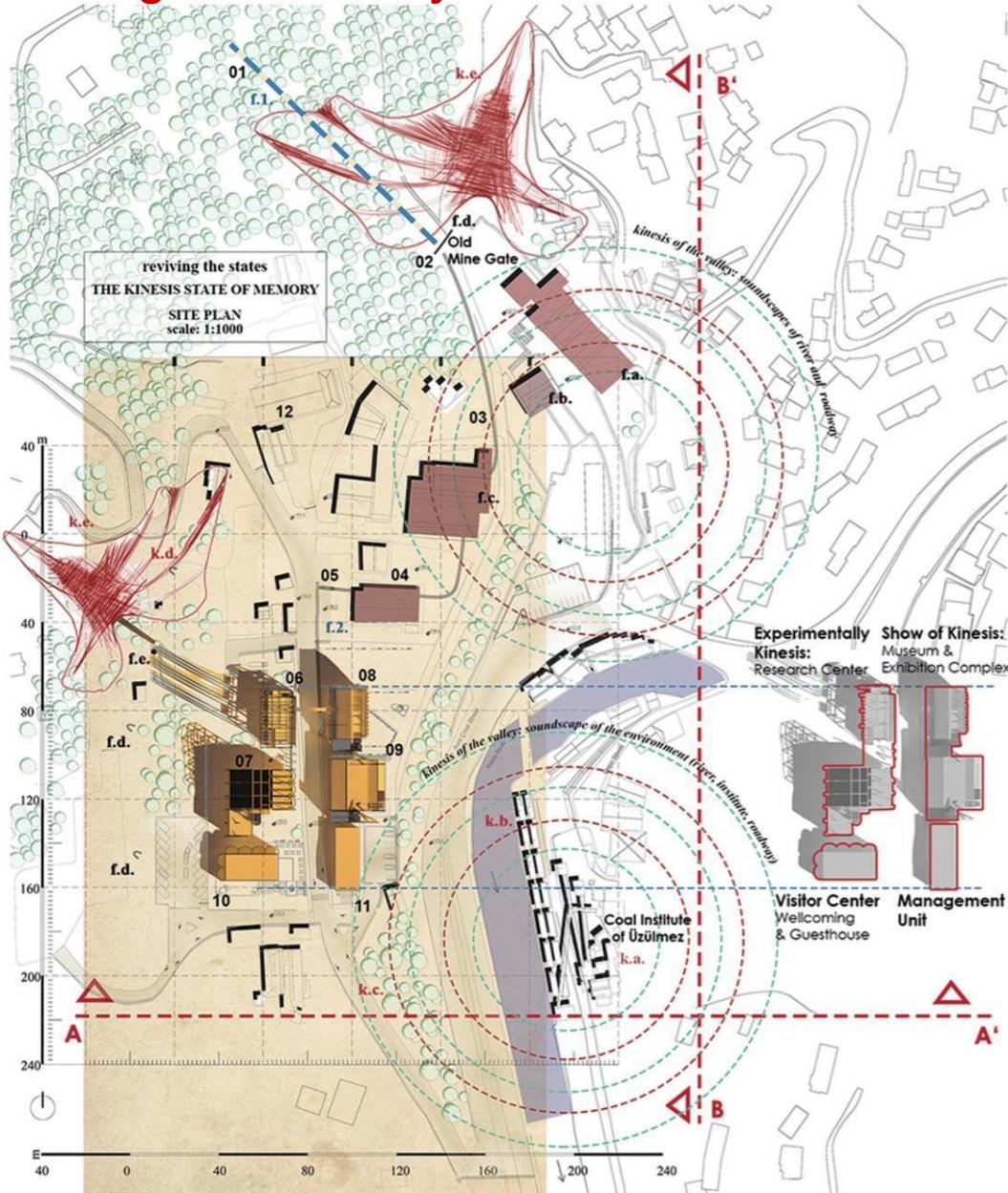
“The form of the architecture in the city is revealed in its various monuments, and each of the monuments shows us the sequence of the city...” -Aldo Rossi

The research proposes a classification as;  
If architecture conserves the memory, it creates the  
*‘kinesis state of memory*  
*The memories are active, used, alive, produced, shared, increased.*

If architecture imitates the monument, it creates the  
*‘fantasy state of memory*  
*The memories are inactive, unused, dead, consumed, alone, lost.*

# Phase 2. Future Vision Through Architecture

## 2.1. Reviving The Fantasy States



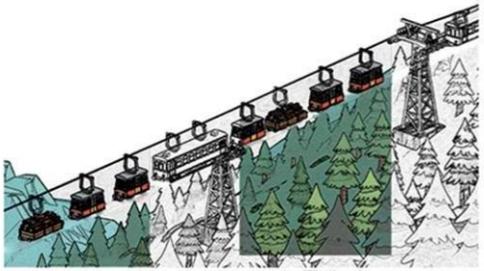
Üzülmöz Valley has a unique urban memory constituted by the industrial environment, which created a living settlement here. People had worked in the mines, lived in the workers' housing, used the social facilities of the Coal Institute, and created an urban memory of the valley for decades.

However, it is seen that the valley is at risk of losing its urban memory. The natives are trying to protect the identity of the valley, but it is hopeless. The imitations of the memory are useless and unqualified.

The monuments are partly conserved, but the habitual memories are lost. The imitations only produce fantasies.

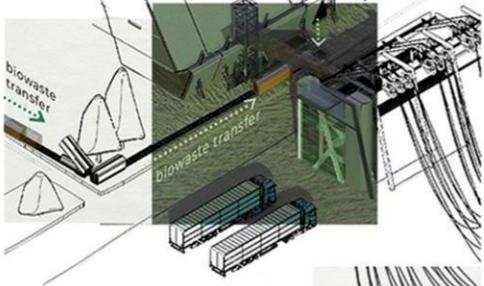
- 01 collecting forest biowaste in varagel route
- 02 transfer of plants from cableway to railway
- 03 railway of biowaste logistic route
- 04 biowaste processing building
- 05 biowaste transfer to the complex
- 06 innovation laboratory
- 07 3d modeling lab & workshops
- 08 museum of kinesis
- 09 exhibition of experimentally artifacts
- 10 visitor center & guesthouse
- 11 management department
- 12 warehouse of the complex

Superpositions of the Fantasies and the Reproduced Kinesis



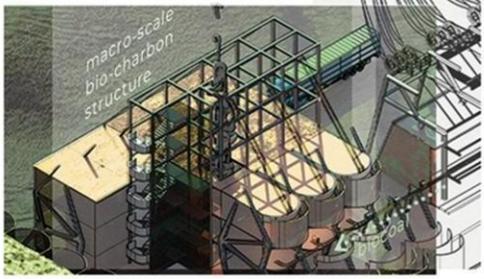
01 collecting forest biowaste in varagel route

f.1. fantasy state of *varagel route* revived in the kinesis state of biowaste collecting



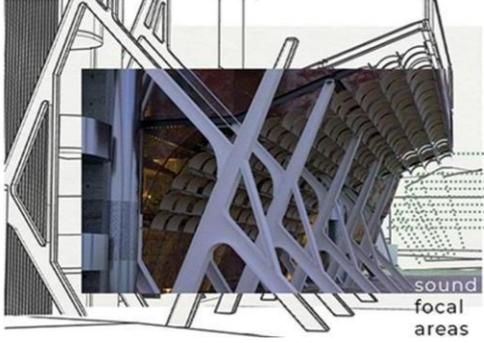
03 railway of biowaste logistic route

f.2. fantasy state of *railway routes* revived in the kinesis state of biowaste transporting railways from the forest to the lab



07 3d modeling lab & workshops

f.f. fantasy state of *underground coal formation* revived in the kinesis state of macro-scale bio-coal structure



09 exhibition of experimentally artifacts

k.f. kinesis state of *soundscape* revived in the kinesis state of soundscape installation of museum

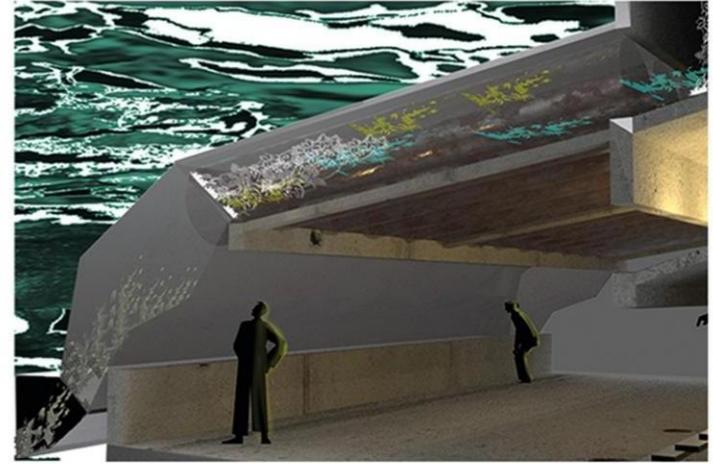
06 innovation laboratory

f.f. fantasy state of *underground coal formation* revived in the kinesis state of bio-coal formation in the innovation lab



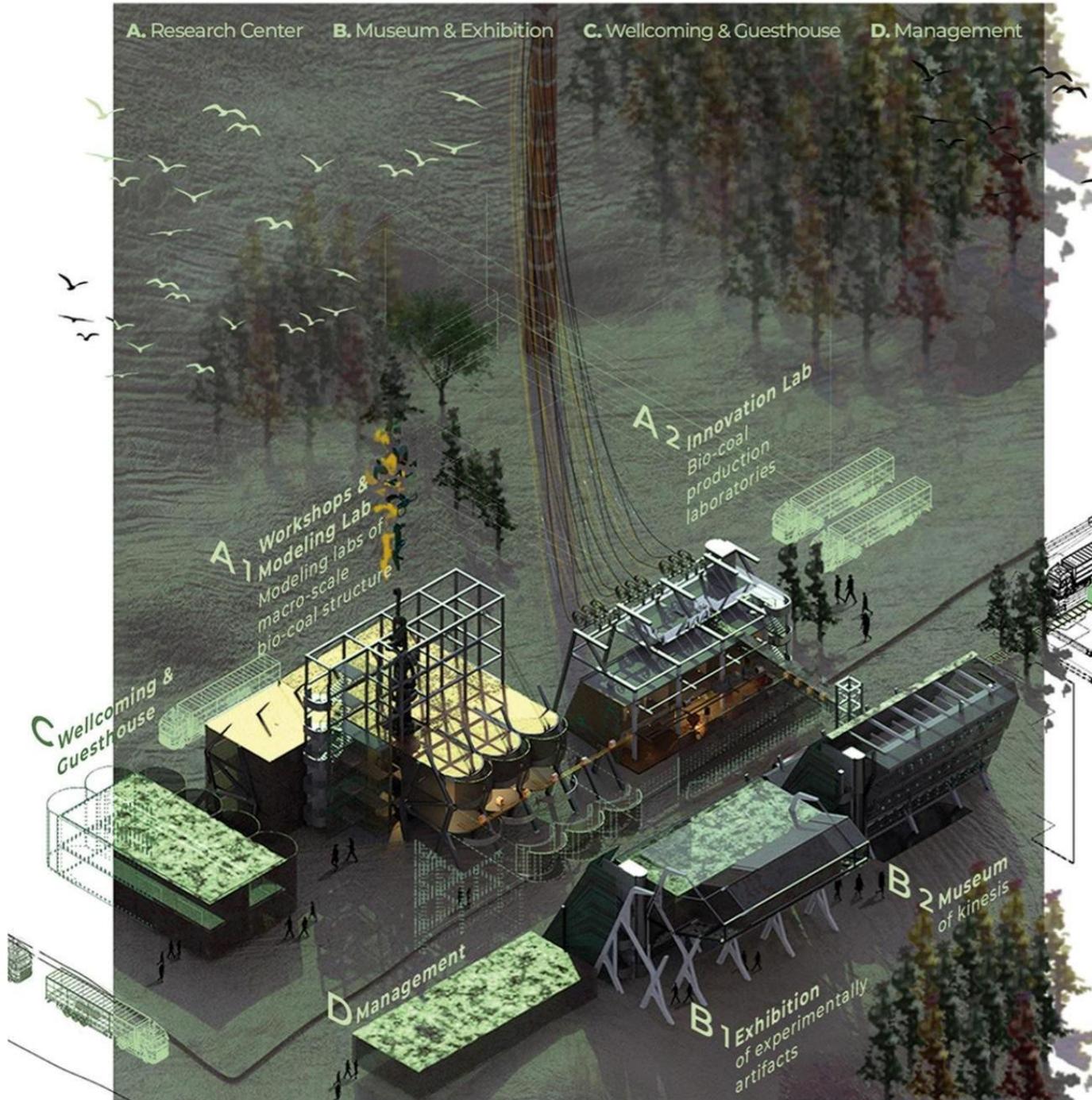
08 museum of kinesis

f.f. fantasy state of the *underground coal formation*, revived in the kinesis state of *accumulation and leakage* of the forest waste: *the locus of memory*



The museum is a *place of experience* where *fossilization* is witnessed.

A. Research Center   B. Museum & Exhibition   C. Wellcoming & Guesthouse   D. Management



The project focuses on three main states of the memory that are being lost in the valley:

**Topographical Subsidence:** The landslide down of soil over the old mine tunnels due to cavities.

**The Soundscape of the Valley:** The environmental sounds of the valley coming from the institute, river, excavations, fauna, wind, heavy rains etc.

**The Underground Coal Formation:** Coal formation cycle from fossilization to carbonization.

The aim of the project is to reconstruct urban memories by using architectural tools and transforming them into spatial senses.

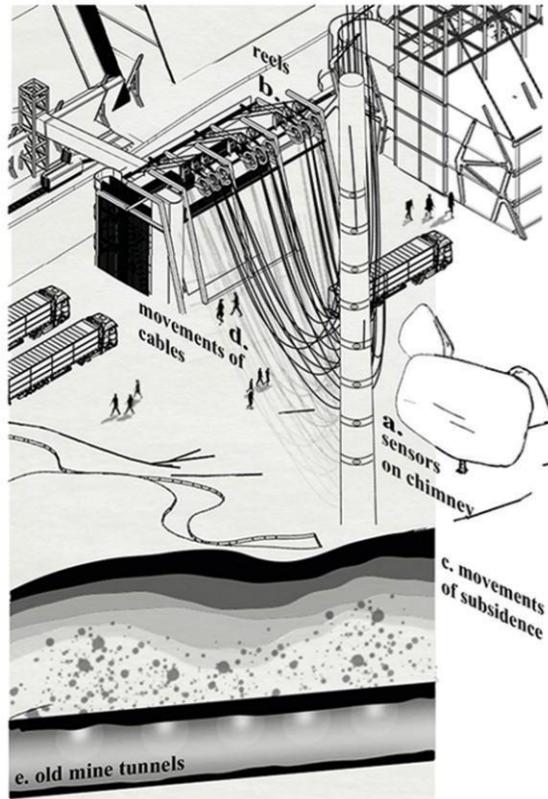
# Phase 3. Designed Spaces of Experience

## 3.1. Transforming Cultural Memories into Experiences

design phase: Reproducing the States of Memories

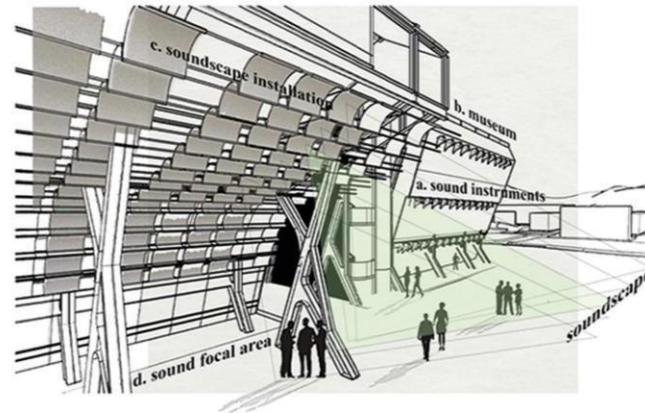
### kinesis state 1 topographical subsidence

- a. **Observation sensors** are attached to the historical coke chimney.
- b. Steel cables coming from the sensors are connected to the **reel system** at the roof of the innovation lab.
- c. The **topographical elevation changes** are recorded in time.
- d. Movements of subsidence are transformed into the **movements in reel system**.
- e. Cavities of the **old underground tunnels** are collapsing in time and the topography slides down (subsidence effect).



### kinesis state 2 the soundscape of the valley

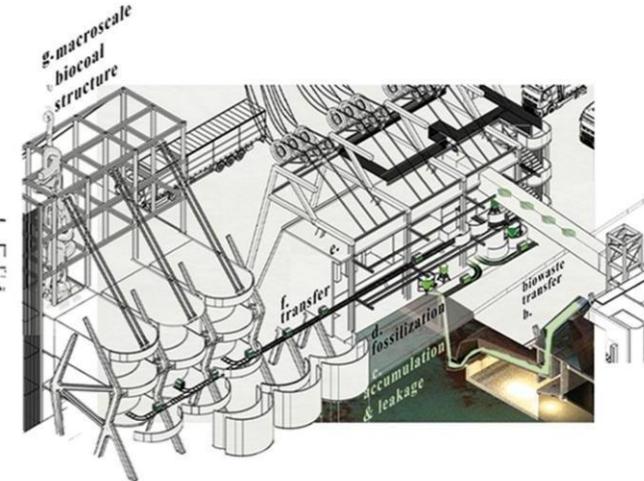
1. The soundscape of Üzülmöz Valley is received into the museum by the **conductive sound instruments** on the facade.
  - a. **conductive sound instruments**
  - b. **museum building**
2. The soundscape of Üzülmöz Valley is reflected and gathered at the frontyard of the exhibition building, creating **sound focal areas**.
  - c. **soundscape installation**
  - d. **sound focal area**



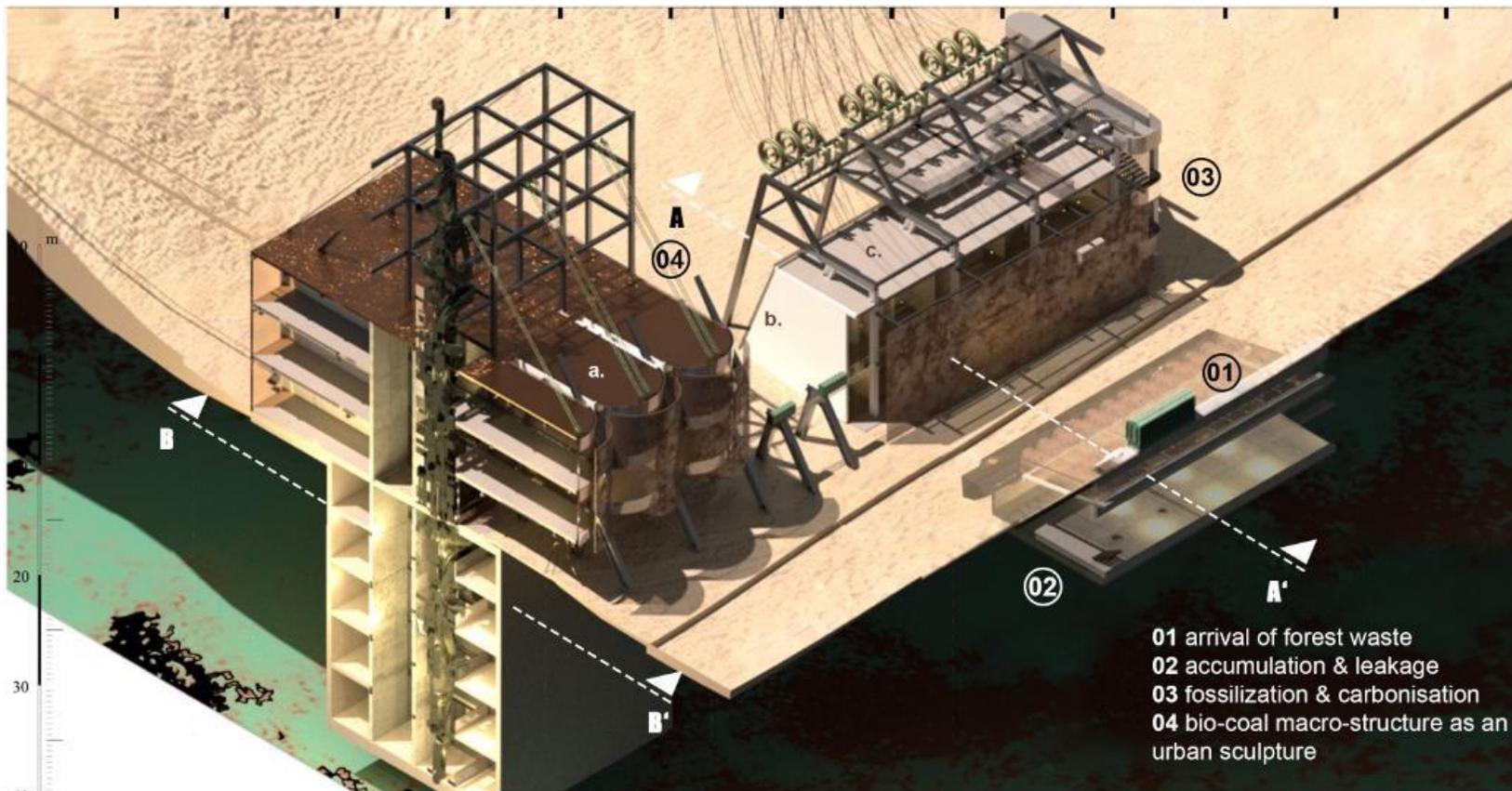
- f.e. fantasy state of *coke chimney* revived in the kinesis state of the reel system of innovation lab
- k.e. kinesis state of *subsided topography* revived in the kinesis state of the reel system of innovation lab

### kinesis state 3 the underground coal formation

- a. Forest waste is transferred to the complex on the existing historical rails.
- b. Forest waste is dumped into the **locus of memory**: the underground waste collecting vessels.
- c. **Accumulation and leakage** of biowaste.
- d. **Fossilization** at high temperature reactor.
- e. Transforming the fossil plants into bio-carbon based material.
- f. Transfer of bio-carbon to modeling lab by the rails.
- g. 3d modeling the **macro-scale bio-coal structure**.



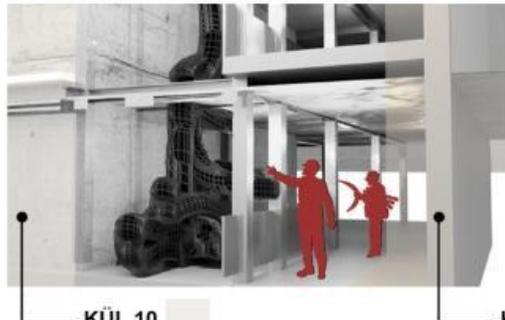
- f.f. fantasy state of the *underground coal formation* revived in the kinesis state of the innovation laboratory. The phases of accumulation, leakage, fossilization and carbonization are reproduced in the lab.



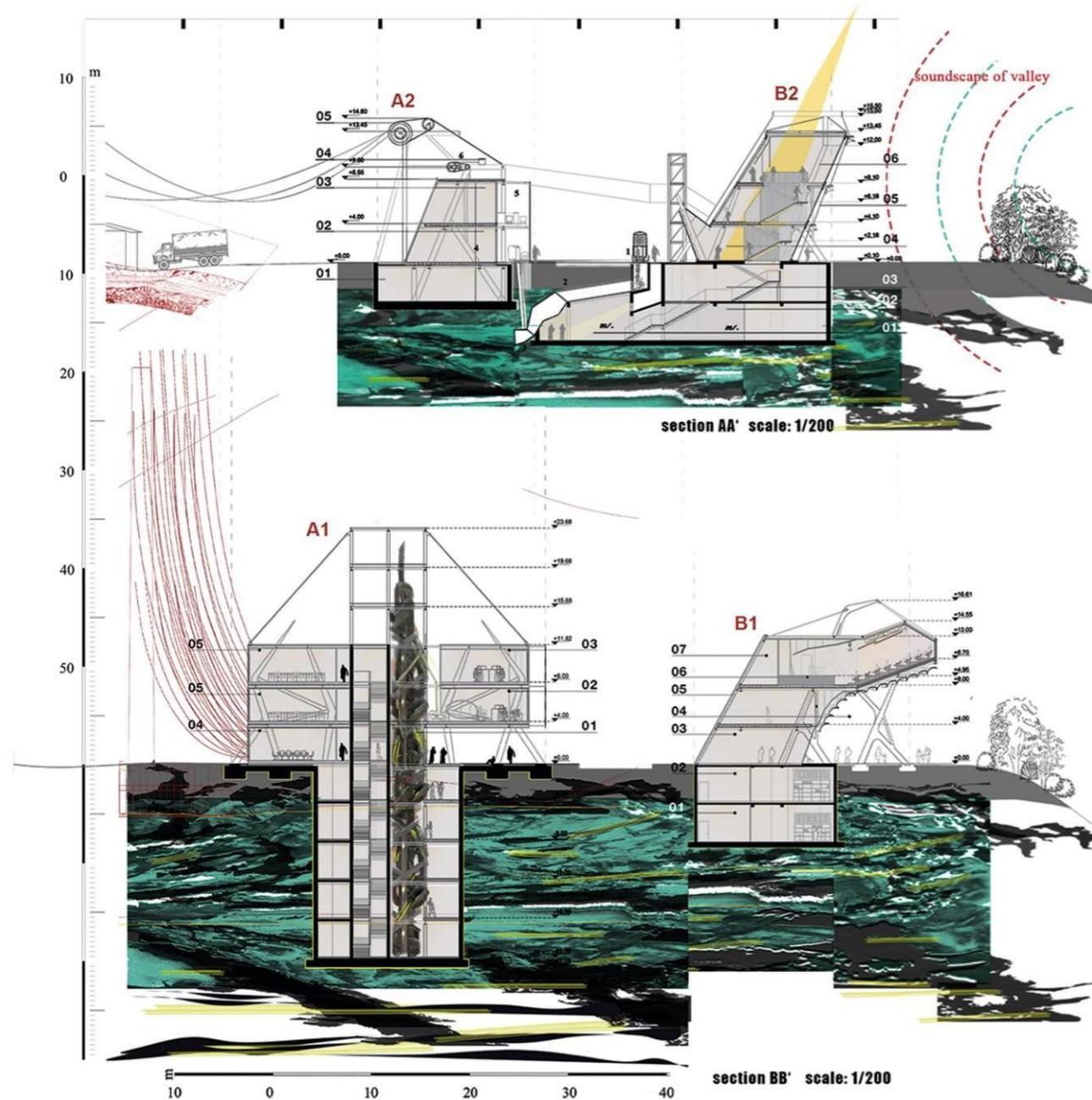
phase 04.1

phase 04.2

phase 04.3



The macro-structure, which is made of bio-coal, accumulates, and it is harvested in time to take its grown pieces as experimental artifacts of the soil of Üzülmöz Valley. The soil represents an indispensable part of the culture of Üzülmöz. It contains the production habits of the society, the authentic vegetation of the territory, the historical underground formation of the soil, and the memory of the earth, the people, and the life. The texture, form, and color of the coal structure change in time according to the fossil plant species that were used. *It will rise in the valley as an urban sculpture made of the memories of its culture. It will grow, change, and show us the sequences of time.*



**A1 / Modeling Lab & Workshops**

- 01 urban artifact: macro-scale printed bio-coal structure
- 02 modeling lab
- 03 modeling lab & research center
- 04 meeting room
- 05 workshops

**A2 / Innovation Laboratory**

- 01 storage
- 02 entrance hall & office
- 03 material laboratory
- 04 transfer of experimental phases to the museum
- 05 sensory reel system of topographical subsidence

**B1 / Exhibition of Experimentally Artifacts**

- 01 wet areas and storage room
- 02 archive
- 03 entrance hall
- 04 exterior soundscape installation
- 05 exhibition hall
- 06 conference hall
- 07 hallway

**B2 / Museum of Kinesis**

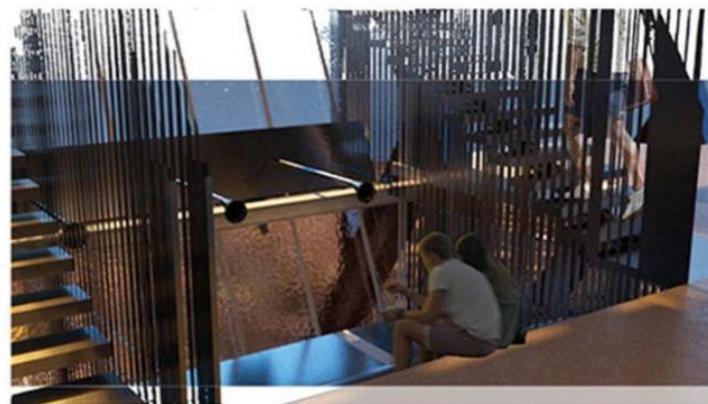
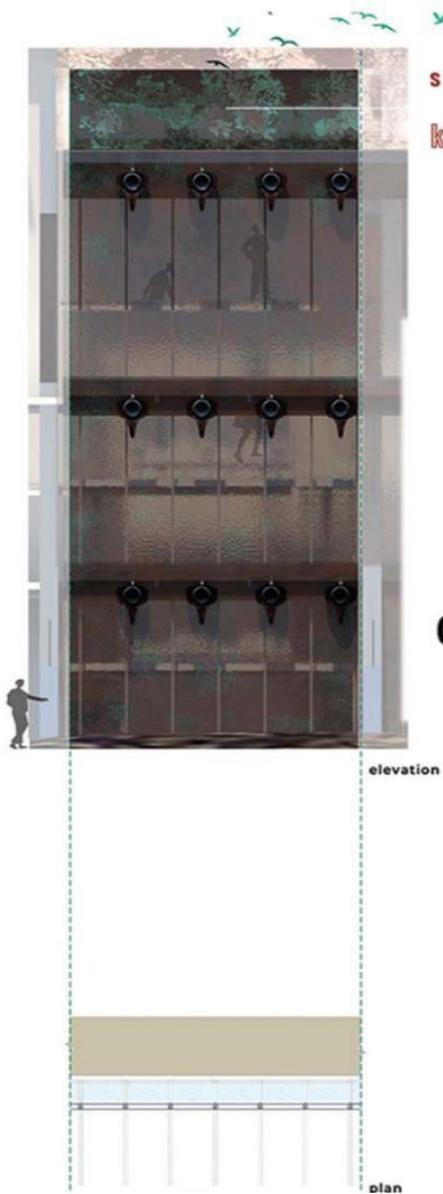
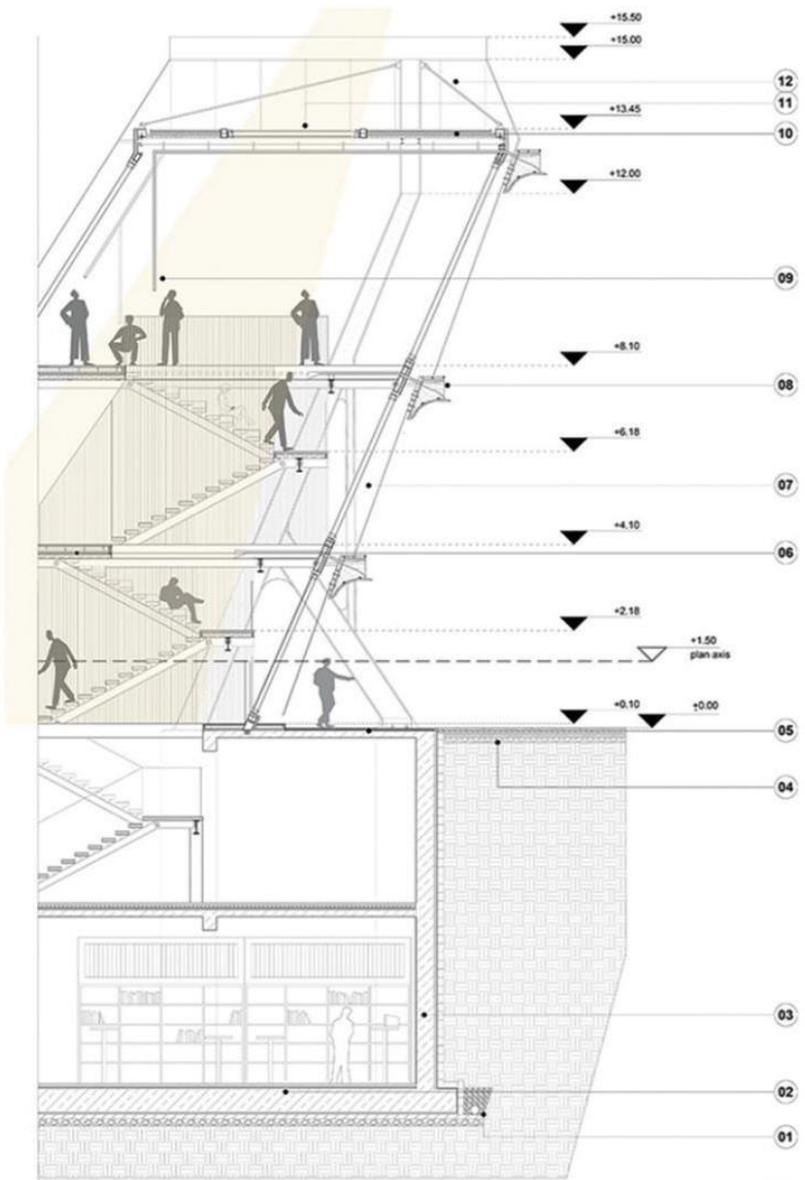
- 01 locus of memory
- 02 wet areas and storage
- 03 archive
- 04 entrance hall
- 05 show of kinesis-soundscape instruments
- 06 show of kinesis-soundscape instruments

section detail AA' | 1:50

10m

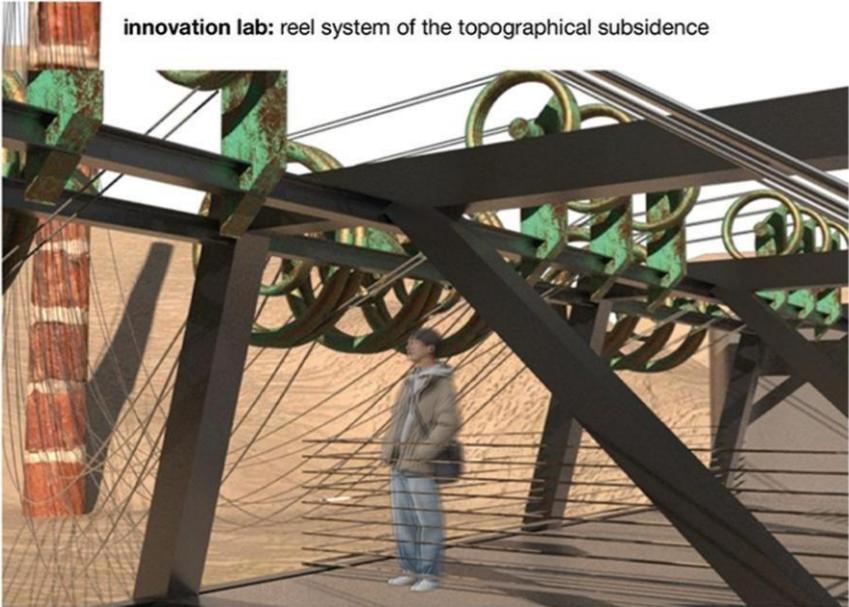
kinesis state #3 the soundscape of the valley

09 Speaker



08 Receiver

innovation lab: reel system of the topographical subsidence



research center: bio-coal production facilities



A-1275



A-1132



A-1174



A-1154



**Thank you for listening!**