Mining Istanbul.
A project for an urban refinery.

“We live in a world populated by structures, a complex mixture of geological, biological, social and linguistic construction that are nothing but accumulations of materials sharpened and hardened by history. Immersed as we are in this mixture, we cannot help but interact in a variety of ways with the other historical constructions that surround us, and in these interactions we generate novel combinations, some of which possess emergent properties. In turn, these synergistic combinations, wether of human origin or not, become the raw material for further mixtures”

(Manuel Delanda, 1000 years of non-linear history)
Studio brief
Material approaches to Istanbul: reconceptualizing Geology within the city
Tectonics
human agency accelerates modifications of the territory
Re-use
Resilience
Re-cycle
Urban archaeology.
A found ruin part of a system of territorial management and modification.
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Context, proposed large scale intervention
Resource brought back in town
arcadian carpet
Re-use and re-cycle
Linearity of exploitation
Closing the cycle
Interdependence
Awareness
Underground
Altering the topography and geological composition of the site.
Stratification 1: layering
Emersion:
light and work environment
Smooth machinic Access
Logistics to resources
Dialectical urban ground for the neighbourhood
Stratification 2 : sequence
Three main climatic areas
Process explained
Input e-waste

Gate, check in and weight

Load object to be repaired

Gate, check out and weight

Output raw materials

Load Toxic waste
Load New materials for workshops
The underground
The incoming goods storage
Electronics with screens, cables and processors.

Monitors, TVs

Bulky Households
(fridges, washing machines, ...)

Test

Lamps
The hand sorting out hall
Diagram showing the process of e-waste recycling:

1. **Incoming e-waste tank**
   - Waste ready for machine recycling
   - Minnesota metal fragments
   - Non-Ferrous Materials
   - Non-metallic Materials
   - Organic waste

2. **Hand Assembly**
   - Hand assembly
   - Waste ready for machine recycling
   - Minnesota metal fragments
   - Non-Ferrous Materials
   - Non-metallic Materials
   - Organic waste

3. **Grinding (2 x 3 x 3 cm)**
   - Minnesota metal fragments
   - Non-Ferrous Materials
   - Non-metallic Materials
   - Organic waste

4. **Magnetic Separator**
   - Magnetic separation
   - Non-Ferrous Materials
   - Non-metallic Materials
   - Organic waste

5. **Electric Currents**
   - Metallic separation
   - Non-magnetic Materials
   - Organic waste

6. **Optical and Metallic Separation**
   - Optical separation
   - Metallic separation
   - Organic waste

7. **Final Products**
   - Glass
   - Plastics
   - Organic waste
Repair workshop
Repaired storage
To-be-Repaired storage
Spare parts storage

Customers entrance and secretary
Researchers
Foam cuts, dirty workshops

Outdoor work yard

New materials shop
Spare parts storage
Outside work yard

Wood and metal
Repaired workshops

Services

Meeting room, conferences and classes

Computer room

Lobby
Slits in the building organize its circulation and expose its layering
As an archaeologist, Creation of a Palimpsest using existing and new materials
Layering as materialization of human effort in its enterprises in handling nature and harvesting resources
Geological formation
the refinery in pictures
Geological formation
Ornamentation and craft
in the contemporary context
Ornamentation as structural overhangs and niches
Cave like interior for alchemic transformations inside
Concrete architecture:
stacking and stereometry
Indexical exploration of the heavy walls
Story of construction.
Two inverse and complementary processes
Erosion and edification (further sedimentation)
Story of construction
pattern embedded in construction process, Loos (no wasted manpower)
Full height shafts for ventilation.
Thick wall hosting services.
Airtight translucent enclosures for climate control and efficient air provision and exhaust
Transparency and translucency of the enclosures
Doubling of the sky.
Fragments.