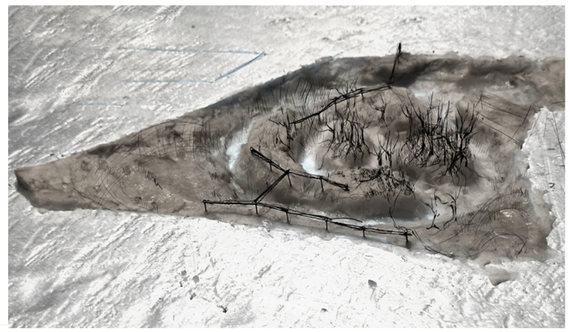
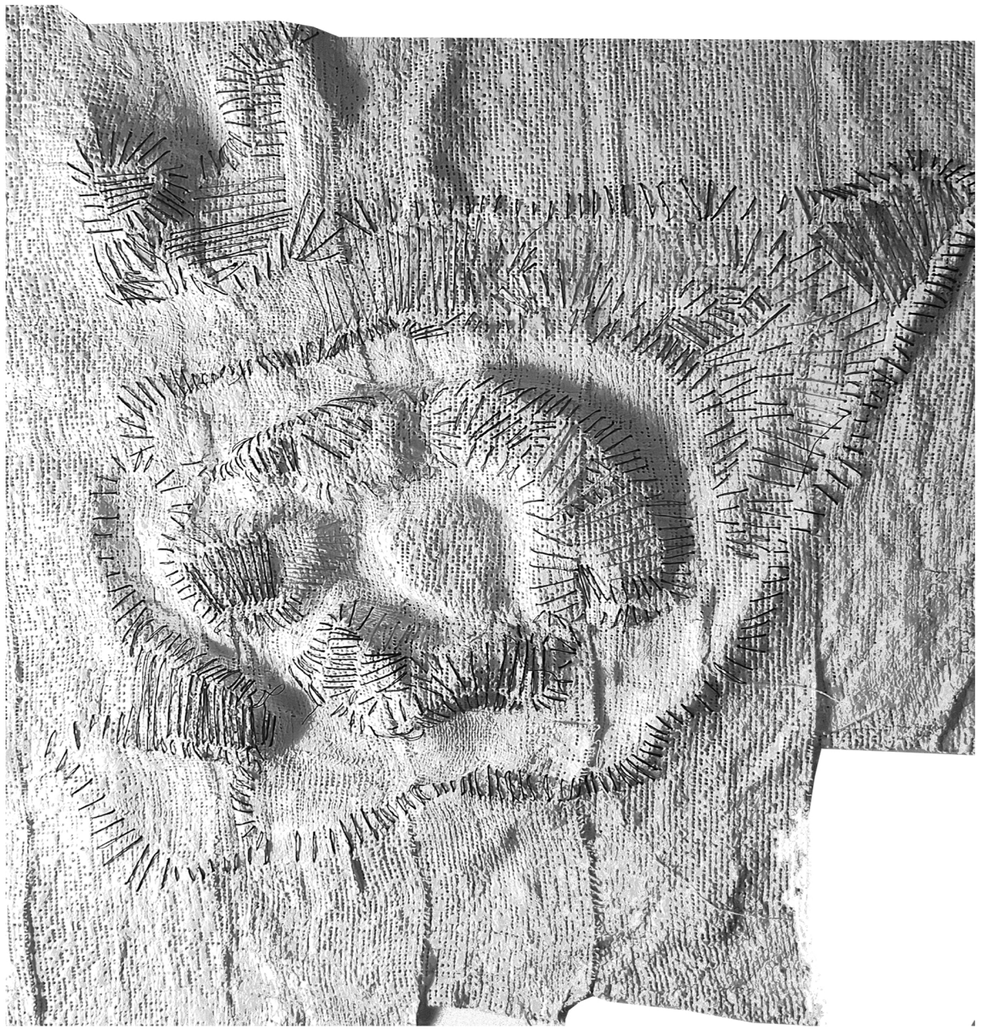


The undergraduate course "Reconstructing the Ground: Design Studio III-Va" is adressed to 3rd-4th year students of architecture.  Students are asked to approach the landscape experientially, as a complex assemblage of variants, processes, and beings, not as an image. This was the starting point for investigating through design the lower catchment's riparian coastline, and the torrent-bed of Krafsidonas torrent, which springs from the mythically renown Mt Pelion.  However, along with the students, our observation is that while Krafsidonas is a dynamically changing landscape, a potent ecological corridor, which along its flux hosts local and mostly ephemeral aquatic ecosystems, this variability is not accounted by the top-down initiatives, as gray infrastructure solutions are usually implemented, and thus its torrential ecosystems often destroyed. The student projects chosen to be presented in the framework of the Biennial's theme "¿Natural Inteligence?", encompass strategies of approach that -in a multitude of ways- co-weave mutually optimal envisioning, between the city and the torrentscape's ecosystems.  Among them: the creation of amphibious landscapes that can respond to the abundance or the scarcity of water -basic characteristic of Mediterranean torrents; the flexibility to design flood-rooms as public spaces, open and inclusive towards the city and its inhabitants but also the torrent. Moreover, thinking about more-than-human life forms, treating the torrentscape as a dynamically variant subject rather than as a flow confined by grey infrastructures, are the directions which were emphasized in this brief collection of student's design proposals and their strategies.

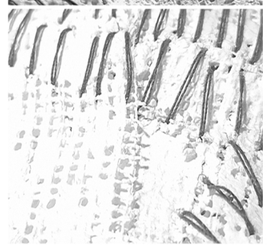


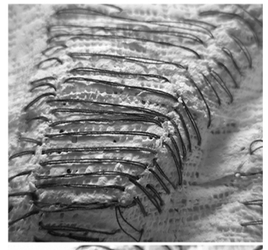


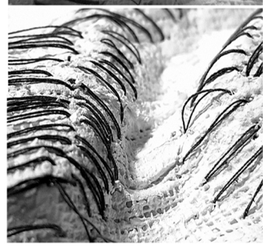


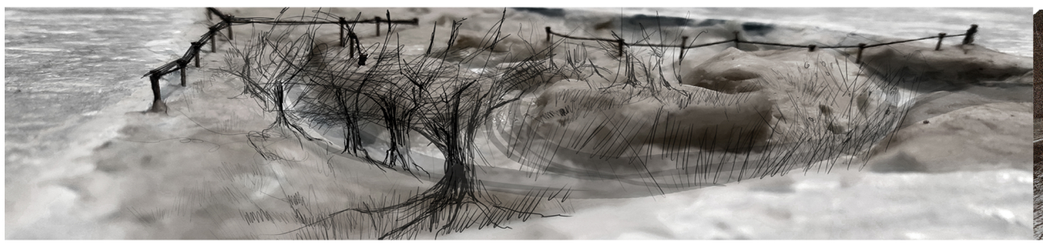


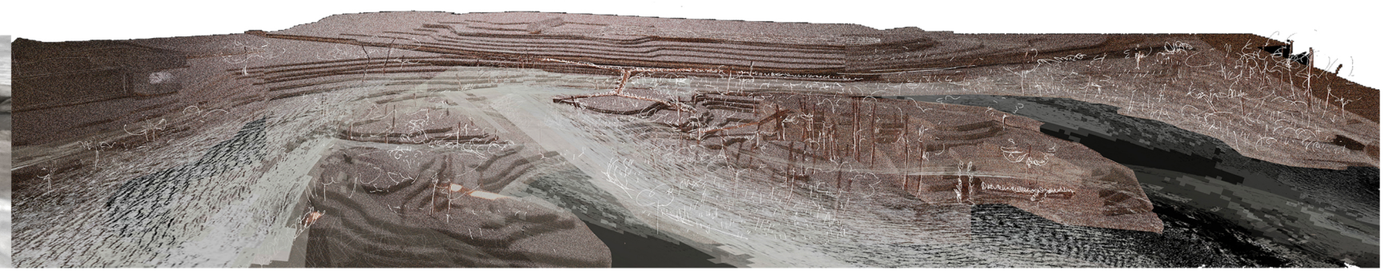












| | |
|---|---|
| **Country/City** | Greece, Volos |
| **University / School** | University of Thessaly |
| **Academic year** | 2023-2024 |
| **Title of the project** | Plexis |
| **Authors** | Zachou Dimitra, Katopi Glykeria, Thomaidou Eliza |

## TECHNICAL DOSSIER

**Title of the project** Plexis

**Authors** Zachou Dimitra, Katopi Glykeria, Thomaidou Eliza

**Title of the course** Re-constructing the Ground: Design Studio III-Va

**Academic year** 2023-2024

**Teaching Staff** Aspassia Kouzoupi, PhD

**Department / Section / Program of belonging** Department of Architecture, Undergraduate Program

**University / School** University of Thessaly

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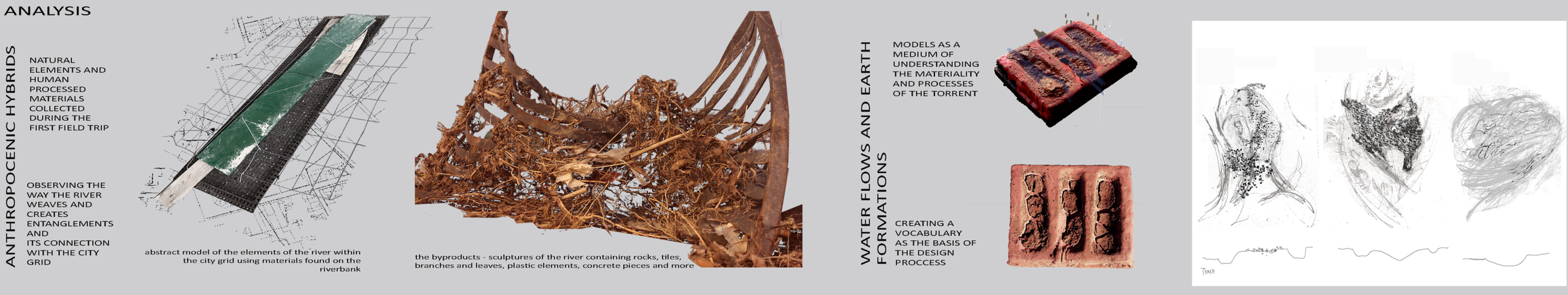


**Written statement, short description of the project in English, no more than 250 words**

“Plexis” seeks to engage with the condition of the Anthropocene, where the natural and the human-made elements are entangled in continuous interactions, without distinct boundaries. Flooding is not approached as a destructive or vengeful force, but rather as an opportunity for interweavings and symbiotic relations. Through the reconstruction of the ground and the strategic insertion of elements along the river’s edge, the rewilding of the site using native plants enhances wetland biodiversity. The capacity of water to generate flows, movements, and spatial connections, “knots”, across different locations and temporalities, enables the torrent to reclaim its presence within the urban fabric, activating a new reciprocal relationship. The creation of two islets which are left for the torrent’s ecosystem to thrive undisturbed, aims to remediate the environmental problems caused by gray infrastructure. The process of creating the proposal’s models as a tribute to the torrent’s sculptural properties, highlights its potential to form, shape the earth and the ecosystems around it. The embroidered model [p1/3 top right] indicates different ground materials: rocks, porous concrete, reused concrete, sand, clay, gravel, which form barriers or passages. The wax model [p1/3 top and bottom left] approaches the way water separates or connects, and the cardoard model [p 1/3 middle left] the relation of the plexis site to the historical Walled city of Volos.

**Barcelona International Landscape Biennial**

Contact via email:
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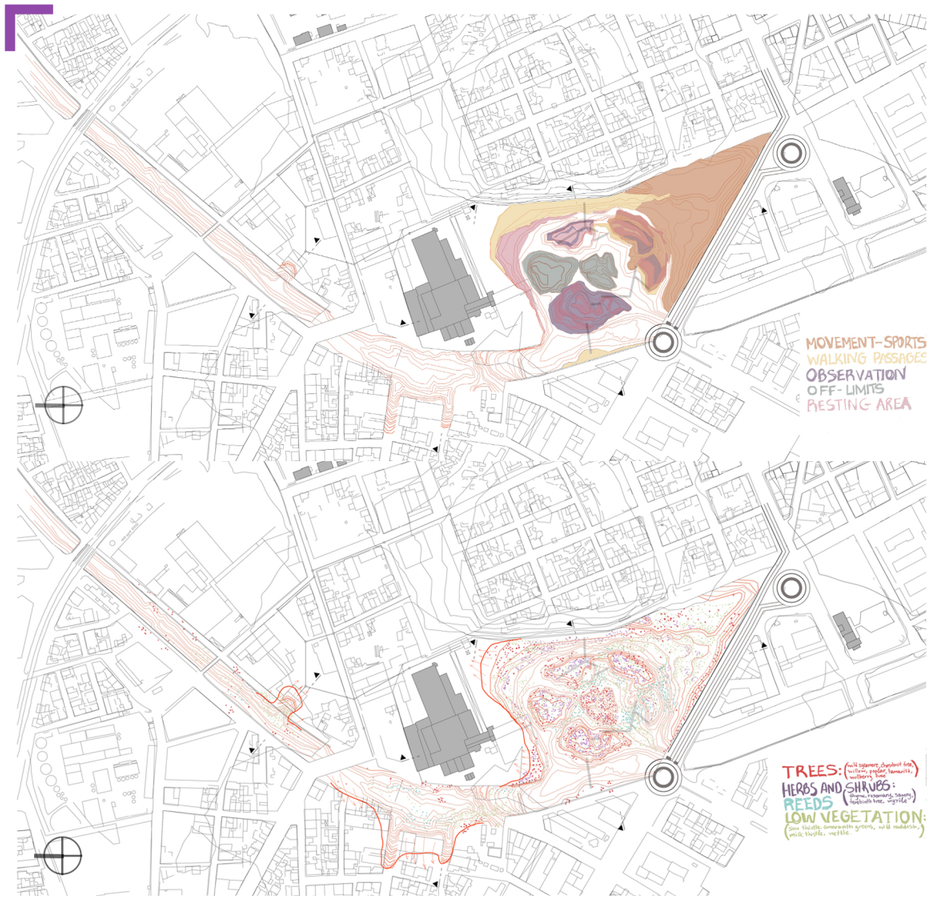
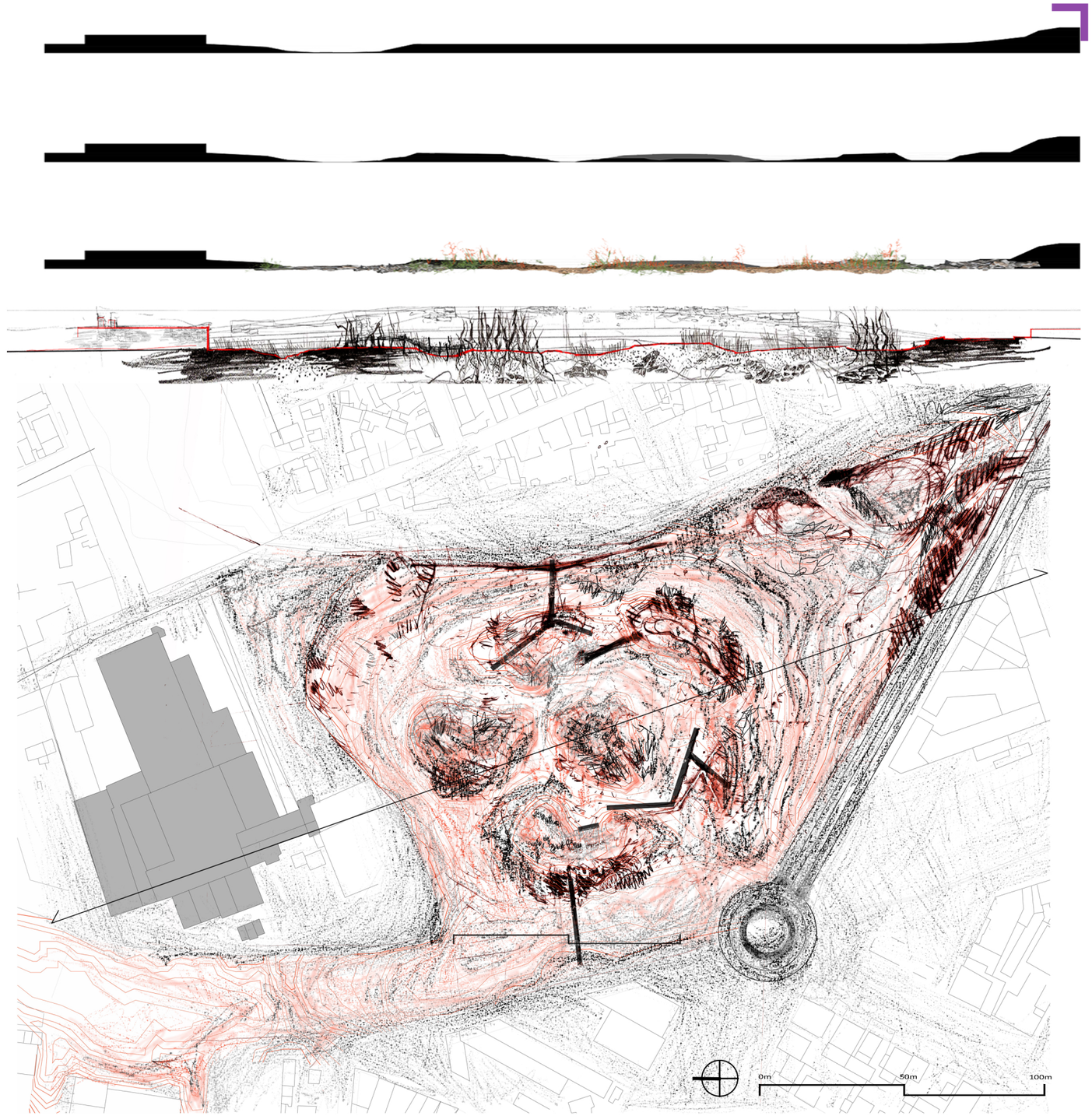
Venue:
COAC - Col·legi Oficial d’Arquitectes de Catalunya
Carrer Arcs 1-3, 08002 Barcelona - Spain





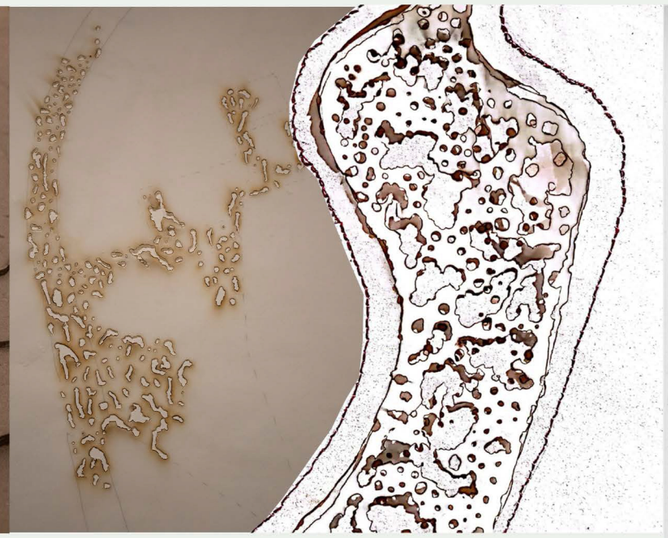

## A. REWILDING AND FORMING SPACES OF CO-EXISTENCE

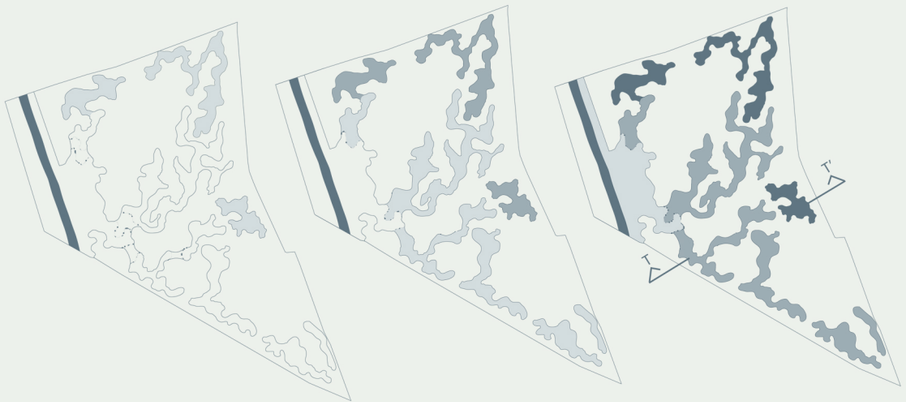
-distribution of NATIVE PLANTS: trees, low vegetation, plants that filter water and herbal plants CREATING A CORRIDOR FROM THE MOUNTAIN, creation of sediment traps along the riverbank
-different USES depending on the seasonal conditions: during drought the whole area can be walkable but during floods, the islands are activated by the ramps)

## B. RECONSTRUCTING THE SOIL: FLOOD ROOMS AND SLOWER WATER FLOWS

excavation of specific points for the river to continue the erosion through time, use of different ground materials (rocks, porous concrete, reused concrete, sand, clay) to create islands, elavation differences to a.speed up or decelarate the river flow b.ensure enclosure and protection through the lower altitude of the whole floodroom









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|---|---|
| **Country/City** | Greece, Volos |
| **University / School** | University of Thessaly |
| **Academic year** | 2023-2024 |
| **Title of the project** | More-than-human strategy: Symbiosis and Hyacinthus |
| **Authors** | Charalapidou Christina, Bregiannis Yorgos & Lemonaki Chrysa |

TECHNICAL DOSSIER

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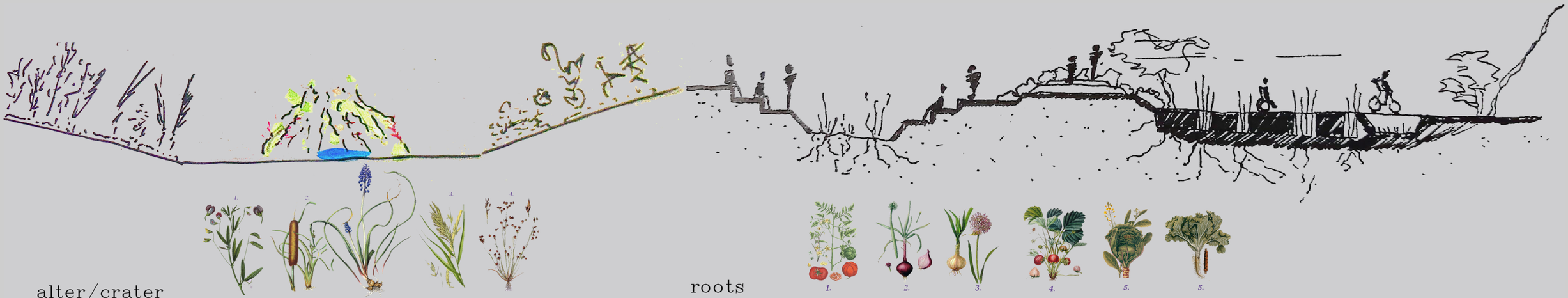


**Written statement, short description of the project in English, no more than 250 words**

Two complementary projects co-weave one strategy, aiming at strengthening and remediating the more-than-human aspects of the torrent Krafsidonas. The Symbiosis project [page 1/3], aims to create an urban eco-habitat in the torrent riparian area. Focusing on the symbiosis of humans, animals and plants, and on the restoration of the Krafsidonas torrential ecosystem, after the damage caused by floods in September 2023. The concept involves shallow depressions that retain water, and channel it toward the river while irrigating the plants. Some of these depressions are connected underground, while others operate through overflow mechanisms, as rain-gardens or 'craters'. In addition, trees and plants are introduced to attract insects and birds that were displaced from the area due to gray infrastructure, urban and industrial expansion. Urban agriculture fields and play areas are addressed to the residents, who lost their gardens and orchards; thus social interaction and reconnection with natural dynamics is enhanced. The Hyacinthus project [page 3/3] re-imagines the Krafsidonas torrent through a mythological lens, resurrecting its ancient river god to reclaim the landscape. Channeling the transformative power of the Hyacinth flower, the god casts the bloom into the stream, causing all man-made structures -concrete, pipes, and asphalt- to rupture and entwine with natural matter like leaves and twine. Along four key points of the stream the shrines emerge as organic filtration sites where water is purified through herbs. These 'crater'-points function both as flood basins and communal gardens, integrating destruction, ritual, and ecological healing into a new kind of urban myth.

**Barcelona International Landscape Biennial**

Contact via email:
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Venue:
COAC - Col·legi Oficial d'Arquitectes de Catalunya
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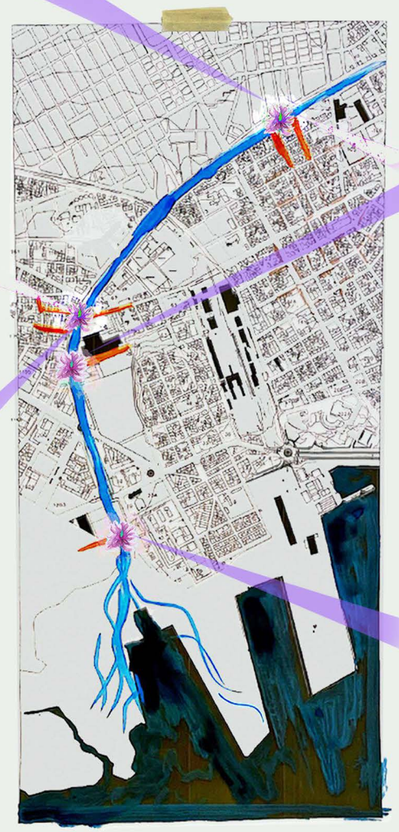
"With the appearance
of a fallen comet
that cuts through
the sky and strikes
the earth,
creating craters like
those on the Moon.
At their center,
broken human
mistakes are sewn
together with roots
and leaves.
All around, the
roads of humanity
have collapsed and
lead to the Stream."



"The drops of Hyacinth spilled
and rolled from the tips of
the blades of grass to its
roots,
kissing the Earth."





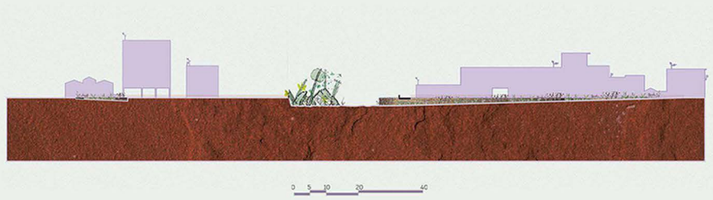


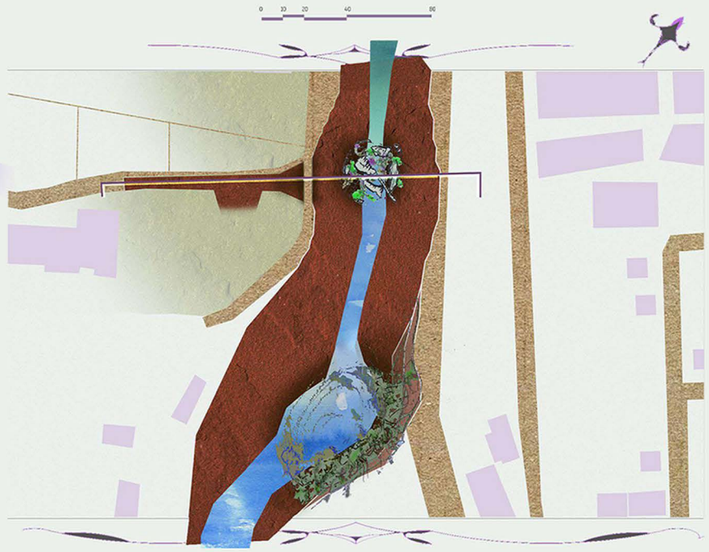



















Masterplan

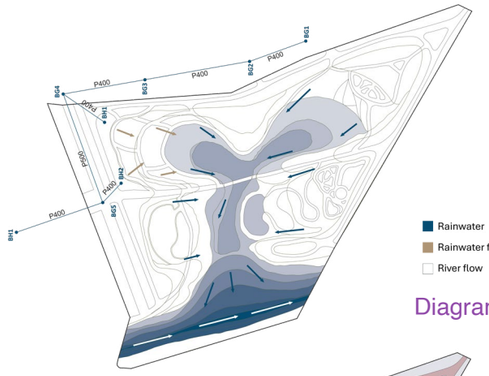



Diagram 1

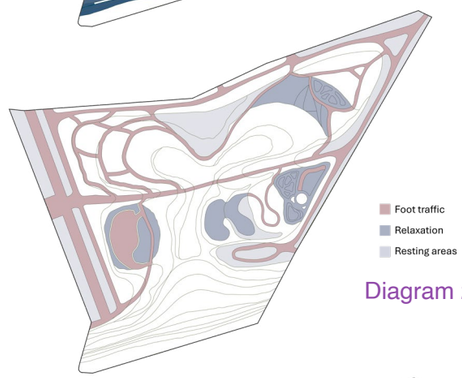



Diagram 2

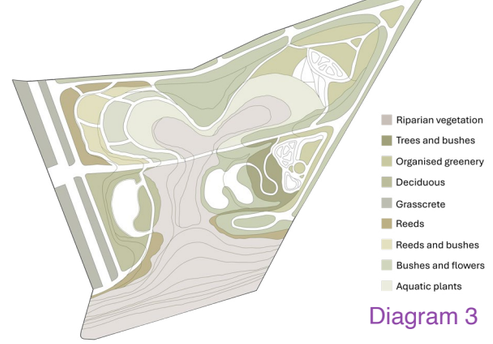



Diagram 3

Diagrams 1 - 3.
Diagram 1 showing the stages of flooding.
Diagram 2 showing the footpaths and resting areas.
Diagram 3 showing different types of vegetation.

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|---|---|
| **Country/City** | Greece |
| **University / School** | University of Thessaly |
| **Academic year** | 2021-2022 |
| **Title of the project** | The Butterfly project |
| **Authors** | Avradopoulou Anna & Ouzouni Dimitra |

## TECHNICAL DOSSIER

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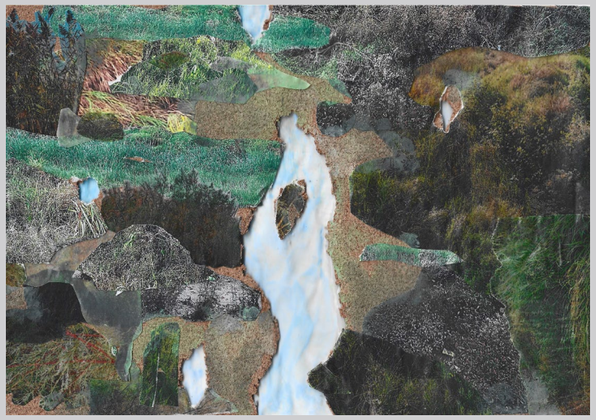
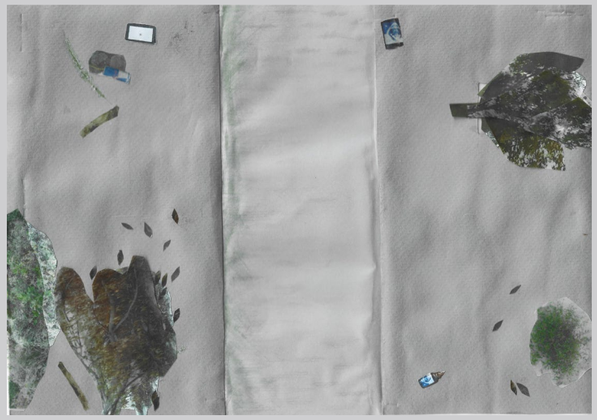
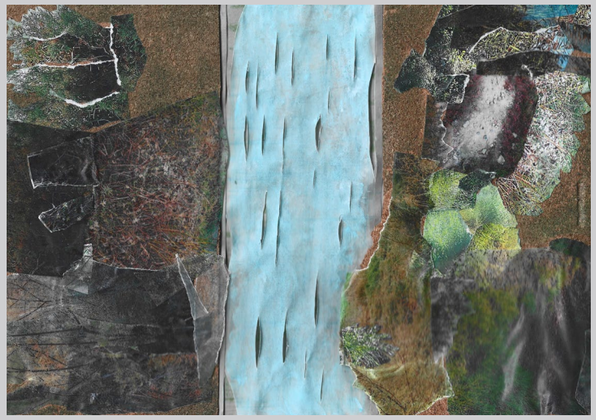
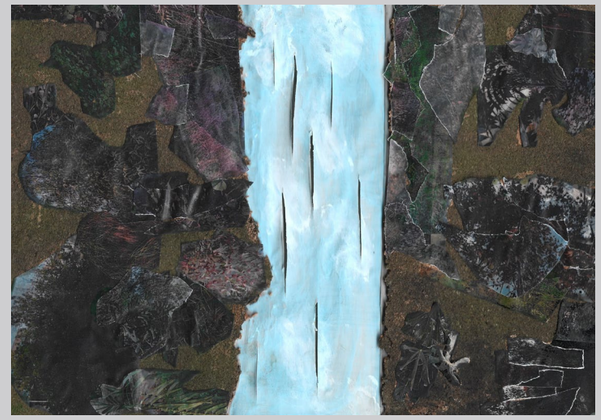
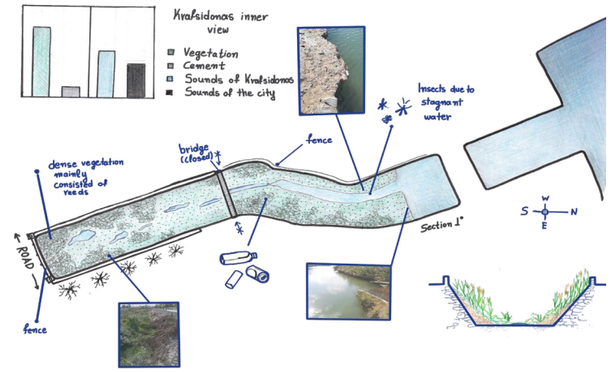
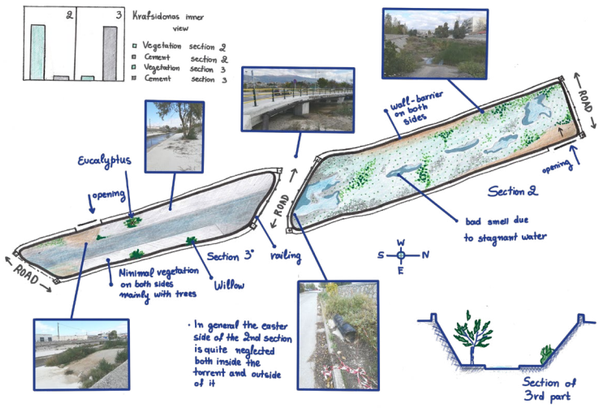
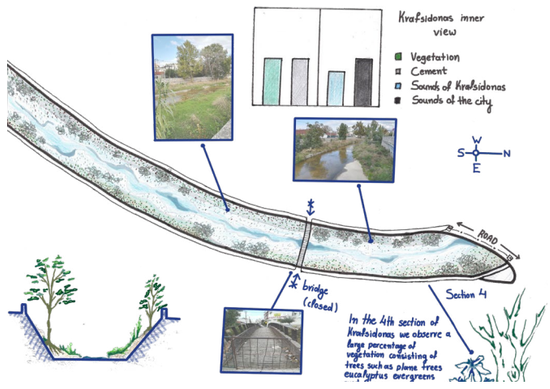





**Written statement, short description of the project in English, no more than 250 words**

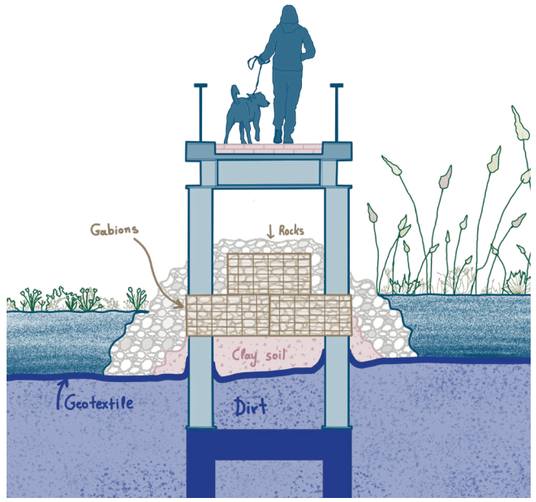
The Butterfly project explores the transformation of a former football field into a multifunctional landscape integrated into the historic urban fabric of Volos, Greece. The project aims to reconnect the Krafsidonas torrent with the city's inhabitants, to reintegrate it into the everyday life of the city, and to offer a flood-relief zone in times of overflow. By working with the land's natural folds, the design introduces a gentle descent toward the torrent-bed, minimizing the need for invasive constructions. Where material interventions were necessary, they were sourced locally—including clay and bricks from the nearby former Tsalpatas factory and stones from Mount Pelion—highlighting the site's identity. A critical aspect of the project encompassed documenting the existing flora of the Krafsidonas and integrating it into the new planting scheme. Additional vegetation was selected for its capacity to filter heavy metals and pollutants from stormwater runoff, ensuring cleaner water reaches the streambed. The resulting park fosters a harmonious coexistence between ecological systems and public life. It offers spaces for sports, children's play, pets, community events, and a skatepark, along with walking paths and viewpoints overlooking the torrent. The Butterfly Project reimagines flood-rooms as active, resilient, and ecologically responsive spaces—inviting new forms of encounter between more-than-human lifeforms,water and people.



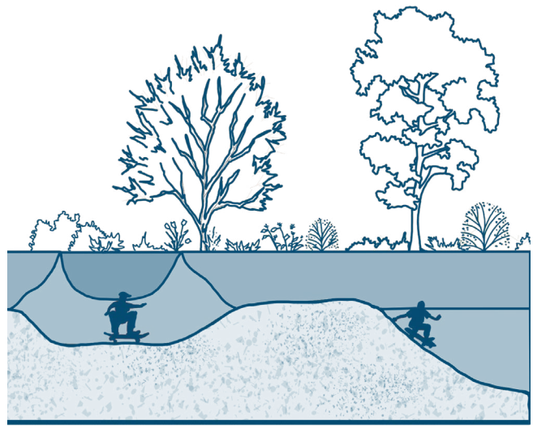




Mapping the current state of the torrent




Section 1. Construction detail of the metal bridge between the filtration systems in the northeast section (part 4)



Section 2. Section detail of the skate park in the south section (part 2)

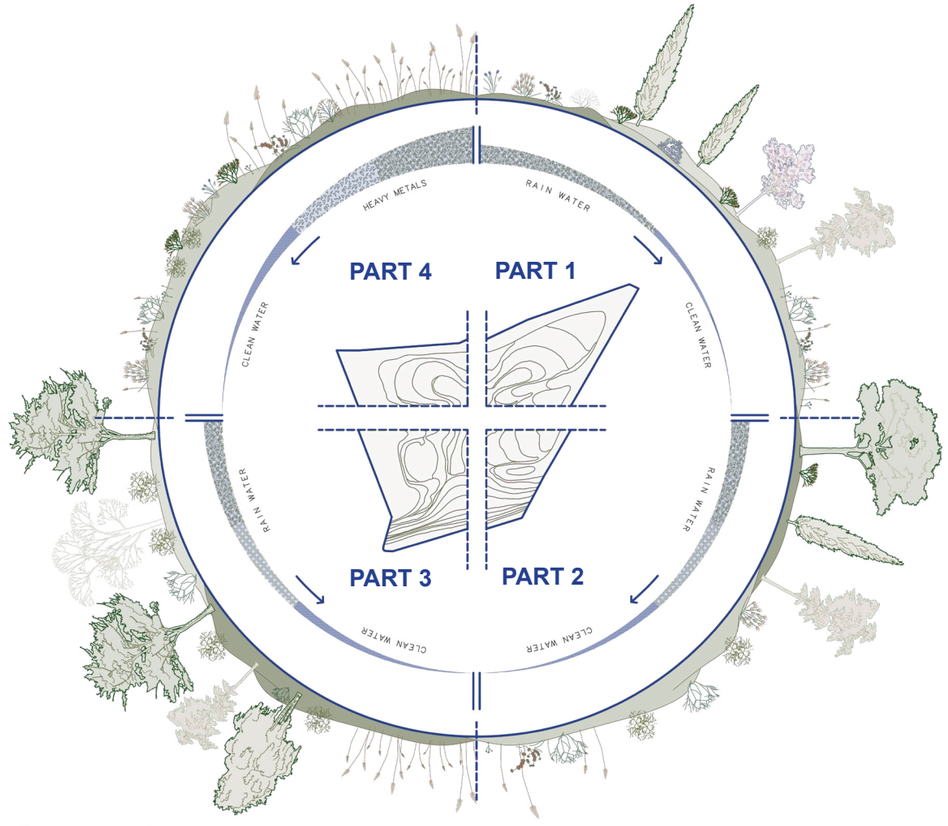
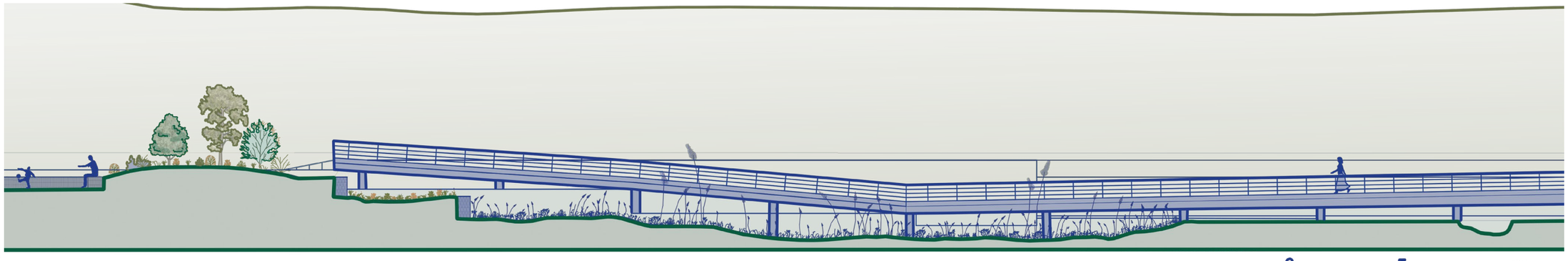



Diagram 4. Diagram showing the filtration systems in each of the four parts



Zoom 1. Inside view




Section 3. Cross section A-A

## WATER DIAGRAMM

MAP LEGEND



TYPICAL FLOOD
UP TO THE HEIGHT 0.00 m

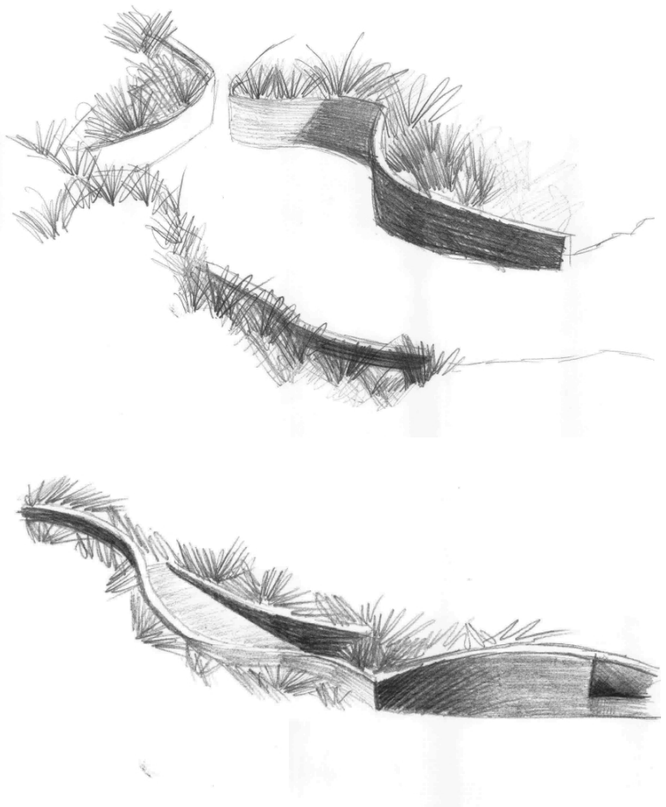


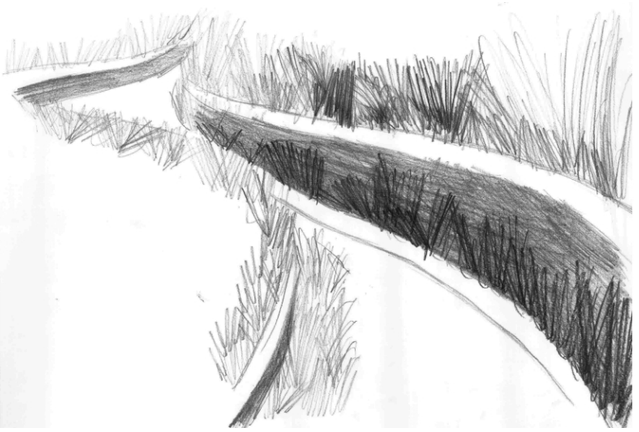
MEDIUM FLOOD UP
TO THE HEIGHT 0.80 m



SEVERE FLOOD
UP TO THE HEIGHT 1.60 m





| | |
|---|---|
| **Country/City** | Greece |
| **University / School** | University of Thessaly |
| **Academic year** | 2021-2022 |
| **Title of the project** | Fragment's Paths |
| **Authors** | Alexandros Bouris |

## TECHNICAL DOSSIER

**Title of the project** Fragments' Paths

**Authors** Bouris Alexandros

**Title of the course** Re-constructing the Ground: Design Studio III-Va

**Academic year** 2021-2022

**Teaching Staff** Aspassia Kouzoupi PhD

**Department / Section / Program of belonging** Department of Architecture, Undergraduate Program

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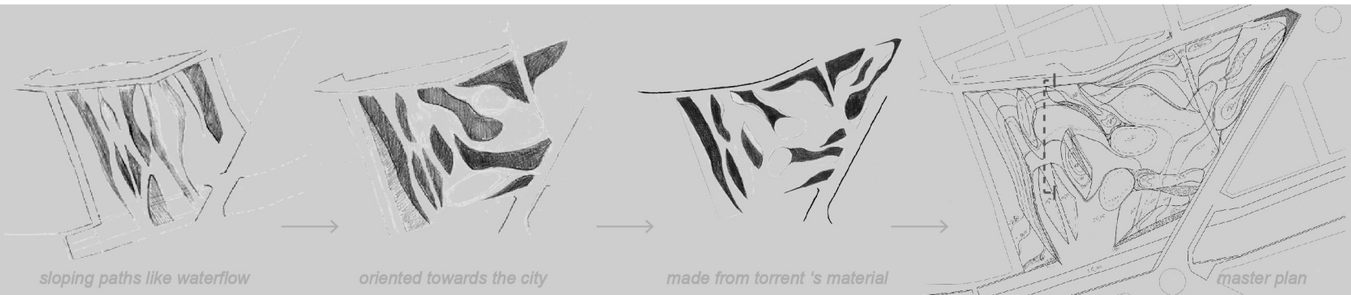


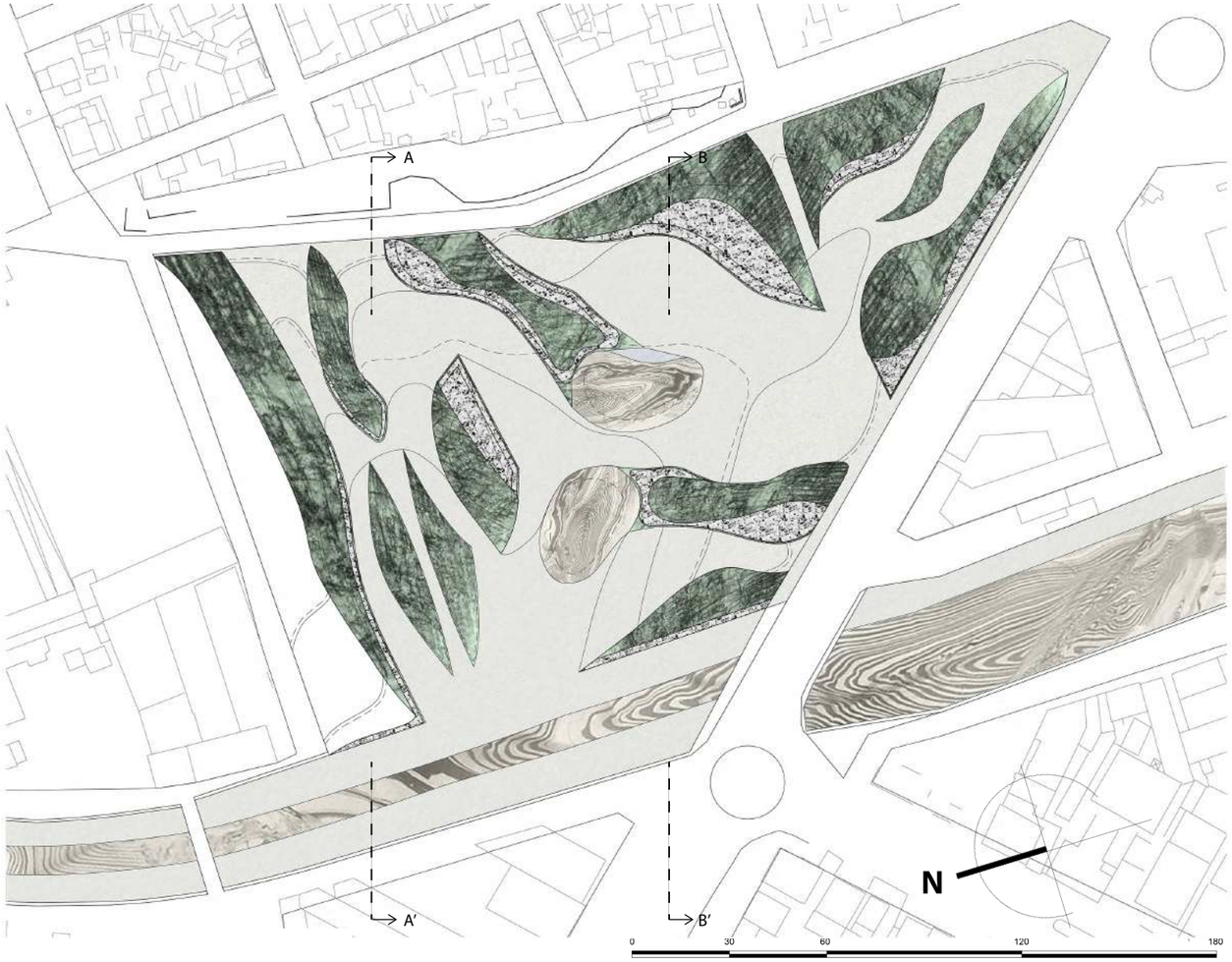

material section



clay model on topographic map

**Written statement, short description of the project in English, no more than 250 words**

Understanding the existence of dynamic water flow within the urban fabric, with aim of connecting the Krafsidonas torrent with the city of Volos, paths were designed on slopping ground. A public, amphibious space was produced, ready to hold water whenever is necessary; preventing or at least delaying the overflow of the water in the inhabited riparian areas along the torrent's flow, acting as a symbiotic infrastructure of the city. The organic design of the paths was derived through in-situ research, within the torrent-bed of Krafsidonas, by cartographic -experiential mapping- practices and embodied experience in the landscape.




MATERIAL

DIAGRAMM

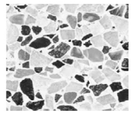
MAP LEGEND



VEGETATION



WATER



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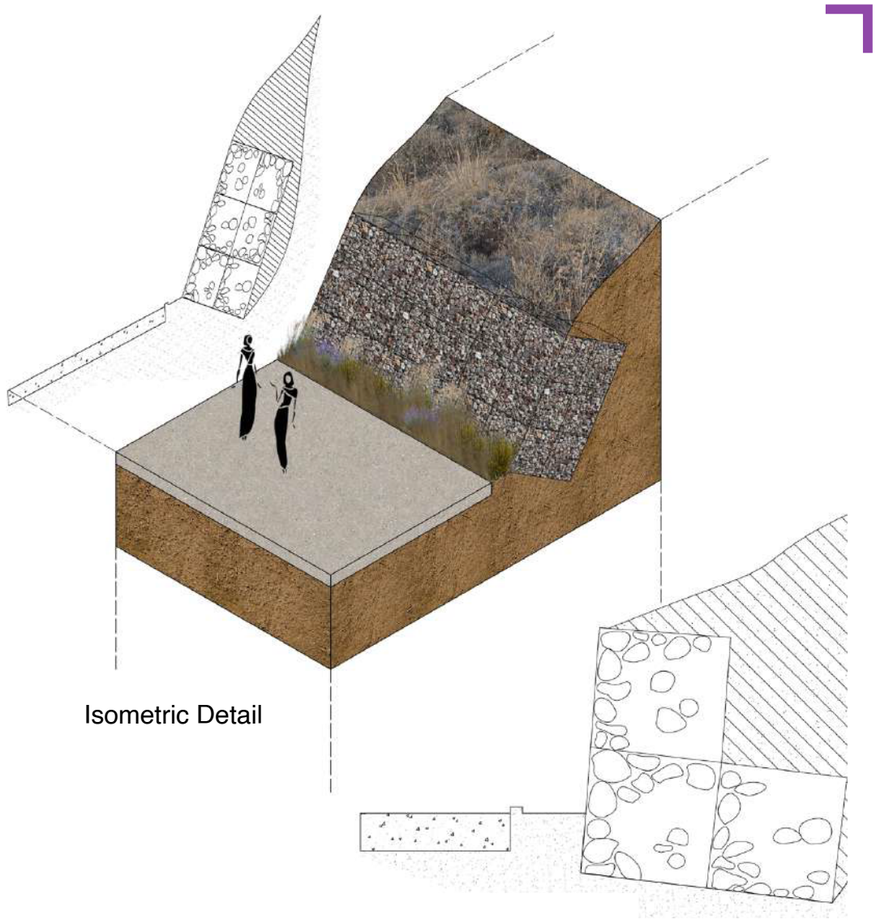
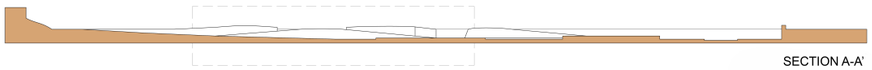
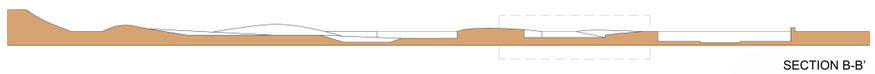


Isometric Detail



SECTION A-A'



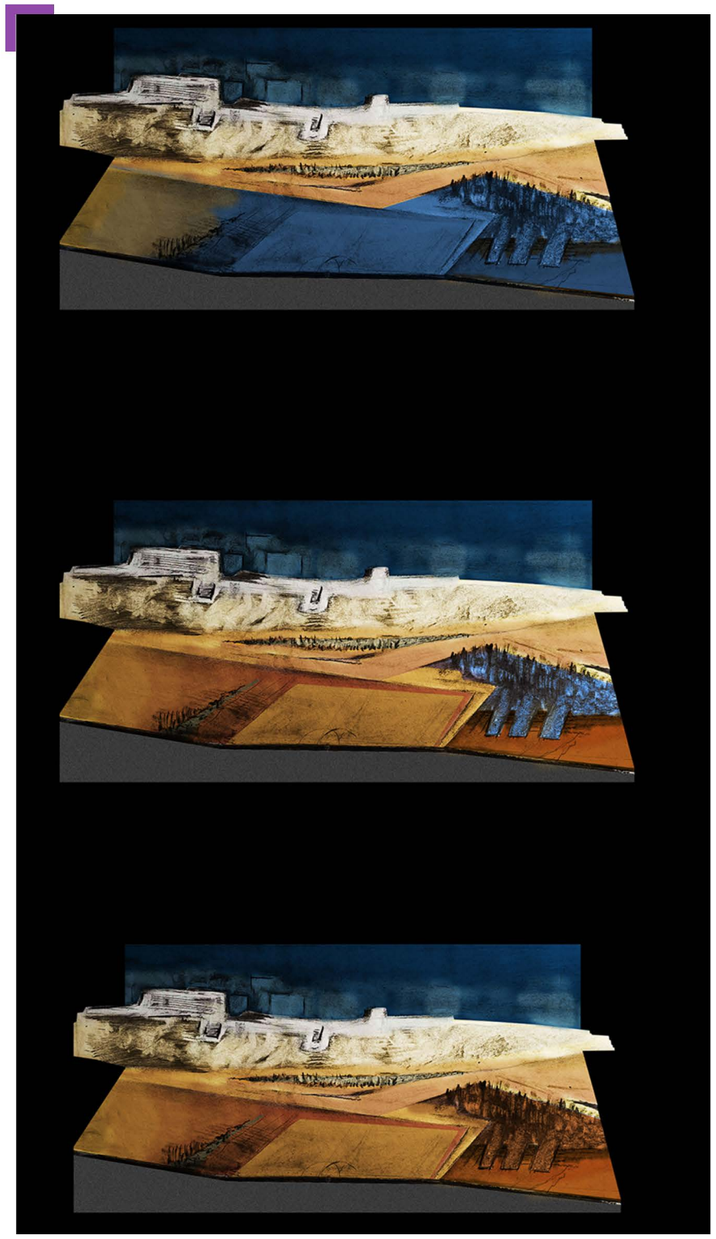
SECTION B-B'



Clay Mode



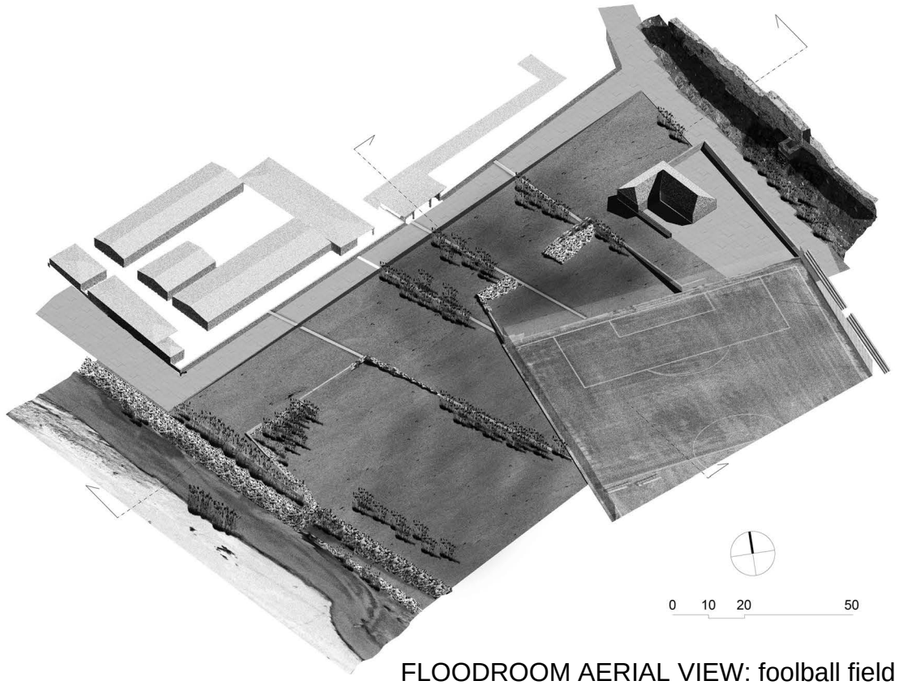
Representation



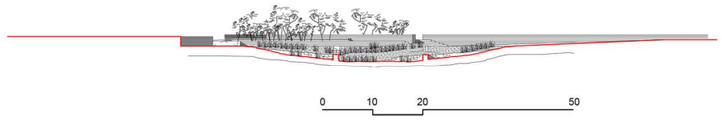
FLOODROOM expressionistic view: absorbing flood water



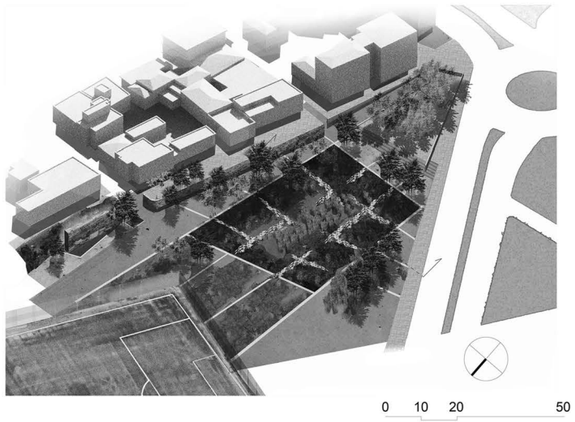

FLOODROOM ELONGATED SECTION: football field and urban wetland




FLOODROOM AERIAL VIEW: foolball field



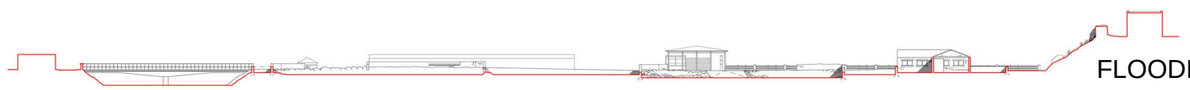

FLOODROOM SECTION: urban wetland




FLOODROOM AERIAL VIEW: urban wetland




FLOODROOM PARTIAL ELONGATED SECTION: football field entrance



FLOODROOM CROSS-SECTION: connection to the Walled city and the torrent

| | |
|---|---|
| **Country/City** | Greece, Volos |
| **University / School** | University of Thessaly, Department of Architecture |
| **Academic year** | 2023-2024 |
| **Title of the project** | Break the concrete! Break it! |
| **Authors** | Gialesa Ioanna, Karanikas Thanos, Martimianakis Nikos |

## TECHNICAL DOSSIER

**Title of the project** Break the concrete! Break it!

**Authors** Gialesa Ioanna, Karanikas Thanos, Martimianakis Nikos

**Title of the course** Re- constructing the Ground: Design Studio III-Va

**Academic year** 2023-2024

**Teaching Staff** Aspassia Kouzoupi, PhD

**Department / Section / Program of belonging** Department of Architecture, Undergraduate Program

**University / School** University of Thessaly

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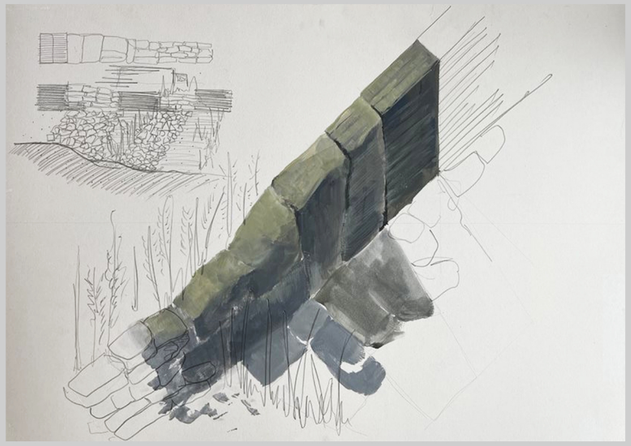
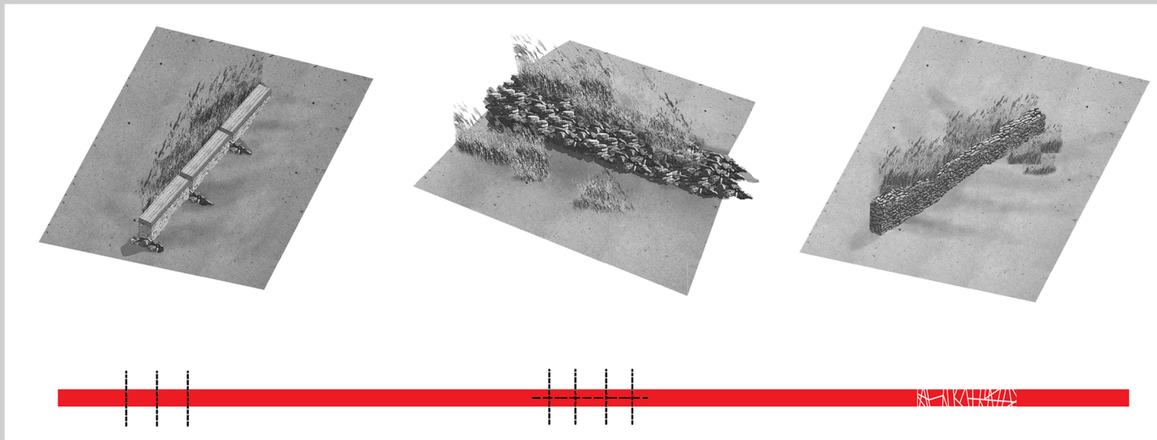
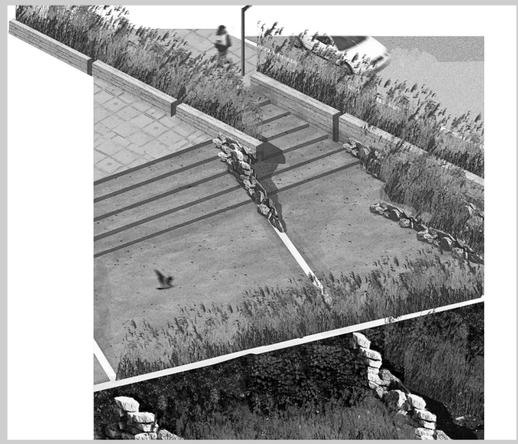
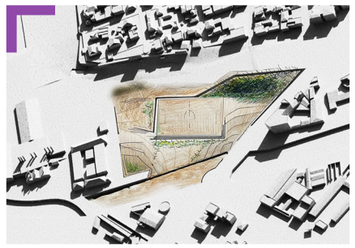






**Written statement, short description of the project in English, no more than 250 words**

A proposal to renegotiate the boundaries of the city torrent, Krafsidonas -an invitation to break down the “walls” that confine its flow, restoring its lost connection with the city and allowing “space” for water in the event of flooding. Beneath the old walled city of Volos, an amphibious landscape is envisioned; shaped through varying topographic levels, reed beds, and a sequence of dry-stone walls -without mortar- constructed from fragments of the broken torrentbed infrastructure, its lateral retaining structures. The result is a floodroom, a new hybrid environment; it comprises a synthesis of the city's public spaces, such as the adjacent sports field, with the natural elements that traverse and animate it, reintroducing the stream into the collective experience and everyday life of the residents. In the event of an overflow, water is carefully directed across three successive ground levels, shaped and guided by the dry-stone walls. At the lowest point, the terrain becomes an inaccessible urban wetland — a protected environment where non-human life can develop undisturbed, sheltering the torrentbed’s ecosystems fauna.



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