

Country / City Greece, Arta Region
University / School University of Patras, Department of Architecture
Academic year 2018-2019
Title of the project Riverside Archipelago
Authors Foteini Kallikouni



TECHNICAL DOSSIER

Title of the project	Riverside Archipelago
Authors	Foteini Kallikouni
Title of the course	Diploma Thesis
Academic year	2018-2019
Teaching Staff	Demetra Katsota, Alexandra Stratou
Department/Section/Program of belonging	Department of Architecture
University/School	University of Patras



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

Riverside Archipelago is a utopian landscape strategy about managing the uncontrolled flow of Arachthos river in Epirus of Greece, caused by **climate change**. The project focuses on the mouth of the river and introduces alternative riverside infrastructures in order to turn the unfavorable condition of flooding into a sustainable process to the region.

Arachthos is a fast-flowing river that springs from the mountain of Pindos and flows into the Amvrakikos bay. The river's mouth faces severe flood emergencies almost every year for the last decade causing the destruction of private properties and agricultural fields located on the riverside. The two hydroelectric dams that were constructed in the 80's cannot control the current water flow because of climate change and thus, the floods are inevitable.

A landscape strategy is proposed to be implemented in three phases. The first phase of the strategy proposes the controlled change of the river flow through a different dam management. The two dams will allow more water to pass through before the high-risk period in order to lower the level of the artificial lake and prepare it for the increased winter flow. The second phase of the strategy includes the regeneration of the town's riverfront in order to gradually strengthen the inhabitants' relationship with the river bed by introducing river baths, a wetland park and a hydroponic garden. Finally, the third part of the strategy is about the phased flooding of the meadow in order to turn the existing agriculture into water cultivation and to transform the riverbanks into a hydroponic archipelago.

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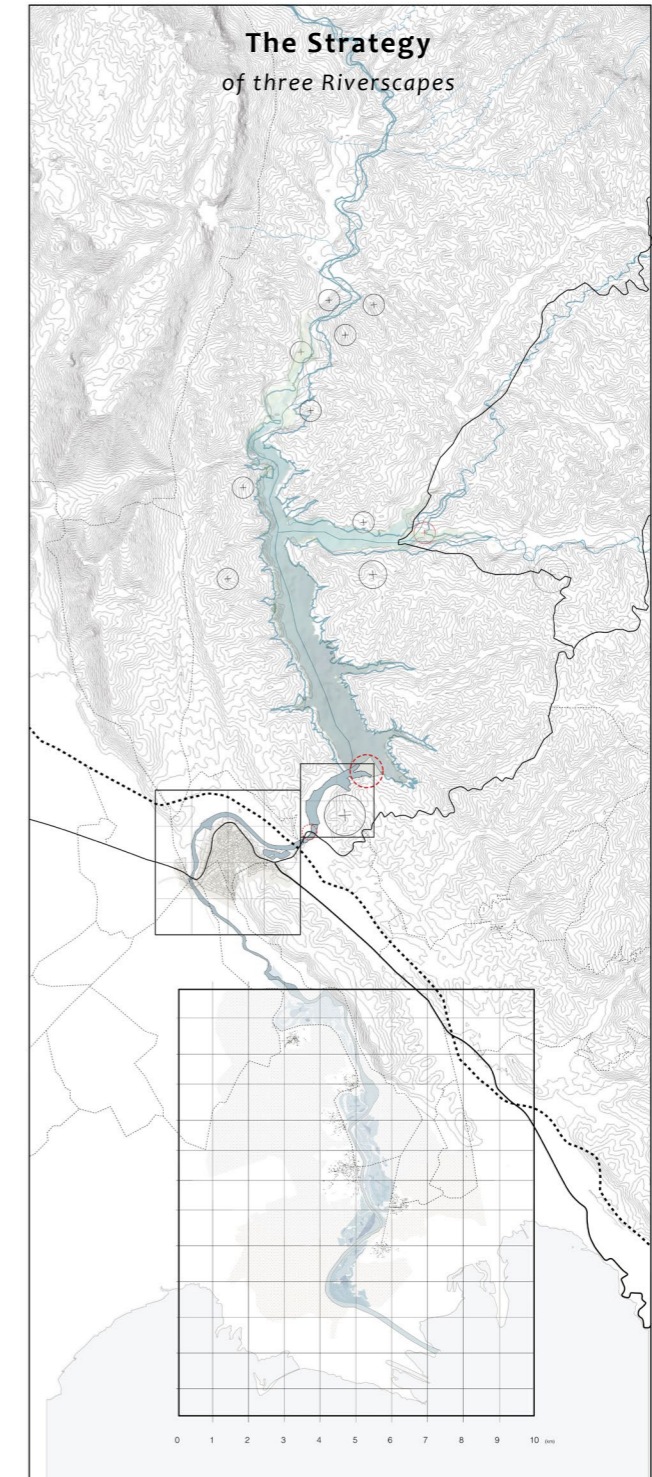
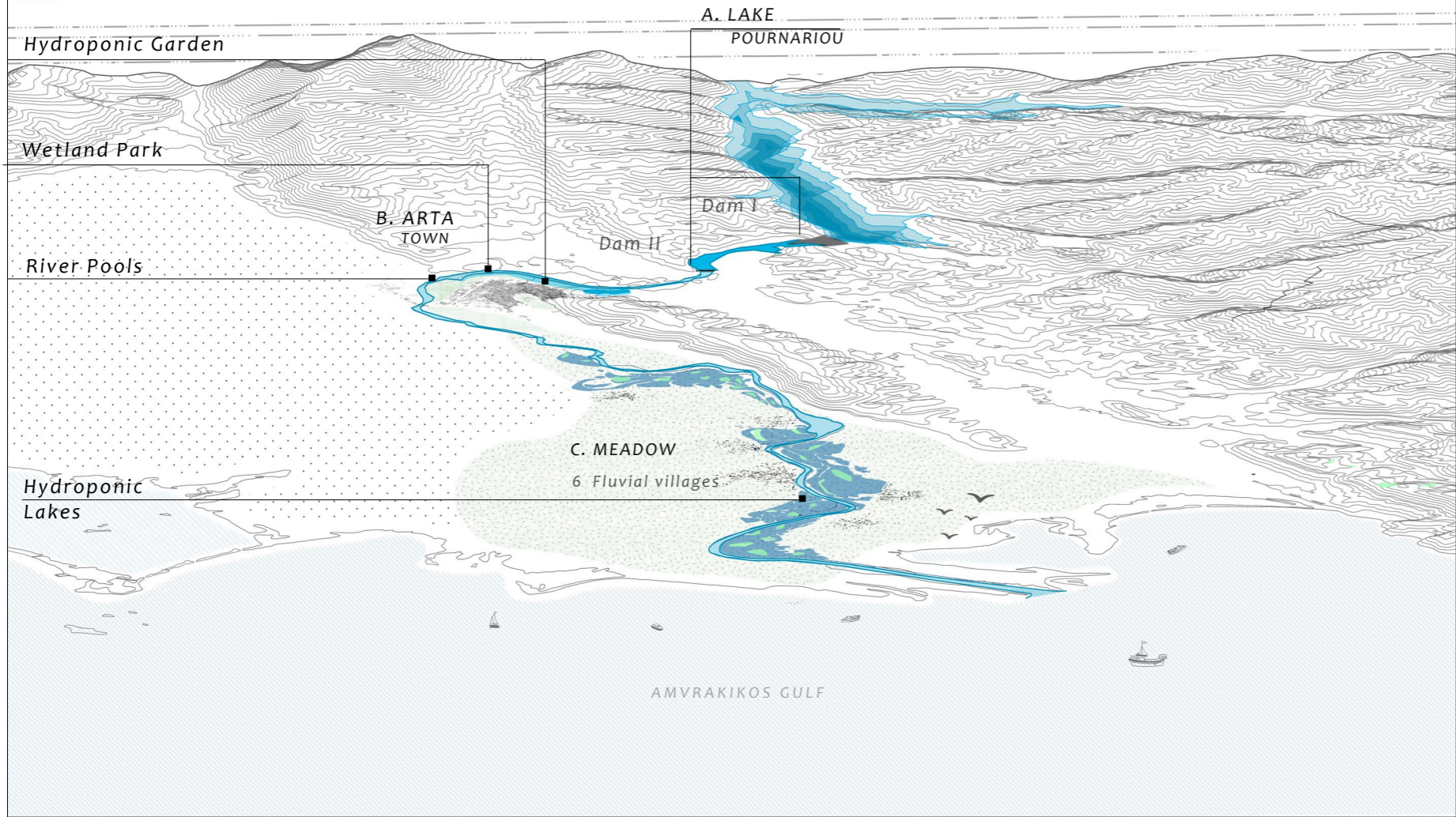
CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

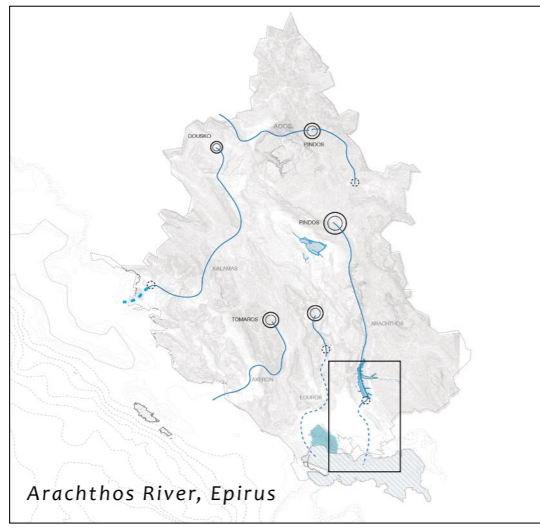
Barcelona September 2020
SCHOOL PRIZE



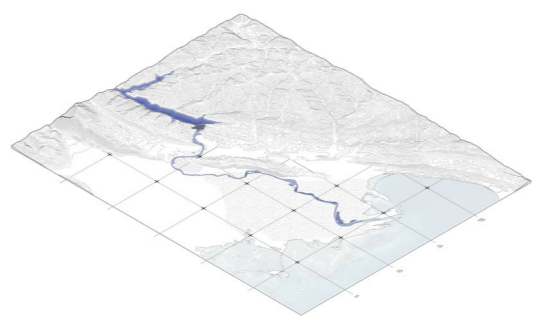
Riverside Archipelago



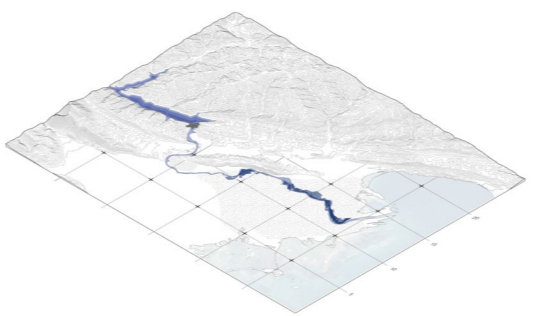
- artificial lake
- dams
- town
- meadow
- lagoons
- gulf



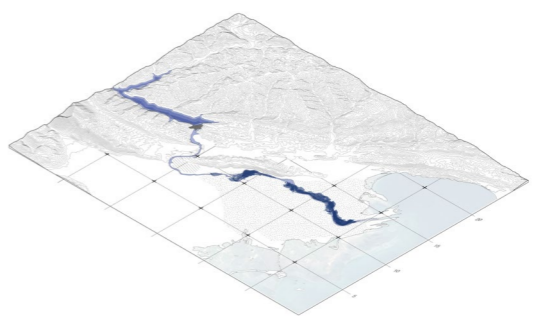
Phasing Flood Diagrams



June - September



October - January

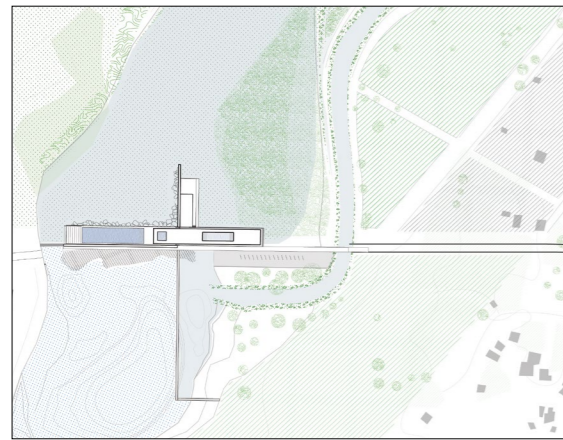


February - May

Riverfront regeneration
Landscape Infrastructure



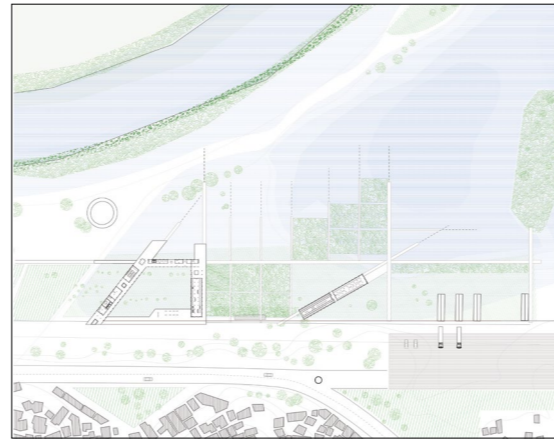
Riverfront Axonometric



River Baths

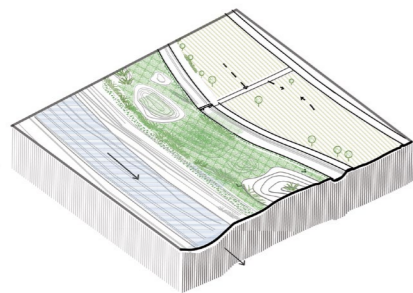


Wetland Park

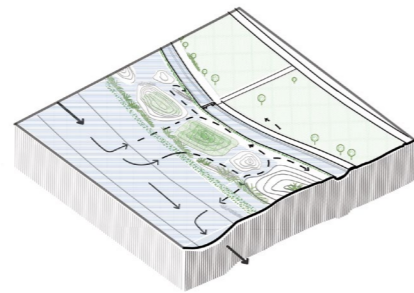


Hydroponic Garden

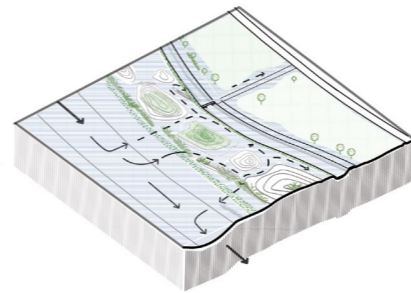
Flooding effect



June - September

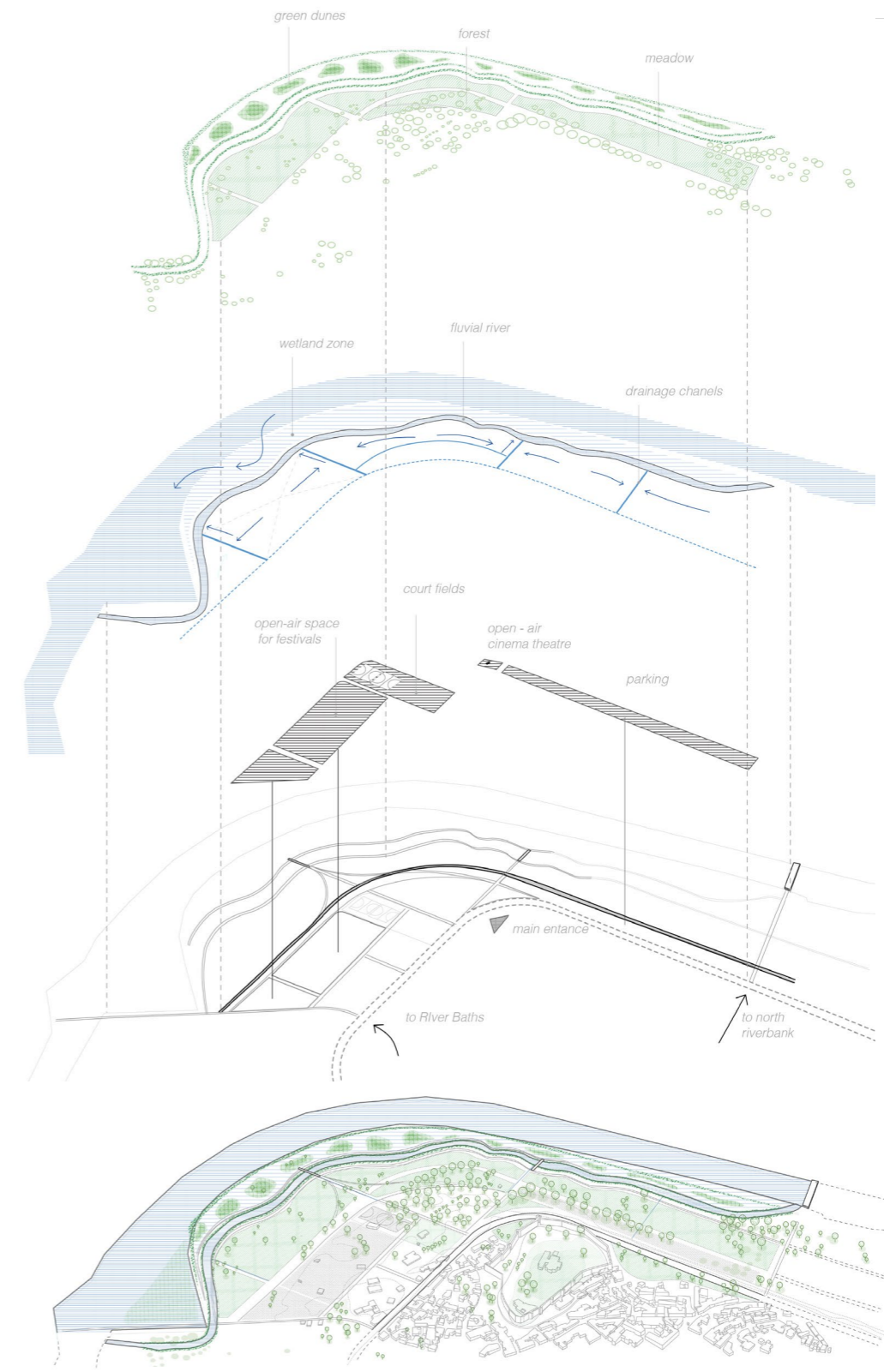


October - January



February - May

Wetland Park
Landscape Infrastructure



Landscape Infrastructure

Water Management

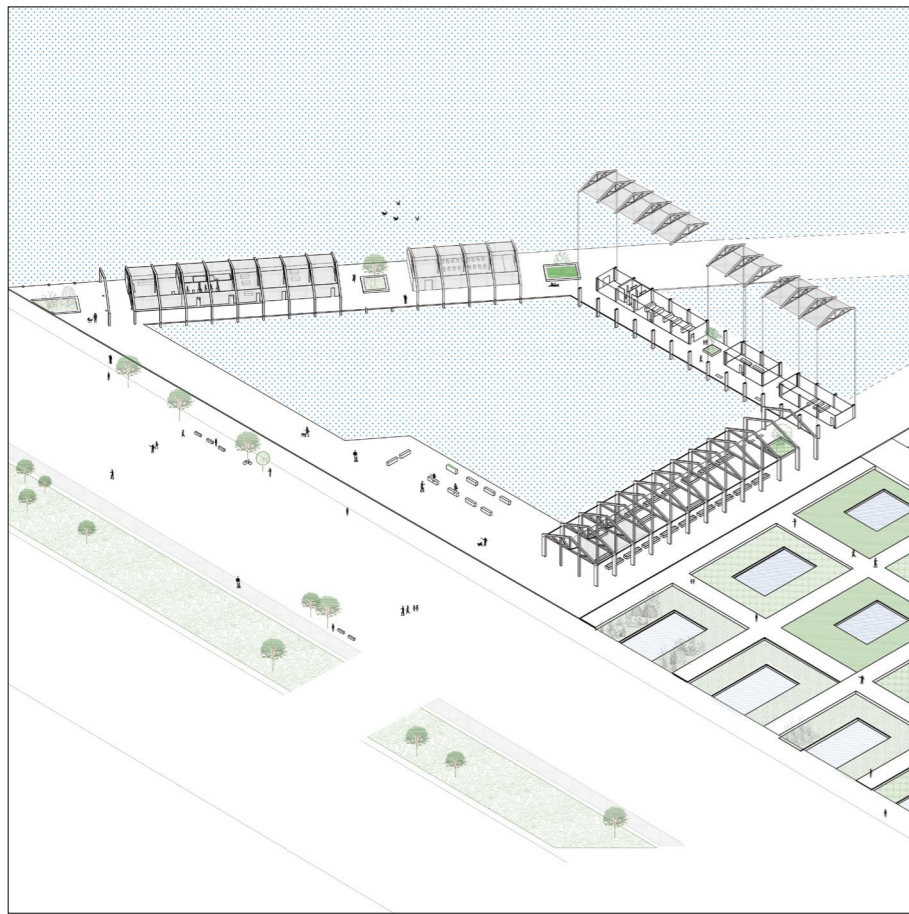
Programs

Circulation

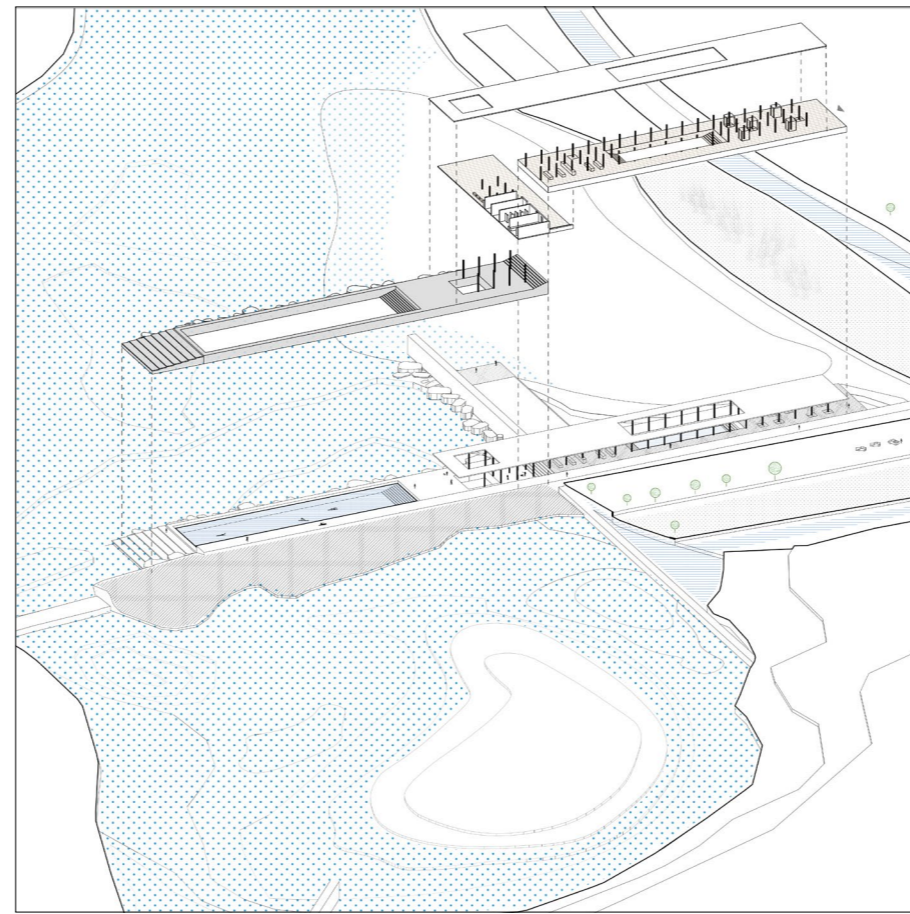




Hydroponic Garden
Productive Ecology



River Baths
Infrastructure of Leisure



Hydroponic Lakes
Landscape Infrastructure

