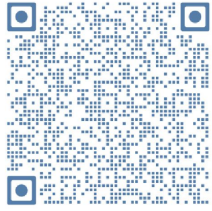


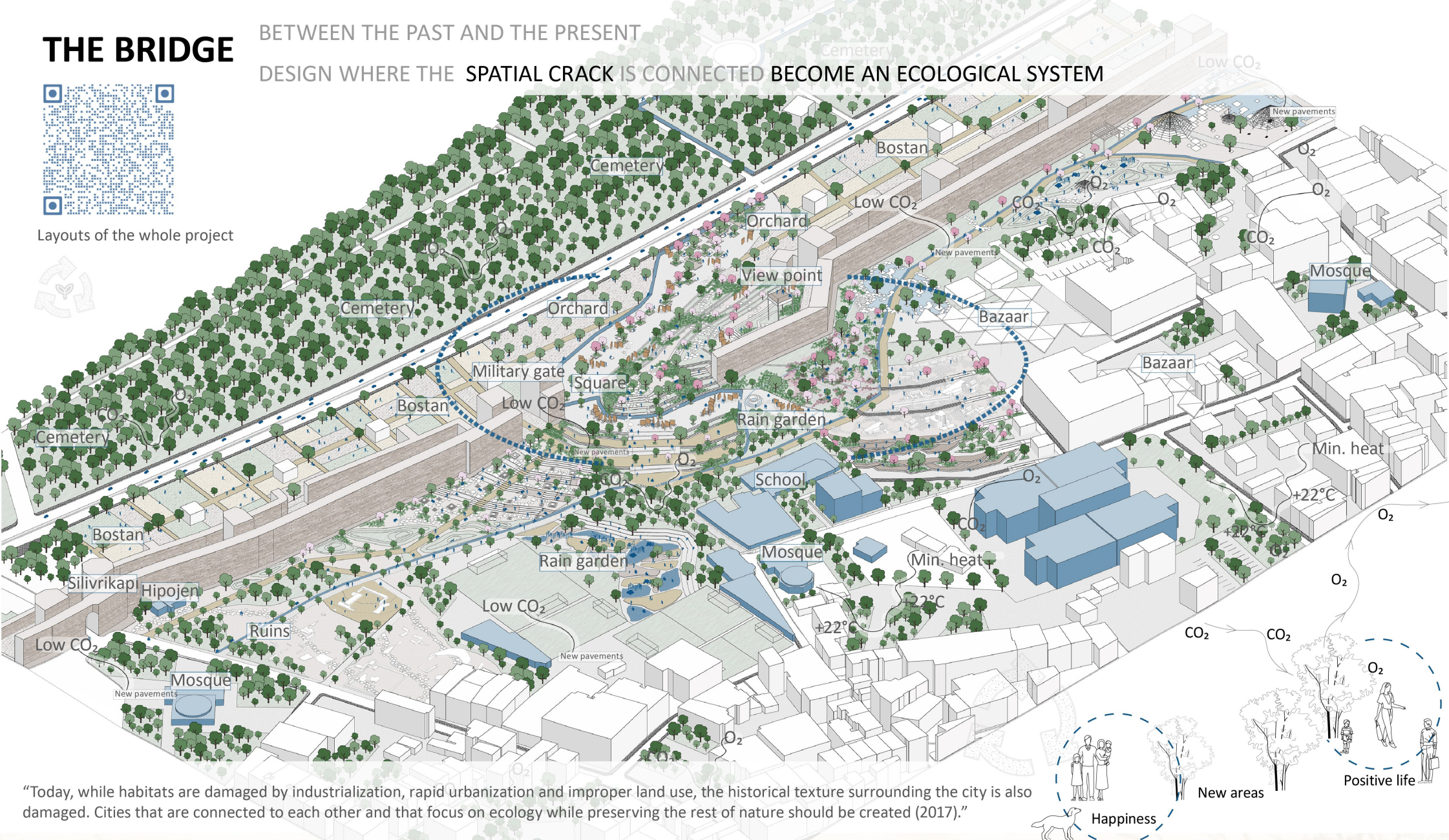
THE BRIDGE

BETWEEN THE PAST AND THE PRESENT

DESIGN WHERE THE SPATIAL CRACK IS CONNECTED BECOME AN ECOLOGICAL SYSTEM



Layouts of the whole project



"Today, while habitats are damaged by industrialization, rapid urbanization and improper land use, the historical texture surrounding the city is also damaged. Cities that are connected to each other and that focus on ecology while preserving the rest of nature should be created (2017)."

Country /City
 University / School
 Academic year
 Title of the project
 Authors

Türkiye / İstanbul
 İstanbul Technical University
 2022-2023 Fall Term
 The Bridge "Fatih"
 Nergis Şenkaya



TECHNICAL DOSSIER

Title of the project	The Bridge "Fatih"
Authors	Nergis Şenkaya
Title of the course	Graduation Project - Landwalls Chronicles
Academic year	2022 - 2023 Spring Term
Teaching Staff	Prof. Dr. Hayriye Esbah Tunçay
Department / Section / Program of belonging	Faculty of Architecture / Landscape Architecture
University / School	Istanbul Technical University



Statement

Fatih district, with its historical richness and the states it has hosted from past to present, has developed and has come to this day. Within the scope of the project, I am working on the fortification area, which is one of the most important historical elements of Fatih, which has now sunk into oblivion and turned into a spatial crack. While working in this field, I create a design to close the spatial crack by making free scale analyzes - 5000 -1000 - 500 and creating a design by going down to 200 scale details.

I eliminate the spatial crack with the concept of Bridge, with the logic of closing the separation of the inside, inside and outside the city walls. With the bridge concept, which was established with the developments in the field starting from the revelation of history, the spatial crack will be closed, and an ecological bridge will be formed with the development, revival and recovery of the area. In the current situation, the area that can be carbon positive in 271 years will be carbon positive in 17 years with my new design and the living standard will increase.

For further information

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Sede ETSAB - Universitat Politècnica de Catalunya

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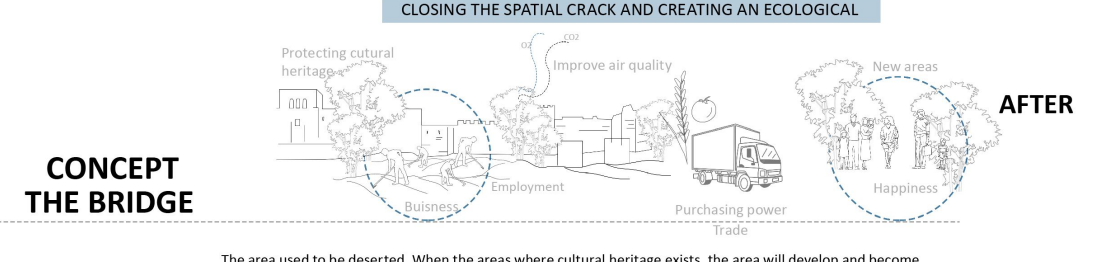
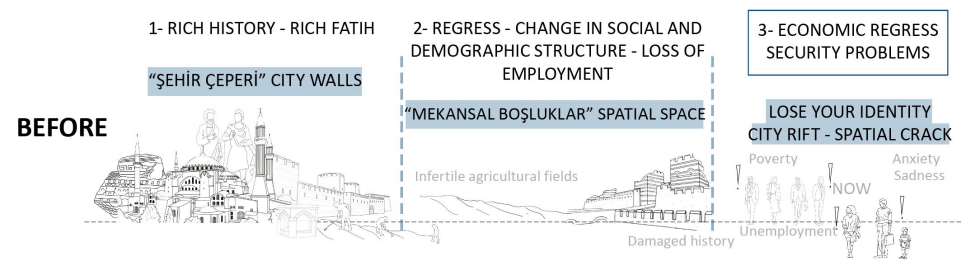
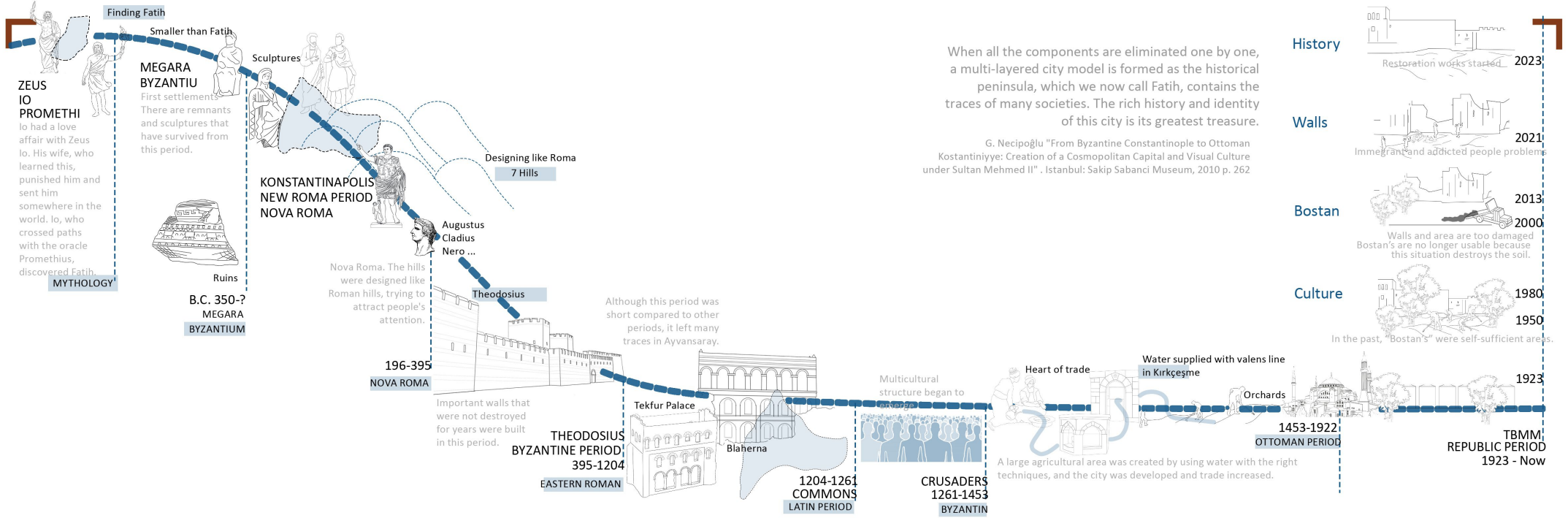
COAC - Colegi oficial d'Arquitectes de Catalunya

Carrer Arcs, 1-3
08002 Barcelona - Spain

12th International Biennial Landscape Barcelona

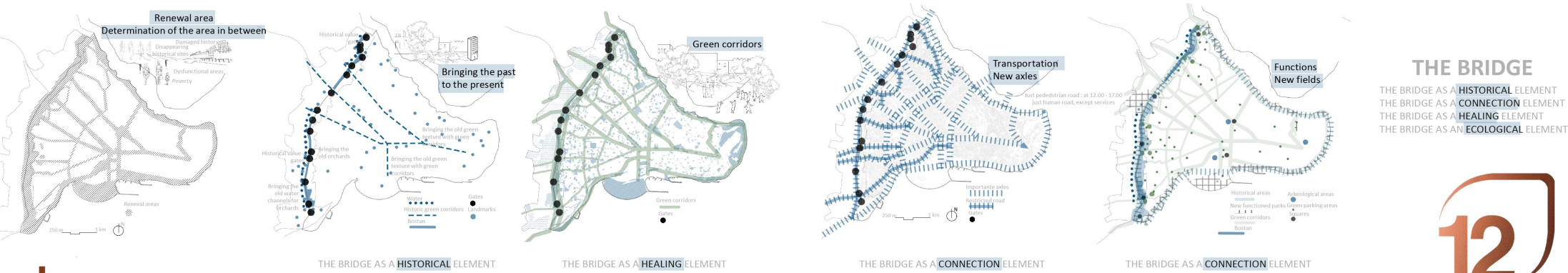
Barcelona November 2023

SCHOOL PRIZE



The area used to be deserted. When the areas where cultural heritage exists, the area will develop and become

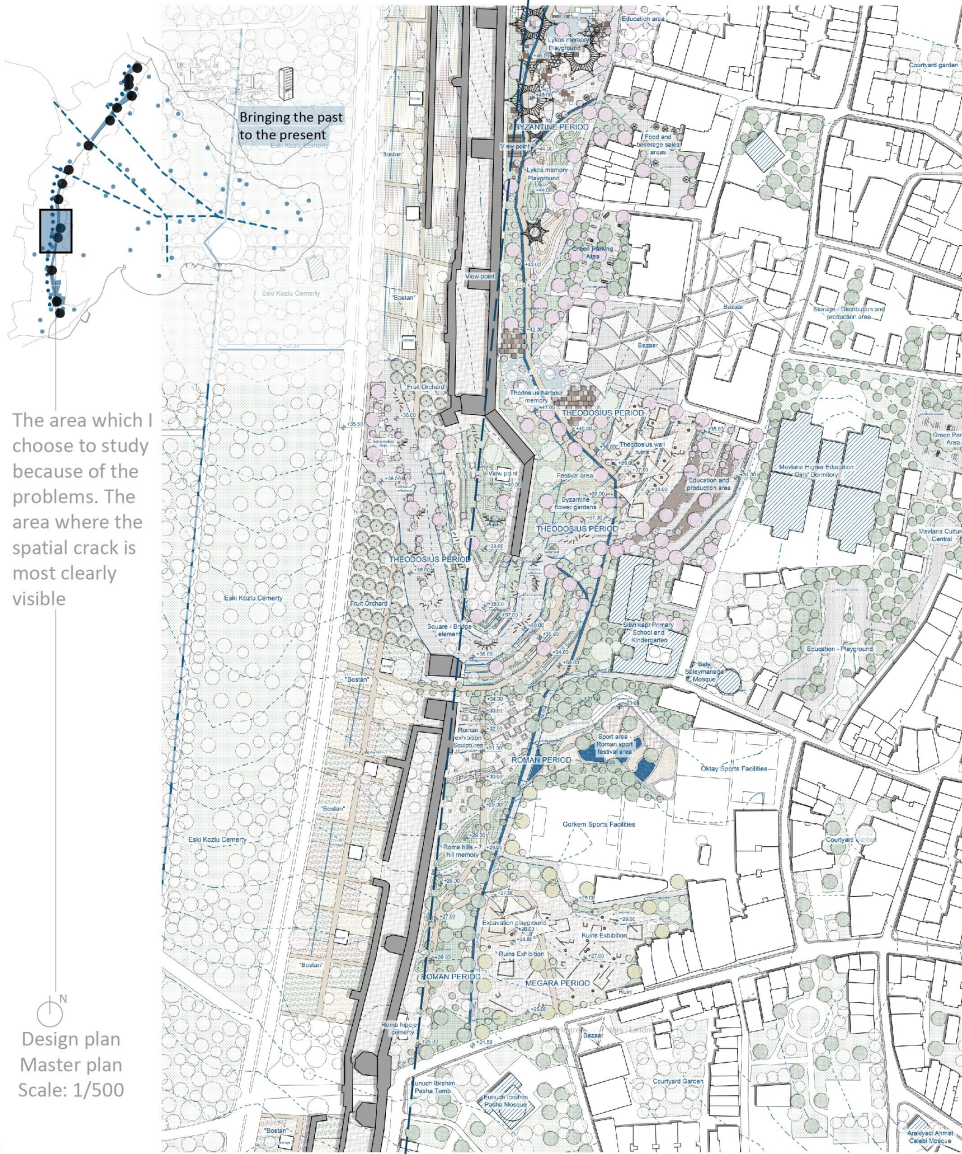
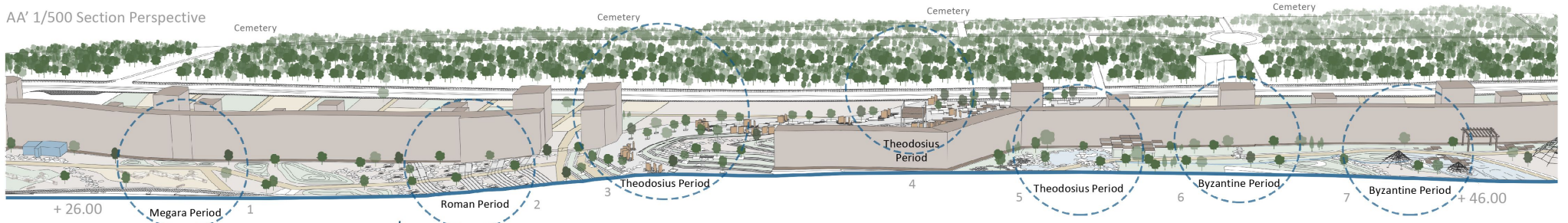
FATİH STRATEGY PLANS



THE BRIDGE
 THE BRIDGE AS A HISTORICAL ELEMENT
 THE BRIDGE AS A CONNECTION ELEMENT
 THE BRIDGE AS A HEALING ELEMENT
 THE BRIDGE AS AN ECOLOGICAL ELEMENT

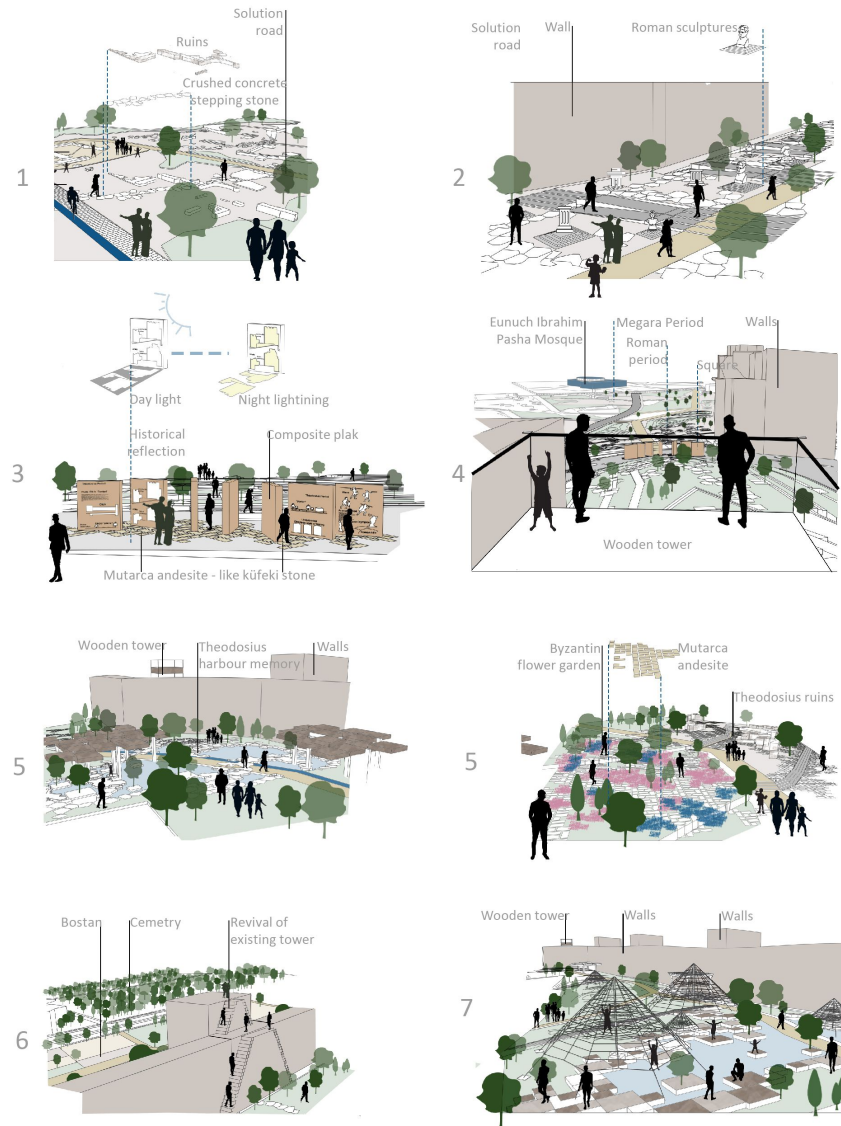
HISTORICAL BRIDGE AND DESIGN AREAS

AA' 1/500 Section Perspective

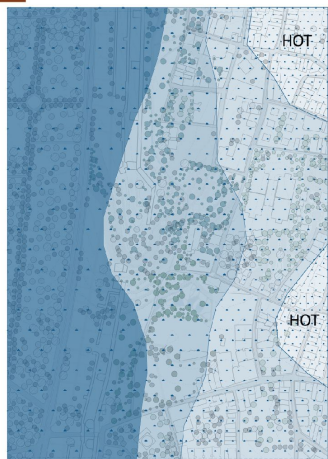


The area which I choose to study because of the problems. The area where the spatial crack is most clearly visible

Design plan Master plan Scale: 1/500



HISTORICAL BRIDGE

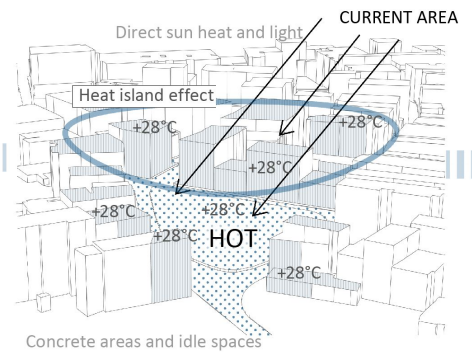


Asphalt	15.610 m ²	Compacted Soil	17.182 m ²
Natural stone pavement	11.203 m ²	Ground Covers	9.596 m ²
Slate pavement	2.800 m ²	Planting	410 Large 210 Medium 359 Small
Natural stone - Vehicle	7.821 m ²	Solution road	5.332 m ²

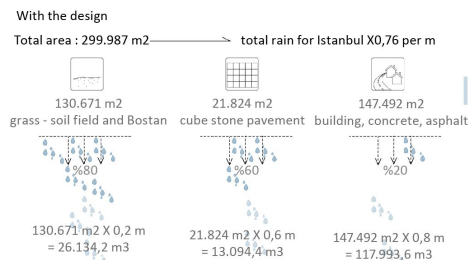
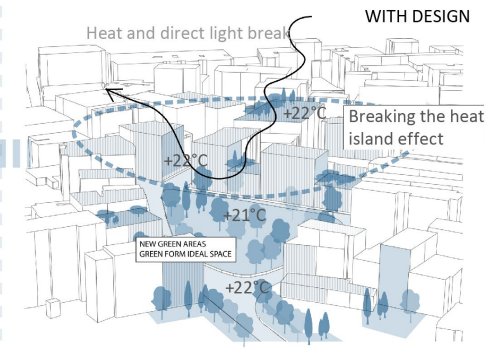
HEAT TRANSFORMATION ANALYSIS

Heat exchange with design
 HOT 95.000 m² to 19.000 m²
 HOT Average 26°C to 21°C
 CALCULATED WITH ENVI-MET 4 AND

THE AREA WILL CO2 POSITIVE AFTER 271 years with project

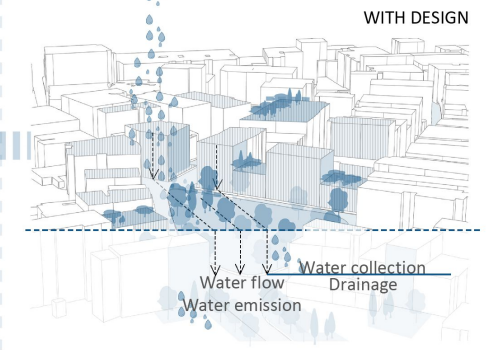
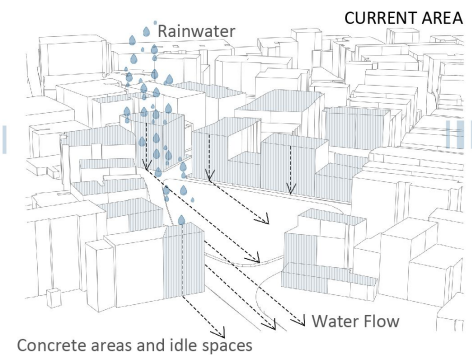


ECOLOGICAL BRIDGE



RAIN WATER COLLECTION ANALYSIS

970,00 m³ with rain gardens
 6.856,00 m³ with rain water ponds
 104.536,8 m³ with drainages and water channels
 Total water collection is : 112.362,8 %71 of rain
 Rainwater use

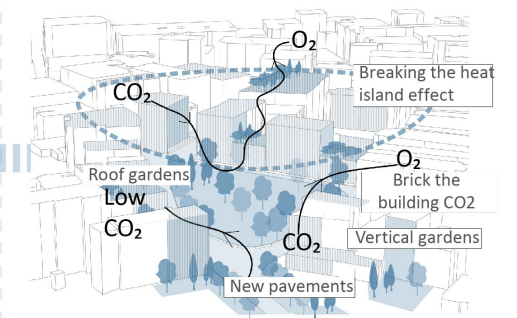
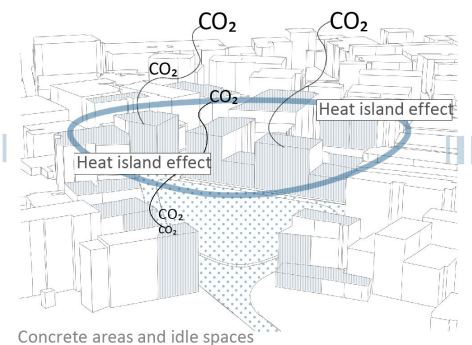
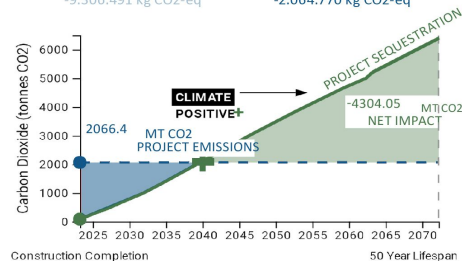


CO2 conversion with design

Asphalt - Vehicular = 15.610 m ² = 974.292 kg CO ₂
Natural stone pavement = 11.203 m ² = 564.113 kg CO ₂
Slate pavement = 2.800 m ² = 121.469 kg CO ₂
Natural stone - Vehicle = 7.821 m ² = 404.896 kg CO ₂
Solution road = 5.332 m ² = 211.682 kg CO ₂
Grass Fields = 15.332 m ² = 26.563 kg CO ₂
Bostan = 30.182 m ² = 1.198.237 kg CO ₂
Ground cover = 17.806 m ² = 706.905 kg CO ₂
Compacted soil = 20.423 m ² = 810.801 kg CO ₂
Others = 41.596 m ² = 1.651.377 kg CO ₂
Trees
Large = quantity - 410 = 893.315 kg CO ₂
Medium = quantity - 179 = 219.556 kg CO ₂
Small = quantity - 359 = 106.679 kg CO ₂

AREA AND CO₂ TRANSFORMATION

Total plant impact: +2.499.993 kg CO ₂ -eq	Total plant impact: +6.370.954 kg CO ₂ -eq
Total material impact: -9.306.491 kg CO ₂ -eq	Total material impact: -2.064.770 kg CO ₂ -eq



THE AREA WILL CO2 POSITIVE AFTER 17 years with project



<https://mytree.itreetools.org/#/>
<https://app.climatepositivedesign.com/>