



Università di  
Ferrara



Facoltà di  
Architettura



## **Premio Internazionale Architettura Sostenibile quinta edizione 2008**

### ***International Prize for Sustainable Architecture 2008 fifth edition***

#### **SEZIONE TESI DI LAUREA DEGREE THESES SECTION**

##### **Vincitore Winner**

Architettura di terra  
*Architecture of earth*

**Studente  
Student**  
Oikonomou Ioannis

**Università  
University**  
Facoltà di Ingegneria-Architettura, Università Aristotele di Thessaloniki, Grecia  
*Faculty of Engineering-Architecture, Aristotle University of Thessaloniki (Greece)*

**Relatore  
Supervising professor**  
Zoidis George

**Correlatore  
Assistant supervisor**  
Georgiadou Elli

**Anno Accademico  
Academic year**  
2006/2007

#### **Segreteria del Premio**

Facoltà di Architettura di Ferrara  
Via Quartieri 8  
44121 Ferrara  
Tel. 0532 293636  
e-mail: premioarchitetturasostenibile@xfaf.it

#### **Prize Secretariat**

Ferrara Faculty of Architecture  
Via Quartieri 8  
44121 Ferrara  
Ph. 0039 0532 293636  
e-mail: premioarchitetturasostenibile@xfaf.it

The composition is perceived in the historical city of **Ioannina**, which lies right next to lake Pamvotida in **north western Greece**.

masterplan

reality and intention of the city.

The area is separated in upper and down region which leads to the area next to the lake.

This intention of the city is remarkable and thus the project is directed to the unification of the two regions.

The development of a new building aims to complete an existent shaped cluster of public buildings, which intends in the unification of the two regions.

As about the function of a new building which will strength the effort of unification, is selected a municipal library with reading room.

The central reading room is located in the space of the park which is characterized by isolation.

There are smoothly slopes next to the lake in the area of the castle.

1:200

The building is subterranean, located with a southern orientation. It is trying to identify with the natural landscape and to unify with the cluster of the buildings which is recommended in new and old. It tries through his arrangement it converses with his environment that concerns so much memories what natural landscape.

It concerns a ypo'skafo building with two endings.

The southern ending is shaped as a slot of ground shaping the entry.

The notherner concerns a ramp which lowers smoothly the walker from the on region in under contributing in their unification.

The loft of building contributes in the smooth connection of centre with the paralj'mnja area.

In the effort of discussion of library with the topography and the memories of region, is added energy.

**The sensitivity of architecture cannot afford to settle with its harmonious integration to the physical environment. Approaching, along with the physical, the built environment, sustainable architecture is able to create a synergy that ties together ageless nature with distilled memory.**

Allowing an old stone wall to become a vital element of microclimate.

## **Bio**

### **Winter**

Along the southern façade of the building lie a glass surfaces which are able to retain large amounts of solar radiation. The glass surfaces encase behind them an old stone wall of particularly high thermal mass. As soon as it assembles enough thermal mass the stone wall begins to release heat inside the space, which provides the building with the necessary access and source of light. This space eventually becomes a glass case of the old stone wall. A protective zone, which ensures the visual, sound and thermal comfort.

The warmth that has been created diffuses inside the rest of the composition, creating two parts. The space of the entrance, which is directly affected by the external environment, forming a device. A device that regulates the main space of the library in terms of temperature. The main space of the library, through the glass case, is indirectly affected by the change of seasons. The diffusion of the heated air is aided by a circumferential corridor that allows the air to flow, keeping a temperature of 13-15 degrees Celsius.

### **Πινακίδα**

#### **Winter**

**collection of solar radiation**

**storage old wall (1850)**

**circumferential corridor**

## **Water supplies**

### **Summer**

The sun protection of the glass cases is ensured by light shades, aided by the internal ramps and the plantation of high trees alongside. During the night all the openings remain open in order to lower the temperature of the stone wall. During the day the openings remain shut in order to keep the temperature close to the night levels.

Inside the glass case of the entrance a water fall is formed on the stone wall. The water fall creates a cool stream of air which diffuses in the space of the library affecting the internal microclimate. The circumferential corridor continues to funnel air of stable temperature.

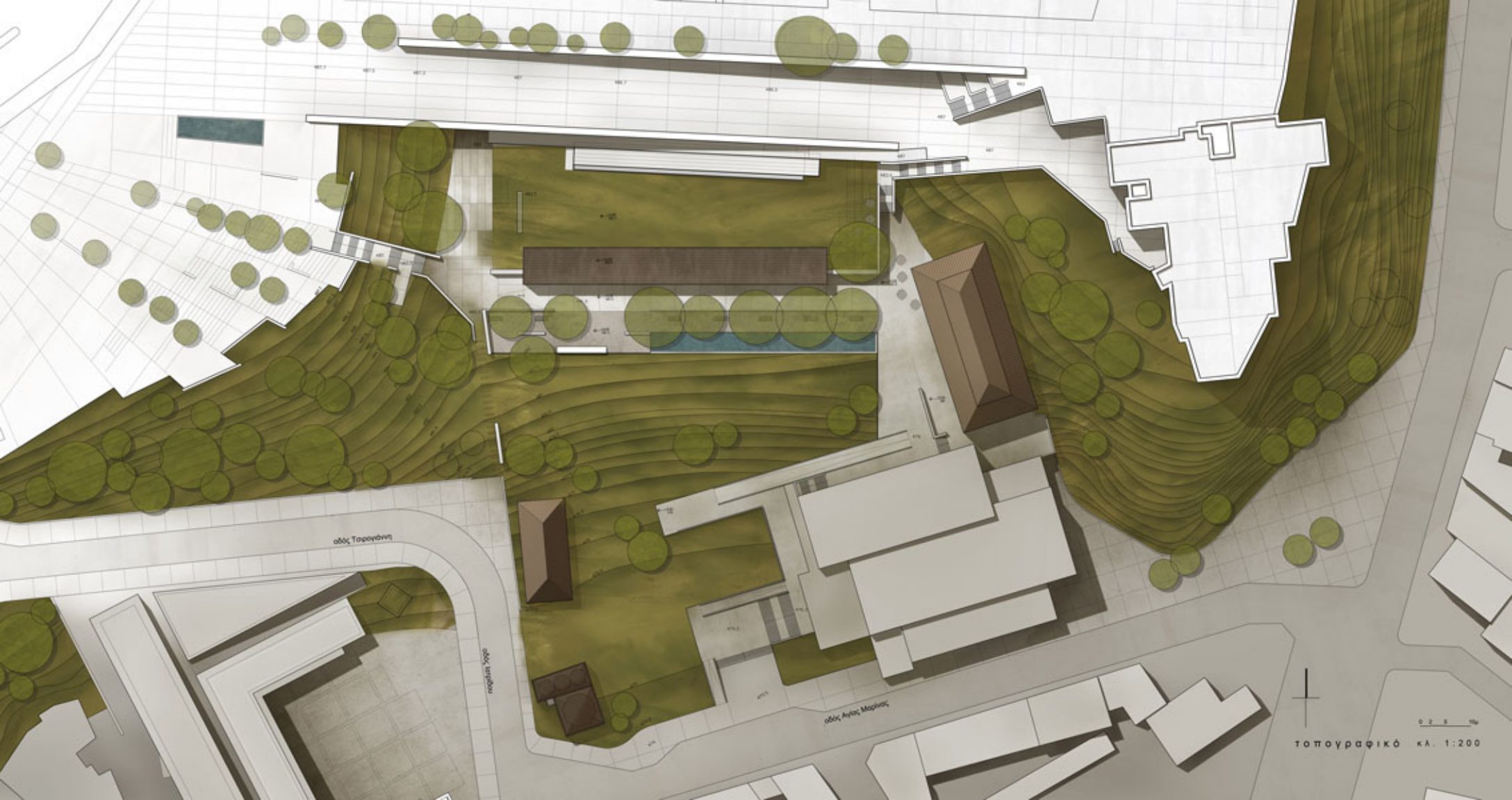
### **Πινακίδα**

#### **Summer**

**Solar protection**

**Water fall**

Basic principle of the design process has been the turn of the glass zone of the building towards the south.



οδός Τσιργάνη

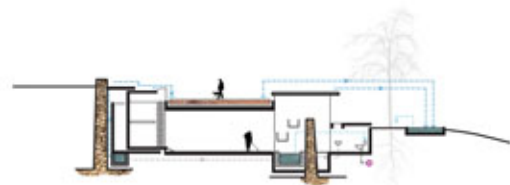
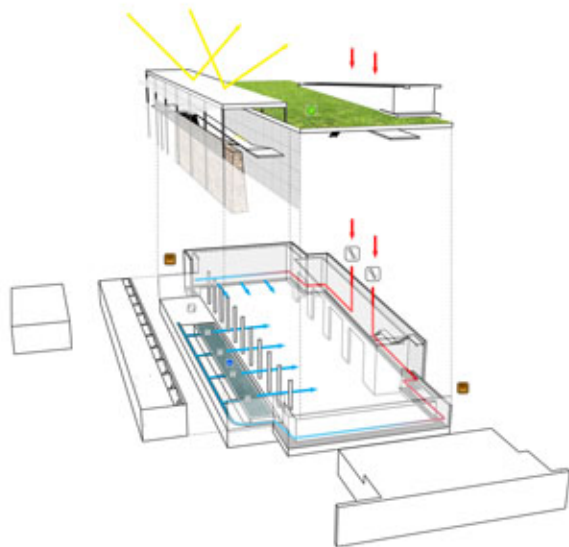
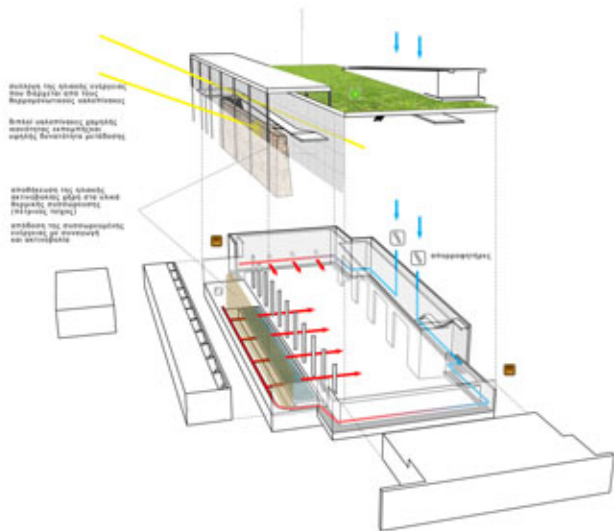
οδός Κωνσταντίνου

οδός Αγίας Μαρίας

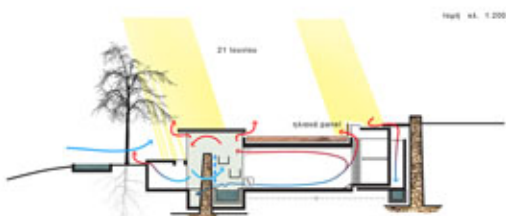
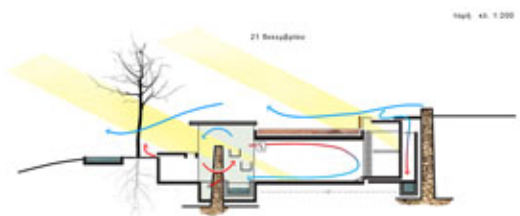


0 2 5 10m

τοπογραφικό κλ. 1:200



Ψαλίδι  
 Στοιβάδα  
 Στοιβάδα  
 Στοιβάδα





κάτωψη υπογείου ακ. 1:100  
(-2.50μ)

