



Environmental planning and architectural re-design of an existing public building and a public square.

The study of Lamia's Mayor Office building 'Old Town Hall' and Alekos Kontopoulos Square.

ABSTRACT

The purpose of this study is to expand the possibility of interventions in cities to meet their modern operational needs at the level of a public buildings and its outdoor space, while maintaining or even expanding their green spaces and applying methods for their optimal energy efficiency.

METHODOLOGY

The methodology of this Thesis was following developed by:

- **focusing on the analysis of the public building and the public outdoor space** as a single whole that reflects the historical, social, cultural and technological identity of cities and the need for their environmental redesign.
- **conducting bibliographic research on the principles of environmental design of cities and buildings**, the main environmental problems of cities today, the role of public rural space, its design parameters and the role of urban green, the role of public buildings in the city, the methods of restoration and energy upgrading of existing buildings, in the sense of the cave building.
- **presenting an empirical analysis of representative samples** of public bioclimatic buildings in Greece and Germany.
- **analyzing a case study** of a public building and the public square that surrounds it and are located in the historic center of the city of Lamia, in Fthiotida
- **proposing interventions for building expansion and redesign of an existing building and its existing outdoor space** in order to acquire modern functional and bioclimatic characteristics.

RESULTS

- At the **operational level**, the reduction of the dispersion of the activities of the Municipality in multiple points within the city.
- At the **level of uses**, the enrichment of the city center with places of culture and entertainment that at the same time enhance the social action in its inactive public open spaces.
- At the **cultural level**, the preservation of the historical memory and value of existing buildings
- At the level of **urban planning**, the priority in pedestrian traffic through the expansion and consolidation of the **existing sidewalks** of the city
- At the level of **architectural design**, the choice of cave expansion solution, which minimizes the building footprint in the existing dense environment and gives opportunities for development in the open public life.
- At the level of **environmental design**, the implementation of various urban and building design practices that contribute effectively to energy savings and at the same time to the increase of urban greenery.

EMPIRICAL ANALYSIS



Building of the municipal water company in Lamia.



Building of Central Macedonia Region headquarters.



Stadel Museum, Frankfurt am Main, Germany



Townhall, Freiburg, Germany



GENERAL LAYOUT OF ALEKOS KONTOPOULOS SQUARE & OLD TOWN HALL



CONCLUSIONS

The requirements for building maintenance, upgrades or extensions, ensuring the integrity of city and urban green spaces and the corresponding requirement to increase or optimize it, will always be a critical issue of densely populated urban areas, as well as the combination of modern bioclimatic, sustainable practices in order to achieve their quality and energy upgrade at the same time.