

SUSTAINABILITY OF URBAN AREAS THE CASE OF SAINT JOHN'S SOCIAL HOUSING SETTLEMENT

Eleni ANDREADAKI-CHRONAKI¹, Kostas MANOLIDES² and Myrto CHRONAKI

¹ Aristotle University of Thessaloniki, School of Architecture
University Campus 54 124 Thessaloniki, e-mail: echronak@arch.auth.gr

² University of Thessaly, Department of Architecture

EXTENDED ABSTRACT

The sustainability of our cities depends mainly on the renewal of their degraded areas. In Greece the Settlements of Social Housing, which were constructed during the 50's, are structurally debilitated and at the same time do not satisfy the contemporary requirements for comfortable living conditions. In this context, issues concerning the rehabilitation of these areas are of absolute priority.

The Settlement of 'Saint John's', a Housing complex at the east part of Thessaloniki, is in a process of rehabilitation, which includes the reconstruction of the housing buildings and the incorporation of renewable energy techniques aiming at the energy autonomy of the settlement, which contributes to a sustainable development of the urban area. Apart from this, the main problem is the financing of such a large scale investment, since the residents are of low income and cannot respond to these demands.

The project "ECO-TOWN, Application of RES in Saint John's Settlement Renewal", financed by the programme ALTENER, aims to offer to the residents of Saint John's a complete design project for the reconstruction of the housing buildings, including the new urban design based on bioclimatic principles, architectural design of the new housing typologies, selected solar systems and techniques that cover the needs of heating, cooling, domestic hot water and electricity. The foreseen application of a co-generation system, using natural gas, will cover the additional requirements of the buildings for heating, cooling and electricity, so the settlement will be energy autonomous. Under these conditions the new Settlement will provide clean air quality, without any harmful substances derived by using oil, especially CO₂ and SO₂.

The most innovation of this project is the new Settlement will be reconstructed totally - including renewable energy techniques- by Third Party Financing. The process of the selection of the Construction Company has been completed, after the auction of the project, based on the proposed implementations and using the *antiparokhi* system. Nowadays, the existent residents and the Developer Company are in the process of agreement, namely the selection of the specific apartment will be taken as *antiparokhi* by each proprietor, in order the contracts to be signed. This process is very difficult because the number of the properties amount about 230. However we hope the new Settlement will be realized and it will constitute a model for an ecological rehabilitation of other degraded settlements.

Key words: settlement, reconstruction, renewable energy, solar techniques, energy autonomy, environment protection, financing by Third Party.