Assessing urban transformations: Feasibility study and scenarios for the reuse of the former paper mill of Aegion in Greece

by Themistokli Papadopoulos
Tutor: Marta Carla Bottero
Co-tutor: Mauro Berta

Abstract
The purpose of the thesis is the creation of strategies regarding the feasibility of a transformation project through the assessment of design scenarios and according to a multi-methodological approach used to explore the different dimensions of the problem. In this way it is possible to identify the best proposal, both in economic and in socio-environmental terms. More specifically, it focuses on the knowledge, the preservation and the hypothesis of the enhancement of abandoned pieces of cities that are part of industrial archeology. It uses the feasibility study (FS) as a tool to define a set of elements and observations that are able to outline the guidelines for the most appropriate project. It isn’t simply a realization of an urban transformation project; it is an effort to create a true feasibility plan, focusing on sustainable development. The need to perform an FS arises from the fact that a project of great dimension and interest is complex both from economic and social point of view by presenting a high risk of failure. They serve strict and transparent analysis capable of grasping the technical, procedural and economic-managerial obstacles. The FS works as an integral part of the development process of the project as well as support for the optimization of investment choices and, finally, as a tool for the efficient allocation of public resources that become increasingly scarce. The work focuses on an industrial area on the Greek outskirts and studies the case of the paper mill of Aegion in the Peloponnese.

(Figure 1_Mind Map)

Through the preliminary analysis (SWOT, Stakeholders analysis) regarding the socio-economic context and the urban place, three projects were created for the abandoned spaces. The proposed interventions also stem from a process of public participation, as
several interviews were carried out for investigating issues related to problems and difficulties. These interviews depict the opinions of the involved stakeholders with more or less "power". In this project it is tried to transform the opinions of the respondents in design choices that have allowed the construction of scenarios (the methodology used for this operation is the Choice Experiment analysis).

(Figure 2_Example of the preliminary analysis: Stakeholder Analysis)

The three scenarios have different morphologies and functional programs, responding to the needs of the place. The highlight of the study was the evaluation of the scenarios through the multi-criteria approach MAVT trying to list the performance of the projects based on various attributes considered through their weighing performed by various experts.

(Figure 3_State of fact and Design Scenarios)
The last step of this study concerns the economic and social assessment of the most "performance" scenario. The technique chosen is the Cost Benefit Analysis (CBA), as considered the most appropriate for this type of intervention. This approach will also compare the different values of costs and direct benefits of the project also fits the parameters that relate to the social aspects that affect the community and not just the individual investor. The "social benefits", in this way have a major significance in a project of public interest. This study attempted to get close to a decision-making process of particular interest and complexity that opens the horizons for further investigation to the theme of urban transformation as a tool for an intelligent development. In other words, the proposed work can be seen as a reference not only for interventions related to the Greek territory but can also be inserted to different realities with the same problems trying to open new horizons for the future.

For further information, please contact:
Themistoklis Papadopoulos, e-mail: themospapadopoulos@gmail.com

Maintained by:
DAD – Department of Architecture and Design, e-mail: dad@polito.it