THE BUILDING ENVELOPE
BETWEEN PROCESS AND PRODUCT INNOVATION

Maria Teresa Lucarelli, Mariateresa Mandaglio, Deborah Pennestrì
DASTEC _ Department of Arts, Science and Technology of Building, Mediterranean University of Reggio Calabria

Abstract

In the face of climate change, scarcity of resources, the implications arising from the “unsustainable” and “precarious” construction, the Mediterranean regions have developed their own strategies, without starting at the same time a common approach in residential construction sector.

Therefore, developing and promoting a Mediterranean housing, capable of responding to new environmental and energy challenges, represents an opportunity to identify what to keep and what to transform into the system. By analyzing, in particular, a complex system like the building organization, we understand that product innovation is unsuccessful without innovation project: the development of any innovative system necessarily requires a review of design practices in order to assess coherence, interaction with other technical elements and exploitation of its potential.

For these reasons, the study of the building enclosure in the Mediterranean area is a ground of fertile experimentation to focus on process and product innovation: the latter related even to the evaluation of the entire life cycle of materials and components to be used. It follows, therefore, the need to establish a kind of neovernacular architecture, also based on the principles of "climate-sensitive building", which aims to restore a proper relationship between buildings and environment through a new cognitive approach of building elements and materials, traditional and advanced, in relation to the performance attributes of the same ones.

Key words: Building enclosure, innovative materials, sustainability, hybridization techniques, technology transfer.

References
U.O. APSIA, Analisi e Progetto per la Sostenibilità e l'Igiene Ambientale –DASTEC Department of the Mediterranean University of Reggio Calabria, Scientific Responsible: Prof. M. T. Lucarelli.