I MATERIALI INNOVATIVI E LA RIGENERAZIONE DELL'APPROCCIO CONSERVATIVO

Gigliola Ausiello

Dipartimento di Ingegneria Civile, Edile e Ambientale - Università di Napoli Federico II - P.Le Tecchio 80 - Napoli, ausiello@unina.it

ABSTRACT

Between past and future, innovation gives materials and technologies that seek to make inroads in the field of cultural heritage, listed or not.
It needs a methodology approach founded on knowledge of the ways in which innovation occurs. Just so you can assess the impacts.
Today the real innovation, the most advanced, using a hidden perceptually size, resulting in greater potential for outstanding performance in the field, that regenerate the concept of conservation. Some materials have a nanotechnological structure, others have micrometric and nanometric dimensions. In addition, innovation can also regenerate old materials and increase efficiency.
Only knowledge can lessen the distrust and skepticism toward the new. It is also necessary to "measure" the innovation, both in terms of material, which of constructive technique. Only in this way can be applied consciously innovative materials and assess their durability.
The paper shows several reasonings accompanied by examples of innovative solutions that demonstrate the potential of new materials, as panels of silicon dioxide, nanofibers of cellulose, heat-reflecting ceramics nanospheres, microcapsules of phase change materials, cellular glass, ect. At the same time, it reflects about the basic criteria of conservation: the reversibility, the appropriateness and compatibility, which we must add sustainability. Also the durability is changing and tends to become a parameter to be designed for performance and continuously updated.

Parole chiave/Key-words: Innovation and cultural heritage, Methodology approach founded on knowledge of the innovation, To "measure" the innovation, Innovation and basic criteria of conservation, To design for performance