

# ORIZZONTI DI METODO PER L'INTEGRAZIONE DI SISTEMI FOTVOLTAICI SUL PATRIMONIO ARCHITETTONICO

ALICE GIULIANI<sup>1</sup>, MASSIMO ROSSETTI<sup>2</sup>

<sup>1</sup> Università Iuav di Venezia, Santa Croce 191, 30135, Venezia,  
alice.giuliani23@gmail.com

<sup>2</sup> Università Iuav di Venezia, Santa Croce 191, 30135, Venezia, rossetti@iuav.it

## ABSTRACT

The issue of the use of renewable energy sources and the integration of devices for the generation of energy in architecture is a matter of great importance, especially considering the increasing potential of the available technologies and the request of an ever-increasing reduction of greenhouse gas emissions. In this context, the topic of the integration of photovoltaic systems in historical buildings is particularly important, as also highlighted by recent studies and researches.

The paper presents a research work, developed during a Master's Degree Thesis at the University Iuav of Venice, which dealt with the theme of integration of photovoltaic systems in historical buildings, having as target the development of a tool for critical evaluation, usable both *ex-ante* (as a support during restoration and conservation projects), and *ex-post* (as an evaluation tool for projects already finished). Given the complexity of the topics, the aim of the research was not the development of a manual, but of a tool that can help architects to work on a case-by-case basis.

The research has therefore defined, as final result, a multicriterial evaluation form that architects can use as a decision support system to integrate photovoltaic systems in case of restoration and conservation of historical buildings, in order to manage the possible alteration of the aspect of buildings, especially concerning the impact of technical choices on the surfaces.

**Key-words:** historical buildings, photovoltaic systems, architectural integration, BiPV