

PERCORSI, DERIVE E CIFRE FATUE DELLE SUPERFICI IN ARCHITETTURA: TERMOGRAFIA PER TUTELA DELLE MURATURE STORICHE AFFRESCATE

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Abstract.

A diagnostic method that can offer a new experience of the built environment is introduced. By means of thermographic survey and specific post-processing procedures, the research - ongoing - proposes a technique bound to frescoed walls. Indeed, besides classic uses, thermography is aimed at acquiring information on the masonry texture 'hidden' by wall paintings: aprioristic condition for seismic vulnerability estimates. The keys that define this innovative approach 'sustainable' for heritage are multiple since is a non-contact, performable in passive conditions and can orient the design of interventions conservative in terms of restoration, avoiding the execution of samples destructive tests. Initially it was tested in laboratory and then applied to a prestigious case: the templar complex of San Bevignate. The history of this museum site - which includes the thirteenth-century church, the former monastery and Roman archaeological remains - is complex and stratified. To understand its uniqueness on the world scene the church's interior spaces must be observed: cycles of frescoes that have nothing less than the ones of the iconic *Chapelle des Templiers* of Cressac in France.

The first promising results made possible to obtain both qualitative and quantitative information about masonry texture, stone elements and discontinuities. Furthermore, it was possible to evaluate the state of conservation of the frescoes and appreciate the successive stratifications that have occurred over the centuries.

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