## ANALISI AMBIENTALI E MICROCLIMATICHE PER IL RECUPERO DI FABBRICATI TRADIZIONALI RURALI

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## ABSTRACT

This study defines the methodological and technical problems related to the design of solutions for the improvement of energy performance and the preservation of historical traditional buildings, using well-established techniques for diagnostic in cultural heritage. In particular, we focus on traditional (preindustrial) rural buildings of the mountain landscape of Valle d'Aosta (Italy).

Nowadays, it is necessary to aim for an improvement in energy behavior when dealing with existing buildings. Concerning historical heritage, this is possible by especially paying attention to conservative targets and by carefully calibrating the re-use works. Therefore it was decided to develop a diagnostic project in a case study building, the *raccard*, a traditional building partially recovered and partly in good condition, which consists of a masonry basement and a free-standing wooden structure located on it. Refurbishment and re-use are perhaps the only way to save those fabrics from decay and abandonment, even if some retrofitting and energy upgrading techniques commonly used risk to strongly and definitively alter their structural stability and architectural integrity. The objective shared by specialists is to critically extend the intervention and diagnostic analysis methods, typical of restoration, to different types of goods, in order to roll out the protection, preservation and conservation to the whole cultural heritage in the area and not just to those being considered "monuments".

**Parole chiave/Key-words**: Traditional buildings, recovery, energy efficiency, relative humidity, temperature analysis.