



Threads of Conservation

Social fabric • Fabric and place • Conserving fabric

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Peter Cox is Vice-President of ICOMOS Ireland, President of the ICOMOS International Scientific Committee on Energy and Sustainability, and is a member of the Association of Preservation Technology. Peter is also chair of ICOMOS Ireland's National Scientific Committee on Energy and Sustainability, which has published on the "Effects of Climate Change on World Heritage Sites".

Peter has over 30 years experience in stone conservation and is an expert on sustainability for heritage buildings and is a guest and visiting lecturer to a number of universities in Ireland, United Kingdom, Europe and the United States.

Peter sits on a number of international committees, working in particular with Governments to improve legislation and policies on conservation in general and on energy efficiency in our heritage and traditional building stock. Peter represents ICOMOS International on the CEN (Central European Standards Committee) Expert Technical Committee on producing a new European standard for "Energy Efficiency in Heritage Buildings".

Energy Efficiency in Heritage and Traditional Buildings in Europe – Developments Leading to Best Practice

Paper Abstract

Considering the large stock of existing historical buildings and built heritage and its value, in order to achieve Governments' CO2 International emission targets agreed in Kyoto (1992), it is essential to firstly analyse a number of factors: the background to the drive to retrofit existing housing in Europe; research being carried out by a number of European bodies; and materials innovation and new products suitable for energy efficiency and heritage building fabric.

We have to consider building typology and its micro and macro climatic variations, together with the range of building materials and methods of construction of buildings and dwellings across many cultures. Many modern energy efficiency products are not compatible with older breathable buildings, resulting in damaging side effects. Energy efficient measures must not damage or devalue the "heritage value" of a building and we need to look at developing new products more compatible with our conservation aims to future proof our traditional buildings.

Research carried out on a large number of our older dwellings and heritage building typologies demonstrates their better performance where those buildings are physically measured and when occupiers are educated to correctly use the energy. Working with buildings of such diverse types and ages through a wide range of climate conditions offers challenges to study and understand user profile and habits, source and specify correct solutions and materials, monitor performance, and record and share information. In conclusion, this drives the need to understand our vast and diverse historic and older building stock and evaluate and assist Governments to produce practical policies and guidelines for upgrading existing and historic buildings to deliver energy efficiencies.