



Preventive  
Conservation  
in Historic Houses  
and Palace  
Museums:  
Assessment  
Methodologies  
and Applications

SilvanaEditoriale

# **Preventive Conservation in Historic Houses and Palace Museums: Assessment Methodologies and Applications**

Conference of the National Museum of the Palace of Versailles (EPV), the Association of European Royal Residences (ARRE), and the Research Centre of the Palace of Versailles (CRCV)

In collaboration with the International Committee for Historic House Museums (DEMHIST), held at the National Museum of the Palace of Versailles and Trianon

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## **Conference Proceedings**

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# “Sense and Sensibility:” Microclimatic Control and Preventive Conservation in Historic Houses. The Villa Necchi Campiglio Case in Milan

## Abstract

The FAI – Fondo Ambiente Italiano is the main non-profit foundation for the protection, the preservation and the enhancement of Italy’s natural and artistic heritage.

As demonstrated by this conference, attention is increasingly focused on the prevention of degradation, by acting on the environment in which the object is exhibited and not on the object itself. In other words, prevention practices are brought forward whereas conservation-restoration treatments have become almost exceptional.

Within the heritage managed by FAI, historical houses are particularly interesting cases to analyse. Indeed in these residences, the “sense” for respect of museum standards often contrasts with “sensibility,” the desire to maintain the conditions of this particular reality unaltered.

The case of Villa Necchi Campiglio in Milan, a building from the Modern Movement built between 1932 and 1935 by Piero Portaluppi (Milan 1888-1967), is iconic from a methodological point of view and is used as a model for all FAI properties.

## Keywords

Collection conservation, preventive conservation, climate control, climate history.

**I**n 2005, for the purpose of transforming a private house into a museum open to the public, the necessary adaptations were made to the buildings for its new functions while respecting climate standards for museums.

The climate monitoring facilities were installed in all the rooms and the data loggers allowed us to have an accurate diagram of the temperature, humidity and lighting values, as well as their variations over the seasons.

The analysis showed how the average values are not in line with the recommended museum standards. As historic house Villa Necchi Campiglio is a “system” where heritage is extremely diverse and it is necessary to seek a compromise between “climatic history,” that is the thermo-hygrometric conditions in which the objects have lived over time, and the values derived from museum standards.

The Villa has many glazed surfaces which have a lower thermal

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*Fig. 1*  
The conservatory of Villa Necchi Campiglio, an example of a glazed area where anti-UV films have been applied. (© Archivio FAI)

*Fig. 2*  
The living room of Villa Necchi Campiglio, where the collections are extremely varied and different types of objects coexist. (© Archivio FAI / Giorgio Majno, 2008)





resistance than the rest of the building, naturally implying more radiation. As far as the reduction of light is concerned, we have therefore applied an anti-ultraviolet film on the Villa's historical window glasses, with the use of technical curtains or double-curtains.

To offset the increase in temperature, the efficiency of the system of fan coils installed in the house has been increased thanks to a large emission of cold air. In addition, the presence of vegetation and blinds limits "over-heating," and at the same time, the opening of windows during the day by Villa personnel allows better air circulation.

The house's unique characteristics, like double glazing, ensures a reduction of heat loss during the winter. This is further minimised by the hot air emitted by the fan coil units.

Once again, the compromise between "sense" and "sensitivity" is achieved by progressively replacing incandescent light bulbs, where possible, with energy-saving LED bulbs. It is now possible to produce light bulbs suitable for historic houses that produce a "warm glow" effect that is reminiscent of old-fashioned candlelight.

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