

## PRESERVATION OF THE WORLD CULTURAL HERITAGE AGAINST THE CONSEQUENCES OF CLIMATE CHANGE

Effects of climate change on ecosystems and on the global economy have been researched intensively during the past years but almost nothing is known about our cultural heritage. Within the new EU project "Climate for Culture" researchers are investigating climate change impacts on UNESCO World Heritage Sites.

The project, coordinated by the Fraunhofer Institute for Building Physics IBP, aims at assessing the damage risks for historical sites and its interior collections, as well as developing strategies for long-term preservation and evaluating the economic consequences. Although many historical monuments are exposed to extensive loads caused by the stampedes of visitors, there are other important factors deteriorating our World Heritage Sites, for example climate change which is a long-term and substantial menace to the sites. One of the manifold damages caused by climate change is the enhanced weathering of marble and limestone used in many important historic buildings throughout Europe, for example in Westminster Abbey, the Acropolis or the Colosseum in Rome.

The "Climate for Culture" project is funded by the European Commission from 2009 until 2014 and consists of 27 partners from all over Europe and Egypt making multidisciplinary contributions. One of the main aims is to assess and evaluate climatization strategies of historic buildings and how to meet the energy efficiency aims of the European Union while contributing to a sustainable preservation of the buildings.



Preservation of the World Cultural Heritage against the Consequences of Climate Change

## CLIMATIZATION OF HISTORIC BUILDINGS, STATE OF THE ART

International Conference | Linderhof Palace | December 2 | 2010

### Date

December 2 | 2010

### Location

Schlosshotel Linderhof  
Walther Gastronomiebetriebs GmbH  
Linderhof | D-82488 Ettal

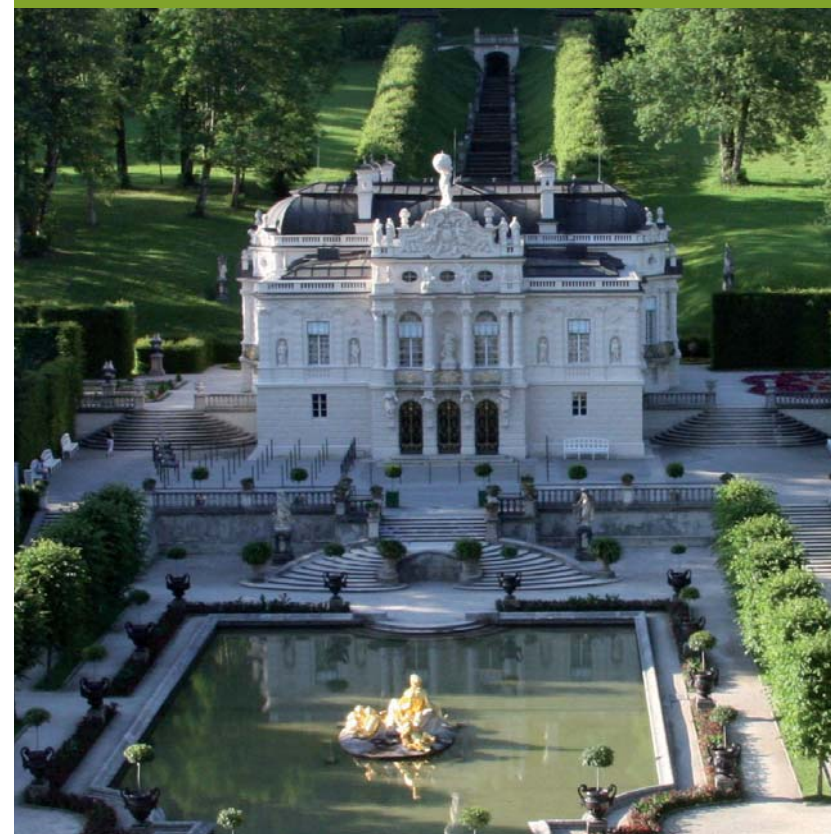
phone +49 8822-790 | Fax +49 8822-4347  
info@schlosshotel-linderhof.com  
www.schlosshotel-linderhof.com

### Registration Fee

Regular fee (85 Euro)  
Regular fee plus dinner (115 Euro)  
Participants from the "Climate for Culture" project – accommodation including all meals and coffee for conference (125 Euro)

### Contact and information

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## Program

**Chair: Dr. Johanna Leissner, coordinator of »Climate for Culture«, Fraunhofer Brussels**

### 10:00 – 11:30 Session I – Climate impact on cultural heritage

- Ralf Kilian (Fraunhofer IBP, DE), Impact of Climate Change on Cultural Heritage – The »Climate for Culture« Project
- Tina Naumovic (Bayerische Verwaltung der staatlichen Schlösser, Gärten und Seen, DE), Preventive Conservation in the property of the Bavarian Department of State-owned Palaces, Gardens and Lakes
- Jan Holmberg (Haftcourt Ltd., UK/SE), Damage assessment of objects of art correlated to local outdoor climate during 300 years

### 11:30-12:00 Coffee Break

### 12:00-13:00 Session II – Modelling tools and preservation methods

- Dr. Nigel Blades (National Trust, UK), Degree day modelling of conservation heating energy use in historic houses
- Henk Schellen (TU/e Eindhoven, NL), Conservation heating in a historical building: results from an experimental and simulation study

### 13:00-14:00 Lunch

### 14:00-15:30 Tour of the Castle

### 15:30-18:00 Session III – Microclimate control methods

- Dr. Pavel Zitek, Dr. Tomáš Vyhliďal (Czech Technical University in Prague, CZ), Oto Sladek (Kybertec, CZ), Model based microclimate control in the Chapel of the Holy Cross at Karlstejn Castle
- Dr. Jochen Kaeferhaus (Kaeferhaus GmbH, AT), Four examples for energy saving and sustainability in museums, depots, churches and historical buildings
- Dr. Martin Krus (Fraunhofer IBP, GE), The Temperierung wall heating system – Examination of moisture transport and energy use via hygrothermal building simulation
- Dr. Tor Broström, Poul Klens Larsen (Gotland University, SE), Evaluation of different approaches of microclimate control
- Stefan Bichlmair, Ralf Kilian (Fraunhofer IBP, DE), Indoor environment of Linderhof Castle and impact of exterior climate

### 19:00 Conference Dinner

#### Partner



## International Conference on Climatization of Historic Buildings, State of the Art

Fax +49 8024 643-366

Titel \_\_\_\_\_

Name \_\_\_\_\_

Firm | Institution \_\_\_\_\_

Department \_\_\_\_\_

Street | Nr. \_\_\_\_\_

Postal Code | City \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

Email \_\_\_\_\_

City | Date \_\_\_\_\_

Signature \_\_\_\_\_

Regular fee (85 Euro)

Regular fee plus dinner (115 Euro)

Participant from the "Climate for Culture" project – Hotel stay (1 night), all meals and coffee for conference (125 Euro)

Stamp