

Climate Declaration

For cultural heritage institutions

DRAFT

Version 1.1

March 2023

Introduction

Heritage organisations such as museums, archives and libraries care for our heritage and try to share the fragile objects in their collections, now and in the future, to an as wide as possible public. To ensure the future use of collections, risks are limited to an acceptable minimum. Besides factors such as light, pollution, physical forces and safety, climate plays a role. A considerable amount of time and attention is spent by organisations on the creation of indoor climates where people and objects are comfortable. Controlling the indoor climate however costs a lot of energy and thus puts a huge strain on the budget. Which possibilities are available to save energy and still provide a safe environment for heritage collections?

Urgency

In the context of climate change, heritage organisations are forced to follow international regulations to emit significantly less CO₂. In addition, rising energy prices have further increased the need to reduce energy consumption.

Recent decades have brought new scientific insights about climate specifications in relation to collection needs and visitor comfort. These insights provide opportunities to use less energy while not increasing the risks to which objects are exposed. Well considered adjustments can even improve conservation.

With this climate statement, we want to propose some general principles for possible adjustments to your indoor climate, so your collections can be preserved and presented in an optimal way without unnecessary energy consumption.

In doing so, we are in line with the initiative taken in 2014 by the group of large international museums (Bizot) to, among other things, ease the requirements of loan traffic between major museums. [1] This initiative was subsequently widely adopted by ICOM in collaboration with IIC in the Environmental Guidelines ICOM-CC and IIC Declaration [2]

1 Bizot Green Protocol | Webpagina | The Bizot Group

2 Environmental Guidelines ICOM-CC and IIC Declaration | Webpagina | International Council of Museums - Committee for Conservation (ICOM-CC) en Canadian Conservation Institute (CCI)

Sustainability and collection management

- **Sustainability** is broader than the discussion on climate standards and should be an important underlying criterion for future heritage policy principles.
- Heritage organisations should **reduce their ecological footprint and environmental impact** to combat climate change by reducing their energy consumption and exploring and, if possible, applying alternative renewable energy sources.
- Conservation of collections should be **designed to prioritize passive methods and energy-efficient solutions**.
- Decision-making should be based on **risk management**.
- Sustainable **decisions** should be made by an **interdisciplinary team** including the owner of the building, the user of the building, the owner of the collection, the parties responsible for the building and climate system maintenance and the collection manager.
- The **climate requirements** for (inter)national **loans** should match the (actual) climate as it is in the collection rooms of the lender. This requires honesty and transparency.

Indoor climate principles

Based on the goals for sustainable management, some starting points can be formulated for optimal indoor climate control, see also [3]:

- **Ageing** of heritage objects is a constant **natural process** that cannot be stopped. Nevertheless, many objects have stood the test of time. An appropriate climate is not the only factor that ensures optimal preservation, but one that requires a lot of time, budget and energy. More flexible climate management gives room to pay attention to other aspects of collection care as well.
- **Risk management** should become the new starting point for decision-making. It will help ensure organisational continuity in relation to collection preservation. This means that the acceptable indoor climate is estimated primarily on the basis of the real vulnerability of objects, see also [4].
- The **target values** for indoor climate must be **achievable** for the organisation. The interplay between type of collection, building, accessibility, resources and knowledge present in the organisation determines which climate is realistically feasible, see also [5].
- Using a (small) **seasonal fluctuation** will reduce the risk for loans borrowed from museums (or private residences) from a similar outdoor climate with limited climate control.
- Following the seasonal changes in **temperature** is recommended for all collections. Keeping indoor temperatures slightly lower during the heating season has three major advantages:
 - Less energy is used.
 - Objects degrade less quickly. Many materials undergo chemical reactions that cause the object to age, at a lower temperature these reactions occur significantly slower.
 - If the air is heated less, it will also become less dry. Relative humidity remains higher at lower temperature. This prevents dryness cracks in hygroscopic structures.
- Following the seasonal changes in **relative humidity** is recommended, provided the fluctuation is gradual. Maintaining a very strict fixed range for relative humidity throughout the year is energetically very unfavourable and unnecessary for the collection. The recommendation is to maintain a (slightly) lower relative humidity in winter and a (slightly) higher relative humidity in summer.

- Controlling on a **bandwidth** rather than a single **setpoint** is recommended, both for temperature and relative humidity. This means that the control of the air handling system will not continuously force the system to regulate back to one fixed setpoint. This has the great advantage that museums with air-conditioning systems will need to intervene less due to an under- or overshoot.
- For most objects, wider climate conditions than those used to date will cause no or minimal damage. A **relative humidity (RH)** between **40% and 60%** with **fluctuations of no more than 10% RH** per 24 hours within this range, and a temperature between 12 and 26°C are a good starting point.
- Steering to **control fluctuations** in relative humidity should be done based on **historical climate**. Objects that have been displayed in one location for a long time have already experienced many RH fluctuations as a result of this historical climate. As long as the fluctuations in the future do not exceed those in the past and the object has not undergone any structural interventions recently, the risk of mechanical damage is virtually zero.
- **Objects that are highly climate-sensitive** (depending on the object's materials, condition, construction and history) may require a customised solution, such as a microclimate or specific and tighter RH control. [5] However, many such (highly) sensitive objects have already been damaged by climate fluctuations in the past. Be critical when assessing actual sensitivity.
- By far the majority of objects are stored in **depots**. The climate in these rooms may be primarily aimed at preserving the collection. Collections do not require high temperatures or fresh outside air. There is therefore **less** need for **heating** and the emphasis can therefore be on recirculation with the smallest possible **flow rate**.

Concluding

Dealing with indoor climate is not easy. It requires knowledge and attention. Much time is spent on measurement, elaboration and interpretation to keep the climate within ranges that we think we know are safe. Practice tells us that these self-imposed limits are often chosen tighter than necessary. This is because the climate sensitivity of the collection is often overestimated. Of course, there are objects that are exceptionally vulnerable; these also deserve our full attention. However, they should not be at the basis of determining an overall institutional climate. We hope that this climate statement will be a first step towards that.

³ CHANGE NEEDED > Het binnenklimaat in het programma van eisen van erfgoedinstellingen | Publicatie | Rijksdienst voor het Cultureel Erfgoed

⁴ CHANGE NEEDED > Risicomanagement voor collecties | Publicatie | Rijksdienst voor het Cultureel Erfgoed

⁵ Incorrect Relative Humidity | Webpagina | Canadian Conservation Institute (CCI)

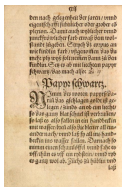
Who are we? Qui-sommes nous? Wie zijn wij?

- ENG The Dutch statement is supported by several advocacy organisations, heritage institutions and educational institutions:
 FR La version de la déclaration sur le climat en néerlandais est soutenue par plusieurs organisations de défense d'intérêts, institutions patrimoniales et organismes de formation :
 NL De Nederlandstalige versie van deze verklaring wordt door verschillende belangenorganisaties, erfgoedinstellingen en opleidingsverstrekkers gesteund:

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VLAAMS STEUNPUNT VOOR CULTUREEL ERFGOED

Felix

ART & ECO MUSEUM

**X Gemeente
X Amsterdam
X Stadsarchief**

**Geldersch
Landschap
& Kasteelen**



historisch
centrum
limburg

ICOM international
council
of museums
Belgium Flanders

ICOM international
council
of museums
Nederland

**Joods
Cultureel
Kwartier**

KB nationale
bibliotheek

**IRPA
KIK** Koninklijk Instituut voor
het Kunstpatrimonium

KMSKA

LCM Landelijk Contact van
Museumconsulenten



MARKIEZENHOF

M HKA



monumentenwacht
Vlaanderen vzw

**museum
vereniging**

**Mu.
ZEE**



Nationaal Archief
Ministerie van Onderwijs,
Cultuur en Wetenschap

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paleis het loo

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Rijksdienst voor het Cultureel Erfgoed
Ministerie van Onderwijs, Cultuur en
Wetenschap

RIJKS MUSEUM

STEDELIJK
MUSEUM
AMSTERDAM

Stedelijk
Museum
— BREDA

TR00P00N
MUUS00UM

MUUS00UM
VOOLK00NKUNNDE

Van
Gogh
Museum
Amsterdam

 Vlaanderen
is erfgoed

Vlaams
Depotnetwerk

WEE00RE00LD
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ZUIDERZEEMUSEUM

COLOPHON

VERSIE 1.1

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