Preventive Conservation for Ceramics and Glass Collections

12 November 2019

Sarah Staniforth
9.00  Introduction and agents of deterioration quiz
9.30  Group work – preventive conservation issues for your collections and feedback
10.15 Lecture
10.45 Break
11.00 Lecture
11.30 Q&A
11.45 Planning practical exercise
12.15 Lunch
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:
- Disassociation

- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:
- Disassociation

- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
HELP PROTECT THE CULTURAL RELICS
HELP PROTECT THE RAILINGS
L’Aquila earthquake : 6 April 2009
Wallington, Northumberland

Floor protection using Eyemats
Wallington, Northumberland

Floor protection using Eyemats
Ten agents of deterioration

- Physical forces
- **Thieves and vandals**
- Fire
- Water

PLUS ONE:
- Disassociation

- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- **Fire**
- Water

**PLUS ONE:**
- Disassociation

- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
Uppark : 30 August 1989
Clandon: 29 April 2015
Ten agents of deterioration

• Physical forces
• Thieves and vandals
• Fire
• Water

PLUS ONE:
• Disassociation

• Biological
• Chemical
• Radiation
• Incorrect relative humidity
• Incorrect temperature
Corning Museum Flood

June 23, 1972
Importance of building maintenance
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:
- Disassociation

- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
Biodeterioration of roof timbers
Insect attack in framed print
Woodworm holes in Grinling Gibbons carving
Carpet beetle
Rodent damage
Dry rot fruiting body in damp wood after fire
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:

- Disassociation

- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
Gaseous air pollution
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:
- Disassociation

+ Biological
+ Chemical
+ Radiation
+ Incorrect relative humidity
+ Incorrect temperature
Manual of Curatorship
A Guide to Museum Practice

Edited by John M. A. Thompson

Contents
Introduction
Section 1: The Museum Context
Section 2: Exhibition Management
Section 3: Visitor Services
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Butterworths
The Museums Association
Reducing damage by light

- Eliminate ultraviolet radiation
- Reduce time of exposure
- Reduce visible light levels
  - No direct sunlight
  - Make most of low light levels
Ten agents of deterioration

• Physical forces
• Thieves and vandals
• Fire
• Water

PLUS ONE:
• Disassociation

• Biological
• Chemical
• Radiation
• Incorrect relative humidity
• Incorrect temperature
Reducing damage by incorrect RH

- Avoid high RH
- Avoid low RH
- Avoid fluctuating RH
• Sustainability and management
  – Care of collections should be achieved in a way that does not assume air conditioning (HVAC). Passive methods, simple technology that is easy to maintain, air circulation and lower energy solutions should be considered.
  – Risk management should be embedded in museum management processes.

• Museum Environment
  – Guidelines for environmental conditions for permanent display and storage should be achievable for the local climate.

• Loans
Loans

For many classes of object containing hygroscopic material (such as canvas paintings, textiles, ethnographic objects or animal glue) a stable relative humidity (RH) is required in the range of 40 - 60% and a stable temperature in the range 16-25°C with fluctuations of no more than ±10% RH per 24 hours within this range.

More sensitive objects will require specific and tighter RH control, depending on the materials, condition, and history of the work of art. A conservators evaluation is essential in establishing the appropriate environmental conditions for works of art requested for loan.
Conservation heating
Knole, Kent
Knole, Kent
Ten agents of deterioration

• Physical forces
• Thieves and vandals
• Fire
• Water

PLUS ONE:
• Disassociation

• Biological
• Chemical
• Radiation
• Incorrect relative humidity

• Incorrect temperature
Nine agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE

- Disassociation
- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
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