Preventive Conservation for Paper-Based Collections
23 October 2018
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Scientific Approaches to Paper & Photograph Conservation

0.00  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

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

L'Aquila earthquake : 6 April 2009
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:
- Disassociation

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

Munch Museum armed robbery: 22 August 2004
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:
- Disassociation

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

The Vyne - 20 July 2007
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE:
- Dissociation

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

- Physical forces
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- Fire
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PLUS ONE:
- Disassociation

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

- Physical forces
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PLUS ONE:
- Disassociation

- Biological
- Chemical
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Ten agents of deterioration

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Environmental Guidelines (2014)

• Sustainability and management
  - Care of collections should be achieved in a way that does not assume air conditioning (UVAC). 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, etchings, objects or animal glue) a stable relative humidity (RH) is required in the range of 40 - 60% and a stable temperature in the range 16-21°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 conservator’s evaluation is essential in establishing the appropriate environmental conditions for works of art requested for loan.
Ten agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water
- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
- Disassociation
Nine agents of deterioration

- Physical forces
- Thieves and vandals
- Fire
- Water

PLUS ONE
- Dissociation

- Biological
- Chemical
- Radiation
- Incorrect relative humidity
- Incorrect temperature
IIC Professional Seminar
Sustainable Storage

Summary
- A low-energy museum store has
  - Highly insulated walls and roof
  - Concrete floor without thermal insulation (heat storage)
  - No active heating
  - Humidity buffer in walls
  - Humidity control by dehumidification (may be powered by solar panels)
  - Low infiltration rate, no forced ventilation
  - No daylight utilized

Preventive conservation
- Conservators can be the enablers of sustainable access
- Welcome the benefits of increased access
  - Help financial bottom line
  - Allow more people to share in experience of seeing authentic objects in context
- Use risk assessment and risk management
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