

A Preventive Conservation Primer

Introduction

Preventive conservation includes any measure that can be taken to prevent or mitigate damage to collections. Preventive conservation is the most powerful preservation tool that collections stewards have because it focuses on whole collections rather than individual objects. The following sections introduce the five pillars of preventive conservation: policies and practices; environmental management; housing, storage, and space, housekeeping; pest management; and emergency preparedness. Resources that expand on these topics are included at the end of the article.



Policies & Practices

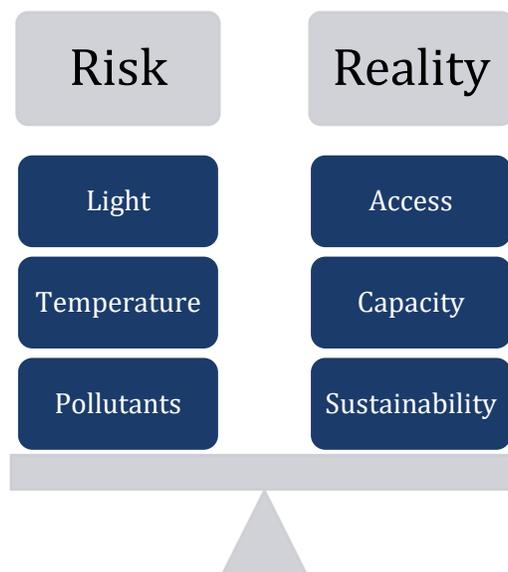
While it can be tempting to jump right into hands-on projects, strong policies are the backbone of any good preventive conservation program. Collections management policies provide a foundation and framework for consistent and systematic collections care that aligns with the goals of the organization. A good collections management policy (CMP) is the best place to start. Topics that are covered by a good CMP include the organizational mission and collecting scope, accessions, deaccessions, loans, insurance, security, handling and access, and exhibitions. Policies are only worth the paper that they're written on if they're not accompanied by input from and training for all staff. The CMP and all policies should be reviewed and consistently updated to reflect any changes in collections management and staffing.

Environmental Management

The modern practice of preventive conservation grew out of a recognition that the environment has a major effect on the condition of collections. Managing the temperature, moisture, light, and air quality of collections spaces is often the most effective way to prolong the life of cultural heritage objects. The key to effective environmental management is balancing the needs of the collection with the capacity of the building and mechanical systems to create a sustainable program.

The first step in environmental management is routine monitoring. Temperature, relative humidity (RH), dew point, visible, and ultraviolet radiation (UV) are all environmental indicators that are relatively easy and inexpensive to monitor. Pollutants can be difficult and expensive to monitor reliably but understanding what chemicals can be damaging to collections and avoiding them in things like storage furniture, housing, and building finishes is a good substitute for comprehensive monitoring.

Once a baseline is established, steps can be taken to mitigate things like high humidity and light exposure with an eye towards balance. A consistent temperature of 68° and relative humidity of 50% may be desirable but not necessarily achievable in every situation. Keeping objects in total darkness will prevent light deterioration but will make them inaccessible to audiences. More important than eliminating risk is limiting extremes, like RH levels that facilitate mold growth, big swings in temperature, and high cumulative exposure to visible and UV light.



Housing, Storage, & Space

Good storage protects and organizes collections and allows for periods of rest between exhibition and use. Ideally, collections storage should be its own dedicated space, separate from workspaces and supply storage. Storage space should be large enough that collections are not cramped and there is room for staff members to move safely.

Apart from physical space, storage furniture and housings are also important. They should contribute adequate physical support to collections and be made from materials that don't emit harmful

chemicals, especially where they come into contact with objects. For example, non-archival cardboard boxes and uncoated wood shelving can release acids that damage collections over time.

Housekeeping

Dusty and dirty collections areas invite pest and mold infestations, exacerbate the effects of moisture, and complicate salvage in the event of an emergency. Regular housekeeping mitigates these risks as well as allowing staff to constantly monitor the state of collections and identify objects that may need conservation treatment or upgraded storage.

A good housekeeping program should include the regular maintenance of floors and surfaces, as well as the cyclic dusting of storage furniture, enclosures, and collections that are not in enclosures. Some chemicals that are common in household cleaners, like ammonia, can be damaging to collections, so take care when setting protocols and training staff even if they will not touch the collections, themselves.

Pest Management

It is virtually impossible to maintain a building with no insect population. In fact, the complete absence of insects suggests that the building has a level of toxicity and should be evaluated for human health and safety! There are some pests, however, that can be damaging to collections; the best way to deal with the risk of those pests is the use of integrated pest management (IPM). IPM is a holistic approach to pest management that includes monitoring, housekeeping, and the identification of pests. It is the safest manner of pest control because it avoids the use of chemical pesticides that may cause damage to collection material and create health risks, while also focusing on prevention rather than remediation.

Emergency Preparedness

The unfortunate reality of cultural heritage stewardship is that organizations will inevitably need to deal with emergencies. Those emergencies can be small in scale like a leaky pipe or malfunctioning server, all the way up to large scale natural and manmade disasters like a hurricane or terrorism threat. No matter the size of the emergency, preparedness is essential for quick response and recovery and to lessen the extent of damage or loss of collections materials.

An emergency preparedness and response plan can include everything from contact information for staff and vendors to continuity of operations to specific instructions for the salvage of collections. Contact with local first responders like fire departments is extremely beneficial. Emergency supplies should be kept on-site, and staff should be trained on emergency preparedness and response procedures that are continuously evaluated and updated to provide the best protection for people and collections.

Web Resources & Key Readings

General

The American Institute for Conservation. "Preventive Care." *AIC Wiki*.

https://www.conservation-wiki.com/wiki/Preventive_Care

Canadian Conservation Institute. "CCI Technical Bulletins."

<https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/technical-bulletins.html>

International Centre for the Study of the Preservation of and Restoration of Cultural Property. "Preventive Conservation in 7 Points," n.d.

<https://www.iccrom.org/sites/default/files/2019-06/iccrom-preventive-conservation-in-7-points-v2.pdf>.

Policies & Practices

American Alliance of Museums. "Developing a Collections Management Policy," 2012.

<https://www.aam-us.org/wp-content/uploads/2018/01/developing-a-cmp-final.pdf>.

Collections Management Practices, Conservation Center for Art and Historic Artifacts, 2019.

<https://www.youtube.com/watch?v=0o2MqqQOhkg>.

Simmons, John E. *Things Great and Small: Collections Management Policies*. 2nd Edition. Washington DC: American Alliance of Museums, 2018

Environmental Management

The American Institute for Conservation. "Environmental Guidelines." *AIC Wiki*.

https://www.conservation-wiki.com/wiki/Environmental_Guidelines

CCAHA. "Pollutants and Collections." 2019. <https://cacha.org/resources/pollutants-and-collections>

CCAHA and Penn Libraries. *Collections Environment Infographic*.

<https://cacha.org/resources/collections-environment-infographic>.

Image Permanence Institute. "Methodology for Implementing Sustainable Energy-Saving Strategies for Collections Environments."

2017. https://s3.cad.rit.edu/ipi-assets/publications/methodology_guidebook/methodology_guidebook_all.pdf

Housing, Storage, & Space

Cumberland, Donald R., Jr. "Determining Museum Storage Equipment Needs and Space Requirements." *Conserv O Gram*, Numbers 4/10 and 4/11. June, 1997.

<http://www.nps.gov/museum/publications/conservogram/04-10.pdf>

Housing Basics, Conservation Center for Art and Historic Artifacts, 2020.

<https://www.youtube.com/watch?v=xs5-kqxs6E0>

Storch, Paul S. *Exhibits and Storage Materials Handbook*. St. Paul, Minnesota: Minnesota Historical Society, 2007.

http://www.mnhs.org/preserve/conservation/reports/exhibits_handbook.pdf

Housekeeping

Conservation Center for Art and Historic Artifacts. "Collection Housekeeping Guide," 2022.

<https://cacha.org/resources/collection-housekeeping-guide>.

National Trust (Great Britain), ed. *The National Trust Manual of Housekeeping: The Care of Collections in Historic Houses Open to*

the Public. 1st ed. Amsterdam ; Boston: Elsevier, 2006.

Pest Management

Conservation Center for Art and Historic Artifacts. "Know Your Bugs!" 2022.

<https://cacha.org/resources/know-your-bugs>

Deacy-Quinn C., 2020. *FUNdamentals of Museum IPM*. Spurlock Museum, College of Liberal Arts and Sciences, Illinois.

<https://www.spurlock.illinois.edu/blog/p/emfundamentals-of-museum/327>

<https://museumpests.net/>

Emergency Preparedness

Collections Trust. "Emergency Planning for Collections."

<https://collectionstrust.org.uk/spectrum-resources/risk-management/>.

CCAHA. "Emergency Supply Kits." 2018.

<https://cacha.org/resources/emergency-supply-kits>

Introduction to Emergency Preparedness and Response, Conservation Center for Art and Historic Artifacts, 2019.

<https://www.youtube.com/watch?v=5U1c7KFF9JE>

CCAHA. "Emergency Supply Kits." 2018.

<https://cacha.org/resources/emergency-supply-kits>