



Collections Research News

Fall 2011



Elements of Successful Collections Management

Part 9

There are nine major elements of successful collections management in museums and all of these elements should be present to insure your museum is fulfilling its public trust and collection stewardship obligations. These key elements are:

- ✓ Clear Museum Mission Statement
- ✓ Mission-driven Policies and Procedures
- ✓ Knowledge of proper handling procedures
- ✓ Thorough and accurate documentation of collections
- ✓ Knowledge of safe and proper numbering methods
- ✓ Inventory control
- ✓ Safe and stable environment
- ✓ Consistent and sound access procedures
- ✓ Safe and secure exhibition practices

Collections Research News addressed the first six elements in previous issues. In this issue we will continue our look at the importance of a safe and stable environment in the museum.

❖ Safe and Stable Environment, Part 2

Good collection management requires a certain level of knowledge relating to the environment within and surrounding your museum and the forces which can act upon your collection to its ultimate detriment. These forces are commonly called the 10 Agents of Deterioration and we can, through good Collections Management practices, effectively mitigate them. In Part 1 we looked at the first six Agents of Deterioration. Part 2 will look at Agents seven through ten.

- The seventh Agent of Deterioration is Light. There are several different types of light, most of which are found inside museums. These include: natural light/sunlight; incandescent lighting; fluorescent lighting; tungsten lighting; fiber optic lighting; and the new LED lights. Why should we worry about lighting in museums? The damage caused by light is due to the makeup of the light—both Ultraviolet and visible light cause damage to museum objects—and duration of exposure. Light damage is cumulative and cannot be repaired or reversed. What are some of the effects of light on objects? Light causes fading; it can raise the ambient temperature and lower the relative humidity near the light source; it can cause physical destruction by accelerated aging (ex. yellowing of newspaper); it can change the chemical properties of some substances; and speed up other aging processes (ex. shredding of silk).
- The eighth Agent of Deterioration is Temperature. When the temperature is too high chemical degradation can be accelerated. Temperature that is too low can cause embrittlement. Fluctuating temperatures cause fracturing and delaminating. Many objects are not affected by temperature alone and can live in lower temperatures just fine. Unheated buildings on historic sites may be better in winter than trying to heat them—humidity levels would remain relatively stable rather than plummeting when the heat is turned on. Lower temperatures can be helpful in stopping or slowing some chemical degradation as in color photographs and acidic paper. Condensation can be a concern when different parts of the museum are kept at different temperatures. Slow acclimatization is important for objects kept in cold storage; do not change the temperature quickly (anything in cold storage should be in

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waterproof containers)

➤ The ninth Agent of Deterioration is Relative Humidity (Rh). Relative humidity is amount of moisture in the air relative to the amount it is capable of holding. Temperature and humidity are related—the higher the temperature the more water it can hold so as the temperature rises, the Rh drops and as the temperature drops the Rh rises. Why should we care about humidity in our museums? If the Rh is above 75%, mold, mildew, dry rot, and red rot can begin and flourish. Specific materials react above or below a critical value and some chemical reactions stop at 0% Rh. The biggest worry for museums is fluctuations which cause the expansion and contraction of materials. Many objects are 'hygroscopic'—sensitive to changes in Rh—and absorb and release moisture relative to the changes in Rh. This absorption and release of moisture can cause major problems for museum objects like paper, wood, or ivory.

An important step in controlling damage to your objects is knowledge of the environmental requirements of materials that make up the artifacts in the museum's collection and knowledge of temperature and humidity extremes in your geographic area. What are the optimum temperature and humidity for metals, wood, ivory, fabrics, plastics, and all other materials within the collection including objects made from a combination of materials? Awareness of these factors and the resulting changes they can cause is an important step in long term preservation.

The first step in this process is to know the current conditions within the museum. Environmental changes should not be made without first monitoring and understanding current conditions and what resources will be necessary to affect positive changes and maintain them. Changes must reflect a plan for growth and change in the collection. Be careful when considering changes to historic buildings, particularly regarding environmental controls. These changes may cause more harm to the building's structure than good for the collection inside. Consult an architectural conservator as well as an objects conservator.

Stability is more important than 'magic numbers' for temperature and humidity. Sometimes compromise is necessary to reach a temperature and humidity reasonable for your geographic area and the majority of your collection. Microclimates—small enclosed spaces with special humidity control using silica gel—can be created for sensitive materials. Limit light exposure, especially for sensitive materials, such as fabrics and photographs, and choose your lighting and light levels well; making sure to filter florescent lighting and natural light to block the ultraviolet rays.

➤ The tenth and final Agent of Deterioration is Custodial Neglect. What exactly is custodial neglect? It is the act of collection abandonment—not properly caring for; storing; or documenting your collection. It is the loss of object or specimen data—not protecting or maintaining good records about your collection. And finally, it is the lack of legal title to your collection—not knowing from whom an object came or whether the museum has legal title to it limits what the museum can do with the object. The collection is the most important resource the museum has. Without it the exhibits, public programs, and other services of the museum would not be possible. And without proper documentation the collection has lost much of its value for the museum. Therefore, a museum must plan not only for the protection of the collection but for the collection documentation as well. Policies, procedures, and training are an important component of any preservation plan, as well as funds allocation and availability for collections care. Do not forget treatment and conservation research needs in the plan.

The final piece of developing a safe and stable environment is to create a Disaster Plan and train, train, train! Disaster training is as important as having the plan—the book doesn't help if you read it for the first time in the middle of a crisis.

The following link is to a Canadian Conservation Institute article with more details about the 10 Agents of Deterioration
<http://www.cci-icc.gc.ca/crc/articles/mcpm/index-eng.aspx>.

2011 TRAINING SCHEDULES

ONLINE TRAINING

MS103: Basics of Museum Registration
March 5 to 31, 2012

MS207: Collections Management: Cataloging Your Collection
July 2 to 29, 2012

MS007: The Mission Statement: Is It Really That Important?
July 9 to 13, 2012
November 12 to 16, 2012

MS218: Collection Inventories
November 5 to 30, 2012

MTN/WESTEND TRAINING CENTER

Collections Management Boot Camp
May 14 to 18, 2012

Check our website for details:
<http://museumcollectionmgmt.com>

SERVICES

FILEMAKER® PRO CATALOGING TEMPLATES

Collections Research for Museums can assist small museums with computerizing their collection documentation using off-the-shelf database software.

Training is available for our database and in general FileMaker Pro techniques.

ON-SITE TRAINING

Collections Research for Museums offers classes for small museums in Cataloging and Collections Management. The course is designed for those museums which have small, non-professionally trained or volunteer staffs. It covers the basics of marking, handling, measuring, and cataloging, plus general care and storage for all types of objects and materials.

PROJECT SERVICES

We also offer a variety of other services to museums, large and small. These range from simple inventories to complete and thorough cataloging of collections. Feel free to contact us for more information. We provide a free initial consultation.

(Collections Research News is a service of Collections Research for Museums, Inc, 4830 E Kansas Dr, Denver, CO 80246 (303)757-7962, Toll free: 1-877-757-7962,

Email: information@museumcollectionmgmt.com

Website: <http://museumcollectionmgmt.com>

Questions, comments or story suggestions are always welcome.)

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(303) 757-7962

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