MUSEUM STAFF AND VOLUNTEERS frequent use the words “preservation” and “conservation.” In everyday conversation, promotional literature, and institutional documents, such as the statement of purpose and the collections management policy. But, how many museums, historic sites, and related institutions have a plan that provides specific information for protecting and extending the life of their collections? This kind of collections management plan, called preventive conservation, is essential if museums are to fulfill their preservation responsibilities.

Preventive conservation means taking steps to provide a stable and secure environment for artifact, document, and photograph collections, thus reducing deterioration and lowering the need for professional conservation treatment. In addition to housekeeping, which is the focus of this technical bulletin, preventive conservation also includes proper storage and exhibition techniques as well as control of the facility’s heating, cooling, and relative humidity levels.

If housekeeping procedures are to be effective, attention must be paid to the facility’s temperature and relative humidity levels. It is generally recommended that a temperature of 65-72 degrees Fahrenheit combined with a relative humidity of 45-50% is best for museum collections. Most importantly, however, is that the temperature and humidity be maintained at a stable level 24 hours a day, all year long (less than a 5 degree change in temperature and less than a 5% change in relative humidity).

For further information on environmental control, consult the technical bulletin, “Basic Principles for Controlling Environmental Conditions in Historical Agencies and Museums,” listed in the bibliography.

Together, environmental control and monitoring along with a consistent and thorough housekeeping routine will reduce damage to collection items. Housekeeping involves the following aspects:

CLEANING

When allowed to accumulate, dust and dirt accelerate deterioration of all types of museum collections. For example, a speck of dust can cut fibers, thus weakening the piece. Dust also attracts moisture causing additional deterioration. Heavy layers of dust contain abrasive particles that will scratch the surface of an artifact, such as glassware or furniture, when the artifact is cleaned or handled.

Schedule cleaning activities for a portion of each day, even if it is only for an hour or so. In museums, the term “spring cleaning” should not be used in a different than fall, winter, or summer cleaning!! Be advised, however, that museum housekeeping does need to follow basic guidelines in order to prevent accidents or damage to the collection. Here are some recommendations for cleaning:

1. Dust and vacuum normal traffic areas at least once a week. Heavy traffic areas should be attended to 2-3 times each week. Use a vacuum cleaner on carpeted and bare floors. Brooms are not recommended because they put too much dust into the air.
2. When wet mopping a floor, be sure to remove all water spills and puddles from the floor and provide sufficient ventilation for quick drying.
3. Be especially careful to bump or scratch furniture legs, feet or any other part of an artifact with the vacuum cleaner or wet mop.
4. Exercise care when moving furniture. Lift from the bottom of the piece, using two workers if needed. Never drag a piece of furniture across the floor.
5. Do not dust around artifacts. Remove each item from the shelf, case or other area, and move to a secure place. Carry one artifact at a time, using both hands, and support from the bottom, not from a handle or other appendage.
6. When dusting artifacts, use a soft, clean cloth, such as a diaper. Shake the cloth out frequently (outside the building). Machine wash dust cloths at least once a month. Feather dusters are not recommended.
7. Use furniture waxes and polishes in strict moderation. Excessive use of these products can cause an oily residue or even a darkening of the finish over time.
8. Wear white cotton gloves when touching or handling collection items. Handling artifacts with bare hands will accelerate deterioration due to the oils and salts always present on our skin. Gloves should not be worn, however, when handling glassware and glazed ceramics as they increase the chances for items to slip and break.
9. Remove loose dirt and dust from textiles and upholstered furniture with a piece of plastic screening and a low-powered vacuum cleaner. Place the screening over the piece and vacuum with the nozzle attachment, making sure that the nozzle does not touch the screen and artifact. Contact the Field Service office for a complete set of instructions.
10. Obtain the advice of a professional conservator before washing clothing and other textiles, applying commercial cleaning products to artifacts, or performing other potentially damaging procedures.

Additional guidelines can be found in the publications listed in the bibliography.

PEST MANAGEMENT

If left unchecked for long periods of time, collections not only suffer damage from dust but they may also be harmed by insects and rodents. Damage can range from surface staining to complete destruction. Most vulnerable to attack are organic materials such as wood, paper, silk, wool, leather, fur, and feathers.

To prevent infestations, perform regular and thorough inspections and implement a consistent housekeeping schedule. All staff, volunteers and maintenance workers should be trained in “pest awareness.” At least once a week, check window sills and door jams for spider webs and evidence of insect activity. After examining, taking samples, and documenting evidence found, contact your county extension office or another local expert for help in identifying pests.

Isolate and inspect all incoming additions to the collection for possible insect problems. Systematically spot check collections, both on exhibit and in storage. Pay particular attention to organic materials, checking for holes in textiles, insect carcasses, excrement, piles of woodborer frass and cut hairs from animal fur. After examining and making note of evidence found, promptly dispose of it in order to eliminate a new food source for other pests.

Resist the temptation to fall into the common practice of frequent spraying or exterminating as a means of “insurance” against infestation. When this occurs, staff and volunteers, as well as visitors, may be at risk from exposure to harmful chemicals. Collections can also suffer irreversible damage from insecticides, whether through direct contact or fumes. Furthermore, reliance on chemical treatment often masks the true housekeeping or structural problem such as a delay in disposing of garbage, ill-fitting doors and windows, or leaking water pipes. Make an effort to get to the root of the problem.

Many museums are now implementing an Integrated Pest Management program (IPM) that relies on preventive techniques to minimize the elements required for pest survival. All of the topics discussed in this technical bulletin - cleaning, environmental control, restrictions on food, drink, and smoking, pest monitoring, and exterior maintenance are preventive techniques used in an IPM program. Several publications listed in the bibliography at the end of the bulletin offer guidelines for starting such a program.

FOOD, DRINK, SMOKING AND REFUSE CONTROL

Establish and maintain restrictions for eating and drinking in the building. This protects the collection not only from damage due to spilled food and drinks, but it also plays a vital role in pest management. Crumbs, food and drink stains, and even dust, contain enough nourishment for insect survival.

A daily chore essential for good museum housekeeping is the emptying of trash from all areas of the building, especially where eating and drinking are permitted. Immediately emptying trash containers, vacuuming, and inspecting for food stains is necessary after special events involving refreshments. Proper refuse disposal is an important aspect of a good housekeeping program.

If yours is not a “smoke-free” facility, establish a designated smoking area that is away from exhibit galleries and collections storage. The area should be well-ventilated to decrease the amount
STORAGE
Work and storage rooms need to be kept clean. Cluttered areas are excellent hiding places for insects and rodents. A regular and thorough cleaning schedule is essential for these areas just as it is for the facility's public areas.

Every effort should be made to store museum furniture (extra tables and chairs, exhibit pedestals and props, and similar items) in a separate room from collections storage. This reduces clutter, makes cleaning easier, and prevents damage to collection pieces due to the frequent moving of large and often cumbersome props and museum furniture.

Eliminate cardboard boxes and brown paper bags from collections storage and, where possible, from other areas of the building. The glue used to construct these items is a source of protein for insects, such as roaches, and the glued flap areas provide a perfect nesting place. Besides, these are not appropriate storage-enclosures for any museum collections due to their high acid content.

Keep shelving units at least four inches from the floor. Frequent inspection and cleaning under the shelving will eliminate dust accumulations which provide nourishment and nesting for unwanted pests. Your cleaning schedule should also include vacuuming dust and dirt from crevices, corners, and floor registers.

EXTERIOR MAINTENANCE
Good exterior maintenance of the facility is just as important as interior housekeeping. Regularly remove leaves, birds' nests and other insect-attracting debris from gutters and ledges. Keep trees and bushes trimmed away from the building and the grass mowed. And, station outdoor garbage receptacles as far from the building as feasible. All of these exterior maintenance tasks will help reduce insect and pest problems inside the structure and make cleaning easier. Most importantly, the museum's collections will be preserved in a more secure environment.

CONCLUSION
Set up a housekeeping schedule that lists tasks to be performed on a daily, weekly, and monthly basis. Rotate chores among staff and volunteers. Good housekeeping habits can detect and eliminate small problems which, if gone unnoticed, could result in a major collections loss. A preventive conservation plan that includes housekeeping will make the preservation of museum collections easier and much more successful.

The following bibliography lists publications related to museum housekeeping and preventive conservation planning. The Oklahoma Field Advisory Service is available for telephone and on-site consultation.

BIBLIOGRAPHY
"Examining for Insect Infestation." Ottawa: Canadian Conservation Notes, Number 3/1, December 1988.*


MacLeish, A. Bruce. The Care of Antiques and Historical Collections, rev. ed. Nashville: American Association for State and Local History, 1985.**

Mailand, Harold F. Considerations for the Care of Textiles and Costumes. Indianapolis: Indianapolis Museum of Art, 1988.**


Miller, Patricia L. "Handle With Care: Creating a Secure Environment for Museum Collections." Champaign: Illinois Heritage Association Technical Insert Number 45, May-June 1990.*


Story, Keith O. Approaches to Pest Management in Museums. Washington, DC: Conservation Analytical Laboratory, Smithsonian Institution, 1985.*


*Contact the Field Service for copies or for information on how to obtain copies.

**Part of the Field Service’s lending library. May be borrowed from most public libraries through the interlibrary loan system of the Oklahoma Department of Libraries.

For further information, contact the Field Service at The Oklahoma Historical Society, 2100 N. Lincoln Blvd., Oklahoma City, OK 73105-4997; 405/521-2491.