

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

A. INTRODUCTION

1. Definition of Housekeeping

As applied to museum property, the term "housekeeping" is defined as all of the actions that are taken to protect museum objects. Under this broad definition, housekeeping encompasses both the tasks traditionally associated with housekeeping, such as dusting, vacuuming, and applying protective waxes, and other, less readily associated tasks, such as changing filters in air handling units, monitoring pests through traps, and monitoring relative humidity with a hygrothermograph.

2. Purpose of a Housekeeping Program

The purpose of a housekeeping program is to integrate a number of related but discrete tasks into a comprehensive program of preventive conservation. From other chapters in Volume I, the program draws elements of the Handbook that are essential to an effective housekeeping plan: environmental monitoring, equipment maintenance, integrated pest management, handling procedures, storage, security and fire protection, emergency planning, funding and staffing. A housekeeping program is based on a holistic, integrated approach to preventive conservation. When implemented, this approach provides ongoing, consistent care through staff coordination, and through adherence to established schedules and procedures that are applied with professional judgement. By identifying deficiencies and calculating staffing and funding requirements, an effective housekeeping plan becomes a tool for managers to use in preserving the bureau's cultural and natural resources.

A good housekeeping plan clearly outlines: 1) the tasks to be performed; 2) appropriate techniques for accomplishing the tasks; 3) the frequency of each task; 4) the person(s) responsible for performing them; and, 5) the appropriate supplies and equipment needed for the preservation of museum property.

This Chapter provides guidance on developing a

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

housekeeping program for museum property. Each unit presents a unique set of factors, therefore, each plan will be site-specific. Climate, geographic location, types of materials in the museum collection, staff experience, and the site and nature of facilities housing museum collections vary widely. The success of the program in each unit depends upon the cooperation of every staff member -- management, facility managers, maintenance and curatorial staff, discipline specialists, interpreters, and security personnel -- in recognizing and performing their particular and essential role.

Although optional, documentation of these factors in a plan provides more consistent care by institutionalizing the program. Care of museum property depends on adherence to the plan by the entire unit staff, rather than on the personal knowledge of a single or a few employees. A plan elevates the day-to-day care of museum collections to a level above the care afforded other types of personal property, recognizing that the peculiar attributes that make it museum property (e.g., rarity, historic or scientific value, or age), dictate a different kind and level of housekeeping. **Remember, housekeeping is a process, not a product. The care required by museum property often exceeds that required by other types of personal property.**

B. WRITING A HOUSEKEEPING PLAN

1. Introduction

The interdisciplinary nature of a housekeeping plan and its impact demands that staff from each office be involved from its earliest stages of development. Conservators and subject matter specialists should be consulted so that techniques, procedures, supplies and equipment are appropriate for each object and space. These guidelines apply whether the plan is written under contract or by a member of the staff. Refer to Section F of this Chapter for additional information concerning housekeeping.

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

2. Recognizing Housekeeping Limits

Housekeeping activities and their potential effect on museum objects are extensive and diverse. Some actions protect objects from their environment (e.g., installing light filters, changing heating, ventilation, and air conditioning (HVAC) filters, adjusting window shades, and using dust covers). Others specifically require handling of objects (e.g., dusting, applying protective barriers, winding clocks, washing marble hearths and glass windows, vacuuming and refolding textiles, and turning the pages of books). Housekeeping tasks include wiping fingerprints from exhibit cases, changing light bulbs, maintaining equipment, and replenishing silica gel. Each of these actions involves the physical endangerment of museum objects, either through handling of the objects or through the handling or movement of exhibit furniture or fixtures located near the object. **The points to keep in mind when writing a housekeeping plan are: all housekeeping tasks should be identified and listed; and, all housekeeping tasks should be assigned to and carried out only by persons qualified and trained to perform them.**

3. Components of a Housekeeping Plan

When writing the plan, remember that one purpose for the plan is to establish the process and procedures. Be as specific and as clear as necessary to convey an accurate history of decision-making, actions, and results of the plan. Curatorial staff may write one housekeeping plan that addresses all spaces (e.g., storage, exhibits, and furnished rooms) housing museum property, or may choose to write several plans that address individual spaces containing museum property. All housekeeping plans should include the following basic components:

a. Title Page

Prepare a title page. Spell out the full name of the unit, and if appropriate, the site within the unit. The Title Page may also serve as the review and approval page for the housekeeping plan. Figure 7.1

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

illustrates the format for the Title Page.

NOTE: Sample housekeeping forms are included in Section E of this Chapter.

b. Statement of Purpose

State the purpose of the plan. An example of text that might appear in this section is:

This housekeeping plan is a formal, approved document that guides curatorial staff in providing consistent, ongoing care for the unit's museum property. The housekeeping plan integrates a number of related but discrete tasks into a comprehensive program of preventive conservation.

c. Description of Scope of the Housekeeping Plan and Program

Briefly state the impact of the plan by addressing the following four elements: sites and/or locations that will be affected, overview of the museum property collection, program objectives, and staffing.

1) **Sites and/or Locations**

Briefly describe the space for which the plan is designed.

2) **Overview of Museum Property**

Briefly describe the museum property housed in the space: its use, purpose, types of objects included, and their significance.

3) **Program Objectives**

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Most preventive conservation tasks are common to storage spaces, exhibit spaces, and historic furnished structures (e.g., maintenance of security and fire protection systems). However, the function of each space requires distinct objectives and approaches to housekeeping. These differences should be noted in this section of the housekeeping plan. **NOTE:** Given the variety of spaces in the Department of the Interior that house museum property, these objectives may appear to be unrealistic. Remember that they are

conceptual tools intended to help staff design the best plan possible for a particular space.

a) Storage Spaces

The principles of preventive conservation should be most effective in a storage area where the sole purpose is to prevent exposure of objects to the agents of deterioration. Storage areas that are dedicated spaces with controlled access and limited usage generally have lower levels of dust and pollutants, a greater likelihood of achieving stable temperature and relative humidity, and a greater possibility of controlling pests and light than other spaces. The result should be a cleaner space than can be found in either an exhibit area or a historic furnished structure. General cleaning can be more aggressive because there is less concern for damaging objects and/or specimens (that are enclosed in cabinets) in the process.

Preventive conservation in storage areas includes such unique tasks as maintenance of storage equipment and containers (e.g., checking gaskets on specimen cabinet doors, testing the stability of acid-free folders, and dusting steel shelving units), and regular condition checks of stored materials. (Objects in storage, though

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

handled less and suffering less direct exposure to the environment than those on exhibit, are more susceptible to neglect because they are out of view. Regular condition checks may be more crucial to the survival of these objects than to exhibited objects.) More than any other space, storage areas should attain the highest level of preventive conservation and cleanliness possible.

b) Exhibit Spaces: Indoor Exhibits

In indoor exhibit spaces (e.g., interpretive media using museum objects) the emphasis of the housekeeping plan is three-fold: to achieve the highest possible level of preventive conservation in areas of visitor use; to maintain much higher levels of preventive conservation in the maintenance of microclimates; and to maintain exhibit furniture and interpretive media (e.g., object labels and panels). The target for the interior of exhibit cases is the same as for storage areas -- the highest possible level of preventive conservation. The plan should also address the care of free-standing exhibits (e.g., statuary), and the maintenance of exhibit cases and furniture and of furnishings provided for public and staff use. Preventive conservation tasks in these areas should include measures taken to preclude the introduction of problems (e.g., placement of mud mats at entrances, the use of high-quality replicas instead of live plants, or a coat room where packages are checked).

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

c) Exhibit Spaces: Outdoor Exhibits

Outdoor exhibits are the most problematic of any of the spaces housing museum property. Museum objects in these situations are often large or heavy (e.g., wagons or farm equipment); are displayed in an uncontrollable environment; and are frequently actively deteriorating. The unit must make a conscious and considered decision regarding the management of such objects. Objects exhibited outdoors are often being consumptively used; such use should be a conscious decision and should be approved and documented according to procedures outlined in the Museum Property Handbook, Volume II, Chapter 4. Where multiple examples of objects are on exhibit (e.g., church pews), the unit may choose to remove one or several examples to a stable museum property storage space to ensure their long-term preservation, and document the remaining objects. The housekeeping plan mitigates, as far as possible, the rate of deterioration. Public safety issues will need to be addressed in greater detail than in other spaces.

d) Historic Furnished Structures

Housekeeping plans for historic furnished structures require ingenuity in balancing the preservation and protection needs of the structure and the furnishings. The maintenance of the structure is an important aspect of conserving the contents. Seasonal changes in the environment, visitation levels and tour routes, and possibly of interpretive objectives are of concern. Dissimilar objects (e.g., brass candlesticks on marble or wooden tables) are most likely to come into contact with each other in this context, and provisions must be made to prevent adverse reactions between adjoining

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

materials.

Overall interpretive objectives must be considered and integrated into the plan. Likewise, interpretive operations must consider the needs of the housekeeping program. For example, tour groups that are gathered in newly-mown, dusty, or muddy areas track those materials into the structure. Or, it may be necessary to close the structure for a short time during the day to allow a quick clean-up of hallways used by the public. Consultation between curatorial and interpretive staff is crucial to the success of both programs.

It may be necessary to use high-quality reproductions to achieve interpretive objectives without endangering original museum objects. The unit's Museum Property Committee may provide valuable assistance in making such decisions and in suggesting alternatives when interpretation and preservation goals conflict.

- 4) **Staffing:** Briefly describe the role of curatorial and other staff in implementing the plan.
- d. Summary of Management and Use of Museum Objects and Spaces

Review and briefly describe past and present management policies, special programs, or uses of spaces housing museum property that impact the collection. This information is important for planning purposes, and for anticipating additional housekeeping tasks related to each activity. Include only those activities that were practiced in the past or that are now routine and ongoing. For example, if applicable:

! state that there is an active program of temporary

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

exhibits in a particular area of the visitor center;

! state that cooperative association board meetings are held in the room adjoining the main exhibit space;

! note whether part of the collection is exhibited in administrative offices, and cite the management document that guides this use.

e. Analysis of the Space Housing Museum Collections

All spaces housing museum collections have particular characteristics that should be considered when planning for housekeeping. Address unusual spaces such as enclosures or oversized exhibits that exist within a larger space, but have separate utilities and housekeeping needs. This section of the housekeeping plan should provide baseline data on existing conditions, including situations specific to the area, such as storage of tools in areas adjacent to the exhibit area; proximity of staff lunchroom to museum property storage space; location of electrical circuit switches inside museum property storage area. Procedures and schedules are based in part upon this information.

A detailed narrative should describe existing conditions. (It may be useful to supplement the narrative with floor plans or multi-layered mylar drawings.) Refer to Figures 7.2a, 7.2b, 7.2c, and 7.2d, which illustrate a sample format for the narrative. The narrative should cover the following topics:

1) **Spatial characteristics**

Describe the building's and the room's characteristics. Include size and material of surfaces (e.g., floor area, wall area, ceiling area, and number and type of windows).

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

2) **Utilities**

Describe all utilities located within spaces housing museum property. Reference appropriate files where equipment operational and maintenance manuals and warranties are located. Describe the chain of command and procedures for procuring emergency service for malfunctioning equipment, including the names and phone numbers of staff; procedures for obtaining outside servicing of equipment on weekends or at night; and whether or not a standing account (e.g., a service contract or blanket purchase order) with a responding vendor has been established. Reference the Emergency Management Plan for Museum Property. The Interior Museum Property Handbook, Volume I, Chapter 12 provides guidance on emergency planning. Maintain contact with the maintenance and administrative divisions to ensure that inspections by outside companies are performed on schedule, and that service contracts are renewed as necessary. Document the need for such renewals and inspections in the housekeeping plan. Include a written description of the following utilities:

a) Water

Specifically list all water sources of which staff should be aware for housekeeping or emergencies. Identify the location of main valves for emergency shut-off; locate functioning sinks and drains.

b) Electricity

Identify all electric outlets that staff may use for preservation work. Also list operable electric appliances such as stoves, water heaters, space heaters, and light fixtures. Identify the location of circuit

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

breakers and the main switch for emergency shut-off.

c) Gas

If applicable, specifically list all gas outlets, such as stoves, water heaters, space heaters, and light fixtures. Identify the location of the main shut-off valve for emergency shut-off.

3) **Mechanical system**

Describe main components of the mechanical systems (e.g., HVAC, air handlers, and humidistat) and their locations. Provide information on types, quantities, and sizes of portable equipment (e.g., humidifiers and dehumidifiers), and their placement. Provide information on types, sizes, and quantities of air filters, their locations, and maintenance considerations. On the building floor plans, note locations of major components of the mechanical system; include portable equipment, air registers, return air grills, drains, and thermostats.

4) **Environmental characteristics**

Summarize existing environmental factors (e.g., light, temperature, relative humidity, dust and pollution), based on data recorded from ongoing environmental monitoring program for museum property.

5) **Security system**

Specifically list all components of the security system (e.g., shunts, detectors, and mirrors), and their special maintenance considerations.

CAUTION: Do not include sensitive security details or information such as codes or lock

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

combinations in the housekeeping plan.

6) **Fire detection and/or suppression system**

List all the components of the fire detection and suppression system and their special maintenance considerations. Note the locations of sensors and types of all portable fire extinguishers on floor plans of the building.

f. Description of Space Usage

Describe the range of activities that occur within each space housing museum property, and identify users. Identify the potential impact of such uses upon museum objects. Address such factors as numbers of visitors, traffic flow, security risks, and number of staff and volunteers. Seasonal variations, such as the addition of holiday decorations, changes in furnishings to reflect historic use, and environmental fluctuations should be addressed.

g. Description of the Quantity of Museum Property

Group museum object holdings within each space by the following material type categories:

- ! archeological objects
- ! natural history specimens
- ! paper objects (e.g., records and newspapers)
- ! photographs
- ! textiles
- ! paintings
- ! wooden objects (including furniture)
- ! metal objects
- ! ceramic, glass, and stone objects
- ! basketry
- ! leather and skin objects
- ! composite objects (e.g., wagons, clocks, and musical instruments)
- ! plastics and other synthetic materials
- ! other

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Group museum objects in each space by object type within material type (e.g., woven wool floor covering under textiles). Create sub-groups as necessary (e.g., list oil paintings and watercolors under paintings; list copper and iron under metals). This process provides a sense of quantity and scope that is useful when determining time factors, materials, and schedules.

h. Identification of Tasks

Write down every task that is needed. The house-keeping plan is based on what should be accomplished, regardless of whether the requirements are currently being met. Managers need to be informed about deficiencies, and provided with accurate staffing and funding requirements in order to take action to bring the program up to standard.

Chapters throughout Volume I of the Handbook include information valuable in identifying tasks and procedures that should be included in the housekeeping plan. Chapter 5, for example, discusses establishing an environmental monitoring program. Among the tasks derived from that program are: changing and analyzing hygrothermograph charts, calibrating the hygrothermograph, and replacing the hair element in the machine. Remember to list often overlooked tasks, such as seasonal changes in control systems of HVAC systems (e.g., gradual adjustments in the thermostat setting or installation or removal of seasonal portable units). Refer to Section F for a detailed list of sections in this part of the Handbook that are pertinent to the development of a housekeeping plan.

Organize tasks according to category: environmental monitoring, cleaning (include structural cleaning), security and fire protection, HVAC, and utilities. Frequently, the list begins to resemble divisional organizational charts. For example, law enforcement personnel may inspect security and fire protection

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

systems while maintenance personnel usually change HVAC filters. While there are exceptions to this rule, it may be useful to organize the tasks according to the staff assigned to perform them.

Expect "cross-over" tasks (e.g., waxing furniture) that are traditionally associated with 'maintenance' but, because of the nature of the materials involved, are assigned to staff (of any division) appropriately trained to complete the task. Begin dividing tasks according to the necessary level of expertise. An example of housekeeping tasks and assignments to staff is provided below.

- | | |
|---|---|
| ! Change filter of HVAC system. | Maintenance |
| ! Dust ceramics. | Curatorial staff |
| ! Inspect and test fire detectors.
(Fire Suppression Company) | Law
Enforcement |
| ! Send hygrothermograph 44590 to
XYZ Company for maintenance. | Curatorial Staff |
| ! Submit annual housekeeping
budget to Unit Manager. | Curatorial Staff |
| ! Take light meter readings. | Curatorial Staff |
| ! Replace protective barriers
between objects made of
dissimilar materials. | Curatorial Staff |
| ! Apply protective barrier to
Lincoln bust. | Conservator or
Curatorial Staff
trained by
Conservator |
| ! Pull shades in Dining Room of
Smith House in the afternoon
to block sunlight. | Interpreter |

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

! Rotate textiles in exhibit case Curator
to limit exposure.

Break tasks down to their lowest level, and describe them concisely. Use action verbs (e.g., "vacuum baseboard," or "record cleaning procedures on catalog records"). List in order of priority. Approved procedures and details for carrying out these instructions will be provided in Section B.3.i, "Description of Procedures." Consult with other divisions regarding documentation of workloads and costs. Figures 7.3 and 7.4 illustrate sample forms for tracking the completion of tasks.

i. Description of Procedures

Procedures for each space and object should be fully documented. Include a description of the procedure; special techniques; problems or concerns; number of staff; time needed to complete the task; and necessary supplies, materials, and equipment. Experience will indicate when this information should be revised and refined.

1) **Attitude, approach, and safety**

At the beginning of this section of the plan, state the importance of attitude and professional judgement. These are crucial elements of any procedure. The word 'procedure' connotes routine; but any procedure carried out with a routine frame of mind may cause as much harm as good. The attitude of staff responsible for carrying out the procedures identified in the plan determines the success of the housekeeping program.

Curatorial staff who handle museum objects daily are often the most intimately acquainted with those objects. They are more likely to recognize subtle signs of damage or corrosion, and so are the front-line defense against deterioration. Their observations of the effect of procedures,

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

schedules and the environment upon objects are critical to assessing the plan and to protecting museum property. It is recommended that staff who are assigned housekeeping duties retain those duties over a long period of time. This practice provides continuity and increases skill levels, thus strengthening the preventive conservation program.

The safety of staff conducting housekeeping is paramount, and should be integrated into all tasks. Provide enough guidance in the plan to prevent accidents or exposure to harmful substances. Specify the number of people needed to complete a task (e.g., anyone using a ladder should have a backup person on the ground). Be realistic. If a substance may be harmful, refer the user to Material Safety Data Sheets (MSDS).

2) **Selection of appropriate procedures**

Procedures for the care of museum property should be specific to each object and material type. Using the data accumulated in the space analysis, select appropriate procedures for each category. Provide details on any special handling considerations, specific supplies, and application techniques for each specific object or group of objects.

Museum objects are often complex or fragile, and require an individual set of instructions. Elements that may influence the selection of procedures include inlaid or painted surfaces, working parts, or fragile structure. Additional professional assessment may be needed before selecting a procedure for such objects.

Include a narrative description of selected procedures in the plan for ease of reference. Refer to Figure 7.5 for a sample form for documenting procedures. Begin by consulting the curatorial care appendices referenced in

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Section F of this part of the Handbook for information regarding preventive conservation of particular material types. If a Conservation Survey has been conducted, incorporate the conservator's recommendations into the housekeeping plan. For general information, refer to sources provided in Section F of this Chapter.

j. Identification of Supplies and Equipment

Supplies and equipment used to care for objects should be marked and used only for that purpose. In addition to preventing the unintentional introduction of damaging dirt and residues from non-museum cleaning into spaces housing museum property, limiting use of these items provides data regarding the quantities expended to maintain the program. Keep equipment clean and in good repair. In addition to equipment needed to carry out tasks, consider cost-effective measures to keep the program running smoothly. For example, purchasing a small washer and dryer to ensure that cotton gloves are cleaned regularly may be more efficient than taking staff time to visit the laundromat or to continually replace soiled gloves with new ones. Keep records of the quantity and cost of supplies used throughout the year. This data can be used for estimating the operating budget. Section D provides a short checklist of essential housekeeping supplies.

k. Development of a Schedule

Combine information on specific tasks and procedures to be performed (identified above) into a schedule for accomplishing each one. Procedures may be listed on a separate sheet, but should be cross-referenced to the schedule. Organize the schedule as follows:

- ! daily
- ! weekly
- ! monthly
- ! quarterly

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

- ! semi-annually
- ! annually
- ! cyclically (less often than annually)
- ! as needed

A chart is a convenient way to format the schedule. List tasks and responsible staff. Provide a space for initials and dates to document that the schedule has been checked, the need to perform a procedure assessed, and the task (if judged necessary) has been completed. To facilitate tracking and monitoring of the plan, it may be helpful to divide tasks according to the responsible office (e.g., maintenance and curatorial staff). A separate, chronologically organized chart can be used to show progress. These sample charts, illustrated in Figures 7.3 and 7.4, should be filed for future reference.

1. Assignment of Duties

It is important that curatorial staff provide oversight for the housekeeping program. They are responsible for:

- ! writing or coordinating the writing of the plan (e.g., plans may be written by contract);
- ! maintaining communications between all responsible personnel;
- ! ensuring that all parts of the plan are executed on schedule and according to established procedures;
- ! providing training; and,
- ! monitoring the program to ensure that objectives are met.

Staff from other divisions are responsible for completing their assigned tasks, and for reporting any problems or observations to the coordinator. Supervisory responsibilities for individual staff

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

often remain with their divisional supervisor. In this case, the curator and the supervisor work closely to coordinate and evaluate staff performance. All persons should be trained in techniques to safely and efficiently complete their tasks. Training (and periodic refresher courses) should include handling techniques, use of monitoring equipment, hands-on practice with application of cleaners or polishes,

and observing signs of object deterioration and damage.

C. IMPLEMENTING THE HOUSEKEEPING PLAN

Implementation of the housekeeping plan requires dedicated funding and staffing.

1. Budget for an Ongoing Program

An ongoing housekeeping program requires management's commitment to properly fund and staff the program. Gather data on expenditures and provide managers with the figures they need to fund the program. Housekeeping should be accomplished through a continuing, operational budget -- not through donations from the cooperating association or special project funding sources. Identify sources of funding for each need: where does the money actually come from? Where should the money be coming from? Are appropriate funding sources being used to support the housekeeping program? Identify needs in planning and programming documents to ensure that they "get into the program". Refer to Chapter 14 for information regarding programming, funding, and staffing for museum property.

Time and cost estimates proposed in the plan can be refined as hard data is accumulated. A log of expenses may note the following information:

- ! personnel
- ! equipment
- ! purchases

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

- ! maintenance
- ! supplies
 - ! regular
 - ! occasional
- ! shipping costs
- ! training
- ! funding sources

2. Coordinate Responsible Staff

Curatorial staff involvement in the development of the plan from the outset increases the chances of ongoing commitment from all responsible parties. However, to achieve a holistic, integrated approach to preventive conservation, coordination and continuing contact between divisional staff is also crucial. A housekeeping plan is only effective if the responsible staff consistently analyze accumulated data; practice established techniques and procedures; and adhere to schedules. The curatorial staff person who oversees the housekeeping plan should maintain contact with individuals from other divisions who are responsible for completing parts of the housekeeping plan.

Establish lines of communication between offices that facilitate recordkeeping and that consume as little time as possible. Staff who fulfill their roles in the plan may notify the coordinator upon completion of those tasks, or the coordinator may want to keep a 'tickler file' and initiate contact themselves. The sample forms illustrated in Figures 7.3 and 7.4 illustrate methods of clearly showing the status of the plan to all staff involved.

Provide supervisors and staff with copies of the plan for their reference. Especially in the beginning phases of the plan, work closely with all relevant staff to answer questions and to ensure that the staff feels comfortable with the duties assigned to them. Provide as much flexibility in scheduling as possible, but emphasize that the housekeeping program in spaces housing museum property is to be kept on schedule. Investing time at the outset may prevent significant disputes or problems

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

from arising later.

Devote time to visiting facilities housing museum property and talking with staff. Regular, informal meetings with supervisory staff and with those actually doing the work provide a forum for concerns and innovations that keep the staff and the plan working smoothly. **Remember the best-written policy or procedure needs consistent application to be effective. Management support is critical to the success of the program. Keep managers involved and apprised of accomplishments, difficulties, and costs. Any major changes to the plan should be reviewed and approved by management beforehand.**

3. Monitor and Revise the Plan as Necessary

Housekeeping plans are dynamic documents. It is recommended that the plan be put in a three-ring binder to facilitate revision. The effect of actions taken should be evaluated regularly. When other planning or procedural documents (e.g., security surveys, emergency operating plans, and interpretive tours) are updated, revise the housekeeping plan accordingly. The following elements are examples of components that should be assessed.

a) Conservation Survey of Museum Objects

The condition of museum objects should be assessed to determine whether preventive conservation practices are indeed providing a stable environment and whether the object itself is stable as a result. Although objects may be monitored on a regular basis by curatorial staff who are trained to do so, overall assessment to establish baseline data should be conducted and recorded by a conservator in a Conservation Survey. Photographs are also helpful in documenting and determining the rate of deterioration of museum property. Photographic documentation should include close-up views that show the object's condition.

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

b) Environment

Environmental monitoring provides a record of the effectiveness of temperature and humidity controls, and of measures taken to reduce light. Curatorial staff should react to any drastic change in such conditions by determining the cause of the change, correcting the problem, and/or removing museum objects to stable and safe conditions.

c) Security

Components of the electronic security and fire detection and/or suppression system protecting an area housing museum objects may have deteriorated or become obsolete, and need to be replaced. Security procedures should be reviewed to determine their effectiveness.

d) Other Indicators

Other indicators provide data on the effectiveness of the housekeeping program. A decrease in the number of insects trapped in sticky traps may indicate that placement of the traps has effectively stopped insects at the perimeters of a structure before they reach storage areas. However, analysis of the effectiveness of any part of the program should be based on all available information. In the example provided, a decrease in the number of insects may also be caused by a general decrease in the population due to seasonal variation. Another indicator of the plan's success might be that filters in an air purifier installed in a storage room need less frequent changing once dirt and dust levels have been reduced. By assessing all of the indicators, a clear picture of the plan's effectiveness may be obtained.

When parts of the plan are ineffective, alternatives should be considered. For example, the staff notes that the patina of a statue has been rubbed off because visitors repeatedly touch it during tours

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

through a historic house. Although protective barriers recommended by the housekeeping plan have been applied by a conservator, it is clear that deterioration is continuing. Moving the statue or providing physical barriers that prevent the public from reaching the object may be necessary.

Regular monitoring of the plan and its effects inevitably suggests needed changes and refinements. The plan as a whole should be reviewed annually and revised as needed. Professional review of the initial plan is critical, and review of any changes made in the plan also should receive the attention of specialists. Management approval should be obtained whenever a significant change is made to the plan. Review recommended procedures, techniques, supplies, and schedules to ensure that they remain valid.

D. CHECKLIST OF ESSENTIAL HOUSEKEEPING SUPPLIES AND EQUIPMENT

<u>TASK</u>	<u>EQUIPMENT</u>
<u>DUSTING</u> (Objects and floors)	Cotton cloths (diapers), magnetic wiping cloths, Chinese hake brushes, cotton dust mop, fiber glass screen, vacuum cleaners (see "VACUUMING" below)
<u>DAMP CLEANING</u> (Objects and Floors)	string and sponge mops, mop and rinse buckets, isopropyl or ethyl alcohol, distilled water, Ivory Soap, Murphy's Oil Soap, and Orvus WA Paste Soap, Brillianize, rubber gloves
<u>WAXING</u> (Wood and Metal)	Stoddard solvent, VM&P Naptha, Renaissance Wax, Butcher's Wax,

Release Date:
New

7:23

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Staples Wax, cheese cloth

POLISHING
(Metal)

Goddards or Eureka polishing
cloth

VACUUMING

canister style vacuum with
variable suction and double
filters, hand-held or over-the-
shoulder vacuum

E. SAMPLE FORMS FOR WRITING AND TRACKING A HOUSEKEEPING PLAN

This section contains sample forms for writing and tracking a housekeeping plan. The format and content of these sample forms may be adapted to meet the specific needs of each bureau and/or unit. The following forms are included:

- 7.1 Title Page
- 7.2a-d Sample Analysis of Space Form
- 7.3 Sample Daily Housekeeping Schedule
- 7.4 Sample Quarterly Housekeeping Schedule
- 7.5 Sample Housekeeping Procedure Form

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

BUREAU NAME

UNIT NAME

JOHN SMITH TAVERN HOUSEKEEPING PLAN

Prepared by:

Title

Date

Recommended by:

Unit Review/Approval

Date

Approved by:

Unit Review/Approval

Date

Release Date:
New

7:25

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Figure 7.1. Sample Title Page

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

ANALYSIS OF SPACE

Unit: _____
(name, acronym, or other identifier)

Building: _____
(name and/or space number)

Room: _____
(name and/or number)

Prepared by: _____

Date: _____

1. Spatial characteristics

a. Floor area (square feet) _____

Floor or stair surfaces: describe materials or finishes
(i.e., wood carpet or runners) _____

b. Wall area (square feet) _____

Wall surfaces: describe materials or finishes
(i.e., paint or wallpaper) _____

Number of windows: _____

Type of windows: _____

Type of window treatment (i.e., draperies, curtains, shades,
shutters, and storm windows): _____

d. Ceiling area (square feet) _____

Ceiling surface: describe materials or finishes
(i.e., paint or ceiling paper) _____

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Figure 7.2a. Sample Analysis of Space Form

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

2.	Utilities
a.	Water (all sources and locations) _____ _____ _____
b.	Electricity (all outlets, operable appliances, light fixtures, and circuit breakers) _____ _____ _____
c.	Gas (all outlets and location of shut-off valves) _____ _____ _____
3.	Mechanical system: location of main components (e.g., HVAC, air handlers, humidistats, and dehumidifiers) their type, quantity, and size) _____ _____ _____
4.	Environmental characteristics:
a.	Type of lighting
	1) Natural (through what source, and from which direction): _____ _____ _____
	2) Artificial (what type, wattage, and quantity): _____ _____ _____
b.	Visible light readings
	Date: _____ Level: _____ Location: _____ Date: _____ Level: _____ Location: _____ Date: _____ Level: _____ Location: _____ Date: _____ Level: _____ Location: _____
c.	Ultraviolet readings
	Date: _____ Level: _____ Location: _____ Date: _____ Level: _____ Location: _____ Date: _____ Level: _____ Location: _____

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Figure 7.2b. Sample Analysis of Space Form (Continued)

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

d. Temperature readings

Instrument used: _____

Location in room: _____

Date: _____ Level: _____ Location: _____

Date: _____ Level: _____ Location: _____

e. Relative Humidity readings

Instrument used: _____

Location in room: _____

Date: _____ Level: _____ Location: _____

Date: _____ Level: _____ Location: _____

5. Security system (type and location): _____

6. Fire detection/suppression system (type and location):

7. Space usage

a. Staff: _____

b. Visitors: _____

c. Special events: _____

8. Museum property: list quantities by type of material, including more specific subgroups (e.g., "paintings" and "watercolors" within "paintings").

a. archeological objects: _____

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Figure 7.2c. Sample Analysis of Space Form (Continued)

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

- b. paper objects: _____

- c. textiles: _____

- d. paintings: _____

- e. wooden objects: _____

- f. metal objects: _____

- g. ceramic, glass, and stone objects: _____

- h. organics (e.g., leather, skin, feathers, and ivory):

- i. natural history materials: _____

- k. composite objects: _____

- l. plastics and other modern inorganics: _____

- m. other: _____

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Figure 7.2d. Sample Analysis of Space Form (Continued)

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
 Museum Property Handbook
 (411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

John Smith House	Month: <u>February</u> Year: <u>1991</u>														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Daily														
	Dust mop entrance														
	Clean the exterior of exhibit cases														
	Vacuum doormats														
	Clean restrooms														
	Remove trash and food														

Figure 7.3. Sample Daily Housekeeping Schedule

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

UNIT NAME

HOUSEKEEPING PROCEDURE

TASK: Vacuum silk sofa

SCHEDULE: Quarterly

STAFF: 2

SUPPLIES: Vacuum
Textile vacuum brush
fiber glass screen

TECHNIQUES: Move sofa out from wall
Lift under wood frame at each end
Open suction control on vacuum hose
Vacuum through fiber glass screen

CAUTIONS! : Do not put pressure on the weak silk on front,
back or sides.

Do not try to roll sofa on casters.
Lift carefully and set it down gently.

Name: Author's name
Title: Curatorial Staff
Date: May 12, 1992

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Figure 7.5. Sample Housekeeping Procedure Form

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

F. SELECTED BIBLIOGRAPHY

1. **Published Sources**

Chambers, J. Henry
1976 Cyclical Maintenance for Historic Buildings.

Washington, DC: National Park Service,
Interagency Historic Architectural Services
Program, Office of Archeology and Historic
Preservation.

Canadian Conservation Institute
CCI-ICC Notes. Ottawa, Canada: Canadian
Conservation Institute.

Department of the Interior
1992 Departmental Manual Museum Property Handbook
411 DM Volume I. Washington, DC

Chapter 4: "Introduction to Museum
Property Preservation"

Section A.1 "Preventive Conservation"

Chapter 5: "Environmental Agents of
Deterioration"

Section D. "Monitoring and Controlling
Relative Humidity and
Temperature"

Section E.2 "Monitoring Light Levels"

Section E.3 "Controlling Light Levels"

Section F.3 "Establishing an Air Pol-
lution

Monitoring Program"

Section F.4 "Methods for Controlling
Air Pollution"

Chapter 6: "Biological Infestations"

Section C. "Establishing an Integrated

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Pest Management Program
for Museum Property"

- Chapter 8: "Handling, Packing, and Shipping"
- Section A. "Importance of Proper Handling"
- Section B. "Practices to Ensure Object Safety"
- Section C. "General Rules for Handling Museum Objects"
- Section D. "Rules for Moving Objects"
- Chapter 9: "Museum Property Storage"
- Section B. "Components of Museum Property Storage"
- Section C. "Museum Property Storage Planning"
- Chapter 10: "Conservation Treatment"
- Section A.2 "Minimum Treatment Necessary"
- Chapter 11: "Museum Property Security and Fire Protection"
- Section C.1a "Employee Training"
- Section D. "Corrective Actions to Ensure Museum Security"
- Section E.1,3 "Fire Prevention"
"Fire Suppression"
- Chapter 12: "Museum Property Emergency Planning"
- Section C.1 "Assign Responsibility for Planning"
- Section C.9 "Train Personnel in How to

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Section C.10 Use the Plan"
Section C.10 "Test the Plan"
Section C.12 "Keep the Plan Current"

Chapter 13: "Professional
Considerations"

Section B. "Curatorial Health and
Safety"

Chapter 14: "Planning, Funding, and
Staffing"

National Park Service
1990 Museum Handbook, Part I. Washington, DC:
National Park Service, Curatorial Services
Division.

Curatorial Care Appendices:

Appendix I: "Curatorial Care of
Archeological Objects"

Section B. "Handling Archeological
Materials"

Section C. "Cleaning Archeological
Objects"

Section D. "Preventive Care:
Environmental
Requirements"

Appendix J: "Curatorial Care of Paper
Objects"

Section D. "Preventive Conservation"

Appendix K: "Curatorial Care of Textile
Objects"

Release Date:
New

7:41

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

- Section D. "Preventive Conservation:
Environment, Pests, and
Handling"
- Section E. "Preventive Conservation:
Storage"
- Section F. "Preventive Conservation:
Exhibit"
-
- Appendix L: "Curatorial Care of
Paintings"
- Section C. "Preventive Conservation of
Paintings"
- Appendix M: "Curatorial Care of
Cellulose Nitrate
Negatives"
- Section C.3c "Monitoring"
- Appendix N: "Curatorial Care of Wooden
Objects"
- Section E. "Preventive Conservation"
- Appendix O: "Curatorial Care of Metal
Objects"
- Section D. "Preventive Conservation"
- Appendix P: "Curatorial Care of
Ceramic, Glass, and Stone
Objects"
- Section D. "Preventive Conservation"

National Park Service

Conserve O Gram Series (Rev. 1992).
Washington, DC: National Park Service,
Curatorial Services Division.

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"

Lewis, Ralph H.

1976 Manual for Museums. Part 3, "Furnished
Historic Structure Museums", Chapter 11 and
Part 4, "Exhibit Maintenance and
Replacement", Chapter 15. Washington, DC:
U.S. Government Printing Office.

Sandwith, Hermione and Stainton, Sheila

1984 The National Trust Manual of Housekeeping.
London: Penguin Book.

Simonson, Kaye Ellen (compiler)

1990 Maintaining Historic Buildings: An Annotated

Bibliography. Washington, DC: U.S.
Department of the Interior, National Park
Service, Preservation Assistance Division.

2. **Specific Documents Pertaining to Housekeeping**

The specific document that can be used to support the
development of the housekeeping program is:

Conservation Survey

Museum Property Storage Plan

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL
Museum Property Handbook
(411 DM, Volume I)

Chapter 7 Housekeeping: "Preventive Conservation"
