

Cleaning in Museums

This Help Sheet relates to standard C2.2

Keeping it clean

Regular cleaning of your museum is an essential part of good management practice. Your cleaning regime should take into consideration every part of the museum including

- the museum space
- display and storage areas
- individual objects.

The museum space should be kept clean to reduce potential damage to your collection. Cleanliness also sends a positive message to donors, visitors, stakeholders and supporters. A clean museum suggests a museum that values and cares for its collection.

Display and storage areas need to be kept clean to assist in preservation of the collection. Any build up of dust and dirt causes damage and creates an attractive environment for pests.

Individual objects need to be cleaned with extreme care and with attention to the material they are made from and their physical condition. The wrong type of cleaning, too much or too little cleaning may cause harm.

When cleaning in a museum it is important to distinguish between museum fixtures or props — desks and cupboards, seating for staff and visitors, curtains on main windows or used as part of a recreated display — and similar furnishings which are actual collection items. As noted above, collection items need to be cleaned with particular care and attention to the nature of the object.

Museums are prone to numerous types of pollution, but one of the most common is **dust**.

The 'dirt' on dust

One of the main purposes of regular cleaning in museums is to control dust. Dust comprises matter from both the outside and inside environment. Dirt, soil, soot and salt enter the building from the natural environment, while the most common matter to collect indoors is human skin and hair. Dust is potentially damaging to collection items. A film of dust over everything also suggests neglect.

Dust

- builds up quickly
- absorbs moisture so can create a humid environment in a small, confined area
- can be gritty and therefore abrasive when rubbed from an object
- attracts and harbours pests
- can absorb and carry pollutants
- can cause staining
- can collect in pockets and cause physical damage to objects through distorting their shape and causing cracks.¹

¹ To learn more about the effects of dust see 'Damage and Decay', p. 61-71, in Heritage Collections Council, *reCollections: caring for collections across Australia*, 1998.

Other pollutants

While dust is a common problem, there are other pollutants which can affect museum objects. Damp or humid environments can increase the likelihood of mould. Museums in coastal areas can be affected by salt air. Industrial areas or museums close to main roads may be affected by polluting gases. All of these can be minimised by regular vacuuming, and other cleaning and prevention methods. The publication *reCollections* contains specific information about how to manage other pollutants.²

All museums will be affected by pests. Cleaning and pest management go hand in hand. See the Help Sheet on *Integrated pest management* for more information on dealing with pests.

Tools of the cleaning trade

You will require different tools to clean the museum space, display and storage areas and collection objects. The following list covers all of these.

- A vacuum cleaner with adjustable suction level and micro-vacuum attachments for cleaning objects.
- Soft paint and craft brushes, shaving brushes, jewelers and watchmakers brushes.
- Micro-static cleaning cloths (such as Scotchbrite products from the supermarket).
- Other lint-free cloths, such as cotton sheeting.

It is worth having a good selection of brushes and cloths on hand to be used exclusively for object cleaning tasks. When cloths get dirty, wash them thoroughly, rinse well in clean water and allow to dry.

Cleaning with care

Before you start to clean an object ask yourself the following questions:

- Where is the object stored/displayed?
Will you need to move the object to clean it? If it is in a display case, you will need to clean the case as well and check for pests.
- What is the object made of?
The material an object is made from will determine how it needs to be cleaned. Different cleaning methods are appropriate for different types of items. If the object is heavy and needs to be moved or disassembled for cleaning, you will need help.
- What condition is the object in?
If the object is particularly fragile or damaged, it will need to be handled with extreme care to prevent further damage.
- What tools will I need?
Different materials require different tools and/or vacuum attachments. While you might use a soft brush to dust a book, you are more likely to use low suction and a net covered vacuum attachment to clean textiles.
- Should I seek professional advice?
Is the object particularly dirty, fragile, damaged, insect-infested, damp or mouldy? It might be better to protect the object from further harm than attempt to clean it. Always seek the advice of a trained conservator if you have any doubts about the condition of an object and/or how to clean or maintain it.

² 'Damage and Decay' and Volumes 1 & 2 of 'Caring for cultural material' in Heritage Collections Council, *reCollections: caring for collections across Australia*, 1998 provide specific information about other pollutants and how to clean and maintain different types of objects.

Who and how?

While cleaning the museum space and storage areas can be done by any trained museum worker, you should regard cleaning of displays and museum collection items as a specialist museum task.

All cleaning/object handling activities are risky for collection items. To minimise risk, follow this **ABC**:

- **A**ssess the object
- **B**e prepared
- **C**lean with care

Preparation and patience are essential to safe and effective cleaning. Follow these guidelines to minimise risk.

- Always wear gloves and handle items gently and carefully. White cotton gloves are suitable for most items. However use latex or nitrile gloves when handling ceramic and glass items because cotton can be too slippery.
- Assess objects before cleaning to determine the most effective and safest cleaning method.
- Make sure the cleaning environment is safe and secure. Is there enough room for you to move? You don't want to bump into displays or knock over unprotected objects with a vacuum cleaner.
- Work on a table or other flat surface covered with a 'barrier' material, such as tyvek, a washed cotton sheet or acid free tissue paper. Something light in colour will allow you to see evidence of insect activity easily.
- Complex objects may need to be dismantled (if safe to do so) to be cleaned and/or may need to be cleaned using more than one method.
- Be very careful cleaning objects with areas of wear (like edges of pages, book spines, any corrosion) and loose elements (such as surface decoration, beads).
- Take your time, be patient, sensitive and gentle.
- If something doesn't clean easily, STOP, don't be tempted to rub, brush or wipe harder. If you do, you are likely to cause damage.
- While cleaning always look out for evidence of pests and deal with them immediately.
- Follow basic OHS&W rules – watch for hazards such as sharp edges and power cords.
- Cleaning in pairs is recommended for handling objects more carefully, avoiding accidents and noticing problems.

When to clean

Establish a cleaning and housekeeping schedule. See the Help Sheet, *Housekeeping schedule* for guidance on how to write one. How often cleaning needs to be done depends on the layout of the museum, type of collection items, opening hours, general environmental conditions and how and where objects are displayed. Observe how and where dust gathers in your museum. Devise a cleaning schedule that sets out how often particular items and spaces, such as display areas and stores, should be cleaned. Keep a log of cleaning activities to be done and make sure each job is marked off with date and time of completion. Incorporate pest checking and management as part of your cleaning program.

Dealing with dust

In the museum space

The best way to control dust in your museum space is to use a **vacuum cleaner**. Vacuuming removes the dust, whereas dusting and sweeping often just redistributes it. Cleaning the museum space includes paying attention to floors, walls, skirting boards, door frames, window sills and ceilings as well as behind, around and outside of display cases. Curtains that are museum fixtures rather than display items can be vacuumed and washed or dry-cleaned regularly. Fabric covered seating for visitors and workers should also be vacuumed. Desks and cupboards can be wiped down with a cloth slightly dampened with water. Rubbish bins should be emptied daily.

Using common sense preventative techniques to reduce dust in the museum space will mean less damage to collection items. It also makes for a less arduous cleaning program. Provide doormats for visitors which are vacuumed daily or shaken out well away from the museum entrance. Use seals around doors and windows and try to keep windows closed at all times. If the building allows, you can reduce the amount of dust that enters the display areas by installing double doors or creating a separate foyer area rather than allowing direct entrance into the museum space from outside.

In display and storage areas

Vacuuming is also most appropriate for these areas. Shelves (with objects removed) can be wiped with a cloth slightly dampened with water. Make sure that the shelves are fully dry before replacing the objects. A damp surface will encourage the growth of mould. Remember to turn the cleaning cloth regularly so you don't just re-distribute the dirt. Avoid using polishes, cleaning sprays and detergents. They can leave harmful residues which could cause damage when they come into contact with objects. The exterior of display cases can be cleaned using commercial products, but always apply the cleaning product directly onto the cleaning cloth, rather than onto the case surface, to avoid product entering the case.

How to clean different types of objects

For all objects follow the ABC of cleaning:

- **A**ssess the object – what is it made of? What is its condition?
- **B**e prepared: always wear gloves and prepare the cleaning area and the required tools
- **C**lean with care: always support the object you are cleaning. Be patient and gentle.

Methods of cleaning vary, depending on the type of object, what it is made of and its condition. Wiping, dusting and vacuuming are all possible. Gentle reduced suction vacuum cleaning is the preferred method of cleaning for many objects because it removes dust completely. Reduce the suction of your vacuum cleaner by turning the suction down to the lowest possible level. Cover the end of the cleaner hose with a nylon stocking if you don't have an appropriate micro-attachment. Covering the cleaner also stops any particles that might get dislodged accidentally from being sucked into the cleaner. Another method is to use a soft brush to lift the dirt gently and suction it up with a vacuum cleaner. This method prevents direct contact between the vacuum cleaner and the object. Take extra care cleaning items that have damaged or loose surfaces. Chemical cleaning products can be harmful to objects as they leave residues on the object surface. Remember that the objective is preservation.

Glass, ceramics

- Wipe with a micro-static cloth.
- Stable, intricate surfaces may be vacuumed with micro-attachments. Soft brushes can also be used.
- Wash only if the item is sturdy, glazed and has no chips or cracks. Use warm plain water (no detergent).
- When washing, line the sink with towels or use a plastic tub to avoid breakage. Rinse, drain and dry well.

Leather (especially saddlery)

- Only clean if necessary and only if object can withstand it.
- Low suction vacuum cleaning is excellent for dusty leather in good condition. If you don't have an appropriate micro-attachment, use a gauze covering such as a nylon stocking over the nozzle. Keep the nozzle just above the surface rather than touching it to avoid scratching.
- You can use soft brushes to remove surface dirt, but you may risk scratching the surface. This is especially so for soft leather/suede (such as book bindings). For these items use another method.
- Leather dressing should not be a routine cleaning method.
- Only dress leather that is still in use, such as saddlery being used for hands-on demonstrations. Use a sparing amount of dressing. Leather items that are no longer in use and are kept free of dust should not be dressed. Conservation studies have shown that leather left undressed gradually loses its ability and need to absorb fats and oils, so dressing aged leather may cause more damage than it prevents by creating a sticky surface that will attract dust and increase the risk of mould growth and staining.

Metal (such as irons, blacksmith tools, plated metals)

- Dust left on metal surfaces can cause corrosion, especially in humid environments.
- Vacuum cleaning with micro-attachments is the most effective method for removing dust on stable, non rusted surfaces.
- Alternatively you can wipe stable surfaces with a soft cloth. Watch out for rusted, corroded and unstable surface areas.
- Avoid lifting metal items by their handles as the joint between the handle and the object may be weak.
- Clean **silver** objects only when really necessary, not as a matter of routine. Wipe gently with a silver cloth, if required. Each time an object is polished, small amounts of silver are removed. Excessive cleaning or use of abrasive cleaners wears down silver plating and can cause scratching. Watch out for patina and other decorations that are part of the object. Light tarnish can often be removed by gently rubbing with a cotton cloth.

Textiles (including tapestries, upholstery, costume, table linen, curtains)

- Vacuum clean with micro-attachments.
- Use extreme care when working with fragile sections, such as lace and surface decoration. Vacuum through a small embroidery hoop covered with tulle to protect fragile sections.
- Strong textiles can be washed but it is not a generally recommended method. If washing, do so in a shallow bath of water using pure soap flakes only. Rinse thoroughly in clean water (de-mineralised is preferable) and dry flat in shade.
- Washing should not be a routine cleaning method. The risks of washing are
 - shrinkage
 - colour bleeding
 - fragile or unexpectedly fragile fabrics not being able to take the strain of washing.

Books and papers

- For books and papers that are not damaged or fragile you can use a vacuum cleaner with micro-attachments. Make sure to reduce the suction.
- Vacuum any damaged areas through a tulle covered embroidery hoop.
- A soft brush can be used for cleaning the outside of books. Be very careful with leather bound books and be aware that you will also need to vacuum up dislodged dust.

Wooden objects (including furniture)

- Handle wooden objects as little as possible and avoid lifting by handles or other possible weak points.
- Vacuum clean with micro-attachments and low suction. Use a gauze covered embroidery hoop for protection of delicate or decorated wooden items. Do not clean at all if decorated or painted areas are flaking. Seek professional advice instead.
- Use soft, lint free cotton or microfibre/microstatic cloths to gently dust polished wooden surfaces.
- Watch out for damaged areas. Wood is susceptible to rot, moisture damage, fungal attack and insect damage. Seek professional advice if this kind of damage is noted.
- Do not use general household furniture cleaners – they contain silicone and some contain colourants that will be transferred to the object during cleaning.

Photographs

- Dust is very abrasive and damaging on photo surfaces. Do not vacuum. Instead use a very soft brush and lightly brush off dust using minimum pressure. A goat hair brush is highly recommended as the hair is extremely soft.
- Avoid spraying cleaning fluids onto the glass in photo frames. Use a vacuum cleaner with micro-attachments or work with a soft brush and a vacuum cleaner.