

# An Illustrated Guide to the Care of Costume and Textile Collections

The Museums & Galleries Commission (MGC) is the national advisory body for museums in the United Kingdom. It promotes the interests of all museums and galleries and undertakes strategic work to raise museum standards. The MGC provides expert and impartial advice to museums and others and advises the Government on museum policy. Through its work the MGC aims to encourage as many people as possible to visit and enjoy the nation's museums and galleries.

Find out more about the MGC by visiting our website at [www.museums.gov.uk](http://www.museums.gov.uk)

Copies of this publication can be provided in alternative formats upon request. Please contact MGC Publications on 020 7233 4200 for further information.

© Museums & Galleries Commission  
16 Queen Anne's Gate  
London SW1 H9AA

Illustrations: Jane Robinson, Lynn Grant

First published in 2000

ISBN 0 948630 95 7

Designed and printed by James Stewart Ltd

# An Illustrated Guide to the Care of Costume and Textile Collections

Jane Robinson, Tuula Pardoe

SCOTTISH  
MUSEUMS  
COUNCIL



# Acknowledgements

2	Lesley Castell	Publications Officer, Scottish Museums Council
	Molly Coghill	Volunteer, Blaise Castle House Museum, Bristol
	David Eveleigh, Curator	Blaise Castle House Museum, Bristol
	Ann French	Chair, UKIC Textile Section
	Rosemary Harden	Keeper of Collections, Museum of Costume Bath
	Emma Hook	Conservation Adviser, Scottish Museums Council
	Rachel Hunter	Museum Development Manager, Scottish Museums Council
	Frances Hinchcliffe	Paper Conservator, Bristol Museums Service
	Elaine Kilgour	Training Manager, Scottish Museums Council
	Carol VWhittaker	Collections Manager, Falkirk Museums

The Museums & Galleries Commission  
(now Resource:The Council for Museums, Archives and Libraries)

# Contents

Introduction . . . . .	5	Appendices . . . . .	44	3
1 Basics . . . . .	6	Appendix A Glossary of Terms . . . . .	44	
1.1 Principles of Care . . . . .	6	Appendix B Bibliography . . . . .	47	
1.2 Conservation Quality Materials . . . . .	7	Appendix C Suppliers . . . . .	50	
2 Collections Maintenance . . . . .	9			
2.1 Introduction . . . . .	9			
2.2 Workspace and Equipment . . . . .	9			
2.3 Housekeeping . . . . .	11			
2.4 Checking and Monitoring . . . . .	13			
2.5 Materials and Supplies . . . . .	13			
2.6 Handling . . . . .	15			
2.7 Packing and Unpacking . . . . .	16			
2.8 Moving . . . . .	17			
2.9 Rolling and Unrolling . . . . .	18			
2.10 Labelling . . . . .	20			
2.11 Cleaning . . . . .	21			
2.12 Dealing with Separations . . . . .	22			
3 Storage . . . . .	24			
3.1 Introduction . . . . .	24			
3.2 Flat Textiles . . . . .	25			
3.3 Rolled Textiles . . . . .	26			
3.4 Framed and Mounted Textiles . . . . .	27			
3.5 Costume Garments in Boxes . . . . .	28			
3.6 Hanging Costume Garments . . . . .	31			
3.7 Costume Accessories . . . . .	32			
4 Display . . . . .	36			
4.1 Introduction . . . . .	36			
4.2 Textiles in Showcases and Galleries . . . . .	36			
4.3 Textiles in Frames . . . . .	38			
4.4 Costume Garments on Mannequins . . . . .	39			
4.5 Costume Garments without Mannequins . . . . .	41			
4.6 Costume Accessories . . . . .	41			
5 Specialist Help . . . . .	43			

## List of Figures

1. A collection care workstation
2. Annual deep clean of stores
3. Using a work board
4. Lifting on a support
5. Two safe ways to turn over
6. Using a hanger to lift and turn over
7. Tissue 'sausages'
8. Tissue 'snowballs'
9. Moving boxes and rolled textiles
10. Carrying garments
11. Carrying 3-D items on trays
12. Rolling a textile
13. Attaching an accession label
14. Secondary labels
15. Modifying a vacuum cleaner
16. Vacuum cleaning a textile
17. Retaining loose parts with the object
18. When loose trim can and cannot be stitched back
19. A well-organised store
20. Packing a textile that is too long for its box
21. Use of storage boards in drawers
22. Use of Melinex/Mylar sleeves
23. Drop-fronted boxes for mounted textiles
24. Storage rack for large rolled textiles
25. Rack for frames and framed textiles
26. Storage bags for mounted textiles
27. Garments in boxes - best practice
28. Garments in boxes - basic practice
29. Garment bags and open-sided covers
30. The requirements of a padded hanger
31. Shape options for padded hangers
32. Basic practice storage method for supporting hats
33. Basic practice storage method for closed fans
34. Basic practice storage method for parasols
35. Basic practice storage method for jewellery etc.
36. Basic practice storage method for shoes
37. Vertical hanging methods for textiles
38. Textile mounted on board
39. Textile display stands
40. The components of a frame for small textiles
41. The mannequin as a support stand
42. Adapting a mannequin to provide support
43. Stylised forms for supporting costumes
44. Mounting costume on vertical boards

## List of Tables

1. Basic equipment and tools
2. Basic and best practice for checking and monitoring
3. List of useful materials
4. Examples of materials for rolling different types of textiles
5. Considerations when selecting garment storage boxes
6. Advantages and disadvantages of hanging

# Introduction

This guide is for anyone who works with costume and textile collections in museums. It will be especially useful for those who are not specialists in costume and textiles, but who find themselves responsible for; or are regularly involved with, their day-to-day care.

*Collection care* is a responsibility, but the term also defines a range of activities. Caring for collections, like caring for children, is active, not passive. This publication is a practical guide that tackles collection care under three main headings: maintenance, storage and display.

With such a large topic and with limited space, this guide is a compromise of both breadth and depth. It focuses on what is most needed, based on knowledge and experience acquired through the work of the Area Museum Councils (AMCs). Wherever possible, illustrations are used to convey the message.

The guide aims to show what to do and, where space allows, outlines how to do it. It does not cover aspects of collections management that are really the responsibility of either the specialist curator or conservator; but highlights circumstances where expert advice may be needed.

To help those new to the subject to understand why seemingly ordinary tasks are sometimes done in apparently peculiar ways, the principles of collection care have been included at the front of the guide for easy reference.

Costume and textiles are collected by museums large and small, with varying levels of resources. Wherever possible, the guide shows what should be aspired to as best practice, as well as what is acceptable basic practice.

This publication is intended to complement and be complemented by others. It should be used alongside the Museums & Galleries Commission (MGC) publications: *Standards in the Museum Care of Costume and Textile Collections* (1998) and *Levels of Collection Care* (1998).

# Chapter 1 - Basics

6

## 1.1 Principles of Care

Collection care is about ensuring object safety at all times, on the basis that prevention is better than cure. The principles laid out here underlie all collection care activities.

Applying these principles will help museums meet the standards laid out in the MGC publication *Standards in the Museum Care of Costume and Textile Collections* (1998), especially those described in Chapter 2: Protecting Collections.

### Balance conservation and use

The need to strike a balance between safeguarding the collection and enabling access to it is implicit in the definition of a museum.

- Weigh up the conservation impact on access and the access impact on conservation in all collection care activities.
- Ensure that every collection care activity both promotes conservation and enables access.

### Respect

Having respect means providing an appropriate level of care to the objects. For individual costumes/textiles, especially the finer specimens, it is easy to have respect. It is harder when the object looks like something you use at home, and even harder to learn to respect the unknown contents of boxes and containers.

- Plan activities with consideration for the effect they may have on objects - think before you touch.
- Consider every costume/textile as potentially irreplaceable, and every box or container as possibly containing something very fragile.

### Check

Checking that all is well is an underlying principle of collection care. It soon becomes part of the established routine of everyone working in a

museum. The most important regular checks to make are of: premises, facilities, furniture and containers and condition of the collection, as well as the checks normally described as monitoring of environment and for pests.

- Set time aside for making checks, establish checking regimes - and keep to them.
- Review your findings - and make improvements where necessary.

### Protect

Protecting collections is another key principle. Typical threats are dust, dirt, air pollution and contact with harmful materials, light (especially ultra-violet light), pests, damp, sticky and careless fingers, accident and theft. The appropriate level of protection must be judged according to the intended use of individual items. Providing a clean, tidy and well-organised environment is a good start towards protecting collections.

- Be aware of the common threats to costume and textiles.
- Provide protection according to intended use, and plan use according to ability to protect.

### Support

Every textile must be supported at all times to avoid the risk of it coming apart under its own weight. The basic principle is to give maximum support by laying objects out as close to horizontal as possible. The greatest challenge is providing support to an item of costume or textile so that it appears to hang naturally. Usually, the longer the period it needs to do so, the more support it will need. Good support must always be provided when moving objects.

- Always provide a support - even if the costume or textile appears strong enough to support itself.
- Design the support to match the expected duration of display.



Avoid unnecessary touching, handling and moving

It is physical forces such as twisting, shaking, pulling, snagging and rubbing that cause materials, already weakened by age and wear; to suffer catastrophic damage. Costumes in museum collections should never be tried on.

Contact with skin damages costume and textiles. Salts and oils present in the skin transfer from fingers on to object surfaces and after a period of time become visible as yellowish, greasy discoloration.

- Ensure that any movement of costumes/textiles is kept to a minimum.
- Avoid touching the object directly by providing and using supports.
- Wear gloves when touching is unavoidable.

Be wary of change

During any period of change, the level of risk increases. Ensure that the environment is stable at all times and minimise the effect of changes through careful planning. This is the final underlying principle of collection care. Lending to other institutions, setting up exhibitions and moving to new stores are circumstances where change brings new risks.

- Aim for collection stability at all times, but expect change and plan to minimise the impact.
- Ensure that standards of care are maintained through periods of change.

## 1.2 Conservation Quality Materials

All aspects of collection care involve the use of materials for packing or support. Textiles can be damaged by polluting vapours from and contact with poor quality materials. It is an underlying principle of collection care that materials used near objects in displays and stores are of 'conservation' quality.

Conservation quality

For the purposes of this guide, the term conservation quality is used to describe materials that meet one or more of the following criteria:

- are chemically inert, or
- have been tested by conservation scientists and approved for use with museum objects.

Some companies specialise in supplying conservation quality products to museums, libraries and archives.

The term 'acid-free' is commonly used, but this does not always mean that a product is of conservation quality and the specifications should be checked. There are two types of acid-free tissue paper Unbuffered acid-free tissue is naturally neutral, whereas buffered or 'ordinary' acid-free tissue is only neutral because acidic paper has been treated with an acid-absorbing compound such as chalk. For the purposes of this guide, only the former is classed as being of conservation quality, although the other type does have its uses within museums. For further information see the MGC's *Standards in the Museum Care of Costume and Textile Collections* (1998), Appendix D.

Fabrics

It is *basic practice* to scour all unbleached, undyed cotton fabrics by boil-washing before use in contact with textiles. This is to remove manufacturers' finishes and soften the fabric. Newly purchased fabrics may need two washes to satisfactorily remove all finishes. The above treatment may not produce a satisfactory result on dyed fabrics used for display purposes. It is *basic practice* that these should be tested for suitability instead (see Chapter 5).

Barriers and pollution absorbers

Sometimes the use of materials that are not of conservation quality is unavoidable. In such cases some form of barrier layer must be used. Varnishes and paints do not perform sufficiently well to act as

- 8 barriers for new wood, or wood products such as medium density fibreboard. If these materials are used in showcases and storage units, a metalised plastic film should be applied to the interior surfaces.

Some materials act as useful pollution absorbers, e.g. charcoal cloth and buffered acid-free tissue. If boxes made of non-conservation quality materials cannot be replaced (see Table 3 and Table 5). they can be lined with buffered acid-free tissue to help protect the contents. However; they must be checked annually to ensure their continued effectiveness. A pH indicator pen is a useful tool for this but it is always advisable to replace tissue at the first sign of discoloration.

#### Proximity, duration and enclosure

It is important to use conservation-quality materials where it is in direct contact with the object or where it is in an enclosed space for an indefinite period.

#### Improving materials already in use

It is *basic practice* to have a programme to replace materials that are not up to standard or of unknown quality. It is *best practice* to keep a record of all materials in use, their specification and date of installation.

# Chapter 2 - Collections Maintenance

## 2.1 Introduction

**Maintaining collections in good order**  
Collections do not look after themselves; they need to be actively cared for. Collection care is more than ensuring good storage and display conditions, or simply applying the underlying principles. It involves performing a number of necessary and often routine tasks in a particular way so that the collection is maintained in good order. Time must be set aside to ensure that routine tasks are carried out and that every task is performed properly to the appropriate standard.

### Procedures manual

Because many collection maintenance tasks are routine and specific to a site, it is worth recording them in a Collection Care Procedures Manual to ensure that standards are maintained. This is a good investment as, once written down, it is easier to pass these tasks on to new staff, trainees, students and volunteers once they have received some basic training.

### Developing skills in collection care

Collection maintenance activities make good 'starter tasks to introduce those new to museum work with what is involved, and so develop their understanding and skills.

A new worker should start on those tasks that do not involve directly handling objects, such as cleaning and tidying stores, moving empty boxes, writing labels etc. They should progress gradually to those that require more understanding and skill such as packing and unpacking boxes, and rolling and unrolling textiles.

### Training and making use of skills

The following notes are aimed at those wishing to delegate collection care tasks.

Volunteers often come to museums because they have relevant skills to offer. In the case of costume and textile collections those with sewing skills may well come forward, with the hope that they will soon be mending collection items. They can make an enormous contribution, so it is important to clarify from the outset that the kind of sewing required involves making dust covers, padding hangers and stitching on labels. This may seem less important, but is actually very valuable. For some complex tasks more information is needed than is given here, and training should be sought from a textile conservator (see Chapter 5).

9

## 2.2 Workspace and Equipment

### Workspace

Although aspects of collection care work take place in different parts of the museum premises, an area should be set aside specifically for inspection of collections, and for preparing objects for storage, display or loan. This space should not normally be accessible to visitors, but could double up for use by researchers.

It is *basic practice* to locate the collection care workspace near, but not within, the store. It is *best practice* to have separate spaces in different parts of the museum for display preparation, for dealing with incoming material (i.e. loans and new acquisitions) and for ongoing work with the stored collection.

### Furniture

Large tables, comfortable work chairs, trolleys (to keep tables clear of tools, pens etc.) and good illumination are essential. It is also useful if some tables are mobile and to have some folding ones for temporary use.

## Equipping the workspace

Your needs will depend on the size of the collection and the scale of collection use. Provision of, or access to, the basic items listed in Table 1 is recommended.

### What to wear

Some basic protective clothing should be provided because collection care can be dirty work. Clean overalls, or aprons and clean white cotton gloves, are basic requirements. Vinyl and latex gloves and dust-masks may also be useful. Jewellery, such as rings, brooches and chunky necklaces, should be removed before handling costume or textiles as they present a risk of causing damage.

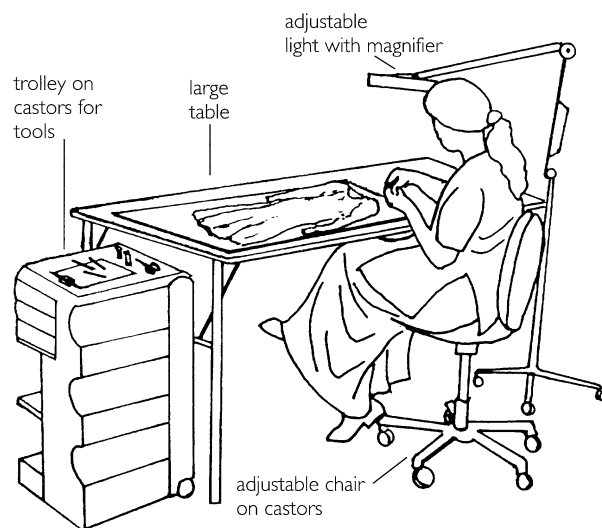


FIGURE 1: A collection care workstation

TABLE 1: Basic equipment and tools

### Equipment and Tools

sewing tools (scissors, pins, needles) and threads  
 iron and ironing board  
 washing machine or hand-washing facility  
 sewing machine  
 cylinder type vacuum cleaner with adjustable suction  
 soft natural bristle brushes (paint, shaving, makeup)  
 magnifiers (possibly also a microscope)  
 dust-sheets and padded boards in a range of sizes  
shallow trays of various sizes  
 off-cuts of plastic sheeting, conservation quality papers and boards, spare card rollers  
 - various sizes (see Table 3)  
 monitoring equipment, e.g. thermohygrograph, whirling hygrometer lux meter;  
 ultra-violet monitor and insect trap

### Use

making dust-covers, sewing on labels  
 ironing storage materials and dust sheets  
 washing dust-sheets, overalls and gloves  
 making dust-covers, costume underpinnings  
 cleaning stores and displays  
  
 cleaning surfaces  
 inspection and research, pest identification  
 inspection and research - lifting, rotating  
for lifting, segregating, preventing loss  
 lifting, turning, moving during inspection and research  
  
 checking environmental conditions and pest activity around the museum

### 2.3 Housekeeping

The routine housekeeping tasks, which ensure that acceptable standards are maintained, are at the basis of good collection care. The key tasks are: cleaning the collection environment; cleaning protective clothing and dust-sheets; and establishing appropriate quarantine procedures. Good housekeeping practices and establishing checking regimes (see Section 2.4) go hand-in-hand.

Ensuring that these routine tasks are carried out is *basic practice* and it is *best practice* to prepare written procedures and log what has been done.

#### Cleaning the collection environment

The museum's cleaning staff usually undertake routine cleaning of the museum site but some cleaning activities, especially of object stores, are best integrated into the collection care programme. The basic tool for space cleaning is the adjustable suction, cylinder-type vacuum cleaner with a range of nozzles and soft brushes.

It is *basic practice* to deep-clean storage rooms and display galleries at least once a year. This involves vacuum cleaning the spaces under and behind furniture, plinths, cases etc. If there is evidence of pest activity, the vacuum-cleaner bags should be removed after each use, sealed in a polythene bag and disposed of.

Well-sealed display cases and storage units do not normally need regular cleaning. If it is necessary, the contents should be carefully removed before vacuuming the interior surfaces. Shaving brushes are useful for brushing debris into the suction stream and avoid damaging the surface of display boards. If vacuuming does not give a satisfactory result, it may be because the case dressing is old or has deteriorated because of some unrecognised pollutant. Seek advice from your AMC or a conservator

Costume displays in room settings need to be cleaned as though they are historic interiors.

A useful guide in these circumstances is the *National Trust Manual of Housekeeping* (Sandwith and Stainton, Allen Lane, 1993).

Cleaning protective clothing and dust sheets  
Soiled overalls, aprons and gloves should be washed after use, preferably through the hot wash cycle in a washing machine using a bleach-free, non-biological detergent. Dust-sheets that are used in close contact with objects should be boil-washed without any detergent added.

#### Taking quarantine measures

Incoming objects made of wool, fur or feather and any object showing signs of pest infestation must be quarantined so that it can be monitored and then treated, if infested. Quarantine involves sealing objects in clear polythene bags or sheets. Further information on this and treatment options is provided in *Integrated Pest Management* (Pinniger and Winsor, MGC, 1998). It is *best practice* to build quarantine measures into your object entry procedure.



FIGURE 2: Annual deep clean of stores

2 TABLE 2: Basic and best practice for checking and monitoring

Premises and facilities	<p>Basic practice</p> <ul style="list-style-type: none"> <li>• Routine (daily/weekly) checks of galleries and stores to ensure preventive conservation measures have not been altered e.g. blinds are drawn as and when they should be, settings for lighting and environmental controls are correct.</li> <li>• Routine checks (monthly/seasonally) of identified and unavoidable hazards (e.g. water pipes and sources of pest infestation).</li> </ul>
Environment	<p>Basic practice</p> <ul style="list-style-type: none"> <li>• Regular measurement of temperature and relative humidity, at least weekly.</li> <li>• Annual checks of performance of ultra-violet filters.</li> <li>• Routine checks of visible light levels, depending on how variable it is - several times a day if necessary.</li> <li>• Records updated monthly with comments on findings, plus reports as necessary.</li> </ul> <p>Best practice</p> <ul style="list-style-type: none"> <li>• Continuous monitoring of temperature, relative humidity, visible and ultra-violet light.</li> <li>• Records as for <i>basic practice</i>, and publish annual report with recommendations.</li> </ul>
Pests	<p>Basic practice</p> <ul style="list-style-type: none"> <li>• Monthly checks for evidence of activity in spring/summer, plus record of findings.</li> <li>• Inspection of debris from cleaning under units and on windowsills for evidence, plus record of findings.</li> </ul> <p>Best practice</p> <ul style="list-style-type: none"> <li>• Routine monitoring as part of an Integrated Pest Management programme.</li> </ul>
Furniture and containers	<p>Basic practice</p> <ul style="list-style-type: none"> <li>• Annual maintenance check of stability of racking, function of locks, drawer-sliders, hinges etc.</li> <li>• Annual check of condition of boxes for replacement requirements, and quality of acid-free tissue paper</li> </ul>
Condition	<p>Basic practice</p> <ul style="list-style-type: none"> <li>• Annual check of condition details against that on accession records and updating if necessary (on rolling programme for large collections).</li> <li>• Full condition assessment of all objects going to and from display and loan, and checks against report on routine basis for duration of display or loan, depending on degree of risk.</li> </ul> <p>Best practice</p> <ul style="list-style-type: none"> <li>• As for <i>basic practice</i>, but also commission a collection condition survey from a textile conservator; and monitor changes every five years.</li> </ul>

## 2.4 Checking and Monitoring

Time spent on making regular checks of the collection environment is seldom wasted. However; to be really useful, the information that is gathered needs to be integrated with the other aspects of managing the organisation. Monitoring of the environment and checking for pests are part of the inspection process.

## 2.5 Materials and Supplies

It is sensible to have a stock of the materials and supplies needed to look after collections. Use Table 3 as a guide to what is needed. Materials used for storage and display must be of conservation quality (see Section 12 and the Glossary).

TABLE 3: List of useful materials (N.B. most useful are in bold)

Material	Use
Unbuffered acid-free tissue paper in sheets and on rolls. Available from specialist conservation suppliers.	General-purpose use for packing and interleaving where there will be prolonged direct contact with textiles.
Unbleached, undyed cotton fabric ('calico'), in various widths and weights. Can be bought locally, or available in bulk from fabric suppliers.	General protection and support. Must be boil-washed before used in direct contact with textiles,
Polyethylene foam ('Ethafoam', 'Plastazote'). Available from specialist suppliers in a range of thicknesses and densities, in grey or white.	Support mounts, especially shaped ones.
Woven cotton tape in a range of widths. Unbleached cotton available from specialist suppliers, other types may be bought locally.	Labels and ties. Unbleached tape must be used for sewn-in identification labels and other uses where it is in direct contact with textile objects.
Polyester wadding (or batting). Buy spun-bonded or heat-bonded types, not resin or adhesive-bonded types. Can be bought locally as quilter's wadding, or from specialist suppliers.	General-purpose padding.
Spun-bonded polyolefin sheet (Tyvek'). Only available from specialist suppliers.	General protection and support, tie-on labels. Use with smooth surface outermost when wrapping.

Transparent polyester sheet ('Melinex' or 'Mylar') in various thicknesses, in roll or sheet form, and as heat-welded sleeves and pockets. Only available from specialist suppliers.

Lightweight surgical cotton stockinette tube (Tubegauz') in various sizes. Can be bought from local chemists, or from specialist suppliers.

'Conservation' and 'museum' quality acid-free boards, in various thicknesses. Only buy from specialist conservation suppliers to be sure of exact product specification.

Acid-free corrugated cardboard ('Perma'/'Dur board'). Only from specialist suppliers.

Twin-wall polyethylene board ('Correx'). Available from specialist suppliers.

Hook-and-loop fastener (Velcro'). Available from local haberdashers and in large quantities from specialist suppliers.

Laminated barrier film ('Moistop', 'Seet', 'Marvelseal'). Only from specialist suppliers.

Aluminium foil. Can be bought locally.

Wooden coat hangers, wishbone and crescent types. Available locally and from specialist suppliers who also stock extra-long hooks.

Buffered acid-free tissue paper  
Sold as 'acid-free tissue paper' by the ream. required  
for transport and where acid absorption is  
Available from stationers or paper  
merchants.

Protection and support, lifting, making lightweight tubes for storage (N.B. beware of sharp edges and corners).

Covering rollers, hangers and mannequins, making display arms for mannequins.

General support, framing and mounting, constructing 3D mounts.

Making boxes, trays, support forms and boards.

Making trays, boards, boxes for transport and temporary storage

Mounting for display. Must first be sewn to fabric or tape, that is then hand-stitched on to the textile.

Covering materials that are not of conservation quality, such as new wood and particle board. (N.B. be careful not to puncture film with pins or nails.)

As a barrier film - see above.

Hanging costume in store. Making simple display mounts for costume.

Use only as a short-term packing material - see Section 1.2. (N.B. This is not the same product as buffered tissue from conservation suppliers.)



## 2.6 Handling

Working with a collection always requires some handling of objects. Museum staff are most involved with the collection, so handle it most and do more with it. Good handling practice is based on staff training and developing good working procedures.

### Not touching

Gloves should be worn when objects are touched (see Chapter 1, Basics). The need to touch objects is quite small if the methods described below are followed.

### Handling aids

Basic materials, (e.g. sheets of tissue, fabric, card, and card tubes) can be used to improve the quality of handling and eliminate the need to touch the objects themselves.

### Storage and work environment

Good storage and working environments lead to good handling. All handling should be done in a clear workplace, preferably on a clean dust sheet or work board (Figure 3).

### Basic methods

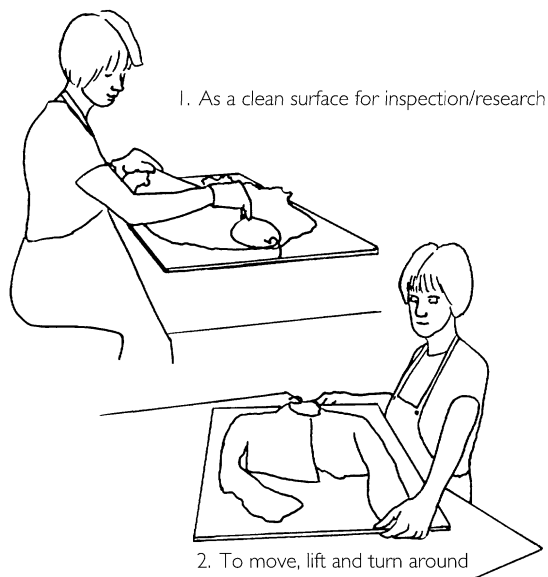


FIGURE 3: Using a work board

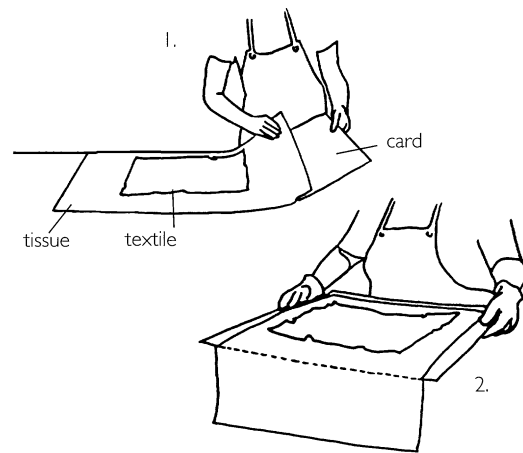


FIGURE 4: Lifting on a support

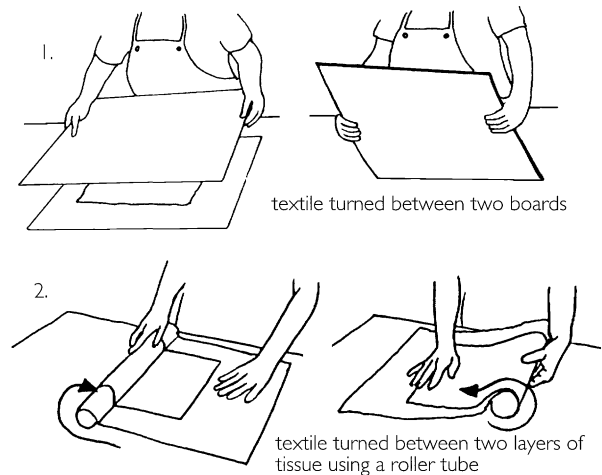


FIGURE 5: Two safe ways to turn over

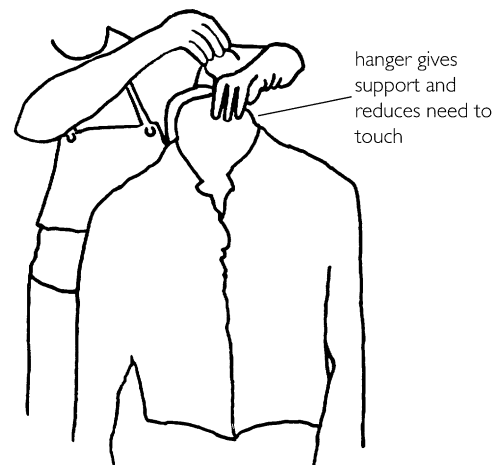


FIGURE 6: Using a hanger to lift and turn over

## Public access

Ensure good handling through:

- preparing clear; written guidelines;
- creating a good working environment;
- enabling pre-selection of objects through good documentation;
- present objects in a form that minimises handling;
- setting a good example to others;
- invigilation.

## 2.7 Packing and Unpacking

The requirements for packing will differ depending on whether an object is being packed to protect it, to move it, or for long-term store. Whenever you pack an object, bear in mind that the unpacking may be done by someone else. See also Sections 1.2,2.5,2.6,2.8 and 2.10.

### Packing to move

Before you start ask yourself:

- how long could it be in its packing materials?
- how much movement will it experience, and will it need restraint and/or cushioning?
- is it going on a journey out of the building, and if so what protection will it need e.g. against climate extremes?
- who is going to move it and will they need special instructions?

### Packing to store

Ask yourself:

- are all the materials used of conservation quality? (see Section 1.2.)
- is there enough cushioning and space in the container to prevent crease formation?
- is it packed in such a way as to ensure good handling when being unpacked?
- is it packed so that the most important identification information is visible without needing to touch the object?

## Unpacking

The ease with which unpacking can be carried out depends on the skill of the person who packed it. If the packer has concealed objects in wrappings or been unsystematic, unpacking will have to be done slowly and very carefully.

To pack a box with several items

1. Line the box with sheets of tissue paper (Figures 27 and 28).
2. Determine number of objects, allowing space for cushioning. Never overfill a container
3. Decide the order of packing - the heavier and most robust items at the bottom, with lighter and more crushable ones on top.
4. Label the box, listing items in the order in that they will be found when unpacking. Clearly mark which is the top and bottom.
5. Place each object on a separate handling sheet of tissue, approximately the size of the base of the box.
6. Arrange the item, cushioning any unavoidable folds that can be reached with tissue paper 'sausages', and voids with tissue 'snowballs' (Figures 7 and 8).
7. Use the tissue to lift the object into the box. The tissue acts as an interleaf.
8. Repeat with next object and stop packing before the box is full, closing the tissue liner over the objects.

## Packing aids

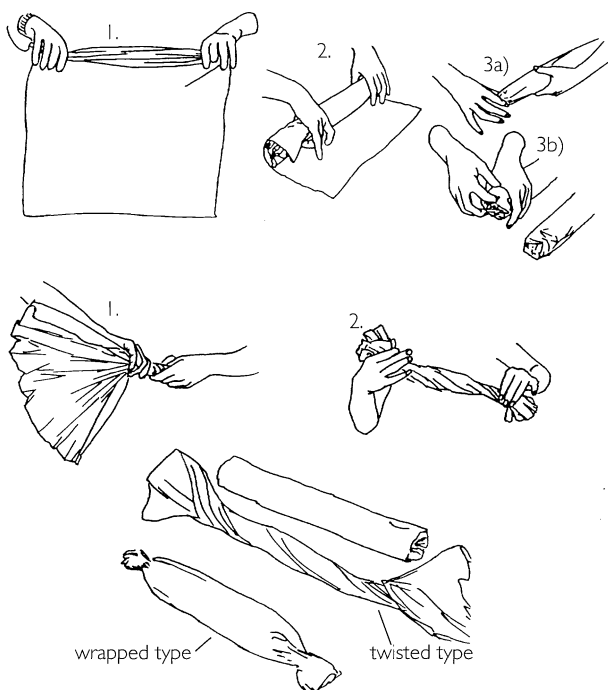


FIGURE 7: Tissue 'sausages'

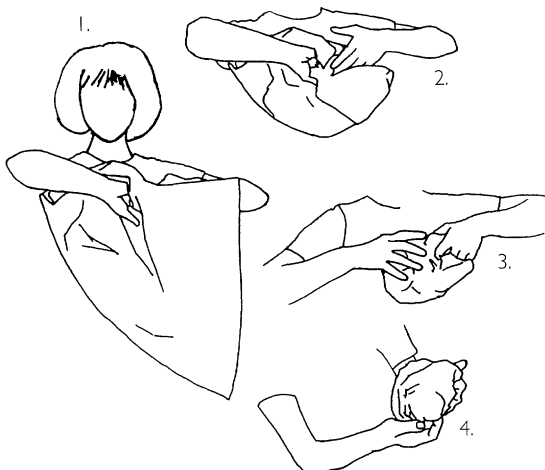


FIGURE 8: Tissue 'snowballs'

## 2.8 Moving

There will always be a need to move objects, e.g. for putting on display, photography and research. Occasionally whole or parts of collections need to be moved for re-location or in an emergency (see also Sections 2.5, 2.6, and 2.7).

## Reducing risk during movement

Many moves take place when other pressures prevail (e.g. exhibition deadlines) and when other staff and contractors also need space. Some moves involve taking objects outside in vehicles. It is *basic practice* to identify hazards and assess the level of risks to objects when planning moves and to take action to eliminate or reduce the risks.

## Considerations when moving costume and textiles

- always plan the route, including any rest stops, and clear it of obstacles;
- choose containers that pass easily through doorways;
- have enough people to carry and assist by opening doors etc.
- keep boxes and rolled textiles level and do not stack them (Figure 9);
- look where you are going (Figure 9);
- garments can be carried short distances wrapped in a dust-sheet, supported on a coat-hanger and over the arm (Figure 10);
- restrain objects carried in trays by padding with tissue or foam (Figure 11);
- trolleys should be fitted with swivel castors and tyres that damp vibration;

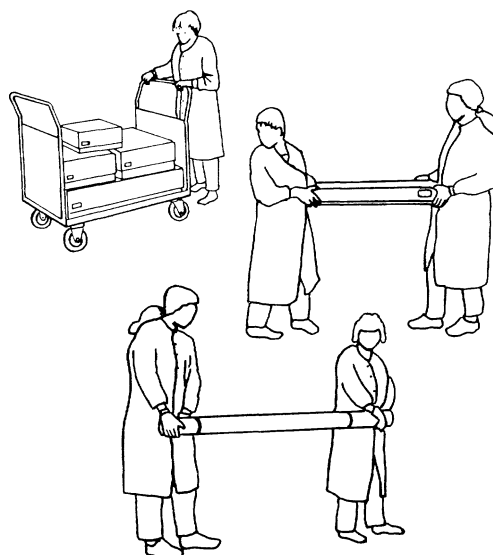


FIGURE 9: Moving boxes and rolled textiles

- objects being moved to another building should be in containers fitted with lids.

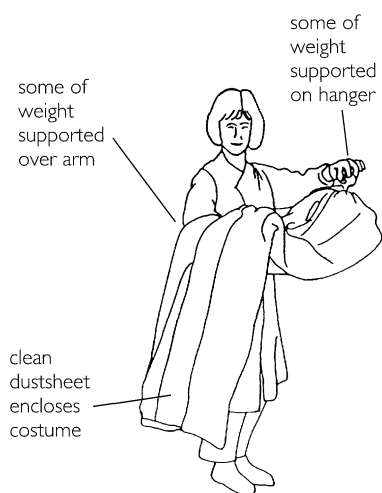


FIGURE 10: Carrying garments

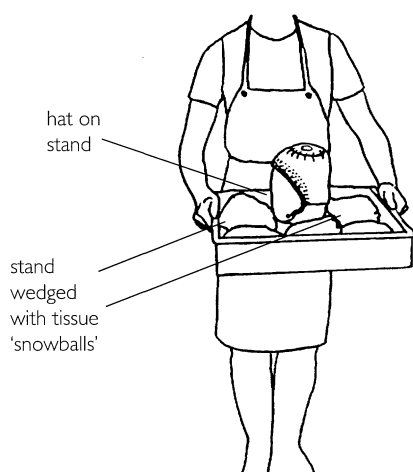


FIGURE 11: Carrying 3-D items on trays

### 2.9 Rolling and Unrolling

Many textiles are stored rolled (see Section 3.3). Conservation quality materials must be used (see Section 1.2).

To roll a textile

(See Figure 12 and Table 4)

1. Place the textile face down on a clean flat surface.
2. Roll interleafing material twice around the tube, leaving an end on which to place the textile and lead it smoothly onto the tube.
3. Roll until the end of the interleafing appears on the surface and add more sheets if needed.
4. Continue rolling keeping the textile straight and smooth, and edges even until only a small length remains.
5. Lay one edge of wrapper over the textile in front of the tube, and roll on until the wrapper is in place.
6. Use woven cotton-tape ties to secure, and then label. It is useful to include the dimensions of the unrolled textile on the label.

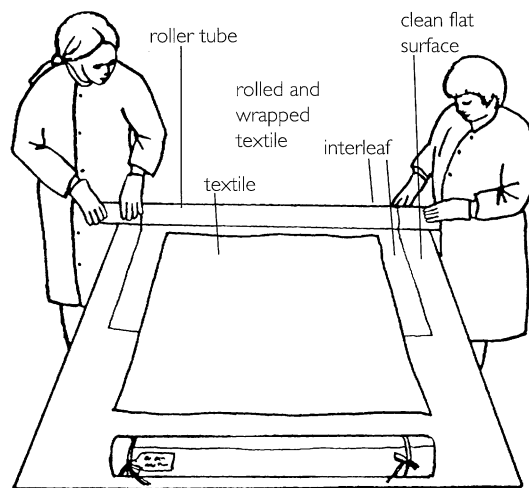


FIGURE 12: Rolling a textile

### Unrolling

Unrolling must be done on a clean surface large enough to spread the whole textile. Unroll so interleafing appears on the surface, and remove as unrolling progresses for replacement or re-use.

TABLE 4: Examples of materials needed for rolling different types of textiles (see also Sections 12 and 2.5)

	Pile rug	Painted banner	Shawl	Silk Ribbon
Tube diameter	15-20cm	10-20+cm depending on stiffness and surface undulation	5-10cm	5cm
Tube length	width plus 15-20 cm	width plus 15-20 cm	width including fringes plus 15 -20 cm	width plus 5-10cm, or width of container
Material of tube	card or plastic drainpipe*	card or plastic drainpipe*	card	a sheet of Melinex/Mylar rolled into tube and wrapped in surgical gauze
Materials for tube covers	barrier film** and two layers of cotton fabric or unbuffered tissue	as rug or shawl	barrier film** and unbuffered tissue	not needed
Interleaving	unbuffered tissue	unbuffered tissue, silicone paper if tacky, wadding sandwiched between tissue if surface undulates	unbuffered tissue	unbuffered tissue
Protective wrapper	two layers of woven fabric or Tyvek	two layers of woven fabric or Tyvek	two layers of woven fabric or Tyvek	none if stored in drawer
Ties	2.5cm wide woven tape	2.5cm wide woven tape	2cm wide tape	1 cm wide tape or tuck ends of

\* Plastic rollers should not be used in poorly ventilated areas.

\*\* Eg. Melinex/Mylar; laminated barrier film or aluminium foil.

## 2.10 Labelling

Attaching identity labels is essential for documentation purposes, but this must be done paying attention to an object's specific needs. Secondary labels, which allow recognition without having to touch objects, and location labels that facilitate finding objects easily in store, both contribute to improved collection care (see also Section 2.7).

### Identification labels

It is usual to label textiles with their accession numbers using sewn-on tags made from cotton tape marked with ink. This method is explained in the mda's (Museum Documentation Association's) fact sheet, *Labelling and Marking Museum Objects*, 1995, and in their video *Labelling and Marking*. Further information is available in the MGC's *Standards in the Museum Care of Costume and Textile Collections*, 1998.

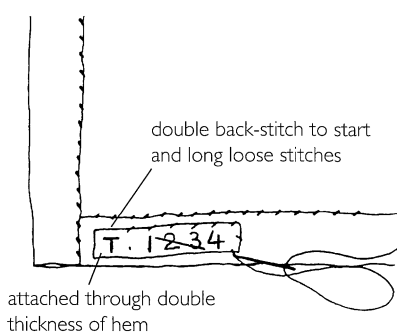


FIGURE 13: Attaching an accession label

Because labels are in such close contact with the object, there is a risk of damage from the label. Tape used for labelling should be boil-washed before use and the ink should be tested for water-fastness. To test ink, mark some tape and let it dry overnight. Sandwich it between two pieces of absorbent paper; moisten with warm water; weight it under a piece of glass and allow it to dry slowly. Check for signs of any migration of ink into the paper. It is also advisable to test the ink used on containers and secondary labels.

To reduce handling to a minimum, the positioning of labels should be consistent across the collection and labels must be placed so that they are easy to find.

### Secondary identification labels

The purpose of secondary labels is to allow accurate identification without the need to locate the accession label. They are therefore best placed at eye level. Types of secondary labels include:

- Tyvek 'flags' on the hooks of coat-hangers (Figure 14);
- labels with photograph of the object;
- box labels that include sufficiently detailed description to enable identification;
- markings (using tested ink) on garment bags and other wrappers;
- contents lists inside boxes that map the exact location of contents.

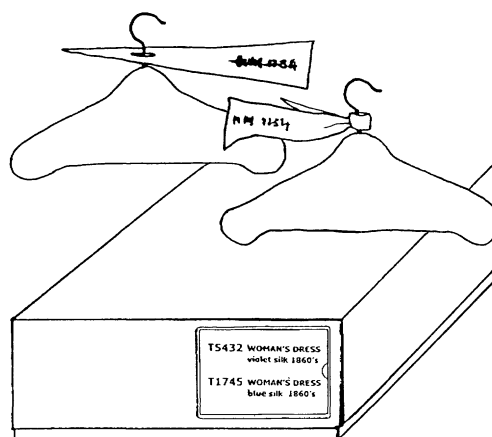


FIGURE 14: Secondary labels

### Location labels

A consistent hierarchy of location markings throughout the store speeds up the process of finding individual objects, allowing more time for careful handling and moving of them. This should include rooms, aisles, bays, shelves and containers.

2.11 Cleaning

Surface cleaning

The only type of object cleaning undertaken as a collection care activity is surface cleaning. This normally involves gentle use of vacuum suction. Vacuum cleaning should only be carried out on textiles that are in good condition and where the soiling is of no historical significance.

It is normal practice to clean only newly acquired objects, those being returned to the store after display or pest treatment, and those on display that require interim cleaning because dust has settled on them.

The process of cleaning provides the opportunity for a detailed inspection of an object's condition. Object cleaning and condition recording go hand in hand.

**Modifying a domestic cylinder cleaner**  
Special museum vacuum cleaners are the preferred option, but if one is not available an ordinary cylinder-type machine with variable suction can be modified for low-suction work. It should then be reserved solely for object cleaning use.

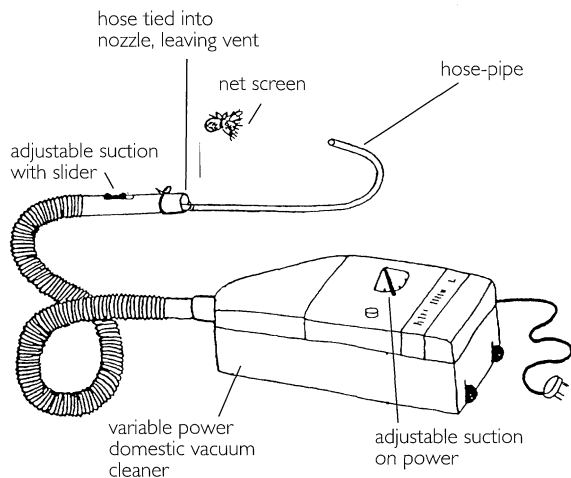


FIGURE 15: Modifying a vacuum cleaner

To vacuum clean textiles

1. Support the textile, ideally on a flat surface.
2. Secure net over the vacuum nozzle with a rubber band, or place a sheet of net over the area of textile being vacuumed, to prevent any item that becomes detached from being sucked into the machine.
3. Adjust the suction so that particles of debris lift from the surface without lifting the textile.
4. Work in the direction of warp and weft, or pile.
5. Work on a small area at a time.
6. Glide lightly over the surface without pressing or rubbing.
7. If needed, use a soft, natural bristle brush to dislodge particles into the suction stream.

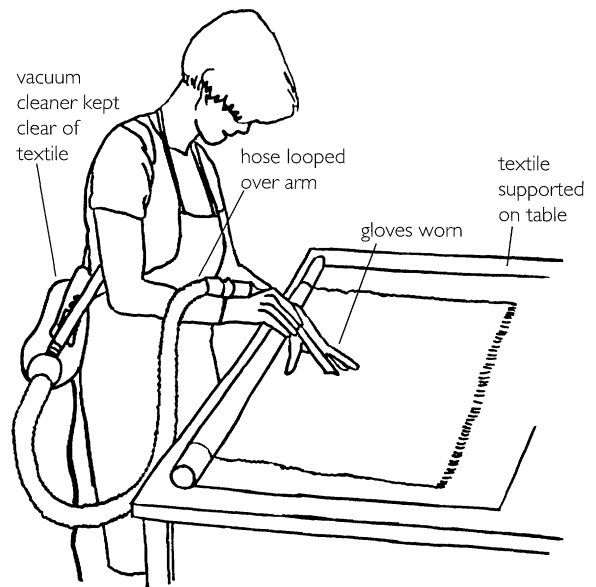


FIGURE 16: Vacuum cleaning a textile

**A note on washing and dry-cleaning**  
Washing is not a collection care activity. It is an interventive process that alters the state of the object and as such is classed as conservation treatment. A conservator should be involved in the decision as to whether washing is appropriate. Similarly, the decision to dry-clean a museum object should only be made after consulting a textile conservator (see Chapter 5).

## 2.12 Dealing with Separations

Sometimes, those working with costume and textile collections have to deal with the complete or partial separation of part of an object.

### Retaining separated parts

It is *basic practice* that the separated part(s) should be gathered together; placed in a labelled envelope or bag and kept either with the object or its documentation.

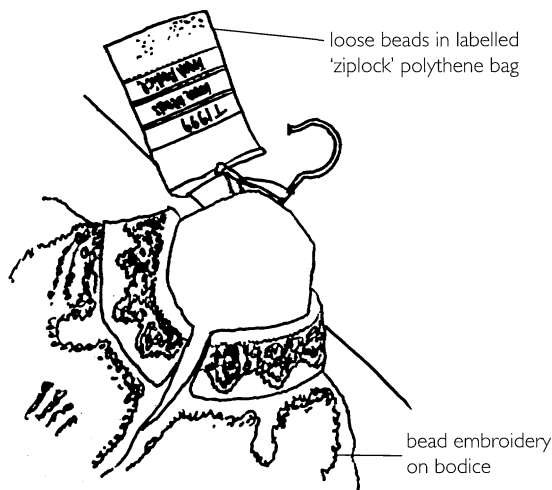


FIGURE 17: Retaining loose parts with the object

### Investigating separations

It is *best practice* to undertake an investigation of why the separation has occurred and record the reason. All damages are indicators of instability that could lead to further damage or loss. If possible, the investigation should be done together with a textile conservator. A full investigation is essential if the part is to be reinstated.

### Thread and fabric damage

The elements that most frequently become separated or loose are fastenings and trimmings such as buttons, hooks and eyes, waist tapes, beads, lace and fringes. In such cases, the separation has usually, but not always, occurred due to weak thread being used for attachment or construction.

A second type of separation is of fragments of fabric, parts or trimmings that has occurred because the textile is weak. It is important to be able to distinguish between the two.

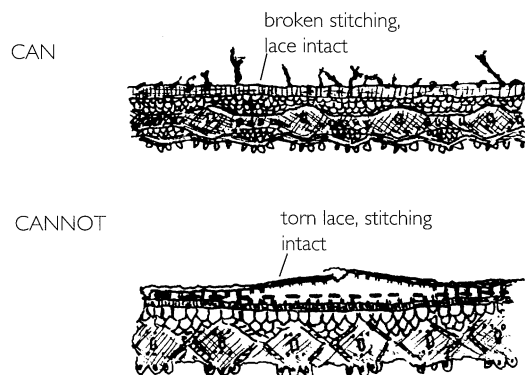


FIGURE 18: When loose trim can and cannot be stitched back

Where thread damage has resulted in separation, it is necessary to establish the degree to which the separation is a local problem or a sign of widespread weakness. Any object with widespread textile damage or widespread thread weakness must be referred to a conservator for assessment and, in the meantime, stored.

Only consider stitching a part back if:

- the missing part is available - never attempt to replace a missing part with new;
- it is absolutely necessary to do so e.g. for display purposes;
- the separation was clearly caused by local damage to the attaching thread;
- the surrounding fabric is in good condition;
- it is possible to return the part *only* using the original stitch holes;
- it is not necessary to sew through additional layers;
- no unpicking is necessary;
- a suitable workspace is available;



- someone with the relevant skills and experience is available to carry out the work;
- the process, materials and name of the person carrying out the work are recorded in the object's file.

# Chapter 3 - Storage

24

## 3.1 Introduction

It is easier to achieve the optimum conditions for the long-term preservation of collections in store than in other circumstances. The requirements for storage of costume and textile collections are given in the MGC's *Standards in the Museum Care of Costume and Textile Collections* (1998).

### Location and space

It is *best practice* to locate stores in the core of a building, avoiding attics and cellars, and also to have an adjacent study room.

Best use must be made of available space through careful design of the facility and selection of furniture and containers. Box sizes and turning spaces for rolled items must be taken into account when planning routes into and through stores (see Section 2.8). If storage at heights above two metres cannot be avoided, risk assessments must be done for both workers and objects.

### Furniture and containers

It is *best practice* to have storage furniture constructed using metal rather than wood. It is also *best practice* to use unbuffered acid-free boxes in a limited range of sizes so that they fit together and fit the shelves (see Section 1.2)

### Access

Storage solutions should balance the requirements of both access and care. It is *best practice* to pack and store objects so that good handling is natural and automatic when retrieving them (see Section 2.7). For costume, and for some textiles, this is a challenge because care techniques that support, protect and avoid disturbance can compromise accessibility.

### Organisation

It always pays to be tidy and well organised. The well-designed store is easy to clean and provides easy access to the objects. Everything should be labelled and have its own place, boxes should fit

and fill racking to avoid wasted space, heavier and large items should be placed at lower levels, and dust protection should be provided (see Sections 2.3 and 2.10).

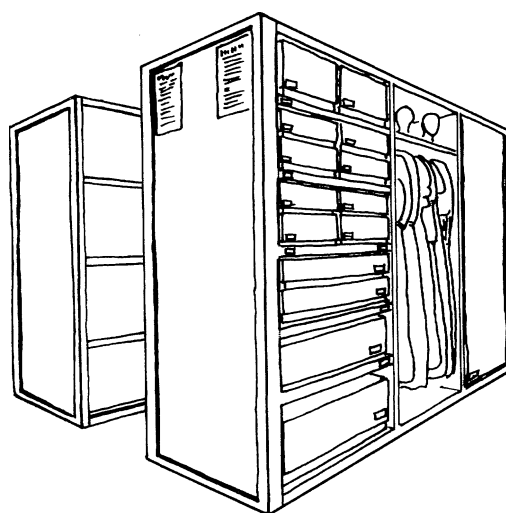


FIGURE 19: A well-organised store

## Textile storage

The main challenge of storing textiles is accommodating two-dimensional objects in a range of sizes in a manageable way. Folding and crushing must be avoided because fibres become stiff and brittle, and lose their ability to recover from creasing as they age (see Sections 3.2, 3.3 and 3.4).

## Costume storage

There are additional challenges of storing costume, which are:

- the need to protect the three-dimensional form of textiles, which have been shaped to fit around a human body that is absent;
  - the presence of non-textile materials such as metal, bone or glass;
  - the variety of shape, size, material and form encountered, even in a small collection.
- (See Sections 3.5, 3.6 and 3.7.)

### 3.2 Flat Textiles

It is *best practice* to store textiles flat, as single layers in boxes, trays or drawers, surrounded by conservation quality materials (see Section 1.2). Flat storage such as this is only a realistic option for small, unmounted textiles. The maximum size is approximately 90cm, because this is about the largest that can be carried horizontally (on a board or in a tray or box) by one person and can pass through most doorways. Larger sizes can be kept flat if laid in single layers on supports in the smooth-sliding drawers of large metal cabinets, but two people will be needed to retrieve them. In the case of very fragile textiles, flat storage with restricted access may be the only safe option. It is *basic practice* to allow some stacking of flat textiles (see Section 2.7).

If rolling is not an option (Section 3.3) textiles that are no wider than the width of the box but longer may be kept part-rolled and part-flat by using lightweight rollers, such as tissue 'sausages', to shape and cushion the curves.

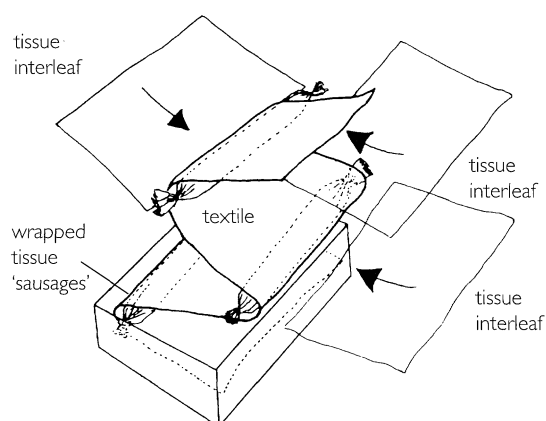


FIGURE 20: Packing a textile that is too long for its box

#### Flat storage options

Padded boards are useful when textiles are stored in drawers.

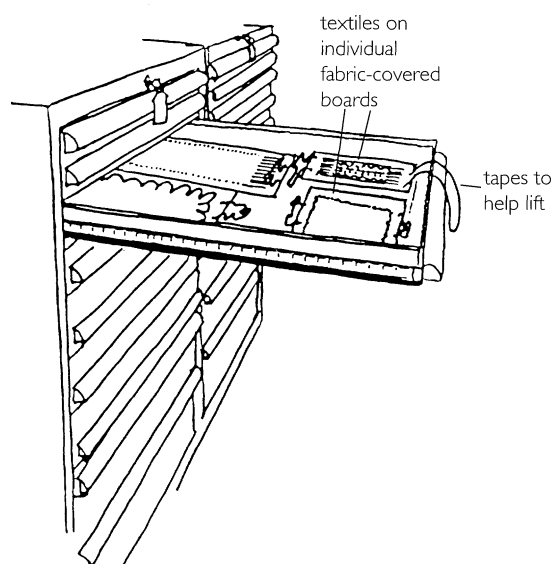


FIGURE 21: Use of storage boards in drawers

Melinex/Mylar sleeves are useful for small textiles in clean condition (e.g. handkerchiefs and fabric samples). This method is useful for research collections.



FIGURE 22: Use of Melinex/Mylar sleeves

Textiles can be laid on fabric-covered boards, equipped with window mounts and stacked in drop-fronted boxes.

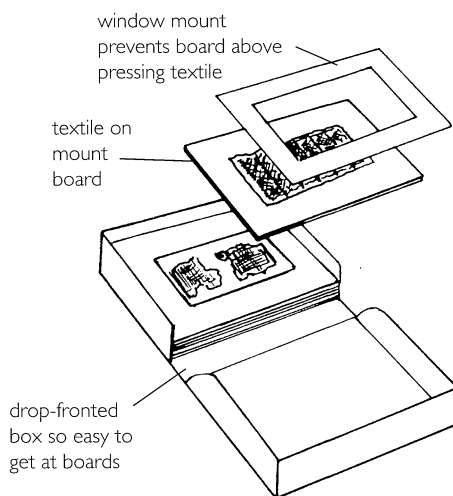


FIGURE 23: Drop-fronted boxes for mounted textiles

### 3.3 Rolled Textiles

If storing textiles flat is not possible, then rolling is the next best solution for storing unshaped textiles. It is the only practical solution for outsize objects such as carpets. Rolling provides good support and protection for the textile and enable it to be moved safely. However; access is slow, re-packing even slower; and the tube and support pole (if used) put weight inside the textile (see Sections 2.8 and 2.9.)

#### Basic and best practice

Best *practice* storage of a rolled textile involves either suspension on a pole or propping the ends of the roller tube on brackets. It is important that the weight is transferred away from the underside of the textile and is essential for the heavier items. If this is not possible, it would be *basic practice* to shelve rolled textiles in a single layer; and to rotate them a quarter turn to spread the effect of their weight. This should be done every few months for heavy objects but lighter ones can be rotated less frequently

#### A note on materials

It can be difficult to find large roller tubes with the necessary stiffness, strength and low weight that are also chemically inert, therefore it is *basic practice* to use ordinary card ones (from carpet warehouses) or plastic drainpipes, and to apply a barrier film plus an isolating layer (see Table 4). For small, light textiles, roller tubes can be made from materials such as conservation quality paper or card held with archival quality tape or polyester film (Melinex/Mylar) inserted into a restraining cover of tubular stockinette (see Section 12 and 2.9).

#### Storage of long and heavy rolled textiles

For long and heavy rolled textiles such as quilts and carpets, heavy-duty, floor-standing storage racks are needed. Before installing such racking, check with a building surveyor that the floor-loading is sufficient. Also, plan the location so as to allow good access and turning space for long objects. Heavy textiles should not be placed high on racks for the safety of both staff and objects.

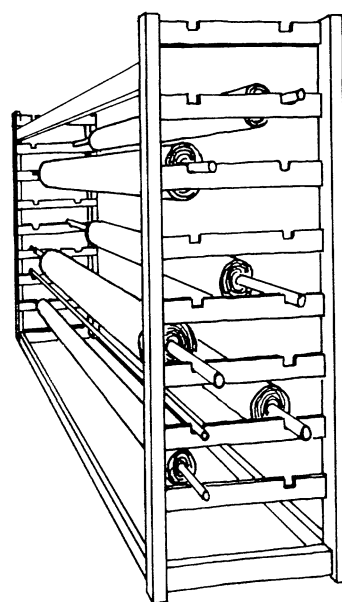


FIGURE 24: Storage rack for large rolled textiles

### Storage of medium-sized rolled textiles

Wall-mounted systems are suitable for shawls and smaller banners, which are generally lighter in weight and need shorter rollers. Traditional shelf brackets can be used to support the poles, with a thin sheet of polyethylene foam (Plastazote) bound around the ends of the brackets to prevent accidental roll-off or damage to the rolled textile.

### Storage of small rolled textiles

These should be kept in boxes and drawers fitted with notched, side-supports to hold small roller-rods. Rollers made from Melinex/Mylar sheet wrapped in stockinette sleeves are self-supporting and can be designed to fit the container

### 3.4 Framed and Mounted Textiles

A frame should always provide a good protective envelope for its contents, whether these are on display or in store. For more information on framing to conservation standards, see 4.3.

### Storage practice

If the condition of the textile is sound, framed textiles are usually stored vertically. This is because this orientation puts least stress on the frame and its glazing. Framed textiles should be stored in racks (preferably made from metal) with vertical compartments that hold no more than four or five frames. They should stand on a layer of thick polyethylene foam and be separated one from another with corrugated boards. Any mounting plates, screw eyes and other projecting or hanging fixtures should be removed prior to storing in the racks.

The exception to the above is for framed textiles that are in poor condition; these must be stored horizontally until they can be treated.

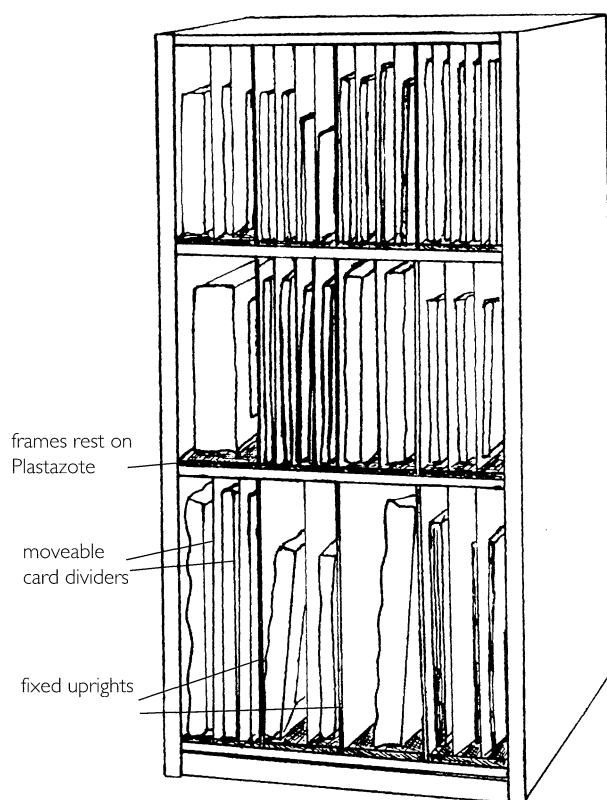


FIGURE 25: Rack for frames and framed textiles

## Original frames

The condition and effectiveness of an original frame must be checked before storage. Only in exceptional circumstances should a textile be taken out of its original frame. If construction joints show signs of failure, the frame should be tied together with woven cotton tape using cushions of polyethylene foam to protect mouldings, if necessary. If the glass or back-board is loose, or seals are broken, dust will get in. In this case the frame should be first wrapped in either unbleached cotton or Tyvek sheet (see 2.5). If the textile is damaged or glass is cracked or broken, it should be referred to a conservation framer and/or a textile conservator for assessment (see Chapter 5.)

## Mounted textiles in exhibition frames

Textiles in exhibition frames can remain in their frames and be stored as above. However it is more usual to dismount in order to reuse the frame. If the frame is not being reused, it is best stored reassembled using card or polyethylene foam to fill the void left by removing the mounted textile. Textiles that have been mounted by a textile conservator (see Sections 4.2 and 4.3) should be stored on their mounts after removal from their frame, whilst others need to be removed from the mount. Small mounted textiles can be stored as shown in Figure 23 and larger ones should be

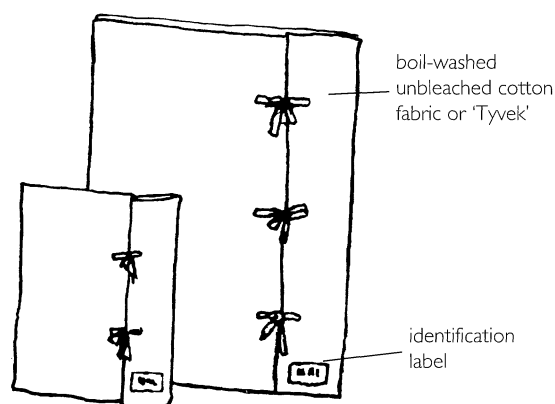


FIGURE 26: Storage bags for mounted textiles

provided with individual dust-covers (see Figure 26) and stored vertically as above.

## 3.5 Costume Garments in Boxes

Garments can be stored by laying them, loosely packed, in boxes on racking, or in trays and drawers in cabinets. The most common type of system uses metal racking with conservation quality acid-free boxes. It is this method that is described below, although the same general rules apply for other methods of storage of garments laid flat (see 1.2)

### Selecting storage method and boxes

For small collections and those that are not cared for by a costume specialist, boxing and racking is a better option than hanging. This is because:

- there is less risk of serious *permanent* damage than from hanging;
- it is a suitable method for those less familiar with the special needs of costume;
- objects can be safely moved about the museum without being taken out of their containers;
- unlike hanging, the method does not require special equipment or facilities.

TABLE 5: Considerations when selecting garment storage boxes

	Conservation requirements	Other requirements
Dimensions	<ul style="list-style-type: none"> <li>• For the <i>best practice</i> method (Figure 27): length and width are that of the unfolded garment; depth is for a single heavy garment (e.g. Victorian silk dress) or a small number of light garments (e.g. night-dresses).</li> <li>• For the <i>basic practice</i> method (Figure 28): width is that of unfolded garment; length is for one or two folds across garment; depth is for one heavy or two light garments.</li> </ul>	<ul style="list-style-type: none"> <li>• Must fit gangway and doorway widths, including turning space.</li> <li>• Avoid wasting space by having a range of standard sizes that fit shelves. (N.B. shallow boxes waste less space than part-full deep ones.)</li> <li>• Must take into account the number of staff regularly available (long narrow boxes will need two people to take them from shelves safely).</li> </ul>
Physical properties of box board	<ul style="list-style-type: none"> <li>• Smooth surfaces on inside (to prevent snagging) and outside (to allow easy dust removal).</li> </ul>	<ul style="list-style-type: none"> <li>• Long narrow boxes must be made from corrugated board, which is stiffer and so resists skewing.</li> </ul>
Box construction	<ul style="list-style-type: none"> <li>• No gaps through which dust and pests could creep.</li> <li>• Metal fixers and re-inforcers should be non-corrosive.</li> <li>• Adhesives must be of conservation quality.</li> </ul>	<ul style="list-style-type: none"> <li>• Reinforced corners help prevent skewing, especially of long narrow boxes.</li> </ul>
Fit of lid	<ul style="list-style-type: none"> <li>• No suction on opening lid.</li> <li>• Depth of lid sufficient to keep dust out.</li> <li>• Lid is not so tight as to need shaking to release it.</li> </ul>	<ul style="list-style-type: none"> <li>• Must be possible to fit and remove lids with the number of staff normally available.</li> </ul>
Chemical properties of board	<ul style="list-style-type: none"> <li>• Best practice: buffered acid-free box board lined with unbuffered tissue.</li> <li>• Basic practice: a programme of replacement for ordinary card boxes. Meanwhile boxes must be lined with buffered acid-free tissue that should be checked annually (see 1.2).</li> </ul>	

### Home-made boxes

Although there is now a reasonable range of boxes available that meets the above requirements, garment boxes made in-house remain a viable alternative. The advantage is that they can be tailored to meet your particular needs. They should be constructed from corrugated box board (available from conservation suppliers) and held together with woven cotton tape (see 2.5.)

Considerations when packing garments into boxes (See also sections 1.2 and 2.7.)

The following points should also be considered when packing garments:

- packing should allow the parts of a garment most important for identification and information to be visible before the item is removed from the box. For a dress, this would normally be the front of the bodice, which may mean starting packing it with the front facing down;
- because of the 3-dimensional form of costume, it will be necessary to cushion folds and creases. This is most important for fabrics such as: silk, which can suffer permanent damage through folding; for already damaged fabrics; and for garment parts where creases tend to always fall in the same place, such as sleeves;

TABLE 6: Advantages and disadvantages of hanging

#### Advantages of hanging

Quick and easy to locate individual objects.

Easy retrieval and re-storing.

Enables examination without needing to directly handle.

Retains shape and form of garments, especially important with tailored ones.

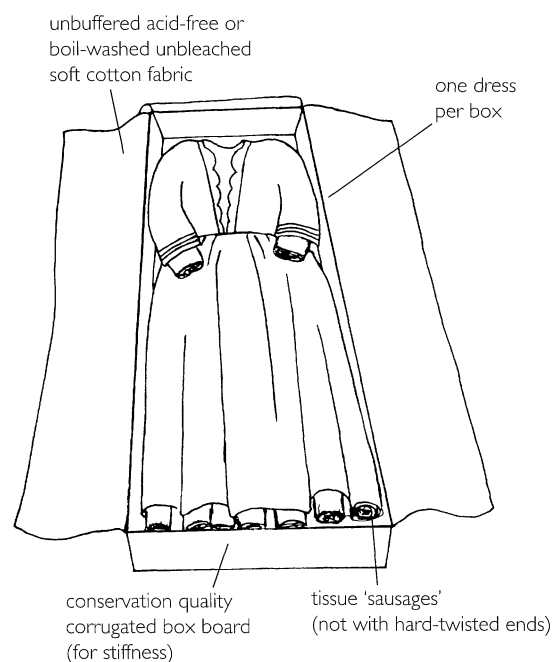


FIGURE 27: Garments in boxes - best practice

- care must be taken when padding areas of fullness, such as skirt tops and sleeve heads, to use tissue sausages without hard, tightly-twisted ends (see Figures 7, 28 and 29);
- heavy garments may require the use of stronger materials, such as 'sausages' made from sewn polyester wadding and handling sheets made from soft, boil-washed unbleached cotton.

#### Disadvantages of hanging

Garments can sag and tear under their own weight.

It is easy to over-crowd rails and this can cause damage through one garment rubbing and snagging against another

Not suitable for every garment - some will still need to be laid out in boxes and drawers.

Need to provide individual solutions based on individual assessment.



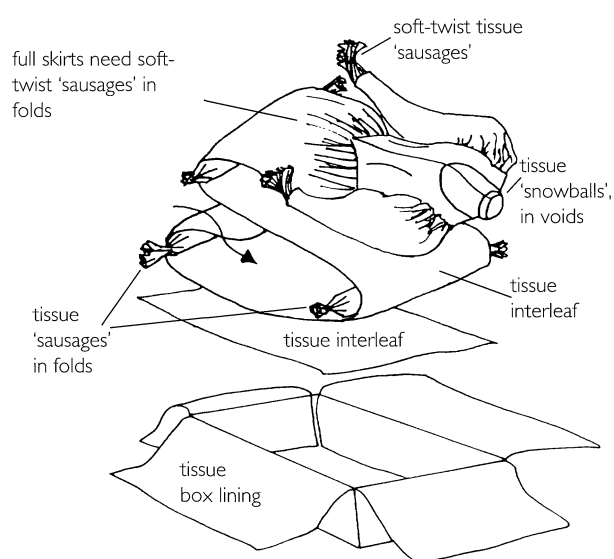


FIGURE 28: Garments in boxes - basic practice

### 3.6 Hanging Costume Garments

Hanging storage is, without doubt, the most popular method of storing medium-sized and large garment collections because it provides the simplest and most convenient access to stored material. When done well, hanging storage is very successful, but if done badly it can be very damaging to the costume. Boxed storage presents fewer risks (see 3.5).

#### Assessing suitability for hanging

Assess all garments individually for their suitability for hanging, paying particular attention to:

- the ability of shoulder area of garment to support its own weight. Do not hang garments with narrow shoulder straps or where most of this part is flimsy fabric or lace;
- potential distortion. Do not hang knitted or bias-cut garments;
- weight distribution. Do not hang garments that are bottom-heavy;
- fabric damage. Do not hang garments if the fabric has extensive areas of weakness or widespread damage;

- strength of construction. Do not hang garments that are coming apart at the seams;
- attachment of trimmings. Garments with loose trimmings such as lace, beads or a fringe should not be hung.

Storage by hanging is most suited to tailored garments (e.g. uniforms) and those that are either strongly shaped or are easily crushed (e.g. silk dresses from the 1830s to 1880s and plastic raincoats). It is also a good solution for storage of robust garments from the second half of the 20th century.

#### Dispelling some myths

Hanging storage does not save space - hanging rails hold about the same number of garments as the same volume of boxes.

Hanging storage does not save money - if the whole system is costed up, boxes and racking are both cheaper than wardrobes and individually made hangers.

Hanging storage only saves time for collections with high levels of use.

Padded hangers can cause harm, particularly if they are the wrong shape or the padding makes the neck too short.

Sewing tape loops into a garment to 'spread the weight' or secure it to a hanger often causes tearing and strain damage. Reduce the need for taping by using suitably shaped hangers.

Individual garment bags can harm as well as protect, especially if the garment has to be pulled out of the bottom of a tight tube. Only use them if there is no better way to protect the item from dust

## Space

Overcrowding on hanging rails causes more damage than overcrowding in boxes. Allow no more than 10-12 items per running metre of rail for pre-20th century garments or any tailored garments. This can be increased to up to 20 items of children's wear and ladies' 20th-century dresses. The rail must be at least 18 metres off the floor

## Storage furniture

It is better to use metal storage bays equipped with rails than wooden wardrobes. Any wooden cupboards should be fully lined with acid-free card, vapour barrier film or charcoal cloth to protect the textiles from harmful pollutants given off by wood products and adhesives. If the cupboard is well-constructed, the main source of dust will be around the doors. This can be reduced by fitting a dust screen of densely woven cotton fabric or Tyvek, held in place with strips of hook-and-loop fastener

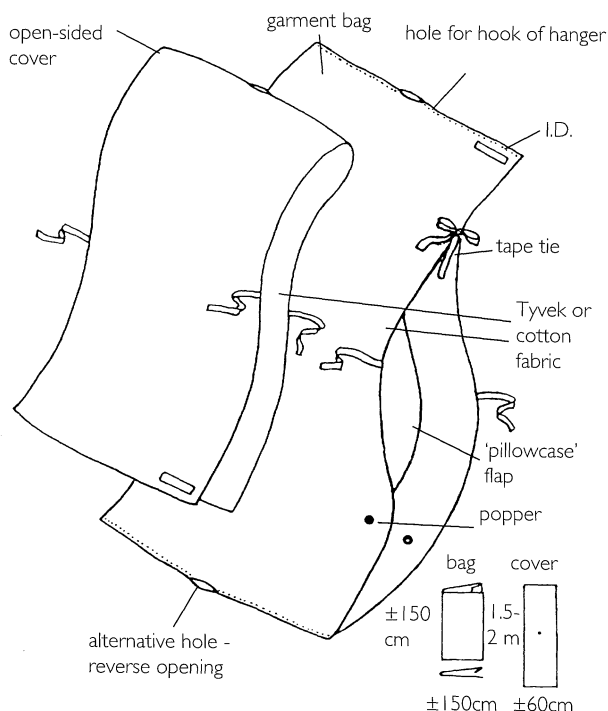


FIGURE 29: Garment bags and open-sided covers

## Garment bags

Hanging garments are most at risk when being put onto or taken off rails. Garment bags can prevent damage to costumes, but have the disadvantage of concealing identity and any problems such as tears or insect activity. Use loose, side-opening bags made from boil-washed, unbleached and undyed cotton. A simple open-sided cover covering the upper part of the garment may provide sufficient dust and abrasion protection whilst retaining visibility.

## Hangers

A good hanger provides shaped support whilst the garment is hanging as well as a means of lifting it from the rail and carrying it. Commercially available hangers need to be carefully selected to be suitable for museum use. The hooks may need to be replaced with long-necked screw-in ones.

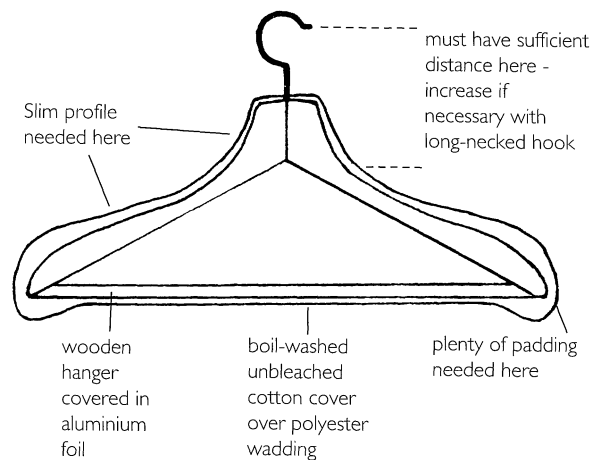


FIGURE 30: The requirements of a padded hanger

## 3.7 Costume Accessories

This section covers the storage of items of costume that are loosely described as costume accessories. These are normally stored as part of costume collections, but are made mainly or at least in part from non-textile materials (see also 4.6.).

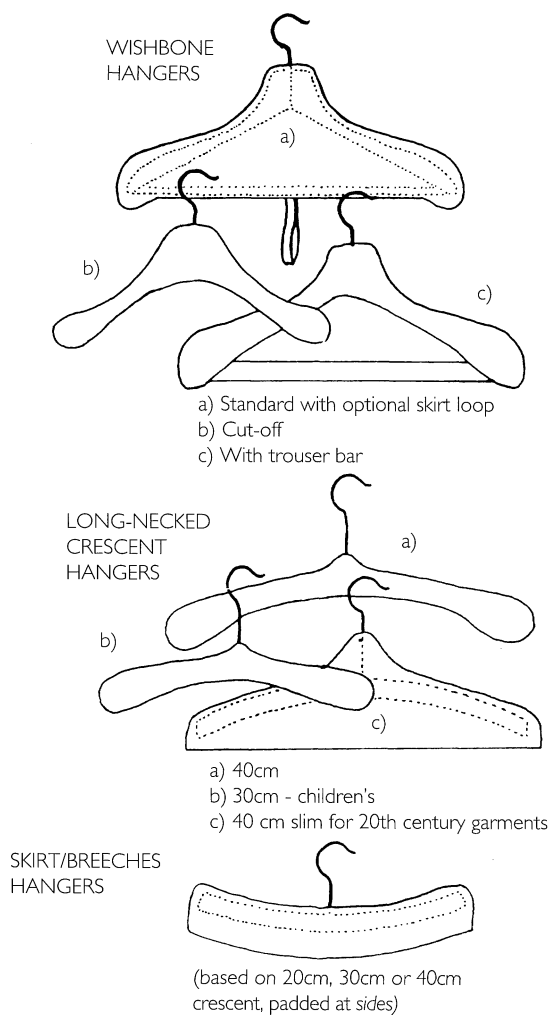


FIGURE 31: Shape options for padded hangers

Accessories can be divided into those that are 'hard' and those that are 'soft'. The soft, flat accessories such as shawls, collars, lace, ribbons etc. can be stored using the methods used for flat textiles or garments (see Sections 3.2 and 3.3).

Hard accessory items include shoes, hats and head-dresses, fans, jewellery, parasols, umbrellas and handbags. These have special physical storage requirements, being three-dimensional in form. These often have working parts and are made from a variety of organic and inorganic materials, including metals, glass, leather; bone and plastics.

### Storage solutions for accessories

The range and variety of accessories mean that there are no simple, universal storage solutions, although the methods outlined below are cheap and work for a wide range of object types. They are suggestions, however, not prescriptive solutions. It is important to assess individual objects and modify technique accordingly.

### Storage of hats

The following points should be considered when storing hats:

- most hats need internal support to preserve the shape;
- many also need support for the brim because the weight of the hat on the brim or on the crown-brim joint can result in structural damage;

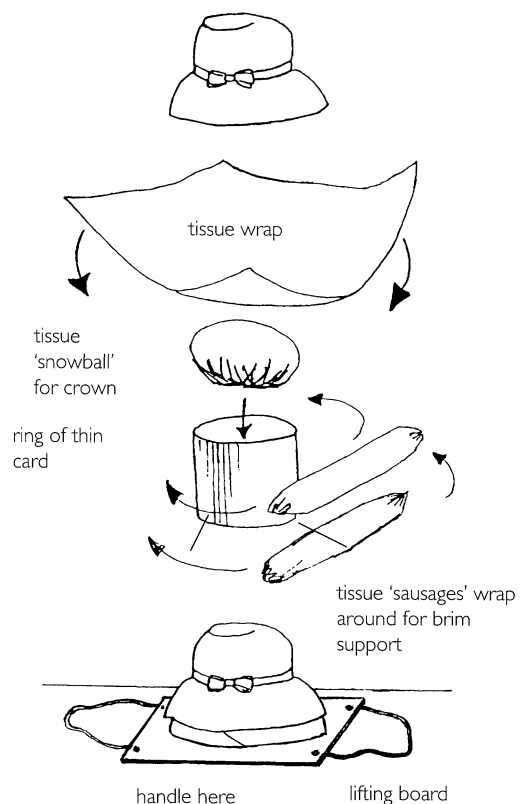


FIGURE 32: Basic practice storage method for supporting hats

- all hats are vulnerable to damage through handling, and need storage mounts and handling boards that allow lifting without touching;
- the orientation of the hat in store will depend on need, though most are best stored with the crown uppermost;
- storage mounts must serve as handling mounts and can also serve as a display mount;
- any trimmings need to be restrained or protected to prevent tearing;
- secondary labelling systems are a useful finding aid;
- hats should only be placed in containers as a single layer

### Storage of fans

The following points should be considered when storing fans:

- the main decision is whether to store fans open or closed. On balance, closed storage presents fewer risks as long as precautions are taken when opening them. Fans that are stored open are more accessible but must be kept on individually shaped supports under optimum environmental conditions;
- fans can suffer a range of problems caused by weakness to or failure of the folding mechanism. This can result in instability and possible irreparable damage;

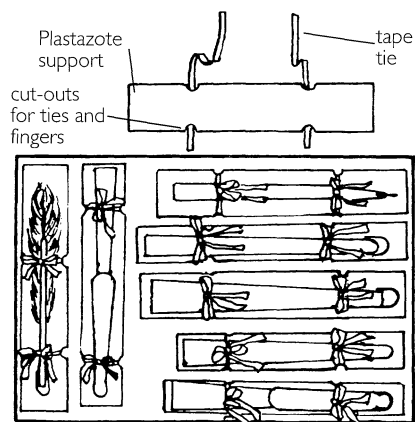


FIGURE 33: Basic practice storage method for closed fans

- fans stored closed should be tied closed (but not tightly) to prevent accidental opening;
- store fans in a dust-proof container or wrap in acid-free tissue;
- wear gloves when handling fans;
- open fans on to a surface one leaf at a time - never fully stretched open;
- good quality images of the fan in the open position are useful surrogates and reduce the need for handling;
- do not store fans in their original cases but store them alongside;
- use cabinets with shallow drawers and store in single layers.

### Storage of parasols and umbrellas

Parasols and umbrellas need to be stored so that the folds are not crushed (especially important for silk). This usually means supporting the pole at both ends.

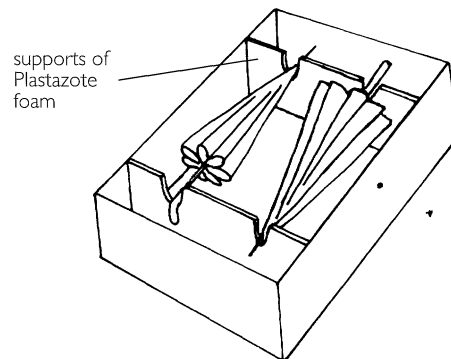


FIGURE 34: Basic practice storage method for parasols

### Storage of jewellery, buttons and other small, hard objects

Small items of jewellery are easily misplaced or lost and so it is *basic practice* to use storage systems that have fixed and clearly labelled locations. To avoid snagging and scratching some cushioning may be necessary. Storage should be in single layers, so cabinets with shallow drawers are required.

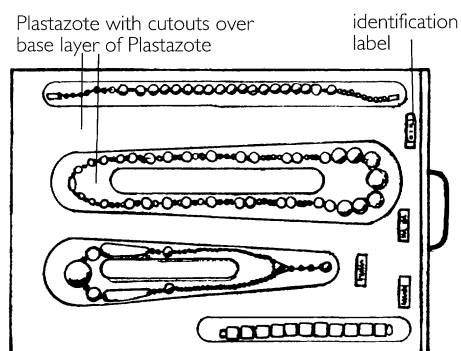


FIGURE 35: Basic practice storage method for jewellery etc.

## Storage of shoes

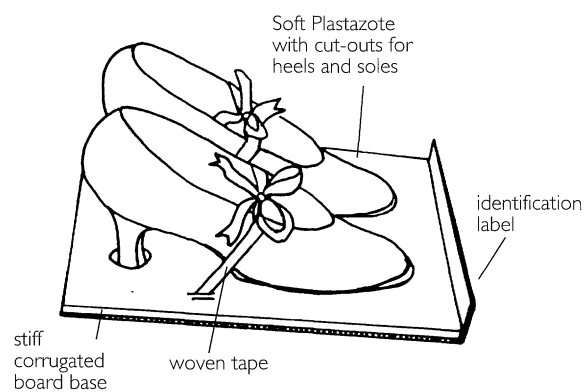


FIGURE 36: Basic practice storage method for shoes

# Chapter 4 - Display

36

## 4.1 Introduction

The requirements for display of costume and textile collections are given in the MGC's publication *Standards in the Museum Care of Costume and Textile Collections* (1998). Preservation of costume and textiles on display involves striking a balance between making them accessible and their conservation. The nature and variety of the objects and of the display situation means that optimum solutions vary. Therefore, it is *best practice* to seek advice from a textile conservator when making decisions about exhibiting textiles or costume (see Chapter 5).

### Assessing condition

The condition of an object will affect its suitability for display and show what must be done to protect it for the planned duration of the exhibition. It is *basic practice* for a condition assessment to be carried out on every item to identify its needs for any planned exhibition.

### Support

It is *basic practice* to spread the weight of costume or textiles through the use of a continuous hanging mechanism and so reduce the risk of damage. Using pins for hanging results in an uneven distribution of weight and they must not be used for hanging textiles and costume, even for a short period of time. It is *best practice* to provide complete or full support

### Mounting displays

Costume and textiles are at greatest risk during the installation and dismantling of exhibitions. The risks are reduced if support/mount preparation and as much of the mounting/dismounting as possible are carried out in the workroom, rather than the gallery. Mounting can be a complex operation and may need to be done by a conservator. The risks, of damage through mounting and dismantling objects for exhibition must be reviewed along with the risks of prolonged display.

### Environmental conditions

It is *basic practice* to exclude ultra-violet from all light sources and to keep visible light levels and duration of exposure to a minimum. It is *best practice* to track cumulative illumination by recording the level of illumination and duration of exposure in the object history file.

It is also *best practice* to display costume and textiles in well-sealed, metal-framed showcases, specially designed for museum use. Showcases built in-house from conservation quality materials and with controlled ventilation are a good alternative. It is *basic practice* to prevent soiling by operating a regular cleaning regime. Textiles on open display room-settings should be positioned so that visitors cannot touch them.

### Duration

It is *basic practice* to specify the duration of an exhibition at the planning stage in order to provide the appropriate quality of support materials and environmental conditions.

### Use of surrogates

It is *basic practice* to use replicas or unaccessioned material when costume and textiles are displayed, not for their individual qualities, but to complete a bigger picture (e.g. the clothing on the mannequin driver of a tank in a military museum).

## 4.2 Textiles in Showcases and Galleries

The degree of support a textile requires will vary according to its condition and various other factors (see 4.1). A damaged textile that is to be mounted vertically must be treated by a textile conservator before display. Display materials should be of conservation quality (see 1.2).

For objects in poor condition, the following options are available:

- laying the textile flat on a fabric-covered board,

kept horizontal or at an angle of no more than ten degrees;

- have the object treated and mounted by a textile conservator

For textiles in good and stable condition, the following methods can be used:

- vertical hanging using a continuous fixing that spreads the weight evenly.

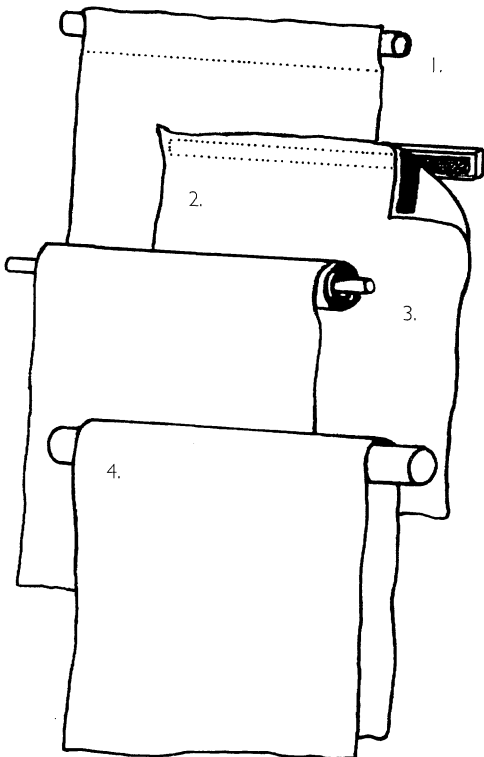


FIGURE 37: Vertical hanging methods for textiles

1. pole and sewn-on sleeve
2. hook-and-loop fastener and batten
3. rolled around pole
4. laid over pole

- Stitch the textile, evenly tensioned, to a board covered in fabric of conservation quality. This can be displayed vertically (see 4.3). Advice should be sought from a textile conservator for textiles larger than one square metre because additional stitching may be needed.

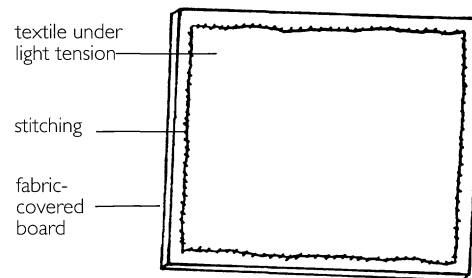


FIGURE 38: Textile mounted on board

- Draping the textile over a padded stand, covered with a fabric of conservation quality, so that most of the weight is supported either by the stand or the floor of the case.

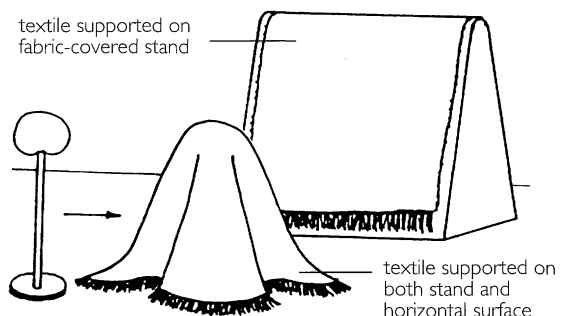


FIGURE 39: Textile display stands

#### Notes on materials

(See Section 2.5.) Stitching and fixings will puncture barrier films (used to bring display boards up to conservation standard) and severely reduce their effectiveness.

#### A note on techniques

Flat mounting on to boards, the use of pole sleeves and hook-and-loop fastener can cause damage if not done correctly. Advice or training from a textile conservator is recommended.

### 4.3 Textiles in Frames

#### Performance of frames

Frames act as mini-showcases, protecting their contents from the environment, physical damage and theft. The materials used for construction, particularly the interior, must be of conservation quality (see 1.2). They should be tightly sealed to exclude dust and insects. Textiles in original frames should be referred to a textile conservator for assessment of condition before use in displays (see Sections 2.5, 3.5 and Chapter 5.)

#### Mounting for framing

Textiles are mounted by stitching them onto fabric-covered boards. Only small robust textiles in stable condition should be mounted for framing, without first consulting a textile conservator (see 5.2.)

#### *To prepare a small textile mount board you will need*

- conservation quality stiff card;
- boil-washed interlining (thick soft cotton, as used for curtains), 5cms larger than the card;
- conservation quality top cover fabric, 10cms larger than the card.

#### *To cover the card with interlining*

- fold the interlining in half and machine-stitch *one* side, 2cm from edge, to make a pocket.
- turn it inside out. Insert the card into the pocket. Fold raw edges on remaining two sides to the back of the board, tensioning to fit snugly around the card. Pin and stitch by hand.

#### *To apply the top cover*

Position the top fabric, pinning into the edges of the card, keeping it straight and moderately tensioned. Hem the raw edges to the back of mount board.

#### Framing

Always brief the framer on all components of the frame and provide the textile ready mounted. Specify conservation quality materials (not simply

'acid-free' ones) and ask for an itemised account that records the materials used.

Further information on conservation framing can be obtained from *Guidelines for Conservation Framing of Works of Art on Paper*, the Institute of Paper Conservation, 1991.

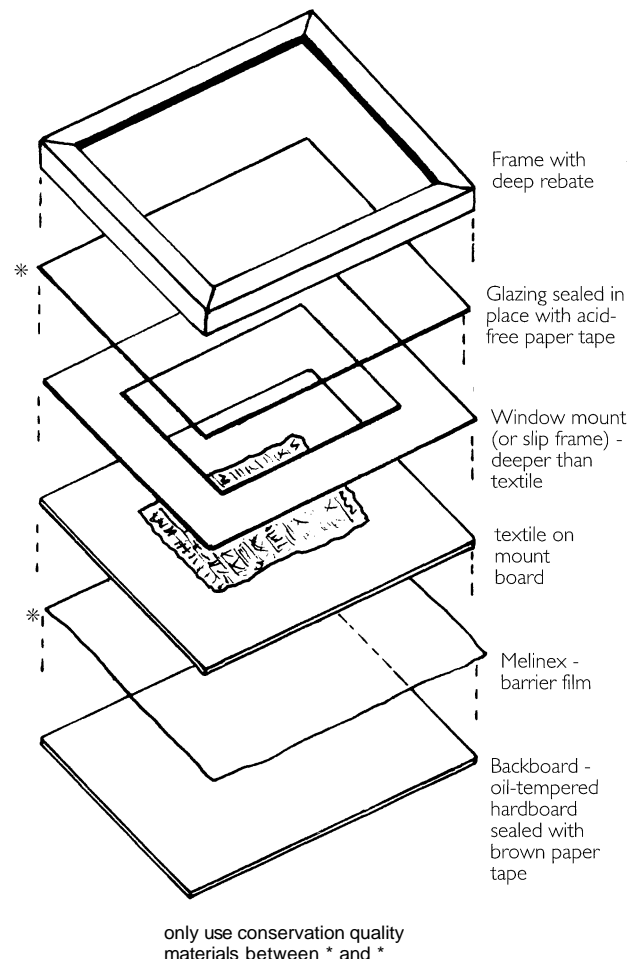


FIGURE 40: The components of a frame for small textiles

#### Hanging framed textiles

Mirror plates should be used, fixed over spacers to allow air circulation between wall and frame.



#### 4.4 Costume Garments on Mannequins

##### Selecting mannequins

The strong association between people and clothing makes display of costume on full body mannequins desirable, whether the aim is to depict general themes of social history or the more specific areas of the history of dress and fashion design. When selecting mannequins it is necessary to meet both aesthetic and conservation requirements.

##### Options

There are a number of different types of mannequins available. The range includes realistic, articulated action-pose figures, mannequins shaped and styled especially for historic dress, and dressmakers' torsos in a range of shapes and sizes. Some dress collections include period mannequins as part of the collection.

##### Aesthetic considerations

The initial choice of mannequin is governed by the nature of the display. Those with realistic features and poses are needed for depicting people in real-life situations but look badly out of place when used in displays of historic dress. Similarly, mannequins with toned down features designed for historic dress are inappropriate for room settings.

##### Cost

Appearance is important because mannequins are expensive, especially when wigs, make-up, replica accessories and stands are also needed. Mannequins that are neutral in appearance, adaptable and robust enough for re-use, are best value for money. Dressmakers' torsos on stands are also a good low-budget option for historic dress and fashion displays. They are particularly suitable when no accessories are shown with an outfit.

##### Care considerations

Mannequins play a significant role in supporting costumes during display. They must fit the garment well, which means that it must be possible to adjust the body shape, size and stance of the mannequin. It must also have a stand that can bear the weight of heavy costumes without becoming unstable, postures that do not strain garments, and joints that fit securely but are also secure. The materials from which mannequins are made should be tested or known to be safe for museum use, especially where they are in direct contact with the costume.

##### The mannequin as a support stand

For most historic dress, the mannequin is only part of the support and must be padded and dressed to make it match the shape of the garments. Padding has the added advantage of providing a surface which holds the garment in place. The degree of support needed depends on the type of garment, its condition and the duration of exhibition. It should be noted that padding a mannequin never achieves complete support, since appearance dictates that some semblance of draping is desirable to make garments look natural, rather than stuffed.

Mannequins made especially for the display of historic dress have torsos that are significantly smaller than actual size to allow for the necessary padding. Some are also adjustable.

##### Padding a mannequin

To achieve support, the mannequin must be padded to shape. The illustrations below show padding a small dressmaker's torso to fit the dress of a large lady of the period 1875-1880. The process will adapt for other styles of mannequins.



FIGURE 41: The mannequin as a support stand

The upper body is built up with layers of polyester wadding. Initially, the wadding can be crudely wrapped and tied in place with woven cotton tape. As the form progresses, symmetrically placed oval patches are stitched in place, sometimes stuffed with shredded wadding to give bulk. On this model a replica corset front has been used, but this is not essential.

It is essential to establish the shape first, and to let size follow. Research into the body form of the period will complement information taken from the garment. This will help establish the key lines that dictate the form, such as shoulder slope, back width, waistline and bustline. Trial fitting of the garment should be kept to a minimum, by taking measurements at the initial fitting and referring to them as work progresses. In the final stages, the garment itself will indicate what fine-tuning is needed.

The lower body relies on the use of a multipurpose petticoat that can be made to fit a range of skirt shapes, by adjusting the density of gathering. It is made from a four-metre long strip of medium-weight, boil-washed, unbleached cotton that is pleated (to half its length) onto a yoke of lightweight soft cotton that is then held round the

waist with a drawstring. Dressmakers steel boning (from haberdashers) is inserted into three channels, made by stitching 25mm wide cotton tape at roughly hip, knee and mid-calf levels. The boning needs to be at least 30cms longer than the finished circumference of the skirt, so that it can be lapped to hold the join of the petticoat. Adjusting the position of the gathers adjusts the shape of the petticoat in the vertical dimension. Adjusting the lapping of the boning alters its shape and size in the horizontal dimension.

Arms are simply made from wadding covered with cotton fabric or surgical gauze. It is usually necessary to pad the join between arm and shoulder after the bodice is put on.

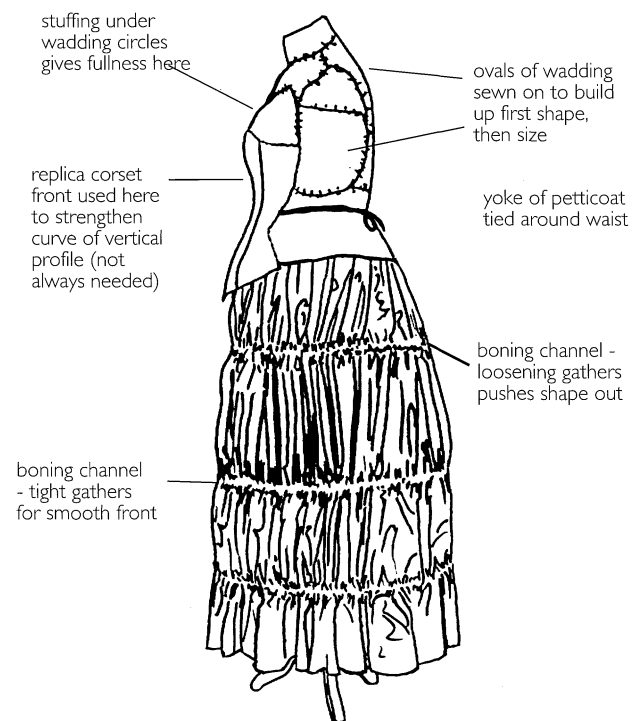


FIGURE 42: Adapting a mannequin to provide support

### 4.5 Costume Garments without Mannequins

#### Options

The levels of cost, space, and time required to mount costumes on mannequins are high. Alternative methods of display that provide opportunities for close examination of technical and decorative detail or for varied interpretation are described below.

#### Laying flat

Not using mannequins enables costumes that are too weak, or too damaged to stand vertically to be displayed. Frail items can be laid on fabric covered boards with their folds gently padded and shown laid flat or on slopes often degrees or less.

#### Stylised forms

There are a number of options. Selection depends on the amount of support required as well as appearance. Fabric covered surfaces provide more support than slippery ones such as those made from methyl methacrylate (Perspex) sheet

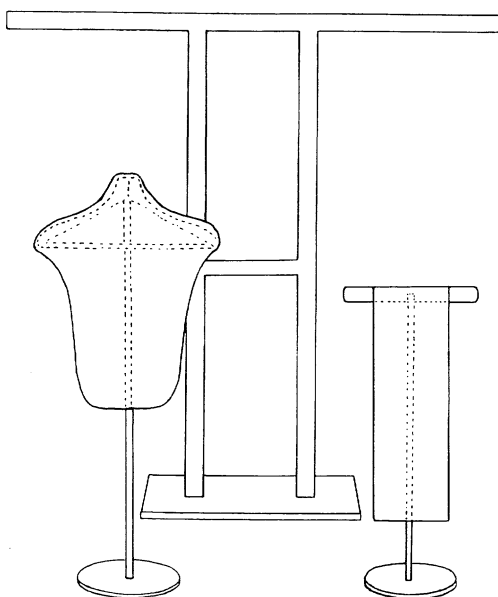
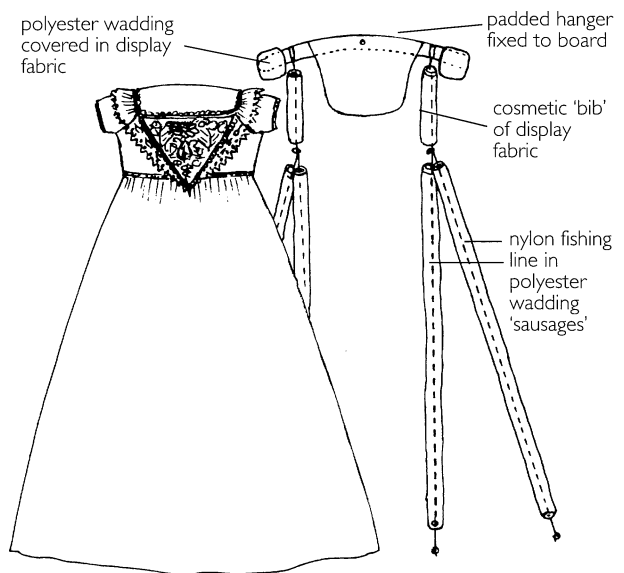


FIGURE 43: Stylised forms for supporting costumes

### Mounting on vertical display panels

Pinning and stitching through costumes is avoided by fitting a padded support through the garment and securing that to the backboard. Pins should never be used to mount costumes, as they are liable to corrode and cause staining.



To make sausages: wrap wadding around line and a dowel; stitch; remove dowel

FIGURE 44: Mounting costume on vertical boards

#### Purpose made costume figures

Very fragile items may be unsuitable for mannequins because they need total support on a form made to fit exactly the inside of the garment. Making such mounts is a specialist task and should be referred to a textile conservator

### 4.6 Costume Accessories

#### Care considerations

Accessories are made from a great variety of materials and environmental conditions may need to be adjusted to suit them. Conservation quality materials should be used (see section 2.2). As with other costume items, the support should be designed so that it will work successfully for the

42 duration of the display period. Some accessories (e.g. head-dresses, fans and jewellery) may need extra support because of their weight and may also need to be secured or restrained to hold them in place. Others (e.g. shoes) may not require any support but need padding to prevent them losing shape.

#### Using accessories on mannequins

Accessories used on mannequins must be secured or supported discreetly in order to achieve a natural appearance. Mounts made from clear Perspex (methyl methacrylate sheeting) can be used (e.g. to hold a fan open in the hand, or to provide a support for a hat). If nylon fishing line is used to hold accessories in place, the potential cutting effect of the line will be reduced by using Melinex/Mylar strips placed between it and the object.

Polyethylene foam (Plastazote) in thin sheet form can be wrapped and tied around objects such as umbrella handles or closed fans to provide bulk and grip so that it appears to be held in the hand. Parasols and umbrellas should not be displayed fully open. A band of Plastazote tied around the stem immediately beneath the ribs will support it in a near-open position.

#### Avoiding unnecessary damage

Accessories should only be used when they are necessary for the theme of the display. If an object either does not show (e.g. a corset or crinoline under a dress) or only a glimpse is visible (e.g. a shirt under a suit jacket) a replica or non-accessioned item should be used.

Replica and non-accessioned accessories play an important role in protecting costume collections in displays where full dressing is necessary more for effect than for information. Mannequins that are supported by a spike through one foot will obviously not be fitted with a shoe from the collection.

#### Display without mannequins

If invisible supports are not necessary, then supports made in-house using basic conservation materials should be used. For example, simple tailor-made stands for hats can be made from card and wadding, or shaped Plastazote with a fabric cover

# Chapter 5 - Specialist Help

This publication is not a comprehensive guide to every aspect of caring for costume and textile collections. Further help will be needed, whether it is to identify costume and textile material or to expand on techniques in the guide.

## Textile conservators

Throughout the guide the reader has been advised when help or advice from a textile conservator is necessary to carry out specific tasks or to help with decision-making. Textile conservators also undertake remedial treatment of damaged objects so that they can be made accessible to visitors. They can also help with planning and decision-making on aspects of collection care by advising and undertaking condition surveys of collections. Many will also provide coaching or short training courses. Many of the techniques in this guide are described only in outline and each one could be the subject of a coaching session, demonstration or workshop to adapt techniques to meet specific requirements.

Textile conservators can be found through the national register of independent conservation practices, which is jointly maintained by UKIC and Historic Scotland's Scottish Conservation Bureau. Practices admitted on to the register must meet certain specified standards. Details are available by telephoning 020 7721 8246. Individual conservators may also be accredited under a recently launched scheme operated by the United Kingdom Institute for Conservation. Accreditation is an assurance of individual competence across a range of specified conservation standards. Textile conservators may specialise in particular areas, e.g. costume so it is always worth checking their past work and clients.

## Costume and textile specialists

Where no specialist staff are available in-house, help may be required to identify and establish the significance of costume and textile items in a

collection. It is recommended that you cultivate contacts with museums that do employ textile specialists, either through local museum networks, or nationally. Making contact with other museums will also provide inspiration and information on ways of using costume and textiles. The Group for Costume and Textile Staff in Museums is a special interest group for those with a special interest in costume and textiles working in museums, including those from small collections. For details, contact Elizabeth McCrum, Membership Secretary, on 028 9038 3072.

## Analysis of materials

A few large museums that have analytical research departments may be able to undertake testing of materials for conservation quality. The British Museum offers a testing service. Details are available by telephoning 020 7323 8772.

## Area Museum Councils (AMCs)

The AMCs are a first port of call when seeking specialist help. They provide advice and information on a range of museum issues, including collection care, and support caring for collections through grant-aid programmes. Some organise short training courses and all support training in general collection care skills.

# Appendix A - Glossary of Terms

44

## Acid-free

A term commonly used in museums to describe the properties of paper and paper products for storage or mounting purposes. As a general rule, the term acid-free needs to be further defined through a product specification.

Taken literally, acid-free means that a material is free of acid. Acidity and alkalinity are measured on the pH scale, where 1 is the extreme of acidity 14 the extreme of alkalinity, and 7 is neutral. Since acids are damaging to many museum artefacts, 'acid-free' suggests that a material is safe. This may not, however; be the case, since it might be alkaline that can also be damaging to some textile materials. The term is also used to describe a product that has been rendered pH neutral during manufacture by the addition of some buffering compound such as chalk. However; the acidity remains and overtime the buffering material loses its potency and the material becomes acidic.

Paper products are available that are naturally acid-free and these are recommended for use in direct contact with textiles or costume.

## Barrier film

This term is used to mean a layer of material that functions as a barrier to prevent transfer of harmful substances from an unsuitable material to a museum object. The barrier film may be needed to prevent passage of gases and/or direct contact. Some materials are specifically designed for this purpose (e.g. vapour barrier films) and others may have the right properties (e.g. aluminium foil).

## Boil-washing

A method of scouring the manufacturer's surface finishes from fabric before it is first used for museum purposes. Boil-washing should be done without chemical cleaning agents in a washing machine on the programme that washes at 95 degrees Centigrade. It is the simplest method of scouring fabrics for collection care use and can also

be used to clean soiled dust sheets, gloves and other protective clothing etc.

## Buffered

The term is used to describe a material (usually paper or a paper product) that has been treated with a chemical to reduce its acidity. The chemical is the buffer. The usual process of neutralising acidity is by adding an alkali or sacrificial material such as chalk.

## Charcoal cloth

A cloth that contains a pure form cloth of carbon that absorbs pollutant gases such as hydrogen sulphide or sulphur dioxide. It is used to line showcases and storage units to remove harmful gases. Once all the absorbing sites on the carbon are used up, it stops working and must be replaced.

## Conservation quality

A generic term used to describe materials that are safe for use with museum collections. It indicates that materials are chemically stable, free from impurities, durable and generally suitable for long-term storage of museum objects. In this publication, it is used to describe materials that are chemically inert, sold according to product specification by conservation suppliers or have been tested and approved for conservation use.

## Deep-cleaning

A term used in the context of museum housekeeping, and synonymous with spring-cleaning. The frequency may be dictated by exhibition programme and level of use, rather than the time of year

## Dust covers & sheets

A tightly woven fabric or other material used to protect something from dust. Dust covers are usually shaped to fit, whereas dust-sheets are normally simply hemmed on the raw edges and draped. An important property of a dust-sheet or cover is that it is easy to clean.

### Finishes (on fabrics)

A physical or chemical process applied during the manufacture of a fabric to alter its appearance, feel or performance before sale.

### Hook-and-loop fastener

Fastener consisting of two woven tapes, one covered in stiff hooks and the other with a looped surface. When pushed together the hooks engage with the loops to produce a good contact bond that must be peeled to be released. They are sometimes referred to as 'Velcro', though this refers to a particular brand.

### Interleaf

This term is used for a sheet of light material, the purpose of which is to prevent contact between the materials on either side of it. The process of inserting these sheets is described as interleaving.

### Interventive

A term used to describe treatment that involves altering the state of an object, resulting in an improvement of its condition. Interventive treatment should only be undertaken by trained conservators. It is governed by ethical codes of practice, and requires training.

### Museum board

A term that describes a particular type of conservation quality cardboard made from 100% cotton fibres. It is the best board available for permanent framing of objects.

### Integrated pest management (IPM)

A term adopted to describe the method of controlling pests so that the use of pesticides is a last resort. IPM involves establishing practices that prevent pests threatening collections and minimise pest activity, thus reducing the occurrence of infestations.

### Quarantine

Isolation from the main collection of objects or packing materials that are, or suspected of being, infested with an insect pest. This prevents a local incident becoming widespread.

### Pile (on a fabric)

A surface effect on a fabric formed by loops or tufts standing up from the fabric surface, as on velvet fabrics, carpets and rugs.

### Protective wrapper

Term used to describe the covering on a costume or textile when it is not in a container. Wrappers may be used temporarily, e.g. to move a costume through the museum, or permanently, e.g. to cover a large rolled textile for storage.

### Roller tubes

Rigid cylinders used for rolling textiles. Poles or rods inserted into the cylinder cavity allow the cylinder to be slung, thus preventing crushing of the underside of the rolled textile.

### Scouring

The process of removing manufacturer's surface finishes from fabric before it is used for museum purposes. This is most important for fabrics that come into direct contact with museum textiles (see boil-washing).

### Secondary labels

Labels used in addition to fixed object identification labels, to help retrieval of objects in store. Secondary labels are not normally fixed to the object. They need to be large, easy to find and easy to read.

### Silicone paper

Paper treated with a non-stick finish for use in contact with surfaces that are slightly sticky, e.g. the painted areas of some banners. The silicone paper prevents adhesion between the tacky areas and other parts of a textile.

## Ties

Woven tapes or strips of woven fabric used to secure wrappings, dust covers etc. Because they are not normally in direct contact with textiles, ties do not always need to be of conservation quality. The width of the tie depends on its purpose. For rolled textiles, wide ties are best, since they do not cut into the textile. Ties can be fixed with a hook-and-loop fastener in circumstances where a knot or bow could press into the textile.

## Tube cover

Textiles absorb moisture readily so should not be placed in prolonged contact with impermeable materials. Therefore when barrier films are used on roller tubes, they should be covered with an absorbent material such as unbleached cotton fabric or unbuffered tissue paper

## Unbleached

Bleaching is a purification process in cellulose (plant fibres) fabric, paper and card manufacture. It destroys the impurities and any natural colouring matter from the fibres. Bleached products are bright white. Unbleached products retain the natural colour; usually cream, of the fibres. Residues from bleaching agents in bleached and dyed fabrics are potentially hazardous to museum textiles. For this reason, unbleached - and scoured - cotton is the preferred fabric for use in contact with museum textile objects.

## Unbuffered

The opposite of buffered, thus indicating that a material has not been treated with a chemical to alter its acidity. It is a term used by suppliers of conservation quality materials. Unbuffered acid-free tissue paper is made from pure materials and therefore will remain acid-free overtime.

## Vapour barrier film

A specific term used to describe a number of products designed to prevent passage of gases, including water vapour Originally manufactured to

protect weapons from being affected by humidity change, they have been adopted for museum use to protect objects from harmful vapours.

## Warp and weft

The longitudinal and widthways structure of a woven textile. When a textile is woven, the warp threads are those that are put onto the loom. The weft threads are laced through the warps to create the woven fabric.



# Appendix B - Bibliography

The references cited in the text refer to the key publications which support this guide. This Appendix provides additional information on different aspects of caring for costume and textiles.

Anstey, H and Weston, T (1997) *The Anstey Weston Guide to Textile Terms*, Weston Publishing Limited.

Anthony, P and J Arnold (1977) *Costume*, London: Costume Society.

Arnold, J (1973) *Handbook of Costume*, London: Macmillan.

Burnham, D K (1995) (2nd edn.) *Warp and Weft: A Textile Terminology*, London: Routledge.

Calasibetta, C M (1988) *Fairchild's Dictionary of Fashion*, New York: Fairchild Publications.

Canadian Conservation Institute (CCI) (1993) 'Flat Storage for Textiles', 13/2, in *Conservation Notes*, Ottawa: CCI.

Canadian Conservation Institute (1993) 'Rolled Storage for Textiles', 13/3, in *Conservation Notes*, Ottawa: CCI.

Canadian Conservation Institute (1994) Storage for Costume Accessories, 13/12, in *Conservation Notes*, Ottawa: CCI.

Canadian Conservation Institute (1992) Precautions for Storage Areas, 1/1, in *Conservation Notes*, Ottawa: CCI.

Canadian Conservation Institute (1986) Examining for Insect Infestation, 3/1, in *Conservation Notes*, Ottawa: CCI.

Carman, WY (1977) *A Dictionary of Military Uniform*, London: Batsfords.

Cassar, M (1995) *Environmental Management: Guidelines for Museums and Galleries*, London: Museums & Galleries Commission and Routledge.

Centre International D'etudes des Textiles Ancient (CIETA) (1964) (2nd edition), *Vocabulary of Technical Terms: Fabrics, English, French, Italian, Spanish*, Lyon: CIETA.

Craddock, A B (1994) Construction Materials for Storage and Exhibitions, in *Care of Collections*, 129-134, Leicester Readers in Museum Studies, London: Routledge.

Cunnington, CW, Beard P and Beard C (1976) *A Dictionary of English Costume*, London: A & C Black.

Eastop, D & M Brooks (1996) To clean or not to clean: The value of soils and creases, *Post-prints of the Meeting of the ICOM Conservation Committee*, Edinburgh.

Ellis, H M (1994) 'Glass or Plastic? Glazing Options for Framing Prints and Drawings', in *Museums Management and Curatorship*, 280-294, London: Butten/vorth-Heinemann.

Emery, I (1966) *The Primary Structure of Fabrics*, Washington DC: Textile Museum.

*Fabric of an Exhibition: An Interdisciplinary Approach*, Pre-prints of the first biennial North American Textile Conservation Conference (1997) Ottawa: Canadian Conservation Institute.

Finch, K and G Putnam (1985) *The Care and Preservation of Textiles*, London: Batsford.

Frost, M (1991) 'Planning for Preventive Conservation', in *Manual of Museum Planning*, Editors B Lord and G Dexter Lord, 127-160. London: HMSO

- 48 Glover, Jean M (1992) (2nd edition) 'Conservation and storage: textiles', in *Manual of Curatorship*, Ed. JMA Thompson, London: Butterworth-Heinemann/Museums Association.
- Institute of Paper Conservation (1991) *Guidelines for Conservation Framing of Works of Art on Paper*, Worcester: The Institute of Paper Conservation.
- International Council of Museums (ICOM) Costume Committee (A Buck, 1976) 'Cataloguing Costume', *Museums Journal*, (December): 109-110.
- International Council of Museums (ICOM) International Costume Committee (1994) *Guidelines for Costume*, Paris: ICOM.
- International Council of Museums (ICOM) Costume Committee (1982) 'Vocabulary of Basic Terms for Cataloguing Costume', *Waffen-und Kostumkunde*, Munchen, Berlin, 24:1 10-152.
- Kite, M (1994) 'Support Stand for the Storage and Display of Hats' in *Preventive Conservation Practice, Theory and Research*, London: International Institute for Conservation.
- Lister, A (1996) *Guidelines for the Conservation of Textiles*, London: English Heritage.
- mda (Museum Documentation Association) (1995, revised edition) *Labelling & Marking Museum Objects*, Cambridge: MDA.
- Museums & Galleries Commission (MGC) (1997) *Developing and Training Staff in Museums and Galleries*, London: MGC.
- Museums & Galleries Commission (1995) *Standards for Touring Exhibitions*, London: MGC.
- Museums Association (MA) (1995) *Codes of Ethics*, London: MA.
- Museums Association *Museum Practice* (three issues a year), London: MA.
- National Association of Decorative and Fine Arts Societies (NADFAS) (1991) *NADFAS Volunteers Handbook*, London: NADFAS.
- Odegard, N (1992) *A Guide to Handling Anthropological Museum Collections*, Tucson, USA: The Western Association for Art Conservation.

Roy, A and Smith, P Eds. (1994) *Preventive Conservation: Practice Theory and Research*, London: International Institute for Conservation.

Sandwith, H and Stainton, S (1984) *The National Trust Manual of Housekeeping*, Hardmondsworth: Penguin in association with the National Trust.

Sierksam, K (1980) 'Flag Glossary and Description Rules', in *Symposium Conservation of Flags*, Rijksmuseum Amsterdam 1977.

StrangT (1992) 'Museum Pest Management', in *Systematic Approach to Conservation (Care) of Museum Collections*, SA Michalski, Ottawa: Canadian Conservation Institute.

Staniforth, S (1992) 'Control and Measurement of the Environment', in *Manual of Curatorship*, Eds. JMA Thompson et al, Oxford: Butterworth-Heinemann/Museums Association.

TetreaultJ (1994) Display Materials: The Good, the Bad and the Ugly, in *Exhibitions and Conservation*, Scottish Society for Conservation and Restoration, 79-89.

Walton P and Eastwood, G (1988) *A Brief Guide to the Cataloguing of Archaeological Textiles*, London: Institute of Archaeological Publications.

White, S 'The Role of Costume Mounting in Preventive Conservation', in *Preventive Conservation, Practice, Theory and Research*, London: International Institute for Conservation.

# Appendix C - Suppliers

50

The companies listed below supply museums and conservation practices in the UK with collection care materials. The inclusion of a supplier in this guide does not imply approval or endorsement by the MGC, the Scottish Museums Council or the authors of the product or service. Users should ensure the clearest possible specification of their requirements before deciding whether a particular product or service meets their needs.

Atlantis European Limited  
146 Brick Lane  
London E1 6RU  
Tel: 0207 377 8855  
Fax: 0207 377 8850

Preservation Equipment Ltd  
Shelfanger, Diss  
Norfolk IP22 2DG  
Tel: 01379 65 1 527  
Fax: 01 379 650 582

Conservation By Design Limited  
5 Singer Way  
Woburn Road Industrial Estate  
Kempston EC1V  
Bedford MK42 7AW  
Tel: 01234 853 555  
Fax: 01234 852 334

Proportion London  
9 Dallington Street  
London  
OLN  
Tel: 0207 25 1 6943  
Fax: 0207 250 1798

Conservation Resources UK Limited  
Units 1,2 & 4 Pony Road  
Horspath Industrial Estate  
Cowley  
Oxfordshire OX4 2RD  
Tel: 01865 747 755  
Fax: 01844 218 277

Secol Limited  
15 HowlettWay  
Fison Way Industrial Estate  
Thetford  
Norfolk IP24 1HZ  
Tel: 01842 752 341  
Fax: 01842 762 159

MacCulloch & Wallis (London) Ltd  
PO Box 3AX  
25-26 Dering Street,  
London W1A 3AX West  
Tel: 0800 834 384  
Fax: 0800 834 957

Whaleys (Bradford) Ltd  
Harris Court  
Great Horton  
Bradford  
Yorkshire  
BD7 4EQ  
Tel: 01274 576 718  
Fax: 01274 521 309