



Washing Non-coloured Textiles

Introduction

Non-coloured textiles, often cottons and linens, may be dusty, yellowed, or in a soiled condition through ageing, accident, or improper handling and storage. Washing (or wet cleaning in conservation) removes some soiling and soluble, acidic degradation products from aged cellulose. However, any type of cleaning is an irreversible process. Many factors should be taken into consideration before cleaning a museum textile.

The Decision to Wash

The nature and condition of a textile will dictate whether or not it can or should be washed. Textiles that are fragile, fragmenting, or powdering should not be washed. Washing is also not recommended for historic textiles in the following categories: knits; bias-cut garments; garments with linings or facings that may shrink; artifacts with trims, beads, sequins, or feathers; textiles made of wool or silk or early man-made fibres; and quilts with stuffing. Composite artifacts, e.g. an artifact composed of mixed materials such as textile, leather, and metal combined, or one with inserts of another material, such as wool embroidery on a linen ground, should also not be washed.

In addition to constraints posed by the materials, ethical considerations must also be taken into account. Fold patterns in ethnographic and liturgical textiles, for example, may be significant and should be retained. Some soils or stains may be historically important. Original finishes, e.g. the glaze on chintz, could be lost if the textile is washed. Some textiles that were not washed during use also should not be washed. Puckering around seams, fuzzy yarns, untwisting fringe, and flattened textures are some indications that a textile has been washed previously. If in doubt about any of the above considerations, seek curatorial advice, or if unsure about the advisability of washing a textile, especially if it is valuable or of historical importance, contact the Canadian Conservation Institute.

This Note describes a method for gently handwashing non-coloured textiles such as table linens, cotton baby bonnets, and christening gowns that are in sound condition. These items, which were routinely washed during use, can be successfully cleaned if the instructions below are carefully followed. Machine washers, dryers, and irons should never be used with museum textiles, although they can be used for modern fabrics intended for artifact repairs, storage, or display (see CCI Notes 13/10 *Stitches Used in Textile Conservation* for washing instructions).

Documentation

It is important to document an interventive treatment such as washing. Before undertaking the procedure, photograph the textile artifact front and back, and take detailed pictures of areas such as losses, stains, or previous repairs. Pencil and paper drawings, or Mylar tracings, of small, flat textiles or sections of larger items are also helpful. Make a detailed record describing the washing procedure, including the date it was performed. When the washing procedure is completed, take after-treatment photographs corresponding to the before-treatment photographs to record any changes in the artifact. Keep all of this information with the artifact records.

Equipment

- Mylar
- needle, scissors, and colourfast thread
- vacuum cleaner
- nylon screens
- soft, white nylon net or sheer polyester fabric
- sink or two basins large enough to lay the textile flat
- distilled water
- thermometer
- anionic detergent (see CCI Notes 13/9 *Anionic Detergent*)
- natural sponges
- two small, lidded glass containers

- white terry towels
- two pieces corrugated plastic board (PE/PP) slightly larger than the size of the textile — optional
- clean, flat surface on which to block out the textile (i.e. table, glass tabletop, or sheet of Plexiglas)
- spray bottle
- glass or Plexiglas plates and small weights
- TenTest or Styrofoam board covered with plastic sheeting or Mylar, for pinning out textile
- stainless steel pins
- polyester batting — optional
- dryers or fans

Temporary Removal of Attachments

When certain that washing can be safely carried out, examine the textile and remove attachments that will not withstand immersion in water or that contain dyes that could transfer to the piece (for the latter, refer to CCI Notes 13/14 *Testing for Colourfastness*). These might be gilt-trimmed, painted, or made of bone, metal, or wood. Be sure to mark their locations with colourfast thread as a guide for their reattachment. A sample of the thread used for reattachment should be kept for future reference, along with any original threads that were removed.

Surface Cleaning

Before washing, remove surface dust by vacuuming through a nylon screen placed over the textile (Figure 1). Less accessible areas, such as pockets and seams, can be cleaned using a brush or a vacuum attachment with the nozzle covered by a piece of screen.

Supporting Weak Areas

Textiles with localized weak or frayed areas require extra support. Place soft nylon netting or sheer

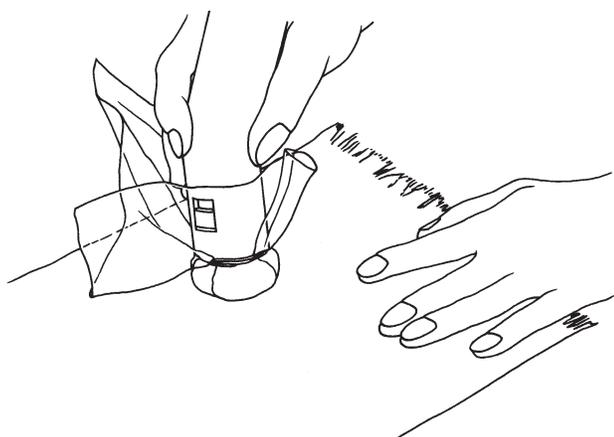


Figure 1. Surface cleaning a textile before washing.

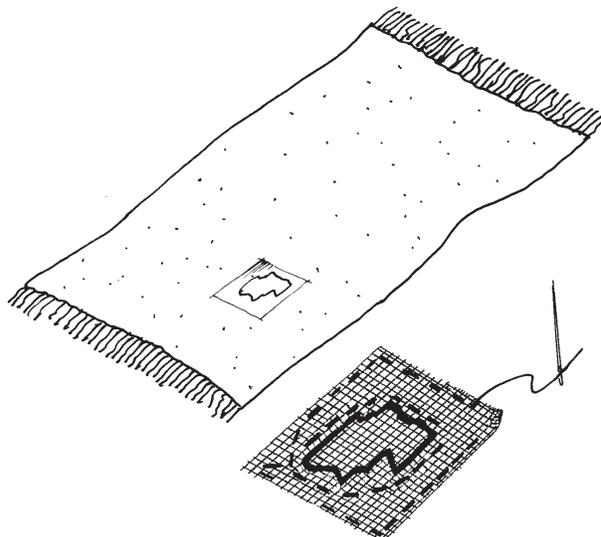


Figure 2. Sheer fabric protects weakened or damaged areas during washing.

polyester fabric over losses or weak or frayed areas before washing. Using a hand-basting stitch, secure the support fabric beyond the losses to strong areas of the textile (Figure 2). Further information can be found in CCI Notes 13/10 *Stitches Used in Textile Conservation*.

Supporting the Textile During Washing

Textiles are weaker when wet. Every textile, whether it is a simple handkerchief or an elaborate christening gown, requires uniform support during washing. For this purpose, sandwich the textile between two nylon screens. Stitch the screens together along the outside edges of the textile with contrasting washfast thread, using a long basting stitch.

Procedure

Use a basin that will accommodate the textile laid flat. Do not proceed with washing if a large enough basin is not available.

Soak

Fill two basins with distilled water at room temperature or slightly warmer (i.e. 25–35°C). Lower the textile, sandwiched between nylon screens, into one basin. Do not fold the artifact. Allow the textile to soak, fully submerged, for 10 minutes. Lift the textile, still supported by the nylon screens, from the water. If the water has become very discoloured, soak the textile again in the other basin. This will prevent soils in suspension from being redeposited onto the fibres.

Detergent bath

Prepare the detergent bath by adding 5 mL anionic detergent per litre of clean water (1 teaspoon per quart), ensuring the detergent is evenly distributed (see CCI Notes 13/9 *Anionic Detergent*).

Immerse the textile in the detergent bath. Press it gently with a natural sponge to loosen dirt for a few minutes. It is important that the textile not remain wet for longer than necessary. Never rub or squeeze the textile. If the water becomes very discoloured, rinse the textile once and place it into a second fresh detergent bath.

Rinse

Finally, rinse the textile, typically 4–6 times, or until all of the detergent is rinsed out. To determine if detergent remains in the rinse water, fill a small, lidded glass container with rinse water and another to the same level with plain distilled water. Shake both containers. The final rinse water should closely resemble the distilled water in terms of clarity and bubble formation. If not, more rinsing is required.

If stains and spots remain on a washed textile, they are best left alone. Old textiles can be damaged by treatments more aggressive than gentle washing.

Blot

Place the textile, still supported by the screens, between white terry towels and gently blot away excess water. Carefully clip the basting stitches holding the screens together and separate them.

Block out

Remove the upper screen. For small textiles, with one hand over the textile acting as a support, and the other under the lower screen, turn the textile over onto a clean surface such as a glass tabletop, a sheet of Plexiglas, or TenTest or Styrofoam board covered with plastic sheeting (e.g. Mylar). Gently slide your hand out from under the textile. For larger textiles, use a solid support such as two pieces of corrugated plastic board to support either side of the piece while turning it over. Remove the second screen. Lay the textile flat. Use water to “float” the fabric, i.e. gently mist the textile with a spray bottle to enable it to glide on the table surface. “Block out” the textile using your fingers to gently manipulate it to its original dimensions and shape. A Mylar tracing of the unwashed textile placed beneath the layer of plastic can aid the blocking out procedure. Mist additional water onto the textile as necessary. Once the textile is properly blocked out, remove excess water by blotting with clean white toweling or a natural sponge. Immobilize the outside edges until dry using small glass or Plexiglas plates underneath small weights.

Variations

Textiles with raised areas — for example, embroidered objects and lace — should be pinned right-side-up to a pinning surface such as TenTest or Styrofoam board covered with plastic sheeting or Mylar. Pin around the outer edges, around design motifs, or in unobtrusive areas using as many stainless steel pins as needed to place the textile in contact with the pinning surface. Insert the pins perpendicular to the pinning surface, taking care not to pierce the threads. The finer the textile’s threads, the finer the pins should be.

Lay clothing flat. For example, a christening gown should be laid flat with the front lace and gathering supported. Use towels or bunched nylon netting, sheer polyester, or light pads made of Mylar-wrapped polyester batting to provide interior support and to help retain the shape of the garment. Gently smooth the lace with the fingers so that it will dry as straight as possible.

Dry

It is important for the textile to dry quickly. Fans or blow dryers on a cool setting can be used to accelerate the process. Direct the flow of air so it forms a current above the textile. **Never store a textile until it is completely dry.**

Suppliers

Note: The following information is provided only to assist the reader. Inclusion of a company in this list does not in any way imply endorsement by the Canadian Conservation Institute.

Plexiglas:

plastics suppliers

TenTest or Styrofoam:

building supply stores

Nylon netting or sheer polyester:

fabric stores

Nylon screening:

hardware stores

Anionic detergent:

conservation supply houses such as:

Woolfitt’s

www.woolfitts.com

Carr McLean

www.carrmclean.ca

Bibliofiche
www.bibliofiche.com

University Products of Canada
www.archivalproducts.ca

Mylar:

conservation supply houses (see above)

Corrugated plastic (PE/PP) board:

conservation supply houses (see above)

Bibliography

Finch, K., and G. Putnam. *Caring for Textiles*. New York, NY: Watson-Guption Publications, 1977.

Mailand, H.F., and D.S. Alig. *Preserving Textiles: A Guide for the Nonspecialist*. Indianapolis, IN: Indianapolis Museum of Art, 1999.

by the staff of the CCI Textile Lab

Originally published 1983
Revised 1993, 2009

Copies are also available in French.
Texte également publié en version française.

©Minister of Public Works and Government
Services Canada, 2009
Cat. No. NM95-57/13-7-2009E
ISSN 0714-6221

Printed in Canada