



The Costume & Textile Specialists

Exhibitions, Conservation, Collections Management, & Appraisals

Colleen Callahan and Newbold Richardson

3801 Brook Road #B, Richmond, VA 23227 804.261.4998 (voice)

jette_2@msn.com www.costumeandtextile.net

Vacuuming and Hydration for Textile Conservation

Vacuuming

A thorough vacuuming is the single most effective defensive textile conservation technique you can administer!

Airborne particles (dust) and pollutants are among the most destructive elements that come into contact with woven artifacts. Tiny dust particles act like knives and can eventually slice through the fibers. Pollutants are deposited in the weave via these particulates.

Equipment: The ideal vacuum has these features:

- Good dust retention
- Contained filtration system so no dust blows back into the atmosphere to be re-deposited on the costume or textile. (HEPA filter)
- Variable suction: powerful enough for deep piled fabrics like carpets or upholstery, but gentle enough to accommodate beaded and embroidered fabrics.
- Is light weight and easy to use
- Micro tool attachments

Sources for Cost Effective Vacuums: Due to the awareness of dust and pollen allergies in the home, and advances in domestic vacuums, there are now many choices of appropriate makes and models available at your local vacuum specialist, or on line. The person who will be using it the most should have a say in the choice of model, as the ergonomics of manipulating the unit around the object will play a big part in the effective use of the tool.

Two well reviewed units are:

- Miele S4 Galaxy series(14lbs, a completely sealed system with triple ply filtration bags meet HEPA standards: \$400-\$600)
- Sanitaire SystemPro SP6950A (13lbs, HEPA filter, bargain price: \$250)
- See “www.collectioncare.org” for other appropriate models for museum use.

Vacuuming Technique: (The numbers refer to the image on the reverse)

- Lay an old sheet or plastic painters tarp under the textile as you vacuum to catch dirt particles that are released as you manipulate the textile. Shake out the cloth periodically as you work.
- Position the textile flat on a flat surface that can support the entire piece. Never vacuum a garment while on a form—the object must be flat on a table or the floor.
- Lay a piece of fiberglass window screening whose edges have been bound with a piece of fabric tape (to keep the cut edges from abrading the fabric) over the textile.
- Use the upholstery tool, not the carpet wand, on the textile.
- Use low suction.
- Lift the screen and reposition on the next section of textile as you vacuum. *Never drag the screening across the surface of the textile.*
- The nozzle should never touch the surface of the textile. You do not want the any suction to pull any loose bits from the textile, such as beads, bits of embroidery floss, or sequins, etc. For extra protection you can also cover the nozzle with a nylon stocking.
- Be sure to keep the power cord from dragging across the textile as you vacuum.

- Remember that dust particles settle in every part of the weave structure, so you need to vacuum both the outside and the inside of the artifact. Be sure to manipulate the nozzle so that you vacuum the textile with the straight of the grain, on the cross grain, and on the bias (diagonal) of the weave.
- A soft artist's paintbrush with a rounded shape is also very useful in reaching into folds, under seams, and in the recesses of raised work or embroidery to get out "dust bunnies". Gently bush the debris towards the suction.
- This works best a two-person job: one person to vacuum, while the other manipulates the textile.

Hydrating Textiles

Many museum textiles suffer from de-hydration or desiccation. Basically, the fibers have dried out in hot, dry storage areas and/or from exposure to sunlight. Re-hydrating a textile is not only simple; it is amazingly effective in restoring some flexibility to the piece, allowing the fibers to support sewing stabilization or enabling a piece to be displayed on a form.

Creating a Low-Tech Hydration Chamber: While we use a more sophisticated hydration set-up, this low-tech version works quite well.

Equipment:

- Flat surface large enough to hold the piece and several bowls of water
- Shallow bowls for water
- Tap water
- Plastic painter's tarp or other piece of plastic that is large enough to cover the artifact completely.
- Upright supports to act as "tent poles" to keep the plastic from touching the artifact.

Lay the textile out on the table and place 3 or 4 shallow bowls of tap water around the piece. Position the upright supports strategically around the textile to keep the plastic cover from touching the artifact—tall candlesticks, soda bottles filled with sand, sturdy tall flower vases, etc. can be used as uprights. Drape the plastic over the whole setup—be sure to tuck the extra plastic under around the edges so that no air escapes—you creating a kind of terrarium. Leave the artifact in the tent for several hours to overnight. The water will slowly evaporate into the atmosphere and be absorbed by the textile fibers.

Note: Be sure to monitor the interior surface of the plastic for condensation and if any appears, remove the artifact from the chamber.