

Care and Conservation of Heirloom Textiles

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Textile heirlooms and keepsakes require special care to preserve them for future generations. Controlling the environment (light, temperature, humidity, insects, and storage) is the most important way to ensure the long term preservation of heirloom textiles.

Light

Low light levels are recommended for textile display areas and darkness for storage areas. Keep the shades drawn on windows in rooms where textiles are displayed and turn off any artificial lights when not in a room. Why? Because light damages fibers and causes fading. Sunlight and fluorescent light, which emit high levels of ultraviolet radiation, are especially damaging. Damage caused by light is cumulative and irreversible.

Humidity and Temperature

Moist air, warmth, and lack of air circulation encourage mold growth that can stain fibers and cause deterioration. Inspect textiles regularly for mildew. Mold can begin to grow at humidity levels of 60 percent and above. A relative humidity of approximately 50 percent and temperatures of 60°F to 70°F are recommended. Avoid extreme fluctuations of humidity and temperature levels, such as exist in attics and most basements.

Insects

Keeping storage areas clean with frequent vacuuming, and storing items that are clean helps deter insects. The major insects that attack textiles are furniture or carpet beetles and webbing clothes moths. They are especially attracted to wool, silk, hair and feathers.

Cedar chests and closets may deter moths but they do not kill moths at all stages of their development and have no effect on carpet beetles. Do not place any textile in direct contact with wood as it releases acids over time that yellow and weaken textiles. Paradichlorobenzene (PDB), the active ingredient in mothballs, is harmful to humans and can no longer be recommended.

Archival Materials for Storage and Display

Ordinary cardboard, paper, metal and wood emit volatile acids that deteriorate textiles; therefore, protect textiles from direct contact with wood, ordinary cardboard or metal. Layers of acid-free tissue, acid-free mat board, or washed unbleached cotton muslin can be used to line boxes or containers. Wash the muslin periodically (ideally yearly) to retain its neutral state. Change the acid-free tissue or matboard periodically, as well.

Archival (acid-free) boxes and acid-free tissue can be purchased from conservation supply businesses and changed occasionally (every 2-5 years). If not available, substitute fresh white tissue and change it yearly. A pH* indicator pen can be used to indicate the acidity level of the boxes and tissue and is available through archival supply businesses.

Avoid colored papers and tissue such as blue tissue as some are not colorfast and can stain textiles if moistened.

Protect textiles from direct contact with wood (especially unsealed wood such as cedar chests). Avoid storing cotton, linen and rayon in cedar chests as the acidic off-gassing from the wood is especially harmful to these fibers. Woods used near or in contact with textile items can be sealed with polyurethane varnish.

Plastics should not be used for storage as they may not allow air circulation and may give off by-products (off-gas) as they decompose. Moisture, trapped inside tightly sealed plastic covers, can result in mildew. Plastics also attract dust as a result of the static electricity generated.

Storage

Avoid attics, basements, kitchens, laundry rooms and unheated areas for textile storage. Store items away from outside walls and areas where people smoke.

Items such as plastic and metal parts, and other similar items, should be protected with muslin or acid-free tissue prior to storage as they may cause stains.

*pH is a measure of how acidic or alkaline a product is. The scale is 0 to 14 with neutral being 7. Acids are below 7 and alkalis above 7.

Store textile items flat if possible. If items must be folded, use acid-free tissue or muslin to cushion folds. Refold occasionally to distribute the wear.

Textile items can also be rolled onto acid-free cardboard tubes (at least 3 inches in diameter). Wrap regular cardboard tubes with several layers of acid-free tissue or muslin. Wrap the textile item loosely around the tube, being careful to avoid creases. Some textile items may need layers of acid-free tissue or washed unbleached cotton muslin inserted as the textile is rolled onto the tube.

Fragile items and garments should not be hung. If items are sturdy enough to be hung, pad the hanger with polyester fiberfill and cover with washed unbleached cotton muslin. To support the weight of heavy skirts, use a shell or twill tape to support the item. Loosely stitch the shell or tape at the waist and to the hanger. Store with closures fastened.

Cover stored textiles with acid-free tissue or washed unbleached cotton muslin (wash periodically). Fabric covers allow air circulation.

Displaying Textiles

Textiles that are strong enough to support their own weight, such as most quilts and woven coverlets, can be displayed by attaching a fabric sleeve to the top of the back side. Washed, unbleached muslin is ideal for fabric sleeves. Allow some ease to accommodate the wooden slat or rod used as the hanging device. Hook and loop tape can also be used to hang a textile. Attach the hook portion of the tape to a wooden slat fastened to the wall. Attach the loop portion to the fabric sleeve.

Remove textile wall hangings occasionally to allow them to rest. The stress of continuous hanging strains the yarns. No textile should be displayed permanently.

Cleaning and Care

If the textile item is not too fragile, vacuum it to remove loose dirt particles that can abrade and cut fibers. Vacuum at low suction (open vent slots). It may be helpful to place a sheer polyester or nylon tulle or a nylon stocking over the vacuum cleaner nozzle to prevent the vacuum from sucking the textile item into the nozzle and potentially damaging it. Alternatively, place a piece of fiberglass screening over the textile as an added precaution during vacuuming to protect it from suction and abrasion.

There is always some risk associated with a decision to wet clean or dry clean textiles, especially colored ones. Color loss, bleeding, shrinkage and distortion can result. However, the correct choice of cleaning procedure can protect the fabric by removing materials (foods, grease, etc.) that attract insect

pests, helping to rid fabrics of insects, improving the appearance, and neutralizing the piece.

Wet cleaning (use of water and detergent) removes the acid build-up from cotton and linen textiles and leaves them cleaner and more flexible. Wool and silk are more difficult to wet clean as they become weakened when wet.

To check for colorfastness, test each color and fabric with several drops of water. Let it soak in and then blot with a white blotter, tissue or cloth. Test several times in inconspicuous places. Repeat the procedure for use of a detergent solution. No hint of color should appear. If any part of the textile item is not colorfast, do not wet clean it.

Dry cleaning can damage fragile textile items. The friction and abrasion of agitation as well as the heat can damage the item. Solvents used in dry cleaning also remove the oils and waxes in natural fibers. Request use of fresh or filtered solvent if you have a textile heirloom dry cleaned. Ask also that, for most textile keepsake items, the item not be steamed or pressed after cleaning.

Damaged or weak areas can be strengthened by providing support for thin areas and stress points. A lightweight sheer fabric such as polyester organza can be loosely stitched over the area to add stability. Use a lightweight thread of the same fiber as the textile item. Consult additional conservation resources for more information to avoid damaging the item.

Resources

Bachman, K. (ed.) *Conservation Concerns: A Guide for Collectors and Curators*. Washington, DC: Smithsonian Institution Press, 1992.

Keck, C. K. *Care of Textiles and Costumes: Adaptive Techniques for Basic Maintenance*. Nashville, TN: American Association for State and Local History (Technical Leaflet 71).

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

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