



Preserving Historic Quilts by Deborah Bede

All photographs in this Tech Talk are from the Minnesota Historical Society; the photographs were taken by Eric Mortenson, in the Society's Textile Conservation Laboratory.

Quilts present a preservation challenge because of their large size and the inherent fragility of textile fibers. Textiles are easily damaged by handling and by storage and display conditions, so preventive conservation techniques used in these situations have a great impact on the preservation of the quilt.

Particular Condition Problems to Look for in Quilts

Silk

Silk quilts very often are in poor condition, as evidenced by splitting and worn fabrics. Silk is extremely vulnerable to damage from light and handling, so special



The flowered fabric at the lower left and the black fabric in the center are examples of deterioration in silk fabrics. care should be taken in handling silk quilts, and to limit the amount of light they receive.

Dark Brown Dyes

Another commonly encountered problem is seen in printed cotton fabrics that have dark brown or black components in the design. The dyes used to produce these

Editor's note: TECH TALK is a bimonthly column for offering technical assistance on management, preservation, and conservation matters that affect historical societies and museums of all sizes and interests.

colors often catalyze the deterioration of the underlying fibers. This appears as weakness and even loss of the brown or black areas of a fabric. When this damage is widespread, the fabric is greatly weakened by the losses and the quilt is easily damaged by handling.

Handling: Plan Ahead

When handling quilts, it is essential that the workspace be large enough to handle these large textiles safely. Plan ahead so that you do not handle the quilt unnecessarily, and be sure that the quilt is supported at all times. Textiles easily pick up particulate and liquid soils, so be sure that the workspace and your hands are scrupulously clean. Gloves can be worn if it is not possible to wash your hands, but are not necessary if your hands are clean. Jewelry and watches should be removed.

Support the quilt when moving it with a piece of clean acid-free cardboard, a piece of muslin or cotton sheeting, or a piece of heavy acid-free paper. These will take the weight of the quilt and reduce the strain on fragile fabrics.

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Displaying Quilts

Hanging quilts on the wall is a popular form of display. For quilts in good condition, hook-and-loop tape such as Velcro® can be stitched to the top edge of the quilt. With a sewing machine, stitch the loop side of 2-



Above, a quilt has been prepared for hanging with Velcro®.

The detail to the right shows how the Velcro® is stitched to the quilt. inch-wide Velcro® to a piece of cotton canvas or webbing. Then hand-stitch the canvas or webbing to the quilt, staple the hook side of the Velcro® to a wood slat and mount the slat on the wall with a cleat. The MHS Textile Conservation Lab has a handout that describes this method of display in more detail. Muslin sleeves are often used to hang quilts, but Velcro® has the advantage of being adjustable so that the quilt hangs smoothly and is wellsupported.

Other display methods include folding or draping the quilt over a quilt rack, bed or other support. The weight of the quilt should be well supported. Isolate the quilt from wood and other materials with acidfree paper or board.

Exposure to light fades textile dyes and deteriorates fibers. This damage is caused by any kind of light, although the ultraviolet portion of the spectrum is the most damaging. Daylight and fluorescent lights are the most significant sources of UV; use filters on the lights or windows to remove this radiation.

All light is harmful, and the damage it causes is irreversible and cumulative. Reduce the amount of light a quilt receives on display by keeping lighting dim and by restricting the length of the exhibit. Periodically replace quilts on display with others to help reduce display time, and close blinds or shades when the room is not in use. Silk quilts are particularly easily damaged by light, and displaying should be kept to a minimum



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Cleaning Quilts

Cleaning historic quilts is physically challenging, can be risky, and should be done by a professional textile conservator. Experience and training are essential for the successful cleaning of a historic quilt, and proper space and materials to do the job correctly are also required.

A conservator will normally use water

to clean a quilt because most soils found on quilts tend to be water-soluble. Although many people ask about dry cleaning, it's usually not a good cleaning method for quilts. Dry-cleaning machines agitate and spin their contents, which could damage fragile quilts. Also, dry cleaning solvent is most effective on oily soils, so cleaning may not be as effective as when water is used.

Some quilts can't be wet- or dry-cleaned at all because they are in poor condition or because their dyes bleed in water or solvent. In these cases, it becomes necessary to accept the soil as part of the history of the object. In general, silk quilts cannot be cleaned.

Vacuuming through a fiberglass screen is an important technique for the removal of particulate soils. For the screen, stitch bias tape around the edges of ordinary fiberglass window screen, Place the screen over the quilt and draw the round brush attachment of the vacuum cleaner over the screen in slow, steady strokes. For particularly fragile quilts, use a machine with variable suction and reduce the suction of the vacuum cleaner. Quilts in excellent condition can be vacuumed without the screen.

Storing Quilts

For reasons of space and convenience, quilts are usually stored folded in a box. While quilts are in storage, it is very important to protect them from harmful materials that can harm the fibers. The wood of trunks, cedar chests or dresser drawers releases acids that damage fibers. We strongly recommend that you use only acid-





When folding a quilt for storage, place acid-free tissue inside all folds. Ms. Bede is to the left; to the right is Melissa Bilyeu, Intern in the Textile Conservation Laboratory.



Read top to

bottom:

quilt for

storage, fold

box. Use an

it to fit its

acid-free

cardboard

box if possible.

When folding a

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free boxes and tissue to store quilts and other textiles.

To prepare the quilt for storage, fold it carefully. Plan where the folds will go so that previous fold lines are not used, and so that the quilt will fit into the box not too snugly or too loosely. Use crumpled acidfree tissue to pad the folds. Line the box with acid-free tissue, and place the quilt inside. If necessary, wrap plastic sheeting loosely around the box, but do not seal it tightly.

Storage climate affects preservation. Temperature and relative humidity (RH) should be regulated to avoid extremes or large changes; the standard is 70° F and 50 percent RH. If the building does not have climate control, choose a storage location that will provide the most stable climate







possible; attics and basements are usually not suitable. The paper and cardboard materials used to pack the quilts will help to buffer changes in temperature and humidity. Insect pests are usually not a problem for quilts unless they contain wool. Good housekeeping practices are the best method of control.

Repair

In most cases, repair of damaged quilts should be performed by a professional textile conservator. Deteriorated fabrics should never be replaced, as this changes the historical and intrinsic value of the quilt and can also cause physical damage to the quilt.

> For more information on these topics, consult a professional textile conservator. The American Institute for Conservation offers a free referral service; call (202) 452-9545.

To request a copy of the handout, "Hanging a Flat Textile with Velcro®", contact Deborah Bede at (612) 297-5490, or by e-mail at deborah.bede@mnhs.org.