

Caring for Flat Textiles

Ford Conservation Center

2021

About Textiles

For many people textiles such as flags, quilts and samplers are passed down through the generations and viewed as treasured heirlooms. Even today new textiles are saved for future generations. It is important to understand the proper procedures to promote the long-term preservation of these items.

Handling

Because textiles may have hidden weaknesses, it is important to handle them very carefully. Do not handle an artifact unless it is necessary. Never eat, smoke, or drink in the vicinity of an important textile. Serious consequences can be avoided with careful thought and preparation before, during, and after handling an artifact.

To protect the textile from snagging, marking, or bumping, remove dangling necklaces, sharp rings, protruding belt buckles, pens and pencils from shirt pockets, and tuck neckties into shirts.

Before moving a textile, look at it carefully, find its weakness, and handle it accordingly. Prior to moving the artifact, prepare a clean, clear space that is covered with clean padding as needed.

When moving textiles, carry them fully supported on both arms, on a

rigid support, or rolled on a tube. Do not lift them by the edges.

If a textile is damaged, do not panic. Take a photograph to document the accident. Retain all pieces, however small, and place them in labeled zip top bags. Do not attempt to put the pieces back together. This is a job for a conservator.



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Cleaning

An important step in the long-term preservation of your textile is to clean it prior to storage. Cleaning will help to reduce the chances of mold, pests, and particulates. One way to reduce soil from the surface of a textile is through careful vacuuming. A vacuum cleaner can remove loose dust, mold spores, insect pests or pest residues, and gritty particles. If at any point, you are unsure about the condition of the textile, stop and consult a con-

servator. A conservator will be able to recommend the best solutions for long-term preservation. Only a trained textile conservator should wash historic textiles. A textile conservator should be consulted before steaming or ironing any textiles.

You will need:

- a HEPA filter vacuum cleaner with adjustable suction
- soft natural-bristle brush, such as a Haké
- piece of nylon netting, cheese cloth, or a fiberglass screen with twill tape around the edges
- dusting brush vacuum attachment
- rubber band

Vacuuming

Secure the netting or cheese cloth over the vacuum nozzle using the rubber band. This will stop the TEXTILE or any decorative elements from being sucked inside the vacuum nozzle.

Use the soft brush to direct the dirt or dust towards the suction of the vacuum. Do not place the vacuum nozzle directly on the surface of the artifact itself.



Alternatively, you can place the screen directly on the textile and vacuum through the screen. This will prevent the detachment of decorative elements such as beading or fringe.

If using fiberglass screen, stitch cotton twill tape around the edge to prevent it from catching on the fabric.



Storage

When deciding where to store your textile, remember the first line of defense in proper storage is keeping your treasures in a suitable environment. The rule of thumb is that if you would be comfortable in the storage location, your objects

will be “comfortable”. Flat storage is ideal for most textiles because it provides support for the piece. Long-term storage in cedar trunks, while traditional, is not safe. The wood is highly acidic and will off-gas, acting as a catalyst to increase

the deterioration rate of the fabric. Enclosing the textile object in an acid-free lignin-free box will help to prevent damage from acids, insects, dust, water, and light. When using a box for storage, be sure the box and tissue are made of acid-free and lignin-free materials.

Storage spaces with extreme environmental fluctuations, such as attics or basements, should be avoided. Light can cause serious damage to textiles so it is important to limit exposure so that items do not become faded and brittle. Temperature and relative humidity are also important factors to consider when deciding where to store a textile. Humidity that is too high will promote mold growth and insect infestation while humidity that is too low will weaken the materials. The best place for storing your textile is in the living space of the home—either under the bed or in a closet. This should help keep the environmental fluctuations to a minimum.

Textiles should not be stored if they are extremely soiled. Consult a textile conservator about washing soiled textiles. Older items and antique textiles should be examined by a textile conservator prior to long-term storage.

Prior to storage, each item should be photographed for record keeping and insurance purposes. A written description of the piece including any details about its history and its importance as an heirloom are essential. An image of the object should be attached to the outside of the storage box. This will prevent the need to open the box and unpack the contents.



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Folding Flat Textiles

1) Before packing, a space should be prepared for packing the object. It should be large enough to lay the item out completely. A large table can be used or, if necessary, a large clean floor area. The surface should be covered with a large, clean, white cotton sheet prior to retrieving the object.

2) In preparation for packing, remove all jewelry, watches, belt buck-

les, and abrasive items. Clean, dry hands are essential for safe handling of textiles. If your hands are prone to sweating or are very rough, use clean cotton, latex, or nitrile gloves for this procedure.

3) A large acid-free, lignin-free textile storage box and acid-free lignin-free tissue paper is needed. If the object is large, a minimum of



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two people will be required.

4) Start by laying the object on the work surface. Determine the best way to fold the object so that the number of folds is minimized and any stiff or deteriorated elements are not located along a fold. Take advantage of existing seams. Make sure the item will fit in the box in its folded state. Line the interior of the box with two layers of tissue at right angles. Leave a tail extended outside of the box on each side. This will be folded over the top of the stored textile before the lid is lowered.

5) Note: Textiles should be folded as few times as possible when stored; pad each fold of the item with sufficient tissue so that the folds are

gradual. This will help to protect fibers from stress and breakage along any creases. Too much tissue is usually better than too little

6) Take the corners of a few sheets of tissue in

each hand and crinkle the tissue up into each palm, roughly pleating the tissue and drawing it into a sausage shape. The sausage needs to be firm enough to hold the weight of the textile. More than one sheet may be needed for each sausage depending upon the size of the textile. Place this sausage along the location of the first fold. Make enough sausages to line the entire length of the fold. Fold the textile over the tissue. Repeat this process with each successive fold until the object is entirely folded and ready to be placed in the box.

7) When the item is fully padded and folded, place it into the box and fold the extending tails of tissue back over the top of the item. Lower the box lid into place. If the box must be stored where there is potential for leaks or flooding, place it in a polyethylene bag and seal it with 2” polypropylene adhesive tape.



Rolling Flat Textiles

1) Before beginning, a space should be prepared for rolling the object. It should be large enough to lay the item out completely. A large dining table can be used or, if necessary, a large clean floor area can also be used. The surface should be covered with a large,

clean, white cotton sheet prior to retrieving the object.

2) In preparation for rolling, remove all jewelry, watches, belt buckles, and abrasive items. Clean, dry hands are essential for safe handling of textiles. If your hands are prone to sweating or are very

rough, use clean cotton, latex, or nitrile gloves for this procedure.

3) A large diameter acid-free, lignin-free textile rolling tube and several white 100% cotton sheets are needed. The tube and the sheets should be long enough that they extend an extra seven inches past the object at each long end. The larger the diameter of the tube the better. If the object is large, a minimum of two people will be required for the rolling procedure. If an acid-free lignin-free tube is not available, a tube used to roll carpeting can be used, if covered with a smooth, continuous layer of aluminum foil. Tuck the ends of the foil into the ends of the tube.

4) Start by laying out a sheet large enough to completely cover the object's width. Lay the tube on one end of the sheet and roll the tube with several layers of the sheet. Lay the object on the portion of the sheet that remains flat on the surface and cover it with a second sheet. Carefully roll the object around the sheet-covered tube. (If the object has a pile, as in the case of velvet or a carpet, roll the object pile side out and in the direction of the pile. The direction of the pile can be determined by feeling for the

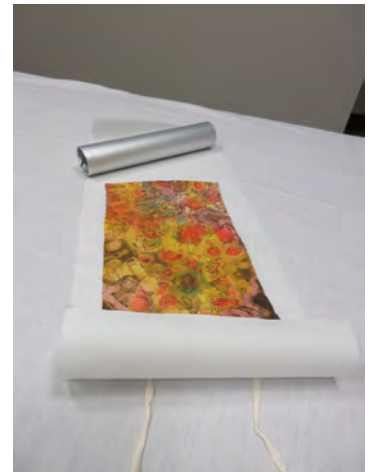


pile bristles as you move your hand across the object.)

5) Continue to roll the object, making sure that there are as few wrinkles in the object as possible. As the inner or outer sheet comes to an end, add a new sheet with an overlap of at least seven or eight inches. A tail that will cover the tube several times should be left at the end. This should be wound around the outside of the rolled object and the ends tucked into the open ends of the tube or tied with cotton twill tape or cotton string.

6) Wrap a final layer of polyethylene sheeting around the outside of the roll and tie or tuck it into the end. The image of the object and any additional information about it can be tied with twill tape or cotton string to the outside of the package.

The roll can be stored by suspending it from a rod inserted into the tube or by holders at each end. If it is necessary to store the roll on a shelf, place the tube ends into 'U' shaped channels in blocks of polyethylene foam to keep the roll from resting directly on a flat surface. If the rolls are small and light, they may be grouped one-layer deep inside acid free boxes.



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Do not store the roll propped upright against a wall, as the object will slide down the tube and become wrinkled and crushed at the bottom over time. Never store a

rolled textile directly on the floor, as it may be subject to physical impact, water incursion, pest activity, or soil.

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Display

When displaying flat textiles, keep in mind that environmental factors will impact long-term stability. Light, heat, humidity, particulate matter, and insects can all adversely affect these artifacts.

Light damage is cumulative and irreversible. Light not only fades dyes, but it can permanently degrade the fibers. Keep textiles away from direct light exposure. Use UV filtering on lights and windows. If you are framing a textile, use UV filtering glazing. Light damage can be mitigated by keeping all light levels low and rotating textiles on and off display.

As with storage, textiles are best



displayed in areas with stable temperature and relative humidity. Airborne particulates can be reduced with air filters and regular vacuuming. Consult a conservator if you see evidence of insects around the textile or insect damage to the textile itself. They can help you mitigate and prevent further damage.

Exhibit Supports

Although there are many safe and creative ways to display flat textiles, one relatively common and minimally intrusive method is to mount them on slant boards, which can provide complete support for large objects without taking up too much floor space. This method helps to reduce the strain of gravity against the textile fibers, minimizes handling, and avoids the need to apply intrusive mounting devices such as hook and loop strips. This

mounting method can be particularly effective for exhibits with similarly sized quilts that are rotated on and off display. Slant boards can be sized and angled to fit on large walls, in vertical cases, or on the decks of exhibit cases.

Slant board support materials are generally determined by size. For smaller artifacts, supports may be fluted or honeycomb paper boards, while larger artifacts may utilize rig-

id fluted polypropylene or aluminum honeycomb sheets. The supports can be padded out with ¼ to ½ inch thick needle punched polyester quilt batting.

Before beginning, determine the largest dimensions of the textile that will be exhibited. Aluminum honeycomb panels with wood edges provide strong, rigid, lightweight, dimensionally stable backings for large slant boards.

Build the support frame/case so that the slant boards will rest at an angle between 20-60 degrees from vertical. When designing the support, allow for the two halves of the slant board to overhang the edge of the support. Plan your project far enough in advance to allow four weeks of off-gassing time for vapor-based pollutants to dissipate.

Cover one side of each board with the needle punch polyester batting. Cover the batting with the muslin sheeting, folding the corners neatly, and tack it to the back or edges of the support with stainless steel staples. Keep the tension even so that the fabric lays flat and smooth. Mount the covered support in the case/on the frame.

Create a removable cotton velveteen cover, allowing for at least a six inch overlap along each side. Fold in and stitch the edges to create a one inch casing around the perimeter and insert the twill tape.

Slip the velveteen cover over the support oriented so that the pile of the velveteen points upward. Pull

the twill tape in the casing tight so that the velveteen lays flat on the front, smoothing and folding the fabric around the corners. Tie the twill tape and slip any excess length under the edge of the cover.

When a textile artifact is placed on the velveteen cover, each fiber of the pile, oriented upwards, will act like a tiny support to keep the quilt from sliding down the slanted surface. The pile fibers help distribute the weight over the entire surface rather than on one edge or on a hanging mechanism.

If the textile is heavy or the slant is extreme, it can be additionally secured to the slant board by cutting small rounds of clear 4-5 mil polyester film (Melinex®/Mylar®). (The rounds can be made with a hole punch.) Push fine gauge, round head stainless steel insect pins through the centers of the rounds and then push these pins at an angle through the quilt, velveteen, muslin, and into the batting. Do not use excessive pressure and be sure to push the pins between, rather than through, the fibers of the textile. Space the pins equidistantly across the surface, using as few as possible to hold the quilt securely in place.

Vacuum the velveteen cover between quilt rotations and wash or replace when it becomes soiled.



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Consulting a Conservator

Consult a conservator if you have any questions about storage or display of your textiles. If your textile is very soiled or damaged, contact a specialist textile conservator for assistance and conservation treatment.

Additional Resources

American Institute of Conservation. *Caring for Your Treasures – Textiles*. Retrieved from <http://www.conservation-us.org/docs/default-source/public-relations/textiles.pdf?sfvrsn=0>

How to Brush Vacuum an Object. Powerhouse Museum Conservation Department. Sydney, Australia. Retrieved from <http://www.powerhousemuseum.com/pdf/preservation/brush-vaccum.pdf>

Keifer, Kathleen. (2000). "Dry Cleaning Museum Textiles," *Conserve O Gram* 33-9–Washington[DC: National Park Service, US Department of the Interior. Retrieved from <http://www.cr.nps.gov/museum/publications/conservoogram/16-02.pdf>.

Conservation Suppliers

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