

Preserve Your Precious Fabrics

Useful tips to manage and maintain your stash

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Accordion-pleated, unbuffered, acid-free tissue paper is one tool to protect valuable textiles, such as this soutache-embellished sleeve from a 1920s trousseau.

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When we think about museums, we often think of sacred spaces, set apart from everyday life, where the mission is to collect, protect, and exhibit the finest and most culturally relevant examples of human innovation and craftsmanship. However, the institutional walls are dissolving. Individuals are becoming more aware of their roles as collectors and interpreters of cultural heritage. Many textile enthusiasts have spent years collecting fabrics—some for their standalone merits and others with a future project in mind. From treasures passed down for generations to finds discovered while traveling, these pieces can be purely practical or precious, and each deserves the best care.

In the museum setting, textiles are considered “art” and are no longer candidates for future use or adaptation. Pieces are cared for using specialized techniques for long-term preservation. The experts who work with museum textile collections have practical and accessible approaches to protect valuable pieces. These methods preserve the treasures in any collection until it’s time to enjoy them in a new project.

ASSESS THE VALUE

A textile’s value depends on many factors such as market value, sentimental value, and cultural significance. Understanding where a textile fits into one’s personal value system, weighed against what value it might have to others in the long-term, is key. This helps establish collection storage priorities, particularly when space and budget must be considered.

DETERMINE THE FIBER CONTENT

How we care for a textile depends a great deal on its nature. In general, fibers should be stored with like fibers. An animal fiber has different requirements than a plant or synthetic fiber, as does a fine netting when compared with a sturdy cavalry twill. There are several methods for identifying a fabric’s

fiber content if documentation is unavailable. This can be accomplished through observation, touch and smell, burn tests, and laboratory analysis. (For additional guidance, see “Fabric Selection Secrets,” *Threads* no. 168, Aug./Sept. 2013.)

Natural fibers

Natural fibers are vulnerable to biological, organic, and environmental threats such as pests, fungi, light, pollution, temperature, and humidity. Feathers, fur, and hair are vulnerable to moth larvae and carpet beetles. Plant and silk fibers, on the other hand, are vulnerable to silverfish, firebrats, and cockroaches—significantly more so if the materials have been treated with starch.

Synthetics

Synthetics present a particular challenge to textile collectors. While innovative manufacturing techniques have made miraculous combinations of materials, textures, and colors possible, some synthetics (especially those from the early 20th century) are less stable than natural fibers. There is always the danger that synthetics will change condition dramatically, even if properly stored, and affect the textiles around them. Store synthetics in a cool, dark place, and keep them separated from one another and their storage containers.

LEARN TO PROPERLY STORE TEXTILES

To neatly tuck away textiles, roll them onto a tube, or lay them flat. Be sure to use unbuffered, acid-free, and lignin-free storage materials for anything in direct contact with stored textiles. Lignin is a complex, three-dimensional polymer found in many plant cells. When materials containing lignin degrade, they emit acids, which can deteriorate some materials.

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Feathers, fur, and hair are susceptible to some of the same pests and environmental dangers. Read on for key guidelines for protecting natural fibers.



FEATHERS



FUR



WOOL ROVING

Roll fabrics

Use an acid-free, lignin-free tube with the appropriate diameter to roll your materials. A tube that is too small puts undue stress on the textile, while a tube that is too large is unwieldy. The tube's diameter should be 100 to 200 times the textile's thickness, and the tube should extend at least an extra 3 inches to 4 inches at each end.

To prevent damaging the textile when rolling, avoid any folds, creases, or uneven tensions in the fabric. The roll also should be balanced, without being too tight or loose. Textiles with raised decorations, or with abrasive or clingy components, should be interleaved with unbuffered, acid-free tissue when rolled.

Woven textiles are rolled in the warp direction, meaning the tube will be perpendicular to the lengthwise grain. With tapestries, the design is usually rendered in the weft direction. However, they can be rolled in the warp direction as well.

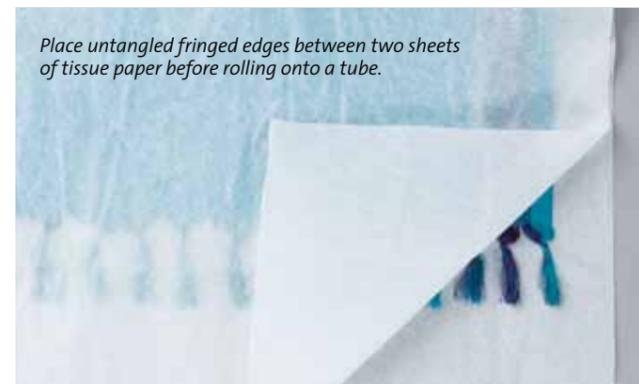
Single-layered, undecorated textiles or textiles with a pile

Roll textiles with a pile with the right side inward.



should be rolled with the right side inward, while decorated or layered textiles (those with surface treatments or linings) should be rolled with the right side outward.

Place fringed edges between two sheets of unbuffered, acid-free tissue. Make sure they are untangled and rolled smoothly



Place untangled fringed edges between two sheets of tissue paper before rolling onto a tube.

HOW TO HANDLE TEXTILES

It is not generally recommended that gloves be worn while handling textiles, although washing one's hands frequently is. Textiles should be handled as little and as gently as possible, and they should be fully supported when moved. It is also best not to flip, snap, lean on, or drag textiles.

onto the tube before storing.

Once the textile is placed on the tube, cover it with untreated Tyvek or cotton. Secure the roll with twill tape, taking care not to tie the tape too tightly. Store rolled textiles horizontally, without resting their weight directly on the storage surface. Rack storage is ideal. If storing them in a box or a drawer, place a rolled towel or an ethafoam cradle at each end of the tubes to lift them. Only the exposed portion of the tube should be placed on the supports.

Smaller ribbons and trims can be rolled around a "sausage," which is made by forming untreated polyester batting into the shape of a sausage and covering it with a nonreactive material, such as surgical stockinette, untreated muslin, or unbuffered, acid-free tissue.



Store small ribbons and trims on rolled polyester batting covered with surgical stockinette.

Keep materials flat

Small, two-dimensional textiles are best stored flat in acid-free, lignin-free storage boxes or drawers with layers of unbuffered, acid-free tissue between them.

Heavy fabric pieces should be placed below lighter, more delicate ones, and the number of layers should be kept to a minimum. Free space should be filled with accordion-pleated,

unbuffered, acid-free tissue or untreated polyester batting to prevent the textiles from sliding around.

If a textile must be folded to fit in a box or drawer, and cannot be rolled, the folds should be supported with accordion-



Accordion-pleated, unbuffered, acid-free tissue keeps textiles in place and supports fabric folds.

pleated tissue, or "sausages." The diameter of the "sausage" is determined by how much space needs to be filled so that the textile doesn't turn any sharp corners. It's a good idea to place a flat layer of tissue between the folds. Refolding the textiles occasionally reduces stress on any one area.

Very fragile fragments and flat composite samples such as flags, Thangkas (or three-dimensional Tibetan "paintings" on cotton or silk, sometimes with embroidery), and samplers, should be stored separately and not layered.

IDEAL STORAGE CONDITIONS

- Controlled conditions maintained between 60°F and 70°F with a relative humidity set point between 45 percent and 55 percent
- Filtered ventilation
- No daylight
- A UV-free light installed to be turned on only as needed for access
- Low vulnerability to pests, floods, or leaks
- Storage shelving and hardware made with stable materials, such as powder-coated steel, that don't off-gas or that are sealed with polyurethane
- Light-colored surfaces that show dust
- Finished, or sealed, walls and floors

WHEN THE IDEAL ISN'T POSSIBLE, TRY THIS

- Plastic storage boxes may be used instead of acid-free, lignin-free storage boxes. However, they do not breathe and can set up a micro-environment conducive to fungal activity. Regular monitoring is essential, especially in humid climates.
- Powder-coated steel storage furniture is preferred, but if storing textiles in wooden boxes, drawers, closets, or chests, coat them with polyurethane. Alternatively, at the least, line them with Mylar or polyethylene sheeting, which creates a protective barrier against off-gassing and the natural oils and acids present in wood products.
- If unbuffered, acid-free tissue is not an option for interleaving, use a spare piece of washed, untreated cotton or another lightweight fiber. A washed cotton bedsheet may be used in place of Tyvek or untreated cotton muslin to cover surfaces or protect textiles from dust.

PREVENT PESTS AND DETERIORATION

Pest deterrents can cause as much damage as they are designed to control. Chemical deterrents "off-gas," or emit harmful chemicals in gaseous form, which can damage textiles, while botanicals can attract pests of their own. The best approach to pest control is prevention using the following tactics.

Don't allow pest-friendly conditions to persist. Keep the storage area clean and free of food and dust. To prevent pests from entering the storage area, keep windows and doors closed and repair holes or cracks in the walls and floors. It's also important to monitor and inspect for pest activity often. Since pests like quiet, disturb the storage area occasionally. Go in, open the storage boxes and check around and behind things at least once in the fall and once in the spring when pest activity is at its peak. If anything appears to be compromised, seal it in a plastic bag until it can be dealt with safely. Finally, seek professional assistance to treat infestation or fungi, starting with nontoxic methods.

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SOURCES

Unbuffered, acid-free tissue <i>Gaylord.com or ConservationResources.com</i>	Archival boxes and rolling tubes <i>Gaylord.com</i>
Untreated Tyvek <i>MaterialConcepts.com</i>	Untreated muslin and polyester batting <i>TestFabrics.com</i>