A Guide to Rolling Textiles: University of Colorado

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Textiles, which are found in a majority of museum collections, are among the most fragile objects to preserve. As textiles are made of both protein and cellulous fibers they are attractive to a variety of pests and are very vulnerable to changes in the environment. Proper storage of textiles can extend their lifespan many years.

Many museums keep their textiles stored folded in drawers. This significantly affects the preservation of the objects, as the creases that are created when a textile is folded can weaken fibers and lead to breaks in the thread or yarn. Simply folding a textile in a drawer is enough to cause irreparable damage.
Some textiles have been stored rolled on tubes, but then protected by plastic sleeves. This can also be an issue for preservation. Many of these tubes may not be archival and can cause acid transfer to the object. Also, the plastics used for covers may become acidic in just a few years and may start to break down.

In an ideal storage situation, all textiles such as blankets and quilts would be stored flat. This method of storage takes up an incredible amount of space and is not practical for the majority of museums. Rolling flat textiles around archival quality tubes is an excellent option. This method of storage does not take up as much space and does not allow for creases to develop, as there is even pressure along the textile and no folds.

This guide will give a step-by-step process for rolling flat textiles so they can be stored on tubes. This process was completed on the University of Colorado's Southwestern textile collection due to a generous grant from CWAM. All photographs are from the University of Colorado Joe Ben Wheat Textile collection.

Supplies Needed:

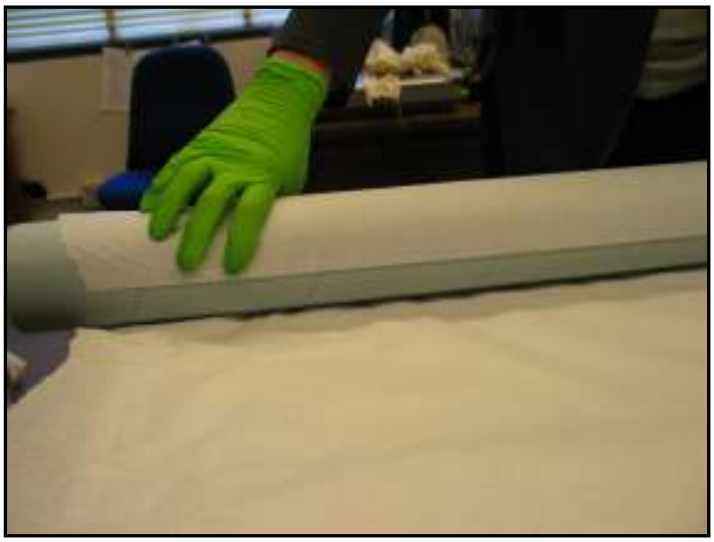
1. Archival Quality Acid-Free Tubes
2. Acid-free Unbuffered Tissue
3. Unbleached, Washed Cotton Muslin
4. Unbleached Cotton Twill Tape
5. Nitrile Gloves

Step 1 Clean a large flat space or table and cover it with a sheet. If a museum has a small budget, local hotels are a great option for donations. Make sure the sheets are freshly washed using an archival detergent or plain hot water. Commercial detergents can leave residues that may be transferred to the museum objects. Using Nirtrile gloves remove the textile from storage and lay it face down on the sheet. Keep in mind that many museum textiles, particularly wool textiles, were treated with pesticides of some variety (e.g. napthalene [moth balls], arsenic, and mercury). Always use appropriate gloves and handle textiles with care.

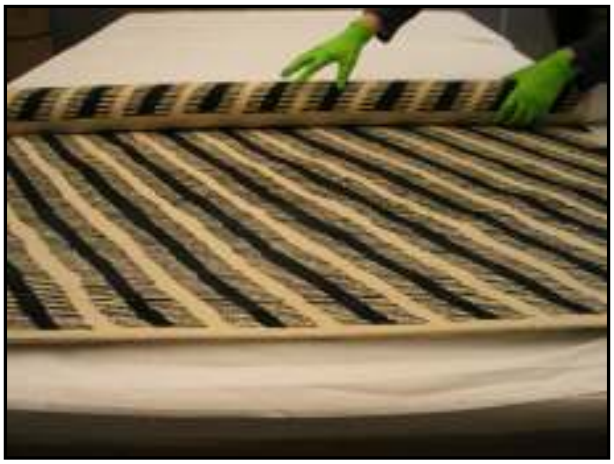
Step 2 Check the cleanliness of the object. If the textile needs to be vacuumed, this is a great time to do so. Use a vacuum with a HEPA filter and adjustable suction. Always use the lowest suction when vacuuming a textile and never place the suction directly on the piece. Use a piece of screen over the textile to prevent fibers from being damaged by the vacuum. Be sure the screen is plastic and the edges have been bound to prevent any snagging.

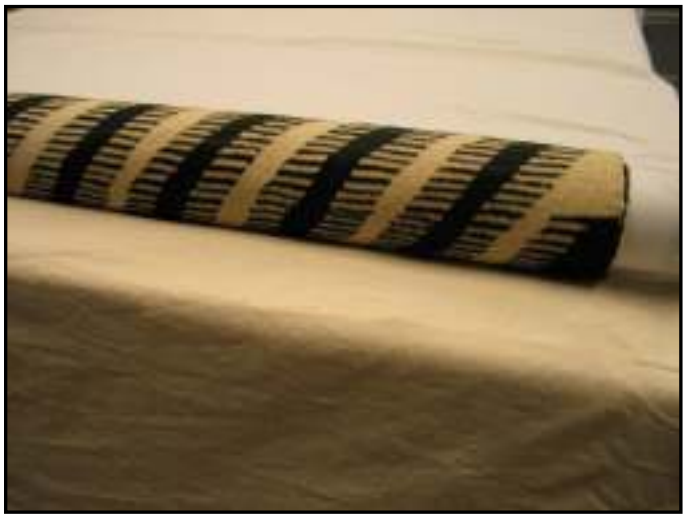
Step 2 Continued This is also a great time to check the textile for any pest activity. Look for any bugs or small worms and even take a close look at lint. Many textile pests will look like fuzz or lint on the first pass. If you find pest activity, remove and bag the insects, isolate the object, and seal it in plastic to prevent further contamination. Contact your local Integrated Pest Management expert immediately.

Step 3 Cut the appropriate length of the acid-free blue tubing for the textile. Be sure to leave a few inches of tube on either end so the textile is not resting directly on the edge of the tube. These tubes can be purchased at archival supply stores. If the textile you are rolling is made of protein material (wool, silk, etc) you must cover the tube with acid-free unbuffered tissue. Archival textile tubes are buffered, meaning they have a calcium carbonate added to slow the process of becoming acidic. The buffering will actually affect the protein material negatively. Therefore, an unbuffered lining is necessary.



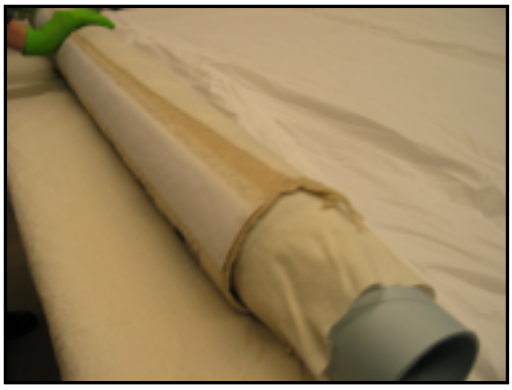
Step 4 Rolling a textile is easiest with two people, but smaller textiles can be rolled with just one person. To start, place the tube on the bottom edge of the textile. Be sure the textile is face down, so that the back of the textile will be on the inside of the roll. Fold the edge of the textile gently around the tube making sure it is straight and even. Always being slow and careful not to pull or tug on the textile start rolling towards the other end of the piece. Be sure any identification tags are sewn on the "top" edge of the textile so that they will be rolled onto the tube last. This prevents having to completely unroll the textile to check identification. Also, if the textile has Velcro along the top edge, be sure to roll that last. This will prevent a lump and stress on the textile.





Step 5 When rolling the textile make sure the edges of the piece are even and are not overlapping each other. Having the edges overlapped on a rolled textile can cause creasing and damage to the piece .

Step 6 After the textile is rolled cut a length of muslin to fit as a cover. The muslin should be washed in archival detergent or in hot water alone. Place the muslin along the edge of the textile and wrap it fully around the entire object. Tie the ends tightly with a piece of twill tape. Be careful not to pinch any part of the textile or decorations. For the center ties use 2 inch wide strips of muslin or cotton sheeting. Loosely tie these to avoid any pinching of the textile, which could cause permanent damage. Tie the object tag and/or photograph to each end of the textile for easy identification. Store the textile and you are done!



For more information about textiles or care of textiles:

Wilson, Kax. *A History of Textiles.* Boulder: Westview Press, 1979.

Mailand, Harold F. and Dorothy Alig. *Preserving Textiles: A Guide for the Non-specialist.* Indianapolis: Indianapolis Museum of Art, 1999.

Bachmann, Konstanze. *Conservation Concerns: A Guide for Collectors and Curators* . Washington, DC: Smithsonian Books, 1992.

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Bellman, Deby. "Flag Rolling and Storage" *Conserve O'Gram*. (2009), http://www.nps.gov/museum/publications/conserveogram/16-05.pdf. (accessed February 16, 2011).