## CARE OF ARCHIVAL MATERIAL

*by Sandra Metzler-Smith*

*Sandra Metzler-Smith is curator of textiles in the Mendocino County Museum in Willits, CA. The museum has sponsored quilt shows annually since 1972 and is sponsoring a workshop on "Preserving your Textile Collection and its History" on Friday Jan.23 & 24, 1980.*

Anyone who is a conscientious collector of textiles is well aware of their fragility. Without mastering the science of textile conservation, we handle our treasures with common sense and caution, remembering that one hasty decision can lead to irreparable destruction. But are we as careful with our archival material - the personal letters, paper patterns, newspaper clippings, exhibition catalogs and photographs that are supporting historical data of our textiles?

More often than not, these valuable records and manuscripts are unthinkingly abused, stuffed in cardboard boxes or taped and pinned to a wall. Like the textiles and people they describe, archival material deserves our attention. An examination of the history of papermaking and the composition of paper may further an understanding of its care.

During the Middles Ages higher quality European papers were made from clippings of new linen and cotton rags. The demand for paper, despite the development of printing, did not increase enough to necessitate a search for other sources until the 18th century. But with increasing literacy came greater paper consumption and the search for substitutes led to the development of wood pulp-based papers.

Experiments with hemp, bark, cabbage stalks, asbestos and pine cones were made by Europeans and Americans. By 1851, the first chemical process of soda using wood fibers was achieved and six years later, a sulfite process involving sulfurous acid and lime was developed. The first commercial groundwood pulp mill in America was established in 1867 in Curtisville, Mass. by Albrecht Pagenstecher.
Because of a general lack of understanding of their varying compositions, wood pulp papers have had a bad reputation for deteriorating. Paper is a "compact mass of cellulose fibers" by definition. The source of cellulose, be it linen, jute, cotton, straw hard or soft woods, is not so important to the quality of the paper as the type of processing. The quality of wood-based papers, for example, may vary from weak, short-lived newsprint to durable ledger papers suitable for archival work and record storage.

Raw wood contains cellulose, lignin and semi-cellulose in addition to many tannins, gums, oils and resins. For use in newspaper, toilet paper and wallboard, the wood is simply ground up in water with the destructive ingredients remaining. This is more economical as it gives a higher yield. While woody lignin acts as a binder, it is very acidic and papers made with it are weak, brittle and short-lived.

However, pulp can be treated chemically to become more permanent. Semi-chemical pulp, made from hardwood that has been treated before grinding has a much lower lignin content than mechanical pulp. The chemicals, soda, sulphite or sulphate break down the lignin and other properties. The result may vary from a coarse cardboard to white writing paper.

Problems with paper are several. Because it is hygroscopic or water absorbing, it is very sensitive to its environment and any fluctuations in its environment. Excess wetness leads to weakened adhesives, water stains, blurred inks and paints, and mold growth. Dryness, heat and sun, on the other hand, cause brittleness, fading and rapid oxidation. Dirt, soot and dust cause primary staining and further act as a focal point for infection by micro-organisms and "foxing", or the chemical reaction of mold on the colorless iron salts in most paper which appear as brown blotches. Flies, crickets, silverfish, bookworms, rats and mice will cause dirt and the eating away of covers, bindings, adhesives and paper.

Perhaps the biggest problems with paper are due to our use of improper materials and carelessness in handling. Pressure-sensitive tapes like "Scotch Brand" cause dark permanent stains. Staples and pins cause rust stains and tears. Acidic pastes and glues deteriorate the paper while rubber cements cause permanent stains. If the paper is framed, matboards with mechanical pulp wood centers or backings of cheap cardboard or wood paneling cause stains, acid migration to the paper document or print and eventual embrittlement of the paper.

What to do then to help preserve our archival material? Begin with primary preventative measures. Try to store materials in a dark, cool and dry area. A temperature of under 70 degrees Fahrenheit and a relative humidity of 30% to 50% is recommended and both temperature and humidity should be as constant as possible. For file folders, envelopes, boxes, interleavings and mountings, always use acid-free supplies.

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## ON THE BOOKSHELF *by Warren Whaley*

*THE COMPLETE BOOK OF MACHINE QUILTING*
*by Robbie & Tony Fanning. Pubi by Chilton Book Co. Radnor, PA. 334 pgs. $15.95*

When I first saw THE COMPLETE BOOK OF MACHINE QUILTING, I was reminded of a college textbook and was a bit apprehensive about reviewing it. I soon realized that the Fannings have used the word quilting in the broadest sense. It is truly a complete book of machine quilting.

Professional authors Robbie & Tony Fanning have done an incredible amount of research and testing for this book. They have assembled virtually all of the available scattered information pertaining to machine piecing and quilting into one complete textbook. They take you carefully through techniques and instructions from beginning to end, and the wealth of information is really super.

Full credit is given to other quilt and patchwork artists for their contributions and special information or techniques. The table of contents is explicit so it is easy to solve your particular problem or find a special technique you need.

For the why's, what's, how's, when's, do's and don't's of machine quilt making THE COMPLETE BOOK OF MACHINE QUILTING is a real buy and a must for all quilter's libraries!

Warren Whaley is owner of Whaley's Fabrics In Ukiah, CA and is well-known throughout *the Bay Area for his demonstrations and classes on Machine Piecing and Applique.*

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Inert plastics, such as polethylene or Mylar are suitable but care must be taken to leave holes for ventilation since it is possible to lock in moisture and induce mildew. Air conditioning, with varying degrees of effectiveness according to type, helps control temperature, humidity, dust and air pollution.

If you wish to display documents or manuscripts, have them framed in acid-free backing and matt board. When kept out of direct sunlight and flourescent light, they will be in a good environment.

Home repair of your valuable papers is dangerous and not recommended, just as you would not mend the shattered silks of a 19th century quilt. Some of the worst damage to paper occurs with the use of the popular “repair” materials: rubber bands, cellophane tape, masking tape, rubber cement and press on labels. These items are all impermanent, highly acidic and staining.

Remove all metal clips, staples, pins, rubber bands, and tape. Replace them with non-corrosive clips (stainless steel or plastic) or if absolutely necessary, with a library mending tape that has a water soluable adhesive (Filmoplast T tape.)

Photocopying on long-lasting acid free paper is a good idea for newspaper clippings and letters. Original photographs, too, should be copied in black and white and stored separately and made available as a "User Copy" to save the wear and tear of the original.

In conclusion, try to be as conscientious a collector of your historical records as you are with your textiles. Remember, you cannot be too careful in handling your archives.

BIBLIOGRAPHY

Duckett, Kenneth W. MODERN MANUSCRIPTS. Nashville, Tenn: Amer Assoc. for State & Local History, 1975.

Guldbeck, Per E. THE CARE OF HISTORICAL COLLECTIONS, Nashville, Tenn; Amer Assoc. for State & Local History, 1972.

Hauser, Robert. PAPER: ITS HISTORY AND CONSERVATION, Housatonic, Mass Rising Paper Co. 1980.

Kenyon, Douglas M., FRAMING & CONSERVATION OF WORKS OF ART ON PAPER, Housatonic, Mass 1980.

Somer, Elyse. TEXTILE COLLECTOR'S GUIDE, New York: Monarch Books, 1978.

Trinkaus-Randall, Gregor. "Effects of the Environment on Paper; A Review of Recent Literature", HISTORY NEWS, Vol 35

Trinkaus-Randall, Gregor. "Effects of the Environment on Paper; A Review of Recent Literature", HISTORY NEWS, Vol 35, No 7 July 1980.

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