As we research our families, we collect documents, papers, family bibles, photographic images, and other artifacts that have to do with our family. Most of these things have little intrinsic value, but they are of enormous value in documenting our family and making our family members come alive. They have sentimental value to us. Because most of these items are old, they are often not in first rate condition. We need to know how to stabilize these materials so they do not deteriorate further, or at least slow down the deterioration. Furthermore, we do not want to do anything that makes things worse.

This article is intended to provide some basic information that can help you make decisions about your items and help you in preserving them. The first principle to keep in mind is “Do nothing that is irreversible”. If it cannot be undone, you probably should not do it. A prime example of this is lamination. Once hailed as “the answer” in preservation circles, lamination is a process where extreme heat is applied to original materials to bond it with some supporting element. The idea was that lamination would stabilize the original material. Now we know lamination is a terrible thing to do because of possible damage from high heat and adhesives during application, some of the plastics and papers that were used were unstable, and it is difficult and expensive to undo.

Each item has its own characteristics that impact how it ages. Paper responds differently than leather and each different photographic process needs specific care. Different inks react differently over time. Once you understand these differences, you can choose storage options that can protect your materials. Basic preservation guidelines are that you keep materials cool, dry, dark, and at as stable a temperature as possible. In other words the temperature should not fluctuate wildly or quickly. Aside from the potential for heat and damp, this is one of the main reason basements and attics are not recommended.

One of the important things you can do is to remove rubber bands, paperclips, staples, and other fasteners that may have already or will damage the material. Papers should not be folded as the creasing wears the fibers in the paper and will eventually cause a break. Things that are already folded should be flattened carefully and put into something that will provide protection and support.

In a nutshell these are what need to be reduced:

- Light exposure – proper storage containers alleviate this
- Temperature – store inside a building with HVAC and preferably against an interior wall
- Relative humidity - store inside a building with HVAC and preferably against an interior wall
- Dirt and dust – proper storage containers alleviate this
• Pests – insects, rodents, etc. look for food, and some of our treasures qualify as food for them.
• Chemicals – avoid many cleaning supplies, pesticides, plastics, carpets, wood and other materials that off-gas

We live in a world of chemical reactions that take place around us all the time. In an effort to preserve our materials, our aim is to minimize those that increase deterioration. Heat accelerates most chemical reactions, so materials should be kept cool. Water or dampness can create mold which can be both an aesthetic problem and a health problem.

Ultraviolet light damages almost everything from our skin to paper. Ultraviolet light is in sunlight, fluorescent light, and incandescent light. Incandescent light is the least damaging of these sources, but fiber optic lighting seems to hold promise in providing a low heat, no ultraviolet source of light particularly for materials on display. The insidious thing about light damage is that it is cumulative and so exposure over the life of an object needs to be considered. This is why most places do not leave items on display for long and will not allow photocopying of some materials.

Storing our treasures in the proper storage containers based on size and what the original is made of is important. This protects from light, dust, dirt, and some pollutants. Avoiding the use of pesticides and some cleaning compounds in the area our materials are stored is also essential.

“Archival quality”
There are many products on the market today that say they are “acid-free” or “archival”; that’s not good enough. There are no standards attached to these terms. The term “acid-free” only tells you that the item is acid free or neutral. These two terms refer to pH or the level of acidity or alkalinity, pH neutral is a level of 7.0 --- anything below 7.0 is acid and above is alkaline. The term “acid-free” also does not tell you if, or for how long, the item will remain acid free. “Buffering” is a process used to make acidic materials alkaline or neutral and is often used in descriptions of storage products. If you are storing acidic material, you usually need an alkaline buffered container.

“Lignin free” is a good term; but again, not all you need to know. Lignin is a highly acidic part of wood pulp and when it is removed not only is the initial product probably less acidic, but the chances are it will not become as acidic over time.

Regardless of the “good” terms you read, you need for your storage materials to meet ANSI/NISO Standards and if the package, the store, or the manufacturer cannot tell you that it does, you do not want to buy it. You need to ask the question “What Standards for archival storage does this meet?” IF THEY DON’T GIVE THE RIGHT ANSWER, DON’T BUY THE MATERIAL. If you tell the names of the standards when asking, some person might say “Sure” even though they have no idea what you are talking about.

Laura W. Carter ©2004
If you are looking for permanent paper, this is the standard you want:
“Equivalent international standard: ISO 9706
Abstract: Publishers and paper manufacturers, take note! This standard sets the basic criteria for coated and uncoated papers that will last several hundred years under normal use. It covers ph value, tear resistance, alkaline reserve and lignin threshold. Recycled papers will meet the criteria specified. This revision to the original 1984 standard is based on testing conducted by the Institute of Paper Science and Technology and contributions from paper makers, publishers, printers, and the preservation community.” Source: NISO Website. Some of the materials in the Resource List that follows provide the trade names for paper that meet these standards.

This is the standard you want to meet when purchasing storage materials:
ANSI/NISO Z39.77 - 2001 Guidelines for Information About Preservation Products
“Abstract: Specifies the information that should be included in advertisements, catalogs, and promotional material for products used for the storage, binding, or repair of library materials, including books, pamphlets, sound recordings, videotapes, films, compact disks, manuscripts, maps, and photographs.” Source: NISO Website

Relax! You do not have to learn the particulars of these standards. But you do need to know what to look for when shopping. But, even the best quality containers will only be effective in reducing acidity for 7-10 years. Schedule a plan to replace the containers at some point. The acid in the materials will eventually eat through the alkaline buffers.

Before we leave acidity, I want to mention that there are products on the market to deacidify materials. Many of these are excellent when used with expertise. However, sometimes the ink on a document can run when the solution comes into contact with it and you lose your document. I recommend caution when you start reading the catalogs. Some of the catalogs seem to assume a certain level of expertise. Although the product may be great in the right hands, it may not be great in yours or mine.

PHOTOS
For photographic images, you need materials that meet the Photographic Activity Test (PAT). The trick to this is there is one test for color images and another for black and white. Depending on what you are planning to store, you need to know which standard the product meets and often it is not clear as to which PAT the storage materials met. If the product doesn’t specify, you will need to ask.

Document Conservation Center, photographic storage materials should meet both sets of standards.

You can take the free course “Preservation 101” online from Northeast Document Conservation Center at [http://www.nedcc.org/p101cs/p101wel.htm](http://www.nedcc.org/p101cs/p101wel.htm). Consisting of 8 lessons, this is geared to paper and book preservation and care. There are links to a Glossary, and a Care and Handling section, as well.

The above is just a bare outline. Please read the materials in the Resource List below for detailed information on your particular needs. But, please be aware that even among experts in the field of materials preservation there are conflicting opinions. I recommend erring on the side of doing less. Unless you know exactly what you are working with, some unknown chemical reactions can take place and damage your irreplaceable documents. The one best thing you can do is to buy the proper storage materials for your treasures to protect them, and avoid storing them in the basement or attic.

REMEMBER IF YOU CANNOT UNDO IT, DON’T DO IT!

**RESOURCE LIST**

Call numbers provided are for materials in the Athens-Clarke County Library.

**Archivery ---- Glossary**
Archival Methods, a company out of New York that manufactures storage containers provides this glossary on their web site.

**Caring for Your Collections**
[http://www.loc.gov/preserv/careothr.html](http://www.loc.gov/preserv/careothr.html)
From the Preservation pages of the Library of Congress website this provides expert advice on materials such as leather, newspapers, and audio formats in addition to paper and photographs. Also covers matting and framing materials.

**Caring for Your Family Archives**
[http://www.archives.gov/preservation/caring_for_your_family_archives.html](http://www.archives.gov/preservation/caring_for_your_family_archives.html)
Part of the Preservation section of the National Archives and Records Administration (NARA) website.

**Northeast Document Conservation Center**
[http://www.nedcc.org](http://www.nedcc.org)
This site has a wealth of information. The publications *Preservation of Library and Archival Materials: A Manual* and the Technical Leaflets should help you cover most of your needs. The Technical leaflets are clear and easy to understand. The categories in the Technical Leaflets most useful to you will probably be: General Preservation, Storage

[http://www.nedcc.org/welcome/pubs.htm](http://www.nedcc.org/welcome/pubs.htm)

*Preservation of Photographs: Selected Bibliography*, [http://www.solinet.net/preservation/leaflets/leaflets_temp]\(c\).cfm?doc_id=114

NONFIC 770.28 REILLY

NONFIC 025.84 SAGRAVES

NONFIC 771.46 TAYLOR

Michael Trinkley, *Preserving Your Family Treasures*.  
“This booklet provides useful information on the care and handling of a variety of materials: documents, furniture, silver, photographs, color slides, videotapes, glass and ceramics, and textiles. Included are sections on how to purchase quality supplies and to select a conservator.” Trinkley is Director of Chicora Foundation.  
$7.50 purchase from SOLINET website.  
[http://www.solinet.net/preservation/preservation_temp]cfm?doc_id=70

NONFIC 025.84 TUTTLE

Really clear and basic information. Divided into chapters on Paper, Inks, Photographs, Deterioration, Environment, Storage and Care, Repair and Cleaning, and such. The cleaning chapter concerns me somewhat because with some old fragile materials, only an expert should try some of the procedures he recommends.

NONFIC 770.28 WILHELM
Vendors
These are vendors that I have used. This is NOT an exhaustive list of reliable vendors. Most of the resources in the above list will provide additional lists of vendors and suppliers for you to consider. This is not an endorsement of these vendors over others.

Conservation Resources International
5532 Port Royal Road
Springfield, VA 22151
(800) 634-6932 (703) 321-7730
Fax (703) 321-0629
http://www.conservationresources.com/
You can download a catalog from online or order a print catalog. “Our goal has always been to bring you the best conservation products fabricated from the highest quality materials and designed to meet your most demanding conservation treatment and archival storage standards.” They have a wide variety of items and these folks pioneered the microchamber technology you will find mentioned in some of the readings in the Resource List.

Light Impressions
P.O. Box 787
Brea, CA 92822-0787.
(800) 828-6216 ·
Website: http://www.lightimpressionsdirect.com/servlet/OnlineShopping?Dsp=2
Light Impressions is particularly good for photographic storage materials. You can shop online or order a print catalog.

Metal Edge, Inc.
6340 Bandini Blvd.
Commerce, CA 90040
800-862-2228
Fax: 888-82-BOXES (888-822-6937)
E-mail: mtledge@ix.netcom.com
Website: http://www.metaledgeinc.com
Metal Edge manufactures and distributes archival storage products and conservation supplies. Custom items are also available.

BIBLIOGRAPHY


