



# PRESERVATION HINTS

## For Time Capsules

Some tips to help you plan projects for permanence

By Janet E. Reinhold

*What kinds of records might you want to keep for posterity? There are paper things (letters, newsprint, legal documents, photocopies), books (printed and manuscript), photographs (color, black-and-white, slides, negatives, digital), films and tapes (videotapes, 16mm film, 35mm film, DVD and CD), software related computer files (your website), special artifacts and textiles (memorabilia such as a baseball, a T-Shirt, a stole, a quilt patch, a baseball cap). With these items in mind, here are some simple guidelines that will improve the value of that gift to the future you're sending.*

### **Tip 1: Use a good container & a stable storage environment**

The place that you put your items should be one that avoids changes in temperature, relative humidity, and ultraviolet light exposure. Your time capsule container should not leak, it should not rust, and it should not crack over time. A stainless steel container is usually the perfect choice, and it should seal securely. Consider carefully how and where you will place your time capsule. If you need to bury your time capsule, you may need a special kind of container and most likely it is different from other time capsules that aren't buried. A cornerstone is a moderately protected area, but not so protected as to not give consideration to a proper capsule container. Use a secure container that will last its intended time in storage. All the preservation in the world on your inner contents isn't enough if your time capsule container leaks.

### **Tip 2: Use good paper**

All paper is not created in the same way. Some paper is acidic. Such paper will only deteriorate over time, no matter how good your enclosure or container is. If possible, use permanent paper. If you already have paper that you wish to use (company stationery is a good example), use a pH testing pen to determine its acidity. Or, you might hand out permanent paper to participants to write or draw on. Then (if you introduce paper enclosures into the capsule, use only guaranteed acid-free, lignin-free, buffered paper or tissue for all documents, black-and-white photo prints and cotton textiles. Use the non-buffered but acid-free and lignin-free papers for color prints and unknown fiber items (see Tip 10). Do not use plain manila folders or kraft envelopes.

### **Tip 3: No Staples! No Rubber Bands! No Paper Clips!**

If you're at the beginning of document preparation, do not use staples, paper clips, or rubber bands to bind your documents. If you must use staples, choose stainless steel staples. Otherwise, the commonly available metal staples and paper clips will rust and ruin your document in just a small amount of humidity. I have seen time capsules in good condition opened only to reveal rusty, illegible signatures on precious documents that were thoughtlessly stapled. When staples exist on a donated item, you must ask, "Is this staple really important?" For instance, a magazine such as Time



will have binding staples that will eventually rust. You may want to leave this binding intact because it's part of the original. If you wanted to store it for more than 25 years, though, you should carefully remove the staples and sew the binding with a cotton or linen thread. To remove staples correctly, don't just use a staple remover.

First go to where the back of the staple is, carefully pry up each end until they are straight. Then go to the front and pull the staple out carefully. Like staples, paper clips can ruin documents after just a few months in most storage conditions. Metal clips (unless made of stainless steel) will rust. Vinyl-clad paper clips become sticky and messy as the unstable plastic on them changes over time. Even the triangular hard plastic clips which are stable plastic will still leave creases on your documents. An easy way to segregate documents is to use a permanent paper sleeve that you fold in half before tucking the papers inside. Use a pencil to write any notes on the top of the folded sheet ("Item #12, Bridgeville YWCA" for instance). Another way to segregate documents is to interleave with permanent paper of the same size, then place into an acid free, buffered envelope such as our 9x12" buffered storage envelopes. If your capsule has room, use an acid free document case with buffered file folders. This makes organizing easy for you as well as for those who open the time capsule. Use no rubber bands for holding items together inside of the time capsule. Over time, all rubber deteriorates, often becoming stiff and leaving a residue on the items it touches. For protection of rubber items you wish to include in the capsule, see Tip 10.

#### **Tip 4: Safe Mounting Ideas**

Mounting things for viewing is not necessary from an archival storage standpoint. The less done to the original document or print, the better. However, it is sometimes nice to tell a story with what you put into the capsule, and if you have space inside the capsule, a scrapbook may be fun to do. Start with a good backing paper that isn't too stiff. It should be acid-free, lignin-free, and buffered. Attach acid free corners to the paper and slip the photo corners in so that the photo lies flat. Place the scrapbook page inside of a polyester or polypropylene page protector. Avoid using rubber cement or stickers on photos or documents. Identify all photos below by hand-writing in pencil or archival pen directly onto the backing paper, or by printing it on a separate sheet of paper and paste in place using a glue stick or small amount of acid free adhesive. Be sure to record the significance of each of your objects in the time capsule. Identify a photo by placing it with a sheet of acid free paper with the data on it (who, when, where). The paper should pass the PAT test, just as any good paper enclosure you use should. Another way to identify photos is to number the photos to a separate list. You can place the number on the back, on the edge, with a soft photo pencil. You can then place the paper list separately from the photos—perhaps along with the envelope.

A word on sticky notes: while okay for temporary use in organizing, they should not be left on your papers. They will leave a residue. It's best to just avoid them, or if they're important to the donation, remove and stick them onto a sheet of good paper.

If you choose to use a binder, use an archival one that is acid-free in materials and glues. If the binder is made of an inert plastic such as polyethylene or polypropylene, the binding rings should be plastic, too. Avoid vinyl binders. You can make your own book from heavy acid free paper that you bind together by sewing through holes on one side with cotton or linen thread or string. See the next tip for more about photos.

#### **Tip 5: Making sure your photos last**

Always handle photos and other objects with clean, dry, lotion-free hands (preferably clean cotton or plastic gloves). Your skin has acids, oils, and salts that may stay on the objects long after you've handled them, and they can harm artifacts in storage.

For traditional photos, you should use the negative films that the manufacturer sug-

gests for long-lasting prints. Whether you shoot in color or black-and-white, you should specify archival processing when the negatives are processed. It may be more expensive to process them for permanence, but it really matters in the long run. If using the traditional photography negative, film, and paper, consult the manufacturer for the longest lasting types to use. Traditionally, archival processing of black-and-white film printed onto fiber-based paper has been the favored media, but Cibachrome® and dye-transfer prints are long-lasting color methods.

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For digital prints, it matters, too. Shoot the pictures in high resolution. Then, process them on the computer in high resolution. Print them on a good printer with good printing paper. Again, consult the manufacturers. Epson, for instance, has a Durabrite® ink that is guaranteed for 75 years. HP has long-lasting ink formulations for some of their printers. Use an ink like that, and use a permanent paper that the manufacturer recommends for it. In general, the thicker the paper the better. See [www.wilhelm-research.com](http://www.wilhelm-research.com) for current information on both film-based and digital print longevity.

If you are using donated photos, use safe plastic sleeves to store them in. If you have multiple photos, you may interleave them with acid-free, lignin-free photo interleaf tissue (use buffered for black-and-white, non-buffered for color).

### **Tip 6: Encapsulate, Don't Laminate**

As schools and companies use lamination more frequently, the question, "Should we laminate the photo or document?" is often asked. In general, the answer is, "No." There are two types of laminating. One you can do with two sheets with adhesive on them, and you make a sandwich with your document being the "innards". This means that the adhesive will be sticking on your document. It's quick, and easy to do, and relatively cheap. It's okay to use on documents that may be handled frequently and that you already have a good copy of in storage somewhere. But for long-term storage, don't do it.

The other kind of laminating is that done with a large heat-activated laminating machine. The plastic appears to be of high quality, and is often polyester. While the applied heat isn't the best thing for documents (and a definite NO for photos), the process appears quite practical for school purposes. If you wish to use it, test some practice pieces first and make sure that the plastic doesn't stick to the item as well as to itself. If it does, the process is not reversible. When in doubt, don't laminate. Use good archival storage practices instead. One such practice is encapsulation.

Encapsulation is a safe way to sandwich your document in between two safe polyester plastics, so it accomplishes the same thing as laminating. The difference is that it's completely reversible. No changes are made to the document. You cut two pieces of the polyester plastic slightly larger than the item you're sandwiching. Using a special double stick tape that is acid-free, you place the tape along two adjacent sides of one sheet. You line the other sheet carefully above it, then remove the liner of the tapes positioned on the bottom and press the two sheets together. Then you apply the two strips to the other sides. Place the document inside and carefully remove the liner on one side, and then the final side, pressing the two plastic sheets together as you go. It takes more time than laminating, but it is simple, and much safer for your documents.

### **Tip 7: You can remove acid from papers**

After testing a paper document or newspaper with a pH pen or similar tool, you may find that even though it is acidic, you still want to include it in your time capsule. You should then "de-acidify" or "neutralize" it. One of the simplest ways is to use a spray such as Paper Saver® or Bookkeeper®. These deposit an alkaline reserve directly on the paper. They are non-aqueous (don't use water) and so are very simple to use yet are effective, and they dry quickly. Do not use the solution on photographs, just for newsprint, acidic papers, and mounting backs. Follow manufacturers' instructions.

### Tip 8: Using plastics for sleeves and photo pages

PVC (polyvinyl chloride) plastics have been used for many years for office supplies such as binders and sheet protectors. Both have been shown to deteriorate, thus spoiling the items stored within them. Some people still use them because such binders and pages are often inexpensive. Avoid them for any long-term storage project. For a few dollars more, you can get archival grade polyethylene and polypropylene binders and pages for short-term use. For time capsules, consider no binder at all, and clear MylarD® (or Melinex®) polyester page protectors. Don't use so-called "magnetic" albums, because the adhesive used is usually solvent-based. Today's scrap-booking crafters have demanded suppliers use the terms "acid free" and "archival." But sometimes, manufacturers just put the wording on there and don't guarantee their products. If the product literature says the enclosure is archival, ask the supplier what he means by that. Does it pass the "PAT Test", for instance? (The PAT is a test for unstable photographic activity that can happen over a period of time in storage. A photo is enclosed in an envelope, for instance, and the enclosure may harm the photo instead of protect it. The PAT test was developed to test enclosures for this purpose. Be careful, because even though a product has passed the PAT test, it may be buffered and therefore not be a proper enclosure for a color photo that might react unfavorably to the extra buffering. Because we prefer to use buffered enclosures in time capsules, we provide safe plastic sleeves for almost all photos before placing inside.

### Tip 9: Being kind to textiles

As with other objects in your time capsule, do not overcrowd textiles within. Separate them with neutral pH tissue or with unbleached cotton muslin that has been machine-washed in hot water (once with soap and once without) and dried. Place heavier and less intricate objects on the bottom. If textiles must be folded, pad the folds with tissue to prevent permanent creasing. Protect large, unboxed objects in storage with soft, pre-washed muslin cloth or neutral pH tissue and drape them loosely with polyethylene sheeting. Framed paintings and framed works of art on paper can be stored vertically, edges protected with padding, and protected from one another with archival cardboard.

### Tip 10: Rubber, Wood, and Leather Items

Often, a football or baseball or framed item is placed in a time capsule. We recommend using our MVP™ pouch (or any properly made Marvalseal 360® pouch) for these. The use of these gas barrier bags is to prevent harm to other items from any off-gassing that may occur inside. Use a heat sealer or common household iron to seal the ends. Wood, wood products, and many paper products made from wood contain harmful acids and should not be used with artifacts because they cause damage and staining.

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For more information about time capsules, archival supplies, & preservation kits, contact:



**Future Packaging & Preservation**

544 E. Edna Place

Covina CA 91723

Phone: **1.800.786.6627**, 1.626.966.1955

Fax: 1.626.966.5779

sales@futurepkg.com, [www.futurepkg.com](http://www.futurepkg.com)