



Preserving Personal Papers and Photographs *General Guidelines*

Disasters: Preventing and Coping

"I have a problem and I hope you can help. A couple of weeks ago my water heater leaked, and some of the water evidently soaked some books I'd been storing in the utility room in boxes. Some of the books are moldy and the others have an odor, and I'd like to know if there's some sort of spray or powder or something I can use on them."

The State Archives Preservation Officer responds to this plea regularly from individuals and libraries.

"An ounce of prevention is worth a pound of cure."

Whoever coined that expression probably was not talking about wet papers, but it certainly applies. Preventing damage is always easier than coping with soggy books, papers and photographs, and prevention does not mean expensive devices or extensive labor. Calling two weeks after the damage precludes an effective response – mold is established, papers are stuck together, photographs are ruined, and bindings have been destroyed.

Of all the things that a person can do to preserve papers and photographs, providing a good environment is the single most important. Such an environment includes a moderate temperature and relative humidity. Extreme variations in either can cause mold growth, cracks in pictures, premature aging and other damage. Although 68°F and 50 percent relative humidity are frequently cited as being close to ideal, stability plays a major role in long-term preservation, so it is better to have a stable temperature of perhaps 78°F and a relative humidity of 30 percent than extreme variations in either.

Another environmental factor to consider is light. All light damages paper and photographs to some degree, so they should be stored in a dark or dimly lit area if possible. Direct sunlight on valued materials must be avoided, because it causes severe damage very quickly, as witnessed by a newspaper that is left outside for only one day.

Air quality is a third factor to consider. Air pollution, especially in large cities, contains many gases that combine with water to form acids that eat everything from paper to bronze statues. By properly maintaining air-conditioning filters and regularly cleaning materials with non-oily dust cloths, much of this type of damage can be avoided.

Creating and maintaining a good climate for an entire house can be difficult and expensive. Interior closets, those located away from the outside walls of the building, tend to provide an environment which is more stable. If they are kept shut, fluctuations in temperature and relative humidity will be reduced, and the interior will be dark and less dusty.

Storage materials and handling also play key roles in preservation. Common cardboard boxes and file folders usually contain acids that contaminate historical materials, so they should

be avoided. Several companies provide a wide variety of safe boxes and enclosures for both paper and photographs, and a modest investment in proper storage will considerably add to the expected life of family records.

Ideally, family treasures should never be handled, but that is usually an unacceptable option. Natural oils on hands transfer to documents and leave oily spots. To prevent this, at the very least, hands should be thoroughly cleaned before working with papers. The same oils do irreparable damage to pictures, so inexpensive gloves that are available at photo stores should be worn when handling either prints or negatives. If materials are to be handled frequently, photocopies of papers and duplicates of photographs will save the originals from being inadvertently damaged.

Before Disaster Strikes

How To Help Prevent Damage

- Do not store materials directly on the floor. The person in the story would not have had to call for help if he had put the boxes of books on a raised surface such as a shelf or even a pallet before disaster struck. Getting things only a few inches above the floor is usually adequate. If you have five feet of water in your book stacks or living room, rescuing your collection will probably be down on your list of priorities!
- If an area is prone to leaks after storms or is near a water pipe, store materials somewhere else. Is the storage area beneath an upstairs restroom? If a leak is possible, it will probably occur.
- Make sure that windows are sealed properly. Weather stripping not only prevents rain from entering, it also saves on heating and cooling costs. Duct tape makes an effective, if unsightly, patch.
- Make sure that your electrical system, lights and appliances are in good working order. Do not convert a two-plug outlet into a six-plug outlet with little plastic adapters— they are electrical hazards. If extra outlets are necessary, surge suppressors, often used with computers, offer a safer alternative.
- Know what your insurance carrier will and will not cover. You may treasure a run of *Arizona Highways*, but your carrier may classify them as expendable. It's better to know before disaster strikes, than to discover afterwards that your insurance will not pay as you had assumed.

Set some salvage priorities before you are faced with a room of wet materials. Although everything may be important to you, some items are more important than others. Only you can make that decision. It's better to make those choices when you have time, rather than during a panicked response.

- While setting salvage priorities, make a list of your most valuable possessions. Monetary value does not have to be the only criteria. A treasure may be almost entirely without monetary value and still be cherished by you and your family. Consider storing such items together in the safest place available.

Libraries and institutions should prepare written disaster prevention and response plans. The Preservation Officer at the State Archives provides assistance in drafting such plans.

After Disaster Strikes

Do not wait for ten days to seek help! In most cases, wet materials must be stabilized

within 72 hours. After that period, permanent damage is probable and total loss becomes a serious threat. If you cannot find a knowledgeable person locally, the Preservation Officer is available for consultations.

Removing the Odor

In response to the question at the beginning, there are no magic sprays or powders. Although visible mold may be cleaned from dry materials, permanent stains and structural damage usually occur. Mold-damaged materials will always be prone to additional infestation, so they must be maintained in relatively dry areas.

Bad odors, on the other hand, may be eliminated or greatly reduced by sealing materials in an airtight enclosure with baking soda or unscented kitty litter. Materials must be dry or they will develop mold. The container may be anything from a clean oven to a cardboard box or non-working refrigerator. After fanning books open and setting them in the container, set a dish or plate of odor-absorbing material in the bottom of the enclosure and seal it up or close the door for several days. Odors will be absorbed by the baking soda or kitty litter. Individual documents may be treated similarly.

Preserving and Handling Photographic Images

Photography recently celebrated its 150th birthday. Many of the early photographs have survived, proof that black and white photos can, theoretically, last for hundreds of years. Although the typical color films and prints of today keep better than those of even a few years ago, they are not as permanent as black and white. In either case, though, proper handling and storage will do much to increase the life expectancy of a photo collection.

Photographs are made to be seen, and that is one of the main reasons why many do not survive. Viewing a picture requires light and frequently involves handling, both of which can result in damage. All light damages photographic materials to some degree, so it is best to store them in complete darkness. Few people want to look at negatives, so keeping them in the dark isn't much of a problem. Prints, however, are made to be seen and those that are on constant display will be damaged. Black and white prints can normally withstand more light than those in color, but subdued light, such as that found in many hallways, can do much to retard the rate of deterioration of both types. If a photo must be hung in a brightly lit room, copies are easily obtained through photo dealers. That way, the duplicate is viewable, and the original can be safely stored in the dark.

Handling photographs with bare hands can cause irreparable damage, because the natural oils on fingers can leave permanent fingerprints on the surface. Inexpensive gloves are available at camera stores and should be used whenever handling prints or negatives. Even when wearing gloves, it is a good idea to handle prints and negatives only along the edges, and then very gently, because both films and prints may crack if bent.

There are several acceptable methods of storing photographic materials. If a collection will not be used frequently, then special paper or synthetic fabric envelopes may be used. The paper used for storing photographic materials is quite different than the paper normally recommended for the storage of paper documents. Synthetic fabrics such as Tyvek are also suitable, because they are chemically inert and very smooth. The main problem with using either paper or synthetic fabrics is that the pictures are not visible unless removed from their envelopes, and routine handling can cause damage.

If frequent and easy viewing is a prime consideration, then clear plastic enclosures