

SOOT, CHAR DAMAGE and ODORS on Books & Paper

Fire damage is usually irreversible, but it is possible to remove some of the surface soot and char by using some of the following methods. The paper should be completely dry and in good condition. Consult a **conservator** for rare and valuable items.

Start by finding a clean space to work in. Thoroughly vacuum the area with a machine that has a HEPA filter.

A. Removing Soot

Don't use a dust cloth! Vacuum (on low speed if you can) the items carefully to remove dust and ash. Put cheesecloth or panty hose over the end of the hose and secure with rubber band to prevent sucking up pieces you might like to keep. Next remove soot from paper by use of chemical sponges, erasers, or a dry cleaner such as Groomstik or Absorene Paper & Book Cleaner which is available from archival supply companies such as Light Impressions, Archival Quality Materials, or Demco.

Use chemical sponges in a gentle, dabbing motion. Do not scrub since this will damage the paper. Try a test page before doing a whole book. It has been reported that chemical sponges are good for a quick cleanup, but that they leave a residue film and smell which impedes other types of cleaning.

Erasers or a dry cleaner also need to be used with a gentle brushing motion. Use an artist brush to remove the rubbings. One source reported that pink pearl erasers worked best.

Photographs and paper should be placed on clean white paper or a blotter. Brush them gently starting in the center and brush out.

B. Dealing with Char damage

Vacuum as much loose material up as possible (again being careful not to suck up book parts that are important to keep). Then trim charred edges by using paper shears, razor blades, or scissors – keep the vacuum cleaner running nearby as you work. Consider the aesthetics of a damaged item prior to returning it to the shelf. Some suggestions for improving appearances are: rebinding, phase boxes, file folders, or adding a cover or jacket.

C. Reducing Odors:

There are several things to try that help lessen strong odors in books and papers. Fresh air, and lots of it, is the first thing to try:

1. Set up as many fans as possible, turn up the ventilation system. Open doors and windows (if the area is secure) and let it blow for as long as possible.
2. To speed it up, set large flat pans of activated charcoal and/or baking soda around the room. Replace baking soda/charcoal every 8-12 hours. Your nose will know when to stop – then do it for another 24-48 hours anyway.

If the above fails and the affected items are few:

3. Stand the books up and fan them open inside a box with a lid. Carefully place baking soda or charcoal or a strong smelling deodorant in the box with the books. Soak a sponge in the deodorant and set it a dish. Check it every 48 hours to replace deodorizer and make sure the books haven't fallen onto it.

If The Smell Is From Mold:

** The moldy "smell" is not the problem it is the indicator that there is/was a problem.

Getting rid of the smell does not get rid of the problem. You need to find out if you have an active mold infestation (gushy, slimy stuff) or dried (inactive, powdery) mold sitting around on books waiting for enough moisture to be able to bloom.

Inspect the collections thoroughly. If, after careful inspection you can't find any moldy books, suspect carpet, drapes, and vents – inspect it all carefully.

Pull any books that show evidence of mold (inactive or alive) but separate the 'live' ones onto a different book truck. Remove all suspects from the room to the outside (don't put them in direct sunlight yet).

Follow instructions for "removing odors from books" above.

Accept that there may always be a faint odor to the item.

It is inadvisable to use an "ozone generator" around paper.

Fire Recovery for Audio Visual Material

The information that follows is taken from the ScreenSound Australia, the National Screen and Sound Archive.

<http://www.screensound.gov.au/ScreenSound/ScreenSound.nsf/HeadingPagesDisplay/PreservationFirst+Aid+for+Fire+Damaged+A.V+Material?OpenDocument>

First Aid for Fire Damaged Audio Visual Material

Films, video & audio tapes, vinyl discs and CD's/DVD's

All audio visual media are sensitive to heat and water, however it may be possible to salvage some objects that have been exposed to fire. In the first instance do not throw anything away! Seek advice first.

Information sheets

- [Fire Affected Video Tapes](#) [ PDF - 83 KB]
 - [Fire Affected Photographic Materials](#) [ PDF - 84 KB]
 - [Fire Affected Audio Materials](#) [ PDF - 86 KB]
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General precautions

- Remove the objects from further harm
- Seek advice as soon as possible
- Do not remove the objects from any protective covers
- Do not attempt to unwind the films or tapes
- Do not attempt to clean the films or tapes

Films

- Gently brush any loose dirt from the reel
- If the film is wet place it inside two (2) plastic bags seal the bags and place in a domestic freezer
- If the film is dry protect it from water
- Seek advice as soon as possible

Video/audio tapes

- Gently brush any loose dirt from the protective cases
- Drain any water from the cases by gently opening the case (do not remove the cassette) and place the case spine up on a draining surface.
- Keep the tapes cool, but do not freeze.
- Seek advice as soon as possible

Vinyl discs

California Preservation Clearinghouse

For more information see: <http://cpc.stanford.edu>/or email cpc@ucsd.edu

- Gently brush any loose dirt from the sleeve
- If the disc is wet gently rinse with distilled water if available or clean tap water. Gently dry the disc by dabbing with a lint free cloth, do not wipe or rub dry.
- Seek advice as soon as possible

CD's/DVD's

- Gently brush any loose dirt from the protective cases
- Wipe the protective case with a damp (not wet) cloth
- If there is no obvious damage to the disc open the case and carefully brush with a soft brush or tissue any loose dirt off the disc.
- Wipe from the centre of the disc straight to the outer edge, do not wipe around the disc in a circular motion.
- When handling the disc be careful of the label side as this is easily scratched and can affect the ability to replay the disc
- Seek advice as soon as possible