

Emergency Salvage of Flood Damaged Family Papers

National Archives and Records Administration (NARA)

As the national repository of the records of the Federal government, the National Archives & Records Administration recognizes the importance of family records. During the mid-west floods of 1993, the staff of the National Archives developed some technical tips to guide individuals in emergency stabilization and salvage of damaged documents, photographs, books, and other personal papers. It is important to note that flood damage to some items may be irreversible. The treatment of objects of high monetary, historic, or sentimental value should only be performed in consultation with a conservator.

Mold

Many people are sensitive to mold. Also, some mold species are toxic. If any health effects are observed when treating mold consult a doctor or mycologist (the local extension service may be able to help) before proceeding.

The best way to prevent or stop an outbreak of mold is to remove items from environmental conditions that encourage mold growth: high temperature, high relative humidity, stagnant air, and darkness. The first priority is to dry moldy items (see instructions for drying below). If wet and moldy materials cannot be dried immediately they may be stabilized by freezing. Placing damaged items in a personal or commercial freezer will not kill mold. It will, however, put the mold in a dormant state until time and an appropriate treatment environment are available. Manageable quantities of frozen items may then be defrosted and treated at leisure.

Active mold looks fuzzy or slimy. Dormant mold is dry and powdery. Do not attempt to remove active mold; it may only spread or smear. Mold which remains active after freezing or after the host material appears dry may be treated with brief (1-2 hours) exposure to ultraviolet radiation from the sun. Extreme caution must be exercised when treating materials outdoors: too much radiation will accelerate deterioration and may cause fading; wind may cause physical damage if items are blown about; and high relative humidity or condensation caused by quick temperature changes may actually exacerbate mold growth.

Dormant mold spores will reactivate as soon as conditions are favorable. They should, therefore, be removed from items and may be brushed or vacuumed away. This treatment should be performed outdoors where other materials and spaces will not be "infected." When brushing mold use a soft, clean, light-colored brush and a gentle pushing motion. Change soiled brushes often to prevent spreading mold from one object to another. When

vacuuming, screening material placed over the nozzle of a low suction vacuum will capture loose bits of the item which may inadvertently dislodge.

Cleaning and Drying

Paper is very fragile when it is wet. Handle it carefully. In some cases it may be desirable to remove caked on mud and dirt. Dirt left by receding flood waters may be contaminated. Precautions such as the use of rubber gloves should be taken. If items are still wet, agitating them in a bath of clear water will remove excess dirt. This treatment should never be attempted for images which are blurred, feathered, or faded as a result of flood damage.

Air Drying

Wet books, documents, or photographs which cannot be air dried within two days should be frozen to inhibit mold growth. Circulating air will effectively dry most items. Physical distortions may result, but document information will be saved. To provide optimal air drying conditions, fans should be positioned for maximum air circulation (do not aim air flow directly at drying materials). Blotting material for air drying should be clean and absorbent. Options include: blotter paper, unprinted newsprint paper, paper towels, rags, mattress pads, etc. Screening material (such as window screens) well supported and stacked with space between them provide an excellent compact drying surface. The porous surface assists air circulation and promotes drying.

Without intervention glossy materials such as paperback book covers, magazines, art books, etc. are likely to stick together. If they are highly valued, these items should be the first priority for salvage. Loose glossy materials should be spread out in one layer for air drying. Bound glossy materials must be interleaved between every page to prevent sticking. Wax paper should be used as interleaving material. Volumes of glossy paper dried in this way may suffer considerable physical distortion.

Books

Place interleaving material between the text block and the front and back covers. If time and supplies allow interleaving material should be placed intermittently throughout the text as well. Fan volumes open and stand them on edge with the interleaving paper extending beyond the edges of the book. Evaporation of water as it wicks into the interleaving paper will enhance drying. Replace interleaving paper as it becomes soaked and invert the volume each time to insure even drying.

Documents

Air dry flat in small piles (1/2 inch) or individually if possible. Change blotting material beneath the materials as it becomes soaked.

Photographs, Negatives, Motion Picture Film

Several classes of photographs are highly susceptible to water damage and the recovery rate will be very low. Avoid touching the surface of photographic prints and negatives. If an old photographic process cannot be identified, observe the

item carefully and contact a conservator for advice. Never freeze old photographs or negatives.

Most prints, negatives, and slides may successfully be individually air dried face up. Change blotting material beneath the photographs as it becomes soaked. Contemporary photographic prints and negatives which are still wet and have stuck together may separate after soaking in cold water. However, this type of treatment could cause irreversible damage. Highly valued items, especially prints for which there is no longer a negative, should be referred to a conservator immediately.

Framed Items

Remove the backing material from the frame. If the item is not stuck to the glass, carefully remove it from the frame and air dry. If the object appears to be stuck to the glass, do not attempt to remove it from the frame. Dry intact with the glass side down.

Occasionally object damage is irreversible. The treatment of items of high monetary, historic, or sentimental value should only be performed in consultation with a conservator. Decisions about the treatment of materials belonging to an institution should only be made by appropriate personnel. The American Institute for Conservation (202-452-9545) maintains a referral list of conservators who will be able to provide guidance for treating private collections.

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The editors of this publication will be collaborating on additional projects. If there are issues which you would like to see addressed in the future please send your ideas to:

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