

EMERGENCY MANAGEMENT

3.7 Emergency Salvage of Wet Photographs

Gary Albright

Senior Paper/Photograph Conservator
Northeast Document Conservation Center

Because of the number of photographic processes and their wide variety, responsible advice for the emergency salvage all kinds of wet photographs is difficult to provide. Some processes can withstand immersion in water for a day or more, whereas others would be permanently disfigured or even destroyed by a couple of minutes of exposure. In general, wet photographs should be air dried or frozen as quickly as possible. Once they are stabilized by either of these methods, there is time to decide what course of action to take.

Ideally, salvage should occur under the supervision of a conservator who can minimize damage to a collection if he or she can direct the salvage and treat the collection immediately after the damage has occurred. Time is of the essence: the longer the period of time between the emergency and salvage, the greater the amount of permanent damage that will occur.

Minimize Immersion Time

Photographs in water will quickly deteriorate: images can separate from mounts, emulsions can dissolve or stick together, and staining can occur. Mold can grow within 48 hours at 60% relative humidity and 70°F, and it often causes permanent staining and other damage to photographs. For these reasons photographs need to be dried as quickly as possible. If photographs cannot be dried they should be frozen.

Salvage Priorities for Wet Photographs

- In general, films (plastic-based materials) appear to be more stable than prints (paper-based materials); therefore, prints should be salvaged first. Important exceptions include deteriorated nitrate and safety films, which are extremely susceptible to water damage.
- Photographs made by the following processes should be salvaged first: ambrotypes, tintypes, collodion wet plate negatives, gelatin dry plate negatives, lantern slides, deteriorated nitrate or safety film, autochromes, carbon prints, woodburytypes, deteriorated or unhardened gelatin prints, and color materials. Photographs made by many of these processes will not survive immersion.
- Photographs that are more stable in water include: daguerreotypes, salted paper prints, albumen prints, collodion prints, platinum prints, and cyanotypes.

Air Drying Photographs

- If personnel, space, and time are available, photographs can be air dried.
- Separate photographs from their enclosures, frames, and from each other. If they are stuck together or adhered to glass, set them aside for freezing and consultation with a conservator.
- Allow excess water to drain off the photographs.
- Spread the photographs out to dry, face up, laying them flat on an absorbent material such as blotters, unprinted newsprint, paper towels, or a clean cloth.
- Keep the air around the drying materials moving at all times. Fans will speed up the drying process and minimize the risk of mold growth.
- Negatives should be dried vertically. They can be hung on a line with plastic clips placed at the edges.
- Photographs may curl during drying. They can be flattened later.

Freezing Photographs

- If immediate air drying of photographs is not possible or if photographs are stuck together, freeze them.
- Wrap or interleave photographs with waxed paper before freezing.
- Interleave or wrap individual photographs or groups of photographs before freezing with a non-woven polyester material or waxed paper. This will make them easier to separate when they are eventually treated.

Drying Frozen Photographs

- Frozen photographs are best dried by thawing, followed by air drying. As a stack of photographs thaws, individual photographs can be carefully peeled from the group and placed face up on a clean, absorbent surface to air dry.
- Vacuum thermal drying, where the frozen material is thawed and dried in a vacuum, is not recommended for photographs. Gelatin photographs undergoing this procedure have a tendency to mottle severely and stick together.
- Photographs can be vacuum freeze dried; in this process no thawing occurs. Gelatin photographs may mottle during the procedure, but they will not stick together.
- Wet collodion glass plates must never be freeze dried; they will not survive. This is also true for all similar collodion processes such as ambrotypes, collodion lantern slides, and tintypes.

Salvaging Slides

- Slides can be rinsed and dipped in a water/Photo-flo mixture, slide cleaner, or a similar commercial product and air dried; preferably they should be hung on a line or propped on edge.
- Ideally, slides should be removed from their frames for drying and then remounted.
- Slides mounted between glass must be removed from the glass or they will not dry.

Call a Qualified Conservator

Dried or frozen photographs are reasonably stable. Store them until you can talk to a conservator who has experience with photographs and can advise you of treatment needs.