

How to Cope with Photo "Bricks"

**The following is research-in-progress draft. Use at your own risk. Read this entire tutorial before beginning. Always wear gloves and a respirator when working with potentially toxic materials.*

When a stack of photos, usually 4x5s or 5x6s from a modern, consumer photo lab gets wet and dries, the photos adhere and can become as compact and solid as a brick. It requires much patience and a little luck to separate such images. There are four key steps to consider:

1. Soak in water to soften. This may need to be done in stages. *Details below.*
2. Freeze to harden the emulsion which should make it possible separate photos without the emulsion sticking to the back of other photos. *Details below.*
3. Thaw and separate. *Details below.*
4. Dry as dust-free as possible.

Supplies You'll Need:

- One or two containers for soaking. Cake pans work well.
- Wax paper (not critical if the top photo can be sacrificed)
- 2 Freezer safe zip-sealable plastic bags.
- A small box and something to label it with.
- Smooth, disposable poster board or a large sheet of paper to use as a work surface.

1. Soak in water to soften the emulsion. Preferably with lightly flowing water. Water that is in motion is less likely to have unwanted chemical reactions or biological growth similar to mold.

This can be achieved by jostling the container so there is just a little motion in the water, a technique photo technicians call "agitation". A slight flow of water, just more than a trickle, is another apt solution, particularly if you must leave for an extended period. Do not let water flow

directly onto the photos, for the softening emulsion may become further damaged.

In many cases you will need to soak for an extended period, days if not weeks. If it is not possible to arrange for water to constantly flow, change the water as often as possible. At least twice per day. Feel the sides of the container to see if they are becoming slimy, and if so consider carefully moving the photos to a new clean container.

Check for softening at least once per day. Be very careful, as emulsion that is soft enough may be almost goeey, so it is very delicate. That is why the next step is to **freeze before you peel**. There are two key signs to look for: whether the emulsion is soft/goeey, and whether the entire stack is softening. If the photos are soft and feel like they can be peeled apart, they may be ready for freezing. Some photo stacks may not completely soften and may need to be prepared in stages. It is not ideal to freeze, peel the top few layers, and repeat the process (*details below*), but realize that freezing may be your best option.

2. Freeze your stacks. Once the stack is as soft as possible, carefully remove it from the water and place the stack on a dry towel. Let it sit for a while until all the droplets have run off and the stack appears to be moist — rather than wet. Place a piece of paraffin on top, preferably trimmed to exact size, and place the whole stack with the wax paper into a thick, freezer safe, zip-sealable bag. If you don't have freezer-safe bags, use THREE zip-sealable sandwich bags. Place the bagged stack into a small box and label it — FRAGILE, TOXIC, DO NOT TOUCH. Place the bagged stack into a freezer. Keep it level. Let it freeze for at least 48 hours.

3. Thawing and Peeling. Carefully remove the photos, and place them on a disposable work surface such as a poster board or large piece of paper. **Realize that photo emulsions can permanently stain surfaces.**

As the photos thaw, attempt to peel them apart one at a time. Be careful not to damage the emulsion. Be particularly careful of faces.

4. Dry the photos in an as dust-free an environment as possible.

Also, consider [emailing us](#) about your experiences, tips, do's and don'ts so others may benefit from your experience.

-----//-----

Comments from University of Delaware Adjunct Professor, [Barbara Lemmen](#)

I want to support your efforts and wish that I had a solution to this particular water-damage problem. Honestly, I haven't had to separate a stack of prints which are solidly dried together, partly because they are often considered a loss by all involved and don't reach a conservator. I have worked with prints which are stuck together over part of their surfaces and found that, depending on the type of print and condition, various methods succeed; immersion in water or a mixture of water and ethanol often works and would apply to fully blocked prints as well, however, I am not optimistic. (I am very glad that you warn practitioners of health and safety issues in your tutorial; recommending the use of alcohol would require special instructions).

Most modern photographs are on a resin-coated paper support. The polyethylene plastic prevents water from diffusing vertically through the stack. Moisture must wick in between the prints to swell the gelatin emulsion. Ethanol can help with this in addition to reducing the swelling of the gelatin while not substantially interfering with the softening needed for separation.

You might suggest that people might first wet up the stack briefly and try freezing, for several reasons: a very long immersion will destroy even new emulsions and/or might not reach the center of a stack; stacks can stay damp in the center for months, so wetting at the edge may be enough.

Sincerely,

Barb