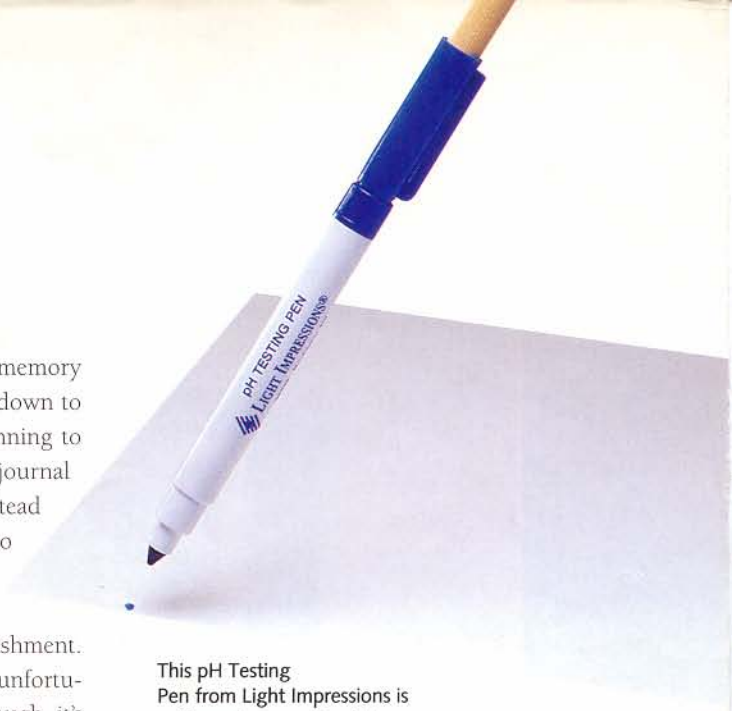
tips & techniques




This pH Testing Pen from Light Impressions is quick and easy: put a dot on your paper product and if it turns blue, it's acid free.

Picture this. It's 2018 and the memory album you created 20 years ago to hand down to your children and grandchildren is beginning to deteriorate. Photos are turning yellow, journal entries smeared, stickers peeling off. Instead of a documentary of your family's life to pass to future generations, you have a restoration project on your hands.

"What happened?" you ask in astonishment. "Everything I used was acid free." That, unfortunately, may be just the problem. Although it's important to use ingredients that lack acid and will not harm your snapshots, there are other considerations that must be accounted for to make an album that will endure.

# WILL YOUR MEMORY ALBUMS STAND THE TEST OF TIME?

## Achieving lasting quality requires more than just using acid-free materials.

*by John Collins*

### TIP OF THE ICEBERG.

"Acidity is only the tip of the iceberg," says Dennis Inch, a developer of archival products for 21 years and vice president of marketing for Light Impressions, an archival supply company that provides goods for safely storing fine art, photos, and other documents. Just as museums will not do anything to an original that is not reversible, he believes scrapbookers must take the same approach and assemble projects from duplicates only and not original photos. "They are creating a new original, and a new piece of artwork should have the same preservation care as a photo."

Inch defines archival as materials that are safe for long-term storage and urges crafters to use "materials designed to last ... paper, inks, and adhesives that won't break down over time. Too much emphasis is being placed on 'acid free' without [people] understanding the meaning of [the term]. [People] are taking a buzz word and applying it to areas that don't apply."

The term acid free pertains primarily to paper, where acidity levels and the quality of paper can vary greatly. Paper is usually made from 100-percent cotton rag (high quality and preferable for memory albums), wood pulp (made for short term use and not to be used as an archival material), or a combination of both. Wood pulp contains a naturally occurring fiber called lignin that is chemically unstable and becomes acidic when it breaks down. Therefore it must be removed from wood pulp paper for it to have a permanent quality. Newsprint, for example, is low quality paper made from wood pulp that has a high acid level and quickly yellows with age.

Unfortunately low quality paper can be manufactured and still be called acid free by masking it with buffering agents. For instance, calcium carbonate can be added to wood pulp at the paper mill, preventing acids from other sources from

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## Tips for a Lasting Memory Album.

- Do not use page protectors containing Polyvinyl Choloride (PVC). PVC contains chemically unstable materials that can damage photos, negatives, and stickers. Even if it reads "PVC Free," it still may not be archival. Archival plastics include DuPont Mylar polyester, polyethylene, and polypropylene.
- Attach photos with archival photo corners. Acceptable material for mounting corners include Mylar, polypropylene, and acid-free paper.
- Flowers and other objects can be put in a polyethylene self-closing bag and attached to the page using white cotton thread.
- Shelving small and medium-sized memory albums on open book shelves between books of similar size helps prevent warp and distortion of the memory album.
- When handling photos, hold prints and negatives on the edge or, better yet, wear cotton gloves, which will prevent skin oils from damaging your snapshots.
- Do not store albums or photos in attics or basements. Cracked image surfaces and mold are possible consequences. – *The Iowa Conservation and Preservation Consortium*

permeating the paper. But calcium carbonate can be used up by the lignin and become acidic. So a paper may be acid free when purchased but may not remain so.

To ensure you use the best paper available, use the following guidelines:

- Be sure it's acid free and lignin free.
- Never use paper with the symbol indicating recycled material is used. This may be environmentally correct, but with an unknown recycled content, there's no way to standardize it versus 100-percent virgin paper.
- Paper should have a two-percent alkaline reserve that helps fight off environmental hazards because acidity migrates from one agent to another.
- Paper should have at least a neutral pH, which indicates it does not contain acid. The pH scale runs from zero to 14 and measures the acidity of a product, with each number indicating a tenfold increase. Seven is pH neutral, and numbers below seven indicate increasing acidity, with one being the most acid, and 14 the most alkaline.

Crafter's Pick Memory Mount glue is pH neutral and safe for photos.


### Inks.

"The story is about quality – preserving the past with quality," says Peter Ouyang, director of marketing for Sakura. The company has been marketing its archival-safe pens to museums and libraries since 1982, when its Pigma ink formula was developed specifically for museum archivists and conservators. He warns that pen manufacturers who boast their pens are acid free may be taking advantage of the consumer's ignorance, because acidity is not usually used to determine ink quality.

There are generally two types of markers: dye-based and pigment-based. The ink of dyebased markers generally breaks down quickly and usually isn't water proof. He advises scrapbookers to look for a pigment ink that is permanent. "People think a ballpoint is permanent, but put it in water and it'll smear."

True permanent ink is fade resistant, waterproof, and chemically stable. This last characteristic is achieved by using "only single-element pigments to ensure long-term stability," says Ouyang. "Lots of [manufacturers] mix pigments to achieve a certain hue – but in 100 years there could be a color shift where the pigments separate" that could cause the color to change.

The next buzz word Ouyang expects pen manufacturers to use to imply lasting quality is pigment, i.e., "pigment based; contains pigment." "But using pigments doesn't ensure light fastness," he warns, "because not all pigments have the same light-fast rating. There's cheap, cheap pigment and good, expensive pigment. Some are no better than dyes. The brightness of colors can become muted, colors can shift. Using good quality pigments ensures light fastness."

To assure themselves they are using a quality archival product, consumers should buy products made by companies that have a reputable name and have not just entered the market to capitalize on a trend.

### Adhesives.

Paul Shattuck is president of Adhesive Products, which has been in business for nearly 120 years and for the past 30 has supplied entities like arboretums and art galleries with archival quality products for mounting items like dried flowers and fine art.

Shattuck bluntly states that many adhesive "products out there just [don't work] for consumers." Many glues are acidic or caustic and contain atoms called free radicals that attack the back of photos, causing a chemical reaction that causes yellowing of the photo. Others may contain sulfuric acid that can break down the wood fibers that paper is made of.

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The phrases to look for when purchasing adhesive include nontoxic, re-positionable or removable, and easy clean up. These indicate that it is of archival quality with no solvents, acids, or caustic agents in it to damage your photos or surrounding materials.

## STICKERS.

"Archival quality is the most misused phrase in the industry," declares Jason Grossman, vice president of systems operations for Mrs. Grossman's Paper Company. He believes the term should be replaced with "photo safe" since a true archival environment requires a constant temperature and humidity and protection from environmental effects. An "archival environment" of this sort is usually found only in a museum or similar institution.

When it comes to stickers that are photo safe, the most important component is an adhesive backing that is acrylic-based, as opposed to rubber-based glues that can turn brittle with age or gooey when exposed to heat. Placing stickers directly onto a photo also is not advisable. Even if they are photo safe and won't discolor the photo, they are sticky and won't want to let go of it.

Regarding stickers' ability to hold up for 50 or 100 years, Grossman says age testing requires the test subject to be at least 25 years old and bases everything on extremes of hot and cold. Since Mrs. Grossman's has been producing stickers for only 18 years, that disqualified it from testing right off the bat. Also, stickers are unlikely to encounter extreme heat or cold, making the test somewhat inapplicable for stickers. But there are Mrs. Grossman's stickers that were first applied to albums nearly 20 years ago and even though they were made of poor quality, rubber-based materials, Grossman says the album and stickers still look good.

It all boils down to an axiom you probably heard from your parents and teachers a thousand times growing up: if you're going to do something, do it the right way. Using archival-quality products today ensures the snapshots you take pains to preserve will still be around down the road for future generations to enjoy.