

Protecting and Displaying Black-and-White Prints



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You've captured the "ultimate" black-and-white shot. Now you need to properly process and care to provide the longest possible life for your black-and-white print. Whether you realize it or not, there are many factors that can affect the life of your photographic print. Even under the best conditions, a print on continuous display is likely to change over time.

Some of the factors that can cause image degradation are:

- Improper processing
- Light
- Heat
- Humidity
- Atmospheric or environmental contamination
- Biological
- Surface contamination

Your image will exhibit good stability when properly processed and protected. Following are some general recommendations to consider:

Processing. If you choose to process your own prints, closely follow the manufacturer's processing recommendations. Use a fresh fixer, and fix for the recommended time (not longer). Wash your prints for the recommended time. Residual silver salts and traces of fixer in the paper may cause stains, uneven tones, and fading. Dry prints thoroughly.

If you have a professional lab process your prints, ask them if they follow the processing recommendations for permanence.

Toning. Your silver image is subject to deterioration from external contamination such as fumes from oil-base paints, engine exhausts, and cosmetics. To reduce the effects of these factors, treat your prints with toners such as KODAK Rapid Selenium Toner, KODAK POLY-TONER, KODAK Brown Toner, or KODAK Sepia Toner. Toners that contain gold chloride also extend print life, but are less effective and more expensive.

It's best to tone your prints as soon as possible. Prints toned after storage may show stains due to adverse storage conditions.

Contamination. Atmospheric or environmental contamination is subtle. Oxides of sulfur and nitrogen from chemical and engine fumes, freshly produced plastics, home fireplaces, freshly painted areas, gases from cooking foods,

and aerosol sprays are just a few examples that have properties that can harm photographic images. They can result in overall yellowing or red spots.

Proper handling of the photograph can prevent surface contamination (from foods, cosmetics, cleaning agents, polishes, medicines, printing inks, adhesives, and more).

Lacquers. Use lacquers with caution. If you choose to lacquer your prints, select a lacquer that's specifically intended for photographic applications. Apply multiple light coats rather than a single thick coating. Do not allow a lacquered print to come in contact with the glass in a picture frame because it may stick.

Laminates. Laminating is really a variation on lacquering. Instead of applying a very thin polymer layer, laminating results in a much thicker layer. The laminate may contain UV absorbers, plasticizers, and matting agents. Laminates provide protection against fungus and bacterial attack, and moisture, dirt, and gases in the air.

Mounting. Mounting provides rigidity and gives some physical protection. Today, many conservation framers do not recommend any type of reversible or non-reversible dry mounting. If you choose to dry mount your prints, use acid-free and pH-buffered, archival-quality mounting board. Archival dry mounting tissue will help protect the print from impurities migrating from the mounting board. Do not use rubber cement, contact cement, starch paste, or animal glue.

An overmat will help protect the print from abrasion, keep the emulsion away from the glass, and provide a neutral or complementary field. Be sure to use archival or conservation quality matt boards and backing.

Framing. If you plan to display your photographs for more than a few months, they should be framed for protection against physical damage, airborne dirt and grease, oxidizing gases and other pollutants.

Avoid frames made with materials known to emit vapors that cause image deterioration; for example, frames that are bleached wood, varnished, stained, or oiled. In most cases, clean glass, metal, and some plastics are considered "safe."

Protect framed prints with a sheet of glass or rigid plastic such as ACRYLITE OP-3, which absorbs ultraviolet radiation. Leave a slight separation between the print and the glass or plastic, such as an overmat.

Carefully clean picture frame glass with a non-ionic liquid dish detergent (such as JOY or IVORY), rinse thoroughly with hot water, and dry completely before inserting your print into the frame.

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Light. Consider where you will be displaying your photographs. Lighting quality and direction are important in displaying images. Provide only enough light for comfortable viewing. Avoid direct daylight. Tungsten or ultraviolet-free fluorescent light is preferred.

Heat. Avoid temperatures above 75°F (24°C).

Humidity. Relative humidity should be between 30 to 50 percent. Low humidity can cause cracking and curling; high humidity can accelerate unwanted chemical reactions. Prints contain nutrients that are attractive to living organisms. Fungus and mold can occur in warm, moist environments.

SUMMARY

Photographic images can have a long useful life when properly protected and displayed. We've mentioned some of the many factors that can affect black-and-white photographic images. By following good processing recommendations and by keeping the product protected and displayed at moderate temperatures, humidity, and light exposure, you can provide a long useful life for your photographic print.

MORE INFORMATION

For more information, see KODAK Publication E-30, *Storage and Care of KODAK Photographic Materials—Before and After Processing*.

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