

# Lux Eterna™

a specialized processing service from Bluefire® Laboratories  
for the old, obsolete, damaged, and unusual films  
that other photo labs refuse.



**O**ur laboratory has been formulating specialized photographic chemistry since 2001.

We modify historical formulas and procedures to develop and print any type and size of camera film, compensating for the damage done to film by age, warmth and humidity over long periods of time. We successfully recover printable images from almost all the films sent to us.

## Lux Eterna Film Developing:

We develop all films of our own manufacture:

- Bluefire Police grainless technical film
- Bluefire brand black and white, color slide, and color print films

We process **black and white** or **color** roll films, sheet films, and plates up to 8x10 inches, including infrared films.

We process all kinds and sizes of **amateur film** (except movie films):

- Minox (including Acemel and Atoron)
- Disc
- 16mm subminiature (we return your cartridges)
- 110 "Pocket Instamatic"
- "Hit" and "Mycro" film (from miniature Japanese novelty cameras, including those sold through ads in comic books)
- Bolta, Rocamco, Kamarette, Fotron, Fotochrome
- 828
- 35mm
- novelty 16mm single-use cameras (Rank, Lure, Blick, X2, Snapper, Love, etc.)
- 126 "Instamatic"
- 127
- 620, 120 and 220
- 616 and 116
- "Brownie" films, and other very old roll films in long-discontinued sizes.
- Autochrome, Dufaycolor, and Finlay color process plates and films.

...in other words, just about any film you are likely to find in a drawer or in an old camera.

We process all brands of films in any standard or obsolete chemistry:

- standard C-41 (color print) and E-6 (color slide)
- obsolete C-22 (color print), E-3, E-4 or E-5 (color slide)
- Infrared films
- Technicolor
- Kodachrome\* K11 or K12
- Uncommon or obsolete brands (3M, Adox, Agfa, Ansco, Ciba,\* Dover, Efke, Era, Ferannia, Foma, Forte, Gevaert, Ilford, Jessops, Konishiru, Kryptar, Lucky, Maco, Mitsubishi, Perutz, Polaroid, Samsung, Scotch, Shanghai, Orwo, etc.)
- all black and white films and plates of any age and in any condition.

\*Note: the chemical structures of the dye couplers for Kodachrome, Ciba, and a few other color processes remain trade secrets, and the couplers are not offered for sale. Reverse-engineering these complex organic structures is out of the question. Because of this, we develop those films as black and white.

We process **SFW, ECN and ECN-II** (movie films re-packaged in 126 or 35mm cartridges):

- Seattle Film Works and SFW brands
- 5247, 5294, 5296 or 5297
- Signature, Dale Labs, FotoMat, Famous Brand, Triple Print, and others.

## Lux Eterna Image Scanning:

When we develop your film, we scan it, using specialized software and expert attention to perform any necessary restorative color correction and contrast enhancement, image by image. † From these scans, we create an index print (digital contact sheet), with each thumbnail image labeled with its file name. This is included in the developing price

You can then order prints from us by file name, at any time. This is at additional cost (see the next paragraph). Alternately, you can take your developed film to a local photo lab for printing.

## Lux Eterna Image Printing:

Optionally, we make proof-quality machine prints (4x4 or 4x6 inches) from our scans. We ask you to understand that because of our low-volume, small-batch orientation, we are an expensive source for prints. Please consider patronizing your local photofinisher for printing services — merchants in your community deserve your business.

## Our working methods:

Your films are processed in small batches, never more than eight rolls at a time and, if necessary, just one roll at a time. Each batch is processed in freshly mixed chemistry.

We mix our own chemistry, modifying historical formulas to account for the effects of age on films stored for many years in sub-optimal conditions.

Our systems and methods allow us to do what no ordinary photofinisher can do with color film. All color films, including slide films, contain an underlying silver negative image, just like black and white films. Color development removes the original silver negative image, leaving an image made of color dyes. However, we are able to examine your film before the silver is removed. If the colors are acceptable, we continue the normal color development process. However, if the colors cannot be recovered, we keep the silver negative and complete the process as black and white, salvaging printable images from what would otherwise have been a blank or unprintable film.

Developed images are digitally scanned, and colors and contrast are optimized with specialized software under the control of our process operator. We work one image at a time, using specialized software and procedures that merge human quality control with automated productivity.

This low-volume, small-batch approach helps us keep our turnaround times reasonable, since we are not required to hold your films until we have accumulated enough to justify a special high-volume run.

† Please note that we do not provide retouching or image restoration. There are many outstanding people offering this service. We highly recommend Katrin Eismann (<http://www.photoshopdiva.com/index.html>). Click on her "contact" link.

### Lux Eterna Developing and Printing

*(Choose this **no-risk** service for films that you are confident contain interesting or important images.)*

We develop, scan, print, copy scans to CD-ROM, and make an index print. Prints are manually corrected and enhanced (but not retouched), and are printed 4x4 or 4x6 inches on archival quality dye-sublimation paper.

This is a premium service for all sizes and types of black and white, color negative (print), and color positive (slide) films. We offer this service for conventional films as well as films that are old, damaged by improper storage, or which require obsolete chemistries.

**Per roll: \$26.00** (US dollars)

Plus return postage. **No risk:** Films that are blank are returned and your \$26 processing payment is refunded.

### Lux Eterna Develop only

*(Your safest option for films with unknown content.)*

Color or black and white films developed as negative images, for making prints, or as slides or transparencies, for projection or direct viewing. Films are scanned and returned with an index print of recovered images so you can decide which, if any, to print.

**Per roll: \$15.00** (US dollars)

Plus return postage. **No risk:** Films that are blank are returned and your \$15 processing payment is refunded.

### Lux Eterna Image Printing

*(This is a premium service priced appropriately for images that are faint or faded, or which require extensive contrast or color balancing.)*

After receiving your films and index print, select the images you want printed, and we will print from the scans we have stored. No need to return the films to us. Prints from our scans are manually corrected and enhanced (but not retouched), and printed on 4x4 or 4x6 inch archival quality photographic paper.

If the images you want printed are in good condition, you will save time and money having them printed locally.

**Per image: \$3.50** (US dollars) for the first print,  
plus \$0.50 per image for each additional copy of the same print.  
(\$15 minimum charge)  
Plus return postage

### Lux Eterna Scans to CD-ROM

*(This is an extra-cost service for customers who have purchased develop-only processing)*

In the course of developing your film, we scan each frame to determine the printability of images. To have us copy these scans to CD-ROM and include it with your developed film, add:

**Per order: \$5.00** (US dollars).  
Plus return postage, if applicable.

### The problem:

Over time, ambient radiation and spontaneous reactions in a film's light-sensitive layer cause uniform background density (fog) to increase. Contrast is reduced and image detail in highlights and shadows can be lost. Color dyes fade and go out of balance, or even disappear. This is why films are dated — the more years a film is past its "process before" date, the more fog, the less detail, and the more distorted the colors.

### The information following should help you decide what your chances are.

- We are almost always able to retrieve recognizable images from even the oldest films.
- With black and white films less than about 50 years old, we often retrieve images comparable to when the films were fresh.
- Color films stored at room temperature for less than 25 years, when processed in our image recovery chemistry, often give prints comparable to what was considered normal when the film was fresh (modern films give much better images than the films available even ten years ago).
- Storage conditions matter. Fog and dye fading are exacerbated by warmth. Films found in a cool basement will be in better condition than films from a hot attic. Our specialized low-fog, color-intensifying chemistry minimizes heat damage, but cannot eliminate it. However, most heat damage can be compensated for, to some extent, when scanning images to make prints.
- Films subjected to humidity or damaged by moisture usually become mottled and fogged. Sometimes the emulsion sticks to its backing paper or to adjacent film layers, which almost always damages the edges of the image, if not more. Light often infiltrates at the edges of roll films. A specialized digital retouching service can repair these defects if the image is important enough to merit the cost.
- Our special process allows us to examine a color film before the silver negative is bleached away. When colors are beyond recovery, we complete the process as a black and white negative. This allows us to salvage black and white images from many films that would otherwise have been blank.
- Consider our warranty: If we develop your film and it does not have printable images, we will refund your processing payment. All you risk is postage.

### Important

Please read and agree to the following  
**TERMS AND CONDITIONS**

Submitting any photographic material to Bluefire Laboratories ("Bluefire") for any purpose constitutes an agreement by you that

(1), **regarding damage:** if it is damaged or lost by Bluefire, or any agent of or subcontractor to Bluefire, it will be replaced with an equivalent amount of unexposed film and processing; and that except for such replacement, the handling of such photographic material by Bluefire is without warranty or liability even though damage or loss is caused by negligence or other fault;

(2), **regarding use of developed images:** Bluefire is allowed to use any images of, or images taken from, these materials for purposes of demonstrating or illustrating its services.

### To order:

Payment in \$US (or Canadian equivalent) can be by money order, your personal check, PayPal, or VISA/MasterCard.

If paying by credit card, please provide card number, expiry date, and your card billing address and phone number (if different from your mailing address). Please include a telephone number.

If paying by check or money order, please make it payable to Bluefire Laboratories.

Please add **return postage:** \$8 CDN to addresses in Canada, \$8 US to the US, \$12 US elsewhere. This is per order, not per film.

Canadians, please add 6% GST.

Mail your film in a box or padded envelope, with your instructions and payment (please mail your film, since UPS and FedEx will not deliver to our PO box). Mark the package "Undeveloped film. Do Not X-Ray." If you are asked to provide a green customs sticker, the item is "Film for processing" and the customs value is \$1.00.

Mail to:

Bluefire Laboratories  
Photo Lab Services  
PO Box 52,011  
311 16<sup>th</sup> Ave NE  
Calgary AB T2E 8K9 Canada

**Turnaround:** Plan on one or two weeks in the laboratory, plus time in the mail. Particularly difficult films require longer in scanning.

*Don't even think about discarding old films!* If we fail to recover printable images, we refund your processing payment. All you risk is postage. Your reward could be priceless images from your family's past.



Look for "Process C-22" on the labels of older color films. We are almost always able to salvage printable images.



Many subminiature cameras had superb lenses, and old submini films like this Minolta-16 cassette are well worth developing.

Films from 110 cameras are usually fresh enough to yield very good images.

Older subminiature films (like the Minolta cassette shown above) can contain black and white, color print, or color slide films, and most require obsolete chemistries.



Older European black and white films often contain quite lovely images. Our specialized developers are compounded for individual film types, and effectively limit age-related fog.

