

LITH PRINTING

Lith printing is a special printing technique that extends the principles of Pull Processing to an even greater extreme. It is based on gross overexposure followed by very slow development in dilute high-energy developer. The key ingredient is Lith Developer, hence the name.

THEORY.

Particular fiber-based papers can be overexposed by 2 to 3 stops. The print is then developed in very dilute high-energy Lith developer and 'snatched' from the developer tray before it is fully processed. Because of a chemical reaction called 'infectious development' the shadow areas, where most of the silver crystals have been hit by lots of light, begin to develop very rapidly. In fact, the longer they develop the faster they develop and the darker they become. The highlights lag far behind and develop very slowly.

Because colder tones come from larger grains of silver, and warmer tones come from smaller grains, a split-tone photograph will emerge. A curious side effect is that the lighter midtones will turn various colors, ranging from red browns to peach to pinks, down to beige or olive while the shadows go to a blue-black.

The paper is exposed 2 to 3 stops more than required for a properly exposed print. The developer is diluted to 1/3 the usual strength. The print is developed in the 6 to 10 (or even 20) minute range. The finishing point is determined by inspection, not by any mathematical formula. When it looks good to you, snatch it from the developer, and plunge it immediately into the Stop bath without letting it drain. The print will continue to develop while it is transferred and the sweet spot may be lost while letting it drain. [This means you may have to change the Stop bath more often.]

PROCESS

Highlights are controlled by exposure – shadows are determined by development.

Making the Initial Print

<u>make a test print</u>	in the usual manner
<u>determine</u>	the proper exposure for the HIGHLIGHTS
	this will be your starting point
<u>double the exposure</u>	and make another test print
<u>develop the print</u>	in LITH developer diluted to 1/3 strength
<u>watch carefully</u>	for the shadows to emerge
<u>snatch the print</u>	when the shadow areas have sufficient detail
<u>transfer</u>	immediately into the stop bath
<u>fix</u>	for the minimum required time

Fine Tuning the Print

examine the highlights	
<u>if they are too thin</u>	give at least ½ stop more exposure
<u>if they are too dense</u>	reduce exposure in ¼ stop steps
examine the shadows	
<u>if they are too thin</u>	develop longer
<u>if they are too dense</u>	develop less

LITH PRINTING, cont'd.

MATERIALS

Papers

- Fotospeed Lith
 - grade 3, eggshell backing, semi-matte surface
 - clear whites, cold-tone blacks, pink ~ yellow ~ sepia midtones
- Fotospeed Tapestry
 - heavyweight ivory backing, **textured** surface
 - impressive multicolor in selenium
- Kentmere Art Classic
 - heavyweight ivory backing, **textured** surface
 - soft brown to orange, even brick red to maroon
- Foma Chamois 545
 - heavyweight ivory backing, **textured** surface
 - untested for color
- Kentmere Kentona
 - white backing, gloss surface
 - soft brown to orange, even brick red to maroon
- Fortezo Polywarmtone
 - semi-matte or gloss surface
 - very responsive, tones well in selenium
- Fortezo Museum
 - graded paper with gloss surface
 - very responsive, tones well in selenium
- Forte Polgrade
 - variable grade **cold tone** paper, gloss surfaces
 - produces beige to peach midtones over cold blacks
- Forte Bromofort
 - graded **cold tone** paper, gloss surface
 - processes more greyish
- Oriental Seagull G and VG
 - graded and variable grade, gloss surface
 - clear whites, **cold tone** blacks, pink ~ yellow ~ sepia midtones
- Iford Multigrade Warmtone
 - white backing, gloss, pearl and matte surfaces
 - less color change
- Cachet (Maco) Expo Series RR, RF, RN
 - gloss, semi-matte, flat matte
 - very responsive, tones well in selenium
 - comes with a data sheet for lith printing!

Developers

- Edwal Lith F
- Fotospeed LD20 Lith
- Kodak Kodalith Professional
- Maco Superlith A&B

Safelights

- Exposures longer than 3 minutes may cause papers to fog. Close the wings of the safelights down to make the color red rather than amber.