

Lith printing technique – troubleshooting

error	cause	remedy
contrast too high, no colour (see image 1 below)	underexposed	increase exposure, higher dilution of developer
	negative too hard	increase exposure + two bath development
	negative much too hard	pre expose paper, if necessary above threshold
pale highlights and rich blacks	underexposed	increase exposure
no rich blacks	too much sulphite	reduce sulphite
	too short development due to overexposure	decrease exposure or add bromide
	unsuitable developer configuration	see paper table including fine tuning for papers
	exhausted developer	regenerate or use fresh working solution
	some warmtone emulsions lith in a brown-black tone	tone briefly in a strong selenium solution
print too black, lith black too wide	over-developed	get sooner out of the developer, or add bromide
fog on the image borders	darkroom light too light or unsuitable (wrong spectral range)	if you cannot improve your darkroom light add bromide
	not enough bromide for your paper	see paper table and add bromide
several black dots of different size, also on image borders; most of the time happens only after 3 to 5 prints	affected are all papers with high lith-ability in combination with highly diluted developer without regeneration; especially strong on Maco Expo R	use a stronger working solution; increase the content of sulphite and regenerate with fresh solution or with sulphite after each print

little black dots in the highlights	pepper fogging	increase the content of sulphite
staining and patterns of irregular black in highlights and mid tones	"chaotic infectious development" can occur in an exhausted developer with a high content of semi-quinone	don't be cheap on developer; paper and time is much more expensive, if your paper is prone to this, regenerate regularly; also see durability and capacity
irregular black stains (see image 2 and image 3)	emulsion lay upside down on the bottom of the dish without agitation or if emulsion side up: print swam up and partially fell dry for a short time	reduce the amount of developer to avoid buoyancy; in any case agitate constantly
light stains with blurred borders, transparent when you try to see through the print	inadequate hardening of the fibre base layer, when processed for long durations; a chemical damage of the Batytag , which starts from the back of the print	for affected papers or individual emulsions: shorten the times of development by using stronger working solutions (+partB)
image colour of the highlights not satisfying (see image 1)	not enough light or unsuitable paper	change to a more colourful paper or use more light in a working solution with more bromide

The following images illustrate some of the errors mentioned above. The list will be amended on a regular basis.

Image 1: contrast too high, no colour.

Reason: much too little exposure.

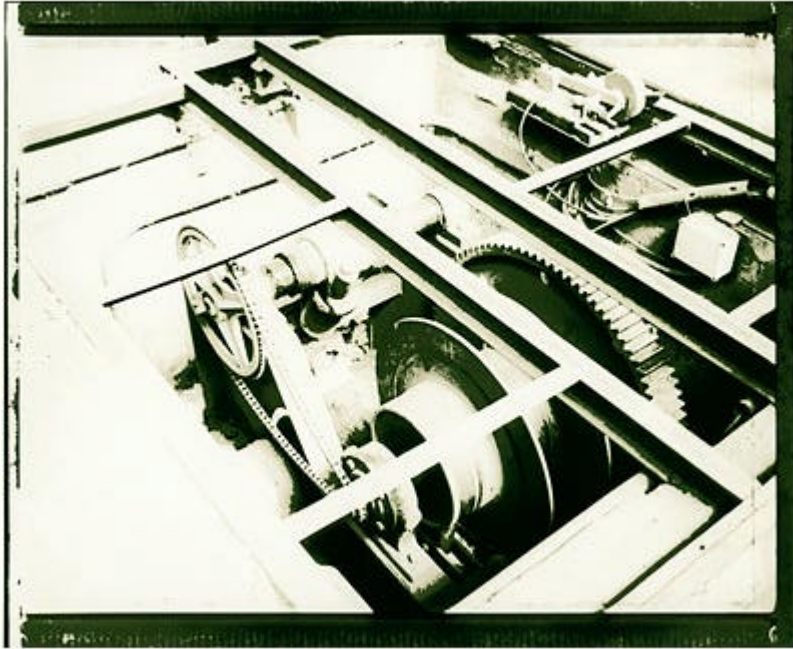


Image 2: dark stains, more or less big in size.

Reason: the print was not agitated adequately. There was too little developer in the dish, so that the print vaulted upwards. If parts of the surface fall dry, "infectious development" instantly starts in those areas due to oxidation.

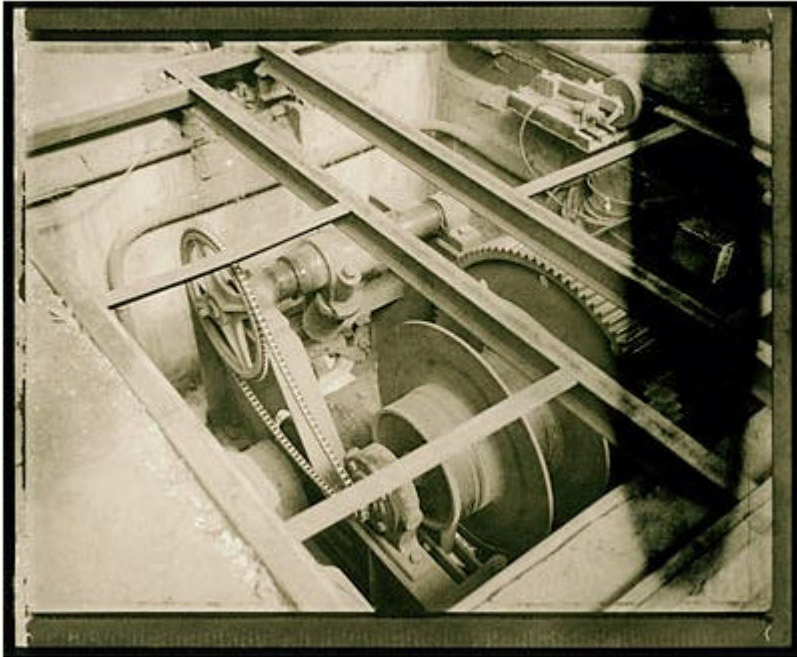


Image 3: dark stains, more or less big in size.

Just quickly one more exposure while another print is still in the developer. Too bad, two island-like patches of the print are above the surface. You cannot see anything at first, but towards the end of development rings appear where the print got air.



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