

# the Photographers' Formulary

O C T O B E R • 2 0 1 1

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## Lith Printing Workshops End Summer, not a Era



Vol Park Trees  
©Sally Miller

### In this Issue

- Lith Printing: Part One
- Lith Printing: Student Gallery
- Call for Entries: Hand Made Photo Contest
- Vote for Twelve Winners in the AlternativePhotography.com Calendar Contest
- October 2011 Newsletter Specials
- Hand Made Photo Contest Rules
- *Behind Photographs: A New Book*

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#### EDITOR'S NOTE:

This is the first of a two part series about the Formulary's Lith Printing workshops as taught by Tim Rudman. Part One describes the Lith Printing process, or how to get from here to there. Part Two will discuss Tim's techniques for Bleach and Redevelopment, as well as Basic Toning Techniques.



"Stir" by Michele Cole

Wet Plate Collodion, 1st Place 2011

### WE'RE CHANGING THE NAME - THE HANDMADE PHOTOGRAPHS CONTEST

It's the same contest, but with a change of name. We used to call it the Alternative Processes Photography Contest. From now on we're calling it the *Handmade Photographs Contest*.

This recognizes the unique qualities and characteristics of all those ways of making photographs which require you to do something more than click the shutter on a fully automatic, autofocus, image stabilizing point and shoot.

It recognizes the world of photography from Joseph Nicéphore Niépce's *View from the Window at Le Gras*, around 1826, to the sea change from film based photography to digital imaging at the turn of the 21st century.

In the end, any means of producing a photograph which is not a wholly automatic digital image, is both handmade and an alternative process.

We thank Kevin Logghe of Durham, South Carolina for drawing this to our attention.

#### LITH PRINTING: PART ONE

With the close of summer and the final days of four weeks of Lith Printing workshops taught by Tim Rudman, the Formulary closed its 13th year of alternative processes workshops in the making of handmade photographs.

As advertised, Tim taught three classes of basic lith printing and one week of alumni lith printing.

'*These are my Two Golden Rules of Lith Printing*', Tim told each class. He reminded students of "Rule #1," that in Lith Printing the highlights are con-



*Elegance*  
©Simin Soroush

trolled by exposure and the shadows are controlled by development.

To achieve detail in the highlights on a lith print you start by over exposing the negative by at least two stops. By overexposing the image on the paper you are sure to have more, most or all of the detail in the highlights without having to later burn them in.



*Untitled*  
©Bonnie Nehrer

But this is only part of the story. Because the print development must be terminated early, the print is underdeveloped and would be too pale, so over-exposure is needed to achieve sufficient density. The fact such a huge amount of exposure is given also means burning-in is less commonly required.

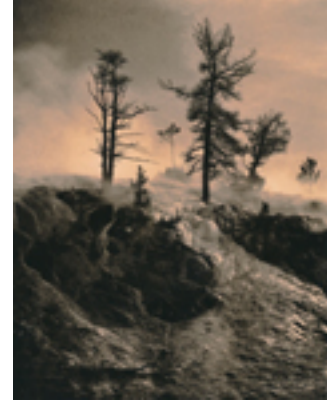
But this leaves you with an undeveloped print with vastly overexposed shadow detail. With normal development to completion the shadows would be sure to block up and become

ugly black blobs unless you could somehow control the development. In conventional black and white printing the mantra has always been to place the exposed print in the developer, agitate for three minutes and wait until the print is completely developed before pulling it out of the soup.

In Lith Printing it's backwards. You never wait for the print to fully develop, and you never watch it go to completion. With a careful eye and a deft hand you watch as the print slowly comes to life, with the highlights appearing first, and then the shadow areas. When the most important significant deep blacks appear, you "snatch" it out of the developer

very rapidly block up, ruining your efforts.

Does this sound crazy? It sounds a lot like developing film by inspection, doesn't it? And who, in today's world, still does that? Not many, I can assure you.



*Mammoth Hot Springs*  
©Herbert Swick

### REMINDER: THIS IS A "DYNAMIC" AND "INTERACTIVE" NEWSLETTER



*Bud Moves a Rock*  
Photo by A. Mournian

Thumbnail images are "linked" to larger versions. *Click on the thumbnail*, and the larger version will magically appear. Try it now by clicking on the image <<=.

In Adobe Reader, click on the "pages" icon in the left margin and see an index of the newsletter pages.

Don't forget that **BLUE** type is *hot linked* to a remote URL. We don't have enough space in the newsletter for everything we want to show you, so we create links to other websites which might be of interest to you. Enjoy exploring the newsletter and when you are done, call us at 800-922-5255 to place an order for chemistry for your next Handmade Photograph masterpiece!

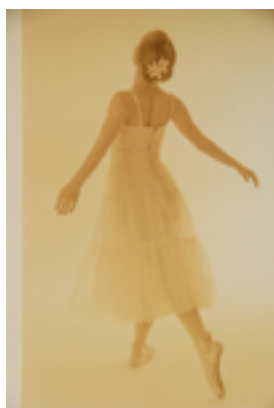
and drop it directly into the stop bath to immediately cutoff further development in the shadow areas.

You don't wait for the developer to drain off the print before dropping it into the stop bath, because while you wait the print continues to develop, and the now fast accelerating shadows



*Untitled*  
©Eduardo Colon

But it works only because lith developer has a unique and different action known as '*infectious development*'. Using a lith developer, originally designed and manufactured for the high contrast straight black and white images of pre-internet newspapers, - but now highly diluted for better control and warmer tones, the photographer turns the printing process on its head to achieve an entirely different result: elegant prints with delicate highlights and bold shadows, not only of black and white but of various colors and



Untitled

©Daneila Holischeck

shades depending on the paper and the developer used.

Different papers yield different results. Different developers add to the mix. Add to these the variables of concentration of the developer, temperature of the developer, silver and bromide/chloride content of the paper, fiber based or resin paper and you have the makings for beautiful results or disastrous outcomes.

Tim Rudman was probably the first to really pin down total control of all the variables, making lith printing controllable and repeatable instead of "*unpredictable and capricious*". Working slowly and methodically, Tim experimented for many months. with each of the ele-

ments. He kept careful and copious notes as he worked with



"Watcher"

©Kevin Logghe

each developer, then with each of the papers. Patiently, laboriously, he tested the papers until he came to know their characteristics like the back of his hand.

Because of the mechanics of infectious development Tim found he could do things with the print controls that conventional burning, flashing and dodging could never do. He also learned the color of the final image could be predicted and controlled, just as the density of the print could be controlled – by timing - on the baseboard of the enlarger and in the developer.

Warmer tone papers have more fine grains and so usually have higher proportion of silver chloride. Colder papers have more silver bromide. Almost all papers now have both bromide and chloride in different proportions. '*Chlorobromide*' mixes are



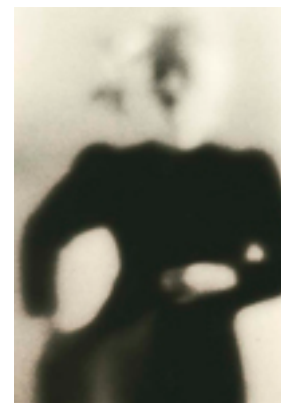
Untitled

©Pei-Te Kao

warmer and '*bromochloride*' mixes tend to be cooler.

Grain size of silver in the paper varies with the amount of development. The longer the grains of silver in the print are allowed to develop, or to grow, the larger the grain in the final print. This is even more pronounced with warmer tone papers. If the print is of soft, airy light tones, then the grains of silver in the print are small and fine. If the grain size in the print is coarse or rough, the silver has developed longer, allowing the size of the grains of silver to increase.

This increase in size is clearly visible with a magnifier on a dried and finished print. It can



Untitled

©Susan DeWitt

be seen in progress by watching the print in the lith developer, in what is called "*infectious development*." Just as the number of cells in a growing organism seem to multiply faster and faster as the organism develops, the grains of silver in the shadow portions of the image multiply at what appears to be a rapidly increasing or exponential rate. Watching the development in the shadow areas is like watching an infection spread across a living organism.

Because the development of the highlights takes place much sooner, and is much more sub-

tle, it's not as dramatic. You can see the stronger highlights come up, but the weaker ones are seldom clearly visible until the print has been washed and dried.

Development is in 2 stages. The 1st phase of infectious development develops just the super fine grain silver, resulting in very warm tone, low contrast, creamy textures. The blacks "take off" exponentially during the second stage of infectious development. Blacks are large grain, cold tone, grainy, high contrast and textured.

It's because of this that Tim has phrased his **Rule #1** as "highlights are controlled by exposure, shadows are controlled by development." and his



Untitled  
©Sandy Kawano

**Rule #2** as "Grain size is key. Image colour and contrast are directly linked to the grain size in the print. Grain size is directly linked to its progress in the developer."

Gross over exposure of the negative on the paper allows the greatest chance that the highlights will visibly print out on the paper at the point the print is snatched from the developer.

Finding the amount of exposure for a lith print is simple. Do a test strip of the print to find the approximate time of development. Increase that time by two stops and you have the approximate time necessary for a good 'starter'

lith print. For example, with an optimum exposure of seven seconds for a normal print,



Untitled  
©John Gould

overexposing it by two stops for a lith print would require a time of 28 seconds. ( $7 \times 2 \times 2 = 28$ )

Then, using the 28 seconds to make the exposure, place the print in the tray of dilute lith developer. Begin to agitate, and be prepared to wait. When the developer is diluted to as much as 1:20 the print can take several minutes to begin to come up. It can take so long that you may begin to feel you might have tried to print on the wrong side of the paper!

**N.B.:** Remove the filters from your light source. The use of filters is usually unnecessary and will only make print times longer.

Eventually, and with patience acquired by experience, you will see the image begin to appear. The highlights appear first. Highlights are formed from fine grains of silver, small in size and smooth in texture. Highlights only go so far before the grains of silver that form them are "used up." The highlights are not going to go any further.

Now it's the turn of the mid-tones. Slightly darker, and with grains of silver slightly larger, the midtones do their thing. Finally, and here it comes, the darkest areas of the print begin to develop in earnest. This is what you have been waiting for. True blacks of the image, if



Aspen Grove  
©Joel K. Alpers

there are any, begin to appear as the largest grains of silver begin to pop into view.

### ***Vote Now for Your Favorites in the AlternativePhotography.com Contest!***

***Malin Fabbri's alternative photography 2012 Calendar Contest is in full swing. Vote now for your favorites. There will be twelve winners, six chosen by votes cast on the AlternativePhotography.com website, and six chosen by jury. Vote for your own entry and vote for others. It's an eclectic group of highly interesting and engaging works. Click here. . . to begin your voting!***

***<http://www.alternativephotography.com/wp/events/competitions/2012-calendar-vote>***



It's very near the time now to "snatch" the print from the developer and drop it directly into the stop bath without draining the developer. Watch closely as the shadow areas in the most important parts of the print go from gray to true black. Now! Grab the print and pull it out of the developer, moving it as quickly as possible from developer to stop bath with NO delay in between.

From here on it's business as usual. Agitate it thoroughly in the stop, then move it on to the fix and finally to the wash. Be careful to wash it thoroughly to remove all fix to prevent stains developing in the dried print.

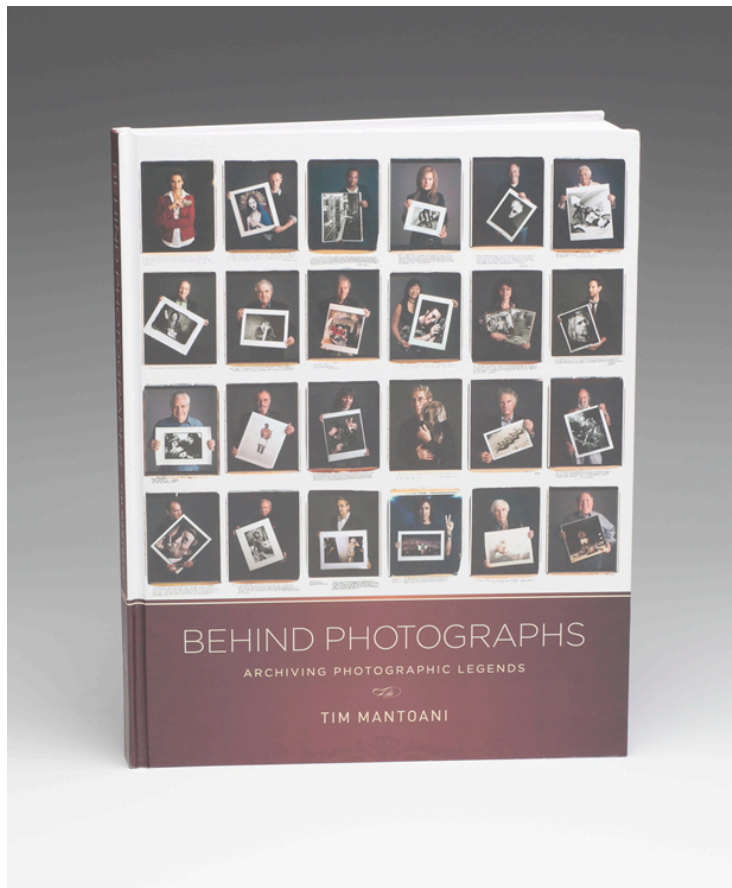
That's all there is to it. The photographs you see here were all produced during one of the 2011 Lith Printing workshops. Many were made by photographers who had never made a lith print in their life. Some were made during the Alumni workshop of the final session.

All photographs were generously offered by the workshop participants, whom we appreciate.

Explore Tim's website here: <http://www.TimRudman.com/>  
*(Interactive: Click here to watch a five minute movie of Tim as he discusses **The Two Golden Rules of Lith Printing**.*

*Next Month: Part Two will describe Bleach and Redevelopment, and Basic Toning Techniques. Read how colors and textures can be brought out of slightly overexposed lith and/or black and white prints using bleach, various toning and redevelopment agents.*

## **BEHIND PHOTOGRAPHS: PHOTOGRAPHS OF 160 MEN AND WOMEN WHO TOOK ICONIC IMAGES**



**It's an unusual book. As a group, photographers loath to be photographed. In **Behind Photographs** Tim Mantoani has created an astounding collection of iconic photographs, held by those who made them.**

**With the legendary 20x24 Polaroid camera, at a cost of more than \$75.00 a frame, Tim took each photograph, then asked the photographer to write across the bottom, in ink, their story of what the photo represented to them.**

**Behind Photographs is being printed and bound right now. It will be released**

**in time for Christmas, and at \$60.00 a copy will sell out fast. Only 2500 copies are being printed. If you are looking for a most unusual holiday gift, this is it!**

**Inquiries? *Write to Tim Mantoani. . .***



## OCTOBER 2011 NEWSLETTER SPECIALS



### Twin 11x14 Enamel Print Dryer

Promo Code: N0910

**Regular Price: \$109.95**

Special Price: \$85.76 = 22% off, you save \$24.19

This twin-surface dryer accommodates one 11x14", two 8x10" or eight 4x5" prints at once on each drying surface. The enamel-coated surface provides a uniform quick-drying environment with no over-heating the dryer's capacity is 30 - 8x10" single-weight prints hourly.



### Premier SL23 Omni Safelight

Promo Code: N1040

**Regular Price: \$35.95**

Special Price: \$28.04 = 22% off, you save \$7.91

Just two left, make great gifts

The Premier Omni safelight features a specially formulated, permanently pigmented dome filter that is safe for contact or orthochromatic materials. Designed for tabletop use or wall hanging, the unique Omni emits safe light in 5 directions. Equipped with 15 watt bulb and on / off switch.



### 8x10 Deluxe Premium Paper Safe

Promo Code: N0602

**Regular Price: \$60.95**

Special Price: \$47.54 = 22% off, you save \$13.41

1 in stock

Premier Paper Safes provide light-tight protection for film and paper. They are ideal for storage of all light-sensitive materials -- color paper, films, metal plates, etc. No more fussing with frayed cardboard boxes. Velcro secured. Exclusive "Tilt and Tap" feature fans paper for easy single-sheet removal. Rugged ABS plastic -- no fear of damage from refrigeration or freezing. Each safe holds 200 Single-weight sheets of paper.



### 8x10 Premium Paper Safe

Promo Code: N0601

**Regular Price: \$22.95**

Special Price: \$17.90 = 22% off, you save \$5.05

2 in stock

Premier Paper Safes provide light-tight protection for film and paper. They are ideal for storage of all light-sensitive materials -- color paper, films, metal plates, etc. No more fussing with frayed cardboard boxes. Velcro secured. Exclusive "Tilt and Tap" feature fans paper for easy single-sheet removal. Rugged ABS plastic -- no fear of damage from refrigeration or freezing. Each safe holds 200 Single-weight sheets of paper.



### Thiourea Toner

Promo Code: N0045

**Regular Price: \$15.50**

Special Price: \$13.18 = 15% off, you save \$1.54

This is the toning kit used by Tim Rudman for Basic Toning in the Lith Printing Workshops of Summer 2011.

Formulary's Thiourea Toner will give beautiful rich brown sepia-like tones. First the print is bleached using a ferricyanide-bromide bath then it's redeveloped in a sulfide bath. During this process, the silver metal in the print is converted to silver bromide, then to brown silver sulfide. The end result will give the



## PHOTOGRAPHERS' FORMULARY 4TH ANNUAL HANDMADE PHOTOGRAPHS ALTERNATIVE PROCESSES CONTEST

### Call for Entries!

Get your entry ready now. *April 2, 2012 is the last day on which entries will be received* for the

*Fourth Annual Photographers' Formulary Handmade Photographs Alternative Processes photography contest.*

### NOW WE NEED YOU!

The contest is our way to thank our faithful customers and former students, so we hope you'll join the fun, and we hope you win!

Your entry can be from *any handmade photograph alternative process, though it cannot be purely digital*. This means it can include a digital negative used to produce an image in any photographic process, non-silver or silver, invented before 1995.

**Who can enter:** Any amateur or professional who is not or has not been an employee or instructor at the Photographers' Formulary or at the Workshops in Montana.

**What's it all about?** Tuition for a free workshop of your choice during the summer of 2012. Additional prizes will be awarded for Second and Third place winners. **What's the entry**

**fee?** Not a penny to enter. Just follow the rules below for acceptable entries, and send yours in now. Please, *one entry* per contestant. Multiple entries by a single contestant will not be judged.

**Last day to enter:** *All entries must be RECEIVED at the Photographers' Formulary not later than April 2, 2012.* No late arrivals will be accepted for judging. No exceptions. **Winners will be notified on or before May 1, 2012** to give the winner choice of *any workshop during the summer of 2012*, and time to make appropriate travel plans.

**The Grand Prize:** The winner receives *free tuition* to the *2012 workshop of choice*. All other costs remain the responsibility of the entrant.

**Acceptable entries:** Original works only. NO entries on CDs will be accepted. Prints must be properly mounted; matting is not required. *Treat your prints professionally. If you win, your entry will be on display for a full year, and you want it to speak well of your abilities. Dry mount your entry so that you can be proud of it.*

*All entries must be sent with return postage or shipping pre-paid. Any entry received without pre-paid shipping or postage*

*will not be returned.* All entries *must be insured* by the entrant to the value of the work claimed by the entrant. The Photographers' Formulary and the Workshops in Montana shall be held harmless for any damage or loss to each and every entry.

Winning entries will be displayed in the gallery of the Workshops in Montana for one year. License to use copies of the winning images for advertising and/or publicity purposes is granted to the Photographers' Formulary and to Workshops in Montana. Original copyright shall remain in the entrant photographer.

**This offer is void where prohibited.**

Mail your entry here:  
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