

# My experience in color printing

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After two years of studying and practicing photography, which included working on art projects with Ron Stiles, I started my apprenticeship in photo engraving with Moncton Publishing Company. They had just converted from hot metal to cold type and need another offset camera man to set tones for photographs and make negatives for commercial printing plates. I worked in converting contone images to halftone on a web fed litho press as well as other methods.



There were two large 18X24 offset or process cameras with vacuum backs in the darkroom. The darkroom had double light trapped doors. We worked under red safelights, as the film we were using was orthochromatic and not sensitive to red light. I started hand-developing film in open 20 X 30 trays of chemistry.

There were no local color photographs printed on our presses in those days. One of the first systems we installed to print full color photographs was a unique hybrid system which integrated a computer program with a 4X5 Diffusion enlarger. It utilized a vacuum board and panchromatic film, which had to be handled in total darkness. It required making a set of film masks for color correction before starting to make the separations. It took an hour

or so to make set of negatives for one color image. The computer controlled the filter wheel under the enlarger and switches for the light controls. The vacuum and constant altering of diffusion sheets, masks, halftone screens and film according to directions from the computer were done by hand. The film was processed and has to be stripped in, lined up to make a set of four plates, one for each color on the press for Yellow, Magenta, Cyan and Black.



When the newer press was planned we started looking at a more functional, faster system to make color separation negatives. The order of the day was a high-end drum scanner. It would require extensive training in color theory and several hundred thousand dollars in specialized systems.



This is when my color craft really began to take shape. I spent thousands of hours working in color production. This was in 1989. Soon the Mac computer would replace the need for high-end drum scanners.

It was around the mid 90s I assisted Altron Color Imaging under the direction of Al Oulton in the setup of a color copy system capable of producing transparencies 4X5 in size for use in a Scitex smart scanner. The system was based on one developed by Earl Kage of Musciographics of Rochester New York. It used tungsten-based film processed by a Jobo rotary processor. The film was exposed with polarized light at the light source. It was the best system possible for making color correct images capable of reproducing the original color from a wide range of color art originals. The outputs were done through an Iris Ink Jet printer. Working with Altron I was able to upgrade my skills and prepare for desktop publishing by taking weekend courses at the New Brunswick Community College. I studied the Mac programs of Photoshop and quark express for print production.

Aside from my work in print production I also studied alternative photographic processes. At first it was reading periodicals published by The Photographic Historical Society of Canada.

One process, which intrigued me in the early 70's, was The Fresson Process. It was a secretive proprietary. There was an article published in the journal of the society, which described the process being used by a man in Spain named Ortiz. It was not long after this that I noticed an ad in Camera Arts magazine from New York offering a book published by Luis Nadeau on the subject of Carbon processes. The book offered extensive historical notes and a good chapter on the subject of Fresson.

I was invited to visit Luis Nadeau in Fredericton in 1982. It was then I decided to set up a lab in my home for the production of Carbon printing materials. First I worked in Monochrome and later in full color. Materials were hand coated and it took several days to make one print. I worked on them only in the winter, as the cooler air was needed to set the emulsions properly. I also preferred to be inside in the winter and outside in spring, summer and fall.

I used an early rod-coating technique to make my pigment sheets. As many as six sheets of emulsions had to be made for each color print. The formulas for these were developed using the finest pigmented water based artist color mediums. The process used hot water to process the prints so there was no need to be concerned with residual chemistry, which haunted silver bromide printers. The results were superb in both their unique beauty and permanence. My studies in color reproduction and my practical practice is what allowed my to do this work. Being comfortable with chemistry and having a healthy respect for it was also very important.

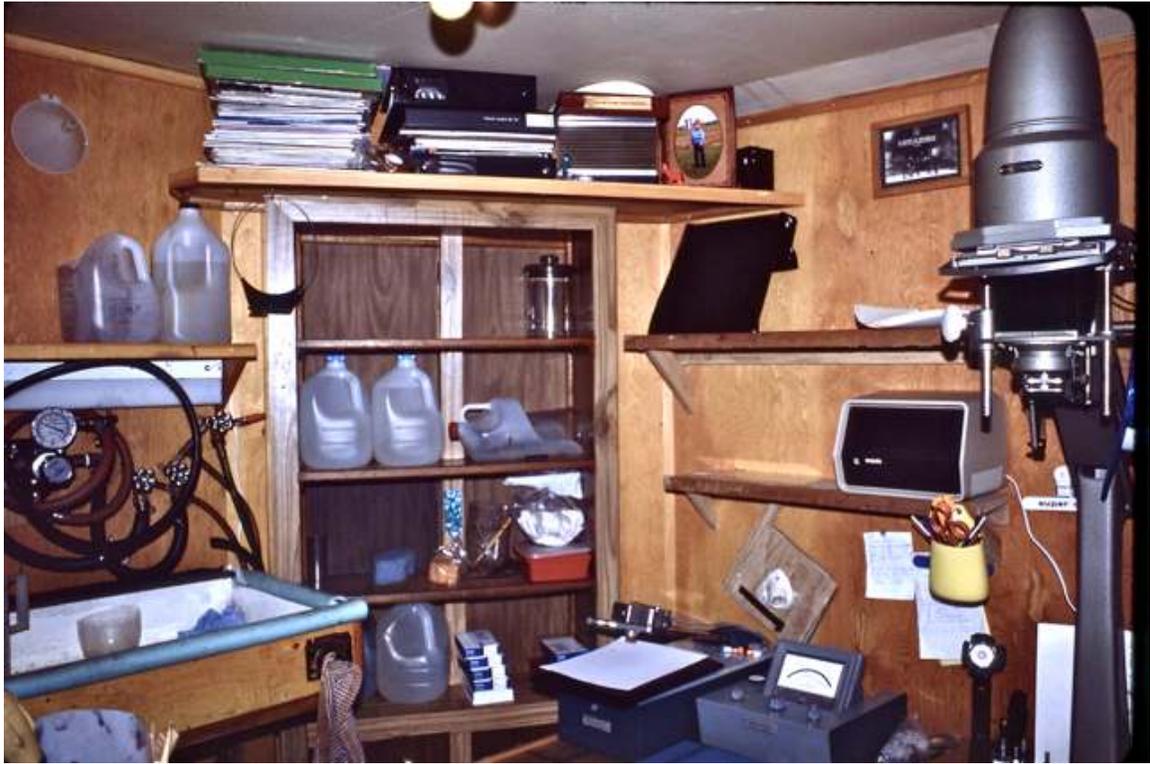
I have had many opportunities to do presentations to art and photo groups on the subject of photo history and have held many exhibits from my work.



The lad also needed good ventilation and a fume hood for use with formalin used to harden the emulsions.



An enlarger was also needed for making enlarged negatives used in the process.



A densitometer was also used to calculate the exposure needed.



Exposure was done by a Ultraviolet contact printer and light source built from plans included in Luis Nadeau's books which utilizes 350nanometer bug bulbs.



I was able to master the color carbon transfer process and worked in this fashion for many years.

Since this time pigmented inks, printers and papers capable of matching my hand made carbon prints have been developed. Also my eyes are much older and not able to do the fine registration etc. needed for hand made color work. It is also nice to be free of the darkroom after all these years.

I have also worked in hand tinted silver bromide printing. Many of my prints are in the permanent collection of the River Heritage Gallery. Port William's NB.