

# Iredell Photography Club



The Iredell Photography Club is, "Sponsored by Mitchell Community College and funded in part by the North Carolina Arts Council's Grassroots Art Program through the Iredell Arts Council" the link is:  
<http://www.iredellphotoclub.blogspot.com>

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## President's Notes

Greetings IPC,

Sure does seem like a long time since our January meeting, but February's is just around the corner. As another reminder, this month (**Feb. 12, 7:00 p.m.**) We meet **at Ruth and Tom Klumb's house** for a program featuring photos from Hawaii. Directions have been distributed, but if you've misplaced yours, just send an email to me or to Ruth or Tom and we'll get you on track.

Several people have remarked on how much they enjoyed seeing the photos several members brought to the last meeting. Since this was so popular, I'd like to see us make it a regular feature of our meetings. We all have much to gain from sharing our photographic experiences with one another. So, if you have an image, or several, that you'd like to share with the group, please bring them to a meeting!

By now, I hope everyone has had an opportunity to visit our new Iredell Photography Club Website (<http://www.iredellphotoclub.com/>). Kevin Speaks has really outdone himself, producing an absolutely first class site complete with member galleries and a discussion forum. Now that Kevin has done the "heavy lifting", it's time for us to put these wonderful tools to use.

See you at the meeting,  
Chuck

Visit our blog (<http://iredellphotoclub.blogspot.com/>)

### **This Space Reserved – for you!**

Your newsletter needs contributions from members. Have you been to an exhibit or read a good photography book? Write a review! Learned a nifty new Photoshop or Elements trick? Share it with us. Anything you are doing or have done in the field of photography will make interesting reading for your fellow members. Email your items to Wayne Wrights. [photoman28147@yahoo.com](mailto:photoman28147@yahoo.com)

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# Digital Inkjet Printing

*by Wayne Wrights*

## **Inks**

Inks are divided into two primary types, Dye and Pigment. Most printers are sold with dye inks, although more and more specialized models are being designed for pigment inks. Dye inks generally have more intense colors, but fade quickly. They are the main reason why inkjet prints have had a bad reputation for longevity (fortunately that is changing). Pigment inks last much longer but generally have weaker colors, although that, too, is changing. The newest generation of pigment inks has improved greatly in this area.

B&W prints made with the latest K3 inks from Epson are rated at well over 100 years on good quality papers and proper display conditions. It is recommended to research the latest test results for any inks you want to use. The quality is continually improving.

## **Papers**

The 100% cotton acid free matte papers are generally considered to give the best longevity. There are now many brands of high quality inkjet papers specially formulated for the fine art market. They come in 100% cotton and high alpha cellulose (acid and lignen free wood pulp) varieties, and the latest alpha cellulose papers are said to be processed to such a high degree of purity that they rival cotton in longevity. Some papers contain optical brightening agents (OBA) and some do not. There are too many papers to list and evaluate here. I would like to mention a few which are very popular and offer an advantage when used together. You can't go wrong with these:

EEM - "Epson Enhanced Matte". This is a wood pulp based paper which has an excellent finish and takes inks very nicely. However, it is not acid free and does turn yellow after a short time, so is considered to be strictly a proof paper. It is a nice paper with good Dmax and contrast, and has the advantage of being low in cost and is easily available in local computer supply stores. It is widely used for proofing or other uses where archival longevity is not an issue.

PR - "Photo Rag", one of several excellent cotton papers made by the Hahnemuhle company in Germany. Besides being widely regarded as one of the most beautiful papers, PR has the advantage of having contrast and density very similar to EEM. This means you can proof a print with the less expensive EEM and then print the final print on PR, with few if any adjustments to the image. Red River Paper sells a paper called "Dourian Art" which is made for them in Germany and is for all practical purposes identical to PR (some people suspect it is made by Hahnemuhle and is actually a special version of PR made for them). Dourian Art is double sided as well (work prints can be reused, making a considerable saving in cost). So this is a lower cost alternative to PR.

It is also important to note that inkjet papers come in standard business sized sheets, and not the usual photographic paper sizes (8.5x11 instead of 8x10, 13x19 instead of 11x14, although Epson does now have some papers in 11x14).

## **Print Permanence**

How long will a photographic print last? There is no simple answer. But it is important for anyone who cares about their photographs to have an understanding of the factors that affect longevity of

prints, to make informed decisions and to ensure that those photographic prints will last an expected time.

Having a basic knowledge on industry-accepted comparative print permanence testing can help you make decisions about buying imaging products, just as importantly, it can help you spot potentially misleading market claims about image quality and print permanence.

Several key environmental factors affect print permanence:

- Light
- Water
- Temperature
- Humidity
- Gaseous Pollutants

Manufactures determine print permanence ratings, but not all manufactures use the same industry accepted testing methods. To decide which products will give you the best print permanence, you need to be able to make an apples-to-apples comparison. Comparative testing by an independent third party such as Wilhelm Imaging Research, Inc., using accepted industry practices, can help you make informed decisions based on how different products perform relative to each other under the same conditions.

All prints, whether produced by an ink jet printer or a photo lab, are susceptible to fading when exposed to light, especially direct sunlight or any other direct ultraviolet light source. To protect your photo lab prints or your ink jet prints so that they last for generations, they should be stored under plexi-glass, glass or lamination, or stored properly in an archival sleeve.

**Tech Term:**

**Bronzing:** An effect in which midtones in a photo seem to take on a metallic, brownish appearance under certain lighting conditions.

**Tech Term:**

**Print Permanence:** The term used to indicate how long a photo will last before significant fading takes place. It was coined by Henry Wilhelm of Wilhelm Imaging Research, considered to be the expert on the subject.

**Tech Term:**

**Metamerism:** Is an effect in which colors look different under dissimilar light sources. Metamerism is most frequently seen when two colored objects match in daylight, but differ markedly in color when viewed in tungsten-filament light.

**Tech Term:**

**D-Max:** The darkest area of an image. Silver halide prints produce a D-max of up to 2.1.

**Tech Term:**

**Profiling:** "Profiling" is a method of calibrating a computer peripheral to a standard color setup. The current standard has been put forth by International Color Consortium (ICC).

**Tech Term:**

**Banding:** Banding is a printing defect characterized by light or dark lines in an image in the direction of the printing. In the case of inkjet imaging it is caused by a jet or print head that is not

properly aligned, inoperative, or incorrectly indexed. The usual cause of banding is clogged or partially clogged nozzles in the print head. Run cleaning cycles until banding clears up.

### **What is a RIP?**

RIP stands for Raster Image Processor and is software that takes your image and text and tells your printer where and how to place each drop of ink on the paper. It's designed to deliver every bit of performance and quality your printer can provide.

There are a number of advantages to using a RIP, starting with productivity. When you print through a printer driver, your computer will be "locked up" until the image is completely printed. A RIP speeds up this process and allows the image file to be processed and printed "in the background," eliminating computer downtime.

A RIP may also produce better image quality and enhanced color management. With RIP, each image can have its own color profile. Colors will be more accurate, and because RIPs use PostScript, text and line art will be sharper.

The major disadvantage of a RIP is that it takes very expensive software to produce. Not everyone can afford this. There are third parties that do this for a nominal fee.

### **What's the difference between a printer driver and a RIP?**

A printer driver is proprietary software created by a printer manufacturer to control the output of a printer by choosing the appropriate media type and printing resolution. A RIP is software written by a third party to enhance the productivity, capabilities and output of a printer.

With the right media and ink, you will be able to produce Archival prints that will rival lab made prints and that have a longevity that will surpass 100+ years. On the other side of the coin, with the wrong type media and ink, you may only produce prints that will last 5 – 7 years. It is very important that you check the manufacturer's guide and recommendations.

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# What was I thinking?

*By Wayne Wrights*

I decided to take the plunge and buy a photo printer. I was leaning toward an Epson printer mostly because of their reputation and the longevity of their prints via the Ultrachrome K3 inks. I was looking at the R2400 because of its capability of printing Black & White photos that was equal to a Silver Gelatin print. Several times I was as far as hitting the send/order button but backed out at the last minute. \$850.00 for a printer? What was I thinking? My first car didn't cost that much. At our November club meeting, Chuck made a comment about the new Epson 3800 Pro model. I thought to myself, "I need to check this out." I got a brochure in the mail a few days later - someone wanted me to have this printer. \$1295.00 for photo printer, way out of my budget; what was I thinking?

B&H photo had them the week of Christmas. I waited until after the Christmas bills were in, I had the itch again. I checked with B&H, they were on back order. No one, I mean no one in the US had one. Believe me, I know. This printer must be one hot item. I started checking again after the first of the year, believing they would be stocking them again after the holidays, and even went as far as putting my name on the "Wish List" to be contacted as they came available. What was I thinking? I checked every day. On Monday January 8<sup>th</sup>, still not available. I checked the first thing Tuesday morning January 9<sup>th</sup>, "On back order." I checked again around lunch, "In stock". I whipped out my credit card and proceeded to order. Once again I got to the send/order button. I clicked "Order". What was I thinking? Too late now. Faster than a speeding bullet I got an e-mail confirming my order. What have I done? I just bought something I didn't need with money I didn't have. What was I thinking?

My package came on Friday January 12<sup>th</sup>. It was all the UPS man could do to get it through the door, and sideways at that. Now I had to wrestle this package back to my house. After I got the package inside, the instructions said to "Handle with two people", now you tell me! As I started uncrating this machine, I said to myself, "What was I thinking?" It was a package inside a package, very well protected. I opened the "Unpacking sheet"; where again it said to be handled by two people. The instructions gave details on what to do. This machine had more tape on it than a ticker tape parade on Wall Street. The instructions said to keep all packing material in case you ever had to send it back for repairs, etc. Yeah, right.

I finally got it unpacked, double checked for any tape or packing material that I may have missed. It took me close to 30 minutes just to get all the tape off. I managed to get the printer on my desk. I stood back and said, "What was I thinking?" What have I got myself into? That was as far as I got that evening.

I went to bed and got up around 2 A.M. I turned the lights on where my new toy was. I looked at my new pride and joy, said to myself, "What was you thinking?" I cut the lights off and tried to go back to sleep. I tossed and turned the rest of the night, wondering if I made a terrible mistake by buying this printer. Will this printer even do what I want it to do? I didn't even touch the printer the rest of the day.

Sunday January 14<sup>th</sup> after church services, I decided it was time to finish what I had started. I connected all the cables that much I could figure out. Next I did the unthinkable, something most men won't own up to: I got the operating instructions out and proceeded to read them. I spent a couple of hours going thru this manual trying my best to understand what was going on.

What is a RIP, what is soft proofing, what profile do you need, what type of media are you using? This was only a beginning. "What have I gotten myself into?" "What was I thinking?" Oh my head was starting to hurt; I had to take 3 Aleve, my brain just wasn't able to comprehend all of this new information. I decided to approach this one step at a time. Everything was connected. I turned the power on, the first time charges the system, which uses precious ink (\$). This takes a

few minutes. All I can see is \$\$\$\$'s going down the drain.

Next you have to install the drivers and software for the printer so you can print. I now get my image that I want to print in Photoshop on my screen. The next step is to print, simple enough, right? Wrong, I selected print with a view, next I selected the orientation, landscape or portrait, next comes the profile that you need with the media that you are going to print on. Epson provides 11 custom profiles for Epson media along with some other manufacturer's media with the software. Problem is that Epson does not tell in the manual what profile goes with what media, so that is absolutely not any help to me. I go back and read the manual; the painkillers are not working yet. I find a driver that offers automatic settings that optimize print quality and speed when you use Epson media in the printing preferences. I find my paper type, size, layout, etc. Now I am ready to print, right? Wrong. Where do I put the paper? You can load the media from the front, from the top, or the rear. Decisions, decisions. Why can't they make this simple? I chose the most logical one, the top. I look at screen on the computer; there it is telling me where to load the media. Now I am ready, I hope. I click on the print button and the printer starts printing. Wow, after all this time, something is happening. My media comes zipping out. I know something must be wrong, but there is an image on the paper! Wow this thing is fast. My first professional print! It looks great. I couldn't believe my eyes. I printed another one, this time using another type of media. The first one was glossy finish while the second one was a luster finish. Both were sharp with just enough contrast. I preferred the glossy over the luster.

I spent the next few hours choosing different drivers and media. I have to admit, there is a huge difference in these drivers. I wasted plenty of ink and paper that day, but I learned a lot. I printed, or rather I attempted about 30 8x11.5 prints before I called it quits.

Now I get brave the next night and try printing for what I bought this thing for, Black and White printing. I did some research before buying this printer on Black and White media. I chose Museo brand Silver Rag Archival Fine Art Inkjet paper. I was able to download the ICC profiles for this paper from the manufacture's web site. But, I still had to figure out how and where to load the profile. Somehow I wiggled thru this scenario. I got my file up in Photoshop that I wanted to print in B & W. This printer has an ABW mode (Advanced Black and White), another item to figure out. I have to find the ICC profile for Silver Rag paper. I finally find the profile and start again with paper size, layout etc. I load the paper, I am ready to print. I clicked on the print button and the printer starts to print. The Black & White mode is a little slower than color. I cannot watch, knowing my print isn't going to be what I expected. My print comes out, I start evaluating it. It was too dark, but looked better than I had expected. I proceeded to print another one this time, going into the advanced print options, I lightened the whole print by 10%, and printed another one. I couldn't believe my eyes when this print came out. It had exceeded my expectations. Now, I didn't want to get over-confident with this print as I didn't have anything to compare it with, so I quit for another night.

The next night I went into the wet darkroom and made a fresh Black & White print of the same one that I printed digitally the night before. I made this print the same size as the inkjet print so I would have something to compare it with. I made every effort to make the darkroom print as good as I possibly could. I let this print dry overnight so I could evaluate both prints the next morning.

I got up the next morning ready for the evaluation. I did my assessment under 3 different lights: incandescent, florescent, and daylight. I was amazed that the major difference was just the base color of the media. The black tones matched pretty well. Now the texture of the paper makes a difference as the reflected light bouncing off will be different because of the dissimilar angle, but I was totally satisfied.

The next major challenge was how would this machine handle a big print? I ordered a box of 13x19 inch paper. I chose the first file that I printed on this new machine as I felt comfortable with

the color balance and the over all appearance as it had a lot of different color in it. I chose the same profile as the first print. All I did was just change the print size and printed. The printer handled it with no sweat. I was totally impressed with the quality and how it matched the smaller version that I had previously printed, but I had nothing to compare it to. I take the same file on the same CD to 4 different photo labs for them to make me a print to compare with. The Epson 3800 beat 3 out of 4 hands down on sharpness, color balance and quality. The 4<sup>th</sup> one was a commercial lab in Charlotte that uses a laser printer. The Epson 3800 looked as good as the laser printer. I imagine that if you took a 10X or larger loupe you may see some difference. I was impressed with the overall performance of this machine. I bought a box of 13 X 19 inch Museo brand Silver Rag Archival Fine Art Inkjet paper. I haven't gotten enough nerve to print a Black & White print this size yet, at about \$5.00 a sheet, I want to be absolutely sure I have this mastered first!

I look at the printer now and it shows that I have a little less than half ink supply left. It cost about \$500.00 to replace all 9 cartridges. What was I thinking???????

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## Gordon Schenck

*There will be a photography presentation by Gordon Schenck in Concord on March 13<sup>th</sup>. Seating is limited. Anyone interested in attending contact Wayne Wrights for further details.*

Schenck, a 1950 NC State engineering graduate who studied architecture at the College of Design, has amassed an impressive body of architectural photography over 40 years. With his favored 4x5 view camera, Schenck has photographed building styles all over the country. His mentors are Julius Shulman and Ansel Adams, who he studied under during a two-week workshop. While his assignments are now shot almost exclusively in color, he prefers black and white photography and work in the darkroom.

"I prefer using available light for interiors and sunny days for exteriors, selecting the right time of day for shadows to define the architecture," he said

Schenck started an architectural photography business in 1963. In 1973 he was given a Collaborating Artist Award by the North Carolina Chapter of the American Institute of Architects, and in 1979 he received a similar award from the South Carolina Chapter. In 1984 he earned the degree of Photographic Craftsman from the Professional Photographers of America, in whose Chicago-based school he taught summer courses in architectural photography for a number of years. Periodically he has lectured and given slide shows to national and state conventions of photographers and architects, as well as to local art groups and students.

His work has appeared in virtually every significant architectural journal and has been exhibited in many universities and museums, including the Museum of Modern Art and the North Carolina Museum of Art.

These photographs plus personal images, both in Black and White and Color, have been in one man shows at N.C. State University, Clemson, UNNC, CPCC and Queen's University. Gordon's work was included in the Museum of Arts 1987 North Carolina Artist Exhibition and the Museum of Modern Art's "Transformations in Modern Architecture." He is represented by Photogenesis Gallery in Santa Fe and Barry Singer Gallery in Petaluma, CA.

Schenck was born in Greensboro in 1927. He lives in Charlotte with his wife, Rebecca, a writer.

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## Photography at Randolph Community College

The Photography Program at Randolph Community College is pleased to announce the sixth presentation in the Jerry Howell Lecture Series. Julia Dean will present lectures on Friday night March 2 at 7:00 p.m., and Saturday morning March 3 at 10:00 a.m. in the Photographic Technology Imaging Center on the Asheboro Campus of RCC.

For the Friday night program, Julia will show her work and the work by the photographers working with her on a collaborative project about child laborers around the world. On Saturday morning, Julia will speak on "the documentary approach" which will include discussions of what documentary photography is and the ethics of photographing people.

Based in Venice, CA, Julia is the director of Julia Dean Photo Workshops. She has traveled to more than 40 countries while freelancing for numerous relief groups and magazines. She is also the author/photographer of the children's book, *A Year on Monhegan Island*. Julia received a Bachelor of Science degree in photography from Rochester Institute of Technology and a Master of Arts degree in Journalism from the University of Nebraska. She began her career as an apprentice to famed photographer Berenice Abbott. She has worked as a photo editor for the Associated Press and has taught at the University of Nebraska, Los Angeles Valley College, Los Angeles Southwest College, Santa Monica College, Santa Fe Workshops and the Maine Photo Workshops.

The Jerry Howell Lecture Series honors the memory of Photography Program co-founder and long-time chairman Jerry Howell. The presentations are open to the public and offered free of charge.

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