

KEEPING PACE

A Monthly Newsletter Devoted to the Darkroom Arts

Volume 105 June 1996

Try Making Great Black and White Prints

This issue has to do with producing top quality black and white negatives suitable for making gallery quality prints.

The field of photography now includes the digitized field. Computers have made it possible to produce outstanding images without ever using a darkroom. However, the thrill of seeing an image appear in a darkroom environment is still a great feeling. In this instance, you must use all of your senses in order to produce a great print. Doing it in front of a computer screen is fun and without question the only way to go in the commercial field, but as far as the fine art photographer is concerned, the feeling of accomplishment is heightened by the fact that you and you alone are using all of the skills of your eyes, hands, emotions and brains to make an image that will not only please you, but also

the viewing audience. I too have succumbed slightly to the use of a computer. This was done for many reasons, however the main one was to be able to understand the reason for it's acceptance in the commercial field.

Speed is one of the arguments for the computer. I have also found that I could easily change the contrast of all or part of an image. The brightness of an image was changed in seconds and the skill of the operator was only curtailed by his or her own inability to have an imagination.

My greatest disappointment was the output. Sure, I could get an image scanned by a service bureau and bring it up on my screen and make all of the corrections that I could ask for, then I was stuck. How do I get a quality print out of this effort. The answer was, send it out to another service bureau

and have a dye sub print, or an Iris print, or a new transparency or color negative produced, or produce a color print using an inexpensive color printer so that you could see the results.

None of these methods would be accepted by a gallery. They want to see a real color print made on color print materials. The only exceptions to this gallery requirement are the newer pigment prints produced by EverColor and UltraStable. These 2 systems are considered fine art prospects.

The EverColor system will use your original image to produce the necessary screened separations and will actually make the print for you. Many great photographers would rather work with their cameras and their imaginations than getting involved with any darkroom work. This is one of the reasons why I had so many

world famous photographers coming to me for prints of their work. I was their dark-room associate. They left me to decide on the contrast mode or the color balance and if I thought that the image needed improvement, they left it up to me.

I was successful only because I had good eyes and knew my clients and had a good picture in my mind as to what they expected from me.

When I made my own images I only had to rely on my own eyes and had no interference from any outside source.

This is why the field of art photography will always flourish. The eyes of the artist are involved in producing his own print.

When ever I made a print for an art director, and even after all of the input from the same gent, I knew that I had complete control of the image. I had to choose the contrast of the image and this was done based on experience and taste. The overall color balance was a bit trickier because the image would not look the same at my lab as it would in the clients office.

This was the biggest headache in the entire color printing community. We all had the same problems. We had to know the clients

office, his light source, his viewing systems for the transparency, and most of all, his temperament. And you thought it was easy?

However, let's bet back to the business of todays darkroom efforts.

There are many films that will fit the bill for producing fine art black and white prints. Just in case you don't know of any, here are a few suggestions.

Agfa APX series (25-100-400) are excellent films for scenics, Unfortunately, these films are for 35mm only.

Kodak's Plus X Pan is excellent, as is their Royal Pan, T-Max 100 is a great film for detail and straight line characteristics.

For special effects, try T-Max 3200. Very sharp and works great in low light. 35mm only

Tech Pan film. Very high resolution, and great for shooting scenes with low contrast.

Tri X Pan Professional. Long used by Ansel Adams. What else need you know.

Fuji's Neopan Pro. 400 has excellent grain and curve shape. The 1600 version has much less blue sensitivity and both films are tricky to process.

Ilford's Delta series of the 100 and 400 speeds are great for extremely fine grain, and can be processed

in almost any developer. Ilford's FP4 Plus (125) has better sensitivity than it's predecessor.

HP5 is a great workhorse kind of film. It can do everything. Very sharp and easy to process.

Ilford's XP2 (400) is a chromogenic black and white film processed in any developer used for Ektacolor negatives. I have found this film to be almost grainless.

There are numerous other films on the market. It is up to you and your personal preference to choose the kind that you can live with.

Which ones will give you great results? If you believe what you read, and the advice comes from experts, try the films they are talking about.

Sometime the advertisements are all you need.

All of the above films that I have mentioned are panchromatic.

Should you ever need to use Orthochromatic films? Absolutely. If your image contains much blue and green colors, the use of Orthochromatic films are justified.

Ortho films are sensitive to blue and blue green colors and make it a great film for capturing green foliage.

But the use of ortho films make it almost impossible to use color filters properly.

A mention of how different films are used was once described by Karsh. He would use pan films when shooting portraits of women, so that the warm tones of the ladies skin would be captured and would therefore print lighter. This is how he could produce an alabaster effect with ladies skin. But, when he made portraits of men, he would use ortho film, because the warm tones would not be captured and thereby print darker. The ruddy effect is what he was after.

Of course, there was more to it than just that. He would deliberately keep his negatives on the thin side. In this way, he could maintain the highlight structure that was necessary for the details that he wanted to keep. A very clever method of producing fine negatives.

Should you refer to the manufacturers chemistry to develop your films? I would think so. After all, much time and expense was spent by the manufacturer to make sure that the optimum results would be achieved by the use of a specific developer. However, this doesn't mean that all films must be developed with the recommended developer. Some developers are used for special effects such as very fine grain, or low contrast, high contrast, and for longevity in the bottle after it has been mixed.

In the old days (1940's) each box of film came with a recommended developing time for the manufacturers developer.

They actually printed a "gamma" chart showing you what results were possible when developing to a specific time and temperature. It wasn't extremely accurate but is provided a starting place.

So, if you were out shooting on a sunny day, and had a scene with high contrast in your viewfinder, after exposure you could process this sheet to a gamma that was lower than the standard .75. Perhaps a gamma of .65 would suffice.

If the scene was considered normal, then development to a gamma of .75 would be in order.

However, if the scene were overcast, then a boost in contrast to a gamma of .80 would be called for.

If it happened to be a rainy dismal foggy day then a gamma anywhere up to .90 would be in order. In this way most negatives could be printed on a # 2 grade paper. Remember, this was in the days before variable contrast papers.

Unfortunately, today's films do not come with a printed page that gives you such information.

The best solution, if you are serious about your profession, shoot a few sheets on the days that may be in

question and process these few sheets for different times. You will soon be able to discern which is the best processing time for a specific "day." This one step alone could be a big step in the right direction.

You should have some idea of the "gamma" of development required for producing full and detailed images in your negatives.

Not to think correctly about this part of the process could ruin an otherwise great image.

What happens when you spend a few days out there in the hills and woods and then when you return to civilization you turn your films over to a "lab" that does not know or care what time you have spent on producing a work of art.

You must process your own films.

What kind of a set up is needed for such a chore? There are many ways to process film.

Trays, if you are neat and careful.

A tubular system such as a Jobo is excellent, but be careful when loading the tanks.

Dip and dunk with film hangers is a careful way, but much skill is needed so as not to produce edge effects when fresh developer is forced through the little holes found in all film hangers. But with careful handling, and possibly using gas burst agitation the films can

be processed accurately.

Time and temperature must be accurate.

This requires quality timers and thermometers. A great tool that I have mentioned on occasion is the **variable timer produced by Zone VI**. The time adjusts itself as the temperature fluctuates. Very accurate.

What happens when the shadows are so clear that the contrast of the image is distorted? This is caused by exposing the film too short and the image has fallen on the top of the straight line curve shape. This is one of the reasons for using a quality exposure meter. This causes a false impression that the image is contrasty. It really isn't. A self mask made on any sheet of film (preferably Kodak's Pan Masking) could place enough tone in the shadow portion of the image to eliminate some of the "contrast" but there isn't much that can be done to retrieve any detailed information.

Can masking be a benefit in improving the quality of a negative? You can bet your life on it.

To what advantage is masking when working from finished negatives?

Masking is procedure that can be used to increase or decrease the contrast of a given negative.

Masking can also improve a section of the negative without affecting the rest of the image.

Suppose that you have a negative that produces too contrasty an image. If a contrast mask is made you can end up with the exact contrast that the paper requires. This is a simple chore. However, you must have the proper equipment to use this interesting function.

A register carrier and a film punch to match and some sort of exposing device. This could be a simple contact frame with a set of pins drilled into the glass.

What about the opposite effect, if the negative is so flat that changing paper grades is not enough? In this case, make a positive from your negative by contact. Use the same contact frame.

Use a film that has more contrast than the negative film you are planning to correct.

From this positive make a very flat (in contrast) image which will be another negative when you are through. Place this new negative over the original negative and watch what happens to the overall contrast. 2 negatives placed together will definitely increase the overall contrast of the final print.

This is a trial and error system that will improve your image.

Sometimes the image is just

a bit too weak or strong, and the slightest correction can make a great difference.

What kind of film should you use for masking. Well, Kodak has seen fit to discontinue the Pan Masking film which has been used by the entire photographic community for over 50 years. Any pan film will work. It is simply an adjustment of the developer strength. I would dilute the developer by adding 100% more water to the formula than the original formula requires. You will have to make a chart once you have achieved the proper mix.

Try to find a reasonable developing time, somewhere between 2 and 5 minutes, Once you have found such a time zone, then zero in on an accurate "gamma" system. I have used Kodak's Separation 1 and 2 with accurate results.

Is horizontal projection better than vertical projection?

It depends on the kind of enlarger you own. If you have a system such as a Durst 8x10, or a Saltzman 8x10, then all of the controls are within easy reach at the base board. In this case a vertical system is fine.

On the other hand, if you have an old Elwood then you would be better off using a horizontal system.

If you have the skill, you can "make" a horizontal system such as did Ansel Adams, which he preferred because with large blowups it was easier to dodge and burn. It is a personal problem. In my Los Angeles lab I had 17 vertical enlargers and one horizontal. I did what ever I needed to do with whatever I had.

I presume that if you think about it too long you will lose the fact that it really doesn't matter. If you had the opportunity to use many bulbs in the enlarger head, then by shutting some off and some on, some semblance of dodging could be considered. But don't count on it.

To me it was very important to be able to repeat a dodging and burning sequence, once the master print had been made.

If you can produce the same chemical mix (developer, stop and fix) and have complete confidence in the light level of your enlarger, then you will go down in history as the champion of reproduction. I would hope it is possible, but my experience tells me otherwise. So, what can be done?

Make a map of the corrections, as follows.

1. Make a test print.
2. Determine the overall exposure.
3. Make a full size print.
4. Examine it carefully and find the areas that need burning.

5. Do a burning test. If it looks good, record the percentage of the main exposure that was needed to obtain the correct result.
6. Do a dodging test. Again. record the amount of the dodge, in percentage, of the main exposure.

To produce a "map" of the image so that it can be repeated later, take the last print and using a black marker, draw a shape around the dodged areas and mark the percentage of "hold back" that it was given. Mark the areas that were burned in with a different color marker (blue?) and then write in that area the percentage of burn in time that it was given.

Do this all over the print. Then save the print in a file marked for just this client. Now, any time in the future when he comes back for a reprint, all you really need to do is to first establish a new exposure time, as the time will definitely be different. (Variables, you know) But as long as you know the percentages for the burn in and the dodging amounts, you can be sure of getting a very close match. How can I be so sure that this method works? Because I used it for many years with absolute success.

The choice of papers. There are many. This becomes a personal choice. Some like a warm tone paper, and

some do not.

It also depends on the kind of image you are about to produce. My choice for the past 15 years has been Ilford's Galerie. It has deep rich blacks and is easy to manipulate in the developer.

Let me expound on this part of the photographic art.

Is it possible to play around with the developing stage of the process? Absolutely.

If I used a developer such as Dektol mixed one part developer to 2 parts water, I used to have a one quart bucket containing straight developer, next to my tray when ever I was about to embark on processing my paper print. If I had a sky that had difficulty in looking correct, and would not come up with the rest of the print, and I felt that it needed to be darker or more contrasty, I would take the print out of the tray and position it on the back wall of the sink. My back wall (actually called a backsplash) was about 4 feet high and very well lighted with quality safe lights. I then would take a wad of cotton and dunk it into my bucket of straight developer and carefully add some developer to the troubled area. I used a water hose to stop any action if necessary.

If it were a sky I would turn the print upside down so that the developer would not run into other important areas of the image.

Does this process work?
You can bet it does.

Is this a good practice?

It depends on your pocket book. If you have unlimited time and money, dump the print and star over. However, if you were like me and trying to make a living, I saved every print that I could, short of turning out "junk."

How long can you process any sheet of paper? Usually not much more than the manufacturer recommends. The reason should be obvious. If developing is carried past it's recommended time, the shadows will have been processed to completion. But, not the mid tones or the highlights. They will keep on processing to a point where they too will eventually stop. The result will be a grey fogged print. This is known as "chemical fog." This happens with all photographic materials.

Different techniques in dodging and burning.

We all know that we have used our hands, fine wires with little shapes glued to the end, opaque papers with little holes cut out of them, and so on. There are even "tools" that can be purchased so that burning and dodging in is a simple matter. But what if you want absolute repeatability?

I have written about a techniques that Ctein uses.

He uses a 4x5 format enlarger and make little masks on 4x5 pan masking film. (Any film will do.) He will use his enlarger as the light source. He stops the lens down so that he will have adequate time for his "trick." He will make a mask that is dodged in the center while it is being exposed over all. Then it is processed. The beauty of what he does, is important. He will expose and process the film to a specific time and the result he obtains can be repeated. So if he makes a mask with a density of .30 and has a clear center and places it on the top glass of the film carrier, he can in fact, burn in the center part of the image for a total of 100%.by adding 100% exposure to the entire print.

If he makes a mask with a density of .15, then the burn will be for 50%. By making various density masks he can combine them and almost choose any density he needs for the burn. If he makes a mask with the open area on one side of the making film, then he can locate the burn at will. If he needed to dodge an area, then he would burn in a area on the pan Masking film and use it as dodging tool. Again, the density was critical. He made many images both used for dodging and burning. The way he chose the films and how he used them was an eye opener.

All he needed to do is to tape the mask or series of masks on the top of the glass in the carrier. When I visited him years ago, he had boxes of masks that he could pick out and use with absolute accuracy. His motives were slightly different. He was exposing Pan Matrix films for the Dye Transfer process and this technique was a necessity. There could be no room for error when making three matrices that must have the dodging and burning in the correct place. He would use these masks to first make a Type C print. Then he used the same masks and positions to make the matrices. Even the color balance of the C print was an accurate guide to the exposures needed for the Pan Matrix films. Very clever indeed.

I also wrote about using Crocine dye for dodging. This powerful red dye sold by Kodak and called Crocine Red (we called it cosine) was mixed in water to produce a red dye. As you know, red is not accepted by normal black and white paper and will not show in a print. The deeper the red color the more it would resist making an exposure on normal black and white paper, which is an Orthochromatic material. We used this dye in lieu of dodging by hand when the space to work on was in a

difficult position or too small, to see in the dark accurately. The mixing of the dye was a simple chore, The more water and the less dye, the lighter was the stain and if handled carefully, I could lighten the dark pupils of the eyes of a ladies face. Try that with a wire and a wad. The ability to dodge with this material was a joy to watch. I could even add some photoflow to the dye, place the dye in a tray and partially soak a sheet of clear film in a moving action and get a sheet of film that went from light to dark in a very even and smooth appearance. Place this film over your negative and watch how easy it was to lighten or darken a sky. The film could be punched and placed exactly in position every time it was used. It could also be stored with the clients negative so that it can be retrieved and reused when ever it was necessary. Using a tiny 0001 brush, or a large # 7 brush, I could place this dye in any strength anywhere I needed it to lighten an area.

Ansel Adams used a horizontal enlarger and he found that it was easier to be able to dodge and burn in areas in this fashion. It all depends on the enlarger. If you are used to working with a vertical system, and the enlarger's controls are located somewhere around your thighs, I found it easier to work vertically.

It is a personal choice. For those of you who do not do much manipulation of this sort, the question of which is better is mute.

The last issue of Photo Techniques (May/June) has an article by Vestal called "Dodging hard." It is excellent. He shows you the many steps that are sometimes required to produce an acceptable print. His explanation is accurate and easily visible. His rationality is this: Keep it simple. I highly recommend that you get a copy of this issue and read it carefully.

In the same issue is another master printer, Bruce Barnbaum. His background in photography and especially in print making is legend. He uses Forte Polygrade variable paper for most of his prints. Most masters can use variable grade and produce different contrasts in one print by changing the filtration between exposures. The use of a color head makes life a bit easier. Bruce uses a Saunders LPL dichroic light source with his enlarger and the ability to change filtration between exposures becomes a simple matter. The difficult part is to know which filtration to choose and how to manage the variations in the print.

Some of the tricks of the trade include bleaching a

print in order for the whites to become more effective. I used to use a mixture of Potassium Ferrocyanide, hypo, water, and when applied properly, the fine whites would get just a bit brighter and this helped to impart a "specular highlight" effect in the print. All of the master printers have some sort of chemical mix to produce this effect. Ansel did, and so did every master printer. At the other end of the scale was the ability to increase the degree of black in the print. This was done with Selenium toners.

The degree of "snap" at the bottom of the tonal scale produced an effect like no other. I remember going to a gallery in Monterey, CA. and examining each black and white print with much interest, Then I noticed a door slightly ajar. I peered in and my mind was blown away. The prints were fantastic. They jumped out at you and held you. The effect was incredible. I swung the door open, and discovered that I had walked into a room under preparation for an exhibit by the great Ansel Adams. Wow. I was never before so struck. And I have seen many tens of thousands of prints, but this floored me. I asked many questions to the gallery owner and he explained his knowledge about how Ansel used Selenium toners for this effect. So I tried it too.

It works like a magic wand. But beware. If you over do it, you will ruin your work. This part of the process needs more explanation from the print masters. I will be contacting some of them for a future report on "how" it is done.

For the latest news about EverColor.

I received a letter from Bill Nordstrom. He has informed me that EverColor has merged with John Wawrzonek's company in Boston Mass. called "Photographic Arts" and the merger will produce these results. The company will be headed by John Wawrzonek (CEO) and the name EverColor will be used only to identify it as a subsidiary of Photographic Arts Co. This means that all of the equipment had to be moved to Boston and reset again. The market place will include commercial accounts as well as the fine art field that EverColor has so well nurtured. This is a big move. It means that Bill Nordstrom will be selling his magnificent home in northern California and resettling in the Boston area of Massachusetts. This was a big decision. I wonder if I would have the courage to make this kind of change. The name EverColor will no longer exist but will carry on as a member in the "Photographic Arts" company.

The equipment alone must run into the many thousands of dollars.

However, it works well. John Wawrzonek is a master printer and knows the fine art world as few do. His work is impeccable and will be the talk of the photographic community. He has the "eyes" that are so important to run such an organization. So now with the eyes of Bill Nordstrom added to the list of great printers, the company should get off the ground with ease. The commercial market must be addressed and added to the company's list of clients. The fine art market is large, no doubt, but the addition of the commercial market makes it work even better. Since the commercial market is being run by advertising agencies, and some of them have their own computers and work stations, the market place must be elsewhere. Where is it? In my estimation, it is in the field of "point of purchase" art. This is where the best images must be produced, but on a short run. This is what I did in Las Vegas. I worked by the "hands on" technique, and for what it was worth, I did a good job.

My goal was a take a complicated set of images and lettering and then produce a photo composed color negative material so that a short run could be made without the expense of going

to an engraver and running a minimum of 5,000 prints when all that was needed was 10 prints.

The need is still there in Las Vegas, but the computer has taken over and the work is being done by inexperienced people who may know the computer, but not the art field.

I have written many times about what it is that constitutes a fine print. The word is "quality."

How can one define quality? It is almost impossible. The eyes are the only tools needed for this interpretive decision.

When I was an infant in the color print business, and didn't know beans about the technical aspects of the processes, I still had eyes. It was this fact that kept me alive in the business. I knew immediately when a print was terrible. Some others thought I was to severe with myself, but, I knew better. I can sport a lousy billboard at a quick one second glance. Take a look at the latest Marlboro ad where three or four cowboys are in one scene. The flesh tones were off a mile.(My view) I think you will know what I mean.

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