

# KEEPING PACE

A Monthly Newsletter Devoted to the art of Darkroom Photography

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## A Sudden Black Mask?

How accurate is corrective film masking when compared to electronic digitized masking?

This is a question that has been on my mind for quite a while.

One day recently, I received a call asking about "sudden black" masking.

Let me explain just what I mean by "sudden black."

If a scene has a deep shadow area that has slowly crept into being, such as a room with only one diffused light source This is a normal light to dark effect.

The masking procedure that I have used for years could easily mask the entire image and allow for a total contrast reduction.

But, a "sudden black" area is one that looks like the following.

Imagine a color print being made for a record album cover. The shot consists of a 35mm transparency of Johnnie Paycheck (a Western country singer) who is sitting in a chair, with his guitar, wearing his famous black cowboy hat, and sporting a black beard, black shirt with little decorations all over it, and a pair of black pants and boots with designs throughout the seams.

So far so good.

But then the art director places this man in front of a newly whitewashed brick wall, that is also directly lit by the sun.

This creates a sudden black. Normal masking will bring the entire image into the proper contrast range for the Dye Transfer process to work, but the black pants,

shirt, hat, and beard will still be at the lowest place on the curve shape.

Electronically, the curve shape could be changed so that the shadow areas would light up. We could do the same thing with shadow masking. But in either event, the pants, shirt, hat, etc. would still create a certain amount of flare, because of the empty shadows.

Here is a tip that would compete with the thinking of a computer operator.

First of all, let us set the stage so that you can understand the procedure.

We are making enlarged separation negatives to an 8x10 size.

The 35 mm transparency has been mounted into a

larger sheet of film (2 1/4 sq.) so that it can be handled.

The principal masks are the main masks used to adjust the overall contrast as well as to somewhat control the color.

These masks are made by contact to the original. They have been processed to the proper degree of contrast so that a pleasing rendition of the original transparency can be produced.

These masks are then added back to the transparency in the enlarger carrier before exposing the final separation negatives. The separation negatives are exposed accurately, and processed.

Then the highlight masks are made, by enlargement, so that they too, can be added back to the separation negatives before making the matrices.

**Then here is where the departure takes place.** With just the transparency in the enlarger, expose the enlarged image onto a sheet of Kodalith Ortho, type 3, on register pins, and process it in D11 or Kodalith A&B developer.

The result should be a reverse of the original image. The hat, pants, shirt, and even the beard, should

be clear film, and the rest of the white wall should be black as ink. No middle tones, simply white and black.

If necessary, bleach or opaque any areas that you don't want disturbed.

The black parts of the original are now clear. We will add this Kodalith mask back to the easel to make our hold-out mask.

**First**, we place a sheet of Kodak's Pan Masking Film on the vacuum easel. **Then we add this new "sudden black" mask to the same easel**, on pins and in register, and make an exposure. The result is this.

An image will appear on the newly exposed sheet of Pan Masking film.

It will be a negative image.

**However, it only will affect the deep shadow areas.**

Add this "negative" to each of the separation negatives when preparing to make matrices and what will happen is that the deep blacks of the image will still remain black, but every nuance above the deepest black will have density added to it, and the details will suddenly appear, as if by magic.

These details were there all the time, but were too deep in the black area to really have a chance of being seen.

This is truly selective masking. It has worked for me on

many occasions where similar black areas were in evidence.

Do not use this technique where the black are not "sudden" but instead, rather gradual.

My many articles about flare explain this problem. It is really, the only stumbling block in all of photography. Flare is experienced when printing from negatives and where the dark areas are almost clear, or from transparencies where the light areas are almost clear. The amount of light bouncing around in the lens, bellows, and just the atmosphere, can cause flare which will fog over any details in these light density areas. This is one problem where I found a solution to making prints of dark objects without losing details in the dark areas.

If I had such a subject in a transparency, and made a Cibachrome print, the shadows would look great. they would not flare.

The reason for this happening is simple to explain. The transparency shadows are dark.

In the transparency stage, they do not let light flare. It is only in the light areas on the film that cause a problem.

In a separation negative, it is the light areas of that film that cause flare.

My solution was to make enlarged separation negatives to the size of the print.

This meant that I could then make contact exposures of these enlarged separation negatives, and the shadows wouldn't flare because they were not being projected.

Learning to make enlarged separation negatives is not that difficult.

Choose a film that does come in large sizes, such as Kodak's Separation # 1. Make tests and charts at the 8x10 size until you are satisfied with the results.

Then transfer the information to the larger sizes, and make sure that you use plenty of chemistry, and that your temperature and agitation rates are the same. If necessary, process one sheet at a time.

To make the matrices, use an overhead light source such as a K & M point source. Use a contact frame, and make sure to use the correct register pins.

To find the correct exposures needed to make an adequate color balance, I recommend making black and white prints in order to find the correct density and color balance, by comparing neutral areas on all three sheets of paper.

Does this process work? And how!

I was once handed a job to

print. It consisted of the interior of a piano.

An 8x10 transparency was needle sharp, and detailed, however, most of the transparency was black, or close to it.

I wasn't concerned about detail in the black areas, but I didn't want to lose any detail or crispness in the strings, which were situated right in front of the black areas.

I made 16x20 separation negatives by projecting the image using an 8x10 Durst condenser enlarger. The negatives were as sharp as they could be.

I placed my 10x10 separation filters between the light source and the negative carrier.

When I finally made the matrices and pulled the first print, I couldn't have been more pleased. The client felt the same way that I did.

So we have two separate but yet similar problems. They were both corrected in unusual ways.

If I had elected to make the Cowboy print with enlarged separations, the result would have been pretty good, but my method of opening the shadows worked even better.

A few more thoughts about the newest challenge to the status of personal color printing.

The news from all sources, including prestigious photo, and darkroom magazines has been aimed at the reproduction field.

However, lately, there has been advances in the Carbon Pigment field that is startling. You already know about Bill Nordstrom's recent announcement, about getting totally involved with a new Scitex scanner and all of the other electronic devices that surround it. This is a major movement towards the fine art photographer who needs to have his work printed.

Most fine artists consider the job done as soon as the transparency is delivered. How fortunate they are to have such a professional printer in their corner turning out works of art. My hat is off to the new Evercolor organization.

One of my major concerns with most of the scanners and print systems was the lack of control about making sure that what you saw on your own individual screen matched what was being produced for you by an independent screen separation negative technician.

I always felt that once you sent to transparency out of town, you had to wonder how accurate would the separations be. Not any longer.

Bill Nordstrom will have complete control of his images.

Even Kodak has come to the rescue.

Last year, at the PMA show in Las Vegas, we had the pleasure of talking to the Kodak representatives who were talking about "color management."

They were trying to establish a method whereby anyone could send an image out of town and receive a close match to what was on his color screen.

Last week, I received a brochure from Kodak, and they were introducing a new system called "ColorSense." A color management system.

If you are properly equipped and with this system, Kodak claims that you can scan an image, place it on your screen and adjust it until you are pleased with the result, then convert this image to CD, Kodak's XL 7700 dye thermal printer, a QMS color script printer, a Hewlett Packard Desk Writer color printer, and even an Iris Color Printer, and all of the images will have the same look.

The computer program will sell for under \$500. This is an absolute revolution in the field of color matching.

The latest array of Apple computers include a new

machine aptly called the "Cyclone."

This will allow small businesses to hop onto the band wagon and get involved with the world of electronics.

I have been writing about some of the large posters made here in Las Vegas for the Hotel business.

Iris systems has announced that they are using a new translucent film base that will accept the dye jet systems used in Iris prints.

This is a new material developed by National Graphics in St. Louis, MO.

This means that they will be amongst the first to totally eliminate the enlarger.

In fact, Kodak is working on a new "enlarger" that works directly from a computer.

What I see for the future of commercial photography, is the use of a digitized camera, a computer system, and some sort of jet dye system to produce a hard image. It's here already.

**However, there is much life left in the field of art photography.**

The individual skill that it takes to make a work of art can't be accomplished only by a machine. It takes the eyes and hands of a dedicated artist to make things beautiful.

The way I see it, unless one has the knowledge and skills required to make accurate

prints, the computer will only find it's home amongst the commercial labs. They are not concerned with making art work, but with work itself.

A case in point, the lab known as "Color House" in Burbank, CA. is capable of making prints as long as 130 feet in length. So what?

They work with computers and all kinds of machinery that will produce fantastic images, but the "art" is not there.

Some of the labs that I taught the photo comp processes in California were just beginning to understand the Photo Comp business. I showed them the methods used to separate the different color elements and how to make sure of emulsion direction and correct use of "Spread and Choke" systems, but they are now in the midst of the computer revolution and are hoping to exclusively use scanners and work stations.

The only exception to this is the new lab called Evercolor, and even the new UltraS-table process.

Their main interest is in the production of high quality works of art. Period.

The production of quality separation negatives requires the knowledge of a master printer. In this case, Bill Nordstrom has an edge. He is a master printer, and

he understands the mechanical and electronic fields.

To be able to produce the negatives needed for his new process requires much investment in time and money. His new company, Evercolor, will be making prints on demand for all fine art photographers, museums, galleries, and who ever wants to adorn their mantle with works of their own.

**The biggest hang-up for most color printing enthusiasts** is their fear of having to make separation negatives.

I can understand this, but unless one takes the time and trouble to learn how this part of the process is done, you will never get the thrill of seeing your print made the hard way.

In the old days (1940's) the only way to make any kind of color print was to first learn how to make separation negatives from different sources.

When I was an instructor at the famous "New York Institute of Photography" I can recall some of the misgivings about learning how to make separations.

One of the instructors was so inept at this basic fundamental part of the process, that he actually had students use the school's "one shot"

camera to make portraits.

This camera had a very slow speed of .05 (ASA) so that a strobe had to be used to make the exposures.

No one in the entire school realized that in order to make quality negatives, one had to know how to balance the images at least, in contrast, if not density, so that a pleasing print could be made.

I can still remember the students posing the young models, and making negatives that should have been thrown in the trash, but were used to make "dye transfer" prints.

The prints were horrible, but if a likeness was printed, the students were happy. So were the staff of instructors. **I wasn't.**

I tried to teach a method of pre-reading a scene with a simple Weston light meter, which by reading both the shadow and highlight areas, I could determine the proper gamma to process any sheet of black and white film so that a decent print could be made on # 2 paper.

The other instructors heard what I was doing and complained to the head of the school. I was told not to teach this particular subject in class. I explained that it was necessary to understand what gamma was and how to determine it's affect on the image, if separations

were to be made later on in the class.

No. They didn't want to upset the current teaching mode. So, I resigned. I was not going to be a part of a fraudulent teaching system.

This explanation of how I felt many years ago still stands today.

If all you have to do is make an exposure on a sheet of paper, process it, and consider it a great print, you are only part right. Unless you understand the methodology of separations, you will forever be short on being a complete printer.

Many things can be done to change the structure of a curve shape in order to make a more exciting image. But if you don't know that the knowledge is out there, ready to used by competent color printers, you will never know the difference.

My opening segment on "Sudden Black Masks" is just a small example.

When I first made separations using a one shot camera, I had to make sure that my light source had a specific degree of Kelvin temperature.

Remember, the three images were exposed at one time. There was no way to make changes in the different filters in order to adjust their densities.

A series of tests were made so that a compromise could be found that would allow one to get a close color balance and also a close density range.

A perfect range and balance were virtually impossible.

**However, when we work from a transparency, this is not only possible, but mandatory.**

Do most printers realize that when a contrast mask is made, most of the details in the highlight areas are going to be the first to suffer. Do the new printers realize that there are methods available to alleviate this problem.

One is highlight pre-masking. This involves making a thin highlight mask which is added to the original transparency before making the main (principal) mask. And if this isn't enough, a specular highlight mask can also be made.

And still, if this isn't enough, make a set of negatives first then post mask them.

This means that first the separation negatives are made without any principal masks to a higher gamma than normal.

The highlight structure has been untouched, as yet. Then after the negatives have been made, use the separation negatives to make the necessary contrast

reducing masks. The highlight areas will not be disturbed.

Special post highlight masks can still be added to the separation negatives to further enhance the highlights.

Now, does making a straight print on a sheet of paper seem simple? Of course it does.

Does this imply that making a print such as a Cibachrome or Type R print becomes a simple affair. It can be, but if you are armed with the correct information, these simpler prints will take on a new life of their own.

Making a Cibachrome print requires masking. Period.

Unless you want to make extremely contrasty prints, the original image must be reduced in contrast.

**What about flashing?** Try it, then compare this method with the real thing.

**Contrast reduction, without loss of color saturation.**

This ability to be able to take things apart, and reconstruct them to fit your perception of what a scene or image should look like, is what fine art printing is all about.

The use of a mask has more than one effect.

The color filter you choose to use when making the

mask is a bonus feature that most straight printers are unaware of.

Imagine making a color brighter or duller, depending on which color filter was used during the exposure. Imagine making a highlight mask that would place sparkle in an otherwise dull print.

These things are all possible. But first, you must know the fundamentals.

The beauty of the Dye Transfer process is the many stages of "construction" that will allow one to be creative and make changes according to their own imagination.

The contrast masking stage allows one to make specific colors in the image come alive.

The accuracy in making the mask will allow one to capture most of the information in the original transparency. Color correction is another tool that the fine art printer has in his bag.

Making the actual separations is another step for creativity, depending on the contrast range you have decided for your image. **Read that last sentence again.**

You have the choice of contrast ranges for your image. Why not?

You should be able to choose the contrast range,

the color balance, the high-light structure, the color correction and the overall density of the image. Try this with any other process.

The new carbon processes will also be able to do the same thing.

What I am talking about is the ability to understand that these steps are possible and available.

Imagine sending your image out to a separation house in a different state and ask for a set of screened negatives to be made.

The transparency will be making several round trips between you and the supplier.

The technician must also know what is possible to do. This is the one great advantage that Bill Nordstrom has. He is **knowledgeable**.

If you want to dabble in the Carbon process yourself, follow the lead of Rene Pauli of San Francisco, who makes his own enlarged separation negatives, coats his own pigment sheets, built his own ultra violet light source, and produces his own prints. Remember, Rene was a top rated Dye Transfer technician before he got the Carbon bug. He knows what can and can't be done with separations. Books written by Luis Nadeau can be the starting point for any serious carbon printer. The books are full of

detailed instructions and formulas for making Carbro prints.

His books are available from Light Impressions, Rochester, NY.

There has been a consistent rumor from unknown sources who state that Kodak is considering dropping the Dye transfer process. I have spoken directly to the Kodak people and have been reassured that no such action is being planned.

The fact that they reorganized their manufacturing priorities by jacking up the price of the Dye Transfer paper, is one of the moves mistakenly thought of as a means to eliminate the process.

This particular cost problem can be circumvented by simply purchasing Kodak's Elite paper and fixing it in Kodak's Rapid Fixer for 3 minutes, washing it for 30 minutes then placing the paper into the Dye Transfer Paper conditioner for 20 minutes.

**That's it.**

I spoke to the people at National graphics and they assured me that Kodak has no plans to get rid of a process that for almost 50 years has been in the forefront of the entire fine art color printing processes. Nothing will ever convince me that the Dye Transfer

process is ready to fold. Newer print systems may enter the scene, but the quality of the process is still amazing. It really isn't the process, but the amount of control the process allows that makes it so valuable.

I still have many Dye Transfer prints resting in my closet, and also hanging on walls in my home. The exposure times and some of the problems we had to solve in order to make these prints are still fresh in my mind.

I realize that the prints may not be as sharp as the new Carbon prints, nor do they have all of the details in the shadows that should be there, but the quality of the print is measured by the impact that it makes on a viewer.

In other words, the individual printer is the key to the success of any process. Have you ever seen a terrible Dye Transfer? I have. In fact, I made a few myself.

Quite a few months ago, I wrote about a company in Torrance, California, called Computer Image Systems that specializes in making these new billboards that have been showing up all over the west coast areas.

They have removed the darkroom and all of the equipment associated with the normal darkroom.

Imagine. No sinks, trays, enlargers or anything else that resembles a darkroom. Instead, they use a very sophisticated scanner device that transmits a signal to an even larger rolling drum.

As the information is gathered by the smaller drum, the signal goes to the operating area of the larger drum and spray jets of inks and dyes are sprayed on a synthetic material and duplicates what is on the smaller drum.

The color is sprayed on large strips of material, one strip at a time. When completely finished, the strips are joined and spotted or retouched. Any lettering is usually painted on by hand after the entire image has been placed.

This entire assembly is then taken to an empty billboard and wrapped around the board and stapled in place along the edges.

I used to think that the Marlboro ads that I once worked on were about the best I had ever seen. But this new system is uncanny. Even if a print is made via the Dye Transfer, or any other process, the method of reproduction has improved to such a high point of accuracy, that it places all other attempts at a big disadvantage. Again, this is commercialism at its best.

Is it possible that the future of quality color printing will some day be a miniature version of what I just described?

As we read this newsletter, it is possible right now to have an image scanned, corrected, and ink jet (Iris) printed. The fine details are not as sharp as any kind of print, but who knows what can happen to the final stage of printing, in the future.

I am waiting for the time, when an exhibit of fine prints can be shown that will include all of the fine print systems now available.

These should include, the new Carbon systems, Dye Transfer, Cibachrome, black and white, and even Type C and Type R.

The last two may not have lasting qualities, but have you seen the C prints produced by Steve Solinsky? If the same image quality that he is able to master on a C print can be mastered on a Dye Transfer, or Carbon print, the prints will be great.

I admit that I am prejudiced. I have seen his workshop in Nevada City, Ca. The array of prints being prepared for sale at various galleries was very impressive.

Steve is currently preparing for a move into the Dye Transfer process.

To those of you who have only recently begun to enter the fine art photography field, try not to get confused about which process will do what.

The main thing to consider, is what can I afford to do now?

Learning how to distinguish between mediocre print quality caused by lack of knowledge is more important than to worry about which process is the best for you.

I still remember beginners coming to my lab for a critique of their work. Most of the prints were archival boxed and wrapped, even though the prints would be unacceptable by any gallery. Better to spend the time examining the prints in order to expand the mind's eye and to recognize what is good and what is bad.

Keep making prints. Any kind of prints.

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I have just finished my latest book on Photo Comp. It is an extended version of my first effort. It is called

**Graphic  
Photo Composition**

**Part Two.**

More about this later.

Thanks,

**Bob Pace**  
**2823 Amaryllis Ct. Green**  
**Valley NV 89014**