

KEEPING PACE

A Monthly Newsletter Devoted to the art of Darkroom Photography

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Mis-fitting masks? and Kodak's Dye Transfer?

Have you made masks as accurately as possible , and even after you followed all of the steps in the positioning of the elements, you still had mis-registration along the outside perimeters of the image?

Sometimes the image doesn't seem to produce the annoying ba-relief edges and yiy used the exact procedures as before.

I recieved two such letters and calls from my subscribers. Here is about what I said.

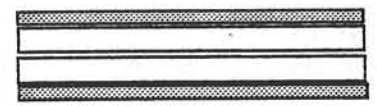
Dear David,
The masking problems you have described are not new. This occurs with many originals that have definite edges.
It is also agood reason for having accurate registration equipment.

However, the standard alignment of the original and the mask material is not always the most accurate method of mask making Unfortunately, most printers aren't aware of the problem, but I have had the same trouble and was forced to "invent" a solution.

First, I will give you some examples of what causes the trouble and then, the methods I used to eliminate the edge effects.

Most darkroom enthusiasts that use Condit's equipment, such as you described; A 4x5 register frame and punch, usually place the film in the wrong order when making masks.

You said that you exposed the mask base to base with the transparency?
This was wrong.



Regardless of the direction of the light source, the "base to base" orientation is wrong.

The space between the two sheets of film will allow the light source to distort the position of the exposed mask. If the light source is a large light area such as this,



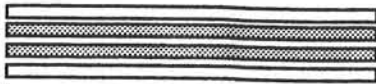
and it was fitted over or under the print frame, the light would have been evenly distributed, however we all use light bulbs of one sort or another.

This is where the problem is caused..
Here is an example.

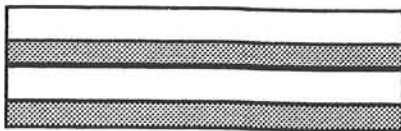
If the light source is placed directly over or under the print frame, it almost resembles a point light source. The further away it is from the print frame the worse it can get.

Notice in the first illustration, how the light source can create a shadow from the first sheet of film, and before it reaches the second sheet of film, the shadow will be displaced. It is no longer directly in line with the original transparency.

A tight fit can only be made by orienting the film as shown below.
Emulsion to emulsion.



However, this arrangement won't work either, unless you are making a reverse image.



↑
This is the standard positioning of the transparency at the bottom and the masking material at the top. If the light source is from above, simply reverse the order of the layers.

This is the accepted method of placing the two sheets of film.

However, even this method is not fool proof.

The clear space provided by the base of the film is enough cause mis-placement of the image on the mask.

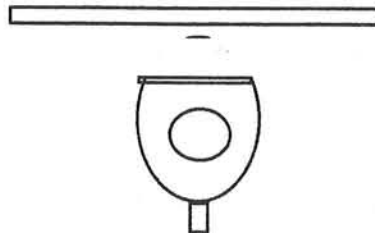
The light source, which is usually a bulb or a source the size of a bulb is usually centered under or above the contact frame and will go straight through the center of the image.

However, **the light source will go through the transparency at a slight angle.**

This is where the trouble occurs.

The edges, if they are contrasty enough, will show evidence of image displacement. It is the "point" light that causes most of the trouble.

If you use a diffusion sheet of film or a light source that looks like this:



This will prevent the light source from becoming a "point" of light.

The best solution is to use your enlarger in this fashion:

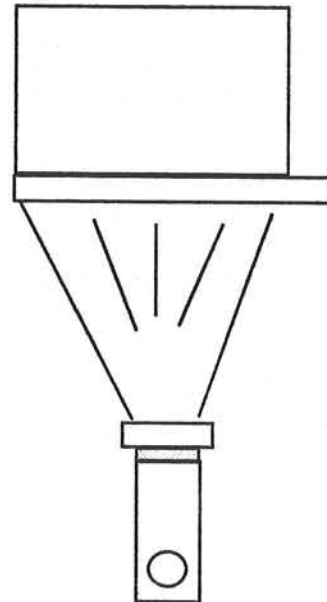
Place the transparency in the enlarger carrier, emulsion down.

Then place the unexposed masking material in the same carrier, also emulsion down.

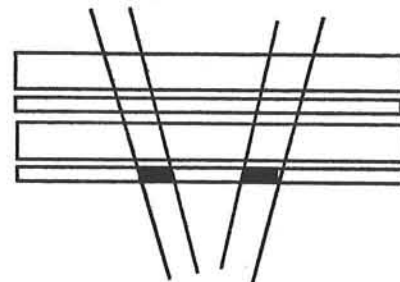
The carrier must be a pin registration carrier

Place a shielded diffused light bulb (filtered, or not) directly under the lens of the enlarger. Stop the lens down to $f 11$ and make a series of test exposures to find the correct exposure for the mask.

Here is what will happen:



The rays of light will actually produce the displacement of the image, but when projected to make a print, the displacement will be compensated for.



The shadow of the image in the transparency will be placed in proper position on the mask in the negative carrier.

If you follow the procedure, you will realize that the enlarger is the culprit. Since this is the area where the problem occurs, use the enlarger to make the mask. Use a long bellows, and place the light source directly under the enlarger's lens. I like to stop the lens down to *f* 11 so that it simulates the actual use of the lens when making the print. If you attempt to simply place a bulb under the lens, you may be producing an image of the bulb. If there is some space between the bulb and the lens, you may get more exposure in the center of the image. By placing a diffusion sheet of film between the light source and the lens, you will eliminate any unevenness caused by the bulb position.

This method of masking makes it mandatory to make all of the masking tests through the enlarger. I found that if I were considering making a 16x20 print from a 35mm transparency, I would set the enlarger up so that a 35mm original were in the carrier, and enlarged to 16x20. I keep the enlarger in this position when I make the "through the enlarger" masks.

If you are working from a larger image, use the enlarger chosen for the print to make the masks. Some images do not reveal edge effects. It is not because they are not there, but because the edges aren't "sharp" enough to cause trouble. I have made prints from 35mm originals directly to 30x40 inches and by using this technique, I was able to eliminate this problem.

The latest bombshell from Kodak.

Dealers were called directly by Kodak and it was announced that the Dye Transfer Process was to be eliminated. They claim that they were losing money with this small segment of their operation. This is devastating news. Many great photographers use the Dye Transfer process to print their images. I called Laurie Gayle Jackson, a Kodak representative that explained the reasons behind Kodak's decision. It all boils down to money. However, there is one gleam of hope. I asked if Kodak would consider this: Suppose a group of Dye Transfer enthusiasts organized themselves and formed a Dye Transfer association, would Kodak consider producing a full run of Matrix film and sell it to this association?

The answer was yes. The problem with the Kodak dyes was another problem. They claim that they were having an environmental problem with the government.

I am sure that other dyes could be used. Morry Bard has formulas that would certainly work. The transfer paper problem is the least of the headaches. Tom Rankin of Frog Prince Labs in San Francisco is experimenting with Poly Fibre papers. I also called National Graphics in St. Louis, Mo. They can make matrix film. So can Fuji. In fact, they are already making it in Japan.

The process is far from being dead. Many professional printing firms have been promised a years supply of film, based on their past sales history. I am hopeful. I can't image a color printers life without the great Dye Transfer Process.

Many of my students that have really learned how to make great Dye Transfer prints will be affected severely. They have just begun to enter the gallery marketplace.

I am still selling my video and book about the Dye Transfer process.

Now what?

Regardless of what happens, there will always be a need for understanding the working methods of making dupe transparencies, color internegatives and commercial images.

I have explained what it takes to make edges of an image blend into another image and make it look as if it were shot that way.

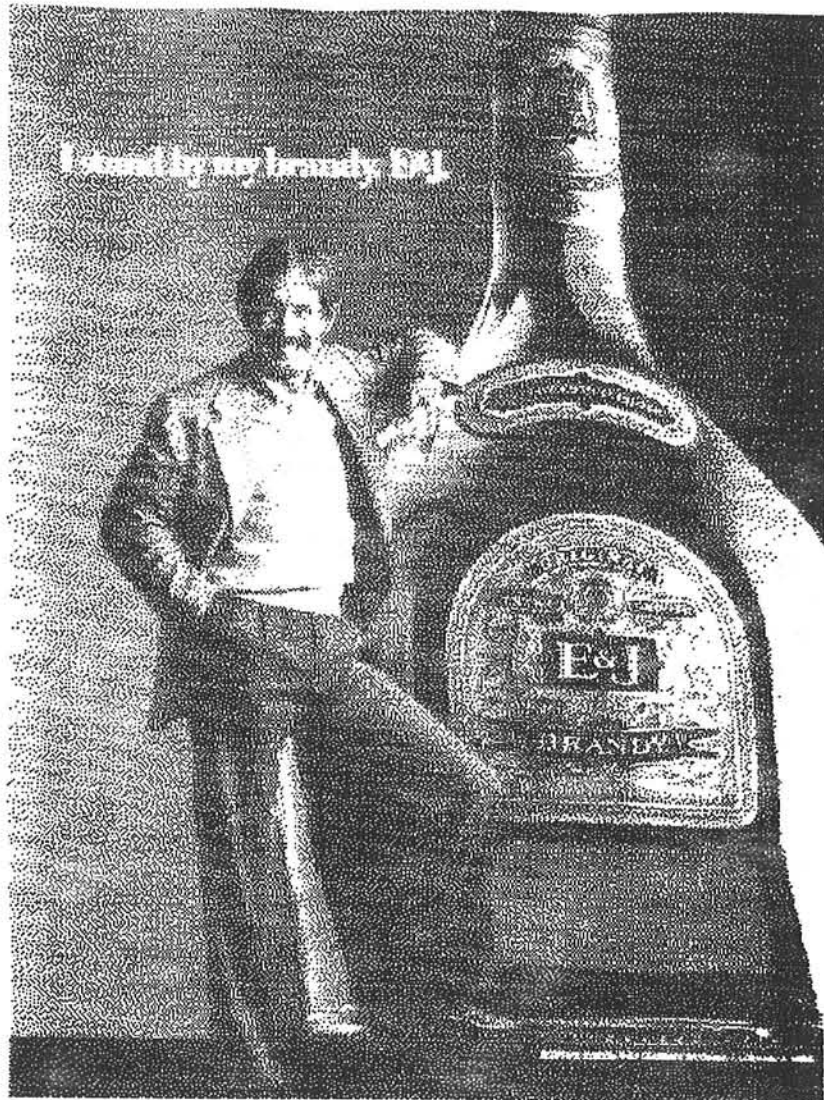
This system of "strip-ins" and other forms of photo-montages can also be used in the field of fine art photography.

Since the dawn of photography, all black and white images had to be printed. (Except for Daguerreotypes) This fact opened the imagination of the lab technician. Cloudy skies were added to otherwise dull scenic images.

I can still remember adding medieval castles to a sky full of clouds.

However, these "tricks" were done without the need for registration equipment or fancy friskets.

In order to make a print that consists of two or more images, and exact positioning is critical, then registration is very necessary. The illustration on the following page is a simple two piece strip-in. The edges were accurately positioned and softened.



The act of generating the positive and negative friskets is time consuming. The image of the bottle is just that. An image. It is the background we use to place our gentleman.

The size of the bottle and the size of the gentleman were in proportion to the layout. One enlarger could be used for the entire effort. This is an ideal way to begin a job.

In making the silhouette image for the man, the lab

resorted to using a method of isolating the image by first placing the transparency in an enlarger and blowing up the image to as large a size as possible so that it would fit a sheet of 20x24 Kodalith film.

Using register pins in the carrier and on the easel, an exposure was made and the sheet of Kodalith film was processed in a tray of very dilute developer. The result was a negative image that showed much detail.

The Kodalith film was again, placed on pins on a table top light box. Emulsion up. A sheet of Red Rubylith film was also punched and placed on the same pins and light box. Emulsion up. Using an Exacto knife, the tight outline was scored on the Rubylith film, and then the silhouetted image was peeled away.

Using the same easel, place a sheet of very thin white paper on the easel, then place the peeled Rubylith film on the same pins, vacuum it down, and either use two light sources to illuminate the easel, or use a backlit easel, replace the transparency in the carrier with a sheet of unexposed Kodalith Type 3 film.

Expose the image by turning on the lights.

Then process this sheet of film in Kodalith developer. You should now have a positive silhouetted image of the man.

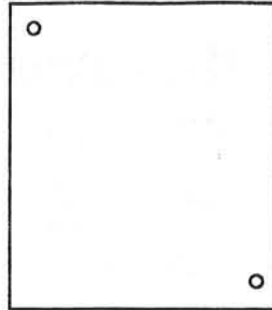
This image is the same size as the original transparency and contact separation negatives.

The important part is as follows:

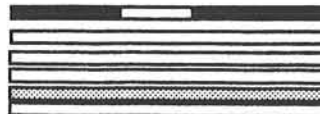
The two necessary friskets that must be used to burn in the man, and to hold back the image on the bottle, must have their emulsions facing the same way.

For this "trick" we need 2 kinds of film.

We need Kodak's Kodalith film, and Kodak's LPD4. The LPD4 is a reversal film and will present you with an identical image and the Kodalith film will be a reverse image.



If the original sheet was punched as shown above, and it is facing emulsion down, use a set of reverse pins in glass and place it on the pins emulsion up. Use Kodalith film to make the master film. (Em. Down.) It will now be possible to orient the master on the original pin position (Em. up.) and make one exposure each on the two different kinds of film. The result will be two different sheets with the emulsions facing the same way. (Down.) In order to use these two different sheets, The enlarger placement of the films should be as follows.



The top sheet is the frisket. Next is a diffusion sheet. Followed by two clear sheets which serve as spacers, then the separation neg.

The frisket on top will be diffused by the second sheet, and the clear film spacers will allow the top layers to be slightly out of focus while the focus will be concentrated on the emulsion of the separation negative.

Got it?

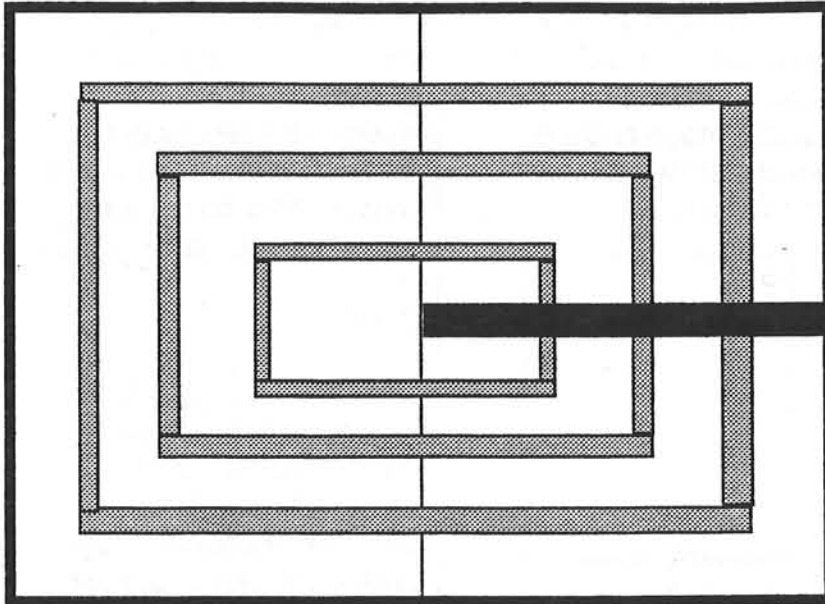
Read this through a few times until it makes sense. Other important things to consider is the ability to make the separation negatives to the same contrast range in order to have a good chance of fooling the viewer.

The worst thing to do is to make a perfect cut out and not know how to make it work with a soft edge.

The reason for making a 20x24 image to cut out is so that any discrepancy in cutting will not be noticed as the image is brought back to the size of the original. Little features like pinkie fingers and loose hair can be isolated easily at the 20x24 size, but almost impossible to do the same with a 4x5 image.

Remember. all of the elements in the enlarging system must be in register and work accurately.

One very important piece of equipment to own is a large sized quality vacuum easel. These can be purchased or you can make your own.



A center loaded system is the best method to hold any size sheet without the possibility of moving. The entire system works by using a vacuum pump, (or a vacuum cleaner) and placing a pipe through the side of the easel and through all of the supports that are glued to the bottom of the easel. Regardless of the size of paper used on the easel, as long as it is centered, the vacuum will hold.

Small holes (1/4 inch) are drilled into the sides of the supports. The vacuum begins to act in the center of the easel. The small holes allow the vacuum to affect each larger size in order. Film overlays can be used by cutting out the size of material to be used and after placing the cut out sheet on the easel, the vacuum will work even better.

The top of the easel is a sheet of steel sold by many

graphic arts dealers. The sheet has thousands of little 1/16 inch holes punched or drilled out. This system does not rely on scored lines, which are fitted to specific sizes, but will accept any size sheet.

A sheet of plywood for the bottom, and pieces of "one by two" strips of lumber can be used for the supports. The supports can be screwed from the bottom, or glued in place. If slight leaks occur, it will not diminish the vacuum action of the system.

Magnetic strips can be cemented to the bottom of the easel and a piece of sheet metal can be glued to the top of the table under the enlarger. Paint all of the parts black flat.

This kind of ingenuity was practiced by all of my competitors.

We all had back--lit easels in the mid 1970's.

This same easel can be purchased through graphic art supply stores. The manufacturer is called "By-Chrome."

They come in various sizes and all can come equipped with a very powerful vacuum

pump.

The commercial color printing field is becoming decimated and apparently, business is on the downgrade, except for those who have accepted the digitized systems.

I get much mail, and most of it has been concerned with the newest digitized scanners and workstations.

Beginning with the scanners. There are a host of new scanners and they all do a good job. However some of them do a remarkable job. The list is long.

Here in Las Vegas, two competing labs have just purchased new systems. The first one is a modest investment. An inexpensive Microtek drum scanner attached to a Mac Quadra, with Photoshop, and a film recorder that can produce a transparency or a color negative.

For a modest investment, the quality of the emerging work looks very good, indeed.

The second lab has invested in a Kreonite Digitizing System.

It seems that almost all labs are going in this direction. However, the distinction between the commercial labs and the fine art photographers is growing. Even the fine art systems are being invaded by the new digitized methods. I have counted over 30 companies that will sell you a complete scanning and workstation outfit. They are coming out of the woodwork. The only fields that are safe from the electronic onslaught are the black and white, the Cibachrome field and the troubled Dye Transfer field. The galleries are more interested in the quality of the work, even if it is a C print. However, if longevity is also present, so much the better.

The beauty of the scanning systems and workstations is their ability to make changes in contrast and color saturation so that even older transparencies can be corrected and used again.

All photographic color fades eventually. This is a fact. The best prints that I still have in my possession are as good as new, because I do not place them in situations where they would be subjected to harsh lights. One print has been hanging on my living room wall since 1951. It still looks new. However, in years, it will fade, unless I keep it in a dark place.

This brings me to the Carbro process.

The Carbro print of the 1940's was probably the best example of fine art in photography.

The prints we made for Victor Keppler, Charles Kerlee, Nicholas Murray, William Ritter, and many other world class photographers are probably still in fine condition today.

The pigments used in the early days were manufactured by a subsidiary of Carnation Milk Co. called McGraw Colorgraph.

The pigment was simply coated on paper. It remained for the lab technician to sensitize the material chemically, just before combining the various elements. The pigments being produced by Charles Berger and his UltraStable process are much more accurate and colorful than the pigments of yesteryear. And they last almost forever.

The colors of the new EverColor Carbon process are very accurate to the color spectrum, and have a remarkable life. The latest announcement from EverColor is that they will shortly start to accept discs with digitized images at their headquarters.

This means that if you have a competent workstation, you can send your disc to them and they can produce a set of screened separation negatives for you.

If you have a workstation you already have the necessary equipment needed to control the final output of your work.

The best computer (for the price) is probably the Macintosh Quadra series.

It is possible to obtain a removable tape deck capable of holding 800 meg's of information. Enough for a good sized file.

If you can control what you want in your image, you can still be the artist. This is a great idea. Archival color prints will be getting easier and easier to make.

I have been getting requests for information about masking. All kinds of masking. So, I decided to write a book detailing the steps required for masking all forms of photographic processes. It is called just that, "**Masking for Photographic Processes.**"

Regardless of the process, this book will enlighten many first time enthusiasts in a wide range of photography. It will sell for \$40.

However, the main ingredient for making fine quality photographic images is the original image exposed on a sheet of film. As a former commercial printer for many years, I have seen all kinds of interesting images.

The quality of the images of Philippe Halsman were real eye openers.

I want to concentrate now on the Kodak decision to drop the Dye Transfer Process.

As we all know, not all master photographers make their own prints. I estimate the amount of qualified printers in the country are less than 200.

We, who have made prints, whether for ourselves or for others know the feeling of being able to use our own imagination and skill to make a Dye Transfer print..

Labs like CVI in New York City that specialize in making prints for others also know what it feels like to place their own individual stamp of quality on a Dye Transfer print.

The few labs that are left after the commercial work has turned to digitized methods are having one very tough time in making ends meet.

More than one such kind of lab has had to resort to making black and white prints and C prints, but even these processes are being by-passed because of the scanner.

As a result, the amount of material that Kodak has formerly sold to the Dye Transfer labs has dwindled down to a trickle.

The calls and letters that I have received have been asking me, "What's next?"

No one expected this to happen. A few months ago I personally called the Kodak representative in charge of discussing the Dye Transfer problems and she said that Kodak would never drop such an important premier product such as Dye Transfer. Yeah, right.

I asked if Kodak would produce a complete run of Matrix Film if they were assured that the film would all be bought up. The answer was yes.

I don't know if an association needs to be formed in order to facilitate any future orders from Kodak. Some of my friends seem to think it isn't necessary because Kodak already has the structure available for distribution. My concern is for the many art photographers that make Dye prints and are in the gallery marketplace. This decision of Kodak's is a stab in the heart for them.

The question I was asked, "Now what do we do?" I don't know the answer.

The next area for discussion is the Cibachrome process. If Kodak was being pressured by the government for possible violations of the environment, what about the dangerous chemicals that are offered in the processing of Cibachrome.

The paper, fortunately, is made in Europe. But the chemistry is used here.

If Cibachrome isn't being bothered by the government, then the Kodak excuse is invalid.

The Carbro prints being produced by Rene Pauli of San Francisco are personally made and the pigments he uses are not a threat to the environment.

His method of print making is his own "invention."

The knowledge of the Dye Transfer process enabled him to make the proper separation negatives for his own process. Most of us are not as desirable of the work involved as is Rene. I doubt if he will ever have any competition.

As I find out any more information about Kodak and their decisions I will print it in my future newsletters.

In the meantime, I will also keep you aware of the work being done by Bill Nordstrom and his new EverColor Company.

The prints being produced by Bill are among the best I have ever seen.

If you want to know more about EverColor write to me and I will ask them to send you an information packet.

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