KEEPING PACE

A Monthly Newsletter devoted to the art of darkroom photography

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The Dye Transfer Process is Alive and Well !

Most of you who have been dabbling with the Dye Transfer process know about the enormous price increase that Kodak has leveled against us.
The reason for such an increase seems suspicious. Could it be because Kodak feels that they are not making enough money producing the materials for this most rewarding process? This is one possibility. But I don't believe that Kodak wants to get rid of the responsibility for producing the major components for this wonderful color process.

But, just for the record.
There are other companies that would pick up the process without hesitation.
The major company would be **Fuji.**
It is my understanding that they already have the capabilities for producing matrix film.
So does a company called National Graphics, based in St Louis, Mo.
This is the only critical material that you really have to buy from a major source.
The chemistry is simple. I have already published the formulas for all of the steps.

The dye transfer paper is **Kodak Elite.**
Simply fix (mordant) the paper in Kodak Rapid Fixer, wash for ten minutes, and it is ready to be placed into the tray of paper conditioner.

Any fine multiple coated black and white paper will work. The thickness of the gelatin is the first consideration.
The Dyes could be a major source of a headache. However, one of the best dye experts in the color field is Morry Bard, based in Pompano Beach, Florida. His dyes are great. I am sure that he would supply us with all the dyes we need. In fact, he has sent me color transfers of his dyes and they will work with little variation in the masking process.

I am sure that the invasion of the scanners into the advertising community has lessened the need for Dye Transfer prints for the advertising agencies, however, the fine art community is just beginning to come to life.
The potential for the Dye Transfer business to increase is great. The only competition for the Dye Transfer print is Cibachrome.
This is a unique **dye destruction process** that uses very **pure azo dyes** in it's emulsion. Pure Azo dyes are light fast and will produce striking colors in a print.
Some of the most exciting prints that I have seen in galleries lately, have been Cibachrome prints.
However, when all is said and done, the Dye Transfer print still has the edge be

cause of the artists ability to manipulate the color balance and contrast of the final print to fit his or her own mood and interpretation.

Incidentally, I plan to write a book about the Cibachrome print process. In this book I will divulge many secrets about masking tricks and color enhancing steps that have been unknown for the most part, especially in the Ciba field.

At any rate, in my opinion, the Dye Transfer field is alive and well !
The fact that I am sending out information about my book and video has brought requests for information about the Dye Transfer process from all over the world.
I have had inquiries from Poland, Italy, France, Portugal and an Arabian Shiekdom, as well as letters from the Far East, Australia and many other countries. I am convinced that the interest is there.
Without question, this is the finest color print process around. **The best part is that the process is really you. Not Kodak or anyone else, just you.**

Incidentally, I received a call from Murray Patton, the Kodak executive in charge marketing for the Dye Transfer process, and he said that Kodak has tested the dye transfer dyes against all other color processes, (I assume Cibachrome was on the list). I was informed that the current **Dye Transfer print will outlast them all.** Murray didn't go into details about the testing procedure, but this is what I was told. I am sure that information about this disclosure will be forthcoming from Kodak.

One thing that I was told by **Frank McLaughlin, the former head of the Kodak Dye Transfer dept.**, was that if the Dye Transfer print was mounted, and sealed in a glass frame, with nitrogen, instead of room air, the print would last indefinitely.

I have already written about the fact that if you made two prints and one of them was a Dye Transfer print, and the other was a Cibachrome print, and waited until one of them faded and lost it's color, that I was pretty certain that the original transparency was already faded too.
But, in the case of Dye Transfer, the original separation negatives would still be around. You would have to burn them to get rid of them. They will last as long as the silver in the emulsion lasts (that mean indefinitely).
The matrices are also on the un-endangered list. They will last as long as the original separation negatives.

I always tell my clients, "if a Dye Transfer print, or a Cibachrome print should ever fade, bring the transparency back and I will make it over".

Here is another bit of news. Some of us are in the professional field and have to contend with making multiple image layouts. For years, we have all been working with Kodalith film, opaque, and sharp knives cutting Rubylith friskets. Then along came the scanner. This has created havoc among my many friends in the business.
In order to join the crowd, you are almost forced to purchase a digitizing scanner and become part of the "strip-in" field.
Well, one of my friends and subscribers to my newsletter, Don Mitchell, of Kansas City Mo. has almost completed a system that can be attached to any vertical enlarger, using a registration "oil" carrier, and all of the necessary items to make a complete registration system, and produce multiple images on one sheet of film or paper, and get hard or soft edges, "see though" effects, and all of the special effects that we all dream of doing.
This will allow you to compete with the "big guys" that have invested well over one million bucks in these complicated, sophisticated

scanners.
Remember, **the name of the game is accuracy.** You can deliver an image that could possibly be sharper then the results from a scanner.
The price for using litho houses with digitizing equipment is around $800 per hour. **Price effectiveness becomes an important part of your pricing system.**

Here is another bit of news. Do any of you remember the material that Kodak sold about 15 or 20 years ago. It was called Kodak Dye Transfer Film. It was a translucent white film.
It was supposed to work in this fashion:
During the day, with normal room light or even daylight, the image would look like any other print.
However, in the dark, the lights would go on behind the image and it was supposed to look like a transparency.
Well, I made many of these "front-lit and back-lit " translucencies for a major Las Vegas casino, that showed these "transparencies" in a back lit wall as a guide to future attractions. Some of these were used on the outside of the building.
During the day, the back lights were turned off. At night time, they were turned on.
This white film material was tricky to work with. It was notched for identification of the emulsion side. The most you could "condition" this material was 2 minutes. The transfers were never sharp. The blacks took forever to transfer fully.
If we made the print to look good with normal room light, it would look horrible when the back lights were turned on. It lost it's contrast and color saturation.
We would actually double transfer the print to make the print look good when backlit, but it was much too heavy and contrasty with the back lights off.
In other words, it was not a very successful venture on Kodak's part.

I recently received a piece of film from one of my subscribers, Irvine Graphics, in Irvine, CA, This piece of film was to be used in a backlit situation. It was a close up of a hamburger in a bun with lettuce and tomato, etc. It was printed on a sheet of white translucent film.
When I looked at it in regular room light it looked great. Then I looked at it with the lights behind the film and it looked even better. **This is a major improvement in producing art work for point of purchase displays or trade shows.**

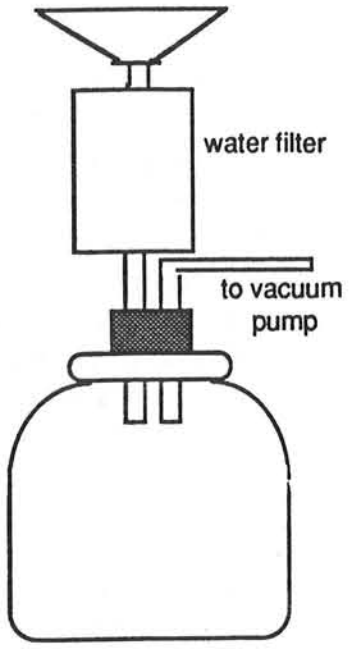
The solution to this old problem was solved by the same people that may be making our future matrix film. National Graphics, 2711 Main St. St. Louis, MO. Give them a call and ask for a sample of this material.

They apparently were able to change the size of the molecules of the emulsion when they mordanted the film base. The white looks white, and yet, it is a thinner white than that which was used by Kodak.

So, for you enthusiasts who would like to capture some of the backlit poster market, here is your chance to really make an impression.
If you need to know more about this remarkable material, call 314-773-1744, and ask for Bob Gould (Pres.) or Jim Whittington (sales). They will be happy to fill you in. I was very favorably impressed.

If you have been making Dye Transfer prints for any period of time, you know that the magenta dye is the most susceptible to forming mold or "junk" in the dye bath. This requires constant vigil. Vacuum filtering the dyes is an easy step. In fact, I recommend filtering all the dyes before each session at the transfer table.

The folowing page is an example of a simple vacuum filtering system. It is easy to construct and inexpensive.



A simple Mason Jar or bottle would suffice. Using a water filter for each color would work fine.
This is a less expensive method for filtering dyes.

Some of my students have been making three sets of dyes. One set normal, one set of high contrast dyes, adjusted according to the pamphlet that comes with the dye sets, and one set of dyes to a low contrast, also adjusted to the same specifications that are listed in the same pamphlet.
In my opinion, this is a waste of time. Instead, if you want fine control of your dyes, try this:
Use one set of normal dyes. If you need a change in contrast, make a very weak change in the contrast. Here is how.

If the information in Kodak's dye pamphlet calls for 17 cc of 28% acetic acid per liter to increase the dye contrast by one full step, instead, make 1/4 step increments and in this way you will have a finer degree of control in the contrast of the print. Just add the amount of 28% acetic acid, or the 10% Triethelalomine solutions to the dyes in 1/4 step amounts. This will allow you to work with one set of dyes instead of three.
If you need three sets of dyes with the differences as great as Kodak's pamphlet indicates, you had better learn how to make much more accurate separation negatives.

For those of you who want to work with point light sources in your enlarger, here is a tip.
If you use an enlarger such as the Durst condenser system, the light source is placed some distance from the condensers, bounced off a mirror, and then placed over the condensers. This distance can cause a longer exposure than you really want.
One of my students has such a problem. The Durst had an off set point source bulb that is really quite a distance from the condensers. The reason for this is that this particular enlarger light source was intended to be used with fine medical micro-photography, and not smooth finished scenics, or any other kind of fine art photography.
My bulb, which is a BEV 20 volt GE lamp, is placed into a tube and socket, and adjusted to the optimum position over the condensers in my enlarger. The lamp was usually as close as 2 inches from the condensers. The Durst system places the bulb at a much greater distance.
A good system will produce 312 foot candles at the easel, The Durst system was a much lower reading.
The importance of this discussion is only important if you make enlarged separation negatives and plan to make the masks to the easel size and then expose through them.
With my system, there is no problem. I make my masks by contact and place both the mask and transparency in the enlarger in order to make my separation negatives.
Some of my students have complained that the edge effect caused by the flare of the Kodak Pan Masking film becomes objectionable in the print. In this case, change the masking film to a film such as Plus X or Separation # 1 or even 2. These films have strong anti-halation coatings which will reduce the flare and edge effects to almost nothing.

If you plan to make contact masks for your transparencies, and then make Cibachrome prints, remember, you must have plenty of light in the enlarger head. Most diffusion systems will not allow short exposures. The easy way out is to use a glass "Minut Mask" which will allow you to make prints without the need for registration equipment.

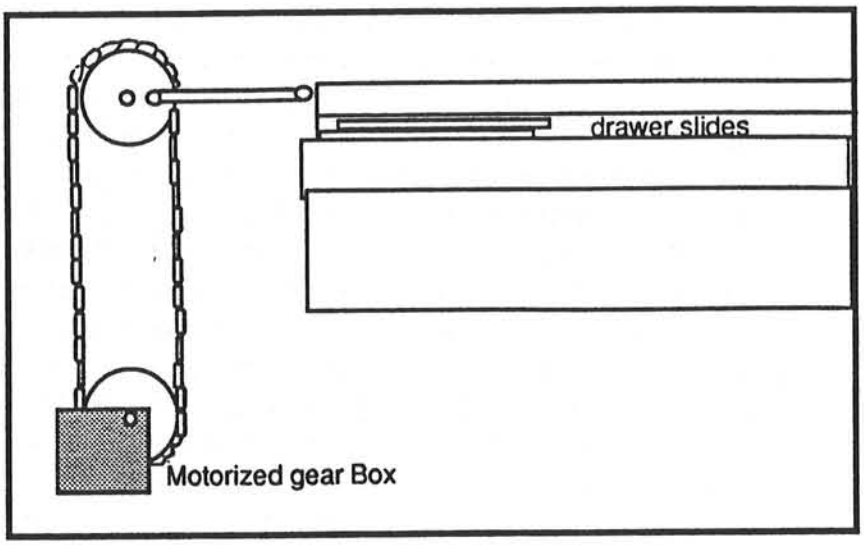
Another problem that has caused concern among some of my readers is this. When running a Dye Transfer print they sometimes get hundreds, if not thousands, of little colored specks in the dark areas of the print. This is a simple matter to eliminate. This is caused by air being trapped between the matrix emulsion and the paper emulsion. When making a transfer, place a liquid bead of 1% acid at the beginning of the transfer area, near the register pins, and then put plenty of pressure on the roller when actually making the transfer. And don't forget to squeegee the print fully.
Hardening the matrices is another method of keeping the matrix and the print clean.
This is an old method that was used in the days of Kodak's Wash-Off Relief Process.
As soon as the hot water part of the development stage in the processing of matrix film has been completed, soak the matrices in the following solution.
In one gallon of cool clean water, add 10cc of formaldehyde and 2 cc of Kodak Photo Flow, # 200. Soak the matrix films, one at a time, emulsion up, in a tray containing this formula, for two minutes, then hang to dry.
If you began with clean matrices with no specks or dark spots, than all that has to be done is this:
When the matrix film has been dyed and is been in the first acid bath and is ready to come out, hang the matrix film from one corner and using "Handy Wipes" soaked in the 1% acid bath solution, wipe the matrix from one corner to the opposite corner. This will dislodge any foreign matter that may have adhered to the matrix film emulsion.

Have you ever tried to spot a glossy Ciba print? The emulsion will carry the impression of the retouching and can be seen when viewing the print against a bright reflected light source. The neighborhood drug store sells a humidifier that is used in sick rooms. The steam that escapes from this kind of unit, and placed adjacent to the spotted print, will cause the section of the print to become moist. When it dries, the spotted surface will have absorbed the dye and will look as though it were never touched.

Incidentally, I have in my possession, the barrel contact system that was produced by Don Mitchell. This barrel contains the necessary elements for making high quality contact separation negatives. It contains a variable light source, a very convenient filter changer, a built in timer and a very good vacuum platen. All that is now required is the film punch that you desire and a pin glass. These can be obtained from Don Mitchell or from Condit Mfg.
The beauty of this barrel system is that it is complete and can be moved or shipped with ease. It produces no light leaks and is relatively fast and it takes up very little room. If you would like to purchase this item, the cost is $600. I only have one unit, but Don is in the process of producing more. Let me know if you are interested.

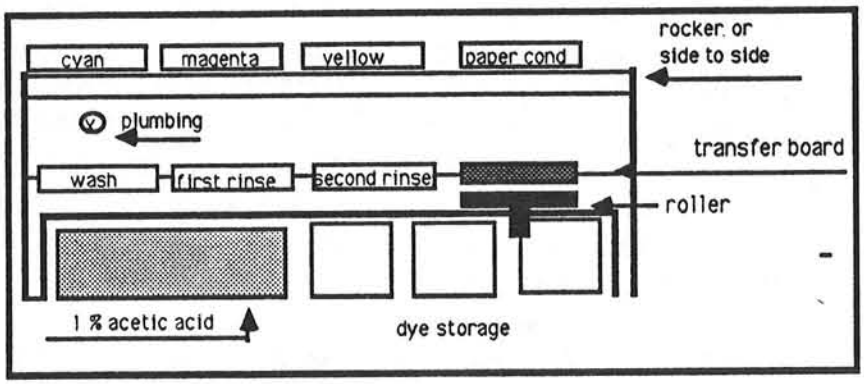
Rocking or moving the trays during the dyeing stage of the Dye Transfer process is important. One of my students just uses a flat and level surface over his sink, and occasionally moves the trays as he walks by them. This will work, of course, but a rocking or sliding system is a much better method of making sure that the matrix

films are being constantly covered with an adequate supply of dyes.
Kodak has supplied us with the plans for a rocker system that works fine. I have used a similar system for many years. My latest system is a little different. I use a side to side sliding system instead. The same ratio of gear box to motor is used. My system allows me to place the dyes in a level tray and keep them level all day. My sliding tray is big enough to accept 4 trays instead of three. This is where I also place my paper conditioner tray. It must also be moved constantly.
My sink becomes part of the entire system. The dye trays on top, with the sink area and controlled rocking in the sink,and the transfer board. This keeps all of the liquid splashing where it belongs.
My acid delivery is important to me.
In the past, with a large lab, we used a 68 gallon poly-ethelene tank to mix our 1% acetic acid rinse. This was done by pouring glacial acetic acid (100%) into the open top of the tank, adding water from a hose and then mixing this quantity until I was certain that the acid had dispersed itself properly. Without fail, every time my employees would do this chore, the strong odor from the glacial acetic acid would send most people out of the room. Then the tank would usually overflow while it was being filled with water, because no one wanted to stay anywhere near the acid smell.
This bugged me to the point, that I wanted to make this part of the process smell proof and leak proof.
I built the water delivery system into the top of the tank. I placed a shut off valve in the tank top. This insured the tank from over spilling. The water shut off well below the danger zone.
Placing the acid into the tank was another problem. I wanted my lab to smell more like a hospital room rather than like a mixing place for Kosher Dill pickles. The accompanying diagram indicates just what I did.
The delivery of glacial acetic acid no longer became a problem. My lab has a clean odor and is not



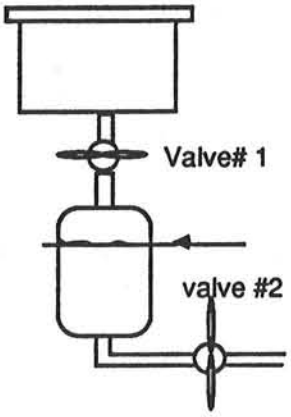
Using drawer slides which can be purchased from any hardware store, you can place the trays on a level surface and reduce the strain on your motor.

The illustration below is an indication for a simple one step piece of equipment. The sink acts as a sink, transfer area, dye storage area, work area, and an acid delivery system.



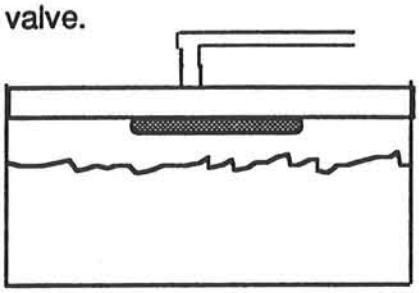
A simple sink set up.

overpowering at all.
This is not an elaborate set up. Just a simple sink with all of the necessary items installed in it or under it. It sure saves room.
I remember visiting a competitor once, after he had moved to a basement area in a rather large building. He gave me no room number. I just followed my nose to his un-marked door. And there it was.
I was determined to get rid of smells and odors ever since that day.



This is the system that I eventually used in order to keep the strong odor of glacial acetic acid from making my lab smell bad.
The Glacial acid is placed in the top polyethelene box.
Valve #1 would be opened, the acid would fill to the arrow mark on the bottle, then the valve # 1 was closed.
I then opened valve #2 and allowed the acid to enter the main covered tank.
The main tank had to be filled with water

The trick was to place a shut -off valve in the cover of the tank so that the water would automatically shut off when the water level reached the valve.



This meant that I could finally get rid of the threat of spills.
Using a small pump, I could then turn on a switch and pump the 1% acid wherever I needed it.

In the course of finding the market place for my newsletters and books. I have discovered that there are hundreds of universities and colleges that teach some form of photography, and about 1600 teachers around the world that teach photography.

The different "kinds" of photography interest me. I have been in a small part of the photographic world. I realize that there are so many different areas of photography in use in the photographic world that it boggles the imagination.

The first place we all think of is magazines. Just what is there about magazine photography that seems to draw so many people to it.

I believe it is more than just one reason. The money paid for Magazine cover is quite high. During my early years when I was associated with Philippe Halsman, the going price for a cover was around $700 to $1000 for a prestigeous magazine.
Today's prices are much higher. But there is one more element that is just as important.
The publicity.
Without it, the going would be rough. Many of today's "cover artists" would have to fight for recognition every time they submitted work for approval.
Imagine just working with food. One of the finest food photographers in this country (or anywhere else for that matter) is George De Gennaro, of Los Angeles.
His work was pure perfection. But this ability didn't come easy. He had to learn his craft, and had to become a food gourmet, as well.

On the other hand, there are photographic illustrators, such as the late Tom Kelley, the fantastic Reid Miles, and many others. These photographers had to learn hundreds of "tricks" in order for their work to stand out from the crowd.

The fine portrait artists are in a class by themselves. I have worked with many of the masters.
It is amazing how few of

them could cross over the line and become another "kind" of photographer. Once they developed a technique and system for a specific look about their work few have ever done so.

What about the color printer? Does he fall into the same kind of recognizable category? Yes, he does. If all you ever did was to shoot weddings (which is an art in itself) and then tried your hand in shooting products, you would have to start from scratch and learn new techniques. This could shorten your career in photography.
The color labs falls into similar categories.

At the bottom of the list is the "one hour" lab. One needs to know very little to become the owner and operator of such establishments

Then there is the custom lab that specializes in printing for other wedding and portrait studios. Their work is produced on a much higher scale.

Then we have the commercial color lab that caters to every one, including some advertising agencies.

Then you have the special labs that only cater to advertising agencies and display houses.

And at the top of the heap is the "professional" color lab. These labs cater to the finest advertising agencies and to the fine art photographers.
This is the field that I have been in all of my working life. This is the area that I cover in my newsletters and books.
I am not interested in the kinds of photography of color printing that doesn't arouse the soul. Maybe I'm old fashioned. I am sure that most of you feel the same way otherwise you wouldn't be interested in my writing. For this I thank you.

It just so happens that my field has been quality reproduction. This was enough of a challenge to keep me occipied.

All of my students fall into the area of quality photography.
I have had scenic photographers, and students whose work consists of making "photo comps" for use in airline terminals and bus stations, and I have had portrait artists who want to do more than just make a pleasing likeness, but a more lasting impression of a persons character. This kind of work doesn't really need a Dye Transfer, but it helps.

The main thing to consider is Quality.

Recently, on a major TV program sponsered by Vivitar, a photographer was featured who uses a 20x24 camera and shoots directly onto a sheet of Kodak Type R material. (Through a reversing prism).
The work is exquisite. Only one image is made. If you want copies, Im sure that could be arranged.
The fact that Type R material is being used does disturb me. I don't think the material will last long before it begins to fade.
The idea is as old as the original Deguerretype.
The quality of the photograph is not in question. Just the material.

I want to thank those of you who have purchased my new video and book about the Dye Transfer process. The responses from my students have been just more than I would have imagined.

For those of you who have not yet ordered the video package, the cost is $200 plus 12 shipping and handling.
My book "The Art of Photo Composition" is still available at $50. per copy.
The back issues of my newsletter are $4.00 ea and the subscription is $60 per year.
Thanks,
Bob Pace