

KEEPING PACE

A Monthly Newsletter Devoted to the art of Darkroom Photography

Volume 57 March 1992

Photo Composition Versus Strip-In's

The field of photo composition has been gaining in importance in the photographic field because the scanners have already decimated the Dye Transfer labs and their only recourse is to find an alternate market for their skills.

Most Dye labs had to convert to C printing. This is not a bad idea, because the knowledge required to make reproduction Dye Transfer prints can be transferred to the C printing field with little trouble.

Some of the masking tricks that have been used by myself and my cohorts have already been utilized by top labs such as **Bob DeSantis of Hollywood, and Frog Prince labs in San Francisco**, as well as others throughout the country. Masking is one aspect that has been used by the "pro's"

and has helped in the transition from one process to another.

In making images that require the knowledge of photo composition "tricks" the approach is totally different.

Cleanliness is especially required because retouching is not an option in this field. The prints usually are made in large sizes for display in airports and bus stations. Some are prints, but most are Duratrans, or Fujitran images. (A Kodak, or Fuji material.)

These large sheets usually consist of a photographic image, inserted into a colorful background, with key lines, and colorful type. The art work that is presented to the lab consists of a black and white layout board describing the crop marks,

the color the lettering has to be printed in, (this is usually accompanied by a Pantone Color number) and images that have been designed by experts.

The equipment required for this kind of work consists of :

1. Copy camera.

Vertical or horizontal is not a criteria, but the camera must be sharp and be able to be sized to a specific percentages.

A vacuum back is a necessity. Register pins would help but are not yet necessary.

2. A darkroom

with a sink large enough to process 8x10 to 16x20 litho films

3. An 8 x10 enlarger. What kind? I have used the lowly Elwood and the beautiful

large Durst. When the prints were examined, you couldn't tell which enlarger made which print. The enlarger must be equipped with either a dichroic color head or a filter drawer. The lens must be top notch.

4. An exposing area for making contact reverses and color exposures onto color negative film, (or color transparencies.) In this case, a color head on a 4x5 enlarger would be convenient, but a simple contact frame (with register pins) and a color head would do fine.

The color head, if not attached to an enlarger, should then have some sort of diaphragm to control the amount of light used to make the various exposures. A vacuum system would be the best method for insuring a tight close fit between two or more sheets of film

5. A quality easel meter such as the Wallace Fisher Digital meter. Reference numbers can be recalled easily with this meter, however any reliable and repeatable meter will do.

6. The largest expense will be the processor.

The size of the print will dictate the size machine you will need.

7. A large vertical light box that can be used to examine

the Duratrans prints as they are hung to dry. The color of the light source should reflect the kind of light sources used by your clients. Usually 5000K.

8. A flat table with a large built-in light box for spotting, and finishing.

9. A large trimmer. The roller kind.

10. Clients.

Here is a tip for those of you who want to get involved in this business and have little to spend. I mentioned this in section # 4.

It isn't really necessary to have an enlarger to use as a light source, if all you use the light source for is to provide color to the lettering or backgrounds.

I would purchase a Dichroic color head. (Any size.) Place it on an overhanging shelf over your vacuum easel. Make sure that the light source covers the area of the easel.

Cut a large enough hole in the shelf so that the light source is not blocked. Purchase a diaphragm from Edmund Scientific, in Barrington NJ. This is all you will need to make thousands of colors, especially if you use the Glen Peterson method for "making" and then "matching" the same colors. You will not need an enlarger for this purpose.

Purchase a multiple registration vacuum easel from Condit Mfg. The kind that can hold more than one sheet of film in tight fit as well as register.

This change of color printing procedure sometimes only means purchasing a processor, since most of the lab equipment already been used by the lab in its former services.

The market is flooded with used equipment that still has plenty of life left in them. For you, the average person that simply wants to make the best prints possible, and is not in the commercial field, then all is possible for you. The Dye Transfer, Cibachrome, and now the new UltraStable tri-color Carbon processes will be here for some time to come.

I have had the pleasure of using Glen Peterson's "**Make and Match**" color system.

This ingenious method is designed for just the people I have been writing about. The Photo Comp field. With Peterson's simple equipment package, a quality Wallace Fisher Meter, some simple instructions and about 3 hours work, you can produce 4 -8x10 sheets of internegatives and then C prints that will display 570 colors that can be matched with uncanny accuracy. The system simply makes use of

fixed lens opening and the dichroic color head to make all of the colors.

The lens opening is then constantly changed for each color, as are the dichroic colors.

The best feature of this system is that it works whether you are producing a color negative or color transparency.

If you have a client that is constantly providing you with Pantone colors to match for his lettering, tell him to use the prints that you will supply to him and to please choose the colors that you can match, instead.

I have been using the system for one week and am convinced that this is the best and simplest system I have ever seen. I worked for Glen Peterson in my early days as a color printer, and always knew about his ability to dream up some method to improve the quality of the work or make it simpler to process. **This system is a prize winner.**

Now, lets investigate the method of producing different sized photographic images on one sheet of film, in this case, either separation negatives or a color negative.

Let assume that you must place 5 images on a sheet of film, so that a larger print can be made.

If all you have is one enlarger, then you are stuck. You could make duplicate transparencies of each image to the size indicated by the layout, then cut each one into a separate sheet of film, in position to the layout, using a register pin system, then make all of the "hold out" and "burn in" masks, and expose each image, in turn, onto the final material, either separation negatives, matrices, film or C paper.

Is this the best method for such an undertaking? No. It is not.

When I had my large lab, (11-4x5 enlargers, 8-8x10 enlargers, 2-35mm enlargers) all of my equipment had registration carriers and register vacuum easels. I had many printing options at my disposal. One method is as follows:

In making a set of separation negatives for a Dye Transfer print, I would begin by first copying the layout to fit a sheet of 8x10 film.

Then I would place the first transparency in enlarger # 1, equipped with a registration carrier and register vacuum easel. I then would size the image to fit the same image on the punched 8x10 film layout, and in the exact position. Remember, we are using a registration easel. I would carry the punched 8x10 layout copy from enlarger to enlarger.

I would then position the

second transparency in the second enlarger, similarly equipped. I would then size and position the image to the same 8x10 image on the easel, and so on, until all 5 images were in position on their easels and were locked into position and size.

At this point, if necessary, I would make enlarged separation negatives from each enlarger.

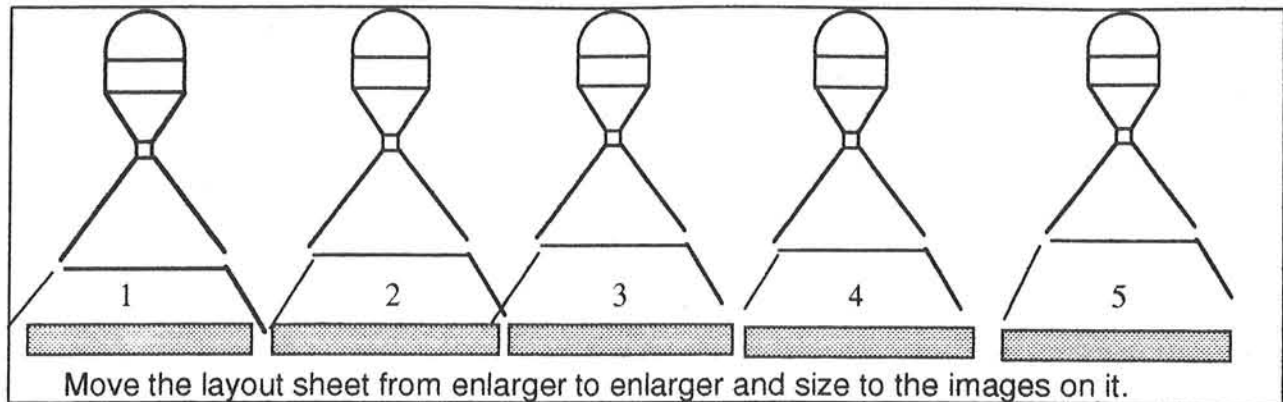
In this case, I would possibly place two or three images on one set of negative films, just to save film. Since I purposely adjust all of the images by corrective contrast masking, they would all have the proper contrast when the negatives were processed. However, not necessarily the same density.

After the separation negatives were completed, the next step would be to isolate each image by silhouetting with Rubylith, or similar material.

This would begin at the actual size of the print. In this case, 16x20.

Each image would be projected on the registration vacuum easel (using the 8x10 enlarger) and weakly developed images could be produced on Kodalith film. I chose this film for it's ability to hold it's size.

The images are then processed, and eventually laid on a large light table also equipped with register pins.



The large sheet of Rubylith film is punched and laid over the Kodalith image. Simply use an Exacto Knife and score the red Rubylith film. Cut as close the edge of the image as possible. When you are through with the scoring, peel away the cut area, and you will reveal the silhouetted image.

At this point, place the cut out red Rubylith material on the easel, place a sheet of thin white paper under the Rubylith film, replace the negative in the carrier with a sheet of unexposed 8x10 Kodalith film, on pins in the carrier and light up the image on the ease.

You will be copying the litho image up to another litho sheet of film in the carrier. This time, process the 8x10 litho sheet in conventional litho developer.

The result will be a very accurate cut out of the image or images on that particular set of negatives. Do this with all of the images in the layout.

After careful testing and more testing, make a set of matrices, or perhaps two sets to accommodate all of the images. This is one way to make a 5 piece strip in using only one enlarger. Of course, the original separation negatives were made on 5 different 4x5 enlargers.

How else could this job have been done?

If you make vary accurate duplicate transparencies of the smaller images, again to fit the sizes dictated by the 8x10 layout, then by positioning the image on more than one sheet of film, the separations could be made by contact, and still only using one enlarger.

The other alternative is to use 8x10 enlargers for the entire project.

I once made a 9 piece strip in over the weekend for Mattel Toys in Los Angeles. I owned 8 -8x10 enlargers at this time. I placed two similar sized images on one set of films, and all of the others on their own respective sheets. I sized all of the

images by going from room to room with the layout that fit the pin system in each room. I made two sets of matrices, being careful to make sure that each set of matrices had images that didn't touch each other. Some of the images ended up behind other images and some ended up in front of other images.

This is a far cry from today's interpretation of "Photo Composition."

I write about this in my book, and try to differentiate between "Photo Comp" and "strip in's."

As far as I am concerned, the strip-in is a much more difficult task to complete.

A word or two about the new UltraStable process

I have been getting many phone calls and letters asking for more information about the new Tri-Color Carbon process.

Let me once again go into some detail about how the process works.

The process is a direct result of the inventiveness of Charles Berger of California.

His first germ of the idea of revitalizing the Carbro process was the thought of longevity. However, the fact that he also used modern base materials allowed him to make the assembly of the print a simple matter.

In the old days, the making of a Carbro print required many hours of painstaking darkroom work, beginning with the separation negatives, then the making of a balanced set of "bromides," then the final ordeal of combining and washing off and assembling of the three images.

The fact that Charles decided to use scanned screened separation negatives in order to simplify the separation process, placed the responsibility of balance and contrast accuracy in the hands of the scanner operator.

That is until now.

With the advent of the more advanced personal computers, we have the advantage of being able to manipulate the image of our choice in any direction we wish.

The fact that a simple Macintosh II CI which sells for about \$3500, can be used as a work station is truly amazing.

Once the image has been scanned, the scanner operators can send the image

by mail, or modem to you, the workstation buff. You have the advantage of working on your image.

One can play with the image on the screen until the cows come home.

When the desired effect is reached, then the removable disc is sent, again by mail or modem, to one of many service organizations to produce a set of screened separation negatives (Around 400 lines.)

When these negatives are returned to you, you have couple of options.

In order to make sure that the balance you have chosen is the balance you are going to get, you can make a very inexpensive 3M color key proof, or you can have the service company make a "Match Print."

If you are satisfied with the results of your confirming tests, then you can proceed. For the rest of the operation you only need these items.

1. A flat surface upon which to transfer the images.
2. An Ultra Violet light source, such as those used in the graphic arts field.
3. A hot and cold sink.
4. A Squeegee.

Of course you need a darkroom, but a darkroom of a totally different kind. There is no enlarger.

The safelights are bright yellow bulbs, such as those called "bug" lights.

The material supplied by Charles Berger consists of the four pigments coated on a clean sheet of polyester film. The receiver sheet is white polyester material similar to that found in Cibachrome glossy material. The material is stable. If your separation negatives are pre-punched in register, you simply need to have the sheets of pigments and the receiver sheet also punch with the same hole size and spacing.

If you need a punch, try Condit or any graphic art supply company.

The beauty of the process is it's simplicity.

Once the negatives are exposed onto the sensitized pigment sheets, the rest is academic.

The exposed sheet, (in this case the yellow) is placed emulsion up in a tray of cold water. The receiver sheet is also placed into a tray of cold water.

Then the receiver sheet is placed upon a flat surface, on a set of register pins. Then the yellow sheet is place emulsion down on the pins, while holding the rest of the sheet up and away from contact with the receiver sheet. A squeegee or roller is placed against the pins and finally the yellow sheet is either squeegeed or

rolled down in contact with the receiver sheet. This package is left undisturbed for 5 minutes. Then the entire sandwich is placed into a tray of hot water. In a short time you will notice some color oozing out from the edges of the color sheet. Move the sandwich back and forth until one of the edges begins to come loose. Carefully lift the pigment sheet from the receiver sheet with no pulling at all. Eventually, the pigment sheet will come off, and it is discarded. What looks like a blob of yellow pigment actually contains the entire record of the yellow printer. Keep the yellow laden receiver sheet in the hot water tray, while gently rocking the tray from side to side. Eventually, the entire blob washes off, leaving only the detailed yellow image. At this point in time, the receiver sheet with the yellow image is thoroughly dried. This is critical. If any part of the yellow image is still wet, it will not accept the following colors. This procedure is repeated again and again with all of the pigments, beginning with the yellow, then the magenta, the cyan, and finally the black. The results will shock you, if the negatives were made properly. The detail produced by the scanner is

unmatched by any other method. **The reason for this unmatched accuracy is the simple fact that the separation negatives are not made by producing curve shaped distortions, but by producing a straight line reproduction of the original image.** Read this last paragraph again until it sinks in.

I have made many thousands of sets of separation negatives and know a good set when I see one, but the results that I have witnessed first hand has convinced me of the accuracy that can be produced by a competent litho service.

If you are disturbed by the fact that your are not controlling the production of the separation negatives as it was done in the past, remember this, the final image, is really all that counts.

I hope to be upgrading my computer system soon. When I do, I will be better able to research the new print systems with more accuracy.

I want to look at Kodak's new CD technology. It looks like a new tool for those of us that like to play with 35mm photography.

You have undoubtedly noticed the change in the magazine content these last few months. The race to digitized images is on. The new tools are becoming obsolete as soon as they are announced.

Has dirt been driving you crazy, as it has for most of us? The dust problem has been with us for all of the photographic history. The diffusion enlarger has made printing a bit more endurable. If you are addicted to a condenser enlarger (like I am) you will have to conquer the dust dilemma or give up darkroom work. I am currently engaged in teaching some members of a lab a few of my tricks concerning photo composition. I have been troubled by the fact that dust has been creeping into my negatives. Where is this dirt coming from? I discovered the air conditioning vent was directly over my enlarger. Even though I wiped the films with anti-static cloths and blew away the dust with a 30lb air gun, then dust persisted. I finally closed off the air vent. But a new product is on the market. It is the **electrostatic air filter.** I have examined the reports about these new filters and found that they will eliminate

about 99 % of the dust and particles in the air.

The filter can be removed and washed and placed back again.

Take a good look at the films before you commit yourself to any exposures.

Use a large 7 power loupe, or a head band magnifier such as those used by watch repair people.

Make sure that your light box is large enough to place the material on and to wipe them clean.

At one time, I had a separation negative darkroom with black vinyl walls. I would rub the walls with a piece of cat fur in order to create an electrical static charge. The dust in the air would gravitate toward the walls. I would wipe down the walls every week, and re-activate the charge by rubbing them again.

It seemed to work.

However, if you plan to make images directly from small originals, such as 35mm or 120 films, then I would recommend getting an oil immersion carrier from Condit.

If your are contemplating making Cibachrome prints from such small originals, and you are planning to make contrast masks, the dirt problem will be eliminated by using the silicon oil system that I advocate. Once you clean all the elements, and place the original and it's mask in the

oil carrier, the sandwich, (consists of 8 surfaces) can be kept clean by simply wiping off the outer glass surfaces. It works.

I have made many Cibachrome prints using this technique and know what kind of results can be achieved this way.

Painting a darkroom black. I personally hate it.

I don't ever want to feel as if I am working in some dungeon.

Except for one time, I have always painted my darkrooms white.

I wanted to have the feeling as if I were working in as hospital.

If your enlarger leaks light, fix it. Eliminate the light leaks from all of your equipment.

The area just surrounding the enlarger easel can be painted black, but the rest of the lab and rooms should be light.

This will make for a much more productive work place.

Chemical delivery to my work area. This has always been one of my pet projects.

I didn't want to walk out of my darkroom to get the chemistry needed to complete my processing.

I placed the 7 gallon tanks on a shelf, above the sink that I used for processing. I installed tank adapters in the very bottoms of the tanks. This gave me the opportunity to place the

necessary chemistry out of harms way and to relieve the crowding of a lab.

I connected hoses from the bottom of the tanks to a set of plastic faucets which protruded from the back wall of the sink.

I now had a gravity fed chemical delivery system

The only problem was how to fill the seven gallon tanks with out resorting to climbing up a step ladder.

I purchased a powerful pump, the kind used by swimming pool repairmen. I hooked up a faucet attachment (purchased from any local hardware store) to the pump, and a similar attachment to the other end to attach onto the tank bottom.

All I had to do was first mix the chemistry, then attach the hose to the specific faucet and the pump, open the faucet, turn on the pump, and then first shut off the faucet and then the pump, when all was pumped into the tank. The left over chemistry was placed into a small bottle and used first.

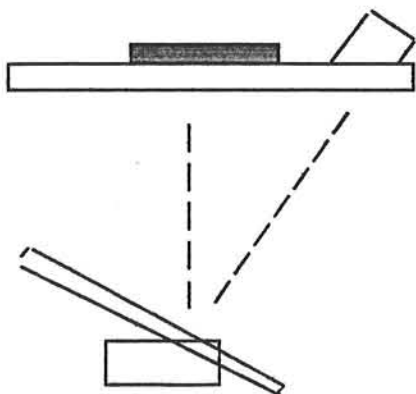
If you have the time and space, the delivered chemistry could be diverted into a coil of tubing, which could be set into a tank of water in the sink. This water could have it's own heating and cooling system and help deliver 68° chemistry all the time. Try it.

The high cost of photographic tools is damaging to our way of life.

When I first went into business, I hocked my home and car in order to raise a measly \$3000. I used half of this amount for renting a small basement apartment in Brooklyn, NY and the rest as my partners share in designing and building our first lab. We rented a small space in a very important building called Grand Central Palace. Our beginning rent was only \$75. per month.

It consisted of one sink, one 8x10 Ellwood enlarger (included in our rent) and a very small outside area for running the Dye Transfer prints. (Also Carbro.) My separation room door was so small that I had to enter it sideways.

We (Lou Van Camp and I) went to the local lumberyard in Queens and built our first contact platen with a home made filtered light source and a revolving adjustable mirror in which the light source on the table top would be directed towards the mirror and back up to the exposing area.



The reason for the revolving mirror was so that we could tilt the mirror and the light as seen from the printing platen surface seemed to running in larger circles.

This allowed us to place spacers between the sheets of film in order to achieve even more diffusion.

This was all made from plywood, nuts and bolts, screws and glue.

We did purchase a better lens than that which came with the enlarger. We also purchased a used 8x10 registration carrier from our former employer for \$100. We had crude equipment, but lots of pride in our ability. We tackled the largest advertising agencies in NY and received much work in our early days.

Could the same thing be done today? Of course it can, but we seem to have gotten to the point where we must have the latest automatic cameras and enlargers, with dichroic heads and closed loop systems.

The meters we used in the early days were simple meters that worked but needed more input from people than from electronics. This is one reason why I keep mentioning the fact that I have used an old (almost 50 years old) Omega D2 enlarger, with a variable condenser set which allows me to work from 35mm to 4x5 with complete confidence.

I have used drop-in filters for decades, but I do recognize the convenience and accuracy of the dichroic color heads, but I am talking about survival.

Can a lab run without the expensive new equipment? Absolutely.

A money and time saver that I recommend highly is the Wallace Fisher Digital lab meter. It has a 6.0, density range and a low price of \$385. It will record your light levels with much accuracy.

You will be able to adjust the *f* stop on your lens with great accuracy.

Today's main photographic problem is marketing. Where, and who, is the market?

It is out there. If you are interested in galleries, contact the few galleries in your community and try to get a list of the galleries in the country. There is a list. Show your best work.

Make every showing a "theme."

In the meantime, I am still selling my wares.

If you are interested, let me know and I will send you a brochure that lists my products.

Thanks,

Bob Pace
2823 Amaryllis Court
Green Valley, NV 89014