

KEEPING PACE

A Monthly Newsletter Devoted to the art of Darkroom Photography

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Another Anatomy of a Strip-In

What it takes to make a strip-in without resorting to digitized equipment.

Let us assume that a three piece "strip-in" is needed for an ad and the advertising agency delivers a layout to you and asks for a 20x24 print.

What kind of print? It doesn't really matter, as long as the print fulfills the requirements for the agency.

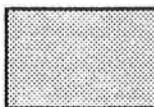
For our specific problem, let us choose a Dye Transfer. This will explain what the reasons were for the high costs and the necessary time to complete the project.

We are talking about a professional lab, with

the correct equipment and the knowledge required for such an undertaking.

The agency hands you a packet that contains the original transparencies and an accompanying layout. One transparency is an 8x10 size, another is a 4x5 size and the last one is a 35mm slide.

The main image is represented by the 8x10 transparency.



The second image is represented by the 4x5 transparency.

The third image is produced from the 35mm slide.

In order to make a quality strip-in print, the contrast levels between the three elements should be similar, and so should be the overall density levels. The color balance is probably the last thing to worry about, but the first thing that will be noticed if the balance is off.

The method that I recommend to begin the assembly process is as follows:

1. You must have an 8x10 enlarger. I don't care what kind it is as long as it contains a registration carrier and a quality lens. I have used the infamous Elwood for almost 50 years. With modifications, it works

very well, indeed.

2.

You should also have a 4x5 enlarger, agequipped with a registration carrier and a quality lens.

Both of these enlargers must also be able to be locked into opposition and not be able to be movable in any direction until you want them moved.

3.



The layout must be copied. What? You don't have a copy camera?

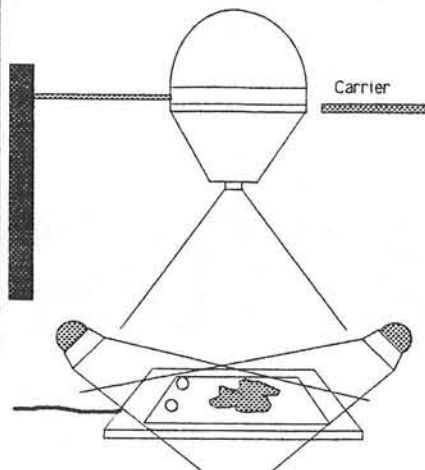
Sure you do, if you have an enlarger, you also have a copy camera.

If the layout is already enlarged to the final print size, place the layout on the pins of the large vacuum easel of the 8x10 enlarger.

Then place the 8x10 original color film in the 8x10 enlarger and project it on the image on the easel so that it registers to the layout accurately. Lock everything in place.

Remove the transparency from the carrier, and in the proper safelight setting, place an unexposed sheet of punched litho film into the same carrier, cover the lens with a lens cap, place some lights at 45 degrees along side the easel so that it is as even as possible, remove the lens cap and make a short exposure.

The image will have been copied on the new sheet of Litho film.



4.

Process this sheet in a soft developer such as HC-110, (25cc of concentrate per 1 liter of water) so that the entire image will be visible, and not be a contrasty version of the layout.

This new negative is very important.

Make a contact print of it on a sheet of black and white RC based paper so that the size will remain quite intact. This punched print, will be used to make all of the other images fit the layout in size and position.

5.

If the layout size is a smaller version than needed final size, first copy it in the same method, and use the same 8x10 original color film to register to the layout. Copy it using the same kind of film.

And the same development. Then, make a contact print. The main image should be the same size as main image in the 8x10 original. This then would be the important element in making the three piece strip-in work.

6.

If you have three enlargers, they should be the following sizes.

- A. An 8x10.
- B. Two 4x5.

7.

Once the final printed layout has been punched and placed on an 8x10 pin system vacuum easel, it could be transferred from easel to easel without any problem. The object here is to produce three sets of **8x10 separation negatives.**

The procedure begins with the largest image.

The layout sheet and the 8x10 original image must eventually be punched in register to each other.

This first 8x10 set of negatives could be made by contact. The contrast range must be accurate otherwise the final appearance of the print would be marred by mismatching contrast levels between the various images. The separations, once they are made, may be put aside for the time being.

The second set of negatives are made from the 4x5 image.

A similarly pinned vacuum easel is positioned under the enlarger, the image is sized to fit the 8x10 image on the layout. Make sure you are focussed properly. The enlarger must be locked into place at the carrier stage as well as any up or down movement of the enlarger. The method to use when making enlarged separations are thoroughly explained in my book on Dye Transfer.

When this set of 8x10 negatives is completed, it should have the second image in the exact position as it is in the layout.

The third set of negatives is made in a third enlarger. This could be another 4x5 system or even smaller, as the last image is from a 35mm transparency.

Again, the image is sized and positioned to match the image on the 8x10 layout sheet.

Once this position is established, again, lock the system so that no movement can occur. Make a third set of 8x10 negatives. Don't worry about the image not taking up too much room on the film, because all that matters is that the image is the correct size and in the right position.

Do they all have the similar density ranges and overall

density? They should be as close as possible, but if they aren't, they can still be used. You should now have three sets of 8x10 separation negatives.

Now we have all of the necessary elements to produce a three piece strip-in. Or do we?

Making the masks is the next step.

The example I use for making the three piece strip is a simple but very effective method for making it fit as tight as possible.

It is an easy task to make a contact print of each image, on pins, preferably on polyester based litho film. This film will hold it's size.

But trying to make accurate silhouettes of the two images at the contact size is almost a waste of time. Any deviation from perfection at the smaller 8x10 size will be magnified when making the larger 20x24 print.

You could use a photographic approach in order to make a silhouette image on film which could be opaqued, but the small size would be a challenge.

Instead, why not take one of the negatives from the second set of separations and place it in the 8x10 enlarger. The object here is to produce an image in the easel that is as large as you can make it. If necessary, change the lens to make it more adaptable to fit the

image size.

If you have a backlit 20x24 vacuum easel then that is great. But if you don't, you should have a 20x24 vacuum and pin registered easel. Size the image to fit on a sheet of 20x24 litho film, and again, punch it, vacuum it, expose it process it in a soft developer.

After washing and drying, place the litho film on a light table that has the same set of pin configuration taped to one end of the glass.

Place the litho film on the pins, and roll it out as flat as possible.

Then cut a sheet of Rubylith film to the size required to cover the image and punch it and place it on the same pins. Tape it securely so it won't move.

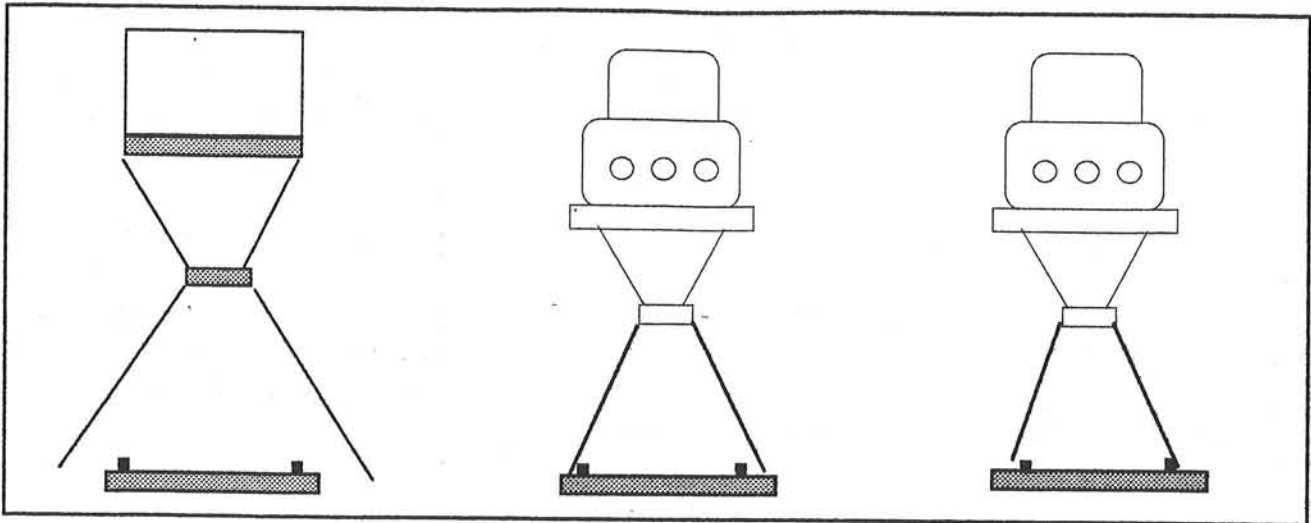
Using a sharp new Exacto blade, score the film as close to the edges as possible. When this is done all around the image (and inside if necessary)

Peel off the Rubylith film in such a way as to leave a solid red image with a clear background.

Now we have the first part of the silhouetting system.

We haven't touched or moved the enlarger that produced this 20x24 litho film.

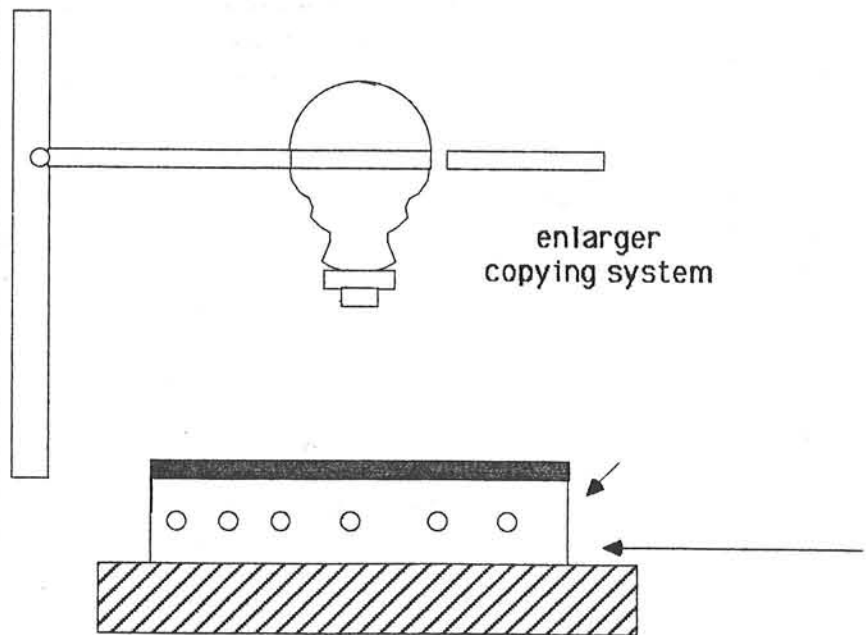
Place the red Rubylith film on the same pins of the enlarger easel, and slip a thin sheet of white paper under the litho film, or use a



The 8x10, and the two smaller enlargers use the same size vacuum easel which allows the three images to be placed properly on the 8x10 layout.

backlit easel if you have one, and remove the negative from the carrier, and in the correct safelight setting, replace it with a sheet of unexposed and punched litho film, face down. Again, activate the lights on the easel, or the backlit lights and expose the easel image up to the carrier film. Process this sheet in Kodalith A&B developer. This time we want high contrast.

Do the same exact steps with the third image. You should now have the two different positive friskets. Using the contact printer, make two exposures different from each litho negative. The first exposure will be made using Kodalith Litho film. (Or the equivalent.) The second exposure is made using a reversal film such as Kodak's LPD 4 or Duponts CRR4.



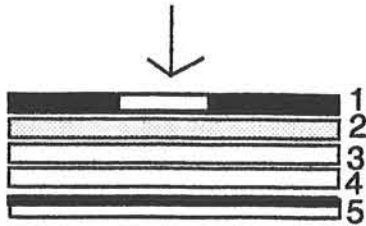
This will enable the positive masks and the negatives masks to have their emulsions facing the same direction. **This is very important.**

These masks are used when making the matrices. The proper "hold-backs" and "burn-ins" can then be

spaced properly so that the edges of the friskets will not be as sharp as the image itself.

The following diagrams illustrate the positioning of the various elements so that a sharp image is obtained while a soft edge is also

produced.



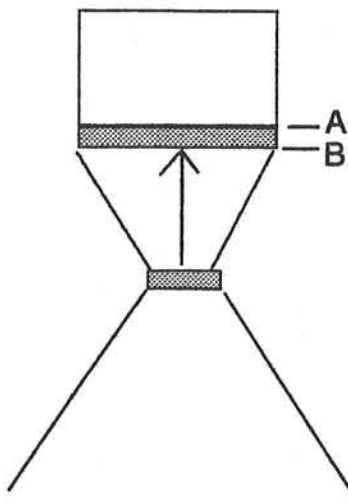
Examine the illustration above. The light source comes from the top. The films are in this order.

#1 is the burn in frisket, with its emulsion face down.

#2 is a diffusion sheet.

#3 and #4 are clear sheets of film which are used to put space between the Diffusion sheet, (#2) and the negative, #5.

The more space in between the top and bottom sheets the greater will be the soft edge effect.



The reason for a quality Apo Chromatic lens, is so that when you focus on the negative film plane, you must make sure that you actually focus on the film plane (B) and not the mask plane (A.)

With an Apo Chromatic lens, you can work with a more open f stop and still maintain a sharp image.

To make the other part of the strip-in, use the same spacing and method of diffusion.

If your negatives are made correctly, and if the client suddenly asks you to make a 16x20 print instead of the 20x24 image, are you in trouble?

No. You are not.

Since the negatives were made to fit the layout, you can make the print any size you wish and still have all of the elements in the proper place.

What would you do if the client wanted a Cibachrome print from the same three transparencies?

There is more than one way to skin this cat.

Begin by making a copy negative of the layout using the same technique as earlier explained.

Then make a print on RC based paper or on a sheet of Kodalith film (mainly because of the Polyester base.)

This layout will travel from enlarger to enlarger. Punch it so that it will fit the pin system of the 20x24 vacuum easels.

Place the main illustration in #1 enlarger and size and position to fit the layout, then lock it in position.

Then place transparency #2 in enlarger #2 and again, size and position it accurately, and lock it in position. The same applies for transparency #3.

There are a few ways to make the friskets for this print system. Unfortunately, large sheets of film are required.

Expose an image from each specific enlarger on 20x24 Kodalith film, and soft develop each sheet.

Use a pin system light box and make Rubyliths of each image.

The next step is to make positive and negative lithos of each image.

By exposing reversal films and normal litho films at the same time we can be assured that the emulsions of all sheets will be facing the same direction.

These litho's are used to make the hold-back and burn-in exposures of each element.

Since we are exposing the images through the enlarger we cannot use diffusion sheets to soften the edges.

Sorry about that.

Another approach to this masking method, if you wanted to control the soft edges, is to make a layout print to the size of the main illustration.

Then make dupe transparencies of the remaining images, to the exact size and position on a pin system that also fits the main illustration.

Then the original method of making the masks as we did in the Dye Transfer system will be the way to go.

There may be a slight loss in quality when using dupe transparencies for this method, but occasionally, the image can even be improved.

Remember, the importance of the various steps and keep them in order.

The friskets are only one part of the whole effort. The contrast, density and color balance (in that order) are the main ingredients in producing a great print.

I have been receiving much mail about the new color Carbon processes that have recently sprung up.

I promised to speak up about the various techniques and to try to explain my feelings about them.

Let us take them one at a time

The method that Rene Pauli uses is his, and his alone. He makes his own private 16x20 separation negatives, coats his own pigments and makes his own receiver sheets.

He uses top grade pigments produced by Winsdor Newton to make the pigment solution that he uses to coat the holding sheets and concocted his own proprietary sensitizing solutions.

He uses conventional enlarging methods to produce the images.

The method used for producing an accurate color balance is his own.

His light source is a reconstructed ultra violet street lamp and his kitchen is his work space. Eventually, when the finances improve, I am sure that a conventional lab space will be in his future.

What do I think of his work? I think he has a legitimate hold and place in the fine arts field.

His prints are excellent and the third dimensional effect is astounding.

Unfortunately for us, Rene only works for himself. He is a complete artist, and I personally wish him well.

The UltraStable process was the photographic invention of the century as it began a new approach to an old process that died in the early 1950's.

The old process died because the main effort for the Carbro print was it's use in the advertising field.

In a city as large as New York there were only 4 labs that were involved in the production of Carbro prints. I worked for one of them. I made many Carbro prints in my youth.

No more than 6 individuals were involved in the production of Carbro prints, in a city of almost 9 million people.

The Dye Transfer process made it possible for simple corrections to be made to a print in a short time. As a result, the Dye Transfer process became the color process for all of the advertising needs.

Remember, the only reason for a Dye Transfer print, was so that retouching could be applied to make as perfect as possible.

Where were the fine art photographers and color printers? I don't really know. If they were out there I don't think they were good printers. Only the best printers were involved with the ad agencies. Only the very best.

The spur that drove Charles Berger was the idea of longevity. This is another story.

Charles Berger spent much time researching the different automobile paint manufacturers primarily for their ability to withstand heat and sun for years before losing their color.

He obviously found the colors he needed and a method of coating the receiver sheets.

The idea of simplifying the registration system was the key.

In order for the separation negatives to properly work in delivering the image to the coated pigment, required that they be screened.

This meant that the transparency had to be sent to a service company that could scan your image with a lazer scanner and then make the screened separations.

What about making sure that you got the kind of separations that gave you what you wanted in ther final print.

This was a stumbling block. Charles personally chose one of the best litho companies in order to obtain accuracy.

Some enterprising individuals spent money to have their own work station in order to make the adjustments needed to satisfy their artistic intentions.

I have made a few prints using separations supplied to me by Charles.

The results were outstanding.

I have written newsletters

describing the details of the process.

One of my concerns was for the control of the process.

As you must have figured out by now, I am a professional Dye Transfer printer with almost 50 years experience.

My main love for the process was, and still is, the great amount of control in contrast, density, color balance, shadow details, and highlight structure.

To me, this element of control was a definite plus in favor of Dye Transfer.

The necessary equipment for completing an UltraStable print is not that demanding on the pocket book.

When I made Dye Transfer prints, I would first run a proof print. This print was examined and decisions were made about "what to do to improve the print on the next run.

I could change the contrast of any color in any direction. and I could also easily lighten any color, or darken any color. The highlight areas could be brightened, while the shadows could be either lightened or darkened.

The dyes could be replenished in order to make the colors richer, or manipulated in order to make them weaker.

The fact that the Dye Transfer print was not as sharp as the Ultrastable print didn't bother me. I wanted control.

The reason for the success of the UltraStable process was the fact that the scanning process produced negatives that were straight line reproductions of the original transparencies. This is where I was fascinated.

Imagine a set of separation negatives with virtually no distortion of the curve shape. This was never possible with conventional methods, and still isn't.

The fact that the scanner was impersonal made the production of a set of negatives almost simple. But what about the creative juices? How does one make the little adjustments in the areas of density, contrast and color balance?

This would mean one of two things. First, you would relinquish all artistic judgements to the scanner operator or to the companies work station.

Secondly, you could spend money and purchase the appropriate computer to be used as a work station, and hope that after all of your corrections that what you receive from the litho Co. matches your screen

Matching your output when producing the print is known as "Color Managing."

A few of my subscribers have jumped into the fray and purchased the necessary equipment.

However, here is my evaluation of the new EverColor process.

This a lab that will make color carbon prints for you.

Many photographers do not make their own prints, as they would rather spend the time to capture the images on film.

For an example, many photo journalists are great at capturing the almost elusive images. National Geographic photographers are more intent in getting the picture and would rather leave the job of reproduction to more qualified lab people. In fact, when I made prints for Josef Karsh, Philippe Halsman, Victor Keppler, and many others, it was because their creative talents leaned towards the camera and not the dark-room.

This is the case with EverColor.

Bill Nordstrom is a master color printer. How many photographers are master printers? Very few indeed. The control that is afforded by Bill's system is as complete as any Dye Transfer I have ever made.

My concern about control has been alleviated.

In making a Dye print, after all of the masks and matrices were ready for testing, a small version of the print was exposed, processed and printed. This takes more than one hour.

Then the print is examined, and the corrections for contrast, density and color balance were applied.

After some time for the adjustments in the dyes to take affect, another test print was pulled, or if necessary, another set of test matrices was exposed, processed and run.

Again, the print was examined and further corrections were made.

At this time a full size set of matrices would have been exposed, processed and run. This first print would be called a proof print.

From this print, further fine tuning corrections would be made to the highlight "snap" and color intensity, and so on.

Time consuming? Absolutely. But this was the great advantage of the Dye Transfer process that no other process could even hope to match.

In EverColor's case, the image is scanned on a high end Scitex flat bed scanner, the scanned image is then viewed on a fine color monitor, and manipulated to the "nth" degree.

When Bill Nordstrom is satisfied with the screen image, a proof print can be made in a matter of a few minutes.

on a very accurate Iris printer. This print is examined again by very scrutinizing eyes, and if necessary, more fine tuning is applied, and a second proof print is produced. This is a very fast and reliable operation.

The image is then duplicated exactly, saved on a high density disc and forwarded to a high end film recorder that produces a 450 line screened image. When the pigment print is produced and examined against the Iris proof, it is virtually a perfect match.

The best part of the process is that if you, the photographer would like to have a hand in deciding the final balance you can visit the lab and participate in the final judgement at no extra charge. **There are a few bonuses** attached to this process.

1. The reproduction of the original is a straight line reproduction. This means that the shadows and highlights are as accurate as the transparency.

2. And the print will probably last 500 years.

This is truly the best method I have ever seen for producing a gallery quality color print.

Bob Pace
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