

KEEPING PACE

A Monthly Newsletter Devoted to the Darkroom Arts

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Making Accurate silhouette Masks

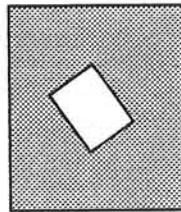
Making silhouette masks can be a problem if not started in the correct way. Where 2 images or more are to be combined in such an operation, the technique deserves a fresh look.

Most silhouette masks can be just simple masks to make a background disappear.

These simple masks can be made as follows: Either cut a frisket or use photographic films such as Litho films to produce a silhouette of the image. Remember, you have to make a reverse of your image. **This is where the trouble begins.**

If the image is complicated by loose hair, use combination of positive and negative films to achieve the correct result. Don't be afraid to use black opaque. If you can do this you are still going to have problems with the fact that you will get edge

effects. **Why will you get edge effects? It is because of the misalignment of the two sheets.**



Here is what happens: This is the frisket with the opening as seen above.



Here is the reverse

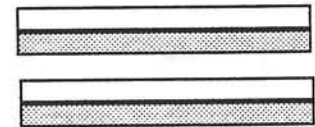


Do you recognize that the emulsions of the 2 sheets are opposing each other? **There is no way** that the 2 sheets can be used to both hold out and burn in any 2 images.

If you ever wanted to create a situation that deliberately caused a black or white line,

this is it.

In order to eliminate this reversal of the emulsion's focal point, **the 2 sheets must have their emulsions facing the same direction. Like this.**



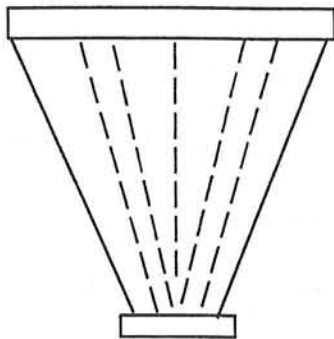
You must use 2 different kinds of film to achieve this result. The first is Kodak's Kodalith Type 3, the other is Kodak's LPD4. However, the exposure must be accurate, More about this later.

This positioning is only the beginning. At least, we will have no problem with edge effects if the sheets were placed in the enlarger carrier first, then followed by the actual negatives or positives in question. But it is rare that the negatives or transparencies are placed above the frisket.

This will invite dirt problems and refraction, plus diffusion of the images as well.

In making a two piece strip in, this is a normal procedure, except for the fact that it still isn't perfect.

If you were making a contact print and used the 2 elements properly, there would hardly be a problem. However if you decide to use an enlarger, The next drawing will illustrate the problem with enlargers



With the friskets in the carrier, notice how the image goes through the carrier . It is at an angle.

The image is O.K. but the light source is not O.K. The angle that it follows causes a displacement of the frisket edge.

Now, I usually recommend that the friskets be placed in the carrier and that a few sheets of clear film can be placed between the negative and the frisket, thereby throwing the frisket out of focus (slightly) This will aid in producing a soft edged effect.

But the angle of the light source will produce an edge.

What to do?

Here is my solution. Instead of using a contact frame to produce the friskets, use the same enlarger and place a light source below the lens and with the lens wide open and with the transparency in the enlarger carrier, add 3 sheets of clear film, then a sheet of unexposed Litho film. All of these elements are on register pins.

However, to find the correct exposure for the litho film, first place a masked off two sided 21 step grey scale make a few exposures on the litho film to find the correct exposure Here is an idea of what this grey scale should look like.

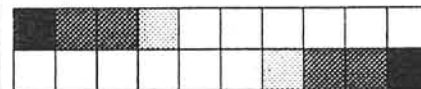


I don't have 21 steps in my drawing, but pretend that there are 21 steps

In order for any film to be exposed properly, you must know the limits of the exposure. If you are under or over exposed , the results can be bad. With Litho film, it is even trickier to obtain the correct exposure. Here is a little trick that I have used for years.

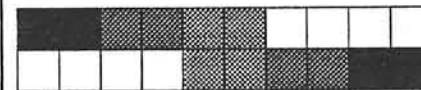
This is an example of one method that works. The opposing 21 step grey

scales when exposed onto any litho film will react in a certain way. For example, if **you are under exposed, the results will look like this.**



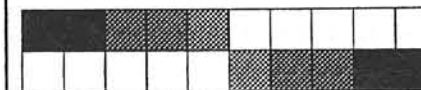
Notice how the middle portions of the grey scale a gone This means that you will require much more exposure. How much? Who knows. You will have to experiment.

On the other hand, if **you are over exposed here what the opposing scale will look like.**



Notice how the middle steps are overcrowded. This is also wrong. It will require less exposure.

However, once you have found the correct exposure here is what the opposing scale should look like.



This next step is the most important part of the process.

How can we make sure that the exposure is always accurate?

It means that we must have **repeatable steps** throughout the entire exposing steps.

Now, we could make the exposures using a print frame, or a vacuum easel or a contact platen, but remember the way the lens in the enlarger allows the image to go through the film at angles?

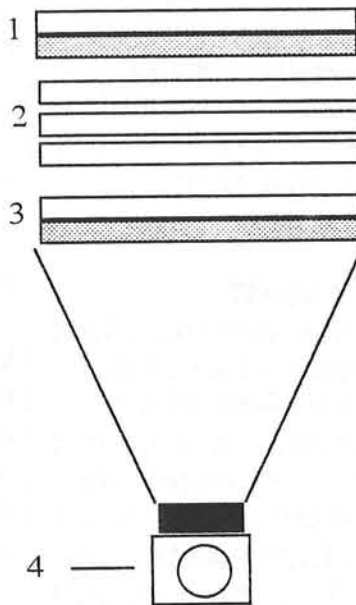
Then why not use the enlarger as the instrument to produce the masks and eliminate the problem of misalignment because of the angles.

This means that you will have to set the enlarger at a specific height all the time and to an exact F stop. This seems like a simple task, **but it must be repeatable.**

Set the enlarger up as if you were going to make a 16x20 print. Stop the lens down to F 8. Read the light level on the easel and write it down. Use this procedure every time you want to make a silhouette masks using this system. Always match the light level by adjusting the F stop each time.

Use the registration pins in the carrier. The carrier must also be able to locked in the same repeatable position each and every time you use it for this purpose.

In this case place the film in the carrier as follows;



Here is the layout.

No. 1 indicates the silhouette mask

No. 2 indicate the three sheets of clear film which will allow the top sheet to be far enough away from the focal plane so as to be out of focus.

No.3 indicate the original negative or transparency.

NO.4 indicate a light source located just under the lens of the enlarger.

The entire project works because the 3 sheets of clear film allows the negative (or transp) to be focused on, very accurately. The top sheet of film (the mask) will be slightly out of focus. This is the whole idea. It must be soft enough so that any

edges will blend with it's counterpart. If the package was started on the contact system, it would only work on the contact system. But since we are using the enlarger to make the final print, the method of making the mask through the enlarger will work.

If you are working from color transparency then you will need a litho film that is color sensitive. The latest Kodak films will work fine. Kodak's Ultratec UPF is a panchromatic film that is excellent. You will need Ultratec Tray Developer and fixer.

There are others on the market. Use the same system with the opposing grey scales to obtain the correct exposures. Color filters may be used to isolate the wanted areas.

This is a method that I used. My friskets were almost invisible and I must admit that I usually had problems with hair, but I managed to get excellent results 99% of the time.

The bulb to use under the enlarger lens is not critical. I used a 250 watt (#213) enlarging bulb. It is incandescent and will fit the bill perfectly. This system requires much attention to repeatability. This includes processing and making sure that the electrical current is stable

Here is a system that I have used successfully during the later years of my printing career.

As you may know, I make my masks using a combination of hand drawing and photography. I get as much information on my masks as possible.

I also have described in the past, how I use the masks above the negative or transparency in the enlarger. This allows me to be able to use clear sheets of film to separate the mask from the original **thereby causing the mask to be out of focus.**

The three sheets of clear film could also be replaced by one or two sheets of diffusion material. This will even further throw the mask image out of focus.

But the fact that it is possible to make the masks through the enlarger will also include all of the distortion caused by the displacement.

Try this approach. I think it can work for you. The edges of the mask must be sharp and accurate, and so must be the reverse, but placing them out of focus is the only way to achieve a tight fit without a hard edge.

Try this approach and let me know if you have any problems.

The grey scale.

.What is it's purpose?

When you are engaged in producing a color print, and need a set of black and white separation negatives from a transparency, the use of a grey scale is most necessary.

How is it used?

The original idea was to tape a grey scale (either 21 or 11 steps) to the edge of the transparency. Then the idea was to try to produce negatives that would fit the range required for the print materials, and try to make the grey scales match. The idea sounded great.

In fact, Kodak has a booklet produced by their graphic arts dept. that illustrates just how this is done.

Well, my good friends, it doesn't quite work. Why?

Let me explain.

Suppose you are going to make a B&W separation negative from a transparency and you realize that a contrast mask must be made first, otherwise the image will be almost impossible to capture. If a grey scale is placed along side the transparency and the mask is made (25%?) And then the negatives are made so that the grey scales match each other, what happens if the transparency is a bit too dark or too light? Or if it is too warm or too cold.

The resultant print will reflect all of these shortcomings. It too, could be also be too dark or too light, or too warm or too cold.

In other words, if you want to match the grey scale, fine, but don't expect your work to be creative, especially if you want to make adjustment in color balance or contrast.

With the system I use, I place a **3 step grey scale** alongside the original, but I use it in a different way. The tests that I make to determine the correct exposure and developing times for every gamma from .10 to .45 is done so that I can properly produce a mask or negative with all of the details in the original also captured.

But once I read the DR of the original in order to make the masks or negatives, the grey scale does not become a factor **except for matching purposes only.**

Once I read the DR of the **original**, this then becomes my new grey scale. I want to improve on it by making it lighter or darker, softer or more contrasty warmer or colder and so on.

The only reason for the three step (or 11 or 21) grey scale is to make sure that my masks are accurate and match each other and this can only be done with a grey scale, not the image. **Why?**

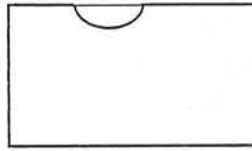
Because the image's so called grey area contains some color and is not pure. On the other hand, the grey scale is a true grey and has no color in it's make up.

When the separation negatives are made, you may use long or short exposures depending on the original. Your main effort is to try to make the image itself, fit on the straight line portion of the curve shape. This is determined by the average density of the original. So, if you stray from a "normal" exposure you will get an erroneous reading and the grey scale will not even come close to the original grey scale. **So what? We are not trying to match the grey scale, but simply using the scale as a matching system.** If the negatives fit the desired range, and the grey scales match, you are at the beginning of the creation of a new print. Now, you can make all the changes you wish, because you know that the scales match.

Where do you place the grey scale? I have a novel system that has worked for me without damaging the original.

I used a paper punch designed to make 1/4 inch holes in a sheet of paper. I rigged it in such a fashion that I could place it along

an edge of the film and punch out a notch that looked like this.



If I used a 3 step grey scale such as the now extinct Q-6C, I would place three such punches in the black edge of any sheet film and make sure that the three step scale would fit if placed under the sheet film.

Then I would place the grey scale under the glass used in the platen or contact frame. This was not difficult to do, and it preserved the original from being cut and possibly damaged.

Now the grey scale is only to be used as a comparative and not as an absolute.

An interesting happened to me years ago. I wanted to make sure that the grey scale was accurately recorded and that I wanted to match the grey scale, no matter what. The original was a shot of a miner in a cave. Even though the shot was excellent, the overall density was quite heavy. I made the separation negatives according to the density range and density level of the grey scale.

The image was very much underexposed, but the grey scale looked great. I made a print and matched the grey scale. The image was terrible. I could not believe it. I matched the grey scale and the image looked terrible. How come?

This is one question that I carried with me for quite a long time. Most jobs fell into a range that I thought I could handle, but more often than not, I would come up short. I finally figured it out.

When you are out with your camera and are shooting a scene, don't you have to adjust the lens or the shutter speed (or both) to get the optimum exposure on this lonely sheet of film? By optimum. I mean, that the image fits within the curve shape of the film itself. If it is acceptable to adjust the exposures because of the lighting during a particular time of day, wouldn't you expect to do the same when working from a transparency?

So, now I have the grey scale included in all of the steps in the production of a set of separation negatives.

However, I use the imaginary grey scale that is located in the light and dark areas of the transparency as my aim points.

This allows me to use the grey scale strictly as a measuring device for uniformity. Make the grey scales match and you are then free to make any adjustments necessary to produce a work of art.

Photography is a 2 part system.

The first part is the taking of the photograph. I don't care if it is done with a 20x24 camera or a 35mm camera. It requires the eyes and the artistic composition abilities of the artist with the camera.

Obviously, without the camera, you would have to use paints or charcoal. The inventive genius of an Alfred Eisenstat, or Henri Cartier Bresson is very rare, and yet most photo journalists have similar skills.

Cal Bernstein, who worked for years for as a photojournalist never worried about the print, as he was primarily concerned with the image he was capturing.

The second part of photography is the production of the print. This is the part that I spent over 50 years as a professional color printer, and had the opportunity to work with many of the biggest names in the photographic field.

Naturally, the photographer received the credit for the image, but somewhere,

someone had to produce a print, whether it was on a magazine page or in a gallery setting.

This is why many of the great photographers made their own images.

However, most of them made black and white prints.

Making a color print is another story. The production of a color print is a long and tedious operation. The early days was the showplace for the great Carbro prints.

The names like Nicholas Muray, Anton Breuhl, Frank McLaughlin, Victor Keppler, and many others were not only capable of shooting the image, but they were able to properly interpret the separation negatives and produce masterpieces.

However, the great majority of fine photographers never made a color print of their own image. This is where the eyes of the printer had to be equal to the eyes of the photographer, otherwise how could he or she produce great works.

During the era from 1940 to 1980 the great prints were not produced by the photographer but by a darkroom technician that could see and feel the same way the artist did.

I personally think that the second part of the process is a much more difficult part of the photographic process. The years I spent making a mediocre photographer look good were many.

Why do I feel this way?

After I received a transparency from a client, I was in charge of adjusting the contrast, color balance, highlight structure, shadow detail, and specific color correction.

The ability to manipulate all of these color balances, contrasts, densities and many other effects made the production of a print an extremely important process.

So now we are at crossroads again.

How do we make a print today? We have many methods at our disposal. The quick one hour lab and the other almost instant prints are here but lack the definition and quality of the image to be considered, but we also have professional Type C printers who do make interesting prints.

The Ciba(Iflo)chrome process is here to stay and has many aficionados producing great prints, but the Dye Transfer process still separates the men from the boys.

It is here that the images can come to life, if the artist is capable. All of the adjustments that were mentioned are only truly possible by the use of the Dye Transfer process.

In this day, and age of speed and sharpness, the fact is this. No other process has the unlimited amounts of adjustment afforded by the Dye Transfer process. None.

Is this a process for the masses? Not on your life. It will take a dedicated person a few years to become acquainted with this system. But once you have made a few prints, and understand how the process works you will be amazed at what can be done.

The new pigment prints are also here to stay and they also require much artistic ability. The great joy in producing a pigment print is the reward of very long print life and if done properly, a very beautiful image.

This should be an individual effort, and it may soon come to that. For the time being, some of the finest prints are made by EverColor and UltraStable. Both require that screened separations be made before making an assembly.

This means having a print made as I did in my early days

I made prints for photographers who didn't want to take the time to learn how to make their own.

But now we have a new intrusive set of systems that dwarf all of the do's and don't's about how to make a print.

We have the computer and it's rapid advances so that soon we will no longer need an enlarger to make a print. It seems as if the days of the darkroom worker is almost over. **Or is it?**

The cost of getting equipped with a first rate computer is only the beginning. You will need a scanner. What kind? Rotary, if you are working from transparencies and flat bed if working from prints. The cost? Anywhere from a Model T ford to a Lamborghinni

What to make of all this? It still takes the artistic eye of the photographer (or printer) to complete the circle. Even though I would like to see the continuation of the "hand's on" approach to making prints, my voice is being silenced by the growing hordes of computer technicians.

In my connection to RIT through the e-mail system, a few questions were thrown out by people that think photography is dead.

The responses from all over the world feel pretty much the same way, but every so often a bright voice of reason comes along and straightens us all out.

In essence, what was said is this:

It is going to take a very long time to see the death of our favorite hobby or work effort.

The camera is still the tool that begins it all.

The second part of the process, **The print**, is the only part that is really being attacked.

This is the part that I am most involved with. The production of a quality print requires much knowledge. Even with a computer, without this necessary knowledge, the results can be disastrous.

There are many magazines out now that feature the digitized methodology. However, each time I walk through a gallery, the images on that wall are hand made. I guess, that eventually we will see digitized images in galleries also, but I think that the "look" of a fine hand made print is here to stay for the foreseeable future.

I personally believe that the return of the Dye Transfer process will again grow into the major process that it once was.

My personal love affair with the easel meter.

At one time I swore by the accuracy and repeatability of the Wallace Fisher easel meter, however, the company that produced this marvel decided that it was too antiquated and could not be supported.

First off, let me tell you why an easel meter is important. It is the only way you can get a repeatable light level on the easel regardless of the lens, the height of the enlarger or the opening of the lens. Let us use it as it was intended.

First you place a negative or transparency in the enlarger and make a test print. Place this print on a slanted wall with a ledge on the bottom edge. Use plenty of illumination and examine the print thoroughly. Is it too light or too dark? Now you have a decision to make.

You can either change the time of exposure or you can adjust the f stop.

If you change the time, you have not yet affected the f stop.

Let us say that without changing the f stop you are able to make a presentable print. Fine.

The next day, the client, (or yourself) wishes to make a fresh print. You may have used the enlarger for other purposes and it has been moved to a different size,

and perhaps even a different lens was used. It doesn't matter.

The main thing to do is to establish a system.

Here it is.

After you make a good print, remove the negative or transparency from the enlarger and place the probe of the easel meter on the easel. Turn on the enlarger light source and read the light area on the easel. Shut off all other lights, including the safelights, if any. Do not attempt to adjust the light meter. Leave it alone.

Record the light level on the easel.

If you have to make another print the next day, and all of the equipment has been moved, Simply add the image to the enlargers carrier, size up the image, make sure it is focused, then remove the carrier and place the probe of the easel meter back on the easel and adjust the lens until the reading is the same.

Depending on the quality of the easel meter the rest should be child's play.

What kind of super expensive meter am I writing about? Well, there are 2 models that caught my eye. The first is the very well made instrument produced by ZBE, Santa Barbara CA 805-56674-7891

It costs around \$450, more or less. It is an extremely accurate system. A second meter is another gem. It is made by Pixtronics, 605 East 59th St. Brooklyn NY 11234. (about \$250)

Both of these meters are excellent and can also be used as easel densitometers. If you have ever tried to use a conventional densitometer you surely must know that it is almost impossible to get the film properly placed under the probe, and then even if you could, the probe hole size is too large and the reading will be erroneous.

By keeping a recorded light level reading on the easel you will be able to change filtration, or size of the image, or change the lens, and still come up with the exact exposure for the new sheet of film or paper. If you are printing Cibachrome materials, and want to keep from getting involved with reciprocity, the use of an easel meter can keep your times the same while all you need to do is to adjust the f stop on the lens.

Bob Pace

**11534 Francisco Pl.
Ap0ple Valley, CA
92308**

619-247-0795

e-mail <BPace10552@aol>

Check out my home page
http://WWW.apogeephoto.com/bob_pace.html