KEEPING PACE

A Monthly Newsletter Devoted to the Darkroom Arts

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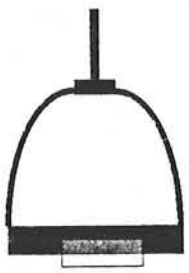
What is it that Denotes Quality?

What is it that separates the average print from the masterpiece?

Is it the image?
Of course, the image is the main ingredient, but is only successful if the finished product is of such quality that it helps to make the image even more desirable.
Where does this perception of quality come from. Is it born in us to be able to recognize the difference between mediocrity and fine art?
I often wondered about this.
When I first began to work in this wonderful and crazy world of color printing, I had many avenues to choose from. Most of the labs that I tried to work for in New York were much different from each other.
Remember, at this time in history, the only qualified color prints were Ansco's Printon, the Kodak Wash Off Relief process, and the infamous Carbro process.
I would visit some labs and after seeing the kind of work they were producing I felt ashamed of myself for even considering working for such terrible labs.
I worked for one lab that produced Wash Off Relief prints that were very poor, but I needed the job and took whatever was available.
The only thing I learned from this lab was how to avoid making such terrible prints.
I remember the separation negative set up. It consisted of an acorn safelight hanging from the ceiling with provision for a filter to be placed in the open glass area.



A 100 watt household bulb was used as the main light source.
The separation negative material was Kodak's 5x7 Super Panchro Press, a coated sheet of glass.
The reason for using this material was the fact that it wouldn't shrink.
The enlarger carrier was also a 5x7 size and the glass plate would just fit in the carrier eliminating the need for any further glass.
The Masking was so inferior, I often wondered how some of the prints looked passable.
A simple exposure using a contact frame and the transparency and a glass sheet of Kodaks 33 material, (a color blind material usually used for masking monochromatic materials at the litho shops.)
The mask was exposed with white light. and processed in a home made concoction of a soft developer.

The three separations were exposed through a filter set called ABC. These were filters provided by a company called Wratten, which was eventually bought out by Kodak.
The results were so primitive, that I even recognized then how inferior they were compared to some of the great Carbro prints I had seen and help make.

The enlarger was a real joke. It was an old Kodak enlarger, with a diffusion head. It was extremely uneven. There was no registration carrier. The easel was just the base of the enlarger. A sheet of matrix film was placed on the "easel" and sheet of window glass was placed over the sheet in order to keep it flat.
Can you just picture the problems that this would incur.
The processing of the sheet of matrix was according to the old wash off formula's and when you were though, we would hang the wet sheet of processed film,and you would swear that the sheet was blank.
The dyes formulas were provided by Dupont. We could make 5 gallons of dye for each color for a total cost of $1.50.
The colors were not pure in any sense of the word.
Since there was no registration at any stage of this process, it was registered by eye. A most uneasy method of transferring the dye image to the sheet of paper.
The receiver paper was provided by Kodak.
All we did was to soak the paper in a 5% solution of sodium acetate for 5 minutes, then was the sheet was washed for an additional 5 minutes and transfer. There was no "paper conditioner,"
The reason for this detailed story about the making of a Wash Off print, was because no else knew any better. This especially included Kodak.
The quality of the prints were quite varied. On a scale of 1 to 10 I would place them about the 3 level.
Then I began to learn about the Carbro process. It was here that I saw the ability of the printer to control the image and to make it a work of art.
When I finally got the right job, it was for a small company called "Evans and Peterson."
They worked out of a basement in the home where they lived. It was here that I began to understand the necessity for the color printer to be an artist at heart.
When I applied for a job with Evans and Peterson, a just beginning lab that produced Carbro prints and the new Dye Transfer prints, I was shown one of their darkrooms, and given a set of separation negatives that were produced using a "one shot camera."
I was asked to make a set of black and white prints (called bromides) that could be used to produce a Carbro print. I knew how to do this from my past experience.
I quickly made a set of prints and they were examined by Ed Evans and approved.
Then I was ushered into a room where many discarded Dye Transfer prints were stacked. I was asked to look through them and to give them a critique as to the quality of the prints.
At this time in color printing history, these prints looked great. They were probably the best prints being made by anyone.
Why did I think they were great?
The images were excellent.
The prints were not over colorful, nor were they too grey. The highlights were well defined and the shadows held much detail.
I didn't see the original transparencies, but only the prints.
I needed the job desperately.
I decided to find fault with every print so that I could appear knowledgeable and have enough insight that I could see things that could be improved.
Little did I realize that this little exercise was really the

beginning of a way to look at prints.
The transparency was just a vehicle to use. The print was the important thing.
As I went through the pile of prints and gave them my "expert" opinion of what could have been done to improve them, I felt a sense of being right. Sure, the prints were great, but the more I looked at them, the more I could find what could have been improved.
Did I have extraordinary powers of taste? I don't think so.
I had a formal art training and this may have helped me to see where improvements could have been made.
However, this became a trademark with me.
Later on, when I had my own lab, and was producing the extremely manipulative Dye Transfer color prints, I can remember walking to my subway entrance on the way home and seeing billboards and immediately dissecting them and saying to myself, "The Cyan contrast is off, and the overall density is too weak."
This went on for years. I was rarely truly satisfied with my own work. I would see competitors work and sometimes feel threatened because of the quality that I saw in the print.
What is this "quality?"
To me, it means that the prints is not gaudy or too colorful, has an acceptable degree of overall contrast, has neutral areas, and has detail in both ends of the image.
Every image has to be seen on it's own merits. Some images should be contrastier than others, and some should be much softer than others. The image itself demands this flexibility.
I can remember going to an exhibition of color prints produced by a top competitor and after seeing these prints, was very disappointed in what I saw.
The prints were overdone. Either too much concentration was paid to the sharpness, or the extremely bright highlights, or that they were just too colorful.
Just because we are making color prints does not mean that the prints should end up looking like circus posters.
Do we all have this elusive degree of "taste?"
Most of us do. Many do not.
Does experience make any difference in our perception of quality?
Maybe it does. I estimate that I have made over 25,000 finished Dye Transfer prints. If you count all of the reject prints that were pulled before accepting the final print, the number could be well over 100,000.
Add to this number the Ciba prints and the Type C prints that were completed by my lab, the numbers are mind boggling.
Were all of these prints great? Hardly.
Learning how to separate the two learning experiences is not easy.
Knowing what a good print should look like and then knowing how to achieve this goal is another matter.
We can all marvel and accept a painting by Rembrandt, but not one of us is be able to produce such a quality image.

So, my recommendation to all of you is this. Look at as many prints as possible.
Visit galleries and museums.
Don't waste your time looking at old vintage prints because these prints are only valuable because of their historic importance.

Check out the work of the new breed of photographers.
The black and white work of Jim Stimson is outstanding.
He knows how to shoot an exciting image, but he know even more about how to produce a print that will move you. There are a few great printers in our midst.
Of course, John Sexton, is another fine example of a person that has the taste and know what he wants to see in his prints, and knows how to achieve the correct results.
We all know of Ansel Adams and his ability to find the image and to produce outstanding examples of darkroom skills.

Examine as many works of fine black and white printers as possible.
When making a black and white print, the basic idea is to reproduce an image that has character and mood, and the correct degree of contrast needed for obtaining the correct reaction.
Multiply all of these requirements many times over when color is added to the image.
Without any question, the field of color is the most difficult of all.
Knowing what should look right is easier to understand after many prints are examined and dissected.
Knowing how to get the correct result in the prints will take a few years to master.
I have had people going through our dumpster picking out reject prints because they thought that they looked great enough to hang on their wall.
We must have better taste than that.

The wonderful thing about making your own prints is the satisfaction that with your own hands and eyes and some knowledge, you can produce prints that some one else would like to own. This is a great ambition.
The problem with having taste but not the technical knowledge can be mind boggling.

When I was still quite young in the field of color, I can remember making "wallpaper" prints.
We would make a set of matrices, but the resulting proof print did not meet our expectations. Rather than making a new set of corrected matrices, we would then pull another print with chemical controls. Still not right.
We would then pull another print. Still not right.
This could go on for a full day or more. I remember making over 30 prints before I got disgusted with myself.. This is where the term, "wallpaper" comes from.
When I got to this point, I made negatives over and by trial and error, eventuallty found a better set of numbers.
Believe me, this is a form of education that cannot be found in any books.

Let us move on to another subject. The revival of the Dye Transfer process.

Kodaks response to my letters is as follows:

"We have provided the "formulas" of the solutions we sell to anyone requesting them."
"Providing the formula that we have used to make the film or paper will not provide anyone with an easy way to produce the quality materials required for the Dye Transfer Process. The scarcity of the materials required, unspecified characteristics and unique requirements of emulsion making, melting, coating, and drying apparatus negate any guidance such a formula could provide. Consequently, Kodak cannot be responsible for any problems encountered by those attempting to make products based on information provided by the formulas".

In other words. Forget it.

Even though Kodak has refused to divulge the formula for the matrix film production by saying it is too complicated, **Dr. Jay Patterson, of 3935 Westheimer, Suite 306, Houston Texas, 77027**, has found a company that is able to make the necessary Matrix Film. He already has tested the new film and I am awaiting his findings.
Dr. Patterson is currently in Europe.
I have been told by Dr. Patterson that a firm in Czechoslovakia has already produced the needed dyes and that they are a close match to Kodaks dyes, which have not changed in over 45 years.

The dye formulas provided by Kodak come with the stipulation that the dye stuffs are no longer available from Kodak, nor do they know of

any other source for the chemistry.
It is hard for me to believe that after almost 50 years of producing the dyes, that the origin of the chemistry is no longer available.
I believe that very soon Dr. Patterson will have all of the loose ends tied together and the next problem must be solved.
Dr. Patterson and I both believe that some sort of association must be formed in order to ascertain what kind of matrix run would be necessary every year, as well as the amount of dyes and receiver sheets.
Tony Frascello, of Innerscape Photographic, 26 Lorraine Court, Northport NY 11768 has shown an interest in helping to get this association started. I will get Tony and Dr. Patterson together and see what can be done to get this idea off the ground.
Another of my subscribers **Henry Scherer with the International Federation of Professional and Technical Engineers** has investigated the possibility of finding the various dyes and formulas and I will include his findings to Dr. Patterson. All is not lost yet.

What is happening to the field of fine art photographic color printing?
Every magazine is listing the different kinds of digitizing equipment that is available and is concentrating on the commercial end of the photographic market.

Did you notice that even companies that make processing equipment are getting into the act.
Kreonite and Hope are joining forces and are producing a "digitizing system" made up primarily from different components, much in the same way that a "hi fi bug" would buy different components in order to make a personal hi fi system.
Are these systems aimed at the fine art photographer and printer? I don't think so. The high cost of owning such a system would be prohibitive.

However, there is a solution to those that want to get into the digital systems and still have some money left in the bank.
I checked out the cost for getting involved and still be able to get a fantastic print. For about $13,000 one can purchase a new Mac Guadra 800, with upgraded memory (128 Ram) and a 250 meg hard disc, as well as a SyQuest 270 MB removable drive.
A qulaity monitor and the necessary video card will enable you to obtain all 16 million plus colors with remarkable accuracy.

If you wanted to join the EverColor system for producing great prints but wanted to have complete control of the final output, then this equipment will enable you to have your image scanned by EverColor, saved on your removable disc. This disc is then sent back to you so that you can place the image on your screen and with a program called "Photoshop" you can control the overall contrast of each separated color as well as the density and color saturation.
Simple things like dust specks and even serious scratches are repaired with speed and simplicity.
If your image is of a mountain scenic and one of the clouds in the sky looks great but is in the wrong position for composition, it is a simple task to move the cloud anywhere in the sky. This is complete control.
The resultant image on your screen can then be saved on the same disc and returned to EverColor. An Iris color proof is sent to you for approval. If you like what you see, let them know. The best looking print you have ever seen will be sent to you with dispatch.

For most of us, that enjoyed making prints with our own eyes and hands, we must remember the term, "straight line reproduction."
For those of you who are not familiar with the term

"straight line reproduction," I will attempt to explain it.

All films have a" built in" great fault. The film's curve shape is somewhat like an inverted "S."
The most important area in film is the straight line portion. We Dye Transfer color printers have always tried to place the image on the straight line portion of the film, but we cannot always be that accurate.
If any part of the image falls on the lower area, the detail in that area will be flattened out.
Ifany part of the image falls on the high end of the curve shape, then the highlights will be affected and the highlights will lose their brilliance and look grey.
The prints, on their own, may look fine, but we who made the prints will know that something missing.
The beauty of the digitized systems is that the curve shape is not there.
Whatever is in your transparency will be transmitted to the screen, and to the final print with no loss at either end. None.
Never in photographic history has this ever been possible. As a result, we Dye Transfer color printers all made masks in order to improve the "image."
Even when we shoot a great scenic image, and we examine the transparency, we are unaware that the highlight areas and the shadow areas have lost something.
However, all we see is the brilliant color image and our senses tell us that it looks great. (We have nothing to compare the image to.)
However, if we attempt to make a color print of this image, regardless of the process, the curve shape is there.
In the Dye Transfer process, it is exaggerated even more.
Remember we must first make separation negatives. The curve shape is introduced at this point.
Then we expose and process matrices which have an even more exaggerated curve shape.
It is no wonder that in the early days of Dye Transfer that most labs were filled with more failures than successes.
If anything good can be said about the onslaught of scanners and workstations is that the "straight line" has been preserved.
If you don't like darkroom work, but would like to see results of your own work and are willing to invest some money, add an 8 1/2 by 11 inch dye subliminal printer for about $6,000 and you can make prints of any image in your computer in minutes without the need for a darkroom.
The picture is changing so quickly that it makes one wonder what to do with the expensive lab that has just been built.

Incidentally, Cibachrome printing is great. We all know that. The colors are great and with the proper contrast masking some of the finest prints are being made.
However, Henry Wilhelm has announced that the new Fuji Type R material will out last the Ciba print. I find this hard to believe, but who am I to question the great examination techniques that Henry has employed.
The new Fuji paper is said to last over 50 years.
I was led to believe that the Ciba print would last for over 100 years. This was the information that we received from Ilford. Was this hype?

In any event, if you wish to make Fuji the material of your choice, and you have my book on Cibachrome, the same techniques apply for finding all of the necessary density aim points.. They will differ from those found for the Cibachrome process, but the same steps are used to find the correct aim points that work.
All of the techniques used for color correction, highlight separation, specular highlights and shadow control, work in the same fashion as they do in Cibachrome.
One major convenience is the speed of the material. You can use the slowest diffusion systems and still

make excellent prints.
I have always made reference to the fact that the Minolta color head was too slow for the Cibachrome process and that long exposures would eventually burn out the pulsed xenon bulbs. They cost over $20, ea. and there are three of them to worry about. If you use Fuji Type, R, this convenient color head can be used without cause for alarm.

I personally made comparison prints between Ciba and Fuji. The color separation is still superior in the Ciba print, but if you only make a Fuji print and have nothing to compare to, no one else will know the difference.

During my teaching and writing periods, I have extolled the virtues of an easel meter produced by Wallace Fisher Labs. It was able to read the actual densities on the easel and it could be used to repeat the density requirements for print making.
It was, and still is an extremely accurate meter. However, like all things, life for this great easel meter has come to an end. The company has decided to quit making the meter because of low sales.
I guess my writing about the meter in my newsletters and my books wasn't enough to keep this great instrument alive.

Thanks to Phil Linsday, one of my subscribers, I received a copy of a brochure for a new meter produced by ZBE Inc.

This is the same company that has built a great color head for 4x5 enlargers with a very high light output for a diffusion enlarger and has produced a similar meter to the Wallace Fisher meter called "The Density Reader."
It works in the same manner and has even more going for it than did the Wallace Fisher meter.
It is a completely self contained meter and is battery powered.
It can be used to determine the grade of B&W paper as well as the correct *f* stop when making new exposures after changing color filters. It can also be used with a Video Analyzer.
It also has a built in centering device that eliminates the cosine error when the meter is not quite under the center of the light source.
For more information regarding this innovative meter, call or write to:
ZBE, Inc.
316 Castillo Street.
Santa Barbara, CA 93101
805-564-7891
Fax 805-564—7893

For those of you who are unfamiliar with the use of such a meter, let me fill you in on a technique that worked for me.

When making a Ciba print I would use the previous color balance, and the reading of a white area as a starting point.
Before making any exposures, I would remove the transparency from the carrier and read the light level on the easel. I would record this reading.
I would then replace the transparency and make a series of "step and repeat" exposures, process the print and examine the results.
I would choose the corrected exposure and adjust the color balance.
I would then remove the transparency again, place the probe of the meter under the light source on the easel, and adjust the *f* stop until it read the same as the original reading.
Then I would make a"final " exposure and hope for the best.
If any further correction was necssary I would again make the changes, and re-read the light level and bring it to the same reading as before.
The meter must be very sensitive in order for this kind of method to work properly.

The color system that Glen Peterson produces uses a similar meter in order to produce the hundreds of colors in his chart system. A good meter is essential.

Jobo also makes a similar meter. Call them for information about this interesting meter. The Phone: 800-627-5511.

A new and innovative technology called "CristalRaster" Screening has been announced by Agfa.

With this system, the use of fine lined screens will be a thing of the past. Instead, the actual grain of the image is used as a screen. This will be continuous tone printing without being continuous tone at all.
This new technology can produce from low resolution, low information images high contrast and tonally rich reproductions that will more closely approximate continuous tone than any preceding print technology.
It sound like a true breakthrough.
The field of CristalRaster color printing is just around the corner.
Can you imagine a fine color reproduction with no visible screen lines at all?
It is just about here.
The fine 450 line screens used by EverColor in their production of pigment prints are invisible to the naked eye, but can be seen with a powerful loupe. However, if this new technology takes hold, EverColor will be there with the same system.
If you are interested in finding out more about this remarkable system, contact Marion Mathison, Agfa Graphic Systems, 201-440-0111.

The magazines have all taken the digitized systems to heart and have been extolling their virtues for the past few years.
One magazine has been faithful to it's readers and has stuck to it's guns in writing and printing articles for those of us interested in the "hands on" approach to fine art printing.
Darkroom and Creative Camera Techniques.
The editor, David Alan Jay has been faithful to the magazines readers by continuing to respect their need for information regarding the hands on approach to fine art printing, be it black and white or color.
The readers are supplied with articles written by very competent authors about almost every subject regarding darkroom work including the understanding of the difference between the additive and subtractive colors and how they are used.
Unfortunately, advertisers are getting harder to find, and the magazine has had to print a thinner edition.

However, even with the thinner issues, the content is great.
For those of you who have not seen this magazine, I recommend it highly.

For those of you interested in the works of Joe Holmes, he has invested heavily in a new carbon system using the methods of originated by Charles Berger.
He will still produce his innovative Cibachrome color prints using his own light source, then when he has the selected image and print, he will have this print scanned and separations produced. He will make his own "Carbro" prints.
His sizes will be about 30x40. and will be Ultra Stable color prints. These prints will have a long life, and If I know Joe, they will look great.
Good luck Joe.

Some of the great labs of the past have been having difficulty in keeping their companies afloat. Most of the commercial customers have been using labs equipped with digitized systems.
The only way to make out these days seems to be if you are willing to become attached to the new systems.

As you know, I have been ill for a while, but I feel much better now.
I am still in charge of my abilities and will continue to write my newsletter. Thanks for your support.

Bob Pace