An Introduction to Photographic Lighting with John H. Siskin

Lesson #4: Lighting the Face

Welcome to Lesson 4.

Bonnie #1

Photograph of Bonnie in my Studio. This image was made with a single strobe unit.

We need to look at several things this week, a lot of information. We will start talking about how much power is enough to suit the way you shoot, and then we'll talk about shooting portraits with one light - and a lot more.

Power in a strobe means light output. This is correlated with the amount of power made available to the flash tube that is measured in watt-seconds. Since this is not a direct measurement the correlation between various products is, at best, approximate.

I have mentioned before that a manufacturer who makes a more efficient system doesn't receive any benefit in the marketplace. It is one of several problems with mixing various manufacturers' products, since a 100 watt second change in two different units may not match.

The reason I'm beating this dead horse (no animals were harmed in this analogy!) is that the results I'm about to give you are probably not going to match any other equipment. Ok, I set up a Calumet Travelite head at 11 ft (why 11ft, we'll come back to that) from my meter. The reading was f11.3 at ISO 100 (shutter speed doesn't matter; we'll come back to that). I attached an umbrella (white satin, it matters some) and got f8.2. Finally I set up the umbrella and light panel (as in the last *Bob* image) and got f4.8.

Now what does that mean? Well, with my camera, which has a lot of noise at ISO greater than 160, this light is powerful enough for several applications. I can use it for lighting some architectural applications, particularly warehouses. I can use it for portraiture and product since the light will be closer to my subject.

As the light is closer, you get a higher f-number - more light with less coverage. This is covered by the Inverse Square Law: light falls off as the inverse square of the distance.

As long as I've been doing photography, I can't figure out what these words mean. I know what it does; I even understand the math. It's the English I can't figure out. I can tell you how it works, and this is important to know.

The light was at f11.3 at 11 feet from the subject (the fact that we are at F11 at 11 feet is coincidence) at 16 feet from the subject we would lose 1 stop and be at f8.3. At 22 feet we'd lose another stop and be at f5.6.3. But if we went to 8 feet we would have f16.3.

I hope that you noticed that all the distance numbers I used match the main series of aperture numbers. Both problems deal with the math of a circle, so you already know the numbers to put this to use. I wouldn't shoot a portrait with my light 11 feet from the subject; more like 5.5 feet from the subject so my exposure with the panel and umbrella would be f11.8. That is plenty of light, as we'll see. And that's why I started with 11 feet.

Lighting is one of several critical characteristics of a good portrait. Among the others are the connection between the photographer and the subject and the make-up. Certainly either of these subjects could be a class in itself.

What I am going to address today is the actual system for lighting portraits that I use. I use this method because it works for me and in my circumstances, undoubtedly your situation will be at least a little different.

This is a one light for the subject method; other lights are used for background or rim lighting but not for the subject. The most important reason that I use this is that it is a very flexible system. You can make changes in the lighting, even very large changes, in less than a couple of minutes.

Another important reason for using this is that it is easy to find my mistakes. If you only have one light, you know what is causing the problem. I often do not have any idea of the way a person I am scheduled to shoot actually looks, so flexibility is very important. I feel that my connection to the subject is degraded if I have to spend a lot of time arranging lights.

Umbrella

This is just one strobe head in an umbrella. Very easy to set-up. It produces a character light, which is almost useless except for Indian Chiefs. This is Michael Pratt, who was good enough to sit for this series. Although he is an actor, he does not do double duty as an Indian Chief.

Michael J. Pratt #1

Michael J. Pratt Set-Up # 1

In this second image, all I did is add a gold reflector. Gold makes a very good color for reflector fill. Note that this reduces contrast. It makes a good image for anyone who is proud of the relics of time written on their face.

Michael J. Pratt #2

Michael J. Pratt Set-Up #2

This image uses the light panel and umbrella we used with *Bob*. This is a very smooth reflector. There is no fill so I would use this as a character light, and it is much smoother and more flattering.

Michael J. Pratt #3

Michael J. Pratt Set-Up #3

Here I have added a silver reflector to shot #3. Adding a reflector is simple and easy to do. This is what adds to the flexibility of this system. Note that the fill is cooler here than in shot #2. This leaves considerable gradation or fall-off across the face. *I think this is a very useful light for many portraits*.

Michael J. Pratt #4

Michael J. Pratt Set-Up #4

Now this is where things get a little trickier to explain. In the last shot the reflector is reflecting light from the light panel back into the shot. In this image the reflector is bouncing light from the umbrella, which has not gone through the light panel, back into the shot. This light is brighter because it didn't go through the panel, meaning that the two sides of the shot are closer in value than they were in shot 4. You can imagine that this change takes just seconds to do.

Unlike the two previous times, we *added a reflector*. This will change the exposure, because the light coming from the reflector is not derived from the light source, the light panel. This will not be a big change.

Michael J. Pratt #5

Michael J. Pratt Set-Up #5

This is just like shot #5 except that another layer of cotton fabric has been added to the light panel frame. This acts as a neutral density filter, removing light from the subject's right side while not removing light from the other side.

This is because that light comes from the umbrella and around the light panel to bounce off the reflector. The resulting changes means that the two sides are more evenly balanced than in shot #5.

One could use more layers of fabric, or grey, or even light black fabric for different effects. Careful use of fabrics allows for even distribution of light across the face.

Michael J. Pratt #6

Michael J. Pratt, #6 Set-up

In this final shot, I have added a bare bulb light behind the subject. This lights the background and gives something of a *rim light effect* behind the subject.

Mike Pratt, #7

Mike Pratt, set-up #7

You can see a more long-winded treatment of this effect on the Magazine Articles page of my website: www.siskinphoto.com. Same shots and more words!

Managing Color

Rainbow

I want to talk about coloring your light with filters. Unfortunately I really need to talk about color temperature first. Let's start by talking about temperature, which we perceive as a measure of heat or coldness. A scientist would tell us that it is a measure of molecular activity; scientists will be bothering us throughout this discussion.

Probably we are most familiar with temperature measured in degrees Fahrenheit, which is unfortunate because this is a ridiculous system, 0º and 100º are based on the coldest and hottest days in the area of Germany that Gabriel Fahrenheit lived in.

Celsius is based on the points at which water freezes and boils, which is a little more sensible. Scientists wanted a system that was more logical; to them anyway, so they based it on the temperature where they decided everything would freeze, 273º below zero Celsius.

Now, I hear you asking, how does this relate to color? Well through black body radiation, don't you know. It turns out that most stuff glows with a specific color at a specific heat, even stuff at room temperature; we just can't see the glow with normal vision.

If you start to get stuff really hot, it glows red, then yellow, then white, getting bluer as it gets hotter. I hope that this seems at least a little familiar.

As a result of all this, we can now talk about color in degrees Kelvin, and I suppose we have to. There are other lights that do not have a continuous spectrum from red to blue; these are not discussed in color temperature. The most common of these lights is the fluorescent tube. Now it is important to understand that, if you want even color, everything in your images has to be illuminated with matching light.

The movie industry has left us two standards, 3200º lights, which are PROFESSIONAL tungsten lights; halogen lights and light bulbs, having a lower temperature. And with these two standards, compare them to environmental Daylight, or daylight illuminants, with a correlated color temperature of 5,500K.

You can make daylight match tungsten with a FULL-ORANGE gel, this is the movie term and it is used by most manufacturers of lighting gels.

You can make tungsten match daylight with a FULL-BLUE, the blue and orange canceling each other out. Finally, there is a green filter to make things look like fluorescents. There are also 1/2, 1/4 and 1/8 filters to move color a little bit.

I suggest getting a copy of Kodak Professional Photoguide, it has a really terrific filter wheel that will help understand and use this information. It also has data about the color of fluorescents and high intensity discharge lamps.

Now that we finally get to filters, we should understand that light is filtered for some of the same reasons that you use filters on a lens: to control the amount of light, control the color of light and even to control reflections.

There are plenty of suppliers of filters for your lights, but I want to have some safety concerns met before you buy them. The problem that we have with safety comes from our modeling lights, if any, not from our strobes. I use 150-watt quartz bulbs in the modeling light sockets of my Norman heads; close contact with these lamps would fry regular plastic.

Rosco makes *cinegel filters* that are designed for the film industry, where they really use some hot lights. You can visit Rosco at www.rosco.com/us/index.asp, where you can check out their filters and other stuff. They have some downloads that might interest you at their site. I thought they were good.

The other thing I really like to pick up from Rosco is their sample book. Not only are these a tremendous resource for picking filters, the samples are just about the size of a Vivitar 283 or many other on-camera flashes, so you can use them to filter these sorts of lights. A couple of hundred filters for free. I got a set from Calumet recently. I have picked them up from other large photo retailers, so they shouldn't be too hard to find. We are most interested in two sorts of filters - the orange (or CTO) and blue series (or CTB). These are the filters used to change the color temperature of a light. A full-orange makes daylight look and photograph like tungsten. A full-blue turns tungsten light into daylight. There are full 1/2, 1/4 and 1/8th values in these filters. In this image,

Covered porch, pool and landscape

I have used both tungsten and strobe light sources. I used the tungsten outside the room and the strobes inside the room. This made it easier to balance both light sources. Let me see if I can make clear why this was a good idea. If you need to light a room, that is one lighting problem. Lighting the outside landscape at night is a very different problem. If you have to solve one problem, say the indoor lighting, and need to make the f-stop from indoors a match to the outside light that's difficult!

Here's how the filter's helped: first, I lit the outside area with quartz lights. I used 5 or 6 of them. The exposure of these lights could be adjusted with either the aperture or the shutter speed. Second, I lit the inside with strobes, but I placed a full orange filter over each strobe. Since I used this filter both my strobes and quartz lights had the same tungsten color temperature, which is critical. I figured the f-stop for the room and adjusted the shutter speed so the aperture for the landscape would match the room. The shot was made with film balanced for tungsten light. Without the filters, I could never have made this shot work!

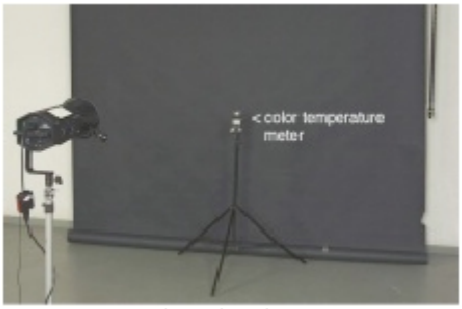
Color Matching Strobes

It is important to have the color of your lights match. The simplest way to control this problem is to make sure that all your equipment is from one company, and more or less the same age. Unfortunately, this doesn't work well as we all tend to add onto our systems, and someday we may replace a strobe tube, or get a great deal on some new piece of gear. There are several ways to check on the color of your lights. We'll start with the easier method first.

Method 1

This method is easier because there is less calculating. The problem is that we need a Color Temperature Meter.

gGood news is this can be rented. Since we don't need to do this frequently, renting makes sense, even if we need to rent by mail.



Light Check #1

I don't use a color temperature meter more than twice a year. They are easy to rent in Los Angeles, so I won't be buying one. Regardless of how you go about getting one, make sure it reads strobes. Most color temperature meters do not read strobes. I should point out that color temperature meters are useful for a variety of color balancing chores on location.

Now that you have the meter, attach it to a light stand or tripod. Usually these meters have a tripod socket. You will want to set this up in a large room with neutral walls if possible. Set up a light stand with the first head you want to test across the room from the meter. Set the meter to read as your strobe goes off and read each light you have, at full power. I write the color temperature on the light, as it will stay the same for years.

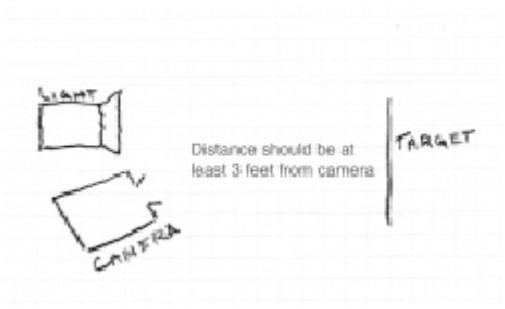
If all your lights read about the same, say within 200º, you are in great shape; everything will work well. If your lights read a shift of more than 200º (as mine do), you will need to try various filters to fix the problem.

Most often I use a UV filter and 1/8 orange filter to try to fix this. I have had to use as much as 1/4 orange. I attach the filter and try the meter again to see if the color is a better match. I write the correction onto the light along with the color temperature - so I don't need to memorize it.

Method 2

This method has the advantage that you don't need a color temperature meter. The problem is that the results are more equivocal. Basically you want to set up the light behind the camera and shoot a neutral target. The best neutral target I've used is a Macbeth ColorChecker.


Macbeth ColorChecker



Light check #2

You could also use a Kodak Grey card for this test; it doesn't matter much.

You'll want to set up your camera and light near each other, but with the light behind the camera to prevent flare. Shoot the card with the strobe as the only light source and do what my camera calls a click balance on the test target. This should set this shot to have an even level of red green and blue at this point.

Now, without changing the balance you have manually set on the camera, shoot another frame with each of your other lights. If your lights have different power levels, it would be good to get the exposures as close as possible with the aperture.

With as little image correction as possible, open all of these images in Photoshop, or other image manipulation software. What we want to compare is the level of red, green and blue for each light at a point as close as possible to where the click balance was made. If they are neutral, then we are in great shape.

In this test, it is very unlikely that they will be neutral. If the difference between any two colors is less than 10%, think about figuring a cheap night out meal tip of 10%. We should test this light, and the first light test shot, in a shot together. Most of the time it will be ok.

I would suggest an evenly lit portrait. Use the dropper tool in Photoshop to check the shot. Alternatively, you can try the test shot again with the UV filter, or the blue or orange, as seems appropriate to the outcome of your first test. The problem with this test is that there is too much information, and the information is not easy to compare.

Battery Powered Strobes

There are now a couple of ways to acquire and utilize battery-powered strobes. Calumet and a couple of the other suppliers for monoblock strobes, as well as Dyna-Lite, have special battery packs for their units. This means big power and unfortunately big weight.

There are a couple suppliers for strobes designed from the beginning to be extremely portable. This section looks at these units. In the last few years, I have "gotten into" this equipment pretty heavily. If you can get by with less power, these units give good functionality.

I really like working with my set-up of Norman 200B units.

Norman 200B System

Norman 200 B Power Pack

Norman Head for 200B

I want to start off this section by talking about used equipment again. The Norman 200B were a big part of the strobe market for wedding photographers and other location photographers for a good long time. That means that there are a lot of these units on the used markets. A 200B set: head, power pack and charger, costs about $175.00 on eBay. That is a 200 watt-second battery system for a reasonable amount of money!

As you look at this system you will find a lot of useful tools - barn doors, grid spots and reflectors with modeling lights. I really like these units, and I have invested heavily in this system. I now have 5 power packs and 7 heads. This fits into two boxes along with reflectors and stands and umbrellas and stuff. I usually need to add a couple more stands and umbrellas to what fits into the cases. Since one of my main goals is to be able to work on location without requiring an assistant, I really like this set-up. One of the key functionalities that makes this system work for me is its flexibility - a large amount of lights working independently of ac power.

If you want a large number of cheap location lights, these are a great way to go. Another key point about this system is size and weight. A Norman 200B power pack and head together are just a little larger than my Calumet Travelite. The power pack, including the batter weighs in at just about 8 lbs. The Calumet battery weighs almost 9 lbs. by itself. Of course this system is only 200 watt-seconds per head, so I think about light differently with these lights than with 500 watt-seconds or more per head.

Norman has 2 current heads in this series. The Norman 200C uses the same heads and cables as the 200B, but is small and lighter. The 400B is about the same size and weight as the 200B, but twice as much power. Unfortunately, a lot more dollars. You can still get batteries from Norman for the 200B, but you might want to check out one of the secondary manufacturers, like http://dasaga.com/norman_battery.htm; much cheaper. And Norman can be found at http://normanlights.com/

Lumedyne make awesome battery powered strobes. Their website is at www.lumedyne.com. The great thing about their stuff is that you can customize it to do just about anything. The power pack starts at 200 watt-seconds, but with booster upgrades can be raised to 2400 watt-seconds. The heads can be upgrades.

You can use power from just about anywhere to run the chargers. Basically light that goes anywhere and performs well. If I were buying new battery-powered equipment, I would buy this stuff. As you can imagine there is less of this on the used market; people just don't get rid of this gear. If you work on location all the time, and some locations don't have power outlets, check out this gear.

Quantum first got my attention with high voltage batteries. They made a great battery for the Vivitar 283 and similar products. They made such a good battery, that they decided to come out with a strobe for their battery. Here's what they build in a nutshell, a very high power dedicated flash. That is a very high power unit compared to other dedicated flash units. Now this is great if you are shooting a wedding, or other event. The system allows the use of 2 strobes that are controlled by the TTL system in the camera.

The power of the unit is as much as 400 watt-seconds. Terrific for a dedicated system! The heads cost from about $500 to around $700. Remember, this is without the battery pack.

One nice thing is that they have a head, which will run off the Norman or Lumedyne power pack. So if you need a dedicated head to go with your regular battery system, these will fit in very well. (Hmmm, maybe I should do this.) The company also sells meters and batteries. Check them out at: www.qtm.com.

Finally, the Vivitar 283. They made this thing for close to 30 years! Unfortunately, it is no longer being made. If you have one or find one used, it can be very handy - since it is small enough to fit into a product and light it from the inside. I wouldn't suggest buying 20 of them and making a light bank, but it has been done. (Excuse me while I shed a small tear for a great classic product.) They were about $70 dollars and ran off AA cells; what was not to like? Well they only had about 50 watt-seconds. The Vivitar 285, which is very similar, is now back in production!

What Is A Studio?

Basically, a studio is a place where the photographer has control of what happens with the light. First, that means that I need to be able to control reflection.

Sax with seamless

In this photo

Studio Set-Up

composition of a saxophone, you can see the seamless paper that is stored in my studio to accomplish these types of background support shots. Most people do not notice it, but I do!

I can control reflection by using the light panels we already made. Usually I would use a black cover, probably Duvateen to kill the reflections. However, with the saxophone shot above, I would have wanted white.

These are easy to set up and put away, so they work well in the temporary studio. I can build a whole room "within a room" from these panels.

Light Panel Wall

Bogen Chain Drive

Seamless Wall

If you are outfitting a garage as a studio, or making a permanent home studio, there are other choices.

You can mount rolls of black seamless paper onto the ceiling and bring down the paper as a "wall" to control reflection. This is quick and easy, especially if you use a chain drive on your paper roll.

The Bogen site, www.bogenimaging.us/, has a nice chain drive. The part number is EXPAN / Cat. No: 2920. This would enable you to very quickly set up a background.

Curtain for controlling reflection

Another option is to hang brackets and put up a curtain. If you did use white here, you could use it as an oversize light panel! Any of these ideas can be adapted to your circumstances to bring your location "under control".

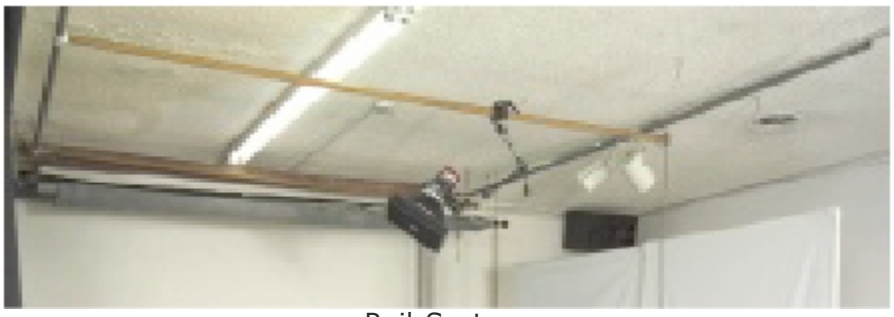
Another concern is the area above the shot. My ceiling is not in very good condition, so I do not bounce flash off it. If I need an overhead bounce, I either put up a light panel, or pull white seamless along the ceiling.

I have a set of rails mounted on the ceiling that make either possibility more practical. I have mounted two 10ft. poles to the ceiling using all thread and

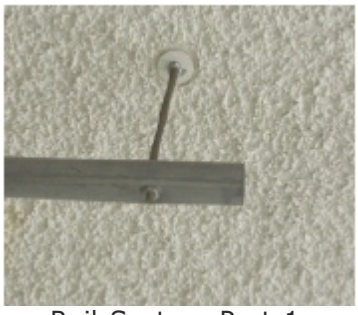
expansion bolts. Check out the following photos; they'll make this easier to understand.

Then, I have two more poles that run between the original ones. This second set of poles moves. I am able to hang lights, reflectors and props from these poles; very handy!

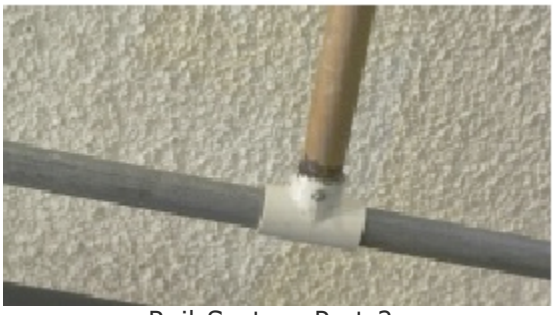
I admit that this wouldn't work in most living rooms, but it would fit in a garage studio pretty well! Everything should be available from your local Home Depot or similar mega-supply store..



Rail System



Rail System Part 1



Rail System Part 2

Part of rail system

The rail system also holds lights. This is a Norman head mounted on a Bogen Magic Arm. The Magic Arm is mounted into a super clamp.

Magic Arm on Rail System

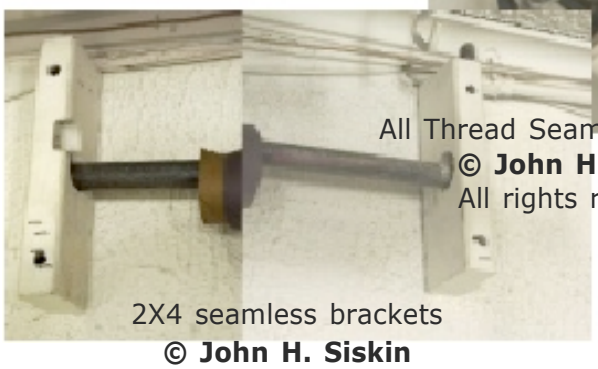
C-stands

One thing that is critical to any studio is a seamless holder. You can buy a set of background stands, but you might be better off with a set of C-Stands. These are like light stands on steroids! If you use two C-stands and a couple of extension arms you can easily hold seamless or other background. These are really heavy duty!

These do not show the right head for seamless; you wouldn't want the joint on the end.

There are two other ways that I hang seamless or other backgrounds. First, I make U-shaped brackets out of long, all thread bolts and attach them to the ceiling.

All Thread Seamless Brackets



2X4 seamless brackets

The second method is to make wall brackets out of wood 2X4s. This works well, as you can have several backgrounds set up at once. However, the Bogen background rollers will work with the U-brackets, but won't work with the wall brackets.

In Closing

Lighting requires both thought and intuition. It will help to practice both. I begin a shoot by carefully examining my goals for the image. Then I examine the most practical ways of addressing those goals.

Think the shot through first! I will want to address the aperture. I need to keep the whole image sharp and the light will need to delineate the shape and texture of the subject.

It is not until this point that I actually begin setting up. My **first step** is to set-up the camera and subject relationship. I do this first so that I will not put a light where the camera needs to be, as well as that I will have a place to evaluate the light from.

My **second step** is to set-up the light that does the most significant illumination, first because all the other power levels will be keyed to this light.

Thirdly, I like to put in the reflectors and light modifiers for this light before adding any other lights. This is so that I will be able to see any problems caused by the main light.

As I add each additional element, I examine the shot for problems: reflections, hotspots and occlusions (fancy word for stuff in the way of the lens). As I go through this process, I will want to stay alert for not only problems, but for the "happy accidents" that often make a shot.

One of the ways I try to make the process more intuitive is to always guess about exposure before metering or making a test shot. I have been doing this since I was using film. This requires a moment of "listening to your inner voice"; sometimes that is a very important moment!

It is critical to pay attention your test shot! The test is just another beginning. See how much you can learn from each step. It's ok to start over from the beginning, much better than fighting a shot that doesn't work.

Remember to be patient with yourself!

Your Assignment: Make a Portrait

Shoot a portrait with just one light source. A clamp light is ok. But if you diffuse it a lot, you will need a high ISO. For this shot, the noise in your image isn't important.

If you have strobes, this would be an excellent time to use one. Control the light to flatter the features of the model. Please use a living person for this shot. Do two shots of the face. Make the appearance of the face at least

marginally different. Please do this with light rather than pose.

Submit your **4 images** to the Campus Square by Wednesday, December 05, 2012.

If you have any questions, send me an email or post a question on the online Q&A forums.

And finally, I want to take this opportunity to tell you what a pleasure it has been exploring An Introduction to Photographic Lighting with you. Thank you for sharing your photos, as well as your enthusiastic participation and interaction over these past weeks.

After class is completed, BetterPhoto will keep the Campus Square open for six months for review purposes. That will allow you to review your work and continue to learn how to make and take better pictures.

I know some of you will be taking more of the exciting courses offered here at BetterPhoto. Both 8-week and 4-week courses are available on an increasing number of topics, including technical, artistic, Photoshop and more. Whatever your next step on your photographic journey, I wish you great success.

If you'd like me to critique your assignment you can arrange that by paying $25 on my website. Please visit www.siskinphoto.com/workshop.php . I suppose you could also make a donation at the site.
Have a good time

Thanks!

John

Additional Notes from the class

A portrait should invite a stranger into a more intimate relationship with the subject. It creates an almos formal introduction to the subject. You may want to examine the portraits taken by a guy named Karsh; he was an absolute master at this. Plus he was terrific at posing people. Can you imagine posing John Kennedy, Fidel Castro and Sophia Loren?

You can get the subject to stand up; this gives structure to the body. The background should be out of focus. This makes the portrait feel more three-dimensional. I also crop in on the subject. If there are some soft catch lights in the eye that is better. Catch lights are a really important thing in a photo they make the eye appear lively.

A pose is not very flattering when the body is flat to the camera; this generally makes people look broad and fleshy. If you get the subject to stand up and place his/her body at an angle to the camera, then turned her/his face toward the camera, the shot will work better. Turning the head makes the neck tighten up, reduces double chins.

There are a couple of small things I would consider: first straighten the tie. Remember people look at th details of a portrait more carefully that they look at a person in life. It is considered impolite to stare at a person, but it is perfectly acceptable to examine a photograph. There can be a particular difficulty with a woman's make up. Women do make-up to be seen a few feet away, often this is too garish for a photograph. Make-up for a portrait must be very subtle.

It is one of the great pleasures of a photograph that you can look at someone in great detail without violating their personal space. When we do photography we break down a wall around a person. In orde to do that effectively we need to see the subject's face, as it will appear on a print. To make an intimate portrait we need to have some intimacy with the subject.

There are several things about the way people manage their faces that can create better portraits. The first is a look that the viewer can comprehend: a face that is looking directly at the camera with a firm jaw looks better than a staring off into space with a slack jaw. The most important things are the eyes and the mouth. Most good portraits have the eyes as an important part of the image. If nothing else the should be open and visible. I like to have the eyes at the camera, but it is possible to create an effective look that communicates emotion by having the eyes down or away from the camera. The face and

demeanor of your subject should suggest certain things. I have a definite opinion about the mouth: half open showing a black space is not good. One again a definite expression is the easiest. So a strong smile if it doesn't interfere with the way the eyes are seen is good. A firm decisive jaw is very fine on men, bu sometimes less attractive on women. Often I will ask men to clench their jaw when I take their picture t make a stronger jaw.

When doing studio portraits my clients often want to appear slimmer. If you have the person stand almost sideways to the camera and turning their neck to bring the face to the camera the neck will be firmer and the chin will be stronger. If you have the belly facing the darker side of the shot the viewer will pay less attention to this problem region. Have your subjects stand up for their pictures; this positions the weight better! Finally if the chin is raised just a bit the jaw will look stronger and the chin less fleshy.

One of the most difficult skills for a photographer to acquire is directing a subject. It seems an embarrassing moment to tell someone to raise his or her chin or look at you. First this is the job. Secon this is a skill you need to practice and practice some more. Thirdly as long as you keep the camera glue to the front of your face the subject can't hurt you, they will, in fact, believe you. I told a bank president to straighten his tie.

I try to avoid black backgrounds for people or babies. I don't like the effect of people coming out of blac but dark grey is fine. Other people do. If I were going to do this I would use a very black fabric called Duvateen. This is available from large photo retailers. Hi-key is fancy way of saying very light subject on white or whitish background. Use very large light sources and a lot of white stuff, I prefer fabric to pape

Rim light is done two ways: first you can use a controllable light source like a snoot pointed at the subject's neck back and head, be careful of lens flare. Alternatively, and I prefer this method, put a bare bulb strobe behind the subject. Bare bulb means a tube with out a reflector, so you can't do this with a Canon or Nikon strobe with out an accessory. This will also light your background. Be careful not to get the strobe tube in the shot.

One good thing about direct strobes is that they are less of a problem with glasses. Since they are such a small light source they often don't show up in glasses or only in the frames. If you try working with a larger light source you will notice that the glasses are more of a problem. One way to improve the situation is to have the glasses further down the nose and look at the subject's eyes over the frames. Alternatively have the subject face away from the light source and bring their eyes back to the camera. This usually requires you to have the subject point there face to one side and slowly bring their face to camera. I usually do this several times while looking for all the factors, pose glasses and expression to fa into place.

I want to say some things about working with people of different ethnic backgrounds. Please understan that in saying these things I hope to offer offence to no one. If I do offend you or any other person in th class, please let me know, first so I can apologize and second so that I can avoid being offensive in the future. Different peoples skin requires different treatment with light. Although you can say general things about how to photograph persons of various backgrounds nothing is absolute. Here's the deal as see it: African skin tones are much richer and the face has a greater degree of variation then many othe skin tones. As a consequence of this you can put a harder light onto the face and create more tonal separation. This means smaller light sources, say small umbrellas or silver umbrellas. You can put a shin

onto an African face that would be less attractive on a person of European background. In general a shine on European skin makes the person look as though perspiring, not necessarily good for a portrait. You can see this effect on a subject's brow and cheeks. The way to improve light for this shot would be t make a much larger light source. You could do this with a light panel and an umbrella, as explained elsewhere in the class, or you could use a soft box, or even a big umbrella. Another difference is that yo can but a longer tonal range on an African face than a European face with less feeling of excessive drama So a ratio (4th week of class) of 5:1 on a European is really hard and often works well on an Africa. Another consideration is the reflectors you use. On most ethnic Africans, Europeans and Native Americans I will use a gold reflector for fill; but I am less likely to use this on Asians. Because a gold reflector adds a warm or yellow color to the skin it is dangerous on any skin tone that includes a lot of yellow: this includes some Africans, Some people from the Indian sub-continent and many Asians. Another consideration with some Asians is to put more shape in the face. This can be done with both light and lens. I generally think about a shorter focal length with Asians to give more shape to the face. I think there is probably a Eurocentric idea, but I live in a Eurocentric culture.

Just a few ideas about photography and stuff. Thanks, John

In order for me to be able to use a new technique I need to adopt an attitude of play. I also think that creative play is more important to image making than study. People need to be able to make mistakes with out feeling as though they did something wrong. One of the great things about digital photography is that there is no per image cost. With digital the voice in the back of your mind that blames you for making a mistake because you have wasted materials can go to sleep. I find that when I want to learn a new technique I have to play around with it, before I start trying to take control. This reduces frustratio

and builds creativity.

Previsualization is probably more difficult to write about than to do. Let's start by talking about post visualization; that is the process of understanding how an existing shot was done. Look at a photograph and consider the 2 and 1/2 important things about light. The first is color: is the shot done with normall balanced whit light or is the light gold or blue. So the color of the light would be one of the decisions we would previsualize in our shot. The next important thing about light is the size of the light source or ligh sources. The bigger your light source the smoother the transition from light to shadow and the softer th light. A small light source shows surface details and creates contrast; a large light source reduces wrinkles and of course shadows. Generally I use a large light source unless a shot really needs a more extreme light. Consider the difference between shooting on an overcast day and a sunny day; overcast i a large light source and a sunny day is lit by a small light source. If you can see this in an existing shot yo can visualize it in a shot you want to do. The 1/2 important thing is direction; it's only half important because the bigger your light source the less critical direction is. So light seems to come from everywher on an overcast day, because it does. The position of a small light source, also called a hard light, is absolutely critical.

Now comes the tricky part. You can mix light sources with different sizes and color in your shot. Of course when you are looking at a photograph it can be hard to read complex lighting, but our goal isn't t read lighting it is to write it. So what previsualization is about is thinking the image through in the head and then executing it in front of a camera. The skill isn't terribly difficult if your willing to practice, but you do have to practice.

I think that photography is a language and I am helping people to learn a way to write in that language. hope that they will learn how to write both creatively and technically. To say one is better than the othe is to say that a poem is better than an instruction book. In my experience both can be incomprehensible Just like English has rules that are essential for it to make sense: “Bob hit Bill” is not the same as “Bill hit Bob.” Similarly there are rules that can be broken but the style of the sentence is poor: “Bill hited bob.” In photography the syntax is based on the physics of light and the reactions of film or sensors to that light. You can make a camera with out a lens, but you can’t record an image without controlling exposur at least you need a lens cap as a shutter. The lens and the shutter and a way to hold the sensor or film are essential aspects of communication. You can’t really break these rules and make an image that will function to communicate information intelligibly. The meter and the auto color settings are only tools; what they say is sometimes wrong or not the best choice. You should be willing to override these tools: they should be the slaves of your vision rather than enslaving your vision.

Every time I have been in a course that told me this is the way to do something I rebelled. I have learned many technical things from classes, but my visual language I have learned from examining other people' photographs. Personally I do not want to be told to put the subject’s hands into their laps, I want to look at how Man Ray or Karsh or Imogen Cunningham or Edward Curtis posed subjects. These people are some of my heroes and best teachers. I try to approach each portrait as if it is a unique event. I have the luxury of being able to do this because I do not have the time pressure of shooting a wedding. I am also able to manipulate my tools very quickly, to make the light match the image of the subject I have in my mind. When I did weddings I tried to stick to a few basic poses, so that I could be quicker. I would say that the time pressure of weddings was one of the main reasons I quit doing them. I also practice. I try t set up a few shoots a month that are not business oriented, this gives me a good opportunity to work ou ideas.