

Photographing Fashion

With KEVIN AMES



Kevin Ames

Kevin grew up in central Idaho on an orchard. Both his mother and father were amateur photographers with a darkroom in the family bath. His first sale came at age twelve when he photographed his classmates during a field trip to a museum then sold them prints for a dime apiece. This life long love of making photographs has taken Kevin to assignments across the U.S., Canada, Europe, Hong Kong, and Africa. His advertising work has appeared in Time, Newsweek, The Wall Street Journal, in corporate publications for AT&T, Westin Hotels, Days Inns, Honda, Verifone, The Atlanta Opera, local magazines Jezebel and Atlanta Sports and Fitness.

Kevin is also a talented writer and columnist on matters photographic. He has authored four books on photography and Photoshop including his latest based on and named for his *Photoshop User* magazine column the *Digital Photographer's Notebook* from Peachpit. Kevin also presents workshops on photography, lighting, Photoshop and digital asset management for professionals and amateur photographers. His speaking credits include events for PPA, APA, ASMP, the Professional Photographer of Canada, at digital conferences in Ireland, Italy and Denmark as well as throughout the States. Learn more about Kevin and read his blog at kevinames.com and on his commercial photography website amesphoto.com.

Photography has undergone an earth-shattering sea change in its transition from film to digital. At the same time the foundation of photography—light—remains the same. Photography literally means “light writing,” which means that we photographers are light writers. The ability to bend light to our vision is what really makes us photographers. Face it. Anyone can buy a high quality digital camera. Very few can light a subject well in a way the camera can record and the printer reproduce.

Eye versus Camera

It all starts with how our brain sees light – and how the camera records it. Adding to the complexity is that what your camera records may not be possible to reproduce on the printed page. Here’s how it breaks down.

The range of light on a bright sunny day is too wide to capture detail in both shadows and highlights with a camera, whether digital or film-based. This fact doesn’t seem to jive with how the brain handles visual processing. When we look at a scene that has too wide a range, the brain looks first at the brightest areas. It remembers the details in the highlights and midtones, then it tells the pupils to widen to see what’s in the shadows. The brain combines the two images—the lightest and the darkest—in real time, allowing us to think we see a wider range of brightness than we really do. In other words, the brain is doing Photoshop on-the-fly. Who knew?

Digital cameras can record a wider range of brightness than film can. That’s good. The problem is that printers can’t even reproduce the brightness range of film, much less that of digital. There is a range of brightness of light that will give detail in the highlights and shadows at the same time. A good inkjet printer can hold detail if the image has RGB numbers of around 25 to 40 in the shadows and a range of 242 to 249 or so in the highlights. Printing from Lightroom works the same even though the RGB values are presented in percents. 7% to 95% give or take will provide a brightness range of reproducible shadow and highlight detail. Your printer, ink and paper combination will also affect the results. Newer printers can extend that range on glossy or luster papers. Fine art papers, matte, watercolor or canvas for example have shorter ranges between highlight and shadow detail. If the RGB numbers read lower or higher when sampled, detail must be sacrificed in either the shadows or the highlights. Digital cameras today have sophisticated software built in to help with setting exposures that return fairly consistent quality images. The algorithms

notes

Photographing Fashion

With KEVIN AMES

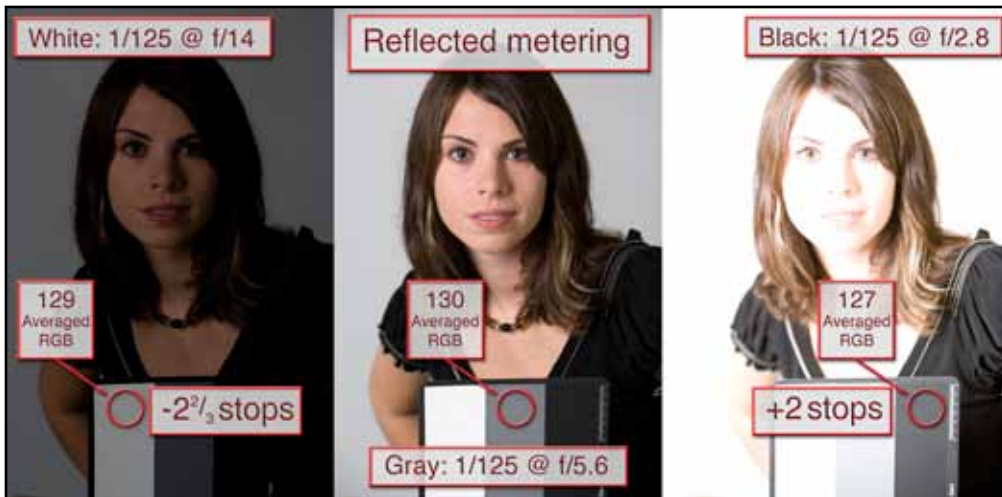
tell the camera which end of the brightness range to favor and which to discard. The usual bias is to keep detail in the highlights and let the shadows go dark. It's a good compromise for point-and-shoot situations. The photographer's job is to use light to control and often to compress the brightness range so both subtle shadows and highlights shine through. Lighting starts with exposure.

Metering and exposure

Exposure, or the amount of light that hits your camera's sensor, reveals the diffused value or true tone of the subject. That's simple to say and a bit trickier to do, especially with a digital camera. There are two methods of reading light to determine exposure. One measures light after it has already lit the subject, bounced off and is on its way to the camera. The other measures the light before it hits the subject. The first method is reflected metering. It interprets the amount of light that has already illuminated the subject. The second is called incident metering because it measures light before it reaches the subject. Let's look at each in turn.

Reflected metering

Reflected meters are the kind that are built into cameras. They measure the light that has already hit the subject and is on its way to the camera's sensor. This type of meter sets a default exposure that returns a middle gray value or RGB numbers of around 127 (LR: 50.2%) . If your camera's meter reads a white value, the meter tells the camera to underexpose the scene by two and two-thirds stops or so that it yields the desired middle gray. Pointing the meter at a black value results in a two stop overexposure so that it once again results in middle gray. Reflected meters return an exposure value equal to 12.5% gray on any value they read.



Look at the average RGB numbers for the three separate exposures shown above. The one on the left shows what happens when the exposure read by a reflected meter of the white patch of the ColorChecker chart. This is what will happen if a subject is framed against a sky or the side of a white house.

The middle photograph is the correct exposure and is read from the gray swatch of the chart. Green grass or worn asphalt are middle gray values found in nature and everyday life.

The photograph on the right shows the over exposure that occurs when the subject is dressed in dark colors against an almost black background. A common situation is shooting someone dressed in dark colors in a dimly lit room with flash. The flash does its best to make the dark room as bright as middle gray so the subject winds up way too bright.

To show that the reflected meter is doing its job accurately, I read the RGB numbers of the

notes

Photographing Fashion

With KEVIN AMES

metered patches from left to right in Photoshop. The results of the separate exposures for the three swatches are: white (under exposed by 2 and 2/3 stops to make the value the meter returned middle gray), 129 (LR 51.3%); gray (it's already middle gray so the exposure is correct,) 130 (LR 51.1%); and white (2 stops over exposed to make the dark patch gray,) 127 (LR 50.5%). The only exposure that can be called useful is the middle one made by reading the gray patch.

To make accurate reflected-meter readings, it's common for photographers to carry with them a neutral gray card or the Gretag Macbeth ColorChecker Gray Scale Balance Card, shown in the photograph.

Incident metering

Incident meters – a separate handheld device not built into the camera -- are the most effective at setting a proper exposure because they measure the light falling on a subject. Unlike reflected meters, they are not affected by the tonality of the subject or the brightness or darkness of the background. Some incident meters can also read electronic flash. Make certain when buying an incident meter it can read flash. This is a very handy feature. Incident meters are held at the subject's position. The dome receiving the light is aimed at the source of light. The reading is set on the camera. This exposure setting is called the diffused value. Once the exposure readings are entered on the camera, everything else in lighting is subjective and done by the photographer for the desired effect or mood.



Subjective controls & tools

Everything in a photograph relates back to the exposure. All of the decisions about lighting revolve around it.

Contrast

Contrast is the difference between highlights and shadows. When the contrast range is greater than four f/stops from darkest to lightest, the result will be out of the range most printers can handle. Usually the result is solid black shadows because we want detail in the highlights. The shadow area to right in the photograph of model Marie Friemann shows a reading well below 25-40 minimum RGB range that's required to show detail. This example is a high-contrast photograph. The difference between lightest and darkest is well beyond a reproducible four stops. The shadows are blocked up so much that they appear black. Texture appears on the highlight side. There is none on the shadow side. High contrast photographs are often described as "dramatic."



notes

Photographing Fashion

With KEVIN AMES

Lowering contrast

Adding light to the shadows lowers contrast. Actually it's the only way to lower contrast. Every technique you encounter that lowers contrast always does it by adding light to the shadows.

My assistant Holly Jones holds a reflector panel that bounces light from the source back into the shadows at Marie's right. The shadow area is brightened (the contrast is lower now.) As a result, detail within the shadows is revealed. The Red channel now reads 69. Her hair, forehead, cheek, ear and the texture in the shadow area of the background are revealed. Please note that the settings on the camera do not change because the amount of light coming from the source is the same.



One of the reasons photographers love the light in the latest part of the afternoon, just before the sun dips below the horizon, is its directionality, warm color and lower contrast. The shadows are filled in by the open sky making the light particularly lovely for portraits. If the result is still too dramatic (high contrast) add a reflector to the shadow side.

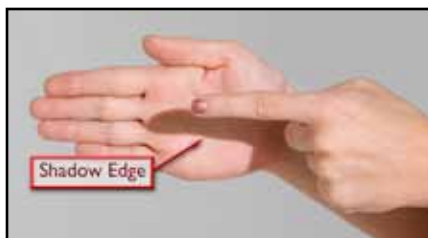
Quantity or Quality?

Understanding light is confusing. Consider this question: "As a subject gets closer to a light, does the light become harsher or softer?" Think about this for a minute. Imagine you are in a room at night with a single table lamp without a shade on it across the room providing illumination. Hold up your hand. Walk toward the light. Does the amount of light falling on your hand increase? Yep. Sure does. So the closer you move to the light, it gets brighter and harsher. Right? Well -- half right anyway. It does get brighter. It also becomes softer. And we humans, thanks to the way our brains work, universally confuse brightness with harshness. We mix up the quality of light with the quantity we see.



Shadow edge transition

Now imagine you are walking away from the light. Hold one finger over the other palm of your hand so it casts a shadow. Look at the edge of the shadow. It sharply outlines the shape of your finger. The edge marks the transition from highlight to the shadow. If the shadow has a sharp edge, the light is harsh. Think of shadows cast on a sunny day. They are very defined.



The two photographs of Marie were made with harsh light. The edges of the shadows cast by her nose and chin are very sharp.

Now pretend you are once again walking toward the lamp. As you get closer notice the edge of the shadow cast by your finger on your palm. The edges of the transition from highlight to

notes

Photographing Fashion

With KEVIN AMES

shadow are blurred. By the time you get next to the lamp, the shadow and the highlight almost merge. What's going on here? The light is really bright and the shadow edge is well soft. Hmm. Well, there are a couple of things happening.

First, the light has become much larger in relation to the size of the subject so the transition from highlight to shadow is spread out. The result is an almost shadow-less image similar to what you see on an overcast day in which the whole sky is the (really big) source of light. Second, as the light gets brighter the exposure on the camera has to be lowered to compensate. The background becomes darker.

The larger a light source is in relation to the subject, the softer the quality of the light. Large light sources make soft light. The transition from highlight to shadow is spread over a large distance. Small light sources create harsh light and sharp shadow edges.

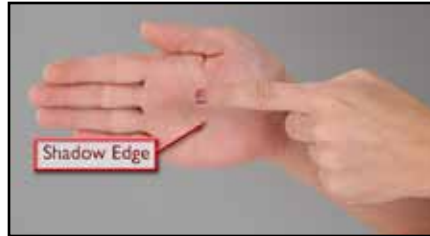
Instant soft light

Soft light is great for portraits of women and children. The long shadow edge transition minimizes texture in skin and enlarges the catchlights in the eye. It is very pretty. Best of all it is easy to achieve. Either wait for an overcast day or slip a diffusion panel in front of the light source. Think of diffusion panels as clouds on demand or port-a-clouds. The ones I use are made by Chimera (chimeralighting.com).

Sunny-day soft light

Outdoor sunlight streaming through tree leaves creates areas of very bright highlights and deep shadows, resulting in a high-contrast scene. The sun on Cara's face and legs is so bright that the detail in her skin disappears completely due to over exposure, but closing down the aperture on the camera to compensate would make her outfit go completely black. Look at her black robe draped over the chair. You can see folds in it. The exposure is correct for the shadows because these details show. So how can the contrast be lowered? Remember contrast is always lowered by adding light to the shadows. The solution is to bring in a diffusion panel that is large enough to soften the light falling on Cara. In this case it's a 42-inch-x-72-inch Chimera frame with a full translucent panel on it.

Now The patches of bright sunlight and the shadows cast by the leaves blend into soft light. The panel's fabric reduces the amount of light reaching Cara by one and a half f/stops. If we open up the camera's aperture by that amount, the exposure adds light to the shadows thereby lowering the contrast on Cara.



notes

Photographing Fashion

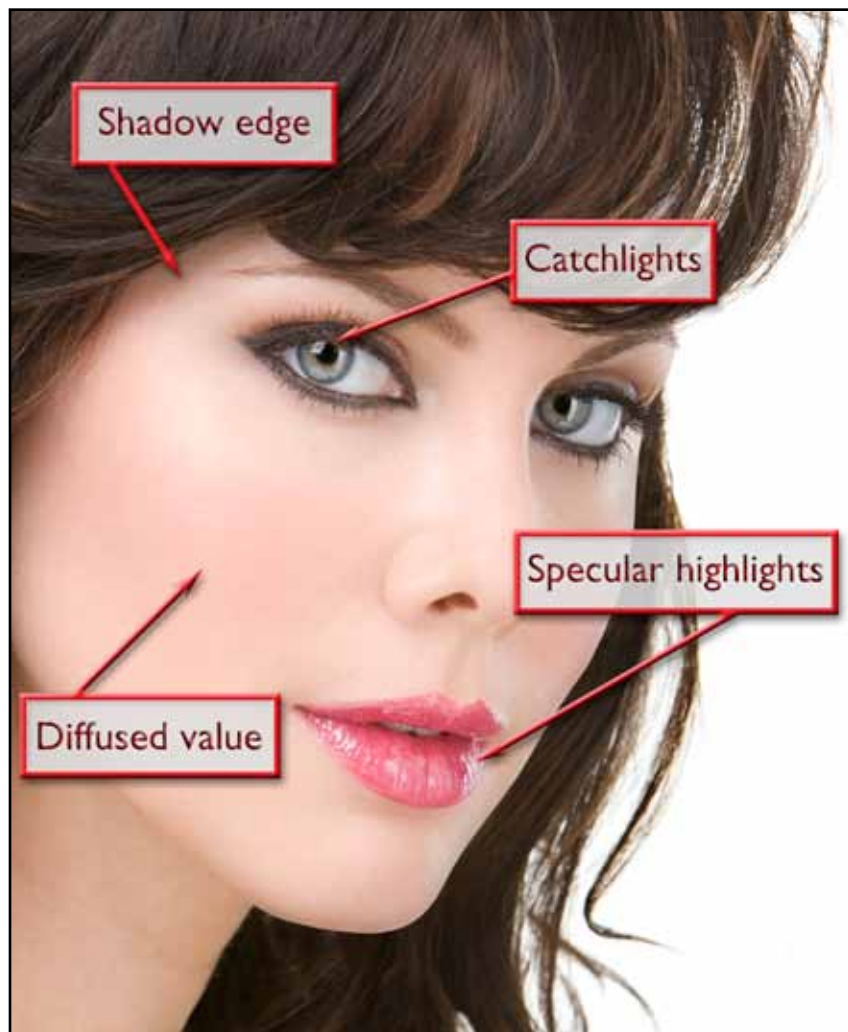
With KEVIN AMES

At the same time the increased exposure brightens the background not covered by the panel by a stop and a half as well. The light hitting the stone wall behind her is much brighter now, complete with blown-out highlights. Brightening the background in a photograph by reducing the light hitting the subject then increasing the exposure to compensate is called *subtractive contrast control*.



Telling stories

Photographs do much more than tell the story of their subject. They also share exactly how they were lit. OK if some one has been playing around in



notes

Photographing Fashion

With KEVIN AMES

Photoshop they may fib a bit about the lighting. Learning to read the lighting cues in a photograph goes a long way when you are creating the lighting yourself as well as when you are retouching in Photoshop. Specular highlights reflect the source of light in the subject. Look for them on the hood of a car, on the glass of a window, water in a pond or lake, and in the eyes. Specular highlights in reflected in the eyes are also called catchlights.

Mirror is the synonym for specular. Anytime you hear the word specular used think mirror. Specular highlights, catchlights in the eyes or sun glinting off a chrome bumper are reflections of the source of light. They have no detail and don't count when considering the tones for printing. When printed they appear as paper white.

Specular highlights show you the size of the light shining on the person. A big catch light reflects a large source and that means a gradual shadow edge transition, the indicator of soft light as illustrated in the photograph on the previous page. A pinpoint of light in the eye would lead you to look for a quick, sharp shadow edge. Sometimes you can uncover retouching done on photographs. If the shadow edge transitions don't jive with the specular highlights you can be almost certain Photoshop has touched the photograph. Now that you know how light works, your photographs with long, smooth shadow edges won't have teeny tiny catchlights in the eyes will they? Of course not.

Flash for sun

Any light you find in nature can be emulated in the studio— and it's not hard to do. In this section you'll see how to place a single flash to replicate the effects of sunlight on a clear day and on an overcast one as well.

The high-contrast harsh-light image is made with a single flash placed 20 feet from Marie and positioned 45 degrees to her left and 45 degrees above her. The flash is both the origin of light and the source of light because there isn't a modifier between it and the subject. At 20 feet, the 5 ½-inch reflector is about the same relative size as the sun.

Here's an easy way to see if your light will deliver sun-like quality. Hold your thumb at arm's length from your eye. If your thumb blots out the light, it will be very close to the sun in quality. I guess this really is a "rule of thumb."



notes

Photographing Fashion

With KEVIN AMES

Harsh light, high contrast

This photograph of Marie is lit with harsh light. The tell-tale signs are the sharp transition from dark to light in the shadow cast on her cheek by her nose and on her shoulder by her chin. The tiny catch light in her eyes show the size of the light source. This reflection in her eyes is a specular or mirrored highlight.

Soft light, low contrast

The next photograph shows Marie in soft light with low contrast. The shadow edge transfer is spread over a wide distance. The change from highlight to shadow is almost undetectable because of the low contrast. Again the specular highlight in Marie's eyes shows the size of the source of light.

Take another closer look at Marie's eyes (Figure 4.17) [2255-04-017.psd]. The silver bounce panel held by Holly shows on her right and there is another reflection on the lower part of her iris. The white floor adds even more fill light.



Three changes have been made; two on the set and one in the camera. Two incident controls, a diffusion panel and a bounce panel have been added. Incident controls modify light before it reaches the subject. Some other changes have happened by adding the incident controls. The diffusion panel becomes the source of light. The source of light always illuminates the subject. In this set up the flash is the origin of light. It lights the source. The bounce panel in this case another Chimera panel cov-



notes

Photographing Fashion

With KEVIN AMES

ered with silver lame' catches light from the source of light and the origin of light to fill in the shadows seriously lowering the contrast. Finally, as in the example diffusing the light outdoors on Cara, the exposure on the camera has been increased to compensate for the brightness reduction caused by adding the diffusion panel. In this case the panel requires one and a half stops of additional light.



Soft light, low contrast

Removing the bounce panel from the set takes light away from the shadow side of Marie's face and the contrast increases (Figure 4.18). [2255-04-018.psd] Adding light to the shadows lowers contrast. Removing it from the shadows increases contrast. Contrast, and the quality of light, are all subjective decisions made by the photographer. Once you have set the diffused value (exposure on the camera) everything else is relative to it and under the rule of your every creative whim.



notes

Photographing Fashion

With KEVIN AMES

Creative Lighting

Learn to see your muse, as the camera will record it. One way to truly shortcut this process is to hook your camera up to your computer so you can see each image large on the screen. Open a RAW photograph in Photoshop. Zoom in to see the actual pixels at 100 percent and check your focus. Look at the catch lights in portraits. Be aware of the contrasts in the photograph. Is there a shadow that has lost detail? Is that detail important? Are there any blown out highlights (not to be confused with specular highlights)? Where would a little more light make a big difference? What about a little less? Those differences can be so subtle— you may only notice them by comparing them to other photographs.

The photograph of Atlanta Falcons cheerleader Nikky Williams is an example (Figure 4.19) [2255-04-019.psd]. Look at her left arm. It has a deep shadow. Her hair on that side falls into shadow and looks dull. The addition of a silver 42-inch-x-72-inch bounce panel behind her adds a rim of light to her hair, along her arm and along the edge of her gown.



Light different

One way to treat every subject uniquely is to break down your lights after each shoot. Or at least move them off of the set and, in the case of electronic flash, disconnect them from the power packs.

That removes the temptation to treat each subject the same as the one before. Each subject is different especially when photographing people. Remember Apple Computer's "Think Different" ad campaign? Make your slogan "Light Different."

notes

Photographing Fashion

With KEVIN AMES

Consider this photograph of Lauren. When we met I was completely taken with her strong angular face, high eyebrows and blue eyes. The editorial shoot called for three quarter-length poses. After we'd finished with what the magazine wanted, I moved in for close ups. The lighting is two 2-x-3 foot Chimera Super Pro soft boxes. They are 45 degrees from the lens to subject line and about two feet away. This is a soft lower contrast light that you won't find outdoors in "natural" light. Yet it is very compelling. A close look at Lauren's catch lights tell the setup's tale. Notice the highlight around her upper lip and the specular highlight showing off the shape of the lower one. Break rules. Light differently.



notes

Photographing Fashion

With KEVIN AMES

White backgrounds

One of my regular projects is to create the cover photograph for a local publication *Atlanta Sports and Fitness* magazine. The creative brief is to have the talent against a stark white background. On color transparency film, white is not quite three stops brighter than the diffused highlight. Of course it's different camera to camera shooting digital. The trick is to not only light the background evenly, it's to make it just bright enough so the areas around the subject are completely white RGB—255 or 100% in Lightroom. If the background is too bright the edges of the subject will shrink and the contrast will lower due to lens flare.

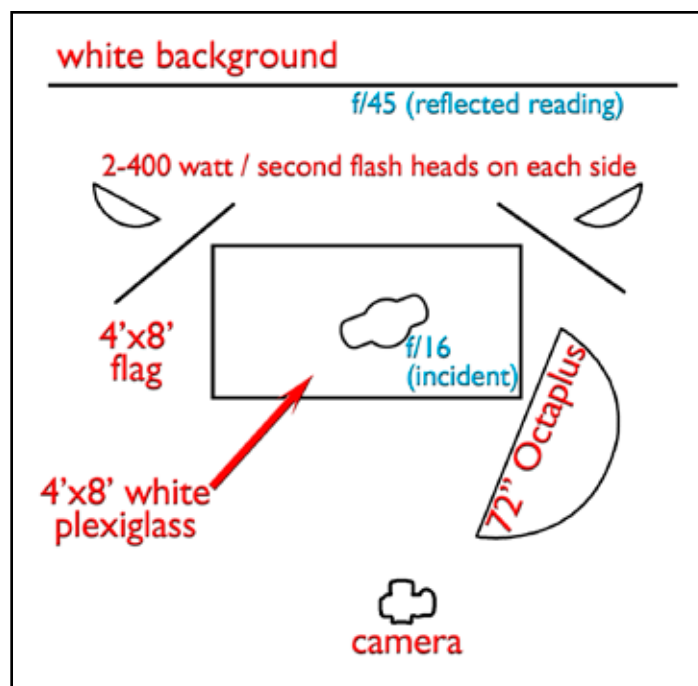
Background first

The lighting begins by evenly illuminating the background. In this case I have four 2000 watt second power packs each set to their lowest setting of 400 watt seconds. There are two heads each on two light stands. The light stands are placed at a 45° angle to the background and flagged to prevent their light from hitting the subject. I make sure the light is even by holding the incident meter pointing toward the camera. I block the left side of the meter so it only sees the two heads on the right. I take a reading. Then I block the right side of the meter and read the left hand lights. One will be brighter. I have my assistant move the brighter stand until its reading equals the lights on the other light stand. The background is now evenly lit.

Diffused value

Next I set the incident meter to read reflected. This is a very valuable feature. In addition the reflective metering function on my meter (Sekonic L-758DR) reads a 1° spot. I trigger the lights on the background and read the meter. F/45 at ISO 100. That means that for my camera I want the diffuse value to be three stops darker. I use a Chimera Octaplus light bank that is a 72" in diameter octagon. With the meter back on incident I point the dome from Monique's cheek toward the light bank. The reading is f/22/ That's two stops darker or one stop too bright. The Comet power pack on the Octaplus is set at 466 watt seconds so I lower the power to 266 watt seconds. By cutting the power in half the amount of light is reduced by one stop. I take another reading and sure enough, it's f/16. The

diffuse value is f/16 at 1/125th of a second. I set this reading on the camera along with the ISO at 100. I hand Monique an X-Rite ColorChecker Gray Scale Balance card and make a picture.



notes

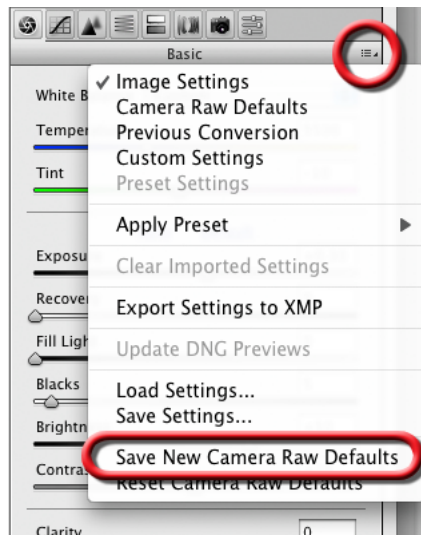
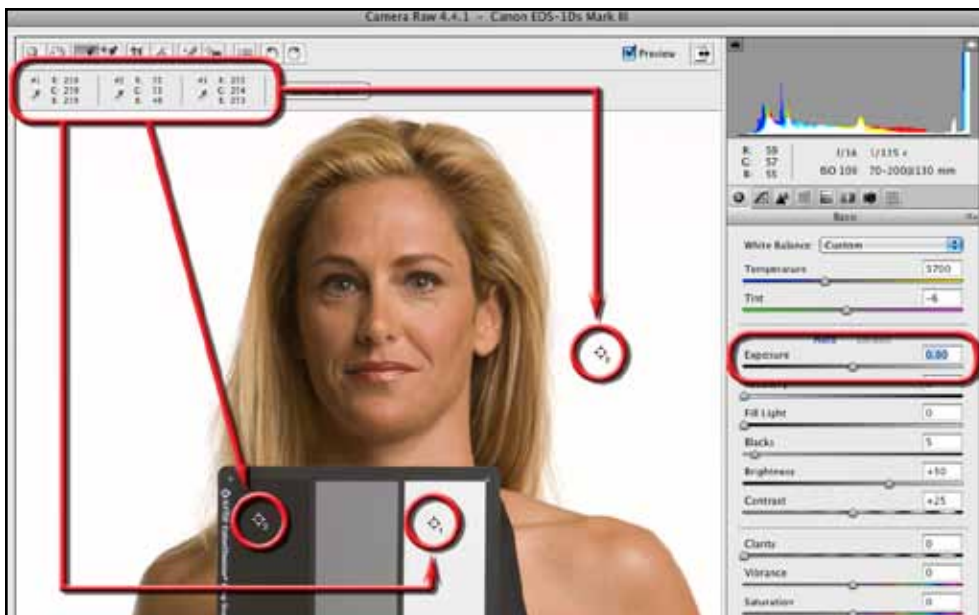
Photographing Fashion

With KEVIN AMES

Camera Raw

I shoot tethered whenever possible into Adobe Bridge. Once the file appears in the content window, I highlight it and press Command (P.C.: Control) + R to open it in Camera Raw hosted by Bridge. The first thing is to place color samplers on the ColorChecker—#1 on the white patch and #2 on the black. One more—#3 goes on the background. One of the little secrets that no one wants to admit seems to be that digital camera ISO like those of film are optimistically rated by the manufacturers. All of them seem to record a bit on the dark side. This isn't a bad thing or even a problem. It's apparently a fact of photographic life.

After placing the samplers, I do a white balance by tapping I for the White Balance tool and clicking it on the ColorChecker's white patch. The background starts out not quite white at R: 255, G:254, and B:253. This is perfect as far as I'm concerned. The background is still recording as not quite completely white while the foreground is every so slightly dark. The #1 white patch reads RGB:239 which is also a little under exposed.



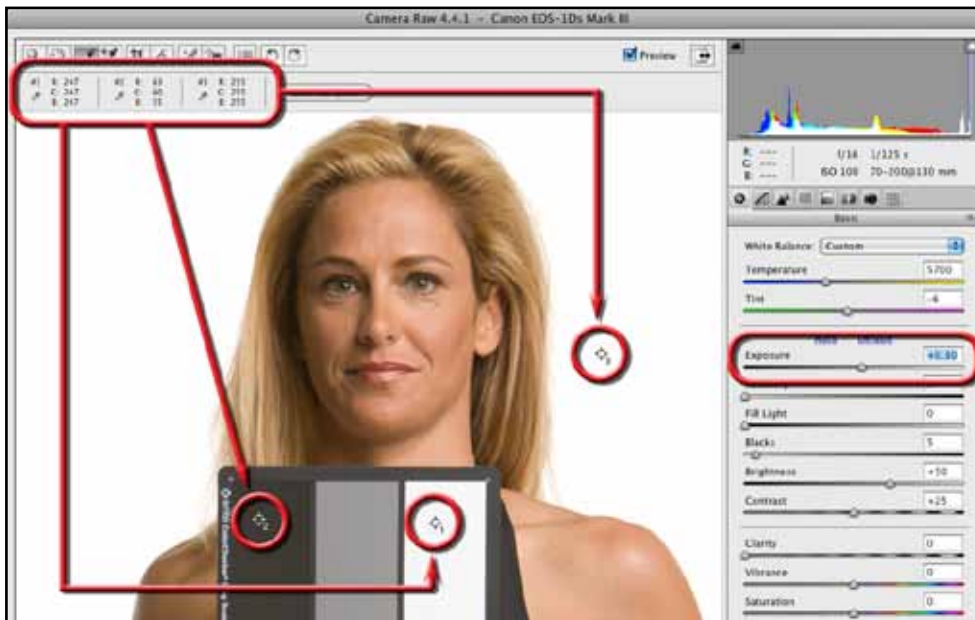
notes

Photographing Fashion

With KEVIN AMES

Exposure tweaks

By having to raise the exposure to bring the foreground up to RGB:247 the background is automatically driven to white (RGB:255.) I move the exposure slider to the right until it reads +0.30 not quite a third of a stop increase. Finally I click on Camera Raw's menu and choose Save New Camera Raw Defaults. All of the photographs I do for the entire shoot will have the new settings applied as they come into Bridge. I can concentrate on the pose, expression, interacting with my subject and getting the perfect shot. My exposure is right on and no longer a consideration.



notes

Photographing Fashion

With KEVIN AMES



The result is stunning and there is no need to resort to Photoshop to drop out the background.

notes

Photographing Fashion

With KEVIN AMES

Play...

I can't begin to describe how important play is in creative lighting. Try stuff. Shoot a photograph into your computer and study it. Change something. Shoot another and scrutinize the result. Keep going. Make notes or, even better, take photographs of the set up with a point-and-shoot camera. Never stop asking "what would happen if...?"

I'll close with a happy ending of light play. I had a cucoloris (also called a cookie) made of metal screening that had been burned with a blowtorch. I put up a blue background paper then placed the cookie in front of a bare bulb flash head. That makes it a very small origin of light. The result is a sky full of clouds I had no idea that would happen. Now I have another really great technique in my lighting kit. Play. The rewards are indescribably useful and, well, lots of just plain fun.



Thanks

The techniques in these notes came from several years of being around the late Dean Collins. Many if not most of the photographer's of my generation owe Dean for our knowledge of how light works and how to make it work for the camera. He gave us the definitions describing light and pushed our creativity. Here's a photograph of Dean grabbing a couple of beers out of the darkroom sink during a party at my studio in March of 2002. I hadn't used the darkroom since 1999 for processing and printing. The sinks were great for keeping drinks on ice. The darkroom has been converted into a digital workroom. I wrote these notes sitting where the enlargers once stood. Things change. Photographs remind us of how things have changed and those we've lost. For more on Dean visit software-cinema.com.



notes

Photographing Fashion

With KEVIN AMES

Gear:

www.dynalite.com
www.chimeralighting.com
www.msegrip.com
www.pocketwizard.com
www.photomastertarget.com
www.xrite.com

Boston talent:

www.teamtheagency.com
www.teamartistrepresentative.com/mariolga_SITE.html
www.teamartistrepresentative.com/duarte_SITE.html
www.rickfriedman.com

Copyright: ©2008 Kevin Ames

Credits:

Acknowledgments: Elite Model Mgmt., NEXT Models & Talent, Comet, Chimera and Canon USA

Website Info: www.amesphoto.com

Contact Info: kevin@amesphoto.com