

## Capturing the Exposure

By Eric Gudger

The technical changes that have taken place in photography are truly amazing. It seems that it was only yesterday that the first digital cameras were released. Now, the market is filled with photographers shooting with digital medium. Joining the digital medium is a multitude of easy to use software that can transform any photograph into one capable of winning international acclaim.

Sounds nice doesn't it.

Only, there is much more to great photography than just using a digital camera. One of the basic techniques I forced myself to learn was exposure. It is my belief that exposure is one of the most basic skills that every photographer has to master.

My workflow allows me focus on capturing "the moment" while knowing that my exposures are consistently correct. It is a technique that forces me to slow down and view all the elements in the scene. It forces me to see the scene and walk into it. And it is a workflow that stays consistent as I work to capture more demanding subjects.

When I first ventured into photography, I bought the best camera and lens I could afford. I just knew that with the state of the art center-weighted meter system used by all the pros, I would never have any exposure issues. Soon it became obvious that I had a camera with a defective meter. Sometimes the exposures were perfect and sometimes the exposure was way off. I had gone to extra effort to make sure that with every shot the meter was dead on in the middle. Yet, every light scene came back under exposed and every dark scene came back over exposed.

A trip to the local camera store had me more confused. What was this "carry a gray card" business? But when I did, the exposure became consistent. And along the way, I began to learn that if I opened up for light scenes and stopped down for dark scenes my exposures were also consistent.

After a number of years, my wife gave me a new camera that helped me get into color nature photography. My camera had this new matrix metering system that used computer logic to determine proper exposure in a scene. The camera would read from over 1,000 points in the scene and after a quick analysis, determine the exposure. Generally, in normal light this exposure setting would produce a pleasing photograph. In challenging light, the matrix (or evaluative) metering required extensive bracketing or guessing. But, try as I might, I could not get the results I wanted on a consistent basis.

That was until I learned a great technique from Charles Campbell. Combining Charles' technique with spot metering, I learned how to consistently capture the exposure that I wanted. It is a simple technique that has served me well over the years.

I knew that there was more to understanding great exposure than trusting a computer program. I believe that tonal elements are just as important as the graphic elements in a successful photograph. It was easy for the classical artists of old to introduce tonality into their art. They just used the paint they wanted. The photographer has a more difficult task to do the same. However, Ansel Adams introduced us to the power of tonality and light. Ansel's technique utilized a zone system that can be modified to work with the exposure latitude of color or digital film.

My field camera workflow begins by composing the scene. Next, I use the spot meter to identify the various tonal ranges in the composed scene. I use a 5 stop latitude range for all of my shots. This means that any item 2-1/2 stops lighter than a mid-tone will expose as detail-less white. This is true no matter what color or tone the item is. For any item 2-1/2 stops darker than a mid-tone, the item will expose as detail-less black. Again, this is true no matter what color or tone the item is. Bright subjects that have detail are metered between +1-1/2 and +2. Light colors are metered at +1. Neutral colors or mid-tones are +0. Dark colors with lots of detail are -1. Areas that are darker than -1 are viewed for tonal movement or flow in the scene. I am not worried about getting the exposure spot on for really dark areas. The eyes will be drawn through the dark areas into the light areas.

A little secret here. It does not matter which item you use to evaluate your exposure. If the light is even, each tonality will give you the same reading.

With the photograph of the pink lady slipper, the exposure I chose for this scene could be determined by spot metering the pink area (+1), the white area (+1-1/2), the brown area (+0), the dark green background (-1), the light green background (+1), the leaf area (+0), or any other area. This shot could have been shot using matrix (or evaluative) metering. I am sure that most of these meters would have done an excellent job of reading the scene. However, I am not sure we would have used the same exposure setting. And, what would happen if a little specular light was introduced?



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"Pink Lady Slipper"

The photograph of the aspen trees in the Cascade Mountains of Washington test any photographer's skills to meter. The exposure I chose started with the aspen trees. The highlighted side is  $+1\frac{1}{3}$  and the side in the shadows is  $+0$ . A look at the ground ( $+0$ ) or the dark green trees ( $-1$  to  $-2$ ) confirm the exposure setting for the scene. Again, matrix (or evaluative) could have been used. The same questions arise about the selection of a setting that would have produced the tonal range of this image.



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"Cascade Mountains of Washington"

With spot metering, you have the foundation for a technique that will allow you to not just capture a subject but to transform a scene into so much more. How is this possible? Through your metering skills, you can now choose the tonality of your subject and then verify the tonal range of the various parts of the scene. You can easily re-compose to get the tonal flow you want.

The scene with the photographer taken at sunset shows a great use of this technique. The important aspect of this scene is the tonality of the sky. I wanted the lightest areas to be no lighter than +1/3 and the darker portions of the sky at -1. Of course, there is little I could do if the lighter area had been +1. However, I controlled the tonality range in the sky from the highlights to the shadows and not the computer. The silhouette was going to happen and did not need to be verified. The reading would have been -2-1/2 or lower. With matrix (or evaluative), the readings would vary widely and the photographer would have to guess how far down to take the exposure.



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"Sunset Photographer"

Using spot metering, it is easy to also test the exposure latitude of your medium. Black & White print film, slides, and digital mediums all have different exposure latitudes. Color print film is controlled by the processing lab and is more difficult to evaluate. Test your medium to understand how far from a mid-tone you can go and still have details in the shadows and highlights. While it is okay to go outside these endpoints, just understand what happens when you do.

As you begin to utilize these new skills, you will begin to see the range of the scene and adjust your capture techniques accordingly. If I am in a situation exceeding the latitude of my medium, I change my composition to fit the existing exposure range. For scenics, this may mean that I leave out the sky. Or, it may mean that I have to shoot macro or small environmental scenes.

The scene with the white pelicans would test the metering of matrix (or evaluative). It is important in this scene that there are details in the feathers. Spot metering can confirm +1-1/2 to keep the details there.



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"White Pelicans"

Once the settings are determined, it is okay to move to matrix (or evaluative) metering. With the bugle boy scene, I used matrix metering. That is because I combined fill flash to open up the side of the face under the hat. The basic settings were determined with spot metering and transferred to the manual matrix settings.



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"Bugle Boy"

With digital cameras, it is important to bias your exposure to the highlights without blowing out areas where you need details. Digital cameras are currently linear capture devices that store the majority of the details in the highlights portion of the image. Since less data is available in the shadows, there tends to be more noise in these dark areas. Keep this in mind when determining capture exposure.

Using digital techniques, it is possible to create a photo that exceeds the capture limits of the medium we use. Adobe PhotoShop CS2 has the capability of expanding exposure dynamics. This is a lot of work and beyond the subject of this article. However, armed with the techniques I have shared, you will have a huge advantage over the casual photographer who allows the computer to expose their work.

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