Fill Flash Techniques with Nature Photography
By Eric S Gudger

My technical approach to nature photography includes an element of preparation. An approach where I feel prepared for any situation. This approach allows me to increase the probability of capturing a successful photograph and allows me to stay slow and deliberate in my setup strategy. Many are surprised that my approach generally includes the use of fill flash.

My artistic approach to nature photography is to enjoy the moment and revel in the grandeur and beauty on nature reveled through my art. There are several tools and techniques that I use in the filed to help me with my photography. These tools and techniques are in some cases second nature to me. I have used them with such success that I do not even think too much about their use. One of my frequent tools is the use of fill flash.

Fill flash is the use of flash to add a touch of light to specific areas in our photograph. My first experience with flash involved its use as main light. When flash is used as main light, the highlights on your subject have their exposure determined by the flash unit. With fill flash, the highlights on your subject have their exposure determined by ambient or natural light. The fill flash technique uses the flash to fill in the shadows or adds a little highlight to dark areas.

At this point, many photographers may be concerned that this technique may add too much light to the highlights. The reality is that observed light is not cumulative. If you take a flashlight outdoors on a bright sunny day, you do not see the light shinning in front of you. Try it. Take a flash light outdoors into the bright sun with deep shadows. Shine the flashlight on a spot where an object is partially in the sun and partially in deep shadows. You will notice that the deep shadows will have more details. At the same time, the portion of the object lit by the sun has not increased in brightness.

When configured for fill flash, your auxiliary flash unit will accomplish the same thing. It will just add light to the shadows area.

Although this concept may be a little difficult to understand, it is much simpler to execute. It is simple because smart flashes handle the difficult calculations for us.

The standard flash setting or default setting for your camera will have the flash unit operating generally in a range from 1/30 sec up to the sync speed of the camera. The sync speed is the maximum speed the camera and flash will synchronize. Most cameras are capable of firing at a much slower speed. The sync speed can be anywhere from 1/125 sec to 1/500 sec. In our case, the longer speed setting of 1/30 sec is not long enough. By changing the camera

and/or flash setting for fill flash, we are now able to use a greater depth of field and the flash unit is now set to fill. (Please refer to your camera's instruction manual on the proper setup for fill flash.)

This new knowledge and camera setting allows us to use fill flash to selectively fill in the shadow areas of our photograph. All the principles of flash photography still apply. Light fall off is still present. You will not be able to light a dark section that is 1 mile away. But, you will be able to fill in shadow areas that within the operating range of your flash.

Mabry Mill by E. Gudger

The photo of Mabry Mill was taken with an f stop of 22 and with a polarizer. For this shot, I wanted sharp focus from foreground to background. I needed lots of sharp depth of field. F 22 would give me that. The polarizer was needed to control glare. The obvious problem in this scene was that the lower portion of the rhododendron was not in the same light as the building. A simple check with the spot meter indicated that the light fall off was severe enough that this area would have been rendered black on film when the remaining scene was properly exposed. Normal metering (Matrix, etc.) would not have revealed this dark spot since it was on the edge of the scene. If the algorithm had caught this dark spot, it would have either increased light in the scene or ignored the shadows. In either case, the resulting photo would have deficiencies. By applying the fill flash techniques, I was able to light the shadows using fill flash and still expose the remaining portion of the scene properly.

Although the actual settings for the flash were determined after testing, most auxiliary flashes do have a setting that indicates the effectiveness of the flash unit. It is important to verify that the flash has filled in the shadows. Since I shoot film, I do not have a histogram to verify this. My flash unit does have a reading that tells me the overall exposure of the flashed portion of the scene. As long as this number is within an acceptable range, then I have set the scene up for proper exposure.

For this shot, my initial flash setting on the flash was at –2/3. I knew that the flash range on the scene should be between -1 and -2. My first shot was in this range and is the scene you see. Although I do bracket my shots, each shot using the flash would fall within the dynamic range of the film. If the range of the shadows in the scene fall below –2 after using the flash or is too far to the left on your histogram, your next option is to lower the highlight setting in the remaining portion of the scene. You have to lower the contrast range of the scene. Fill flash can still be used once the range has been narrowed.

Terlingua Abajo by E Gudger

The Terlingua Abajo photo shows the effect of fill flash. The front area of the ruins in the shadows was a dark as the shadowy area behind the ruin wall. Notice the difference in details between these two areas.

With the chosen solution for this scene is the use of fill flash, a method is needed to locate the flash where the fill is needed. A flash cord and an auxiliary flash will meet these needs. My camera with flash photo shows my typical setup for wild flower photography. This shows how the flash cord and auxiliary flash are used in the field. For landscape photography, I just hand hold the flash and locate it where needed. With the Bow Lake photo, I only needed to add fill flash to the area of the tree with shadows. By hand holding the flash, I have control over the location of the light from the flash.

Bow Lake by E Gudger

Since the scene in the Mabry Mill photo had definite shadows and highlights, there was a good range of contrast with in the scene. When shooting in flat light situations, there will be little contrast. Fill flash can be used to increase the contrast or add a little highlight which will add depth to the scene.

Vassey's Trillium by E Gudger

My approach to macro photography is to use the even light of flat light supplemented with fill flash. The photo of Vassey's Trillium uses this method. The Vassey's Trillium is a gorgeous deep red trillium with the flower hanging

beneath the leaves of the plant. Getting enough light into this area can be difficult. Reflectors can add light but they have two immediate problems when used in this situation. First and most importantly, the resting area for the reflector would damage surrounding plants. No photograph is important enough to destroy another plant! Second, the Vassey's Trillium generally grows in areas surrounded by poison ivy. Young poison ivy plants are difficult to identify and yet they remain very potent. For me, fill flash allowed me to get close to the flower without destroying other plants or suffering personal discomfort the next day.

Columbine by E Gudger

Although the photo of the Columbine used fill flash, a reflector could have been used. Because of the short flash duration of the fill flash, the area behind the Columbine remained dark while a little pop was added to the flowers. A reflector would have also added a nice highlight. I believe it would have added too much light to the background and would not have produced what I wanted. (I always have a reflector with me when doing wildflower photography.)

I also use fill flash with animal photography. For the photo of the White Pelican, a little sparkle is added to the eyes. Portrait photography is about the eyes. The eyes draw the viewer into the scene. Fill flash added the sparkle. As with people, you must be concerned with lighting the back of the eyes. When flashed, some animals may develop photos with red eye and may have steel eye. To minimize these situations, I use either a pre-flash or move the flash off axis. When shooting animals, I know that I will have to throw the flash a greater

distance than normally. To do so, I use a Better Beamer to concentrate the flash. If you need to purchase one, just drop me a line and I will send you to a couple of sources.

White Pelican by E Gudger

Fill flash is an excellent technique to add to you arsenal. It can be used in quite a number of situations. Move your auxiliary flash off camera, do some test shots, and go out and enjoy the outdoors.

Eric S. Gudger