



Exposure Basics

The key to understanding the magic behind photography springs from the basic understandings of Exposure. Exposure is simply the amount of light a surface is subjected too. Like sitting on the beach on all day, you are exposing yourself to hours of sun and the surface of your skin will react to that exposure. In the case of photography, this surface is film or a digital sensor, which is designed to react with the light we project on to it. In photography there are two kinds of exposure, really bad, and perfect. A mediocre exposure does not exist, it is either right, or it is not! As photographers we are always trying to achieve the perfect. Although this seems impossible, it really is quite simple. We must first establish some basic understandings and rules to follow.

Exposure is controlled by the amount of light hitting the film or sensor. If you have too much light, your picture will be too bright. If you have too little light, your picture will be dark. Common sense right? Well, the key is to obtain the right amount of light to make each image perfect. There are a few simple tools that can give you control over exposure. The first is your camera. Most all 35mm cameras have a Through The Lens (TTL) metering system. This is a device that measures the amount of light in a scale like format inside your viewfinder. Many people think that when shooting in manual mode, you just put the scale to the middle and walla, you have a perfect exposure. THIS IS NOT TRUE! All this meter does is help you located middle tone. What is middle tone? Middle tone is defined as 18% gray. If you were to look at a black and white picture ranging from black to white, 18% gray is the tone halfway between black and white. This is what your camera sets your entire picture at. If your subject is middle tone, you are all set. If not, your exposure will be wrong.

Since most people, including myself, shoot in color, middle tone in regards to black and white may not make a whole lot of sense. This is where our second tools come into play. Nature! In every nature scene, there is sure to be some middle tone to meter. Such items include a blue sky, green grass, gray rocks, and many others. When looking at a scene, think of it in terms of black and white, what ever has a tonal value equal to middle tone, point your camera at that, and meter it to middle tone (middle of the scale), recompose and shoot using those settings. It is important however, that the subject you are shooting, and your subject you are metering are being hit by the same amount of light. Don't meter something in shadow then shoot your picture in bright sunlight. It will be greatly overexposed. Also, do not change the focal length of your lens to get a meter reading then change back using those same settings, this will also result in poor exposure. Most cameras today have a spot meter built right in the TTL system. These are a must; they allow you to meter a tiny area within the scene, so metering middle tone is quite simple.

Exposure is controlled in what is called stops. Stops are the common terminology that governs all of photography. Everything from film designation, to lens, to camera usage is governed by the understanding of stops. Each stop represents a doubling of something. If you are discussing shutter speed, one stop is either a doubling or halving of your current shutter speed. In discussing film speed, one stop requires either a doubling or a halving of light required for proper exposure. Film cannot see as much contrast as our eyes can, so it is important to learn how to recognize what film can and cannot see. Transparency film can only see about 5 stops from featureless white to featureless black. Knowing this, you can make the colors in your scene anywhere from white to black. For instance, let us say you are shooting a snow scene. You want the snow to be white (after all the snow is white). If you only meter the



snow, and set your scale to middle tone, what color will the snow be? That's right, 18% Gray. But if you want it to be white, open up 2-1/2 stops (using your shutter speed, or aperture) and then your snow will be white, right on the border of what your film can record. Lets pretend that you have a light blue sky and you want it to remain light blue. If you were to visualize it as black and white, you would see that the sky is brighter than middle tone by one stop or so. What would you do? You would meter the sky to middle tone, and then open up one stop or so to get the right exposure. Opening up and closing down stops can be achieved by adjusting your shutter speed, or by adjusting your lens f-stop. If you are shooting a subject that is middle tone, but you want it to appear one stop darker, you would double your shutter speed, or half your f-stop. If middle tone was f5.6 at 1/250 second. One stop down would be F8 at 1/250 second (with regards to aperture) or equally f5.6 at 1/500 second (with regards to shutter speed). Simple right?

With this quick overview of exposure, and with practice, you can learn to obtain perfect exposure each time you trip the shutter. There are many more items that can be discussed on how to obtain the perfect exposure, but the best is to go out there and practice. Learn what your equipment does, and how it works. Experiment with different settings, and get an understanding of how each component on your camera affects exposure. Only then will you better your skills as a photographer.