



Using the Histogram

The ultimate digital photography tool! Your best friend, most valuable player, and the most honest thing you will meet. Is my picture exposed correctly? No, it is garbage, or yes it is correct. A Histogram is a simple bar chart graph. The vertical axis measures the number of pixels. The horizontal axis measures the tonality from featureless black (left) to featureless white (right). Together, this graph tells you where your pixels lie, are they all on the white side (overexposed) or the dark side (underexposed)? or in the middle.

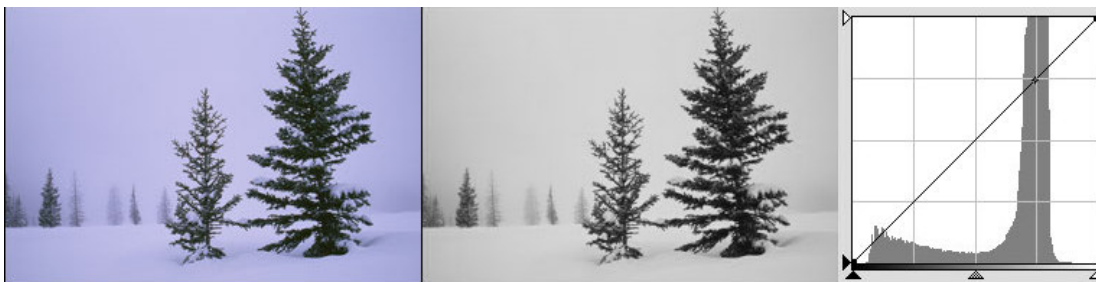
When dealing with exposure (which the histogram calculates) it is best to think in terms of black and



white. Lets look at a histogram and its correlating image to discuss it. The graph to the right of the image above is called a histogram. It measures the number of pixels that are black(left) to white (right). Lets start from the left. As you can see in the image there are very dark foreground mountains, which frame the mountain subject. Notice on the histogram there is a large amount of dark pixels shown on the left side of the graph. If this image was converted to black and white, the green grass and red mountain would be middle gray. Notice the histogram shows a large distribution of pixels in the middle portion showing the grass and mountains. The light blue sky is much brighter than the rest of the scene and thus you see a spike near the right side.

Remember to look at your histogram and see if it is showing what you would expect with respect to the tonal distribution you are looking at. Having all your pixels in the middle portion is rarely the 'correct exposure' even though that's what your cameras auto setting tries to do. Lets look at another image:

This image is taken during the winter with a misty sky and snow. The histogram should be weighted on the



right side with a few pixels near the dark side to show the trees. The histogram shows this and is therefore what I was trying to capture.

A little tip with digital exposure, it is better to be weighted to the right side than the left. With digital it is always easier to dim the highlights than to pull detail out of the shadows.

The histogram is your best friend in the field and will let you know if you captured your image correctly or not the instant you click the shutter. Get in the habit of looking at the histogram after every shot to make sure you are exposing your images correctly.