

BUCHANAN FODDER

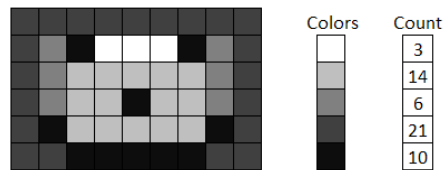
FROM TIM BUCHANAN

Blinkies, Histograms, etc...

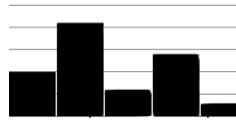
If you attended last week's meeting, in which the results of our first quarter competition were presented, you would have noticed an incredibly consistent comment (beyond the point of being humorous) from Judge B, who often said: "... the white highlights [were] blown out ... I would suggest that you watch your histogram and blinkies a bit more closely."

After the meeting, several people asked me what those comments meant. I explained, but if a couple of people were asking, then it is likely there are others that did not ask. This explanation is for them (and anyone else who happens to be reading).

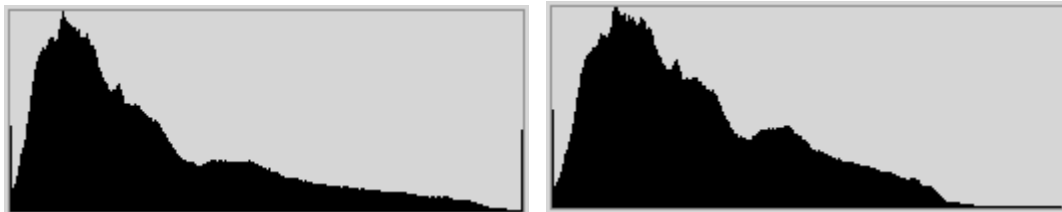
A Histogram is a statistical method of displaying tabulated frequencies. In the camera world, the histogram graphically represents a count of pixels in an image at a particular lightness level. (By the way, this is true for any image regardless of its source - e.g., histograms can be obtained from film images or painted pictures once they're digitized.) For example, in the following simple 54-pixel image, (which rather resembles a smiley face ☺), five colors are used - White, Light Gray, Medium Gray, Dark Gray and Black. On the right hand side, you see a count of how many pixels contain each color.



If you were to chart the colors and their frequencies, you might come up with a chart that looks like the following. By convention, darker values are on the left and brighter values are on the right.



Most digital cameras have the ability to display an image's histogram on the back of the camera after capture, and can be used as a very quick reference to see where the exposure lies. An image with areas that are underexposed or overexposed will have a sharp spike on the left or the right hand side of the histogram respectively. For example, here are two histograms (from Photoshop) that show an image with both underexposed and overexposed areas (left) and an image with nothing overexposed (right):



The histogram is useful in the field to determine where the exposure lies. Underexposed images, where no pixel values are displayed on the right hand side of the histogram, often contain undesirable noise characteristics. Looking at the histogram after taking an image is a quick way of avoiding a problem exposure.

One other thing the back of the camera can display is a feature called Highlight Alert. When this feature is active, the area of the image that is overexposed blinks. Judge B called these areas "blinkies". Of course, this is only important or relevant if you care about detail in the overexposed areas - you may have artistic reasons for overexposing, and there is nothing wrong with that!

So - that explains Judge B's comments, but doesn't really explain Judge B's comments, if you know what I mean!