

Total time:
4-6 hours



Difficulty Level:
Very challenging

Skill Points:

- Expanding knowledge on histogram use
- Learning to read the histogram
- Evaluating histograms and making adjustments

DEMYSTIFYING THE HISTOGRAM

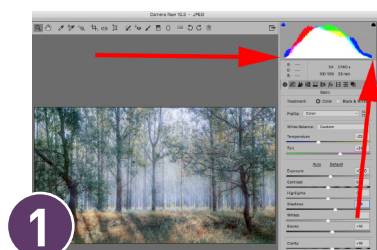
The histogram is one of the most powerful tools at your disposal in digital photography. It provides a measurable account of what is happening with the pixels of your photograph. This tool originated from mathematics. It merely plots data. It takes experience to interpret what the histogram is telling you about your photograph and why.



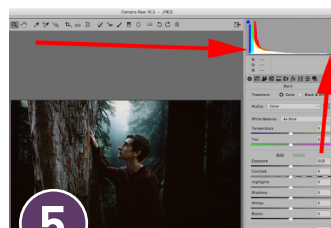
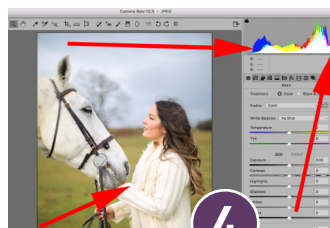
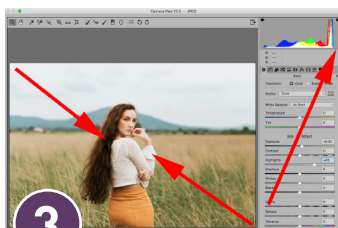
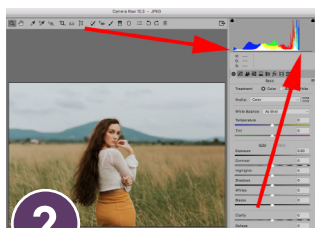
KEY LESSON: Using the histogram, you can evaluate: exposure, contrast, brightness, and color balance. The basic line on histograms is that they should appear as a mountain range that ends at either end of the graph before being clipped off.

EQUIPMENT: Any camera including mobile | Any lens | Photo Editing Software

SAMPLE PHOTOGRAPHS



1- The left side of the histogram represents the deepest blacks. The right side shows the brightest whites. Everything in-between is the various tones. Looking at the histogram vertically. The baseline is zero. As the graph rises from the baseline, it tells you how many pixels are in a particular tonal range. This histogram is telling us that there are many midrange tones.



2- This image appears to have a full range of tone. The histogram tells us that it doesn't. The blacks look good. But, the whites have fallen far short on their side of the graph. The histogram has just told us that this shot is **low in contrast**.

3- Adjusting the Exposure and the Highlight values moved the histogram toward the right side, correcting the contrast. When adjusting the histogram, always watch the preview window. If you're working the whites side- watch the brightest areas, so that you don't over-adjust and lose detail. When adjusting the blacks watch the shadows in the picture so that they don't block up.

4- This image is mostly white tones. Trying to adjust it back to the left would ruin the shot. Using the Highlights slider, the clipping can be removed. The elevated blue area tells us that there is predominance of blue in the shadows. The white scale is strictly brightness value. The individual colored scales can help you to determine if your image has an color bias.

5- When a shot is made of predominantly dark tones, the histogram is going to be skewed to the left; **it does not indicate underexposure**. It's also important to have some part of the histogram reach the whites side (if possible). Don't try to move the entire histogram to the right, or you'll ruin the low-key effect.



ACTION ASSIGNMENT!

- 1-** Organize a photo shoot similar in content to the example photos.
 - Place your model in three situations: a dark setting that still has some white areas, a white setting that still has some dark areas, and a setting with a full range of white to dark (study the example photos)
 - Create a number of different shots and vary your exposures by no more than + or - one stop.
 - Go through your files and pull 10 images. Pick some that are too dark, some that are too light, some that look good to your eye, some that are close, but you believe could be better. Study all the histograms on your photos. Try to adjust them.

HOW DID YOU DO?

- Do your finished photographs reflect a histogram that matches your intent?
- Were you able to adjust the histogram and make your images better?

READY! SET! GO! **ACTION CARDS - STRETCH GOALS: HISTOGRAM**