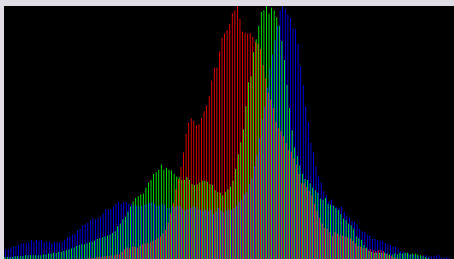


# HISTOGRAMS

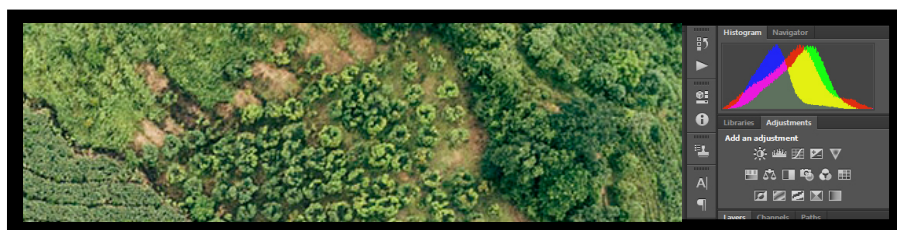
## BLUEPRINT

The histogram is one of the most reliable tools in photography because it allows photographers to understand exposure and get it right every time. Histograms are extremely important because the camera's LCD screen doesn't always accurately represent the image.



Histograms are simple graphs that display where all of the brightness levels contained in the scene are found, from the darkest to the brightest ones. You will notice that these values are spread across the bottom of the graph from left (darkest) to right (brightest).

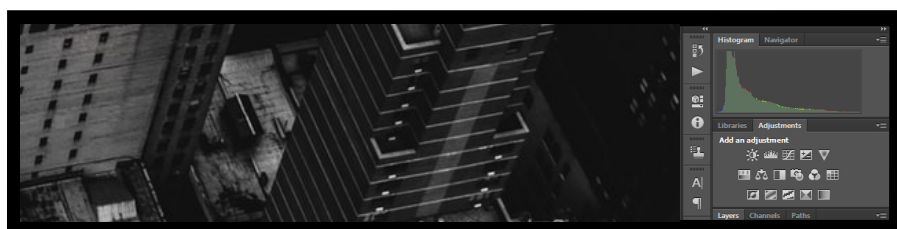
You should also pay attention to the vertical axis of histograms – it is the height of points on the graph. The vertical axis shows how much of the image is found at any particular brightness level.



A classic example of the so-called "perfect histogram". Its curve shows a well-exposed picture. The tonal range is just right.



This photo is somewhat problematic – its overexposure resulted in a histogram that slides to the right.



There is definitely a lack of bars on the right side of the chart, which means there are no bright tones. Many details have been lost.

## EXAMPLES OF HISTOGRAMS

### 1 EXPOSURE

It's not hard to read your histogram - the blacks are on the left, the whites are on the right, all the mid-tones are in between.



The most important thing to know is that a spike on the right, that touches the edge of the graph, might be a problem. This means that there is a portion of your image where the highlights are blown out. If there is a spike on the left edge, it means part of your image is completely black.

#### TIP:

Histogram is just a representation of the tonal range in your image. It's up to you to decide what to do with this information - there is no right or wrong histogram.

### 2 CLIPPING

Spikes up the left or right edge indicate "clipping" of that tone and loss of detail in that area. Clipped areas are often unrecoverable, especially in the highlight area.



It is generally advised to expose so that your graph just touches the right edge. It is usually easier to recover shadow detail and retain a decent image than to create highlight detail that isn't there in the file.

#### TIP:

Sometimes it won't be possible to keep the graph within an acceptable range, especially if you are shooting a scene with extreme contrast such as a sunset.

### 3 THE ESSENTIALS

### 3 BRACKETING

In-camera histograms use a JPEG version of the image, even if you're shooting in RAW. Sometimes this results in the histogram incorrectly warning you about clipping. Exposure bracketing can help with this problem.



This technique allows you to take multiple photos at different exposures. You will get one normally exposed photo, one over-exposed photo, and one underexposed.

#### TIP:

Exposure bracketing increases the chances of getting the best exposure but you can also use it to create HDR images.