

# DYNAMIC RANGE

## BLUEPRINT

To put it simply, dynamic range is the **difference between the darkest and lightest tones in an image**. It's useful to know that there are two types of dynamic range – the dynamic range of the subject and the dynamic range of the camera.



*Dynamic range of camera sensor (1.) and human eye (2.)*

The dynamic range of the subject refers to the range of light intensities from the shadows to the highlights. In low light conditions, this range is quite limited, while on a sunny day, this range can be very broad. When it comes to the dynamic range of the camera, different cameras have different ranges, and this depends on the size of the sensor.



**Examples of images with great dynamic range**

## 1 HISTOGRAM

You need to look at the histograms of your images to fully understand the meaning of the dynamic range. The histogram shows the range of brightness, starting with black on the left and going to white on the right.



The width of the histogram represents the dynamic range of your camera sensor. If the histogram fully fits inside the histogram display area, this means that your camera properly captures the dynamic range of the subject.

### TIP:

If the histogram is clipped, this means that the camera didn't capture the subject's dynamic range perfectly. You can try to fix this by changing the exposure.

## 2 EXPOSURE

Even though you don't have to follow this rule, many seasoned photographers try to "expose for the highlights," which means they use the histogram to avoid clipping the highlights.



This is a common practice because shadows are dark and it's hard to see any details there, so if you need to lose a part of the dynamic range, it's better to have too dark shadows than too bright highlights.

### TIP:

You can easily "expose for the highlights" by lowering the exposure value in either aperture or shutter priority mode.

## 3 THE ESSENTIALS

### 3 HDR

If you want to shoot a rather dull scene and make it more vibrant, you need to increase the dynamic range of the scene. An interesting way of increasing the dynamic range of such scenes is with HDR photography.



To obtain HDR images, you need to shoot a few identical images at different exposure value levels and merge them.

### TIP:

Using a tripod is essential in this case because these different exposures should be combined into a single image in post production.