

The Histogram

A summary of the presentation by Phil Cunnington at the Sunshine Coast Camera Club meeting on 3rd September, 2019

The histogram is visible in two places:

1. The back of your camera, and
2. Post-production editing software.

What is this for? You can use the histogram on your camera to check to see if there are any parts of the photo that you have just taken that are over- or under-exposed. You can then correct your exposure settings on your camera and take the photo again.

When viewing the histogram on the back of your camera, you will see a graphical representation of the intensity of all colours of the visible spectrum from black to white (and all colours in between) of what your camera sensor sees at that moment.

Areas in your photo that are totally black (or really under-exposed) will appear on the extreme left-hand side.

Areas that are totally white (or really over-exposed) will appear on the extreme right-hand side.

Histograms can usually be displayed in two modes: Luminosity (white on black/grey) or RGB colours.

There is no ideal shape to a histogram. It is specific to each photograph.

If there are spikes on one or both side/edges of your histogram then you have areas of pure black and/or pure white in your photo. With pure black or pure white, there is no opportunity to recover ANY shades of black or white that may be present. Is this what you want or intended? If not, then you should adjust your exposure settings and take the photo again. Check once more and re-adjust if necessary.

When shooting in JPG format, it will be very difficult to recover any detail in the over- or under-exposed areas in your photo, as the camera sensor will not record hidden subtle shades of near/true white areas or dark/black areas. No shades of light/dark gray at all. Shooting photos in RAW mode will give you a much better opportunity for recovery as the camera will record much more digital data in all areas at the time the photo was taken.

Should you check the histogram for each photo? If there are extremes of light or dark in your photo then you should. Also, looking at the photo on the back of your camera may not be an accurate reflection of the extreme lights and darks in the photo. The histogram will always be correct!

Can you "fix it" in post production? Possibly. Do you want to have to adjust all your photos in post production? Some photographers try to get the exposure correct at the time of capturing the image. If you shoot in RAW mode, you will have a better chance of making adjustments in post-production editing.

Here are the links to the three videos that were shown as part of this presentation:

1. Histograms with Tony Northrup.
(https://www.youtube.com/watch?v=ZmAw_Zd7zP4)
2. How to read your histogram with Marlene Hielema
(<https://www.youtube.com/watch?v=eZXijSwADkE>)
3. Correcting exposure using a photo's histogram by PhotoBlazr
<https://www.youtube.com/watch?v=och8nMy31ds>

Also, you may want to read the following two articles that were printed in the London Drugs free photography magazine, Photo News. Here are the links to the digital versions:

The Histogram – part I: http://www.photonews.ca/MV_Photo_News/Issues/autumn2018/

The Histogram – part II: http://www.photonews.ca/MV_Photo_News/Issues/winter2019/

Finally, there are many self-help video tutorials available on both YouTube and numerous websites. Different presenters have different approaches and use different software applications to demonstrate techniques and procedures. The number of views on any YouTube site is usually an indication of the popularity of that person's approach to any topic. Keep that in mind when searching for a particular site or topic.