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Exercise 9

Scene Dynamic Range.

The following five different scenes measure the high and low values to practice dynamic range. After taking the initial photograph using the matrix metering method, I switched to the spot metering on the camera which measures the very small centre of the frame, this enables me to read the dark and light areas to obtain the readings.



Average 2.2 seconds and F22, highlight area 1.6 seconds at F22 and low light area 3 seconds at F22. This gave approximately a 3 stop range, which has produced a flat and very evenly toned image with low dynamic range.

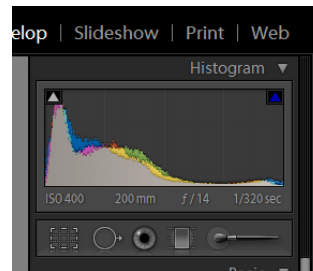


This second image was taken at F4 to throw out the backdrop that has been introduced to increase darker values to the range. Note the histograms in both above.

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The histogram in the second image instantly shows the range of tones to be much wider than the first image. The dark end does not reach complete black and there are no exact whites to the right.

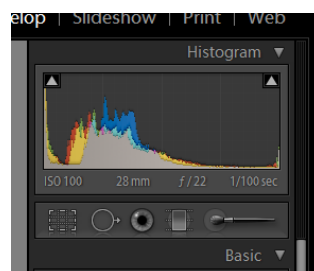
The readings for the image were 18th second at F4 where the low reading was $1/5^{\text{th}}$ and the high reading was $1/30^{\text{th}}$ giving a dynamic range of approximately 5 to 6 stops difference.



This image of the cat on the prowl was taken at $1/320^{\text{th}}$ at F14 this was the highest reading for the image with the next reading off the shadow side of the cats white fur being $1/250^{\text{th}}$ and the shadow on the wall reading $1/50^{\text{th}}$ second. Overall the dynamic range is wide with clipping in the white fur on the right of his face. This dynamic range was getting towards 7-8 stops difference.



This image included the light source. In the histogram below as the sun has been included you can see that the values are more peaked and clipping at the dark and light end. The reading for the image was $1/100^{\text{th}}$ second at F22 where the sun had a reading of over $1/3200^{\text{th}}$ second. The dark sections were readings of below $1/50^{\text{th}}$ second. Therefore the dynamic range is over the cameras capability of 9-10 stops. This image was in the region of 12 – 14 stops.



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The image that I have left until last is a very simple construction compositionally with the sun directly behind, as apposed to the one above. The lighting effect I would not describe as flat, however, there is little in the way of obvious dark shadow other than on the tree branches. The histogram tells a similar story with all the values recorded centrally and no clipping at either end in the dark or light areas. Dynamic range is low with less than a four stop difference. Standing closer to the tree and getting in close to the the shadow and light areas would change this.

