

# Whistles & Bells

- A simple guide to the buttons on a camera.

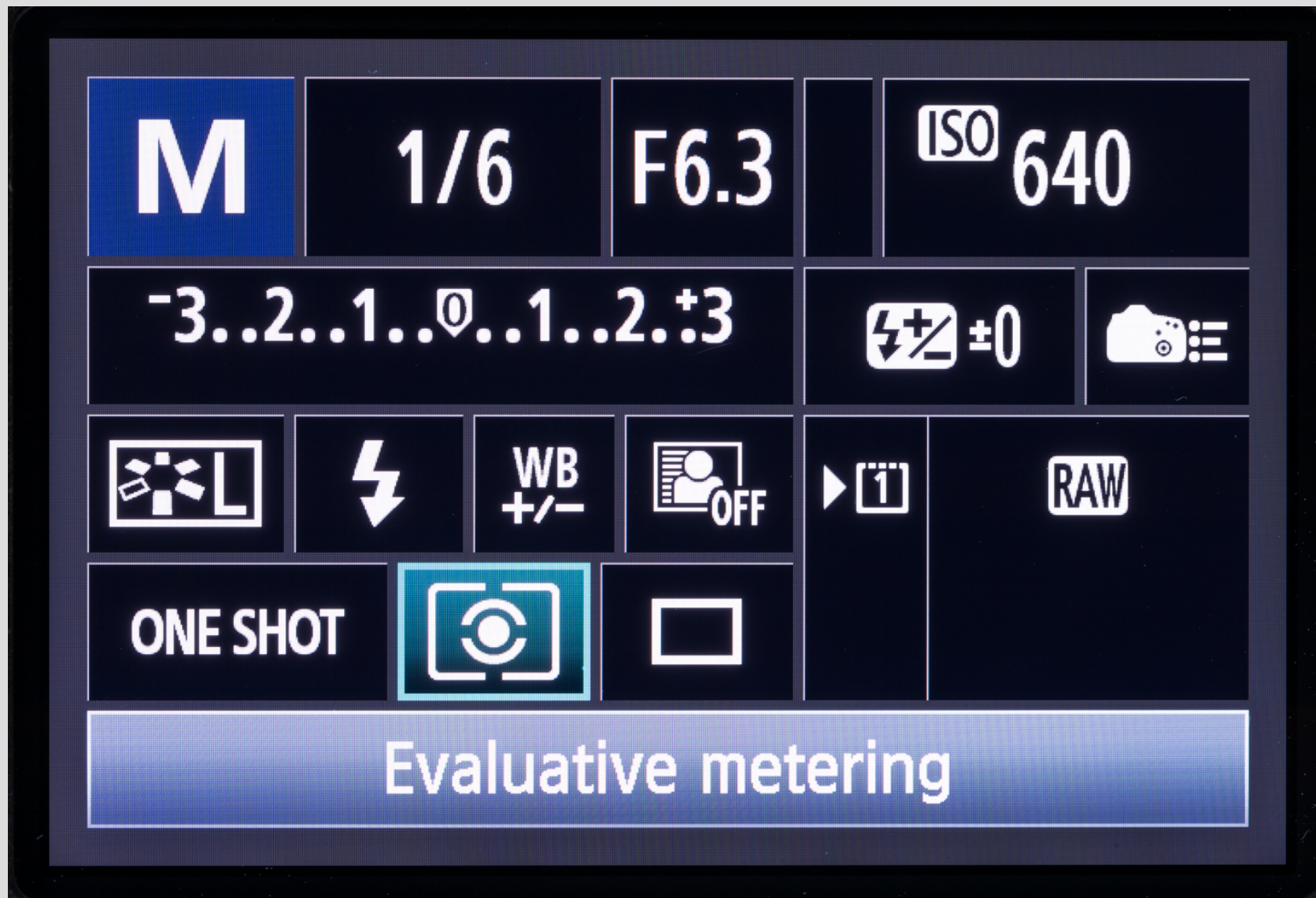
# Getting Started

- Read the Manual or consult the disc that comes with the camera.
- Start at the beginning Learn all the easy, but important things.
- Where to put the Battery, Memory Card etc.
- Work through the Menu System slowly.
- 10 minutes a day won't be so daunting as reading the Manual in one go. Play with the Camera, experiment with settings.
- It might be a bit dull, but it has to be done at least once with an unfamiliar camera.
- Use the Internet to source answers to queries.
- Perhaps buy a camera magazine.













# Full Auto....A

- Move away from Auto, the camera is in control and can often get it wrong!
- It gives the Photographer more control.
- It allows a more creative approach.
- It encourages the Photographer to learn how to use their camera, and gives a greater sense of satisfaction when an image turns out the way it was envisaged.

# Programme Mode.....P

- A semi automatic setting where the camera and Photographer both have an input.
- The Camera only sets the Aperture and Shutter speed, leaving you to choose other settings such as Drive mode, Metering pattern, ISO.

# Aperture-Priority (Av or AV)

- This is a semi-automatic exposure mode whereby you select the Aperture (f number) you want to control the depth-of-field and the camera automatically sets the shutter speed to give the correct exposure. No other camera setting are changed when using this mode and the camera has access to the full range of shutter speeds.
- Pay attention to the shutter speed, if it becomes too slow to hand hold. Use a Tripod or change settings.

# Shutter-Priority (Tv or S)

- Another semi-automatic exposure mode but it works in the opposite way to aperture-priority. This time you set the shutter speed and to suit the subject and the camera automatically selects the lens aperture (f number) for the correct exposure. Once the camera has selected the widest aperture offered by the lens ( Smallest f number ), you won't be able to set a faster shutter speed, unless you increase the ISO setting.

# Manual (M)

- This is the oldest and arguably the most-loved mode with experienced photographers wanting full control. It's the original mode that cameras had before they became electronic and automated. When your camera is set to manual mode, you select both the aperture and shutter speed using the relevant dials on your camera. The indicator in the viewfinder tells you when the combination selected has achieved the correct exposure – though you can ignore it. It's the slowest mode to use but, according to many, gives the ultimate control.

# ISO

- International Standards Organization
- In Digital Photography ISO measures the sensitivity of the image sensor.
- The lower the number the less sensitive your Camera is to the light and the finer the grain.
- ISO 200 is a good starting point for general situations.
- Higher ISO Settings are generally used in darker situations to get faster shutter speeds.
- Some Camera`s are better at Higher ISO`s than others.



*ISO 100 1/30 sec*



*ISO 200 1/60 sec*



ISO 400 1/125 sec





*ISO 1600 1/500 sec*



ISO 3200

1/1000 sec





*ISO 6400 1/2000 sec*





ISO 25600 1/200 F7.1





# ISO 25600





# White Balance

The White Balance setting you choose will change the colour balance of your Photographs making it warmer or cooler.

Incandescent ( Tungsten ) 3000Kelvin Blue

Standard Fluorescent 4200K Less Blue

Direct Sun Light 5200K White

Flash 5400K Slightly Warmer

Cloudy 6000K Warmer

Daylight Fluorescent 6500K

Shade 8000K Warm

If images are post processed in Photography Soft Wear the white balance can be adjusted in the Computer.

*WHITE BALANCE  
TUNGSTEN*



WHITE BALANCE  
FLUORESCENT



WHITE BALANCE  
DAYLIGHT





WHITE BALANCE  
SHADE



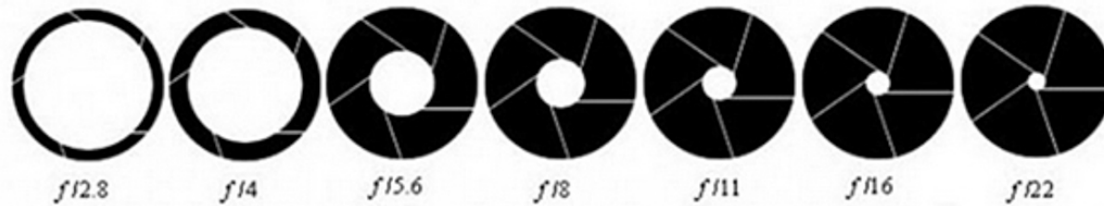
WHITE BALANCE  
AUTO



# f Stop

- The iris of the Lens that controls the size (diameter) of the Aperture is called the “diaphragm” in optics. The sole purpose of the diaphragm is to block or stop all light, with the exception of the light that goes through the Aperture. In photography, Aperture is expressed in f-numbers
- ( for example  $f/5.6$ ) which is defined as the Ratio of focal length to effective Aperture diameter.
- Smaller number ( $f2.8$ ) means larger opening and More Light.
- Large number ( $f 32$ ) means smaller opening and Less Light

## APERTURE SCALE



Large aperture

Small aperture

More light strikes image sensor

Less light strikes image sensor

Shallow Depth of Field (Focus)

Deep Depth of Field (Focus)



*f2.8 1/3200 sec*



f4.0 1/1600 sec



*f5.6 1/800 sec*





*f8.0 1/400 sec*



*f11.0 1/200 sec*



*f16.0 1/100 sec*





*f22.0 1/50 sec*

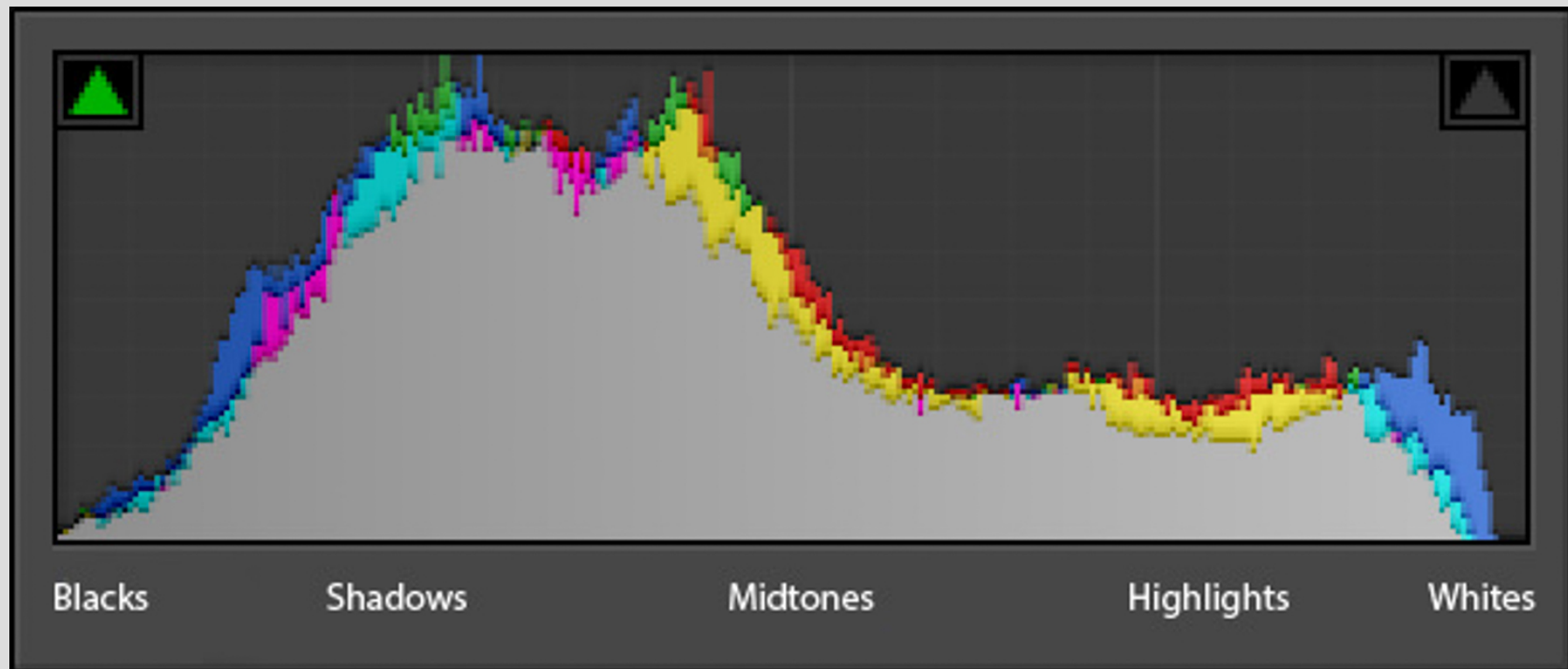


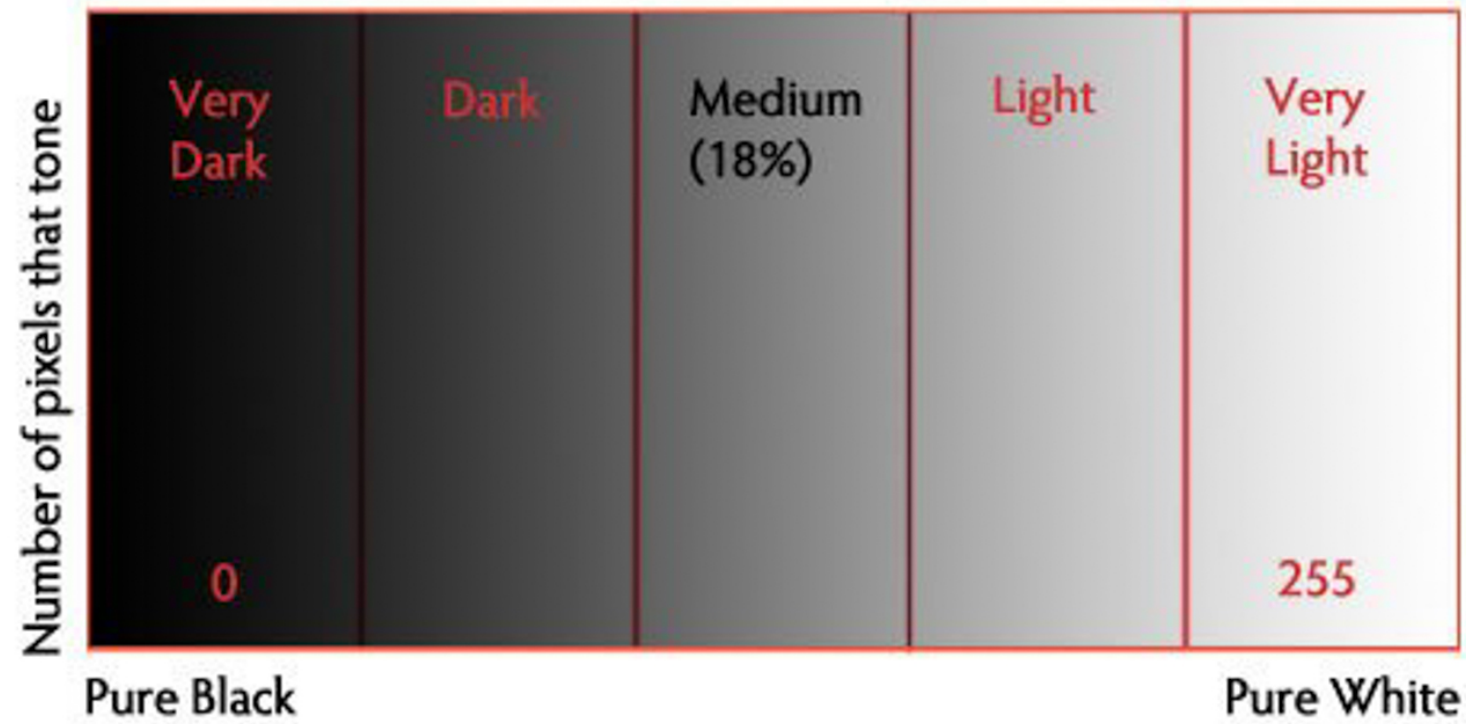
Canon 5D MK111 f4 1/800 sec ISO 640 300mm

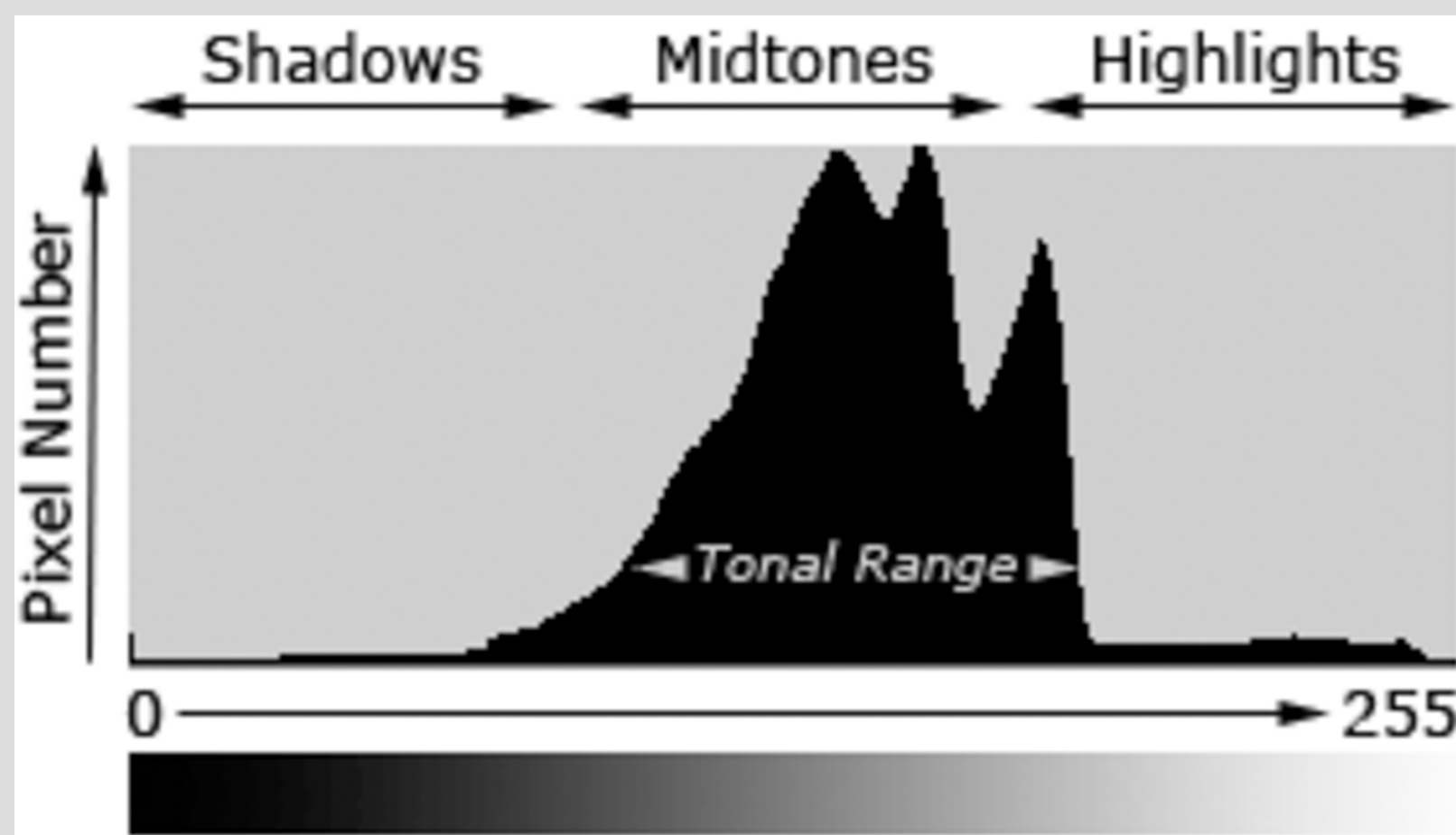


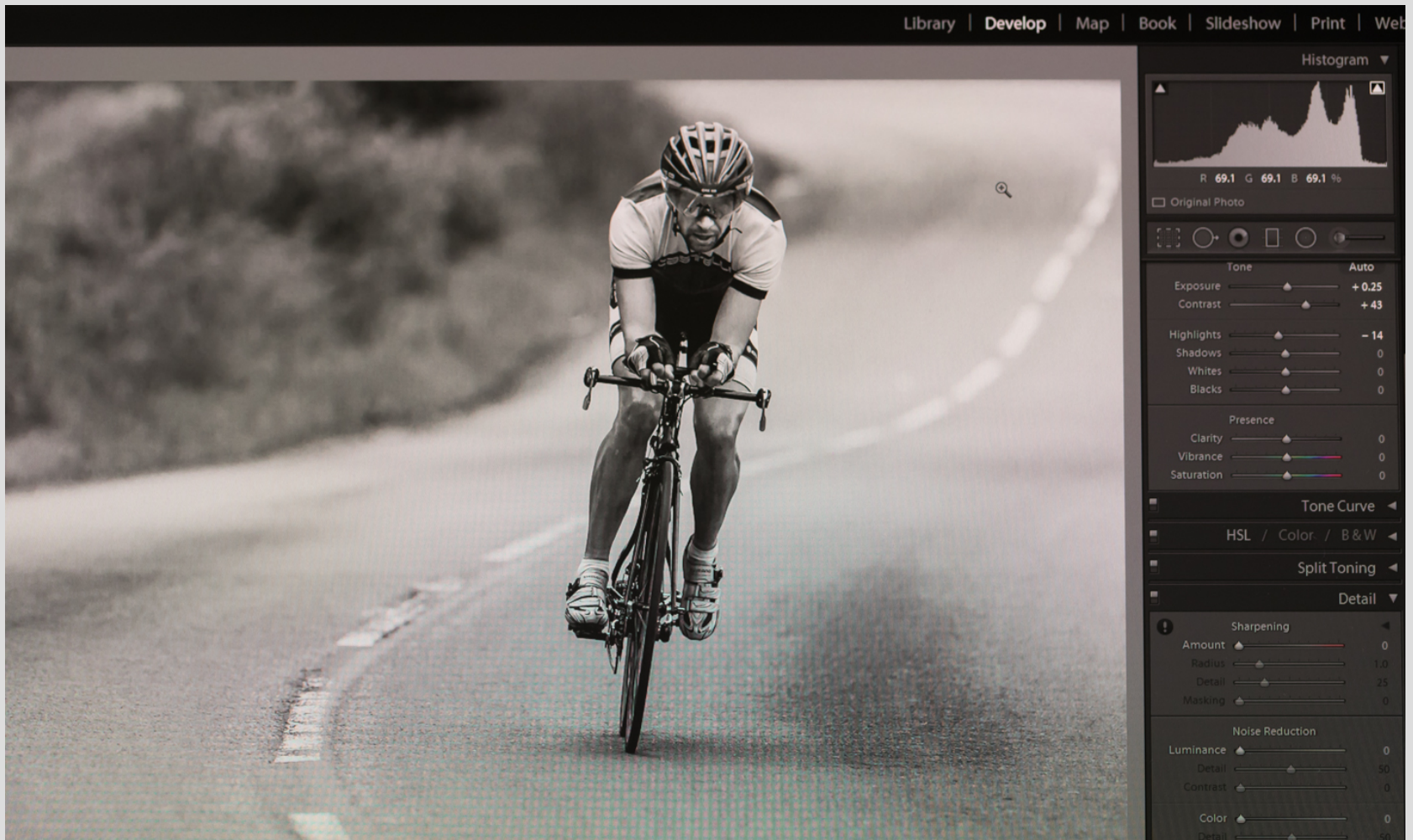


# The Histogram









# JPEG File Format

- JPG is a file extension for a lossy graphics file.
- Information from the camera sensor is altered and compressed to form a smaller file.
- JPEG stands for Joint Photographic Experts Group who created the file.
- This file is used in Mobile Phones, Tablets and Digital Cameras.

# RAW File Format

- RAW does not stand for anything. It is a file format that records all the Information without alteration.
- If computer soft wear is being used, it's a far better system to use.
- The files are much larger than JPEG files and if space is a problem, use JPEG.

This is not the END

It's just the beginning