

Pillar Four

Pillar 4 – Optimum Exposure



4. Optimum Exposure

Histogram

Histograms can be found in almost any modern image editing software. Most current digital cameras, including some compacts, can display histograms as well – some even live as you shoot, using your LCD screen.



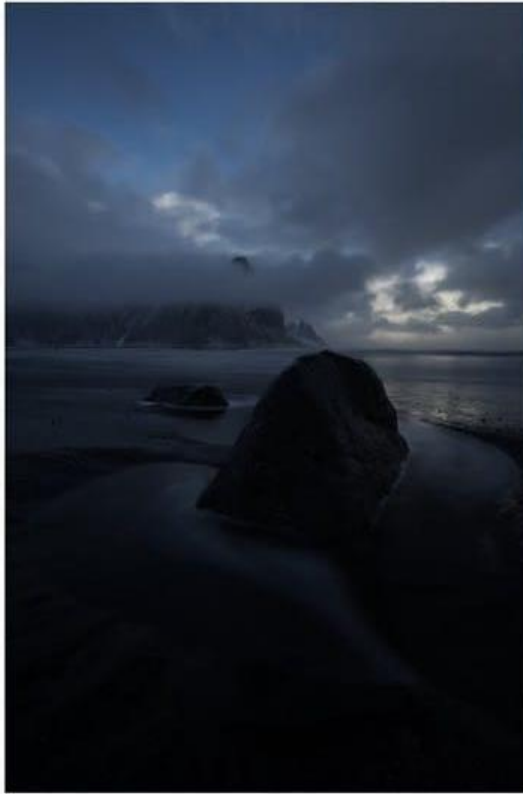
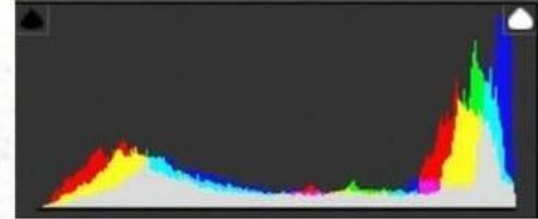
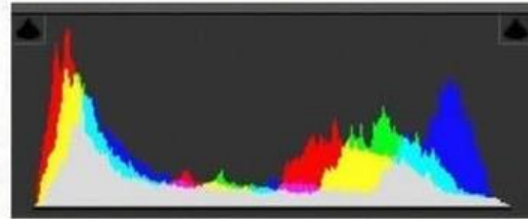
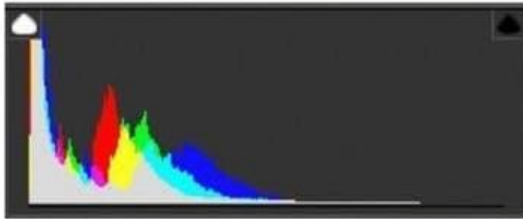
4. Optimum Exposure

Histogram

Underexposed

Correct exposure

Overexposed



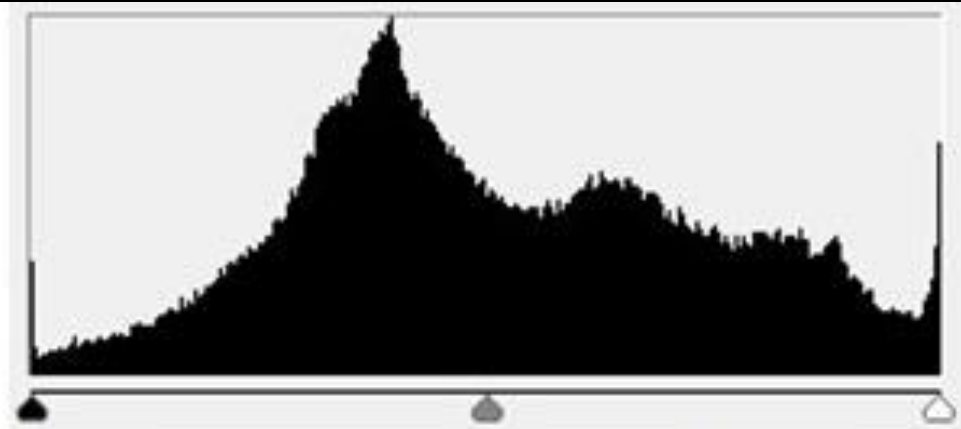
4. Optimum Exposure

Histogram – under-exposed



4. Optimum Exposure

Histogram – well-exposed



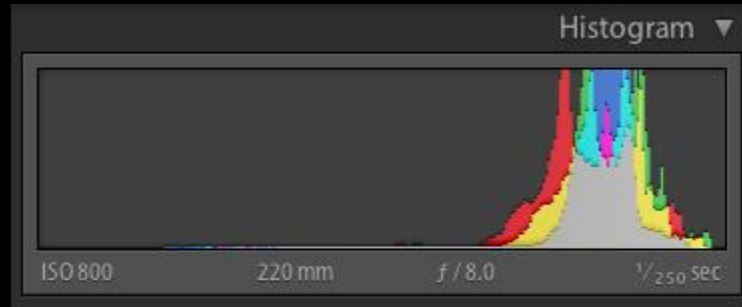
*Dark tones are
this end*

*Light tones are
this end*

The graph shows that the picture has a few really dark areas, a few very bright areas but mostly shades in between. Most of those shades are just a bit darker than the mid-point, represented by the peak on the graph.

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Histogram – over-exposed



4. Optimum Exposure

Histogram – well-exposed



4. Optimum Exposure

Filters

Circular polarizers and neutral density filters are used for shooting in bright conditions as they block light, but they do it differently.



Neutral Density

Polarising

4. Optimum Exposure

Filters – Circular Polarizing Filters

CPL (Circular Polarizer) filters work by selectively blocking polarized light, reducing reflections and glare from non-metallic surfaces. When sunlight hits these surfaces, such as water or glass, it becomes polarized, leading to unwanted reflections.

The CPL filter can be rotated to a specific angle, allowing it to absorb or transmit polarized light selectively.

Circular Polarizer (CPL) filters are the solution for removing reflections and enriching colours. If your photography involves reflective surfaces like water or glass, a CPL filter is something that can help you a lot. It cuts through unwanted glare, revealing vibrant details beneath, and intensifies the blues in the sky.



Without Filter

With Filter

4. Optimum Exposure

Filters – Neutral Density Filters

In contrast, ND filters uniformly reduce the amount of light entering the camera by a specific number of f -stops.

Essentially acting as sunglasses for your lens, ND filters allow you to use longer shutter speeds or wider apertures, especially in bright conditions.

They are essential for having a non-overexposed image and achieving specific creative effects.



Neutral Density (ND) filters are the maestros of light control. By reducing the amount of light that enters, ND filters allow you to capture long-exposure shots without compromising colour accuracy. Picture silky waterfalls, blurred clouds, and the smooth movement of elements—ND filters make it all possible.

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Aspect	ND Filter	CPL Filter
Light control	Reduces the amount of incoming light, enabling longer exposures.	Reduces reflections and glare, managing the intensity of light.
Use cases	Capturing long exposures, controlling overexposure in bright conditions, and achieving motion blur in waterfalls.	Enhancing skies, managing reflections on water, and intensifying colour saturation.
Effect on colours	Doesn't affect colours.	Enhances colour saturation, especially in skies, water, and foliage.
Versatility	Versatile in various lighting conditions and scenarios requiring extended exposure times.	Versatile for scenes with reflective surfaces and situations where colours need a boost.
Creative possibilities	Enables creative effects through extended exposures, allowing for unique and artistic shots.	Enhances overall image contrast and colour vibrancy, providing a more dynamic and captivating look.
User preferences	Preferred by those seeking artistic long-exposure effects and control over lighting conditions.	Chosen by photographers aiming to intensify colours and manage reflections for a crisp, vivid image.

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Filters – Graduated Neutral Density Filters

A Graduated Neutral Density filter is simply a piece of glass that's clear at one end and grey at the other.

It's placed in front of the lens, and then by adjusting it so that the darker section of the filter covers the brighter portion of the scene. This restricts the light by several f-stops and thereby ensures an even exposure in difficult lighting conditions.



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Tripods and Monopods

A tripod is a portable device used to support, stabilize and elevate a camera, a flash unit, or other videographic or observational/measuring equipment. All photographic tripods have three legs and a mounting head to couple with a camera.

A monopod is primarily used as a camera support device to provide stability while capturing photos or videos. It is commonly used in situations where mobility is essential, such as sports events, wildlife photography or on-location shoots.



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Tripods – Studio vs Travel

Travel Tripods tend to be made of light materials – aluminium or carbon fibre. Most come with a ball head camera mount.



Studio tripods are heavier but more stable



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Tripods

A stable tripod head has clamps of each dimension: forward/backward tilt, swivel and 90° inclination.



A video tripod is cheaper but the head does not clamp so well – it is designed to pan or move with a moving shot.

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Monopods

A camera monopod provides stability without the bulk of a tripod. Easy to carry and lightning-fast to set up, monopods consist of just a single leg, as opposed to a tripod's three. They are fantastic for keeping heavy lenses stable, especially while panning horizontally.

However, they are inherently unstable as they use a single point of contact for support.

They are prone to tilt and dip especially when using a longer lens.

Some come with a small tripod base.





“Scapes” – Re-cap

Your Challenge

The Assignment

Take an image of a “Scape” of your choosing:

- Consider composition – rule of thirds, Fibonacci spiral
- Beware unwanted elements
- Consider fore-, mid- and background elements for inclusion
- If possible, visit the same scene in different weather conditions
- Bring your best image to the club on the 25th November for discussion



Thank you!

LANDSCAPES

A Minsterworth Photographic Club
Masterclass

Bob Holder – Grad. Dip. Phot.