



ESSENTIALS



CAMERAS

WHEN SHOOTING ON FILM was the only option for landscape photographers, bigger was always considered to be better. Large-format cameras loaded with sheet film provided the ultimate quality, followed by medium-format models and roll film, but, for most enthusiasts, a 35mm SLR was the most realistically affordable solution. With the advent of digital, this is no longer the case, and DSLR (or digital SLR) cameras are now considered the tool of choice by most landscape photographers. However, advances in digital camera technology have meant that there is now a wide range of suitable cameras, and a DSLR is no longer the only option for your year-round landscape kit bag.



DSLR CAMERA

Large sensor sizes, interchangeable lenses, and sophisticated exposure and metering modes mean that DSLRs remain the tool of choice for professional and enthusiast landscape photographers alike. Full-frame sensor models are generally considered the best option, with their physically larger sensors capable of recording less noise, finer detail, and a higher dynamic range than cameras with smaller-sized (APS-C or FourThirds) sensors. However, even the lowest priced, entry-level DSLR can be perfect for producing great landscape photographs.

ADVANTAGES

- Access to a wide range of lenses/focal lengths.
- High-resolution sensors.
- Full range of manual controls and Raw file capture.

DISADVANTAGES

- Weight: DSLRs are larger and heavier than compact cameras.
- Cost: Not only to buy, but the additional cost of lenses and other accessories.



NON-SLR INTERCHANGEABLE-LENS CAMERA

Before 2009, cameras fell broadly into two categories: single-lens reflex cameras with interchangeable lenses (DSLRs), and fixed-lens cameras that used an electronic viewfinder or the rear LCD screen to compose the image (bridge cameras and compact cameras). However, this changed when Olympus launched its Pen E-P1. This was a camera that looked like a high-end compact and relied on its rear LCD for composing images, but also used interchangeable lenses, a DSLR-sized sensor, and boasted a level of control previously reserved for DSLR cameras. Since then, Panasonic, Samsung, and Sony have all launched variations on this theme, with both compact and SLR-styled models providing a smaller and lighter—but no less versatile—alternative to the traditional DSLR.

ADVANTAGES

- *Smaller and lighter than DSLRs—ideal if weight is a consideration.*
- *DSLR-sized sensors.*
- *Full range of manual controls and Raw file capture.*

DISADVANTAGES

- *Lens ranges not as expansive as more established DSLR models.*
- *Electronic viewfinders or reliance on rear LCD screen for composing images may not feel as natural as an optical viewfinder.*

BRIDGE CAMERA

At a time when even the lowest-priced DSLR had a four-figure price tag, most manufacturers had a “bridge” camera in their line-up. The name came from the fact that they “bridged the gap” between the compact cameras and DSLRs of the time by combining DSLR-style features, controls, and design with a non-interchangeable zoom lens and an electronic (rather than optical) viewfinder. Some, such as Sony’s DSC-R1, even offered a DSLR-sized sensor. Although the number of models available has decreased in recent years, no doubt due to the reduced cost of DSLRs and non-SLR interchangeable-lens cameras, this design has not disappeared entirely. Indeed, the all-in-one approach remains popular with some photographers, especially as the range of focal lengths offered can be as expansive as 28–840mm on some models: far greater than any single DSLR lens.

ADVANTAGES

- *DSLR-style handling, features, and controls.*
- *All-in-one design helps prevent entry of dust.*
- *Wider optical zoom range than DSLR lenses.*

**DISADVANTAGES**

- *Small sensor sizes can exhibit increased noise and reduced dynamic range.*
- *Electronic, rather than optical, viewfinder may not be to everyone's taste.*
- *Wide zoom range can result in increased distortion and reduced image quality.*



HIGH-END COMPACT CAMERA

The final—and often overlooked—option for landscape shooters is a high-end compact camera. This shouldn't be confused with a point-and-shoot model, though—what I'm talking about here are fixed-lens cameras that offer a full range of exposure modes (including Aperture Priority and Manual) as well as Raw files. This type of camera will typically offer a 3×–5× optical zoom, covering a focal-length range that is capable of accommodating wide angle through to mild telephoto options, as well as good closeup capabilities: optional lens adapters are often available to extend the focal-length range in both directions.

ADVANTAGES

- *Small, compact, and light, making it the perfect portable companion.*
- *Raw capture for greater control over your pictures.*
- *A wide range of exposure modes for DSLR-style control.*

DISADVANTAGES

- *Small sensor size means a reduced dynamic range and increased noise at higher ISO settings.*
- *Need to buy lens adapters if you want to expand the (fixed) range of focal lengths.*





LENSES

UNLESS YOU OPT FOR a camera with a fixed lens, you're going to need a lens, and the good news is that there is no right and wrong when it comes to focal lengths for landscape photography. You could argue that the majority of landscapes are taken using wide-angle lenses, but equally striking images can be created using telephoto lenses as well.

Focal-length magnification

When you're considering lenses for your camera, it's important that you take the focal-length magnification into account if you are using a camera with a sensor that is smaller than full frame ($36 \times 24\text{mm}$). Although the focal length of a lens never changes (an 18mm focal length is always an 18mm focal length), a smaller sensor

uses a smaller part of the image circle created by the lens, which effectively narrows the angle of view of the lens, making the focal length appear longer.

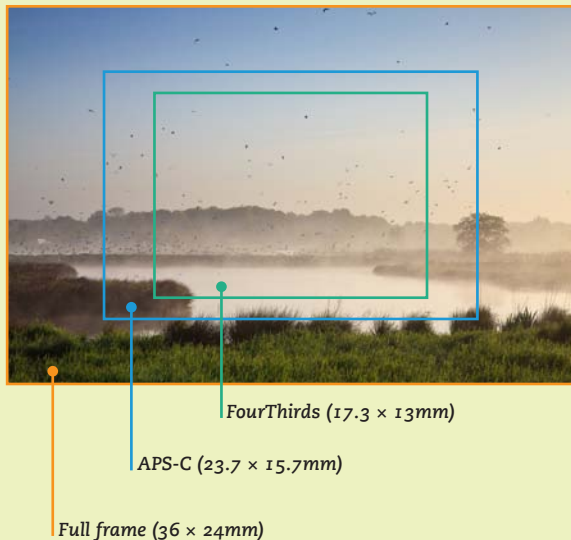
This varies depending on the specific size of the sensor, but most cameras that are not full frame have a focal length magnification factor of $1.5\times$ – $2\times$, which is the amount by which they effectively extend the focal length of the lens. For example, an 18mm lens on a Nikon camera with a DX-format sensor (which has a $1.5\times$ focal-length magnification), will behave more like a 27mm lens on a full-frame camera, while an 18mm focal length on a FourThirds camera body will be the same as using a 36mm focal length on a full-frame camera, due to its $2\times$ focal-length magnification.

- **FOCAL-LENGTH MAGNIFICATION**

The focal length of a lens doesn't physically change (an 18mm focal length is **always** 18mm), but the area of the scene that it covers will change depending on the size of the camera's sensor. Smaller sensors effectively crop the image.

Sensor Type	Sensor Size	Focal-Length Magnification	Manufacturers
Full frame	36 × 24mm	0×	Canon, Leica, Nikon, Sony
APS-C*	23.7 × 15.7mm	1.5×	Nikon (DX), Pentax, Samsung, Sony
APS-C*	22.3 × 14.9mm	1.6×	Canon
FourThirds	17.3 × 13mm	2.0×	Olympus, Panasonic

* APS-C is not a fixed size—many manufacturers use sensors that are slightly smaller or slightly larger than the measurements given, but still describe them as APS-C.



Wide-angle lenses

Wide-angle lenses are widely used for landscape photography. Their main advantage is their ability to get as much of the landscape in the frame as possible, allowing you to record sweeping views in a single frame. However, to use a wide-angle lens to best effect, you need to work hard to ensure you don't end up with a lot of dead space in the photograph—the wide view increases the risk of recording a lot of dull sky! This makes your viewpoint paramount, and many professionals will look for an interesting foreground to make the most of a wide-angle lens's unique perspective and increased depth of field. In terms of full-frame cameras, wide-angle focal lengths cover approximately a range of 18–35mm. Anything wider represents a specialist super-wide lens, while anything longer will lose the wide-angle effect.



ABOVE: A wide-angle lens is the perfect choice when you want to include foreground elements that are close to the camera with a more distant landscape.





LEFT: A telephoto focal length is the ideal option when you want to pick a detail out of the wider landscape.



Telephoto lenses

Consisting of focal lengths upward of (roughly) 70mm in full-frame terms, telephoto lenses are perhaps more closely associated with portraiture, wildlife, and sports photography than landscapes, yet they are capable of producing incredibly striking results. The reason for this is their apparent ability to compress the elements in a scene, making them appear closer to one another. This makes them ideal for picking out distant elements in the landscape to create slightly more abstract, graphic images, as well as helping you get closer to smaller details.

• ZOOM VS. PRIME

Fixed focal-length (or prime) lenses used to be the only option for photographers, and their quality—compared to early zoom lenses—was significantly higher. Today, however, the quality difference has narrowed, and many zooms can take images that are every bit as good as a prime lens of a similar focal length.

The possible exception to this is what are known as superzooms—zoom lenses containing an extreme focal-length range of 15× or upward (18–300mm, for example). These are often seen as a convenient all-in-one lens solution, covering both wide-angle and telephoto options in a single lens, but, with so many focal lengths, the manufacturers have to make compromises in the lens design, which means that quality can be reduced.



SPRING ACCESSORIES

A CAMERA AND LENS is just the starting point for your explorations of the spring landscape—to fully exploit the potential of the season, there are certain accessories that you also shouldn't be without:

MACRO LENS

With all those spring flowers coming into bloom, and buds appearing on the trees, Spring is the ideal season to consider

closeup details in your photography. Assuming you can change the lens on your camera, then nothing makes this easier than a dedicated macro lens.



CLOSEUP LENSES

If your budget won't stretch to a macro lens, then a set of closeup lenses—often mistakenly called filters—could be the answer. These screw into any lens like a filter will, but allow closer focusing. Different strengths of closeup lens are available, depending on how much closer you want to focus, and as the lenses fit on the lens, your camera's exposure metering and focusing systems can still be relied on.



EXTENSION TUBES

Extension tubes (or extension rings) are available in a range of different sizes and fit between the camera body and lens on an interchangeable-lens camera, allowing the lens to focus closer. Unlike closeup lenses, there are no additional glass elements that could reduce image quality, but extension tubes can reduce the amount of light reaching the sensor (especially if multiple tubes are used at the same time), resulting in longer exposure times.



TRIPOD

Essential for landscape photography, regardless of the time of year—no serious landscape photographer should be without one. Not only will it help you avoid camera shake when you're using slow shutter speeds, or precisely frame an image, but it will also slow you down, which will naturally make you think a little more about what you're doing.

**REMOTE RELEASE**

An electronic release will allow you to take a shot without touching your camera—a common cause of slight camera shake. If you don't want to pay for an optional remote release, you can also use the camera's built-in self-timer function; assuming your camera is on a tripod, of course.

**ANGLE FINDER**

If you're shooting flowers at ground level, then using your DSLR's viewfinder to frame your shots can be a challenge. An angled viewfinder extension will make things easier with DSLRs that don't feature a live LCD screen and a flip-out screen.

**HOTSHOE LEVEL**

Although you can straighten an image easily in an editing program, there's no reason why you shouldn't get your horizons level in-camera. Some cameras feature built-in electronic levels, but if yours doesn't, a low-cost hotshoe-mounted spirit level could be the perfect solution.

