

landscape photography

GUIDE TO LANDSCAPES, CITYSCAPES AND SEASCAPES

Capture better landscape images with this handy guide available in print or ebook

- Shooting and composition technique
- Preparation: how to create your own luck
- How to set your camera for success
- How to find your own landscape style
- Sharing and showcasing your photos

Landscape Photography gives expert, concise, easy to follow advice on how to create superb landscapes, cityscapes and seascapes. The book advises on the best equipment for landscape photography, and gives step by step, experienced tips on locations, shooting conditions, settings, composition, editing, and presentation.

About the author

Margaret Brown is technical editor of *Photo Review* Australia magazine and website and has been writing on photography for more than 30 years. She is author of the popular and extensive *Photo Review* Pocket Guide series and the Australian Consumer Association's Choice Guide to Digital Photography.

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Margaret Brown

PHOTOREVIEW

Author

Margaret Brown

Creative Director

Melissa Kallas

Publisher

David O'Sullivan

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Introduction

Landscapes have consistently featured at the top of the most popular subjects in *Photo Review*'s reader surveys for many years so we're releasing this updated guide to help you obtain the kind of pictures you will be proud of and happy to share. It's not surprising to find landscape photography such a popular genre; landscapes have long been popular with all visual artists for their beauty, their sense of connection with nature and their ready accessibility.

In this guide we'll take a thoroughly modern look at landscape photography, starting with a couple of chapters discussing the kinds of equipment you might need and where to look for subjects. And, because so many of us live in cities; a full chapter has been devoted to shooting cityscapes, which are also included in the contemporary landscape category.

We also provide some advice on working with the weather, which can help you to produce shots with real impact.

Left: Remarkables Ranges near Queenstown, New Zealand.

We then cover more technical matters, such as equipment choices and camera settings before proceeding to the aesthetic aspects involved in creating memorable pictures.

Given the breadth of subjects and approaches that exist today, it can be difficult to define precisely what makes a landscape picture stand out – or even what such pictures should contain. So we've devoted a chapter to discussing shot composition options to provide some clarification.

We also look at the in-camera editing functions found in many modern cameras and discuss how they can be used to add impact to shots – or whether they should be used at all. The final chapter looks at different ways to present and share your photos, ranging from creating images for blogs and social networks to producing photo books and making prints for framing. The objective of this book is to help photographers at all levels to improve their landscape photography. We hope the advice it contains will help you to produce more satisfying pictures.

CHAPTER 1

Finding landscape shots

Locations for taking landscape photographs are all around us but we often miss opportunities in the bustle of everyday life. Regardless of where you are, it should be possible to take pictures; you just need to keep your eyes open and see the pictures in the scene in front of you.

Potential subjects can crop up close to home and in places where you least expect them. People who live in rural areas will often find suitable landscapes within easy reach. But if you live in a city or town, you may need to be more imaginative.

While photographic purists claim man-made structures and coastal scenes should be excluded from landscape photography, for most of us if natural scenery dominates the picture, it can be classified as a landscape shot. People and animals, if included, should be a small part of the picture; not a significant compositional element. Buildings and other structures can be treated as graphical elements in the composition.

Fortunately, even the most congested cities contain parks and gardens that can provide locations for landscape photography. With careful framing – and concentration on smaller areas – attractive landscape shots are possible. Think small when you want to avoid having buildings intrude on scenes.

Take advantage of opportunities provided by holidays, weekends away and business trips.

Some holiday locations are within areas with great potential for landscape pictures, such as National Parks. However, you may need to leave the most popular areas in search of new and different views of a much-photographed scene.

Purists will claim the best opportunities are off the beaten track. Scenes that are frequently photographed quickly become clichéd. A car trip and/or a hike of a few kilometres will enable you to find less popular sites so you can return with new and different pictures.

Don't go into out-of-the-way places without checking the weather forecast. It can be frustrating to hike 10 km into a site, only to find the sky has completely clouded over. Make sure you're properly equipped with wet weather gear plus adequate water and food. Let somebody know where you're going – and when you expect to return. Check in when the trip is completed to inform them of your safe return.

Right: This attractive scene was just down the road from the house we stayed in while visiting Japan. It's quite common to see small rice fields in semi-urban areas.





Google it!

Prior research is important, particularly if you're going to an unfamiliar area and when you want to find places that aren't over-photographed. Google can be your 'best friend' when search results link to reliable websites that provide a comprehensive array of information covering most of the things a photographer needs to know.

Check out the general climatic and local weather conditions so you know roughly what to expect and what equipment you will need. Include adequate safety equipment for your trip.

If you plan to hike any distance, download detailed maps to show you the terrain. They can help you to plan the best routes to where you can take particular shots.

Public transport information is easy to obtain from the internet and valuable when travelling in most places. Make sure you have up-to-date timetables and route maps.

Scroll through the images people have posted from the area and note down any places you'd like to explore. Downloadable tourist brochures can also show you most of the popular spots, which you can visit (or avoid), depending on your requirements.

Left: A misty September morning at Dunns Swamp in the Wollemi National Park is an example of how picking the right time at the right place can lead to attractive photos.

Timing shots

The time of day and angle of the sun can radically affect the way subjects are lit. It's usually wise to know where the sun will be with respect to your subject before setting out to take photos.

Downloadable apps show sunrise and sunset times for virtually any place in the world and for any date. They work with the integrated GPS systems in most smartphones and are very handy for landscape photographers. The Photographer's Ephemeris (free desktop web, iOS and Android apps available at **www.photoephemeris.com**) lets you see how the light will fall on the land, be it day or night, for almost anywhere on earth. It also shows phases of the moon as well as moonrise and moonset information for photographers who want to shoot star trails.

See more sunrise/sunset app links at the end of this chapter.

Finding angles

Landscape shots generally need a focal point to provide viewers with a place to rest their eyes. It could be as simple as the horizon or the curve of a beach, or even a tree, a boulder or rock formation.

Pay attention to items in the foreground and use them to create points of interest. Buildings and other structures can also be used to add interest to otherwise bland scenes.

Always think carefully about where to place the horizon. Unless you want the unsettling effect of a tilted horizon, strive to make it level. Many cameras provide grid overlays in the viewfinder to assist you.



Google searches enabled us to find the location for this impressive Autumn vista and the timetables for buses going there and back.



Knowing the times for sunset and weather conditions is essential if you want to photograph star trails.

| Finding landscape shots

Consider the possibilities provided by the sky. If the sky lacks interest, place the horizon in the upper third of the frame. However, if the sky is dramatic it can become the main subject so place the horizon lower. A really dramatic sky can be a subject in itself so there's no limit to how low the horizon can go.

Look for movement that can add drama, create mood and generate a point of interest. Examples include wind in trees, waves on a beach, water flowing over a waterfall, birds flying overhead, moving clouds.

Change your point of view, looking for shooting angles and viewpoints that are different from the normal 'straight' shot. Walk down a path; climb onto a rock, sit, kneel or lie down. Explore and experiment with different viewpoints and you could end up with shots that are 'keepers'.

Respect the area

Pay attention to local customs and regulations and abide by them. Keep clear of areas that include military installations and other sites deemed to be sensitive to domestic security.

Photographing local people, particularly women and children, is also illegal in some countries, even when these subjects represent a small part of the picture. Certain sacred sites may also be sensitive areas, although notices are usually posted when a specific site is off-limits.



Right: Lowering the horizon enables you to highlight dramatic skies.





This shot was taken in a wilderness area in Tasmania that was well set up for visitors. It was taken from a duckboard path through the forest on a wet day in autumn when there were few visitors. (We watched a foraging platypus from the same place just before the shot was taken.)

Don't damage wild areas in your attempts to replicate shots posted on the internet. Keep to well-maintained tracks, don't litter and stay out of fragile areas. Too many careless visitors can turn precious, irreplaceable places into sites that will be difficult to preserve and end up not worth photographing.



Useful links

Shooting in the twilight zones|

www.bit.ly/phr-twilight-zones

Android app: Golden Hour Photography

www.bit.ly/GoldenHourPhoto

Apple app: Sunrise Sunset Times

www.bit.ly/SunriseSunsetTimes

CHAPTER 2

Finding landscapes in urban areas

Cityscapes are a sub-set of landscape photography in which the natural environment is replaced by one that is built and occupied by people. Instead of rolling hills, majestic mountains, golden beaches and sparkling seas, photographers are confronted by towering buildings, busy streets, broken skylines and bustling people.

Urban areas, no matter how large or small they are, contain an interesting mix of old and new architecture, which can provide subjects for your camera. Change is constant in a city, whether it be the busy, bustling environment or the ever-changing views from wide-angle vistas to interesting abstracts. Despite all this activity, you can also find places of relative calm.

Equipment choices

When shooting among crowds of people, most photographers prefer working with one camera and one (or at the most two) lenses. Suburban areas and smaller towns may not be as crowded but you'll attract attention if you carry complex and conspicuous gear.

Some situations could require a tripod, especially if you're shooting after dark. While this is unlikely to cause problems in smaller urban areas, many cities have places where tripods are banned or, at least, difficult to use because they get in people's way.

You may need to rely on your equipment's stabilisation system or, alternatively, find a stable surface on which you can place your camera while the shot is captured. Suitable options include tables, pillars, walls, edges, benches; in short, anything that is flat and safe.



Flinders Station in Melbourne lies in the heart of a busy city where it provides a popular subject for visitors' cameras.



If you can't find a flat surface, improvise by leaning against a wall and shooting with your camera hand-held. Tuck in your elbows, breathe in and hold your breath during the exposure and make sure the ISO setting is high enough to support hand-held shooting.

As a rule of thumb, most people can hand-hold a camera at a shutter speed of the reciprocal of the focal length of the lens. So if you're using a 50mm lens, the slowest shutter speed should be 1/50 second. Stabilisation will add at least a stop or two of compensation, allowing you to shoot at 1/25 or 1/12 second in optimal conditions

Wide angle lenses are generally the best choice for photographing cityscapes because they enable you to capture a pleasing skyline without having to be miles outside the city or include a tall building in vertical format, while standing near its base. Distortion can become an important element in shot composition.

When to shoot

The best times to photograph cities are in the early morning or the late afternoon when the light is warm. However, it's also worthwhile continuing after the sun goes down. As day turns to night, city locations will be lit by different light sources as light from the setting sun blends with the street lights and interior lights of buildings.

Left: A shot of Eastbourne Pier in Southern England, taken at 8:41 p.m. on a June evening, required ISO 500 sensitivity to enable the camera to be hand held at 1/50 second with a stabilised, moderate telephoto lens.

Wet and stormy weather can energise a cityscape. Particularly at night, colours will be enhanced and reflections from the wet roads and pavements will appear more saturated and vibrant.

During the day, dark clouds and stormy skies can impart a sense of threat to urban landscapes. Cloudy days also have some advantages because they reduce ambient contrast, making it easier to capture a full range of tones from dark to light.

What to photograph

Architecture often represents the main point of interest in shots. Older buildings make good subjects for their detailed facades and windows, while modern buildings present futuristic lines that lend themselves to artistic exploration. Composition will play an important role in obtaining successful shots.

Compositional elements like leading lines can create a strong sense of coherence in an otherwise chaotic city scene. Views of pavements, roads, train tracks can create visual 'tracks' through such chaos.

Finding the right location in areas with heavy traffic can be tricky. Familiarity with the area and how it changes during the day and night can help you to pick suitable places for setting up your camera. Busy intersections provide opportunities to capture the blurred movement of traffic against static features

Right: Londoners relax and enjoy the evening sun in Regent's Park in the centre of the city.

like buildings or traffic lights. At night, you can try creating light lines out of conflict, movement and chaos.

Fountains can add an element of delicate beauty and serenity to a cityscape. Look for opportunities to contrast the movement of the water with buildings, trees and/or people in the surrounding area.

Patterns in the environment can bring a sense of visual rhythm to a city scene. Look for strong graphic elements, like shapes, lines, colours or forms that contrast with the pedestrian movements.

Look for features like drainage gratings, road signs and markings, shadows, reflections in puddles after rain and even people's legs or feet to fill the foreground. Use a small aperture and focus around a third of the way into the view to maximise depth of field.

Include people as a natural part of the composition, either as elements in the composition or to add a sense of movement and the passage of time. You can also add impact and drama to shots in the way you record motion. Use a slower shutter

speed to blur passing traffic and/or scurrying people against the sharply imaged structures in the area.

Interiors can also provide worthwhile subjects. Whether it's a museum or art gallery, shopping centre or even the local train station, there are often shots to be had. Increase ISO sensitivity and, if possible, shoot raw files so you have scope to adjust white balance and noise levels post-capture.

Dealing with security

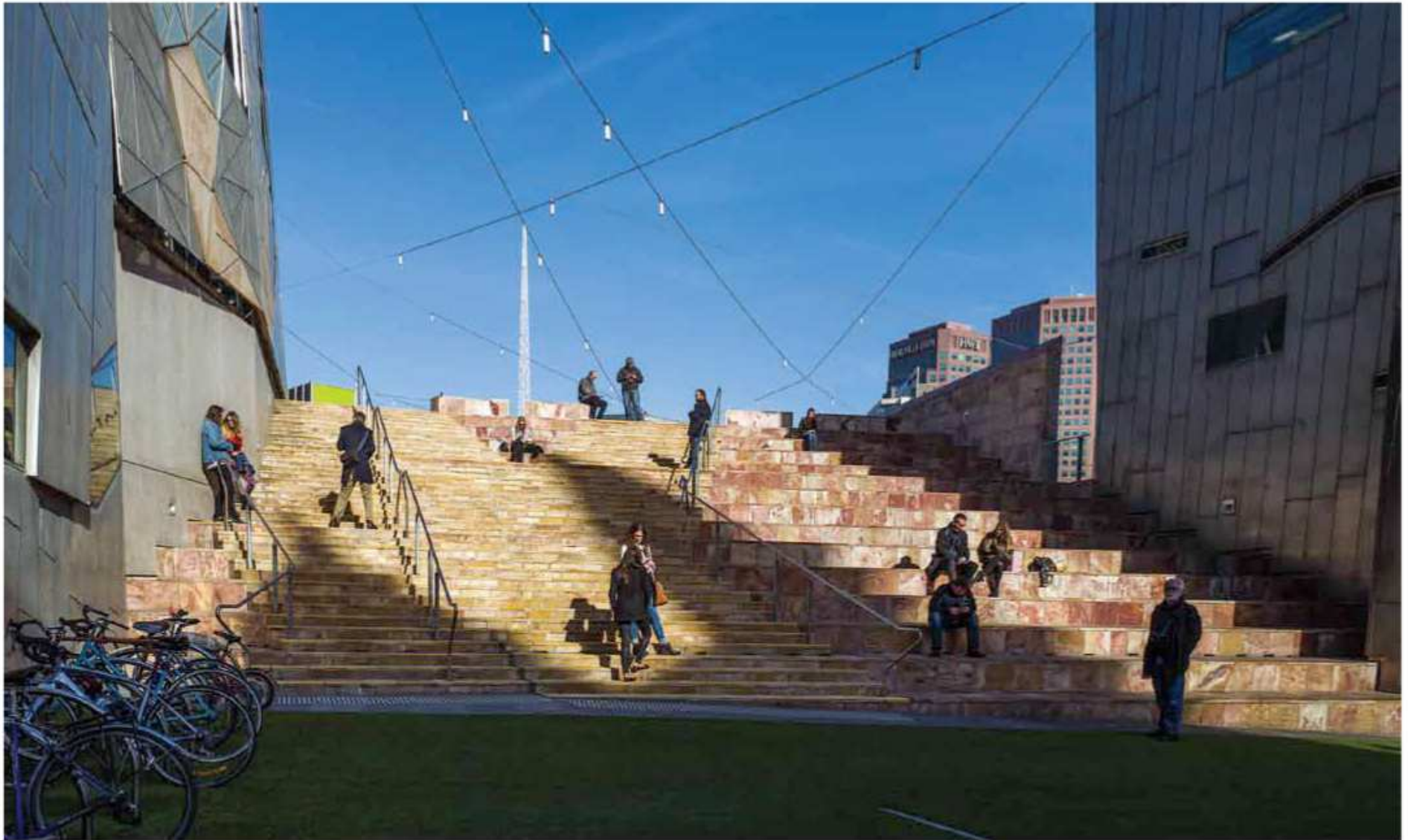
One unavoidable element in urban environments is security guards, who are sometimes over-zealous. If you are on public land, you are well within your rights to carry on shooting. So, be polite, stand your ground and explain that you are merely shooting for yourself and within the law of where you can point your camera.

Many security guards will only be interested in your intentions, but if you are using a tripod you're more likely to be seen as a commercial photographer. This will create problems if permits are required and you don't have one so it's best to avoid carrying a tripod in potentially sensitive areas.





Graffiti lanes in Melbourne's CBD provide plenty of graphical subjects for photographers' cameras.



Patterns created by shapes and lines carry the viewer's eyes around this busy scene, which was photographed in Melbourne's Federation Square.





Although permits are required by professional photographers who want to take photos around Sydney Harbour for commercial purposes, amateur photographers are not affected. To make your images stand out, try to choose times when you can obtain something different from the standard shots of the Harbour Bridge and Opera House.



Useful links

Making the most of cityscape photography

www.bit.ly/kindervater-cityscapes

Common cityscape mistakes and how to fix them

www.bit.ly/common-cityscape-mistakes

CHAPTER 3

Cameras for landscape photography

No single camera can be claimed as the ‘best’ device for taking landscape photos; just as there’s no definitive subject for the genre. Different types of equipment will suit different shooting situations and the ways in which the resulting shots are used will influence the resolution required.

Keen photographers today can choose from four main types of cameras:

1. **Medium format interchangeable-lens** models with large (43.8 x 32.8 mm to 53.4 x 40.0 mm) sensors and high (50 megapixels or higher) resolution. In most cases, the prices of these cameras and lenses will put them out of the reach of enthusiasts. They are also relatively large, heavy and conspicuous.

2. **Digital SLR** (single-lens reflex) cameras with sensors ranging from approximately 23 x 15 mm (‘APS-C’) to 36 x 24 mm (‘full frame’) also require interchangeable lenses. Entry-level APS-C models are often quite light and compact but full frame, professional models are usually large and heavy. These cameras are characterised by optical viewfinders, which have some advantages but can’t be used while shooting video.

3. **Mirrorless** interchangeable-lens cameras dispense with the reflex mirror systems of DSLRs so they are generally more compact than similarly-featured DSLRs. Sensor sizes in this category range from 17.3 x 13.0 mm (M4/3) to 36 x 24 mm. Most models include electronic viewfinders (EVFs), which display the scene as it will be recorded.

Resolutions typically range from 10-20 megapixels for the M4/3 models to 12.2 to 42.4 megapixels for Sony’s ‘full frame’ α-Series cameras. Models with low megapixel counts tend to be designed for video and low-light shooting but all should provide large enough files to make A3+ sized prints.

4. **Fixed-lens digicams** usually have smaller sensors, typically ranging from 6.17 x 4.55 mm through to 12.8 x 9.6 mm. Models in this category often come with very long zoom lenses, with 20x and 25x zooms being relatively common and a few models offering 60x optical zoom. The so-called ‘super-zoom’ models tend to have smaller sensors. Cameras in this category are available with larger (APS-C or full frame sized) sensors but they usually have single focal length (prime) lenses or very short zooms.



Murphy's Haystacks on the Eyre Peninsula in South Australia can be reached by an easy walk from the car park so there were no problems with using a 'full frame' DSLR to take this shot.



Choosing a camera

While virtually any camera (including a smartphone) can be used to photograph landscapes and cityscapes, different cameras will be better for some styles of photography. If you enjoy hiking to and within wilderness areas, a light camera and versatile lens will be the easiest to carry.

Look for a ‘weatherproof’ model that can withstand the occasional shower of rain or wind-blown dust. Take care if you swap lenses to prevent dust and moisture from entering the camera body, where they could adversely affect the electronics.

Such equipment will also be ideal for travellers, although some may find using their smartphones more convenient for posting to a blog. When better image quality is required, a fixed-lens digicam will eliminate the need for changing lenses, although small sensors won’t provide the quality and versatility that a larger sensor guarantees.

Simpler equipment usually works best for photographers on the move as it allows them to concentrate on taking pictures, rather than worrying whether their equipment is safe. High-performance equipment that is portable will work best for photographers who shoot cityscapes.

Left: Reaching this viewpoint over Lake Pedder in Tasmania required a short hike in wet and windy weather so the compact size, light weight and weather-resistance of a Micro Four Thirds camera and 12mm wide-angle lens were valuable.

A single camera and distortion-free wide angle prime lens will be ideal for most shots. Make sure the camera has good low light capabilities because tripods can be an impediment in crowded urban areas – and many places forbid them.

Heavier, more complex equipment works best for photographers who work close to their vehicles and have plenty of working space and time to set it up before shooting. When you have a lot to carry – a couple of camera bodies, several lenses and other peripherals – it will slow you down and tire you if you try carrying it on your back. Unless you are fit, you’re unlikely to get to locations that can only be reached on foot.

High resolution is important only if you make large prints of your photos. If you only share your shots via the internet (emailing or posting them on social media sites), an 8-megapixel camera will be enough in most cases. The screens on most smartphones have resolutions between 2160 x 1080 and 1280 x 720 pixels (roughly one to two megapixels). If you view your photos on a TV set, 3840 x 2160 pixels (8.3 megapixels) is the upper limit for 4K TVs. In these viewing conditions, few people would be able see any differences between JPEG images recorded with a 20+ megapixel camera and shots from a smartphone.

Photographers who print their images will benefit from higher resolution because it gives them more data to work with. But, even here, there is a limit. The largest output size for consumer printers is A3+ (483 x 329 mm), which can be filled at optimal quality with a 20-24 megapixel image.



Weatherproof cameras and lenses are required when you take photos in snowy conditions as well as when there's a risk of showers or wind-blown dust.



A lightweight M4/3 camera with a fast 12-40mm lens used at 38mm made it easy to grab this shot on London's Thames Embankment while in the midst of a crowd of people.



Bag it!

Aside from camera and lens(es), the most important piece of equipment for a landscape photographer is a camera bag. There are plenty of types and sizes to choose from. Your choice should balance portability against convenience.

Backpacks are popular with photographers who hike to their locations because they can accommodate a lot of equipment while being comfortable to carry and leaving your hands free. Once again, weatherproof models are recommended for anyone hiking some distance from a vehicle.

Female photographers may find sling-type and 'messenger' style bags with a single shoulder strap more comfortable. Better models include some way to secure the bag so it doesn't swing round and get in the way when the photographer bends over.

Cases are handy for travellers with a lot of gear and photographers who work close to a vehicle. When you lift the lid, the equipment is laid out neatly and readily accessible. Most cases are also waterproof, which can be important if you're travelling in tropical conditions.

General advice

Try to match your equipment to the situations in which you will be shooting, the style(s) of photography you favour and your physical limitations. Photography should be an enjoyable pastime; you don't want equipment that will undermine your shoot.

Left: The screens on smartphones and widescreen TV sets use a 16:9 aspect ratio with a maximum resolution of around 8 megapixels. You won't require more if you only view your photos on a screen.

Below: Sling-type bags are particularly useful for travellers with mirrorless camera kits and can be more comfortable for female photographers than backpacks.



Useful links

Camera and lens reviews

www.photoreview.com.au/reviews

Cameras for landscapes

<http://bit.ly/Cameras-for-landscapes>

CHAPTER 4

Lenses for landscape photography

By tradition, wide-angle lenses tend to be recommended for landscape photography because they can encompass sweeping panoramas. However other lens types may be preferable in some situations, either because of their creative benefits or to accomplish a specific effect.

To maintain a naturalistic style, avoid ultra-wide and extreme telephoto lenses. When you plan to use a more extreme lens, make sure you understand how it will affect the way you shoot.

Wide angle lenses often have in-built distortion that can be either beneficial or disastrous, depending upon how the lens is used. To minimise distortion, make sure you shoot with the back of the camera parallel to the subject. With very wide-angle lenses, even a slight tilt will cause keyhole distortion in which subjects in the upper part of the frame appear to recede while those in the lower part of the frame are enlarged. (Some cameras include built-in corrections for this phenomenon.)

Fish-eye lenses capitalise on the distortions inherent in ultra-wide angle lenses. Some deliver a 180-degree circular image while with others, the image extends to the corners of the frame, 'stretching' towards the periphery. Because it

is impossible to correct these distortions, fish-eye lenses should only be used when you want that type of effect.

Telephoto lenses compress perspective, making distant objects appear closer together than they are in actuality. Sometimes this effect can be used creatively in landscape photography, particularly if you want to highlight aerial perspective (where more distant objects appear fainter and more blue).

Prime vs zoom lenses

Some photographers agonise over the choice between prime (single focal length) and zoom (multiple focal lengths) lenses. Unfortunately, there's no definitive answer. Both types have advantages and limitations. It's up to the photographer to decide which features are crucial and where compromises can be made.

Prime lenses are generally faster than zooms (they have wider maximum apertures that let in more light). This makes them easier to use in dim lighting. They are also simpler to design and manufacture, which means they can be smaller and lighter than zoom lenses. Their imaging quality is often better and they are usually more robustly built.



Wide-angle lenses with focal lengths of around 35mm introduce little or no distortion and are ideal for most kinds of landscape photography.



The following table provides examples of situations that match different lens types.

Lens type	Typical focal length for different sensor formats			Best used when...
	35mm	APS-C	M4/3	
Fish-eye	8-15mm	4.5-10mm	7.5-8mm	You want the extreme distortion.
Ultra-wide angle	16-20mm	10-16mm	7-10mm	You want to encompass a wide area in a single shot and can tolerate some rectilinear distortion.
Wide angle	24-40mm	18-26mm	12-16mm	You want wide-angle coverage without noticeable distortion.
Normal	45-60mm	28-45mm	25-28mm	You want to reproduce the perspective seen by the human eye.
Medium telephoto	70-135mm	50-90mm	30-75mm	You want to photograph subjects that are further than you can reach by moving closer (e.g. subjects on the other side of a stream or road).
Long telephoto	135-300mm	100-200mm	80-150mm	For photographing distant scenes or when you want to compress perspective or isolate a particular element.
Extreme telephoto	Over 300mm	Over 200mm	Over 150mm	You want a more extreme perspective compression or if you want to include easily-spooked wildlife in shots.

Left: Fisheye lenses can introduce a characteristic distortion, which is emphasised when the camera is tilted even slightly with respect to the subject.



A 100mm telephoto lens on a DSLR camera with an APS-C sized sensor provides sufficient magnification to make the kayaker part of the shot composition without over-compressing the perspective in the scene.



Weatherproof wide-angle prime lenses are ideal for outdoor photographers who may be faced with inclement weather.

Filters

Filters can be used for two main purposes:

1. To protect the front element of the lens against damage.
(A filter is cheaper to replace.)
2. To achieve a particular effect.

In the past, many photographers fitted a UV or skylight filter to counteract the effects of ultra-violet radiation, which influence colour reproduction. Today's digital sensors are relatively insensitive to UV radiation so it's better to use a purpose-designed 'protection' filter.



Polarising filters can lead to unnaturally dark looking skies in high altitude areas.

Effects filters range from the familiar polarisers and graduated filters to diffusers and filters that create distinctive effects, such as star and soft-focus filters. Landscape photographers often use neutral density filters when they need to reduce the light reaching the sensor, so they can open the lens aperture a stop or two for depth of field control.

Graduated filters are popular with landscape photographers when they need to balance extremes of brightness. These filters are commonly used to prevent over-exposure of skies, allowing darker foregrounds to be recorded more naturally. Fog filters are graduates with diffusers at the top to create an impression of mist or fog.

Coloured graduates are also available, but many produce unnatural-looking results. They may be fine for abstract and impressionistic shots but don't suit representational landscapes and can require careful alignment when used with vertical compositions.

Be sparing in your use of effects filters. A circular polariser can make colours appear richer and more vibrant and will reduce reflections on shiny surfaces like water. It will also deepen the blue in skies, allowing white clouds to appear more prominent. But avoid using them in clear conditions at high altitudes, where polarisation can result in unnaturally dark skies.

Take care when handling filters. A dirty or greasy filter will noticeably degrade image quality. Look for filters with dust- and moisture-repelling coatings that make them easy to clean.



Coloured graduates can be useful when you want to emphasise colours in skies. This illustration shows the effect of a three-stop pink graduate on a shot taken near sunset.

| Lenses for landscape photography

Zoom lenses are more versatile, providing a range of focal lengths in a single unit, which is more portable and flexible for shooting different subjects. But they are generally at least a stop slower than an equivalent prime lens. This means you need good stabilisation in your camera and/or lens when they are used in low light levels.

When choosing between them, consider your budget, the need for portability and how often you're willing to change lenses. Also take account of the type and style of photography you do and the way you use your pictures. Purist landscape photographers may settle on a wide-angle prime lens for all their shots but, for most of us, the versatility and convenience of a wide-angle zoom lens will be hard to beat.

Don't feel compelled to buy only the lenses offered by the manufacturer of your camera. Third-party lenses from specialists like Tamron, Sigma and Tokina can be just as good (if not better) and will often save you money or offer designs not available from camera manufacturers.

Stabilisation

Most wide-angle lenses come without stabilisation because the effects of camera shake are seldom visible with wide-angle coverage. Stabilisation may be unnecessary with faster lenses where you can use fast enough shutter speeds to prevent camera shake. However, it's a very useful feature for most telephoto and tele-zoom lenses. For longer lenses it's almost essential – unless you're able to use a tripod.

Most Olympus and Sony cameras have stabilisation built-in via a sensor-shift system, based on the dust-reduction vibrations that keep the sensor clean. Panasonic also provides it in some recent models. Fujifilm is introducing in-body image stabilisation in its latest X Series cameras.

These camera manufacturers design lens stabilisation systems to work with their sensor-shift stabilisers to provide greater stabilisation. Up to five f-stops of shake correction can be achieved.



Useful links

Lenses for landscapes

www.bit.ly/lenses-for-landscapes

CHAPTER 5

Dealing with the environment

The time of day and angle of the sun can radically affect the way subjects are lit, and this will influence the pictures you take. It's usually wise to know where the sun will be with respect to your subject before setting out to take photos.

As a general rule, side lighting is more pleasing to the eye than light shining on the scene from above. When the sun is low to the horizon the shadows appear longer, which can create interesting patterns and textures in the scene. Shadows created by side lighting add to the depth effect within the picture through the contrasts they produce between different sides of subjects.

Landscape photographers prefer to use the 'golden hours', which occur between roughly 30 minutes before and about an hour-and-a-half after sunrise in the morning, and between about an hour-and-a-half before sunset and up to an hour after the sun has gone down. During these times, light from the sun has to pass through a thicker layer of atmosphere, which may include dust and tiny droplets of water.

This attenuates the light, particularly at the shorter end of the visible spectrum (blues and greens). The result is softer light with a warmer colour cast, which most people find attractive for landscapes of all types.

Sunsets are popular with photographers and, as a result, shots can become clichéd. Try to look for different angles and/or include interesting foreground elements so your shots stand out.

Sunrises are usually a different matter because the light is more subtle and fewer people have the strength of mind to get up early to photograph them. When you make the effort, it can be repaid many times over.

Midday blues

You may not be able to be in the location at the times when ideal conditions prevail and may be forced to take photos in the middle of the day. When the sun is directly overhead, shadows are short, the light is harsh and there's little to modulate tonality. Pictures taken around this time often appear somewhat flat – unless they contain strong structural elements to engage the viewer's eyes.

Bright sunlight will often cast deep shadows and the brightness range in the scene may be too wide for the sensor to record. There's an ever-present risk of burned-out highlights and blocked-up shadows where no detail is recorded.



*Above: Early morning mist on the Gordon River in Tasmania shows the attractive characteristics and golden colours of the low-angle light.
Right: Low-angle light shining through gaps in the clouds near sunset creates attractive rays that make an important element in this shot.*





Some cameras include dynamic range adjustments to help you overcome these issues. But if tones aren't recorded, there's no way to put them into an image. Well-balanced exposures are the only solution.

HDR (high dynamic range) modes, which capture and combine multiple shots at different exposure levels, can be helpful in these situations, although the results may appear slightly unnatural-looking. Raw files should record a wider range of brightness levels than JPEGs and will provide more image data to work with.

Open shade can provide softer lighting in the middle of the day. But be aware that the light is 'cooler' in hue and pictures can take on a bluish cast (which is easily corrected with filters or editing software).

Vertical landscapes

Some of the most dramatic landscape shots are taken in valleys and canyons. If you're photographing a deep canyon, the best time will probably be around the middle of the day when the sun is directly overhead and the light reaches all the way in, illuminating both walls.

Left: The lack of tonal modulation is not an issue in this picture, which was taken in the late morning, because the composition is based upon strong structural elements.

Take advantage of reflected light that bounces off bright surfaces, such as water, rocks or sand. The larger the area providing the light for your pictures, the softer that light becomes. Be aware of the way the reflected light can influence the rest of the colours in the scene. If it's attractive, use it; otherwise shoot raw files so you can subdue it post-capture.

In more open valleys it can be better wait for an overcast day or shoot late in the afternoon when the sun illuminates the area you wish to photograph. If possible, consult a map before going to the location to help you decide which parts of the canyon will make the best pictures.

Work with the weather

The weather can be a landscape photographer's best friend – or worst enemy. It pays to know what's likely to happen when you're out on a shoot and think about how you can use those conditions to add impact to your shots.

Consider the impacts of varying weather conditions, which can range from cloudless blue skies and brilliant sunshine to violent thunderstorms, with rain, hail, snow and sleet thrown in at predictable (or unpredictable) intervals. Will a lack of clouds make it difficult to add interest? Can an overcast sky help you to take pictures that might otherwise be impossible? Will you be able to continue shooting if it rains?

Learn to capitalise on the opportunities both good and bad weather – and the transitions between them – can offer.



Left: Sunlight was unable to reach into this deep valley until late in the afternoon when still conditions produced some attractive reflections.

Right: Strong wind, accumulated snow and a brief burst of early morning sunshine combine to add interest to a shot of a much-photographed landscape. Being in the right place at the right time helps you to obtain the best pictures.



| Dealing with the environment

Right: Perfect rainbows are hard to find but you can often encounter partial rainbows in landscapes with other features that are enough to create an interesting composition.

Although sunny days usually cause people to take out their cameras and begin shooting, it can be difficult to create engaging pictures in these conditions because the light may be harsh and cloudless skies often contribute little of interest to viewers.

In contrast, plenty of great pictorial opportunities are provided by rain storms and cloudy skies, which can turn otherwise banal scenes into attractive photographs. Tall cumulonimbus clouds will add drama to a scene. Sunlight struggling through overcast skies can produce shafts of light that add an otherworldly appearance.

Misty scenes can also turn bland landscapes into areas of beauty. Take care when setting exposures for these shots because it can be difficult to maintain the optimal balance between the misty areas and the rest of the scenery.

Shots of rainbows can also be hits with viewers, although perfect rainbows are hard to find. Avoid clichéd shots by looking for different angles. If you see a double-rainbow, try to

record as much of the arch as possible; otherwise aim to capture the area where the colours are at their most intense.

Beware of thunderstorms. Lightning strike, though rare, is an ever-present risk in such conditions. Storm chasers usually work from vehicles to avoid this risk. If you're caught out in a storm, avoid sheltering under trees or tall masts that can conduct the lighting to the ground.



Useful links

Dramatic Weather Photography

www.bit.ly/dramatic-weather-photog

Landscape photography in bad weather

www.bit.ly/landscape-photog-bad-weather



CHAPTER 6

Set your camera for success

Using the correct camera settings is crucial to successful landscape photography so it's important to have a good understanding of key parameters like the P, A, S (Tv in Canon cameras) and M shooting modes, aperture, shutter speed, ISO, white balance and exposure compensation. These parameters enable you to control how much of the scene contains details and whether your images have smooth tonal blending or appear sharp or whether they are broken up by image noise.

If your camera supports raw file capture; learn to use it. Raw images provide latitude for post-capture editing. You will be able to extract details from shadow and highlight areas that would be lost in JPEG shots as well as correct colour casts and tweak the shot with tools like sharpening and noise-reduction adjustments.

Depth of field

For most landscape photographs the objective is to have as much of the scene as possible looking sharp. This is achieved with a wide depth of field (the range of distance within the subject in which the image is acceptably sharp).

Depth of field is controlled by the aperture setting so most photographers will use either aperture-priority (the 'A' or 'Av' mode)

or full manual (M) exposure modes. The greatest depth of apparent sharpness is achieved when the lens is 'stopped down' to a small aperture (f/8 or smaller). Note: the smallest aperture will be different for different camera types and lenses. Another factor that increases depth of field is greater distance from the camera to the subject.

In most landscape photos, the transition zone between parts of the scene that are 'acceptably sharp' and those that are slightly unsharp is so gradual it can be difficult to find a point where one merges into the other. However, sometimes the photographer will deliberately select a wide aperture and focus upon something in the foreground, which becomes the main subject in the scene. Background details will be slightly de-focused to achieve this result.

Right: An example of a situation where a shallow depth of field is used to define the subject. This shot was taken in the New Zealand rainforest using a 'full-frame' camera with a 45mm lens and an aperture of f/4.5, which required a 1/80 second exposure at ISO 200.





It's worth noting that the resolution of most interchangeable lenses starts to decrease somewhere between f/8 and f/11 due to the effects of diffraction. Apertures smaller than about f/13 are normally best avoided unless the lens is a very superior performer. For small-sensor digicams, the smallest aperture is normally f/8, so an aperture of between f/4 and f/5.6 should deliver good depth of field.

Lens choices

Many photographers associate wide-angle lenses with a wide depth of field and telephoto lenses with a narrow one, although if you photograph a subject so that it occupies the same area in the scene using wide angle and telephoto lenses, the total depth of field in both shots is normally the same.

Lens aperture settings can have other effects. Smaller apertures allow less light to enter the camera so you'll need longer exposure times and/or higher ISO settings. Use your camera's histogram to check exposure settings and aim to have the graph evenly balanced or biased slightly towards the right.

Exposure compensation adjustment can be handy when fine-tuning exposures. The exposure bracketing function, which records between three and seven shots above and below the selected exposure setting, will provide a range of exposures to choose from.

Left: Exposure compensation was cranked up to +7 to retain the brightness inherent in this misty scene.

You can compensate for underexposure (histogram biased to the left) by selecting a slower shutter speed or, if camera shake is likely, increasing the ISO setting. Most interchangeable-lens cameras can tolerate ISO settings of around 800 without producing image noise; small-sensor digicam users should avoid ISO settings above 400.

Focusing

Focusing will help to direct the viewer's gaze to the key element in your shot. Many cameras include manual AF point selection modes that let the photographer select precisely where the lens will focus. In some cameras, a joystick on the back of the camera lets you move the selected point while viewing the scene through the camera's EVF. This can be convenient for landscape photographers.

When you want to ensure as much of the scene is in focus as possible, combine a relatively small lens aperture setting with the hyperfocal distance setting for the point of focus. You need not calculate this; simply stop down and focus on something between the foreground and the background where most of the scene appears sharp.

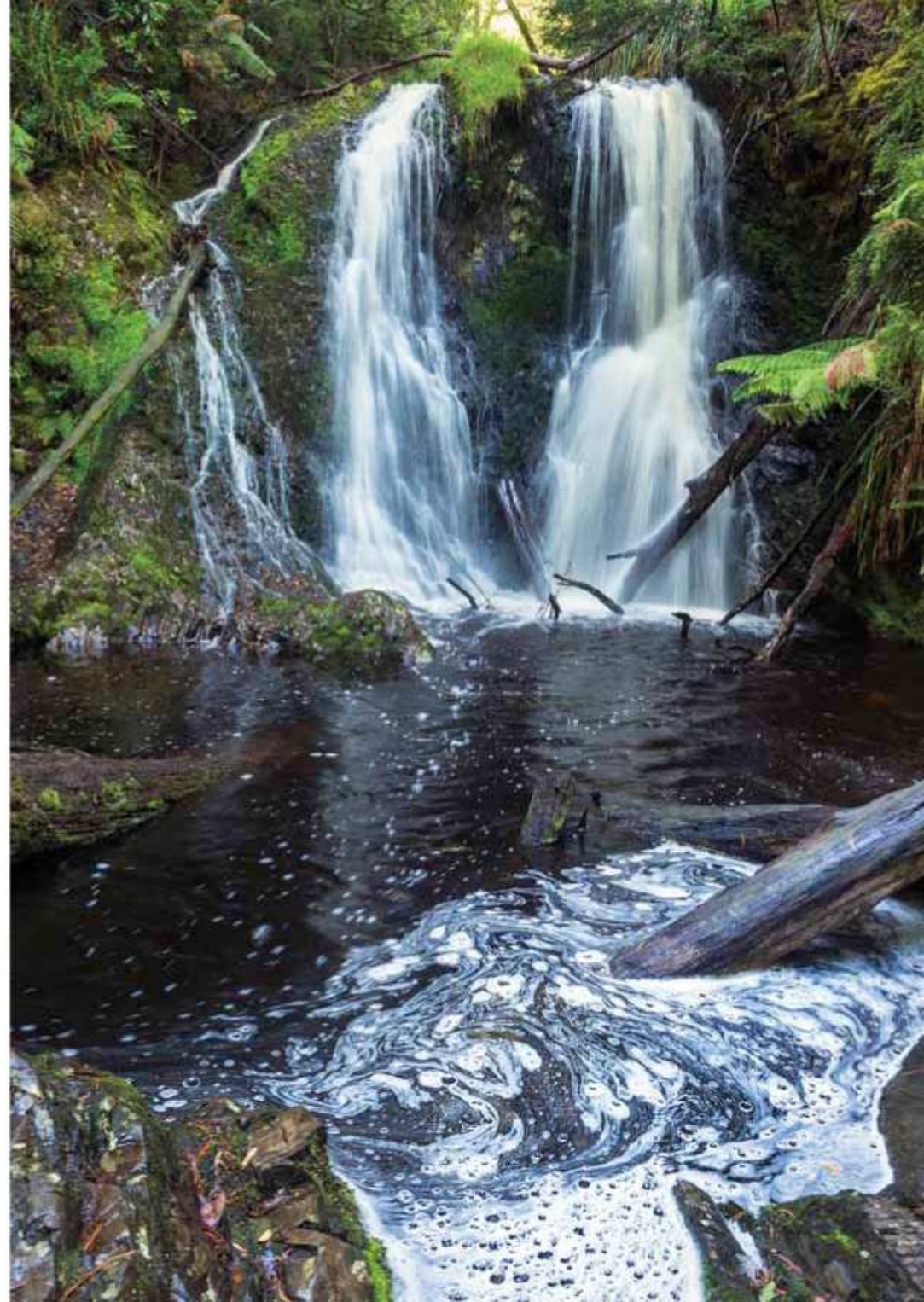
Other settings

Keep ISO sensitivity as low as possible to minimise image noise. But be prepared to make adjustments when conditions require them, such as if you're hand-holding the camera in low light levels.



Left: Focusing on the headland near the centre of the picture and stopping the lens down to f/13 enabled the picture to be acceptably sharp from the foreground through to the background.

Right: Effective stabilisation in both the wide-angle lens and the camera body made it possible to use a shutter speed of 1/6 second with an aperture of f/6.3 at ISO 200 to minimise image noise. The slow shutter speed blurred the flowing water, but the rest of the scene is sharp.





Compare the original image at the top with the same image converted into black and white. Which do you find more evocative?

Unless your camera is tripod mounted (and stabilisation is unnecessary) switch on image stabilisation systems provided by your camera or lenses. In most cases, these built-in mechanisms can offer at least three stops of shutter speed advantage.

In-camera adjustments for dynamic range and HDR modes are normally only applied to JPEG files. The same is true for picture style adjustments and special effects filters. Similar adjustments can be applied to raw files with image-editing software and you'll have the advantage of an unaltered file should you dislike the effect you've applied.

Although they also are only applied to JPEG shots, monochrome shooting modes can be useful to landscape photographers, partly because they force you to concentrate on shapes and tones. But remember, all in-camera monochrome modes discard colour information so you should shoot in RAW+JPEG format to ensure there's a colour back-up available if you need it.

Some landscapes look better as monochrome images. Removing the distraction of colours can make structural elements more noticeable and provide a clearer view of how they are positioned. The end results may also be more evocative.

Flash should be avoided most of the time when shooting landscapes because it's too harsh and often looks unnatural. However, you may be able to brighten up deeply shadowed areas in close subjects. Remember, few built-in flash units can illuminate subjects more than 10 metres from the camera, even with high ISO settings.

Many cameras include dedicated panoramic capture modes, which fire off a sequence of shots as you pan the camera across the scene. The shots are 'stitched' together and saved as a JPEG image in the camera. Most cameras provide two settings: standard and wide, the latter offering sweeps of 180 degrees or more.

Panorama modes work best with static subjects. Even when capture rates are rapid, objects like breaking surf and wind-tossed branches will be blurred or displaced and appear as irregularities in the resulting shots.



Even though the camera was fitted with a wide-angle lens, three shots were required to cover this interesting scene. They were captured with a 30% overlap between shots and stitched together in Photoshop.



Useful links

Settings for landscapes

www.bit.ly/settings-for-landscapes

Recommended settings

www.bit.ly/landscape-settings



Flowing lines lead the viewer's eyes to the main subject of the photo, the tower at the top of the hill.

CHAPTER 7

Shot composition

Skilful photography involves making the best selection of what to include – and what to leave out. Concentrate on the main subject and fill the frame with it as much as possible, without making it appear out of context. Avoid including elements that draw attention away from your subject.

Leading lines

Human eyes tend to follow lines as they move around a picture. The lines needn't be actual lines; they can arise from a line of trees, the edges of a road, path or track, fences or streams or other similar elements.

Different line directions and patterns evoke different emotional reactions. Horizontal lines impart the qualities of stability, balance and rest. Vertical lines convey power, dominance and hope, while diagonal lines suggest action; violent action if the lines intersect.

Sloping lines convey action in a particular direction as well as energy and dynamism. Parallel lines suggest sympathy and understanding, regardless of their direction.

Lines radiating from a central point imply joy and exuberance, while converging lines impart depth and dimension. Broken lines

suggest disruption and provide ways to divert viewers' attention to other parts of the scene.

S-shaped curves add dynamism to images through a sense of constant movement and rhythm. C-shaped curves can be used to redirect the viewer's eyes into a picture or to a selected area. Both types of curves can add grace to compositions.

Framing lines add depth while confining the subject within the frame itself. A popular example is use of overhanging branch that covers much of the top third of the picture. Alternatives include rock formations or built structures like bridges, archways, windows or other types of opening in a wall.

Suggestive shapes

Make use of shapes with similar hues, tones or textures within the frame. Repeating geometric shapes are reassuring to the eye, while irregular shapes add complexity and dynamism to the composition.

You can create balanced compositions by positioning compositional elements within an overall geometric shape. Triangles formed by the borders of contrasting areas are

Left: Overhanging branches and rocks in the foreground direct the viewer's attention into the scene.

particularly effective, with isosceles and equilateral triangles producing a feeling of symmetry and right-angled and obtuse-angled triangles giving a more informal composition.

Complexity can add interest to some shots, provided there is a discernible structure underpinning the composition, based on simple shapes and/or lines. Scenes containing lots of details may not be eye-catching at first. But, when the compositional elements are arranged effectively they can cause viewers to linger and savour the picture.

Don't go overboard; unless you wish to create feelings of unease and discomfort in viewers, avoid overly-complex compositions. Pictures based on a few shapes and lines are easier on viewers' eyes.

Building balance

Above all, strive for a balanced, harmonious composition. Think carefully about the balance between sky and land in your shots – and decide which element you'll favour. Use foregrounds to create a sense of depth in your picture.

Position the horizon high when there's nothing of interest in the sky. Place the horizon low when the sky is filled with dramatic clouds and the lighting creates interesting patterns and textures. While having the horizon run through the centre of the picture is best avoided, it can be effective when you wish to create a sense of calmness and regularity. Straight horizons add tranquility and regularity, while tilted horizons create a feeling of unbalance.





Decide whether the shot requires symmetry or asymmetry. Shots in which compositional elements are evenly spaced and symmetrically balanced will elicit feelings of stability and regularity. Asymmetrical elements suggest action, disharmony, dominance and direction – and the greater the difference between the elements, the stronger these feelings become.

Formal compositions, in which the main subject is centrally placed, can be very effective with certain subjects. When the subject covers more than half of the frame, its dominance becomes unquestionable and anything else in the picture simply contributes to the colour, texture or tone of the composition.

Cut the clichés

The proliferation of images in our lives means shots that were formerly novel and interesting quickly become clichéd. The ‘rule of thirds’ composition strategy, which divides the frame into a three-by-three grid onto which key compositional elements are positioned is a case in point.

Although it can create images that appear serene and stable, many rule of thirds compositions end up being boring. Even when most lines of attention in the shot fit the rule of thirds plan, positioning some key elements slightly off-centre may result in a more interesting composition.

Another common cliché is shots of moving water taken with long exposure times so the water ends up looking milky.

Left: The strong diagonal in this composition based upon repetitive shapes splits the frame into two distinct triangles that impart symmetry.



Above: An exposure of six seconds at ISO 160 plus a lens aperture of $f/16$ created this classic 'misty' effect with flowing water. Naturally, the camera was tripod mounted and the shot was triggered with a 2-second delay using the camera's self-timer.

Right: Placing the main subject (the silhouetted tree) in the centre of the composition leaves viewers with no doubt about its importance.



| Shot composition

The effect is easy to achieve if you have a tripod and almost any stretch of running water has the potential to produce satisfactory images. The challenge is to find a new and different approach to rendering movement.

Interesting effects can be obtained by moving the camera while the shutter is open or zooming during long exposures. Both require low light levels and exposures of one second or more. The camera needs to be tripod-mounted for the latter situation. Unfortunately, these shots are often taken to use the effects for the effect's sake rather than to add interest to a scene.



Useful links

Landscape composition tips

www.bit.ly/lscap-composition

12 tips for advanced landscape photography

www.bit.ly/12-tips-landscapes

Shooting panoramas

What do you do when the scene is too wide to be recorded by the lens on your camera? The best solution is to shoot a panorama. In-camera panoramic capture modes were covered in the previous chapter but you can obtain better results if you control the process from start to finish.

Best results come with modest wide-angle or standard with focal lengths equivalent to between 35mm and 50mm in 35mm format. Avoid ultra-wide angle lenses because it can be difficult to correct distortions.

Set the camera to manual exposure, meter on the centre of the scene. Set the white balance to match the ambient conditions (daylight or cloud). Use exactly the same camera settings for all shots; don't rely on auto exposure controls because exposures can vary between shots.

Record a sequence of images as you 'pan' the camera across the scene, overlapping consecutive frames by at least 25% to minimise potential stitching errors. Shoot JPEGs as most software can't stitch together other file types. Shooting is easiest if you have the camera on a tripod; if you don't, stand in one place and rotate your body at the waist, taking the shots in rapid succession.

Most image editors can combine these images into a single



A four-shot horizontal panorama stitched together in Photoshop.

panoramic picture. Sophisticated stitching programs can correct perspective while combining shots so the final result has no obvious distortions. Some can also fill in gaps where adjacent frames didn't completely overlap.

You can orientate the camera horizontally or vertically for panorama capture. The same rules apply in each case, although you may need more shots to cover a scene with the camera vertically orientated.

CHAPTER 8

In-camera shooting aids

Camera manufacturers include plenty of functions to help photographers take better pictures. They range from aids to help you frame and expose shots correctly to settings that replicate pictorial styles and special effects filters.

Even basic cameras include 'Scene' pre-sets with settings for landscape photography – often with special modes for shooting landscapes at night. These pre-sets, as well as any adjustments to the way the image is recorded, will only be applied to JPEG images.

The list is too long to cover in a single chapter so we'll concentrate on the most common and most useful settings. Check out your camera's user manual to find the full array the camera offers.

Framing guides

Superimposed grid lines are among the most useful shooting aids for landscape photographers. They don't show up in the picture but they are overlaid on the scene displayed in the viewfinder or on the LCD monitor to assist shot composition.

Most cameras offer a 3 x 3 grid, which divides the frame into nine sections. The horizontal and vertical lines of the grid

make it much easier to get horizons straight when photographing landscapes, seascapes and cityscapes. They can also be useful when photographing moving subjects because it's easier to detect subject motion against a reference point that doesn't move.

Some cameras come with virtual horizon displays, most of which provide two scales: one running left-to-right on the bottom of the screen and the other vertically along the right hand side of the screen. If the camera isn't level, the scale will indicate the direction which the camera is tilted on either axis.

In a few cameras, the lines are replaced with a compass-like overlay on the screen that shows a green line when the camera's position is aligned with the horizon. It achieves the same objective but can partially obscure the image so is not as simple to use.

Scene pre-sets

Scene pre-sets come in handy when you're not sure what aperture, shutter speed and/or ISO settings to use and you need to work quickly. However, using them means you can't adjust most camera settings so it helps to know how they affect the camera's key controls. The most useful ones for landscape photographers include:



As well as helping to keep horizons level, framing guides can assist shot composition. In this picture, the horizon has been aligned with the top third of the grid, while the gap between the mountains has been placed at the point where the lowest part of the mountains intersects with the horizon. The result is a balanced composition that creates a sense of serenity.



Landscape mode is usually indicated by a mountain icon. It focuses the lens on infinity and stops the lens aperture down to increase depth of field. Shutter speeds become slower to compensate. A wide angle of view will be selected in cameras with integrated zoom lenses.

Night Landscape is similar but also switches off the camera's flash. A slow shutter speed is selected and the daylight white balance setting is applied. Use of a tripod is recommended as exposures may run to several seconds.

The **Sunset** mode is designed to enhance the warm tone in sunset shots. The camera will switch off the flash, set the focus to infinity and select a daylight colour balance, which will probably be biased towards red.

The **Handheld Twilight** mode records a sequence of frames in rapid succession using very short exposures to minimise blurring. These exposures are combined in the camera using noise-reduction processing to minimise noise. The flash is normally disabled.

Picture styles

Many cameras include a picture style/control setting that modifies the normal JPEG processing. 'Natural', 'Neutral', 'Flat' and 'Faithful' modes deliver images with varying degrees of subdued

saturation. Enhanced saturation is achieved via a 'vivid' setting. Monochrome modes are often included.

Fujifilm draws on its film legacy with 'Film Simulation' modes that replicate the 'looks' of popular films like Provia, Velvia and Astia and Classic Chrome (replicating old slide film stocks). They include a couple of ProNeg modes that simulate colour negative film and several monochrome modes.

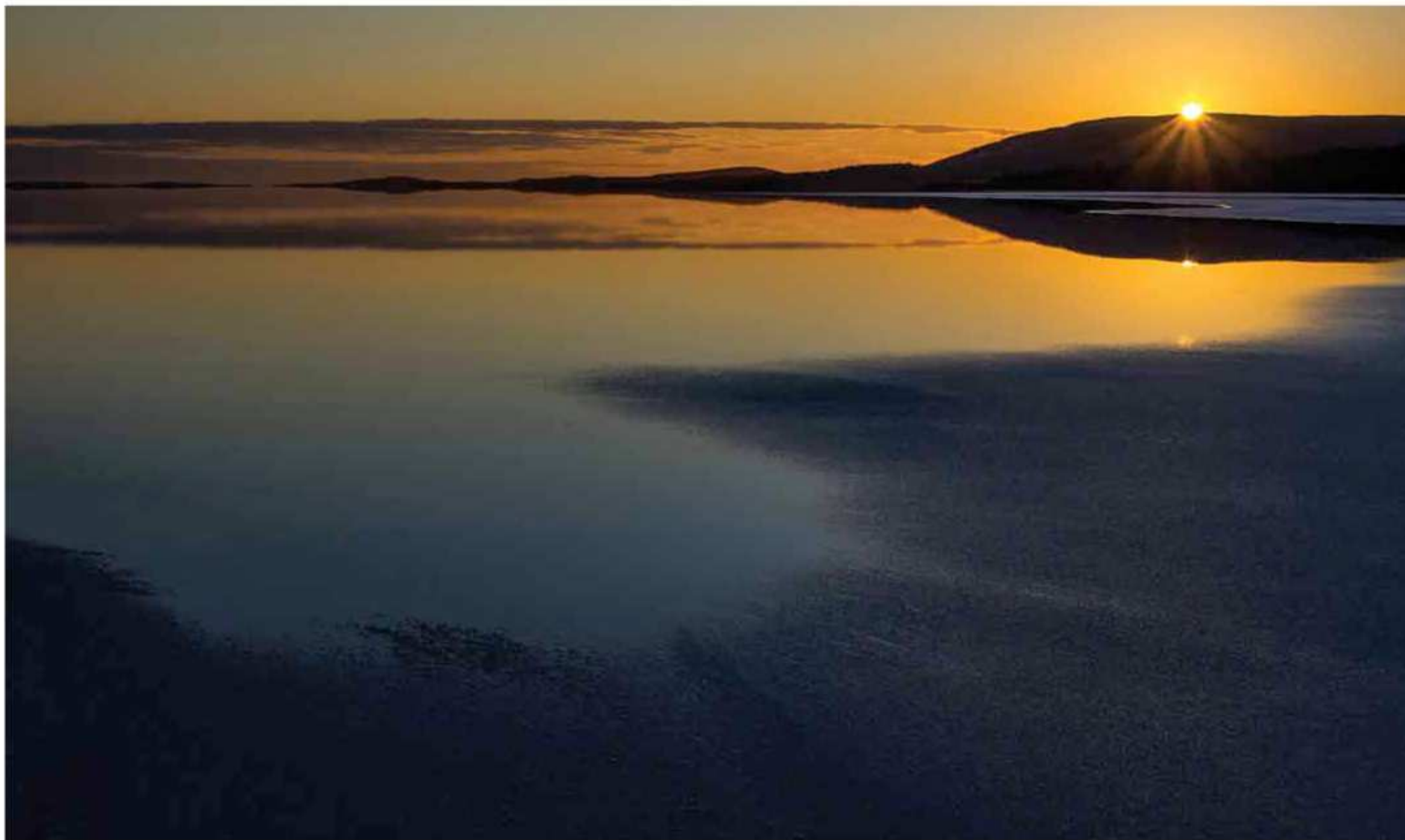
Most of these effects are quite subtle, which makes them useful for landscape photographers. But they are only applied to JPEGs so if you're concerned that a setting might not work, set your camera for RAW+JPEG capture.

Special effects

While many recent cameras include a basic set of effects, such as 'toy camera', 'miniature', 'fish-eye' and 'soft focus', Olympus provides the widest range available via Art Filter modes, which provide roughly 78 different combinations. In addition, Art Filter bracketing can generate multiple Art Filter images within a single shot.

The Art Filters can be applied to ORF.RAW files when they are converted into JPEGs in the camera and when they are processed with Olympus Viewer software. As well as being the most versatile and comprehensive effects system, a major advantage of the Olympus Art Filters is that you can preview the effects in the camera's EVF or on the monitor screen.

Left: The Landscape preset selects a small lens aperture, in this case f/8 coupled with a low ISO setting and a wide angle of view.



While these effects can be fun to use, they don't all work with some images and they can easily become clichéd. Used sparingly – and only when they contribute something to the photo – they can be worthwhile.

In-camera editing

The playback menus in most cameras include cropping, re-sizing and editing facilities that can be applied to both still pictures and video clips. In most cases, editing is best carried out with desktop software. But if you want to reduce the size of a file to post online, being able to do it in the camera can be handy.

Most cameras let you specify part of an image then crop it and save it as a separate file. This facility can also be used to change the image's aspect ratio if the original parameters were unsuitable. In many cameras, once an image has been cropped or resized, no further editing is permitted.

When re-sizing images, you will normally be limited to downsizing and usually have a few standard sizes to choose from. Upsizing will reduce image quality and is seldom offered.

Effects filters can be added to JPEG images in many cameras but, again, this is often a once-off process.

Cameras that support raw file capture usually allow you to convert raw files into JPEGs, with some providing adjustments to parameters like exposure levels, dynamic range, white balance and effects filters.



Vivid picture styles can be useful when you want a subtle emphasis for autumn colours.



Examples of some of the Olympus Art Filters. From left below the unedited original image: Pop Art, Cross Process, Dramatic Tone, Key Line and Vintage.

Why shoot raw files?

Raw files receive no additional processing in the camera. And they generally aren't compressed – or, when compression is applied it is 'lossless' so the image data is recoverable. Consequently, they provide photographers with the maximum amount of image data and scope to make any adjustments without compromising image quality.

Serious photographers value these attributes, even though additional processing is needed to convert the raw file into an editable format. Most will shoot raw files, often with an accompanying small, low-resolution JPEG as a reference image.



Useful links

In-camera aids for low light

www.bit.ly/phr-in-camera-low-light

Shooting Raw files

www.bit.ly/phr-shoot-raw



In-camera cropping can be useful when you want to change the aspect ratio of an image, even though most cameras will only cater for 16:9, 3:2, 4:3 and 1:1 crops. The greyed-out areas at the top and bottom of the frame will be cut off to convert the 3:2 image into 16:9 format.

CHAPTER 9

Sharing and showcasing your photos

Most photographers enjoy sharing their best pictures with other people, regardless of which ways they use. Smartphone shooters generally opt for social media like Facebook, Instagram, Twitter, Tumblr, SnapChat and Pinterest, which are easy to access via mobile devices. Some are more suitable for landscape photos than others.

Modern cameras include ways to post images online, although the process is often complex. You are required to link the camera to a mobile device, either through Wi-Fi or low-energy Bluetooth. That device forms the conduit to carry the image online.

Many people also share photos via email. If you favour that option you may need to re-size large images to reduce the time taken to send them. We recommend re-sizing each image to a maximum width of 3840 pixels at 72 pixels per inch (ppi) since that is the upper limit for most current monitors and smartphone screens. Keep the total size of each email well below 10MB per email.

Social networks

Once your images are uploaded, they are stored on the hosting site's server and become available on the internet. Most sites let

you specify who is permitted to look at your images and some provide tools that let you create albums, galleries and photoblogs (containing text and images) or slideshows.

These sites usually restrict the maximum size of images for uploading and the amount of space you can have for free on their server. Free services (which are normally supported by paid advertisements) usually offer relatively modest size limits per image when compared to paid services.

Different sites have different requirements and they can change at short notice. Check the requirements for the site you select before uploading images. Note: most sites will re-size larger images as they are uploaded, although your phone may also apply this re-processing.

Factors to consider when uploading images for sharing include the size, aspect ratio and resolution of the device your images are likely to be viewed on. It's safe to assume a maximum screen size of 3840 x 2160 pixels (8.3 megapixels) will be a safe bet for the next few years since most phone screens were between 2160 x 1080 and 1280 x 720 pixels when this book was published.

Some sites limit the number of images you can upload at a time. For Twitter, the limit is four images per tweet. Instagram used



Facebook, one of the most popular image sharing websites, will resize images as they are uploaded.

to accept only square images but you can now upload rectangular images in landscape or portrait orientation. A limit of 1090 pixels wide and 1920 pixels in height applies. Pinterest restricts images to a 2:3 aspect ratio up to 800 x 1200 pixels in size.

Printed photos

Landscape images can make great prints for framing and displaying in your home and office. If you have a camera with 16-megapixel or higher resolution you can easily make prints at A3 size with an inkjet photo printer.

The best results will come from printers with at least four coloured inks plus one or two black and/or grey inks. Suitable models can be purchased for between \$150 and over \$1000, depending on the output size and the number of inks used. Some low-priced models include scanners and copiers and most provide wireless options.

Many digital cameras allow users to tag selected images for automatic printing using the DPOF (Digital Print Order Format) setting in the camera menu or by simply pressing the Share button on the camera. Users can usually determine the number of copies they require and specify the paper size and image orientation.

Wireless support enables selected images to be transmitted directly to the printer from the camera. The main problem with direct printing systems is the lack of control it provides over

critical image parameters like brightness, contrast, colour balance and dynamic range. However, they are convenient for point-and-shoot photographers who aren't interested in editing their pictures.

What to look for

Factors to consider when planning to print your photos include what paper surfaces you find attractive. Some people prefer glossy prints while others prefer matte surfaces and each type works best with a particular kind of ink.

Glossy papers provide the most vibrant colours and deepest blacks with dye inks, which are absorbed into the paper's surface, making them quite robust to handle. Pigment inks work best on matte papers but can produce bronzing (colour changes) and gloss differential (surface irregularities) on the surfaces of glossy papers.

Because pigment inks lie on the surface of the paper, prints aren't as robust as prints made with dye inks. Nor are they quite as vibrant, although they're generally more durable. Cheap inks are prone to fading, which often occurs at different rates with different colours so you'll see a shift in the colour balance of your pictures.

Right: Many free image sharing sites like Pinterest are liberally peppered with advertising.



Dye ink printers that can accept papers up to A3+ size are affordably priced and deliver attractive, long-lasting prints.
(Image source: Epson.)

Photobooks

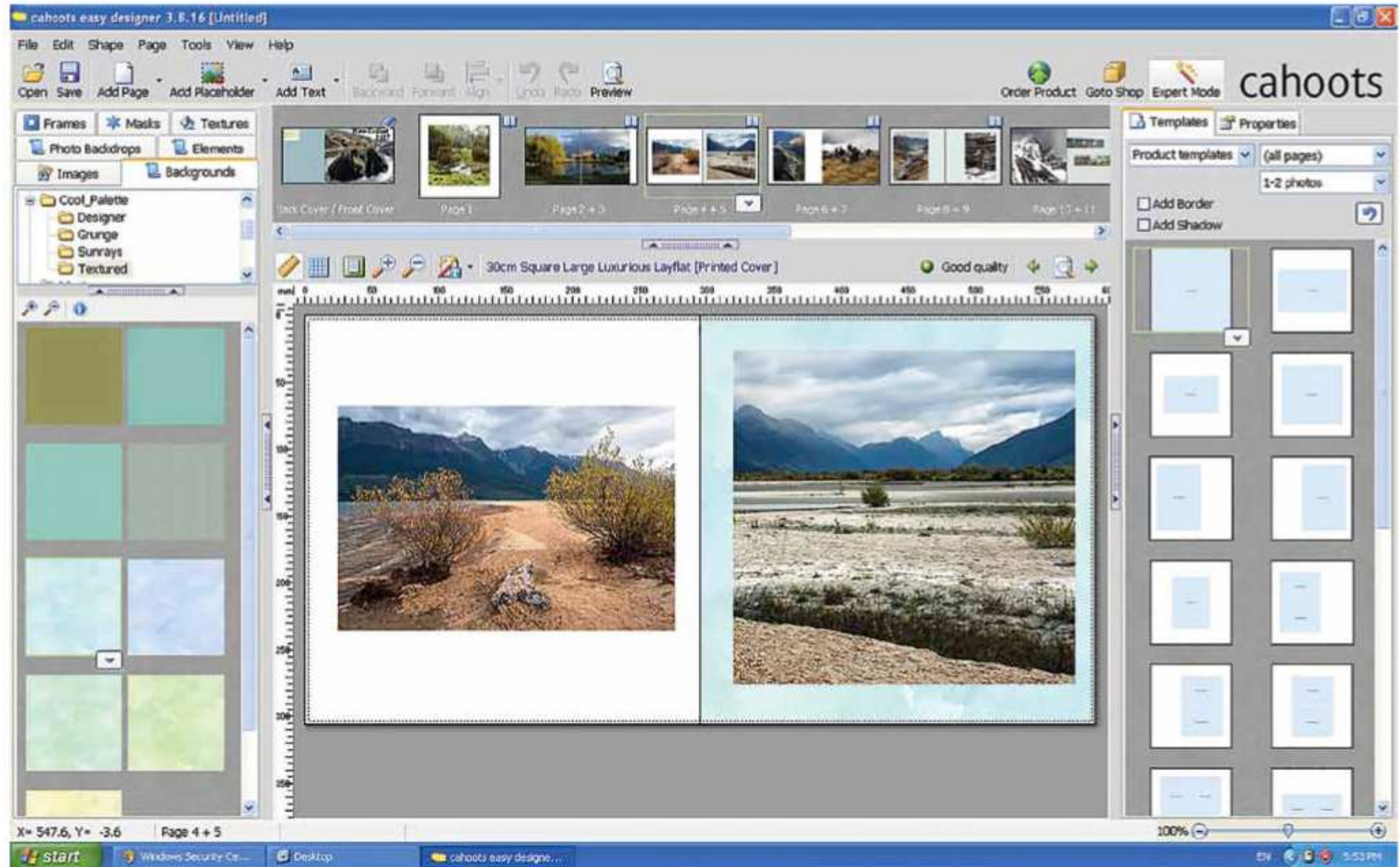
The best way to preserve your photos is to create a photobook containing a collection of your best shots. Even if your hard drives crash, a book will preserve your precious memories.

There are plenty of companies that can produce books of your pictures and they're easy to find with a Google search on "photobook services Australia". Different providers have different offerings and there can be wide variations in the sizes available, paper types, ways to print, bind and cover your book as well as the prices each company sets.

Prices for services are usually determined by the size and thickness of the book, the type of paper used, the quality of the printing and how the book is bound and finished. Expect to pay more for larger, thicker books, which require heavier paper and bindings.

Check out the different ways the service provides for importing photos into templates. Most will let you import photos from your computer as well as external storage drives, cloud services and Dropbox. Some can upload images from hosting sites such as Flickr or social networks such as Facebook or Instagram.

Take your time when choosing a service and look for value for money, rather than choosing the cheapest option available. Photobooks can become valuable heirlooms so it's worth doing a good job right from the start and choosing attractive templates.



The best templates will allow you to insert images of different sizes and orientations and include attractive background colours and textures.



Cover options include photo-covers, see-through cutout covers and various fabric finishes. You may also be able to obtain dust jackets with your own photo(s) printed on them. Some services restrict books to around 20 pages while others can print books with more than 100 pages. Customers can choose between soft and hard covers. Soft covers are generally cheaper but more vulnerable to wear and tear and the cover may curl up over time.

You can often save money on the per-copy cost by ordering multiple copies when you place the initial order. Many services will also let you reprint a book at a later date and some will even allow you to make an updated version with changes to the cover and/or contents. Delivery costs should be taken into account when planning the project.



Useful links

Image hosting options

www.bit.ly/free-image-host

Photo Review output tips

www.photoreview.com.au/tips/outputting

Photobooks are an excellent way to preserve collections of photos and most can become valuable family heirlooms.

