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Landscape PHOTOGRAPHY COMPLETE MANUAL

Landscape photography shows us places within the world that can capture the beauty and grandeur of unspoiled nature, as well as the more familiar aspects of the man-made world and its presence within the landscape too. From coastal scenes to cityscapes and the rural expanses beyond the city limits, there is an unending array of subjects both great and small waiting to be captured.

The aim of this manual is to help you, the budding landscape photographer, into the world of photography; to explore cameras, lenses and accessory options and then to help you get the best out of them. Starting from the basics we'll guide you though the world of landscape photography and hopefully help you to enjoy using your camera and take better photographs with it.

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"...this bookazine is to help you, the budding landscape photographer, into the world of photography; to explore cameras, lenses and accessory options and then to help you get the best out of them..."







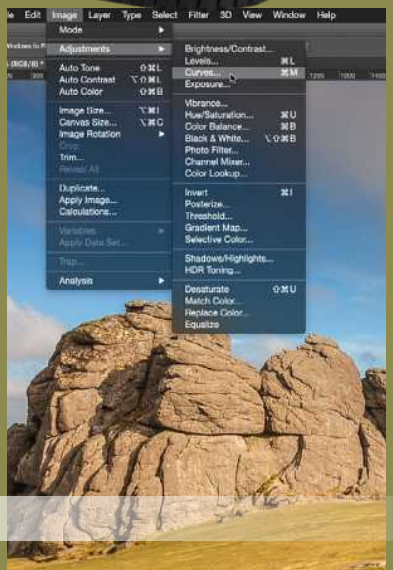





CANON FISHEYE ZOOM LENS EF 8-15mm 1:4 USM
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Threshold...
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Selective Color...
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HDR Toning...
Desaturate
Match Color...
Replace Color...
Equalize





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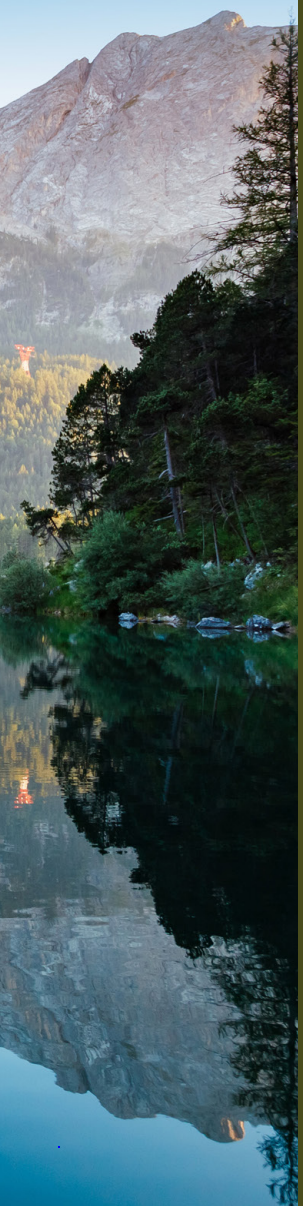









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landscape photography projects

Landscape photography is like playing a musical instrument. It takes an afternoon to learn the rudiments but it can take the rest of your life to really master it. It is a vast and rewarding field, as well as a lifelong hobby.

Landscape art is not restricted to photography. People have been drawing and painting the world around them since prehistoric times. A walk around any art gallery or a quick search on Google will demonstrate that the landscape has always been a major source of inspiration to the world's greatest artists and even a brief study of their work will show that there are as many different approaches to landscape art as there are artists. Studying how different painters have chosen to represent the landscape will also teach you valuable lessons about theme, composition and lighting that will improve your photography.

Photography is a relatively new art by comparison but there are many photographers from the past century whose work is worthy of study. Among landscape photographers, few names are better known than that of Ansel Adams (1902-84). His large format photographs of Yosemite National Park and other American landscapes from the 1920s and 1930s are world famous and his work remains popular to this day. Contemporary master landscape photographers such as Steve Mulligan, George Schaub and the late Peter Jarver are also inspirational.

There comes a point though, when you need to get out there yourself and experience the pleasure of being outdoors and taking great landscapes. There is an old saying in photography that you must shoot the kinds of images that you want to see, not someone else. That is quite a true statement but if a landscape image is well thought out, with care given to adhere to the main creative aspects of composition, framing, lighting and colour, you will find that everyone else will love it as much as you.

Over the coming pages we have a number of different landscape shoots where we impart additional guidance that expands upon the information we presented in the first part of this bookazine. From shooting landscapes at night, to sunrises and sunsets, we cover a number of photographic projects, some conventional, others not quite so conventional; hopefully they will will fire up your imagination and get you inspired. ■

Crystal ball landscapes

A unique way to capture the world

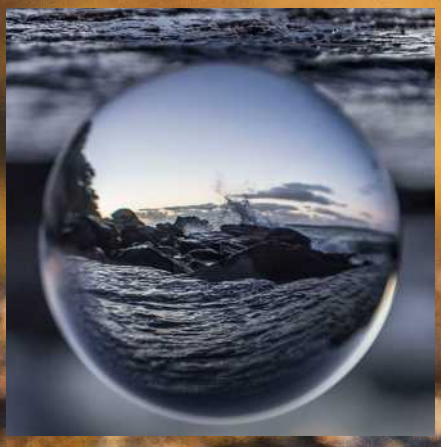
Finding a new way to capture a landscape or any scene in general is always exciting and quite invigorating. It can be helpful in getting you out of a creative rut and sparking new ideas and thoughts on how to see the world in a fresh way. One such way is crystal ball photography. In case you were wondering, it's nothing to do with fortune telling but rather the use of a crystal ball as an additional lens in your shots. How you use it in those shots dictates its effect on the final image. Using it very close to the camera so it fills the frame means it almost acts like a fisheye lens, whilst having it further away, it becomes a small globe containing the landscape it is in. Let's go into a bit more detail.

Of course our first item on the list is the crystal ball itself. Unless you happen to be a certain wizard named Harry with access to Hogwarts School of Witchcraft and Wizardry, you will need to get on-line and purchase a ball. One important note straight away is that the ball must be a solid sphere of glass or quartz, a hollow ball will not work as intended. It will need to be as flawless as possible, 100% clear and have no bubbles in it. Sizes tend to range from about 30mm up to 100mm. Bear in mind that this is a solid ball of glass so the bigger it is, the heavier it is. Many offer the ball with a small stand, usually made out of glass too and they are quite cheap to buy.

Another thing to note at the outset is to be cautious when shooting with the globe in bright sunlight. There are many anecdotes from other photographers who forgot that they were holding what is essentially a big magnifying glass, and when the light was concentrated on the glass for too long and got very hot, they ended up dropping their crystal ball in surprise. So if you are thinking about shooting the ball hand held, remember it is wise to keep it out of direct sunlight. In many cases it is actually preferable to find a suitable spot and set it down so you have both hands free to set up a shot.

Also remember that you are shooting through what is basically a big fisheye lens. It will invert and distort the scene that is visible behind it. However, it is those qualities that give it such a unique look. A lot of people will flip the image 180° in their editing software when they get back home, so it can be viewed the right way up. The distance the ball is to the subject will have a bearing on the kind of image you see in the sphere, so you'll need to experiment with a combination of lens to crystal ball distances, as well as the distance of the ball to the subject matter.







Taken from a vantage point overlooking Hound Tor on Dartmoor. The background is blurred but the scene is sharp within the ball itself.

Canon 5DMK2 - EF 16-35mm f/2.8
f/7.1 - 1/250 secs - ISO 200



A good quality glass or lead crystal ball will ensure you get good results when shooting through it. Beware of flawed spheres or hollow ones, they simply won't work. The sphere used in this project was 80mm wide.

The big creative choice to ponder is if you show the image with the crystal ball the correct way up, as it was shot, or do you present your image upside down to show the image captured in the sphere the correct way up.







Gear choice for shooting outdoors is quite simple. Just make sure your shutter speeds are high enough to eliminate camera shake. The images on this page were shot with a Canon 5DMK2 and an old 100mm macro lens so we could fill the frame with the image.

Equipment choices

Camera equipment required is not too specialised. Most compact cameras and DSLRs will produce great images. If you are shooting the ball to fill the frame, a good macro lens that enables you to use a very short minimum focusing distance would be ideal. Failing that there's no reason why you couldn't shoot from further away and zoom in on it. If you are intending to incorporate the ball into a wider landscape shot, then a medium to wide angle zoom lens would do the trick. If you are intending to shoot the crystal ball whilst it is in your hand, then you need to make sure you have a fast shutter speed set on your camera to eliminate any camera shake or movement of the ball in your hand. If you want your background as out of focus as possible, then an aperture of f/4 - f/5.6 will work ok if the ball is closer to you than it is to its background. Generally though, an aperture of around f/8 -



This image of Hound Tor has been rotated and cropped so it is the main subject in the shot. Rotating the image like this is a creative option.

Canon 5DMK2 - EF 16-35mm f/2.8
f/7.1 - 1/250 secs - ISO 200

> "Remember that you are shooting through what is basically a big fisheye lens."

f/11 will work for most scenarios. Remember to keep the image in the crystal ball as your main point of focus. The images tend to work better when the background is more out of focus, so you have the contrast between your subject and the background.

Watch those reflections

As you are shooting, be aware of unwanted reflections in the glass surface of the ball. If you are shooting very close to the ball, your own reflection may appear in it. Some reflections are inevitable of course, but if you can see certain unwanted reflections in the glass surface, then so can your camera. Keep the ball as clean as possible.

Experiment with the angles at which you photograph the crystal ball. If you shoot it from above, more of the ground will be visible in the globe. Shoot it from below and you will see more of the sky. If you place the camera level with the ball, then you can place the horizon in the middle of the ball.

There are numerous situations where it would be fun to shoot a crystal ball image. Just exercise care if you are shooting hand held (camera and crystal ball) and what ever you do, don't drop it. ■

Whatever the weather

Brave the elements and shoot in bad weather

Don't let yourself be put off by a poor weather forecast. If there are storm force winds, lightning and hail stones the size of medicine balls outside then yes, discretion is the better part of valour and staying put is the best choice. At other times though, the unsettled conditions that either precede or follow a storm can yield some amazing lighting and cloud formations. Even a simple grey day that has lots of heavy, grey clouds can be the basis of some superb black and white conversions. Saying that the weather wasn't good enough and keeping yourself stuck inside can limit your landscape photography options. If you live in the UK, you'll know that sunshine is a rare commodity, so a little meteorological creativity wouldn't go amiss.

Safety first

Straight away we are going to say that when shooting in less than ideal weather conditions, the primary concern is not the shot, it's your own safety. Do not put yourself in harm's way for the sake of a photograph. Part of being a good photographer is being a wise one too. As an example, the weather on Dartmoor in the South West of England can get ugly very quickly. There's an old saying that if you don't have the weather you were hoping for, wait five minutes and some more will come along.

Dress sense

Make sure you dress for the occasion. Dress in layers with a waterproof top layer and sensible shoes that are made for hiking with good ankle support. Photographers gloves are a good idea. They are warm, but the fingers can peel back so you can still operate your camera. Keep your phone with you armed with a good weather app that can give you regular updates. If there's even a hint that the weather is turning for the worse, then get under cover.

Hot and cold

Now you can worry about your gear. If transitioning from a warm car to a cold environment, beware of condensation build-up. It is a good idea to keep your camera in the bag for at least ten minutes to let the cold slowly seep into the bag, bringing the gear down to the ambient temperature. The reverse applies when coming back inside. Make sure you have waterproof coverings for your kit bag and your camera. There are some very affordable waterproof sleeves, some actually designed to be submersible, for various types of camera to keep them dry. At the very least, a plastic bag and some rubber bands will help keep unwanted moisture out of your precious camera.

Don't go changing

Only change lenses if you absolutely have to. If you are in windy conditions, you run the risk of the wind blowing dust and moisture onto the sensor. Always keep a couple of dry cloths in your bag, the front of your lens is always going to risk dust and water drops getting on it and spoiling shots if you don't keep the lens clear. Extreme cold can drain batteries very quickly, so keep any spares in your pockets so they stay warm.









To combat the chances of camera shake with a long lens and to freeze the action, a shutter speed of 1/4000 was used.

Canon 550D - EF 100-400mm f/4 - f5.6
f/5.6 - 1/4000 secs - ISO 800

"An overcast sky can range from a flat, featureless expanse to heavy rolling cloud formations with many shades and tones."



The north coast of the island of Tresco about to be hit by a large rainstorm. The sun was still shining at this point and lit the foreground rocks nicely.

Canon 5DMK2 - EF 24-105mm f/4
f/4 - 1 secs - ISO 200

Overcast days don't mean you should pack your gear away. Some amazing landscapes can still be had on days like this. The softer lighting is great for revealing detail in the landscape that might be lost on harsher sunlit days.

Grey is great

An overcast sky can range from a flat, featureless expanse to heavy rolling cloud formations with many shades and tones. Bear in mind that even if you can't see the sun, it is still up there illuminating the world. Some actually refer to a grey sky as a though it were a vast softbox. It is behaving in the same way by diffusing light and reducing contrast. With the reduced lighting levels a grey day brings, it's an ideal time to experiment with shooting with longer exposure times. Tripods are a must for this of course and exposures of two seconds or more can be achieved even without the need for ND filters by keeping your ISO as low as possible and choosing very narrow apertures around the f/16 mark.

The classic images of misty water tumbling over rocks or water receding from a shoreline are a great creative choice for days like this. If your sky is utterly featureless, don't be afraid to compose your shot to crop it out entirely if needs be or shoot under the canopy of a wooded area, concentrating on tones and details, rather than shadows and highlights. Concentrate on reflections in water or shoot directly downwards onto an interesting feature within the scene.

Stormy weather

The dark roiling clouds that indicate an imminent storm can create a very dark and brooding feel to a shot. A simple composition with just one small element to provide scale can make for very graphic and memorable images. If the wind is whipping the sea into a frenzy, then coastal shots in bad weather can produce some memorable shots. The violent energy of waves crashing against the shore are dramatic to say the least. These are times when a long lens like a 70-300mm zoom will come in handy to keep you as far from the sundering waves as possible. Shooting at long focal lengths will compress the scene and draw you in closer to the action.

Something to reflect on

After heavy rainfall, there are some great opportunities to capture reflections in standing water that is acting as a mirrored surface, capturing unique reflections of the world. You can frame shots creatively to frame a subject's reflection, rather than the subject itself. There are some amazing images of this type where the image has been flipped, the original subject cropped out, and the main focus of the image placed on the reflection. This is one time when using a polarising filter is not recommended because you actually do want to see the reflections in the water.

Time of day

As mentioned earlier, even though the sky may be just grey clouds, the sun is still up there. Consider shooting at sunrise or sunset and you may be treated to the sight of the clouds bursting with red and orange hues whilst the sun is near the horizon. The same also goes for foggy and misty mornings, where light can be seen slanting through the shroud of water vapour, creating an ethereal landscape. Fog can trick a camera's meter and produce underexposed images when it tries to read the overly pale scene as mid-grey; dialling in at least 1 stop of positive exposure compensation will counteract it.

There is no doubt there are many creative possibilities to be had when the weather is inclement. It's just down to us to overcome the natural urge to consider bad weather a bad photographic opportunity. If you're prepared to be brave, the rewards can be absolutely outstanding. ■



For a modest £125 you can get yourself a 75-300mm zoom lens like this Canon EF lens. It doesn't have image stabilisation but is cheap and quite a lot of lens for the money, keeping you far enough away from dangerously rough seas but still able to nab some great shots. You could expect to pay three times as much for newer stabilised lenses.

Even on murky, cloudy days the sun is still shining up there. You can never be sure when it might decide to light up the land with a few good rays.

Canon 5DMK3 - EF 24-105mm f/4
f/5.6 - 1/800 secs - ISO 100

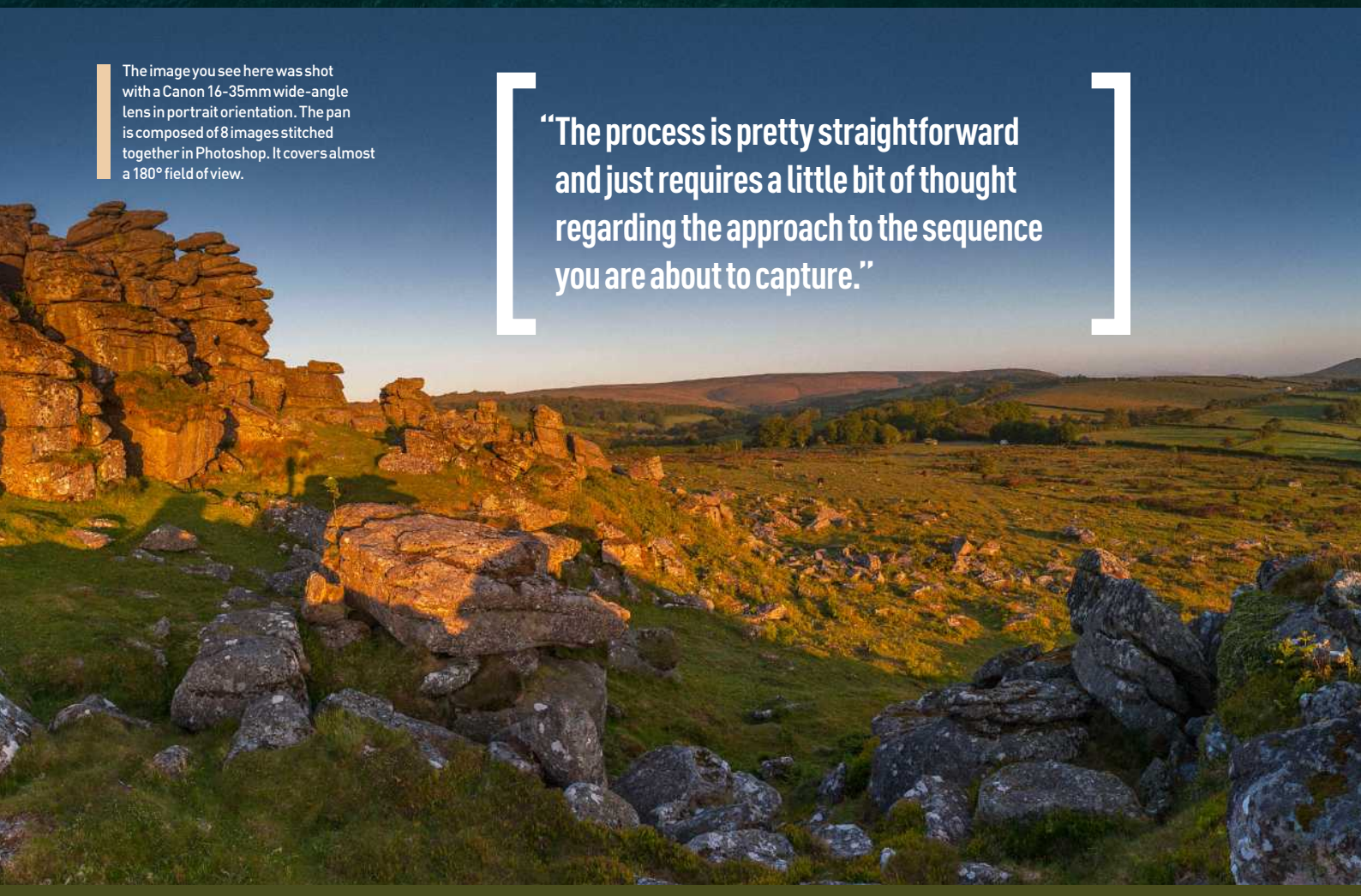
Super wide panoramas

Capture extreme panoramic landscapes

There will come a time when your widest lens just won't be wide enough to capture the scale and grandeur of a particular landscape or you may not have a particularly wide angle lens at your disposal. This is where the ability to capture a panoramic sequence of shots and combine them into a much wider or higher resolution image comes in very handy.

The process is pretty straightforward and just requires a little bit of thought regarding the approach to the sequence you are about to capture.

The image you see here was shot with a Canon 16-35mm wide-angle lens in portrait orientation. The pan is composed of 8 images stitched together in Photoshop. It covers almost a 180° field of view.



> "The process is pretty straightforward and just requires a little bit of thought regarding the approach to the sequence you are about to capture."

Thatcher Rock in Torquay taken from an aerial perspective, looking back towards land. Although taken from a remotely controlled quadcopter, the same principles of shooting a panorama were used here. A shot was taken, the craft was rotated slightly and another shot was taken and so on.

Essentially you are going to take a number of stills, rotating the camera a few degrees left to right with each shot taken, while allowing enough overlap from image to image so that they can be stitched together. This can be achieved with programs like Photoshop, PT GUI or Hugin, that rely on features in each shot being matched together to create accurate stitching points.

As a general rule, shoot with a wide-angle lens and always try to overlap your images by 25% or more. For example, look for features that are right most in your current shot like a tree or building (something that isn't moving). For the next shot you rotate yourself on the spot so that those features are now left most in the frame. These matching features will help your software to stitch the shots together more accurately and avoid odd tearing and mismatches that can spoil the image.

Another consideration is to try and avoid a scene where a lot of objects are very close to the camera. Unless you are using specialist panoramic photographic equipment and lenses, you will find that even slight unwanted movement and rotation of the camera (which is unavoidable if you shoot hand-held) will result in big parallax shift errors in very near objects that even the best software will not be able to put right.



Lenses like this Canon EF 8-15mm fisheye can shoot a 180° image in one go, but it is a hugely expensive lens and will produce a circular image when shot at 8mm.

The sequence of images here show the amount of overlap you need to have when shooting a multi-image panorama. Shots with lots of detail and plenty of overlap will result in more accurate stitching later.









Here is the low-tech method of shooting a panorama on, or near the nodal point of your lens. The monopod I'm resting the lens on is the centre of rotation and the front of the lens sits on this rotation point.

The spirit level cube fits on your hot shoe mount and will keep you on the straight and level.







The hi-tech method for shooting accurate panoramas. This device is called a Nodal Ninja. It is made from metal and is very robust with the optional levelling plate to provide a very quick way of getting things on an even keel.

Get set up

To capture a basic panorama from left to right you can set up your camera in the following way. Firstly set your camera to focus manually. Select a point of focus roughly a third of the way into your scene. This is an utterly basic rule of thumb to quickly set yourself up to record as much sharp focus in your scene as possible. Working out the exact point into the scene that gives the best overall focus based on your aperture, referred to as the Hyperfocal Distance, is not to be approached lightly. For our purposes the most basic approach will do for now.

Your camera settings need to be set such as to give as little noise as possible but keep a fast enough shutter speed to avoid camera shake or motion blur. Camera shake is a main concern if you are going to choose to shoot hand-held. For shot-to-shot consistency, it is always a good idea to shoot in manual mode and use a pre-set White Balance setting rather than Auto White Balance. With trial and error you can arrive at settings that yield enough detail on the ground and the sky without either losing detail in shadows or blown out highlights.

Use a tripod

It goes without saying (but we'll say it anyway) that a tripod is the first requirement for good results. Images will be shake free and the camera will rotate around a fixed point that won't move. It also gives you the option to have your camera set to shoot in landscape or portrait orientation. As long as your tripod and camera is as level as possible the results will be good. Most good tripods come with a spirit level built in to check. You can even buy a little spirit level cube that sits in your camera's hot shoe to help with levelling. Some newer cameras now come with a digital leveller built in.

For even greater stitching accuracy, you can attempt to rotate the camera around its Nodal Point. The nodal point is the point around which the lens must rotate in order to completely eliminate parallax shift. Without specialist equipment it can be very difficult to achieve. On wide-angle lenses this nodal point is generally at or near the front lens group. There is a very low tech way you can do it yourself, whereby you rest the camera lens barrel on a pole or stick, even a sawn-off broom handle, so the front lens is as near the pole's centre of rotation as possible. It will be up to you to keep the camera as level as possible but it does help avoid those nasty parallax shifts. Oh, and people will wonder why you are rotating around a pole stuck in the ground!

Once you have your sequence, you can process the shots, taking care to make sure they are as level as possible. If you have a strong horizon line, this makes the process easier. Or if you have any strong verticals like the side of a building, it all helps.

With a little practice, super wide panoramas are yours for the shooting. ■

Aerial landscapes

Radically changing your point of view

For many years, if you wanted to indulge in aerial photography, you had no choice but to hire an aircraft of some description to get you, and your expensive camera gear, aloft. Helicopters or fixed-wing aircraft are hideously expensive to hire. Basically aerial photography was strictly off-limits to your average casual photographer. This was a shame, as aerial work provides such a rare view of the landscape. For the rest of us would be aerial photographers, the ability to shoot from this unique perspective presents some obvious problems. However there are some alternatives to hiring a helicopter or aircraft that are well within the ability and price range, of the enthusiastic amateur. Some methods allow you to lift your current camera aloft. Some require additional new equipment. At this point let's be very clear about one thing - only elevate your camera as high as you are prepared to see it fall!



Time to take stand

Many companies manufacture telescopic stands that can support larger DSLR cameras and extend to over 25 feet in height. They stand on a robust tripod base and are relatively easy to set up. Some stands can cost as much as £400 or more but they are well built and completely suited to the task. You could also add a wireless DSLR controller. This is a device that plugs directly into your compatible camera and sends a wireless picture signal down to your smartphone or tablet that is running the appropriate app. Here you can actually see what the camera sees, focus the camera manually and also change camera settings such as aperture, shutter speed and ISO. With a tap of the screen, you can capture your shot and preview the result.

Go fly a kite

One of the oldest methods for getting low level aerial shots is by attaching your camera to a kite. Kite based photography started around 1887 as a method of meteorological research. Over the years, with the advent of smaller, lighter digital cameras, kite aerial photography (KAP) has become a popular amateur alternative to other methods. After kites another lifting system is the balloon. It follows that a heavy camera will need more lifting force. However, something like a GoPro action camera only weighs a few hundred grams, so your balloon doesn't need to be the size of a Zeppelin. Be aware, we are not talking about party balloons here. For a quality balloon lifting system that could carry a GoPro, you would need a latex balloon up to 6 feet in diameter filled with helium and secured with a strong tether to keep your rig from heading for the stratosphere and becoming a menace to aircraft. A fishing reel with very strong monofilament is a good way to keep your balloon under control. Roughly speaking a 3ft balloon filled with helium can lift approximately 300g, whereas a 6ft balloon can lift around 2000g. One thing to note: you must always check if you require special permission or licences to operate aerial craft of this kind.



The DJI Inspire Pro is an advanced quadcopter capable of lifting a micro four thirds camera with interchangeable lenses. It does come with an impressive price tag as well.

The Parrot AR Drone can be controlled by your smartphone and record 720p video.

The little Hubsan X4. Not much more than a toy but still boasting gyro stabilised flight and a tiny video camera.

Going up

Next up are the radio controlled quadcopters. They are so named because they have a four propeller setup that makes them very stable in flight. There are many types that range in price from a few pounds to several thousand. For instance, £40 buys you the tiny Hubsan X4 with a built-in 2.0MP video camera that is small enough to sit in the palm of your hand. It is very easy to fly due to its gyro stabilised flight controller. To be honest, this is little more than a toy, but it is a very cheap entry into the world of aerial imaging. The video output, captured to an SD card, is not the greatest quality and you'd be limited to doing screen-grabs from the video if you wanted stills. You won't be able to preview your quad's video framing, and with a flight time of about 5 -7 minutes, you are limited to how far you can fly, and the size of the craft means that if you fly too far you will easily lose orientation if you're not careful. A level up from the Hubsan is the Parrot AR Drone which can record at 720p directly to your tablet or smartphone, which is also the device used to control it via a wireless connection. It is a very stable craft and is certainly an option if you want to explore aerial work with a limited budget. The AR drone can be purchased for around £275.

DJI Innovations has a mid-level quadcopter called the Phantom. This is a current popular choice as it is 'relatively' affordable at £600 - £1400 and comes with the option of a 4K built-in 3-axis stabilised video/stills camera, or a cheaper version that is ready to be paired with the latest range of GoPro action cameras. It boasts many technological marvels such as GPS auto pilot, auto return home if there is a loss of signal, precision flight system and a flight time of about 25 minutes. It has been used in many professional projects by videographers and photographers alike. The Phantom's big brother is the Inspire 1 with a 3-axis stabilised 4K video camera, 12MP stills capability and wireless video transmission, weighing in at £2,300 or the Inspire Pro with a micro four thirds camera on board. They allow you to wirelessly pair a ground station monitor or smartphone to the vehicle's video output signal broadcast over 2.4ghz, so you can view what the camera sees in real time and control the camera remotely. What makes this range of aircraft so popular is that they are pretty much ready to fly right out of the box. Their advanced flight controls make them very stable and easy to fly. They are certainly easier to fly than regular model helicopters or radio controlled fixed wing models. For the budding aerial photographer, the fact that you can lift off vertically and then hover in place to take your shots is a huge advantage. Although the small action cams or built-in video/stills devices these quadcopters use are not quite DSLR quality, they do offer the best mix of image quality and cost.



Taken from the sea looking across Thatcher Rock towards Torquay. This is a stitched panorama comprising three shots.

FC300X - 20.7mm (equiv) f/2 lens
f/2.8 - 1/400 secs - ISO 100

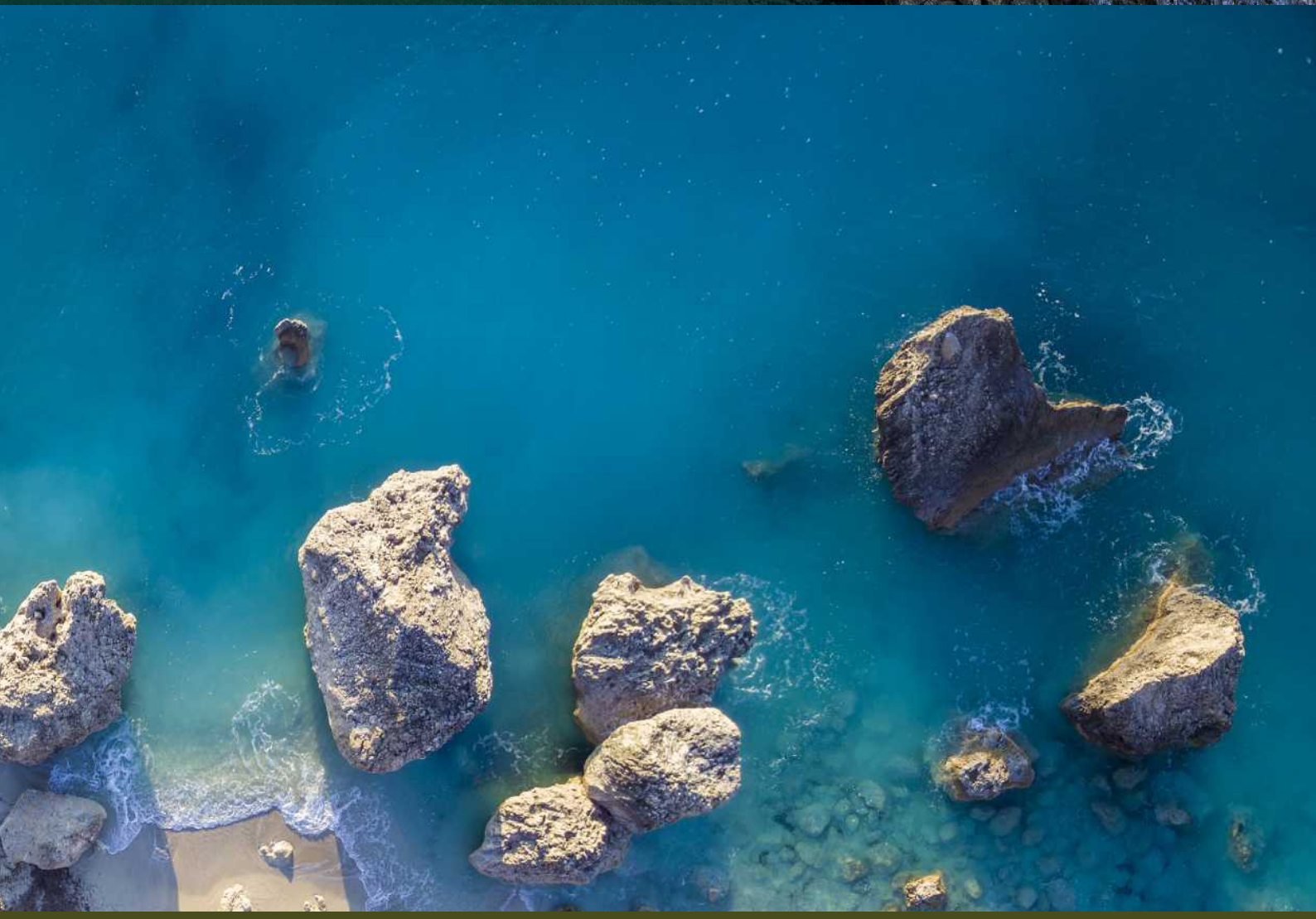








Image quality

The latest iteration of the Phantom lets you capture images in a raw DNG format for better image quality and processing options. Even if the on-board camera can't shoot Raw, with some careful processing of the captured images, you will still get some great results.

Going large

If you are desperate to get a full-sized DSLR airborne, you will need to dig deep into your pockets for a larger six-propellor hexacopter, or even an eight-propellor octocopter. These craft are monsters in terms of their size, complexity and cost. You could well expect to pay upwards of £20,000 for a top end rig and that doesn't include the camera. They are for the serious professional, with proper certification. If you want to fly and shoot for commercial gain, then you need special permissions from the Civil Aviation Authority. Other countries have their own regulations regarding this too, so it is prudent to check before embarking on such an endeavour.

If you are flying for fun, then CAA permission isn't required but you are expected to adhere to some basic regulations, chief among which is that you are actually able to demonstrate proper control of your aircraft. You do not fly over or within 150 metres of people, property and congested areas. You must stay away from restricted airspace such as airports and military installations and never fly the craft out of direct line of sight beyond 500 metres horizontally or 400 feet vertically.

To be honest if you are shooting aerial landscapes, you are generally flying within a reasonable distance of your subject anyway. Cameras such as the GoPro have such a wide field of view that flying too far away and too high puts your subject very small in the frame. The motto 'fly low, fly slow' is a good piece of advice. All the compositional rules and use of light still apply and aerial landscapes do benefit from being shot at sunrise or sunset when long shadows are cast across the land. An additional benefit of shooting at these times is that the wind will often be more still and not buffet your aircraft so much. So there you have it - you can have fun, learn a new skill and capture some amazing views into the bargain. ■

Deconstructed landscapes

Distilling a landscape into its component elements

Landscapes are great, they are often the one thing new photographers will go and shoot first. Landscapes are just so accessible, you usually don't need to go too far before you find a local beauty spot, there is plenty of ambient light so you don't need additional lighting, and they are great places to explore camera craft at your leisure. You will normally arrive at your destination and try and shoot the widest angle possible, feeling the need to get everything in shot. Not a bad idea, wide panoramic landscapes are beautiful. How about putting that wide-angle lens away, and for your next journey out, try something a little different. How about trying a deconstructed landscape?



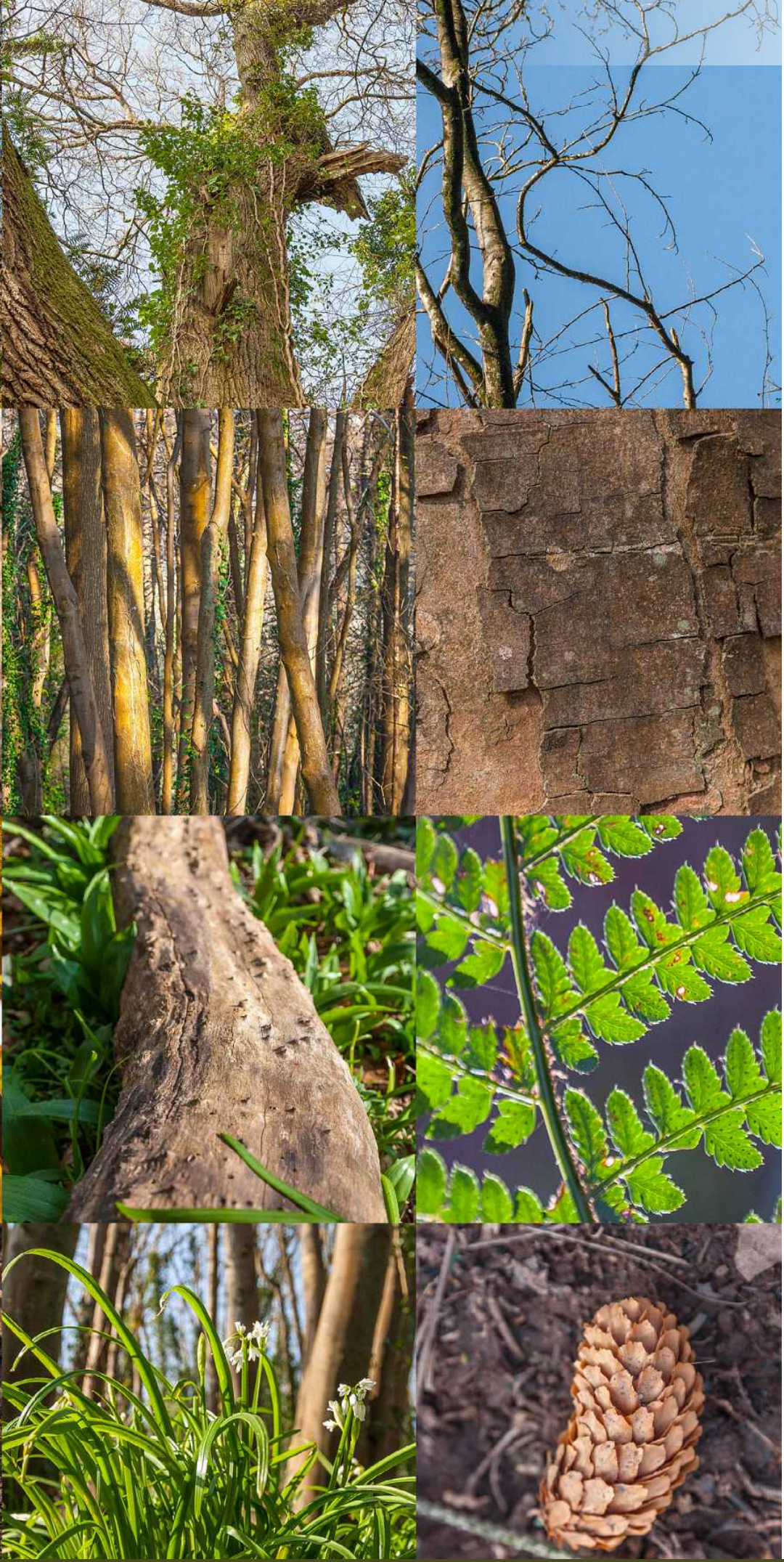
The beauty of shooting a deconstructed landscape is all about keeping your gear choice simple. Just you, your camera and one lens. Don't burden yourself.







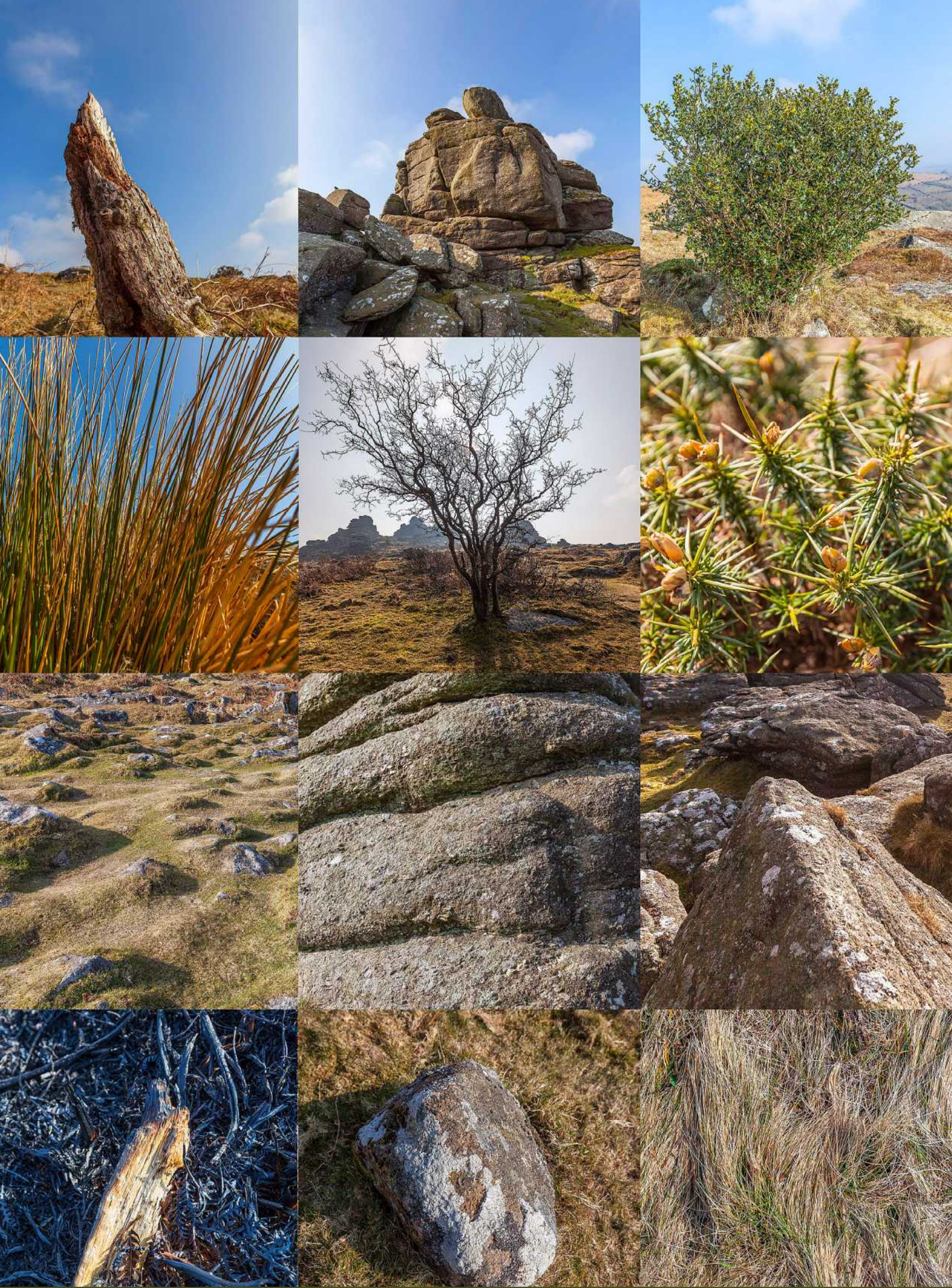




> "...think about what actually comprises the landscape you are in..."



A 50mm f/1.8 prime lens can let you achieve some very shallow depth of field. This Canon version is extremely cheap at just £80 and is very good for the price.













First things first. What is a deconstructed landscape? Rather than just shooting the entire scene before you, a deconstructed landscape requires you to stop and think about what actually comprises the landscape you are in. You don't shoot the scene in its entirety; you shoot fragments, pieces, the things that make up the landscape around you.

You need to look down at the ground, all around you, and above you. Record the scene in a number of detailed parts. Then when you get back home, you can pick out your favourite elements and create a composite or collage of multiple images, that reflects how you see the landscape you were in.

Your landscape

If you were on a woodland walk, you could show the trail you were walking on, the bushes around you, that dead tree off to the side, the moss on a stone by a stream, the canopy of trees above you, or where the sky pokes through in the gaps in between the leaves. It's up to you. It becomes a personal insight into what makes a landscape work for you.

The beauty of this kind of project is that you don't need masses of equipment. Keep it simple, just you, your camera, and one lens. Don't worry about additional lighting, like a flash. Just use what you have. Don't fret too much about using higher ISO settings if you are in a shaded part of a forest. Concentrate on keeping your shutter speeds high enough to avoid camera shake. There is a shutter speed vs. focal length rule that is worth thinking about, which is: Minimum Shutter Speed (sec) = 1/Focal Length (mm).

So for example, if you are shooting with a 100mm prime lens, then your shutter speed would need to be 1/100 of a second to avoid any camera shake. A 50mm lens would require a shutter speed of 1/50 of a second and so on. In practice though consider that a minimum - always use faster shutter speeds if you can, to ensure you keep your shots as sharp as possible.

Pick your prime

Lens choices are up to your personal preference. For a wider range of compositional choice you could perhaps go with something like a 24-105mm zoom or you could even discipline yourself to use a fixed focal length lens like a 35mm or 50mm prime.

The benefit of a prime is that you can achieve some very shallow depth of field effects that aren't necessarily possible with the majority of zooms; you can get an 50mm f/1.8 prime very cheaply these days. Either way go and have fun, there are no rules; shoot what interests you but try to avoid the obvious wide angle 'show it all in one go' approach.

All that remains is to process your shots in your favourite Raw processing application and pick out the best candidates for your composite image. Then you can load them up into a layered document in an image manipulation program such as Photoshop, Elements or Gimp and combine them in a creative fashion that gives the viewer a set of multiple snapshots of your landscape, without once showing it in its entirety, and there is your landscape, deconstructed. ■

Abstract landscape photography

Turn the concept of a typical landscape on its head

Your typical landscape image is normally recognisable for what it is. There are an infinite number of beautiful images to be captured out in the world, and that is absolutely fine by all landscape photographers. Now and again though, it is refreshing to see beyond the grand vista, to capture something more than what mother nature has placed in front of us. There is much debate as to whether a photograph can be classed as art. Digital photography does at least enable us to express ourselves and set our imagination free. With that in mind, let's put the landscape photography rulebook away for a spell and uncover some interesting techniques to elevate your landscape photos to a whole new level of artistry.

Why not try the long exposure panning technique to literally 'paint' an abstract landscape. Firstly you will need a scene that has a strong, well defined horizon. If the colours above and below the horizon are strong and contrast well with each other, then all the better. You will need a tripod to set your camera on. Level it up and place the horizon in the centre of your viewfinder. The idea is to take the shot whilst panning the camera across the scene until the shutter closes again. For the best effect, you will need to switch to Manual Mode and use a shutter speed somewhere in the range of 1/10 second to about 4 seconds, dialing in the other settings to get a balanced exposure.

The speed at which you pan the camera will also affect the final look of your abstract. If you are shooting in bright conditions, stopping the camera down to about f/16 and setting your lowest ISO will be required. If you can't get down to the slower shutter speeds mentioned, then you will need an ND filter to reduce the amount of light being captured. As an experiment some shots were taken with a Canon EOS 550D and a 10-22mm wide angle with a maximum aperture of f/29 on a cloudy but bright day without the aid of an ND filter. This got the shutter speed down to about 1/20th of a second. Although this might be the upper limit to create a truly abstract looking image, taking the camera off the tripod and swinging the camera quite fast at arm's length during the exposure meant we could still capture some interesting and arty-looking images. The downside is that to any onlookers you might look like a bit of an oddball, randomly swinging your camera around!

There is no reason you have to pan the camera along the horizontal. If you find yourself in a forest, why not try panning vertically to compliment the tree trunks? Like all new techniques, it can take a bit of practise, but when you get the combination of shutter speed and camera panning working, your shots will have a truly abstract and painterly feel.



Taken with a Canon DSLR and wide angle lens, the main image you see on this spread was an experiment in seeing if the impressionist look could be achieved without an ND filter. At f/22, the shutter speed of 0.3 seconds was a long enough exposure to ensure that any deliberate camera movement produced a painterly result.

Get a move on

You can also try the old classic of zooming your lens quickly during the exposure for a more radial/zoom blur effect. There is a great technique that mimics the works of the impressionist painters. This too requires intentional camera movement. Like the panning technique, you will need to get your exposure time down to about 1/4 of a second and your ISO as low as possible. Again if you can't get down to the shutter speeds mentioned, the ND filter option is the way to go.

Think about filters

ND filters limit the amount of light that is able to fall on the sensor and therefore require much longer shutter durations. They are made from darkened materials that are designed to be optically neutral so as not create a colour cast.

The darker the filter, the longer your exposures can be. ND filters can range from a 2-stop filter to 10-stops of light reduction. They are excellent for use in daytime to create motion blur in water and clouds. If you are lucky enough to have a modern camera that has an ND filter actually built-in like the Sony DSCRX10 II, then you are set. With a balanced exposure dialled in and your focus point set to manual, all you have to do is shake the camera and take the shot whilst you do so. It may sound absurd, after all our talk of sharp images, tripods and image stabilisation, but yes shake that camera! There is no real right or wrong how you do it, but generally, very short up and down or circular movements can give great results. Part of the joy of this kind of photography is that you just don't know what you'll get until the shot is taken and it is different every time.

The classic look

The silhouette is a beautiful and classic way to add abstraction to your landscape image. It is an image distilled down to pure form and shape; light and dark. Whether it is a simple countryside scene, a distant range of mountains or even a more complex urban landscape, the main concept here is to set your camera to meter for the lightest part of the image; this could be the first light of pre-dawn creeping above a hill on the moors or a sunny day down by the coast. For once having the detail of the darkest parts of your image lost to underexposure is actually what you want.







The Sony RX10 MK2 has a 3-stop ND filter actually built into the camera. This is a handy feature when you need to be able to slow your shutter speed down to for long exposure effects such as these abstract landscape images.

If you don't have the luxury of built-in ND filters like the Sony on the right, you will need to use either screw on type filters or square/rectangular filters in a filter system holder. This example is a 2-stop filter made by Cokin.



On a smaller scale

As we've discussed before, the convention when shooting a landscape is to go for the all-encompassing wide view. For a new angle on things, consider that the natural world is fractal and what you see on the grand scale can be repeated on a small scale too.

Sand ripples at the waters edge are like scaled versions of rivers and coastlines. You are looking for shapes and patterns directly in front of you that emulate the shapes and patterns seen in the world around you. A rock in a pool can be a small scale equivalent to a mountain by a lake. A good tip to bear in mind is to try shooting on overcast days so there is no direct sunlight to create too much deep shadow and high contrast definition in your shots.

An eye for detail

It's all about detail too, so shoot at narrow apertures to maintain a good depth of field. Keep a tripod with you if the shutter speeds drop below 1/100 or so. If shooting water, have a circular polariser handy to reduce the possibility of distracting reflections. Lens choice is down to your creative preference, but it would be a good idea to use a zoom lens that can cover a wide angle field of view to medium telephoto. Lenses like the Canon EF 24-105 f/4 L IS, the Nikon AF-S 24-120mm f/4G ED VR and the Sigma 18-250 mm f/3.5-6.3 DC Macro OS HSM.

Landscape images should try to evoke a response in the viewer, whether it's conveying the power of the sea or the lushness of a forest canopy. With the surreal and abstract, you can take that idea and whittle it down to its very essence. It is a chance to turn a photograph into art. Yes, you could take any old shot and Photoshop it to within an inch of its life but where's the fun in that? Grab a camera and turn it into a paintbrush. ■

Magic cloth technique

A low tech alternative to filter systems

If you have ever shot landscapes to any great degree, you have no doubt encountered the particular exposure challenges that go with them. Scenes with your beautiful foreground interest and far off mountains and dramatic skies are perfect landscape subjects. When you take your shots, you realise that certain factors come into play. The main one being that your camera, no matter how new and expensive, cannot see all the subtle tones and variations in light and dark that the human eye can. A typical daytime landscape of foreground and bright sky has such a large dynamic range from the brightest highlights to the deepest shadows and is far beyond the scope of your camera. You can expose your shot for the sky and have your foreground very underexposed or the reverse where your foreground is correctly exposed but the sky blows out to white and all detail is lost. Given that in pretty much every daytime landscape your sky is always much brighter than the rest of the scene, this issue is ever present.

At this point you might be considering reaching for a graduated neutral density filter. They are darker at the top and fade to transparent at the bottom blocking more





AFTER

This scene is a great example of how the magic cloth can recover a picture. A standard exposure results in the sky being blown out to white with no detail visible in the highlights but by just adding a screw-on ND filter and using a piece of card to cover the sky area, we can underexpose the sky and bring detail back into the clouds. Read on to find out how.

light at the top of the shot where your sky is and leaving the remainder of the scene unaffected, giving you a much better overall exposure that retains highlight detail.

The choice of filters is pretty vast though. Do you use a hard grad, soft grad? What density of filter do you get? A two-stop grad filter? A four-stop grad filter? Where do you stop? Let's also consider the fact that, as is the way in photography, these items will not be cheap. A good range of quality filters and filter holders could possibly set you back almost as much as you paid for your DSLR camera in the first place. That could be a serious restriction for a fledgling landscape photographer who wants to get as much of his image right 'in-camera' as possible.

It was this issue that prompted landscape photographer Tony Brackley-Prower to pioneer the technique that is widely known as 'the magic cloth technique'. Whilst there is not necessarily any cloth or magic involved, the technique only requires that you use an object that can completely block light entering the lens of your camera. Anything from a beer mat to the sleeve of your jumper can be employed. If you're staring at these words wondering just what on earth that means then read on.





A screw-on ND filter in the 8-stop range for your favourite landscape lens is the main component to using the magic cloth technique. Find yourself a piece of card and you are all set.

First and foremost, this technique has to be employed with longer exposures of 2 seconds or more. Put simply, you are using an opaque object (let's say a piece of card) to cover the camera lens blocking out the light. Then using your camera's timer or a cable release you open the shutter and whilst the exposure is happening you raise the card up, uncovering the lens from the bottom upwards. A fast shutter speed would make it impossible to use this technique, so be aware of this particular issue.

As an example, a 10 second exposure would give you plenty of time to slowly raise the covering up. At the end of the exposure the foreground has been exposed longer to the light in the scene than the sky, resulting in an underexposed sky. That is a bit of an oversimplification, as the amount of time you block the sensor will result in a lighter or darker image. The covering must be kept moving at all times. Reduced movement of the card will result in a hard grad effect and increased movement will give you a similar effect to a soft grad.

Originally this technique was developed for low light situations where the longer exposures were welcomed, giving you more time to move your lens covering. However, with the addition of one screw-on ND filter, preferably an 8-stop filter or more, you can take this technique out into the daylight.

How it works

The procedure is pretty simple. Set up your camera on a tripod and compose your shot **[1]**, making sure you have your autofocus set to manual and pick your point of focus in the scene. You can also take this opportunity to figure out if you'll need to cover all or only some of the scene to balance the exposure. At this point you can estimate roughly where your card needs to be in its start position **[2]**. Using live view gives a good idea of where to place your card at the start of the exposure. Once the composition and focus are set, screw on your ND filter **[3]**. The camera will attempt to meter the scene, but it is worth switching to manual mode and trying a few test exposures.

With your test exposures you are looking to get your foreground as well exposed as possible. In fact, slight overexposure by 1 stop is recommended as a starting point **[4]**. After a couple of test shots, my exposure for the scene was aperture f/5.6, shutter speed 10

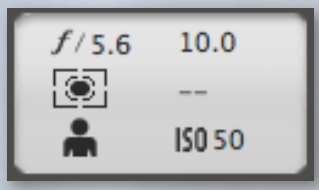




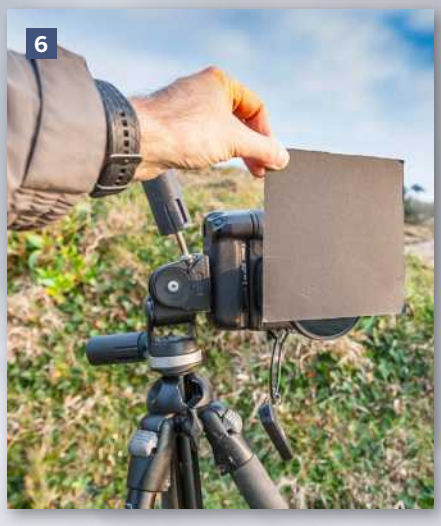


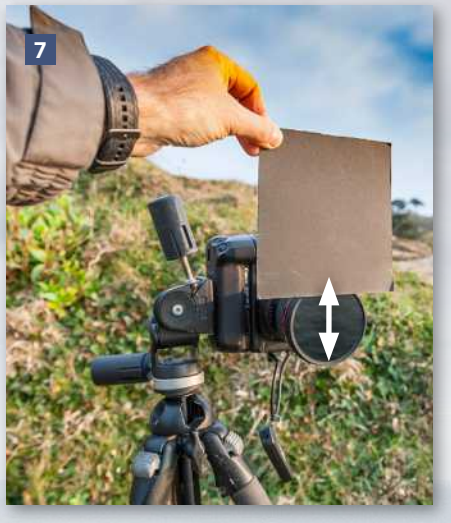


Keep settings on manual



5


6


7


8

seconds at ISO 50. You could have reduced the aperture still further to f/16 or more for even longer exposure times, but 10 seconds was a good starting point **[5]**.

Next you have to cover the lens with your 'cloth'; in this case it is a piece of card **[6]**. Press the shutter button and the exposure begins. As it starts, slowly raise the card **[7]** revealing more of the lens, move the card to the top of the lens and then out of shot **[8]**. You need to try and time the raising of the cloth to coincide with the duration of the exposure. Keep the card covering the lens for too long or still having it in shot when the exposure has finished will result in some very bad underexposure **[9]**.


9
Card left too long at the top of the lens

Keep it moving

A key factor is that you always keep the card moving. Never hold it still and always make sure it is as close to the lens as possible otherwise light may leak in around the sides altering the exposure. Once the shot is taken, you can review it and see if you need to modify the length of time the card is blocking the lens. You may find that the card has to spend more time covering the top half of the shot to block more light for longer and therefore reducing the exposure in the sky.

Unlike using a filter system, the magic cloth technique does require some trial and error. It is surprising how quickly it becomes quite natural and intuitive. Yes the technique has to alter for every shooting situation but generally for most landscape shooting situations it does beat having to carry around a plethora of filters and holders. One screw-on ND filter that you can get for about £40 on eBay for your favourite landscape lens and a piece of card and you are set.

Not only that, it is a great way to visualise the effect you are having on your exposures, and a certain satisfaction can be gleaned from knowing you did it all in-camera. ■


BEFORE


AFTER

A 10-stop filter was able to drive the exposure time up to nearly 2 minutes. This long exposure approach is a popular way to show the sea.

Canon 5DMK2 - EF 24-105mm f/4
f/16 - 118 secs - ISO 50















Image editing projects

There was a time not that long ago, when image editing meant producing a print in a darkroom under an enlarger; when the image was processed and fixed, breaking out the brush and ink and physically painting on the print to 'retouch' it to enhance it or remove blemishes. Things have changed quite a lot since then.

One of the great things about digital images is that it's very easy to improve or alter them using the right computer software. There are dozens of image editing packages available, ranging from simple, easy-to-use programs costing under £20, all the way up to the professional standard Adobe Photoshop.

It can be easy to rely too much on image editing to save a badly executed photograph. It is always good practice to get as much right 'in camera' so you have much more to work with when it comes to the post process stage. That said, there are many things you can do in an image editing program or with Raw processing software to elevate an already great shot and make it an awesome shot.

On the following pages you'll find a selection of tips and techniques for enhancing your landscape images. Of course we've barely scratched the surface when it comes to creative image editing but hopefully you can combine and adapt these techniques to produce the results you're looking for. ■

The little planet effect

Turn your landscape into a miniature world

Converting your panoramic shots into your very own planet is fun, easy and the end results can be quite mind blowing. At this point it is worth noting that true little planets are actually derived from a 360° x 180° panoramic shot that encompasses a 360° horizontal panorama that also covers a full 180° on the vertical as well. However to create one of those does require some skill and some specialist equipment. Fear not though, there are ways you can create your own worlds quite easily in Photoshop. You just need to bear a few points in mind. Read on...

AFTER



PHOTOSHOP

01 The shot needs to be a landscape orientation panorama. If it is a 360º pan, then all the better.

02 Generally speaking, an image with an aspect ratio of 2:1 or wider works well.

03 The top and bottom of the shot should be very light on detail. Simple things like a calm sea and a blue sky are some good examples.

04 The horizon should be completely straight. A slight tilt in the horizon and the two ends of the join will be at different heights.

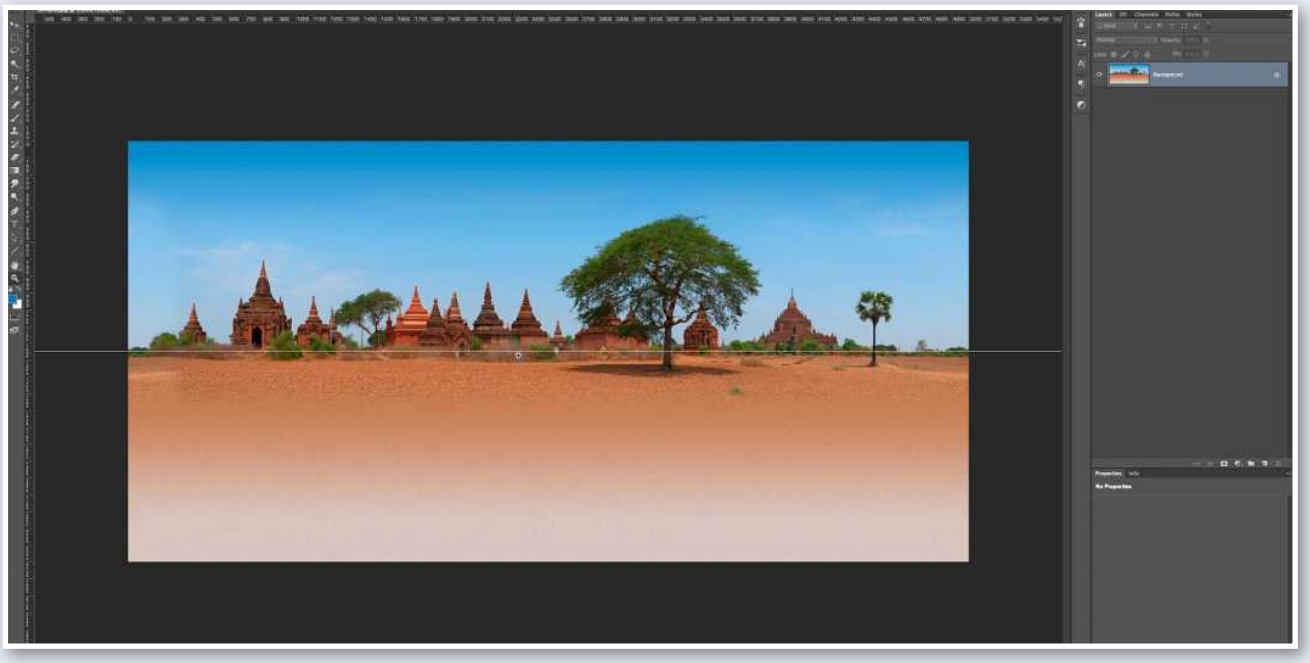
05 The far left and far right of the shot should match as closely as possible. The left and right edges are joined and if they are very different in content or colour there will be a visible 'crack' running through the centre of your planet.

06 A little trick to use is to select a portion of the far left of the image. Copy it to a new layer and flip it over horizontally and drag it on the far right of your shot. You can blend this into the image below and create more of an even join in the final stitched result.

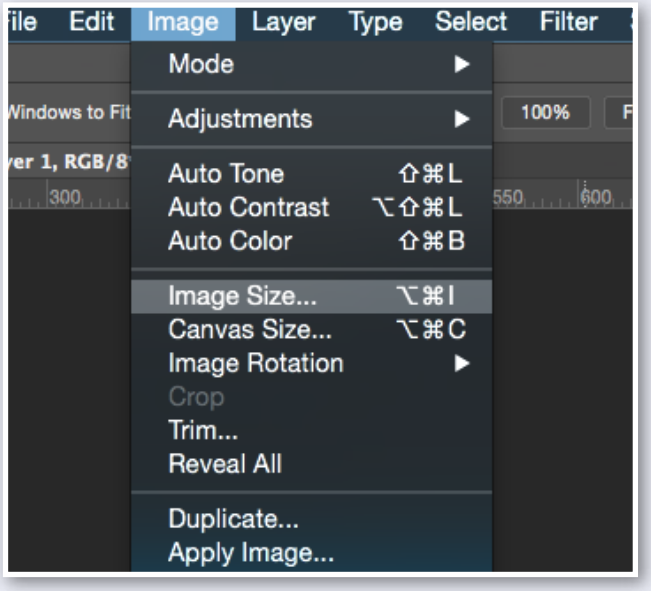


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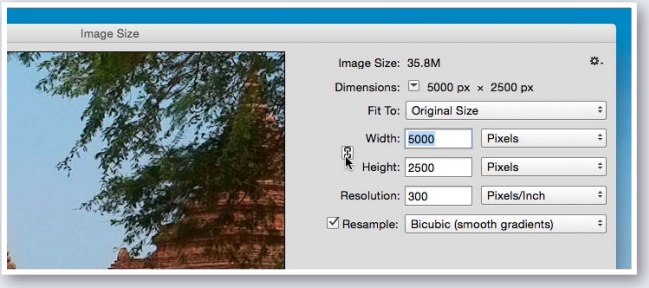
The little planet effect

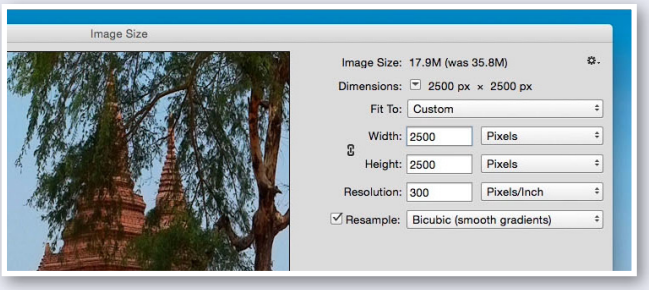


01 First of all we need to load up our landscape that we want to turn into a little planet. Our example here roughly adheres to the checklist outlined previously.

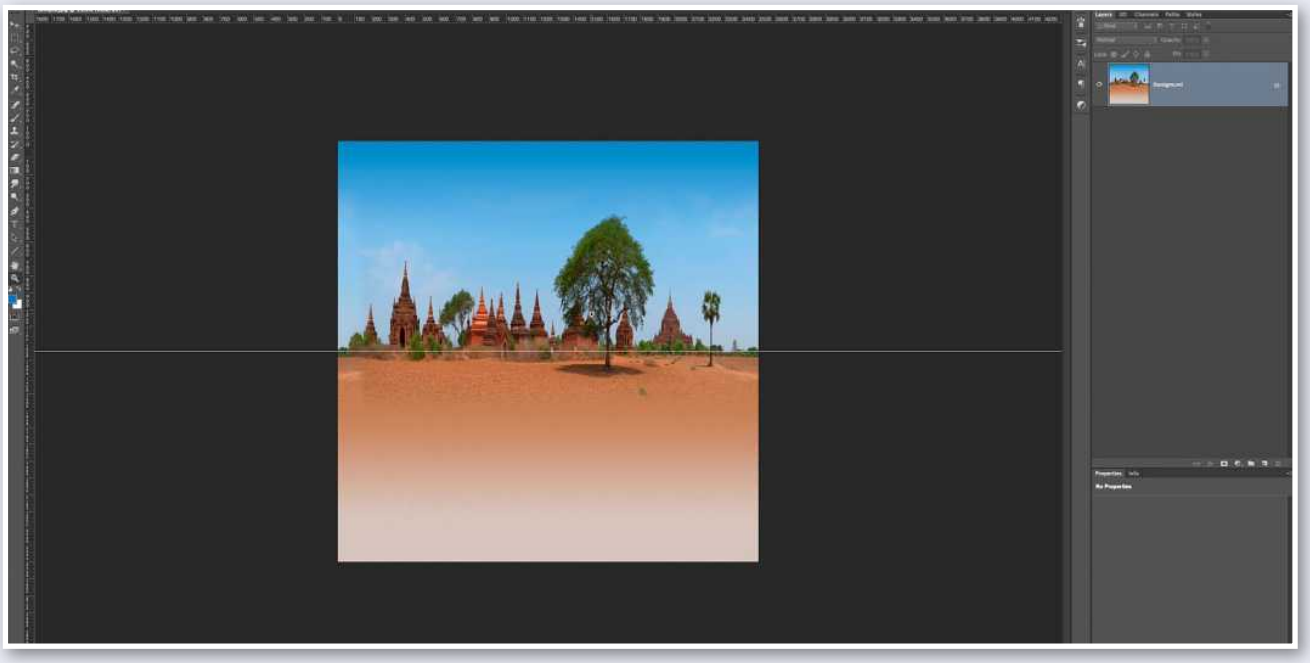


02 Now we need to alter the dimensions of the image. From the top menu select Image > Image Size (Alt+Cmd+I). This will call up the Image Size dialog box.

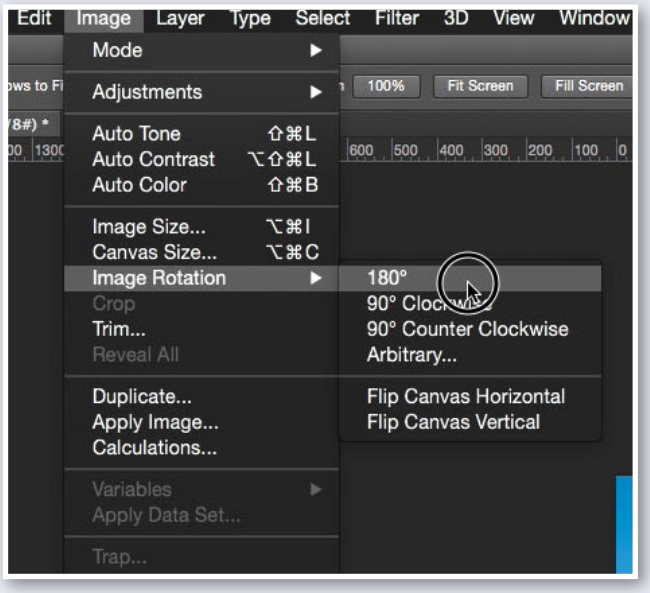




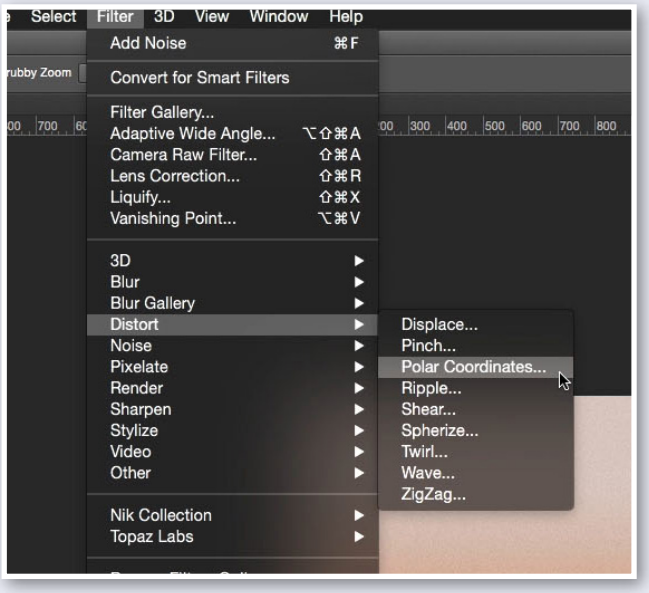
03 At the moment the example image is 5000px wide by 2500px high. In the dialog box, change the width to 25 00px and make sure that the Constrain Proportions checkbox is not selected, otherwise the entire image will scale proportionally.



04 Hit OK and the image will now be a square 2500px on each side. The image will look distorted but that's ok. It will make sure the effect is applied correctly.



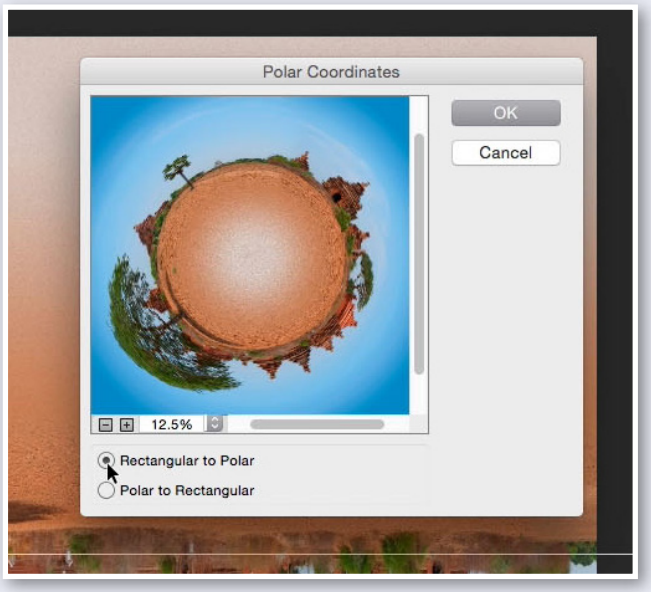
05 The next stage is to rotate the image 180°. From the main menu select Image > Image Rotation > 180°. The image is now upside down. Once again, this is required to make sure the effect will turn out correctly.

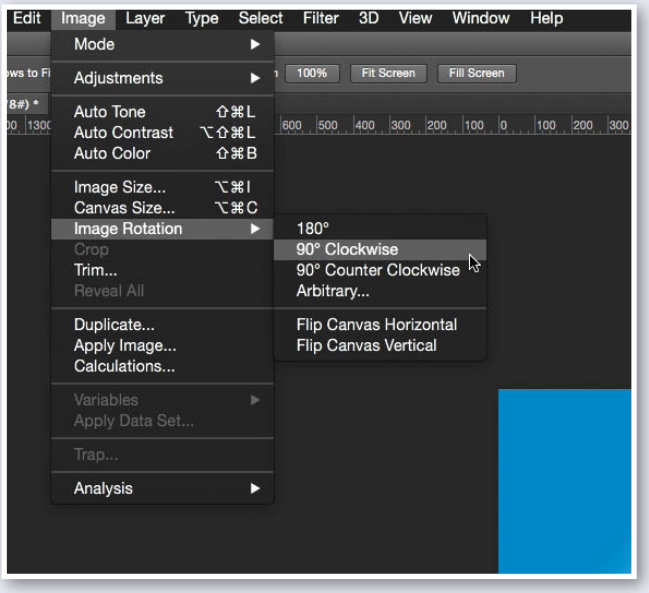


06 It's now time to apply the effect. From the main menu select Filter > Distort > Polar Coordinates. This will call up the Polar Coordinates dialog box.

PHOTOSHOP

The little planet effect

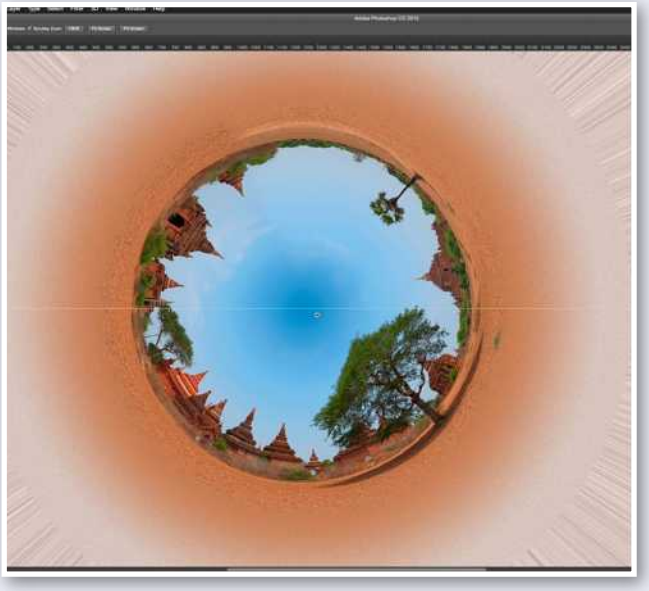




07 Make sure that the Rectangular to Polar option is checked. The dialog box will show you a little preview to confirm your selection.

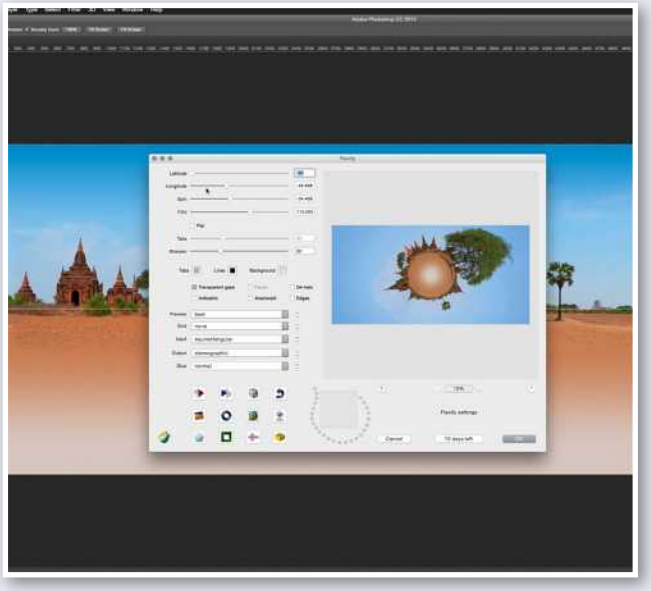
08 Hit the OK button and the image will transform into your own Little Planet! You can rotate the image until you have the orientation you want. This example is rotated by 90° clockwise to have the trees at the top.

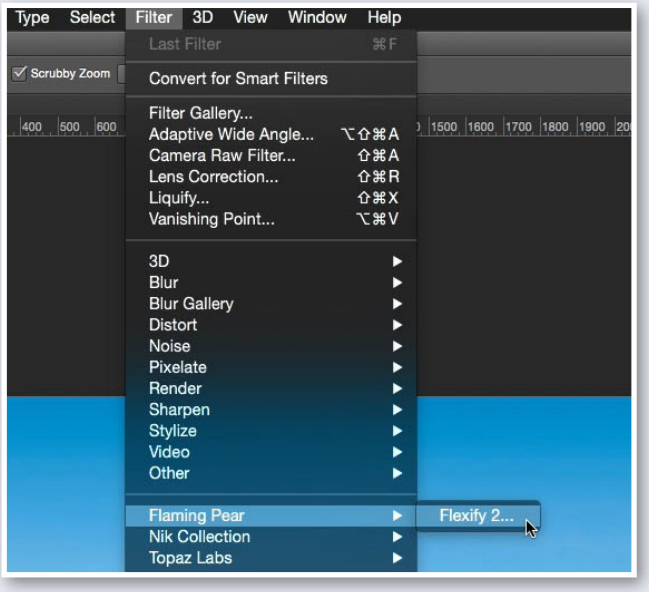




09 You can tidy up any imperfections that show up in the join, crop it and save your finished planet.

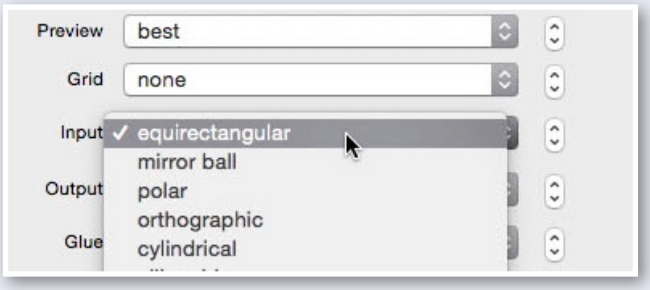
10 To have your little planet inside out, start again with the original image, ignore step 5, and when you get to part 7, select Rectangular to Polar again.

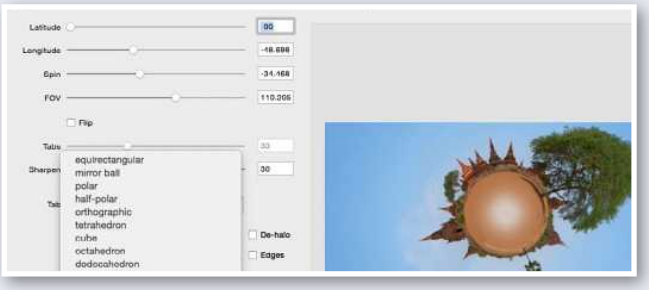


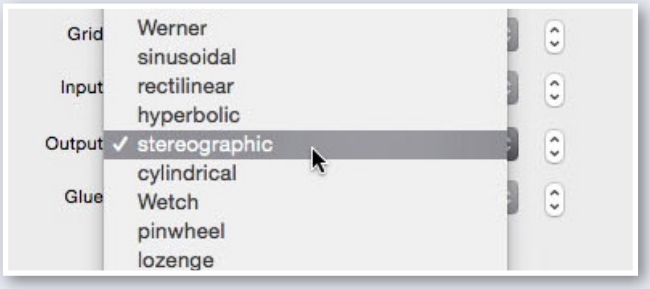


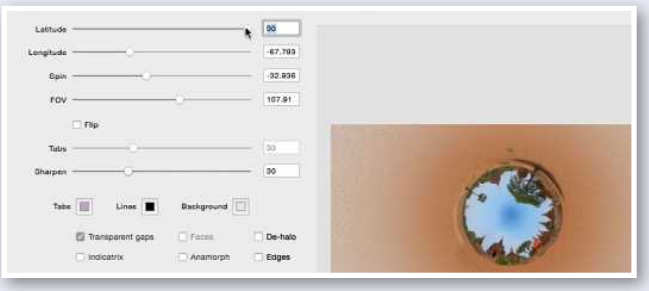
11 here are any number of plugins or applications that can automate the process for you. One such plugin, and a personal favourite, is the Flexify 2 plugin by Flaming Pear. It is free to download and trial for 30 days.

12 When you open up your image and select Filter > Flaming Pear > Flexify 2 from your filter list it opens a dialog box with a wide array of options you can employ to distort your image.









13 For our purposes you need to select your Input as equirectangular and Output as stereographic. You can then play with the sliders at the top of the dialog box to alter size, rotation and nature of the effect.

14 Push the longitude slider to the right and you can turn the image inside out so your world would look like it was pasted to the inside of a cylinder.

Sky replacement

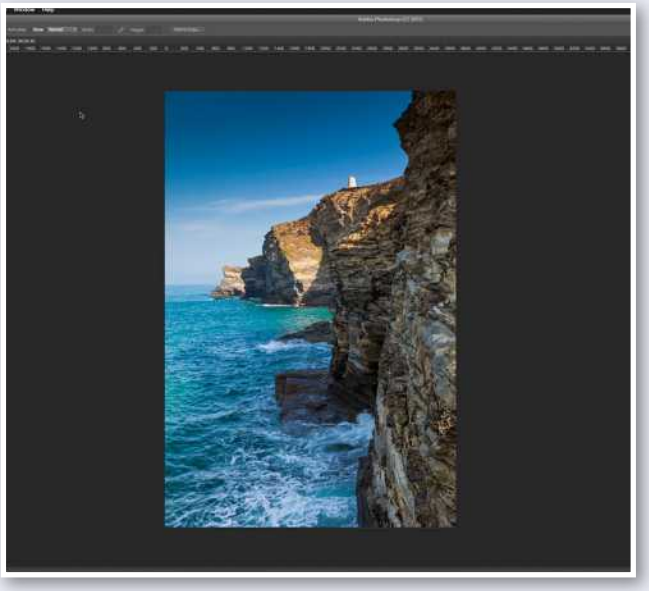
Add drama to a dull sky

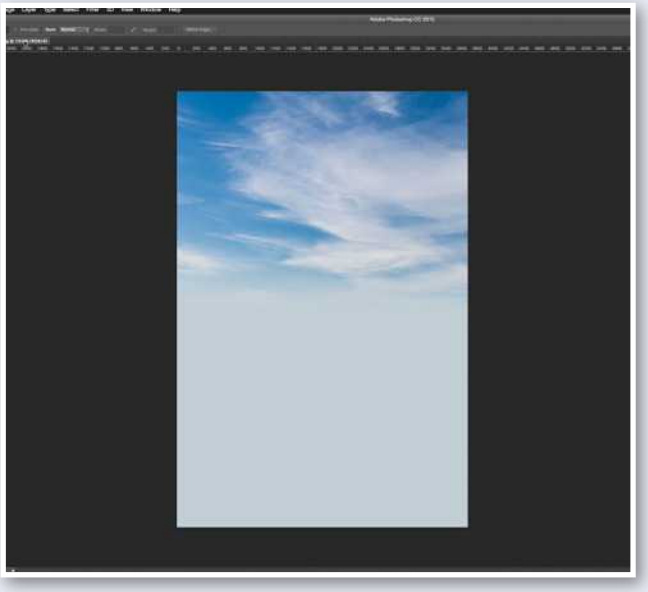
In the UK, the weather is neither the most predictable nor the sunniest and let's be fair, it is the butt of many jokes. However the law of averages says that sometimes, just sometimes, it must work in our favour. Suddenly you have a gorgeous clear day and out you go, shooting away without a care in the world. When you get home and review your shots, you realise that the cloudless sky looks too bland.

A sky without clouds just isn't as exciting to look at. It is ironic though, that the lovely blue sky is very helpful in adding a totally new one! We could go straight for the Refine Edge tool but as is the way in Photoshop, there's more than one way to approach this technique. Here's a nice quick and easy method that works well with blue sky replacement.



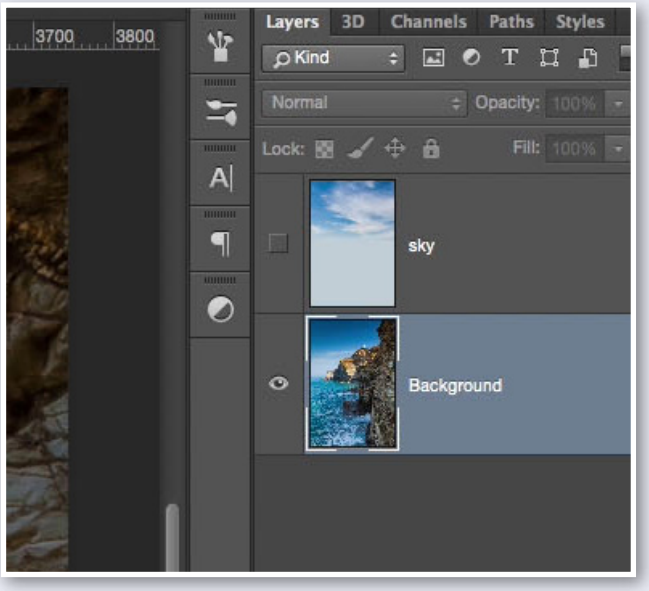
PHOTOSHOP



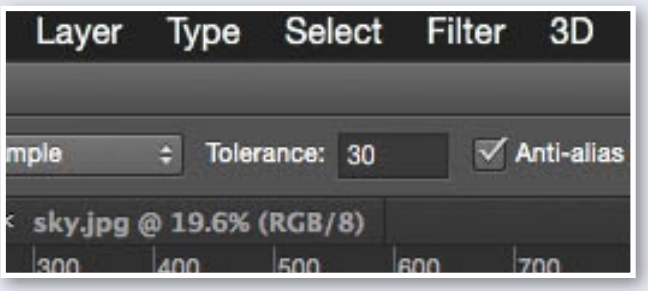


01 We have our original image which was taken on a lovely day but the sky is a little boring, so we can use the blue sky to help us select this area to fill with a new, more interesting sky.

02 You need to choose something that won't look out of place or just plain odd when you drop it into your original image. Try to pick a sky with similar lighting conditions and shot from a similar perspective.







03 Now copy your sky image and paste it into your original scene. You should now have two layers, the base layer and a new layer above it covering the area we want to replace, which we shall name 'sky'. For the moment, make this layer invisible.

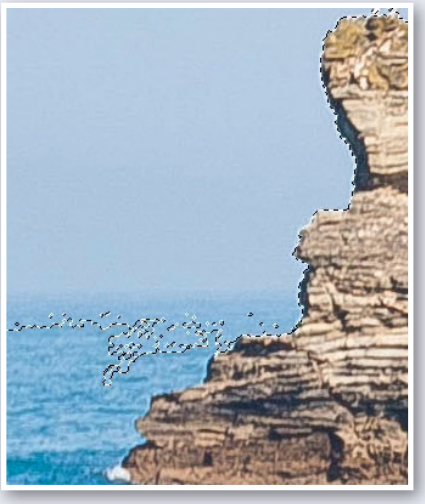
04 Make sure the 'Background' layer is active and go to the toolbar and select the Magic Wand Tool (W). Set the Tolerance to about 30 and check both the Anti-alias and Contiguous boxes.

PHOTOSHOP

Sky replacement



05 Click the cursor in the sky area and a selection will be made. Press the Shift key and a small plus symbol appears by the cursor and you can continue to click and add more areas of the sky to the selection.



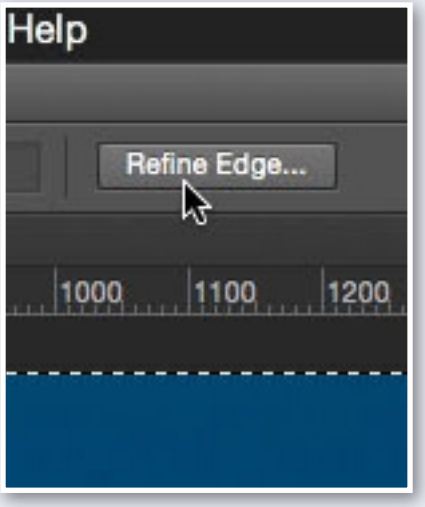
06 Because the neighbouring cliff edge is tonally different, the Magic Wand will only pick up areas of the blue sky. As you get down to the sea, it will have more trouble telling the difference between sky and sea. That's not a problem.



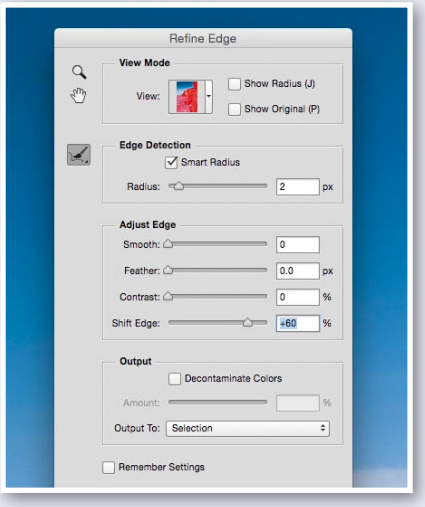
07 Go to the toolbar and select the Rectangular Marquee Tool (M). Press the Alt key and a small minus symbol will appear next to the cursor. Drag a rectangular selection that runs along the horizon and also encompasses any stray selection areas in the sea.



08 When you let the mouse button go, the marquee you just drew will clip the selection and you will have a nice sharp line on the horizon. You now have your basic selection of the sky area, outlined by the 'marching ants'.



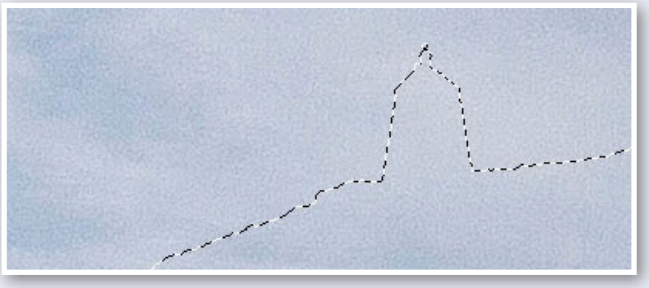
09 With the selection still active, click on the Refine Edge button at the top of the screen. This will open the Refine Edge dialog box.

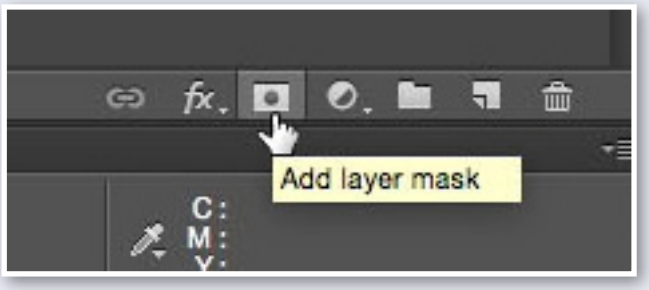


10 Make sure the Smart Radius box is checked and make the Radius about 2px. Make the Shift Edge value about +60% and click OK.



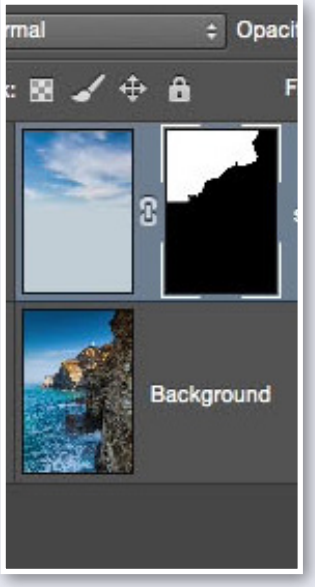
11 A much more accurate selection will be made, more closely following the edge of the cliff edge to give a cleaner line.





12 Click back on the 'sky' layer and make it visible again. You will be able to see your selection outlined against the new sky. Keep the 'sky' layer active and click the Add Layer Mask button at the bottom of the layers palette.





13 The new 'sky' layer will have a mask added to it in the shape of the selection you created. Anything white in the mask allows the new sky to be seen, any part of the mask in black allows the Background layer to show through instead.



14 Your new sky is in place, making the overall picture more interesting. You need never have to worry about a featureless blue sky again.

The Orton technique

Add dreamlike watercolour effects to your images

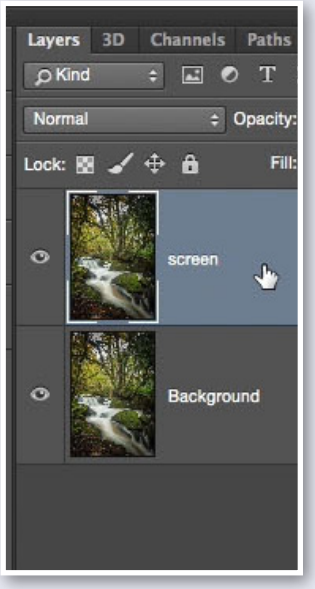
AFTER

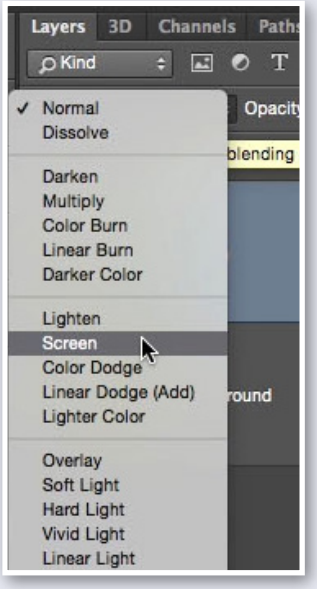


The Orton technique is named after its creator Michael Orton. He developed the technique back in the 80's with slide film, sometimes referred to as an Orton slide sandwich. The original method was to lock off the camera when you had composed your scene and take two shots. One is in perfect sharp focus and the other is completely out of focus to register only light, dark and colour. It was also common to try different exposures of both images. Then back in the darkroom, when the slides had been processed, the idea was to sandwich one sharp image and one out of focus image, align them, and print both of these at the same time. Of course these days, this can be done much more quickly and efficiently with digital files but the basic idea remains the same. Some professional landscape photographers use this technique in their work today, albeit in a much more refined and subtle way. In our example we want to go for the full on dreamy effect.

PHOTOSHOP



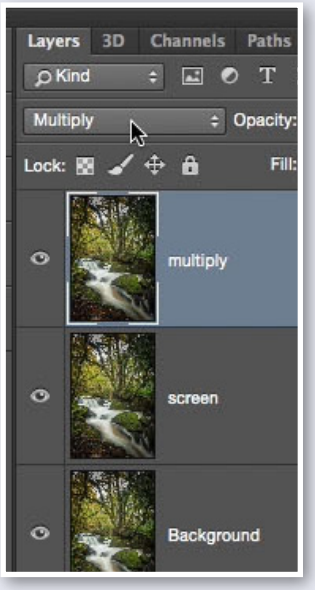


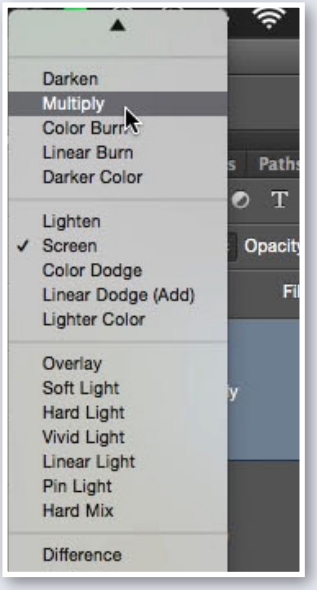


01 The first step is to choose a relevant image that will work well with the Orton effect applied. Leafy, verdant scenes work particularly well and have a very soft ethereal and romantic feel to them. For our example we have a lovely autumnal forest and waterfall scene.

02 With your background image loaded, click on its layer thumbnail and press Cmd+J to create a duplicate. Rename this layer 'screen'. Make sure the screen layer is active and click on the Layer Blend Mode button at the top of the Layer Palette menu. Select Screen as your blend mode.







03 The brightness of the screen layer is added to the background layer and now appears very bright. Not to worry as the next steps will take care of this.

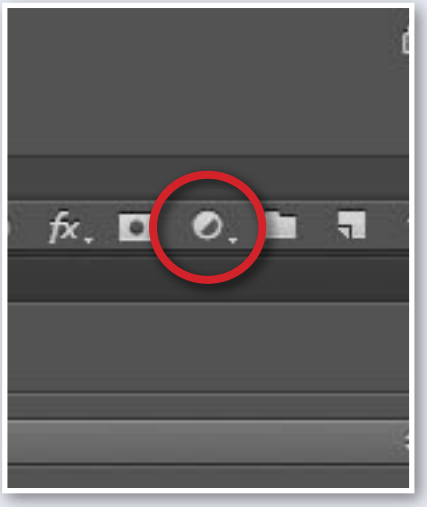
04 With the screen layer active press Cmd+J once again to create another duplicate. Name this layer 'multiply'. Again go to the Layer Blend Mode button, click and select Multiply as your blend mode for this layer.

PHOTOSHOP

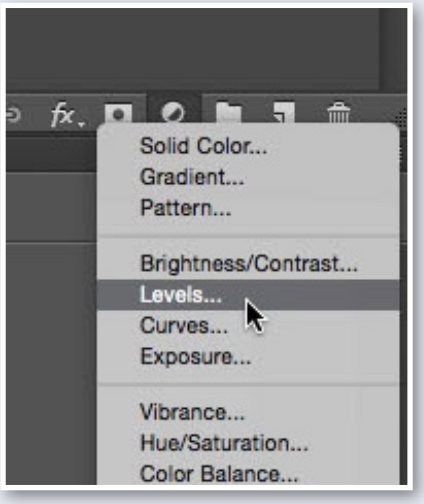
The Orton technique



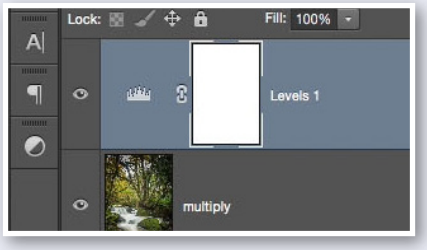
05 Now the image should appear to be very dark. That's ok though, at this point we can adjust the overall image brightness.

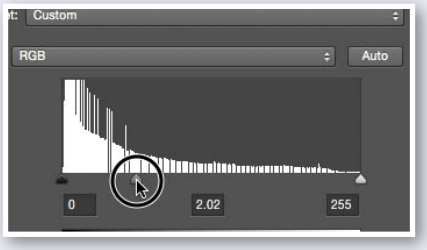


06 We will need to add an adjustment layer to modify the image brightness. Navigate to the Adjustments button at the bottom of the Layers Palette.

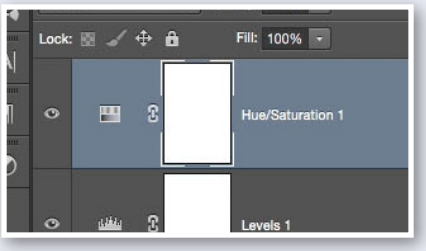


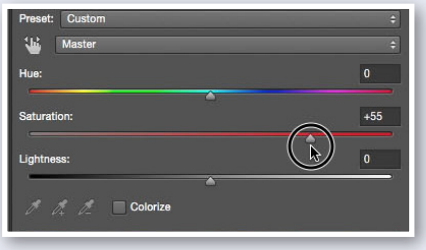
07 Click the button to open the Adjustments menu and select Levels.





08 An Adjustment layer appears above your three current layers. With the Levels Adjustment active, its Properties tab will open and the mid-tone areas were lightened by pulling the middle slider to the left.

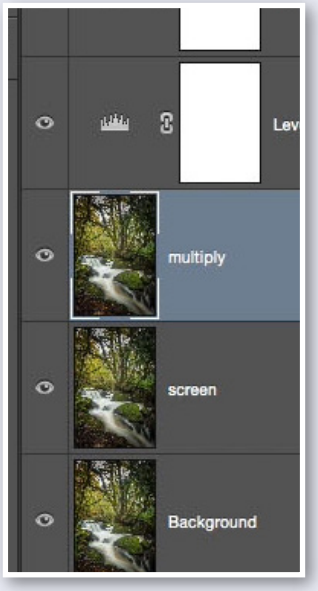




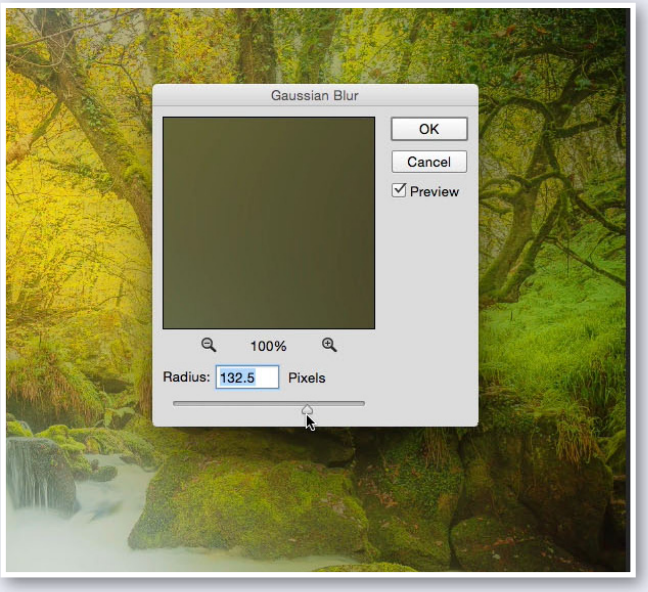
09 Click on your Adjustments button again and this time select Hue/Saturation. A Hue/Saturation adjustment layer will appear above your previous Levels adjustment. Increase Saturation until the image is as vivid as you prefer.



10 As mentioned in the introduction to this piece, the effect is created by one sharp image and one out of focus image. At this point all the layers contain sharp images, so we need to remedy that now.

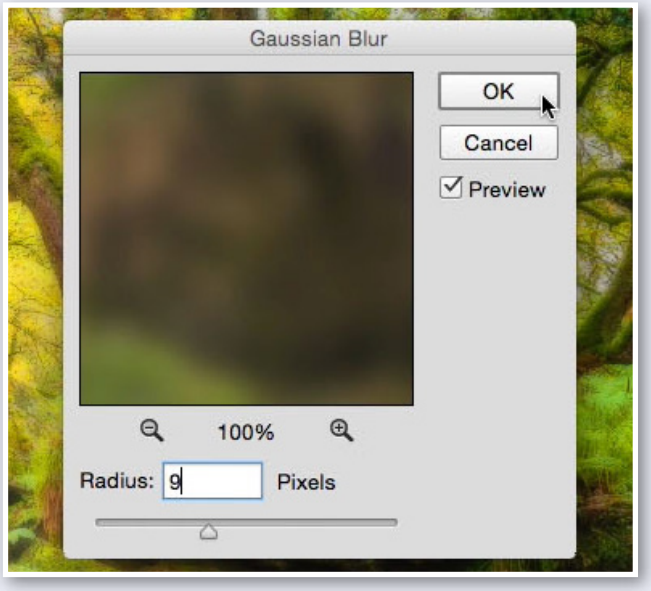






11 Click on your multiply layer to activate it. Go to the top menu bar and select Filer > Blur > Gaussian Blur.

12 The Gaussian Blur dialog box will open and here you can set your blur value. This value is determined by the resolution of your image. Our example is 2660 x 4000 pixels.





13 Very large values do not work very well at all for this effect. In fact even for an image the size of our example, only 9 pixels was enough to generate the effect we were after.

14 You have your completed image. Now you can experiment with different strengths and application of this effect and turn you landscapes in watercolour masterpieces.

High Dynamic Range images

Capture more tonal range in your shots

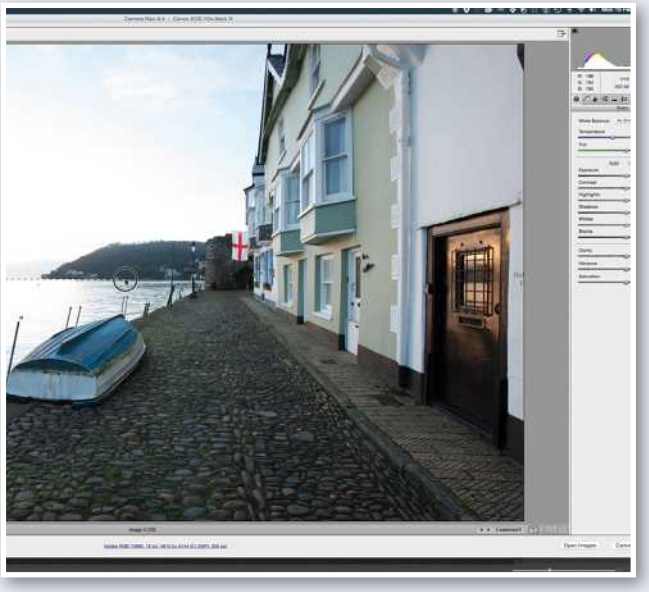


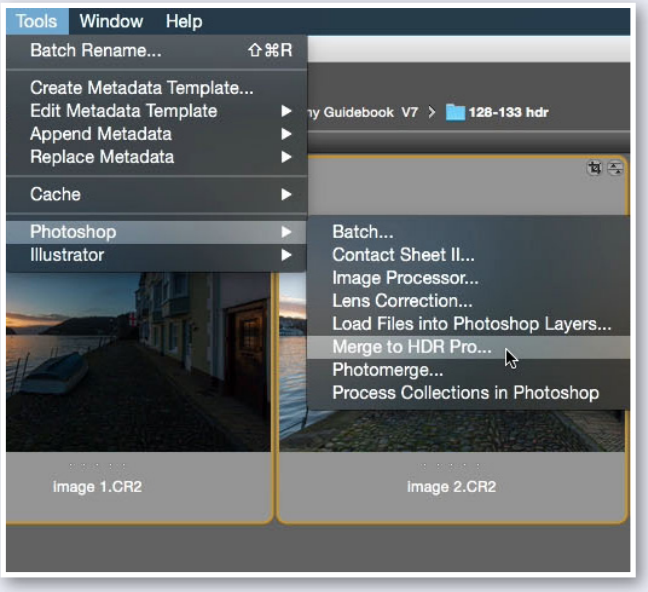
It is often the case when out on a shoot that you will encounter a situation where the lighting conditions and dynamic range of the scene you are trying to capture are beyond the capability of your camera. If you expose the shot for the sky, your foreground can become too dark; if you expose the scene so the shadow areas are correct, then the sky overexposes to the point where detail is lost. As long as you have a tripod you can get around this issue by taking multiple exposures that encompass the full dynamic range of the scene. Typically this is achieved by taking 3, 5, 7 or more incremental exposures that can range from -3 EV (3 stops underexposure) up to +3 EV (3 stops overexposure).

This group of captures is the basis of creating a single file that incorporates all that data and which can be manipulated as if you were working on a single, standard Raw file. HDR images tend to work best with static images, shot with a large depth of field, where nothing is moving through the frame. A moving object will appear as a ghost image in the final combined exposures.

It is not uncommon to see HDR images that have been pushed too far in terms of how they have been processed. They can look surreal and utterly garish. Incorrect use and over processing of HDR images has given the technique something of a bad reputation. That needn't be the case. With a light touch and some care taken when processing the final combined images, you can produce gorgeous, well balanced images that have none of the tell-tale signs of a typically badly done HDR.

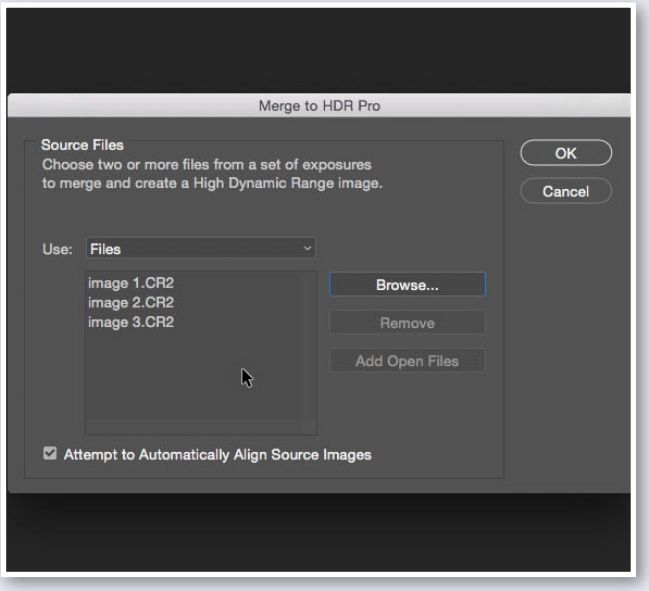
PHOTOSHOP

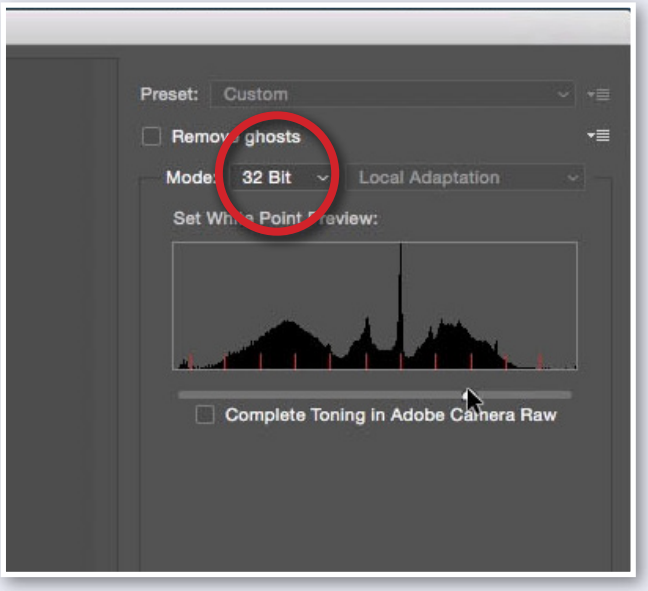




01 To begin with, we did some very basic editing to each of the Raw files in Adobe Camera Raw. Not least to make sure the horizon was straight and the shadows and highlights in each file weren't so extreme that image data was being lost.

02 f you are using Adobe Bridge you can select the multiple images required and right mouse click to open a context menu. From here you can select Tools > Photoshop > Merge to HDR Pro to begin the merging process.



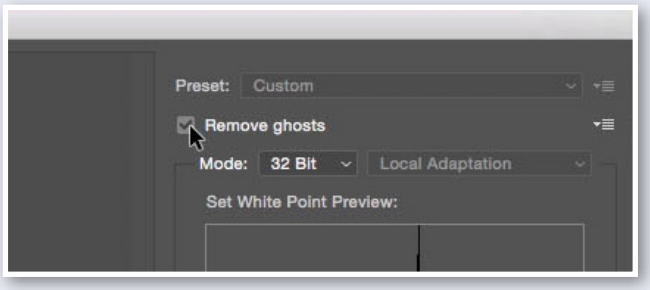


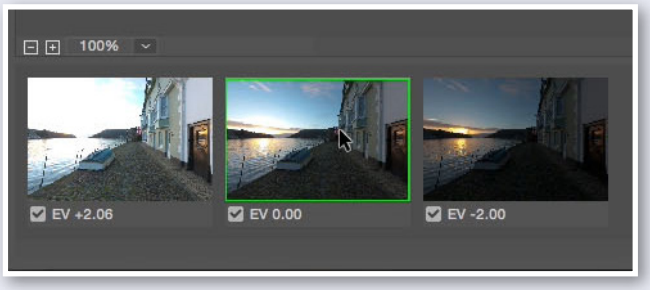
03 You can also browse to your chosen files via File > Automate > Merge to HDR Pro whilst in Photoshop itself or you can use Mini Bridge as an alternative means of navigation. Select your bracketed files and click OK.

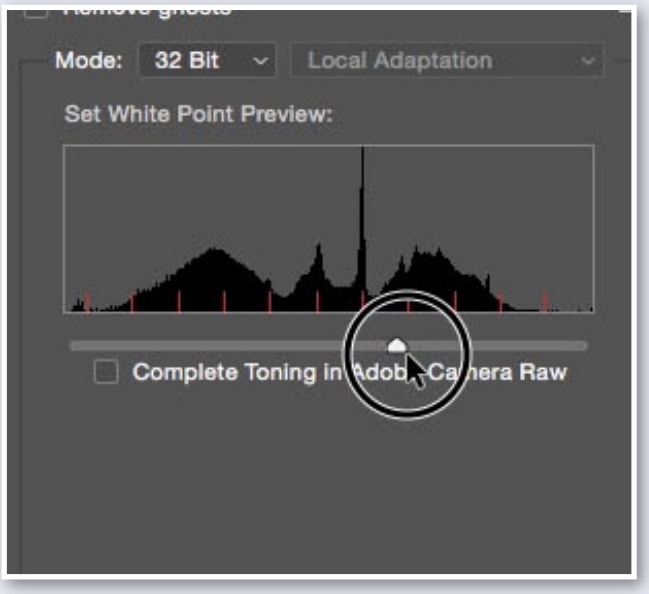
04 When the files are merged, the Merge to HDR Pro dialog box will open. From here it is a simple process. Make sure that the Mode selection tab is set to 32 bit.

High Dynamic Range images

PHOTOSHOP

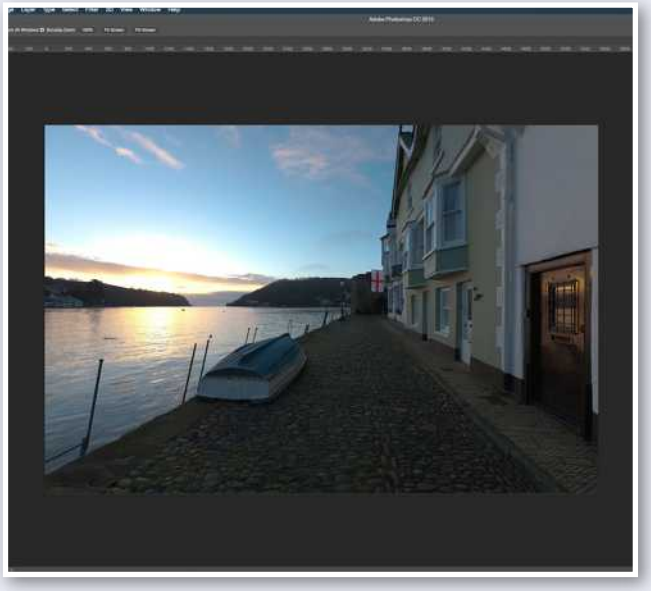


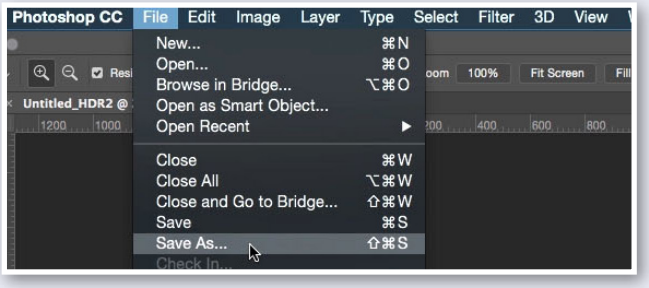


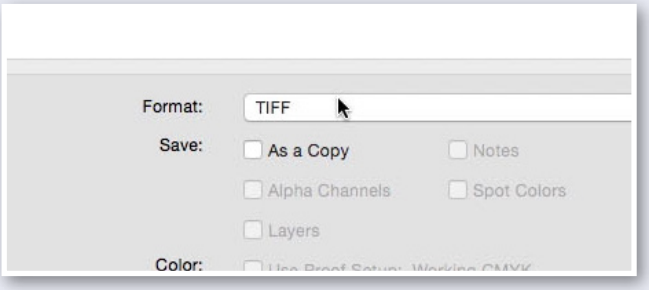


05 If your multiple images have moving objects such as clouds, make sure that the Remove Ghosts checkbox is selected. You can click on any of your images to use as the template for the de-ghost process.

06 The Set White Point Preview slider actually has no effect on the resulting image. It is just there for you to choose how light or dark an image you want to use as a preview. Click OK and the 32-bit file will be created. Photoshop CC users have the option of a one button click to automate the next steps.

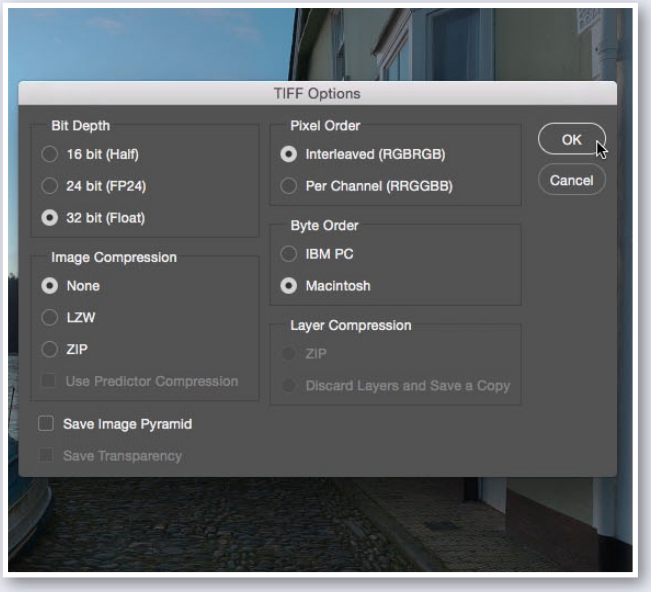




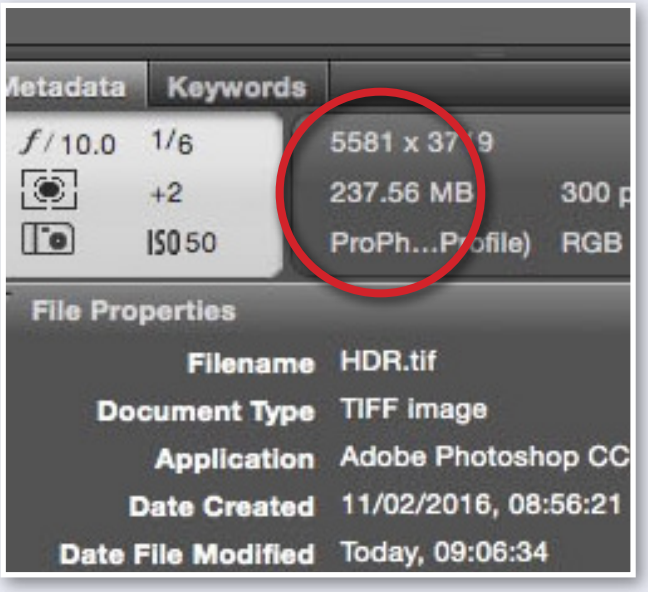


07 This newly created image will be displayed in Photoshop. The top left corner of your image document window should now indicate that the picture is now 32 bit. Don't be worried if it doesn't look at all like you expected.

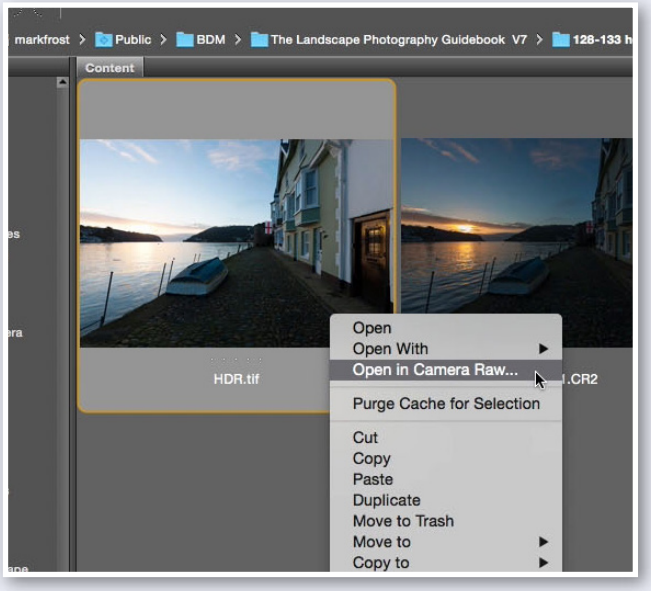
08 Next, you need to Save this file. From the main menu select File > Save As and save the image. In the Save As dialog box, make sure that the Format is set to TIFF, name your file and click Save.



09 The TIFF Options box will appear. Make sure that 32 bit (Float) is checked in the Bit Depth section and that Image Compression is set to NONE. The other sections can be kept at default. Click OK to save and your file is ready.



10 It's worth noting that 32 bit floating point files are much bigger than standard images given the amount of dynamic range data it contains.



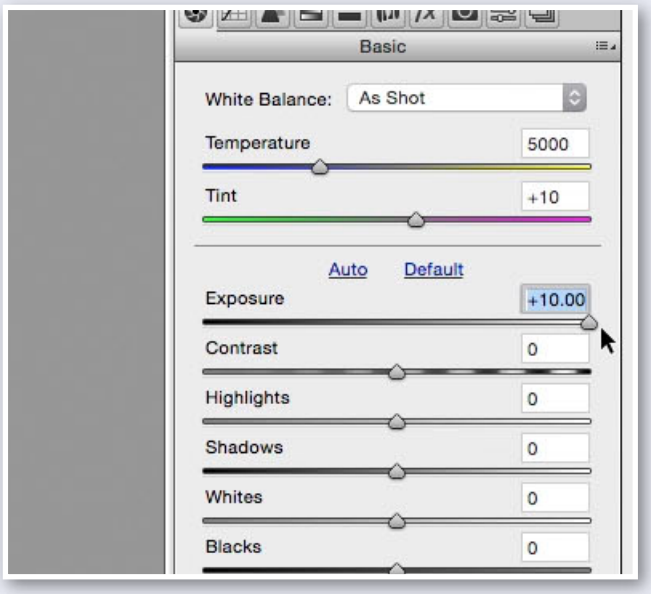
11 In our example in Adobe Bridge you can click on the 32 bit file and select Open in Camera Raw. Alternatively, as long as your JPEG and TIFF handling options are active in the Camera Raw Preferences, you can just double-click the file and it will open in ACR by default.



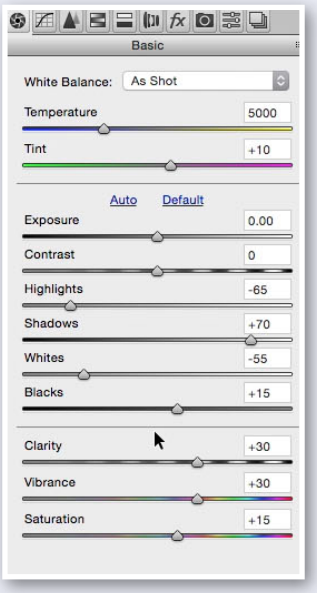
12 Upon opening you may think the image looks pretty terrible. Not to worry.

PHOTOSHOP

High Dynamic Range images



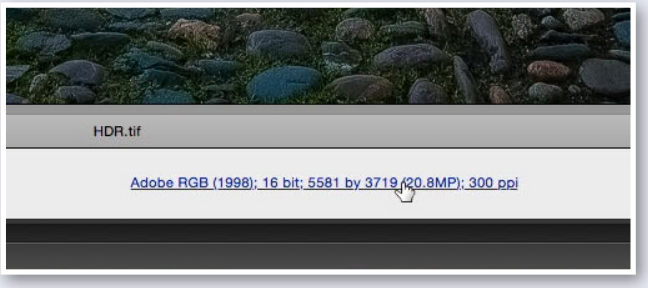


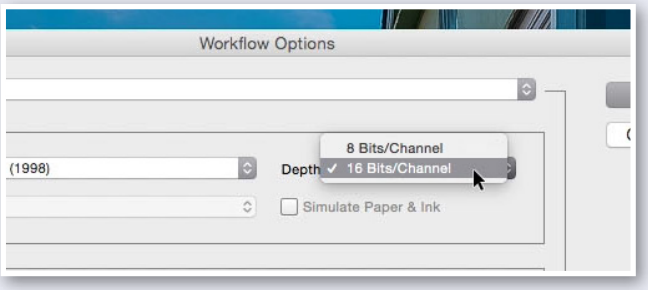


13 Bear in mind that when opening and editing a standard Raw file you only have 10 stops of exposure range from -5 EV up to +5 EV. With your newly opened 32 bit file you actually have 20 stops of exposure adjustment available to you. The exposure slider will now go from -10 EV up to +10 EV.

14 The next stage is to process your image. This of course comes down to personal taste, but the starting point is to alter the Highlights and Shadows sliders to reduce the exposure in the highlights and lighten the shadows. You can then alter the other sliders to finesse the image to your taste.

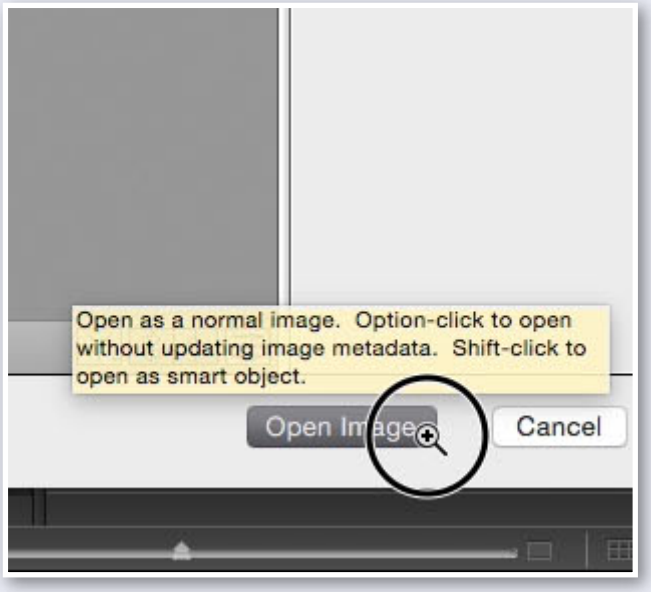




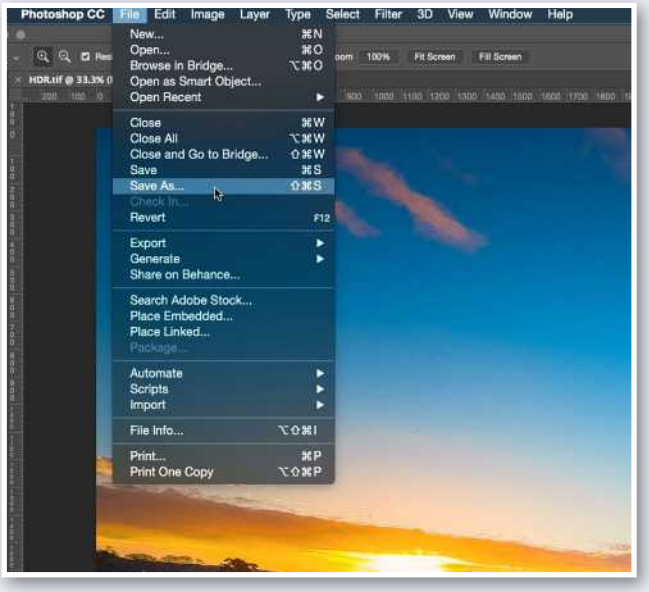


15 Because you are working on a 32-bit image, you can push the adjustments much further than you could with a single Raw file before it starts to degrade.

16 At the bottom centre of the screen you need to click on your Workflow Options. This will open the Workflow Options dialog box. Make sure that the Bit Depth tab is set to 16-bit and click OK.



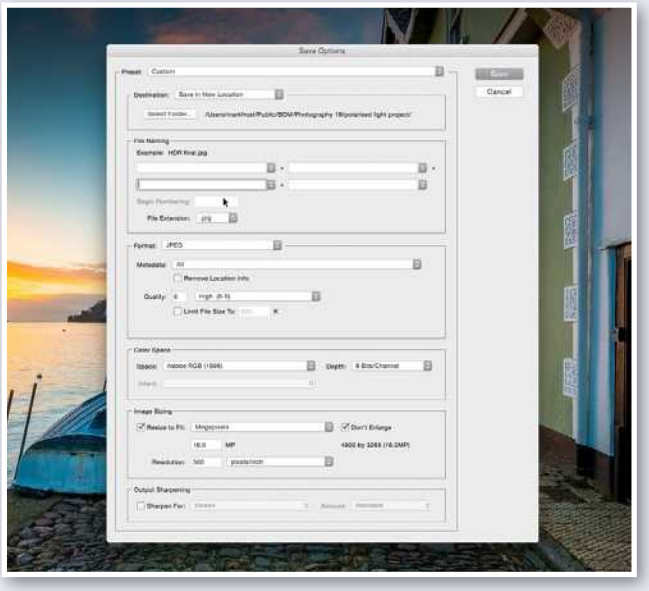
17 Now you can click the Open Image button at the bottom right of the screen. The image will now open in Photoshop with a bit-depth of 16.



18 With the image open in Photoshop you need to go to the main menu, select File > Save As and save the image as a 16-bit TIFF with a new filename. You can keep the TIFF options as default and click OK.



19 This new image can now be opened once again in Adobe Camera Raw and processed all over again. You can really go to town on it and add all sorts of adjustment brushes, colours, grads and effects.



20 When you are happy with the final result, you can go to your workflow options and set the Bit Depth as a standard 8-bit image and save it as a TIFF or JPEG. If you wish, you can open the file in Photoshop and give it some final tweaks.

BEFORE

AFTER

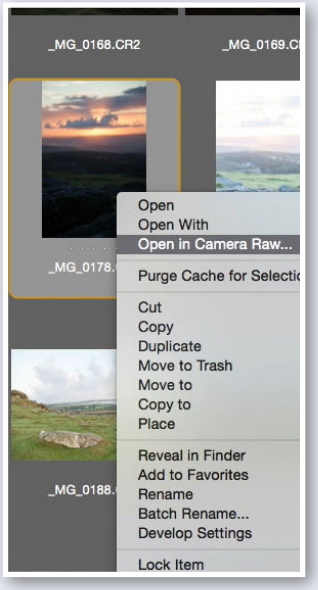
Adjusting exposure

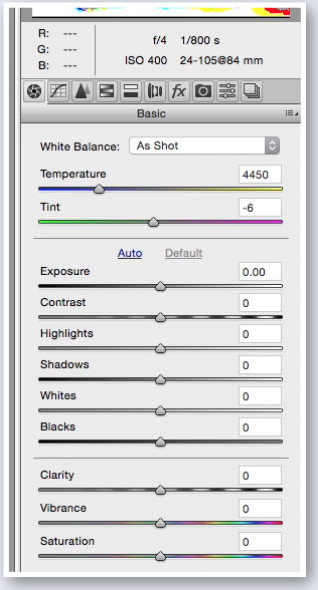
Recover under-exposed images

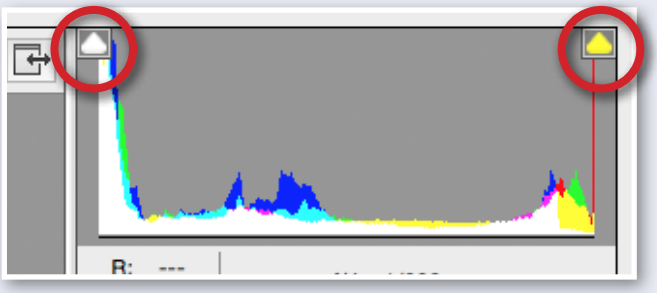
Even with the sophisticated technology in the light metering systems of modern digital cameras, they are not infallible. Some lighting conditions can confuse them, resulting in pictures that are over or under-exposed.

Severe over-exposure where large areas are burned out white or under-exposure resulting in areas of featureless black, are generally impossible to correct; between those two extremes though it is often possible to rescue a badly exposed photo.

If you shot your images in Raw format, then the first and probably best method to adjust your exposure, is in a Raw processing program. Alternatively you can adjust it in Photoshop. We will show you both methods.





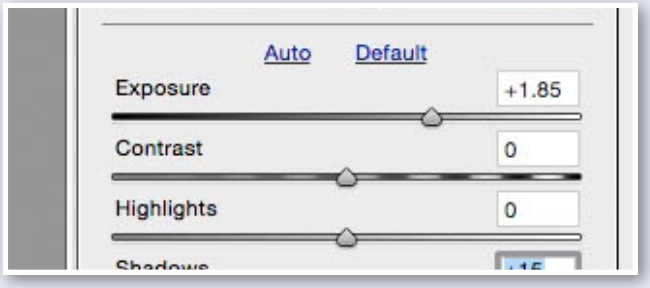




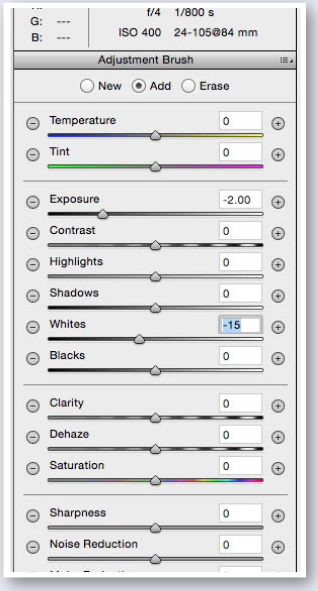
01 Our example is a very under-exposed moorland image shot as a Raw file. When opened in Adobe Camera Raw (ACR) you will be presented with the main exposure adjustment sliders on the right of the screen. These are the main sliders that deal with the tonal range of the image

02 If you turn on the highlight and shadow warning buttons, this will show you if the image is losing detail in the lightest or darkest parts of the shot. You can see the red areas that denote areas where the image is too light and blue areas where the image is too dark.

PHOTOSHOP





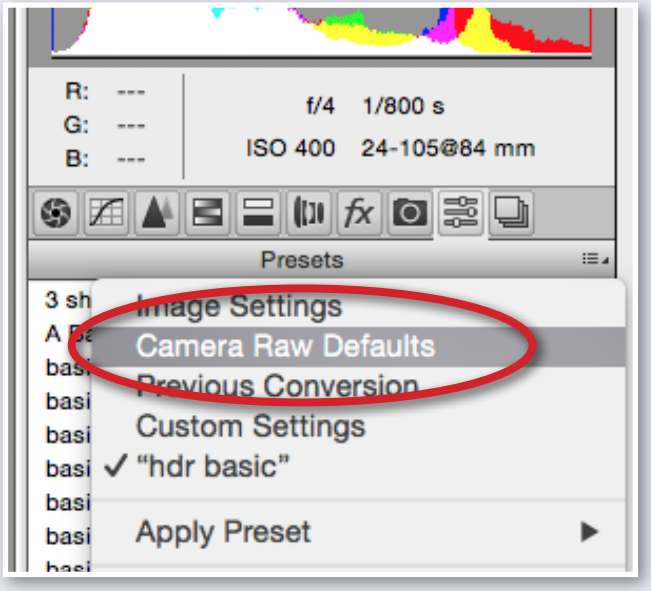


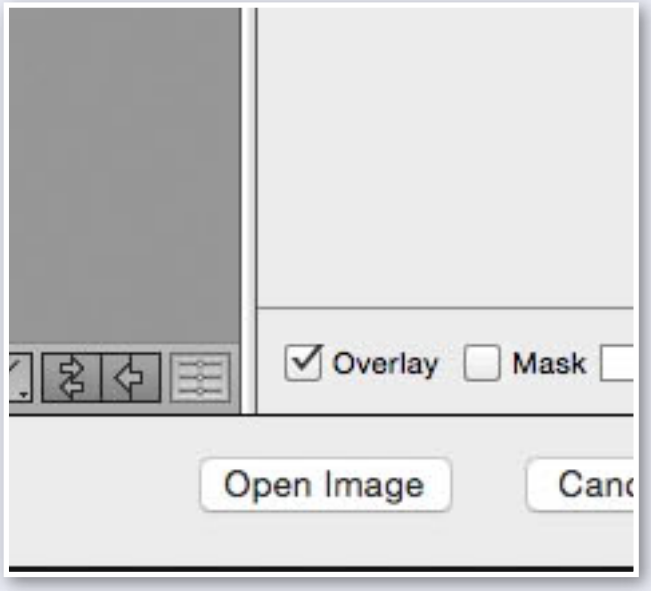




03 Slide the Exposure slider to the right to lighten the ground. The sky may become over-exposed but we can address that. Adjust the Shadows and Blacks sliders until the darkest areas are recovered. Adjusting Whites and Highlights can help recover detail in the brightest areas.

04 Next we need to address the over-exposed sky. Press K and you will access the adjustment brush panel. Set the Exposure value to approx. -2.00 and Whites to around -15 and paint across the sky. As you do you will see it darken, based on the values you set for the brush.



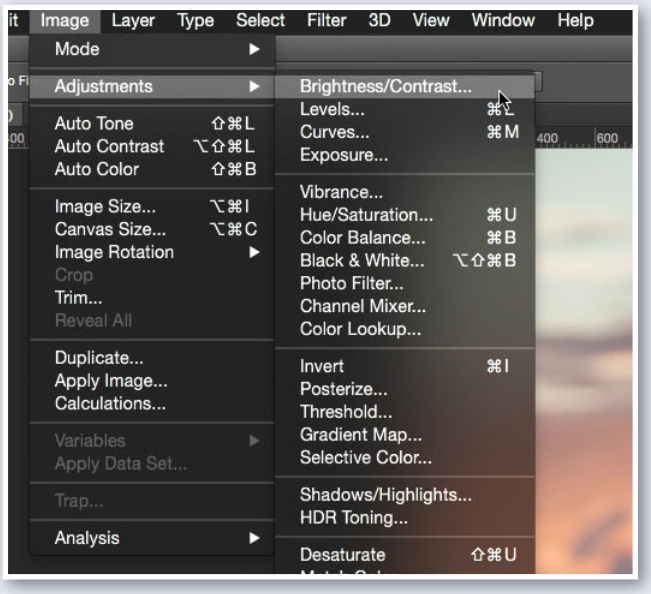


05 Because this is a Raw file, all the adjustments you make are non-destructive. You can clear these setting any time you wish and start again from scratch if needs be. The original image data is not affected.

06 You can continue to make adjustments until you have it how you want. Beware of extreme adjustments as it generates a noisy image. At this point you can click on the Open Image button at the bottom right of the screen and continue working on it in Photoshop.

PHOTOSHOP

Adjusting exposure

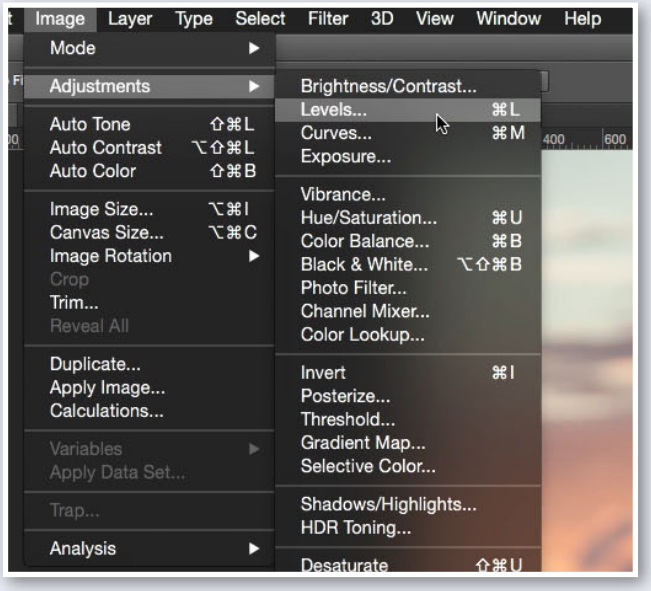






07 In Photoshop, the easiest way to brighten the photo is to simply turn up the brightness. This will work in any editing program but as we will see it isn't always the best option. In Photoshop it is under Image > Adjustments > Brightness/Contrast.

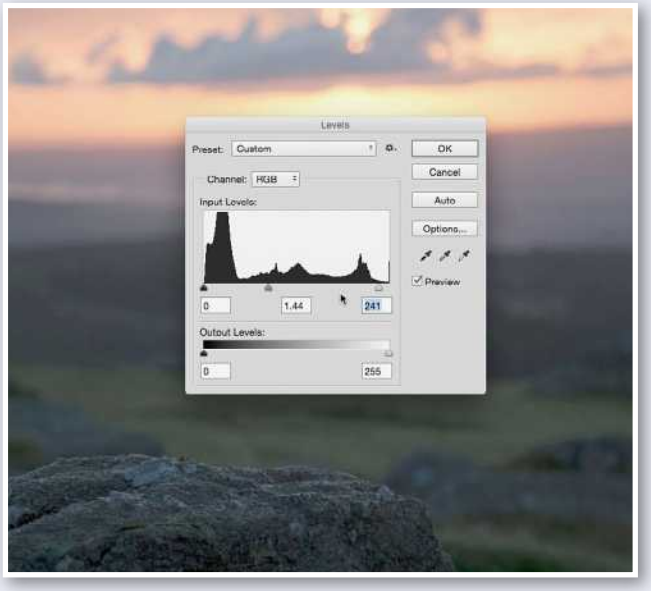
08 Moving the Brightness slider to the right brightens the whole photo, which makes the shadows far too light, so we have to adjust the contrast slider to the right. This produces an approximation of the correct exposure, but the lighter areas have been brightened too much.



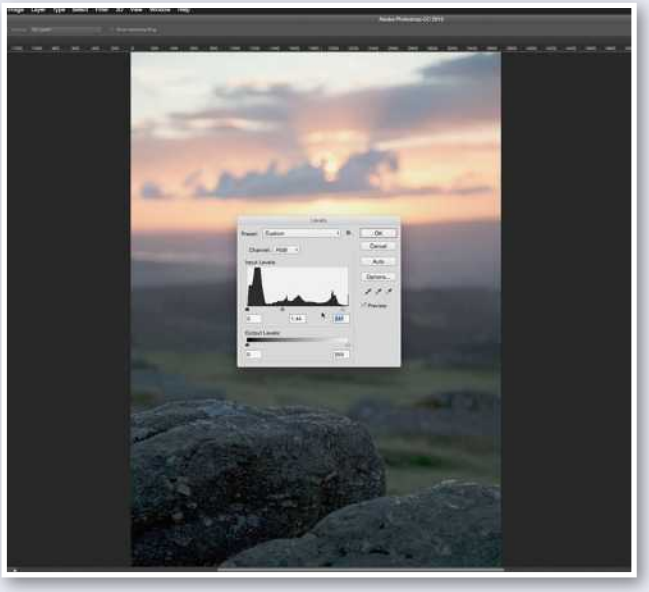


09 There is an alternative method of altering brightness and contrast but this time with more subtlety and control, by adjusting the levels histogram. You will find this under Image > Adjustments > Levels.

10 The levels histogram is a graph showing the proportion of pixels in the image at each colour intensity. The far left-hand end of the graph represents black and the right-hand end is white, with every tone in between.



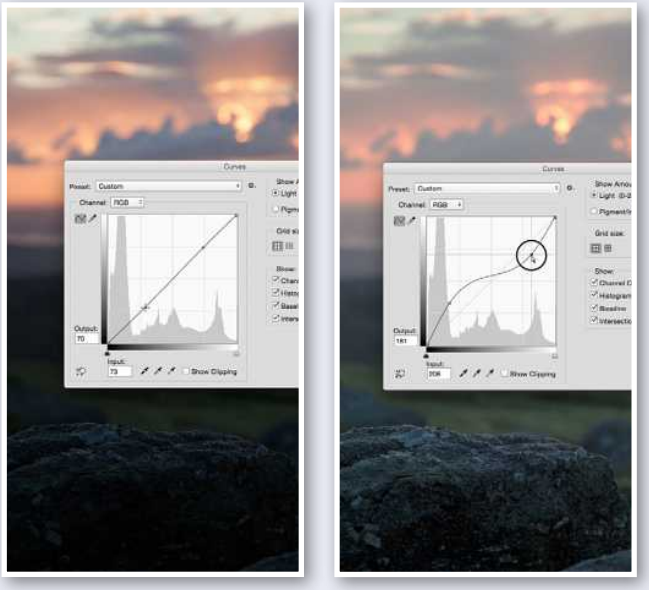
11 Our image is all shadow and some highlights, with an even spread in the mid tone range, so we need to brighten some of those shadows into mid-tones. Move the mid-tone point left towards the shadows. This brings out a lot of the detail from the shadow and preserves highlights.



12 It also leaves the deeper shadow areas intact. It is a far better way of adjusting the exposure of a photograph than simply altering the Brightness/Contrast; however, it isn't quite the best way. Adjusting the Levels mid point is still strictly linear in its adjustment.



13 Curves adjustment, found in the Image > Adjustment menu, is a method of changing the relative brightness of specific tones and ranges of tones within an image. You can drag the Curves output line around by clicking at any point, then moving the handle that appears.



14 We need to brighten the shadows and mid-tones while simultaneously darkening the highlights by manipulating control point on the curve. Push the curve too far and you'll ruin the picture but get it just right and you can rescue even quite badly under-exposed pictures.

Rotating, levelling and cropping

Get your landscapes on the level

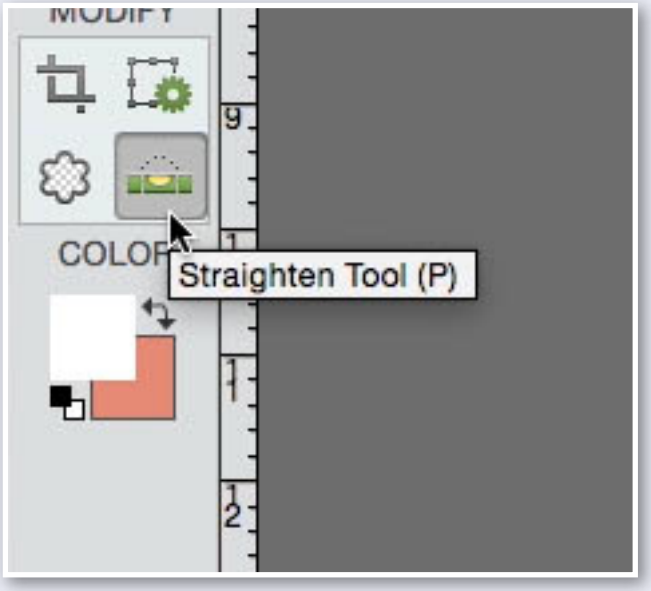
When you're shooting landscapes or architecture, if you don't keep your camera level you're going to end up with a sloping horizon or buildings that look like they're leaning over. Unless you're holidaying in Pisa this is something you want to avoid, but accidents will happen.

Fortunately it's possible to correct tilted shots using Photoshop Elements by rotating and cropping the image. It's very easy to rotate an image in Photoshop Elements, to bring the horizon back to the straight and level and to stop buildings looking like they're about to topple over. In fact it's such a common operation that the program provides several different ways to perform it. Which method you choose depends on the particular photo you want to straighten.



AFTER

ELEMENTS

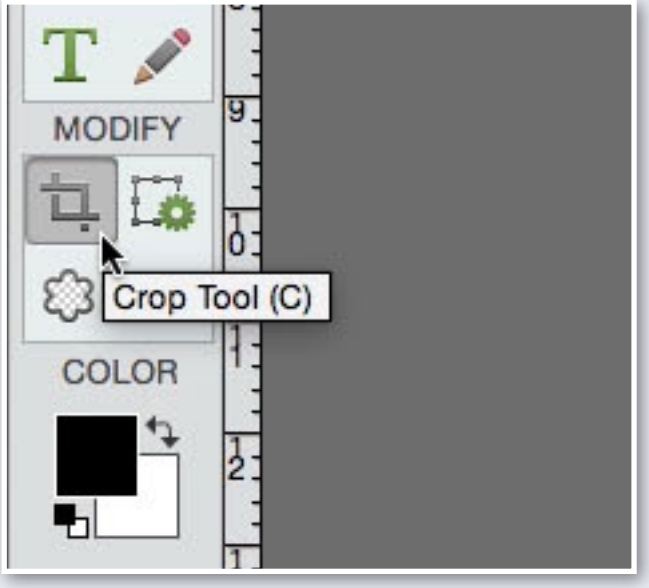




01 Elements includes a Straighten tool specifically designed for correcting horizontal and vertical lines. You'll find it about halfway down in the Modify tool palette; its icon looks like a little spirit level. The keyboard shortcut for this tool is P.

02 Select the Straighten tool from the tool palette, and your cursor will turn into a small cross hairs. Position it at one end of the horizon, then click and drag a line along the horizon.





03 Although the horizon is now level, you'll see that there are now triangular white areas around the image that will need to be removed. The usual way to do this is to crop the image so that they are no longer visible. This means losing some of the image around the edges.

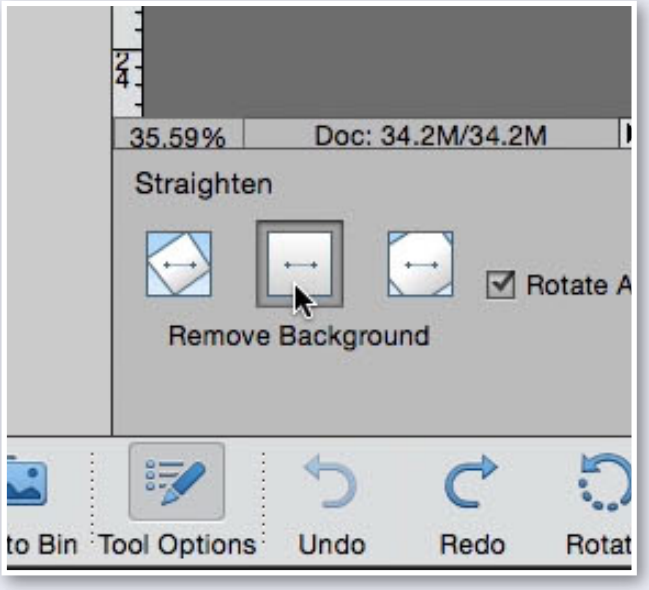
04 To crop the image, you'll be astonished to learn that we'll use the Crop tool. You'll find this in the Modify palette, the same as the Straighten tool. The Crop tool is very simple. Starting near any corner, click and drag a box towards the opposite corner.

ELEMENTS

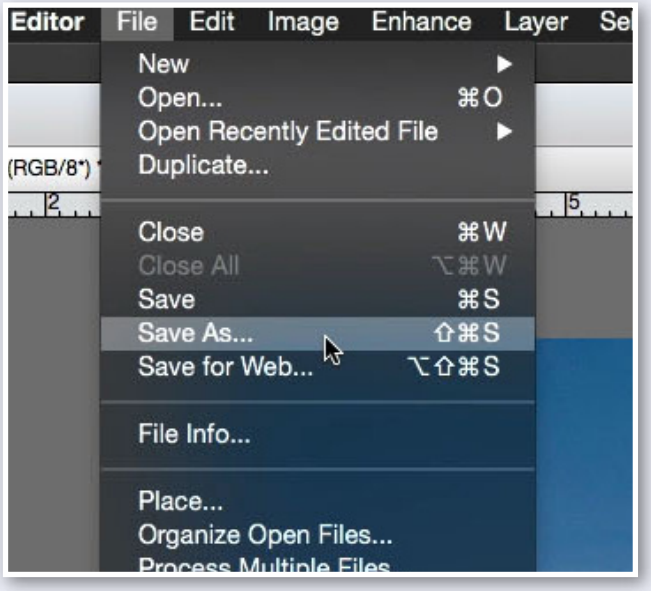
Rotating, levelling and cropping



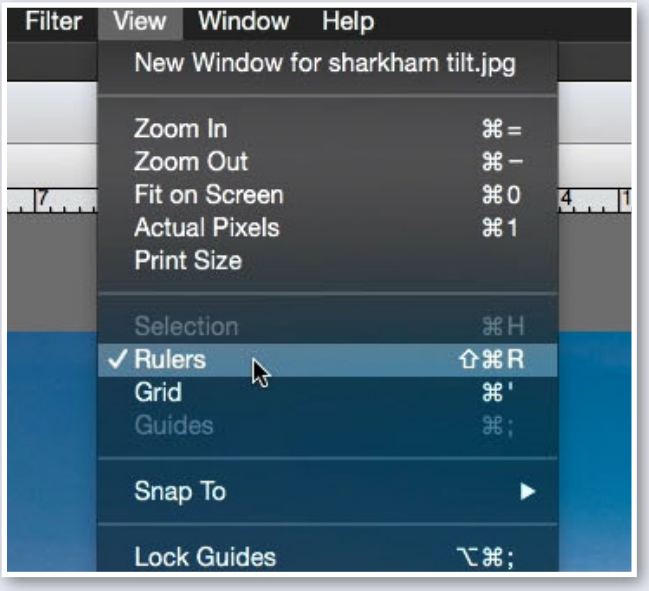
05 You can use the grab handles in the middle of each side to resize the box and zoom in to get it as close as possible to the edges of the image, so that you're wasting as few pixels as possible. When you're happy with the position of the box, hit Enter to perform the crop.



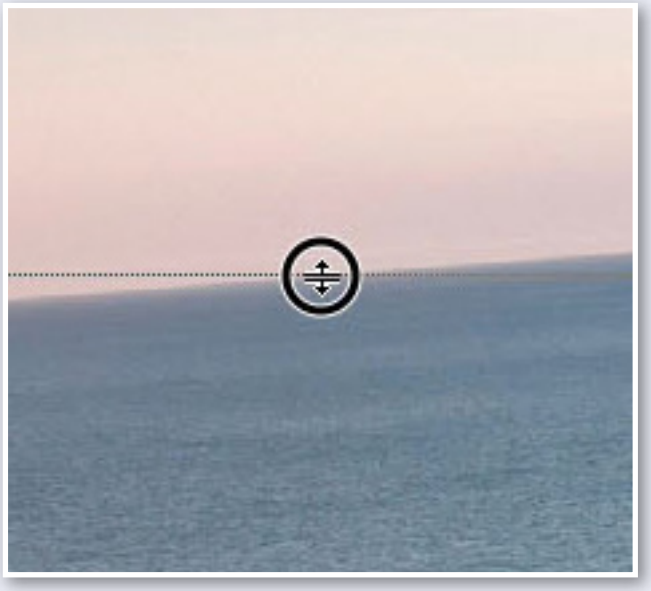
06 Optionally you can have Elements do this step automatically, by selecting Crop to Remove Background from the menu in the tool options in the bottom left of the workspace.



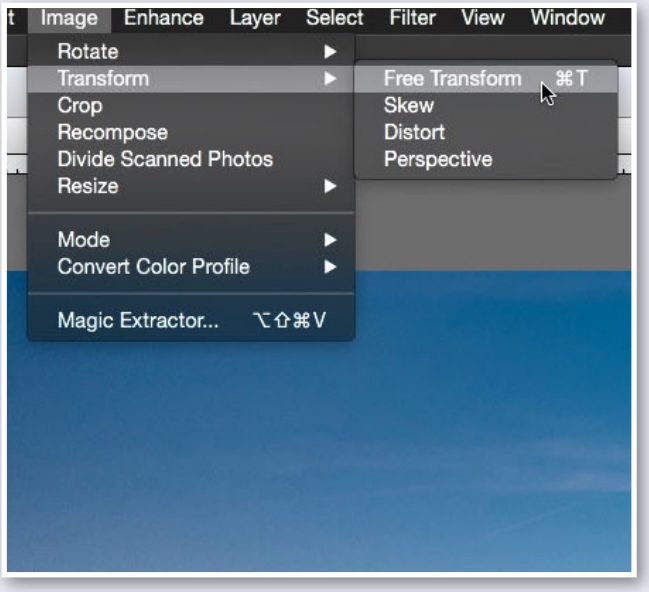
07 Once you've done this, save the corrected version of your picture under a new name or number using the Save As... option so that you still have the original file.



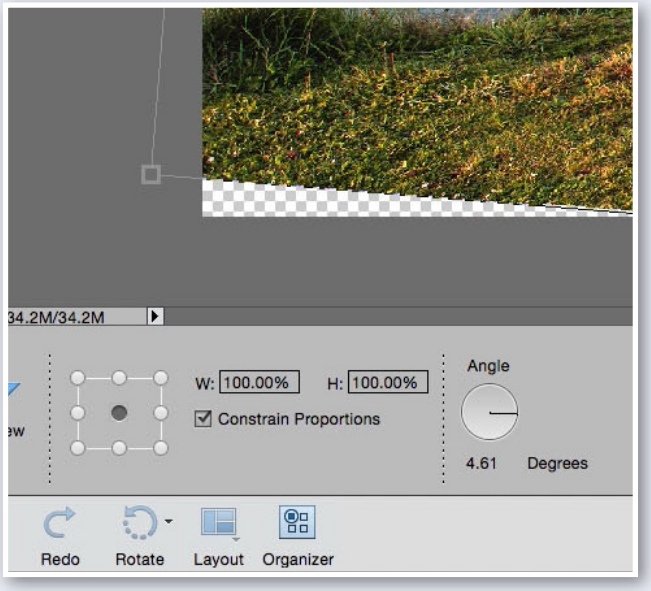
08 Another way to rotate an image is by using the Transform function. This is useful if you want to rotate an image freely by hand or rotate just one layer in a multi-layer composition. You need to have Rulers visible. You'll find this option in the View menu.



09 Next click on the horizontal ruler and drag downward. This will place a guideline on your picture. Position this line so it is close to the horizon. Don't worry, it won't show up on the finished image.



10 You'll find the Free Transform option in the Image menu, under Transform.



11 A line appears around your image, with grab handles at the corners; at the bottom of the screen are three input boxes, two for width and height and the third for rotation. Input an angle of rotation directly in this box or click and drag near one of the corner handles to rotate the image manually.



12 Drag it until the horizon lines up with your horizontal guide, then press Enter to confirm the transformation. Crop off the white edges and save the image under a new name and you are done.

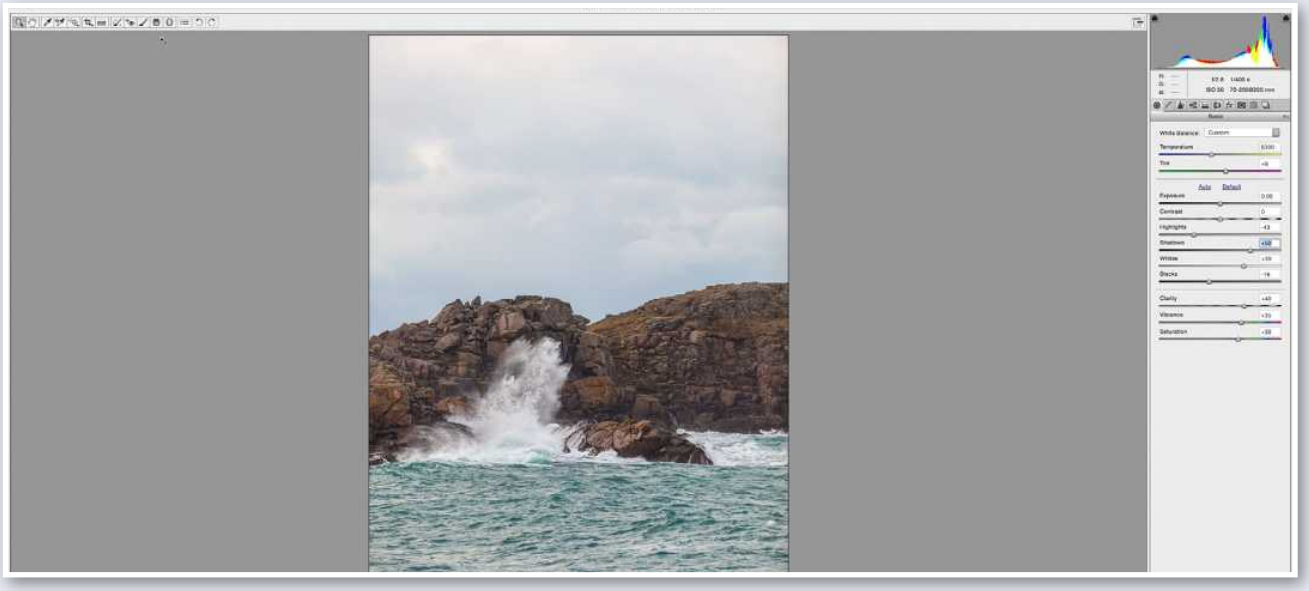
Adding a graduated filter

Digitally balance exposure in your skies

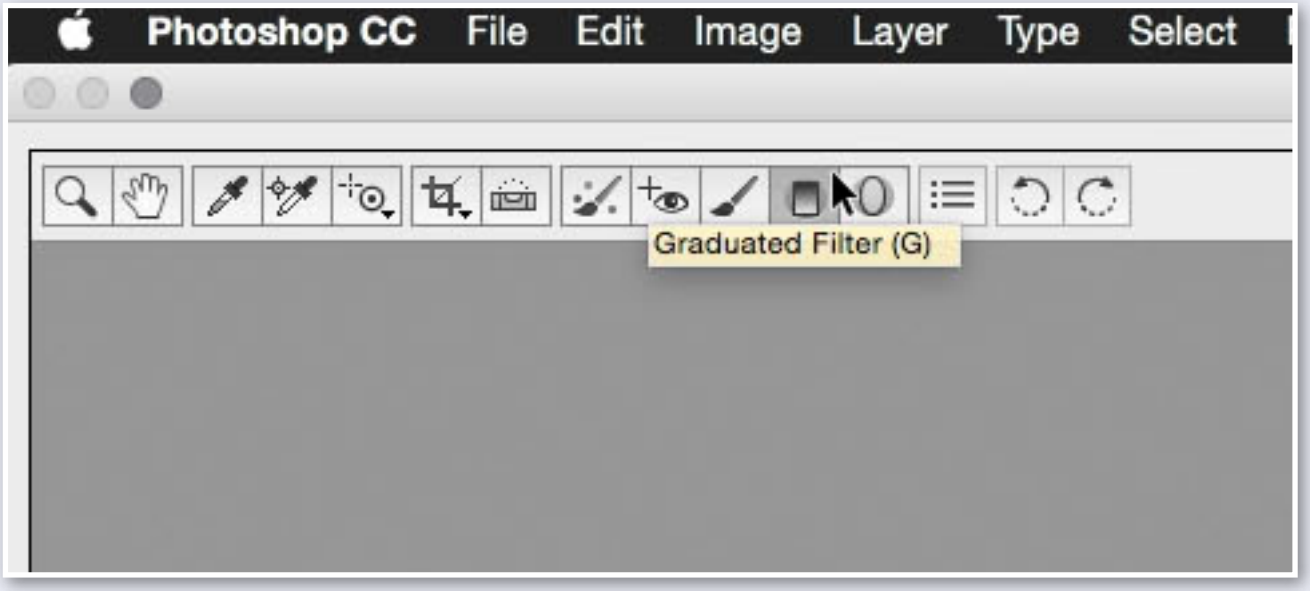
As with most photographic techniques, it's possible to duplicate the effect of graduated filters using Adobe Photoshop and as usual there are several ways to accomplish this. For this example we'll use an image of a rocky coastline in the Isles of Scilly in Cornwall, taken on an overcast but bright day with a washed out sky.



PHOTOSHOP



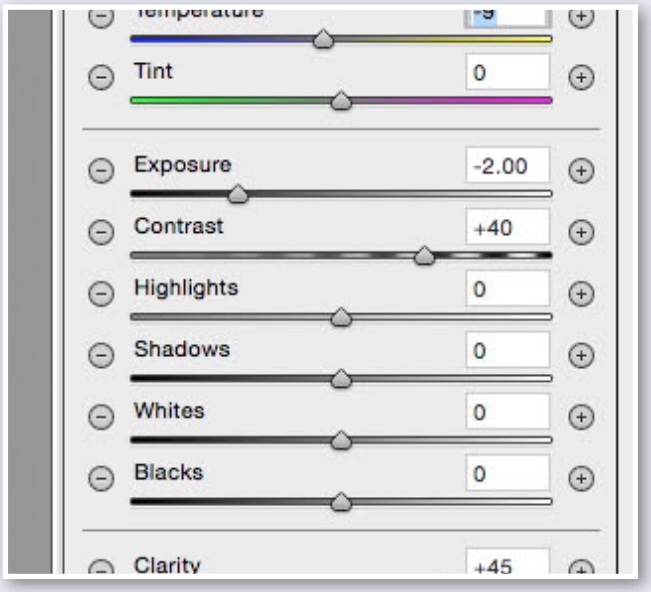
01 Since this photo was taken using Raw mode, we can use the Graduated Filter tool in Adobe Camera Raw to add the effect during processing. This is by far the best way to do it, since it preserves the maximum amount of detail in the photograph.

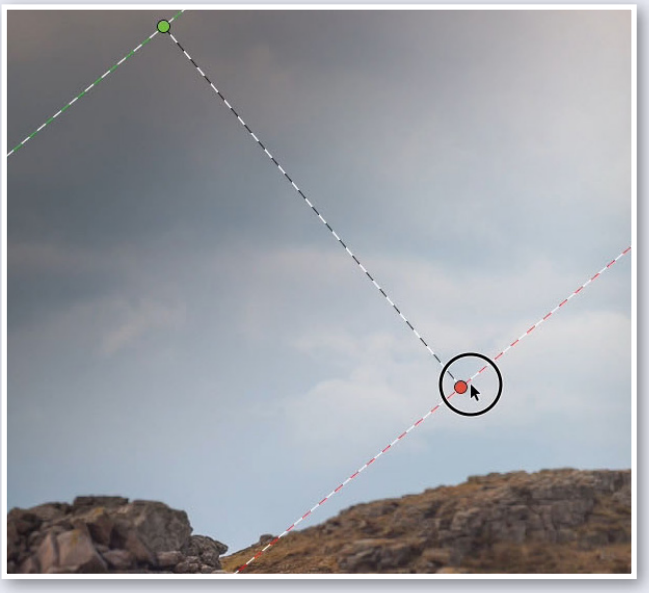


02 When you open the image in Adobe Camera Raw, you'll see a row of tool icons across the top of the main image window. The Graduated Filter icon is to the right.

PHOTOSHOP

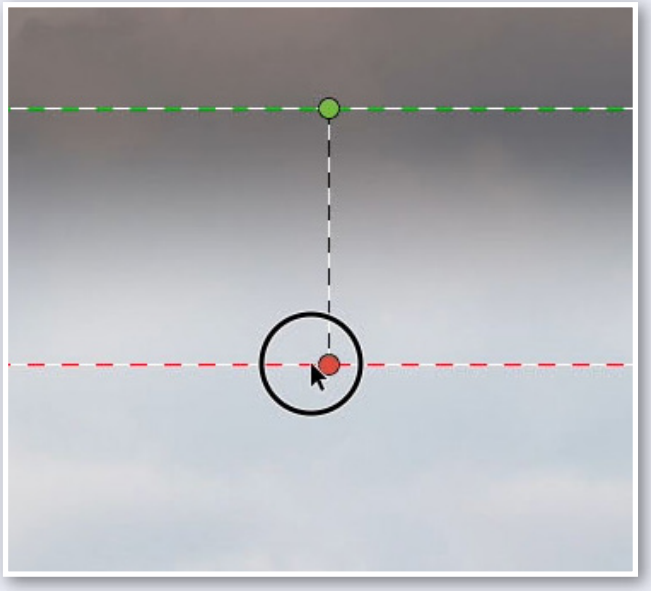
Adding a graduated filter

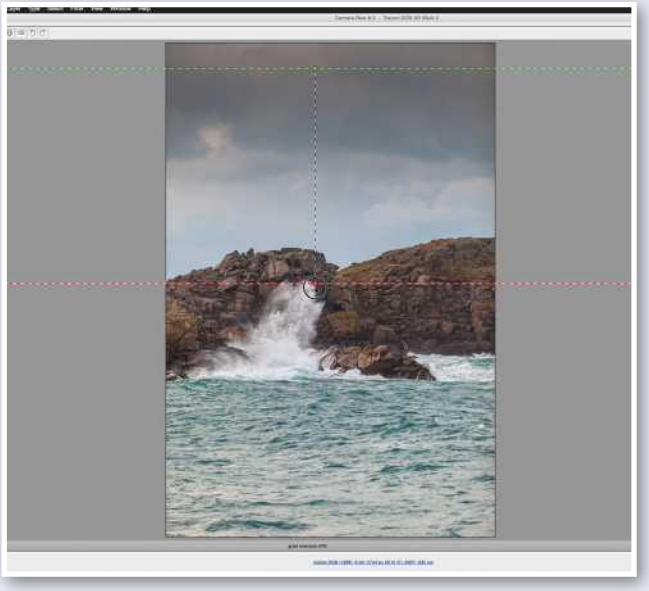




03 Click on the Graduated Filter icon. You'll see the control panel on the right of the screen change. Set Exposure to -2.00, Contrast to +40, and Clarity to +45. This should help bring out detail in the sky.

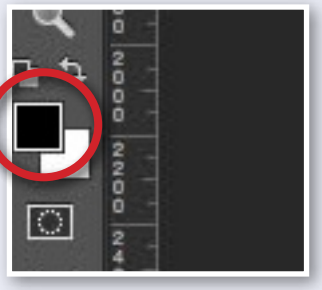
04 Drag a line down from the top of the screen to the horizon line. You'll see a horizontal and vertical dotted line like an inverted T. You can change the angle of the line by moving the cursor left and right or you can hold the Shift key to constrain the line to the vertical.



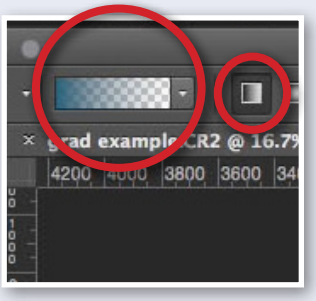


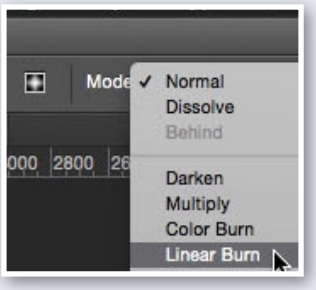
05 The red dotted line marks the lower area of the gradient effect and a green line marks the top or darkest area of the effect, with a smooth gradient between the two lines. If you drag this green line down more of the image will be at maximum effect and the gradient will be shorter.

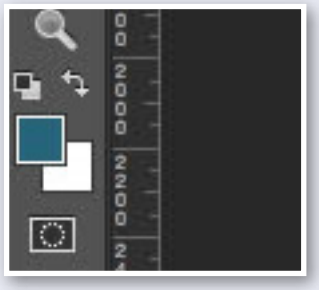
06 At this point you could click Open Image and work on it further in Photoshop or just save it using the options available in Adobe Camera Raw. If you don't have a Raw file, you can always open a jpeg in Photoshop and add a grad there.

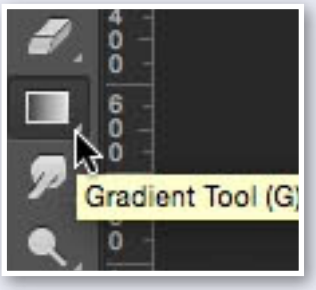


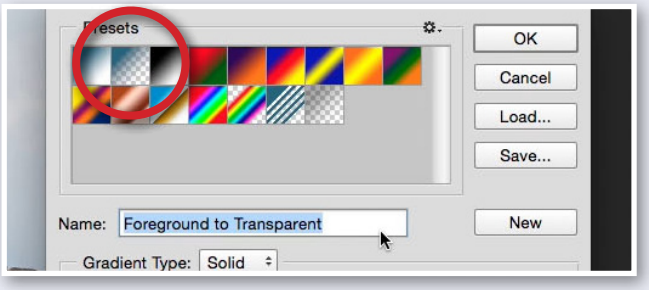












07 If you prefer to work on your image in Photoshop, you can apply a graduated filter using the Gradient Tool. Set the foreground colour to blue by clicking on the foreground square and then using the colour picker to choose a colour. Then select the Gradient Tool.

08 In the tool options bar, click on the gradient editor and select Foreground to Transparent; click on the button for Linear Gradient, set the Blending mode to Linear Burn and keep the Opacity to 100%. Make sure the boxes for Dither and Transparency are checked.







09 Start at the top of the frame, click and drag down to the horizon line. If you hold down the shift key it will constrain the line to the vertical. A blue grad is blended into the sky, adding some detail back into the sky.

10 Your image is much more balanced now that the sky has had the graduated filter applied. You will find many of your images that have overexposed skies, can benefit from this technique.



AFTER

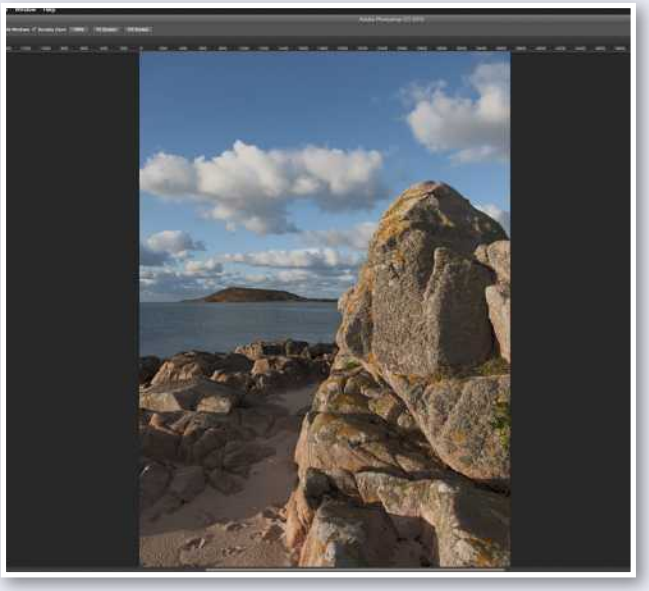
Contrast and saturation

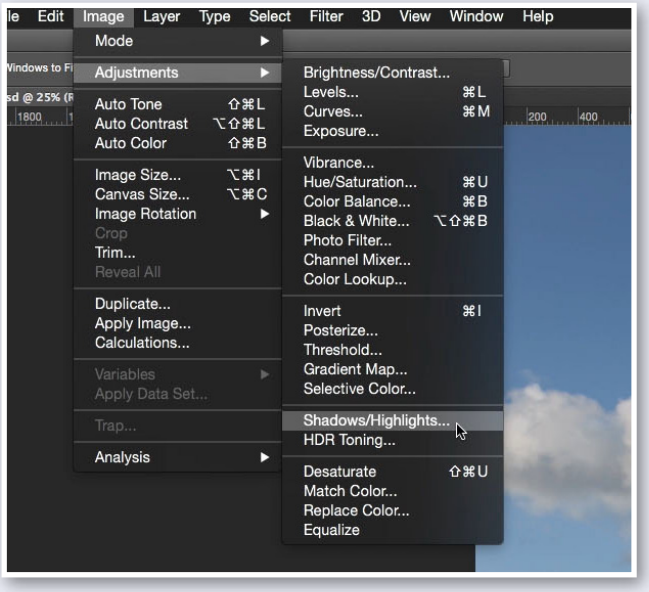
Give your images more punch

When you come to process our landscape images. The first and simplest thing you can normally do to a shot is to adjust its Saturation, Brightness and Contrast. These things can have the greatest initial impact on your work. At the risk of sounding like a broken record, we would always advocate the practice of shooting in Raw format and adjusting your shots in your favourite Raw processing program before moving on to enhance the images further. Sometimes this is not possible though.

If you have older images shot in jpeg format or if your current camera doesn't support Raw, then Photoshop and its photo editing counterparts has the answer. Here, we show you a quick guide to enhancing your images non-destructively in Photoshop and adding a little punch by using some simple adjustment layers.

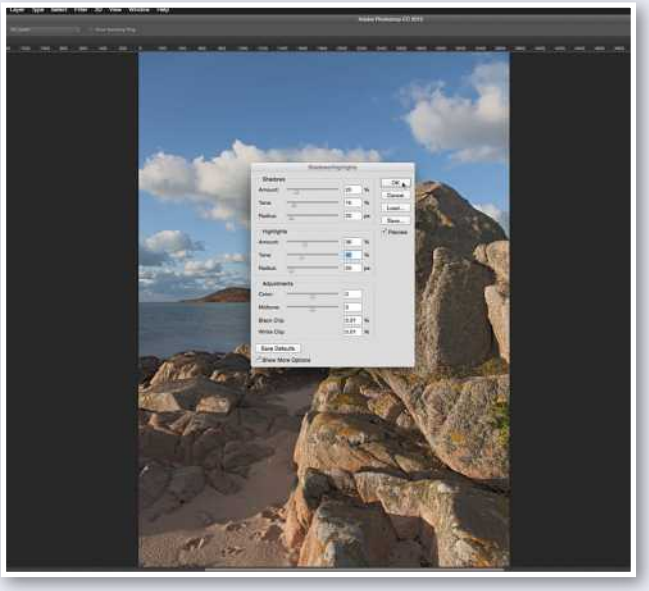
PHOTOSHOP

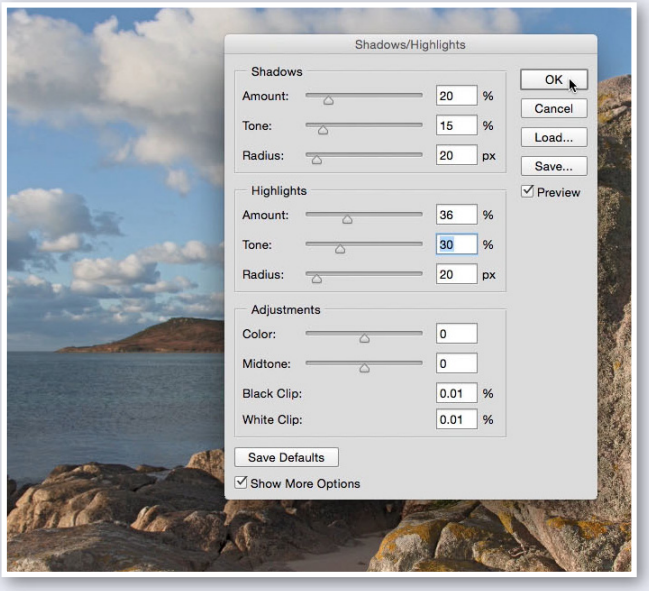




01 We have a landscape image taken on the coast in the Isles of Scilly, Cornwall. The overall exposure and tone needs a little work to perk it up a little.

02 This first step is optional but before you add too many adjustments, it is a good idea to recover the images' shadow and highlight areas to stop too much loss of detail. A quick and useful way to do this is via the Shadows/Highlights function.



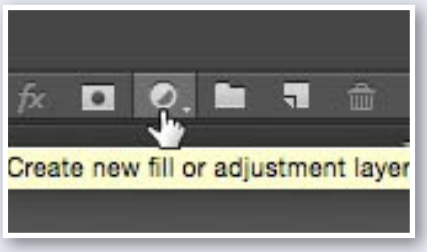


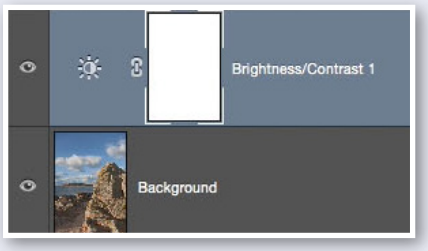
03 Go to Image > Adjustments > Shadows/Highlights. A dialog box will appear where you can lighten the deepest shadow areas and darken the lightest areas of the shot slightly. This all helps maintain detail before the main adjustments start.

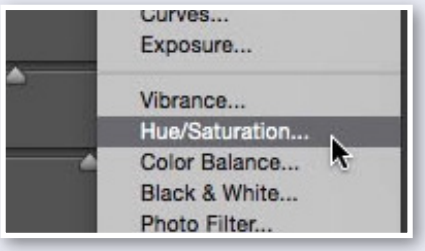
04 Under the Shadows panel altering the Amount, Tone and Radius settings will allow you to lighten the shadows. The same goes for the Highlights panel. The values here allow you to recover highlight detail. In both cases try not to overdo it.

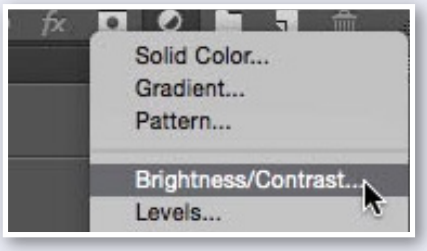
PHOTOSHOP

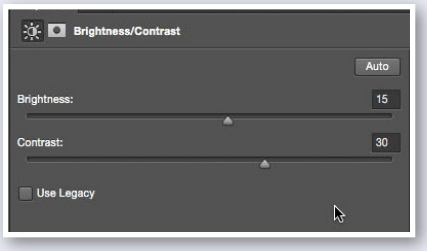
Contrast and saturation

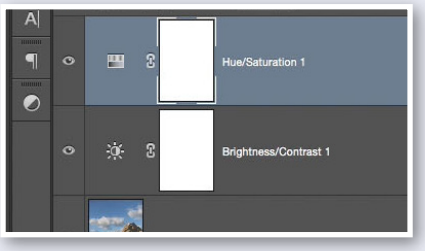








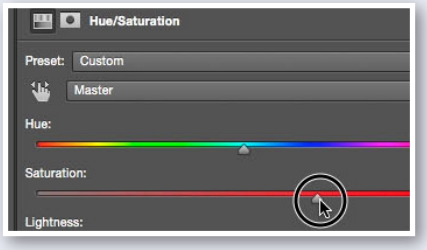


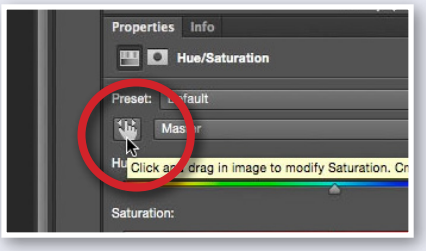


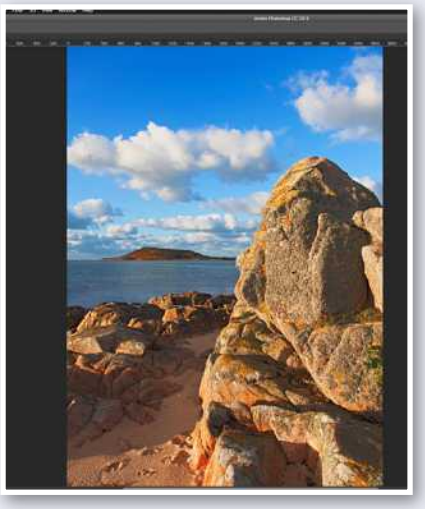
05 Add a new Adjustment Layer by clicking on the Add Adjustment Layer button at the bottom of your layers palette. Choose Brightness/Contrast from the dropdown list that appears. A new Adjustment Layer will be added above your image.

06 The Properties panel will allow you to change the brightness and contrast values. We've set values of Brightness 15 and Contrast 30 that brighten the image and add a little more contrast without losing detail.

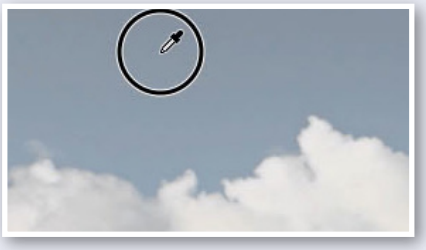
07 Next click on the Add Adjustment Layer button again and select Hue/Saturation. A Hue/Saturation adjustment layer will be added to the layer stack.











08 If you adjust the Saturation slider, you will see that your image becomes more vivid as the colours become more deeply saturated. Watch out for over saturation, as this can completely ruin an image.

09 You can selectively alter the saturation of the image by clicking on the Colour Range button and then clicking and dragging on an area of the image. Here we have clicked and dragged on the sky and only altered the blues in the sky.

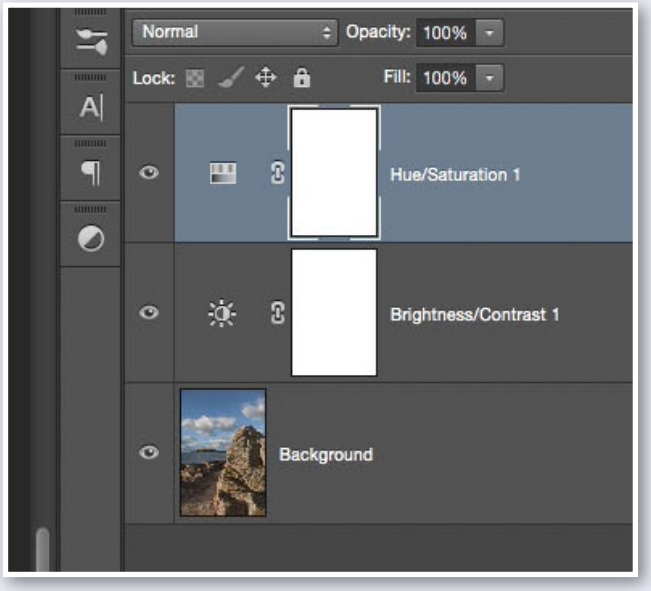
10 You can also adjust the Hue of the colours in the scene, either globally by moving the Hue slider left or right or using the Colour Range feature from the previous step but by holding the Cmd key while you drag.



11 Now the blue sky will shift colour towards purple/red or green/yellow depending on which direction you move the slider.



12 By Cmd + clicking on the yellow rock in the foreground you can use the same technique from the last step to shift its colour towards red or green.



13 Two simple adjustment layers have been applied to the image, and in a short space of time; it now looks more vibrant and has more punch than when we started and because the adjustments were done on layers, it is all non-destructive.



14 Now you see how easy it is to breathe new life into a dull image. Five minutes is all it takes to get your photos sparkling.

Curves and levels

Adjusting shadows, mid-tones and highlights

You'll find the Curves function in the Image > Adjustments menu, or use the keyboard shortcut Cmd+M. The Curves dialogue looks a bit daunting at first; a graph with a diagonal line running up the middle of it, like a difficult piece of maths homework. It's nothing to be scared of though and is in fact the most useful and versatile tool for making adjustments to the exposure and tonal balance of your images. As a starting image we'll use this landscape image.

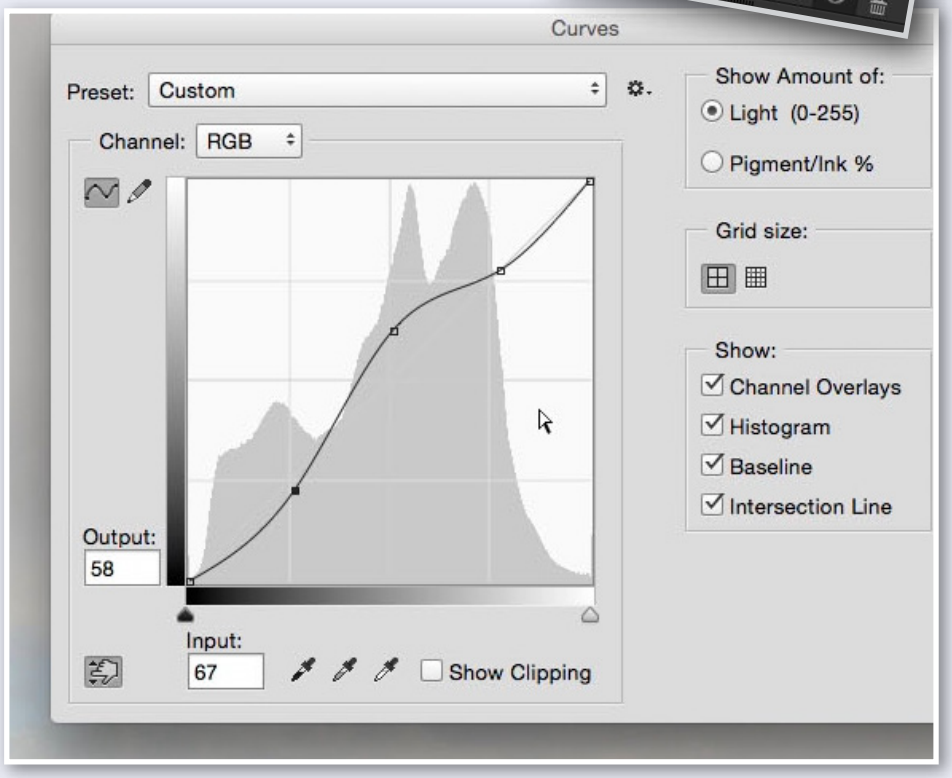


PHOTOSHOP

01 The Curves graph shows the input distribution along the bottom of the graph, and the output up the vertical axis. The straight diagonal line from corner to corner indicates that there is a 1:1 ratio between input and output at all tones; the output is exactly the same as the input, as you'd expect. It is by adjusting the line and altering the ratio of input tones to output tones, that we can achieve a number of effects. The left-hand end of the horizontal axis represents the darker tones, while the right-hand end represents the highlights.



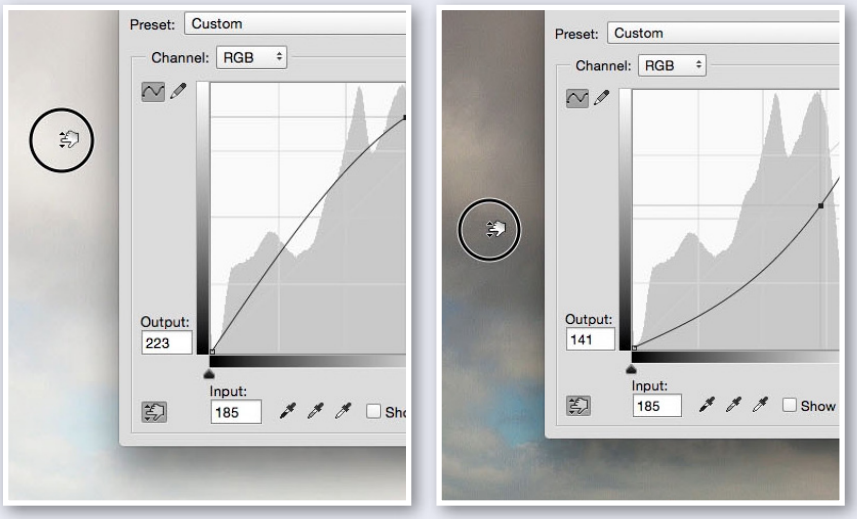
02 The Curves graph can be manipulated in several ways. You can move the line directly, by clicking on it to place new anchor points and then dragging these points into new positions. You can also use the arrow keys to nudge a selected point up, down, left or right. There's no limit to where the line can start or finish or where it goes in between, which can lead to some extraordinary results.



PHOTOSHOP

Curves and levels

03 In later versions of Photoshop there's an even more useful way to use Curves. Just to the lower left of the histogram you'll see a button with a hand and two arrows on it. If you click this button and then move the cursor over the image you'll notice a point on the line move up and down as the cursor passes over lighter and darker areas. Pick a spot that you want to lighten, click on it and drag upward and you'll see the tone curve move to match. Using this awesome feature you can selectively lighten or darken pretty much every tone in the image.



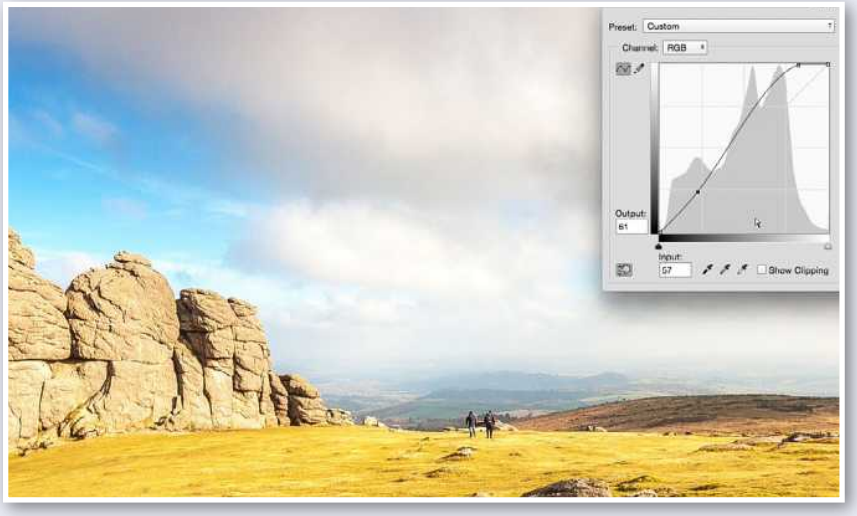
04 **Boosting contrast**

Add two anchor points to the tone curve roughly one third of the way from either end. Drag the shape of the line into a narrow S-shaped curve, slightly raising the upper half of the curve and lowering the lower half of it, leaving the mid-point and both ends in the same positions. This will brighten the lighter areas of the image, while darkening the darker areas, increasing the contrast while maintaining the same overall exposure. It's an excellent way to make very precise adjustments to contrast. Mid-tone lightness can be adjusted by moving the mid-point on the curve up or down.



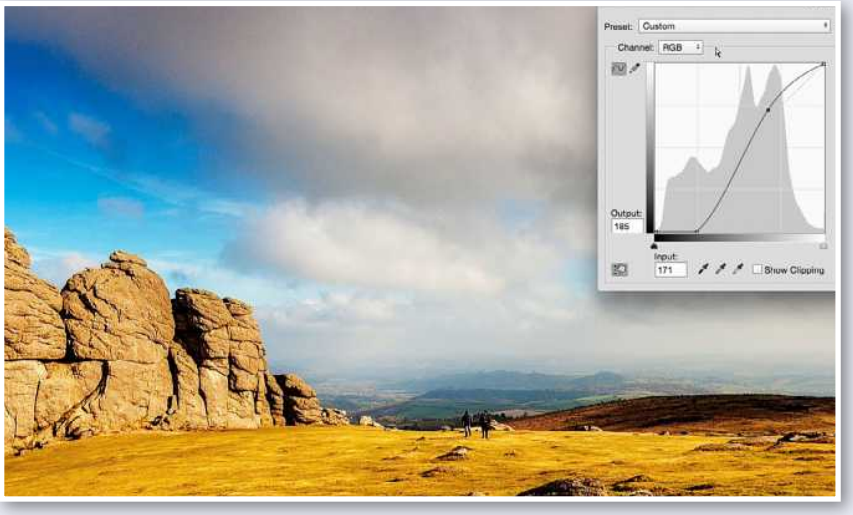
05 **Emphasising highlights**

To boost the highlights of an image move the highest point leftwards along the top horizontal axis. This increases the brightness of the lighter pixels and may cause the brighter highlights to be burned out; the result can be quite pleasing for the right kind of image. This technique works well in monochrome, producing an ethereal high-key image.



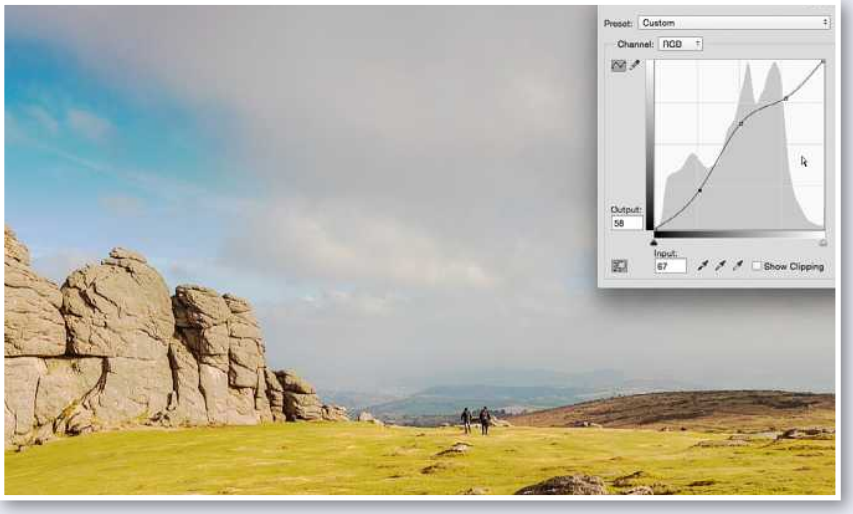
06 Emphasising shadows

Moving the lowest point on the curve to the right will darken the shadows but this will lose both shadow and mid-tone detail. This can be alleviated by moving the mid-point of the curve upwards slightly, flattening the upper part of the curve and brightening the mid-tones.



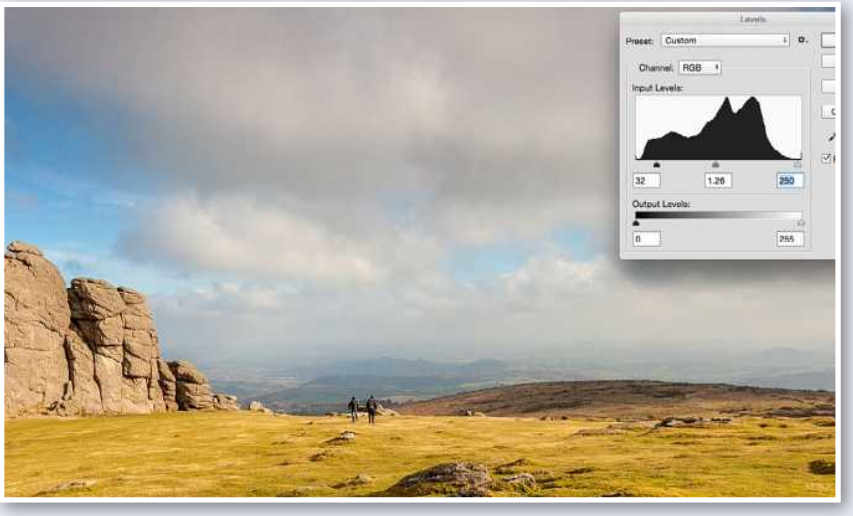
07 Brightening mid-tones

For images with very high contrast sometimes it is necessary to boost the mid-tones to balance the image. To do this set three points on the tone curve at roughly equal positions along the curve and then move the middle one upwards to achieve the effect. The other two points act as anchors, keeping the shadows and highlights unchanged. Moving the mid-point downwards has the opposite effect.



08 Levels

Also in the Image > Adjustments menu you'll find Levels, keyboard shortcut Cmd+L. The Levels function is easier to use than Curves and lets you quickly adjust the black and white points and overall brightness of your image. It's particularly useful for images that contain a lot of light or dark areas, such as dark objects on a light background, because it provides a method for fixing the lightest and darkest areas of the image, while leaving the mid-tones free to be adjusted upward or downward.



Focus stacking

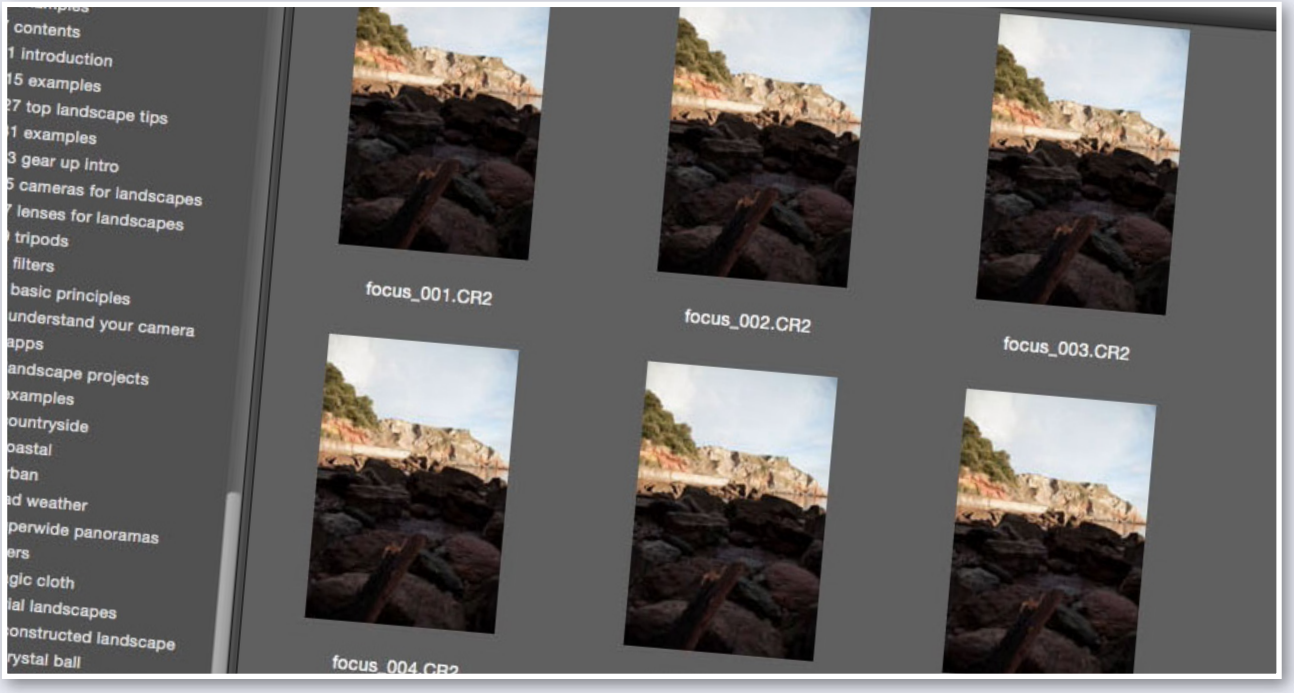
For the ultimate in front to back sharpness in your images





Focus stacking is a powerful technique used to extend the apparent depth of field of an image. Although it is primarily used in extreme close-up macro photography where even the lens's highest f-stop is usually unable to capture everything in focus, it is also used by landscape photographers to maximise depth of field. If you are out shooting a landscape and you want to make sure everything is front-to-back sharp, you would imagine that you'd just increase the f-stop on your lens to f/22 or even f/32 if the lens allows. However as you decrease the size of your aperture you are increasing the effect of the optical phenomena of sharpness loss due to diffraction. Simply put, light will disperse more as it passes through a small aperture.

PHOTOSHOP



01 The image is comprised of a number of images taken of the same scene at different focusing distances. The example shown here was shot 7 times at f/8, each at a different focus point.

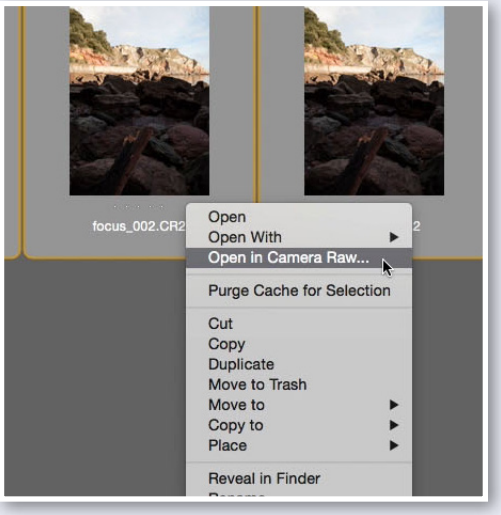


02 The sequence runs from 0.7m, 1.0m, 1.5m, 3.0m, 5.0m, 30m, and the last was set at infinity. The camera was set on sturdy tripod to avoid as much camera movement as possible each time the focus ring was adjusted to the next focus point.

Focus stacking

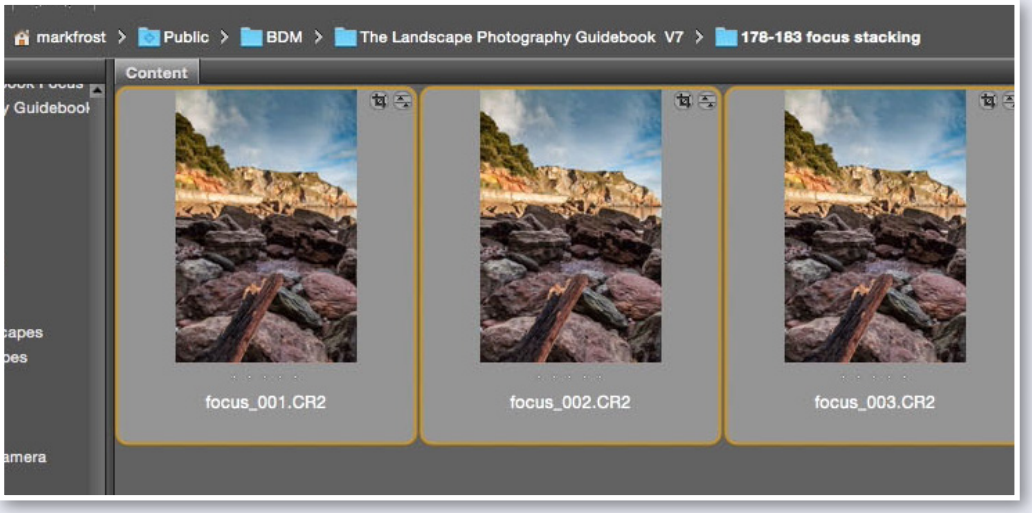
PHOTOSHOP

03 Select all your stack sequence images in Adobe Bridge and open them up in Camera Raw and process them all to your taste. Just make sure you process them all with the same settings. When you are happy with the processing, just click Done at the bottom right of the Camera Raw screen.

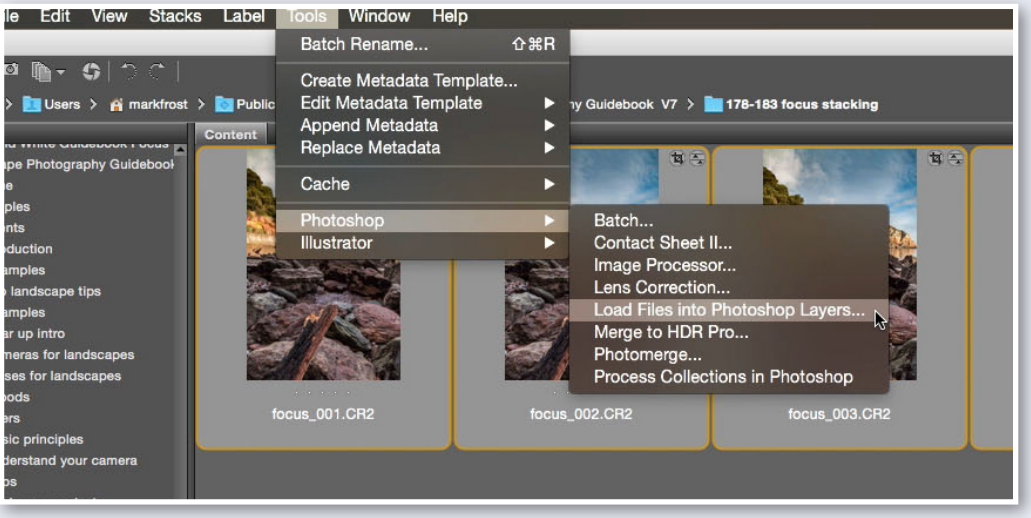




04 You don't need to render them out as JPEGs at this point because we can get Photoshop to do that for you in a moment. Your files will now have all the post-process data appended to them ready for the next part of the focus stacking process.

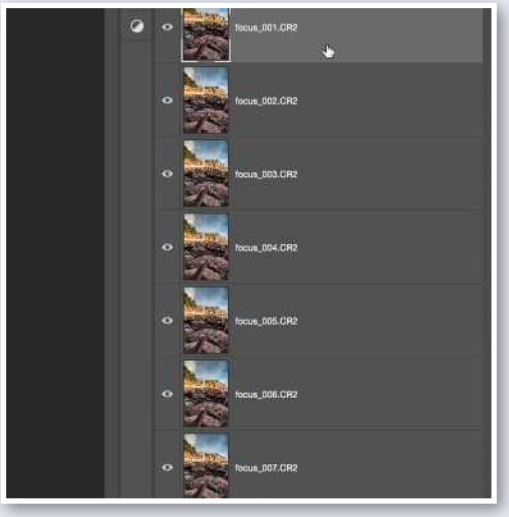


05 Make sure you have all of your Raw files still selected in Bridge. Now go to your Adobe Bridge menu bar and select Tools > Photoshop > Load Files into Photoshop Layers this is a handy shortcut to add all these shots to one Photoshop document ready to be stacked.

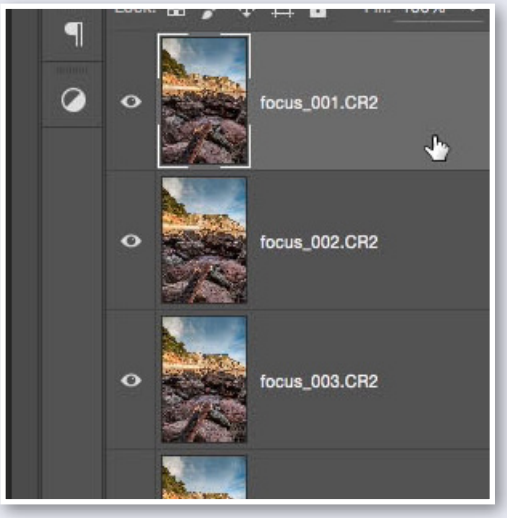


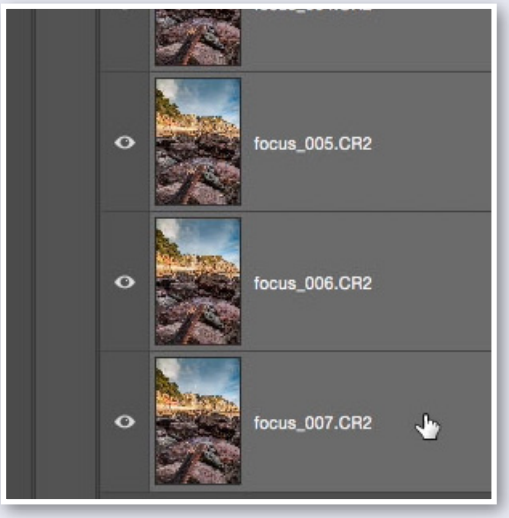
06 Photoshop will launch, create a new document and start to process each image and place it on its own layer in this new document. It normally layers the images with the first image shot at the top and the last image shot at the bottom.



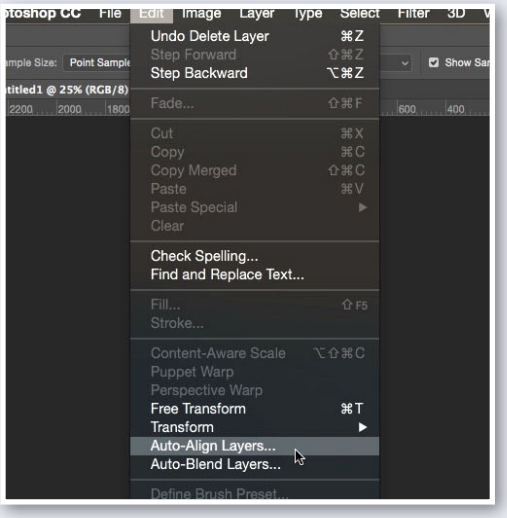


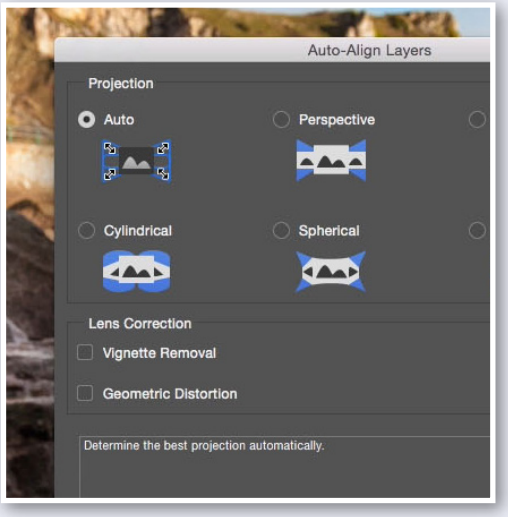
07 First, we want to make sure each layer is properly aligned with all its siblings. Make sure all your layers are selected. You can click on the top layer then Shift + Click the bottom layer to select all the layers at once.





08 Go to the top menu bar and select Edit > Auto-Align Layers. The Auto-Align dialog box will appear and allow you to select the alignment method. Auto is perfect for the job. No other boxes need be ticked. Now you can click OK.

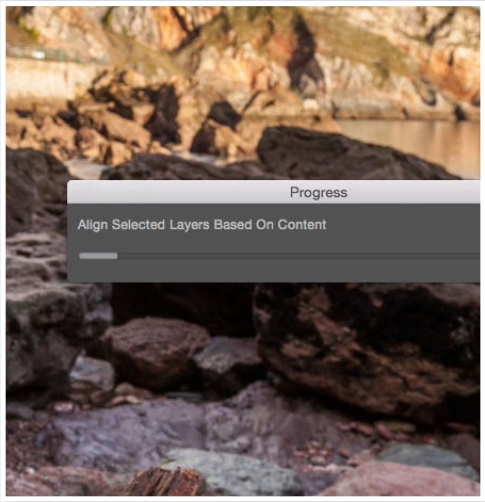


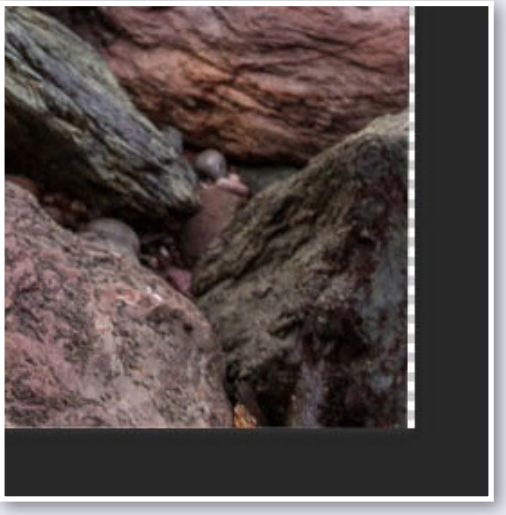


Focus stacking

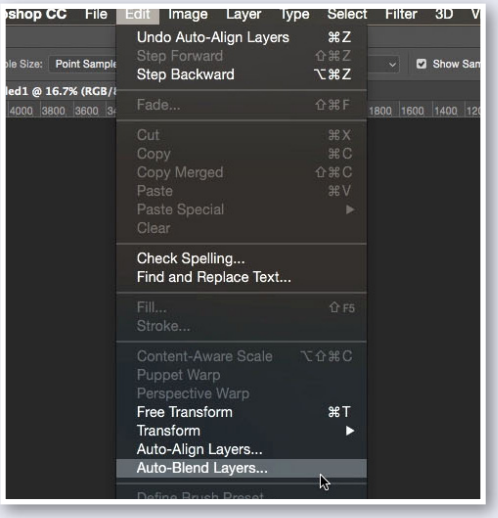
PHOTOSHOP

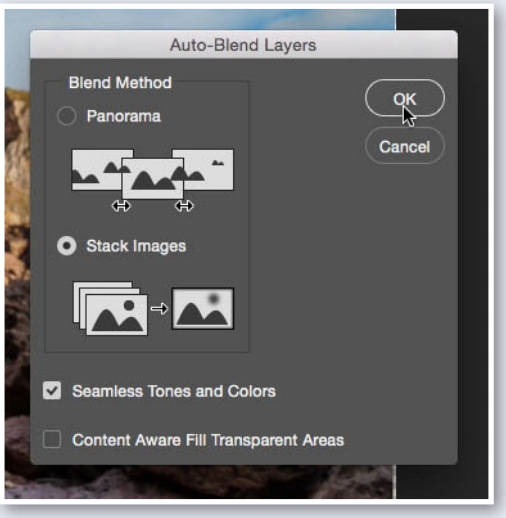
09 All the layers will be analysed and aligned with each other. When it's finished you may notice that some images have been scaled and/or rotated marginally and that there may be gaps around the edge of the image.



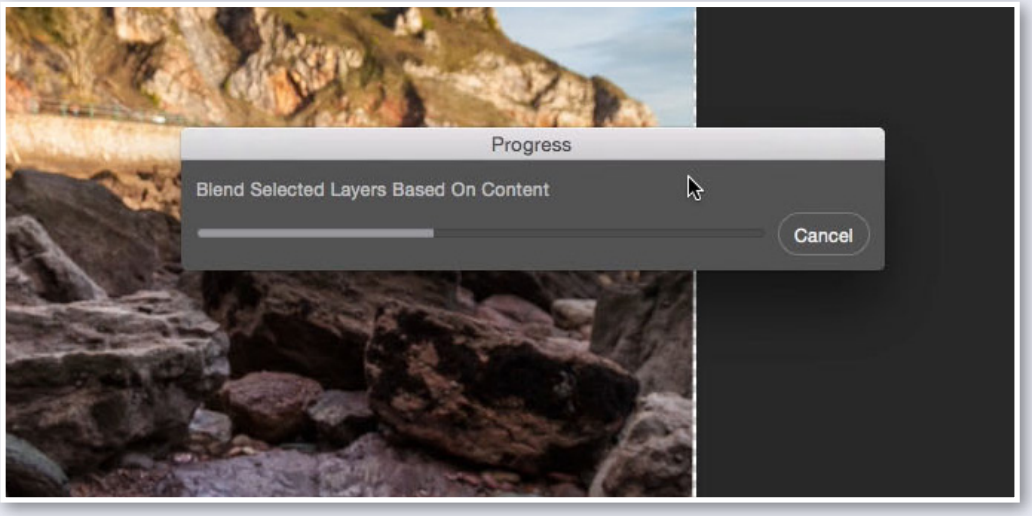


10 With all your layers selected, from the top menu bar select Edit > Auto-Blend Layers. The blend dialog box will appear. Choose Stack Images and make sure the Seamless Tones and Colours box is also ticked. Photoshop CC has the option to use Content Aware Fill on any transparent areas.



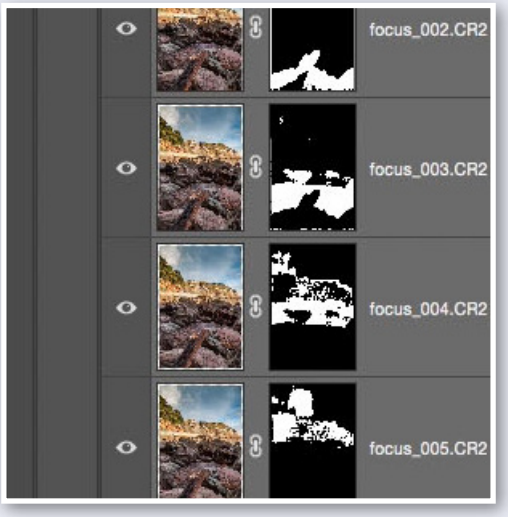


11 Click OK and Photoshop will start the process of blending the images, analysing each one and selecting those areas from each that have the greatest sharpness and masking out the areas that are soft and out of focus.

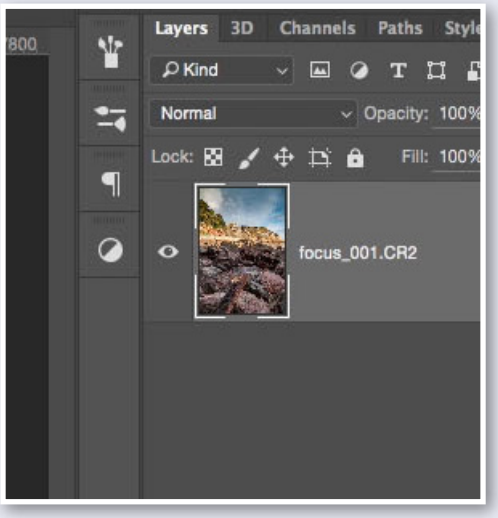


12 Once completed, your image should be pin-sharp from front to back. If you look at your layers palette, layer masks have been added that remove all soft areas of focus and let all sharp detail show through.



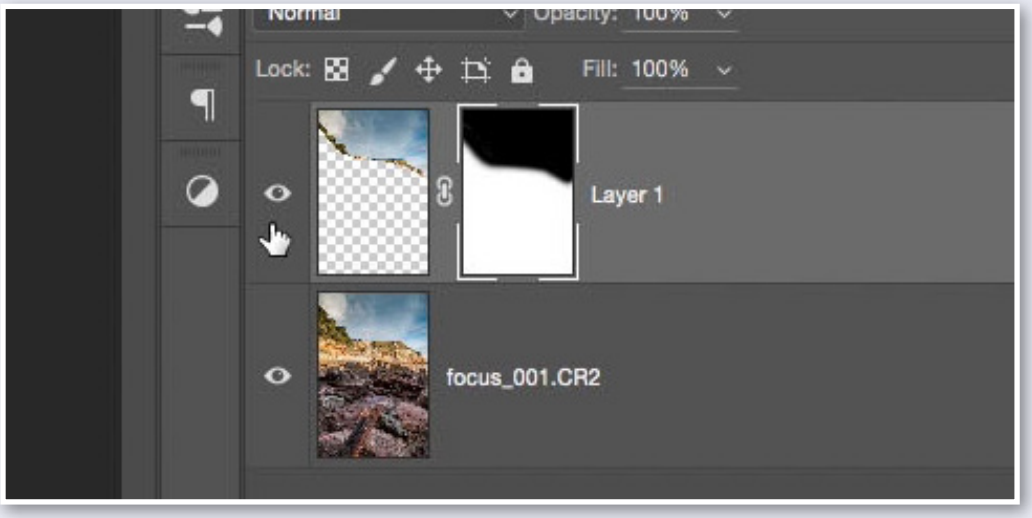


13 At this point you can select all the layers and choose the Merge Layers (Cmd + E) option from the Layers Palette menu. The image needs a little cropping so select your Crop tool (press C) from the tools palette and crop out any unwanted areas.





14 If you notice any areas where the blend was caught out by moving objects, you can always select an original image from your stack and add it as a new layer to mask the offending area out.



Panorama stitching

See the bigger picture with stitched panoramas

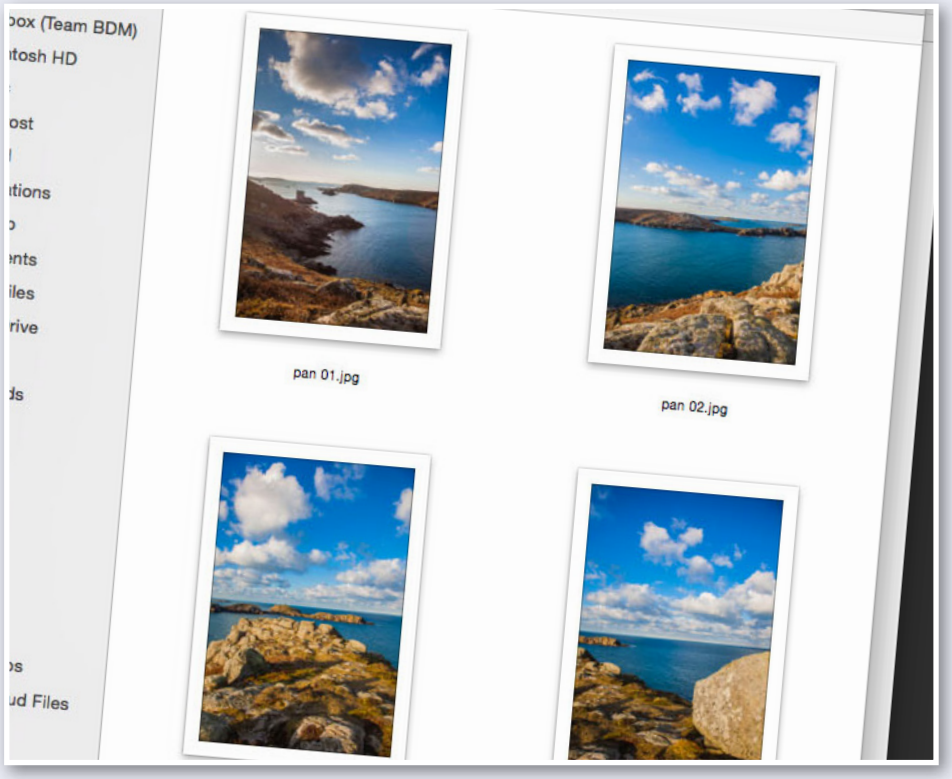




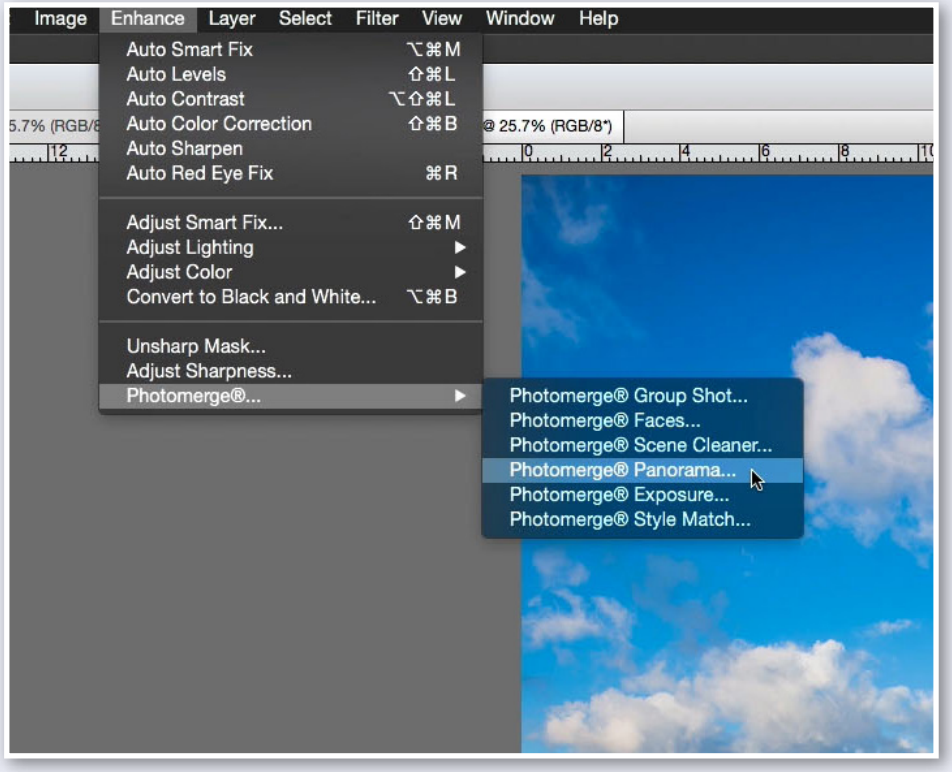
Earlier in this bookazine, we covered the procedures for shooting ultra-wide panoramas. This is a sequence of overlapping shots that cover a much wider field of view. They are a great method of capturing much bigger vistas than you could hope to manage with one shot and a wide-angle lens. The resulting images can be very large and contain a huge amount of detail. Some multi-shot panoramic images are known to have been captured that actually ran into file sizes that were measured in many gigabytes! Our panorama is a little more modest. We have a four shot sequence of the coast of Tresco in the Isles Of Scilly.

ELEMENTS

01 Now that you have carefully shot your raw elements for the panorama, it's time to stitch them together. For the purposes of this tutorial we'll use our shots taken in Tresco. A portrait orientation set of four images will be what we use to create our panorama.

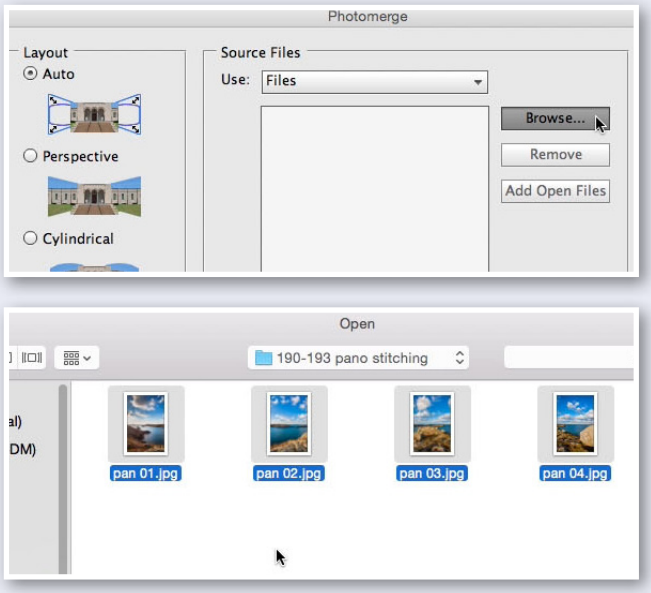


02 In Elements you'll find Photomerge Panorama in the menu under "Enhance", along with several other automatic processes. In other programs it may be in the Edit menu.

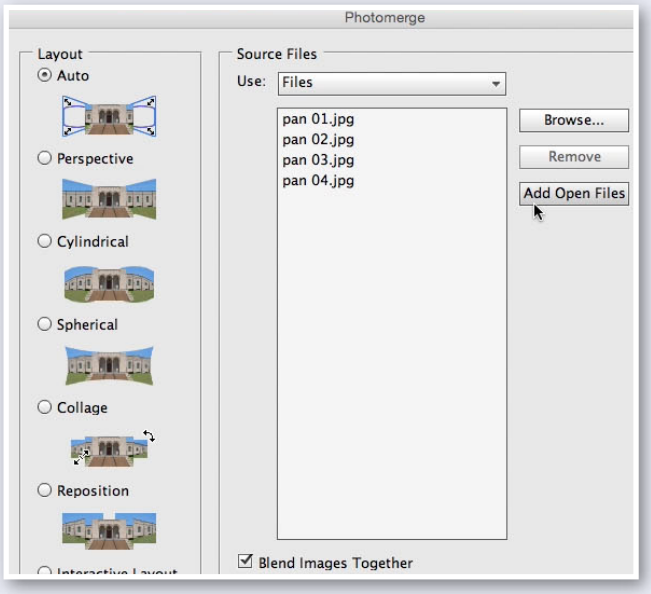


Panorama stitching

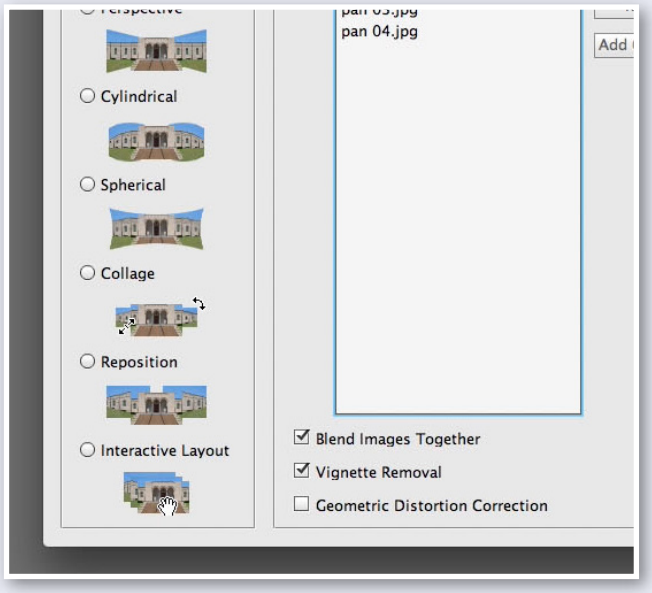
ELEMENTS



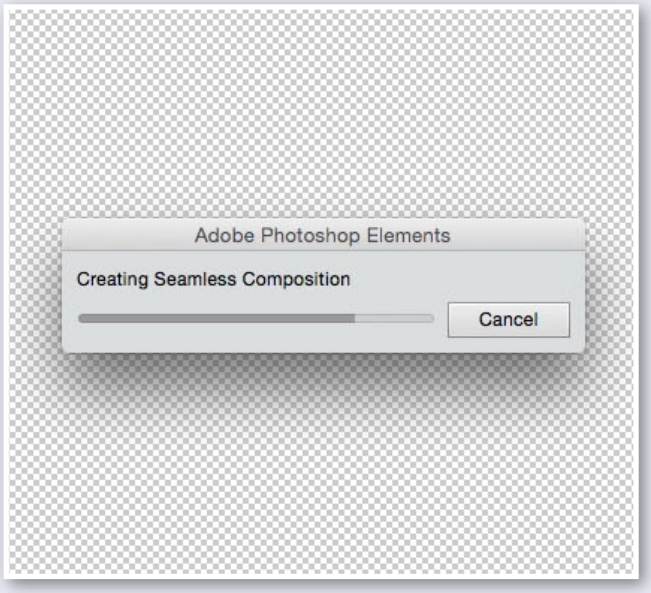
03 If you click on this you'll see a simple dialog window with an option to browse to the location of the folder containing your panorama shots. Go there, highlight all the shots you want to include in your merged panorama and click OK.



04 Note that if you have the shots already open in your editor, they can be selected automatically; since having photos open in the editing program uses up memory, the merging process will go faster if you leave them closed and use the dialog browser instead.



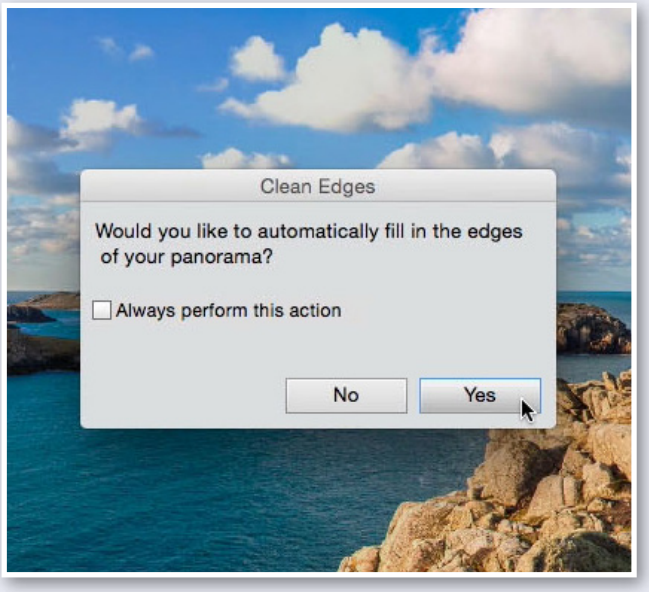
05 Make sure you have the Blend Images Together button checked as well as the the Vignette Removal button. This will ensure a smooth blend between each shot in the panorama.



06 Once you click OK the merging process starts and it is completely automatic. It will take a while to complete, possibly quite a long while if you have a slow computer and/or very large image files.



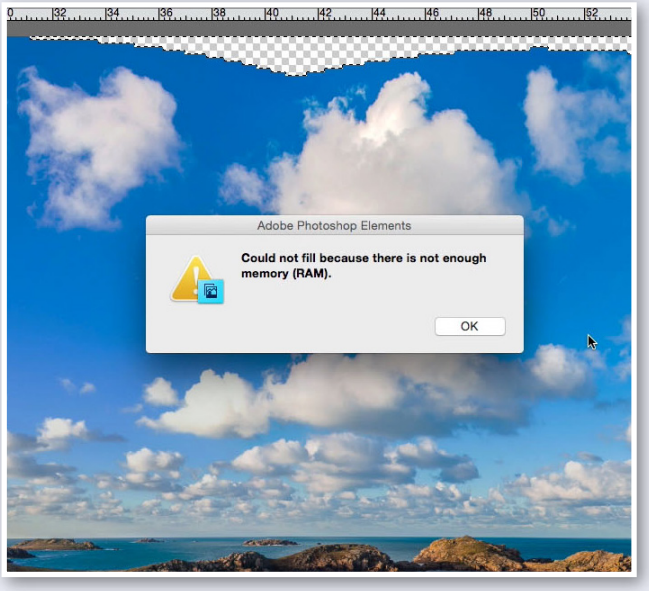
07 When the stitch is complete, the first thing you will notice is that there are a lot of rough edges to your panorama. You could decide to crop your image manually but there is another option.



08 The Photomerge Panorama function in Elements includes the option to automatically fill in any edges in your panorama using Adobe's content aware fill technology. Click Yes on this option.



09 The Content Aware process will automatically try to fill in any gaps around the edge of your panorama. The newly filled image will be created as a new layer above your four original images and your panorama is complete.



10 Be aware, if you choose the content aware fill function to clean up the edges of your shot, the size of your panorama will dictate how long the process takes. If you have a very large image, it can take some time. You may even experience an out of memory error.

Digital exposure blending

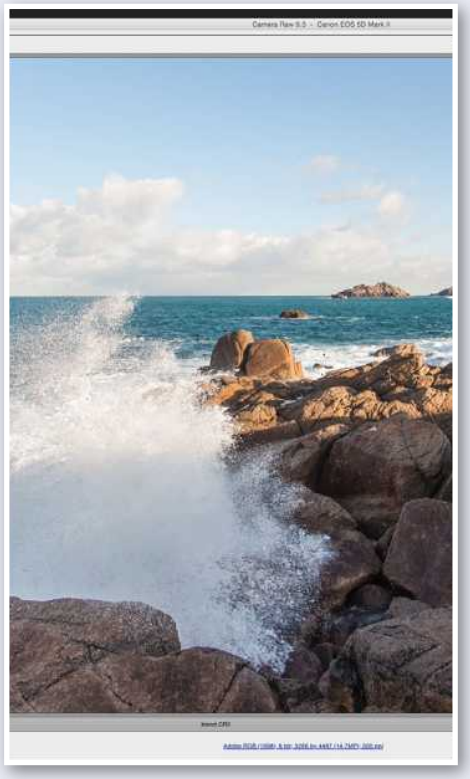
Convert one Raw file multiple times

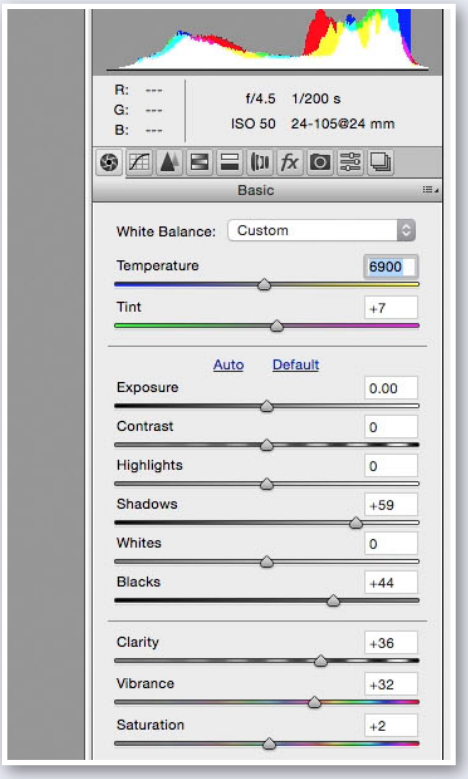
We have mentioned HDR images in this bookazine, where you shoot bracketed exposures and combine them using automated software. What happens if you only have one Raw file and no HDR software? Well there is an often used technique where you process a single Raw file a number of times with different exposure settings to get the most out of the various elements in the image, and then layer them in Photoshop and you selectively mask each one to only reveal the best of each exposure for each layer. It is a simple but effective way of producing a final image where all the elements blend together in a much more balanced final image. We take you through the process with a sample image shot on the North coast of Tresco in the Isles of Scilly, Cornwall.



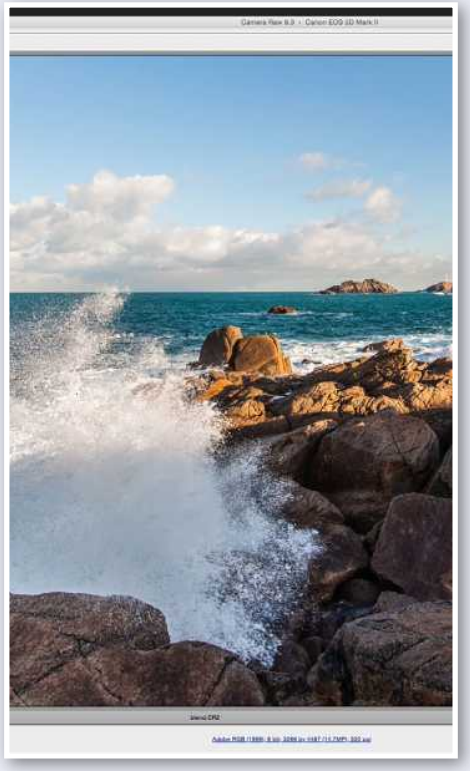
PHOTOSHOP

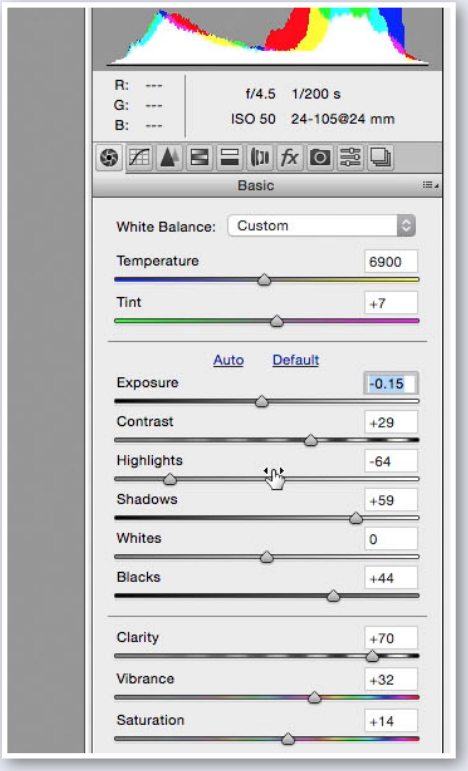
01 The original single Raw file was opened in Adobe camera Raw. The image's settings were adjusted so the foreground rocks looked their best, revealing as much detail as possible. This image was saved as a jpeg called 'rocks'.





02 The Raw file was then adjusted so that the sea and the white water spray were as well exposed as possible. In particular the Highlights settings were adjusted to recover detail in the brightest areas. This was saved again but called 'sea' this time.





PHOTOSHOP

Digital exposure blending





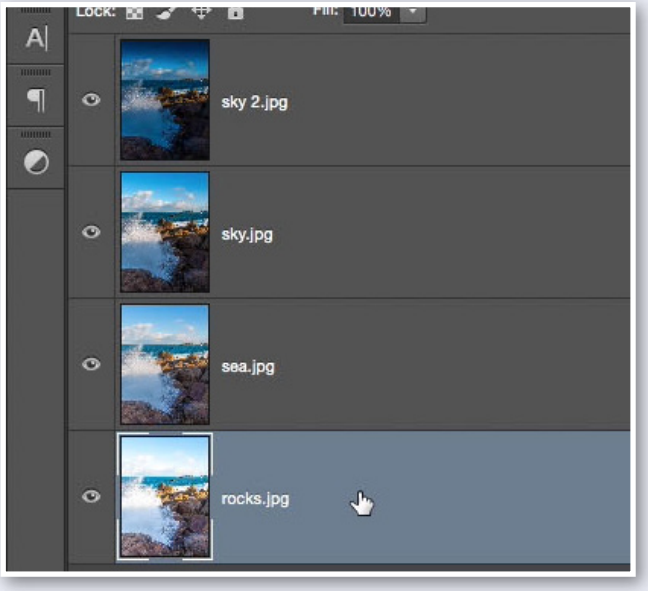
03 Once again the Raw file was adjusted. The exposure was decreased so the sky was darker but with enough contrast in the clouds. This version was saved as a jpeg named 'sky'.

04 Finally it was decided to create one last jpeg called 'sky 2' which was darker still than the previous version. This meant there was a deeper blue sky at the top of the image. Note that the other details are too dark but will not be seen in the final image.

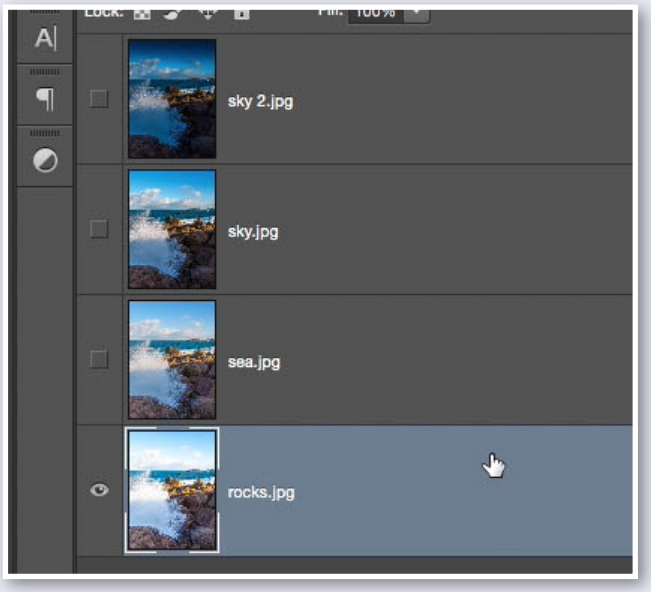




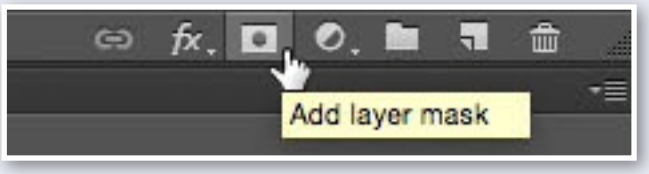
05 In Adobe Bridge select the four jpegs and then go to Tools > Photoshop > Load Files into Photoshop Layers. The four images will be loaded into Photoshop in one document and stacked in individual layers.

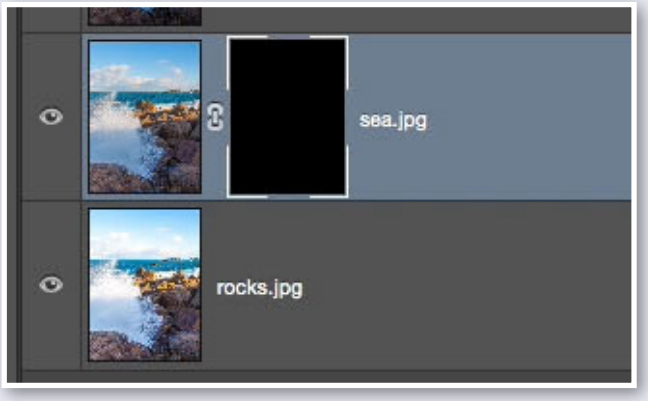


06 In our example, we have ordered the images with the 'rocks' layer first, then 'sea', next is 'sky' with 'sky 2' at the top of the stack.



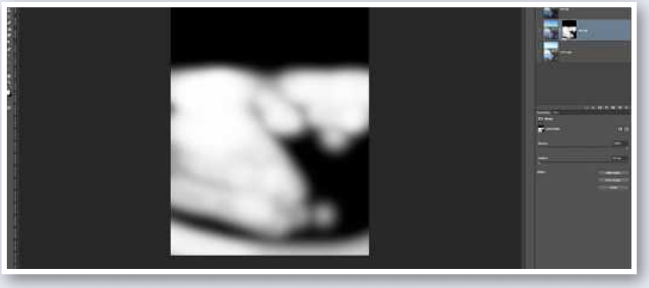
07 For the moment turn off the visibility of all the layers except the 'rocks' layer. This is our base image. Each subsequent layer will be masked to let a specific portion of each layer to show through and blend with the base 'rocks' layer.





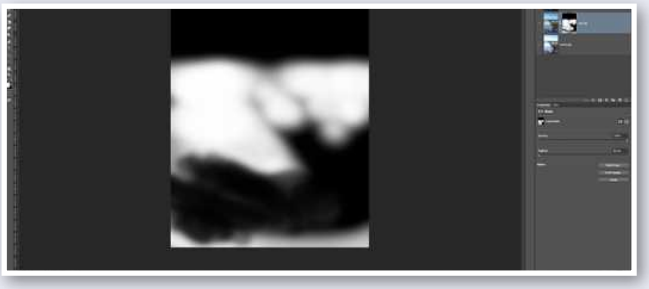
08 Make the 'sea' layer visible. Whilst pressing the Alt key click on the Add Layer Mask icon to add a black mask to the 'sea' layer. The 'sea' layer will become blocked by the mask but we can start to reveal areas of this image in the next step.







09 Click on the 'sea' mask thumbnail to activate it. Choose a large soft brush and start to paint white in the areas of this layer you want to be visible. As you paint on the mask, more of the well exposed sea and spray will be allowed to show through.

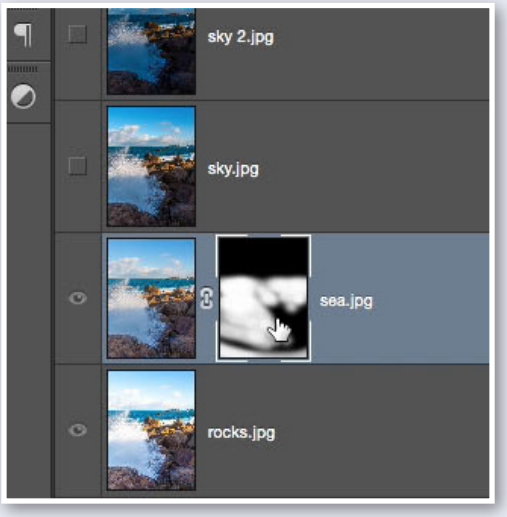


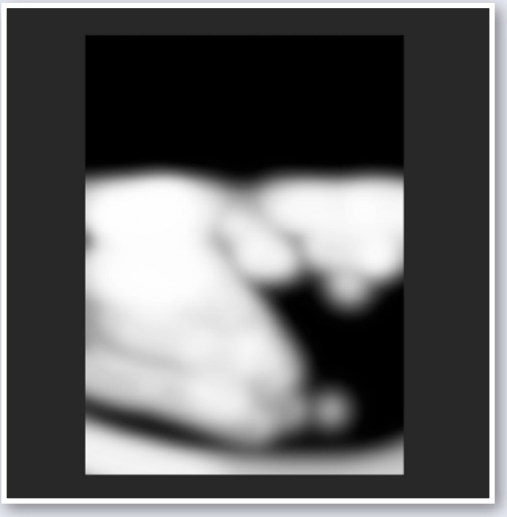
10 If at any time you want to remove any areas you've just painted white, you can hit X on your keyboard to toggle from white to black as your foreground colour and paint black over any white areas as you wish. Press X again to go back to white.

Digital exposure blending

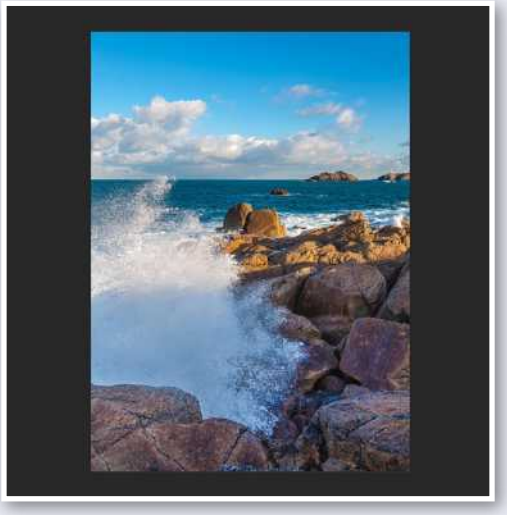
PHOTOSHOP

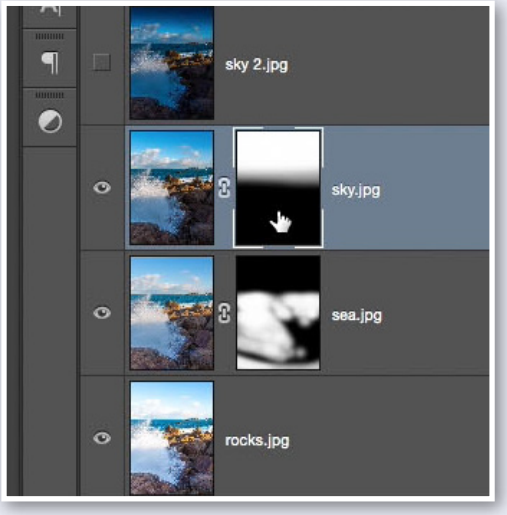
11 If you press the Alt key and click on the mask thumbnail for the 'sea' layer, you will be able to examine the mask on its own more clearly and see the areas you have painted in white. Press Alt and click the thumbnail again to revert to the normal view.





12 Make the 'sky' layer visible and using the same approach as the previous step, add a mask and paint on the mask where you want the better exposed sky to show through.



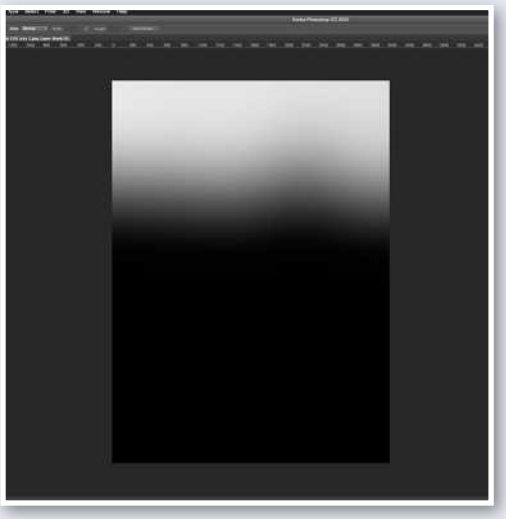


13 If you view the mask on its own, you can see the areas in white that are allowing portions of the sky and the rocks of the 'sky' layer to be visible. Anything in black is effectively blocking the image.

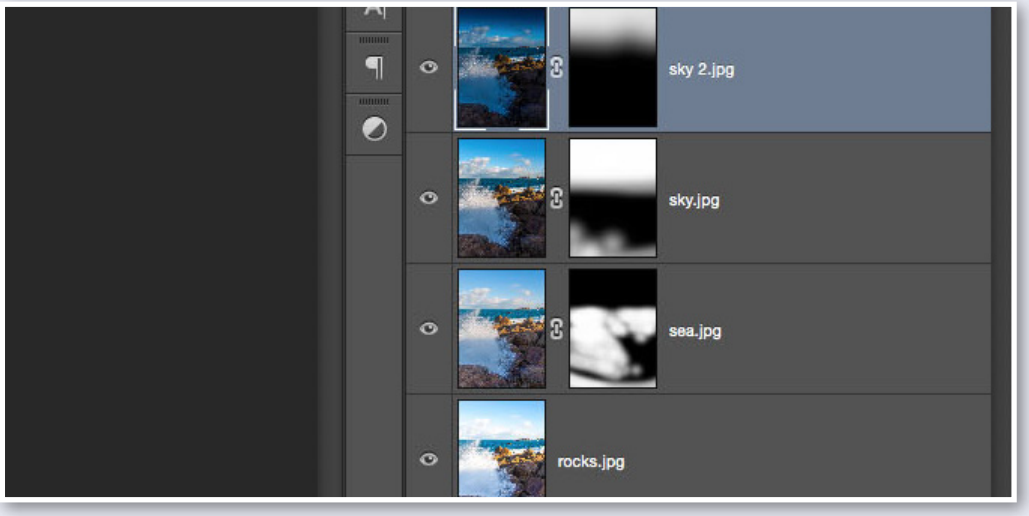


14 Finally we come to the 'sky 2' layer. As in the previous steps, add your mask to this layer and paint on the mask with your soft, white brush to reveal more of the darker blue sky at the top of the image.



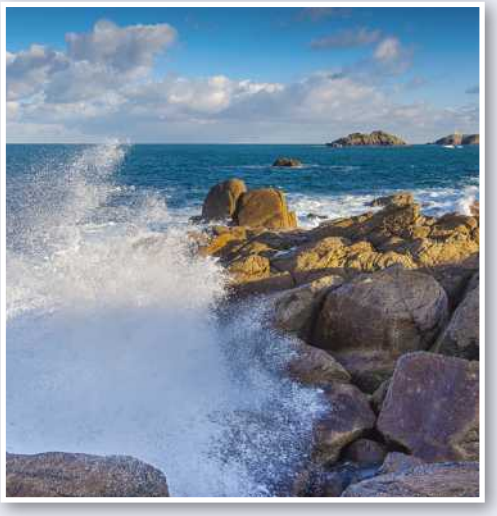


15 Your document will now comprise of four layers. Each different exposure has been masked to allow the best of each to show through and what you see is a composite of all four layers.



16 If you compare this to the original Raw file, you'll see that with a few different exposure adjustments at the processing stage, you can create a blend of images that give you a well balanced final result with great dynamic range, good colour saturation and plenty of contrast.





Convert your landscapes to mono

Images look timeless in black and white

There's a lot more to the process of converting a colour picture to monochrome than simply removing the colour. Photographers shooting on black and white film will use coloured filters to produce certain effects in the finished photo; a yellow or orange filter will darken a blue sky, while a green filter will brighten trees and grass.

When editing digital images, since colour is present in the original image some conversion methods allow you to apply similar filtering effects during the conversion process to change the tone of objects in the image. By changing the filter settings you can make clouds stand out against a dark sky, highlight trees and foliage or change the relative contrast of objects in the composition. Let's take a look at the most popular monochrome conversion techniques, and see how they are an important part of your creative photo editing workflow.





PHOTOSHOP SILVER EFEX

AFTER

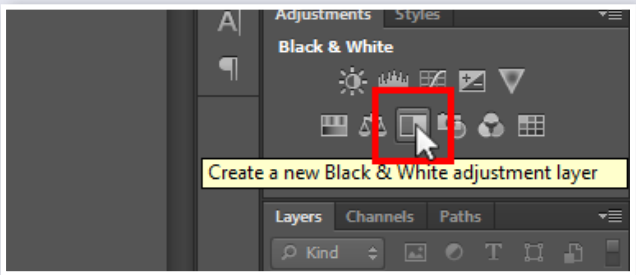


PHOTOSHOP

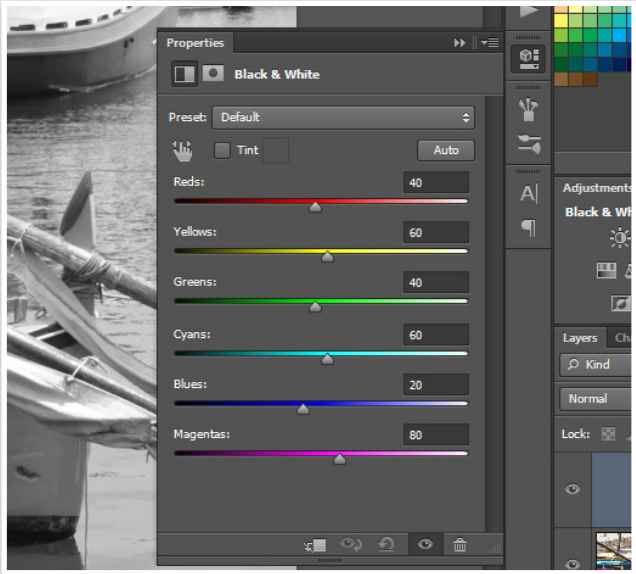
Convert your landscapes to mono

The latest versions of Photoshop include a dedicated Black & White conversion filter that accurately mimics the techniques of monochrome photography and offers great results.

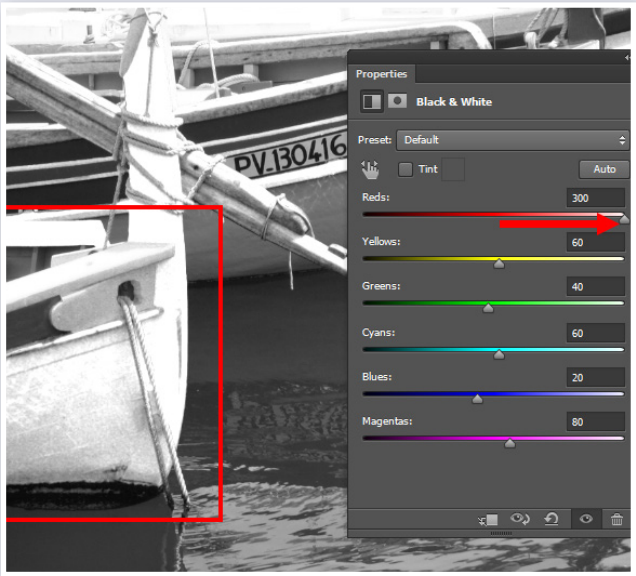




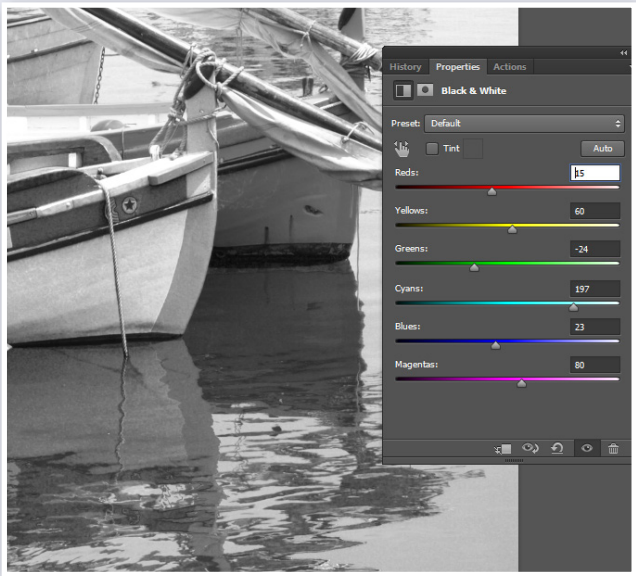
01 Like most filters and effects, the Black & White Adjustment filter is best applied as a non-destructive adjustment layer. You'll find it in the centre of the middle row of buttons in the adjustment layer tab.



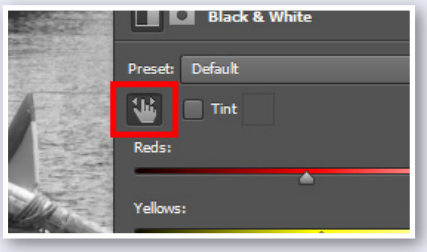
02 The Adjustment control panel has six sliders, one for each of the primary additive and subtractive colours: red, yellow, green, cyan, blue and magenta. They are pre-set to default values that Photoshop uses as a starting point for monochrome conversion.

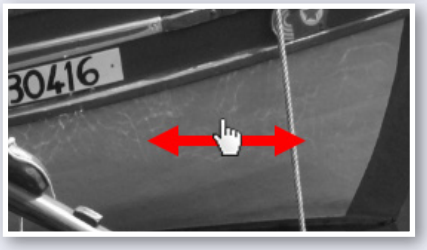


03 The sliders control the brightness of each colour within the final mix. If we move the red slider all the way to the right, you'll see that the hull of the red boat in the foreground becomes much lighter but other tones are unaffected.

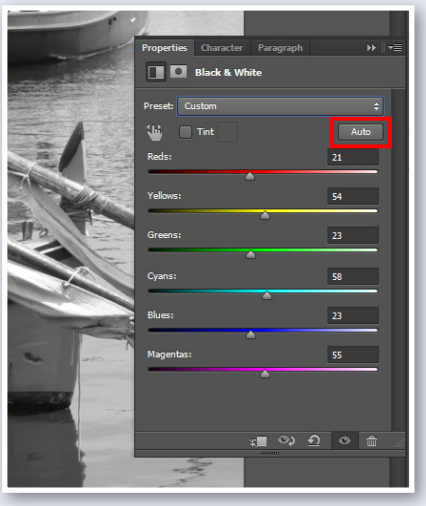


04 By adjusting the sliders one by one, we can adjust the brightness of any tone in the picture at will. Here we've darkened the hull of the red boat, lightened the cyan boat, and also adjusted the blue and green filters to produce a high contrast image.

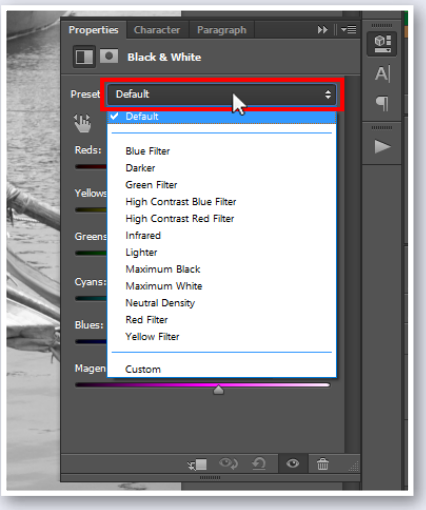




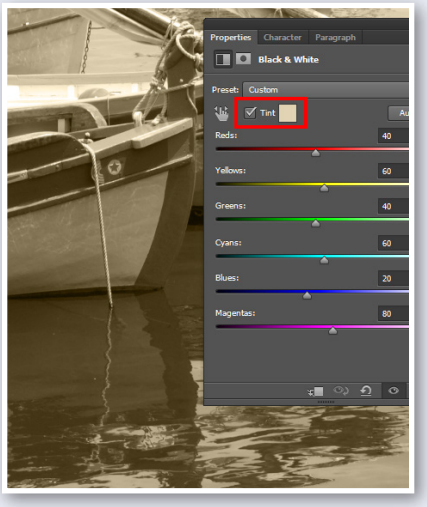
05 A quick way to adjust the lightness of a tone is the click-and-drag option. Click on the small button in the upper left of the control panel and then click and hold on any tone area in the image. While holding, move the cursor left or right to change the slider value.



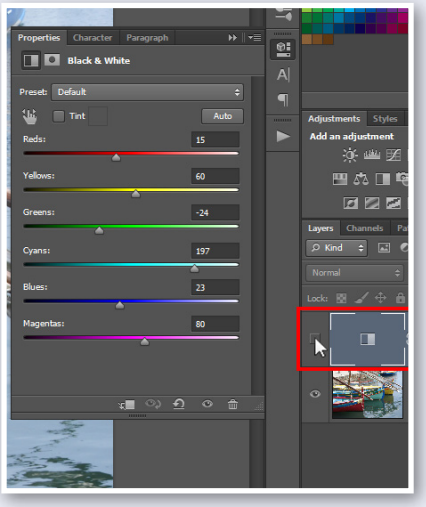
06 For even quicker results there is an Auto button in the upper right of the control panel. This produces Photoshop's approximation of the ideal balance of tonal values. The results will be acceptable for an average image but a bit flat.



07 As well as the auto setting, the Black & White Adjustment filter also features a list of pre-sets that you can find by clicking on the pre-sets pop-up menu at the top of the panel. The list is more extensive than the one for the Channel Mixer.



08 Another feature of the Black & White Adjustment panel is the Tint button. This applies a colour tint to the converted monochrome image and by default it is set to an almost perfect sepia tone, handy for recreating that old fashioned look.



09 While you're editing, if you need to remind yourself what the colour version of the picture looks like, you can simply turn off visibility for the adjustment layer. In the layer palette, select the adjustment layer by clicking on it and then click the eye button off.



10 Here's that same shot of the fishing boats, but run through the Black & White Adjustment filter. We've used a blue filter, with a slight boost to red as well to bring out some shadow detail. As you can see, this produces by far the most interesting result.

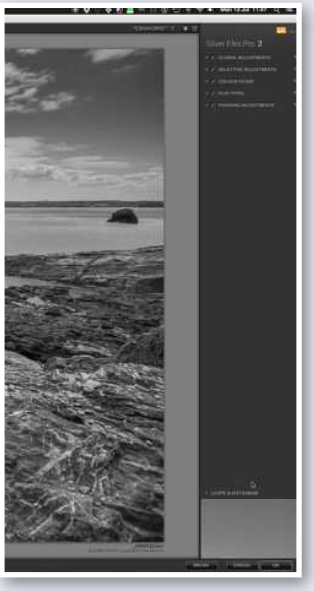
Convert your landscapes to mono

SILVER EFEX

One of the most highly regarded third party plug-ins for Photoshop is Nik Software's Silver Efex Pro (now acquired by Google). It is considered one of the best black and white conversion programs around, producing excellent images.

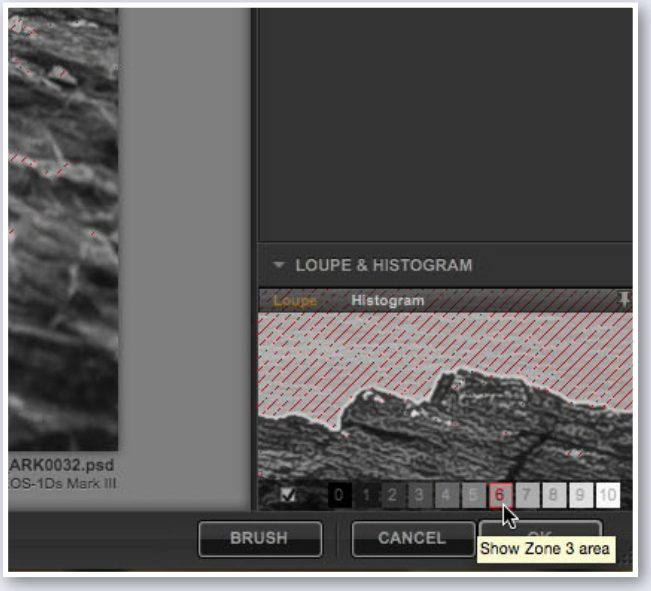


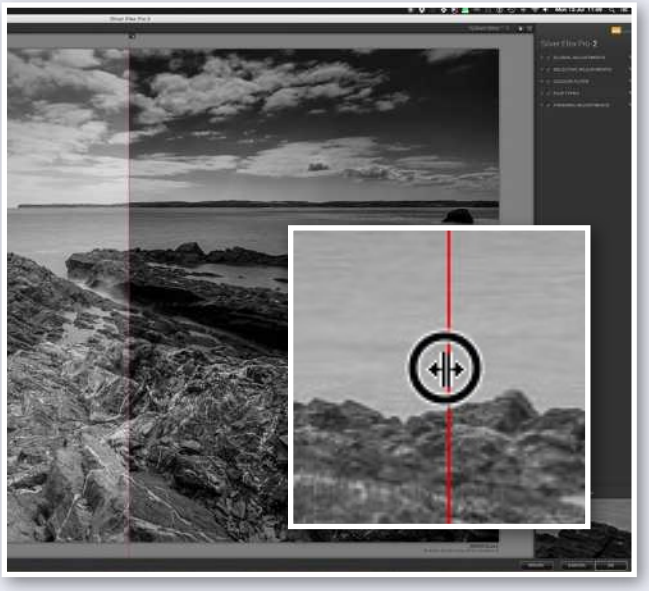




01 The first step is to have your image open, ready to convert to black and white. We are using the Photoshop plug-in version, so we can access the features by going to the top menu and selecting Filter > Nik Collection > Silver Efex Pro.

02 Silver Efex Pro will open and you will be presented with a window showing your image with the default conversion applied. On the left hand pane there are a series of pre-sets and on the right hand pane are the main adjustment controls.





03 Bottom right of the window presents us with the Loupe and Histogram panel that uses the Zone System series of tonal values. Move your cursor over Zone 6, for instance and those areas that match will be highlighted in your image.

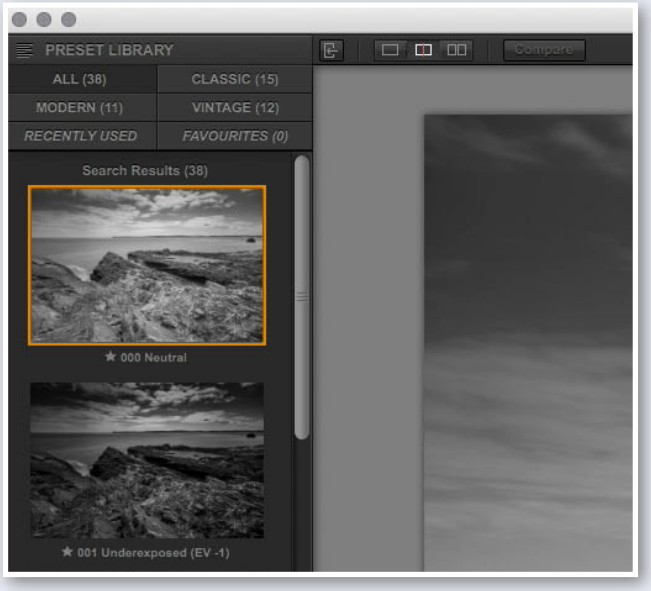
04 The screen can be split in half, either vertically or horizontally, so you can compare your conversion against the default to see the changes you are making and how they are affecting the image.



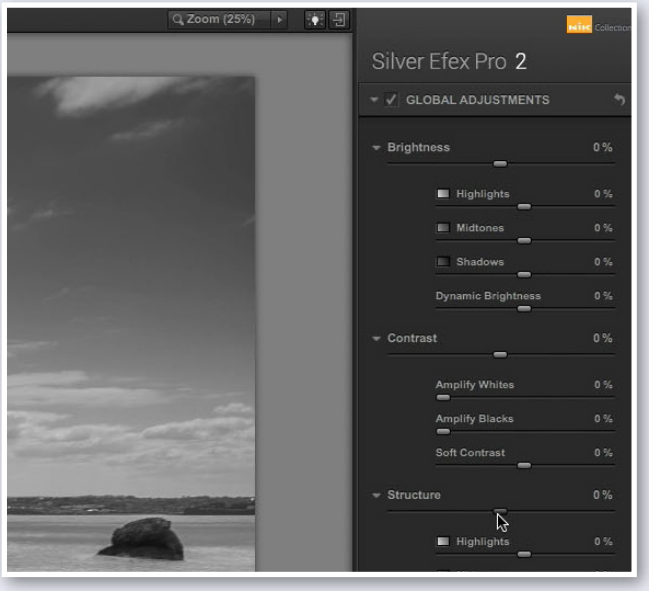
05 If you prefer you can also preview two images side by side. The first will be the neutral default and the second will be your image showing any adjustments you have made.



06 Silver Efex Pro gives you a large number of preset adjustments that you can apply to your image in one click. They range from high or low contrast conversions, antiqued images including sepia tone and even a pinhole camera effect.



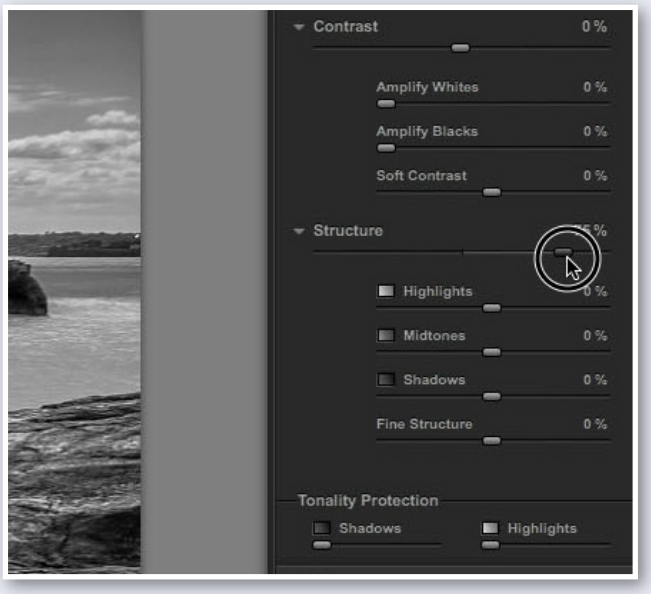
07 Although these pre-sets are useful and quick, most photographers would rather take their time and add adjustments themselves manually. It is also a great way to learn the various parameters that are involved in turning colour to mono.



08 The first panel contains Global Adjustments. As the name suggests these are adjustments added to the entire image. They fall under the categories of Brightness, Contrast, Structure and Tonality Protection.

SILVER EFEX

Convert your landscapes to mono



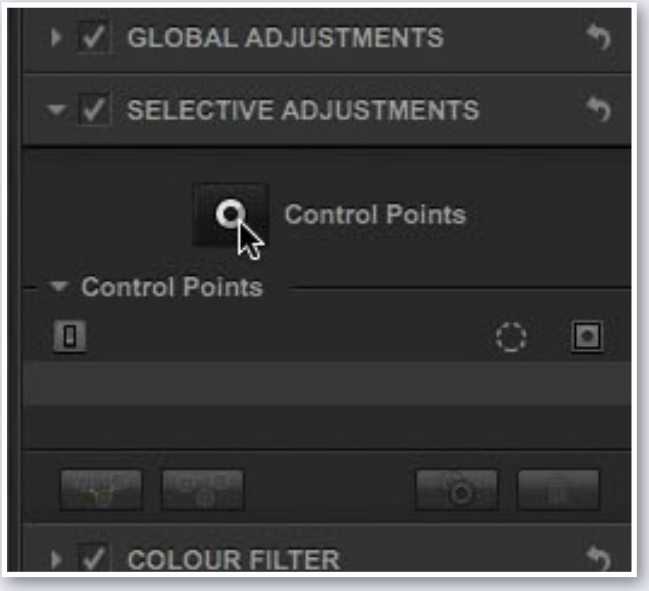
09 The term 'Structure' may be new to a lot of users. In essence it is much like 'Clarity' in Raw processing software. It controls the application of micro contrast enhancement in the highlight, mid tone and shadow areas of the image.



10 Tonality Protection in shadows and highlights means you can reduce the chances of an image going to solid black in shadow areas; conversely you can prevent highlights from blowing out to white and losing detail in those areas.



11 So to begin, we have made various alterations to the Global Adjustments panel, including adding more Structure and Contrast to the overall image.



12 The next panel, Selective Adjustments, lets us do just that. Here you can add control points to your image and make adjustments within an effect radius that you can specify from each control point that you add.

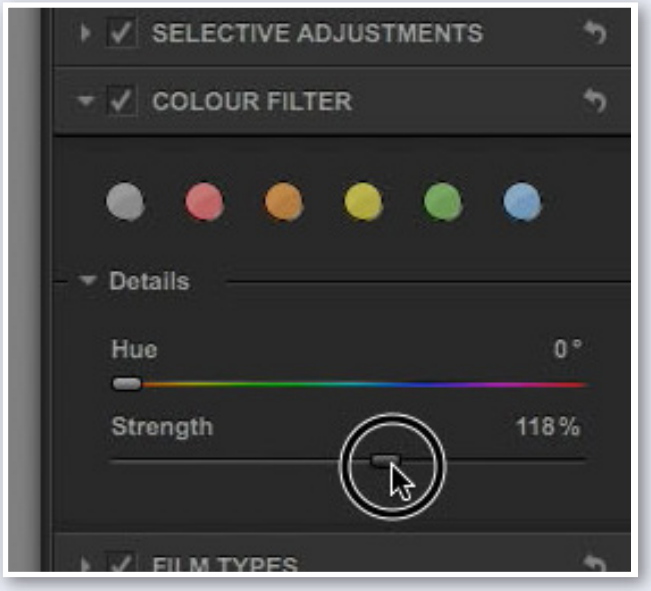


13 Each control point lets you adjust settings such as Brightness, Contrast and Structure, only taking effect within the radius you set. You can duplicate control points and fill specific areas of your shot without interfering with other areas.

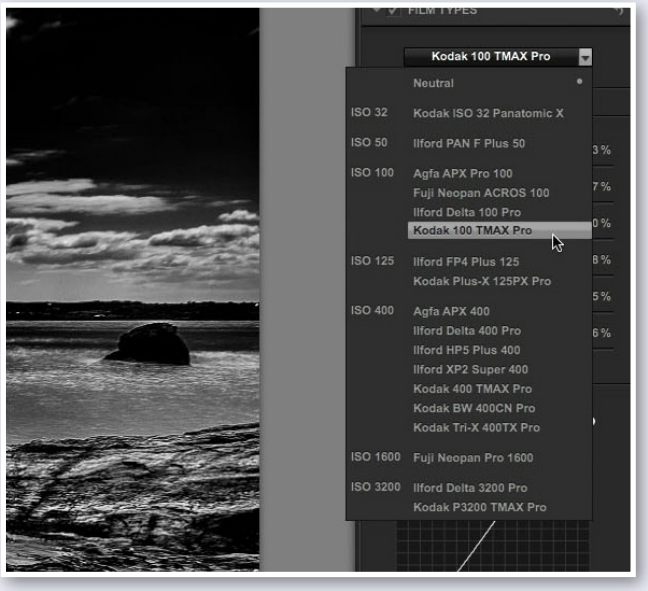




14 What we have done here is to set three control points in the sky to reduce Structure and darken the sky slightly. Down on the rocks we have added three control points to increase Structure and Contrast.



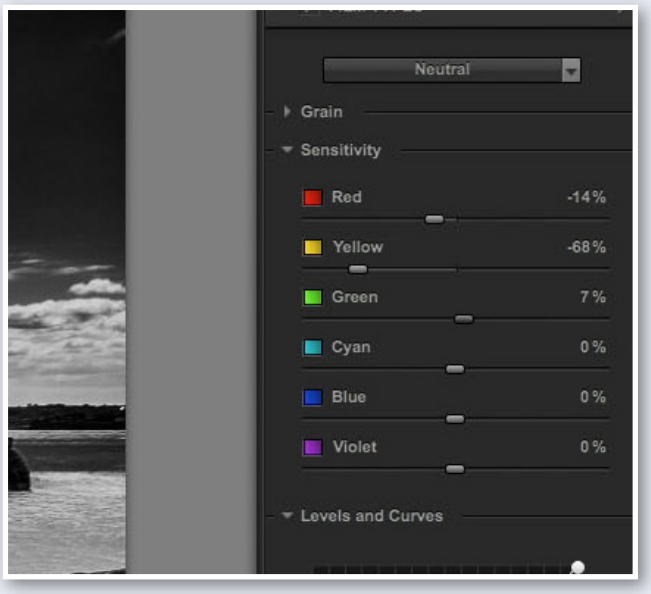
15 Next is the Colour Filter panel. You can simulate the effect of putting a colour filter over your camera lens when you were originally shooting the image. A red filter for example, will make any red hues in the shot appear lighter.



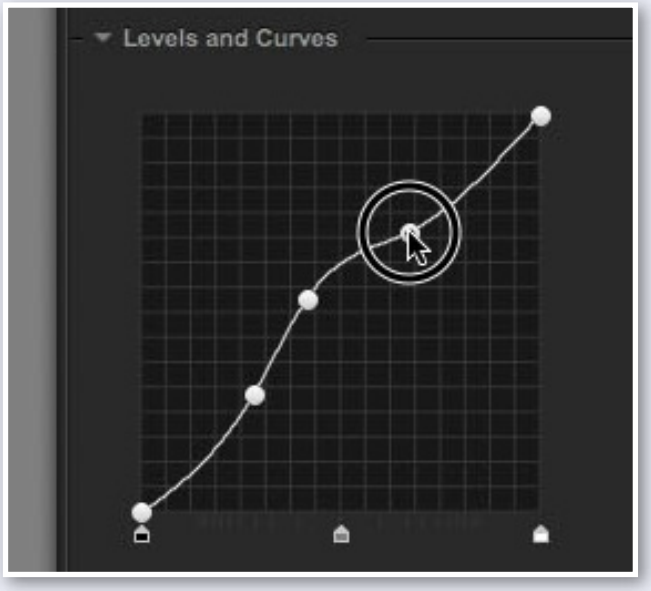
16 Below that is the Film Types panel. Here you can select a preset film type that simulates what the shot would have looked like if you had shot it with a particular type of black and white film such as Kodak 100TMAX Pro.

SILVER EFEX

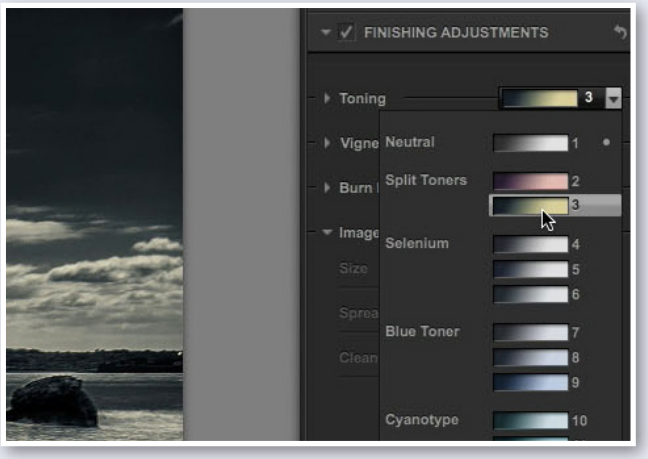
Convert your landscapes to mono

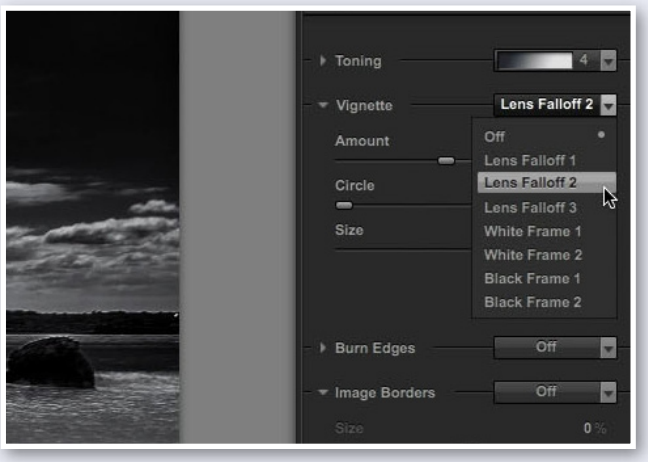


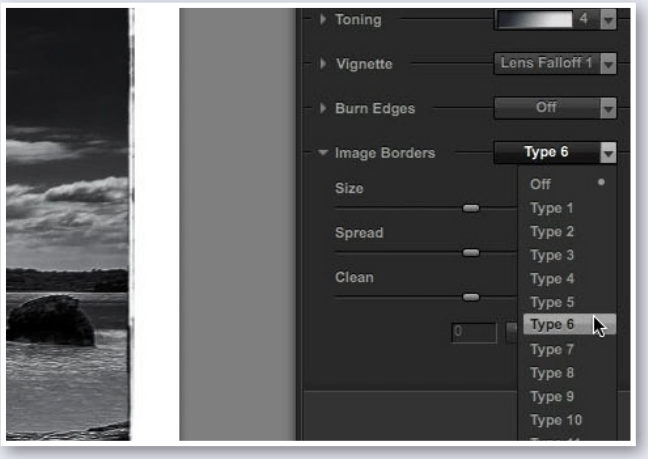
17 You can also adjust the sensitivity of the film type to certain colours by adjusting the colour sliders. For example adjusting Red sensitivity will make anything in the red end of the spectrum lighter or darker accordingly.



18 Lastly in this panel are the Levels and Curves adjustments that behave just like their counterparts in Photoshop.



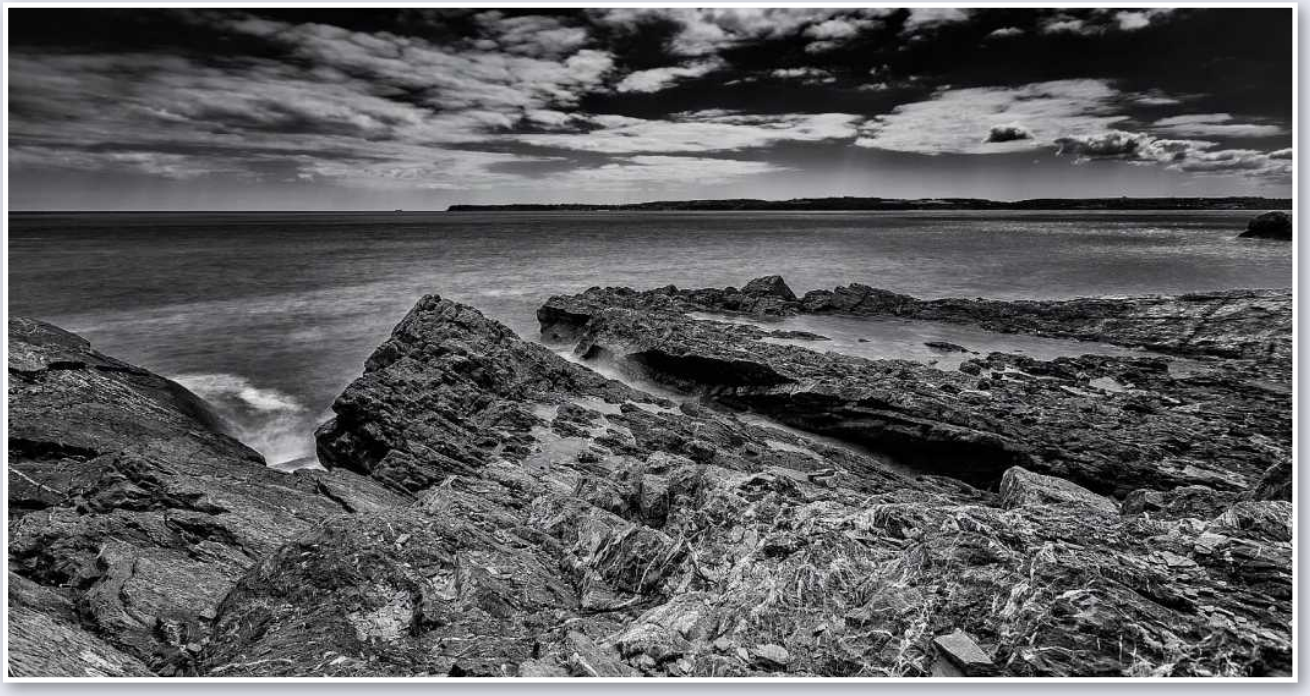




19 Now we come to the Finishing Adjustments panel. Here you can apply Toning effects from a drop-down list, as well as applying a Vignette, Burn Edges and Image Borders effect. Manual options are available for these effects too.



20 So now, when we have the image as we want it, we simply click on OK in the bottom right of the window and all the adjustments will be added to the image. Silver Efex Pro will then create a new layer with all your adjustments in place.



21 There is your completed image. Silver Efex Pro offers unparalleled control of your mono conversion and is highly recommended for anyone serious about black and white photography.

Raw processing

A quick start guide to post-processing

Photoshop comes with Adobe Camera Raw (ACR). It is a highly regarded Raw processing application that offers a wide range of processing options that enable you to get the best out of your photographs.

It includes exposure adjustment, sharpening, noise reduction, colour correction and automatic correction for lens distortion. It is regularly updated to maintain compatibility with all the latest cameras and lenses. Camera Raw is a very complex piece of software but thanks to a well designed interface that breaks down the processing workflow into easily managed sections, it's not all that difficult to use. Like the rest of Photoshop, it's easy to get started but mastering the subtleties of its more advanced options takes time and practice. Let's take a look at the interface and see what it has to offer.

Toolbar

This holds all the main selectable tools, most of which are similar to tools in the main Photoshop interface, including: Zoom, Hand, Crop, Straighten, Spot Removal, Red Eye Removal and a newly added feature that can add a graduated filter to your picture.

Control Palette

This is the main dialog palette, which contains the controls for each tabbed section. Most of the controls are sliders and you can see the results of each adjustment both in real-time on the histogram and in the main image window.

Image Window

This is the main window displaying the image you're currently working on. All changes that you make during Raw editing will be visible here. You can zoom into the image using the magnification controls at the bottom left or use the usual CTRL + and CTRL – shortcuts. You can see what effect your editing has had by checking and unchecking the preview option at the top right.

Output Options

At the bottom of the screen you'll find the controls for when you've finished your editing. If you click on the blue link you'll see a range of output options, since Adobe Camera Raw can process your pictures in a range of sizes. You can also save your edits back into the Raw file to keep them for later.



Control Tabs

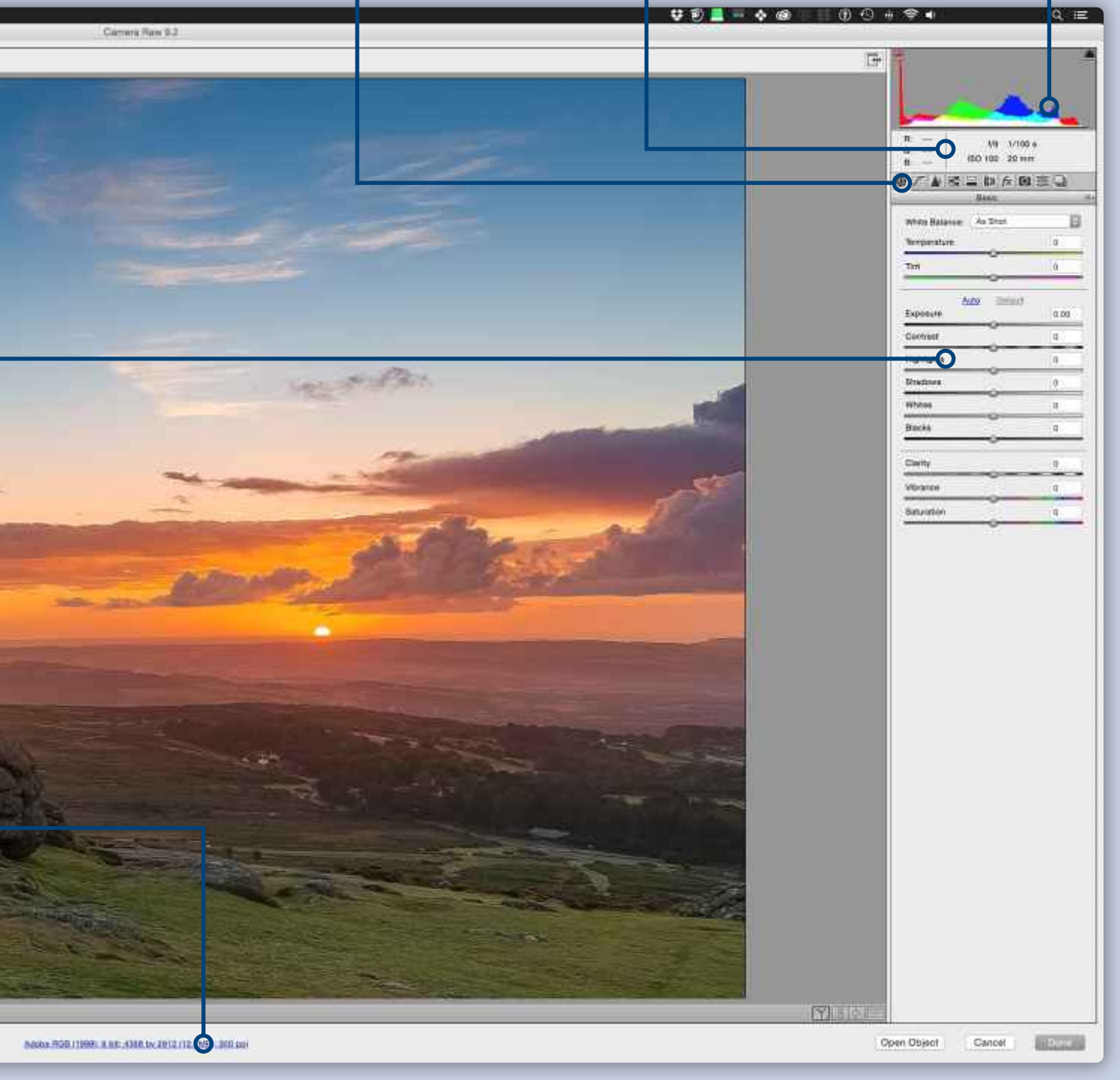
Camera Raw breaks the workflow down into discrete sections, each with its own tabbed palette, and you can switch between them by clicking here. The tabs are, from left to right: Basic, Tone Curve, Detail, HSL/Greyscale, Split Toning, Lens Correction, Effects, Camera Calibration, Presets and Snapshots.

Information Palette

The left side of this panel shows the RGB colour values at the cursor position. The larger right side of the area displays the exposure information for the image, including the aperture, shutter speed, ISO setting and focal length of the lens.

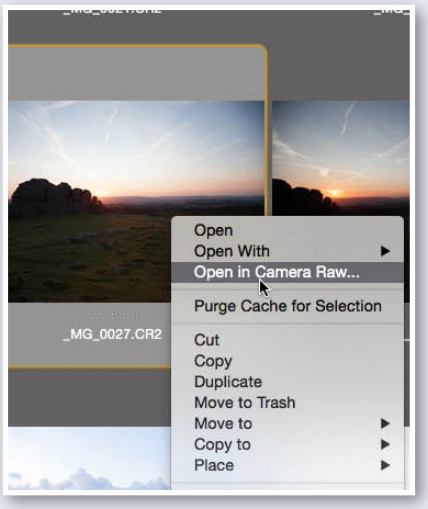
Histogram

The Histogram shows you the number of pixels of each tone in your image in real-time, and changes as you make exposure and colour balance adjustments. The graph represents the colour in digital form, with levels from 0 to 255, with the darkest on the left and the brightest on the right. The white area represents the combined colours, but you can also look at each colour channel individually.

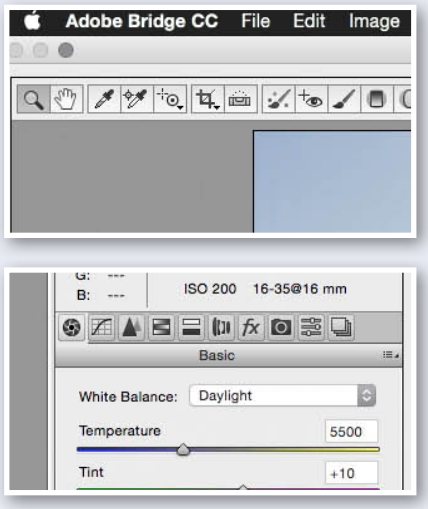


PHOTOSHOP

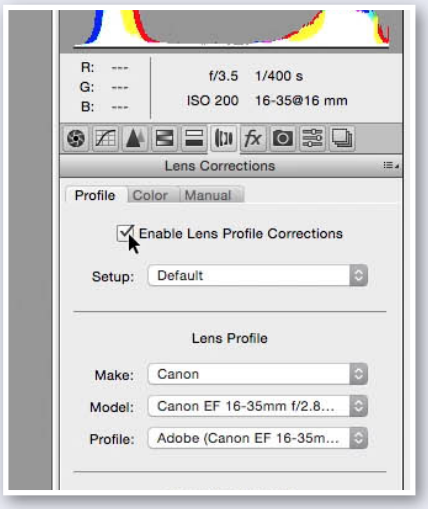
Raw processing quick start guide



01 Your Raw file can be accessed via Adobe Bridge, which is the central management application for your data. Simply right-click on the image you want to edit and select Open in Camera Raw from the context menu that appears.



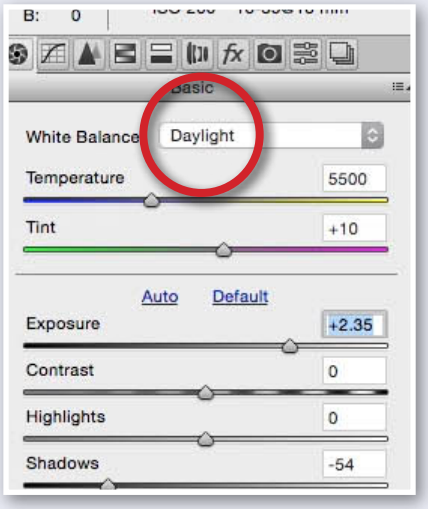
02 The Raw file opens in ACR where you can view your image in the main image window. The toolbar is along the top left as we've seen and the main editing controls are ranged down the right hand side of the window.



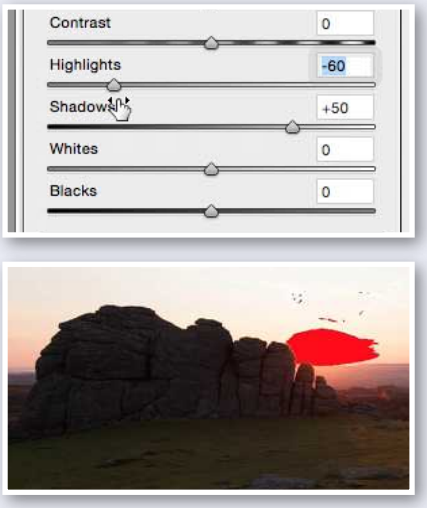
03 How you approach your processing workflow is something you will develop over time. A good place to start is the Lens Corrections dialog where you can make sure your image has a lens profile active to remove any distortion and vignetting.



04 Make sure you have your Shadow Clipping (press U) and Highlight Clipping (press O) warnings turned on. This will alert you to any areas of the shot where there is detrimental underexposure (marked in blue) and overexposure (marked in red) resulting in loss of detail.



05 You can set your White Balance to either reflect the setting you used when you shot the image, or you can specify a new preset from the White Balance dropdown list or simply input your own values using the Temperature and Tint sliders.

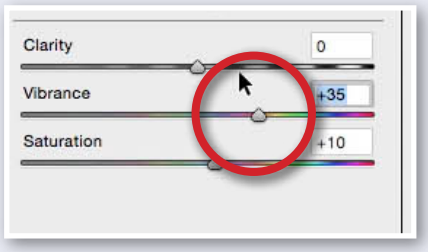


06 Starting with the Highlights and Shadows sliders, you can use these to recover areas lost to overexposure as well as lighten areas in deep shadow. Negative Highlights values will recover bright areas and positive Shadows values will lighten the darkest areas of the image.



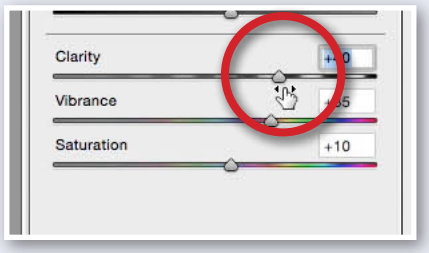


07 You can also use the Whites and Black sliders to alter which tones of the brightest and darkest areas become true white or true black.



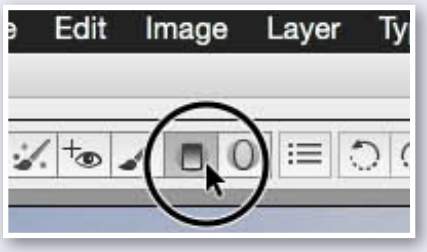


08 The Vibrance and Saturation sliders affect how deeply saturated your image is. Vibrance only alters saturation in the least saturated colours first, whereas Saturation globally dials the saturation up or down for the whole image.



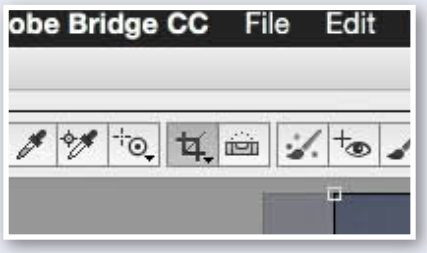


09 The Clarity controls a form of mid tone micro contrast in the image that is more defined than global contrast. Negative values will make the image appear soft. Positive values will sharpen the image and make it contrast more.





10 We can darken the sky by choosing the Graduated Filter option from the Toolbar and set the Graduated Filter Exposure values to -2. You can then click and drag from the top of the screen to the horizon and it will apply a grad that acts like a real world filter.





11 From the Toolbar, you can select the Crop Tool function and manually click and drag a box that shows you how the image will be cropped. It has a Rule of Thirds grid, so you can accurately place the grid lines on important elements in the shot such as the horizon.



12 The image is ready for the next stage. You can open it in Photoshop or save it as a Tiff or Jpeg. If you click Done, you do not actually alter the Raw file but an additional file is appended to it outlining all the changes you've made which are applied when you open it.

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