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Issue 281 May 2024 www.digitalcameraworld.com

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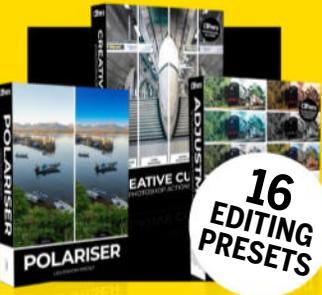


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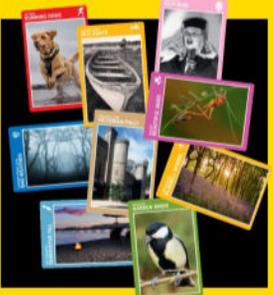


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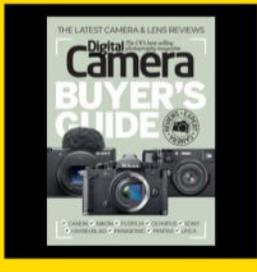


9 all-new photo tips cards



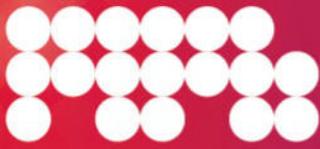
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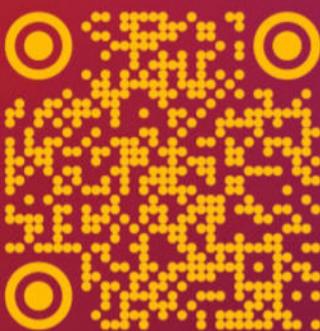
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Printed by

William Gibbons on behalf of Future

Distributed by

Marketforce UK Ltd, 121-141 Westbourne Terrace, London W2 6JR
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Digital Camera, ISSN 1477-1721, is published monthly with an extra issue in April by Future Publishing, Quay House, The Ambury, Bath, BA1 1UA, UK. The US annual subscription price is \$175.37. Airfreight and mailing in the USA by agent named World Container Inc, 156-15, 148th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Application to Mail at Periodicals Postage Prices is Pending at Brooklyn NY 11256.

POSTMASTER: Send address changes to Digital Camera, World Container Inc., c/o BBT 150-15 183rd St, Jamaica, NY 11413, USA. Subscription records are maintained at Future Publishing, c/o Air Business Subscriptions, Rockwood House, Perrymount Road, Haywards Heath, West Sussex, RH16 3DH, UK.



Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR) www.futureplc.com
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Welcome



Artificial intelligence is a subject that's hard to avoid these days, but Adobe's implementation of it in Photoshop 2024 is

transformational. Turn to our cover feature (p50) to learn how to get the most from these new AI tools, which include Generative Fill, Neural Filters and the latest version of the Remove tool. Also this issue, we deliver another fine selection of projects in Photo Active (p16) and suggest some strategies for making colours pop (p72). Have a walk in the enchanting garden that is Hotshots (p43) and take to the skies in a drone-focused One to One (p8). Leading pro Peter van Agtmael is May's interviewee (p118), and we reveal the winners of our Remembering Tigers reader competition (p92). Kit reviews include the Sony A7C II (p104) and a new Lumix superzoom (p110). Enjoy the issue.

Niall

Niall Hampton, editor
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IGPOTV/Angrl Wallace

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Page 40 – subscribe today and get a **Lowepro Truckee SH120 camera bag!** **WORTH £27**




Will Cheung

72 **Camera Clinic** _ Capturing colours faithfully is one of the superpowers of digital cameras, but they might need some help every now and then, says Will Cheung




Peter van Agtmael/Magnum Photos

118 **Interview** _ One of the world's leading documentary photographers has just published *Look at the USA*, a new collection of his photographs – we speak to Peter van Agtmael about covering conflicts, Covid-19 and the US Capitol riots

16 **Photo Active** _ 10 things to shoot, edit or create this month – from the beauty of bluebell woods and the charm of derelict boats, to getting the film noir look with a simple lighting setup... and capturing the majesty of steam locomotives



Getty

This month's contributors



Peter VanAgtmael

Peter van Agtmael
Photographer

Magnum Photos member van Agtmael has photographed many of the landmark events of recent years. He takes stock of his oeuvre in a new book. Turn to **page 118**



Will Cheung
Photographer and writer

A fellow of the Royal Photographic Society and the former editor of many photography titles, Cheung is the man behind Camera Clinic, which continues on **page 72**



Fergus Kennedy
Photographer

Marine biology and a love of flying led Kennedy to take up drone photography. He's never looked back – but he has certainly looked down a lot. Find out how on **page 8**



Margot Raggett

Margot Raggett MBE
Wildlife photographer

The results are in – we showcase the winners of our Remembering Tigers reader competition, co-judged by its founder, the conservationist Raggett. **Page 92**



Jon Devo
Photographer & writer

Our resident tech columnist considers the latest developments in photography and digital imaging. Read his latest dispatch, about Nikon acquiring RED, on **page 102**



Dan Mold
Photographer & writer

Experienced in many different genres of photography, Mold writes for our sister magazine *PhotoPlus*. He shares his top tips for Photoshop 2024 on **page 50**

Your gifts

Download your gifts via digitalcameraworld.com/dc281

BONUS SOFTWARE EXTRAS!
Turn to page 90

16 SOFTWARE EXTRAS

Give your shots a professional look with this month's batch of actions, presets and profiles for Adobe Photoshop and Lightroom

We've curated another compelling batch of actions and presets this month, including 10 Adjustment presets for Photoshop, a Polariser preset for Lightroom and five Creative Curves actions for Photoshop. Turn to page 90 to find out more about each of the packs and instructions on downloading and installing the software.



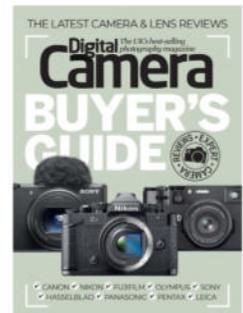
9 PHOTO TIPS CARDS TO TAKE ON LOCATION!

Our latest selection of tips cards gives wallet-sized advice on how to take better photos



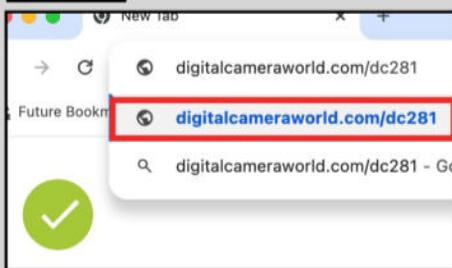
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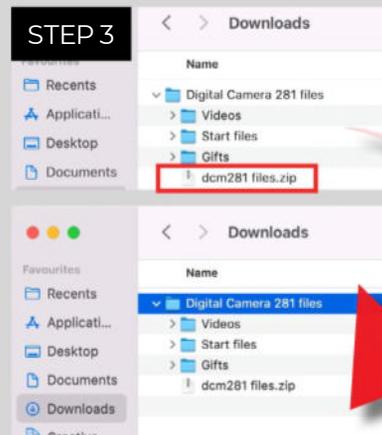
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Cleared for take-off

With his latest book going on sale, **Fergus Kennedy** gives Niall Hampton a taster of drone photography

For someone who's a qualified marine biologist as well as a photographer, it's fitting that we've chosen to do a shoot by the sea. Fergus Kennedy is a drone user and author, whose second book on drone photography is published this month. He's also a native of

Sussex, so today's masterclass is being held at Tide Mills, just east of Newhaven Harbour. Taking its name from a flour mill that was demolished in 1901, Tide Mills is one of Kennedy's favourite haunts. It's convenient for him to get to, there's an appealing mixture of natural and man-made topography to capture from the air and its shingle beach adds texture to top-down photographs. →



Fergus Kennedy

Fergus Kennedy
Photographer

Photographer, filmmaker, experienced multi-rotor pilot and camera operator, Kennedy is also the author of *Drone Photography & Video Masterclass* (2017).
Instagram: @fergus_kennedy_photography





Clockwise from top left: the RC controller and DJI Air 3 stow in a small bag. Unfolding the drone and extending its propellers. Fitting the battery – Kennedy always carries spares. Preparing to fit clip-on dual ND filters, essential for filming video. Strengths range from ND8/16 to ND64/128.

52 Assignments from Fergus

The latest addition to the popular *52 Assignments...* series of photo guidebooks will be published in May. The book is Kennedy's second on the subject of drone photography and aims to answer the question: "I've bought a drone – now what?" *Digital Camera* will be publishing extracts from it in issues 282-286, as a series of Photo Active projects. So if you're keen to explore the heights to which a drone could take your image-making, make sure not to miss them. *52 Assignments: Drone Photography* by Fergus Kennedy is available from May 2024, priced £12.99/\$17.95 www.ammonitepress.com



The day *Digital Camera* arrives, though, mist has put paid to any chance of a high flight ceiling – to start with, anyway. So it's a good time for me to find out more about Kennedy's photographic journey to date, and what's in store when the mist clears.

"As part of working as a marine biologist, I had to do more and more underwater photography and I started to enjoy the creative aspect of it more than the purely scientific one," he says. "Whether underwater or on the surface, part of what I liked about photography was being able to show perspectives that people don't normally get to see very often.

"And I've always been into flying: I was a member of the Air Cadets at school, flying

planes and gliders, and I love taking pictures from planes, hot-air balloons, microlights, paragliders and so on. So when camera drones started to appear on the market, they immediately appealed to me – they offered a way of getting a camera into the air quickly and easily, wherever you are, using something that's easy to carry."

Although early models were pretty basic, little more than flying action cameras that couldn't be controlled once video recording had started, Kennedy says that the advent of gimbals, delivering vital camera stability, took the drone proposition to new heights.

"When decent gimbals arrived, the potential for drones went up massively and they quickly became a typical part of my toolkit when I was travelling; I would use them for coastal surveys or doing tasks related to marine biology, as well as taking them with me on normal photoshoots."

Kennedy sees himself as a photographer rather than a drone photographer – his shot of a whale shark in Djibouti got into *Wildlife Photographer of the Year 2008* – so he views a drone as another item in his camera bag. He goes out to capture aerial video and stills for his personal portfolio but is also in demand as a professional: the →



When camera drones started to appear on the market, they immediately appealed to me

Camera	DJI Air 3
Lens	24mm F1.7
Exposure	1/50 sec at f/1.7, ISO 200

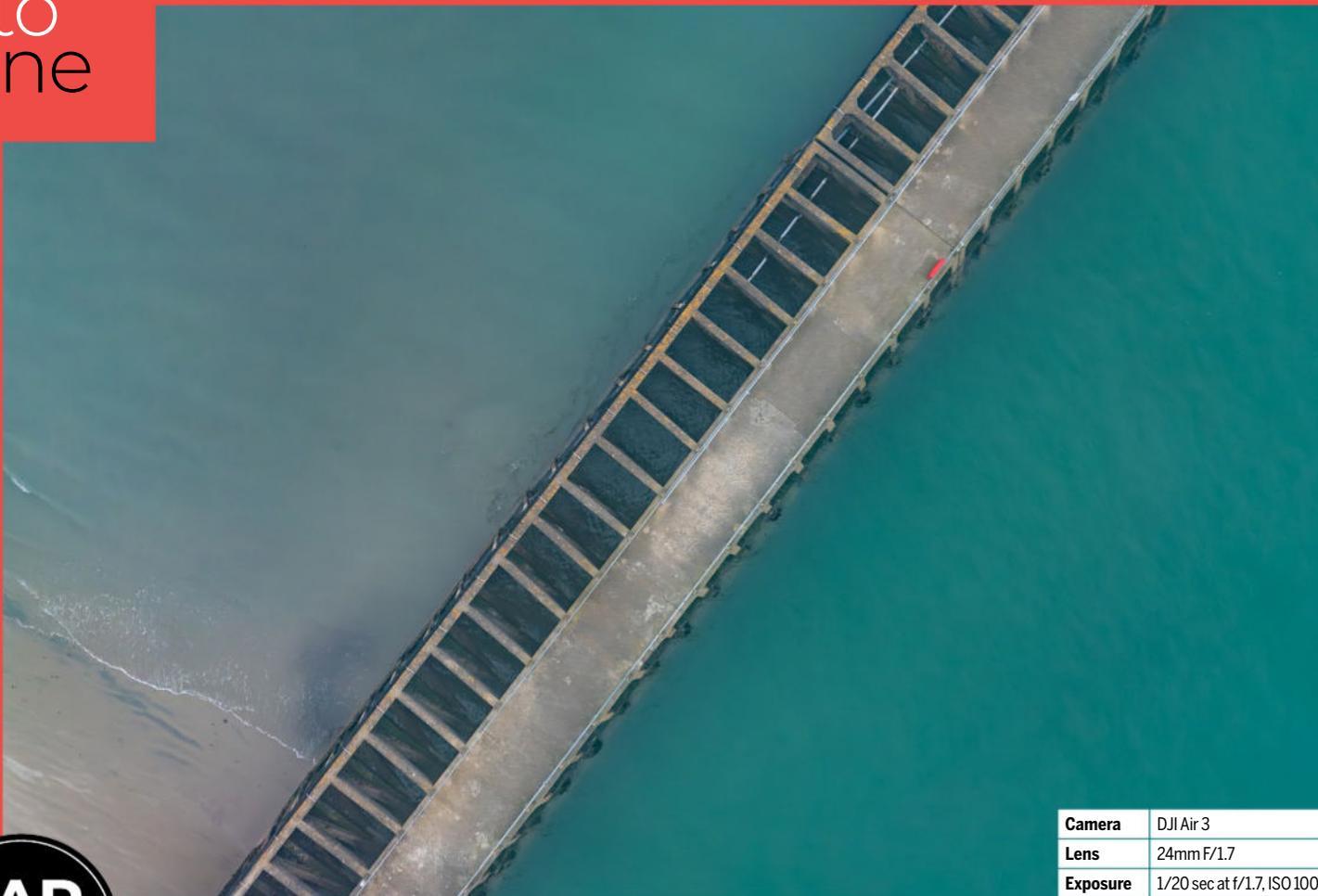
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Fergus Kennedy

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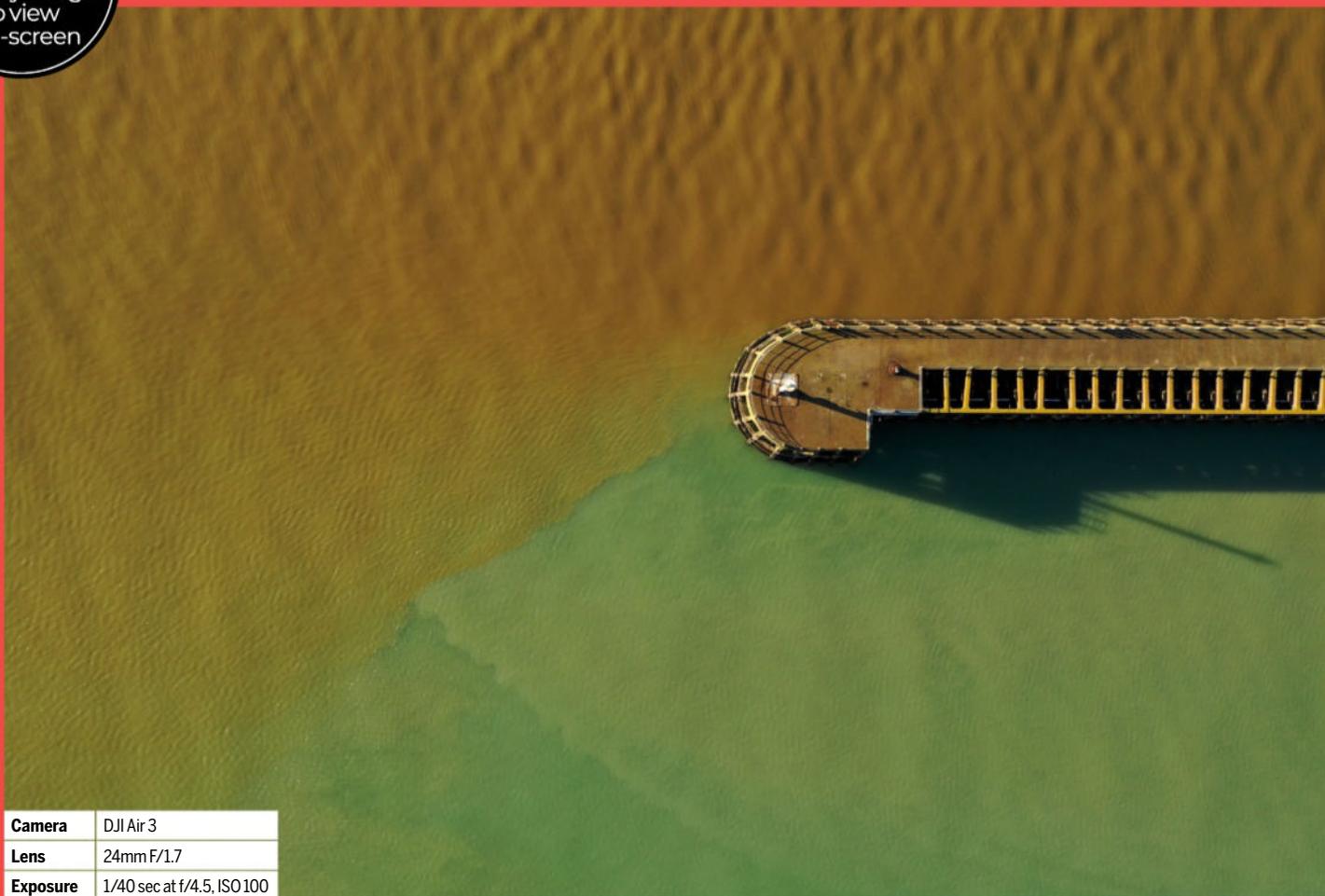
Fergus Kennedy



Camera	DJI Air 3
Lens	24mm F/1.7
Exposure	1/20 sec at f/1.7, ISO 100

TAP
on any image
to view
full-screen

Fergus Kennedy



Camera	DJI Air 3
Lens	24mm F/1.7
Exposure	1/40 sec at f/4.5, ISO 100



Fergus Kennedy

Camera	DJI Air 3
Lens	24mm F/1.7
Exposure	1/20 sec at f/1.7, ISO 100



Keeping things straight and level

Kennedy's tips for helping your drone photography really take off

- 1 "Always start with a few basic pre-flight checks: the propellers are tight, the battery is pushed in and a memory card is inserted."
- 2 "Water can be kicked up from the ground during take-off, or insects get stuck to the lens, so shoot a photo and check it once you're in the air."
- 3 "Take the same considerations you would with your camera – keep the lenses of the drone clean, and any filters fitted to them."
- 4 "If you're going to be flying over water a lot, use a polarising filter. You'll need to position it correctly before the drone takes off."
- 5 "For a 1-, 2- or even 3-sec exposure in low light, you will need calm conditions with no more than a slight breeze."



What goes up must come down... Kennedy prepares for a landing.



REVIEWED!
Why the DJI Mini 2 SE is a great starter drone – see page 112

The built-in screen of DJI's RC remote controller can display 1080p Live View images and footage over a range of 7.4 miles (12km).

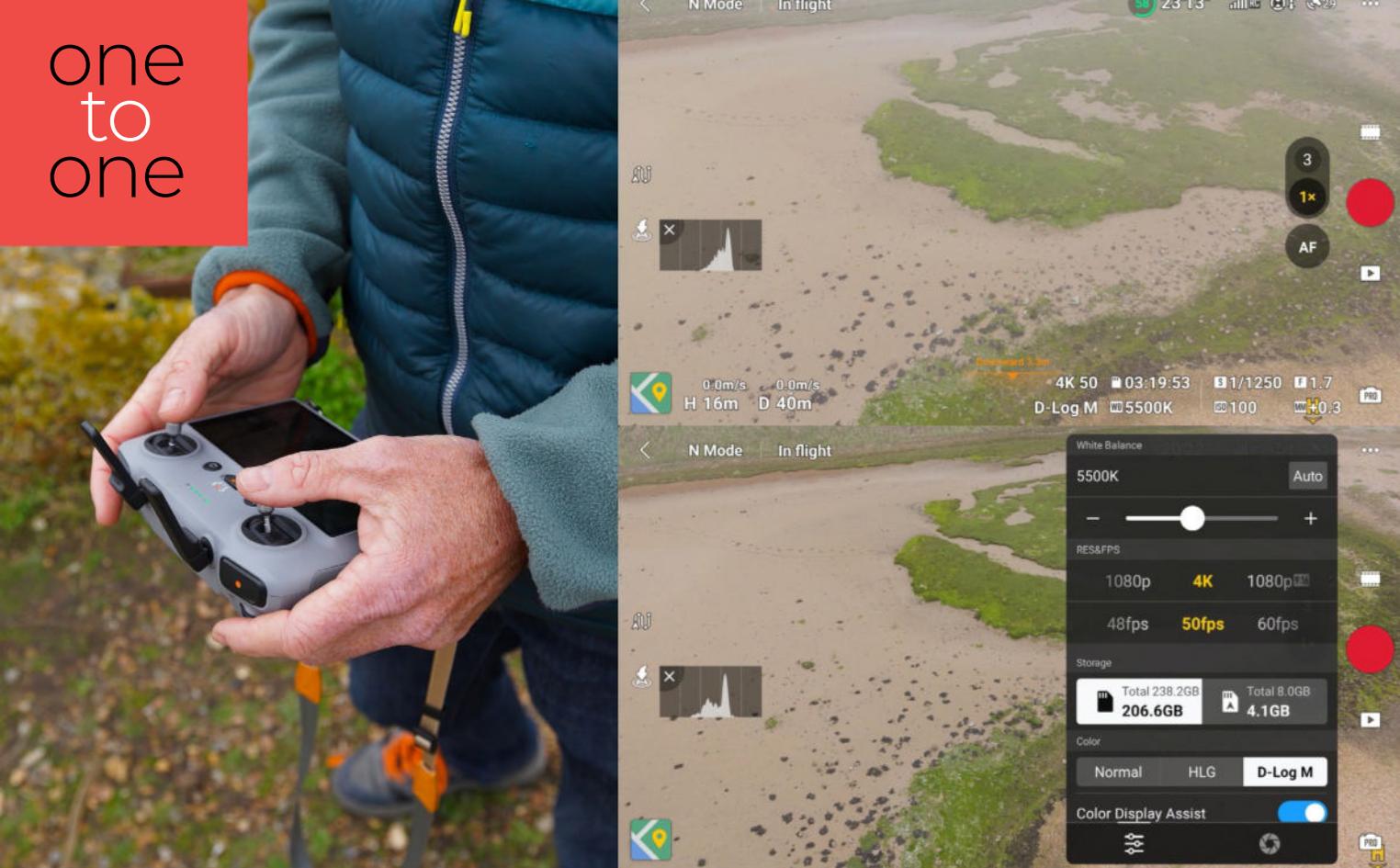
day before we meet, he was filming GV [general view] footage for Channel 4's *The Great British Bake Off*: the aerial shots of the tent and the country house used in the programme come courtesy of Kennedy.

Back to our outside broadcast, though, the mist has started to clear so it's time to go live. Unpacking and setting up his DJI Air 3, Kennedy launches it from the beach and sets out over the sea, tracking the line of the jetty flanking the harbour's exit channel. For something that looks so mundane at ground level, the geometric shapes of the jetty look remarkable on the screen of the RC 2 controller. Reversing course to fly over the harbour and aggregate works, →

DRONES AND THE LAW

In the UK, users of camera drones that weigh more than 250g must pass a theory test and register for an operator ID with the Civil Aviation Authority. For camera drones that weigh less than 250g, users must register for an operator ID but do not have to complete the flyer ID test (although this is recommended). For more information, go to: www.bit.ly/dcm281dronereg

one
to
one



Kennedy's essential kit for aerial photography

Our pro uses camera drones that straddle both sides of the 250g weight threshold

1 DJI Mini 3 Pro

Ultra-light camera drone with 4K 60fps, plus forward, backward and downward vision sensors. "I use this in case there are lots of people around," says Kennedy. "It's quiet so it doesn't get noticed and, as it weighs less than 250g, you can fly a bit closer to people."

2 DJI RC controller

"Both the DJI RC and the RC2 have built-in touchscreens for monitoring the video feed and changing settings. More convenient than attaching your phone, but a bit more pricey."

3 Freewell Dual focal length ND filters

"The aperture on the DJI Air 3 can't be adjusted, so using neutral density filters for video will enable shutter speeds of 1/50 sec or 1/100 sec. This will give you the best shot quality, plus a little bit of motion blur."

4 DJI Air 3

"At 720g, it exceeds the 250g barrier but has the advantage of two cameras: a 1x lens and a 3x lens with separate sensors, which gives you a few more options for framing your shots and getting a slightly different look."



Top: a screen capture from Kennedy's RC controller while overflying Bishopstone beach. The display mimics that of a smartphone.

Above: essential parameters like white balance, video quality and frame rate, plus available storage, can be called up instantly.

Kennedy uses the button on the right-hand front edge of the RC 2 to shoot some stills. Landing the drone, we walk over to Tide Mills village, which was demolished in 1941.

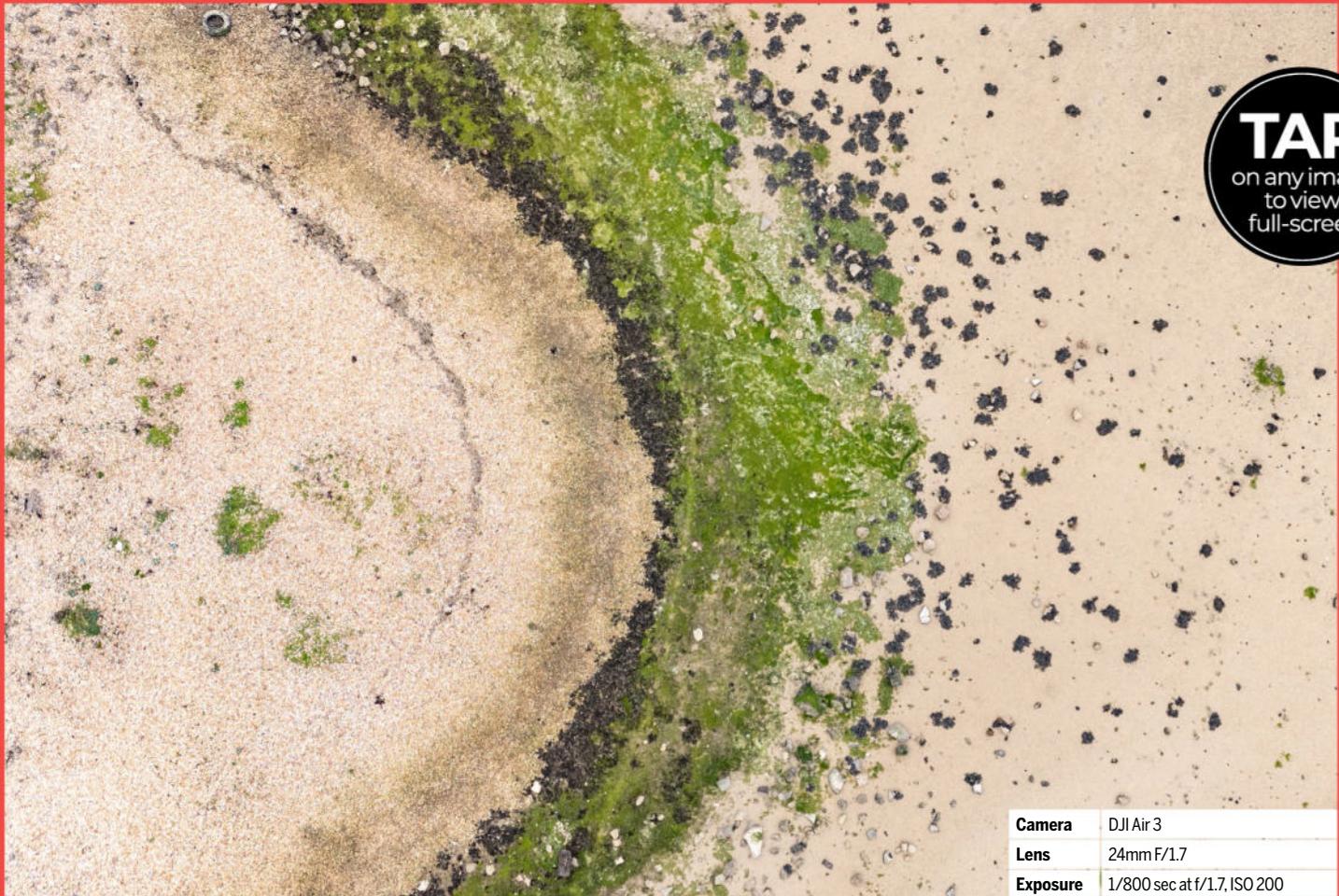
Other than the foundations of buildings, nothing of this former community survives at ground level, but Kennedy's bird's-eye view allows us to zoom out and explore their footprints. In contrast, Bishopstone beach, empty apart from a couple of dog walkers, offers up the curved lines of mother nature.

As the cloud base is sitting at 50-60m above the ground due to the mist, Kennedy can't work towards the 120m ceiling he normally would use for top-down shots. But you don't need to be flying really high to get good photographs with a drone, he says.

"Often just being a few metres higher than your normal head height will give you options that you wouldn't otherwise have had, and not all of them involve going incredibly high. You can fly out over the sea at two metres high and get shots you couldn't have done otherwise, and you can fly pretty low to reach places that were previously inaccessible – the more time you spend using a drone, then the more you'll become aware of the possibilities."

But our flight time is coming to an end – it has been an inspirational trip, but now we must take off for the journey home. ●

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to view
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Camera	DJI Air 3
Lens	24mm F/1.7
Exposure	1/800 sec at f/1.7, ISO 200

Fergus Kennedy



Camera	DJI Air 3
Lens	24mm F/1.7
Exposure	1/800 sec at f/1.7, ISO 200

Fergus Kennedy

Photo Active

10 things you can shoot, edit and create this month, from bluebells and boats to film noir and steam locomotives

Mark Bauer and Ross Hoddinott

1 | LANDSCAPES

Get creative with these compositional tricks

More tips for top scenics by **Mark Bauer** and **Ross Hoddinott**

**PART
5 OF 6**

Part 6 in issue
282, on sale
24 May

In addition to the rules of composition – though perhaps they are better thought of as general guidelines – there are a number of other compositional tricks you can use to organise the frame and draw attention to the main subject. These are the use of frames within frames, movement and texture, and shapes and patterns.

Frames within frames

One way to keep a composition tight and focus attention on the main subject is to use a natural frame, such as an overhanging branch, archway or other object, to frame the principal subject. This technique is popular with landscape and architectural photographers and has become something of a cliché but in the right circumstances, it can still be effective.

By framing the scene, attention is focused inwards to the main part of the picture. Rock formations, archways, branches and leaves make excellent natural frames. It's best to be bold when using such

frames for your landscapes. It's also effective to partially frame a view, perhaps with an arrangement of rocks at the bottom of the frame (see image at the bottom of page 47 in the book). This works particularly well if there is a strong sky above the landscape, which frames the top of the picture.

Movement and texture

Although it isn't always strictly necessary, landscape compositions often work best when they have a strong centre of interest. The other elements in the picture should direct or lead the eye to that centre of interest. This can be achieved by using lead-in lines (see pages 46-47 in the book) or by employing objects that point into the frame. One way to create lines and pointers is to use movement.

If you use solid neutral density (ND) filters to extend exposure times (see pages 81-82 in the book), you can create lines and pointers from the resulting patterns of movement – for example, the 'S' curve created by a wave breaking on the shore.

In macro (extreme close-up) shots, texture can be a subject in itself, but in a landscape, →



Mark Bauer and Ross Hoddinott

Archway

This archway, lit with the golden light, makes an excellent frame for a slightly different take on a well-known view.

Camera settings: Fujifilm GFX 50S, 23mm, 7 secs at f/16, ISO 100.

Rocky ledges

Shooting with a long exposure as the waves wash over the ledges adds texture to the foreground. The waves act as strong lead-in lines, guiding the eye to the focal point in the image.

Camera settings: Fujifilm GFX 50S, 23mm, 3 secs at f/16, ISO 100, two-stop med ND grad, four-stop ND



→ texture can make an effective foreground. Used well, it can make the viewer want to reach out and touch it, pulling them into the picture. Contrasting textures, such as hard and soft, can also be used to create tension within a composition.

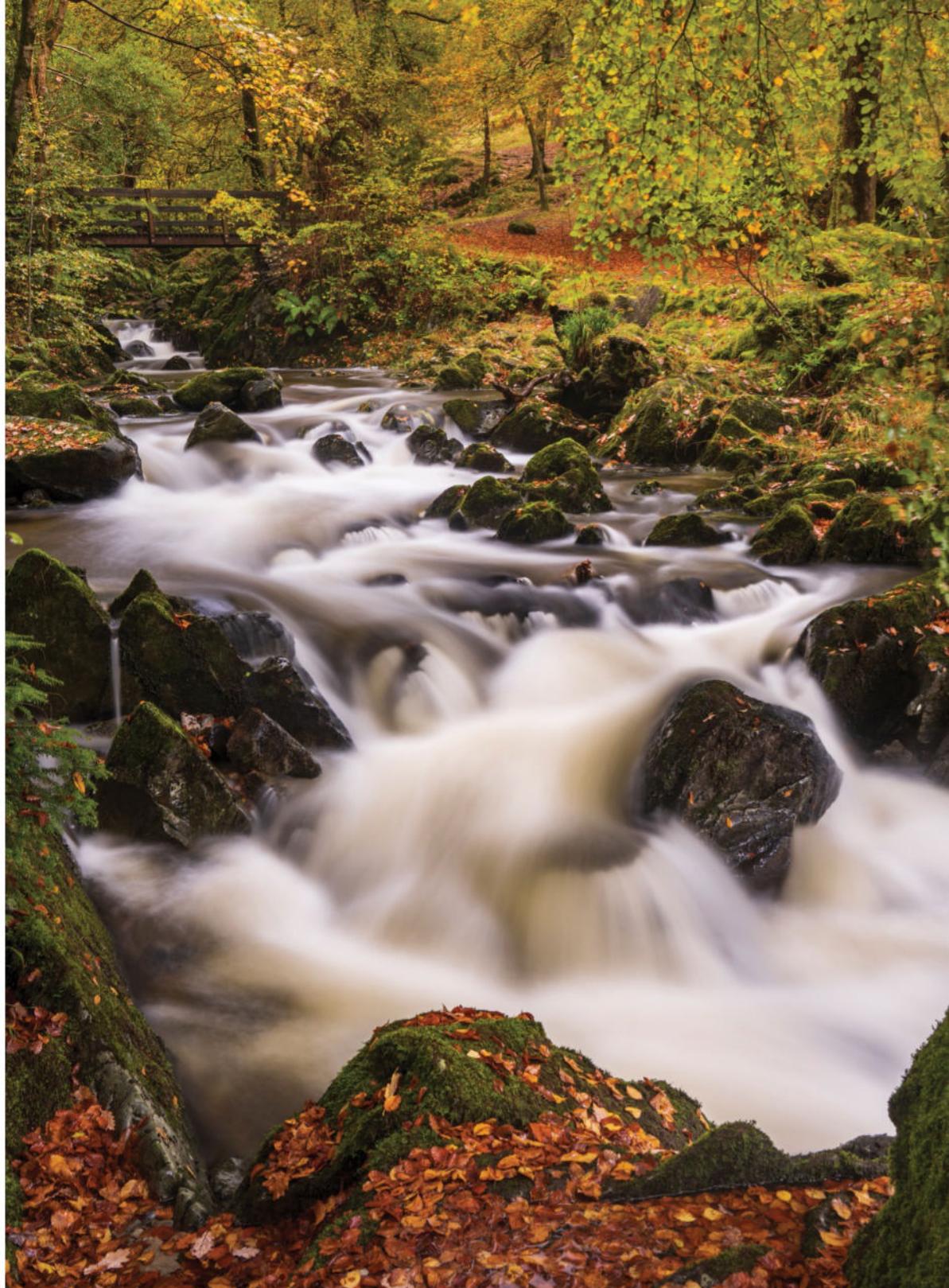
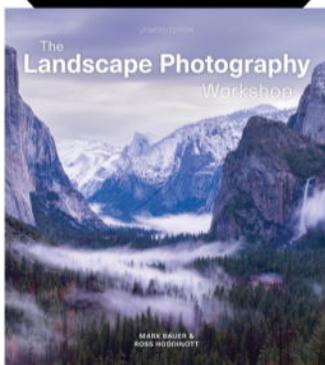
Shapes and patterns

We have a predisposition towards finding a natural order in scenes, even in chaotic environments. When we look at a scene, we will try to impose order by picking out shapes and patterns. For example, if we see three trees in the landscape, we will tend to see them as a triangle, even if the spacing is uneven. Photographers can help the viewer in this search for order by picking out shapes and repeating shapes or patterns.

Different shapes have different aesthetic properties. Squares and rectangles are static and tend to block a view. Circles are calming. Triangles are dynamic, leading the eye into a picture and making good pointers for highlighting subjects. A triangle suggests stability with its base at the bottom of a picture, or imbalance and precariousness with its apex at the bottom.

BUY THE BOOK

The Landscape Photography Workshop by Mark Bauer and Ross Hoddinott is published by Ammonite Press, priced £16.99/\$26.95. www.ammonitepress.com



Mark Bauer and Ross Hoddinott

Cascading water

The water cascading over the foreground rocks in this river scene creates patterns that help lead the eye into the frame. **Camera settings:** Nikon Z 7II, 24-200mm (at 34mm), 10 secs at f/11, ISO 64, polariser

Next issue: Breaking the rules

Once you have learned the rules of landscape composition, there's nothing to stop you from breaking them, if what you are doing makes for a great image. In the next issue, discover how to break the rules. **See part 6 in issue 282, on sale 24 May.**



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Film noir

Wendy Evans opens an office on the wrong side of town and investigates the dark stylings of classic American crime melodrama



Wendy Evans

The double crosses, deep-rooted cynicism, tangled plots and flashbacks are all classic traits of the 1940s and 50s film noir era. However, it's the unflattering camera angles, the deep shadows and dramatic lighting that differentiate film noir from just another detective story. To bring this aesthetic to your portraits is easier than you think and can be achieved without specialist lighting equipment.

The first stage is setting up the subject, whether that's with vintage clothing or not. There's a range of expressions that can be brought to the table, from the cynical detective to the manipulative – or terrified – client who has a secret agenda.

Lighting the scene

The lighting needs to be unfiltered and harsh, so no softbox modifiers are required here. You can use flash, constant LED lighting or, if you're operating on a budget, a table lamp with no shade, placed below the eye level of the subject. This creates harsh shadows on the face, which could suggest either menace or danger, depending on the subject's expression. The lower the light source, the higher the shadows in the background. The closer the background is, the more defined and dramatic the shadows will be. It's worth capturing a range of expressions and moving the light around to see what different kinds of looks you can get.

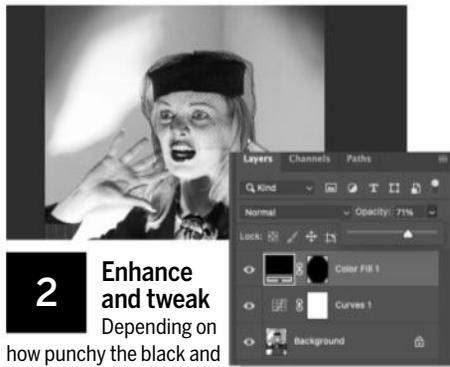
Converting the photo from colour to monochrome



1

Convert to black and white

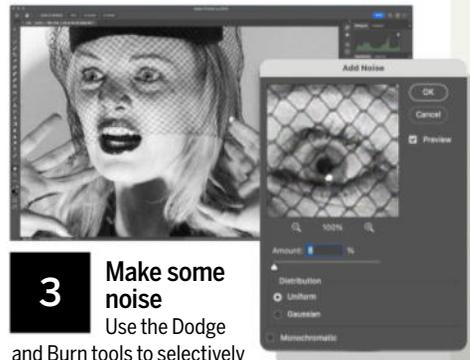
There are some interesting presets in Lightroom but here I'm using the Black & White filter in Photoshop. Go to Image Adjustments > Black & White and select the Green filter preset – the Blue filter is too dark and both the Red or Yellow filters give bright skin tones. Now tweak this by reducing the Red channel. For women, red lipstick was common and rendered fairly dark on the film stocks of the time, so make sure this is the case here. If the face looks too dark, increase the Yellow channel.



2

Enhance and tweak

Depending on how punchy the black and white conversion was, you might need to tweak things with an S-shaped Curves adjustment. Use the Elliptical Marquee tool to select the central area, then feather this by 150 pixels – more if your photo is high-resolution – and invert the selection. Now add a Color Fill adjustment layer and reduce the opacity to create a vignetting effect.



3

Make some noise

Use the Dodge and Burn tools to selectively lighten or darken parts of the image that need tweaking, then flatten all the layers and go to Filter > Noise > Add Noise. Add as much as 10 per cent for a really gritty effect, remembering to tick the Monochromatic box to avoid adding colour. Other touches you might want to consider include a vintage frame or a grungy overlay to add some more character.

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USE YOUR FREE TIPS CARDS

This project features in this month's bonus tips cards. For a handy guide to capturing creative photos like this, keep your tips cards in your camera bag.



A narrow aperture was used here to create plenty of depth of field and to give the sun a starburst effect.

3 | NATURE

How to capture the beauty of bluebells

Wendy Evans welcomes the arrival of a flower that's synonymous with spring

You know spring has finally arrived because if you head for your local woodland, instead of it simply being a damp bog with trees, it has been painted blue, purple and green thanks to the flowering of bluebells. This woodland flower is a perennial and tends to grow in dense patches so, once a year, a sea of purple and blue appears, especially in mature woodlands. Bluebells usually flower between late March and early May, with the average first flowering date over the past 20 years being around 14 April. Most flowering tends to happen in April, which is when you can best experience that carpet of blue-purple colour. Remember not to pick any, though, as they are protected under the Wildlife and Countryside Act 1981 and they contain harmful alkaloid toxins.



Use a telephoto lens with a macro focus option to isolate one flower against the green and purple background. Remember to take a dedicated macro lens, too, to allow you to capture a range of images.



Four top tips for capturing bluebells

Mind your step

Bluebells prefer undisturbed old soil, so ancient woodlands with beech trees are ideal. Look for somewhere with paths and easy access so you don't tread on the flowers themselves. Look for well-kept woods, free from fallen branches and general debris.

Compress the perspective

If you're a little late to the party and the bluebells are already thinning out, get down low and use a short telephoto lens to compress the perspective and make the flowers look more plentiful than they actually are.

Misty mornings

A damp and misty morning can be particularly atmospheric. The alternative is to shoot towards the sun shining through the trees, which creates patterns of light and shadow. Use a narrow aperture, such as f/16 or f/22, to get the sun to form a starburst effect.

Get in close

As an alternative to the wide-angle or short telephoto shot, isolate one bluebell against a background of blue or green by using a macro lens or long telephoto and zooming in. With a wide aperture, the rest of the flowers will be rendered as strokes of colour in the background.

HOPE AND HOMES FOR CHILDREN



URGENT APPEAL



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Born out of the Balkans conflict 30 years ago, we've championed the vital importance of family and community-based care of children and our teams are on the ground in Ukraine, Moldova and Romania to ensure this war does not rob children of the love and protection they need now more than ever. Across all three countries, we're directly supporting displaced families and unaccompanied children with material and emotional

support. We're working closely with authorities to keep families together when they are at their most vulnerable and to fight for the safe tracking, monitoring and care for children without parental care. And we won't stop when the fighting stops.

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With your help, we can avert a child protection crisis of epic proportions and ensure children are protected and kept in families. Never orphanages.

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Please quote **FP22 - P&D** when making your donation.

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HOPE AND HOMES FOR CHILDREN



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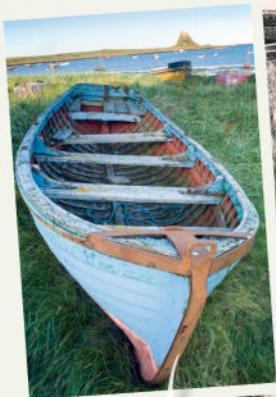
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4 | LANDSCAPES

Forlorn on the foreshore

Wendy Evans goes looking for abandoned and derelict boats



The beauty of living in the UK is that, being an island nation, we have lots of coastline. How much depends on who you ask, with the Ordnance Survey and, bizarrely, the CIA, offering differing opinions. Sticking with the verdict of the mapping people closest to home, there's at least 11,073 miles of coastline and as much as 19,491 miles if you include larger islands and measure at high tide. Lots of coast means a traditional fishing-based industry and, these days, that translates into plenty of abandoned and derelict boats, from simple coast-hugging dinghy boats to deep-sea trawlers. So no matter what the weather, if you head for the coast where fishermen used to ply their trade, you're likely to find an abandoned or slowly decaying boat of some kind.

Three steps for capturing old boats

1 Compose the image

A sideways shot of the boat rarely works, so move round to the front or the back. The idea is to use the lines of the boat to fill the foreground and mid-ground areas so that it leads to a feature of interest in the background. This can be pointing inland, if there's something worth including in the shot, but usually it's the sea in the background that makes for a more visually pleasing image. If you have the rear of the boat in the foreground, then it suggests that the boat might be heading back to sea again. If, as is more likely, it's the prow (front), then that gives the visual impression that the boat has beached and, if it's rotting away, will never sail again.

2 Capture the detail

You'll want detail from front to back, but really, the boat should be occupying most of the front and middle area. This type of image lends itself to blending two shots together, having focused on the boat in the foreground and the sea in the background. However, if you're doing it all in one shot, you want a narrow aperture to get as much depth of field as possible, ensuring that all of the boat, as the main element, is in focus. Focus on the top of the prow as the key point.

3 Don't overexpose the sky

In this image, the boat was in the shade thanks to some unhelpful clouds, which increased the risk of the sky area being overexposed. Certainly, some exposure bracketing here would have been useful, blending the images in-camera or in post-production. Alternatively, you can do it the old-school way and use a graduated neutral density filter, aligning it with the sky and any illuminated distant scenery, especially if the foreground is in the shade.

Improve your shots during editing



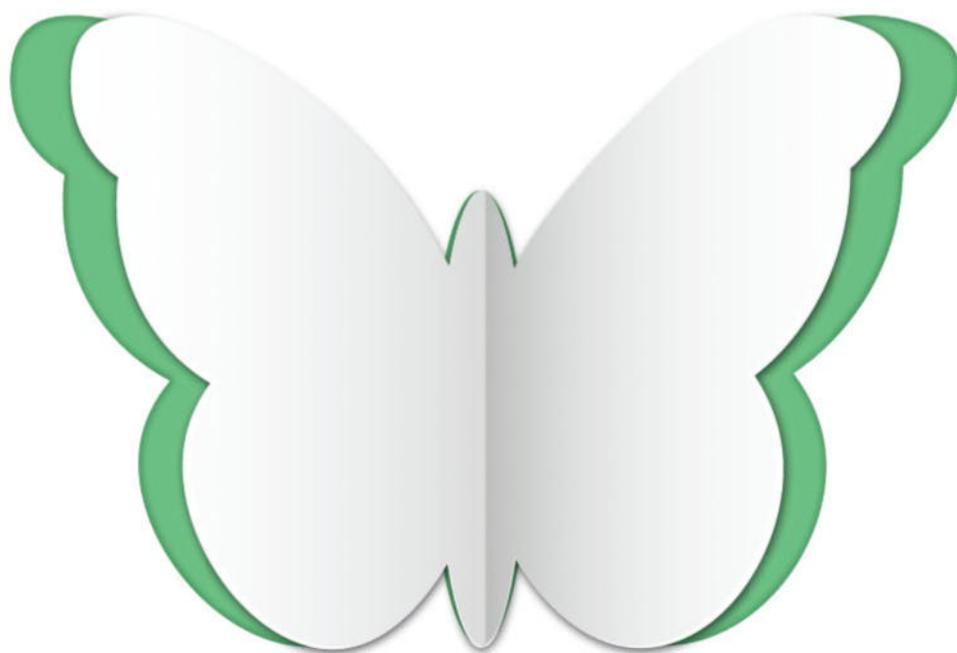
Make it mono

If the lighting is uninspiring, this type of subject suits black and white or toned images. Use your image editing software to convert to mono. I've used a couple of layers and masked off areas to get the best conversion. This isn't always necessary, but here it was.



Tone it up

For final touches, consider adding some noise and perhaps toning the image. I've used the Black & White Warm filter preset to give this a light sepia-style coating. Tweak the layers to your satisfaction then flatten the image and save it.



PAPER & BIODIVERSITY

Forests cover 31% of the world's total land area and contain most of the world's earthly biodiversity. To ensure the long-term health of forests, the European paper industry counts on sustainable forest management as a source for its main raw material.

Source: FAO and UNEP, The State of World's Forests, 2020



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A low shooting angle of a steam train on the Durango and Silverton Narrow Gauge Railroad in Colorado, USA, highlights the spectacular scenery of the San Juan National Forest.

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5 | PHOTOSHOOT

Shoot the age of steam

Wendy Evans stokes the boiler and sets off to explore the photographic possibilities at a heritage railway museum

Most people have heard of Stephenson's Rocket, the steam locomotive designed and built in 1829, but Robert Stephenson didn't actually invent the first steam engine. That honour went to Richard Trevithick, a Cornishman whose Penydarren tram road engine hauled 70 men and 10 tons of iron

some 10 miles, at 5mph, in 1804. However, Trevithick's design was ignored, leaving it to Stephenson to grab the glory. By the 1920s and 30s, the golden age of steam was in full flow. At the height of steam train popularity, there were over 30,000 miles of track in the UK, transporting goods, commuters and holidaymakers, but the Beeching cuts of the

1960s and then electrification meant that steam engines were consigned to the heritage sector. In Britain, there are now over 100 heritage railways and 60 steam museums, staffed by enthusiastic volunteers. So, forget your overcrowded, late-running commuter trains and instead, discover what to photograph at a historic railway. →



On the tracks

The best place to photograph steam trains is generally out in the countryside, whether that's from afar or close up. The classic image of the steam locomotive has it chuffing away through the landscape but to get a great shot from a distance, it pays off to find somewhere where the track bends and then see whether there's an elevated position to shoot down from.

Ensure that you get all of the engine in the shot, letting the rest of the carriages file behind it. This way, you have better lines leading through the image, rather than just a dead-straight railway line that cuts through. For this kind of distance shot, maximising the depth of field is the key so using an aperture of $f/22$ or $f/16$ and focusing roughly one third of the way into the scene will do that. Alternatively, if the train is not that far away, you can use $f/5.6$ or $f/8$ and focus on the engine itself, so that the train is clearly the sharpest part of the image.

The same ideas apply if you find that your access to a stretch of railway is also at a medium distance, but sideways on. For this, you're really looking at creating symmetry, so let the train fill the frame but make sure it hasn't started to go out of shot.

The final shooting distance when outside is close up, either on a platform, to the side of the track (at a safe distance) or on a bridge. Here, it's worth looking at vertical compositions, especially if the train is coming head-on and the engine is putting out a lot of steam. Bear in mind that while you'll have plenty of time to zoom in when it's 150m away, as it approaches everything speeds up. It's worth selecting



This stretch of track at the Didcot Railway Centre was straight, but a slight curve by the water tower meant the carriages were in sight. A fast shutter speed froze the moving train.

Continuous drive mode instead of single shot, so you can fire off plenty of frames as the train rumbles past. Also, to keep the train in focus, switch the autofocus system to Continuous focus (AF-C) or use a focus tracking mode. For trackside shots, a low shooting angle will emphasise the engine as well.

If the train is at a platform and the engine is putting out steam, especially if this is a dusk or night-time shot, then try a long exposure, for which you will need a tripod. With a time of eight seconds or more, the steam will blur into a pleasing fog, which can look fantastic if there are artificial lights shining through the steam.

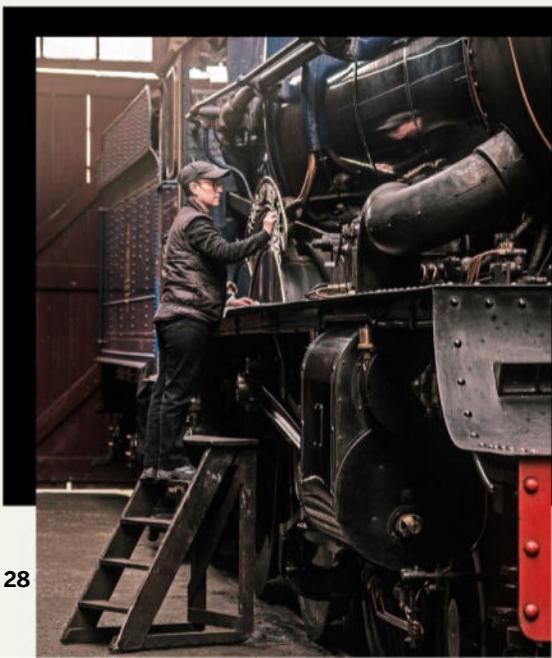
At the station

'Station' can also mean any museum that houses historic engines. There is still the opportunity to photograph vintage locos, but they are likely to be stationary exhibits. The shooting position is also likely to be close up so initially a wide-angle lens is called for and a polariser is usually a good idea if outdoors. Rotate the polariser around until it removes most of the reflections off the engine paintwork. Inside an engine shed, there won't be an awful lot of light so

Zoom in on anyone working on the museum exhibits to get a candid image.

a polariser might be impractical, even after increasing the ISO significantly. If you can shoot with an aperture of $f/5.6$ or $f/8$ then get in front of the train and focus on the engine, although using $f/2$ or $f/2.8$ isn't a bad option as it will result in the back end of the train going out of focus where other visitors might be milling around.

To make the subject appear more dynamic, considering that it's a static exhibit, get down as low as possible and use a wide-angle lens to give it a more dramatic look. If it's dark or there is light coming from above or behind, then using the flash may be



The Didcot Railway Centre

At the living museum of the Great Western Railway, you can explore the locomotives, carriages, engine shed and museum.

Find out more at:
didcotrailwaycentre.org.uk

Getty/Boo Krist



A stationary train in Pennsylvania, USA, venting steam at night and surrounded by artificial lighting, makes for an atmospheric image.



There are often interesting subjects around the track – here, for example, a warning sign as the train arrives in the background.



A wide-angle shot as the train arrives at the Didcot Railway Centre – concentrate on the front end of the engine to ensure it's in focus.



Because the lighting was mainly from above, flash was used to brighten up the foreground without dominating the exposure.

required to get any kind of shot. A remote flashgun is best but you can often still use the on-camera flash. Turn it on and take a shot. If the effect is too obvious, creating lots of highlights and dark shadows, dial in flash exposure compensation of -0.3EV or -0.7EV. It all depends on how much light there is and where it's coming from but the idea is to try to balance it out or light up an area that would otherwise be virtually black, not flood the foreground with light.

Something else worth looking out for in an engine shed is a member of staff carrying out maintenance on the engine or

simply cleaning it. Zoom in from a distance to show them at work for a candid style photo. Low light and a telephoto means as wide an aperture as your lens can offer is required and probably upping the ISO too.

Next, it's time to see what else the museum has to offer and this can include everything from junction boxes to recreations of entire platforms. Use a short telephoto to isolate these elements and use wide open apertures for creative-looking images of controls, switches and signs. Finish with wide-angle shots of platforms but be wary of the sides of station buildings becoming distorted.



Carriages flanking a central platform in the Didcot Railway Centre, lit from above. Without much colour, we made a mono conversion for a study of lines and shapes.



Before



After

Wendy Evans

6 | AFFINITY PHOTO

Add drama to a countryside view

Wendy Evans takes to black and white to save a dreary day in the country

We've all been there – that day out in the country, hoping for some golden summer light only to discover it's another cloud-filled day, enveloping your destination in a blanket of grey misery. Rather than packing up and going home, take your photos anyway, with a view to converting them to mono when you get back. In fact, for punchy mono conversions, lots of clouds is actually a good thing because they add texture and definition to the sky, as you will see with this project.

So, here we have a brick cottage, a winding pathway and a church in the background, but there is no sign of the sun and the light is completely flat. We used Affinity Photo for this project, but Photoshop has near-identical black and white conversion filters and similar alternatives for the tools mentioned.



1

Initial corrections

This was shot with a wide-angle lens so the side of the cottage is leaning in. Clean up any flaws to start with by clicking on the Develop Persona icon and then on the Lens Correction tab on the right. There are options for specific Lens profiles so, if you used one of those listed, select it. Then move the Vertical slider to the left to correct the leaning wall.



2

Convert the tones

Click on the Tones tab to show the six colour channels. The red channel covered the brickwork, the green and yellow were the grass and flowers, and blue and cyan the blue parts of the sky. To get more impact into the bland lighting, reduce the Blue and Cyan channels to make those parts of the sky darker, without creating excessive noise.



3

Define the sky

Go to the Basic tab and increase the Clarity until some definition and drama start to appear in the sky. If this also makes the flowers on the ground area too bright, adjust the yellow or green channels again. While on the Tones tab, tweak the overall contrast using Curves with an S-shape.

4

Add the finishing touches

Click on the Details tab and then on Noise Addition. Increase the Intensity to 10 per cent to give it a gritty feel. Then Duplicate the background layer to enable transformations. Select the Move tool and drag the left and right centre handles out to fill the gaps. Grab the top centre handle and drag up to retain the scale of the building. There was plenty of sky so better to lose a bit of that than the foreground scenery. Flatten and save to finish.





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7 | MACRO

Bugging out

Italian photographer **Sara Jazbar** turns minibeasts into beautiful, big beasts that are a far cry from creepy-crawlies

Technically, true macro photography is when you magnify your subject via a ratio of at least 1:1, but people often use the term 'macro' to refer to any close-up image. If you're interested in pursuing this fascinating genre, you will need to have the right gear. The most important tool, of course, is a dedicated macro lens, but that's not the only solution – and it certainly isn't

the cheapest. If you're on a budget, you may prefer to try extension tubes, close-up filters or the reverse-lens technique.

The best time to photograph insects is early in the morning or late in the evening when they are roosting and therefore relatively inactive. This means you can take your time and work around them without creating a disturbance.

Instagram: @jazart72

PRO TIP

Avoid waking up at 4am for nothing: scout your selected location just before sunset. Crouch in the long grass and look around you. After a short while, you should start to notice various insects. Once you've identified a subject, apply a sticky note on a nearby stem of grass, so you can find it in the early hours of the following morning.

How to shoot insects close-up

1

Steady on!

Set up your camera on a tripod. If you don't have a remote shutter release, use the self-timer. If you need to steady the plant your subject is resting on, or gently tilt it to frame a better backdrop, consider using a clamp. However, you must always be mindful of your subject, so aim to disturb it as little as possible.



2

Capture the good side

Macro lenses produce a narrow depth of field, so even at narrow apertures, you may struggle to get all of your subject in focus. Consider photographing your subject side-on, to reduce the depth that you need to capture. It's also generally considered best practice to focus manually. Enlarging the subject at 100 per cent in Live View will help.



3

Keep your distance

To create an even shallower depth of field, ensure the background is a good distance from your subject. If you're shooting your subject perfectly side-on, you might be able to widen the aperture. Keep your ISO as low as possible and shoot early in the morning, when insects are more likely to be still so you can afford a longer exposure.



A soft, blurred background helps to complement, rather than detract from, the close-up subject.

1/4
sec

f/16

ISO
100

Sara Jazbar



4 The early bird

By taking pictures in the soft early morning light, you will reduce the amount of editing required afterwards, because you won't have to deal with unwanted harsh shadows. Frame your insect precisely to maximise the resolution and avoid cropping when editing. Unless you are planning an extreme close-up of the eyes or body, avoid cropping the limbs.



5 It's behind you!

If your background is too cluttered or busy, place a printed backdrop behind your subject as you shoot. Spice up an existing background by adding a mono texture and apply your desired blend mode – here, I used Linear Light. Finally, use a layer mask and a soft brush to hide any texture that is obscuring your subject.

A dusk photo of Brighton Pier and beach but there's a photographer in the way!

PART 2 OF 4

Part 3 in issue 282, on sale 24 May



Before



After

8 | PHOTOSHOP

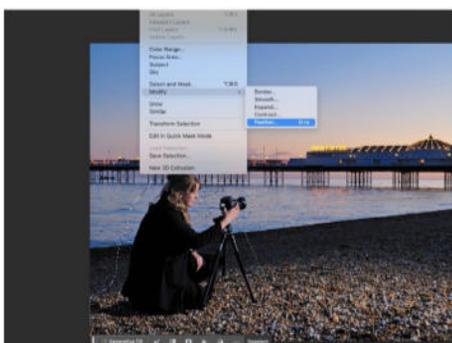
Fill in the blanks

Wendy Evans continues her series on Adobe Photoshop 2024's new Generative Fill tool with a look at adding and removing individual elements

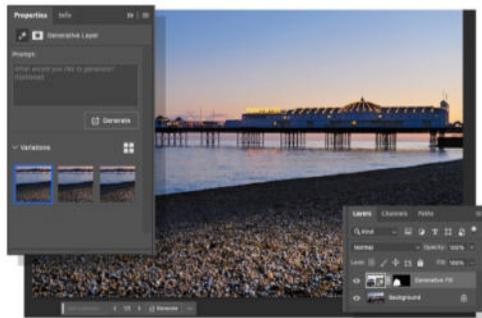
Removing clutter and annoying items from your photos is standard practice and there are a number of tools available to help do this. Which one you use is something of a personal choice, whether that's the Clone Stamp or Patch tool, for example. Adobe has always introduced new tools that

do much the same job as the old ones, just slightly better. And here we are with Generative Fill, the AI-driven content filler, which can do what those other tools did before, but better and with more variety. In this issue's example, we're going to look at both removing elements that we don't want and adding new ones that weren't there to start with.

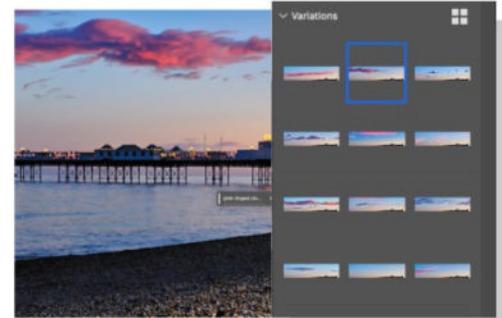
Adding and removing elements with Generative Fill in Photoshop 2024



1 **Select the object...**
Select the Lasso tool and mark around the figure you want to remove. Then go to Select > Modify > Feather and enter a value of 50px. The higher the resolution, the bigger the feathering number to use. This is fine for a 12MP image.



2 **... now remove it**
In the Contextual bar, click on Generative Fill and then on Generate. To remove a person from this scene you don't need to enter a prompt as it will simply remove what's there and fill it with what surrounds the marked area. Go through the variations to see which works best.

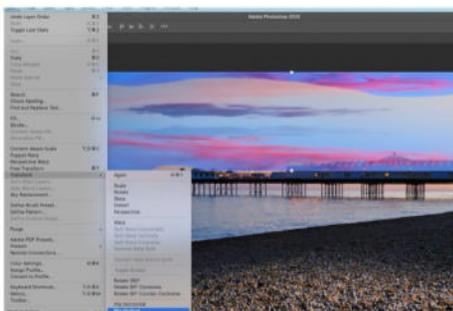


3 **Add some clouds**
Think the sky's looking a bit bland? What it really needs are some clouds that are appropriately lit for dusk. So mark off the sky area, feather the selection, hit Generative Fill again and use the keywords: 'pink-tinged clouds at dusk'. Go through a few variations of results to get the best one.

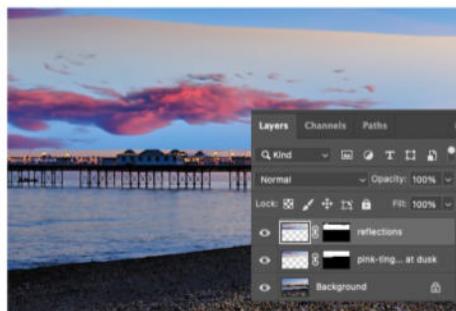


Remove the photographer, add some clouds, reflections, a beach fire and some chairs.

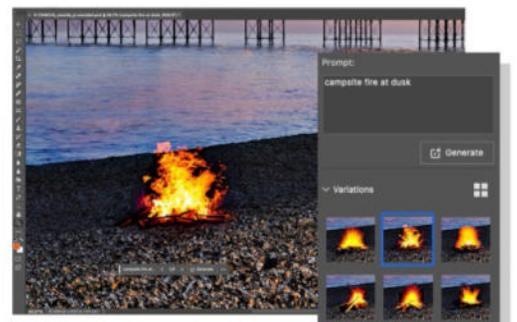
Wendy Evans



4 Make the reflection
Each variation for the Generative Fill layer increases the file size of the project, so delete the bad ones. Having decided on which one to use, right-click on the cloud layer and select Rasterize. Then duplicate this layer, rename it 'Reflections' and select Edit > Transform > Flip Vertical.



5 Move it all around
Ensure the Fill layer is above the Landscape layer. Move the Reflection layer over the water. Reduce the opacity to aid positioning and paint onto the mask to remove reflections from the pebbles and pier. The water isn't still, so blur the Reflection and change the blend mode to Soften at 50 per cent opacity.



6 Burn, baby, burn
The final thing to do is to add an element of foreground interest. Photoshop currently uses v1 of the Firefly AI engine, so it's not great at people (the website firefly.adobe.com uses v2, so is much better). Following the same process as before, try adding a campsite fire and beach furniture.

9 | ACTION

Back out with the paw patrol

Ross McLaren concludes his guide to capturing the expressive nature and character of your pet dogs on their daily walk

Taking your dog for a walk is a necessary routine for most dog owners, but it can also provide opportunities for some engaging action shots that really showcase the nature of the animal.

In the first part of this project, we talked about the settings to try out. Now, let's look at framing and focusing techniques to capture your pet in full flow.

Instagram: @r.s.mclarenphotography

1

Standing proud

An alternative to action shots of a running dog is to take one of the dog standing to attention. You can give the shot even more impact by getting on the other side of the dog from where the sun is shining to produce a rim-lighting effect on the coat. To achieve this, spot metering from the dog itself can help avoid the animal being underexposed, although another option is to produce a silhouette of your dog against the sunlit sky.



Ross McLaren

2

Capture expressions

Don't forget to look out for funny or interesting facial expressions. Dogs can be very expressive, such as this shot where there's a combination of worry and guilt, all in one image. If the dog is interacting with something it makes it easier to focus on the head, just to capture the range of fleeting expressions.



4

Dogs and their owners

This shot relies on having someone else along on the dog walk and shoot, perhaps a partner or a friend. Get them to establish their relationship with the dog while you take the photo, showing the canine companion alongside their owner. Either portrait or landscape orientation is fine. In this image, the 1/4000 sec shutter speed has frozen the scene on a windy, foam-filled beach.



5

Editing the images

To keep manipulation of captures to a minimum, it's always better to try getting things right in-camera in the first place. With the ISO set to Auto (with an upper limit) there can be the odd occasion it pushes it to the limit, so some de-noise work is needed. I always like to edit the subject, usually raising the shadows a little and adding a bit of extra sharpness or clarity. And to finish it off, I always add a little vignette, either with the actual tool on Lightroom or as an inverted radial mask, which gives a more subtle effect.





3

Framing the shot

When the dog is running towards or slightly across the frame, try to leave a little space for where the dog is running to and less space behind where it has been, so it appears to be moving into the scene, rather than out of it. Obviously, with an animal racing around at high speed, this is not always possible and may require cropping afterwards to achieve a more pleasing framing.



USE YOUR FREE TIPS CARDS

This project features in this month's bonus tips cards. For a handy guide to capturing creative photos like this, keep your tips cards in your camera bag.



10 | COMPETITION

'Perspective' photo challenge

Send us your best shot to win a £50 voucher towards CEWE Wall Art

WIN A £50 CEWE WALL ART VOUCHER!
Submit your best 'Perspective' photo by midnight on 23 May 2024

The latest theme of our monthly photo challenge is 'Perspective' – where the camera is positioned in relation to the subject being photographed. As perspective can have a dramatic impact on a photo, we're looking forward to seeing what you come up with to meet this challenge.

Enter via email or Facebook

Email your entry to digitalcamera@futurenet.com with 'Perspective' as the subject, including a brief description of the image. Or look for the 'Perspective' post at www.facebook.com/digitalcameraworld and upload your entry into the feed. Enter by 23 May (only one image per reader, please). The winner will be announced in issue 283 (July), on sale 21 June (Please note that this competition is only open to readers based in the UK).



Ian Hamilton

The winner of the 'Water' challenge is...

Ian Hamilton

In *Digital Camera 279*, we challenged our readers to submit their best image of water, whether it featured streams, rivers, seas, ponds, precipitation, puddles or lakes. Congratulations to Ian Hamilton whose photo of waves crashing on the southern breakwater in Aberdeen, Scotland, really captured the tremendous power and force of water.

Settings: 1/125 sec at f/4, ISO 100

Email your entry to: digitalcamera@futurenet.com or enter at: www.facebook.com/digitalcameraworld



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Do you consider the rules of composition before making your photographs, or do you rely on instinct and an eye for an image?



Benedict Brain
www.benedictbrain.com

Camera: Fujifilm GFX 50R and GF45mm F2.8 R WR
Exposure: 1/125 sec at f/8, ISO 100

'aesthetically' inclined and in tune with a sense of visual balance, harmony and order, while others must work a little harder. Regardless of where you sit on the spectrum, being aware of the 'rules' can help and for some people, especially those at the beginning of their photographic journey, spending a little time becoming familiar with the 'rules' is a good thing, albeit taken with a pinch of salt.

That said, I was recently appalled to see my son's photography GCSE coursework on composition, where his class has been delving deep into the complexities of composition theory and overlaying harmonic armatures and other such devices onto photographs to analyse their compositional structure. While I don't want to be that annoying, interfering parent, I find it a shame – a tragedy, even – as it's missing the point, massively overcomplicating things and sucking the joy and creativity out of photography. I've seen similar attitudes with some old-school camera club 'judges' getting their knickers in a twist over images that don't strictly adhere to the 'rule of thirds' or other such 'rules'. Open any book on the history of photography and you will see myriad examples by the world's finest photographers who disregard the rules with glorious abandon.

This image was made in a Samoan fish market. I worked the scene a little to get the composition and took half a dozen or so shots before settling on this one. I changed my angle and point of view slightly between each image, being aware of the shapes, colour and light and how they were arranged relative to one another in the frame. However, I never consciously thought of harmonic armatures, the golden mean or the rule of thirds. ●

The art of seeing

Benedict Brain considers the art of composition on the streets of Samoa

C

omposition fascinates me. In my workshops, talks, articles and books, I often use the famous quote by Edward Weston that goes along the lines of: "To consult the rules of composition before taking a photograph is like consulting the rules of gravity before going for a walk". Naturally, the point is that he didn't think about any of the 'rules'

or 'guides' when composing his photographs; in other words, he simply relied on intuition and instinct.

I sense this is also the case with many other photographers. Not that I would put myself in the same league as Edward Weston but I never consciously reference any of the 'accepted rules' when making a photograph. However, I think it's true that some folk are simply more

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DIMENSIONS

Internal dimensions
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External dimensions
15 x 13.5 x 19.5cm

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Hotshots

Winning images from International Garden Photographer of the Year 17



i

OVERALL WINNER and 1st PLACE, 71M Abstract Views
'Birdscape' June Sharpe Location: Kent, England

"The layered branches of this conifer reminded me of the dancing cranes often featured in Japanese woodcuts. I added a fill layer and used the exclusion blending mode to alter the colours in post-processing. This enhanced the feeling of movement and the sense of the 'birds' dancing in a fantasy woodland."

Camera: Canon EOS 5D Mark III, Canon EF 24-105mm f/4L IS USM **Settings:** 1/350 sec at f/5.6, ISO 800



IGPOTY/Leena Roy

i

WINNER: Plants and Planet**'Mangrove Tree (From Underwater)' Leena Roy** Location: **Bunaken National Marine Park, Sulawesi Island, Indonesia**

"A mangrove tree surrounded by numerous roots on the seabed, which I photographed from under the water, looking up. Mangrove forests not only act as carbon banks but they also stabilise the coastline from storms and erosion, as well as being a vital habitat for fish, crustaceans and hunters like sea snakes. The leaves of the tree are underwater at high tide and, above water, their canopies are home to many birds and mammals."

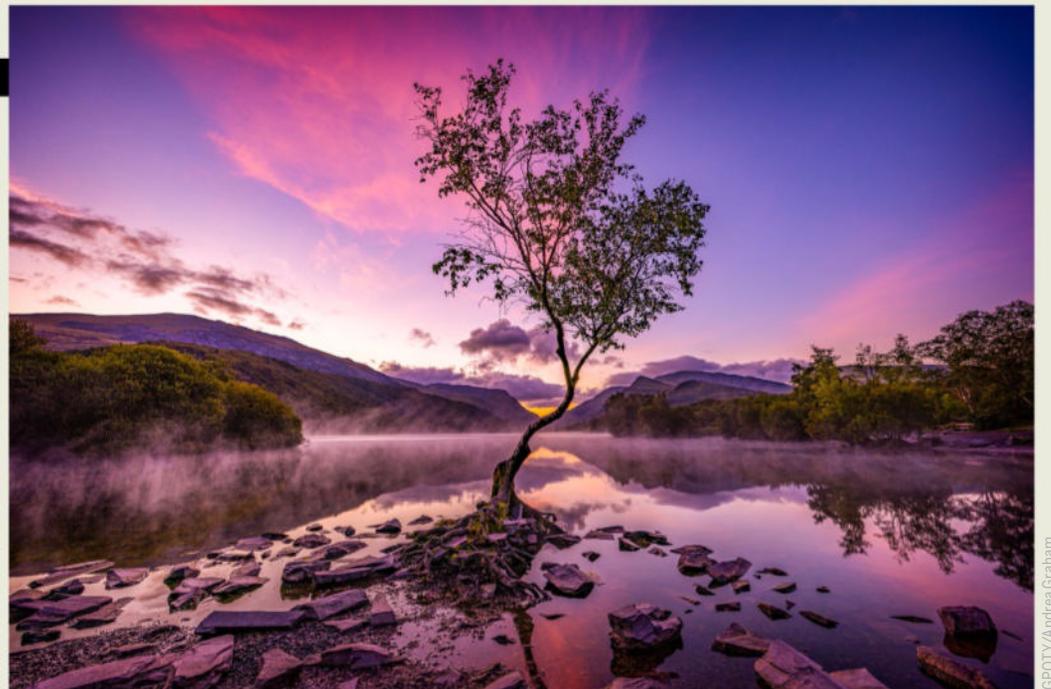
Camera: Nikon D500, Tokina AT-X 10-17mm f/3.5-4.5 DX Fisheye, Nauticam underwater camera housing **Settings:** 1/60 sec at f/13, ISO 800

i

WINNER: Breathing Spaces**'The Lone Tree' Andrea Graham** Location: **Eryri (Snowdonia) National Park**

"This was a truly magical morning. We arrived to find the mist rolling across Llyn Padarn and that we had the place to ourselves – it was almost spiritual and so incredibly peaceful. As the blue hour progressed before dawn, we were blessed with these beautiful pink tones, before the sun finally rose above the mountains and kissed the famous lone tree."

Camera: Canon EOS R5, Canon RF 14-35mm f/4 L IS USM
Settings: 1/10 sec at f/8, ISO 100



IGPOTY/Andrea Graham



WINNER: The Beauty of Plants
'Ethereal Nigella' Angi Wallace

Location: Tyne and Wear, England

"The intricate floaty beauty of a Nigella flower surrounded by light and airy bokeh. I photographed this whilst sitting at our dining table with one of my own out-of-focus backgrounds placed behind the flower. My camera was placed on a mini tripod and a WeMacro automated focus stacking rail. Here, I chose to focus-stack 43 images together to make the most of combining the high details of the subject with a soft and dreamy background."

Camera: Sony A7 III, Sigma 180mm f/2.8 EX APO DG Macro OS HSM

Settings: 1/200 sec at f/5.6, ISO 50





TAP
on this image
to view
full-screen

WINNER: Beautiful Gardens
'Autumn Sunset' Annie Green-Armytage
Location: Suffolk, England

"It's easy to grow a border that looks good in June but few can create such a stunning display in October. Here, the grasses combine with the bold *Hylotelephium spectabile* (or *Sedum spectabile*), the yellow sprays of the sunflower *Helianthus* 'Lemon Queen', the delicate pinks of *Nicotiana mutabilis* and a glorious silver maple (*Acer saccharinum*) to make a border full of colour, texture and contrasting shapes. The setting sun was the ultimate gift from our majestic natural world, a moment of beauty that I was privileged to capture."

Camera: Canon EOS R6, Canon RF 24-105mm f/4 L IS USM

Settings: 1.6 secs at f/22, ISO 320

i

©POTY/Annie Green-Armytage

TAP

on any image
to view
full-screen



IGPOTY/Albert Ceolan

i

WINNER: Wildflower Landscapes

'Flower Meadows of the Plateau'

Albert Ceolan

**Location: Trentino-Alto Adige/
Südtirol, Bolzano, Italy**

"I captured this vast wildflower meadow, which stretched as far as the eye could see, across a plateau of the Alpe di Siusi (Seiser Alm) – the largest high-alpine meadow in Europe, in The Dolomites, South Tyrol."

Camera: Nikon D6, Nikkor AF-S

24-70mm f/2.8 G ED **Settings:**

1/400 sec at f/16, ISO 400

i

WINNER: The World of Fungi

'Icy Craterium' **Barry Webb**

**Location: Beaconsfield,
Buckinghamshire, England**

"This *Craterium minutum* slime mould was 1mm tall and found on decaying vegetation at the edge of a compost heap in my garden. Captured following a hard frost, I was surprised to see the unusually cube-shaped ice formations on the fruiting body of this slime mould. This shot is comprised of 87 focus bracketed images, focus-stacked together."

Camera: OM System OM-1, M.Zuiko Digital ED 60mm f/2.8 Macro **Settings:** 1/25 sec at f/3.5, ISO 200



IGPOTY/Barry Webb

i

WINNER: Trees, Woods & Forests 'Fire & Ice'

Drew Buckley

Location: Lake District National Park, England

"A frosty and misty dawn in autumn on the River Brathay in Cumbria, which is a UNESCO World Heritage Site. The cold blues of the frosty landscape are offset against the warm, orange hues of the early morning sun that was cloaking the trees in an enchanting light."

Camera: Canon EOS R5, Canon RF 100-500mm f/4.5-7.1L IS USM

Settings: 1/10 sec at f/14, ISO 100



IGPOTY/Drew Buckley



IGPOTY/Fernando Avanka

i

WINNER: Wildlife in the Garden 'Tasty' Fernando Avanka Location: Colombo, Sri Lanka

"During the morning and evening hours, most of the creatures are usually busy finding their food. It was a cloudy afternoon when I saw several squirrels moving across the green grass, playing and eating. I located myself in a perfect place, expecting another good day of squirrel photography. I was lucky to photograph this smart-looking individual, standing on its hind legs, nibbling a grass seedhead and thinking to itself 'This tastes yummy'. Finally, I had captured the shot I wanted."

Camera: Nikon D7200, Nikon 500mm f/4 **Settings:** 1/1250 sec at f/5.6, ISO 500



About the competition

Carey McCallister/IGPOTY

One of the world's most respected photography competitions and exhibitions, IGPOTY is supported by the Royal Botanic Gardens in London, with the main exhibition held annually at Kew and a rolling programme of touring exhibitions in the UK and all over the world. IGPOTY embraces the word 'garden' in its broadest sense and the annual competition attracts thousands of individual entries, including images of balcony gardens, local parks, woodlands and forest landscapes from across the world.

www.igpoty.com

THE 10 BEST TOOLS & FEATURES IN PHOTOSHOP 2024

Polish your pictures to perfection with these essential edits in Photoshop CC. **Dan Mold** shares his 10 favourite tools, tips and tricks

Since its inception in 1988, Adobe Photoshop has had no shortage of changes. From launching layers in 1994 to taking the decision to move to its CC subscription model in 2013, Adobe's photo editing software has always grown and evolved. Last year was no different as we saw the release of Adobe's game-changing Generative Fill technology. This uses AI to make difficult edits much easier, with text-to-image prompts, and will transform the landscape yet again for photographers and content creators.

While AI can certainly be used to assist post-production, let's not forget that editing, while important, is only half the equation. We should all continue to learn the skills

to take the best photos we can in-camera. That said, if you've taken a brilliant shot, then Photoshop 2024 has the tools and features that can make it look even better.

In this feature, we'll look at our favourite 10 ways to help you polish your captures. These features and tools specifically apply to jpeg images, so if you shoot raw files make sure you edit your images first in Adobe Camera Raw or Lightroom (or your preferred raw editor) then bring the exported jpeg into Photoshop and get stuck into the tools we cover here.

If you want to learn more about editing raw files, then see the 'Master RAW!' feature in issue 262 (if you're a *Digital Camera* subscriber, you can access all our digital back issues for free – see page 42).

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With the latest AI-powered tools, techniques and features, Photoshop 2024 can help bring your creative vision to life.



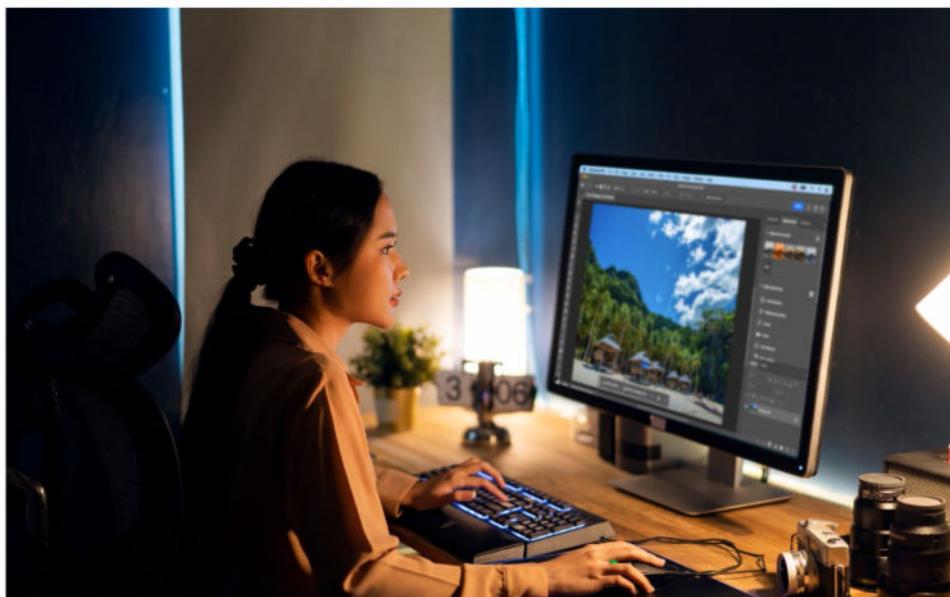
1 START WITH THE BASICS: HOW TO CROP IMAGES

With some basic levelling adjustments your images will be top of the crops!

One of the perks of Adobe moving to its Creative Cloud subscription model is that you'll pay a set monthly fee, but you'll have access to the newest version of Adobe software at no extra cost.

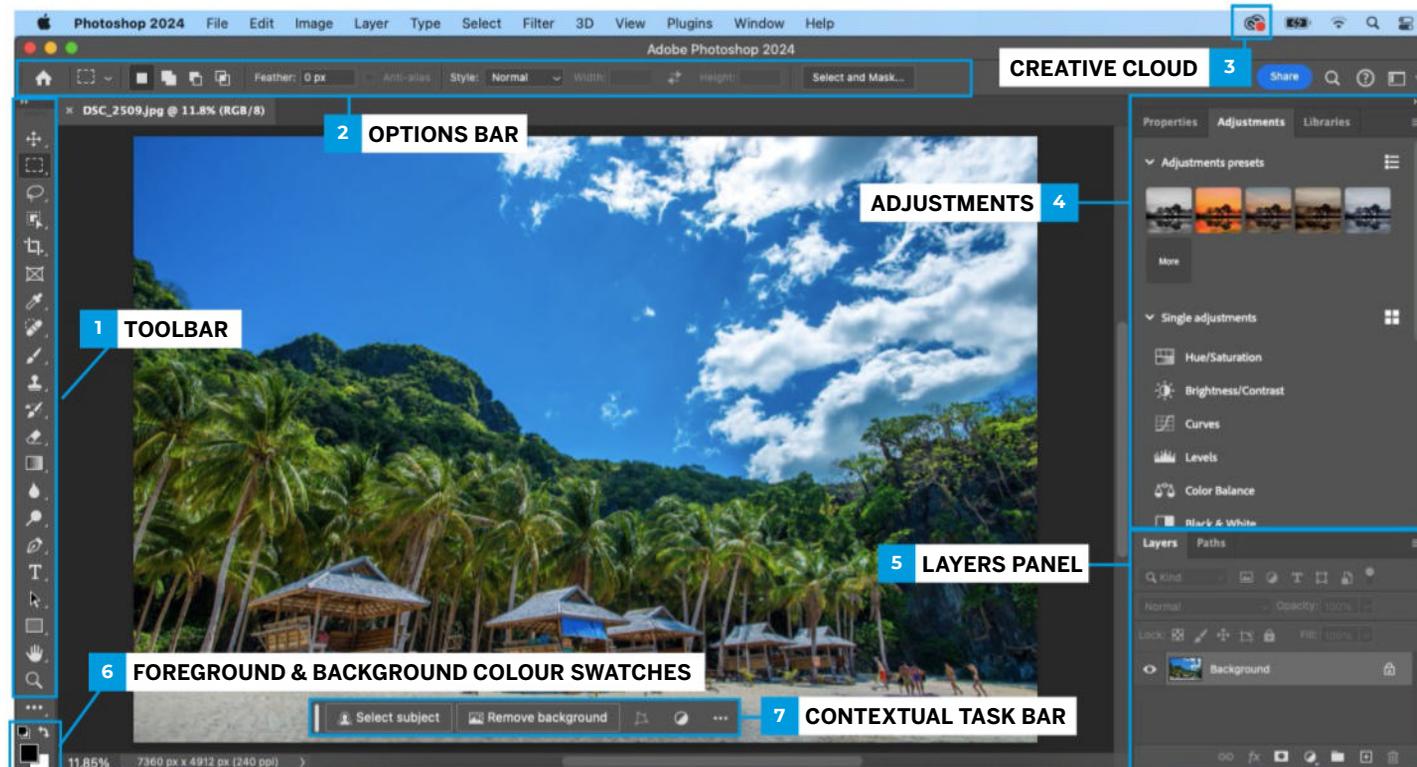
It's currently £10 per month for the Photography Plan, which gives you Adobe Photoshop CC, Lightroom CC as well as Lightroom Classic. Head to your Adobe Creative Cloud app to check that you're using the latest versions and have access to the latest features and tools.

We'll kick things off in Photoshop CC with the often-overlooked Crop Tool (right). A crop is one of the most simple, yet effective edits you can make to give your images more impact. Here's how to get the most out of it...



Getty / Thana Prasongsin

PHOTOSHOP CC 2024 INTERFACE



The Photoshop interface has hardly changed over the years with small tweaks and extra tools added to the Toolbar (1) year on year. Be sure to check your Options bar (2) as it offers more control when

working with a specific tool, like the ability to refine your selection when working with selection tools or change the opacity and flow when working with the Brush tool. Layers are one of Photoshop's most powerful features, allowing you to merge

multiple images and elements together separately for non-destructive editing. The layers panel (5) is in Window > Layers and the Contextual Taskbar (7) has been added to versions 25 and later with Generative Fill using Adobe's Firefly AI – now out of Beta.



PRO TIP
PERSPECTIVE CROP TOOL

This tool is ideal for shots of buildings with lots of straight vertical or horizontal lines. Drag your crop over the area you crop in on, then hold Ctrl/Cmd and move the anchor points over the lines you wish to be straight.



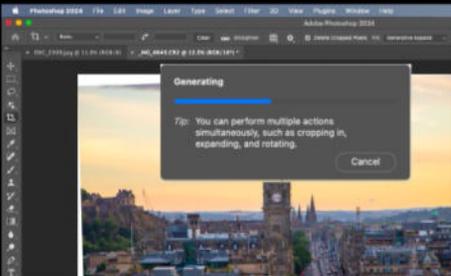
DanMold



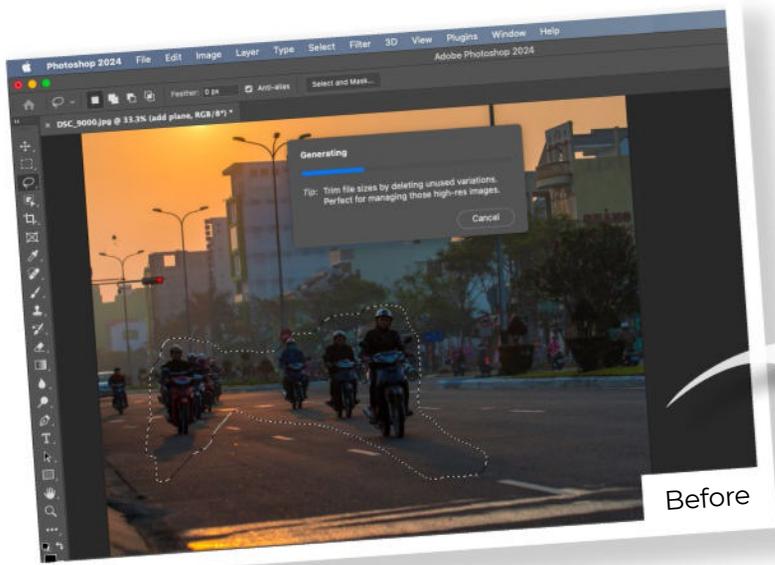
1 Crop Tool
 Use the Crop Tool (C) and drag the edges or corners of the bounding box to reshape your image. You can also use the Ratio Width and Height boxes in the Options bar for a specific aspect ratio. Hover your cursor over an outside corner to rotate your crop.



2 Straighten Tool
 A wonky horizon is the first thing people will notice; luckily it's an easy fix. Hover your mouse over the outside corner of your image with the Crop Tool active and then drag to rotate, or grab the Straighten Tool from the Options Bar and run it over the horizon to correct it.



3 Generative Expand
 When cropping involves rotating your canvas, you'll usually end up with blank corners that will need to be removed. We can tick Generative Expand from the Fill options to fill these areas in. We can also expand the crop area to extend it using the latest Photoshop AI.



Dan Mold/Adobe Firefly

Photoshop CC's latest Generative Fill AI scans Adobe's image library to fulfil its prompts, so there isn't the risk of copyright infringement you may have with other AI-enabled image generators.



Prompt: 'Add car'

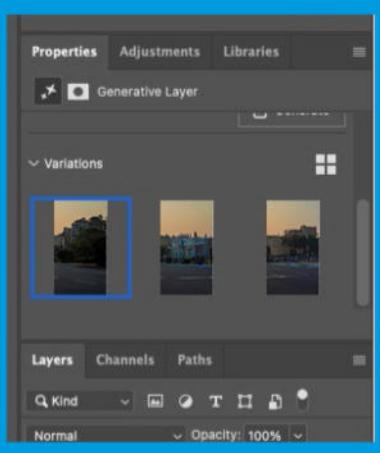
2 GENERATIVE FILL AI

The latest innovative AI features in Photoshop CC make it a breeze to pull off complex edits in just a few clicks

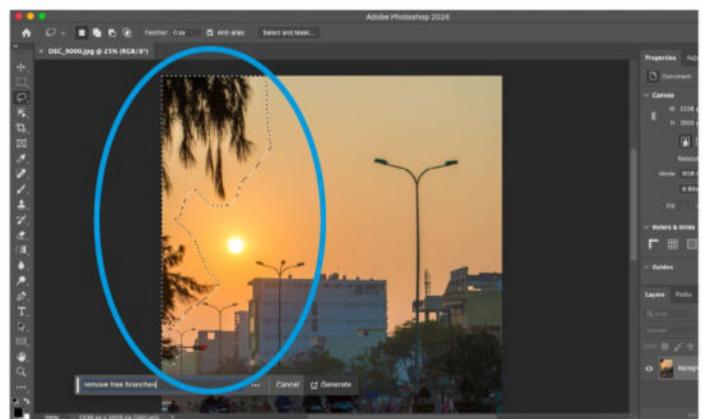
Launched into Photoshop Beta in May last year, and then officially released into Photoshop CC 2024 version 25 in September 2023, in just a few months, Adobe's Firefly AI has grabbed headlines and is nothing short of impressive. In its current state, it makes short work of removing objects from a scene, extending an image, or even placing new elements within the frame. All of this could, of course, be pulled off manually before, though it often took a significant amount of skill and time to do. The new Generative Fill AI does a great job at pulling off tricky tasks, though it inevitably gets it wrong sometimes and will likely require some cleaning up, which we'll explain here. New elements added to scenes can also look a little low resolution, or have a mushy oil painting appearance. This is fine when looking from a distance, but becomes glaringly obvious once you start zooming in and peeping at the pixels. Here are some tips and tricks to start using and incorporating Generative Fill into your workflow...

PRO ADVICE TRY THE VARIATIONS

Once Photoshop has generated your prompt, head to the Properties panel (Window > Properties) and click on each of the three variations to see which you like best. If you don't like any of them, try again with a different prompt. When generating our vehicle, this could include prompts for colour or type of sports model.



USING GENERATIVE FILL



Remove distractions

If there's an element in your image that you find distracting and want to remove, then you can use Photoshop's Generative Fill AI to do it. Firstly, make a rough selection around your distraction, such as the tree or the bikers, using a selection tool, such as the Lasso or Polygonal Lasso tool. You will see the marching ants appear when your selection is made. It's then time to head to the Contextual Taskbar and click Generate, then type your prompt in, such as 'Remove tree branches' and watch as Photoshop makes light work out of it.



Prompt: 'Remove Kayak'

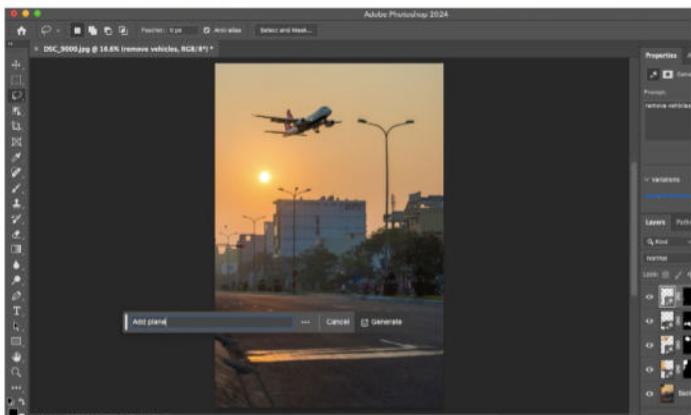


In this example, the prompt 'remove kayak' has erased the boat and replaced it with more lake and water lilies to blend in with the original image.

PRO TIP TIDY UP

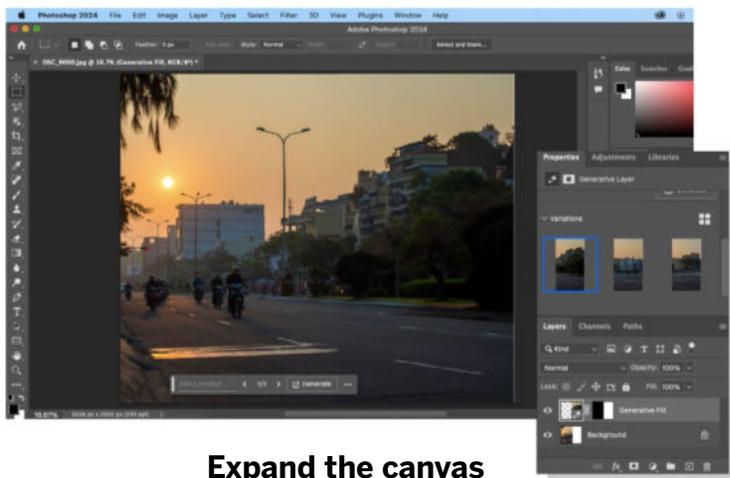
Photoshop CC's Generative Fill AI is an incredible feature that can make child's play of difficult editing tasks that would conventionally require a lot of time and skill to achieve with tools such as the Clone Stamp Tool or manual sampling with copying and pasting. However, we found that when using Generative Fill, we often needed to zoom in and check or tweak parts of the edit to finish it off. In our image here, the AI did a good job of adding in a new car at our request, though it also added an odd artifacted object in the background, which was removed with a Layer Mask and the Brush tool.

Dan Mould/Adobe Firefly



Add in new elements

Generative Fill can also be used to add new subjects. We felt the sky looked a little empty in this scene, so we wanted to add a plane. To do this we selected a rough portion of the sky with the Lasso Tool and then headed to the Contextual Taskbar, clicked Generate and typed in 'Add plane'. The first two options in the Variations panel that Photoshop suggested were facing away from the camera, so we chose the third option which was facing the camera for a more striking image. You could also restart the whole process to end up with a different result.



Expand the canvas

Extend your canvas area by going to Image > Canvas Size and inputting the new dimensions you would like your image to be and hit OK to extend it. You can then select the new blank space with the Rectangular Marquee Tool and, in the Contextual Taskbar, click Generate and either enter your prompt or leave blank and hit Generate once again to let Photoshop's AI attempt to fill in the area. Afterwards, you can select smaller portions of the frame and use Generative Fill once again to tackle smaller areas with more specific prompts.

3 HOW TO REMOVE DISTRACTIONS LIKE A PRO

These tools are more manual, but offer a great level of control

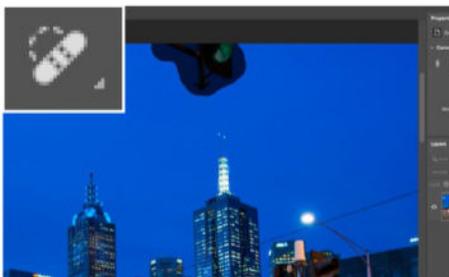
While Photoshop's Generative Fill is impressive and will undoubtedly improve over the coming years, let's not get complacent. Areas of an image created with Generative Fill AI can often look a little messy and weird, so while it is a useful feature, there's still merit in mastering the 'old-school' tools for cleaning up your shots.

We've also found that while Generative Fill can be a useful starting point, it often needs a little cleaning up with tools such as the ones we'll cover below. The Spot Healing Brush is brilliant for running over blemishes and distractions, while the new Remove Tool is like a souped-up version of the Spot Healing Brush, powered by AI. The Clone Stamp Tool offers pin-point control and accuracy, letting users source pixels from around the image and paint them over distractions to remove them.



Photoshop CC's Generative Fill AI is useful for removing people from scenes, such as these two in front of the tram in this shot. Although this was possible in earlier versions, the process is much quicker and simpler now.

TOOLS TO TIDY UP IMAGES



Spot Healing Brush

For fixing quick imperfections or distractions such as the traffic light at the top of our street scene, one of the quickest ways you can fix them is with the Spot Healing Brush Tool. Grab it from the Toolbar or press the shortcut 'J' to make it the active tool. Now, resize your brush so that it's barely larger than your distraction and hold left-click to paint and brush over it. Photoshop will then do its best to remove it from the shot. If it doesn't look quite right, hit Ctrl/Cmd+Z to undo and have another go or use one of the following alternatives...



Clone Stamp Tool

The Clone Stamp Tool allows you to set the source point for the pixels you wish to replace your distraction with. To get started, grab the Clone Stamp Tool from the Toolbox or hit the shortcut 'S' to make it active. Now hold Alt (you'll see your cursor turn into a crosshair) then click on the part of the image you wish to source as your 'good' pixels. Let go of the Alt key, resize your Clone Stamp Tool with the [and] keys and paint over your blemish to fix it. Experiment with the brush hardness and softness, as well as the Flow and Opacity for best results.



Remove Tool

We've previously mentioned using Generative Fill to select and remove people and objects from your image but another AI-powered option is to use the new Remove Tool (J). Now you can use the [and] square bracket keys to resize your Remove Tool Brush and paint over the offending area. It's worth creating a new blank layer to work on so that you aren't directly editing your original Background layer. In the Tool Options, make sure both of the Sample All Layers and Remove After Each stroke tick boxes are checked and you're ready to go.



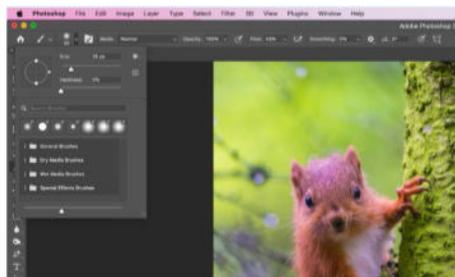
Before

After

Painting in some gentle green tones with a soft-edged Brush Tool helps mimic the effect of blurry, out-of-focus leaves in the foreground and covers up the scrappy branches for a much cleaner squirrel portrait.

4 CUSTOMISE THE BRUSH TOOL FOR DIGITAL PAINTINGS

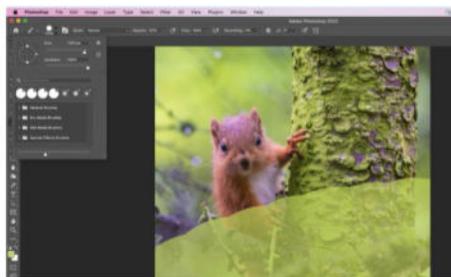
Change your brush tip, set the hardness, tweak the flow and choose your colours



1

Select the Brush Tool

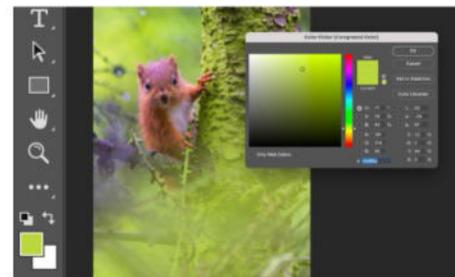
The Brush Tool (B) is handy for painting new pixels onto your image or on layer masks to blend different images and adjustment layers together. You can reduce the Flow and Opacity in the Tool Options bar at the top of the interface to make your brush strokes both more subtle and gradual.



2

Set the edge hardness

Click on the Brush Preset Picker in the Tool Options to bring up a range of different brushes you can choose from. Here, you can also set the Brush Size and Hardness. A Hardness setting of 100 per cent gives you defined brush strokes with a hard edge, while lowering this gives you softer, feathered strokes.



3

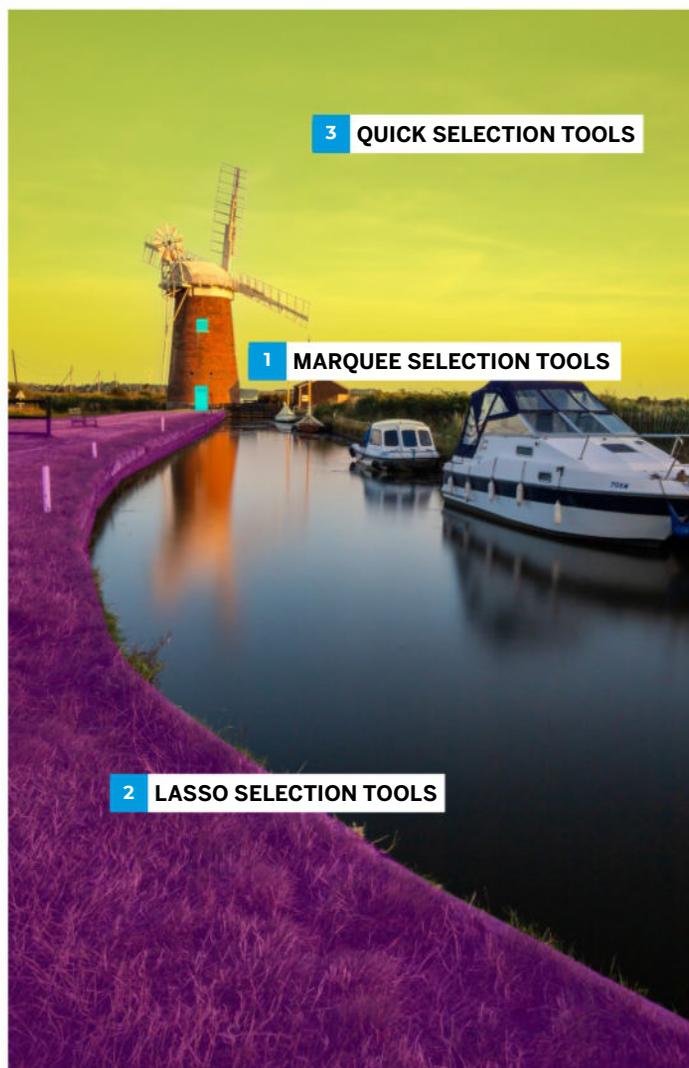
Choose your colour

On layer masks, you'll only have the option to paint in black or white and you can alternate between the two by pressing 'X' on the keyboard. When you're not working on a layer mask you can change the Foreground color swatch, or hold Alt/Option to sample a colour from around your image.

5 TOOLS FOR MAKING SELECTIONS

Discover which Photoshop tools are best for selecting different parts of your photographs

Making a selection is a core skill you'll need to learn if you wish to merge multiple images in Photoshop or make a targeted adjustment in a specific area. Photoshop CC has a plethora of tools for making selections, such as the Quick Selection Tool, which makes it easy to select large swathes of your picture in just a few clicks, to the Polygonal Lasso tool, which offers more control as you click around your subject at regular intervals. There's also the more difficult-to-use Pen Tool, which offers even more control (see right). The selection tools covered below are easy to use and grouped together in the Toolbar – cycle between them by pressing their respective keyboard shortcuts (M, L and W) or by clicking and holding down on the tool icon to reveal a fly-out menu. Each tool has its own settings in the Options Bar, where you can click Select and Mask to refine the edge radius, feather and even select tricky fly-away hairs.



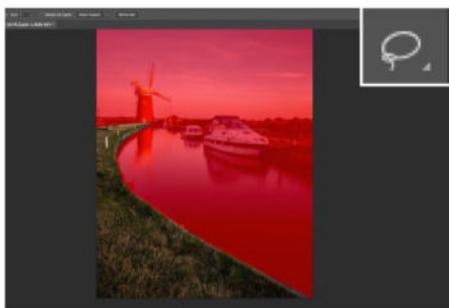
USING SELECTION TOOLS



1

Marquee Tools

The Rectangular and Elliptical Marquee Tools can be activated by pressing the M key. They are ideal for selecting parts of your image that are rectangular, square, circular or elliptical in shape. Hold Shift while making your selection to keep the aspect ratio the same for a perfect square or circular selection. If you need to refine your selection further, you can go to Selection > Transform Selection. This will put a bounding box around the selection that you can manipulate into shape.



2

Lasso Tools

The group of lasso tools can be activated by pressing the keyboard shortcut 'L' and includes the Lasso Tool for selecting quick freehand areas, the Polygonal Lasso Tool, which allows you to click along multiple points of an object to select it (double-clicking will also finish your selection early) and the Magnetic Lasso Tool. The latter allows you to click once and then move your mouse around the image to create your selection with Photoshop automatically detecting the edges of an object for you.



3

Quick Selection Tools

Two tools that make selections quickly and easily are the Magic Wand and Quick Selection Tools, both accessed with the keyboard shortcut 'W'. These are both a great starting point for selecting large areas such as skies – although, here, you could also use the command Select > Sky. They're a good starting point but selections made with these tools often require cleaning up with some of the aforementioned tools, or by using the Select and Mask function from the Options bar to perfect them.



Stroke path with foreground color



Fill path with foreground color



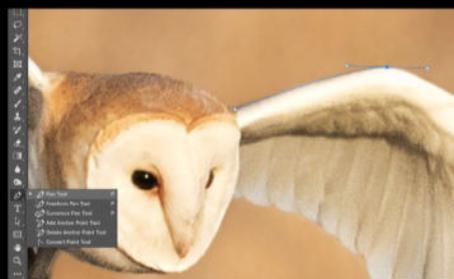
Load path as selection



Add a Mask

6 MASTER THE PEN TOOL FOR THE MOST DETAILED SELECTIONS

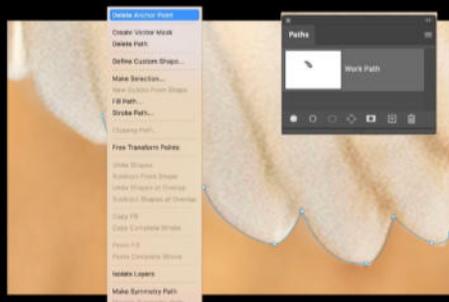
Create a detailed 'path' with the Pen Tool to create highly accurate selections



1

Start drawing

Grab the Pen Tool from the Toolbox or hit the shortcut 'P' to make it active and zoom in on your subject with Ctrl+Plus. Click on the edge of your subject to place your first anchor point, then click on your next point but hold your mouse down and drag and you'll see you can add a curve to your path line.



2

Delete Anchor Points

The next point you make will be affected by how much curvature the previous point had. This can be helpful, giving your path a natural curve and flow. But if you have a harsh break angle this will be undesirable, so hold Alt and click on your most recent Anchor Point to fix this problem.



3

Path applications

Once you have gone all the way around your subject and completed your path, go to Window > Paths and click on your Work Path. Click the icons at the bottom of the Paths panel to turn your path into a selection, stroke it with your Brush Tool, or fill your path with the current Foreground Color (above).

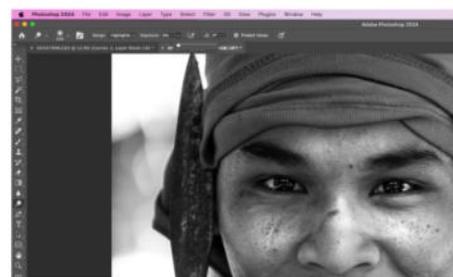
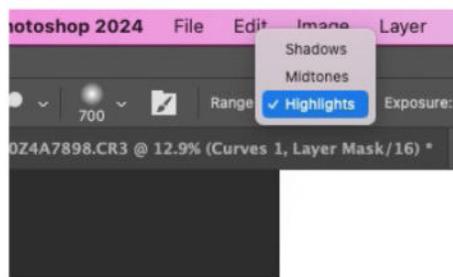
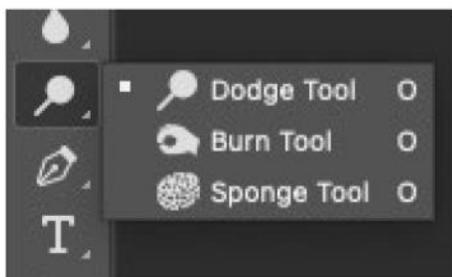
7 HOW TO DODGE & BURN

Use Dodge and Burn tools to selectively boost the contrast in your images

Dodging and burning harks back to the days of film, where photographers would use pieces of paper or card to shield the photosensitive paper to 'dodge' it and make that area brighter or have a hole in a large sheet of card 'burn' in specific parts of your exposure to make them darker. This often took lots of trial and error in the darkroom but it's much easier to pull off in Photoshop's Dodge and Burn tools. Working on a digital image, we can see our contrast adjustments and work non-destructively, reverting back to the original image if needed. Here's how to use these powerful tools...



Dan Mold



1 Dodge or Burn
The Dodge and Burn Tools (O) can be activated by clicking on their icons from the Toolbox, the Dodge Tool for brightening areas looks like a lollipop, while the Burn Tool, used for darkening parts of your image looks like a hand making an OK sign.

2 Choose your Range
Whether you opt for the Dodge Tool or the Burn Tool, you'll have the same settings in the Options Bar. Click Range and you'll be presented with three options; Highlights, Midtones and Shadows – select one to choose the range that you wish to lighten or darken.

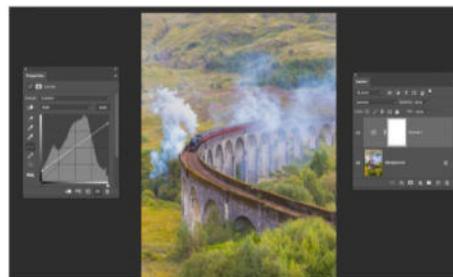
3 Set a low Exposure
Set the Exposure to 3 per cent so you make your contrast tweaks gradually. It's worth doing your work on a duplicate layer (Ctrl/Cmd+J) so you can revert back to the original image if needed. You can also press Ctrl/Cmd+Z to undo if you go too far, then have another go.

8 CONTROL CONTRAST WITH A CURVES ADJUSTMENT LAYER

Use Curves to fine-tune the highlights, shadows and midtones of your photos



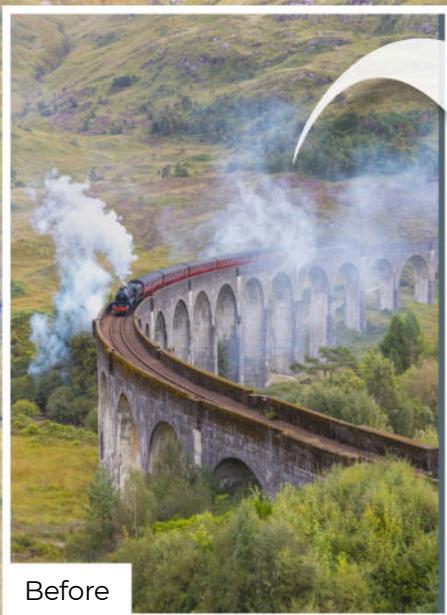
1 Make a simple 'S' curve
Go to your layers panel, click the Create new fill or adjustment layer icon and choose Curves. Drag up on the curve line at the highlights and down on the shadows for a simple S curve shape; this will help to boost contrast. You can reduce the layer opacity or use its layer mask to fine-tune the effect, too.



2 Reduce contrast
If you're looking to reduce contrast, click on the very top right point of the curve line and drag it down to dull down the highlights. Now go to the very bottom left point and drag upwards to make the shadows more faded. Again, you can control the effect with layer opacity and the layer mask.



3 Drag to change values
In the Curves panel, you have three eye-dropper tools on the left that allow you to set a custom value for the white, black and mid-point of your image. There's also a useful hand icon above them that allows you to click on a specific part of your image and drag it up or down to lighten or darken those tones.



Before

1 Targeted adjustments

Using multiple Curves Adjustment Layers, as well as making use of the provided Layer Mask, allows us to target specific areas of an image to tweak the contrast, such as the train in this landscape, for example, or to darken the pupils of eyes in a portrait.

2 Layer Opacity

If your Curves adjustment looks too strong, it might be easier to head to the Layers Panel (Window > Layers) and reduce the Layer Opacity for a more subtle effect, rather than fine-tuning the anchor points on your Tone Curve.

3 Curves as an Adjustment Layer

While you can apply Curves via Image > Adjustment > Curves, or the keyboard shortcut Ctrl/Cmd+M, it's much better to apply it as an Adjustment Layer via the Layers Panel, as this creates a Curves Layer for non-destructive editing that can be reversed if needed. It also comes with a handy layer mask, giving you more control to restrict its effect.

After



Before



After

DanMold

9 CHANGE COLOURS WITH HUE/SATURATION

Shift colours, boost saturation and use layer masks to make your colours pop

The Hue/Saturation command allows you to control the Hue, Saturation and Lightness of your colours. The Hue setting allows you to shift the colour range, while Saturation controls how punchy or muted the colours are. Lightness simply makes those colours lighter or darker, depending on where you drag the slider. While Hue/Saturation can be accessed by going to Image > Adjustments > Hue/Saturation or by pressing the keyboard shortcut Ctrl/Cmd+U, we recommend instead applying

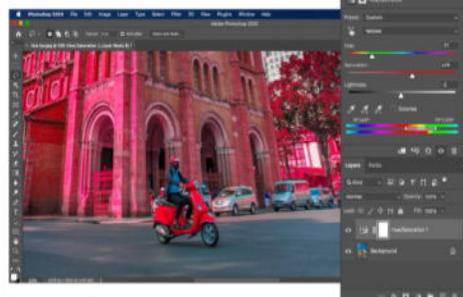
it as an adjustment layer for extra control and a reversible, non-destructive workflow. To do this, go to your Adjustments panel (Window > Adjustments) and choose Hue/Saturation, or alternatively, go to your layers panel (Window > Layers) and click on the Create new fill or adjustment layer icon (it looks like a half black, half white circle) and choose Hue/Saturation from the list that appears. Working on this adjustment layer, you can disable it with the eye icon and it comes with a layer mask so you can make refinements. Here's how to use it for the best results...



1

The Hue/Sat panel

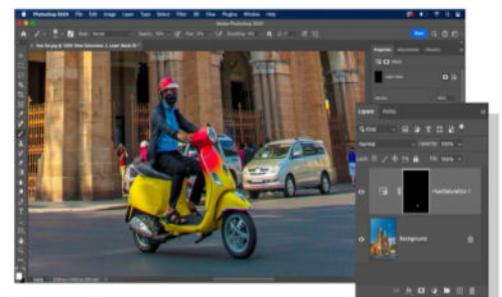
To get started, go to your layers panel and click on the Create new fill or adjustment layer icon; choose Hue/Saturation from the list to add this adjustment layer. You can now change the Hue (colour), Saturation (intensity) and Lightness in your image.



2

Colour channels

There are times when you may want to shift or alter a specific colour in your image – for instance, the yellow motorbike in the image above. Click on the box that says 'Master' and change this to the Yellows channel, now the Hue can be dragged to red.



3

Use a Layer mask

To stop the colour shift being applied to the whole image, we'll need a layer mask. The Hue/Saturation adjustment layer already comes with a layer mask; hit Ctrl/Cmd+I to invert it to hide the effect. Then use a white brush to paint over areas, like the bike, to reveal it.



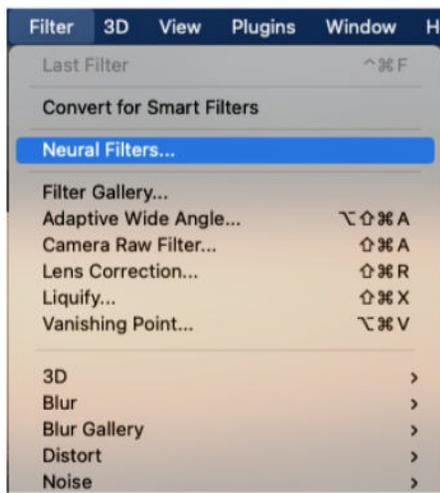
Dan Mold / Adobe Sensei

After

10 HARNESS THE POWER OF NEURAL FILTERS

Use AI to change seasons, turn day into night and much more!

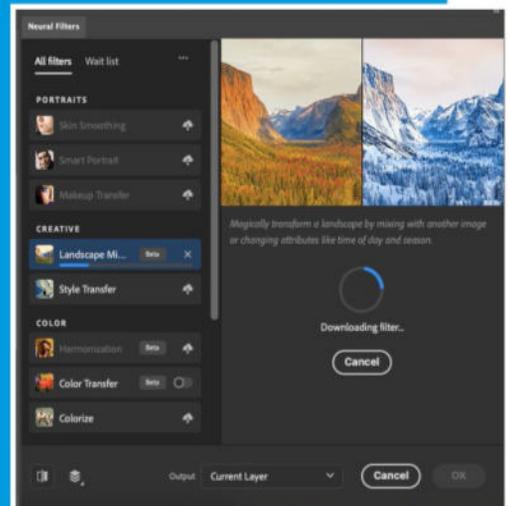
Neural Filters are different from Photoshop's usual batch of filters in the Filter Gallery because they are powered by Adobe's machine learning Sensei AI. This makes them a fantastic resource for pulling off difficult edits, such as turning an image from day to night, or even changing the season from autumn to winter (or vice versa). It's extremely easy, with plenty of options and sliders to help you get the exact look you're after in just a few clicks. To begin, open up Photoshop CC and go to Filter > Neural Filters. On the right, you will see a list of Neural Filters you can choose from, as well as upcoming ones that are on the waiting list. If you haven't used a Neural Filter before, you may need to download it before you can begin.



PRO ADVICE PHOTOSHOP BETA

Some features, and indeed some Neural Filters, are yet to be officially released and can only be found in the Beta version of Photoshop, which is available to download from the Adobe Creative Cloud app. These are features yet to be fully formed and still in their trial phase, so you may run into issues when using them until they are officially released in the non-beta version of Photoshop CC. At the time of writing, features specific to Photoshop Beta include a variety of Parametric Filters and Neural Filters, such as the Backdrop Creator for adding new backgrounds easily, the Landscape Mixer for combining multiple landscapes and seasons together, Harmonization, Color Transfer, Depth Blur and Photo Restoration.

Photoshop Beta is available to download through the Adobe Creative Cloud app and boasts new features that are a work in progress and yet to be officially released in the full version of Photoshop. This includes new AI-powered Parametric and Neural Filters.





READER SHOT OF THE MONTH

Daryl Baker wins a year's
subscription to *Digital
Camera* for this image.
Well done, Daryl!

Reader gallery

Digital Camera readers show how they've been getting
creative, submitting images across a range of genres



1 'Lone Tree in the Devon Countryside' by Daryl Baker

"This is a favourite local spot of mine and I usually try to visit when the forecast is for mist and fog. One morning, I decided to head down before sunrise to try to capture the early spring colours and golden hues. The conditions worked out perfectly that morning with the golden light mixing with the shadows and rolling countryside. The main subject I wanted to capture was the single tree standing alone on the crest of the hill – I've captured a few wide-angle shots of this tree in the past but this time, I was aiming for a more unique take. For me, this image depicts my passion for landscape photography.

"Devon has lots of Areas of Outstanding Natural Beauty and the view of this landscape shows this off. I recently bought a new DJI Mavic 3 Pro drone and its three lenses offer different focal lengths.

"For this shot, I chose to use the 70mm zoom to achieve this more cropped-in, layered landscape composition. This gives the image more depth and showcases the lone tree in all its solitude.

"It was captured as a three-shot bracketed image so that I could retain the maximum detail in the scene and also avoid either over- or under-exposing the image in post-processing."

Instagram: @darylbakerphotography

Digital Camera says:

We loved this stunning crop with the solitary tree against the rolling hills of the Devon countryside. The light breaking through from the top right of the image gives some beautiful tones of the silhouetted hills in the distance and the clusters of trees along the hedgerows make this a stunning scene of the British countryside.





2 'Frozen in Time' by Tom Barnes

"Shot at the Blue Diamond Ice Cave in Jökulsárlón, Iceland. I loved the rich blue colours and flowing lines complemented by the textures of the ice in the foreground. I wanted to capture the essence and variety of light and colours through the layers of glacial ice. It may be one of the favourite photos I've ever captured."

Instagram: @Tbarnes99

Digital Camera says:

This image caught our eye, especially with the light shining through the ice and highlighting the fantastic range of blue tones. The composition along the diagonal and the beauty of the subtle details of the ice, captured with a high ISO of 1000 and a slow shutter speed (1/5 sec) make this a fantastic abstract shot that really captures the beauty of the natural world.

3 'Painted with Light' by Zill Niazi

"For this image, I stacked the pencils on top of each other until the centre of gravity meant they stayed in place. It was shot handheld during the daytime, in a bright room with a window only a metre or so away, on a Nikon D850 with a Nikkor 105mm macro lens (1/200 sec, f/16). However, I didn't like the original angle of the natural light so I introduced an off-camera flash 45° to the right and at an angle of 10°. I didn't have to experiment much – the angle was perfect and the flash overcame every other light in the room. Despite an aperture of f/16, this close-up shot has a shallow depth of field. I was aiming for the pencil tips to be in sharp focus with the rest of the image having a dreamy, out-of-focus look. The image was so crisp it even picked up the grains of dust on the tabletop. The black background helps draw the viewer's attention to all the elements in the image but I was particularly pleased with the reflection on the polished wooden surface, which came out like a surrealist painting."

Instagram: @zill.niazi

Digital Camera says:

A great shot, captured at f/16 for crispness as Zill explains, using a 105mm f/2.8 macro lens, which is an ideal choice for close-up photography. Zill has also lit this shot beautifully, drawing attention to those colourful pencil tips.



4 'Cloud Canopy' by Nathan Ramirez

"It was a windy and cloudy day. I had been to the bridge twice before taking this image but I was looking for something unique and it didn't feel quite right. This is one of the most photographed landmarks in the US and I wanted to try stepping outside the box as much as I could. Luckily, the conditions changed and the sun breaking through helped to highlight this beautiful architectural wonder and the fog removed any background distractions. I went for an abstract approach, keeping the bridge as the subject matter but capturing pieces of the architecture. What I like most about photography is the luck and persistence that's needed to capture beautiful images."

Instagram: @_ramireznathan_

Digital Camera says:

These are two stunning images of San Francisco's iconic Golden Gate Bridge, these rare angles having been captured with a DJI camera drone. Nathan's idea of shooting the bridge emerging from the mist above the Golden Gate Strait makes fantastic use of the space and gives the image a beautiful sense of scale – it's the perfect example of not needing to zoom in. It's also a superb contrast to the symmetrical shot on the opposite page, also captured by Nathan, where the recognisable colour of the bridge contrasts perfectly against the white mist. We loved the simplicity and minimalist nature of these shots, reminiscent of the look of American architectural paintings by Charles Sheeler. A wonderful pair of contrasting photos, Nathan.







5 'Hallgrímskirkja Church in the Fog' by Matthew Mallett

"This church is located on a hill overlooking Reykjavik in Iceland and stands out as an iconic and imposing piece of architecture. With its straight lines and dramatic central clock tower, it is a photogenic building in its own right but when the church is illuminated at night, combined with foggy conditions, which are apparently quite rare in Reykjavik, it takes on an ethereal look.

"This image was taken with a Sony A7R V and Sony FE 14mm F1.4 GM lens – 1/8 sec at f/1.8, ISO 400 – and I was looking to portray how majestic and imposing the church is by drawing the viewer's

eye upwards to capture the symmetry of the building and its clock tower. The fog caused the light to bend and bounce around in ways that gave it a heavenly look and added to the mood of the photo in a spectacular way. Thankfully, that was what I set out to achieve."
Instagram: @1936matt

Digital Camera says:

What a jaw-dropping shot of this architectural masterpiece. Choosing a straight-on angle highlights the sweeping sides of the church building, rising up to its central clock tower. The misty and foggy conditions make this a superb ethereal capture.

6 'Chapel of the Holy Trinity' by Tomasz Zielonka

"I shot this beautiful image at the Holy Trinity Chapel in Lublin, Poland – I love the symmetry of the ceiling combined with the pop of colour from the frescos. My search for symmetry and leading lines often draws me to places of worship, and allows me to appreciate the effort required to construct them. Here, I was trying to capture the feeling of awe that worshippers would have had as they walked into the chapel hundreds of years ago – and that feeling is still there today.

"The image was shot on a Sony A7 IV with a Sony FE 12-24mm F4 G at 12mm, 1/30 sec at a wide aperture of f/5.6, and ISO 4000. I used the Denoise tool in Lightroom CC to bring back some detail and remove noise."
Instagram: @t.zielonka

Digital Camera says:

This is a stunning capture of a beautiful interior, with two contrasting sides within the chapel. As Tomasz says, it's the perfect combination of symmetry and composition that makes this an eye-catching capture.

SEND US YOUR IMAGES!

Want to feature in our gallery? Please email a high-res image (at least 2.5MB) marked 'Reader Images' and including a title and brief description to:
digitalcamera@futurenet.com
or share it on Instagram with the tag:
#digitalcameramag

CAMERA

NEW
SERIES!

CLINIC

Master the art of modern photography

This month: Get colours right

Expert hints and tips on how to get perfect colour every time, in every situation



Lifelike colours and nature photography go hand in hand.

Will Cheung



Will
Cheung

An imaging journalist and freelance photographer based in London, Cheung has a wealth of experience over several decades.
www.williamcheung.co.uk

Our advanced digital imaging devices make capturing colour pictures so simple that they can be mostly left to their own devices. Light passes through the lens, is picked up by the sensor, analysed by the image processor using algorithms and artificial intelligence and the result recorded on a memory card. Whether that light is supplied by the sun, LED lamps or candles, the camera does a great job of delivering a decent result. Indeed, most of us are happy enough with the outcome and go no further.

However, for better photos, going further is part of the job. While the camera is a mightily effective machine, it can't see what's in your imagination; it has no idea what mood you want to portray and it doesn't know whether you prefer vibrant colours or more muted hues. To achieve what you've visualised, it's time to roll up your sleeves and get involved, but how deep that involvement is up to you.

Advanced and professional image makers will have a fully colour-managed workflow, but the good news is that enthusiasts can achieve a great deal without wandering too far into pixel-peeping territory. If you only shoot jpegs, you can still dig down into the camera's menu and use white balance settings and picture styles for different colour renditions. Perhaps the best-known colour modes are Fujifilm's Film Simulation settings, which are designed to give a colour performance akin to its popular films.

Shoot in raw format, and the potential for fine-tuning colour is huge, with editing software from Adobe, DxO, Skylum, Topaz and Zoner, to name just a few, providing almost endless opportunities to tinker with your photographs. Over the next eight pages, we will look at techniques and tools you can apply to get the 'right' colour and how you can use colour for pictures to be proud of.

Get the knowledge

Use your camera's talents to capture correct colours

Before we dive into the detail, let's define what we mean by 'correct' colour. Much depends on your perspective. A professional photographer shooting a royal blue bottle for a client needs to make sure that it comes out royal blue and not cyan or navy. A creative shooting a portrait, scenic view or interior will have different aims – looking for colours that portray the atmosphere, mood and emotion

of the situation. Defining what's wrong is often simpler than identifying what's correct. Photos with inappropriate colour casts due to using the wrong white balance setting or over-processing in software stand out – and not in a good way. On the face of it, getting the correct colour sounds simple and it is, but there are still a few guidelines to follow.

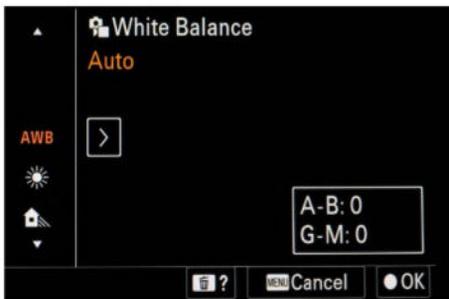
Camera settings to use

Start your journey to great colour images with the camera's menu



WHICH COLOUR SPACE?

Colour space describes the capabilities of a capture or display device to reproduce colour. sRGB has a smaller gamut (the number of colours that can be reproduced) but is wider than most inkjet printers and monitors. This is the best colour space for jpegs, but for images straight out of the camera, Adobe RGB's wider colour gamut in greens and cyans is better. With raw files, colour space is decided when the file is outputted.



WHITE BALANCE

To the brain, the colour of light produced from different light sources might appear the same but to the camera sensor, the result will look very different. To counter this, digital cameras have a selection of white balance settings for different lighting types. Using the right setting is vital for jpegs, but in raw files, the white balance can easily be changed in editing. Auto White Balance (AWB) is the advised default setting.



PICTURE STYLE

Out-of-camera jpegs can be modified with picture styles and filters. Fujifilm uses Film Simulation modes to emulate the look of its films. Art filters (eg bleach bypass, pop art) and subject modes (eg landscape, portrait) process jpegs to give a look or effect and can often be modified and saved as a custom preset. Filters do not affect raw files but can be applied via the camera's own software, or similar effects applied in third-party software.

Accessories for the best colours

Three techniques and kit to help you get the right colours



CUSTOM WHITE BALANCE

Digital cameras let you create a custom white balance and the process is advised when you want accurate colours in tricky situations, such as when there is a mix of lighting or you're shooting in a coloured room where reflected light can cause a colour cast. The process involves taking a shot of a white or grey target in the situation you're shooting in and using the data for the custom white balance. This device is the Lastolite XpoBalance, which costs £52 and folds down so it's portable.



CREATE A CAMERA PROFILE

To achieve accurate colours, include a test target, such as those available from Calibrite and Datacolor, in your first shot, making sure that it is receiving the same light as the subject. The Calibrite ColorChecker Passport Photo 2 costs £106 and has targets for exposure control, white balance, camera profiling and creative enhancements. Using the supplied software or the Adobe Lightroom plugin, a profile can be applied to all the shots taken in that lighting scenario.

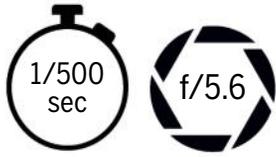


MONITOR CALIBRATION DEVICE

Your colour images might look perfect on your monitor, but not on someone else's screen or when you print them. Calibrating your monitor will get round the former and help with the latter when partnered with the appropriate paper profile. The Datacolor Spyder X Elite monitor calibrator shown here costs £149 and the Calibrite Display SL is £159. The calibration process is simple and takes a few minutes and should be performed regularly (you can set a reminder) to keep your colours on point.

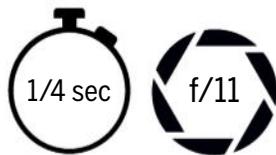
Examples of using colour for pictures full of impact

Good colour technique is not just getting the correct look, it's about portraying emotion, mood and passion



RHAPSODY IN RED, WHITE AND BLUE

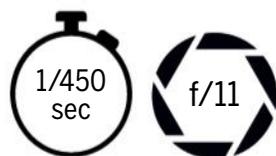
Beach and mountain scenes under clear blue skies can often have a cool look that can make the photograph less welcoming. Cloudy days can also lead to blue-looking pictures; coolness will be especially evident in the areas of neutral tone, but Auto White Balance can work effectively, giving precise results in most outdoor situations. Any issues with cool pictures can be easily resolved in editing, if you are shooting in raw and even jpeg format, but it can also be dealt with by switching from Auto White Balance to the cloudy or shady settings, if you prefer. Both will add warmth to the scene to counter any unwanted blueness.



MANY SHADES OF ONE COLOUR

Scenes dominated by a single colour can fool a camera's white balance system, so pay attention to the preview image in such situations. If the colours look 'off', use a different white balance setting, set it manually or take a custom reading.

Images dominated by a single colour can be a powerful compositional tool. Monochromatic colour images can be created during editing but it is more visually stimulating to look for scenes that suggest a particular emotion. Blue scenes can convey coolness and can be sinister while red is more aggressive but also suggests passion and love. Green is a calming colour and is often associated with nature.



GO FOR A COLOUR KNOCKOUT

Vibrant colours in bright light can be saturated more by underexposing the shots by about 0.3 or 0.5EV. That helps control areas of strong highlight but take care not to block up heavy shadows. A scene of intense colours such as this street view captured in Burano, Venice, might not need a polarising filter but it can saturate colours. The polariser reduces reflections off glass and water, intensifies weak blue skies and beefs up colours by cutting down glare. Its impact depends on many variables including lighting, the sky and the subject's characteristics, so don't use it for every shot. We'll explore the power of the polarising filter in issue 282.



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White balance

The ability to produce true-to-life photos is a superpower of cameras

ADJUSTING WHITE BALANCE MANUALLY

Artificial lighting, indoors and out, can be beyond the abilities of Auto White Balance. If your shots are suffering from strange colours, try manually setting the colour temperature. In this case, 3000K was set for a more natural photo.



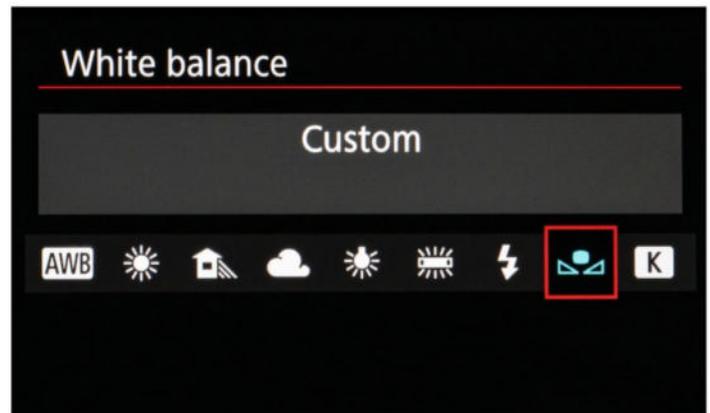
The human brain is incredible in so many ways, including its sensitivity to the variations in lighting. The digital camera isn't quite as capable, but it gets close. We probably take it for granted but the white balance feature in our cameras is remarkably powerful. There is an array of presets from bright sun and shade to flash and fluorescent lighting and they work well.

Simply match the preset to the situation and the camera does the rest – there are also hands-on options, such as creating a custom white balance



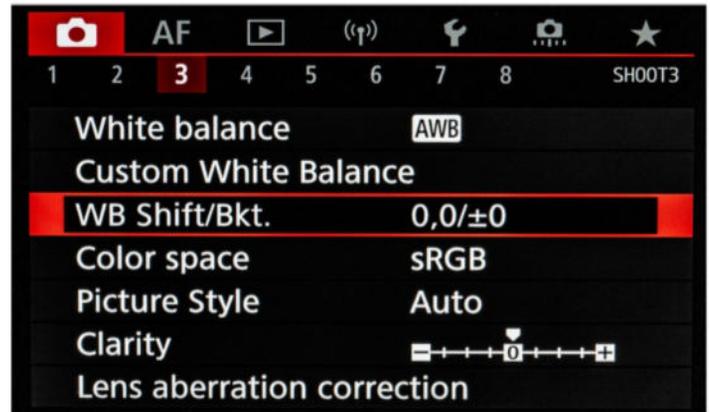
CREATING A CUSTOM WHITE BALANCE

Creating a custom white balance gives the most accurate setting to match the light you're shooting in. Remember, though, that the reading is for that specific set-up so either create another custom reading or use a preset when you move on to shoot something else.



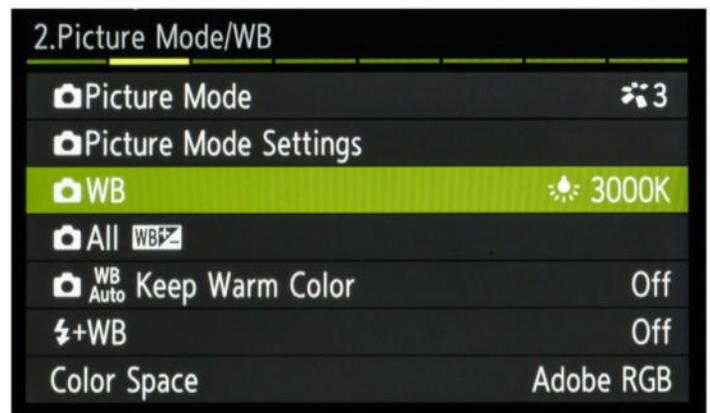
WHITE BALANCE BRACKETING

If your camera has it, white balance bracketing gives a variety of shots quickly. You can set the number of frames and vary the differential between each frame as well as choose the starting point. This mode can give jpegs as well as raws.



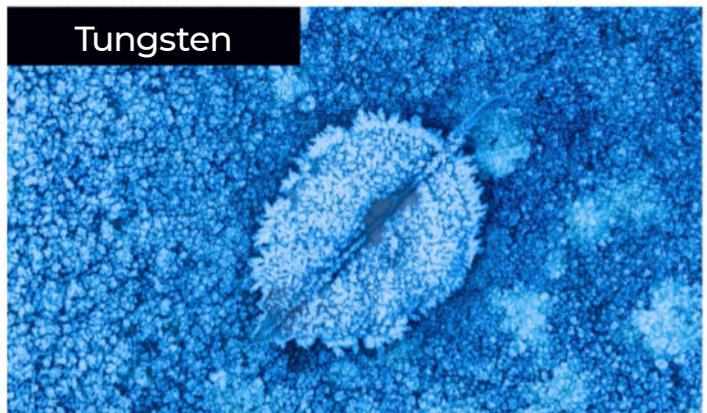
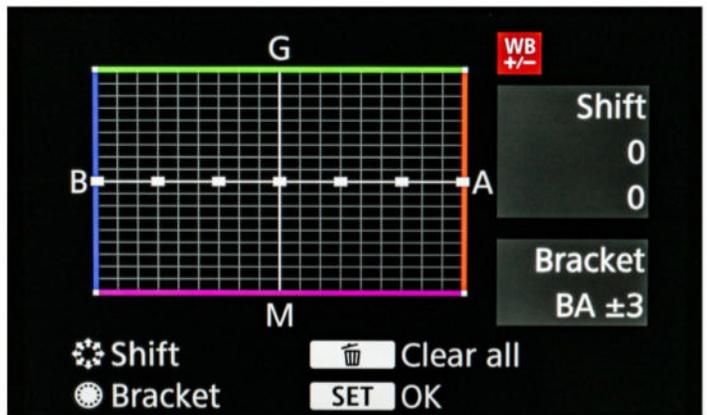
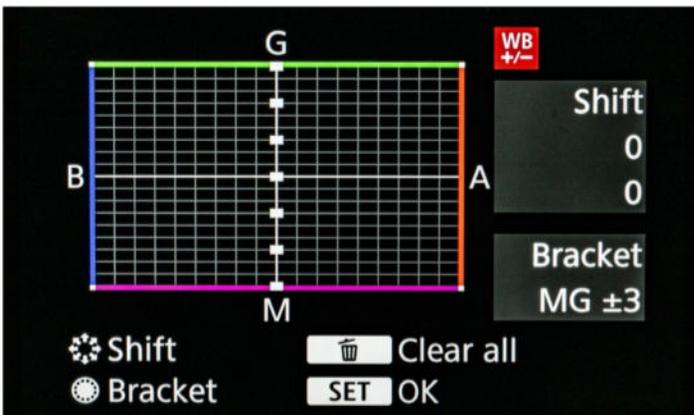
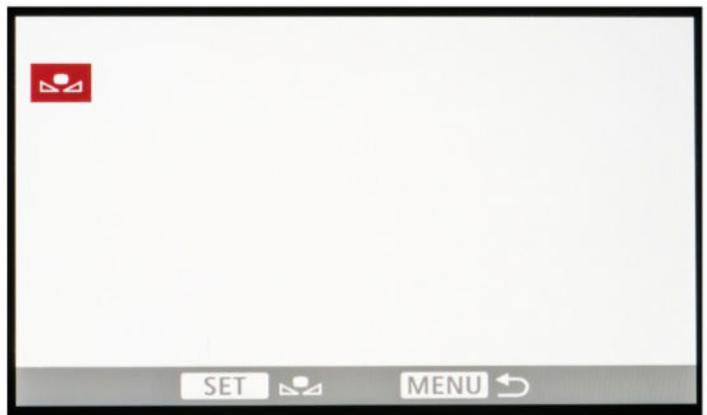
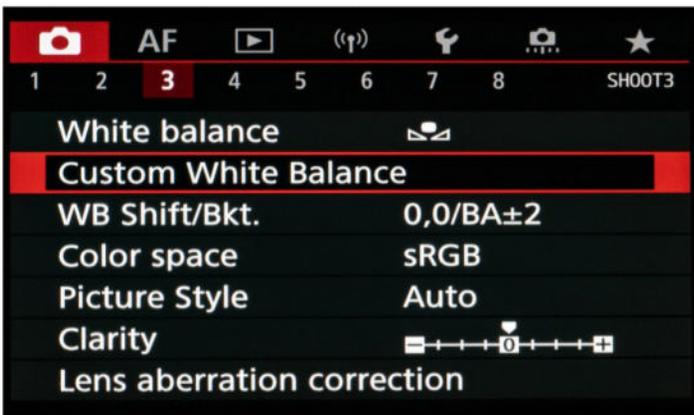
GETTING CREATIVE WITH WHITE BALANCE

Getting the camera off Auto White Balance can give a greater mood. Using the incandescent (tungsten lamp) preset – even though daylight was the light source – produced a vividly cool result more in keeping with the frosty subject.



and setting colour temperature manually. For convenience, the Auto White Balance (AWB) setting generally works well, with the camera self-adjusting to cope with different light sources.

If you shoot jpegs, you will need to get white-balance correct at the time of capture; with raws, there's the freedom to adjust white-balance during processing. Here are four white-balance techniques to master. For a little more science on colour temperature, see the explanation on page 80.



Pros and cons Exploiting colour

Inject life, passion and impact into your photos

Colour is everywhere and it's how you use the myriad hues and shades that determine whether your pictures succeed or not. Being a good colour photographer means exploiting this incredible palette and using the many techniques at your disposal to get the look you want. There is no right or wrong here; it's about using colour for the best result.

Use colour for impact

Complementary or contrasting colours give impact while analogous colours (similar hues) are more harmonious. You can check out the relationships between different hues using a colour wheel – just do a web search for an example. You can use colours to convey mood. Reds, oranges and yellows give the feeling of warmth, passion and energy; greens are calm and natural while shades of blue imply serenity and coolness.

Shoot a project

Make a photo project of your favourite colour: it will sharpen your vision as you're walking around with the camera. Use a zoom to get in close for tightly framed shots so your chosen colour dominates the shot with minimal distractions.

Deliberate blur

Use slow shutter speeds and deliberately move the camera or zoom the lens for striking abstracts. Shooting intentional camera movement

(ICM) is fun and the results can be eye-catching. Try it with moving vehicles, rows of flowers, lines of trees or scenics. There are no rules but if the result pleases you, then you've done a good job.

Style it out

Match the camera's picture style or subject mode to what you're shooting. Settings, such as portrait and landscape styles, are applied to in-camera jpegs. These can be customised further and saved as a preset for future use.

Get the individual look

If you feel that your pictures lack impact, it might be because how you are using colour is not distinctive enough. It can be as simple as underexposing for a little more richness and intensity, using a warmer white balance for more welcoming photos or shooting more blue images for a more moody look.

Keep it simple

Cramming too much colour into a composition can lead to confusion and over-fussy pictures where the viewer's eye has nothing to settle on. A good adage is 'keep it simple'.

Calibrate your monitor

As your photographic skills develop, your workflow must keep pace. This means making sure the monitor is correctly calibrated and using the right ICC profile if you are making prints.

Get framing right

Boldly coloured sunlit scenes can make for powerful compositions but frame your shots tightly so you don't dilute the image's impact.

Consider scale

In urban scenes such as this, include human interest to add a sense of scale as well as context.

Use a polariser

A polarising filter can cut down glare to give richer, solid and even more intense colours. The polariser won't work on every scene but it can be effective in suitable conditions.



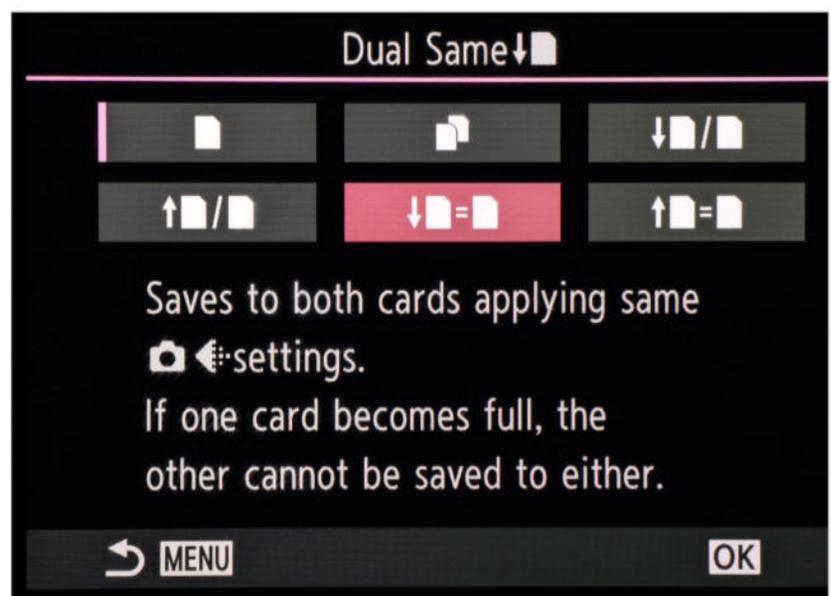
Camera know-how

Raw or jpeg?

Shoot jpegs for speed, but raw files for ultimate control

Digital cameras give the option of shooting stills in jpeg and raw format and you can set up to record either or both. The two formats give the same size final image but jpeg files are 'lossy', only keeping essential data. They are also smaller, which speeds up handling, and can be used out of the camera with no extra work. Their smaller size also means it's possible to shoot longer continuous bursts. The downside is their limited editing potential, so you have to get it as right as possible in-camera.

Raw files contain all the data from the sensor so they are much larger and need processing with compatible software and exporting as a jpeg or TIFF before they can be used. With all this imaging data available, adjusting white balance and exposure including highlight and shadow control is possible.





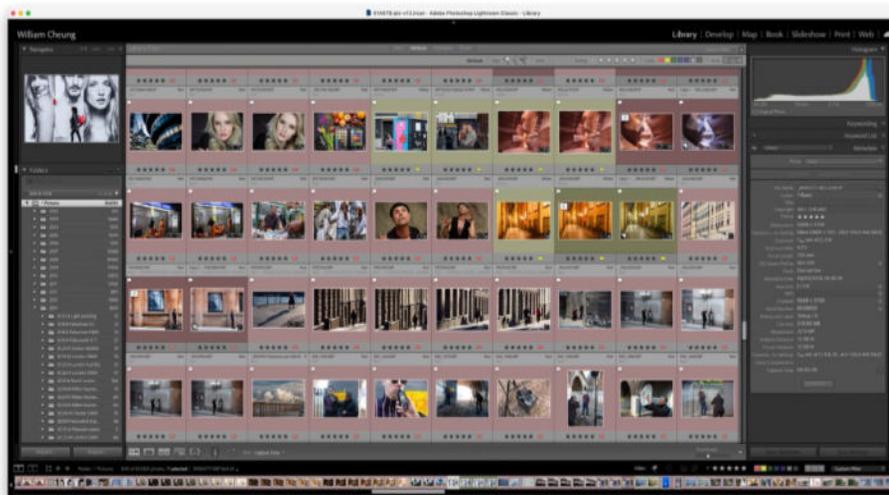
Will Cheung

Software know-how Which app?

There are hundreds of image-editing apps available to fine-tune and process your pictures, and that's on top of the software you got with the camera. This software covers every editing purpose imaginable and while some apps are available for free, others might require a subscription or an outright purchase.

From the myriad options on offer, our shortlist for enthusiasts includes Adobe Photoshop/Lightroom (subscription), DxO PhotoLab and Topaz Photo AI (one-time purchases), and Gimp and Sumopaint (free). If you've not yet committed to any software, check these out. There are many more to consider, though – most are downloadable as free demos so try before you buy.

Adobe Lightroom (pictured, right) is probably the most well-known and it is certainly one of the most powerful. If you are happy to pay for a subscription, it is a great piece of software for photographers.



Shoot photos like a pro

Colour temperature in more detail

Every light source emits light with a colour temperature, measured in kelvins or the symbol K. The biggest source is the sun but the colour of its light varies depending on where it is in the sky, the location and atmospheric conditions. At midday on a clear day, its output is around 5500-5700K although it will be higher and cooler at the beach or in the mountains.

The colour temperature also rises and gets more blue if it clouds over, while at sunset when the sun is low in the sky and filtered by haze the light gets warmer.

Our brain might not notice minor colour temperature variations but your camera will. So keep an eye on what's happening with white balance and change settings, or create a custom white balance reading.

Banish banding

You can run into banding problems when shooting in some types of artificial lighting. This candid was shot under fluorescent strip lighting and in the first shot (exposed at 1/320 sec) green banding is clearly visible across the image, most obviously on the woman's white top. Banding and flickering can be reduced with the anti-flicker feature if your camera has it. Here, it was resolved by setting a slower shutter speed of 1/90 sec.



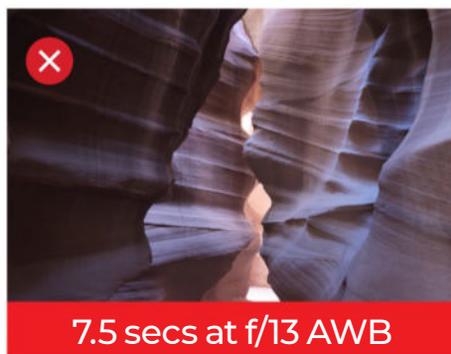
Polarise it

The polariser is a filter with superpowers. It can reduce reflections from glass and water, intensify weak blue skies and beef up colours by cutting down glare, so if your shots lack saturation, try a polariser. However, its impact depends on many variables including lighting, the sky and the subject reflectance characteristics, so don't leave it on the lens for every shot. We'll be exploring the power of the polarising filter in issue 282.



Override the camera

Your camera's Auto White Balance can be relied upon to give accurate results in most situations. However, there will be times when it will slip up. These shots show a problem experienced in Antelope Canyon, Arizona. The first shot was taken with Auto White Balance and the red sandstone came out looking strange with a magenta tint. Changing the camera's white balance to the daylight preset gave a much more accurate rendering of the Navajo sandstone.



Pro Tip Kit matters

Accessories to achieve the right colours

For pro commercial, studio and wedding photographers, getting the colour spot-on is important. We've discussed white balance techniques, including making custom measurements, and to help achieve precise results time after time, a selection of useful accessories is available.

- 1 The ExpoDisc V3 (£55/\$50) fits on the lens for taking an incident (from the camera position) custom white balance reading.



- 2 The Lastolite XpoBalance (£52/\$67) is a handy device to assist accurate exposure and white balance and it folds down to fit in a 6in bag.

- 3 The Calibrite Color Checker Passport (£106/\$119) helps with exposure and white balance and also lets you create custom camera profiles.





Wall-Cheng



60 secs at f/16 AWB



60 secs at f/16 10,000K

Filter correction

Shooting with extreme neutral density (ND) filters is a popular technique. However, stronger NDs such as 10-stop filters can give cooler or warmer results. Shoot in raw and any cast can be removed but if you prefer accurate out-of-camera pictures, manually adjust the white balance. In this case, the cool cast was minimised by setting 10,000K in manual white balance. If your ND filter gives a warm look, set 5000K as a starting point.



1/500 sec at f/5 Daylight WB



1/320 sec at f/5 Auto WB

Waiting for an accent

Getting the best shot often takes patience, whether that is waiting for the sun to come out or, in this case, waiting for a more colourful subject. The line of red phone boxes makes for a great background but a focal point was needed for a stronger composition. The man dressed in dark colours with a black brolly looked OK, but when a girl in a yellow top walked past, the colour contrast ramped up the photo's impact up a notch or two.



20 secs at f/11 Daylight WB



20 secs at f/11 Auto WB

Night moves

Don't underestimate the camera's Auto White Balance skills, even in artificial lighting. This night street scene looked very orange to the naked eye and while using the camera's daylight white balance setting delivered an accurate depiction, the result was rather too warm. If you shoot in raw format, this can be corrected in editing but setting the camera's AWB mode gave a much better out-of-camera result with no extra work needed.



1/60 sec at f/11 Flash WB



1/60 sec at f/11 Custom WB

In a flash

Flash is a great light source. It's consistent, powerful and easy to use but to get the right colour, it has to be treated with care. Flash output can vary between units and reflectors and can even be affected by the colour of the walls and ceiling of the room you're shooting in. Changing the flash white balance setting is the obvious remedy and it can work, but if your pictures come out warm, cool or strangely coloured, perform a custom white balance for neutral results.

Camera skills Control matters

Dedicate a camera control to white balance

As camera manufacturers have added more features and functions to their products, accessing them easily has become progressively more challenging. White balance is a vital feature for many photographers but engaging it can be slow, with newer, more marketable features taking precedence.

If your camera has white balance in its menu structure and you find yourself calling on it frequently, then set your camera up so that the feature can be called up quickly by using a function button. Or you could take it a step further and place it in your Q menu or into a custom menu setting.



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TAP
on this image
to view
full-screen

After months of planning and last-minute weather concerns, Dury captured the 'Lone Star Eclipse' in the Lone Star State.

Shot of the month

Josh Dury travels to Texas for April's total solar eclipse – next forecast for 2044 in the US



Josh Dury
Landscape astrophotographer

Title: 'The Diamond Ring'
Location: Dallas, Texas, USA
Date: 8 April 2024
Camera: Canon EOS 5D Mark III and Sigma 150-600mm F5-6.3 DG OS HSM C
Instagram: @josh_dury_photomedia

Astrophotographers are known for going the extra mile... and that's certainly the case for Josh Dury, as he sought to bag a photo of the rare total solar eclipse that plunged parts of the USA into darkness on 8 April. Dury, who has shared his top tips for astro success in issues 270 and 277 of *Digital Camera*, lives in the south-west of England but still managed to make the 4,650-mile journey to Dallas, Texas.

"The trip required months of extensive planning with changing forecasts, April showers and changes to the jet stream making this event a 'miracle eclipse' to capture," he says.

But his hard work paid off, and between 1.40-1.44pm, Dury was rewarded with this shot of the totality, which lasted for just 3 mins 52 secs.

"My intention was to capture the solar prominences and solar corona visible at the time of totality. Prominences are the red plasma you can see around the disc being spewed off the surface of the sun, and the corona is the soft white glow around the eclipsed sun," he says.

Dury teamed his Canon EOS 5D Mark III camera with a Sigma 150-600mm superzoom, known in astrophotography circles as the 'moon bazooka', coupled with a Canon 2x teleconverter, shooting from a Benro Tortoise tripod and using a Sky-Watcher Adventurer Tracker. The settings for his capture were 1/320 sec at f/13, ISO 160.

"Overall, it was anticipated that over 32 million people came to witness the event across the USA," he adds, "but thankfully, we managed to find a relatively quiet location in Dallas!"

Aside from immortalising this landmark event, Dury isn't done yet...



an annular solar eclipse (where the moon is smaller than the sun) is forecast for October, and so is Comet Atlas (hopefully). Exciting times ahead for astrophotographers! ●

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This month...

Tool School: Adjustment Presets

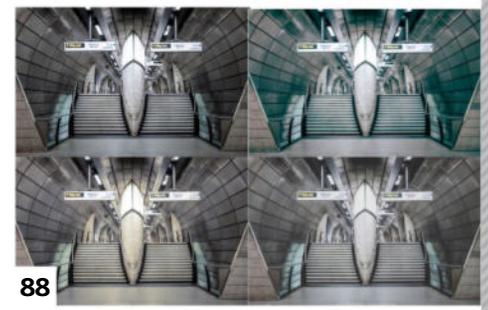
Create one-click colour-boosting effects with the handy new Adjustment Presets feature in the latest version of Photoshop and learn how to import and export them for future use

Fundamentals: Create a polarising filter effect
 Fake a polariser effect in Lightroom Classic to darken and enhance washed-out blue skies



86

Get the Look: Creative effects with Curves
 Curves are a versatile tool, providing a range of high-quality corrective and creative effects



88

VIDEO TRAINING

The issue 281 download includes video lessons that build on our tutorials, plus bonus videos with extra tips
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16 SOFTWARE EXTRAS
 Actions and presets for Adobe Photoshop and Lightroom
 Page 90



PHOTOSHOP
 How to create Adjustment Presets



LIGHTROOM
 Fake a polariser effect to darken skies



PHOTOSHOP
 Use Curves for creative effects



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PHOTOSHOP
 Tidy up shots using the Remove tool



Before



After



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**10 BONUS
ADJUSTMENT
PRESETS**

Turn to page 90 to
find out more!

Create your own Adjustment Presets

Create one-click colour-boosting effects with this handy new feature in Photoshop

In 2023, Adobe introduced a revamped Adjustment Panel in Photoshop – before, this panel simply showed icons of the Adjustment Layers on offer. However, after the update, we had a range of thumbnail presets, each of which applied a variety of adjustment layers to our images. The problem was that the handful of default adjustments were, for the most part, not great.

Thankfully, things have improved with a recent addition to the panel in the latest version of Photoshop (25.5 or higher) and we can now create our own adjustment presets. As we aren't stuck with the standard default effects, we can take advantage of all the best features of Adjustment Layers, which have long been one of the best tonal tools on offer in any photo editing software.

In addition, because the presets work as a set of layers, we can make use of essential layer features such as blend modes, opacity and more. Whether you want to take advantage of the new presets feature or simply learn more about Adjustment Layers, you'll find lots of tips and tricks in the accompanying video, as well as 10 free Adjustment Presets for you to use on your images.



**James
Paterson**

With over a decade as a writer and photographer, James Paterson knows exactly which Photoshop and Lightroom tools and techniques matter most.

Camera Raw profiles

Another excellent way to apply tonal or colour effects to your photos can be found in Camera Raw and Lightroom. The Profile Browser offers a host of one-click treatments, as well as a handy Amount slider that lets you fine-tune the strength of the change. You'll find lots of excellent profiles already in there, and you can add your own (Alt-click the New Preset icon in the Camera Raw Presets Panel to add them).

If you like, you can include Adjustment Layer effects created in Photoshop within your Profiles by exporting the Adjustment Layers as a Colour Lookup Table (File > Export > Colour Lookup Tables).



1

Adjustment Panel

Go to Window > Adjustments. The panel shows default presets and offers access to single Adjustment Layers, though it's easier to click the Adjustments icon in the Layers Panel to add these. Hover over the Adjustment Presets to see a preview of your image and click on a thumbnail to apply the preset. Here, you'll see a few effects and a button to view more.

2

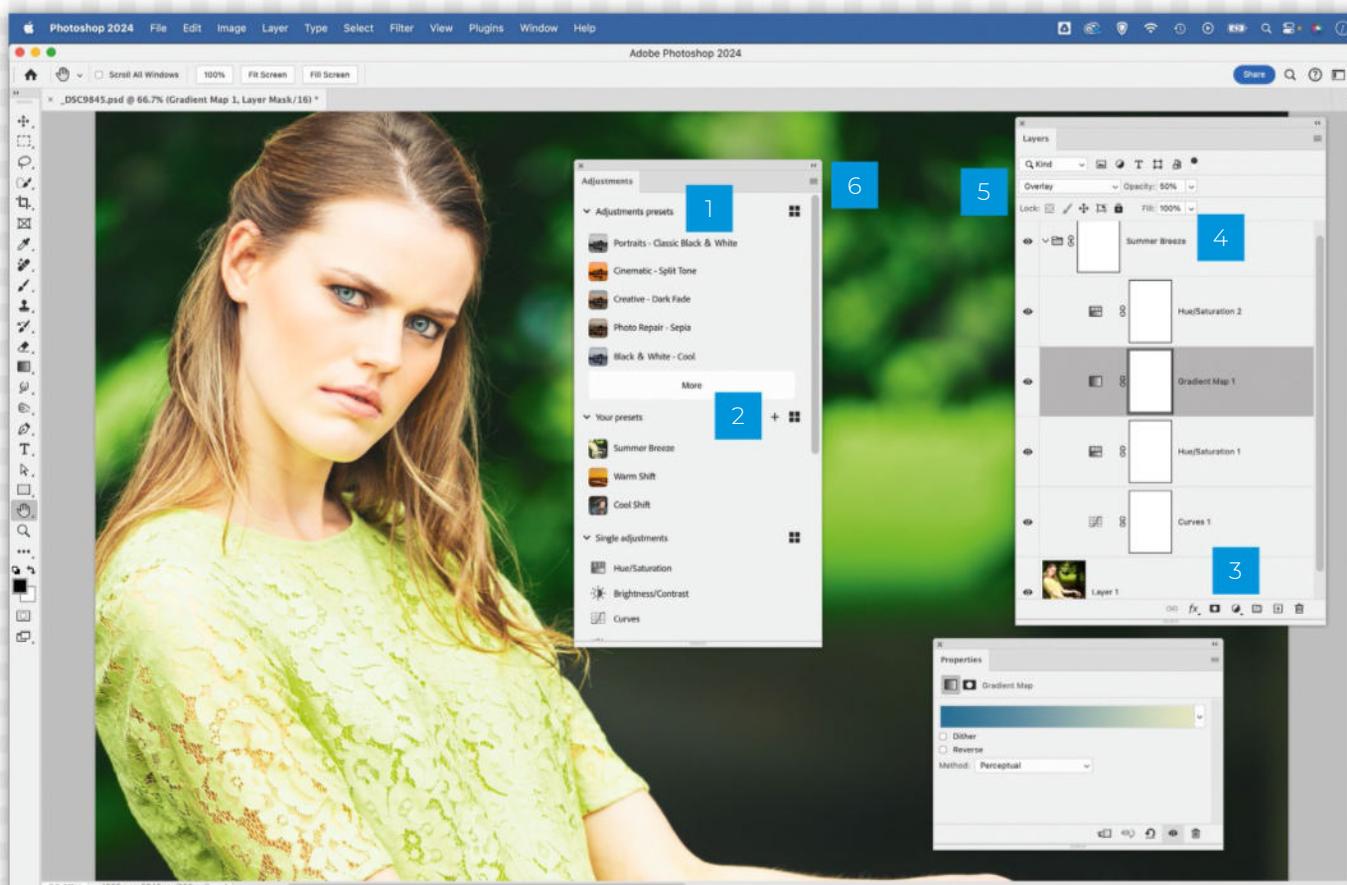
Adjustment Presets

To make your own preset, add one or more Adjustment Layers to your image (we added Curves, Hue/Saturation and Photo Filter), hold Cmd/Ctrl and click on the Adjustment Layers that make up the effect, then go to the Adjustment Panel and click the plus icon next to Presets. Name and save it and, once done, you can apply the effect with one click.

3

Adjustment Layers

Adjustment Presets are made of 16 Adjustment Layers, each allowing you to alter colours, brightness and contrast in different ways. Click the Adjustment Layer icon on the Layers Panel to add one. Any changes will affect all the layers below it in the stack. The adjustment remains editable at any stage; just double-click the thumbnail to re-enter the settings.



4

Fine-tuning the effects

When you add any Adjustment Preset to your image a list of adjustment layers will appear in your Layers Panel, usually as a group. This gives you all the usual options when working with Layers in Photoshop – for example, tone down the effect by lowering the opacity. You can also view and tweak the individual adjustments by double-clicking on the thumbnails in the Layers Panel.

5

Use Blending Modes

You can also use Adjustment Layers in combination with layer blending modes. Here, we used a Gradient Map Adjustment Layer set to the Soft Light blend mode to tint the image. Save our combination of Adjustment Layers as an Adjustment Preset (see tip 2) and the blending mode is saved too. Layer Opacity and Fill settings are also saved in the preset, but not Layer Masks or Blend If settings.

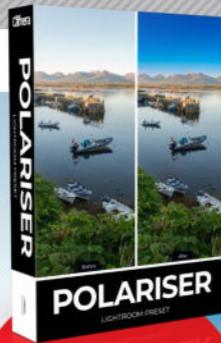
6

Install your free Presets

As well as creating your own Adjustment Presets, you can also install sets made by others. We've included 10 free presets in our download files. To install them, click the three-line menu icon at the top of the Adjustments Panel then go to Import Presets. Navigate to the downloaded folder to import the set. To export your presets, click the flyout menu and choose 'Export All Custom Presets'.



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BONUS POLARISER PRESET
Turn to page 90 to find out more!



How to fake a polariser effect

Use Lightroom Classic to darken and enhance the blue of a lukewarm sky



Sean McCormack

Sean McCormack is a photographer and writer, based in Galway. He's the author of *The Indispensable Guide to Lightroom CC*.

The circular polariser is probably one of the only physical filters that you need as a digital photographer. All of the others can be replicated easily in software; graduated filters are right there as a masking option; warming or cooling can be done with White Balance, even those 10x filters can be emulated by taking a series of photos and blending them. However, the circular polariser is different.

Polarisers work by allowing light to come from only one direction and so reduce light reflections. This light could be on the surface of water, or it could be the sheen on leaves. Using a polariser will therefore allow you to see below the water or to enhance the green colours in foliage.

The biggest – and most obvious – effect of the polariser is how it darkens and enhances the blue colours of the sky. This is the look we're going to emulate here using Lightroom.



Build your own library of sky presets

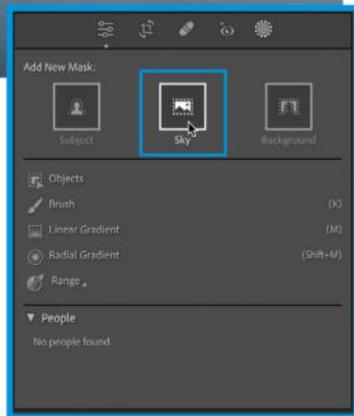
If you have captured photogenic skies in scenic shots then why not use them to make your own software presets? You can then apply them to other images in just a few clicks. Whether it's sunrises, sunsets or dramatic weather conditions, you could easily build up a library of sky presets and use them to improve photos that have dull grey skies or skies with no clouds. See this online tutorial at: www.bit.ly/dcm281presets



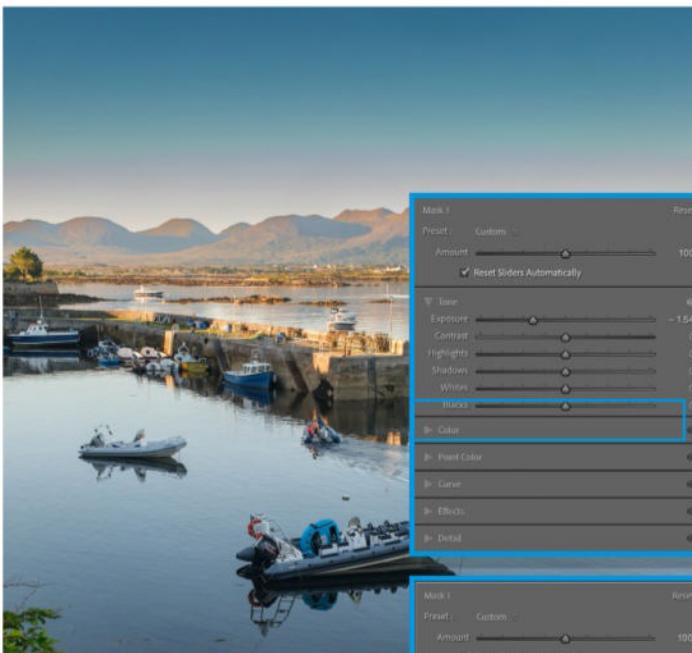
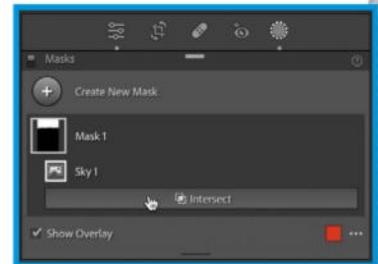
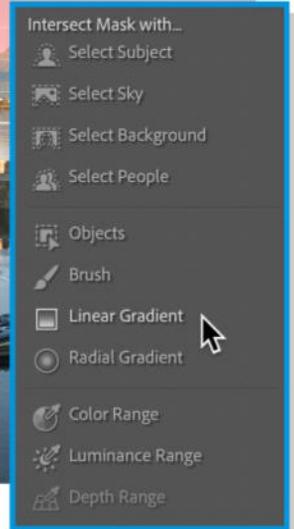
WATCH THE VIDEO!



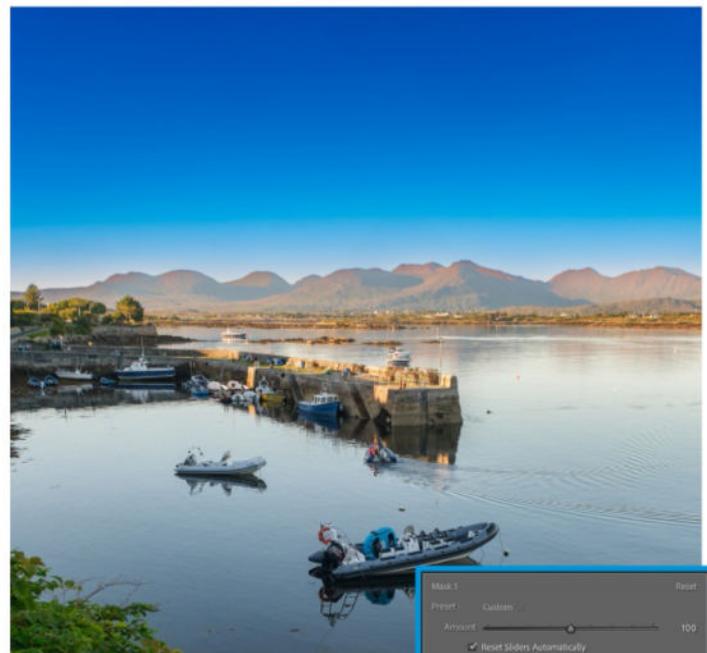
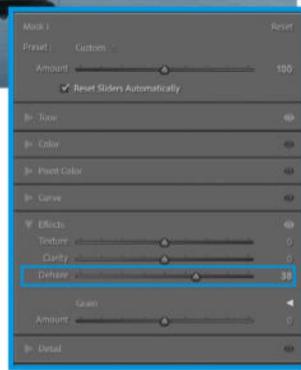
1 Start with masking tools
Begin by going to the Masking panel under the Histogram. From the list choose the Sky icon. Lightroom Classic will show the selected sky as a red mask so you know which area will be affected by any changes.



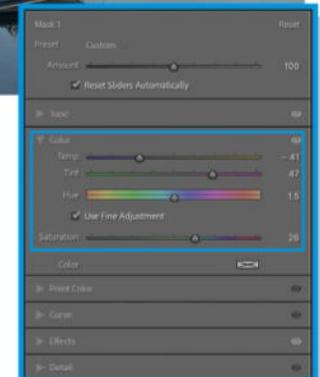
2 Adjust the mask
The effect of the polariser isn't magically in one area only, though. Hold down the Alt or Option key and the Add and Subtract options change to an Intersect. Click this and choose Linear Gradient. Drag the filter down to the bottom of the sky area.



3 Darken & dehaze
First, darken the sky by reducing exposure by at least one stop. Add some Dehaze to increase the contrast and saturation in the sky area. The sky will probably look like a more cyan blue and need some colour correction.

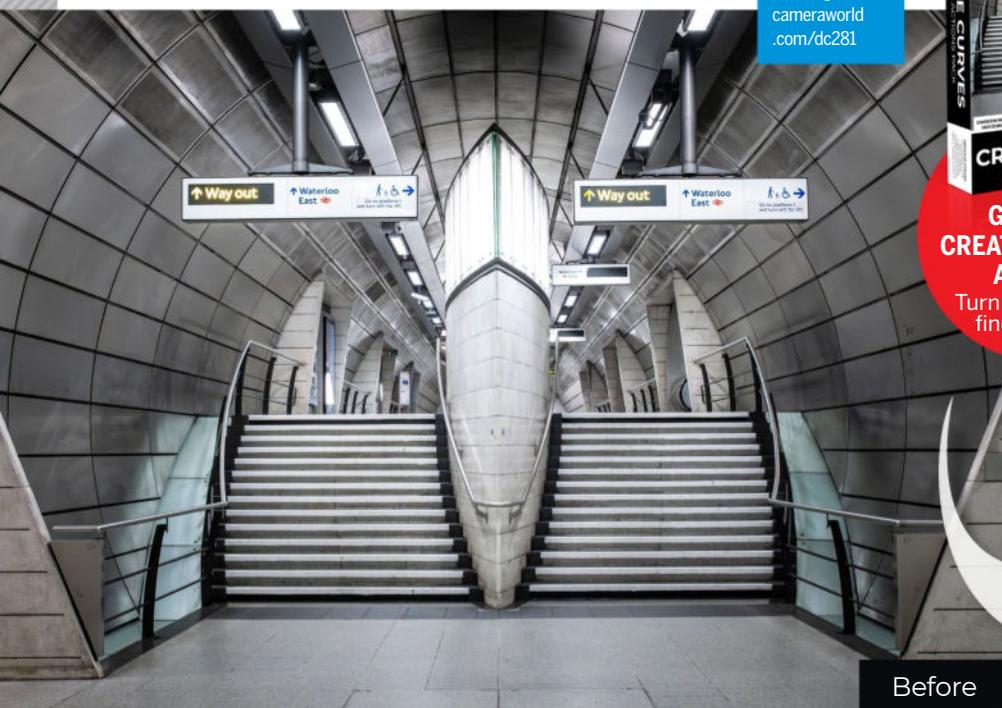


4 Correct colour
For the colour, set the temperature to -41 for additional blue and Tint to 47 to remove the cyan tone. With Use Fine Adjustment ticked, nudge the Hue to 1.5. Finally, set Saturation to 26 to complete the look.





FILE & VIDEO
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Before



GET YOUR
CREATIVE CURVES
ACTIONS

Turn to page 90 to
find out more!

Use Curves for these creative effects

Curves are one of Photoshop's most versatile Adjustment Layers, providing high-quality corrective and creative effects

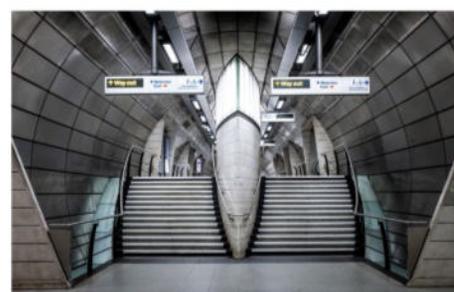
Curves may have a reputation for being complicated, but they can be tackled at different levels of complexity. Besides, there is a huge number of adjustments that can be achieved, ranging from corrective to creative and beyond. Here, we're going to take a look at some of the more creative ways they can be used to stylise photos.

As always, we'll cover four individual techniques. The approach we'll take not only applies each technique in isolation for an effective result, but also allows the effects to be stacked to create a complete editing effect that covers a range of techniques. We'll cover adding moodiness, making shadows appear cyan, warming up the highlights and applying an ultra-dull matte effect. All of these effects will be applied at 100 per cent Opacity, but you can add a more personal touch by controlling the Opacity to achieve a more unique application of the techniques.



James Abbott

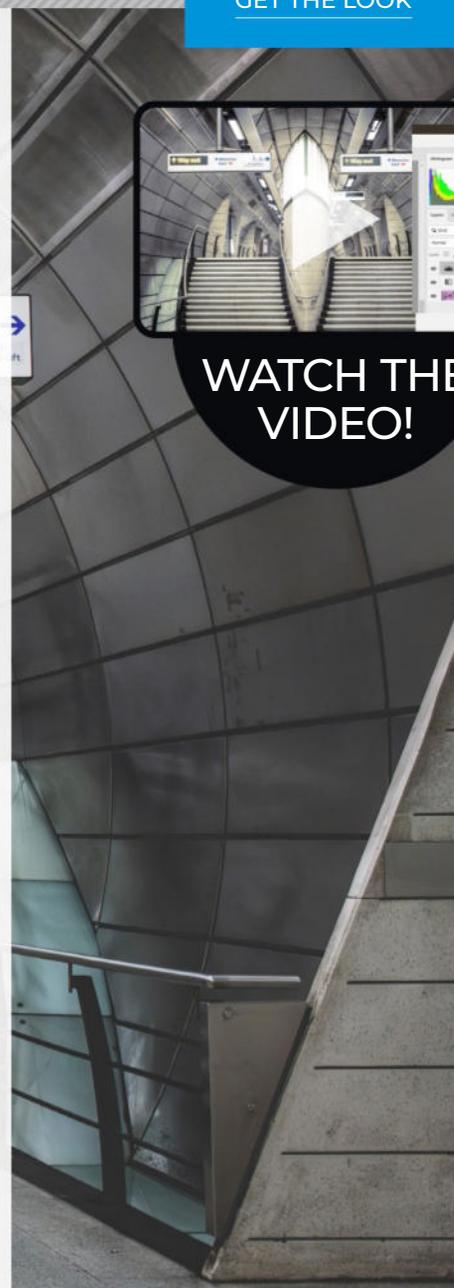
An advanced Photoshop user who has created hundreds of tutorials, James Abbott is also the author of *The Digital Darkroom: The Definitive Guide to Photo Editing*.



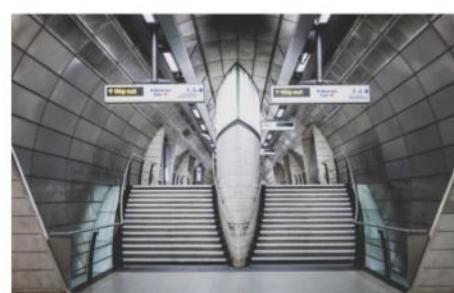
1

Darkening for moodiness

Click on the Create new fill or adjustment layer icon at the bottom of the Layers panel and select Curves. When the dialog opens, left-click on the centre of the Curve and drag down and to the right to darken the image slightly. Next, drag the black point in the bottom left corner to the right along the bottom until Output is at 10. This will deepen blacks to boost contrast. If you place a point that you don't want or need, left-click on the point and drag it away from the Curve to delete it.



WATCH THE VIDEO!



2

Cyan shadows

Create a Curves Adjustment Layer and when the dialog opens, click on the dropdown menu set to RGB and select Red. Now place points a quarter, half and three-quarters of the way up the Curve. Go back to the first point that's a quarter of the way up the Curve, left-click on it and drag down and to the right. This will apply Cyan mostly to the shadows with some bleed into the midtones. If the Curve rises above the middle point, place a new point here and drag the Curve back down to a straight line.

3

Warm highlights

Create a Curves Adjustment Layer and when the dialog opens, click on the dropdown menu set to RGB and select Blue. Place points a quarter, half and three-quarters of the way up the Curve and drag the three-quarter point up and to the left to add yellow to the highlights. Next, select Red with the menu and create three points again, then drag the three-quarter point up and to the left a small amount until you're happy. This will make the highlights more orange than yellow.

4

Ultra dull matte effect

Create a Curves Adjustment Layer and place points a quarter, half and three-quarters of the way up the RGB Curve. Now drag the black point in the bottom left corner up the left side until it's roughly level with the point placed at one-quarter of the way up the Curve. This will lift the shadows while also dulling them – the matte effect. Next, left-click on the white point in the top right corner and drag it down the right side until the output says 230. This will dull the highlights and lighter tones.



THIS MONTH'S BONUS SOFTWARE EXTRAS

16 actions and presets to boost your images

As seen in this month's tutorials, you can give your photos a new look in just a few clicks with these actions and presets

This month, we have curated another collection of software extras to help transform your images. Once installed in Adobe Photoshop or Lightroom, these actions and presets can have a huge impact on your photos in a matter of seconds, saving you lots of time at the editing stage. Rather than having to manually adjust a

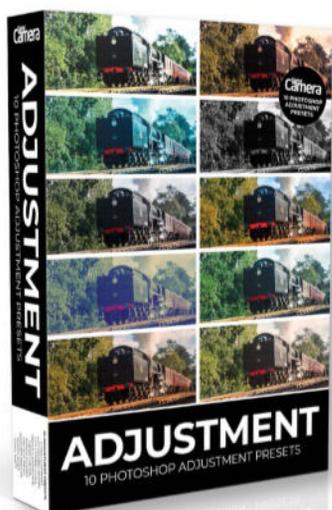
photo to give it a certain look, these actions and presets will get you there in just a few clicks.

This issue, we're giving away 10 adjustment presets for Photoshop (version 25.5 or higher), a Polariser preset for Lightroom and five Creative Curves actions for Photoshop that can all enhance your images with just a click of the mouse. Install and try them!

How to use your software extras

Once you have downloaded the 'dcm281-files.zip' file to your computer, extract it and put the Actions and Presets folders where you can easily access them. These folders contain the files, PDFs and installation instructions.

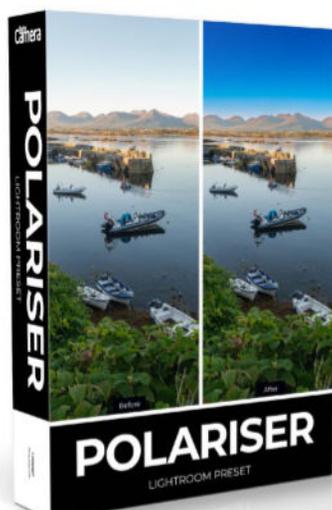
Instruction PDFs can be found in the Gifts folder of the issue's download file



10 ADJUSTMENT PRESETS

Software: Photoshop
(Version 25.5 or higher)

To go with our tutorial on page 84, we've supplied 10 adjustment presets for you to experiment with. The presets work with the latest version of Photoshop as a set of layers, with features such as blend modes, opacity and more. Whether you want to take advantage of the new presets feature or simply learn more about Adjustment Layers, you'll find lots of advice in the accompanying video.

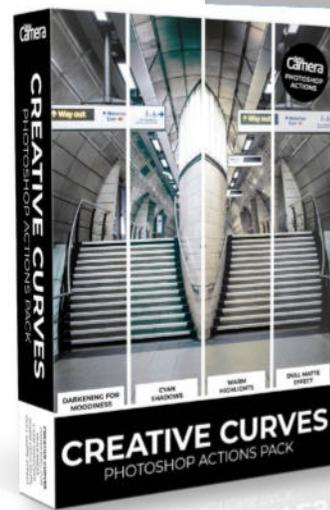


POLARISER PRESET

Software: Lightroom

Have you ever shot a scene but then wished you had used a polariser to improve the sky? This useful preset can change the colour gradient of your sky to give an effective polariser effect.

The preset here creates a sky mask intersected with a linear gradient. You'll need to move the gradient in the preset palette to suit your horizon, then tweak the colour and tone as you see fit. Read the tutorial on page 86 for more details.

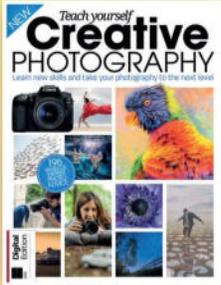
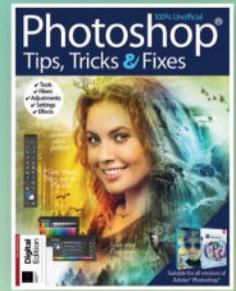
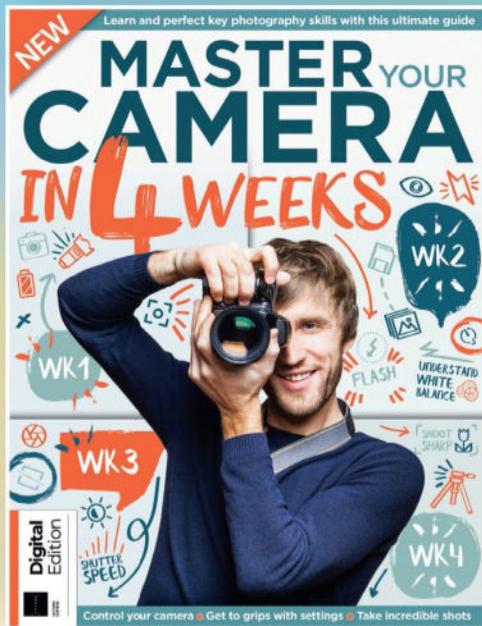
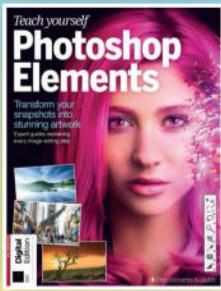


FIVE CREATIVE CURVES ACTIONS

Software: Photoshop

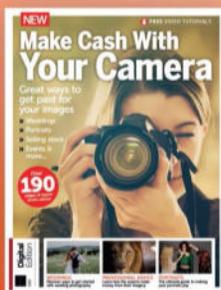
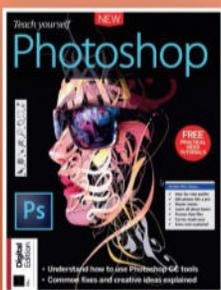
These five Creative Curves actions can give your images a moody dark tone or an elevated bright appeal by adding cyan tones to the shadows or orange hues to the highlights – perfect for architecture or stonework. There's even an action for a matte retro effect on landscapes or portraits. In conjunction with our tutorial on page 88, we'll show you how to use these Creative Curves actions to extend your library of actions in Photoshop.

Download all three packs from: www.digitalcameraworld.com/dc281



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COMPETITION RESULTS

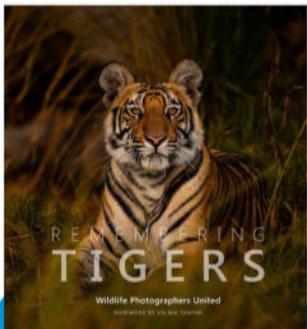
Remembering Tigers

THE RESULTS ARE IN! Feast your eyes on the images chosen to appear in the next Remembering Wildlife fundraising book series from Wildlife Photographers United



1

Cover image by Sarah Skinner



BUY THE BOOK!

Pre-order *Remembering Tigers* for £49.50/\$64.35 (Standard Edition). Go to www.buyrememberingwildlife.com

Remembering *Tigers* will be the ninth book in the charity book series started by wildlife photographer Margot Raggett in 2016. She was prompted to take action after seeing a poached elephant in Kenya and started asking fellow wildlife photographers whether they would contribute images to a fundraising book – this request launched the start of something special.

Remembering Elephants and its successors, *Remembering Rhinos*, *Remembering Great Apes*, *Remembering Lions*, *Remembering Cheetahs*, *Remembering African Wild Dogs*, *Remembering Bears* and *Remembering Leopards*, have raised more than £1.1 million (\$1.4 million) between them for 70 conservation projects across 31 countries.

Just under 1,000 images were entered for *Remembering Tigers*, which will feature images donated by many of the world's leading wildlife

photographers, including Art Wolfe, Andy Rouse, Greg du Toit and Will Burrard-Lucas. The work of up to 80 wildlife photographers will be included under the 'Wildlife Photographers United' banner – plus 20 readers of *Digital Camera*, who answered the call to enter images in our March issue (278).

About the winning images

To be selected to appear in *Remembering Tigers*, readers had to submit images taken in the wild in Asia only. The judges were looking for striking and beautiful images, true to the original scene, with nothing added or taken away. Editing should have been kept to a minimum.

Remembering Tigers goes on sale on 7 October, with an official launch event at London's Royal Geographical Society on 9 October – now enjoy the top 20 images from the reader competition.

Find out more at: rememberingwildlife.com



2



9



10



11



3



4



5



6



7



8

OPPOSITE PAGE

1 'Fairytale Forest'

by Sascha Fonseca

Location: Khabarovsk

Krai, eastern Russia

Species: Amur tiger

7 'Tiger's Path'

by Kim Sullivan

Location: Bandhavgarh

Tiger Reserve, India

Species: Bengal tiger

THIS PAGE

2 'Dreamland Tigress'

by Khushboo Sharma

Location: Jim Corbett

National Park,

Uttarakhand, India

Species: Bengal tiger

8 'Welcome Grandeur'

by Sunil Nair

Location: Jim Corbett

National Park,

Uttarakhand, India

Species: Bengal tiger

3 'At Home'

by Jaisal Singh

Location: Ranthambore

National Park, India

Species: Bengal tiger

9 'Chasing Sisters'

by Turgay Uzer

Location: Ranthambore

National Park, India

Species: Bengal tiger

4 'Bamboo Shade'

by Clive Burns

Location: Bandhavgarh

National Park, India

Species: Bengal tiger

10 'Day Starts Early'

by Harmit Ahuja

Location: Pilibhit Tiger

Reserve, Pilibhit, Uttar

Pradesh, India

Species: Bengal tiger

5 'Winter Awakening'

by Arijeet Ghosh

Location: Pilibhit Tiger

Reserve, Pilibhit, Uttar

Pradesh, India

Species: Bengal tiger

11 Untitled

by Andrew Holt

Location: Ranthambore

National Park, India

Species: Bengal tiger

6 'Under the Wire'

by Sarah Parker

Location: Bandhavgarh

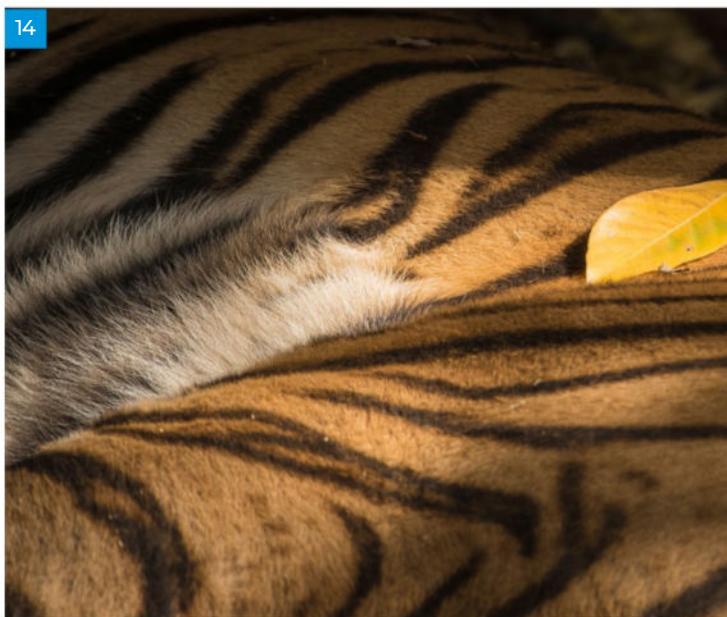
National Park, India

Species: Bengal tiger

12



13



14

OPPOSITE PAGE

12 'Mystic Dream'

by Nitish Madan
Location: Ranthambore National Park, India
Species: Bengal tiger

13 'Golden Goodbye'

by Nick Dale
Location: Bandhavgarh National Park, India
Species: Bengal tiger

14 'Patterns'

by Sandra Clayton
Location: Ranthambore National Park, India
Species: Bengal tiger

THIS PAGE

15 'Sisters in the Ruins'

by Mark Farrington
Location: Ranthambore National Park, India
Species: Bengal tiger

16 'Right Hook'

by Clive Burns
Location: Bandhavgarh National Park, India
Species: Bengal tiger

17 'Final Act'

by Anirudh Vanimisetty
Location: Tadoba-Andhari Tiger Reserve, India
Species: Bengal tiger

18 'Pillow Paws'

by Nitish Madan
Location: Jim Corbett National Park, Uttarakhand, India
Species: Bengal tiger

19 'Kiss by the Sun'

by Thomas Nicholson
Location: Ranthambore National Park, India
Species: Bengal tiger

20 'Tiger in Fog'

by Khushboo Sharma
Location: Jim Corbett National Park, Uttarakhand, India
Species: Bengal tiger



Photo Answers



Andrew James

Andrew is a highly experienced writer and photographer – if you have a problem, he is here to help.

Dumbfounded by dual card slots? Hazy over handheld shooting? Send your technique and camera questions to digitalcamera@futurenet.com

Bracket with three shots, or five?

Q I read in Tech Check that you always use three bracketed frames, so why wouldn't you use five bracketed frames for even more detail?

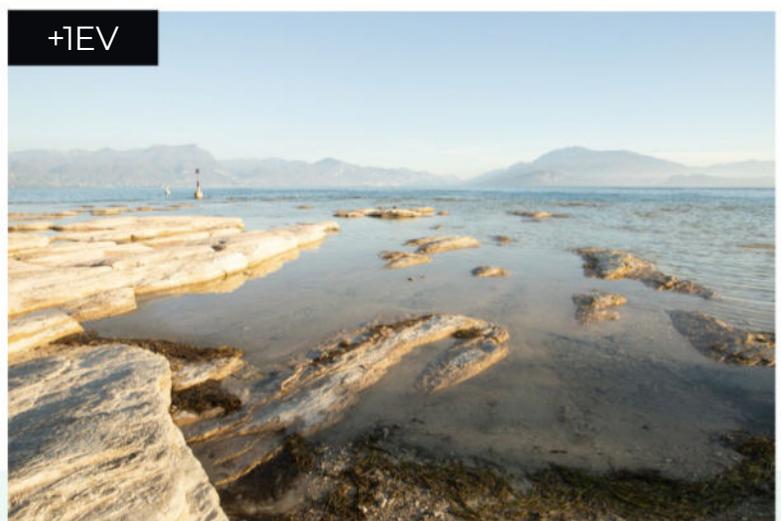
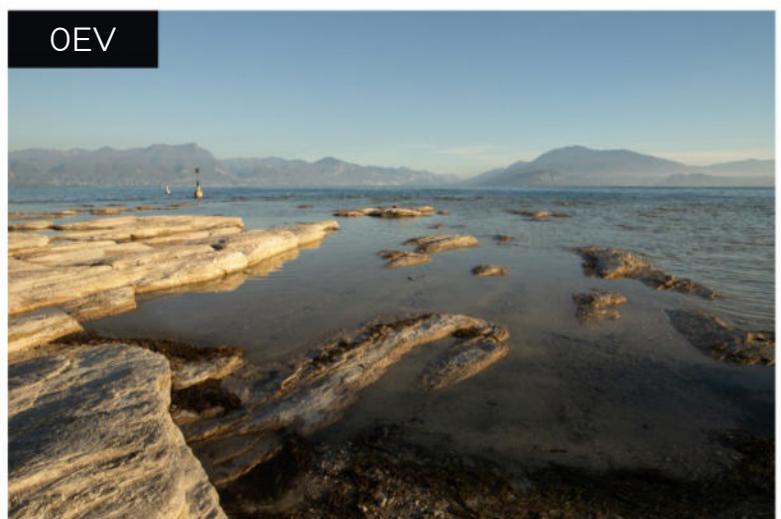
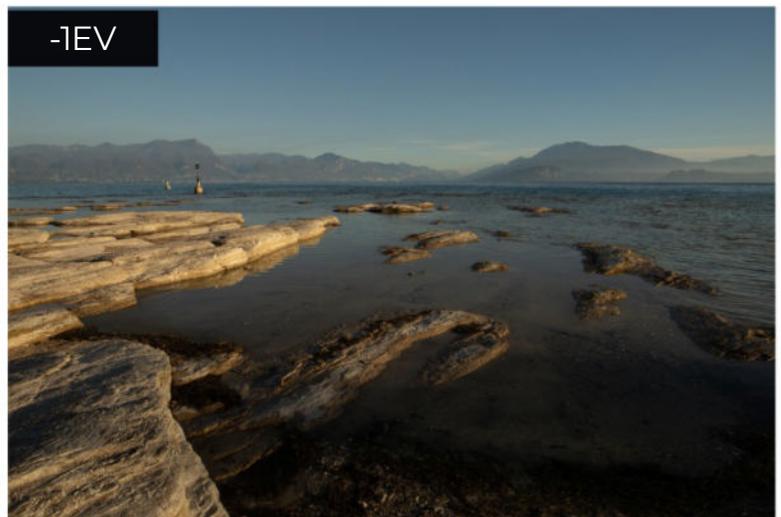
Tom Osman

A Over the years, I've found that three different exposures, even on exceptionally contrasty scenes, usually gives you enough dynamic range to create well-exposed final images from the frames, as long as you are shooting raw format rather than jpegs. If you're shooting jpegs, then a five-stop exposure range might be necessary when the contrast range is extreme. However, my advice would always be to shoot raws anyway.

The key to capturing all the information you need is within the amount of exposure you are bracketing. First of all, you don't always need to bracket frames since the dynamic range of a single raw file gives you an amount of editing flexibility, although pulling details out of deep shadow can lower image quality if you're not careful. When you do opt to bracket, then a standard three-stop bracket of -1, 0, +1 will give you enough information across the three frames to cover most situations.

When you are faced with a massive brightness range, for example, when shooting directly into the sun, then you can still shoot three frames, but extend the bracket to two stops so your range will be -2, 0, +2. By doing this you keep things economical in terms of shutter count and card space but extend the possibilities for the dynamic range in the scene. I'm not saying that a five-stop bracket is never worth using but a three-stop range is simpler and should give you what you need to create a natural-looking merged HDR photo.

The number of bracketed frames required depends on the lighting conditions, but a three-stop range should suffice.



Tech Check

Dual card slots

What are the benefits of more than one slot?

Why do some cameras have dual memory card slots?

Having two separate memory cards in the camera gives you various options for image storage as you shoot. Depending on the model you have, you can record to two cards simultaneously or on some models, record video to one card and still images to the other, or raws to one card and jpegs to the second card. Alternatively, you can simply have two cards in the camera and when one is full, the camera automatically records to the other.

Why would you want to record on two memory cards simultaneously?

By having two cards recording the same images, you have a failsafe

system where, if one card happens to fail, the other one has recorded your images safe and sound.

This is something that many professional wedding photographers prefer to do, to make sure they have the precious images of someone's big day fully backed up.

Does auto-switching from one card to the other make much difference?

Now that card capacities are so much larger than they used to be, auto-switching is perhaps less useful. But even so, imagine that you're trying to capture the shot of a lifetime and your card runs out. If you had a second card installed and the camera set to auto-switch, you

There are many advantages to using dual card slots, not least for backing up essential images.



wouldn't have to worry – at least not until the second card was full.

So how does it work?

Depending on the camera you use, you can put the same type of card

in both slots. Other cameras allow for two different card types, such as an SD card and a CompactFlash card, or a CompactFlash card and CFast card. Check the owner's manual to see what your camera allows.

Shooting handheld at night

Q

Can you shoot night-time city scenes handheld or is using a tripod better?

Keith Thomas

A

The simple answer is yes, but it depends on what's in the scene you are shooting. A night-time landscape-style shot where you want to photograph buildings lit up might be better captured on a longer exposure and a tripod. Anything that moves will then be rendered as a blur or, depending on the length of the exposure, may not register on the image at all.

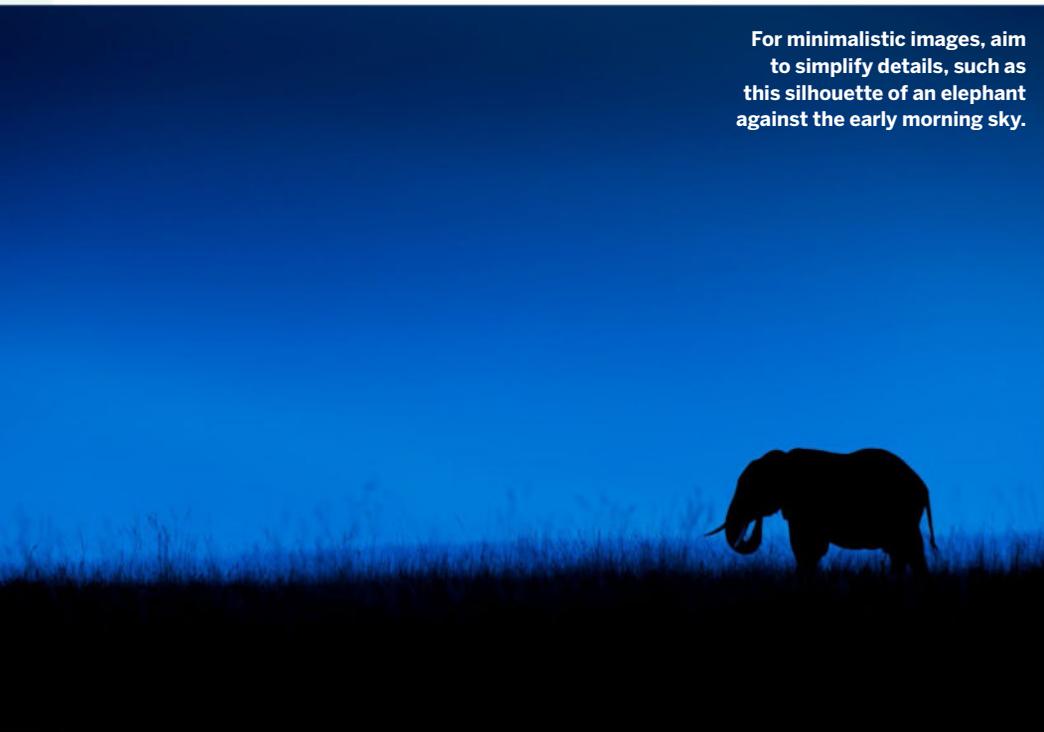
However, if you want to capture little scenes of urban nightlife, then opting for a handheld approach that allows you to react to things happening around you will probably be better. In this case, set a high ISO and look for areas where shop fronts or other types of illumination are creating pools of light that will give you some interesting contrast. Keep your eye on your shutter speed and increase the ISO or use a larger aperture if the speed you are getting is too low for handheld photography. You are better off using a standard (50mm) or wide-angle lens in this scenario, rather than a telephoto, as you can hold it steadier to avoid camera shake.

Using a higher ISO to get a faster shutter speed inevitably means some compromises on image quality, but night-time urban scenes often have a gritty quality to them so you can just make this part of the image's atmosphere and narrative.

Right: For urban nightlife scenes, shooting handheld can give your images a gritty quality.



For minimalistic images, aim to simplify details, such as this silhouette of an elephant against the early morning sky.



Andrew James

Balance setting to Daylight for a more natural colour capture or, if you want to enhance the warmth further, then it's worth using Cloudy white balance.

If you were shooting raw files, then you could tweak WB post-capture but with a compressed file like a jpeg, your post-capture editing options are reduced. You can increase vibrancy and saturation in Photoshop, but this can make the colours look over-cooked and unnatural. The other issue you might have as a jpeg user is that the camera will be capturing the image style to set parameters.

I don't know what camera you have but, if it's a Canon, you should look in your menu for 'Picture Styles' (Nikon calls it 'Picture Settings'). If you've never changed the setting from the camera's default, you will be capturing a flatter jpeg than you want. Change yours to Landscape for a more saturated, richer image and it will help.

If your sunset images are disappointing, you can alter the white balance, change the picture style or shoot in raw format.

How to make things minimal

Q I like the minimalistic style of photography, so what can I do to make my images like this?

Sue Rogers

A It's always difficult to define a 'style' of photography as everyone has different interpretations of what it means but, to me, the term minimalism simply means trying to show the subject in as simple a way as possible. So think of an image that is uncluttered in terms of composition, colour and tonality and you might have something that could be termed minimalist. How simple or how stripped-back the elements are is down to artistic interpretation.

Minimalism isn't restricted to any particular genre of photography, so you can take minimalistic landscapes, wildlife images, abstracts and so on. If you think of a landscape photograph, it becomes a minimalist image if the elements within the frame are stripped right back. For example, a long-exposure seascape image, where there is one sharp subject and everything else is blurred so detail is lost, is an obvious minimalist-style picture. Take that one step further and create an Intentional Camera Movement (ICM) photo of the same scene and your image might be even simpler.

When you can't use a long exposure technique that naturally simplifies a scene, then you can use other tricks, such as limiting depth of field by using a wide

aperture or by shooting with a long lens to blur the foreground and background. Whatever you shoot, make sure your image has an ultra-simple composition. Keep to a single focal point, with surroundings that lack detail to draw the eye away.

As an example, I've picked an elephant image I took a few years ago. There is a lot of space within the frame and the animal is the only point of focus. The blue tones created by the early morning light help to further simplify its visual appeal.

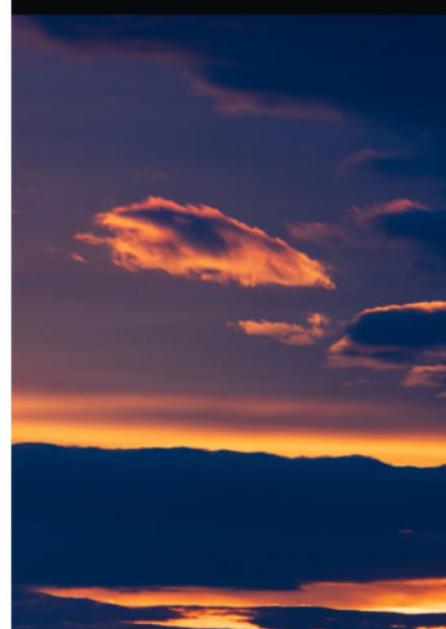
Spoiled sunsets

Q I only shoot jpegs and recently took a beautiful sunset. But when I downloaded the images onto my computer, I was disappointed with them because all their natural colour was gone. What happened?

Nancy Fullerton

A There are several potential reasons for the issue you've experienced, with the most obvious one being that you are using Auto White Balance. This setting tends to cool down the warmth and vibrancy of a scene because it thinks it is correcting an unwanted colour cast. The result is that the image's colour impact is reduced. If this is the case, then next time you are lucky enough to photograph similar conditions, simply switch your White

Auto White Balance



Daylight white balance



Andrew James

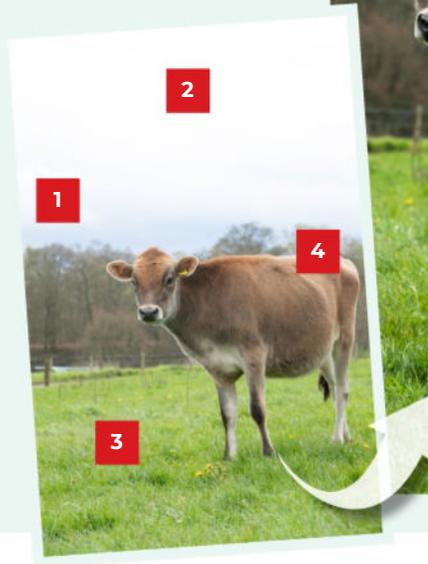
Image Rescue

Let's improve this photo by using some Lightroom Classic tools

This image of a young jersey cow in a field in the countryside has some nice gentle backlighting, however, because it is slightly overexposed and there's too much bright sky in the frame, the eye is drawn away from the main subject, so let's try to rectify this by using some of the powerful editing tools in Lightroom Classic.

We'll start by sorting out the composition. In the Transform panel, let's use the Scale slider to make the cow appear bigger and the Y Offset slider to move the image up so that the image is less dominated by the sky **1**. Now, let's drop a Linear Gradient over the remaining sky in the frame and then, by using the Exposure slider, we can recover a little bit of the detail in the clouds **2**.

Of course, cows and grass go together but the green colour of the grass looks a little flat and washed out in this image, so we'll use the Vibrance slider in the Basic panel to make the colour stronger **3**. Finally, we can add a shallow S-curve using the Point Curve in the Tone Curve panel to add some contrast and make that rim light around the cow's body and head stand out more **4**.



Mask like a boss

Q Is there any way I can keep a person in colour but make the background black and white in Lightroom Classic?

Dave Glover

A Since Adobe introduced Masking in Lightroom, our editing options have greatly increased and it's now really easy to do what you want to do. Go to Masks and use Select > Background to select the area you want to be black and white and then simply take the saturation slider back to zero. If the background Mask selection isn't perfect, you could also use Select > People to identify the area that you want to remain in colour and then invert the selection before desaturating the background as before.



Andrew James



Reflections often turn out darker than the subject, so use a graduated ND filter.

Reflecting on reflections

Q Why do reflections in landscape pictures appear darker than the subject they're reflecting?

Hugh Percy

A They don't just appear darker, they are darker. When light hits an area where a reflection is – typically a body of water – some of that light is absorbed. You can make both the subject and reflection the same light intensity if you want, either by using a Graduated Neutral Density filter when shooting the scene or by adjusting the image in post-production afterwards.

The brightness difference between the subject and reflection can vary but for a more natural appearance, the reflection should be between 0.5 to one stop darker than the rest of the scene.

My birds look too dark

Q I took some photos at an owl centre, but the birds came out so dark against the sky it's like a silhouette. What happened?

John Hillier

A When you are shooting a bird against the backdrop of a bright sky, there can be a big exposure difference between the bird and that background. The camera's meter thinks the scene has plenty of light so isn't worrying about the details of the bird's body and so the subject is underexposed. What you do is add in some positive exposure compensation. Somewhere between +1 to +2 stops should be enough to give you more detail in the bird, but will also brighten the sky, so you have to be aware of overexposure and find a balance between the two exposure ranges.



Andrew James

In Focus

The latest photography news from around the globe



1 LET'S GET TACTILE
Physical controls include a lockable aperture ring and programmable AFL button.

2 COMES WITH A PETAL-SHAPED LENS HOOD
Optional extras include a USB dock for firmware updates (L-mount only).

Sigma 50mm F1.2 DG DN Art

Super-fast compact standard prime for L-Mount and Sony E-mount promises outstanding optical performance

The leading third-party lens manufacturer looks to have pulled out all the stops with the design of this new standard prime, which will be ideal for low-light landscapes, travel shots and portraits with beautiful bokeh, says the brand.

Sigma claims that its new optic is the world's lightest 50mm f/1.2 lens for full-frame mirrorless cameras – it weighs 745g (in L-mount specification) while it measures 109mm x 81mm (length x diameter). The optical design includes no fewer than 17 elements in 12 groups, including four

aspherical elements. This complex design corrects spherical aberration, sagittal coma flare, axial chromatic aberration and what Sigma calls 'double-line bokeh', not just for edge-to-edge sharpness but also for the best possible blur – helped along by a 13-blade diaphragm mechanism.

Dual HLA (High-response Linear Actuator) AF motors strive for fast and silent performance for both stills and video, and the 50mm F1.2 DG DN Art also features 'heavily suppressed' focus breathing. The filter size of this new lens is 72mm. sigmauk.com; £1,299/\$1,399





Captured on a Nikon Z 6II full-frame mirrorless with the Z 28-400mm f/4-8 VR at its longest 400mm setting...



... and with the same camera and lens combination at 28mm, for a tasty food shot with pleasingly defocused areas.



Shot at 400mm with an f/8 aperture, the autofocus has done a great job of locking onto the footballer – not the ball.

Nikkor Z 28-400mm f/4-8 VR

New full-frame superzoom for Z-mount mirrorless cameras

With a phenomenal 14.2x zoom ratio, the latest optic from Nikon sets a new range for an all-in-one zoom lens. Designed for use on full-frame cameras, the size, weight and price of the Z 28-400mm f/4-8 VR means that it can be used on APS-C DX Nikon cameras, where the effective focal range will become 42-600mm.

Headline features include a stepping motor for fast autofocus drive, a compact and lightweight design (approx 725g) and a minimum focus distance of 0.2m at the widest angle, while the vibration reduction function offers the equivalent of a 5-stop increase in shutter speed. www.nikon.co.uk; £1,399/\$1,299

- 1 ERGONOMIC DESIGN**
The silent control ring is customisable, and there's a zoom-lock switch.



Enter Cobalt's Capture a Moment competition
Open for entries taken on a camera or a smartphone until 31 July, there are over £1,000 worth of prizes up for grabs. The 12 winning photos will feature in Cobalt's 2025 calendar, the proceeds from which will support a specialist cancer nurse for teenagers and young adults. www.bit.ly/dcm281cobalt; £2 to enter one image



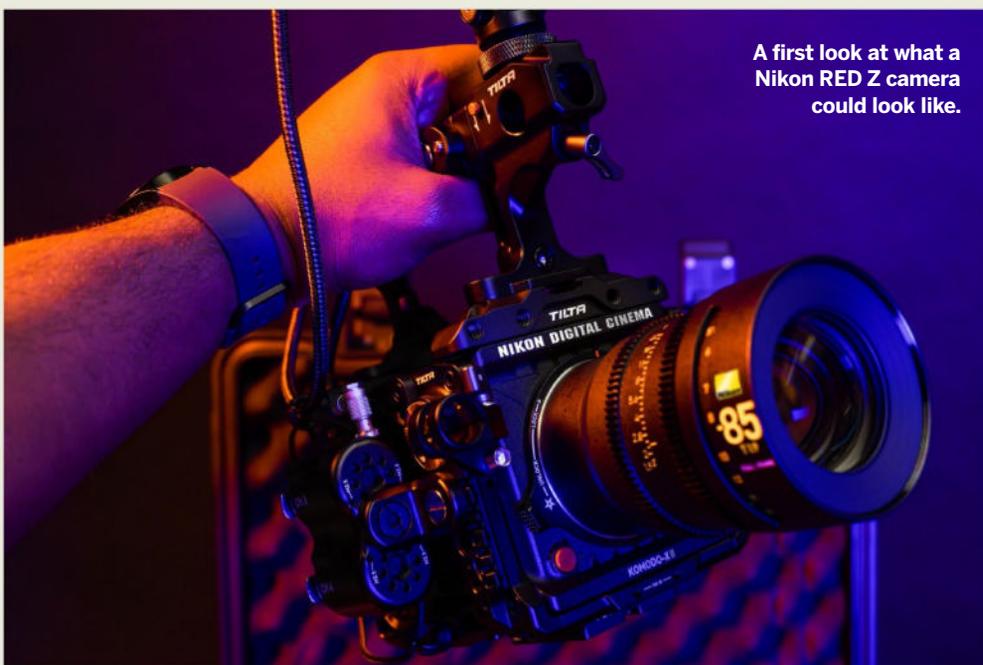
Jupio Tri-Charge triple battery charger
A three-in-one product in so many ways, the Tri-Charge acts as a storage solution, fast charger and power bank. Charge Canon LP-E6, Nikon EN-EL15 and Sony NP-FZ100 batteries over USB-C and securely store your memory cards at the same time. jupious.com; £129/\$129

Vanguard Veo City bags

Storage for larger DSLRs and mirrorless cameras

Adopting the style and look of the brand's existing City Cross Body bags, Veo City offers backpack (in 12, 16 and 21-litre capacities) and shoulder bag (7 and 10-litre) options. Colour schemes available are light grey or navy blue, and all bags include a removable pouch for gadgets and tech. vanguardworld.co.uk; from £150/\$192 (shoulder bag); £180/\$230 (backpack)





A first look at what a Nikon RED Z camera could look like.



Jon Devo
[instagram.com/gadgetsjon](https://www.instagram.com/gadgetsjon)

Jon is a professional photographer, videographer and technology journalist.

Scanning ahead...

As the dust settles on Nikon's takeover of RED, **Jon Devo** ponders the effect of this bold move

By now, the dust has settled on the monumental announcement made by Nikon that it was set to become the sole owner of rogue camera brand RED Digital Cinema. After years of vying for hybrid camera supremacy and struggling to overcome Sony's sustained dominance, as well as the resurgence of competitors such as Canon and Panasonic's Lumix, Nikon seems to have chosen a nuclear option in a bid to turn the tide. People paying attention to camera world news would have already been wowed by the news that RED had just launched the world's first commercially available large

format global shutter camera, in the form of the RED V-Raptor X. So it was even crazier when the announcement came through shortly after that the company's founder James Jannard and current company president Jarred Land were selling up and cashing out.

With RED set to become a wholly-owned subsidiary of Nikon, could Canon's fiercest rival finally get a significant upper hand and push it to the brink? Let's get into it.

Details of the proposed takeover are still thin on the ground, with both companies releasing carefully worded and intentionally vague statements that suggest it's business as usual for the time being. And we may be able to take Nikon at their word. After all the buzz around Nikon's last notable acquisition of Mark Roberts Motion Control (MRMC) back in 2017, some speculated that we'd see robo-cameras from Nikon flooding the market. But that never materialised. MRMC is still operating under its own name and is still based in Sussex, UK, where its award-winning robotic arms are designed and made.

So there is precedent for Nikon operating solely as a parent company and not interfering overtly in the affairs of an established and popular tech brand under its stable. The smart money would suggest Nikon's purchase of RED allows it to enhance its own cameras with proprietary RED tech and know-how, while boosting RED using Nikon's strengths, such as market scalability, AF and stabilisation. With Nikon's impeccable legacy as a lens producer, could we see an updated range of RED cine lenses, for example?

A pragmatic approach would surely strengthen both houses. Aggressively taking over and diluting or even deleting the RED brand would be destroying one of the key things of value that RED has that Nikon doesn't; tangible credibility among existing and aspiring filmmakers that has long evaded them.

However, if Nikon were to take a more combative approach, it could throw its legacy rival Canon into deep water by removing native RF lens compatibility from future RED cameras. RED only began paying to licence Canon's proprietary mount for its cameras back in 2019, which was undoubtedly a boost for the brand. But the short life span means that cinema camera operators are generally not so heavily invested in Canon RF glass as to make a switch to Nikon's Z-mount untenable. For some of us, particularly those who typically prefer PL-mount lenses anyway, it may mean buying a new lens-mount adapter. But for Canon, it could be a devastating blow to lose a marquee customer, with companies like Panasonic, Leica, Sigma and Black Magic continuing to bolster the adoption of another alternative, L-mount. Canon's proprietary fixing would be isolated and dependent entirely on Canon camera body sales. Could abandoning the RF mount be the straw that broke the Canon's back? We live in interesting times.

My hope is that this bold power play from Nikon continues to increase competition among the manufacturers, keeping everyone on their toes and discouraging them from holding back when it comes to new releases. What a time to be a creator! ●

“Could Canon's fiercest rival finally get a significant upper hand and push it to the brink?”

KitZone

New gear, buying tips and the world's toughest tests



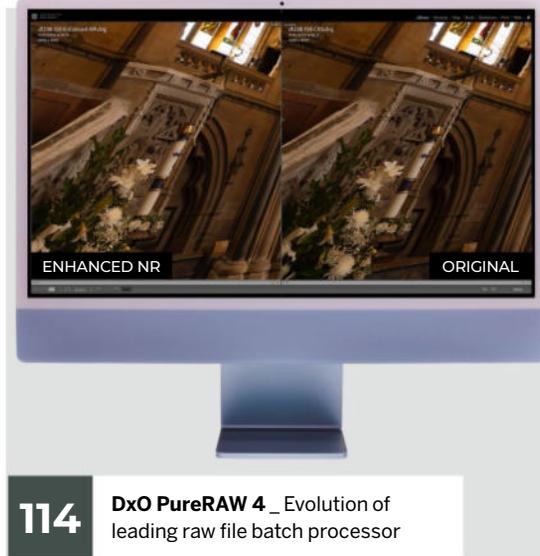
104 **Sony A7C II** _ Full-frame creator's camera gets a technical update



108 **Fujinon GF 30mm F5.6 T/S** _ Medium-format tilt/shift lens



112 **DJI Mini 2 SE** _ Affordable camera drone offers some pro tricks



114 **DxO PureRAW 4** _ Evolution of leading raw file batch processor



W

as the world waiting for a new version of the Sony A7C? The manufacturer is renowned for constantly pushing the boundaries of technology, so perhaps we camera watchers shouldn't have been surprised to see an A7C II break cover last autumn. To recap, this model focuses on the needs of content creators – folk who make video content as well as stills – so it's a more compact version of the popular A7 series, with a rear screen that folds out in all directions. The A7C II went on sale costing more than its predecessor at launch, so

does it do enough to justify going straight to the second iteration, rather than banking a saving by buying the original version?

Also this month, we test DJI's most affordable camera drone, which offers some technical chops found on more expensive models. Plus, two new lenses pass through our lab. The Lumix S 28-200mm F4-7.1 could be the only walkabout lens that L-mount camera owners need, while a new tilt-shift prime will please those who use Fujifilm's medium-format GFX system. And is now the time to buy DxO PureRAW? We put version 4 under scrutiny. **Niall Hampton**



Plus:
Lumix S 28-200mm F4-7.1 Macro OIS
page 110

The awards bestowed by the Digital Camera lab...



Given to the top product in a group test



For products that receive five stars overall



Given to products that offer superb value for money

Ratings explained

- ★★★★★ Best in class
- ★★★★☆ Excellent
- ★★★☆☆ Good
- ★★☆☆☆ So-so
- ★☆☆☆☆ Poor

All products reviewed in KitZone are tested independently by photographers with years of experience, using lab and real-world testing

Mirrorless Sony A7C II



1 The appearance is a little boxy and uninspiring and the A7C II looks practical but not desirable.

2 Powered by a 33MP sensor, the A7C II's image processing is up to eight times faster than its predecessor.

3 Ergonomic changes from the earlier model include a dial on the camera's front grip.

Sony A7C II

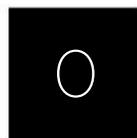
£2,100/\$2,299 (body only)

Sony updates its most compact full-frame photography camera

www.sony.co.uk

Specifications

Sensor: 33MP full-frame Exmor R CMOS BSI
Image processor: BIONZ X and AI Co-Processor
AF points: 759-point phase AF
ISO range: 100-51,200 (exp 50-102,400)
Metering modes: Multi-segment, Centre-weighted, Spot, Average, Highlight
Video: 4K 60p (Super 35), 4K 30p, FHD120p
Viewfinder: 2.36m dots, 0.7x mag OLED
Memory card: 1x SD/SDHC/SDXC UHS-II
LCD: 3-inch vari-angle touchscreen, 1.03m dots
Max burst: 10fps with AE & AF, 1000+ jpegs, 44 raw
Connectivity: Wi-Fi, Bluetooth
Size (W x D x H): 124 x 63.4 x 71.1mm (approx)
Weight: 429g (body only)



Opening the box containing the new Sony A7C II is a real déjà vu moment – only a few weeks have passed since I unwrapped the brand new Sony A6700 camera.

The A7C II has a similar design to that camera, except with a full-frame sensor.

The A7C was released two years ago as a compact form of the Sony A7 III and was meant to be Sony's new champion for content creators who wanted the most compact camera possible that was both easy to travel with and would fit into cages and rigs while offering full-frame professional quality.

Since then, Sony has gone hard into its ZV range of cameras which aims to court more video-centric content creators. For some time, those who cared more about stills were left out in the cold. Although in quick succession, Sony has answered these calls with updates to not only its top APS-C camera with the new Sony A6700 but now with the A7C II for full-frame enthusiasts.

Sony seems to be on a mission to fill up every conceivable version of a camera possible but the A7C II is now the most advanced compact 'photography' full-frame camera in Sony's lineup. The A7C II has seen some welcome bumps in specs to the previous version, although these come at a significant increase in price. The A7C II costs more at launch than the A7C for the body alone, and the A7C can be picked up for a lot less than that today. So what exactly are you getting for all this extra money?

Key features

Powered by a 33MP BSI Exmor R sensor, coupled with the robust Bionz XR processor and AI chip, the A7C II accelerates image processing by up to eight times compared with its predecessor. This translates to a swift 10fps continuous autofocus shooting rate, with a buffer capacity to store over 1000 jpegs or 44 raw files. Its ISO range also covers from 100 to 51,200, which is expandable up to 102,400.

Sony A7C II Mirrorless



4

The electronic viewfinder has 2.36 million OLED dots and 0.7x magnification.

7

There's an SD UHS-II slot, headphone, microphone, HDMI and USB-C ports.

5

The 3-inch touchscreen offers Sony's improved touch experience.

8

Paired with larger lenses, the camera becomes unwieldy to use handheld.

6

There is a new function button at the top that can be customised to suit you.

9

Dials for photo, video and S&Q modes on the top have been reworked.



Gareth Bevan

The camera has all the latest autofocus algorithms for subject recognition. When stalking birds around the park, the A7C II managed to nail the focus on the eyes.

changing settings – the other changes are neat, but won't fundamentally change how you use the camera. Still, due to the compactness of the camera, I found it wasn't as fluid to move the dials while gripping onto the camera as an SLR-style body with a deeper grip.

The dials have a pleasing click to them, with good resistance, it's not easy to accidentally change settings by brushing past the dials. The A7C II maintains the vari-angle touchscreen from the first model, although this time offers Sony's new and improved interface, which does make navigating basic settings quicker and easier than before. Sony isn't my favourite camera interface, but it is great to see it striving to improve. →

The A7C II also has a beefed-up video performance, capturing 4K 60p footage and offering 4K 30p with oversampling, and Full HD video at 120p. Advanced options include 10-bit 4:2:2, S-Cinetone, S-Log and a 7-stop in-body stabilisation system. Additional features cater to a range of creative needs, such as Auto Framing, in-camera LUTs, soft skin rendering, focus breathing correction and four-channel audio recording.

The body redesign prioritises some ergonomic improvements, with a new front dial and an extra custom button, reminiscent of the design introduced with the APS-C Sony A6700. The

electronic viewfinder retains its 2.36 million OLED dots but with an increased 0.7x magnification while refining low-light focusing capabilities to -4.0EV.

The 3.0-inch 1.03 million dot touchscreen incorporates a revamped interface, offering Sony's new and improved touch experience. The A7C II features a single SD UHS-II slot, positioned beside HDMI, headphone, microphone and USB-C ports.

Build and handling

The A7C II closely follows the design from the previous model as well as the small improvements Sony made for the A6700. The camera looks good in all black, though the black and silver version still feels like an attempt to appeal to 'retro' fans. The appearance is a little boxy and uninspiring, and the A7C II looks practical but not desirable.

There are some small ergonomic improvements from the earlier model, with Sony adding a dial to the front of the grip of the camera, a new custom function button up top and a small reworking of the dials on the top of the camera for switching between photo, video and S&Q modes. The front dial is useful if that's your preferred location for



The Sony A7C II is also available in silver and black, although it feels like an attempt to apply a retro look to a modern camera.

Mirrorless Sony A7C II



Gareth Bevan

The dynamic range on the camera is excellent in raw files. However, Sony seems to allow the highlights to blow out in jpegs, especially in bright areas of the sky.

Otherwise, the camera feels much the same as the previous version. The A7C II is easy to use with smaller lenses, although if paired with larger G Master lenses, as its full-frame sensor suggests you should, the camera quickly becomes unwieldy and hard to use handheld. It again raises the question of who this camera is intended for. I tested this camera with the otherwise exceptional Sony FE 16-35mm f/2.8 GM II lens,

but on the A7C II, it was awkward to use when shooting on the streets.

Performance

Sony has recently made improvements to its colour rendition and it shows on the A7C II. Image performance is excellent and, while each manufacturer has a different twist on its colour science, the colours from the Sony A7C II are accurate, especially with skin tones.

There were some issues when shooting, though. At times, the white balance on the camera was inconsistent when shooting multiple photos of the same subject with the same settings. It wasn't enough to be truly troubling, but I had to edit the white balance on a few images.

The dynamic range on the camera is excellent in raw files and I could pull back the highlights to reveal more detail. However, in jpegs, Sony seems to allow the highlights to blow out. Where the sky was especially bright, in the jpeg, the clouds were glowing, but in the raw image, I could easily recover the details.

As we have come to expect from Sony, autofocus is exceptional and the Bionz XR and AI chip continue to do it proud. The camera has all the latest autofocus algorithms for subject recognition and tracking, including human bodies, heads and eyes as well as animals and vehicles, which all work well. When stalking birds around the park, the A7C II perfectly nailed the focus on the eyes. When the bird moved its head rapidly, focus was immediately locked back on.

For images, the in-body stabilisation works well, allowing me to shoot a few



Canon EOS R6 Mark II
£2,779/\$3,599
 Packs an obscene amount of firepower, with 24.2MP stills at a startling 40fps, plus updated autofocus detection for tracking trains, planes and horses.
 Reviewed: issue 264



Lumix S5 II
£1,999/\$1,997
 Packing a 24.2MP sensor, the S5 II can capture rich stills at up to 30fps in E-Shutter mode and offers unbeatable stabilisation.
 Reviewed: issue 267



Nikon Z 6II
£2,079/\$1,997
 With a 24.5MP sensor, the Z 6II delivers superb quality for stills and 4K video, and is a brilliant all-rounder, too.
 Reviewed: issue 237



Sony A7C II **Mirrorless**



Gareth Bevan

Occasionally, the white balance was inconsistent when shooting multiple photos of the same subject with the same settings. It was simple enough to correct in post-processing software.



Gareth Bevan

Sony has made improvements to colour and the image performance is excellent. While each manufacturer has its own individual twist, colours on the A7C II are accurate and natural.

stops lower and still get usable images. A lot of Sony's own lenses don't come with optical stabilisation, which means that other systems that offer it can still get a few more stops lower in shutter speed, although using third-party lenses might help if you often shoot in low light.

Sony hasn't changed its video formula for the A7C II. That's no bad thing as Sony's video is among the best you can get on a camera at this price. Video in 4K is excellent quality straight out of the camera, with rich colour and fantastic dynamic range that pulls in all the details from the highs and lows without any post-production work.

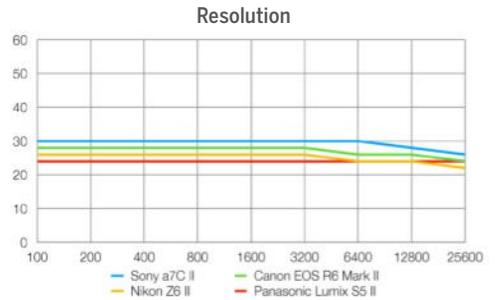
If you do want to get in-depth with editing your videos, then the A7C II has S-Log, and S-Cinetone or can use

in-camera LUTs, all of which will give you varying levels of control over your final footage. The Sony A7C II also has four-channel audio recording for more professional levels of audio editing.

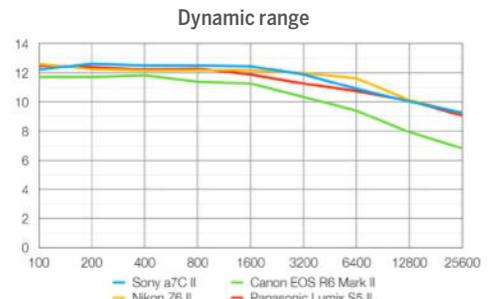
The in-body image stabilisation can account for a certain level of 'jitters', although it does struggle when it comes to more dynamic movement, which is standard for IBIS. However, the active image stabilisation helps counter shake on more rigorous movements, although with a slight crop. You can also use post-production to digitally stabilise your image, but I prefer doing it in-camera so that I can see the framing of my shots and make any adjustments on the spot.

Gareth Bevan

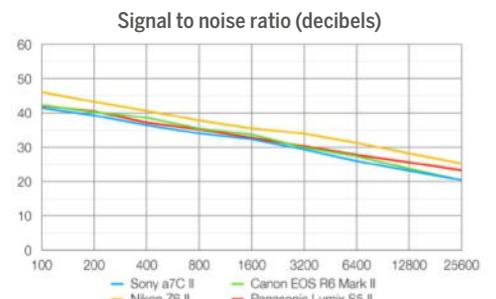
Lab tests



The A7C II's 33MP sensor is the most pixel-packed of the bunch, so it makes sense that the Sony comes out on top in our resolution test. It resolves more fine detail than the other three 24MP cameras.



The A7C II captures good dynamic range, almost equalling the Nikon and Panasonic cameras on test throughout our tested sensitivity range.



The A7C II crams 33MP onto the same sensor area as the other cameras fit 24MP, so the Sony's pixels are smaller, leaving them susceptible to image noise. However, it's impressive that the tests were so close.

Digital Camera verdict

4.0 ★★★★★ Excellent

Features	Build & handling	Performance	Value

The A7C II takes parts from other Sony cameras and is a step up from the original version, with some improvements in autofocus and a bump in resolution to 33MP (from 24.2MP). If you're a content creator who wants a small and compact camera but one that's packed with pro features, this is one of your best bets. Like other new Sony cameras, the A7C II features top-notch video skills but also has a rangefinder-style EVF and photo-centric features. But although Sony has tweaked the camera's body, it's still tricky to handle, especially with bigger lenses.

Tilt-shift lens Fujinon GF 30mm F5.6 T/S



Fujinon GF 30mm F5.6 T/S

£3,899/\$3,999

Brings full tilt and shift functions to Fujifilm's medium-format GFX system

www.fujifilm.com

I love that tilt-shift lenses enable me to do things in-camera that are difficult or impossible to replicate during editing without some serious compromises. This Fujinon GF 30mm F5.6 T/S is one of the best tilt-shift lenses on the market right now, and arguably the best of all time. It will also go down in the history of top Fujinon GF lenses, full stop. So what exactly is a tilt-shift lens? In essence, it has a moveable front section that allows you to tilt the optical path in relation to the camera, or to shift it up and down. The tilt function changes the plane of focus, effectively allowing you to alter the depth of field irrespective of the aperture setting. That can be useful in landscape photography where you want everything sharp from a close distance away to infinity. At the other end of the scale, you can create a shallow depth of field for a 'toy village' effect.

For architectural photographers, the shift function comes to the fore. With this, you can keep your camera level and 'shift' the area of a scene captured in the image. The big advantage is that it allows you to shoot tall buildings without pointing your camera upwards, so vertical walls stay upright instead of leaning inwards at the top.

This is one of Fujifilm's first pair of 'GF' tilt-shift lenses for its medium-format GFX camera system. Thanks to the focal length multiplier (or rather the opposite), the 30mm lens has an 'effective' focal length of 24mm in full-frame terms, therefore giving a wider field of view than you might expect. The sibling new lens is the Fujinon GF 110mm F5.6 T/S Macro, with an equivalent viewing

1 Movement ranges from +/-15mm of shift and up to +/-8.5° of tilt.

2 Calibrated scales are marked in one-degree and 1mm increments.

3 A locking/release lever allows the lens to be rotated on its mount.



This is one of Fujifilm's first pair of 'GF' tilt-shift lenses for its medium-format GFX camera system.



The lens has a moveable front section that allows you to tilt the optical path or shift it up and down.

angle of using approximately a 90mm lens on a full-frame camera and adding a 0.5x macro magnification factor.

Build & handling

Fully functional tilt-shift lenses can be complex beasts, compared with one-trick lenses that are only capable of either tilt or shift, but not both. Even then, some tilt-shift lenses can only enable shift in one axis and tilt in the other. This Fujinon lens gives you a full range of movement and full creative freedom. The oversized image circle enables a generous +/-15mm of shift and up to +/-8.5° of tilt. The tilt/shift function can also be rotated through 90° with a 45° click-step along the way. You can also rotate the lens on its mount through 90° clockwise or counter-clockwise in 30° click step increments. The net result is that you can employ either tilt or shift functions in any orientation you want.

For tilt and shift adjustments, there are the usual fixing screws to keep everything locked off and the typical adjustment knobs. The tilt function also comes with a sliding locking switch. For a measured approach, tilt and shift both have calibrated scales marked on the lens in 1° and 1mm increments respectively. What's more unusual is that the physical parameters of adjustment can be stored in the EXIF data of image files for reference.

As with other tilt-shift lenses, autofocus is impossible so you have to focus manually. However, light metering is automatic so you aren't limited to manual exposure mode. The optical path is of high quality, as is befitting of such an expensive lens, and includes three aspherical elements, two ED (Extra-low Dispersion) elements and one Super ED element.

Tilt-shift lens

Specifications

Mount: Fujifilm GF
Medium-format: Yes
Lens construction: 16 elements in 11 groups
Angle of view: 84.7°
Autofocus: No
Max aperture: f/5.6
Min aperture: f/32
Diaphragm blades: 9
Min focus distance: 0.3m
Max magnification: 0.21x
Filter size: 105mm (adapter ring)
Dimensions (W x D): 139 x 87mm
Weight: 1,340g



Thanks to the focal length multiplier, the 30mm lens has an 'effective' focal length of 24mm in full-frame terms, giving a wider field of view than you might expect. This is useful for architecture and interior images.

Front to back, there's a total of 16 elements arranged in 11 groups.

Accessories that come bundled with the lens include a hood with an adapter ring, enabling the use of oversized 105mm screw-in filters. There's also a detachable tripod collar. This not only enables a better balance, especially when shooting in portrait orientation but also helps to keep consistent framing when adjusting tilt and shift for capturing multiple shots that you want to stitch together further down the line. When in use, the tripod collar keeps the front section of the lens fixed in place, while the rear section and attached camera body move around when making tilt-shift adjustments.

Performance

When you're messing around with tilt and shift, there's often some compromise in terms of image quality. I was really impressed that the Fujinon GF 30mm F5.6 T/S retains scintillating levels of sharpness and clarity even at the full extents of its tilt and shift ranges. Naturally, the 'in-focus' area can be small when using tilt for minimum depth of field, but manual focus puts it where you want it. What's more, there's little vignetting even when taking tilt and shift to the max. The overall image quality is simply spectacular.

If you generally only use autofocus, super-precise manual focusing can be a little tricky, even when using the 'focus peaking' facility or other manual focus aids of the host camera body. And with it being a manual-focus lens, I often found it best to use the magnified preview facility of the Fujifilm GFX 100 II, with which I tested the lens, and to check the results with magnification in playback mode.

Matthew Richards



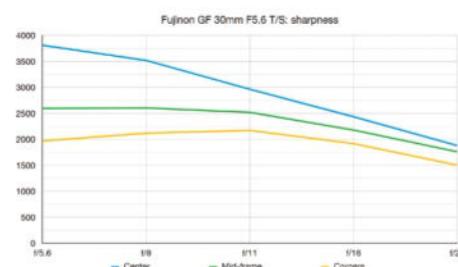
With tilt-shift lenses, there is often compromise in image quality. But the Fujinon GF 30mm F5.6 T/S retains scintillating levels of sharpness and clarity.



With tilt-shift lenses, autofocus is impossible so you have to focus manually. But light metering is automatic so you aren't limited to manual exposure.



The advantage of tilt-shift is that you can shoot tall buildings without pointing your camera up. Vertical walls stay upright instead of leaning inwards.



Sharpness

Sharpness is spectacular in the central region of the frame and remains excellent right out to the edges and corners. More remarkably, superb levels of sharpness are maintained even when pushing tilt or shift to the max.

Fringing

0.43

There's extremely little colour fringing to be seen. In fact it's barely perceptible at all, even out at the edges and corners of the image frame.

Distortion

-0.15

It's not technically a 'zero distortion' lens but with only the slightest hint of barrel, it comes as close as makes no difference in practice.

Verdict

5.0 ★★★★★ A best in-class product



Like any tilt-shift lens that offers a full range of functions in any orientation, the Fujinon GF 30mm F5.6 T/S isn't entirely straightforward to use. Despite this, the learning curve isn't steep and the rewards are rich. From correcting perspective to altering the depth of field, the lens has plenty of scope, while image quality remains scintillating even at the extremes of tilt and shift movements. Ultimately, it's the best wide-angle tilt-shift lens I've used, even if it does come with a hefty price tag.

Zoom lens Lumix S 28-200mm f/4-7.1 Macro OIS



Lumix S 28-200mm f/4-7.1 Macro OIS

£899/\$898

Covers all bases and makes the case for being the only lens you need on the go

www.panasonic.com

Almost every camera system has its own compact wide-tele superzoom lens, however, despite a couple of third-party L-Mount options filling this gap, the Lumix S range had missed out. Until now, that is – Panasonic has decided it's time to offer its own first-party solution with the Lumix S 28-200mm f/4-7.1 Macro OIS. Never a company to do things by halves, this is also the world's smallest and lightest 7x zoom lens for full-frame cameras. With wide to tele focal lengths covered in one package, these lenses allow photographers to travel light, so are useful if you don't have much space in your bag – or don't like frequently changing lenses.

With some recent impressively compact optics, Panasonic sees this as an opportunity to deliver Lumix shooters a do-it-all lens. However, the reduction in size and weight comes at the cost of some focal length range, with rival systems offering the 24-240mm range – albeit in physically larger lenses. But has Panasonic done enough to make the case that small size trumps bigger range?

Build & handling

Panasonic is on a hot streak for shrinking its lenses, with the Lumix S 100mm macro lens being a marvel of engineering to achieve the compact size and weight for a full-frame 1:1 macro lens. But Panasonic isn't using the autofocus motor to achieve that reduction in the 100mm in the 28-200mm, instead relying on its experience of making smaller Micro Four Thirds lenses.



Experience of Micro Four Thirds lenses has helped Panasonic achieve a compact size and light weight.

At a compacted size of 93.4mm and 413g total weight, the 28-200mm is impressively small and lightweight for its focal length. Compared with rival lenses from Canon and Sony, Panasonic's lens has a saving of around 300g and 20cm when collapsed, so there is a noticeable difference – although those lenses do stretch to 240mm.

The lens design follows Panasonic's other S lenses and blends in perfectly with the existing collection. With the 28-200mm, the overall lens size is only slightly taller than the Lumix S 20-60mm lens, which helps with balancing on gimbals and tripods for video. They also use the same 67mm filter thread, so you can spend less on buying duplicate filters or using bulky adapter rings.

On the lens, there are the usual two switches for switching between auto and manual focus and turning the optical image stabilisation on or off in the lens itself. Otherwise, there are no custom function buttons on the lens, contrary to current trends. The lens comes with a petal design hood in the box to keep out stray flares and protect the front of the lens.

Performance

Image quality throughout the zoom range is good, with sharpness and contrast on the Lumix S5 IIX testing camera being solid at every focal length. The Lumix S 28-200mm doesn't quite rival the quality of a great prime lens or professional zoom lens but for a 7x zoom lens in its price and weight brackets, it exceeds expectations.

I'm usually a fan of prime lenses, but the size and quality of this lens won me over. I would consider packing it alongside a single short prime for versatility when travelling. Sharpness in the centre is good at every focal length, with only the edges showing some softness. It's better in the wide- to mid-tele range, with the lens showing a little more weakness in the corners at full stretch. There is also some purple fringing around branches and areas of high contrast when zoomed in.

1 The lens comes with a petal design hood included in the box.

2 For its focal length, the lens is impressively small and lightweight.

3 There are switches for auto and manual focus and image stabilisation.



Taking photos of fast-moving subjects like birds means that slower shutter speeds leave you susceptible to subject movement blur. However, that's par for the course with superzoom lenses of this size and price.

The lens uses Panasonic's latest Dual I.S. 2, combining optical image stabilisation with in-body image stabilisation for stand-out results. At 200mm, even in low light, my images were steady. The only downside is that due to the modest aperture value of f/7.1 at the long end of the lens, the shutter speed often has to be pushed higher than is ideal. Taking photos of swift subjects, such as birds, means that slower shutter speeds leave you more susceptible to subject movement blur. However, that is par for the course with superzoom lenses of this size and cost, so I can't hold it against this lens too much. Autofocus is snappy, too, pulling from near to far in a flash, although occasionally when focusing closely, there was a little hunting for the focal point. The focus system is incredibly quiet, though.

One aspect that feels unnecessary is the half-size (0.5x) macro. While the 3cm from the front of the lens (or 14cm for the sensor) distance is impressive, it is only effective at the widest 28mm focal length – far from an ideal length for macro. Macro photos were sharp, but the perspective was a little strange depending on the angle of the subject.

Panasonic is the king of video right now, and this lens just adds to its reputation. The quality of video is good across the focal length, but at 200mm, it stands out for its sheer quality as well as the outstanding levels of stabilisation that Panasonic manages to achieve.

I was shooting handheld with the Lumix S5 IIX, which has incredible in-body image stabilisation, but combined with the Dual I.S. 2 stabilisation I got really smooth footage with the lens fully extended. And the results look incredible straight out of the camera. **Gareth Bevan**



28mm



70mm



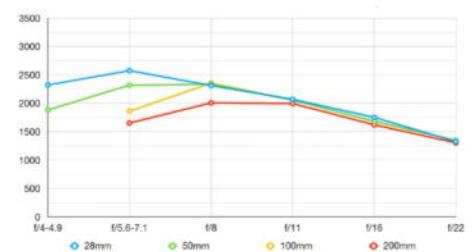
200mm

Image quality is good, with solid sharpness and contrast throughout the zoom range. For a 7x zoom lens in this price bracket, it exceeds expectations.

Zoom lens

Specifications

Mount: L-Mount
Full-frame: Yes
Lens construction: 17 elements in 13 groups
Autofocus: Yes
Image stabilisation: Dual I.S. 2
Max aperture: f/4
Min aperture: f/32
Diaphragm blades: 9
Min focus distance: 0.14m/0.46ft (at 28mm)
Max magnification: 0.5x (at 28mm)
Filter size: 67mm
Size (L x D): 93.4 x 77.3mm
Weight: 413g



Sharpness

The Panasonic 28-200mm delivers respectable centre sharpness at all focal lengths, with the short end of the zoom range being particularly impressive. Corner sharpness is average throughout the focal range, but it's by no means a bad performance.

Fringing Short 0.33 Long 0.89

Colour fringing is well controlled and of a low order, especially at shorter focal lengths. It starts to become apparent at maximum zoom, but just barely. And this is with in-camera aberration correction disabled.

Distortion Short -2.89 Long 2.01

There's visible barrel distortion at 28mm, which transitions to pincushion distortion at 50mm and beyond. We've seen greater distortion from lenses with a fraction of the focal range of the Lumix S 28-200mm, plus you can enable distortion correction.

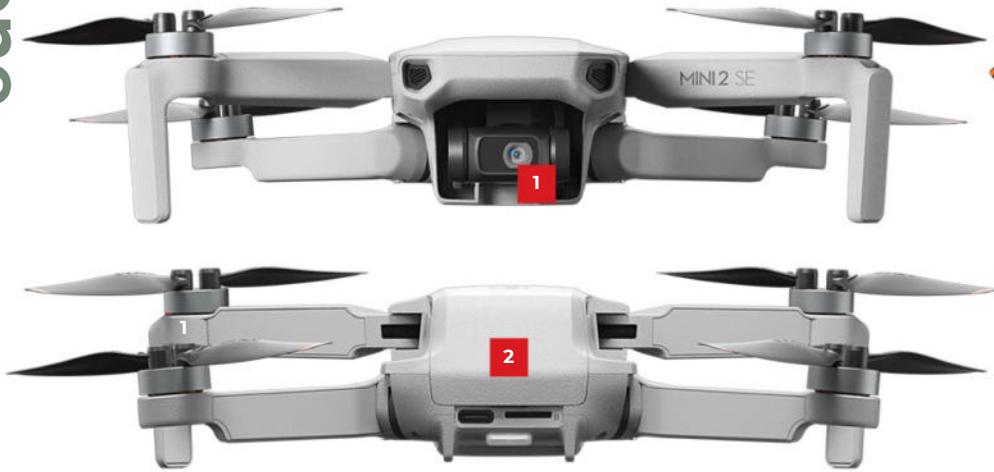
Verdict

4.5 ★★★★★ Outstanding



The Lumix S 28-200mm f/4-7.1 OIS is a compact and lightweight lens that covers the most needed focal lengths from wide to tele in a handy package. Its impressive compact size and light weight put it ahead of the competition for convenience, although the focal length is shorter than other brands. Image quality is good throughout the zoom range and images were clear with good contrast. The Dual I.S. works wonders for steady shooting in stills, but also in video, where results were impressive.

Camera drone DJI Mini 2 SE



DJI Mini 2 SE

£269/\$299

The most affordable drone in the DJI range can still pull off some impressive pro tricks

www.dji.com

1

Though the drone's design is based on the Mini 2, the camera on the SE version doesn't record 4K video.

2

On the back of the drone, you will find the slot for the MicroSD card. There's also a flap that covers the battery.

3

The lightweight body means that the drone falls under the 250g 'ultralight' weight limit set by the CAA and FAA.

4

DJI hasn't changed its basic drone shape since the first folding Mavic – but the SE is all about the core functionality.

This drone, the successor to the Mini SE, has changed so little that it was possible to update the original review simply highlighting the one significant difference – the all-new controller. That's not to say that this drone isn't a high-tech marvel, but it does afford you an advantage in that you can compare the Mini 2 SE against other drones released more recently.

This drone category is competitive for two reasons; the drone is under the 'ultralight' weight limit set by the authorities CAA and FAA of 250g (about 8.8oz). As technology has improved, this category has become dominant and the SE series is DJI's cheapest option.

Key features

For this SE version, DJI hasn't cut the three-axis gimbal, the feature that steadies the camera as the drone flies, but instead has built this drone on what was originally the Mini 2 (which had a 4K camera). The question is whether the trimming at the corners of the camera's spec, factored against the software and radio improvements, keeps the Mini 2 SE at the front of the competitive budget drone pack.

Build and handling

The Mini 2 SE's design has a bit of history; specifically from the Mini SE and Mini 2 before that. They're both great folding drones when it comes to the design of the airframe (the drone). Apart from a few small refinements, DJI hasn't changed the basic folding drone shape since the first folding Mavic – and because this drone isn't about new features but core functionality, it's not concerning that little is new.

However, some aspects of the bundle have changed. DJI now includes a moulded rubber strap to protect the drone when placed in the chic shoulder bag that is part of the 'Fly More' bundle, which also includes two additional batteries and a charging hub. The remote control on the craft's predecessor had started to feel a little dated,



5

The Mini SE's remote control felt dated. Its replacement is more robust and has a better battery life.

not least because it was small and didn't have a great battery life. Since DJI standardised the rest of its range around the RC-N1 design (with some exceptions for pro models), the older model looked like an outlier. Not only is the replacement more robust but it has a few advantages, including a better battery life and a USB-C charging socket. The power also keeps your phone topped up while you're using it – handy if you need the screen on high brightness.

The pull-out antenna is not only sturdier than the hinged arms of the older model but also conceals a recess for your chosen phone connector cable. You may think wireless is better but a cable provides power and latency-free connection for a more reliable phone-as-monitor arrangement and is the choice of more-premium drones.

There are some gripes, though; the phone's buttons are likely to get pressed by the rubber grips for the handset unless it's slightly off-angle. The aesthetics are the main issue there and it has no problem holding my iPhone Pro Max with a case.

The back of the drone has a place for the MicroSD card and a flap for the battery. The base has three vents, sensors that detect how close the surface is to assist with the automatic landing, and a power switch. The four pinprick lights serve as a battery strength meter so the drone can also act as



In flight, the DJI Mini 2 SE is every bit as confident as its predecessors. And, considering that this device offers a limited weight against the wind, the Mini 2 SE displays a surprising level of capability.



The drone easily reaches the limits of its range with no loss of signal, even when testing near 'noisy' urban areas. Like all folding drones, you'll need a flat surface from which to take off, such as a landing pad.

a battery tester – unlike some DJI drones, the batteries don't have the tester built-in, and without the Fly More kit, the battery has to be plugged into the drone to charge it. Like all folding drones, you'll need a flat surface to take off from so I'd recommend carrying a landing pad. Operation is straightforward and the drone doesn't insist on re-calibrating every time like some bargain drones. DJI has included the Cine/Normal/Sport control, which lets you decide the speed limit for the drone – useful for capturing smooth video or chasing cars. I found hard turns in Sport were tricky for the gimbal, while I also felt that the Cine mode could have been a little slower.

Performance

In flight, the Mini 2 SE is as confident as its predecessors, which is a surprising level of capability given the limited weight the device offers against the wind. It also manages to pass on this confidence through fresh

software with a slick built-in tutorial, which is a real help for first-time pilots. The drone easily reaches the limits of its range with no loss of signal, even when testing near 'noisy' urban areas. The QuickShots feature also shows some polish, with the software able to identify the subject and then track them using one of the predefined paths to create a shareable clip. This process is slick and the way the drone can identify humans on screen is impressive, even for a long-time operator. I was impressed with how smoothly the drone performed its mission and returned. The only irritation I felt during flying was the landing – as the drone got near the pad I found it difficult to nudge the craft towards the centre of my small landing pad without it seeming to exaggerate the movement. It landed within a couple of feet of the take-off point automatically, but I'd still like the ability to guide the drone in the final part of its automated descent. **Adam Juniper**

Camera drone

Specifications

- Camera:** 24mm EFL, f/2.8
- Image sensor:** 1/2.3-inch, 12MP
- Still image size:** 4000 x 3000px
- ISO:** 100-3200 (video & photo)
- Video:** 2.7K (2720 x 1530) at 30fps/1080P at 60fps
- Colour modes:** Normal
- Radio/Range:** 10km
- Max speed:** 16 m/s (35.8mph)
- Flight time:** 31 min (DJI lab); 19 min (as tested; 15 per cent remaining)
- Weight:** 246g
- Dimensions (LxWxH):** 138 x 81 x 58mm
- DJI RC-N1 controller weight:** 387g



The way the drone identifies humans on screen and performs return missions is impressively smooth.

Verdict

4.5 Outstanding



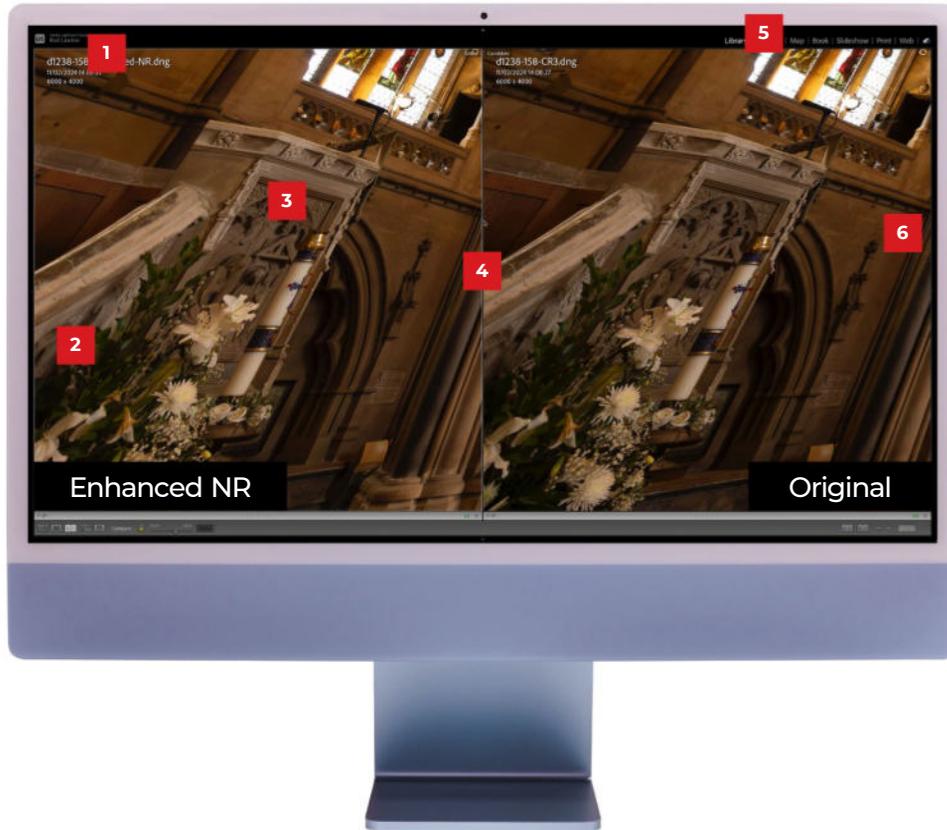
The Mini 2 SE still offers excellent value for money; in many respects, it feels like a premium drone and I'd be willing to bet that a good number of people would see footage from this drone and not be able to separate it from its more expensive cousins. It's frustrating not to get 4K, especially when it is now available from at least one other budget drone with a working three-axis gimbal and though I doubt I'll ever get to the claimed 31-minute battery time, the sheer quality of execution in the features DJI have delivered is still unmatched. On top of that, even now, when most videos are shared on tiny screens and viewed that way, the case for 4K should be left to more serious creators, while others enjoy quicker transfer times. Perhaps the fun could be served with a few more QuickShots and I'd like the gimbal to stand up better in the wind but, that aside, the DJI Mini 2 SE is unarguably brilliant value.

Software DxO PureRAW 4

1 PureRAW 4 identifies the camera and lens profile pairing it needs and downloads it.

2 'Linear DNG' files are generated with DxO's noise reduction and lens correction...

3 ... but with the extended colour depth, dynamic range and editability of regular raw files.



4 PureRAW 4 can be used as a batch-processing tool to convert raw files into Linear DNGs...

5 ...and can also generate jpeg or TIFF images for photos that don't require further editing.

6 It's also a Lightroom Classic plug-in with images reimported into your catalogue.

DxO PureRAW 4

£109/\$119 (new); £69/\$79 (upgrade)

Extracts amazing quality from even mediocre camera gear

System requirements

Mac: Any CPU (Intel Core with six cores or higher, or Apple silicon recommended). 8GB of RAM (16GB recommended). 4GB or more of available hard-disk space. macOS 13 (Ventura) and above

Windows: Any CPU supporting SSE 4.1 (Intel Core with eight cores or higher recommended). 8GB of RAM (16GB recommended). 4GB or more of available hard-disk space. Microsoft Windows 10 version 21H2 (64-bit)

If you use Lightroom, Capture One or other software to view and process your raw files, you'll have formed a good idea of the quality you can get from your images. Use DxO PureRAW 4, though, and you might just have to change your mind. Almost all image editing tools can now process raw files, using the software's proprietary 'demaicing' process to turn the red, green and blue sensor data into full-colour images. However, some do raw processing better than others, and even the best photo editing software has weaknesses – sometimes that's the raw processing quality and noise handling.

Key features

Normally, this is somewhat academic because you're at the mercy of your photo editor's own raw processing but PureRAW 4 changes all that. It generates part-processed 'Linear DNG' files, with

all of DxO's demosaicing, DeepPRIME noise reduction and lens corrections baked in, but still with the extended colour depth, dynamic range and editability of regular raw files.

PureRAW 4 can be used as a standalone batch-processing tool for converting folders of raw files into processed Linear DNGs. It can also generate regular jpeg or TIFF images for photos that don't require further editing. But it can also be used as an export plug-in with Lightroom Classic, so that if you decide a raw file in Lightroom needs the DxO treatment, you can export it to PureRAW 4 for processing, after which it's automatically re-imported back into your Lightroom catalogue. If you've already done some editing on the original, these edits are automatically applied to the imported Linear DNG.

Effectively, PureRAW 4 can be used as a standalone batch processing tool at the start of your workflow, or from within Lightroom on an image-by-image basis.



Rod Lawton

PureRAW 4 has a new Process with Preview mode, which shows a split-screen preview – but you have to update the preview as you move around the image.

Design and interface

For an application that does so much, PureRAW 4 is simple to use. In both standalone and Lightroom plug-in modes, it automatically identifies the camera and lens profile pairing it needs and downloads it if it's not installed. From there, just choose your processing parameters and output options and start processing.

In the processing settings, you will find some of PureRAW 4's new features. For a start, it has a new DeepPRIME XD2 process which DxO says gives even better edge correction with fewer artifacts. Fujifilm X-Trans sensors are not yet supported; however, with these cameras, it will fall back on its older (but still effective) DeepPRIME XD process.

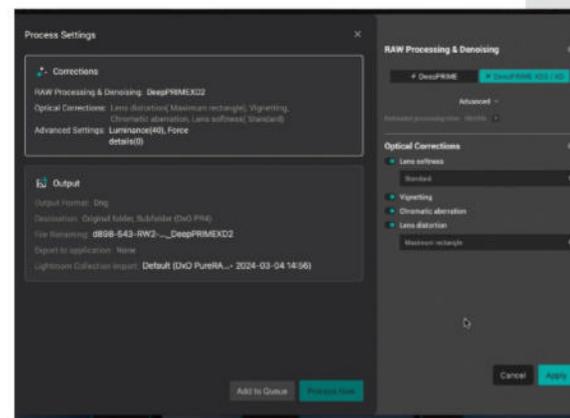
DeepPRIME XD2 now has additional controls, including a Luminance slider for further noise control and a Force Details slider for controlling the amount of detail recovery. PureRAW 4 is so effective at its default settings, however, that you might not need these at all.

Below this, there are switches for enabling Lens Softness correction, Vignetting, Chromatic Aberration and Lens Distortion correction – only disable these if you have issues with a specific camera and lens combination.

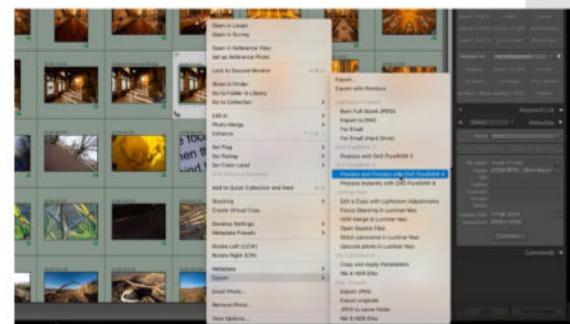
Output options are straightforward. You can choose the file format to export in – DNG for Linear DNG files – and where you want the processed images to be stored. New in PureRAW 4 is a powerful token-based renaming system where you can choose how your processed files are named.

The regular batch processing workflow doesn't give you an idea of what your processed images will look like, but PureRAW 4 has a new Process with Preview mode which shows a split-screen preview of your image – though you have to update the preview manually as you move around the image. It's also hard to see much difference when changing the processing settings.

The Lightroom Classic plug-in is just as straightforward. It takes no longer to

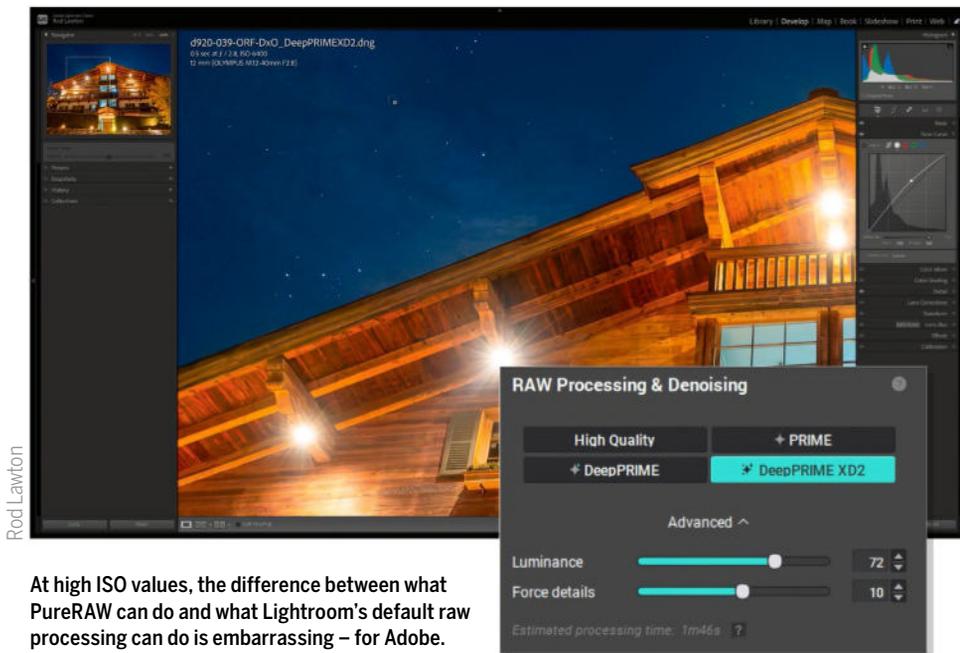


In the processing settings, you will find PureRAW 4's new features. You can choose the export file format and where you want the processed file to go.



Effectively, PureRAW 4 can be used as a standalone batch processing tool at the start of your workflow, or within Lightroom on an image-by-image basis.

“PureRAW 4's ability to produce clean, sharp results at high ISOs is uncanny – you have to check it's the same image”



Rod Lawton

At high ISO values, the difference between what PureRAW can do and what Lightroom's default raw processing can do is embarrassing – for Adobe.

you will notice, but while Lightroom Enhance is built into Lightroom and PureRAW 4 is a paid-for extra, it delivers a step up in quality.

PureRAW 4 is not quite flawless. Its 'Standard' detail enhancement can be a bit too 'crunchy' for decent cameras and lenses, and the 'Soft' option looks more natural. It can't fully correct poor-quality lenses either – its strength is in enhancing the edge detail of 'average' lenses. It doesn't simply apply a global sharpening effect but uses tailored edge correction calibrated for each lens, focal length and aperture, using profiles developed in DxO's labs.

There is a processing overhead. The DeepPRIME XD2 process can't be displayed in real time and can only be seen in exported files. DxO says that the latest version is faster than ever, helped by GPU acceleration. It typically took 8-12 seconds to process a 24MP raw file on my Mac Studio, while the older DeepPRIME XD process took around 50 per cent longer. In tests, I found it a little faster than Lightroom Enhance. Both tools, however, produce large DNG files – the original raw data is demosaiced during this process so the new files have full colour data for each pixel rather than the red, green or blue raw data. It's no worse than saving your images as 16-bit TIFFs, though, and rather more flexible for further editing. **Rod Lawton**

Digital Camera verdict

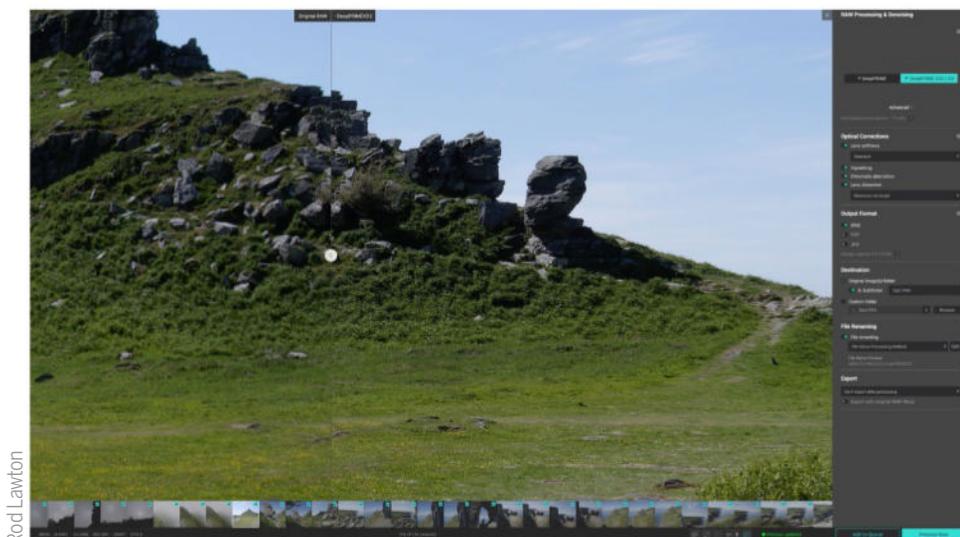
4.5 ★★★★★ Outstanding



PureRAW 4 has an improved workflow and improved DeepPRIME XD2 processing, which are both welcome but perhaps only a small gain for existing users. If you have PureRAW 3 and a Fujifilm X-Trans sensor, you might as well stick with the old software until PureRAW 4 adds X-Trans support to its DeepPRIME XD2 process.

If you already have an older version of PureRAW, you won't need any convincing about its spectacular transformative properties. For new users, there is a 30-day trial which will be more than long enough to see what this software can do. You might not see too much difference with good quality cameras and lenses at low ISOs, but the higher the ISO, the smaller the sensor and the more 'average' the lens, the more spectacular the transformation becomes.

If you've been thinking the performance of your old cameras and lenses just isn't up to scratch any more, don't do anything until you've tried PureRAW 4. DxO's raw processing software could and probably will change your mind about what you think your camera is capable of.



Rod Lawton

The improvements in image quality that you get from using DxO PureRAW4 tend to vary from one camera to another and, with low-ISO shots on the best full-frame cameras, you may not notice much difference.

export an image to PureRAW 4 than it does to use Lightroom's noise-reducing Enhance option, and both produce a processed Linear DNG file that's automatically imported into the catalogue when complete. The results, however, are somewhat different.

Performance

PureRAW 4's ability to produce clean, sharp results at high ISOs is quite uncanny – you're left checking the EXIF data to make sure you're looking at the same image. Improvements in image quality vary from one camera to another and, with low-ISO shots on the best full-frame cameras, you may not see much difference. But as the ISOs go up, and especially with crop sensor

cameras, the difference between what PureRAW can do and what Lightroom's default raw processing can do is embarrassing – for Adobe, at least.

Lightroom isn't great with fine detail and noise. Even at base ISO settings, you can often see a faint patina of noise over even-toned areas and, if you use any kind of sharpening, it quickly becomes prominent. At higher ISO settings, Lightroom seems to struggle and, often, the camera's own jpegs are sharper and smoother. Lightroom's Enhance feature does a remarkable job of reducing noise, but it can't match PureRAW 4's detail enhancement at high ISOs or its improvement in edge sharpness at pretty much any ISO. The better the lens, the less

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Peter van Agtmael
Photographer

After graduating from Yale University, van Agtmael began documenting the United States at war and at home, which he has continued to do for decades.

A mentor in the Arab Documentary Photography Programme, van Agtmael joined Magnum Photos in 2008.

Books he has published include *2nd Tour Hope I Don't Die*, *Disco Night Sept 11*, *Buzzing at the Sill*, *Sorry for the War* and *2020*.

Van Agtmael has received many photography awards, including a Guggenheim Fellowship, the W. Eugene Smith Grant, an ICP Infinity Award, and several World Press Photo awards.

www.magnumphotos.com

Peter van Agtmael

Niall Hampton speaks to the man who has spent the past two decades documenting key events in US history



Magnum Photos member Peter van Agtmael's new book is called *Look at the USA: A Diary of War and Home* and the title describes the book perfectly. Over the past couple of decades, van Agtmael has been chronicling significant events, and the aftermath to them, in the US and overseas, including spells in Iraq and Afghanistan. Almost 200 photographs feature in *Look at the USA*, which can be a difficult read at times, with so many images of war and conflict. But van Agtmael's use of diary entries alongside the images provides some useful context and allows the photographer to zoom out from the pictures to offer a wider view to the reader. Born in the USA but now resident in Paris, van Agtmael spoke to us from the French capital ahead of the book's publication in the UK last month.

Peter van Agtmael/Magnum Photos





Look at the USA spans 2006-2022. Why did you want to put a book together from this period?

It has been 16 years of my life, photographing the consequences of 9/11 – or at least that's how it started. It started with this direct notion of the wars that followed in the wake of this event. But as time went on and I realised my engagement wasn't just a casual one, it became a kind of passionate obsession. In a way, my background was in history more than photography, so I wanted to broaden the lens and broaden the context.

It became an existential question for me, not just what are these wars we're fighting and why are we fighting them, but to begin with, who are we who's fighting them? What is it about our national character that allows us to stumble into these conflicts so recklessly and casually? That reality was very clear early on and only became more clear as time went on.

Your use of a diary is an interesting move – some photo books only include brief captions or little in the way of description. Why did you decide to include a diary to accompany your photographs?

The diary aspect was about the fact that photography in itself is not a narrative medium that's able to easily connect all the dots. What was connecting the dots was me – it was my experience moving through these things. It became a diary because the notion of narrating as a history book, as something authoritative, was impossible. I could only tell my story. And even if it's one grounded in history and more objective realities, it's still just my story. So that became the notion for the book. I wanted it to be both ambitious and sweeping, but not pretending like I was the sole authoritative voice on the subject – far from it. I have many doubts and flaws as a narrator, which I try to express in the book. →

Above: Before an ambush. Miam Poshteh, Helmand, Afghanistan, 2009.



Above: Cup Foods, the store outside which George Floyd was killed, Minneapolis, Minnesota, 2020.

The diary text is engaging, and also offers a lot of context – it really adds to the book.

It felt necessary for me. For a long time, photography has been the form that I feel most pointedly expresses what I'm feeling and experiencing, but it has only ever been one form of doing that and ultimately I'm trying to communicate something that has multiple layers and photography can only really offer you some of those layers. Writing offers another one. I do little things with film here and there and I paint – these are other layers. There's something self-absorbed and probably somewhat narcissistic about being a photographer, but also I've always thought it should be grounded in good, clear thoughtful communication and, to me, words are indispensable for that.

Your route into photography was an interesting one. You were studying history at Yale and then the September 11 attacks happened...

Yes, and I took a photography course because I was interested in journalism. I thought that maybe I wanted to be an academic, a history professor, but it was clear that the research process didn't fit with me very well. And so I thought, 'OK, journalism...

this is a way of seeing history in motion.' So I took a photography course, really just as a means of fulfilling course requirements and because it seemed vaguely connected to journalism. It was one of the few mystical experiences I've had in my life where pretty quickly I had a sense of clarity that I was a photographer and it was what I was supposed to do.

Was it something you could do well straight away?

It wasn't clear for a while that I could do it well, let's put it that way. It took a few years to figure out and to have confidence in being able to do it. It was only a matter of weeks when I became very conscious that my life had changed, though – it had direction and it had focus. I think that's a fair assessment because most of the decisions I was making in the aftermath of taking that first photography course were directed towards being able to take more pictures and pursue a career in photojournalism. And, of course, ignoring all the clear warnings that the business was dying and that it would be a really stupid time for any young person to get into photography.

What are the core elements of a Peter van Agtmael picture – what has to be in a scene to make you lift the camera and press the shutter?

It ranges from very spontaneous to very methodical and everything in between. If I think of the picture on page 327 of the book, taken in Afghanistan in 2022, it's a kid who's collapsed with a pile of eggs and a policeman is helping him. So that's an iPhone picture,

“I soon became very conscious that photography had changed my life – it had direction and it had focus”



Peter van Agtmael/Magnum Photos

incidentally. I was in the Taliban defence ministry and couldn't have a camera, but I could have my phone. And it was one of those things where I walked out, recognised the scene and immediately took a picture because my phone was all I had on me. Then within a second or two, the scene was gone. So that's one of those situations where I wasn't planning on taking any pictures. I needed to get some permission forms from the Taliban but something presented itself and it transmitted immediately from my eyes to my brain to my hand, and I took the picture.

And for the picture on page 148 of the book [*Jennie Taylor choosing a headstone for her husband Brent*], I spent days with Jennie. It was one of those things where I knew that there was a powerful story because this woman had lost her husband [*in Afghanistan*]. She had seven kids and was really open, kind and articulate. So there was this idea that something was going to happen, but you don't know where and when, and you just need to follow the situation until it does.



Peter van Agtmael/Magnum Photos

In Magnum Learn's The Art of Street Photography course, you say that your preferred setup is a full-frame camera with a 28-70mm lens or a 28mm or 35mm prime lens. Is this still what you use?

I'm really weird with cameras. For a while, I only used a Sony RX10, which has a one-inch sensor and a 24-600mm lens, and got obsessed with it and the way it rendered depth of field. Besides these outliers that I get obsessed with for six to nine months before they break or I sell them, or

whatever happens to them, I'd say that a full-frame camera with a 28-70mm kit lens is about right.

Do you prefer shooting with zooms or primes?

I have stopped using primes. I like a lot of depth of field so I don't need wide apertures, and quality at high ISOs is so good now that I'd rather compensate with a higher ISO and not sacrifice depth of field. The quality of a kit lens is pretty impressive, especially when you're pairing it with a 50 or 60MP →

Top: Buried bomb. Miam Poshteh, Helmand, Afghanistan, 2009.

Above: Jennie Taylor choosing a headstone for her husband Brent, who was killed by an Afghan soldier in an insider attack. North Ogden, Utah, 2019.



Above: Night raid. Rawa, Iraq, 2006.

Left: Fleet Week, Arms Fair. Washington DC, 2018.



file. For 99.9 per cent of conceivable uses, it's going to be just fine. Anyhow, I'm also of the belief that, in general, a good picture is just a good picture.

Do you trust any of the semi-automatic modes on your cameras, or do you shoot in manual?

I do everything in Manual mode but with Auto ISO. I'm particular about my shutter speed and about my aperture within a certain framework. I don't usually get hysterical between f/11 and f/13, but I do want to have control over the shutter and the f-stop. With the ISO, as long as I'm mindful of what light I'm working in, which is just instinctual, I can trust the Auto ISO to adapt and then use exposure compensation to adjust for light. And that system works pretty well for me, because I'm basically guaranteed to nail the exposure on everything and raw files have a certain amount of leeway in one direction or another.

When you were photographing the riots at the US Capitol in 2021, did you have a feeling that things would pan out as they did?

It seemed pretty clear to me and 500 of my colleagues – there were so many journalists and photographers there – that there was going to be some amount of chaos and violence. So in the aftermath, when the government's intelligence services said that they didn't see [the riot] coming, how did the 19-year-old doing a bachelor's degree in photojournalism know it was coming but the government's top specialists didn't know?

“This isn't an anti-American book. There's a lot about the country I love but I'm also deeply disturbed by it”



Peter van Agtmael/Magnum Photos

Given the conflicts and wars you've covered, how different was photographing the Covid pandemic?

It was strange for a number of reasons. When I go to places, I'm used to only having to worry about myself. During the pandemic, particularly in the early days, you were worried about everyone – your friends, your family and your parents. I remember when I was going to this funeral home, I'd never been in a situation before where I'd wake up in my apartment and 15 minutes later, I'd be somewhere covered in bodies. It was surreal to be in a familiar environment and be faced with this abject horror. And the funeral home was so strange – I was in one of the weirdest places in New York at the height of the pandemic, when 1,000 people a day were dying, and they had so little space for bodies that you saw them piled up on chairs.

Staying in the US, on page 120 you were driving home from the Kentucky Derby with a friend and came upon the aftermath of a street shooting...

Yeah, I was more concerned than the friend who was in the car with me, who isn't a war photographer or anything like that. He was somehow very unsurprised and untroubled by the whole thing, and I found that to be the most troubling part of all... just the indifference. It's the same with all these school shootings – how many do you need to have to bring in gun control? Apparently, it's an infinite number.

By the way, *Look at the USA* is not an anti-American book, and I think this is something I might have to explain. I feel very fortunate to have been born an



Peter van Agtmael/Magnum Photos

American and to have had the opportunities and all the privileges that have come with that. And even just having the ability to make a book like this, I find remarkable. So there's a lot about the country that I love, but I'm also deeply disturbed by it.

But you're just reflecting America back upon itself through your photographs, aren't you?

Yes, and that's probably why the book is a loose chronology because it was a period when these ideas and these understandings were unfolding; →

Top: Scaling the walls of the US Capitol. Washington, DC, 6 January 2021.

Above: Domino Park, Brooklyn, New York, 2020.

TAP

on this image
to view
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Peter van Agtmael/Magnum Photos



it was my education. It started when I was so young, and now I'm not as young. I was only 20 years old when September 11 happened and that was a formative event as a young man. It was the perfect age to feel a connection to something bigger than yourself. With 9/11, it was so clear that the course of history had changed and I felt that somehow I needed – and had already discovered – photography. I was already interested in photojournalism and I just felt that I somehow needed to be a part of it to contribute something, to do something that had meaning.

This became much bigger than anything I'd ever expected, but I did intend to really dig deep. I was looking at the work of people like Philip Jones Griffiths [*Welsh photojournalist known for his photographs of the Vietnam war*] and seeing what it took to make powerful photographs. It wasn't a casual act as much as an act of love and obsession.

I still find it a little bit staggering that the very same generation that came of age and had their identity and ideology formed by the Vietnam War and its aftermath could be so quick and thoughtless as to

“9/11 changed the course of history and I felt that somehow I needed photography”

launch these invasions and to create the conditions for an unnecessary war, in the case of Iraq. In the case of Afghanistan, they created the conditions for an endless and unwinnable war.

I am a big believer in history and the wisdom and lessons we can learn from it, but it boggles my mind how history is only useful to those who are receptive to it. Arrogance and hubris go a long way to overcoming the lessons of history, that's for sure.

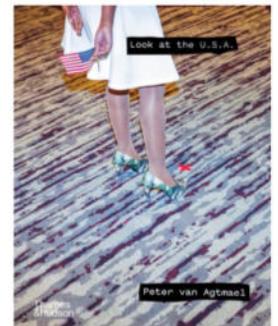
Are you happy with the final version of *Look at the USA*? How many words and pictures did you have to leave out?

A lot of good pictures and a lot of useful words didn't make it in. At some point it became a question of how many pictures you need to tell a story – just because there are another hundred good pictures, will they mean you're telling the story better or are you just kind of repeating yourself? It became an exercise in tight editing and keeping a flow going.

I spent almost a month in a hospital in Baghdad and have a lot of really brutal, powerful pictures but I only put two or three in the book. I went through this a thousand times. I showed the book to 30 people, asking the question: do you make this book with a thousand pictures or make it with less than 200? How many pictures are enough to get the idea? My publisher said we could add more pages, but if we did that, we wouldn't have an accessible price point.

So I had to weigh up all these questions and, of course, there are a few pictures that missed out. But yeah, I'm happy with the book. ●

Above: Taliban guard at a meeting of senior leadership. Kabul, Afghanistan, 2022.



***Look at the USA: A Diary of War and Home* by Peter van Agtmael is published by Thames & Hudson (ISBN: 978-0-50002-702-8) and is on sale now, priced £40/\$60. www.thamesandhudson.com**

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24-70 F4 ZA OSS box	£399
24-105 F4 G OSS box	£599
35 F1.4 ZA OSS box	£599
35 F2.8 box	£299
50 F1.2 box	£1399
50 F1.4 £1199 55 F1.8 box	£399
70-200 F2.8 GMII box	£1799
70-300 F4.5/5.6 G	£799
90 F2.8 macro	£599
100 F2.8 GM OSS box	£899
100-400 F4.5/5.6 OSS D box	£1399
200-600 F5/6.3 box	£1399

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225 Khaki/Tan	£199
335 Khaki/Tan	£269
335 Black/Tan	£269
445 Black/Tan	£299
555 Khaki/Tan	£369
555 Black/Tan	£369

GITZO CF TRIPODS/HEADS USED

GT35411S	£499
GT3542	£499
GT5532S	£499
GT5540LS	£499
G2380 video head box	£229
GH3750QR head	£299
GH3780QR head	£299
GH53805QR head	£299
GS3750 DCR panoramic head	£149

BRONICA, FUJI, HASSELBLAD, MAMIYA, PENTAX ETC. MEDIUM FORMAT USED

BRONICA ETR 645 USED

ETRSI + AEII prism + 75 EI + speed grip + 120 back	£699
ETRSI body	£199
40 F4 PE	£399
40 F4 E	£199
50 F2.8 PE	£299
50 F2.8 E MC	£199
135 F4	£299
150 F3.5 E	£99
180 F4.5 PE	£299
2x extender	£49
ETRSI 120 back RWC late	£99
AEIII prism	£399
AEII prism	£49
Ext tube E14 or E28 each	£49
Speed grip E £99 WLF	£149
Rotary prism E box	£149
Plain prism E box	£149

BRONICA SQ 6x6 USED

SQAI + 80 + WLF + 120 back	£699
SQAI body	£399
SQAI body	£399
40 F4 S	£399
50 F3.5 PS box	£349
110 F4 macro	£299
150 F4 PS	£299
2x converter P5	£149
2x converter S	£99
SQAI waist level finder	£199
SQAI prism late	£399
SQAI 120 back late	£149
SQAI 120 back early	£99
Plain prism S	£199
Polaroid back	£20
WLF	£149
SQA speed grip	£99
Lens hood various	£20/50

HASSELBLAD 6x6 USED

503CV, 80 F2.8 CFE, A12, WLF	£3699
500CM + 80 F2.8 CF + A12	£1999
40 F4 early	£499
50 F4 CF LII	£699
135 F5.6 CF + macro bellows	£699

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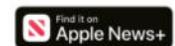
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 Travel photo tips: Top techniques for home and away / 45 minutes of video tutorials / ND filters group test / Concrete in Life 2022 awards / Leica M11 Monochrom review / Andrea Gjestvang interview



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 Master Lightroom: How to get the most from your captures / 44 minutes of video tutorials / Travel tripods group test / Sony World Photography Awards 2023 / Pentax KF review / Graeme Green interview



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 Shoot the spring: Capture spring like a pro with our in-depth guide / 45 mins of video tutorials / Filter holders group test / International Garden PotY awards 2023 / Panasonic Lumix S5 II review / Benedict Brain interview



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 Fix your framing: Expert tips for composing pictures like a pro / 40 minutes of video tutorials / Photo backpacks group test / Close-up PotY 04 showcase / Canon EOS R8 hands-on review / Luc Kordas interview



with Chris George

What the f-stop?

How much do you really know about photography? Test yourself to the max every issue with our tricky trivia quiz!



Hulton-Archive / Stringer



1 Who is the actor holding the film camera?

- A Peter Cook
- B Peter Sellers
- C Peter Cushing
- D Peter Falk

2 What is the colour associated with Tether Tools?

- A Green
- B Red
- C Blue
- D Orange

3 How much of the scene is sharp if you calculate the hyperfocal distance to be 4m?

- A To infinity and beyond
- B From a third of the way into the frame to the horizon
- C From 2m to infinity
- D From 4m to infinity

4 Which company has just bought photo-editing software specialists Affinity?

- A Adobe
- B Meta
- C Canva
- D SmugMug

5 Which of these things does not affect image noise?

- A Aperture
- B ISO
- C Ambient temperature
- D Size of the photosites on the sensor

6 What is the colour temperature of flash lighting?

- A 1500K
- B 3000K
- C 6000K
- D 7500K

7 Which of these is not the name of a tool in Photoshop CC?

- A Eyedropper
- B Ruler
- C Sponge
- D Sticky plaster

8 Which of these manufacturers doesn't make shift lenses?

- A Canon
- B Samyang
- C Fujifilm
- D Sigma

9 If a memory card has 1667x written on it, what is its maximum read speed?

- A 1667Mb/s
- B 1667Kb/s
- C 250Mb/s
- D 250Kb/s

10 What was unusual about World Unseen, Canon's recent photo exhibition in London?

- A It was designed for the visually impaired
- B It featured microscope images of viruses
- C The images were all shot in infrared
- D The exhibition was on a moving train

How did you do?

10 points You're a photo mastermind!
8-9 points Fantastic, you're a brainiac
6-7 points Really good score
4-5 points Respectable, but no cigar
2-3 points We'll keep your score secret
0-1 points Epic fail

ANSWERS 1B,2D,3C,4C,5A,6C,7D,8D,9C,10A





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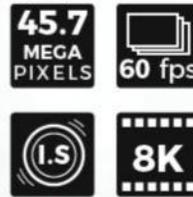
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