


THE NEXT GENERATION Z



Konsta Punkka

"Even though the animals were moving at speed through the forest, I was able to focus on the subject remarkably fast and never missed the shot"

 @kpunkka



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Issue 118
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THE NIKON MAGAZINE

PRO TIPS!

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BIG TEST
Eight great fast tele-zooms rated

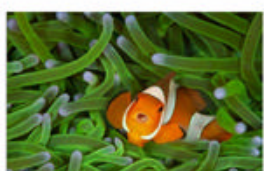
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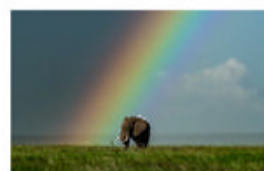
TECHNIQUE

In deep water!

Marine pro Alex Mustard shares the secrets of his aquatic images



Go wild
Stunning Nikon WPOTY shots **p16**



Gurcharan Roopra
"Forget about settings, focus on composition" **p66**



Let's rock!
How to shoot live bands **p80**





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NPhoto

This issue's special contributors...



Darren Harbar

PAGE 6

Our Apprentice takes to the skies above the English countryside for a thrilling air-to-air shoot under the wing of aviation pro Darren.



Alex Mustard

PAGE 28

Join us in the big briny blue as marine photographer Alex shows how to shoot everything from seahorses to sharks.



Paul Wilkinson

PAGE 40

When you turn pro your focus has to switch from taking shots to please yourself to those you can sell to others, as Paul explains.



Tom Mackie

PAGE 64

Tom reveals why looking for the picture within a picture can help to elevate your landscape and travel photography.



Michele Belloni

PAGE 74

Italian photographer Michele documents the artisans striving to keep traditional trades alive in the Amiata region of Tuscany.



Tom Mason

PAGE 86

Why did Tom want to hang out with a mushroom? Because he was a fun guy, of course! Fun guy... *fungi*... oh, never mind...



Image: © Judith Stewart

See the winners of our latest NPOTY competition – this issue the theme is seascapes – on page 88.

Welcome to issue 118



We dive straight into this issue with one of the world's foremost marine photographers Alex Mustard, who shares the secrets behind his stunning sub-aqua shots, and explains how you can take your first steps into underwater photography.

This issue's Apprentice goes to the other extreme, and takes to the skies above this green and pleasant land to photograph a vintage biplane in an amazing air-to-air shoot.

In our Big Test, we put a selection of fast telephoto zooms through their paces, with constant f/2.8 or f/4 apertures beloved of pros. We also look at L brackets, and explain what they are, when you'd use them and compare a selection of models from under £20 to over £150.

In the *N-Photo* interview we speak with Kenyan-born wildlife photographer Gurcharan Roopra, who tells of his philosophy of placing animals in their wider environment in his images.

Plus we have a great selection of photography projects, shooting portraits with flair, cute kittens, amazing HDR landscapes (we even provide the *free* software!) and dancing paint, as well as Adobe CC, Affinity Photo and mobile app Pixlr editing tutorials. Enjoy the issue!

Adam Waring, Editor

adam.waring@futurenet.com

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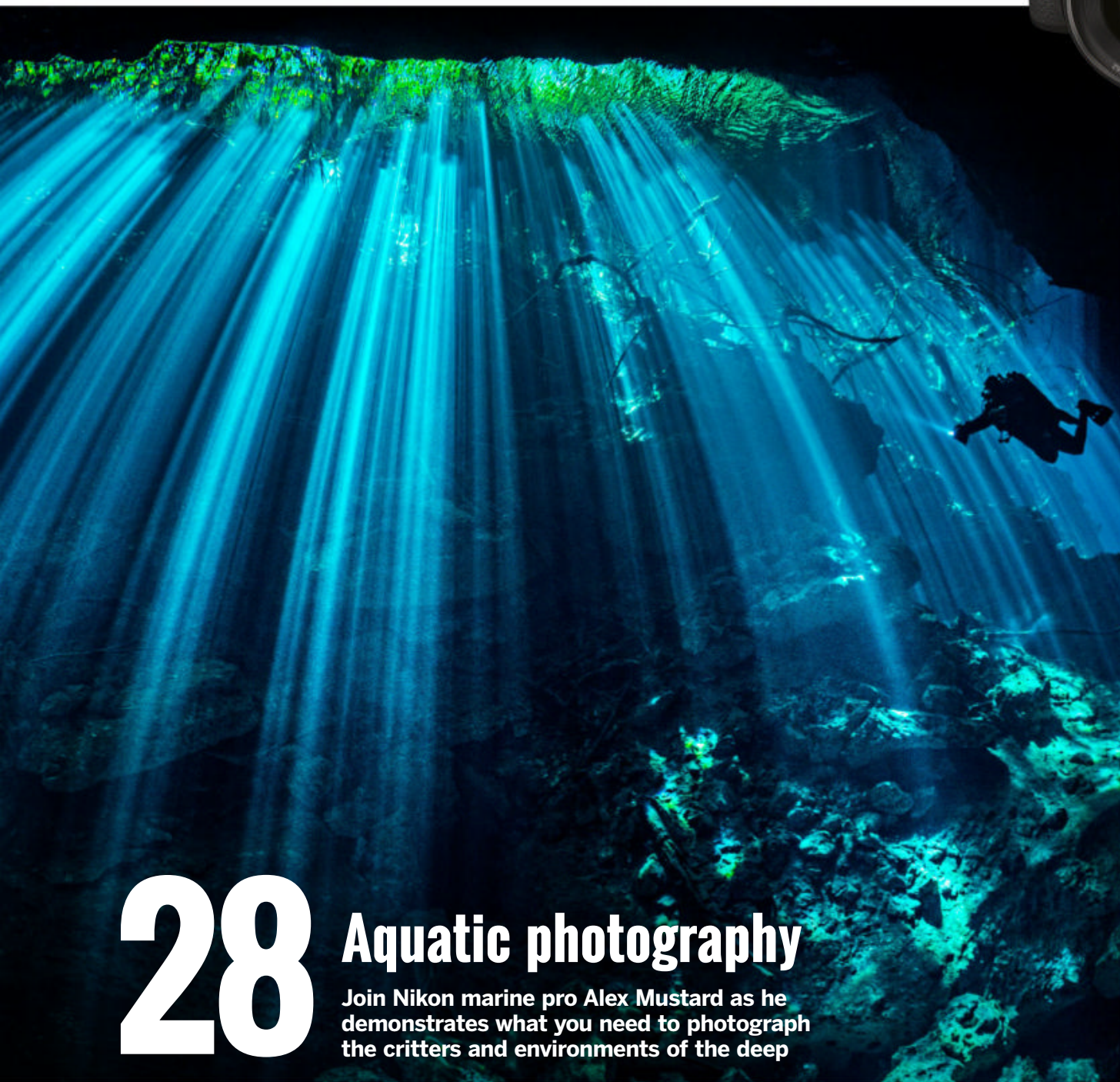
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NIKON
Z 50
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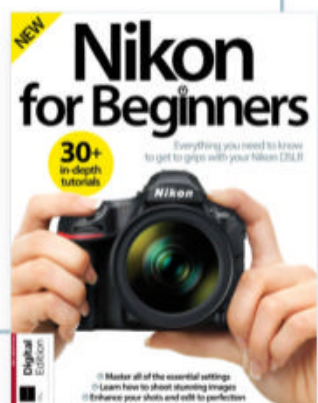
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SEE PAGE **26**





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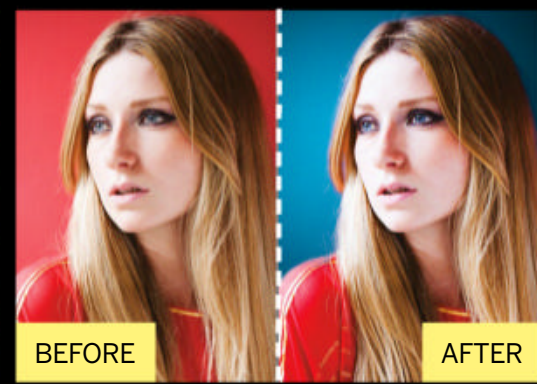
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N Photo APPRENTICE



THE PRO

NAME: **DARREN HARBAR**
CAMERA: **Nikon D850**


Darren is an internationally published aviation photographer who specializes in air-to-air photography and has a passion for vintage aircraft. His experience within the photography industry is broad, having worked as a camera buyer for Dixons Stores Group and a magazine editor. He's always photographed aviation subjects, but got his first professional break in 2006. Since then, the sky's literally been the limit and his work has featured regularly in a range of publications. To see more of his work go to www.darrenharbar.co.uk

THE APPRENTICE

NAME: **Wayne Allen**
CAMERA: **Nikon D750**

Bedfordshire-based Wayne is an alliance partner manager and self-confessed petrolhead, with a penchant for both wings and two wheels. He caught the 35mm bug in his early 20s and always lusted after Nikon cameras. Eight years ago he began investing in better kit and is now rarely without his trusty D750. His images have been published in magazines and he regularly photographs planes, but despite having plenty of experience on the ground, he's an air-to-air rookie. He'll only have 20 minutes with Darren in the air, so the cabin pressure's mounting.





Air-to-air ace

Our Apprentice joins aviation pro Darren Harbar on an air-to-air sortie and photographs a vintage stunt plane

T

he Shuttleworth Collection at Old Warden Airfield might just be Bedfordshire's best kept secret. It was founded by Richard Shuttleworth and following his tragic death in 1940, his mother Dorothy preserved her son's legacy by founding the Shuttleworth Trust. Today, the vintage vehicle and aircraft museum is home to over 50 working planes, and the traditional all-grass aerodrome is a hive of historic flying activity. Darren and Wayne met on a glorious Friday afternoon and, as they passed a fine-looking Avro 504k and into the nearest hangar, Darren could hardly walk three paces without being greeted or ribbed by various mechanics or pilots. "My job hinges on good relationships. I've spent years showing these people what I can do, and proving that I can get my shots while operating safely."

TECHNIQUE ASSESSMENT

1



SHUTTER PRIORITY

Darren says... I use Shutter Priority to have full control over my shutter speed. Aperture doesn't matter much, because the focal plane is so tight. I usually shoot a propeller plane at 1/60 to 1/80 sec – Wayne started at 1/125 sec to give him room to adjust to the movement and vibrations in the plane.

2



METERING & EXPOSURE

Darren says... I tend to use Matrix Metering so I can expose for the whole frame, which helps ensure the clouds don't get blown out. I use exposure compensation to refine my exposure, which comes in particularly handy when shooting a dark plane like the Pitts or if I encounter a mirror finish.

3



FOCUSING

Darren says... I use single-point AF to be able to precisely focus on the cockpit. The subject doesn't move much, since I'm usually travelling at the same speed, so AF-S is sufficient. I'll switch to AF-C for a manoeuvre like the underpass, where the subject actually moves. I'll then shoot a sequence in short, controlled bursts.



PRO KIT KENYON GYRO

Darren says... There's a lot of vibration and turbulence in a plane, not to mention airflow when your camera and lens are poking out of the window. I favour using a handheld gyro stabilizer over standard image stabilization. This specialist piece of kit is made in the US by Kenyon and houses two fast spinning gyros that work to resist movement. The gyro attaches to my lens collar and comes with a fairly sizable battery attached too. It's most definitely a pro-grade item of kit as it costs the best part of £5000. It isn't essential, but when flight time is limited and you've precious few moments to capture that cover-image-worthy shot, it's an invaluable tool for your arsenal.

Safety would become a recurring theme throughout the day and as the pair enjoyed a coffee in the briefing room, Wayne was about to learn that getting great shots isn't an air-to-air photographer's only responsibility. "We might encounter other aircraft and since the subject plane is 100 per cent dependent on the photo plane to lead it, you are partially responsible for sighting them," said Darren as he pulled a notepad from his kitbag. "It's also your responsibility to ensure the pilots know exactly what they'll be doing when we get in the air." The photographer explained how he sketches shot-list storyboards, so the pilots know each manoeuvre he wants them to perform. "We stick to the brief 100 per cent," said Darren. "If, for some reason, we can't perform one of the manoeuvres, we move onto the next."

The pair left the briefing room to visit the photo plane. It was a lot to take in, but Wayne wasn't at all phased. "I've been looking forward to this all week," he said as they approached a blue-and-white plane.



SUPER
SHOT #1

Camera:	Nikon D850
Lens:	70-200mm f/2.8
Exposure:	1/100 sec, f/4.5, ISO200

"This Dornier is our photo plane for the day," explained Darren as he opened the door to the rear fuselage and invited Wayne to take a seat.

The plane's six-passenger payload meant there was plenty of room for the two photographers, but Wayne would only be shooting through a small window on the left side of the plane. He would direct the subject plane via a series of hand signals (see 'Wait for the signal'), which the pair





practised. Next to the Dornier was a small biplane with a striking orange and black livery. "That's a two-seater Pitts Special," said Darren. "It's almost identical to the plane we'll be shooting today, except it'll only have one seat."

All it took was a small tug to transport the Dornier from the hangar upon the arrival of its pilot Jean-Michel Munn. But the Pitts pilot Stuart Goldspink was nowhere to be seen...

Following a quick phone call Darren had an update: "Sorry Wayne, it looks like Stu is going to be an hour late. We will get to see him *briefly* beforehand though," he said with a knowing smile. Cue the unmistakable roar of a Merlin V12 and British aviation's most familiar silhouette. The Spitfire politely tipped its wing at a delighted Wayne as it passed. "That's what he's flying at IWM Duxford today," laughed Darren. "Takeoff was delayed, but he flew over →

EXPERT INSIGHT WAIT FOR THE SIGNAL

Darren says... Communicating with the subject plane is crucial and is done via hand signals. I ensure they are clear and obvious, and that the pilot is familiar with them before takeoff. Thrusting the index finger up or down tells the pilot to climb or descend respectively; pushing out a flat palm is used to increase the gap between the subject and photo plane; a beckoning motion closes the gap; and swiping the index finger left or right signals for the subject plane to drop back (to the left of the frame) or pull forward (to the right). At any point a closed fist tells the pilot to hold position. I wear white gloves so the pilot can see my hands better.



SUPER
SHOT #2

Camera:	Nikon D850
Lens:	70-200mm f/2.8
Exposure:	1/80 sec, f/9, ISO200



PRO KIT
DORNIER
DO-28A-1

Darren says...What constitutes a photo plane depends on the subject I'm shooting. We often use a Piper Super Cub for slower aircraft, while I had to shoot from a jet to keep up with the Avro Vulcan. Today we used a Dornier Do-28A-1, which is often used as a photo plane for several reasons. Its many windows provide excellent visibility, the left-hand window slides open, so I don't have to use my LENSKIRT and it has a decent speed range so it can match the airspeed of a wide range of subjects.



in the Pitts this morning, so it won't take him long to get back once he's finished with the Spitfire."

Within the hour Stu had landed the Pitts and Wayne was talking both pilots through his shot list. Jean explained that to fly above the clouds they needed enough visibility to enter and exit the cloud cover safely, which meant patches of clear sky. Stu's tardiness had massively paid off. The clear sky was dappled with groups of fluffy white clouds that glowed in the golden light.

CHOCKS AWAY!

The Dornier headed down Old Warden's all-grass runway at 18:40, and before long Stu's Pitts soon appeared on the plane's left flank. It was time to start shooting.

Wayne heeded Darren's advice and started with a 1/100 sec shutter speed and dialled in a little positive exposure compensation to brighten the dark subject.

PRO KIT ON REFLECTION

Darren says... Sometimes I have to shoot through an acrylic canopy. A lot of the vintage canopies are discoloured and scratched, but you just have to get as close to the surface as possible and work with it. I can cut reflections though using a LENSKIRT. This hood attachment fits on the lens and sticks to the smooth surface of the canopy via suction cups, and in doing so prevents light from reflecting off the canopy and into the optic.



Wayne takes full advantage of the golden light as it bounces off the clouds and frames the Pitts.

EXPERT INSIGHT FLIGHT PLAN

Darren says... I need to know everyone is on the same page. I'll sketch out a rough storyboard of each shot so the pilots can see what angle I want the subject plane and where I want the horizon. We'll then discuss what's possible weather-wise, how long we'll be flying for and any landmarks we might try to capture in the background. The pilots will discuss where in the sky they'll meet, the speeds they'll be flying at and what frequency they'll be using to communicate. Although nobody likes to talk about planning for the worst, we also plan for an emergency. We take safety very seriously; you must never get complacent.



With only about 20 minutes to take photos, Wayne wasted no time in landing Super Shot #1. This simple image is well executed. The Pitts is pin-sharp and flying parallel to the horizon, the background is classic chocolate-box British countryside and Stu's face is clearly illuminated by the golden light. To top it all off, Wayne had captured the essential propeller disc.

Jean deemed it safe to head above the clouds for the turns. "I need to go up in the evening more often," said Darren over the radio as he marvelled at the golden hues. "The light will be constantly changing throughout each turn as the planes alter their angle to the sun, so keep shooting throughout the turn." Wayne felt comfortable dropping his shutter speed slightly to 1/80 sec and maintained Darren's preferred ISO200. Super Shot #2 was taken during a right-hand turn. The thick backdrop of clouds contrasts →



EXPERT INSIGHT BIT OF A BLUR

Darren says... Prop blur is crucial when shooting propeller-driven aircraft. The plane needs to look alive, not like it's just stalled, so you want the motion of the propeller to form a complete disc. This means you have to select a shutter speed that's slow enough to blur the propeller, but fast enough to avoid camera shake. This can be around 1/60 to 1/80 sec, but it'll depend on how fast the propeller is. For example, a WWI-era Avro 504k has a slower propeller than the Pitts we shot today.



against the Pitts' livery and the scene is dappled with an orange glow, courtesy of the setting sun.

MAKE A BREAK

Jean and Stu regularly fly two Pitts in formation, and their experience showed. Wayne had hardly needed to refine Stu's position, but that was all about to change. The next two manoeuvres hinged on verbally communicating with Jean and signalling Stu. The breakaway was up first and would involve the Pitts turning sharply to the left to 'break away' from the photo

LEARN FROM DARREN

When Darren's not heading off on air-to-air sorties he runs a range of photography training days for photographers of all abilities. He also produces an annual full-colour aviation photography calendar and a variety of prints. For more information on the training and to purchase the calendar or prints, visit his website: www.darrenharbar.co.uk



SUPER SHOT #3

Camera:	Nikon D850
Lens:	70-200mm f/2.8
Exposure:	1/200sec, f/5, ISO200



Darren demonstrates how to tell the subject plane to fly higher using the predetermined hand signal.

plane. This would give Wayne a chance to photograph the aircraft's undercarriage.

Wayne switched to AF-C so he could maintain focus on the moving target and dialled in a faster shutter speed of 1/200 sec. The plan was for him to count down from five over the radio, stop after four and continue counting in his head. Jean, who was in direct contact with Stu, would finish the countdown. Stu would then breakaway exactly as Wayne started shooting.

The first try didn't quite go to plan... Wayne forgot to count down so Darren stepped in, and the Apprentice wasn't quite

expecting the speed in which the Pitts peeled off. "It's surprising how quickly the Pitts moves, even the slightest hesitation and it'll be very small in the frame," said Darren as he pointed at Wayne's Playback screen. "There's no room to hesitate. You'll fare much better if you do the countdown this time."

Wayne nodded and when the planes were back in formation, he confidently started the countdown. The timing of the photographer and two pilots was impeccable. Stu broke exactly as Wayne started shooting, and Super Shot #3 →



Having started the countdown, Wayne prepares himself for the imminent underpass manoeuvre.

was captured at the start of the plane's manoeuvre. The direction of the sunlight illuminated the bottom of the plane, which revealed plenty of detail.

PASSING PITTS

The final manoeuvre was the underpass. Stu would move the Pitts out wide, and once again Wayne would start the countdown. On Jean's order, Stu would bank his plane and pass beneath the Dornier. This would give Wayne the opportunity to photograph the Pitts from above. Having to track the moving target and fire the shutter at the right moment wouldn't be easy though.

Since the Pitts was moving beneath the photo plane, Wayne would have to be mindful of heat haze from the Dornier's exhaust, which could creep into the frame and partially obscure the Pitts. Wayne would also have to keep an eye on the landscape below, which was clearly visible since the formation was now flying below the clouds. Modern buildings and traffic would ruin the vintage aesthetic of a plane that was designed in the 1940s.

Wayne had learned from the breakaway and executed each countdown perfectly. With time to spare he was able to refine Stu's positioning, using hand signals to



The photographers quickly check their shots as the subject plane flies back into position.



guide the Pitts further to the right of the frame. A couple of worthy images were in the bag, so Darren suggested dropping the shutter speed. Super Shot #4 was shot at 1/80 sec, features perfect prop blur and traditional British countryside. With that it was time to land and refuel before heading into the hangar and toasting a very successful sortie.



DARREN'S VERDICT

Wayne only had around 20 minutes of shooting in the air and he captured fantastic images of every manoeuvre.

I was particularly impressed with Super Shot #4 as he managed a tack-sharp shot

of the underpass at 1/80 sec. Stu's late arrival was a blessing in disguise too, because the golden light we experienced was quite simply fantastic.



WAYNE'S VERDICT

That was absolutely brilliant! I really enjoyed it up there and am very happy with my photographs. The airflow took

some getting used to at first, but the gyro really helped to steady my hands. Planning the shoot and directing the plane with hand signals was a real insight. The time goes so fast when you're up there, but the meticulous preparation gives you a real confidence boost. **N**



SUPER SHOT #4

Camera:	Nikon D850
Lens:	70-200mm f/2.8
Exposure:	1/80 sec, f/5, ISO200

AERIAL PHOTOGRAPHY



PRO PORTFOLIO DARREN HARBAR



P-51 MUSTANG

Images like this aren't easy, especially when taken through the curved acrylic canopy of a small camera aircraft! My pilot flew close and at a tight angle to give me this view of an oncoming P-51 Mustang. I had to shoot over my shoulder, using my LENSKIRT.



THE ULTIMATE FIGHTERS

Shooting one aircraft is difficult, but four is far more complex. The briefing is critical, as the pilots need to know exactly what you're looking for. The quartet of pilots here are all brilliant at flying in formation, which helps a great deal when pulling it all together.



HAWKER HURRICANE

The weather can make a huge difference to an image, especially when using clouds to create a sense of depth. Here, we had to climb higher than usual to get above the clouds, and the Hurricane pilot said that he'd never flown a warbird so high before!

BE OUR NEXT APPRENTICE!

We're looking for future Apprentices! So if you would like to appear on these pages and get top one-to-one professional tuition into the bargain, send an email headed 'Apprentice' to mail@nphotomag.com and make sure that you include the following information: your name, address, a contact phone number, the camera and kit you use, and the subject that you're interested in shooting.



Image: © Neil Watson

Next issue's Apprentice cooks up a scrumptious serving of festive food photos with pro Dianna Bonner

LIGHTBOX

Our favourite Nikon images from the Wildlife Photographer of the Year



Great Crested Sunrise

JOSE LUIS RUIZ JIMÉNEZ

After hours up to his chest in water in a lagoon near Brozas, in the west of Spain, Jose Luis captured this moment of a great crested grebe family. In soft light and muted reflections, Jose Luis was able to reveal the detail of these birds.

Camera:	Nikon D4S
Lens:	600mm f/4 + 1.4x teleconverter
Exposure:	1/800 sec, f/6.3, ISO500





© Wildlife Photographer of the Year / Ripan Biswas

The Last Bite

RIPAN BISWAS

When an ant colony went hunting for small insects on a dry river bed in Buxa Tiger Reserve, West Bengal, India, a tiger beetle began to pick off some of the ants. In the heat of the midday sun, Ripan lay on the sand and edged closer. "The beetle kept pulling at the ant's leg," says Ripan, "trying to rid itself of the ant's grip, but it couldn't reach its head."

Camera:	Nikon D5200
Lens:	90mm f/2.8 lens
Exposure:	1/160 sec, f/8, ISO160



© Wildlife Photographer of the Year / Sergey Gorshkov

The Embrace

SERGEY GORSHKOV

Sergey knew his chances were slim, but was determined to take a picture of the totem animal of his Siberian homeland. Scouring the forest for signs, focusing on trees along routes where tigers might have left their scent, hairs, urine or scratches, he installed his first camera trap in January 2019. But it wasn't until November he achieved the picture he wanted.

Camera:	Nikon Z7
Lens:	50mm f/1.8
Exposure:	1/200 sec, f/6.3, ISO250



© Wildlife Photographer of the Year / Songda Cai

The Golden Moment

SONGDA CAI

From above, Songda captured the fleeting moment when, hovering in perfect symmetry, gracefully, the diamondback paralarva turned to gold in a beam of light during a night dive just off the coast of Anilao, in the Philippines.

Camera:	Nikon D850
Lens:	60mm f/2.8
Exposure:	1/200 sec, f/20, ISO50



© Wildlife Photographer of the Year / Sam Sloss

A Mean Mouthful

SAM SLOSS

On a diving holiday in North Sulawesi, Indonesia, Sam was intrigued by the expression of one clownfish. It was only when he downloaded the photos that he saw tiny eyes peeping out of its mouth. It was a 'tongue-eating louse', an isopod that swims in through the gills grows legs and attaches itself to the base of the tongue, sucking blood. When the tongue drops off, the isopod takes its place.

Camera:	Nikon D300
Lens:	105mm f/2.8
Exposure:	1/250 sec, f/18, ISO200



© Wildlife Photographer of the Year / Charlie Hamilton James

Ocelot on the Highway

CHARLIE HAMILTON JAMES

The fallen tree, bridging a small river, shouted 'wildlife highway' to Charlie. He spent weeks perfecting the setup of his camera trap in the Osa Conservation, Costa Rica, so that it would reveal elusive species as they emerged from the forest and crossed the bridge.

Camera:	Nikon D7100
Lens:	10-24mm f/3.5-4.5
Exposure:	1/80 sec, f/9, ISO1000

© Wildlife Photographer of the Year / Gabriel Eisenband



Out of the Blue

GABRIEL EISENBAND

Gabriel climbed up to shoot the snow-capped peak against the sunset, but it was the flowers that captured his attention. Sometimes known as white arnica, the plant is a member of the daisy family found only in Colombia. Seeming to glow ever brighter as the light faded, the yellow blooms dominate the scene.

Camera:	Nikon D300S
Lens:	10-24mm f/3.5
Exposure:	30 secs, f/22, ISO200



© Wildlife Photographer of the Year / Liina Heikkinen

The Fox that got the Goose

LIINA HEIKKINEN

Feathers flew as the cubs began fighting over this goose. One finally gained ownership – urinating on it in its excitement. Dragging the goose into a crevice, the cub attempted to eat its prize while blocking access to the others. Lying just metres away, Liina was able to frame the scene and capture the expression of the youngster as it attempted to keep its hungry siblings at bay. **N**

Camera:	Nikon D4
Lens:	28-300mm f/3.5-5.6
Exposure:	1/125 sec, f/5.6, ISO1600

**WILDLIFE
PHOTOGRAPHER
OF THE YEAR**

Now in its 56th year, Wildlife Photographer of the Year is the Natural History Museum's showcase for the world's best nature photography. This year's competition attracted over 49,000 entries from professionals and amateurs from across the world. The overall winners were announced at a virtual online ceremony at the Natural History Museum on the evening of Tuesday 13 October 2020, and an exhibition at the Natural History Museum runs until 6 June 2021 (booking online is highly recommended). The 2021 competition is open for entries to photographers of all ages and abilities, with the overall winner and young winner receiving a substantial cash prize. Entries close at 11.30am GMT on 10 December 2020. Find out more at www.wildlifephotographeroftheyear.com

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An underwater photograph showing light rays filtering down from the surface, illuminating a rocky seabed. The water is a deep blue, and the light creates a dramatic, ethereal atmosphere.

Underwater Photography

Journey under the sea with underwater photographer extraordinaire **Alex Mustard** as he details the kit, tips and tricks he uses to tame the mighty briny deep

F

ew places are as exciting to take photos as in the underwater world. Beneath the surface of the deep blue sea, we have the chance to shoot subjects and scenery that many people have never seen for themselves, ranging from shipwrecks to aquatic life.

That life is far more varied than on land, ranging from intricate invertebrates, seemingly

precision engineered for our macro lenses, to the most massive animal that has ever lived, the blue whale. This biodiversity should be no surprise, given that the evolution of multicellular life in the ocean had more than a billion years head start over land!

And as a photographer in this realm, we can move freely in three dimensions. We have the freedom to hover above a coral landscape and to soar through a kelp forest, endowing us with a massive choice of photographic viewpoints. Imagine how photography on land would be transformed if you always had the manoeuvrability of a drone!

How to shoot... UNDERWATER PHOTOGRAPHY



Alex Mustard

Alex Mustard is a 45-year-old pro underwater photographer from the UK, shooting primarily for editorial clients around the world. He shoots with Nikon D850 and D5 cameras. He has been regularly awarded in the Wildlife Photographer of the Year over the past 15 years and has also judged that prestigious contest. In 2018 he was made MBE in the Queen's birthday honours for 'services to underwater photography.'
www.amustard.com

All images: © Alex Mustard

How to shoot... UNDERWATER PHOTOGRAPHY



The key to productive photographic diving is to stay within our diving comfort zone, so we can give our undivided attention to technique

Above: Underwater wildlife is often impressive and, attractively for photographers, unafraid and often curious about people.

Right: Ultra-wide-angle lenses allow us to photograph large scenes from as close as possible, minimizing the loss of detail and colour that comes from shooting through water.

The 'but' is that the underwater world is an unforgiving place. Not only do we have to take complex electronic cameras underwater, using waterproof housings to protect them while giving us access to all the controls, but this is an environment where we need special equipment to stay alive ourselves. On top of this, light does not penetrate easily through water, placing restrictions on how we can shoot, demanding precise technique. If there's a golden rule it's: 'get close, then get closer.'

SHOOTING UNDERWATER

Well-honed diving skills are nothing short of essential for excellent underwater pictures, not least for the safety of us and the marine environment. An underwater camera can be a terrible distraction. This is why new divers are advised to wait a while before they take up photography. As an underwater photographer we are our camera's tripod, transport

and hide, so it is important we are as stable a platform as possible, meaning our buoyancy and control are paramount. The good news is that the viscosity of water provides natural damping. Since most underwater photos are taken with a burst of flash, a stable diver can go surprisingly slow with shutter speeds, especially with VR-capable lenses. Stability is crucial for macro photography, where you will need to accurately focus and compose a photo on a millimetre scale.

The key to productive photographic diving is to stay within our diving comfort zone, so we can give our undivided attention to technique and ideas. My best advice is to slow down; a pottering pace will always reveal far more subjects, and far more relaxed subjects, than trying to cover as much distance as possible. Taking time to manoeuvre around our subject will also save us billowing up clouds of sediment. Particles in the water →

Camera choice

The demands of shooting underwater mean that the camera is rarely the most crucial component of the setup. The items specifically suited to underwater shooting, like lenses and underwater flashes, play a far greater role in producing quality pictures. That said, DX cameras, like the D500, are ideal, because the lenses available for this format just suit underwater subjects. FX DSLRs, like the D850, offer superior image quality, but demand precise technique. The Z series cameras are limited by the current lens choice and a lower flash sync speed.



How to shoot... UNDERWATER PHOTOGRAPHY



Every underwater photographer should aim to arm themselves with at least an ultra-wide-angle lens, ideally a fisheye and a macro lens

are the underwater photographer's nemesis; they light up like glitter as soon as we fire our flash, obscuring our subject behind a fog of backscatter.

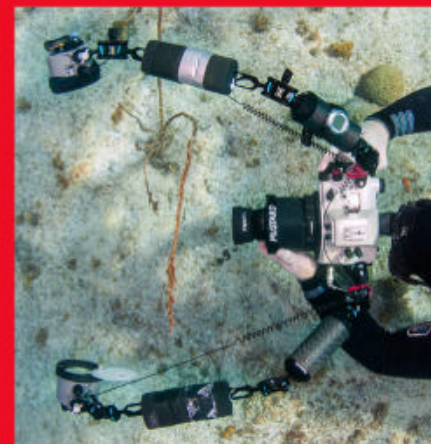
Gear up

It is often said that, 'underwater photography would be easy if it wasn't for the water!' The solution is to get close, which gets rid of as much of the murky water as possible. Choosing the right lenses makes this possible. Most underwater photographs are taken from the same distance – usually within touching distance. Different lenses simply alter the field of view. Every underwater photographer should aim to arm themselves with at least an ultra-wide-angle lens, ideally a fisheye and a macro lens. My 8-15mm fisheye and 105mm macro lens are my go-tos on my FX bodies. On DX the 8-15mm or the Tokina 10-17mm fisheye are the way to go, and the 60mm macro lens for small stuff.

Light, the very currency of photography, does not fare well in water. Divers who frequent murky British waters will even experience pitch-black day dives at recreational depths! Perhaps the most surprising aspect of the attenuation of light underwater is that the different colours that make up white light are absorbed at different rates. Reds, pinks and oranges are the first to disappear. Over 70 per cent of the red light that enters the clearest ocean water is gone by just 10ft below the surface and we're soon greeted by a monochrome blue world. While this is no restriction for black-and-white photography (see page 38), it means that

Macro focus

I use single point AF or 3D-Tracking AF modes for macro. Underwater, I use AF-C because even when the subject is stationary, I'll be floating, not still. I have my camera on Release Priority, because there'll be times that you know the subject is in focus, but the camera isn't sure! Back-button focus is ace underwater for shooting macro images, or wide shots inside dark wrecks and caves.



Left: The ocean is home to beautiful, tiny species. This pygmy seahorse is full grown at 1cm long, fascinatingly adapted to its home in a sea fan.

Below: Backgrounds often make macro shots special, and fortunately many marine species choose beautiful spots to live.

almost all colour photos taken underwater require flash. Underwater photographers typically use a matched pair of underwater flashes, attached to their camera housing on adjustable arms.

SMALL IS BEAUTIFUL

Macro is probably the easiest branch of underwater photography. Autofocus and TTL flash exposures can give it a point-and-shoot simplicity and it is the best place for new photographers to start. Although, once you've got a few shots, I'd strongly recommend moving over to manual settings, for precise control over creative lighting.

Successful macro photography begins with the subject. The quality of which usually has little to do with the species and more with how cooperative it is, how it is posed, where it is living and what →



How to shoot... UNDERWATER PHOTOGRAPHY



backgrounds it offers. You might find two individuals of the same species on a dive, and one is perfect for stunning images, while the other is not.

When people see stunning macro portraits they often comment that the photographer must have endless patience. If you require patience to watch underwater wildlife, then underwater photography probably isn't for you! The shooters who take the best macro pictures are usually those who'd happily spend all their dives admiring these creatures.

Macro backgrounds

Photography differs from other visual arts because it often involves the process of subtraction, rather than addition. A painter starts with a blank canvas and only adds what is wanted/needed to complete the vision. As an underwater photographer, particularly on a coral reef, we have the opposite problem. Wherever we point our camera we are faced with a jumbled canvas of shapes, colours and characters. To create graphically powerful pictures our main job is to simplify.

Photographers often refer to everything else in the picture that is not the subject as 'negative space.' When shooting macro underwater, I like to think of this as 'positive space', something we can use to enhancing the picture, telling more story.

The safe option underwater is a classic black background, which comes down to angles and

Above: The best technique for wide-angle images is a main subject close to the camera illuminated with flash, balanced with a background photographed in available light.

Right: Scenery underwater comes in attractive colours and shapes, providing an ideal focal point for the composition.

settings. We need to spot a subject posing in a prominent position so that we can frame it against open water. This is easy if the subject is free swimming. Next, we dial in a fast shutter speed and close the aperture, while working at low ISO, and allow our flashes to provide all the illumination. The open water background does not reflect the light, so photographs black.

Black backgrounds are powerful, but can be overused underwater. We can produce blue or green backgrounds with the same framing against open water, by just allowing the ambient light into our picture with a longer exposure and/or a more open aperture/higher ISO. Blues give images a more realistic atmosphere and looks particularly good with red, yellow or orange subjects.

Alternatively, we can shoot macro at more open apertures or at very high magnifications (with supplementary close up lenses) to make the subject stand out against a blurred background.

BUILDING WIDE-ANGLE PICTURES

Ultra-wide-angle lenses are the most powerful underwater tool, allowing us to shoot the



If you require patience to watch underwater wildlife, then underwater photography probably isn't for you!

Go vertical

One way to improve your wide-angle photography underwater is to rotate your camera 90 degrees and shoot verticals. Vertical compositions suit underwater scenery because most of attached life grows in this direction and because light and landscape change most quickly up and down. These gradients are our visual story, drawing the viewer into and through the shot. When shooting verticals we should always use our camera in the same orientation to minimize strobe readjustments. I shoot with my hand at the side, keeping it out of the way when I am working close to the seabed. Typically, my flash that is lighting the bottom of the frame will be on a lower power than the upper.



How to shoot... UNDERWATER PHOTOGRAPHY



Above: Some sharks, such as the world's biggest fish the whale shark, are too large to illuminate with flash, so we need to employ alternative techniques.

largest scenes and subjects from as close as possible. However, wide-angle shots are considered the hardest to take. First, we must balance the exposure of the foreground illumination provided by our strobes with ambient light filling the background. Strobes must also be carefully aimed to light our main subject, and not the particles in the water. We have to find a great subject, attractive background and possibly get another diver to pose pleasingly – all at the same time. The secret is to deconstruct the process and build up to stunning shots.

A successful wide-angle shot requires both sides of the brain: the 'logical' right side for the technique and the 'creative' left for the art. Technically, we should aim to build wide-angle photos in two layers: a flash-lit foreground and a background illuminated by ambient light. However, artistically we must think more freely and create an image that has a natural feeling of depth to be visually interesting.

Quality of light

Stunning photos usually demand a specific quality of light. In wide-angle photography our flashes provide our main lighting so we need to get it right. Typically, we are striving for a naturalistic feel – we need strobes to bring out the colours in our subjects. Working so close makes lighting challenging – specifically getting the illumination around our



A successful wide-angle shot requires both sides of the brain: the 'logical' right side for the technique and the 'creative' left for the art

camera housing and evenly onto the subject. The solution is soft light, created using two flashes, adding diffusers to and by pulling them back a bit to give the light more space to spread.

Background impact

The depth in wide-angle compositions comes from our backgrounds and these are often harder to find than our subjects. There is more light shooting slightly upwards, so I will often look for a coral outcrop first that is the right size for a background and only then search close to its base for a foreground subject! If we don't want to have to deal the bright sun, then we need a subject in the shade, so that when we frame up, the sun is hidden.

Wide-angle backgrounds usually set the mood of our shots. Pictures taken towards the light will have silhouetted backgrounds, with high impact. We should try including rays of sunlight, which communicate the underwater ambience. If we shoot with the light we get a very different feel with the details of the background landscape illuminated and contributing to the story we are trying to tell. Shooting so that the ambient light comes over our shoulder will also give the best blues.

SHARP TEETH, SHARP IMAGES

Sharks are the ocean's A-list celebrities and are guaranteed to get the heart pounding and the shutter finger pumping. However, they are

Shoot from the hip

On action-packed shark dives we have to keep our eyes out of the viewfinder and on the sharks. This often leaves us shooting from the hip. Aiming and focusing our camera is easier than you might think with big subjects and a wide-angle lens. The mistake everyone makes is pointing the camera at the head. Instead, aim the camera at the dorsal fin, which will balancing the shark much more evenly across the frame, and avoid chopping off the tail.

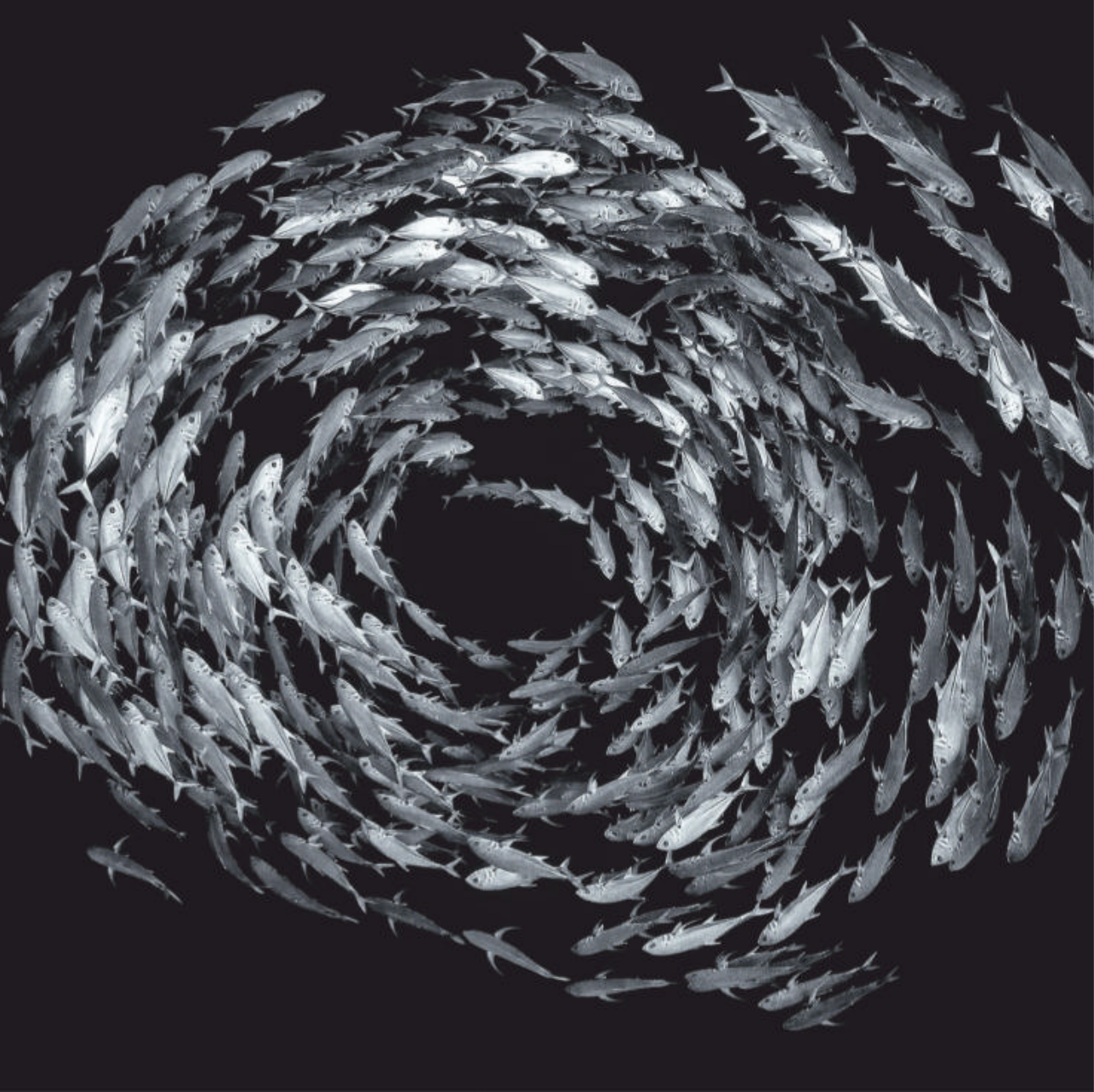


Below: Sharks coming towards the camera are always more impactful than those swimming parallel or away. Timing the shot is critical.

surprisingly shy and often require bait to bring them into photo range. Shooting sharks often involves lots of waiting, interjected with high-octane bouts of photography. The challenge is to keep a cool head when our adrenaline is flowing. The key to success is preparation. A successful shark photographer studies the species and location, plans for the likely shots, and rehearses and optimizes settings so they don't need to figure things out in heat of the moment.

We can photograph sharks on both baited and unbaited dives, but in both instances, I want to produce images with a natural feeling. I am not interested in pictures of sharks eating handouts. Unbaited encounters are less reliable, but gives →





Above: As on land, graphic shapes look particularly eye-catching in monochrome, such as these swirling jacks.



Above left: Contrast is low underwater, but we can boost the contrast of scenes in processing to make black-and-white pictures pop.



By working through ideas methodically we can optimize our gear, settings and compositions, greatly improving our overall hit rate

us the chance to capture aspects of natural behaviour, such as schooling, being cleaned or even sleeping. Some species, such as the oceanic whitetip, are confident and curious and will swim right up to our dome without bait. On unbaited dives we should use a longer lens, such as a 16-35mm on FX or 10-24mm on DX, and set up our lighting for more distant shots, with our flashes pushed out wide to avoid lighting particles in the water.

Disciplined approach

Baited dives typically attract lots of sharks and action, which can leave us with little thinking time. Taking hundreds of photos can seem like the best solution, but this usually produces very few memorable images from the swirl of activity. I subdivide my time into 10 minute slots and focus on one idea at a time. This is especially true when diving with the largest sharks, like tigers, where, from a safety perspective, you do not want to be lost in thought or stuck looking through the viewfinder.

The different types of shots, such as classic portrait, shark on the dome, shark in the scene, verticals, panning images and silhouettes, all require different camera settings, strobe powers and positions, so we should not try and take them all at once. Instead, by working through ideas methodically we can optimize our gear, settings and compositions, greatly improving our hit rate.

Caged up

The great white shark is the most famous ocean inhabitant and is usually photographed from cages. A bit like a public hide, shark cages are always a shared space and generally everyone picks a spot and stays there. Pay attention to the position of the sun before getting in and aim for a corner that lets you shoot out on two sides with the light behind you. The optimum camera setup for cage diving is a pared down rig. A big setup takes up too much space in the cage and is hard to manoeuvre in and out through the bars. Although we will always be in the cage, our camera will often be outside. The two main ways people shoot are either to stick it out of the opening in the cage or to put the camera on the outside and hold it through the bars.

MONOCHROME MAGIC

Black-and-white photography is very effective underwater. Converting pictures to black and white cuts through the murk of the water and allows for a significant boost to contrast and clarity, really making pictures pop. It is especially valuable for big scenes photographed predominantly in ambient underwater light. However, powerful black-and-white images do not start with conversion software but underwater, with decisions we make about composition and, particularly, the use of the light. Memorable black-and-white shots are all about finding and shooting visually appealing shapes and shadows in the vastness of the underwater world. Big animals, wrecks and schools of fish tend to work particularly well.



Reading the light

The light you get underwater has an incredibly different feel to light in air, and utilizing it well is essential for creating successful photographs. Although natural light always comes down from above when you are underwater, the sun is rarely directly overhead, so sunlight also has a horizontal direction, and black-and-white images tend to work best when shot across or against the light to promote shadows and contrast.

However, the direction of light changes underwater with both the conditions above the surface and below, so keep this in mind. When the sun is out the light will have a strong horizontal direction, when it is cloudy the direction underwater reverts to only vertical. The deeper we dive, and the murkier the water, the less horizontal direction will remain. Therefore, some of the most

Above: Shooting against the light helps to make this shipwreck loom large in this composition, as a counterpoint to the diver below and schooling fish above.

dramatic light for black-and-white photography underwater is in shallow, clear water.

Black-and-white conversions

With underwater images we should not rush to convert the picture into black and white. The most common mistake is to end up with a water tone that's the same as the subject, meaning the subject gets lost in the background. When converting to black and white use a tool (like the black-and-white converter in Lightroom or Photoshop) that has sliders for the different colours embedded in the Raw file, rather than simply desaturating the image.

The most important sliders are Blue and Cyan, which affect the background (blue water). Make the background lighter or darker than the subject, it often does not matter which, as long as it is a different tone. I will usually white balance my picture before the monochrome conversion, with the aim of maximizing the difference in hue between the main subject and the background of the photograph.

It is valuable to think about the final image while shooting. If we are planning to make the background water light in the final picture, we should overexpose a little to lighten it when shooting and vice versa. Typically, we should always process photos with a 'less is more' philosophy when it comes to the sliders in the software. The exception to this rule is underwater black and whites where 'more is more'! Underwater monochrome images benefit from a lot of contrast and clarity to pull out the details from the murky sea. ■

In-camera B&W settings

The trick to good black-and-white images, above or below the surface, is to *think* in B&W. We should imagine the scene as mono while shooting, and compose and expose accordingly. I like to change my Picture Control to Monochrome on my cameras, which I find also helps we switch my brain! Underwater I use a custom Monochrome profile with extra contrast and sometimes the in-camera orange filter, so the LCD shows me pictures closer to how I will process them.



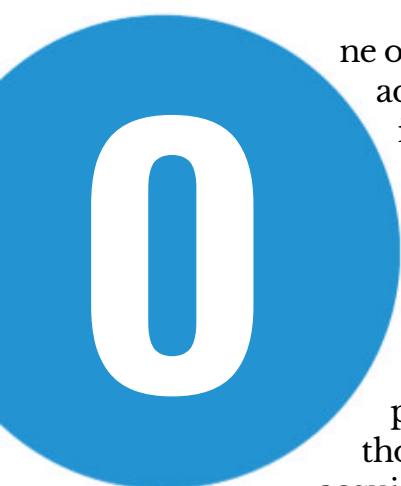


**Paul
Wilkinson
Go Pro**

Paul Wilkinson FMPA FBIPP FSWPP is a multi-award-winning international photographer and co-author of the best-selling book *Mastering Portrait Photography*, and shares his skills through the free companion site MasteringPortraitPhotography.com. In this monthly series he shares his experiences and stories as he talks about the trials and tribulations of becoming a pro photographer.

Shoot to sell

Turning professional means one thing above all others: the need to sell your photographs...



One of the hardest things to adapt to when turning pro is that your priority shifts from creating images for the sheer love of it to creating images for money: you will need to sell your craft for more than it costs you to produce – and remember those costs will include the acquisition costs of finding the client, the cost of your kit, your insurance, taxes and numerous other business-related expenses that you haven't even thought of yet! And whatever is left? Well, that is yours.

I know this all sounds obvious, but it is an inevitable balancing act to stay creative and be able to pay your bills (and your wages). This constant pressure on your creativity is one of the numerous reasons you hear so many pros talk about the importance of personal projects to keep yourself motivated. What you hear much less about is the importance of shooting to sell.

Art for art's sake, money for goodness sake

It doesn't matter what genre of professional photography you pursue, at the end of the day you need a buyer. Which means you need to create images that you can sell.

Every time I begin a shoot with a portrait client, I am thinking about the sales. That isn't to say I am not creative – far from it, if I stopped being creative my clients wouldn't come to me, it's just that without those sales, this would be a short-lived business. I doubt that Apple, Land Rover, Chanel, Sony, Levi, Nike or

even your local chip shop blindly create products they love and cross their fingers to find a buyer. They will have spent considerable time and effort ensuring they're manufacturing product that will have a market and will turn a profit.

Roll with it

There is a lovely quote from Mike Tyson: "Everyone has a plan until they get punched in the mouth." Now, I am clearly not saying that your clients are going to swing for you, but every day they will surprise you. So I like to roll with the punches!

I am not someone who likes micro-planning, I love the creativity of meeting the client as they arrive, hearing about their lives, reading their face and body shapes and assessing their clothing (plus you can never guarantee the weather on the day...) However, that isn't to say I don't have a game plan – I just piece it together in the moment.

This is not as random as it seems: there is a strategy to it... First, I find out about the client, their aspirations, their lifestyle, what they're looking for. Then, I'll find out what the images will mean to them. I'll get a sense of how they're feeling and how they'll react in front of



If I stopped being creative my clients wouldn't come to me, it's just that without those sales, this would be a short-lived business

the camera. Next, is their clothing, their body shapes, their faces – I'll assess that. At that point, I'll check on the weather (this is important if it's showery – we might need to adapt the shoot!)

As the session unfolds, I will work to create a collection of images that are likely to be sold: if it's a headshot session, I will make sure we have different outfits and different settings, such as street vs studio, portrait vs landscape, tight crops vs whole body. If it's a couple, I will make sure there are plenty of shots of the two of them together, individual portraits, different settings, different moods. If it's a family, it's all about the parents, the kids, and, of course, the dog.

Keep listening!

I am always talking and listening, trying to eke out little bits of information and responding accordingly. For instance, if I hear that the mum works long hours as a company director, I might create a few joyous shots of the dad with the kids as this is perfect for a frame to go on her desk. I am continually changing the combinations, the settings and the style of the images.

As I work, I keep a mental tally of each type of image we've created. It takes time to develop this skill so that it feels completely natural, but it is well worth developing in the long run.

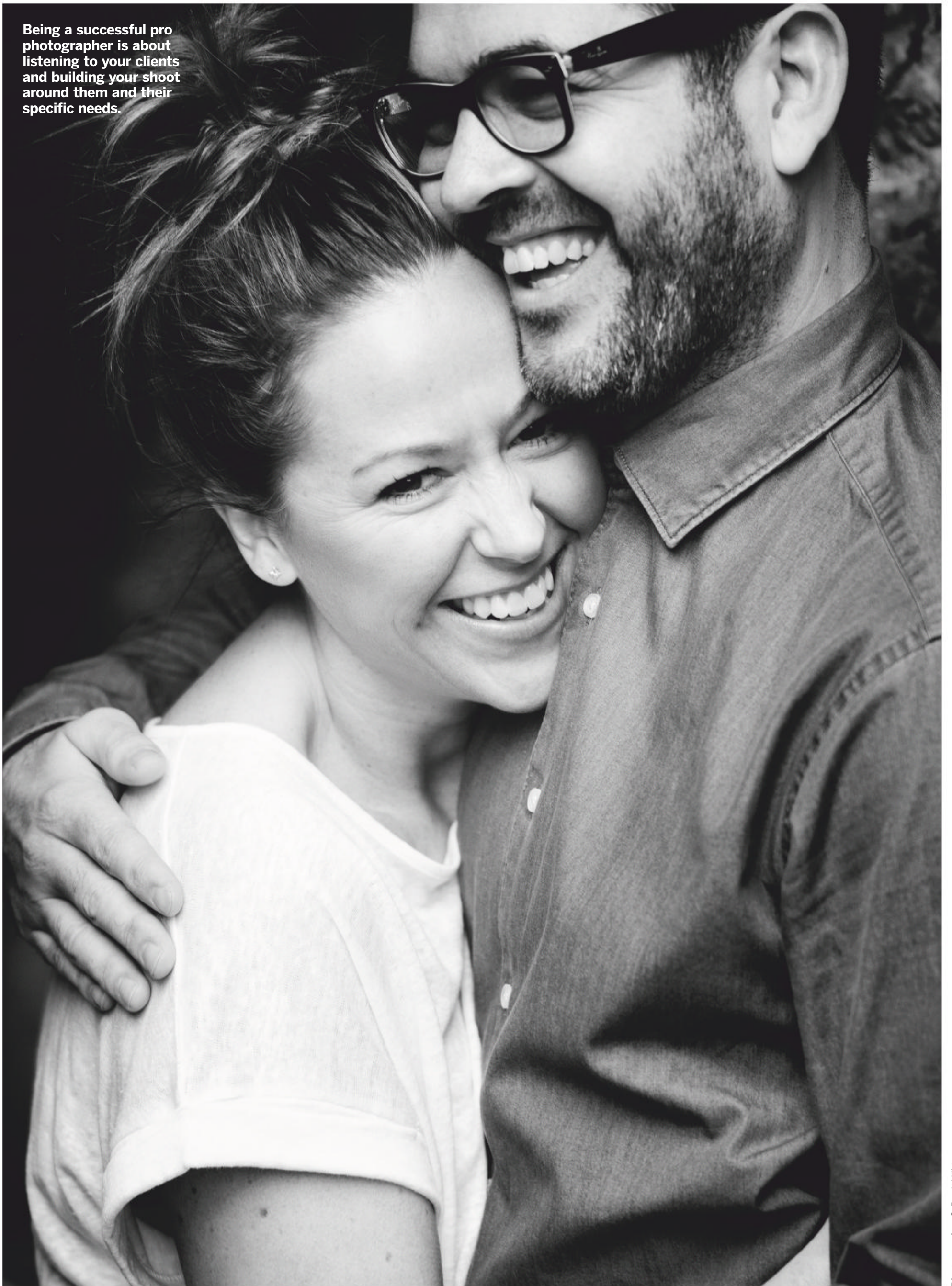
At the close of the shoot, I will recap with the client everything we've done, I'll check I haven't missed something and brief them on the next steps for coming back for their sales session.

There mustn't be any surprises (such as the client not knowing your prices) when they return to view their images. You want things to run smoothly and for the client to both love the session and leave having created (and paid for) some beautiful product – it also makes those in-person sales sessions much more enjoyable for you too!

Think like a business, act like an artist

Of course, I am speaking as a portrait photographer, but the principles apply to every genre of photography: you must think like a business and act as an artist. If you do this, the likelihood of financial success, as well as creative satisfaction, is much greater. **M**

Being a successful pro photographer is about listening to your clients and building your shoot around them and their specific needs.



Photography: © Paul Wilkinson

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Shoot portraits with flare

Utilize the sun to your advantage and capture a portrait with intense lens flare.



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Photograph a kitten

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Shoot and edit HDRs with Aurora

Using your free copy of Aurora HDR 2018 craft a high dynamic range composite.



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Tropical composite

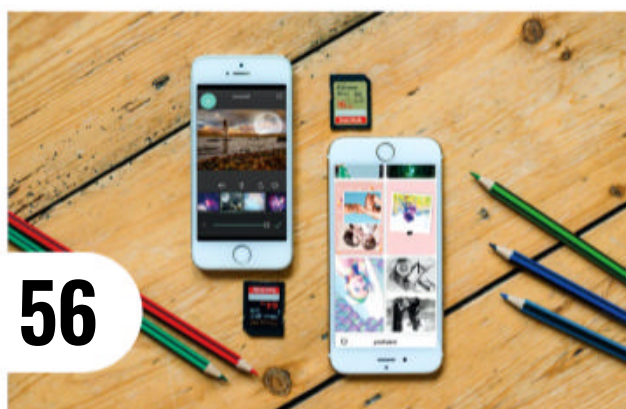
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Recolour backdrops

Shift the colour of a backdrop or anything else you like using simple Photoshop tools.



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The Mission

– Use sun flare to spice up an outdoor portrait

Time

– 15 minutes

Skill level

– Intermediate

Kit needed

– DSLR, mirrorless or bridge camera

* *Project one: Core skills*

Shoot portraits with flare

Mike Harris turns harsh light into a blessing by shooting into the sun and creating a lens flare portrait

There are many ways to avoid lens flare. You can attach a lens hood, alter the angle of your shot, block incoming light or choose to shoot at certain times of day to mitigate this often unwanted phenomenon. But used intentionally, lens flare can be an effective way to spice up your outdoor portraits.

The stylized aesthetic is particularly useful if you want to obscure a boring or overly busy background, or make use of harsh, unflattering sunlight. You don't need any specialist kit to produce great lens flare portraits, but zoom

lenses are known to cause more lens flare than primes. It also stands to reason that lenses without top-notch anti-reflective coatings will be more susceptible to flare, but how intense you want the effect is a matter of taste. We'd recommend experimenting with the lenses you own.

The angle of the sun is a big consideration since you'll be shooting towards it. We shot our image at golden hour and while the warm light looked great, the sun was also lower in the sky so it was easier to frame. If you choose to

shoot around midday – when the sun is higher in the sky – you'll be forced to shoot up towards your subject, which isn't the most flattering angle for a portrait. Finally, the intense light can play havoc with your camera's autofocus, but you can mitigate this by using manual focus or blocking the light and locking your focus before unblocking the light and firing the shutter.

Before you read on, ensure you operate safely and sensibly. *Never* look directly into the sun (even through a viewfinder).

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▲ Light and kit

Cloud diffuses sunlight, so you'll need to shoot on a day that's clear or with frequent breaks in the cloud. We used our Nikon AF-S 70-200mm f/2.8E FL ED VR and shot at a flattering focal length of around 85mm. Lens hoods are designed to help prevent lens flare, so if you have one, make sure it's removed.

► Fiddly focus

The flaring sunlight can confuse your AF system, so we'd recommend either switching to manual focus or shielding the front element with your hand to reduce the glare and make it easier for the autofocus to lock onto your subject. To do this you will need to use AF-S, back-button focusing or AF lock to prevent your camera from refocusing when you take the shot.



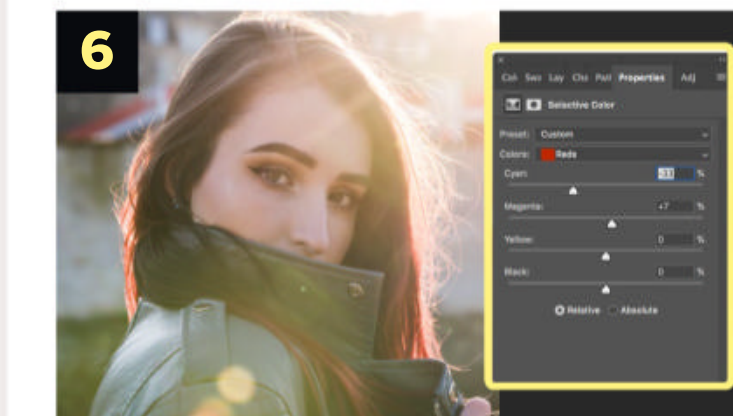
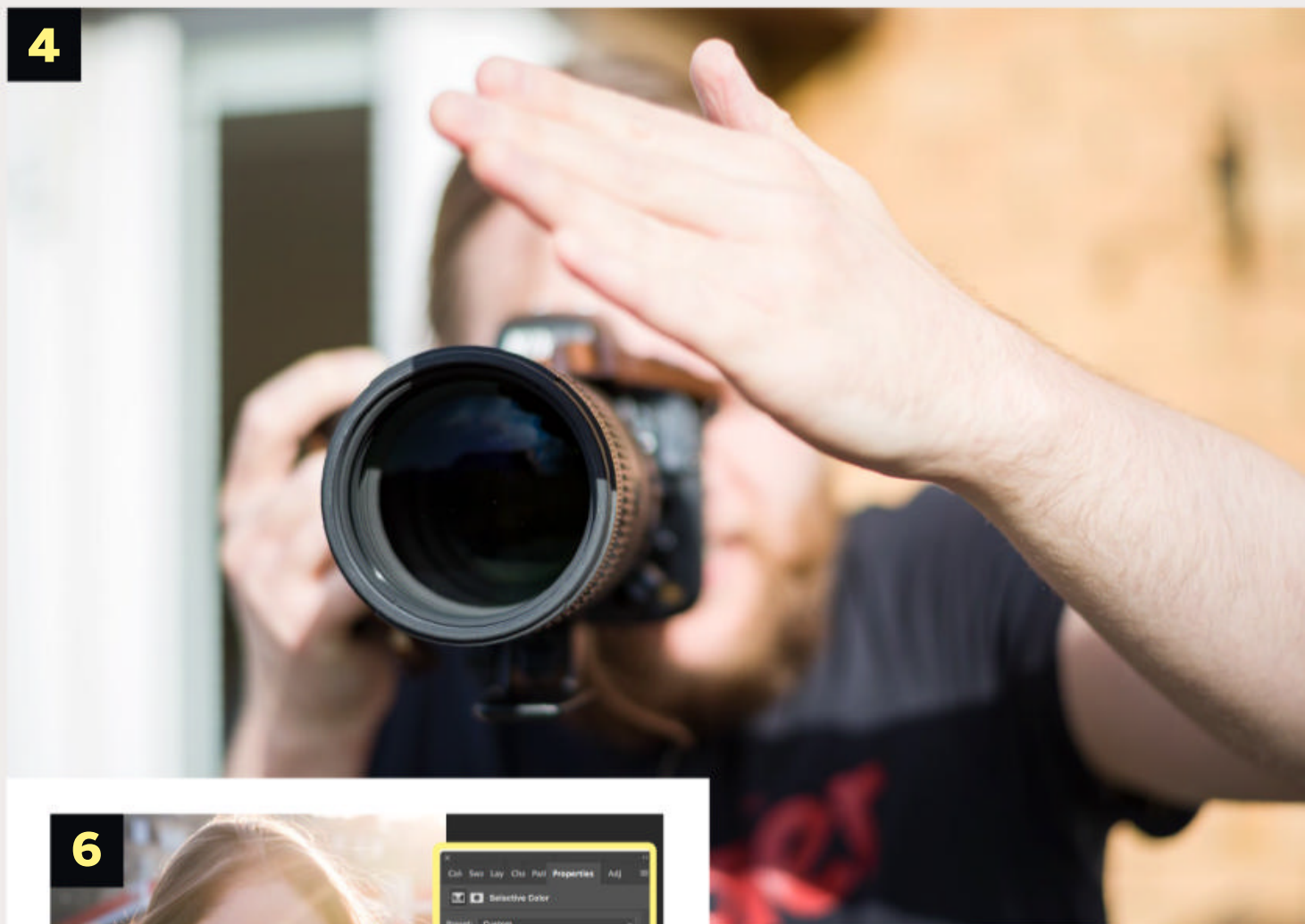
▲ Find your angle

The position of the sun will determine the angle in which you can shoot. It will be low in the sky earlier in the morning or later in the evening, which means you can shoot at a more conventional angle. At midday, when the sun is high in the sky, you'll be forced to shoot up at your subject, which is generally considered less flattering.



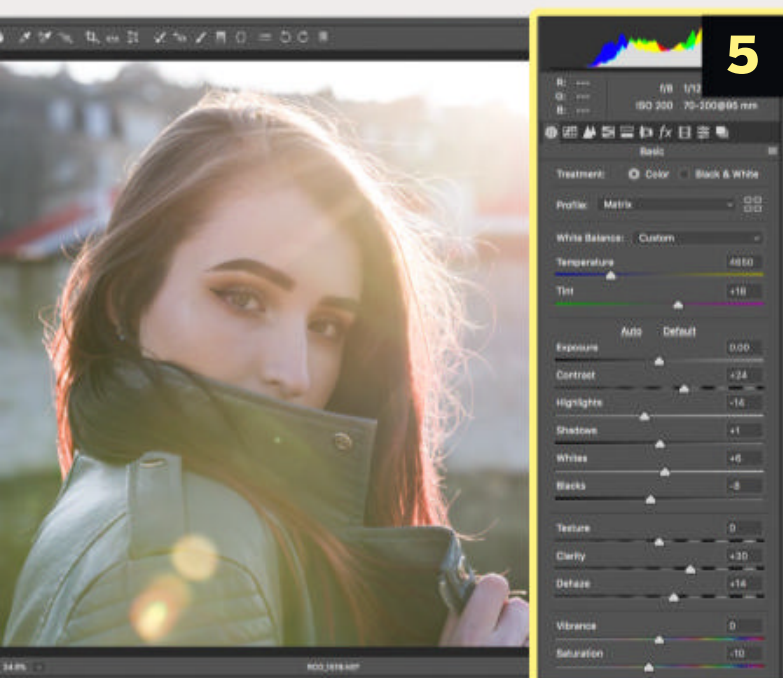
▲ Manual mode

Your camera will attempt to expose for the onslaught of bright light and end up underexposing the whole image, so we'd recommend using Manual mode. Don't expect your camera's light meter to be particularly accurate so it may take a little trial and error to achieve the correct exposure.



▲ Add a little punch

We then added a subtle S-shaped tone curve to add extra punch, and finished by importing the image into Photoshop. Here we added a few colour tweaks, such as using a Selective Colour mask to increase the red hues in the model's hair. ■



▲ Basic edit

We edited our image in Adobe Camera Raw and slightly cooled the warm temperature, increased the Tint slider to balance the green colour cast, while increasing the whites and darkening the blacks to add a touch of contrast. We then added a generous amount of clarity and dehaze to help make the subject pop.

Quick Tip



Modern lenses with Nikon's Nano Crystal coat are much better at preventing flare than their older counterparts. If you want to intensify the lens flare effect with more aberrations, try using an old lens. You can pick up vintage F-mount lenses relatively cheap.



The Mission

– Capture kitten photos at home using continuous and natural light

Time

– Two hours

Skill level

– Intermediate

Kit needed

– Fast standard lens
– Continuous lights

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Project two: Creative techniques

Snap a kitty cat

Mike Harris shows you how to photograph your kitten indoors and end up with a series of images that are the cat's pyjamas

Even those who claim not to be cat lovers can't resist kittens. But as lovable as these playful bundles of fur are, they grow up extremely fast. It makes sense then to preserve this fleeting period of your feline's life by photographing them.

However, if your cat isn't old enough to venture outdoors, or is an indoor cat, it can be challenging to photograph them. It's even been reported that black cats are being shunned by the social media obsessed,

simply because they are harder to photograph. As our images of pretty kitty Maggie proves, photographing a black cat indoors really isn't that difficult. And if you're a dog lover, the techniques in this project are entirely transferable, so your pet pooch needn't feel left out.

It's thought that the bright burst of flash can prove harmful when photographing particularly young animals, and we didn't want to scare our timid subject either, so we stuck to window

light and continuous lighting. The latter can help brighten particularly dark areas of your house, but if you don't own any lights you can still take beautiful images using only window light.

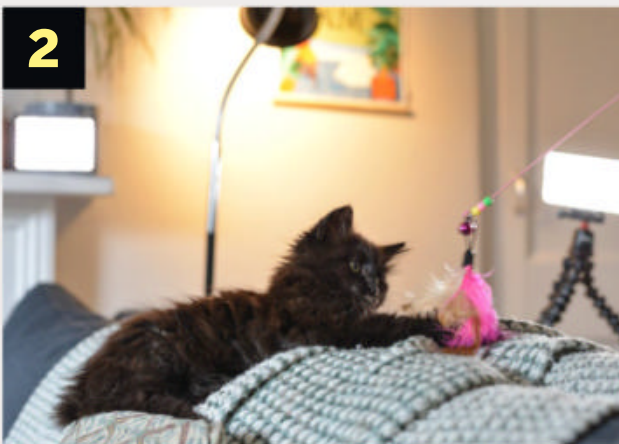
Young animals aren't always adept at following directions. You can try to entice them using treats or calling for their attention, but always remember that their wellbeing comes first. Make sure they're comfortable, and you'll reap better results. Let's photograph some felines!



1

◀ Play date

Kittens and puppies have lots of energy, and can be nervous or excited around new people. Having their owner nearby may help them feel more comfortable, and we'd recommend letting them get used to you before you take any pictures. We played with Maggie using her favourite toy and within a few minutes any reservations she had disappeared completely.



2

▲ Trash the flash

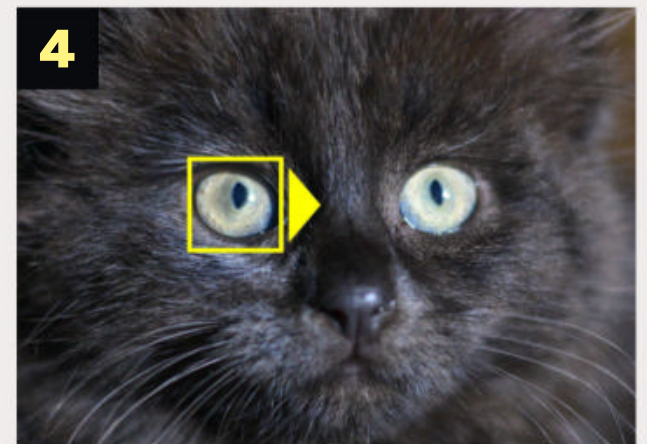
It's thought that flash lighting can damage the eyes of very young animals, and it can certainly scare some of them. We used room lighting and a couple of portable LED panels to illuminate our subject, and took advantage of our lens's fast aperture.



3

▲ Fleeting focus

Use single-point AF to precisely focus on the eye that's closest to the camera. You can use AF-S to lock focus and recompose, but you'll spend more time using AF-C as animals rarely sit still. Back-button focusing allows you to switch between the two at will.



4

▲ Animal AF

If you're using a Z camera you can take full advantage of Nikon's Animal AF feature. When enabled it will automatically lock onto and track one of your subject's eyes. You can switch between eyes using the thumbstick, and it works with AF-C and S.



5

▲ Settings

We used Aperture Priority and kept our shutter speed around 1/200 sec or higher to mitigate fast movements. This was achieved using continuous lighting, a wide aperture and a high ISO. Our D800 can handle shooting at ISO1000 comfortably, and it's better to have a small drop in image quality than a blurry subject.

▶ Curb the clutter

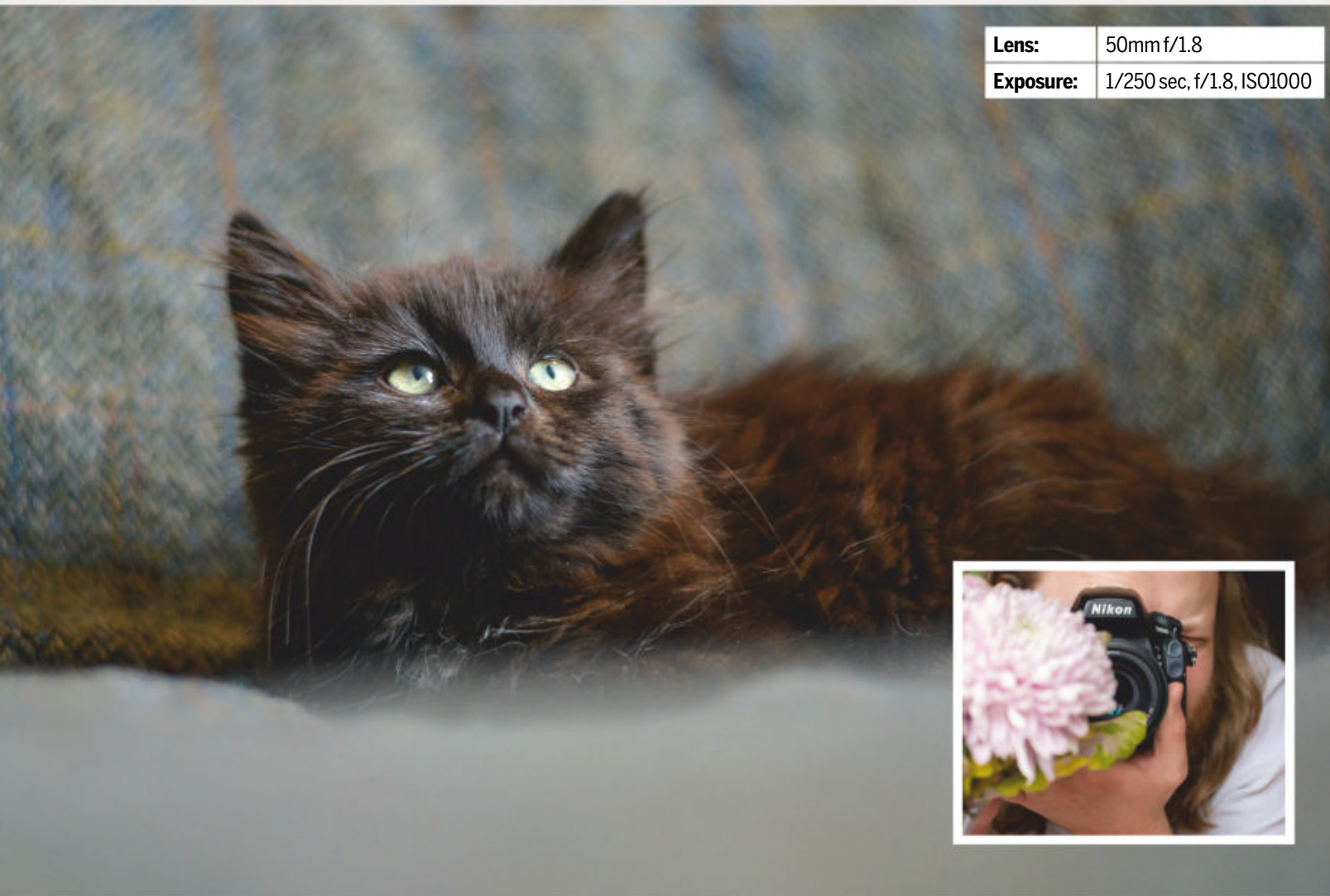
Furniture and ornaments can make indoor environments rather cluttered. We tried to photograph our kitten in front of clean backgrounds, but when this wasn't possible we tried to position our subject as far away from the clutter as possible. This – paired with a wide aperture – would then produce a super-shallow depth of field. →

6

Quick Tip

Cats are known for doing their own thing, so it's important you allow them to rest if they appear sleepy or uninterested. We made a point of giving Maggie plenty of space if she approached her water or food bowl and took the time to reward her for good behavior by petting her and giving her the odd treat (approved by her owners, of course).





Lens:	50mm f/1.8
Exposure:	1/250 sec, f/1.8, ISO1000

Fur-ground

◀ Add depth

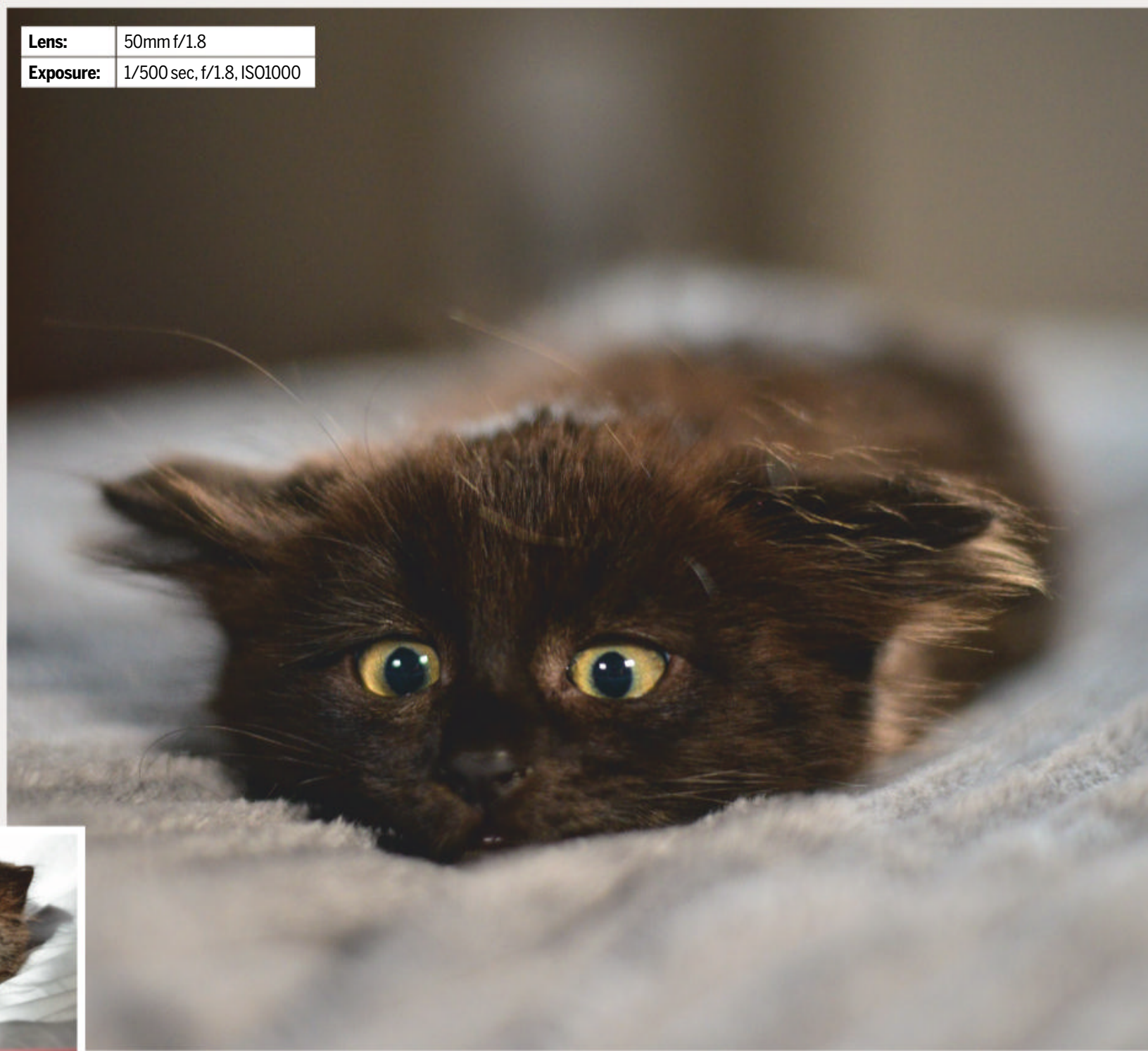
Inside the home isn't always the most photogenic environment to capture a pet, and if your subject isn't particularly pliable you may have to let them dictate where you take photos. Shooting through an object while using a wide-open aperture can add interest, depth and balance to your composition. Shooting through plants or ornaments can add a splash of colour to your image too, but in this instance we blurred the edge of the chair our subject was sitting on to balance the frame and hide the unattractive lip of the arm chair she was sitting on.

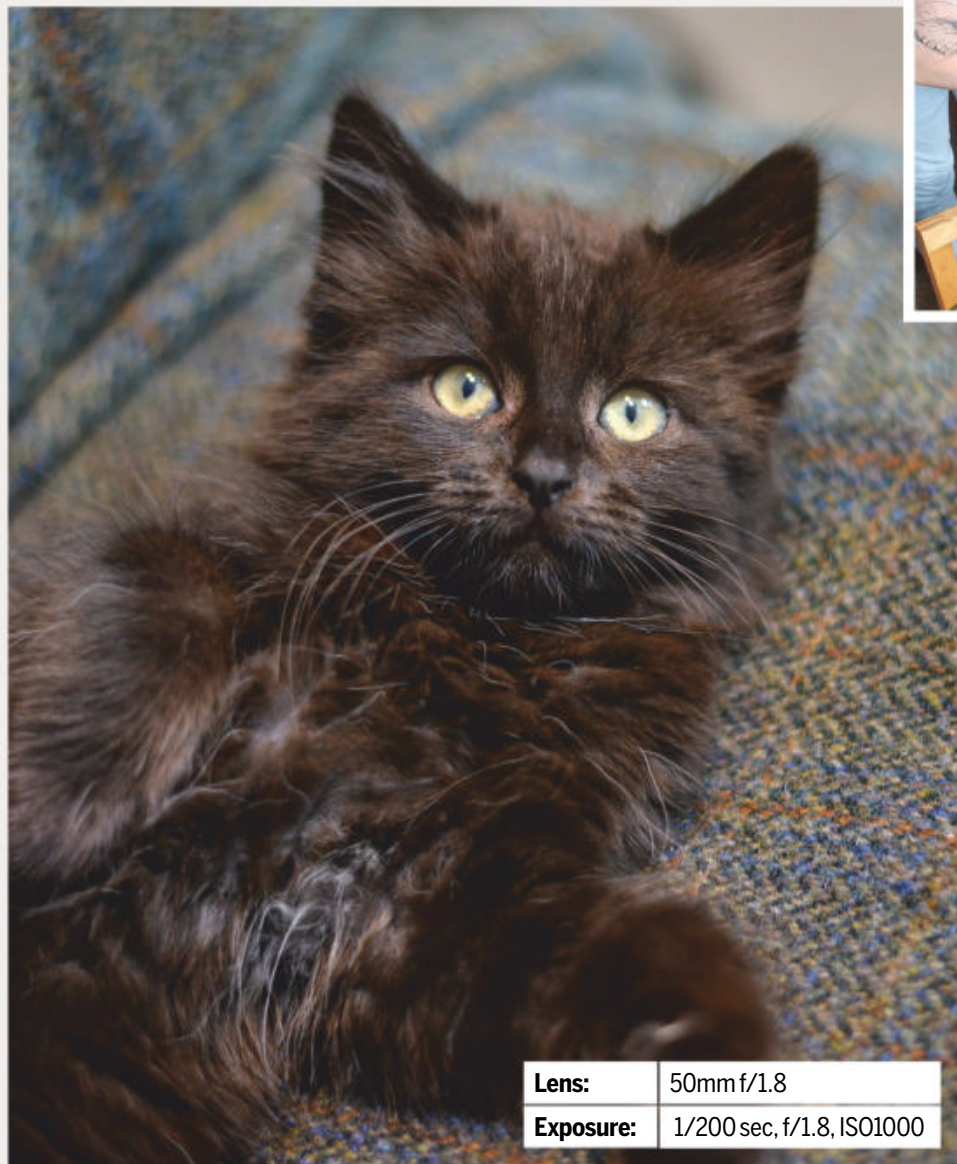
Get low

Ready to pounce ▶

Our kitten's big wide eyes make this image particularly adorable. A cat's pupils dilate for various reasons, including when they're excited or ready to pounce. We encouraged this behaviour by placing Maggie's favourite toy just off camera. The toy was positioned low down at her level and moved slowly from side to side in the same spot. She responded by hunkering down and preparing to pounce. Her dilated pupils were amplified by using artificial lighting to form catchlights. These helped to emphasize the kitten's large round eyes, while also making them appear to sparkle. *Cute!*

Lens:	50mm f/1.8
Exposure:	1/500 sec, f/1.8, ISO1000





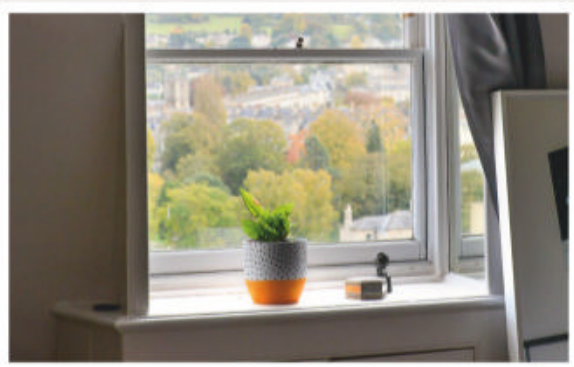
Lens:	50mm f/1.8
Exposure:	1/200 sec, f/1.8, ISO1000

Cat's eye view

◀ Find your angle

The angle you choose to photograph your pet from can have a huge impact on how your image conveys your subject. Getting below and shooting up at your fur-clad sitter will make them look powerful and regal. And while this would be a suitable strategy for photographing an animal of magnificent stature like a Maine Coon or a Great Dane, it's not generally suited to an adorable kitten. We spent most of our time crouched down or even

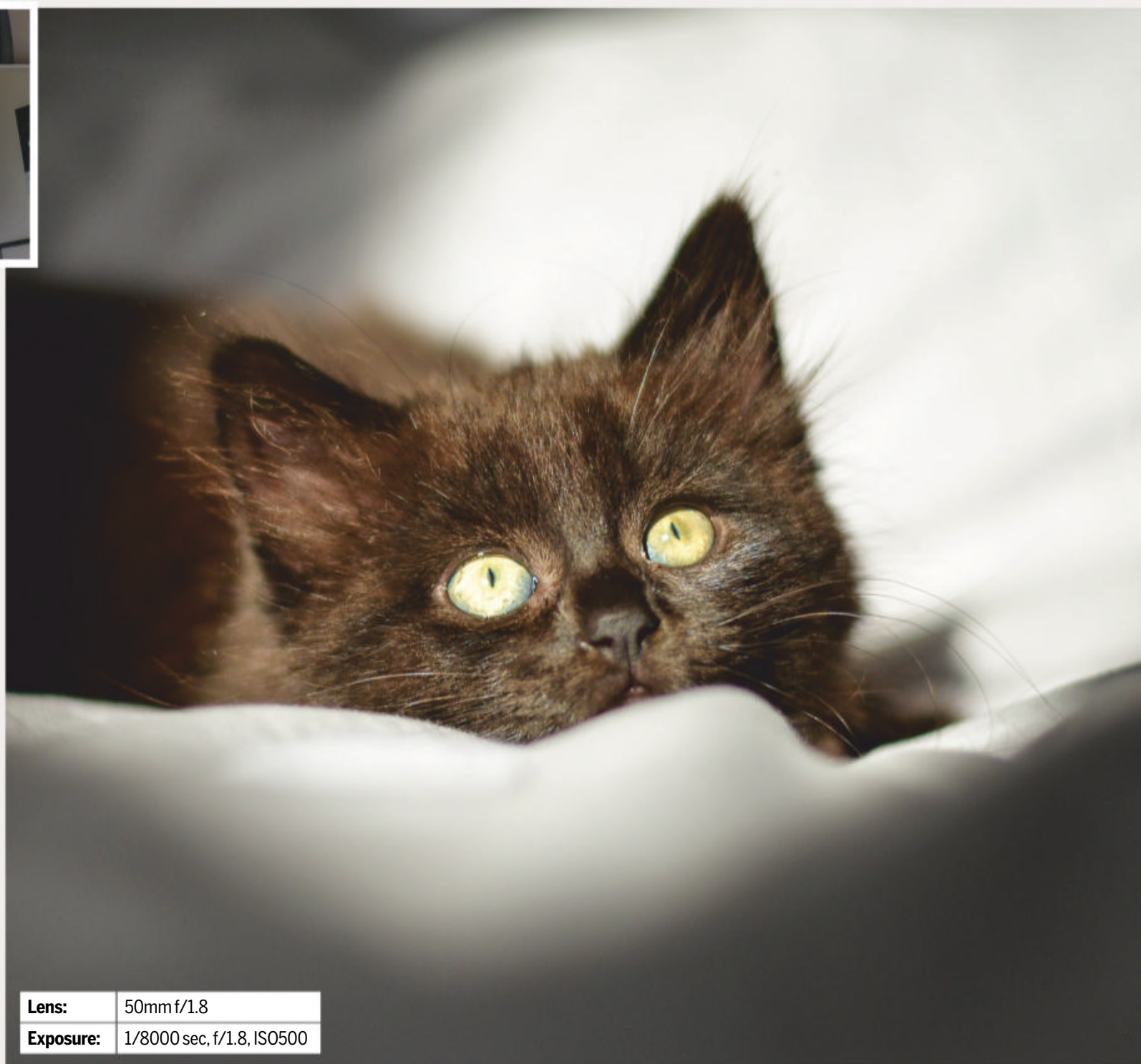
lying prone on the floor to capture a cat's eye view of our subject. However, we also took some images from directly above Maggie. As you can see, this helped convey the kitten's innocent and playful nature. We used a catchlight to enhance her eyes and ensured she was looking directly at the camera by repeatedly calling her name. If the subject isn't responding to you, try getting their owner to call their name while standing directly behind the camera.



Sunlight

Cat some rays ▶

Window light is a great way to illuminate your kitty and is particularly useful if you don't own any continuous lighting. You can use it to backlight your pet to produce a silhouette or have it shining on your subject to produce a more traditional portrait. Get to know roughly what time sunlight pours through your window of choice, and consider what type of aesthetic you want. Soft, diffused light will be produced on an overcast day, while a clear day will produce harsh light. We chose the latter to create a portrait with plenty of contrast. If you want to soften harsh window light, place a thin white sheet over the window to diffuse the light. 📷



Lens:	50mm f/1.8
Exposure:	1/8000 sec, f/1.8, ISO500



The Mission

– Shoot and edit a high dynamic range image with Aurora HDR

Time

– Two hours

Skill level

– Intermediate

Kit needed

– Tripod
– Aurora HDR 2018 (free download)

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Project three: Essential gear skills

Can you feel the aurora?

Use your *free* copy of Aurora HDR 2018 to craft a high dynamic range composite with **Adam Waring**

Sometimes the scene you see with the naked eye just can't be replicated by your camera's sensor. If there are very bright and very dark areas, it will be outside the dynamic range that can be captured in a single shot.

Take our shot of the Lake District here. After hiking high into the hills above Lake Windermere, we were presented with this majestic scene; the sun peeking behind the clouds to illuminate select patches of the

landscape below with its golden 'god rays'. But shooting towards the sun at our Nikon's recommended exposure, the sky is horribly blown out. The camera just can't capture detail in both the bright sky and in the shadows cast by the hills and rocks.

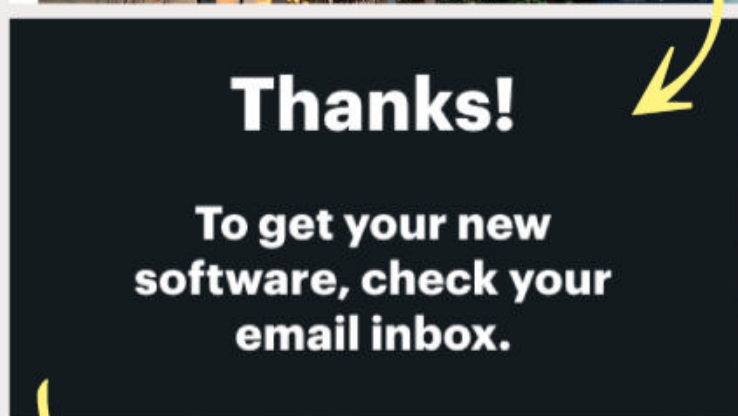
The solution is to increase the dynamic range by taking several shots at varying exposures, then merge these together in software to create a good balance of tones that crunches this increased

dynamic range into a viewable shot, known as high dynamic range – or HDR – image. Aurora HDR is widely regarded as the leading software for this purpose, and we're giving away the 2018 version for free – just make sure you download it by 31 January 2021. And if you like the software, why not upgrade to the latest version at a special price?

But first, you need to get set to produce the source images in the first instance. Here's how...



1



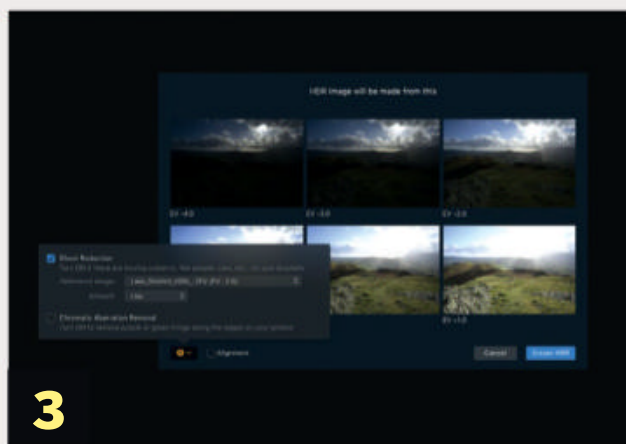
2

▲ Shoot your sequence

Set up your camera on a tripod and use Manual exposure at ISO100 and a narrow aperture, like f/11. Our test shot at the recommended exposure was very overexposed, so we took a bracketed sequence of six shots, ranging from -4EV to +1EV, in one-stop increments.

► Download Aurora HDR

Go to www.skylum.com/np-aurora and fill in your details. In the email you get, make a copy of your activation key then click to download the Mac or PC version and install as per the instructions. Click Activate and enter your email address and key – the software is now yours!



3

▲ Merge the images

Click Open Image and drag your shots (or our project files) into the window. Click the cog icon at the bottom left of the screen and check Ghost Reduction; this compensates for clouds that have moved between frames. Click Create HDR. Depending on the power of your PC, this could take some time...



4

▲ Apply a preset

The HDR image is displayed. At the foot of the screen are a bunch of presets. Click the Categories tab and select Landscape, which gives a range of enhanced looks suitable for scenic shots. Use the slider to set the strength between 0 and 100%. We settled on the Warm Skylight option at 75%.



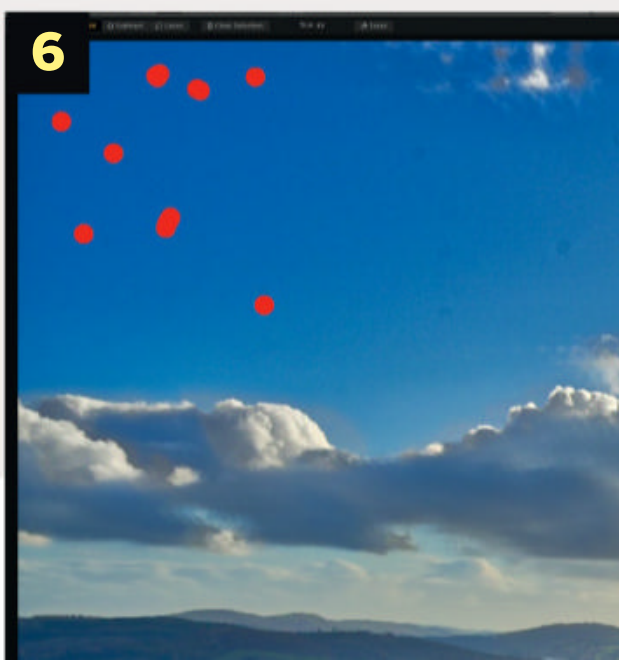
5

▲ Final changes

You can tweak the effect by changing the values in the Filters panel; those that have been altered are marked orange. To hide the effect of a filter, click the eye icon, or the arrow icon to reset it. Clicking the preset thumbnail again reinstates its original values. Click Export to save the image.

► Bust the dust

Because the HDR image brings out such a great level of detail, it can emphasize anomalies such as dust spots that were barely noticeable in the original image. We used Skylum's Luminar software to remove these with its Erase tool, but of course you can use your editing software of choice to remove these artefacts. **N**



6

Quick Tip

If you like this, you'll love the latest version of Aurora HDR, which offers a host of improvements. Best of all, as a registered owner of the previous version, you're entitled to upgrade to the new software at a special price! See <https://skylum.com/aurorahdr>

BEFORE



AFTER

The Mission

– Replace a backdrop with a tropical scene

Time

– 20 minutes

Skill level

– Intermediate

Kit needed

– Affinity Photo

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Project four: Affinity Photo

Tropical composite

James Paterson removes a background and drops in a lush replacement using Affinity Photo

Replacing a backdrop is a fun way to transform your photos, and it's a fairly straightforward task with Affinity Photo's clever selection tools. Whether you want to transport your subject to a faraway place or simply make an accurate cutout, this technique will give you results in minutes.

We'll begin here by selecting the bird using the handy Selection Brush. This can lock on to the edges of the figure, enabling us to isolate it with a few clicks. Once done, we can

improve our selection using the Refine control, which lets us knock out all the messy, fine bits of background that show through the bird's feathers.

Automated tools can only get us so far and, as such, we may need to finish off our cutout manually by painting on a layer mask to fine-tune what is hidden or revealed. Thankfully this shouldn't take too long, as Affinity Photo's intelligent selection tools will do most of the heavy lifting for us. Once done,

we can simply drop in another image and transport our subject to a tropical paradise.

Matching up the two images can take a little work, as we want the perspective and depth of field to fit with each. It helps to pick a background scene with areas that are out-of-focus like this as it makes the composite look much more realistic. It also helps if the lighting in each picture matches. Here both scenes are in sunlight, so they fit together that little bit more naturally.

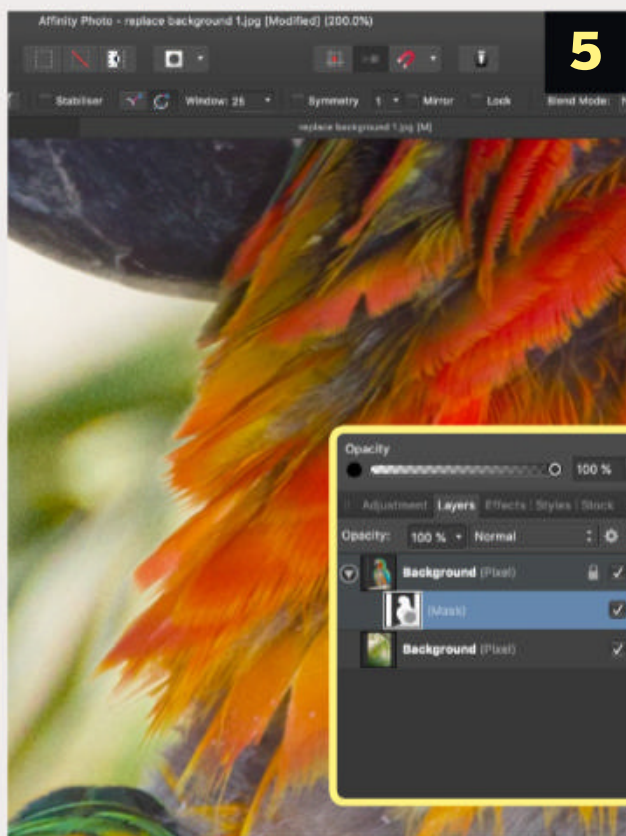


▲ Select the bird

Open the bird shot into Affinity Photo then, ensuring you're in the Photo Persona, grab the Selection Brush from the toolbar. Check 'Snap to Edges' in the options at the top and paint over the bird and perch to select it. If the tool picks up parts of the background, hold Alt and paint to subtract them.

► The new backdrop

Choose Output: Mask and hit Apply. Open the image with the new background then Copy (Cmd/Ctrl+C) and Paste (Cmd/Ctrl+V) the new picture into the bird image. Drag the bird layer above the other one so it sits on top. If you need to resize or reposition the backdrop, highlight the layer, grab the Move tool and drag the bounding box.



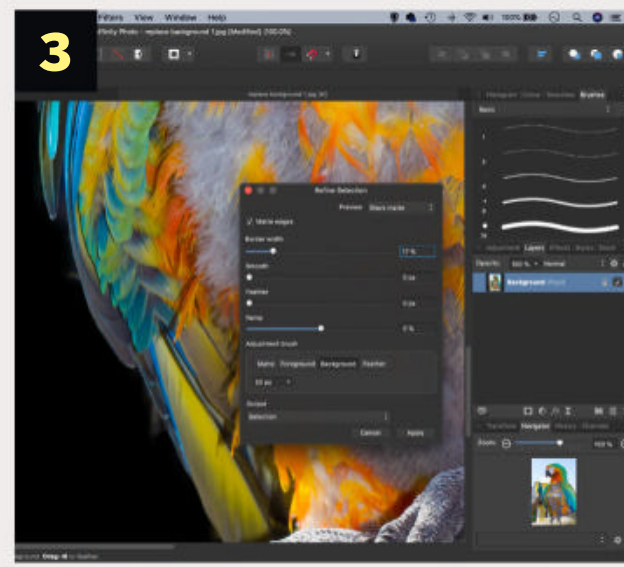
▲ Perfect the mask

Highlight the mask thumbnail on the bird layer then zoom in close to check that the two images blend together seamlessly. You might see bright halos around some of the edges of the bird, if so grab the Brush tool, hit 5 for 50% brush opacity and paint with black to gradually remove them.



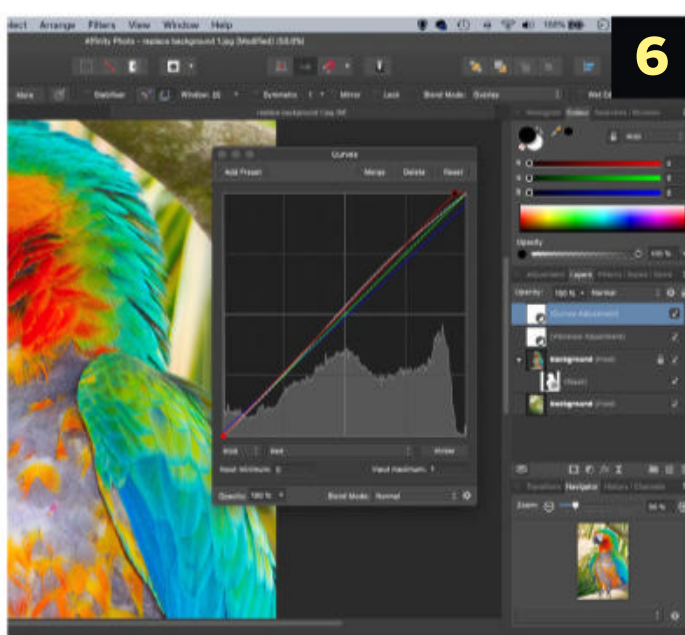
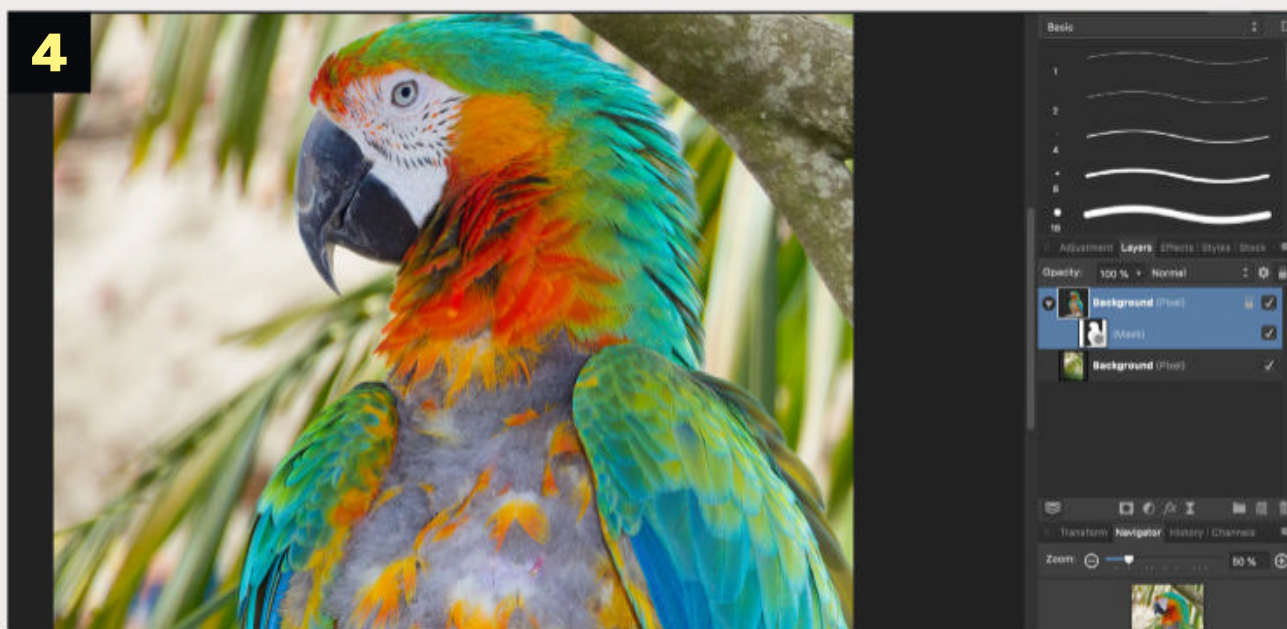
▲ Use the Refine tool

Click Refine in the options at the top. Choose an overlay from the dropdown that gives you the best contrast between subject and background – we chose black. Increase the Border Width slider to expand the area of refinement, so that it covers the longer feathers and picks up all the fine detail.



▲ Fine-tune the edges

The Adjustment Brush options in the Refine dialogue let you improve your cutout by painting over areas you want to include or exclude from the selection. Zoom in with Cmd/Ctrl and +, then check the edges and paint with the Foreground or Background brush to fine-tune the edges.



▲ Tone the composite

Click the Adjustment icon in the Layers panel and choose Vibrance. Increase vibrance and saturation to enhance the colours. Next, add a Curves adjustment layer. Boost the contrast by plotting an S-shaped curve line, then try adding a subtle colour shift by targeting and tweaking the individual colour channels as shown. 📌

Quick Tip

The powerful Refine tool should be used on any cutout in Affinity Photo that needs precision. It works by seeking out details around the edge of a selected area that should be included or excluded, based on the surrounding pixels. The Border Width control lets you expand the search area for these details. The Adjustment Brush buttons let you manually paint over parts that you know should be excluded or included in the selection. Once done, you can output your selection as a mask to complete your cutout by hiding everything outside the selected area.



BEFORE



AFTER

The Mission

– Recolour a background using adjustment layers and masks in Photoshop

Time

– 10 minutes

Skill level

– Beginner

Kit needed

– Photoshop CC

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Project five: Adobe CC

Recolour your backdrops

James Paterson shows how to shift the colour of a backdrop – or anything else you like – using simple Photoshop tools

Bold colours can help your portraits to pop, but you might not always find the colours you want while shooting. Thankfully, recolouring parts of a scene is easily done in post-production.

We'll use simple Photoshop tools here to change the backdrop to a bold blue tone. You can adapt this technique to change the colour of pretty much anything you like.

At the time of the shoot here we found a convenient red wall next to a large window, so ideal for portraiture. But after the

shoot the reds seemed somewhat overpowering, especially as the skin tones and hair also have slight varying shades of red. So instead, we isolated and recoloured the background in Photoshop.

Shifting colours is a fairly simple task. As usual with Photoshop, there are a myriad of ways to go about the task, but it's best to do so in a non-destructive way, so that you have the freedom to choose another colour later on if you want. We'll use adjustment layers here,

which allow us to alter the colours on the layer (or layers) underneath while remaining editable throughout the entirety of the workflow.

As well as colouring the backdrop, we also need to think about reflected colour. Light takes on some of the colour of the surfaces it bounces off, so here the light from the original red wall has bounced back to the subject, shifting the skin tones and clothing around the edges of her figure. We need to fix this with a subtle shift in colour.



1

▲ Select the subject

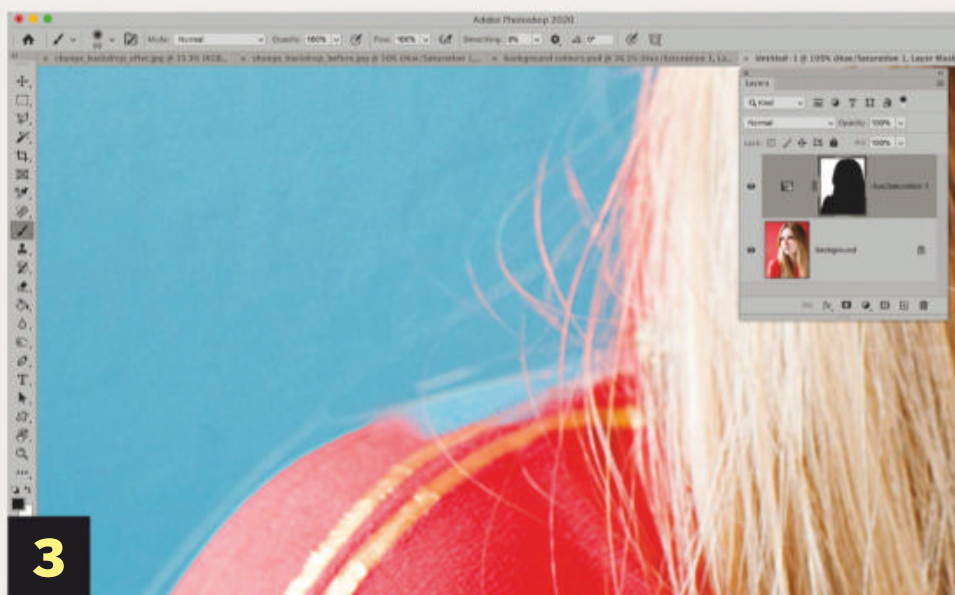
Open the portrait, then go to Select>Subject, then go to Select>Inverse. This should give you a decent selection of the background (we can always fine-tune it later, if necessary). Next, click the Create Adjustment Layer icon at the bottom of the Layers panel and choose Hue/Saturation.



2

▲ Change the hue

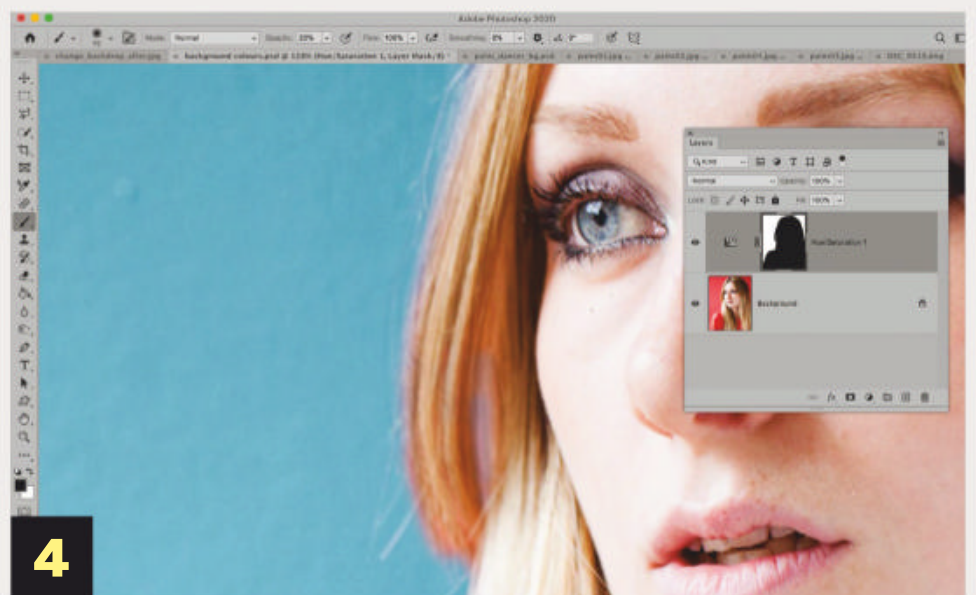
The Hue slider lets you alter colours, but you can also selectively change them with the little Hand tool in the Hue/Saturation command. Click on it, then hold Cmd/Ctrl and drag left over the backdrop to target and change the reds. Fine-tune the Saturation slider too. Here we set Hue to -158 and Saturation to -40.



3

▲ Perfect the mask

Our selection wasn't perfect, so we need to tweak the layer mask on the Hue/Saturation layer. Click the mask thumbnail to highlight it, then grab the brush tool, zoom in close and paint with black to hide the colour change where it's not wanted, or paint white to reveal it. You can also paint at a lower opacity to gradually hide or reveal.



4

▲ Fix the fringing

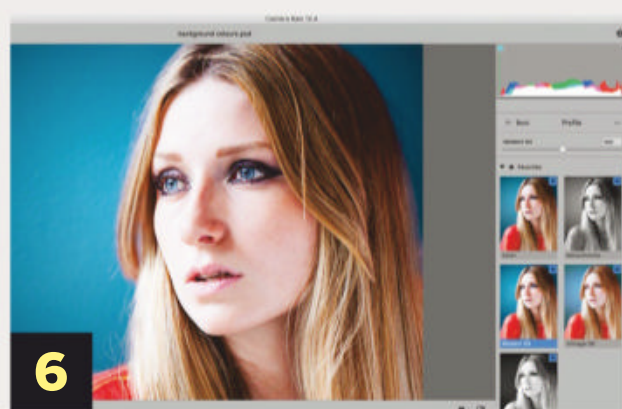
Set the brush opacity to 10 and paint with white on the mask to reveal the colour change in any areas where the edges of the subject look overly red (due to light reflecting off the red wall), like the hair here. You can also try adding a second Hue/Saturation layer to reduce the red saturation, then use a mask to make it selective.



5

▲ Add a vignette

Click the New Layer icon in the Layers panel to make a new empty layer, then hold Cmd/Ctrl and click on the mask thumbnail of the Hue/Saturation layer. Grab the Brush tool, set colour to black and hit 1 for 10% brush opacity, then use a large brush tip and paint to darken the edges of the backdrop to create a vignette.



6

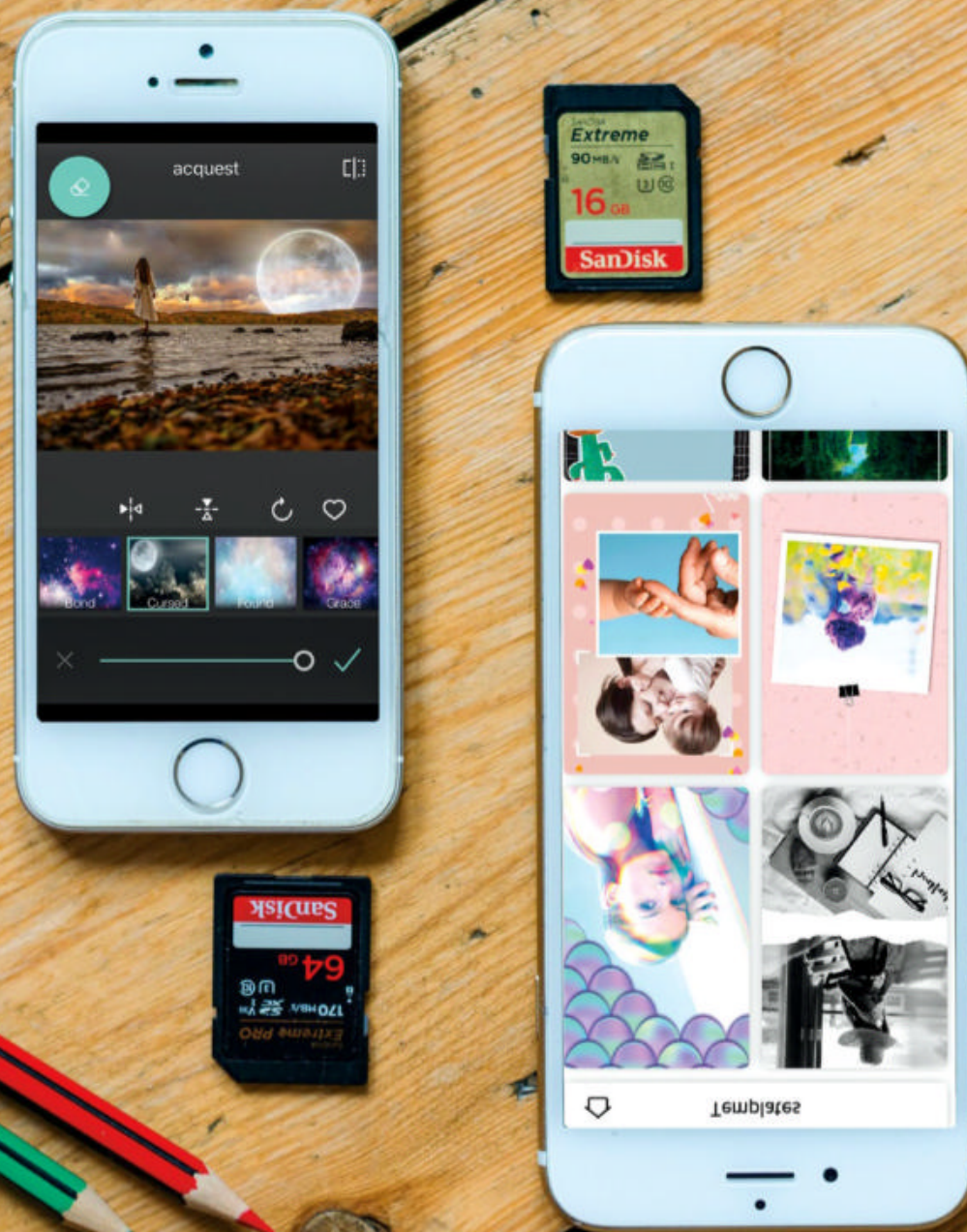
▲ Finish in Camera Raw

Press Cmd/Ctrl+Shift+Alt+E to merge a copy of all the layers, then go to Filter>Camera Raw filter. We can use the tonal tools here to finish off our portrait. Click the Profile Browser to choose a profile effect (we used Modern 04), then adjust the sliders to your liking, to finish off the photograph. **N**

Quick Tip



Colour theory can play a vital role both when shooting and recolouring your portraits. Initially, at the time of shooting here, we employed a uniform colour scheme for this imagery, matching the reds in the outfit to a bold red backdrop. Afterwards, we used Photoshop to switch to a complementary colour scheme. This involves choosing two colours that are opposite one another on the colour wheel – in this case, that was red and blue. Luckily, the blue backdrop also matches the subject's eyes – quite the happy little accident.



* *Project six: Photo apps*

Pixlr perfect

Mike Harris delves into this feature rich image editing app and finds a very capable program for on-the-go post-production



Where to get Pixlr Mobile

A HANDY TOOL

– Pixlr Mobile is on iOS and Android. It's free, but you can pay to access more content. Currently it has 4.3 and 3.7 star ratings on Google Play and the App Store respectively.

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You're spoilt for choice if you're looking to add an editing suite to your smart device's library of apps, and at first glance Pixlr Mobile's vibrant overlays, effects and templates might look a little too gimmicky for serious photographers.

But the app's wide range of templates is a great asset for those who don't possess any graphic design experience, and the ability to make attractive collages from a series of images

will appeal to the social media savvy. And yet beneath these headline features is a robust bread-and-butter image editor. Beyond all the usual adjustment tools you can dodge and burn, heal unwanted anomalies and more. Adjustments are masked automatically, which allows you to apply selective edits on the go.

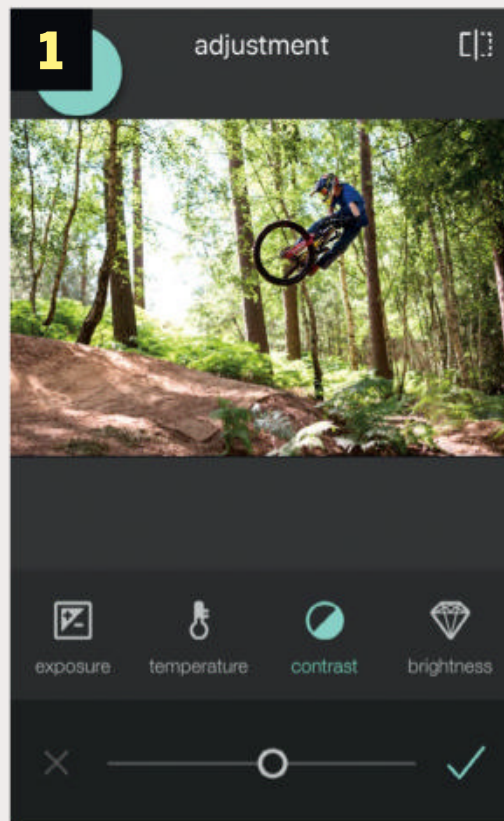
The free version of Pixlr is feature rich and will no doubt satisfy lots of users, but Premium subscriptions (currently £11.99

per year or £1.99 per month) boast an ad-free experience and a much wider range of stickers, overlays, borders and fonts.

Image manipulation is processor intensive, and we did experience a few crashes. As such, we'd recommend trying the free version of Pixlr first to see how your smart device fares. When everything is running smoothly you'll find a capable image editor that's simple to use. Here are the main features.

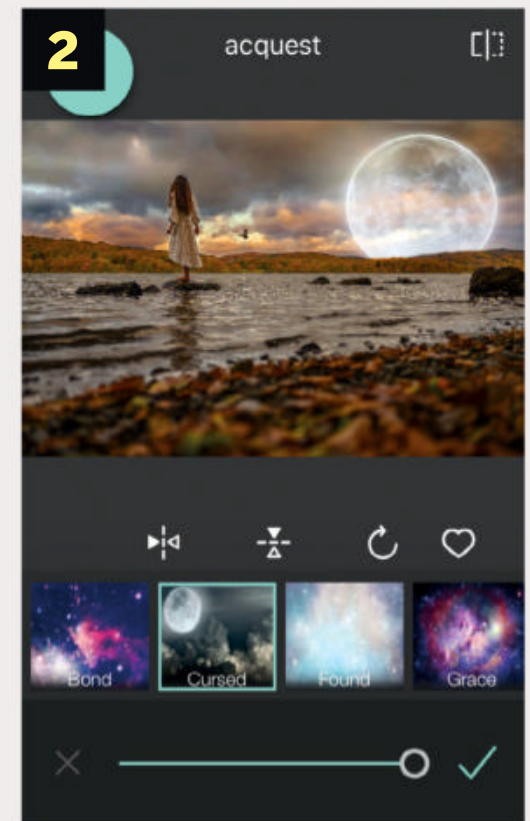
► The right tool for the job

Pixlr boasts plenty of advanced features, but it performs well as a generic editing suite. You'll find all the usual adjustments such as exposure, contrast and temperature, as well as more advanced tools that allow you to dodge, burn, smoothen and heal your images.



► Creative juices

Even the free version of Pixlr is packed with a large roster of filters and a library of fun overlays, including bokeh discs and starry skies. You can also add borders and stickers to your creations, as well as text in a variety of different fonts and colours.



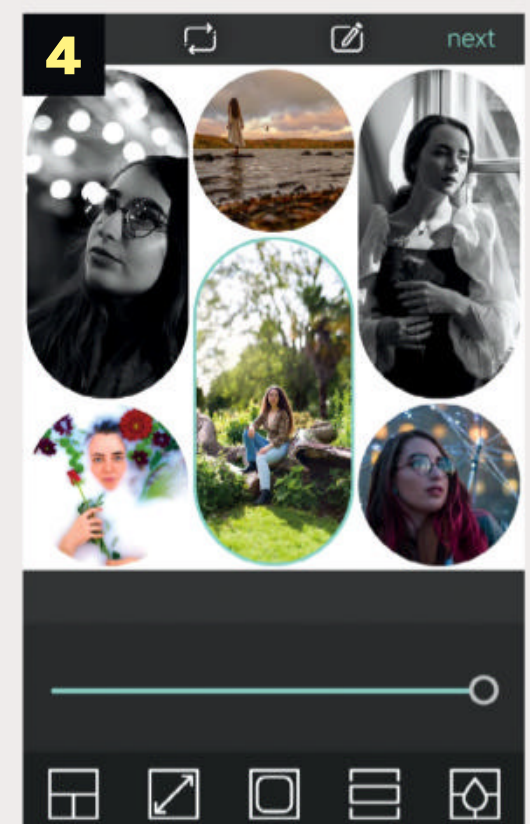
► Double the fun

Pixlr has a dedicated double exposure function. We found the app had a tendency to crash during this, but it could have been a hardware problem. When it works this feature is straightforward and allows you to alter elements such as size, transparency and blend mode.



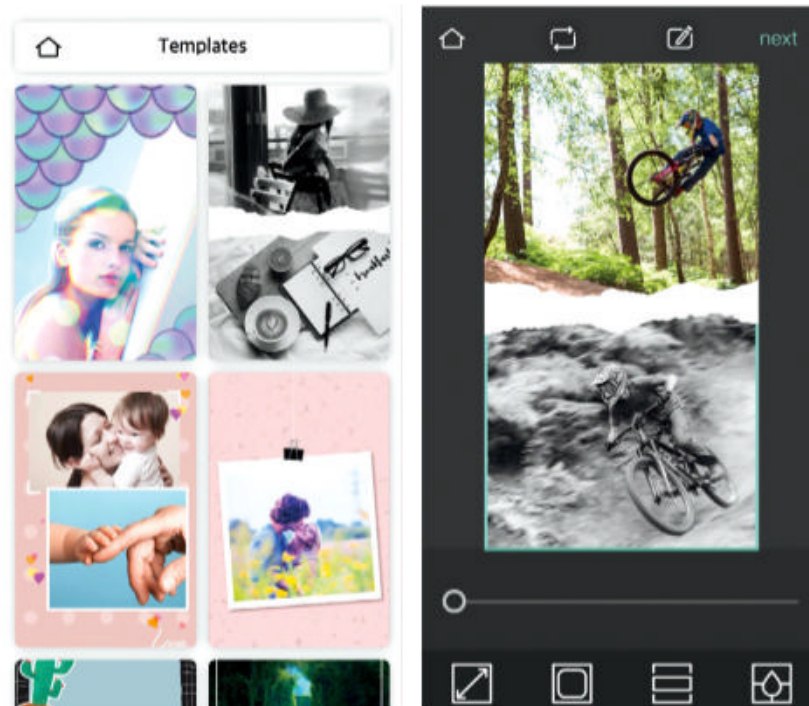
► Create a collage

The Collage function is simple to use. You select a few photos and Pixlr will drop them into one of many templates. Collages are perfect social media fodder and you can change template, move and resize your images, and alter the colour of the background.



Templates

Pixlr has a number of stylish templates, which you can fill with your own images. Templates can be edited, but options seem limited. You can edit your work further as a flat image using the app's general editing tools though. We struggled to make our designs look as good as the examples but this is still a useful function, especially if you don't have any graphic design experience.



Expert Tip

Pixlr features an in-built camera function, but we know *N-Photo* readers will want to download and edit their favourite images taken on their Nikon camera. The easiest way to do this is to download a free image sharing and storage app, like Dropbox or Nikon's very own Image Space. The latter boasts a generous 20GB of storage for Nikon product owners. All you have to do is register a Nikon product when you sign up. For more info, visit: www.bit.ly/3oGvR9x



Project Seven: The big project

Liquid motion

James Paterson reshapes images into a stunning digital abstract figure with photography and Photoshop

For this month's Big Project we'll look at how to craft a colourful dancer image from a series of photos of paint. This involves a combination of shooting skills and Photoshop techniques.

First, we'll get set up to shoot vibrant photos of paint by capturing the colours as they travel through water. Once done, we'll progress into Photoshop where we'll warp the photos into the shape of our springing dancer. As such, this is effectively

two skills in one. So if you're mainly interested in capturing beautiful paint abstracts, then you can follow along with the first part, and if you'd rather work on the Photoshop skills, you can skip the shooting part and use the supplied images to craft your own painterly figures.

For the shoot, we need a clear container full of water. A fish tank is ideal, but any clear plastic or glass container will do. As for the lighting, you can use natural light

at a push, but you'll get better results with an off-camera flash – any budget Speedlight will do. The flash helps to bring out the colours in the paints and freezes the action as the paint travels through the tank of water. We'll also look at how to get set up with your off-camera flash and how to expose for the shot. We'll then move on to the Photoshop part of the technique. It might seem complicated, but it's actually much easier than it looks... →

The Mission

- Shoot paint in water and warp the photos into the shape of a dancer

Time

- Two hours

Skill level

- Advanced

Kit needed

- Speedlight
- Fish tank
- Paints
- Photoshop CC

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Paint drops GET SET UP FOR PAINT ABSTRACTS WITH THESE BITS OF KIT

1 Fish tank

A small fish tank like this is ideal, but any plastic or glass container will work. Ensure the glass is as clean as possible before you start filling the tank with water. You'll need to refresh the water after every few shots, so this is best done near to a sink.

2 Speedlight

An off-camera flash is the best way to capture the paints, as it gives your images a clarity that is hard to achieve with natural light alone. Position the flash to one side of the tank, angled slightly away from the backdrop so that it doesn't spill onto it.

3 Reflector

By positioning a reflector opposite the flash on the other side of the tank, we can bounce the flash light into the shadows to even out the lighting. As such, it's a simple and cheap means of creating a second light source for your subject.



4 Black background

A plain piece of card can be used to make a black backdrop. This helps to make the paints stand out, and also makes it easier to combine several images of the paint later on. It means we can simply blend them using the Lighten blend mode in Photoshop, which effectively cancels out the black backdrop.

5 Wireless flash trigger

A wireless trigger lets you fire your off-camera flash. If you don't happen to have one, you could set your Speedlight to optical remote mode then use your camera's pop up flash to trigger it instead. Or, alternatively, you can use a flash that is wirelessly compatible with your camera.

6 Camera settings

As a starting point for your exposure, set your camera to Manual mode with aperture at f/8, ISO100 and shutter speed 1/200 second. Set the flash to manual at 1/2 power and take a test shot. If it's too bright then adjust the flash power down until it looks just right.

Shooting paint abstracts

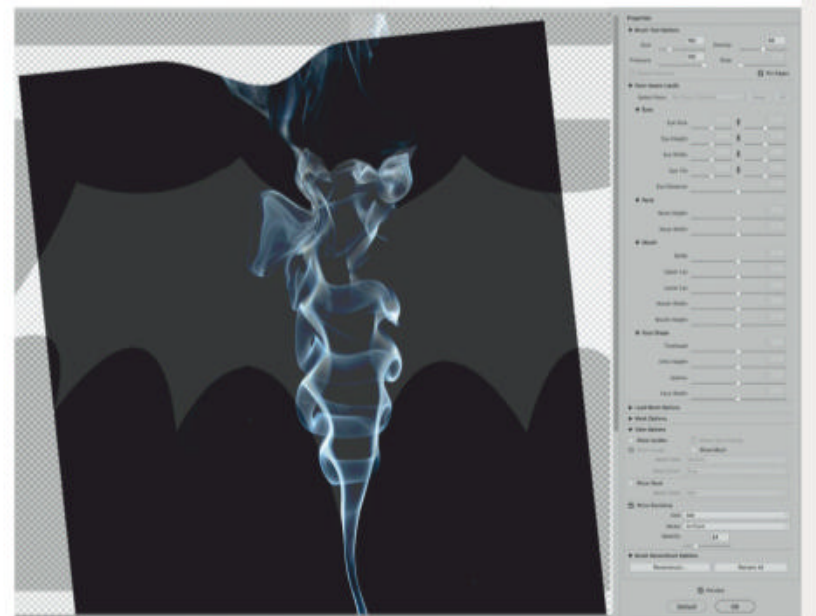
GET YOUR FOCUS SPOT-ON, CHOOSE THE RIGHT TYPE OF PAINT AND MIX UP YOUR COLOURS FOR VIBRANT PHOTOS



1 Choose your paints
Acrylic paints will work best for this as they don't mix with water, so they'll stay clumped together when you drop them in the water. If the paints are too thick then try mixing them with a dash of white spirit to thin them out. Experiment with the height at which you pour them into the water.

2 The drop spot
Before you start dropping paints into your water you'll need to pre-focus on the spot where they'll be. Hold an object like a spoon in the centre of the water, focus on it and then switch your lens to manual focus in order to lock it in place. Drop the paints in the same spot.

3 Mix your colours
Try pouring more than one colour into the water at once, as the best photos will be those where the paints intertwine with one another. Use contrasting colours with bold shades. If need be you can always change the colours in Photoshop using the Hue/Saturation command (Cmd/Ctrl+U).



Why not try? smoky shapes

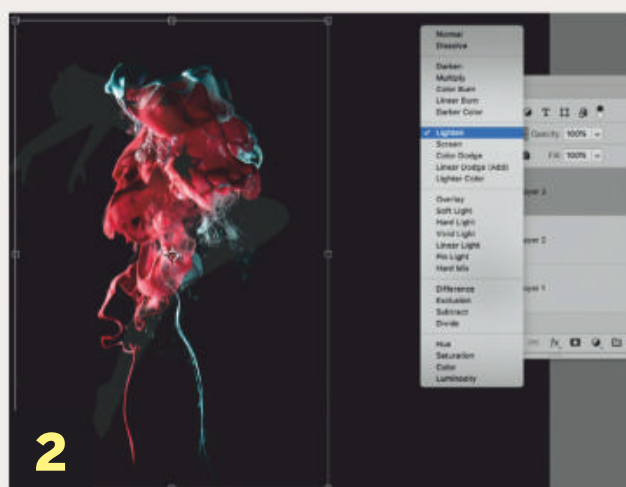
IT DOESN'T NECESSARILY HAVE TO BE PAINTS, YOU CAN APPLY THE SAME TECHNIQUE TO ALL KINDS OF THINGS

You can use the same Photoshop technique described here to reshape smoke photos into flowing figures like this. All you need are a few photos of billowing smoke (ours were taken using an incense stick and an off-camera flash, positioned behind the smoke to backlight it). Like our paint photos, they need to be taken against a black backdrop, as this makes it very easy to combine them using the Lighten blend mode in Photoshop. It's easy to reshape the smoke to conform to an object or figure of your choice. And why stop there? Besides smoke, you could try using other substances like water, plants, rocks, or anything else you can think of. →

Craft a painterly figure

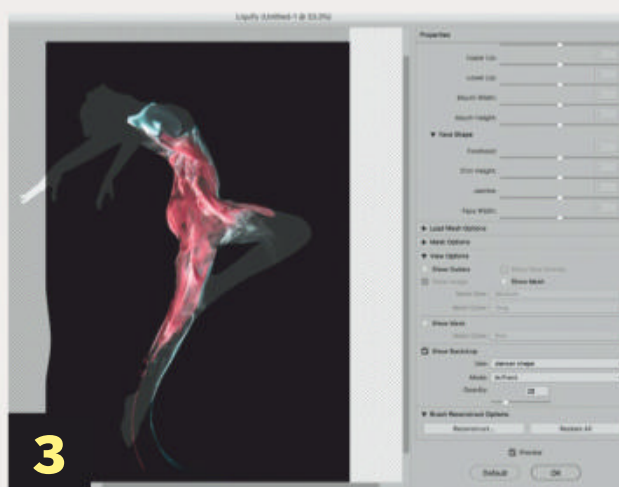
► Drop in a shape

Open Photoshop, go to File>New, set Background Contents: Black and hit OK. Next, drag and drop the shape that you want to use. Here we used an outline of a dancer, but you can find many other shapes and figures online. Resize the image with Cmd/Ctrl+T, then hit 2 to set the layer to 20% opacity.



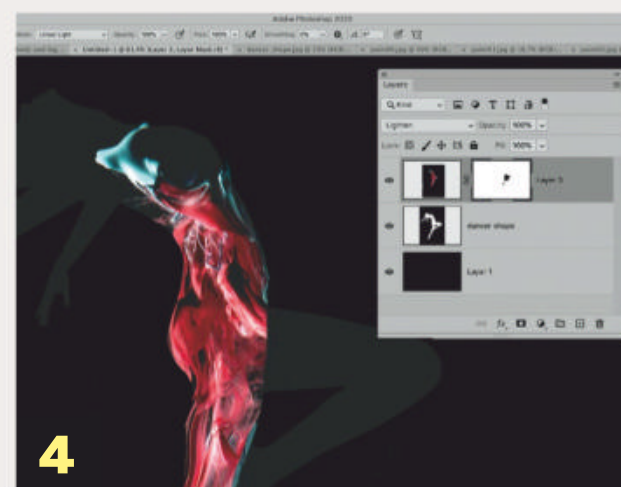
▲ Copy in the paint

Copy in a paint photo and position it roughly over the figure. In the Layers panel, set the blend mode to Lighten. Next, go to Filter>Liquify. Check 'Show Backdrop' in the settings on the right. Choose Use: dancer shape and set Mode: In Front, then adjust the opacity slider to suit.



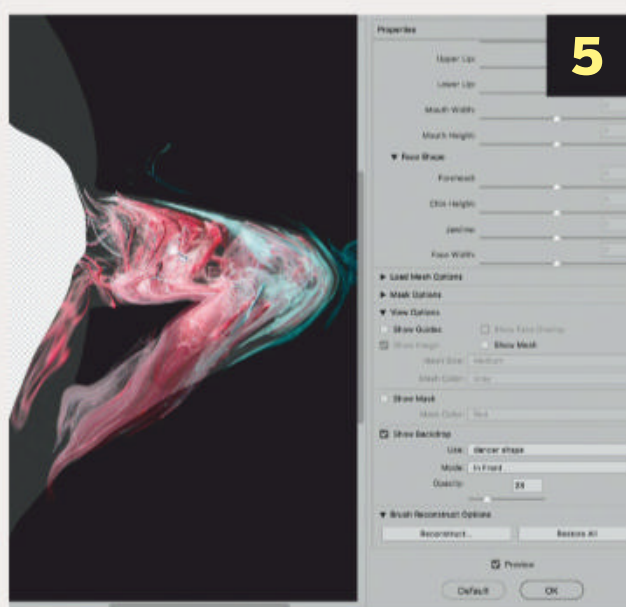
▲ Warp the paint

Grab the Forward Warp tool from the toolbar and use the] and [keys to resize the brush tip. Drag over the image to push the paint around so that it follows the body of the dancer. Shape it to cover a part of the body using short, sharp pushes with the tool. Hit OK when you're happy.



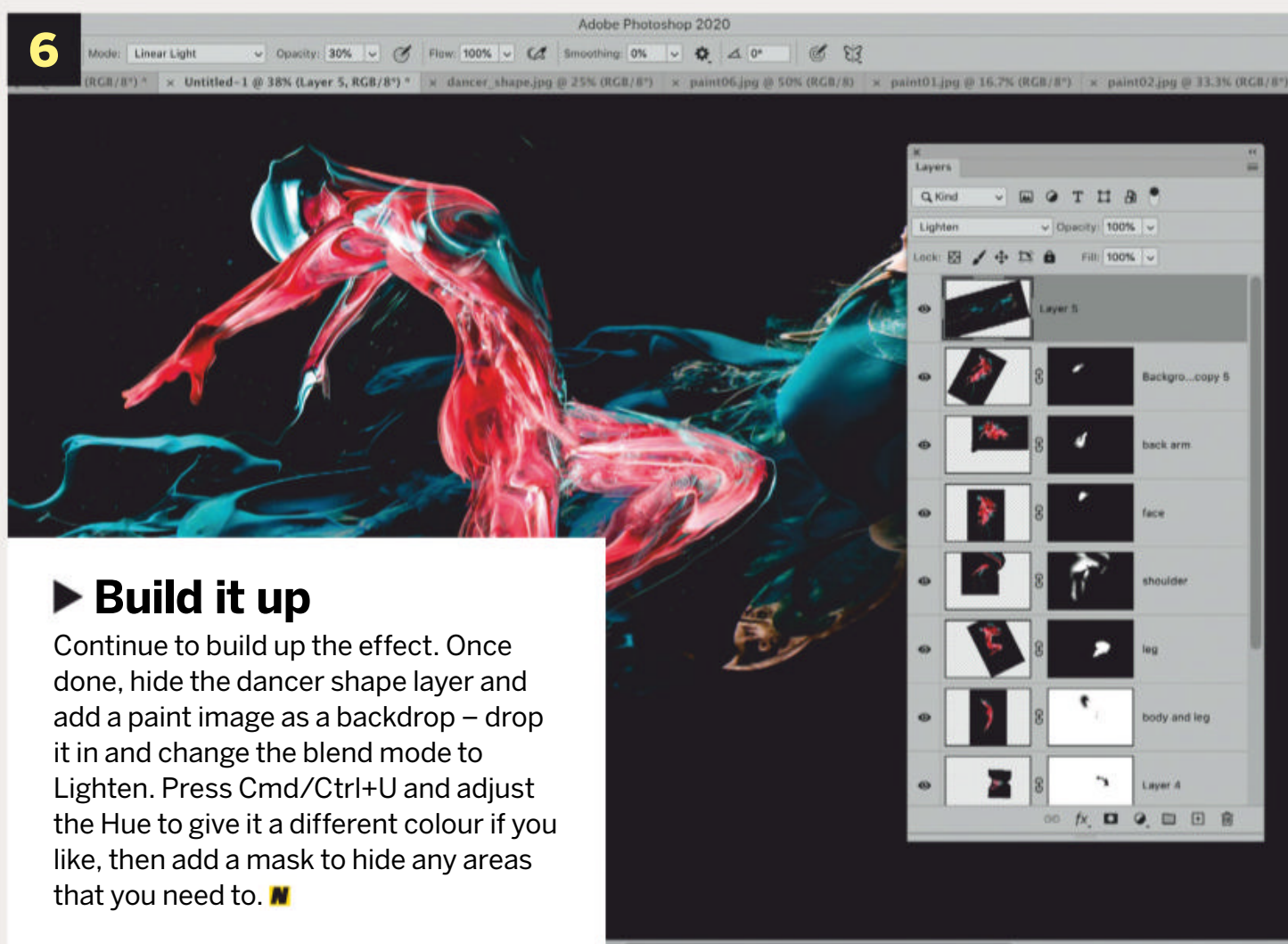
▲ Paint a mask

Go to the Layers panel and click the Add Mask icon, then grab the Brush tool and hit D then X to set the colour to black. Paint to hide any parts of the paint that you don't want to include. Next, drag and drop another paint image in, and position it roughly as before.



▲ More paint images

Change the blend mode of the newly added paint layer to Lighten, then, again, go to Filter>Liquify. Once more, set the Show Backdrop settings so you can see the dancer shape, then use the Forward Warp tool to reshape the paint to match up with another part of the figure, the other leg in this instance here.



► Build it up

Continue to build up the effect. Once done, hide the dancer shape layer and add a paint image as a backdrop – drop it in and change the blend mode to Lighten. Press Cmd/Ctrl+U and adjust the Hue to give it a different colour if you like, then add a mask to hide any areas that you need to. ■



Change gear.



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Tom Mackie On Location

Tom is an award-winning professional photographer, best known for his high-quality landscape work for advertising, editorial and design clients. More info at: www.tommackie.com

Picture within a picture

Just look a little deeper into your scenes and uncover the potential of compositions



The rain was persistent all day, which was odd as I came to Yosemite National Park in January expecting fresh snowfall. It didn't look like I would be getting the camera out for a while, which didn't matter as I was having a few days' break with good friends from LA. We were reminiscing about the times we came to Yosemite over the years and how it's changed.

Late in the afternoon the rain stopped and the clouds began to part, so we went up to Tunnel View to capture a high view over the valley. This location was immortalized by Ansel Adams. It's said the best photos are only a few feet from the road, so it's ironic this shot was made from the car park.

Three of the iconic natural features of the park can be seen from one place, El Capitan on the left, Half Dome in the centre obscured by clouds and Bridalveil Fall on the right. As I stood there watching the mist move through the valley, compositions were appearing and disappearing within minutes. The sun descended towards the horizon, illuminating El Capitan with a warm light. At times the waterfall was obscured by mist, so I waited and hoped that the mist would move into position before the shadow crept up El Capitan too far.

The mist finally sank into the trees to reveal the waterfall when this image was made. Exposing a scene like this with lighter tones in the top of the frame and

dark pine trees in the valley needed some care and attention. I used a LEE 0.9 soft graduated filter over the top half of the scene because of the horizon. It was crucial to make sure I recorded all of the necessary info to work it up in post.

You can't rush art

I checked my histogram to see that I wasn't blowing out any highlights. I used Luminar 4 to transform the Raw file to bring out all the details. You can see the comparison between the Raw and the finished image at www.tommackie.com and a step-by-step procedure on how I used Luminar to process the image.

Many compositions can be made from here without having to move the tripod. I try to make a horizontal, vertical and panorama of a scene whenever possible, to increase the salability of my work. Verticals lend themselves to magazine covers, panoramas work well for double-page spreads in magazines. If I only made a horizontal orientation I'd be limiting my sales.

Sometimes the subject just won't lend itself to these orientations, but this view over the valley had so much potential. As well as capitalizing on the entire scene, there were pictures within the picture. This not only increases the amount of images you can achieve, but rather than looking at a scene as a whole, it makes you look deeper into the scene to create different compositions. You could simply divide this picture in half creating vertical images of El Capitan and Bridalveil Fall, but why stop there?

To create a stronger composition, I had to get closer, so I mounted my Nikon 70-200mm f/4 lens at 200mm and positioned the waterfall in the upper right third of the frame. I waited until the mist drifted into the right place before shooting. That afternoon was likely the most productive and the conditions the most dramatic that I'd ever experienced at Yosemite. **N**



The famous Tunnel View over Yosemite Valley lends itself to a variety of different compositions. Tom was fortunate when the rain cleared to leave this dramatic view.

Using a telephoto lens can help you to create new compositions from the same scene. By restricting your angle of view, you can train your eye to see more compositions from one viewpoint.



Photography: © Tom Mackie



That afternoon was likely the most productive and the conditions the most dramatic that I'd ever experienced at Yosemite

Gurcharan Roopra

More wildlife photographers than ever are jostling for position on Africa's safari game drives, and Kenya's **Gurcharan Roopra** is one of the newer faces gaining attention. Keith Wilson finds out what makes his photography stand out and succeed in a very competitive area...

All images: Gurcharan Roopra





Gurcharan Roopra Profile

- Born and raised in Nairobi, Kenya, Gurcharan Roopra lived for 10 years in the UK after being awarded a degree in automotive engineering.
- Since his return to Kenya in 2012, he has established himself as one of Instagram's most widely followed photographers of African wildlife.
- It was the publication of his image of a white rhino in the book *Remembering Rhinos* that brought Gurcharan's photography to the attention of international publications and online platforms.
- Since 2018, he has been a regular workshop leader and speaker for Nikon Middle East in Dubai, Qatar and Oman.

www.gurcharanroopra.com

THE N-PHOTO INTERVIEW

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Let's face it, if you had grand plans and hopes at the start of 2020, they were kicked into the long grass by the end of March because of the coronavirus pandemic. As a personal example, I was supposed to travel to Kenya in late August to meet Gurcharan Roopra and other photographers as we covered the great migration for a week in the Maasai Mara. This would have been our first meeting since the launch in London of the book *Remembering Rhinos*, in 2017. Back then, Gurcharan's photograph of a southern white rhino, silhouetted on a misty plain beneath the sun's white orb, was one of ten competition winners for inclusion in this fund-raising book published for the Born Free Foundation.

When we finally do see each other again, face-to-face, it is courtesy of Skype linking London to Nairobi. Today, Gurcharan is no longer the relatively unknown wildlife photographer he was back in 2017. Since then, the Kenyan-born businessman has enjoyed a rapidly growing following on Instagram, with workshops and speaking engagements in Africa and the Middle East, a burgeoning print sales business and even plans for his first book. But COVID-19 hit his ascendency, and our meeting by the Mara River, like a global pause button. Of course, none of this mattered to the wildebeest and



That's what I liked doing back then, so it was more about enjoyment and having fun

Previous page: An ultra-wide-angle close-up not only reveals the hairs on the elephant's trunk, but also the open landscape and another member of the herd following.

Camera: Nikon D750

Lens: 20mm f/1.8

Exposure: 1/500 sec, f/8, ISO200



Left: Portrait of a giraffe mother and her calf, taken in June 2020 using the new D6.

Camera: Nikon D6

Lens: 400mm f/2.8

Exposure: 1/400 sec, f/9, ISO1000



zebra who proceeded to stage some of the largest herd crossings ever seen. Sod's law. Unsurprisingly, it is the first thing we talk about when starting this interview...

Some of the Maasai guides posted videos of the wildebeest migration on Facebook, saying the crossings this year have been among the biggest ever.

It has been, it's been phenomenal this year! We were expecting it to be quieter for tourists because of COVID, but there were a lot more Kenyans who went this year instead. I'd even prepared a chopper to do aerial photography, but it's okay, we've got it all set up again for next year. If it happens, it will be beautiful.



* SELLING PRINTS

GURCHARAN BELIEVES THAT WELL COMPOSED, WIDE-ANGLE STUDIES OF WILDLIFE IN THE LANDSCAPE ARE MORE POPULAR FOR THIS MARKET OF PRINT BUYERS...

If a single image is to stand alone and earn its place on someone's wall, is composition more important than any other criteria?

Absolutely. For their living rooms, a lot of people like this big landscape with a subject in the middle, compared to a closely cropped Instagram-type lion! If you want something on your wall you want something that tells a story.

Do you get much demand for your prints?

For a guy who had never looked at it before, last year I sold \$10,000 worth of prints. This year has been a failure because of COVID. It has started to pick up, but it's never been the key part of my work; I'm not there for the money shot, I'm there for the passion shot.

Above: Giraffes are Gurcharan's recent focus of attention, and group studies in the context of their surroundings are a hallmark of his style.

Camera: Nikon D5

Lens: 200-400mm f/4

Exposure: 1/200 sec, f/11, ISO400

How did your love of wildlife begin?

Being born in Kenya, you tend to take the wildlife for granted and don't really respect it the way a foreigner would respect it. So, I did come into the national park (Nairobi National Park) and go to the Maasai Mara, not for seeing wildlife, but because it's raining and it's going to be muddy and we'll be off-roading with 4x4 vehicles! That's what I liked doing back then, so it was more about enjoyment and having fun.

Then, after graduating from university in the UK in 2000, I came back to Kenya, but in 2002, I moved back to the UK because we had an older president and during his time the economy had really struggled. There was also no work. →

What was your degree?

Automotive engineering. I've got zero knowledge about arts. Everything is engineering, to be honest. While I was in the UK, I decided, like every gadget-minded person, to buy something fancy and that turned out to be the cheapest possible Nikon SLR. The first two years the camera was left in the cupboard and then my little one was born and the camera came back out and it was charged the whole time, so anything he did we captured it.

Which camera was that?

It was the D50, the cheapest digital camera I could find, but I was pleased with what I had at that time. After 10 years in the UK, I moved back to Kenya in 2012 and I decided to buy some lenses because that's the place for wildlife. Two years after that, I bought a Land Rover Defender, which made me go onto the park by myself and focus on what I enjoyed. It put the focus on my work, that's where the biggest change has come.

The Defender must have given you much greater accessibility?

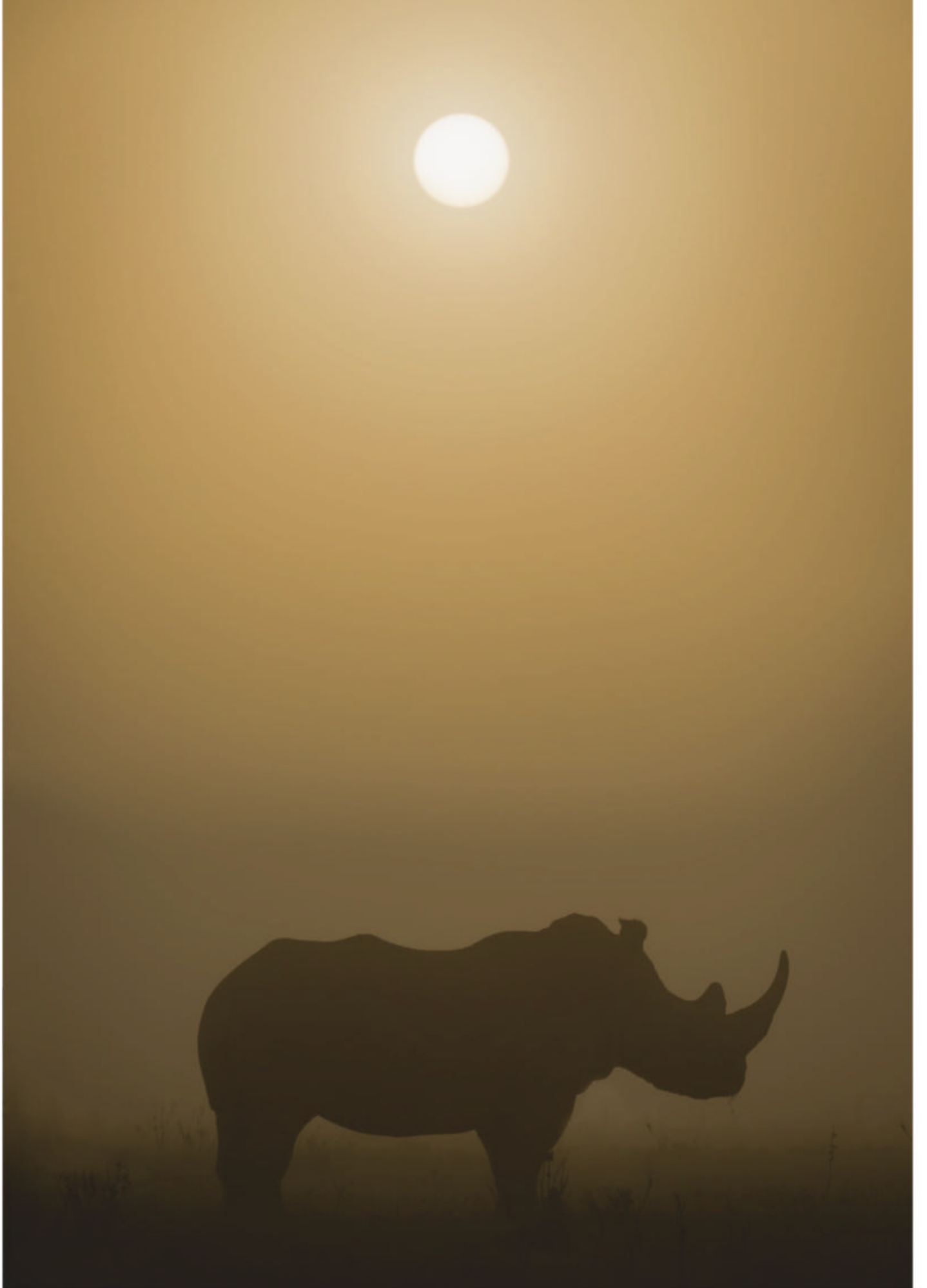
Exactly. And in the muddy wet days where everyone is afraid to go into the park, I'm thinking, 'Ah, this is going to be fun today!' Now, I feel it's got to the point where I'm finding driving and photographing at the same time is becoming a hindrance, so I'm thinking about how I'm going to take the next step.

What step would that be?

In the Mara, you're with a guide and you tell the guide, 'look, I want the vehicle on the left side of the lion because that's where the light is', and while he's doing that you're able to prepare your camera to take the shots. But when you're doing the driving and trying to get to the right side, by the time you get there, you're always in a rush, you're focusing quickly, you're trying to pre-empt the



The photos I got from that trip completely sold me on helicopters, so the drone's now somewhere in a box



subject. Simply, when you're trying to both drive and photograph there's too much on your hands.

Especially when the animals are on the move and you're trying to get ahead of them...

Exactly. You're trying to anticipate where the animal will move, and you drive round, you get in front, you get ready for the shots; whereas when you have a driver, you say to him, 'okay, I've got two shots, let's move to the next location'. It's much easier.

Is there a particular species that you like to focus on?

You could say so. Initially, like every other photographer, lions were the biggest thing, but these days I go to a lion sighting and I'm yawning and I'm

Above: This image of a southern white rhino taken in Kenya in February 2017 was published in the book *Remembering Rhinos* and exhibited in London the same year.

Camera: Nikon D5

Lens: 200-400mm f/4

Exposure: 1/320 sec, f/9, ISO100

thinking, 'no, I need to move on and find something different'. Zebras were pretty fancy and I loved photographing zebras, but now I'm moving onto giraffes and I'm really enjoying giraffes at the moment.

They're not easy, because of their height!

Yeah, agreed. Before, I only had a 200-400mm lens and I was focusing on everything using that lens, but having taken a step back, I decided one day to go out and try my 24-70mm. Using that with the giraffes and the dramatic skies and the landscape, or where the giraffe is on the horizon without the background cutting into him; that sort of stuff is really what gets me going these days.



Black and white seems to be a favourite of yours too, am I right?

You won't believe I hated it when I started! I honestly did, but I think the reason was because I didn't understand how to edit black and white. I never knew you could go into black and white and use the black and white filters on each individual colour, and once I learnt that, my focus turned to black and white. If it doesn't work in black and white, then fine, we can post it in colour. Otherwise, it has to be black and white, first and foremost.

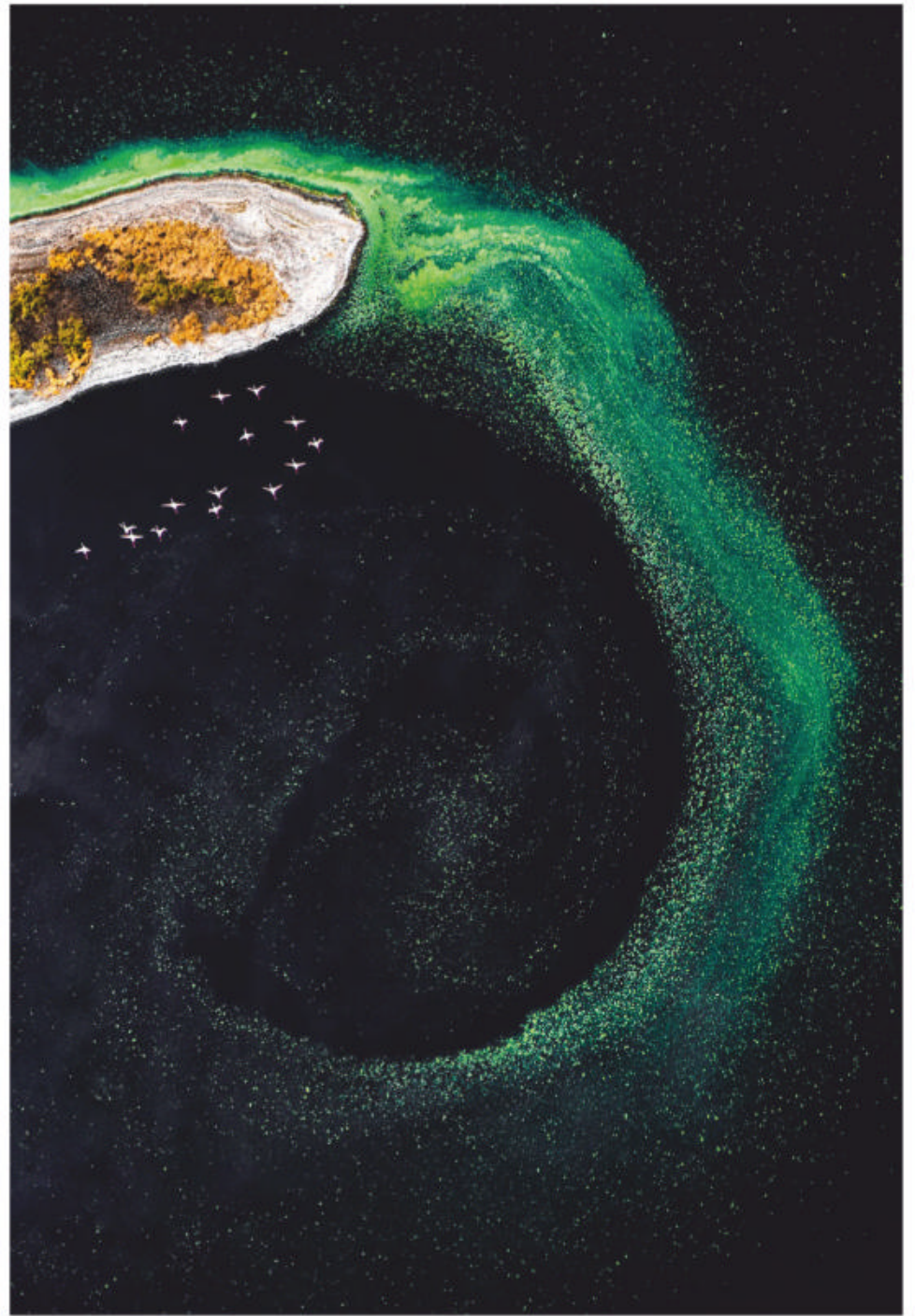
That's interesting because most photographers try colour first and then look to see if an image works better in black and white. You're doing the opposite!

The only place I feel I struggle with in black and white is aerial photography because the canvas is so flat, you really need the colours to give it some punch. Maybe when I'm focusing on shadows, that's when black and white really works, even on aerial photos. Aerial is the one place

where I'm focusing in colour, but everything else is black and white first. If it doesn't work then we try colour, if that doesn't work, scrap!

Is all your aerial photography from a helicopter, or do you try using drones as well?

I started with a drone, but our commercial and civil aviation authorities have too many constraints on drones in Kenya. It costs between \$2000 and \$3000 every year to renew your drone licence. I've been interested in helicopters since I was a kid, and for my 40th birthday I bought myself a helicopter package around Kenya. It was a tour: we departed from Nairobi and went to the Mara; we spent two nights in Mara, then stopped at Lake Magadi to photograph the flamingoes. Then we flew across to Amboseli and I spent a night in Amboseli and then came back to Nairobi. So, I did a three-night, four-day helicopter tour of Kenya. The photos I got from that trip completely sold me on helicopters,



Above left: This magical moment of an elephant seemingly being bathed in a rainbow after a storm was captured on the last day of the year in 2018.

Camera: Nikon D5
Lens: 200-400mm f/4
Exposure: 1/1250 sec, f/6.3, ISO200

Above right: An aerial view of the saline Lake Magadi, taken from a helicopter, reveals a swirl of natural colours produced by the dense sodium carbonate brine that covers much of the lake's surface.

Camera: Nikon D5
Lens: 24-70mm f/2.8
Exposure: 1/600 sec, f/4.5, ISO640

so the drone's now somewhere in a box. I don't know where!

What is your preferred camera and lens setup when you're shooting from a helicopter?

From the helicopter, a 70-200mm, a 24-70mm and an extra wide-angle. Those are the three lenses. I tried it with my 400mm, but the trouble is that with the doors off there's so much draught from the blades that as soon as you poke the camera out of the door, it just gets blown down and you're now fighting the lens, rather than trying to get photos. The helicopter is moving so fast, trying to get a 400mm on a subject and hold it on the subject is virtually impossible.

I can imagine.

Unfortunately, until you start trying to do something really creative, with helicopters you've got to maintain really high shutter speeds because of the vibrations.

For the remote photography, what is your preferred wide-angle? →



I went from the 24-70mm, because at the time it was the only lens that was small enough, and I invested in a 20mm prime because I wanted to get wider. Since the mirrorless cameras have come out, the 14-30mm is my preferred lens on the Z 7, because even though it's extra-wide at 14mm, you don't really get that distortion at the edges that makes the subjects look weird. That camera and lens package is so small that I can make even smaller boxes to hide it and my buggy can do more work, because the camera body is so light.

More life out of the buggy battery because the camera is so light?

Yes, and more flexibility too, because before the cameras were so heavy they became front-heavy, and if you did anything wrong it would fall over.

What cameras are you using now?

I've got a D5, a D850 and two Z 7s. The first Z 7 I've had for about a year and the second one I got just a couple of months ago.

How does switching from professional standard DSLR cameras to mirrorless feel for you?

Thankfully, I don't put my eye to the mirrorless at the moment, they are my gadget cameras, whereas I'm still using my D5 for all the high-speed stuff, and the D850 for those wide-angles, where I'm needing to hold the camera.

Are you entirely self-taught or did you have a mentor?

It was a hobby. I met a couple of photographers who were also doing it as a hobby. We got together and we

Left: To get a closer view of the flamingos flying in over Lake Magadi, Gurcharan switched to a telephoto zoom and kept a fast shutter speed to counteract any vibrations of the helicopter.

Camera: Nikon D850
Lens: 70-200mm f/2.8
Exposure: 1/1600 sec, f/7.1, ISO800

Above: When shooting low-angle close-ups of wildlife from a remote-controlled vehicle, Gurcharan prefers to use a mirrorless with a wide-angle zoom for his setup.

Camera: Nikon Z7
Lens: 14-30mm f/4
Exposure: 1/400 sec, f/14, ISO100

tried to push each other. It becomes competitive, but I think competitiveness helps you push yourself. Then I joined another guy and we tried to push each other and help each other, 'Hey, I've learnt a new trick, why don't you try it?' But what I have always found is that maybe I am a bit more passionate, I want to push harder and harder and it always ends up with me being the guy trying to pull everyone else along with me. It got to the point where I felt now everyone is dragging me down, I need to keep trying. You have to endeavour to keep pushing and pushing further.

What were you all trying to shoot as a group?

The ambition is always to try and get as close as possible and get that wider landscape, so we tried to get as close as you could with a car, without disturbing the animals too much. After that I tried to go the Will Burrard-Lucas way and place gadgets on the ground. So, I built a couple of gadgets, the first two were severe fails, the third one worked very successfully. All these crazy, low level, wide-angle, animal-at-the-face-



It's always about composition. Forget about camera settings, just focus on composition

of-the-camera photos have been thanks to that box. The journey continued: I bought a buggy from New Zealand, specifically made for me. What I've learnt is that every animal requires a different approach: lions don't mind; zebras and herbivores are very careful about what they approach; buffaloes usually don't approach anything, but if you stick a buggy in front of a buffalo they become so intrigued they'll come up to it! It's a learning experience and that's been the push for me. I'd say at this point, it's become a solo journey for me.

You mention Will Burrard-Lucas, are there other photographers, past or present, that you draw inspiration from?

I'm a fan of photographers who take composition very seriously and Federico Veronesi is one of those guys. Also, Ken Dyball. His wide-angle work has been a real inspiration because initially I saw that everyone who photographed the lions on the rocks in Tanzania would always take a zoom lens for these long shots, but Ken had these wide

takes of a lion in silhouette with these dramatic skies, so looking at the whole big scene with a lion on a rock, which did so much more justice to the whole picture. Then he's got this shot on the dry lake bed in the Amboseli where you've got three or four zebras. And then you've got two twisters with these dramatic clouds and the storms coming that's created the wind. So you've got these two twisters and zebras in the middle and it's a wide-angle, super-large picture. Those sort of shots were so inspiring that the wide-angle has become the bigger part of my journey than the telephoto. I'm still getting better shots with the telephoto, but that one wide-angle shot that does justice is what keeps the blood flowing at the moment.

They're the type of pictures that you find most satisfying?

Yes. Unfortunately, because of how small the photos are, when you put on this big wide image it doesn't really do it much, if any, justice on Instagram, but I don't really care! This is what I enjoy doing, so let it be what it is.

What is your day job?

We're the dealers for Hitachi diggers and construction plant for East Africa. That keeps me very busy during the day.

I imagine your dream would be to work full-time in photography. Do you think that day will ever come?

I think as I move closer to my



OUT OF AFRICA?

Although his photography is mostly focused on the wildlife of East Africa, Gurcharan is beginning to look further afield...

Do you have ambitions to take your camera to various other parts of the world, to photograph other species?

To be honest with you, I am so content with trying to push the photographic limits with African wildlife. Initially, I did think about going to India, but what I find is that because I am

spending so much time with African photography, I am able to now say, 'I've done this, I need to find a way to do something different'. Maybe going into India on my first trip will be me just as a regular guy getting a single leopard or a single tiger and saying, 'wow! I've got a tiger photo!' I feel that I'll be looked at as this expert from Kenya and he comes here and he does nothing special! But, I haven't got that spark yet in me to go to India.

Below: Africa's highest peak, Mt Kilimanjaro, forms a spectacular backdrop to this study of flamingoes in Amboseli National Park.

Camera: Nikon D850

Lens: 24-70mm f/2.8

Exposure: 1/320 sec, f/16, ISO160

retirement it will be something that I can focus on much more. To be very honest with you, I've not really imagined a direction for myself. Business is so busy that photography is where I come for peace and quiet. That peace and quiet is what's driving this, and on some days I get lucky and I get great shots, and on other days I come back with a big fat zero. The snowball has started and its picking up momentum and it's growing bigger to the point where it's now: work, photography, work. The fight between the two is going on, so I don't know when I'll take the step to go fully professional, if I ever will.

From your experience so far, what is the single best piece of advice you'd give to someone starting a life in photography?

It's always about composition. Forget about camera settings, just focus on composition, because once you start getting compositions right you have no choice but to learn everything else. That way is so much easier to learn. A lot of youngsters – and I was the same when I started – get stuck on which camera setting to use. Now, I realize it doesn't matter if the photo is 100 per cent technically correct, but if the composition is right it will find its own way of making a name for itself. As long as you have the composition, the rest of the stuff will run behind it. **M**





The mining profession has changed from the past, but it is still no less dangerous.

Working high in the Tuscan hills

Photographer **Michele Belloni** documents the traditional – and sadly disappearing – trades of Amiata

thanks to its lightness, large aperture, and incredible quality. The lightness of the Z 6 body, along with the compactness of the lenses and the quality comparable to much more expensive historical German brands, of which I am a strong admirer, convinced me to change to the mirrorless system after decades of using Nikon SLRs. Despite growing up in darkrooms surrounded by chemicals and film enlargers, having the exposure preview in the viewfinder, the image stabilizer, and this level of autofocus accuracy, is absolutely priceless.

The memory that I will always carry with me will be of the people with so many stories to tell – the ones who have reached that age after a life of sacrifices, pursuing a path made of vocation and passion. I was able to share the meaning of the project and they all decided to participate with interest.

The only real challenge was to be able to reach an extreme degree of humility, so as not to disfigure giants like these people who, despite a thousand problems, have decided to stop working for a few hours to work with me, so I can shoot my imagery.

To read all about Michele's *Amiata* project in its entirety – and find out about the book – see: www.michelebelloni.eu/documentary/amiata 



The only real challenge was to be able to reach an extreme degree of humility, so as not to disfigure giants like these



In Amiata, a mountain between Maremma and the Val d'Orcia hills, one of the most beautiful Tuscan areas, there are a lot of traditional artisan trades that are slowly being lost to make way for more modern activities. The abandonment of

these ancient crafts produces enormous cultural damage, depriving the historical centres of traditional references. So I have tried to freeze these figures over time to prevent them from being forgotten.

The goal is to safeguard and enhance traditional trades at risk of extinction, possibly by stimulating the hope of a generational change through the transfer of the acquired skills by the artisans themselves during their lives, avoiding losing value of these ancient crafts.

All the images were shot on the locations these tradespeople carry out their work. Their habitat could not be anywhere other

than the place where they carried out their crafts for years: from an ancient medieval castle for the chimney sweep, to a fenced pasture for the alpaca breeders.

The project lasted two years, due to the difficulties in finding, contacting and fixing a first meeting and then for arranging the shooting sessions themselves.

The Italian job

Initially I chose to spread this photographic experience online to give visibility and value to these people and to the areas in which the project had been developed. But thanks to a (partly unexpected) large demand, I was prompted to make a book out of it and distribute it through a popular European online bookstore. For now, sadly, *Amiata* has only been printed in Italian. However, an English version is on its way.

Most of the project was realized with a Nikon Z 6, Z 35mm f/1.8 S, Z 50mm f/1.8 S and Z 24-70mm f/2.8 S. To be honest, in the end the only lens used was the 35mm,



Above: The 'Amiatino' is an endangered breed of donkey. Luciano took the burden of keeping the lineage alive.

Top: Duilio, a blacksmith close to retirement, acknowledges that customers today are no longer willing to spend large amounts of money for unique artisan products.

Left: Restorer Carlo has practised his profession for 50 years and has passed his skills onto his daughters.

Readers' letters

We'd love to hear your thoughts on the mag and all things photographic! You can write to us, message us or share your images in the following ways: ✉ mail@nphotomag.com
 🐦 twitter.com/nphotomag **f** facebook.com/nphotomag **@** instagram.com/nphotomag



Star Letter

Misters for the sisters

I am surprised that 'women only' anything – much less photography-related competitions, exhibitions or events – are not against sex discrimination laws in the most fundamental way. Although a hot potato – and I hear the 'politically correct' mob approaching already – I do wonder if similar photographic events, exhibitions and competitions might also attract criticism. I am sure they would and rightly so!

Many of the finer photographers I know are women (indeed, my own wife has won more photographic trophies than me over the years). Since they are not inferior, photographically-speaking, in any way at all, I do wonder why women-only events exist. Surely they reinforce prejudices rather than break them down? Women do not need elitist

events any more than men need them.

Yet I continue to see such events happening and being promoted in the photographic world. I accept that women were not so common as 'professional' photographers many, many years ago, but we have had women war photographers and photojournalists for 60 years (at least). However, for the past 20 years women have been hugely successful in the art of photography without barriers. Probably a greater barrier (to both sexes) is personal wealth, which has had a far greater influence in limiting photographic growth in many. With the advent of digital photography, even this limitation has crumbled.

Let's not see any more women-only events and exhibitions as women can stand on their own merits at the very top of photography without this sexist clap-trap.

One thing I do not understand is why women themselves do not reject this insult? I would have thought



We'd love to hear our other readers thoughts on women-only competitions.

feminists (a group I identify with myself, having grown up with three strong sisters) would have themselves objected long before I felt I needed to raise it.

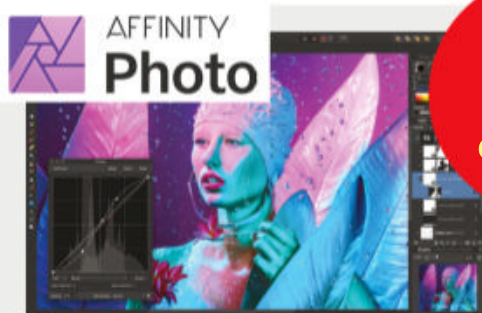
'Women-only' is just not needed in photography and

appears to be a backwards step, in my opinion.

Ian Douglas

Thanks for sharing your views, Ian. We'd be very interested to hear what other readers think about this!

Images: © Getty



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*Winners will need to create an Affinity user account to download the app. The prizes are issued in accordance with the standard Affinity EULA and there's no cash alternative.



COVID-19 has caused all manner of issues for our readers, but thankfully, Skylum have come to the rescue!

Going postal

I am a current subscriber to *N-Photo* and I live in Plainview, New York, United States. The July 2020 issue (*N-Photo* 112) offered two free software bundles to download, Aurora HDR and Photo Lemur. But because of the COVID pandemic, I did not receive this edition of the magazine until after 2 September 2020, when the software download offer had expired.

I am considered an 'essential worker', so I have been working many hours through the pandemic. Yesterday was the first opportunity that I have had to actually check out *N-Photo*. Is there any way that I can still get those pieces of software?

The same issue offered four Adobe ebooks, but every time I try to download them it brings me to a page that says 'internal error.'

I would appreciate anything that could be done, so that I can complete the above!

Jenaro R. Pena

The knock-on effects of the pandemic has caused all manner of unforeseen problems, one of which was that with far fewer planes flying the skies, the airmail service we used to send magazines to overseas subscribers stopped overnight. While services have resumed now, the backlog meant that some overseas subscriber copies were delayed by several months.

Thankfully, our friends at Skylum Software have come to the rescue and extended the download window for both Aurora HDR (<https://skylum.com/np-aurora>) and Photo Lemur (<https://skylum.com/np-photolemur>) to 31 January 2021. To that end, we have an in-depth project on using Aurora HDR – see page 50.

While the link we printed for the Adobe ebooks worked on publication of the magazine, they have since become broken and due to the way shortlinks work, we can't redirect them. The following link will take you directly to them: http://mos.futureplc.com/N-Photo_May.html

We had a similar problem with the Issue 111 ebook – the direct link for this is: http://mos.futureplc.com/Make_Cash_with_your_Camera.pdf

The good ol' days

The current pandemic has curbed my travels and as such I find myself spending time in the garden with my macro lens and reading through back copies of *N-Photo*. Even after three years, older editions are still a good read, even now.



The beautiful Faroe Islands, as shot by the nostalgic Ian.

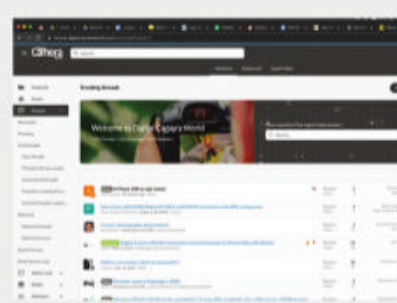
Looking back, like other readers I did like the Buyer's Guide to Nikon cameras and Nikon-fit lenses. It has made me realize my D7200 and D610 are still not bad. Looking further back there is even a mention of the pocket-sized mirrorless Nikon 1, which remains with me and used even now.

Also, what happened to Nikopedia? They were good articles. The best 'old' recent read, though, was back in issue 69 – 'The final word' by Joe McNally. In the '80's he photographed Trump for *Newsweek* and Biden for the magazine *People*...

More recently, I loved the article on the Faroe Islands in the October 2020 issue (*N-Photo* 116). It is a fantastic place and the author hinted that he wondered what it was like in the summer – see my shot! Funnily enough, I wondered what it would be like in the winter...

Ian Williamson

Every now and again we try to shake things up a little in *N-Photo*, if we think a series has run its course or the space could be better utilized by new features! But we always appreciate feedback from our readers as to what works (and what doesn't!). And thanks for sharing your summer shot of the Faroes! 🇇🇵



Join the debate

Tune in to our lively forums and share your views with the photo community about *N-Photo*, photography and anything else that springs to mind! We have a dedicated Nikon channel, among other topics <https://forums.digitalcameraworld.com>

Social Club

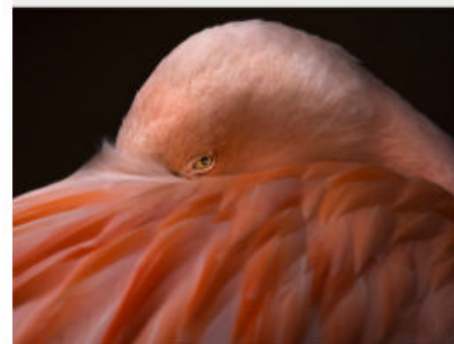
Your best photographs from our social media channels – be sure to get involved!



1. Asim the Sumatran

HIREN VEKARIA

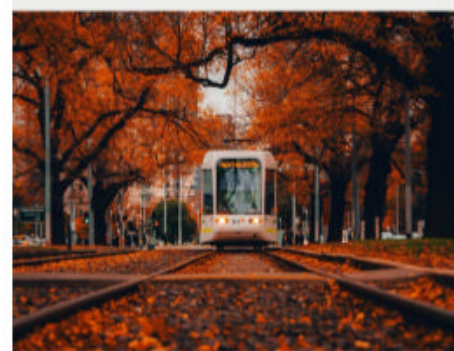
The intensity of this photograph is palpable as Hiren has landed the focus square on this tiger's eyes. It's almost chilling how the giant feline stares down the barrel of the lens with such concentration. The colours all work together as well!



2. Chilean Flamingo

MELISSA CORMICAN

Taken at the LA Zoo, Melissa capture this photograph with a blacked-out background, thanks to the shade that the flamingo was hiding away in. The subtle textures and colours complement this simple-but-effective frame.



3. Melbourne

DILLON MONOPOLI

A quintessential fall photo with divine colours and composition – thanks to the tram falling smack-bang in the middle of the frame, with the tracks leading our eyes straight to it. We just hope that Dillon was behind it, not in front!



Camera:	Nikon D3300
Lens:	18-105mm
Exposure:	1/125 sec, f/11, ISO400

[1] Paul spots plenty of stunning backdrops while touring around the country.

Porsche portraits



Paul Barlow tours the country in his beloved Porsche and photographs the stunning scenery he encounters along the way

presents a chance to do some touring and frame the car in the stunning Snowdonia landscape [1]. With this photo I was lucky to get some variation of sun and shadow around the edges of the lake.

Fyvie Castle [2] was the final stop on a tour I organized to five National Trust for Scotland castles, in and around Aberdeen. Nine Porsches made it to the end and, with permission, we were allowed to park in front of the majestic building. Rather than shoot individual cars against the castle backdrop, a group photo with more emphasis on the size and impact of the castle itself seemed more fitting. Other tourists can prove problematic when shooting a popular destination, but I chose to visit midweek and before the school holidays to mitigate crowds.

The Aberdeen Exhibition and Conference Centre has been superseded by a new exhibition centre, leaving the old building largely deserted [3]. The architecture's '60s space-age feel is particularly photogenic and, while the photo works well in colour, I decided to try a black-and-white conversion to remove any distractions.

I often visit Learney Hill, which is just outside the small Aberdeenshire village of Torphins [4]. While the overall vista remains the same, the changing seasons and prevailing weather offer subtle differences on each visit. ■

MISSION: To photograph Porsches against interesting and unusual backgrounds.

PHOTOGRAPHER: Paul Barlow

LOCATION: Aberdeen, Scotland

KIT USED: Nikon D3300, Nikon D7500, Nikon AF-S DX 18-105mm f/3.5-5.6G ED VR

WEBSITE: www.barlow.org.uk

FACEBOOK: @plbphotosuk

and when a photo opportunity will present itself. My 18-105mm offers great versatility, because space restrictions and the distance of the subject can be easily overcome by simply varying the focal length.

The scenic route

Motoring journals are typically crammed full of high-quality, professional images covering virtually every angle of a car in close-up detail, leaving little scope to produce anything different. Finding another theme to complement my car photos seemed like an interesting alternative and, since I travel all over the UK, including the many interesting places I visit seemed like a good angle.

The annual pilgrimage to North Wales for a large Porsche gathering always

I started taking photos in the mid '70s, so I could follow my children as they grew up. This expanded into various other interests and hobbies over the years. The most recent passion is for cars, and Porsches in particular. I think lenses are key when investing in camera kit, especially if you have no control over where



Camera:	Nikon D3300
Lens:	18-105mm
Exposure:	1/100 sec, f/16, ISO400



Camera:	Nikon D7500
Lens:	18-105mm
Exposure:	1/125 sec, f/16, ISO200

Paul's Top Tips

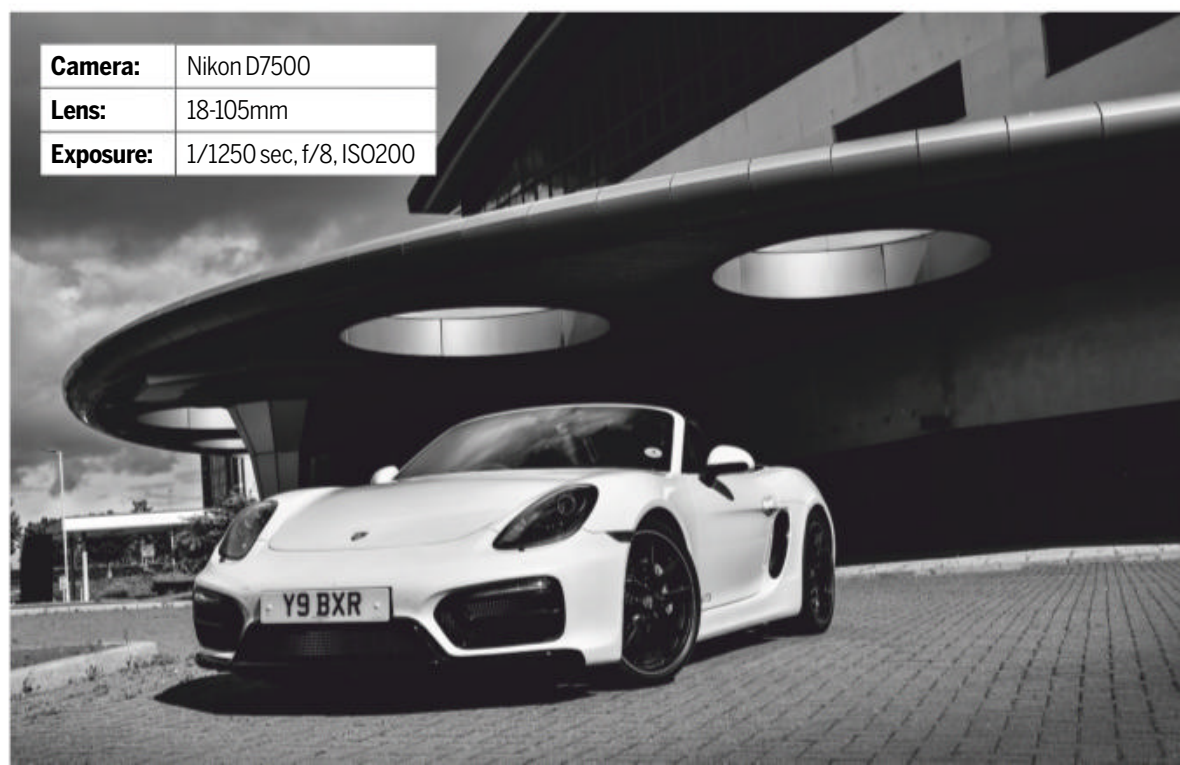
- A short zoom lens is the ideal companion. My 18-105mm is almost always my go-to lens.
- Try to find locations that few people have photographed; this can result in some real gems.
- Well-known locations are usually full of other photographers and crowds, so make sure that you're patient.



[2] Above: The cars don't have to be the focal point, as proven by this stunning shot of Fyvie Castle.

[3] Below: Paul has managed to find suitable subjects closer to home so he can comply with lockdown restrictions.

[4] Left: Paul visits this location throughout the year to take advantage of the changing seasons.



Camera:	Nikon D7500
Lens:	18-105mm
Exposure:	1/1250 sec, f/8, ISO200

[1] Julie had to time this shot perfectly to capture the singer and both guitarists mid-jump.



Camera:	Nikon D5000
Lens:	28-75mm f/2.8
Exposure:	1/250 sec, f/2.8, ISO3200

In your face



Julie Voyer manages to capture the noise, atmosphere and aggression of heavy metal gigs in a still image, here's how she does it...

MISSION: Capture the pure energy and fleeting moments of magic on stage and in the crowd

PHOTOGRAPHER: Julie Voyer

LOCATION: Québec City, Canada

KIT USED: Nikon D5600, Nikon 85mm f/1.8, 10-24mm f/3.5-4.5, 18-200mm f/3.5-5.6, Tamron 28-75mm f/2.8

WEBSITE: metaluniverse.net

INSTAGRAM: @thepicturalist and @show_tripping

I attended a metal music festival with my son. My mind was transported by the energy of the bands and the crowd, but I was also watching the photographers. It resonated with me and that's when I thought: that's what I want to do with my photography. My work was featured in a webzine a year later, and I've since shot up to 300 rock, metal, punk and prog bands.

I use my DX-format Nikon D5600, but full-frame cameras are also good options. Lenses are what's most important, ideally zooms with wide apertures (f/2.8 or f/4). I'm on assignment when I shoot gigs, so it's not the time to try a new camera. It all has to be robust and in good working condition,

because memory cards and lenses can both fail or malfunction during a shoot.

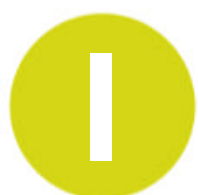
Shot in the dark

I look for moments when I shoot gigs, but a good picture is as much the result of luck as it is preparation. I have no control over what's happening on and off stage. I had no clue what to expect when photographing Comeback Kid [1] as it was the first time I had seen them live.

I noticed the guitar player was quite the jumper, and the singer joined in once in a while. So I stood on the side of the stage and waited for them both to jump, while trying to keep the whole band in the frame. Drummers can be hard to shoot, because they're at the back and often hiding behind cymbals. I was pleased I managed to capture the whole band, with the singer and both guitarists in midair.



Lighting is always a challenge, as flash is never allowed. I have to do my best with what's on stage



I love music and I love photography. Being able to combine both is a dream come true for me. It started in the summer of 2016, when

[2] Photographers shoot nonstop to mitigate unpredictable stage lighting and land a great shot, like this image of Wednesday 13.



Camera:	Nikon D5600
Lens:	85mm f/1.8
Exposure:	1/200 sec, f/1.8, ISO3200

[3] Julie often turns her camera onto the crowd, which can be just as emotive as the artists on stage.



Camera:	Nikon D5600
Lens:	18-200mm f/3.5-5.6
Exposure:	1/100 sec, f/5, ISO400

YOUR STORIES

[5] High ISOs are unavoidable in dark venues. Black and white is a great way to make unwanted noise look like trendy grain.



Camera:	Nikon D5600
Lens:	28-75mm f/2.8
Exposure:	1/100 sec, f/2.8, ISO4000



[4] Intense lighting can make for interesting images, like this vibrant photo of Arkona lead singer Maria Arkhipova.

Camera:	Nikon D5600
Lens:	10-24mm f/3.5-4.5
Exposure:	1/160 sec, f/4.5, ISO4000

Small venues are my favourite, because I'm right next to the stage and can shoot all night, whereas we're usually only allowed to shoot the first three songs at larger events. Festivals and medium-size venues offer the best of both: I'm either in the photo pit or the crowd, and the lighting is good **[2]**. I only have to turn around to capture the excitement in the crowd, like this shot taken at Québec City's Envol et Macadam Festival **[3]**, which takes place beneath an overpass.

Lighting is always a challenge, as flash is never allowed. I have to do my best with what's on stage: incandescent bulbs, strobes mixed with LED spotlights, backlighting (often used by death or black metal bands), and sometimes all of the above! But this makes for interesting combinations and effects **[4]**. When light is not on my side, I up the ISO and resort to shooting black-and-white images.

Women are far and few between in the music business, so it's a pleasure to see them on stage. All-female bands are even rarer, so when Introtyl were in town I had to be there. Singers are usually captured making aggressive faces, but the singer's serene, yet fleeting emotion here **[5]** was in stark contrast with the rest of the ambiance, and made for a great image. **N**

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YOUR IMAGES!**
To see your images here, send a small portfolio to mail@nphotomag.com with 'Your Stories' as the subject

Julie's Top Tips

- Always wear earplugs. I'm often standing right next to speakers. It's deafening, to say the least.
- Use two cameras with lenses attached; you'll rarely have time to switch lenses.
- Be aware of what's happening around you. Musicians often jump around (sometimes right into the crowd), beer goes flying and you can get hit by crowd-surfers.

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Ask Matthew...

Our resident Nikon expert Matthew Richards answers your questions and solves your problems. If you have a Nikon-related question, email it to mail@nphotomag.com

Q I've been wondering for a while now whether to upgrade from my DX format D7100 to an FX DSLR. What are the pros and cons?

Carolyn Wilding

A For any given megapixel count, the larger surface area of an FX image sensor enables larger photosites, which equate to individual pixels. This results in greater light-gathering, so you can expect low-light images captured at high ISOs to be less noisy. Another advantage of full-frame sensors is that you get a tighter depth of field for portraiture and still lifes, where you want to blur the background and make the main subject stand out.

The flip side is that the 1.5x crop factor of DX format (APS-C) Nikon cameras gives you greater 'effective' telephoto reach. This

can work well for sports and wildlife photography, avoiding the need to use huge, heavy lenses. DX is also good for landscape and architectural shots, where you want to keep near and far objects simultaneously sharp, as depth of field is governed more by the 'actual' rather than 'effective' focal length.

Q My D7500 has a variety of autofocus modes. Which is the best option for tracking moving subjects in sport photography?

Pete Larkin

A You'll need Continuous AF mode to track moving subjects but the D7500 has many additional options to choose from. Single-point AF isn't ideal, whereas Dynamic-area AF can



3D-tracking mode usually works really well for erratically moving objects in sport photography.

make it easier to keep autofocus locked on, and you can choose the initial AF point to use. 9-point works well when subjects are moving predictably, like cars on a race track, 21-point and 51-point are better for increasingly erratic movement.

3D-tracking AF mode also works well for erratically moving subjects, as it will track subjects that leave the designated autofocus area, utilizing additional AF points automatically. However, it doesn't work so well if the main subject is a similar colour to its surroundings. Group-area AF and Auto-area AF are also available, but are less ideal for tracking in sport scenarios, as the camera can lock onto the wrong object within a scene.

Q I generally use a single AF point on a subject's eye for portraits, then swivel the camera and shoot. But I've been getting overexposed results when using a flashgun. Why?

Jon Davies

A This can happen anytime you focus on a subject and then swivel the camera, and becomes worse if the



DX sensors can deliver a larger depth of field, which is useful if you need to use a wide aperture for quicker shutter speeds when working with low-lighting conditions.



flash exposure value will be locked in place until you press the button again to cancel the lock.

Q I'm after a printer for creating A3+ large-format prints, mostly with matte photo media but also for occasional glossy output. What would you recommend?

Jim Wyles

FV Lock avoids overexposure when your main subject is off-centre in the photograph.

background is fairly distant. The problem is that a half-press of the shutter button only initiates autofocus and then locks it in place. Once you've swivelled the camera to take the shot, the autofocus point is now lined up with the relatively distant background. When you fully press the shutter button, pre-flashes for governing the correct flash exposure are measured from the background. The subject in the foreground will therefore be overexposed (too bright).

To solve the problem, go to your camera's Custom Setting menu and assign 'FV lock' (Flash Value lock) to one of the function buttons, for example the AE-L/AF-L button. Now autofocus as usual, then press the designated function button before swivelling the camera. The correct

A I'd go for Canon's new imagePROGRAF PRO-300, which outputs prints at up to A3+ (13x19 inches) as well as banners up to 39 inches in length. It runs on nine pigment-based inks, including both matte and photo black inks, cyan, photo cyan, magenta, photo magenta, yellow, grey and red inks, from Canon's latest LUCIA PRO stable. These enable spectacular quality on matte photo and fine art papers, for both colour and black-and-white photo printing.

For printing on glossy paper, there's an additional 10th cartridge in the line-up. This is a 'chroma optimizer', which is applied over the ink to ensure a smooth and even reflectivity from different colours and tones, reducing the bronzing effect often associated with pigment-based printers using glossy paper. The printer costs around £699/\$899. **N**



The PRO-300 outputs borderless A3+ prints in about 10 minutes, with ink costs working out at roughly £3.70/\$2.75 per print.

Secondhand superstar

Q I'd like to step up to an FX format DSLR but I'm on a really tight budget...

Denis Walton

A **Matthew recommends...** I'd go for the D610. It's an excellent camera with great handling characteristics and is capable of superb results. There are plenty out there that have had only fairly light use.



Nikon D610

A SMART FX FORMAT DSLR THAT YOU SHOULD BE ABLE TO PICK UP FOR A GOOD PRICE

RELEASED: 2013

PRICE NEW: £1115/\$1496

SECONDHAND PRICES:

'Excellent' £575/\$575

'Good' £475/\$465

This 24.3Mp camera followed hot on the heels of the D600. It has a 39-point AF system including nine cross-type points, seven of which are available at f/8. Fairly lightweight and compact for a full-frame DSLR, it's nevertheless solidly built with magnesium alloy top and rear sections.

Memory is courtesy of twin SD card slots. There's a nippy 6fps continuous drive rate, slowing to 3fps in the camera's 'quiet continuous' shooting mode. It can also capture 1080p video at up to 30fps. The only real negative is the standard ISO range tops out at 6400 (25,600 expanded) and the camera's not compatible with AF-P (Pulse) AF lenses.

Key points

1. Pentaprism viewfinder

The pentaprism viewfinder gives a large, bright display with 100 per cent coverage.

2. Mode dial

The dial gives access to PASM shooting modes, auto, plus a range of scene modes.

3. Top plate LCD

The info screen on top of the camera gives a ready view of important shooting settings.

Image sensor: 24.3Mp CMOS

Image processor: EXPEED 3

Viewfinder: Pentaprism, 0.7x, 100%

ISO range (expanded): ISO 100-6400 (25600)

AF points 39-point (9 cross-type)

Shutter speeds 1/4000 to 30 secs, Bulb

Memory 2x SD/HC/XC

Size/weight

141x113x82mm, 850g

Battery EN-EL15, 900 shots



**Tom
Mason
Wild Life**

Pro wildlife photographer and Nikon Europe Ambassador Tom has worked around the globe on assignments to capture photographs of all creatures great and small, from the Falkland Islands to the Amazon Rainforest.
www.tommasonphoto.com

If you go down to the woods today

Just because you don't enjoy certain techniques, doesn't mean they don't have their uses...



Woodland: land covered with trees is the definition maybe, but it's so much more than that! Pulling on my wellies is a familiar feeling, although new too this year as I've upgraded to a nice pair of neoprene-lined boots, that I can already feel the benefits of!

The ground is wet underfoot, and as I drag my bag from the back seat of the car, I catch a glance of the trees above, flush with the autumnal colours.

Strolling down the main path of my local woods, it's amazing how quickly everything you're thinking or worrying about fades away. Unusually, my bag is rather light today, a welcome treat as I've pulled my shoulder, maybe too much time dragging a super-tele about, who knows...? But today it's instead filled with a collection of smaller lenses and my macro, as we're going on a fungi hunt.

Now, I'll admit I'm no macro shooter. If I'm honest, the 105mm VR macro I have in the bag rarely sees the light of day, and that's something of a shame as it's a stunning lens. The image quality is impeccable and so, when I do finally come to mount it on those odd occasions, I consistently repeat in my head how I must use it more often! Although I've been saying that a few years now and, well, it's just not my style. Some lenses you just fall in love with immediately – you pick them up and they just fit. The way you shoot, the way you see; you're in love as they slot into

your style and usage in a second. The 105mm macro hasn't got there yet. I say *yet*, as our style and shooting habits change over time, so I'm confident it will have its day. My problem with macro is more the oft-prescribed methods; all the tiny movements, focus stacking, hours on the computer... all-too-often resulting in images that are a touch clinical for my taste. Of course, that's not all macro photography, but when I pick up the lens and try to emulate the macro norm I find myself uninspired.

You're sure of a big surprise

Walking through the woods I've been on the search for fungi for a few hours now, the weather is perfect. The woodland is alive with the feeling of autumn, and so far I've seen a good variety of species, with common ink caps, puffball, the odd jelly ear, but still no sign of the one I came for. The classic red spotted fly agaric. As the sun starts to dip, the light is fading fast, I walk through some last spots that have been fruitful in previous years, failing until out of the corner of my eye a small amount of red shouts out.



My problem with macro is more the oft-prescribed methods; all the tiny movements, focus stacking, hours on the computer...

Using intentional camera movement and flash, Tom created this unique looking shot.

A single fly agaric in sight, it's not much, but I settle down. The gloom of the viewfinder tells me this could be a lost cause. Framing up with the 105mm the composition is to be honest, dull.

Fly agarics are hallucinogenics and although eating them is not advisable, they are a delicacy for some wildlife. Deer and reindeer love them! Thinking on this, sat in the dark, I ditch the macro and grab my wide, kitting up my flash off-camera, it's time to go macro rogue! Handholding four-second exposures, I blur and paint, having fun with the last colours in the sky.

After at least 30 tries the last of the sky's colours are gone, but I'm smiling. I suppose there is always next year for the 105mm to shine... ■





Tom gets down on the same level as this classic red-and-white polka dot fly agaric to photograph it and the tiny world it inhabits.



These two tiny ink caps surrounded by blurred vegetation make for an arresting, magnificent, microscopic, macro image.



The search for the **world's best Nikon photographer of 2020** continues! Each issue the monthly *N-Photo* POTY 2020 photo contest's top 10 images are selected by the *N-Photo* team. This issue's competition has the theme of **seascape photography**...



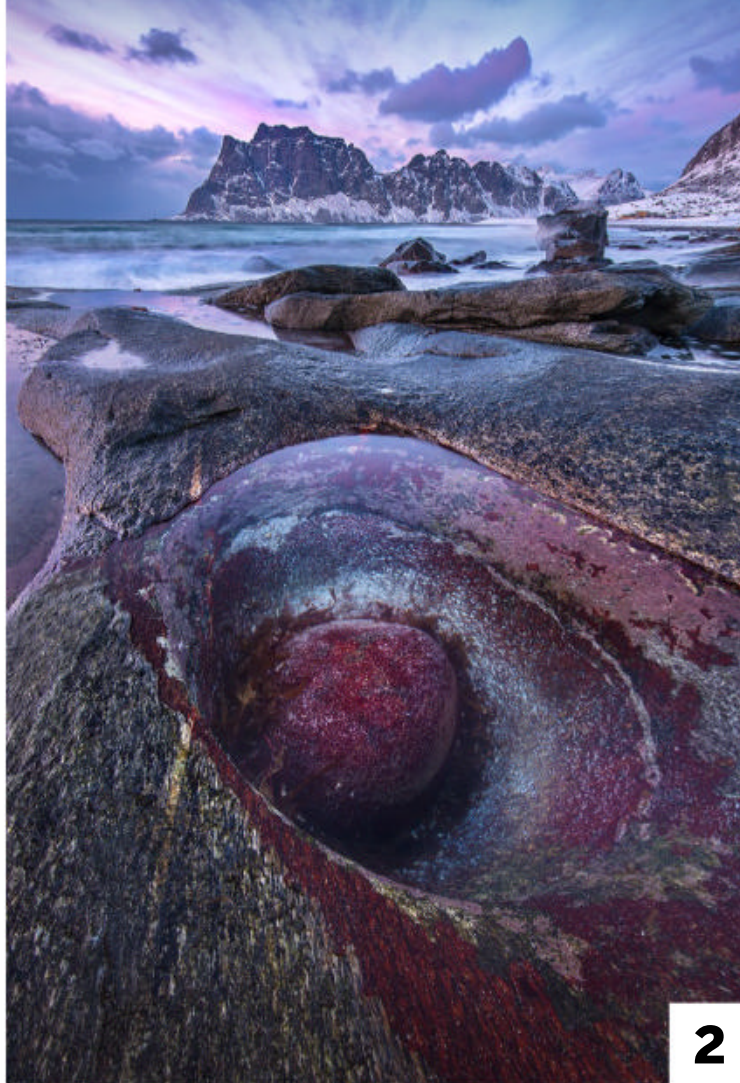
1

1. The Sea Monster

BY JUDITH STEWART

This stormy seascape has been timed to perfection. The wave has been frozen right at its peak and is crisply defined, thanks to the fast 1/1000 sec shutter speed. The framing has ensured that the lighthouse in the distance isn't obscured and the relatively flat, overcast sky doesn't detract from the detail of the wave. This is monochrome seascape photography at its finest.

Camera:	Nikon D750
Lens:	70-300mm f/4.5-5.6
Exposure:	1/1000 sec, f/8, ISO250



2

2. The Dragon's Eye

BY DONALD YIP

The aptly named Dragon's Eye at Uttakleiv in Norway's Lofoten Islands is a photography hotspot, and even so this beautifully composed image stands out. The sweeping lines in and around the rock pool lead the eye out to sea, and invites it to settle on the mountains in the background. We particularly like how the pink tones in the sky complement the reddish hue of the rocks.

Camera:	Nikon D750
Lens:	16-35mm f/4
Exposure:	2 secs, f/13, ISO50



3

3. Double Rainbow

BY JAKUB KOZIOŁ

This is another entry from Norway's beautiful Lofoten Islands. While the archipelago is bursting with photogenic landscapes, the rainbow and the low-hanging clouds create a sense of mysticism that's rarely captured in-camera. If you look closely you'll notice a faint second rainbow, which makes capturing this natural phenomenon in such a stunning location doubly unusual.

Camera:	Nikon Z6
Lens:	16-35mm f/4
Exposure:	1/15 sec, f/14, ISO100



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*CEWE can only guarantee delivery to UK addresses



4

4. True Blue

BY GARETH MON JONES

The strange blue glow is bioluminescent plankton at Penmon Point Beach, but this mesmerizing phenomenon wasn't captured by accident. The spot was visited regularly for weeks, until the opportune moment presented itself. The result is a unique seascape that's truly awe-inspiring.

Camera:	Nikon Z6
Lens:	14-24mm f/2.8
Exposure:	13 secs, f/2.8, ISO2500

5. Star Ship

BY CHRIS KNOCKER

This exciting blend of seascape and astro photography was created using a star-tracking mount. This prevented the formation of star trails during the lengthy 40-minute exposure and allowed for the capture of a perfectly crisp Milky Way. The wrecked merchant vessel MV Alta adds interest to the foreground while adding plenty of depth too.

Camera:	Nikon D850
Lens:	14mm f/2.4
Exposure:	2400 secs

5





6

6. Along the Shore

BY TRAVELLING JOURNALIST

The portrait orientation of this image has allowed plenty of shoreline to be fitted into the frame, which guides the eye towards the two strolling figures. This depiction of Great Yarmouth beach could be spliced into perfect thirds, and we particularly like how the light reflects off the damp beach to form attractive, silver streaks. The wind turbines on the horizon add an extra layer of interest.

Camera:	Nikon D750
Lens:	24-70mm f/2.8
Exposure:	1/100 secs, f/13, ISO125



7

7. S for Simplicity

BY COSTAS KARIOLIS

Great care must have been taken to frame this image of the beach at Caister-on-Sea, Norfolk, because the S-shaped groyne is dead centre and the horizon is perfectly level. A couple of wind turbines were removed or repositioned in post to balance the horizon, and a 67-second exposure was used to blur movement in the water, creating a silvery mirror-like sheen.

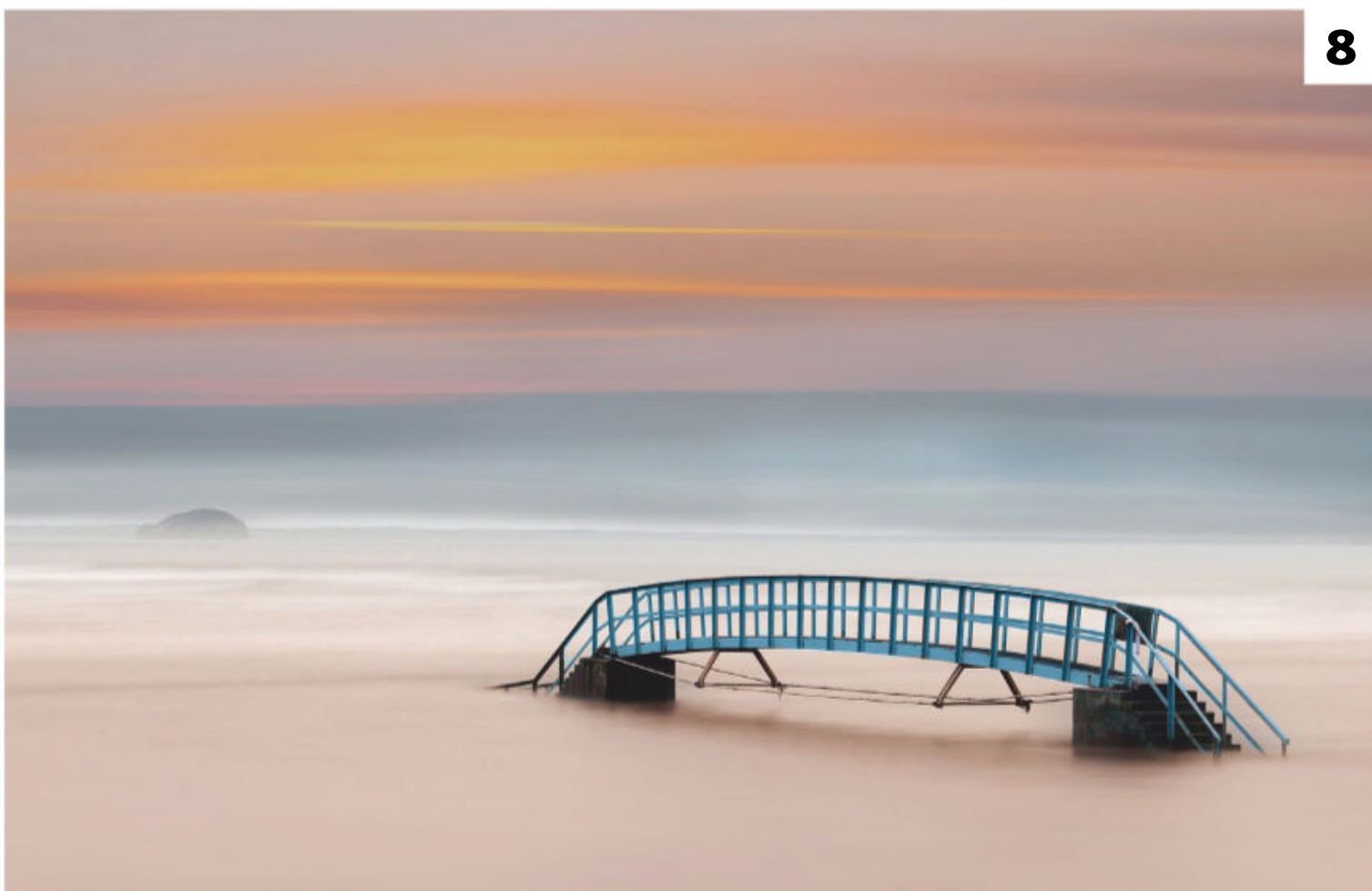
Camera:	Nikon D750
Lens:	24-70mm f/2.8
Exposure:	67 secs, f/7.1, ISO100

8. Bridge to Nowhere

BY GARY FYFE

This painterly composition was photographed at high tide in Scotland's Belhaven Bay. A warm filter was used to enhance the sunset's golden tones, and we like how this contrasts against the cool hues found on the bridge and in the sea. This image follows the rule of thirds almost perfectly, and the distant island on the left-hand side prevents it from appearing flat, by adding a sense of depth.

Camera:	Nikon D3
Lens:	24-70mm f/2.8
Exposure:	30 secs, f/13, ISO200



8

9. Breakwater

BY SIMON SAUNDERS

This stormy seascape stuns thanks to its gorgeous colours. Both sky and sea boast subtle magenta hues, and we like how the slow 0.4 sec shutter speed adds plenty of movement to the water without distorting the clouds.

Camera:	Nikon D850
Lens:	21mm f/2.8
Exposure:	0.4sec, f/9, ISO64

10. Spine

BY DAVID BOAM

This is a masterfully crafted minimalist seascape. The sea morphs into the sky almost seamlessly, and the barrier leads the eye towards the wind farm in the distance. A long 121-sec exposure was used to blur both sea and sky, and together with the monochrome conversion this has created an almost glassy appearance.

Camera:	Nikon D750
Lens:	24-120mm f/4
Exposure:	121secs, f/11, ISO100



9



10

How to enter

HOW OUR COMPETITION WORKS

- Next issue we print the winning images of our final competition of the year, so keep an eye out for issue 119, on sale 17 December for our winter gallery.
- We will also be announcing the first competition theme for N-Photo Photographer of the Year 2021.
- It goes without saying that *all* images must be shot on Nikon cameras!
- You can also vote for your favourite entries at the Photocrowd website – the image with the most votes is named the Crowd Vote Winner.
- Each issue, the Judges' Vote winner and Crowd Vote winner will both receive a £100 CEWE Photoworld voucher*.
- 12 competitions will appear throughout 2020, and the overall N-Photo Photographer of the Year 2020 – and winner of the Nikon Z 50 twin lens kit – will be crowned in the issue that goes on sale January 2021. 📷

WIN A NIKON Z 50 Twin Lens Kit

THE Z 50 – NIKON'S FIRST DX MIRRORLESS

The Nikon Z 50 boasts a 20.9Mp APS-C sensor and a speedy 11fps burst rate. It's able to shoot crisp 4K video and features a tilting touchscreen that's ideal for vlogging. No mirror means the camera is lighter and more compact than an SLR, and when paired with the Z DX 16-50mm f/3.5-6.3 VR and Z DX 50-250mm f/4.5-6.3 VR, it's capable of tackling any photographic situation.



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- Issue 117**
- Nikon Z 6II & 7II preview
 - Scenic filters feature
 - Deer rut Apprentice



- Issue 116**
- Master Manual mode
 - Nikon Z 5 full review
 - Mountain bike shoot



- Issue 115**
- Control your focusing
 - Fine art floral tricks
 - Travel superzooms rated



- Issue 114**
- Composition tips
 - Affordable tripod tests
 - Dartmoor Apprentice



- Issue 113**
- Miniature masterclass
 - Nikon D6 tested
 - Windmills & waterways



- Issue 112**
- Nature close-ups
 - Best birding lenses
 - Take treasured portraits



- Issue 111**
- Take lush flower shots
 - A feast of food tips
 - Best bokeh lenses



- Issue 110**
- Craft creative portraits
 - Arty architecture tricks
 - Magical macro lenses



- Issue 109**
- Nikon D780 review
 - Shoot around the world
 - The best photo books



- Issue 108**
- Family portrait tips
 - Masterful landscapes
 - Z 58mm f/0.95 Noct



- Issue 107**
- Creative wildlife images
 - Lake District landscapes
 - Fabulous flashguns



- Issue 106**
- Portrait masterclass
 - Z 50 mirrorless review
 - Shoot steam engines

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NPhoto

Next issue

**Don't miss
N-Photo 119**
See page 26 for
our brilliant new
subs offer!



NEW NIKON SKILLS

Fine art scenics

Natural world photographer Neil Burnell shows you how to capture mystical minimalist landscapes, from wonderful woodlands to stunning seascapes...

Image: © Neil Burnell

ALSO NEXT ISSUE

Our Apprentice learns to shoot food photos that look good enough to eat
Get creative at Christmas with our festive-themed Nikon skills special
The best kit of 2020 rated in our Gear of the Year awards

ON SALE THURSDAY 17 DECEMBER

•Contents subject to change

NPhoto GearZone

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



NEW GEAR

96 Top Nikon tidbits

Our usual fanfare of new Nikon kit, but there's also deals to be had!



MINI TEST

98 L brackets

Alter orientations quickly and effectively with these ace L brackets



REVIEW

100 Laowa 11mm f/4.5

Is this super small ultra-wide lens as handy as it seems? Let's see!



BIG TEST

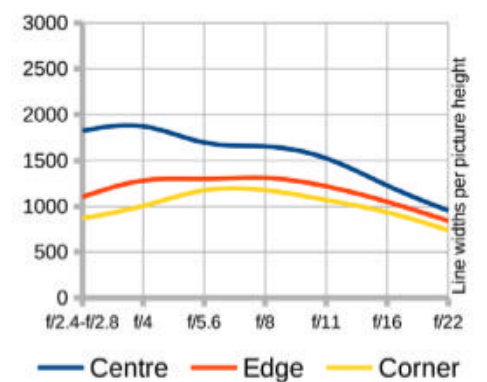
102 Telephoto zooms

Uncover which of these tele zooms should be your partner in crime

Lab tests explained

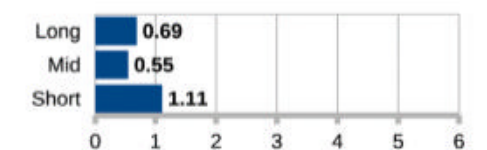
Sharpness

A chart with multiple sharp boundaries is photographed, the extent of blur at the centre, mid and edges showing how many line widths per picture height the lens can resolve. Simply put, the bigger the numbers the sharper the lens.



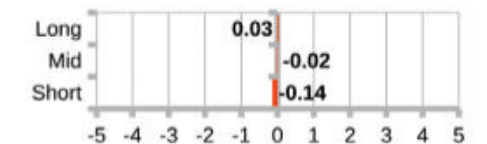
Fringing

Chromatic aberration is visible as purple or green fringing around high-contrast boundaries, caused by different wavelengths being focused on different areas of the sensor. The larger the number, the worse the score.



Distortion

A lens that bulges towards the edges of the frame produces barrel distortion, shown as a negative score. Pincushion distortion produces a positive score. A score of zero indicates no distortion.



Our awards in a nutshell



The best performance, design and value



A product that gives you more for your money



The very best kit that really sets the standard

Our scoring system

- 1.0 Forget about it!
- 2.0 Below average
- 3.0 Good for the money
- 4.0 Excellent product
- 5.0 Best-in-class

New gear

Here's what caught our eye this month



DxO PhotoLab 4

From: £112/\$129 www.dxo.com

The main claim to fame of PhotoLab 4 over previous incarnations is that it's built around DxO's DeepPRIME, an advanced process that combines Raw image demosaicing and denoising into a single 'holistic' process.

Its Smart Workspace now organizes tools into palettes based around correction types, and can be configured to show the user's favourite palettes or show only those containing active corrections.

A new History palette doesn't just list all the editing changes, but their values too.

PhotoLab 4 also makes it easier to copy settings from one image to another, as you can now do this selectively, choosing just the settings you want to apply, such as lighting, colour, detail, geometry or local adjustments. You can also embed text or image watermarks.

The Essential edition costs £112/\$129. To get the full range of features, however, you'll need the Elite edition, at £169/\$199.

FIRST IMPRESSIONS

Our experiments back up DxO's claims of a two ISO steps gain for the same levels of image quality.



Lowepro Photo Active toploaders

£45/\$50 (TLZ 45 AW), £55/\$60 (TLZ 50 AW) www.lowepro.co.uk

Lowepro has expanded its Photo Active line-up by launching two new toploader bags for mirrorless setups: the Lowepro Photo Active TLZ 45 AW measures 19x40x24cm and accommodates a Z camera with Z 24-70mm f/2.8 S lens, plus a spare battery, filters and compact accessories, while the Lowepro Photo Active TLZ 50 AW measures 21x15x30.5cm and can take a Z 7 and Z 70-200mm f/2.8 S VR plus accessories.

Both bags can be worn across the body using the adjustable shoulder strap, or attached at the

waist via the built-in belt loop. Design features include an interior pocket for organizing items like memory cards and batteries, and a zippered external pocket for storing the likes of a phablet. Wide padded handles offer increased comfort, while a double-slider 360 zipper facilitates easy loading and access. Protection is provided courtesy of the included All Weather Cover.

FIRST IMPRESSIONS

These are ideal for enthusiasts who require a lightweight, rugged outdoor camera pack for outdoor adventures or everyday use.

Canon PIXMA PRO-200

£449/\$TBA www.canon.co.uk

This latest A3+ printer replaces the Canon Pixma Pro-100 and appears almost identical to the more expensive imagePROGRAF PRO-300 on the outside – both share the same case design and have identical 639x379x200mm dimensions, though the new Pro-200 is 300g lighter at 14.1kg. This is a clue to the main difference between the two printers: where the PRO-300 uses 10 ink cartridges, the new PRO-200 utilizes 'only' 8, and the type of ink is also different.

The PRO-200 uses a new dye ink system that "showcases an enhanced colour gamut in three areas: red, blue and black". It's capable of borderless printing up to A3+ size on glossy and fine art media up to 0.6mm thick, plus paper up to 39 inches long for panoramic prints. It's capable of printing an A3+ bordered colour print in as little as 90 seconds.

There's a 3-inch colour display for easy settings adjustment and ink level monitoring, and mobile connectivity enables printing via Wi-Fi. Another handy feature is



Auto Skew Correction, which ensures prints are perfectly parallel with paper edges, reducing potential paper and ink wastage.

FIRST IMPRESSIONS

While the C-word is seldom uttered in *N-Photo*, we make an

exception when it comes to its printers, as it produces some of the finest models on the market. Dye-based inks aren't as long-lasting as the pigment-based inks used in the more upmarket PRO-300, but the PRO-200 will set you back a good £250 less.

New gear for less

Save a packet on Nikon kit with the latest Instant Savings promotion



Nikon Winter Instant Savings

Save today! www.nikon.co.uk/promotions

Nikon's new Winter Instant Savings promotion offers decent discounts across some of its most desirable kit, including mirrorless cameras and DSLRs, selected lenses for both systems, as well as its range of bridge cameras. There are handsome savings to be had on newly launched cameras such as the Z 5, Z 50 and D780, as well as longer-established models, like the Z 7 and D850.

The Instant Savings promotion means that all discounts are applied at the point of purchase, and are on top of any discounts that Nikon authorised retailers may already be offering, rather than traditional – and rather convoluted – cashback schemes that require redemption by the buyer. This promotion is available at the Nikon Store and

participating retailers (see www.nikon.co.uk/wheretobuy), and runs from 2 November until 10 January 2021, giving plenty of opportunity to pop desired kit on your Christmas wish list – or perhaps pick up in the post-festive sales spree.

You can save £180 off the Nikon Z 7 (body-only, plus bundles including the FTZ adaptor and 24-70mm f/4 kit lens), £90 off a Z 50 (again, both body-only and with combinations of the FTZ adaptor and Z DX 16-50mm and Z DX 50-250mm kit lenses, as well as the Vlogger Kit), and £90 off a Z 5 (body-only or with the FTZ adaptor), jumping to a £135 saving if adding the Z 24-50mm kit lens.

When it comes to Z-system lenses, there's a £90 saving to be made on the Z 35mm f/1.8 S, Z 50mm f/1.8 S and Z 85mm f/1.8 S, a £135 discount on the Z 20 f/1.8 and Z 24 f/1.8 S, or £180 off the asking price of the Z 14-30mm f/4 S or Z 24-70mm f/2.8 S. The Z 24-50mm f/4-6.3 can also be bought standalone with a £45 saving.

The D780 and D850 are on offer with a £180 saving, either body-only or bundled with a 24-120 4G ED VR kit lens. There's £45 off the AF-P 70-300mm f/4.5-5.6E ED VR, £90 to be saved on the AF-S 28-300mm f/3.5-5.6G ED VR, £135 shaved off the price of either the AF-S 85mm f/1.4G, AF-S 14-24mm f/2.8G ED or AF-S 70-200mm f/4G ED VR, while opting for the AF-S 105mm f/1.4E ED, AF-S 24-70mm f/2.8E ED VR or AF-S 70-200mm f/2.8E FL ED VR will see your bank balance £180 better off.

If a bridge camera is more your thing, then you'll save £45 off the COOLPIX W300, available in a range of colour combinations as well as the traditional black, and £90 off the COOLPIX P950, with its incredible 83x optical zoom.

FIRST IMPRESSIONS

There are some fantastic savings to be had here, particularly on Z-system cameras and lenses, so if you've been mulling it over, this could be the ideal time to make the move to mirrorless. And don't forget these savings are on top of any discounts that retailers may already have!



Help me buy an L bracket

Shoot both horizontal and vertical compositions with ease – an L bracket allows quick switching between orientations for landscapes

W

Everyone all know the value of using a tripod for shooting landscapes. Not only does it keep your camera rock-steady through the duration of an exposure, but it's also a vital composition aid, enabling you to carefully compose your scene, then wait for the opportune moment just

before firing the shutter.

Jobbing pros also know that to maximize the sales potential of their shots, they have to shoot in both landscape and portrait orientations, so that their images are suitable for both double-page spreads and covers.

But tripods are primarily designed for shooting horizontally. While most tripod heads can be tilted by 90 degrees to flip the camera into a vertical orientation, this shifts the position of the camera to the side of – and often below – the original shooting position, so the carefully considered composition needs to be redone from scratch.

It also shifts the centre of gravity from directly above the tripod legs, potentially destabilizing the entire setup.

What the L?

An L bracket is a camera plate that wraps around the camera in an 'L' shape, with the tripod mount running underneath and to the side of the camera. So to change the shooting orientation from horizontal to vertical you pop the camera off the tripod and remount it using the socket on its side. The composition is materially the same, with only perhaps minor tweaks required to ensure that the elements you want are in right place. So when the light finally strikes the subject you've been waiting for it to, you can fire the shutter for a horizontal shot, quickly remove and remount the camera in portrait orientation, and capture your vertical shot before the moment passes.

On the face of it an L bracket is simply a right-angled piece of metal, but, as ever, there's a little more to it than that. Let's check out five L bracket options...



Zhiyou Universal L Bracket

£18/STBA

www.amazon.co.uk

We were keen to see how a cheap generic product, found on the likes of Amazon and eBay, fared against its brand-name rivals, and plumped for the Zhiyou Universal Camera L Bracket.

It feels solidly made, despite its low price tag, and is constructed from two hefty chunks of aluminium, joined together with a pair of hex bolts. We were relieved that, when switching the camera from horizontal to vertical orientation, the camera remained perfectly level.

Both the base plate and the side plate have a measuring scale marked along their length, to make lining up the camera with just the right place on the tripod head easier for framing the scene.

It's actually one of the longer brackets in the test, with the base plate measuring 13.5cm, and the camera screw mounting slot extending a good 7cm of this, ensuring it fits a wide variety of cameras. However, it's so long that it obscures the battery door of even a big camera such as a D850. The side plate blocks all the camera connection ports too, being solid metal, though packed with a multitude of accessory mounting screw holes.

PROS Cheap and cheerful solution; solidly made; plentiful accessory connection points

CONS Blocks the battery door and no attempt to offer access to the various connector ports

Verdict **4**



Benro BLB1

£50/STBA

www.benroeu.com

Benro's bracket has a shorter base plate than the Zhiyou but it fitted both a full-sized D850 and Z 7, thanks to the camera screw that slides from left

to right along the base plate. The chunky camera-mount screw has a D-ring to enable hand-tightening, but is also supplied with a hex key to fully secure the plate to the camera.

Like most of the plates here, rubber pads run along the top of the plate to protect the underside of the camera, and there's a slot for a hand strap to be attached. It's constructed from two plates of aluminium, joined securely with a hex bolt.

Most of the side plate is open, with the tripod plate fitting running along two arms, the idea is that this gives access to the camera connectors. However, we found that on our D850, all the sockets were obscured by one of the arms, blocking access to the HDMI, USB, headphone and mic sockets, while on the Z 7 you could just about access the headphone/mic sockets, but the camera remote socket was also obscured, in addition to the HDMI and USB ports, making this feature rather redundant, at least on these Nikons.

PROS Design allows hot-swapping of batteries; cheapest of the brand-name options

CONS The 'open' side plate didn't allow cable access to the Nikon cameras we tried

Verdict **3.5**

Five things to look out for

1

A universal bracket offers flexibility to upgrade, but a custom-fit bracket ensures a perfect fit.

2

Most L brackets are Arca Swiss-compatible, but if your tripod head doesn't have this mount, it won't fit.

3

Designs that enable you to access the battery door are handy should you run out of juice mid-shoot.

4

Some brackets obscure the connection ports, which may be problematic if you shoot tethered.

5

Rubber strips on the base plate prevent scratches and scrapes on the underside of your camera.



3-Legged Thing Ellie

£65/\$70

www.3leggedthing.com

Available in a striking copper orange or (slightly) more sober metallic slate grey finish, the Ellie certainly is eye-catching. Like the Benro and Zhiyou brackets it's also crafted from two pieces of aluminium, but the key difference here is that while the previous plates are fixed in place, here hex keys can be loosened to slide the base plate along rails to snugly fit the shape of your camera.

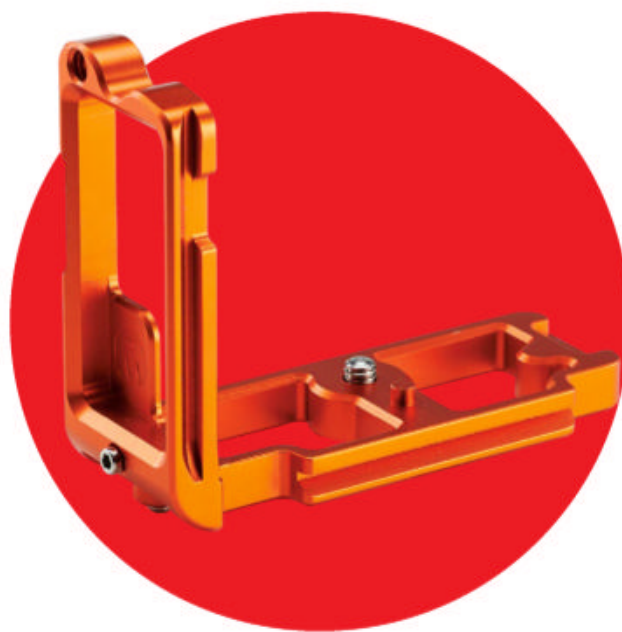
Rather than the camera attachment screw sliding along the length of the base plate, here there are two slots for them to slide across the width of the plate, and this enables the opening on the side plate to be aligned with the connector door openings. On our D850 we were able to access the HDMI and USB sockets. The headphone and mic sockets were still blocked by the bar across the top of the plate, but these aren't used for stills shooting scenarios for which L brackets are designed. On the Z 7 everything was accessible.

Another thoughtful touch is that the edges of the slide plate are contoured, to enable flip-out screens to be easily accessed.

PROS Customizable set up allows clear access to all the camera sockets; well considered design

CONS The in-your-face colour scheme may not be to everyone's tastes

Verdict **5**



3-Legged Thing Zelda

£89/\$100

www.3leggedthing.com

Originally launched alongside Nikon's Z 6 and Z 7, the Zelda is a custom-fit bracket designed solely for Nikon's full-frame mirrorless range. With their form factors being virtually identical, it also fits the more recently released Z 5, as well as the Z 6II and Z 7II. The smaller Z 50 has its own variant, called Zayla.

Unlike the previous three brackets, this is crafted from a single piece of aluminium; with no joins there shouldn't be any danger of the right angle sagging over time. The camera connection screw doesn't slide along the frame but is fixed in place, and a notch next to it slips into a recess on the underside of Z-system full-frame bodies, ensuring the camera is perfectly lined up with no possibility of 'wobble'.

The open side plate is designed to fit the ports of the Z cameras precisely, and there's also a screw hole for attaching accessories. It fits the Z cameras so well that it's the obvious choice if you own one of these mirrorless machines.

The downside, of course, is that it won't fit any other non-full-frame Z mirrorless cameras you might have – now or in the future.

PROS Custom fit prevents camera wobble; all connection ports accessible; it's called Zelda!

CONS Won't fit any other cameras you might own; a relatively pricey option

Verdict **4.5**



Manfrotto L Bracket RC4

From £152/\$179

www.manfrotto.com

By far the most substantial bracket here, Manfrotto's RC4 is a one-piece design and is constructed from magnesium, which is stronger and lighter than aluminium. While all the other brackets come with an Arca Swiss fitting, the RC4 is compatible with Manfrotto's own 410PL quick-release plate; while Arca Swiss plates slide along the length into a tripod mount, this clicks into a fixed position on the tripod head. Further variations are the Q2, fitted with 200PL-14 plates, and the Q5, which uses 501PL plates.

It comes with a Y-shaped ruler to measure the distance between the lens barrel and plate; the idea is you set the same distance between the lens and both the base and side plates, so the centre of the lens is perfectly lined up in both portrait and landscape orientation. Other features include a built-in level bubble, and a pullout peg to prevent the camera rotating when using heavy lenses.

It dwarfs the Z 7 to the point of being difficult to use the controls and even felt overkill on the D850. This is really designed for bigger cameras, such as the D6, or when using a battery grip.

PROS Upmarket magnesium construction, variety of Manfrotto-compatible plate fittings

CONS Expensive; dwarfs smaller cameras; feels over-engineered to do a relatively simple job

Verdict **4**



Laowa 11mm f/4.5 FF RL

£769/\$799

This Laowa is a super-small, crazily compact ultra-wide – does its function match its form?



The Laowa 11mm f/4.5 FF RL is the latest in Venus Optics' long line of exotic lenses. This ultra wide-angle offers an impressive 126° angle of view for full-frame mirrorless cameras, in an optic that's just 63.5mm long and weighs just 254g. This affords full-frame shooters the kind of extreme focal length that's typically reserved for crop sensor systems, even among the very best wide-angle lenses – though, it doesn't boast the manufacturer's Zero-D designation, meaning that distortion isn't as well controlled as something like the Laowa 15mm f/2 Zero-D. Like all Laowa lenses it's also fully mechanical, with no electrical contacts to communicate EXIF data or facilitate aperture or autofocus control.

So is this a must-have lens, small enough that everyone can keep an ultra-wide in their camera bag, or is it a niche within a niche? Let's put it through its paces...

Key features

This lens is positively diminutive at a truly pocket-sized 63.5x58mm, weighing a ludicrously light 254g. And herein lies the main advantage of this lens (one that may override its numerous disadvantages): it is so small that you won't have to think twice about taking it with you.

Consider your typical ultra-wide, which is such a beast that you have to make a conscious and deliberate decision to shoot something in order to justify packing it in your bag. But how many times have you been on vacation, or on a street walk, and spotted a beautiful building, scene, or ceiling and just wished you'd brought that lens with you? The Laowa 11mm literally fits in your pocket, or in the corner of your camera bag, so you can always have an ultra-wide with you.

Build and handling

The Laowa 11mm f/4.5 FF RL boasts excellent build quality. Its metal construction has enough weight to give it balance and substance, and you wouldn't worry about it rolling out of your camera

Specifications

Mount	Nikon Z
Full frame	Yes
Autofocus	No
Image stabilization	No
Construction	14 elements in 10 groups
Angle of view	126°
Diaphragm blades	5
Min aperture	f/22
Min focusing distance	0.19m
Maximum magnification ratio	0.1x
Filter size	62mm
Weight	254g

bag and taking a knock – it's a very solid optic. While the aperture ring only has six stops, they're spaced somewhat awkwardly apart (with f/16 disguised as a '•' just before f/22), but they're all clicked so you know when you've fully stopped up or down.

The focus ring is just the right amount of smooth, with about 90° of throw and enough resistance to give you the granular control you need. It also boasts a focus tab, which is useful for manually focusing – the more you use the lens, the more you'll learn what 'time' to position the tab to achieve a zone of focus.

This isn't a weather sealed lens, but it does feature an integral lens hood – one that accommodates lens filters, enabling you to screw in your existing 62mm filters. That said, it's a tight fit and actually attaching or removing filters is a fiddly affair – and space is so tight that you won't be able to use step-up rings.



It's a solid, well-built lens but is completely manual and suffers from sharpness, fringing and vignetting issues.

Performance

We were very impressed by just how sharp the Laowa 11mm is in the centre. With precise focus, subjects in the middle of the frame can be captured with pin sharpness, even wide open at f/4.5. Unsurprisingly, though, that sharpness drops off the further you get from the centre – with corners becoming very soft and smeary.

Speaking of that f/4.5 aperture, you're obviously going to have to push either your ISO or your shutter speed unless you're using a tripod. This does impact its usefulness as a handheld walkabout lens, particularly on the Nikon Z 50, which doesn't possess in-body image stabilization, so you'll have to up the sensitivity. Of course, for tripod shooting – arguably where this lens is designed to be used – this isn't an issue. Something that is an issue, though, is vignetting. The Laowa 11mm exhibits heavy vignetting at all apertures, and this is amplified if you add filters to the equation. Likewise there is major ghosting and fringing, and enough distortion to be noticeable too.

These characteristics can be corrected without too much difficulty in post (and Laowa provides a correction profile that does the work for you), but the fact remains that the corners of your images will be soft, dark and fringed until you fix them.

For this reason, the lens is actually most effective as an APS-C lens on a Z 50, or using crop mode in full-frame Z cameras; shots benefit from the same excellent centre sharpness, but avoid the worst of the ghosting, fringing, smearing and vignetting.

Verdict

The Laowa 11mm f/4.5 FF RL is incredibly small, lightweight and compact for such a crazy-wide lens. It is an ideal lens for landscapers, architectural photographers or interior shooters.

That said, there are compromises to achieve the super-small form factor: the f/4.5 aperture means that you'll need to consider your exposure, while corner sharpness, vignetting, fringing and distortion are all issues – albeit issues that, aside from sharpness, can easily be fixed in post-production.

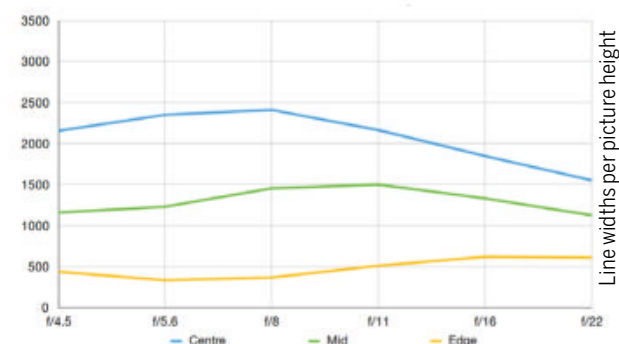
Of course, larger (and pricier) lenses may not suffer said flaws, but since they are larger and heavier, you may find yourself leaving them at home most of the time. Would you rather have a flaw-free lens that you seldom bring with you, or a lens with some mostly forgivable flaws that always fits in your camera bag?

The Laowa 11mm remains a feat of engineering, as ultra-wide lenses for full-frame cameras are not easy to make – and even less so, when they're this small! It's not an easy lens to use, but it is a fun lens to use. If you've ever wanted to try your hand at dramatic wide-angle shots, this is a good place to start. **N**

Features

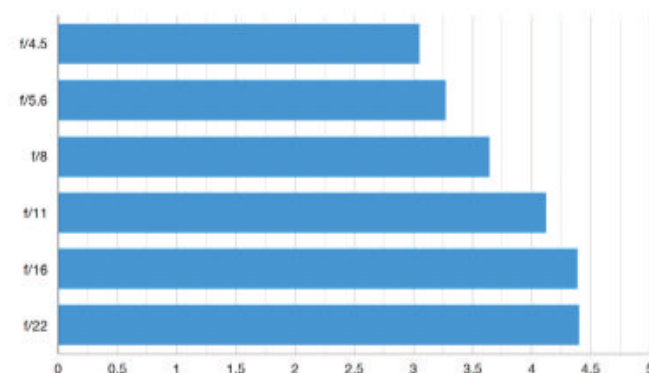
- 1 It's a minute marvel at 63.5x58mm, and tips the scales at a featherweight 254g.
- 2 The aperture ring has six stops, all clicked so you know when stopping up or down.
- 3 There's no weather sealing, although you do get an integral lens hood.
- 4 The manual focus ring has 90° of throw and offers a pleasing amount of resistance.
- 5 Depth of field markings at the foot of the lens barrel are handy for zone focusing.
- 6 Screwing in lens filters can be tight; so tight that you won't be able to use step-up rings.

Sharpness



Centre sharpness is superb, from wide open at f/4.5 right through to f/16, but it's not so good in the corners. Being such a wide lens, shooting our large flat test chart at such close range will always produce poor corner sharpness results, as the distance between the lens and the corners of the chart is so much further than it is to the centre.

Fringing



Fringing will tend to be more pronounced than when testing a longer lens, as the angle of light entering the lens relative to the camera's sensor plane is so extreme. This does help explain the high levels of fringing we encountered when lab testing this lens. Real-world shooting shouldn't produce fringing so severe.

Distortion

-3.12

Barrel distortion isn't as pronounced as you might expect from a full-frame lens this wide, but it is still noticeable.

N-Photo verdict

The Laowa 11mm f/4.5 FF RL is crazy small and light for an ultra-wide, but there are compromises to achieve this. Vignetting, along with distortion and fringing, can be fixed in post, but the slow aperture and drop-off in corner sharpness aren't so easily addressed. It should be remembered, though, that this lens is so tiny that you can pop it in your pocket and take it everywhere.





Fast tele-zooms

Fast telephoto zooms are a favourite the world over. Here are the best buys...

C

Considered one of the essential 'trinity' zooms, 70-200mm f/2.8 lenses are favoured by professional and enthusiast photographers for wide-ranging shooting scenarios. They're great for sports, wildlife, wedding and event photography, and more besides. The combination of a telephoto zoom range and fairly fast, constant aperture enables quick shutter speeds for freezing the action, and a tight depth of field for blurring the background.

There's no escaping the fact that wide apertures need relatively

large-diameter lens elements, so 70-200mm f/2.8 lenses tend to be quite hefty, usually tipping the scales at about 1.5kg. As such, they tend to come complete with tripod mounting rings, for balanced shooting on a tripod or monopod.

If you're willing to limit your aperture aspirations to f/4, Nikon and Tamron offer 70-200mm or 70-210mm lenses respectively, which are more lightweight and easily manageable, at 850g a piece. At the other end of the scale, the Nikon and Sigma 120-300mm f/2.8 lenses bump up the telephoto reach and the weight, coming in at over 3kg. →

The contenders

1	Tamron 70-210mm f/4 Di VC USD	£549/\$599
2	Sigma 70-200mm f/2.8 DG OS HSM S	£1179/\$1379
3	Tamron SP 70-200mm f/2.8 Di VC USD G2	£1249/\$1199
4	Nikon AF-S 70-200mm f/4G ED VR	£1349/\$1397
5	Nikon AF-S 70-200mm f/2.8E FL ED VR	£1999/\$2347
6	Nikon Z 70-200mm f/2.8 VR S	£2399/\$2597
7	Sigma 120-300mm f/2.8 DG OS HSM S	£2699/\$2599
8	Nikon AF-S 120-300mm f/2.8E FL ED SR VR	£9499/\$9497



N-Photo
Nikon-fit lens
buyers' guide!
<http://bit.ly/npbuyers>

Longer, faster, better

Here's how to pick out the fast tele-zoom that's best for your needs

The majority of Nikon-mount fast telephoto zoom lenses are designed for FX (full-frame) cameras, although the Sigma 50-100mm (see below) is a notable exception. You can put a 70-200mm f/2.8 lens on your DX (APS-C) camera body, where you'll get an extended 105-300mm telephoto range, still with that fast, constant f/2.8 aperture across the zoom range.

If you go DSLR, F-mount lenses are the only option. For mirrorless bodies, you can either invest in the recently launched Nikon Z 70-200mm f/2.8 VR S, or use an F-mount lens via an FTZ mount adapter. Naturally, a native Z-mount lens is the more obvious choice, but you can still expect great performance with a premium F-mount lens.

That said, you need to think about compatibility issues. Tamron's SP 70-200mm f/2.8 G2 lens in our group is only compatible with Z-mount cameras via an FTZ adapter if it has a serial number of 059178 or higher, or firmware 2.0 or higher. Similarly, the Tamron 70-210mm f/4 is only compatible if updated via Tamron's optional TAP-in console or through a Tamron service centre. There are no compatibility issues with Sigma's lenses in this test group.

Another compatibility issue to look out for is that an increasing number of Nikon, Sigma and Tamron F-mount lenses use electromagnetically controlled diaphragms. Here, they include the Nikon, Sigma and Tamron 70-200mm f/2.8 lenses, plus the Tamron 70-210mm f/4. The advantage is

that exposure accuracy is more consistent during bursts of shots taken with a fast continuous drive mode. However, aperture control doesn't work with older DSLRs including the D300S, D3000 and D5000, on which you can only use these lenses at their widest aperture setting.

Optical VR (Vibration Reduction) is great when shooting with telephoto lenses on a DSLR, but this is less of a 'must-have' feature with Nikon's full-frame mirrorless cameras, all of which have IBIS (In-Body Image Stabilization). Even so, optical VR can be more effective for telephoto lenses, and it's interesting to note that the Z 70-200mm features this, in which case the optical and in-body stabilizers work together for enhanced performance.

What to look for...

Here's a few things to bear in mind

VIBRATION REDUCTION

Optical stabilization is great to have in handheld telephoto shooting. It's a feature of every lens in this test group, including the Z-mount Nikon.

FIXED LENGTH

All of the lenses on test have fully internal zoom and focus mechanisms, so the physical length remains fixed at all available settings.

TELEPHOTO REACH

70-200mm is the classic range for fast telephoto zoom lenses but it's not the only choice. Nikon and Sigma both offer longer 120-300mm alternatives.

CONSTANT APERTURE

The aperture rating of all lenses in this test group remains constant throughout the entire zoom range, rather than shrinking at longer focal lengths.

TRIPOD MOUNT COLLAR

No tripod collar is supplied with the relatively lightweight f/4 lenses on test. They're available as optional extras but are typically pricey to buy.

WEATHER-SEALS

Most of the lenses on test feature weather-seals, which are useful for sport, wildlife and event photography in the rain. The Nikon 70-200mm f/4 at least has a weather-seal on its mounting plate.



For a DX format lens it's quite big, and comes with a tripod mounting collar.

A DX dream

Meet Sigma's go-faster DX tele-zoom

There's no problem using FX fast tele-zooms on a DX body. But by designing a lens specifically for cameras with APS-C image sensors, Sigma has been able to produce a lens that's faster, at a decent price of £949/\$1099. The Sigma 50-100mm f/1.8 DC HSM | A gives an 'effective' zoom range of 75-150mm, not quite matching that of a 70-200mm f/2.8 lens. The Sigma weighs in at 1490g and measures 93.5x170.7mm, so it's physically in the same ball park as most 70-200mm f/2.8 lenses for full-frame cameras. Sharpness and contrast are good, even when shooting wide-open at f/1.8, and bokeh remains soft when stopping down to f/2.8, where sharpness becomes more impressive. The only real issue is that its AF system isn't particularly speedy.





Tamron 70-210mm f/4 Di VC USD

£549/\$599

It's a downsized and straightforward affair

This telephoto zoom from Tamron stretches to a slightly longer focal length than the competing Nikon f/4 lens, but has a virtually identical size and weight. The design looks relatively basic, with no autofocus range limiter switch, nor switchable stabilization modes. There are only two switches on the lens barrel, for VC on/off and AF/MF.

Despite the no-frills appearance, build quality is good, elegant handling and the inclusion of weather-seals. The lens is compatible with Tamron's latest teleconverters and TAP-in Console, for fine-tuning, customization and the application of firmware updates.

Performance

Driven by dual microprocessors, the AF and stabilization systems are very effective, the former being quick and accurate, the latter delivering 4-stop performance. However, stabilization during panning proved less effective in our tests. Centre-sharpness is very good at mid-zoom settings, but drops off more than competing lenses at the long and short ends. Corner-sharpness is also a bit less impressive.

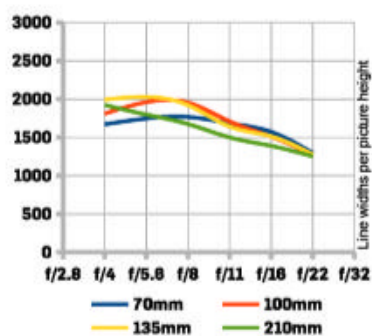
N-Photo verdict

Compact and light, it's simple yet highly effective. An optional tripod ring is available for around £109/\$129.



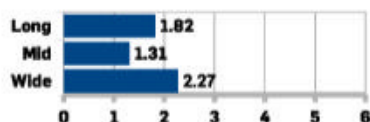
Sharpness

Good rather than great, the Tamron lags significantly behind Nikon's f/4 lens for sharpness.



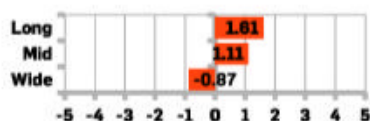
Fringing

There's not much to worry about in terms of fringing, however, it is slightly worse than average.



Distortion

Barrel and pincushion distortion at the short and long end are slightly less than from Nikon's lens.



Sigma 70-200mm f/2.8 DG OS HSM | S

£1179/\$1379

Big is beautiful, with a recent price drop

Sigma's long-running 70-200mm f/2.8 DG OS HSM lens was a popular, budget-friendly option.

The replacement Sports edition is completely redesigned, with a new optical path that features 24 elements in 22 groups, incorporating nine FLD elements and one SLD element. There's also a well-rounded aperture, based on 11 diaphragm blades.

The AF system can be switched to auto-priority or manual-priority modes, and has three customizable AF-hold buttons on the barrel. The new optical stabilizer has switchable static and panning modes, the latter working in landscape, portrait and even diagonal orientation.

Performance

Sharpness and contrast are fabulous throughout the zoom range, even when shooting wide-open at f/2.8. Autofocus is rapid and consistently accurate, and while stabilization isn't quite as effective as in the Tamron G2 lens for static shots, it proved better for panning during our tests. It's bigger and heavier than competing lenses, but goes extra-large on performance.

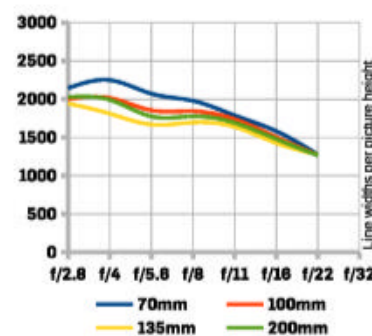
N-Photo verdict

Performance and quality are as good as from Nikon's latest F-mount competitor, but for less spend.



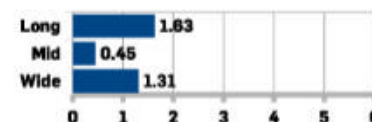
Sharpness

It's not quite as impressive in the lab, but matched the Nikon F-mount lens for sharpness in our real-world tests.



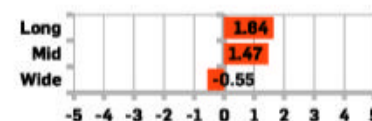
Fringing

There's slightly less colour fringing than from the Nikon through most of the zoom range.



Distortion

Levels of barrel and pincushion distortion are typically low for a top-grade 70-200mm lens.



BIG TEST – FAST TELE-ZOOMS



Tamron SP 70-200mm f/2.8 Di VC USD G2

£1249/\$1199

Tamron's second-gen lens ups the ante

With exotic features and a wealth of upgrades packed into its metal barrel, this Tamron G2 lens feels every inch a pro-grade lens. Its optical design has been refined to increase sharpness and contrast, while reducing colour fringing, ghosting and flare. The AF system is uprated for faster, more accurate performance, and the VC (Vibration Compensation) system boasts 5-stop effectiveness with three switchable modes. The third stabilization mode gives an unadulterated viewfinder image.

Along with a full set of weather-seals, the lens has a fluorine coating on the front element. It's noticeably smaller and 330g lighter than the Sigma, and its tripod mount collar is completely removable.

Performance

As advertised, AF is fast and operates with precision. Image quality is less sharp than with the Nikon and Sigma F-mount 70-200mm f/2.8 lenses, but still highly impressive. Overall handling and performance are excellent, especially considering it's little more than half the price of the Nikon lens.

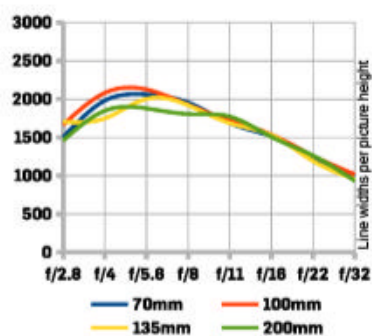
N-Photo verdict

It's a superb lens with great handling, and is outstanding value, but it lacks the Sigma's custom modes.



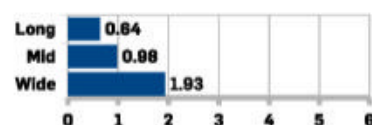
Sharpness

It's not quite as sharp as the Nikon and Sigma F-mount contenders, especially when shooting wide-open.



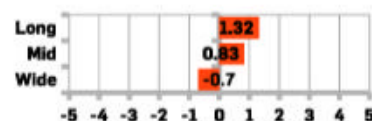
Fringing

Minor colour fringing at 70mm becomes entirely negligible when at medium to long zoom settings.



Distortion

There's very little distortion at short to medium zoom settings, and just a little pincushion at 200mm.



Nikon AF-S 70-200mm f/4G ED VR

£1349/\$1397

A lens that punches above its weight

This lens is shorter and slimmer than f/2.8 contenders and only about half the weight. Even so, it packs plenty of high-end features. Unlike the competing Tamron f/4 lens, the Nikon has a more sophisticated control system. 4-stop VR (Vibration Reduction) comes with switchable Normal and Active modes, the former featuring auto panning detection. An AF range limiter switch is also fitted.

The optical line-up includes three ED (Extra-low Dispersion) elements plus an HRI (High Refractive Index) element, aiming to boost sharpness and contrast while reducing chromatic aberrations. Nikon's renowned Nano Crystal Coat is also applied to keep ghosting and flare to a minimum.

Performance

Levels of sharpness are highly impressive, even when shooting wide-open at f/4, throughout the entire zoom range. The autofocus system is fast and unerringly accurate, and stabilization lives up to its 4-stop claims. However, it's pricey considering its f/4 aperture, costing more than the latest Sigma and Tamron f/2.8 lenses.

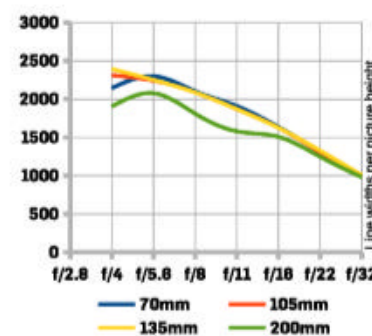
N-Photo verdict

Pricey for an F-mount 70-200mm zoom that 'only' has an f/4 aperture rating, but it's still a top performer.



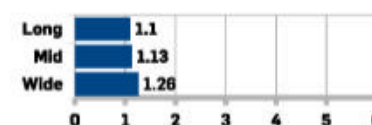
Sharpness

Excellent sharpness is consistently maintained throughout the zoom and aperture ranges.



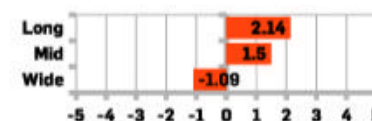
Fringing

As with sharpness, impressive control over fringing remains constant throughout the zoom range.



Distortion

As you extend through the zoom range, there's more of a swing from barrel to pincushion than usual.





Nikon AF-S 70-200mm f/2.8E FL ED VR

£1999/\$2347

Do you get more for the extra outlay?

When launched, this F-mount 70-200mm f/2.8 lens from Nikon became our favourite telephoto zoom.

Compared with the previous edition, it has an updated optical design that features a fluorite glass element, six ED elements, one HRI element and the bonus of Nano Crystal Coat.

The revised dual-mode VR system has automatic panning detection plus a 'Sport' mode that doesn't interfere with the viewfinder image and avoids a slowdown in continuous shooting. An electromagnetic diaphragm is also added, to ensure greater exposure consistency in rapid continuous drive mode. A dual-mode AF system gives priority to automatic focusing or manual override, and there are AF on/lock buttons on the barrel.

Performance

Sharpness and contrast are legendary, throughout the zoom range. Again though, the Sigma Sports lens goes toe-to-toe with the Nikon for sharpness in real-world shooting, while matching other aspects of the Nikon's image quality, AF speed and the effectiveness of stabilization.

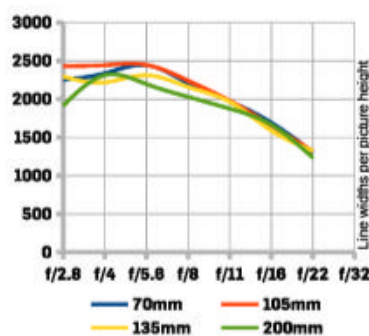
N-Photo verdict

This superb lens is better value than it used to be, but it's still nearly twice the price of the competing Sigma.



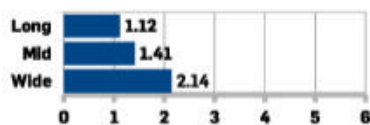
Sharpness

In both the lab and in-the-field tests, the Nikon delivers absolutely superb sharpness at all settings.



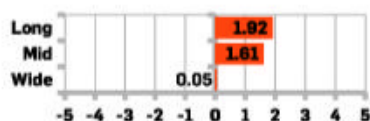
Fringing

It's worse than average when you're at 70mm, but is better controlled at those mid to long zoom settings.



Distortion

There's basically no distortion at 70mm, but there is a little pincushion at mid to long focal lengths.



Nikon Z 70-200mm f/2.8 VR S

£2399/\$2597

The ultimate Z-mount tele zoom

This Z-mount 70-200mm zoom has a stellar optical design that includes two aspherical elements, six ED (Extra-low Dispersion) elements,

a fluorite element and an SR (Short-wavelength Refractive) element. Dual coatings include both ARNEO and Nano Crystal Coat.

AF is rapid yet virtually silent, based on two synchronized stepping motors. There's highly effective 5-stop optical VR, based on voice coil motors, which works a treat on the DX format Z 50.

Trick features include an OLED display for viewing various shooting parameters, along with dual customizable L-Fn (Lens function) buttons. As well as zoom and focus rings, there's a third stepless control ring, which is also customizable.

Performance

It's the sharpest lens in the group, by quite a margin, not only in the central region of the frame but right into the extreme edges and corners. Vignetting is minimal and there's excellent resistance to ghosting and flare. Overall performance and handling are stunning.

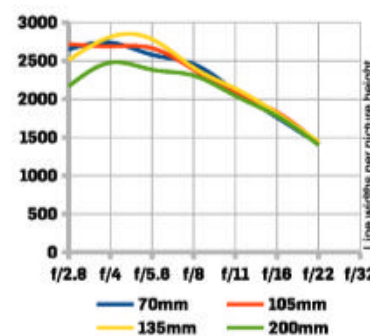
N-Photo verdict

It's an expensive lens, but you do get what you pay for. This optic is sure to become an instant classic.



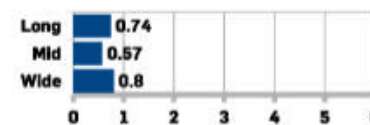
Sharpness

There's incredible sharpness on tap, throughout the whole zoom range and right across the entire image frame.



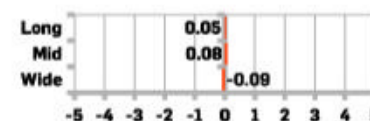
Fringing

Colour fringing is entirely negligible, throughout the whole zoom range and at all aperture settings.



Distortion

Aided by Nikon's automatic corrections in Z-mount cameras, it performs as a virtually distortion-free lens.



BIG TEST – FAST TELE-ZOOMS



Sigma 120-300mm f/2.8 DG OS HSM | S

£2699/\$2599

Extra reach, with no compromise in aperture

It's a big ask to deliver 50 per cent more telephoto reach than a 70-200mm lens while maintaining a constant f/2.8 aperture. The result is a big lens that weighs in at almost 3.4kg. That's more than twice the weight of most top-flight 70-200mm lenses.

The first launch in Sigma's Sports line, this lens features a Custom modes switch. Autofocus speed, autofocus limiter distance and stabilization effects for these modes are customizable via the optional USB Dock. It was also Sigma's first lens to feature weather-seals, although it lacks the 70-200mm Sports lens's fluorine coatings, dual switchable autofocus modes and AF-on/hold buttons. Both lenses have an SLD (Special Low Dispersion) element, but this one only has two top-grade FLD ('Fluorite' Low Dispersion) elements, whereas the 70-200mm lens has nine.

Performance

Even at f/2.8, this lens delivers ace contrast and centre-sharpness across the entire zoom range. It's undeniably a big lens, but handling is good and AF is very fast yet highly accurate.

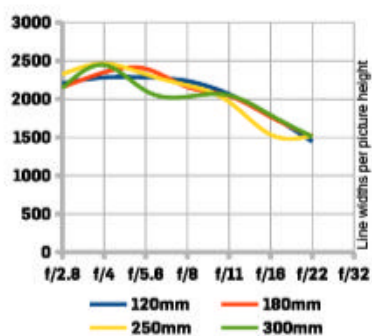
N-Photo verdict

Big in size, telephoto reach and general all-round quality, it's a humdinger of an f/2.8 zoom lens.



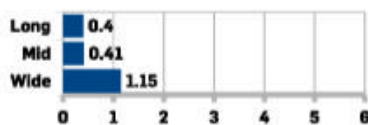
Sharpness

Excellent centre-sharpness extends to the image corners, if you don't mind stopping down a little.



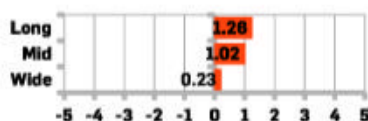
Fringing

You'll find very slight fringing at the short end dies away almost completely at mid to long settings.



Distortion

The amount of pincushion distortion is minimal and virtually imperceptible at the short end.



Nikon AF-S 120-300mm f/2.8E FL ED SR VR

£9499/\$9497

Similar to the Sigma but way pricier

For seven years, the Sigma 120-300mm has been an exclusive, combining a long telephoto zoom range with a fast and constant f/2.8 aperture.

Nikon has now gone into competition with its own F-mount lens, which offers an identical zoom range and aperture rating, but at near four times the price.

Optical highlights include an ED element, two fluorite elements and one SR (Short-wavelength Refractive) element, along with Nano Crystal and ARNEO coatings. There's a fast and near-silent ring-type ultrasonic AF system, an electromagnetic diaphragm and a 4-stop VR unit with switchable Normal and Sport modes. Solid build quality includes a full set of weather-seals and a fluorine coating on the front element.

Performance

The Nikon 120-300mm lost out to the competing Sigma for sharpness at all zoom and aperture settings, apart from when combining the shortest focal length with the widest aperture. In other respects, the Nikon had marginally less colour fringing, but more pincushion distortion.

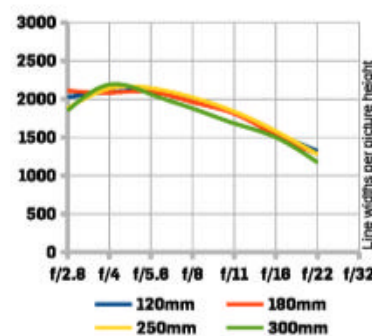
N-Photo verdict

It's a trusty beast for the most discerning and demanding pros, but adds little to the original Sigma recipe.



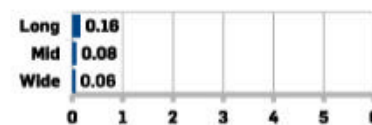
Sharpness

There's plenty of sharpness, but the Sigma 120-300mm beats at practically every zoom and aperture combo.



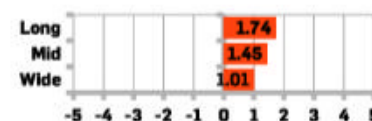
Fringing

Levels of colour fringing are so low that they're entirely negligible, even at the extreme corners of the frame.



Distortion

There's a little pincushion distortion in evidence, especially towards the long end of the zoom range.



The winner is... Nikon Z 70-200mm f/2.8 VR S

This Z-mount lens is the last word on fast tele-zooms



We've seen some spectacular zoom lenses in Nikon's growing Z-mount stable, but the 70-200mm f/2.8 is one of the best yet, along with the Z 24-70mm f/2.8 S standard zoom. Both have a similar design ethic and handling characteristics, along with class-leading all-round performance and image quality. If you're a Z-series camera owner in search of the best telephoto zoom, look no further.

The flip side is that most of us still shoot with a Nikon DSLR. Top-flight professional

photographers are likely to go for the Nikon AF-S 70-200mm f/2.8 lens, but the newer Sigma ports competitor matches the Nikon in pretty much every aspect of handling, performance and image quality. That's no mean feat considering that the Sigma is little more than half the price to buy. The similarity in performance and difference in price is even more pronounced when comparing the Nikon and Sigma 120-300mm f/2.8 lenses. You'd have to be

a die-hard 'own-brand' lens supporter to pay four times as much for the Nikon, as they're both fabulous lenses.

If you want to downsize to a 70-200mm f/4 lens, the Nikon is the pick of the crop for image quality and handling, whereas the less sophisticated Tamron still performs well and is rather better value at about half the price. **M**

How the lenses compare

								
	Tamron 70-210mm f/4 Di VC USD	Sigma 70-200mm f/2.8 DG OS HSM S	Tamron SP 70-200mm f/2.8 Di VC USD G2	Nikon AF-S 70-200mm f/4G ED VR	Nikon AF-S 70-200mm f/2.8E FL ED VR	Nikon Z 70-200mm f/2.8 VR S	Sigma 120-300mm f/2.8 DG OS HSM S	Nikon AF-S 120-300mm f/2.8E FL ED SR VR
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Target price	£549/\$599	£1179/\$1379	£1249/\$1199	£1349/\$1397	£1999/\$2347	£2399/\$2597	£2699/\$2599	£9499/\$9497
DX/FX	FX	FX	FX	FX	FX	Z	FX	FX
Effective zoom (DX)	105-315mm	105-300mm	105-300mm	105-300mm	105-300mm	105-300mm	180-450mm	180-450mm
Elements/groups	20/14	24/22	23/17	20/14	22/18	21/18	23/18	25/19
Diaphragm blades	9 blades	11 blades	9 blades	9 blades	9 blades	9 blades	9 blades	9 blades
Min aperture	f/32	f/22	f/22	f/32	f/22	f/22	f/22	f/22
Optical stabilizer	1 mode, 4 stops	2 modes, 4 stops	3 modes, 5 stops	2 modes, 4 stops	2 modes, 4 stops	5 stops	2 modes, 4 stops	2 modes, 4 stops
Autofocus type	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Stepping motor	Ultrasonic (ring-type)	Ultrasonic (ring-type)
Internal zoom/focus	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
AF limit/hold switches	No/No	Yes/Yes	Yes/No	Yes/No	Yes/Yes	Yes/Yes	Yes/No	Yes/Yes
Min focus distance	0.95m	1.2m	0.95m	1.0m	1.1m	0.5-1.0m	1.5-2.5m	2.0m
Max magnification	0.32x	0.21x	0.16x	0.27x	0.21x	0.2x	0.12x	0.16x
Filter size	67mm	82mm	77mm	67mm	77mm	77mm	105mm	112mm
Weather seals	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Included accessories	Hood	Hood, soft case	Hood	Hood, soft case	Hood, soft case	Hood, soft case	Hood, soft case	Hood, soft case
Tripod foot	Option	Supplied	Supplied	Option	Supplied	Supplied	Supplied	Supplied
Dimensions (dia x length)	76x177mm	94x203mm	88x194mm	78x179mm	89x203mm	89x220mm	121x291mm	128x304mm
Weight	850g	1805g	1485g	850g	1430g	1440g	3390g	3250g
Features	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Build & handling	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Performance	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Value	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Overall	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★



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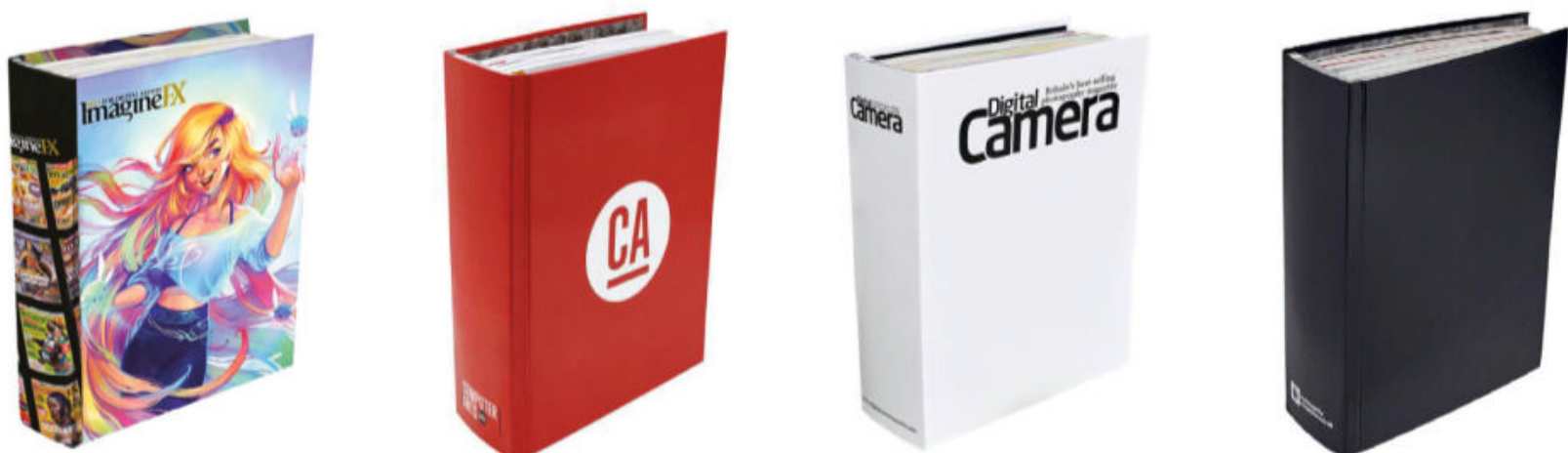
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You've earned it



Mike Harris thinks the notion that photography newcomers need to earn the best camera gear is a load of poppycock

'All the gear and no idea'. It's a phrase that's brandished about in almost every hobby. But is it really that silly for beginners to invest in the best equipment? I wholeheartedly believe that you can take an award-winning photo on any camera, and I do think limitations can bolster creativity. However, if I was just starting out and somebody handed me a shiny new D6, I certainly wouldn't turn it down!

Juke box hero

I recently fulfilled a childhood dream of owning a Gibson guitar, but as I opened the case for the first time I felt a nagging sense of regret. How could a living room guitarist appreciate a pro-quality instrument such as this? I tentatively strummed my first chord and breathed a sigh of relief. It's the best guitar I've played and more importantly, it inspires me to play every day.

I am, of course, well aware B.B. King could have made a three-stringed ukulele from a car boot cry, and Joe McNally could wow critics with a shot taken on a waterlogged D90 with a dodgy shutter. We all know the camera doesn't maketh the photographer, but I doubt Joe would be happy to adopt that D90 as his main companion either. Some people

evidently believe high-end gear should be earned, but here's the thing. A camera isn't a qualification, it's a tool. And good tools are desirable, because they help make tasks more enjoyable. But what constitutes a good tool doesn't necessarily have anything to do with how much it costs.

If you're happy spending £300 on an entry-level DSLR and it inspires you to take photos and enjoy your hobby, it's a good tool. If you're happy to spend £2500 on a Z 7 and it inspires you to take photos and enjoy your hobby, it's a good tool.

We all have different budgets and priorities in life, but we all have one thing in common: photography. An observation I often hear is that some people don't understand how to use their high-end camera. But it really doesn't matter whether you're shooting on a D3500 or a D850, both cameras are made for so much more than, say, Auto mode. Instead of scoffing, why not impart some of your knowledge? I'm sure it'd be appreciated.

You can't judge a photographer by their camera. Enjoy using the equipment that speaks to you and don't worry what anybody else thinks. Whether budget is a concern or not, we all have the ability to take great photos. If you're inspired to pick up your camera, *you've made the right choice.* **N**

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