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NPhoto

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Issue 158 • January 2024
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THE NIKON MAGAZINE

PRO ADVICE!

25 EXPERT TIPS FOR WINTER WILDLIFE

Capture amazing animal images



Let the light in!

How to get more dynamic range in your photographs

NPhoto
GEAR
OF THE YEAR
The best Nikon-fit kit of 2023!



REVIEWED!

Bokeh-meister!

Nikon's Z 135mm f/1.8 S Plena is a truly sublime portrait prime!

PHOTO PROJECTS
6 INSPIRATIONAL IDEAS TO TRY AT HOME TODAY!

NikonSkills



EXPERT TIPS!

Make a splash!

Our apprentice learns to freeze time in our high-speed photography workshop



Henley Spiers
"I don't look through viewfinders" **p62**



Tupac Shakur
Michel Haddi's images of the influential rapper **p70**



Scenic shots
Top Nikon Landscape POTY images **p16**





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This issue's special contributors...



Iain Afshar

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Iain shows our apprentice how to freeze water drops and bursting balloons with high-speed flash in a splash photography workshop.



Andrew Mason

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Wildlife photographer Andrew shares 25 tips for capturing great animal images as the temperatures plummet.



Tom Mason

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Tom finds an excuse to splash out on yet another technical jacket as he photographs polar bears in the Arctic wilderness.



Henley Spiers

PAGE 62

Marine photographer Henley tells how he got bitten by the underwater bug in this issue's *N-Photo* interview.



Michel Haddi

PAGE 70

Michel explains how he came to photograph legendary rap artist Tupac in the prime of his tragically all-too-short life.



Andrew Corless

PAGE 86

N-Photo reader Andrew shares the story of his once-in-a-lifetime wildlife-watching trip in the US frontier state of Alaska.

The best Nikon images from the Landscape Photographer of the Year contest, see page 16.

Image: © Terry Gibbins

Welcome to issue 158



Winter is coming. And while that's the cue for most folks to crank up the central heating, draw the curtains and sup on a cup of cocoa, it sees wildlife photographer Andrew Mason wrapping up warm and heading out into the elements. He shares 25 tips for stunning shots of animals in the harshest – but arguably most photogenic – season of them all.

But it was the warmth of the studio that was certainly favoured by our apprentice as he learned to capture images of splishes and splashes far faster than the blink of an eye, courtesy of pro photographer Iain Afshar's high-speed flash workshop.

It's also the time for our annual Gear of the Year awards, where we reflect on the very best kit that's passed through our labs over the past 12 months. And with the January sales just around the corner, it could be the perfect time to pick your next photographic purchase. We also bring you the *N-Photo* verdict on Nikon's stunning 'Plena' portrait lens, which quite possibly boasts the most beautiful bokeh ever seen.

Our seasonal projects selection includes astro, festive food photos, winter scenes and last-minute greetings cards. Merry Christmas!

Adam Waring, Editor
adam.waring@futurenet.com



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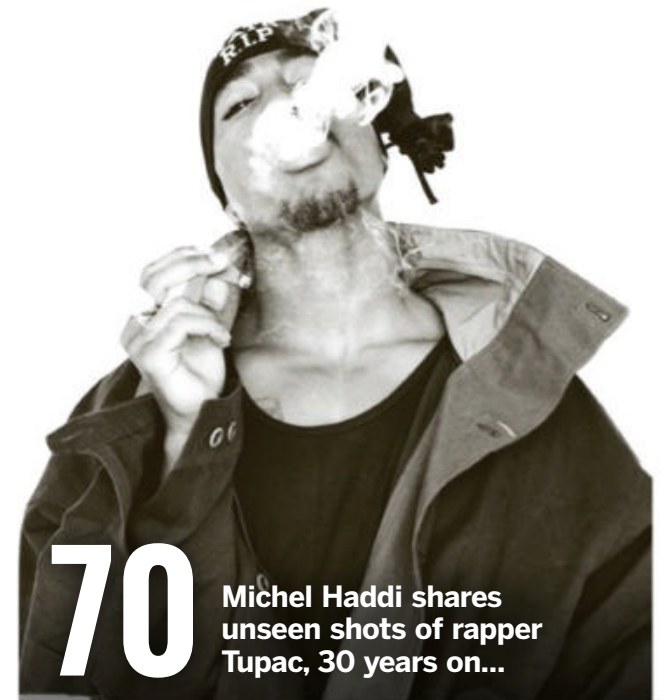
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Free! The Ultimate Guide to Photography Post-Production

This brilliant 146-page ebook shows you how to integrate editing into your photo workflow, from basic adjustments and retouching to advanced compositing techniques and special effects. Download your copy today!
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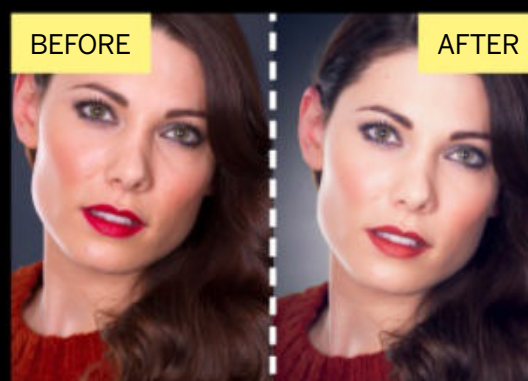
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NPhoto APPRENTICE



THE PRO

NAME: **Iain Afshar**

CAMERA: **Nikon Z 7II**

Iain is a fully qualified teacher who now splits his time between photography and adventuring. He runs photography workshops through his business The Photography Project and is the founder of the Adventurous Activity Company. As an International Mountain Leader, his travels allow him to capture some of the most remote places in the world. He started capturing splashes during the off season, with water-themed workshops proving a hit: www.thephotographyproject.co.uk

Splish splash

Photo tutor **Iain Afshar** introduces our apprentice to the world of high-speed splash



Iain runs The Photography Project from a unit in Bristol's historic Underfall Yard. The little boatyard is situated on the city's 19th-century Floating Harbour, not far from Brunel's *SS Great*

Britain. "Don't mind the paddling pool," said Iain as Chris set his kit bag down. "Splash photography tends to get a bit messy – I might have to go empty it once or twice."
"At least you don't have to travel far," said Chris as he nodded towards the harbour,



THE APPRENTICE

NAME: **Chris Haliburton**

CAMERA: **Nikon D810**

Cornwall-based Chris is a retired aircraft mechanic who rekindled his passion for photography. He swapped Minolta for Nikon years ago, when he picked up the D200 and hasn't looked back since. He now owns a plethora of Nikon DSLR and mirrorless cameras and has even put together a little home studio so he can keep shooting during the cold winter months; Iain's splash-themed product shots are right up Chris's street.

TECHNIQUE ASSESSMENT

1



DIM THE LIGHTS

Iain says... I use Manual mode to keep each shot consistent. The shutter speed matches my camera's sync speed and I select a narrow aperture to render as much of the subject in focus as possible. I use a low ISO to eliminate ambient light, occasionally tweaking the aperture to compensate, if needed.

2



SPLASH THE FLASH

Iain says... I shoot Raw to capture the largest and most detail-rich files. Raws are more pliable in the edit, allowing for drastic changes in colour temp. This means nailing the white balance isn't crucial. Still, I like to get as much right in-camera as possible. The Flash preset's neutral tones are my go-to.

3



LIGHT SHOW

Iain says... I use three off-camera flashguns, controlled independently via a transmitter. I capture a completely black image to cancel out the ambient light and then determine the flash power required for the background light. I then set up the subject lights, which are usually the same power.



PRO KIT WATER DROPLET DEVICE

Iain says... I use the SplashArt Kit MKII (available from www.phototrigger.co.uk). This comprises a retort stand, solenoid, pump reservoir, camera cable and controller. The device connects to the camera so the shutter is fired precisely when the droplet hits the water and the splash is formed. You can alter the size of the first or second droplet, the delay between each droplet and at what point the camera's shutter is fired.

right out the door. Iain had already prepared the first setup. In the middle of the paddling pool was a tall side table, covered with a black ceramic tile to provide a reflective surface. A full tumbler of water was placed on top and flanked by two flash heads on light stands. A third was set beneath the table and directed towards a large white backdrop behind.

"We control the light, so we won't have to alter it much once it's set up," said Iain. He began by ensuring that Chris's D810 was set to Manual mode and Raw shooting, before inviting the apprentice to put the camera on a tripod and frame the tumbler.

As Chris adjusted the framing created by his Sigma Macro 105mm f/2.8 EX DG OS HSM, Iain offered a couple of pointers: "The splash will be rising high above the

glass, so a vertical composition will afford you a little more room. It'll also allow you to frame more of the reflection on the tile."

BACK TO BLACK

The next step was to dial in the exposure settings. Iain asked his apprentice to dial in ISO100, f/16 and 1/250 sec, before firing the shutter. "Great," said Iain. "Those settings will ensure low noise, an adequate depth of field to render as much of the subject sharp as possible – since we're using a macro lens – and a shutter speed that matches the D810's sync speed."

Iain then explained the concept of 'slapback' from a reflex mirror to Chris and they set the camera to Mirror-up mode to ensure the moving mirror didn't cause any vibrations. "Locking the mirror →

EXPERT INSIGHT ROLL THE DICE

Iain says... I've built up a large collection of cheap props over time. All of the vessels are plastic. I started off using glass, but they limited the objects I could chuck into the water as they had a tendency to crack. I'm always on the lookout for new implements I can use to cause splashes. You can't go wrong with a few clear, reusable plastic 'ice' cubes. I also like to use dice, since they can add a pop of colour and work well with anything drink themed. I've found a faux crystal is extremely useful when using a cocktail glass, as it's the same shape, which forces the water up and outwards, creating that incredible-looking halo of liquid. My most recent addition was the circular metal implement, riddled with holes, and used in Super Shot #1. It's actually the end of a meat mincer. Once I thought of the idea, I went online and found plenty of spare parts available. It works a treat!





SUPER SHOT #1

Camera: Nikon D810
Lens: 105mm f/2.8
Exposure: 1/250 sec, f/22, ISO200



SUPER
SHOT #2

Camera:	Nikon D810
Lens:	105mm f/2.8
Exposure:	1/250 sec, f/22, ISO200

PRO KIT STUDIO SETUP

Iain says... You don't need an expensive studio setup to photograph splashes and water droplets. The main concern is water damage – you'll literally be throwing water around! I help avoid spillages by covering the floor with a tarpaulin and placing my table within a paddling pool. A sheet of clear plastic on top of the table creates a skirt that protects the background flash. My three flashguns (Yongnuo YN-560 IV) aren't super expensive, but work perfectly. I do have a dedicated studio background, but you could use a bedsheet or some foam board. Finally, the shiny black surface on the table is a sample floor tile, I have a white one too.



the shutter and dropped the metal disc into the bowl of water. A huge wave flew up into the air as the flashes popped and the shutter fired.

"That looked like a good one," said Iain as they checked the rear LCD. "The splash looks great, but I reckon we should experiment with a lower flash power. This will create a faster flash that will freeze more motion, because some of the droplets look a little blurry"

They set the two subject flashes to 1/128 and narrowed the aperture to f/22 to gain a little extra depth of field. They then bumped the ISO up to 200 to compensate. Chris took a test shot to confirm that they were happy with the exposure, while Iain sourced a blue vial of food colouring.

"This'll add a pop of colour," he said as he stirred a couple of drops into the bowl. It only took two tries for Chris to capture Super Shot #1, a beautiful tulip-shaped wave of water, frozen in time.

SHAKEN, NOT STIRRED

"Now we've nailed down our settings, the fun really begins. Let's try this," said Iain as he placed a cocktail glass onto the table. He then held a red, diamond-shaped object up to the light. "This is what we'll be using to create the splash. It's the same shape as the cocktail glass. If it falls correctly, it will slide into the bottom of the glass and plug it, forcing all of the water out of the sides. This can create a really lovely looking halo of water, suspended in midair."

Chris held the diamond above the aqua-coloured water and let go. The red prop bounced off the edge of the glass and sent it tumbling off the table and into the paddling pool. The apprentice →

up also helps your timing," said the pro. "When you press the shutter button the camera can fire the shutter immediately, without flipping the mirror up first."

Once Chris had dialled in Iain's preferred Flash white balance preset, they were ready to lock focus. Iain laid a pen across the top of the tumbler, so it sat right in the middle of the glass: "Manually focus on the pen – where it says *SS Great Britain*."

"Couldn't you just focus on the side of the glass?" asked Chris.

"You could," said Iain, "but you wouldn't maximize your depth of field. By focusing in the centre of the glass, you maximize the sharpness of the splash by capturing droplets within the depth of field behind, but also in front of your point of focus."

WATER, WATER EVERYWHERE

Chris took a test shot. "The screen is completely black," he said, bemused.

"Excellent," said Iain. "That's exactly what we want. We've neutralized the ambient light so the lighting is entirely controlled via the flash heads."

"Ah, that makes sense," said Chris as Iain slid a transmitter into the D810's hotshoe.

"Let's sort the background first," said Iain. "We want it to be a perfectly white."

Chris fired the shutter and a pop of flash illuminated backdrop.

"This looks quite good, actually. We're on 1/8 power, so let's try 1/4."

The pair nodded to each other as they reviewed the Playback screen, before moving onto the subject lighting.

"That's flooded the subject with light," said Iain after Chris fired the shutter, "so this time we need to reduce the power."

They eventually settled on 1/64 for both

lights and began capturing the first setup. This involved dropping a plastic 'ice' cube and a red die into the tumbler to create splashes. Timing was everything. Chris had to 'prime' the camera first, by pressing the shutter button to lock the mirror. Only the second press would fire the shutter.

A remote shutter release enabled Chris to activate the shutter while standing next to glass of water. After a few successful attempts, Iain appeared with a shallow bowl of water in one hand and a small, circular metal disc in the other. "Let's try these," he said as he set down the bowl and laid the pen across it as a focusing aid.

"It's the end of a meat mincer," he said, as Chris inspected the circular implement. "The holes create an incredible-looking splash, try it out." The apprentice primed

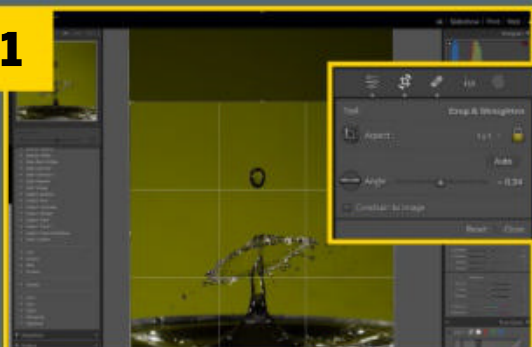
EXPERT INSIGHT PLANE SAILING

Iain says... Once you nail the technique, you're really only limited by your own creativity. I'm always looking for new props to include in my splash images and this little model of a Red Arrows Hawk has proven a great alternative to the darts I usually use. I attached a small pin to the nose so it pops the balloons. I secure the aircraft on a length of fishing wire and then line it up with the balloon and swing it directly towards it. Timing the shot is a little more challenging than prodding the balloon with the dart on a stick, but the results are certainly worth the trial and error.



HOW TO: EDIT WATER DROPS

1



CROP IT LIKE IT'S HOT

Iain says... I always leave a bit of space around the subject when composing due to the unpredictable spread of each splash. If the frame is too tight, you risk losing parts of the splash. Some cropping or straightening is therefore necessary at the editing stage to frame the shot perfectly.

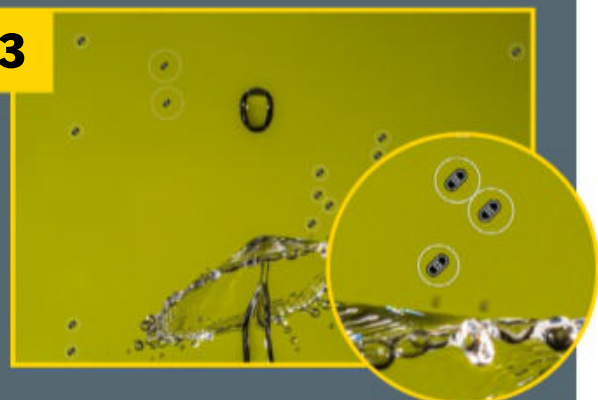
2



NAIL THE BASICS

Iain says... I keep things simple and do most of my editing in Adobe Lightroom. I tend to reduce highlights, lift shadows and add minor tweaks to whites and blacks. Increasing the Texture and Clarity sliders looks fantastic with water splashes. I may also increase the Vibrance or Saturation sliders slightly.

3



HEALING POWERS

Iain says... I like to tidy up distracting water drops using the Healing panel's Heal tool. Some setups require the subject to be suspended by fishing line or cord, like water balloons, and it's often necessary to remove these distractions in post-production.

EXPERT INSIGHT WATER COLOURS

Iain says... Beyond the shape of your droplets or splashes, you can add variety by experimenting with colour. The easiest change to make is the water itself; I find that a few drops of food colouring works well. Changing the colour of the background is another option. You can either place a colourful background behind your subject or place a gel over your background light and fire it at a white background.



recoiled with horror, only to realize that the convincing glass was actually plastic. Iain laughed: "I used to use glass, but after one too many cracks I switched to plastic."

They repositioned the cocktail glass, but before Chris could try again, Iain offered a tip. "If you dip the diamond in the water and hold it above the glass, drips will fall into the water. I use this a little bit like a reticle, so I can aim directly in the middle of the glass."

Chris tried this technique and the diamond fell directly in the centre of the glass. "Good," said the pro. "But I reckon we can get a better splash." Time and again they dropped the diamond into the water, before refilling the cocktail glass. Suddenly, Chris hit the jackpot. A perfect

halo of water momentarily rose into the air, before crashing back down.

"Please tell me I captured that," said Chris as he rushed over to his D810.

"Yes!", said Iain, "That's Super Shot #2."

DROP SHOT

The next shot would require a rather complicated-looking setup, comprising a stand, pump and controller. "This is my SplashArt water droplet kit," said Iain. "We'll be creating an umbrella splash today. This forms when the first droplet creates a rising stem, which the second droplet hits to form an umbrella-shaped splash. The camera is connected to the kit, so it fires automatically. This all amounts



SUPER SHOT #3

Camera:	Nikon D810
Lens:	105mm f/2.8
Exposure:	1/250 sec, f/22, ISO100



to an incredible level of precision that you couldn't replicate with a pipette."

Iain explained how the controller's four dials worked (see Pro Kit: Water droplet device). "I found these settings following much trial and error," said the pro, "so in the interest of time, I've set everything up for you. But what we can do is get creative with the colour of the water or backdrop."

"Let's change the backdrop," said Chris. "Can we try green?"

"Yes, the easiest way to change the backdrop is to put a coloured gel over the background flash," said the pro as he held

out a pack of gels. "These are super-cheap, I think they only cost about £10."

Once again, they used the pen as a focusing aid. "The trick is to position it right in the path of the falling droplets," said Iain.

"You'll know when it's in the right position, because this will happen," he activated the dropper and a water droplet fell directly onto the pen. They then turned their attention towards the lighting. Iain had set every flash to 1/128. This low-power setting would provide enough light for the tiny droplets, while omitting a fast blip of flash to freeze the moment. Chris

moved his camera much closer to the table, while Iain directed him to crop out as much of the water bowl as possible.

"We can leave the aperture at f/22," said the pro, "but I reckon we'll be able to drop the ISO back down to 100."

"Aren't you worried about diffraction at very narrow apertures?" asked Chris.

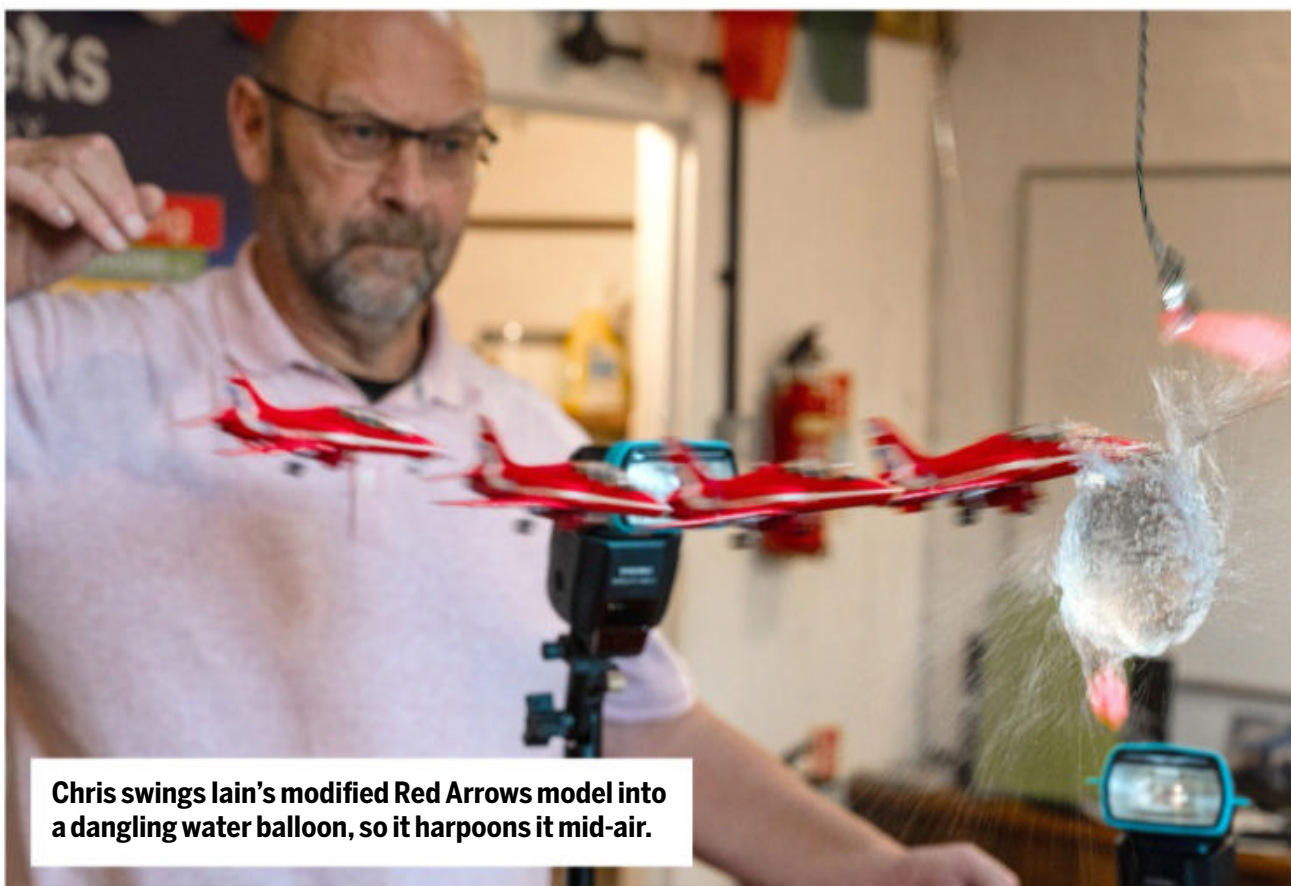
"Good question. Normally, you would be, but I find it's hardly noticeable with this type of photography. Personally, I think the larger depth of field is worth a small reduction in overall sharpness."

Chris activated the setup by →



SUPER
SHOT #4

Camera:	Nikon D810
Lens:	105mm f/2.8
Exposure:	1/250 sec, f/16, ISO100



Chris swings Iain's modified Red Arrows model into a dangling water balloon, so it harpoons it mid-air.

pressing a button on the SplashArt controller. In a blink-and-you'll miss it moment the droplets fell and the shutter fired. "1/128 is working on the subject, but I reckon we could do with brightening the backdrop. 1/64 should do it," said Iain.

With that, Chris fired the shutter a second time and captured Super Shot #3.

BURST SHOOTING

The pair's final trick would be an image of a water balloon the exact moment it burst. Iain replaced the water droplet kit with a bucket, before suspending a length of string from a hook that was screwed into a beam, directly above. The pro then brought in a bucket full of water balloons, before attaching one to the length of string. It dangled just above the bucket.

"Am I throwing a dart at it?" said Chris with a knowing smile. "You know, I used to do that," said Iain. "Not only was it difficult



PRO PORTFOLIO IAIN AFSHAR



The two flashguns fire as Chris uses Iain's improvised dart to burst a water balloon, while simultaneously activating the remote shutter.

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to time, but I ended up with tiny holes all over the place... so, I came up with this," the pro handed his apprentice a dart on the end of a long stick.

"You can prod the balloon with this and then we can easily edit out the stick."

Iain rolled up the white backdrop and pulled down a black one, before positioning a flash on either side of the balloon. "We don't need a background light," he said. "The flashes are set to 1/128 as we really want to freeze the water."

Chris took a test shot: "A bit dark?"

"Yeah, let's widen the aperture by a stop to let in a little more light."

Chris lined up the balloon with his improvised dart and popped it, while simultaneously activating the shutter. "What went wrong there?" asked Iain.

"I forgot to lock the mirror," said Chris.

Iain hung another water balloon, while Chris made sure he primed the shutter.

The second shot fared much better, with the balloon captured mid-burst.

"Great," said the pro. "But what we really want is to capture the dart inside the orb of water." It only took another couple of balloons for Chris to get it right. He captured the very moment the dart was thrust into the balloon to land Super Shot #4.



CHRIS'S COMMENT

I've set up a home studio for the winter months, so this has been a great introduction to flash photography. Neutralizing the ambient light was a really interesting tip.



IAIN'S VERDICT

Chris learned a lot during the setup, but the most difficult bit is timing the shots. He took to this immediately, so we had loads of keepers to choose from in post. 📸



BEAUTIFUL BLUE

As an International Mountain Leader and expedition guide, I travel all over the world to remote places. This shot of Gokyo Lake in Nepal was taken at an altitude of around 5500m, from the summit of Gokyo Ri. At these altitudes, carrying camera equipment becomes much harder work! It's a real privilege to capture places that very few people get to see.



FROZEN IN MOTION

I photographed this beautiful violet sabrewing hummingbird in Costa Rica. With its wings beating at around 50 times per second, the only way to freeze it in motion is to use high-speed flash in much the same way as splash photography, with similar camera settings.



PEEK-A-BOO!

I love using macro lenses as they enable you to focus really close to your subject. This tiny Costa Rican glass frog was only about 3cm long. They often sit perfectly still, allowing you to move around to find an interesting composition. This was shot handheld using a single off camera flash.

LIGHTBOX

Our favourite Nikon images from the Landscape Photographer of the Year 2023 competition



© Richard Bowden / Landscape Photographer of the Year

Arkle Rainbow

RICHARD BOWDEN

Classic View – Highly Commended

Intense light shining through a rainbow arch onto the base of Arkle mountain in the Scottish Highlands.

Camera:	Nikon Z7
Lens:	24-120mm f/4
Exposure:	1/6 sec, f/16, ISO64

LANDSCAPE PHOTOGRAPHER OF THE YEAR





© Terry Gibbins / Landscape Photographer of the Year

Blizzard London

TERRY GIBBINS

Expressions & Impressions of the Landscape – Winner

A three-image in-camera multiple exposure of a black cab driving home through the streets of London during a snowstorm.

Camera:	Nikon D850
Lens:	24-70mm f/4
Exposure:	1/8 sec, f/5.6, ISO400

Elders

EDD ALLEN

Black & White – Highly Commended

Taken on a wonderful day spent walking through the sand dunes on Newborough beach, Anglesey, with the old skeletal trees still standing tall among the blowing grass and the mountains of Wales in the background. Hours disappear as the light comes and goes, while sand is whipped up into the air. Such a fantastic place to visit.

Camera:	Nikon D610 (infrared converted)
Lens:	18mm f/3.5
Exposure:	1/160 sec, f/9, ISO100

LANDSCAPE PHOTOGRAPHER OF THE YEAR



LIGHTBOX





© Jamie Fielding / Landscape Photographer of the Year

Pinpoint

ADAM BURTON

Coastal View – Commended

As sea stacks go, North Gaulton Castle on the west coast of Orkney's main island is hard to beat – at 52m (170ft) it's a monster. For such an incredibly strong subject, the obvious arrangement was to place it centrally within the frame. I used a long exposure to soften the background water and make the stack stand out.

Camera:	Nikon D850
Lens:	24-70mm f/2.8
Exposure:	30 secs, f/11, ISO125

Apocalypse Now

JAMIE FIELDING

Coastal View – Highly Commended

I could see there was a large storm moving up from France towards the Sussex coast. I started to track it on my lightning app and knew it was going to make landfall near Littlehampton. As the storm edged closer, I took multiple shots to capture the lightning strike. I was delighted to capture this epic bolt, which then revealed the ominous shelf cloud.

Camera:	Nikon D750
Lens:	20mm f/1.8
Exposure:	33 secs, f/8, ISO400



© Nick Green / Landscape Photographer of the Year

Role Reversal

NICK GREEN

Black & White – Winner

A well-photographed tree on Dartmoor taken from a new point of view and then converted to a black-and-white image. **N**

Camera:	Nikon D90
Lens:	50mm f/1.8
Exposure:	1/125 sec, f/8, ISO200



With a prize fund worth over £20,000, Landscape Photographer of the Year celebrates all that is great about the British landscape. The competition showcases the work of talented photographers, and a selection of winning and commended images will be shown at a travelling exhibition at railway stations throughout the United Kingdom, as well as in the full-colour hardback book, *Landscape Photographer of the Year - Collection 16* (£35, Ilex Press). See www.lpoty.co.uk



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Adam Waring, Editor, *N-Photo*

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25 top tips for...

Winter wildlife

You won't catch **Andrew Mason** hibernating. Inclement weather and freezing temperatures bring additional challenges but dustings of frost and snow, seasonal visitors and gorgeous light can transform your portfolio into a wildlife winter wonderland



Andrew Mason

Andrew has worked as a full-time professional wildlife photographer since 2009. He's supplied images for a wide range of clients, including the RSPB, and leads photography tours for Naturetrek.

To find out more, visit: www.andrewmasonphoto.com

All images: © Andrew Mason

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imon & Garfunkel's *A Hazy Shade of Winter*, originally released in 1966 and covered by many artists including The Bangles, is one of the most iconic songs of all time. It speaks of the fleeting nature of time and how everything can change in an instant.

And for wildlife photographers, this resonates now more than ever. Winter offers incredible conditions, but with climate change, conditions are increasingly less predictable, more changeable and fleeting. With the sun low in the sky, the light for photography is good throughout the day, whatever the conditions. Storms can be dramatic, providing spectacular light. Freezing temperatures and snow can transform the landscape

in a matter of hours – it only takes a dusting of snow to create a winter wonderland. Overcast and hazy skies give ideal conditions for a wide range of images. In their winter coats, animals look spectacular and can be far more approachable. Winter also brings migratory birds to our shores and incredible gatherings of wildlife.

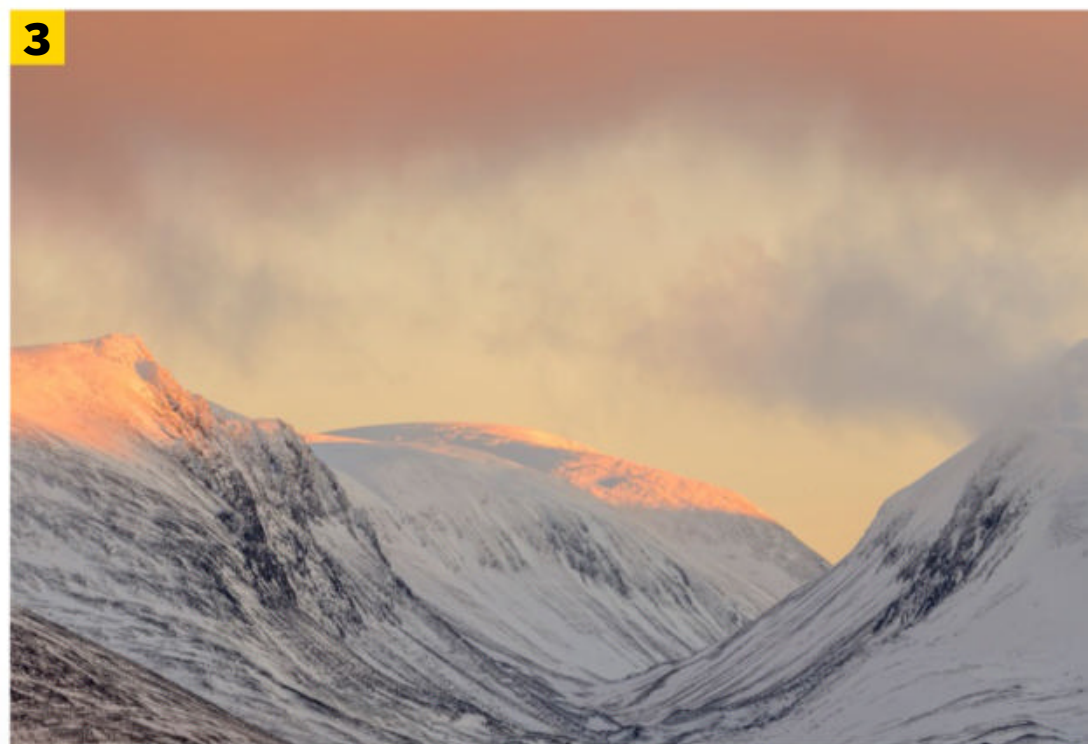
Winter is a time to be prepared for whatever conditions we are handed. By knowing what wildlife is around, being flexible and adaptable, it's possible to make the most of the opportunities we're given and even make use of what might otherwise be perceived as misfortune. While it might be cold outside, you really can't stay inside. It's time to put on your warm winter clothes, fill your flask with a hot drink, and when the snow glows white on the mountainside, get out and go!



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2



3

Winter light & weather

Finding the right subject is one thing, but great wildlife photographers pay just as much attention to weather and lighting conditions so they can adapt accordingly

1 WINTER LIGHT

With the sun low in the sky for more of the day, the light in winter can be some of the best you will have for wildlife photography. The further north you go, the better the light can be, although the days will be shorter. Cold, crisp and clear days will afford stunning clarity for photography. Consider using a polarizer but be careful about losing up to two stops of light and

the effect that may have on your shutter speed. Shorter lenses will take a circular polarizer and long lenses may take a drop-in polarizer.

2 MAKE THE MOST OF DAYLIGHT

At the height of winter, there are just under eight hours of daylight. To make the most of the available light you have to be



4

Be prepared

5 By being prepared and equipped for all that Mother Nature will throw at you, you will be able to make the most of the wintry conditions. A layered clothing system – consisting of a wicking base layer, insulating mid layers, a waterproof and windproof shell, and an insulated outer layer – will keep you warm and dry. I have tried many different photography gloves and swear by SealSkinz's Water Repellent All Weather Gloves (www.sealskinz.com), which are warm down to -10°C. I over-layer them with The Heat Company's Shell Mittens (www.theheatcompany.com), which open to allow the operation of equipment.

While many Nikon cameras and lenses have some form of weather sealing, care needs to be taken in cold weather. When the temperature is hovering around freezing, snow can melt and then freeze on lenses, which can be problematic, but the colder the temperature the less likely this is to occur. Batteries don't last long in extreme cold but can be kept warm inside your clothes. Lenses can be protected with a lens cover and a microfibre cloth is useful for mopping up water. To avoid having to change lenses when it is snowing or raining, carry an extra camera body if you have one, with a lens attached. To avoid condensation, remove batteries and memory cards and allow your equipment to slowly warm up inside a camera bag when taking it from a cold environment.



If the forecast is uncertain, go out and play the numbers game, you'll have a better chance of nailing a winter shoot than if you stay in bed

up early and in position ready to start shooting before sunrise. By staying out until sunset (and later in twilight) you will be able to make the most of the winter light and conditions. Being able to navigate in the dark will be of a real benefit. It is worth visiting a location in daylight before going for that sunrise shoot. Be careful when using a head torch as it may alert wildlife to your presence in their habitat and potentially disturb them.

3 WATCH THE FORECAST

With wintry conditions becoming increasingly unpredictable, keep an eye on the weather forecasts. Whilst forecasts can be a little unreliable they are nonetheless the best way of predicting when and where winter conditions will develop. By being adaptable and having a range of animal subjects in different locations, you will be able to make the most of any wintry conditions and have a much better rate of success. If the forecast is uncertain, go out and play the numbers game, you'll have a better chance of nailing a winter shoot than if you stay in bed under the covers.

4 EMBRACE BAD WEATHER

Alfred Wainwright famously wrote in his 1973 book *A Coast to Coast Walk*: "There's no such thing as bad weather, only unsuitable clothing." This applies perfectly to photography – especially winter wildlife photography. If you only ventured out when the weather was fine, you'd hardly go out at all and you'd miss some incredible photographic opportunities. Storms can create spectacular light

[1] On overcast days, set your camera's white balance to Cloudy. This adds warmth to bring out the best of the winter light.

[2] With the sun low in the sky during a winter's day, make the most of directional light.

[3] In snowy conditions, the colours at sunrise and sunset can be spectacular.

[4] A blizzard can add a totally different dimension to your winter wildlife images.

[5] Waterproof and warm clothing isn't just a safety essential, it'll allow you to focus on the photography and not the cold.

5



that can make for equally spectacular wildlife photographs. Snowfall adds another dimension to images, with snowflakes peppering the frame, blurring into discs of bokeh and settling on subjects. Blizzards can create sublime conditions, too, especially if you're willing to experiment with different shutter speeds. Faster speeds will freeze the falling snow, while slower speeds will produce attractive white streaks. →

25 top tips for...



Snow lying on the ground acts like a massive reflector, illuminating the underside of the birds and filling in shadows

6

Wildlife subjects

While some animals migrate or hibernate, there's certainly no shortage of wildlife to photograph. Seasonal visitors even provide the opportunity to diversify your portfolio

6 URBAN WILDLIFE

The urban environment is increasingly becoming an important home for our wildlife. A wide range of mammals, from deer to foxes, can be found in parks, gardens and cemeteries. Starling murmurations are a winter spectacle that can be photographed at dusk over towns and cities (Aberystwyth, Blackpool and Brighton are three great locations to capture this incredible natural phenomenon). Frost and snow can transform towns and cities into winter wonderlands, but due to their fleeting nature, you'll have to get out with your Nikon quickly to make the most of these conditions.

7 WINTER VISITORS

Winter prompts many migrant birds to arrive on our shores, many escaping the much colder climates in more northerly areas. Bewick's swan and whooper swans gather in good numbers, the Wildfowl & Wetlands Trust's reserves at Martin Mere and Welney are good places to photograph them. Fieldfares and redwings join our native thrushes. One of the most anticipated visitors are waxwings, which arrive in large numbers when we have a 'waxwing winter'. Waxwings tend to move around as they search for winter food, so look for them feeding on rowan berries in urban locations.

8 BIRDS IN FLIGHT

Birds flying through a winter landscape can make for spectacular images. Snow lying on the ground acts like a massive reflector, illuminating the underside of the birds and filling in shadows. When it's snowing, position yourself so that the birds are flying past a dark background, which will make the snow stand out against the background and the bird. Winter can be one of the best times to visit a feeding station, too, such as the Gigrin Farm red kite feeding centre in Wales, especially if you're able to photograph birds flying through a snowstorm.

9 SPECTACULAR WILDLIFE GATHERINGS

Winter hosts some amazing gatherings, such as bird species coming together to roost or herds of mammals convening to feed outside of the breeding season. In Scotland, large herds of red deer can sometimes be found feeding on the hills. Large flocks of birds – such as geese, waders, rooks and starlings – amass, while the number of red kites that visit feeding stations increases. And grey seals can be found in large groups around our shores as they give birth to their pups, and shortly afterwards, begin their mating season. These gatherings provide a unique opportunity for photographers, especially those who seek wider compositions, to convey the scale and grandeur of these awe-inspiring events.

[6] With their red winter coats, foxes make great subjects in snowy conditions.

[7] During a waxwing winter, large numbers of waxwings can be found in the UK feeding on berries in urban locations.

[8] Capturing birds in flight during a snowstorm is technical, but the images can be spectacular.

[9] Overexposing cloudy skies can make for simple yet dramatic images.



Garden wildlife

10 Gardens, whatever their size and location, have a wide variety of wildlife visiting them. In winter, by providing supplemental food, we can help our wildlife through these lean times and in return enjoy photographing them. Set up a few photogenic perches – small branches and old spade handles work well – where they catch the best light with a clean background near to bird feeders. You can photograph them from the comfort of your home, a shed, or a small pop-up hide that can be moved around the garden as needed. Robins were voted Britain's national bird (taking 34 per cent of the vote from a shortlist of 10) and there is no better garden bird to photograph in winter than these beautiful little creatures with their striking red breasts. →

[10] Small details, like the snow on the robin's bill, can elevate your images to a higher level.

25 top tips for...



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12



13

Adapt to your location

It doesn't matter whether you're visiting the coast, heading into the hills or shooting close to home, each location presents a number of challenges and a wealth of opportunities

11 SHOOT LOCAL

You do not always have to go far to photograph wildlife during winter. If the conditions make travel difficult, try getting to know the wildlife in your local area. Parks and local nature reserves are great places to find and photograph wildlife. When the temperature dips below freezing and local ponds quickly freeze, ducks can make great subjects as they skate over the ice. Your own back garden is the most local photography location of them all. By providing food, you will attract birds and provide much-needed supplemental nourishment at a time when they may be struggling to find it. Apples are a not only a great source of food for winter visitors, such as fieldfares and redwings, but including the colourful fruit in your frame can help add interest to your compositions.

12 HEAD TO THE COAST

Being near to the sea, the coastal climate is warmer than inland and any snow that falls tends not to last that long. However, our coasts are home to some of the largest gatherings

of birds during the winter months. Waders gather in their tens of thousands, skeins of geese pass overhead as they fly to and from their nightly roost sites and day feeding grounds. It's a good time for a trip to Snettisham on the Norfolk coast; during one of the high tides when the pit in front of the Knot's Landing Hide can be packed full of knot and other waders. Winter is also a great time to photograph short-eared owls, which can be found in good numbers hunting over coastal marshes.

13 HEAD UP INTO THE HILLS

The higher you are, the colder the weather and the more wintry the conditions will be. There's no better place to capture winter wildlife than the Cairngorms. They're home to some of the most iconic wildlife in the UK, including all three animals whose coats turn white coats in winter: mountain hares, ptarmigan and stoats. In full winter conditions, these hills and mountains become truly Arctic. To reduce the weight you will carry, ditch your tripod and take a lightweight lens that you can handhold. Nikon's well established 500mm f/5.6 PF and the



14



There's no better place to capture winter wildlife than the Cairngorms. They're home to some of the most iconic wildlife in the UK

new Z 400mm f/4.5 S (with the Z 1.4x teleconverter for optional additional reach) are excellent options.

14 USE A HIDE

Permanent hides can be a great way to get close to wildlife at any time. In winter, they have the added benefit of providing shelter from inclement weather, affording you the opportunity to photograph in comfort whilst making the most of these conditions. Wildlife is used to their presence and the food provided is a welcome help to the creatures visiting the hide. One of the best ways to photograph red squirrels in winter is from one of the many hides that have been set up for them.

Cars make a great mobile hide. Not only are you protected from the elements, but you can carefully approach wildlife that is near the side of the road (such as red grouse and birds of prey that can often be found perched on posts by the roadside) as they are less wary of cars than people. A bean bag, such as the ones made by Wildlife Watching Supplies (wildlifewatchingsupplies.co.uk), on the door of an open car window is a good way to support long lenses when using slower shutter speeds.

[11] Red deer are one of the most accessible wildlife subjects; they can be found in parks throughout the UK.

[12] Grey seal pups are born with white coats, a throwback to the last ice age.

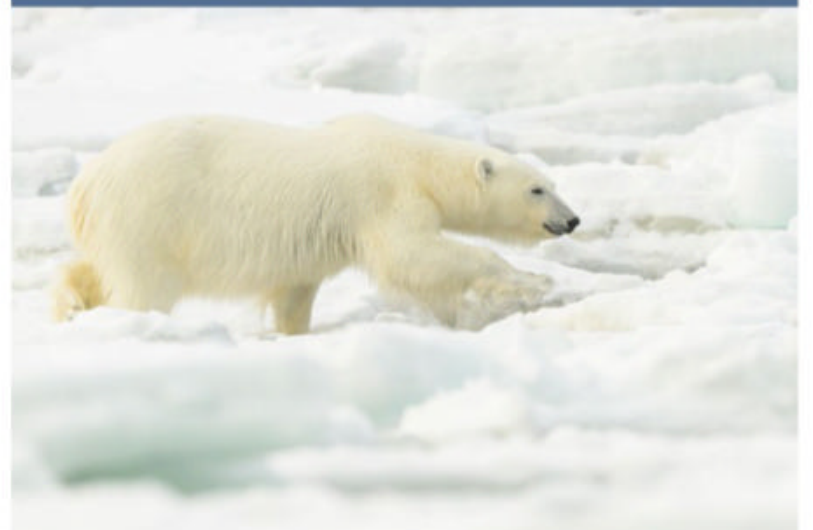
[13] Mountain hares look resplendent during the winter months in their white coats.

[14] Hides don't just allow you to get closer, they're a great option in winter when the weather is very cold.

[15] Polar bears are the ultimate land predator, inhabiting the far north. This image was captured in Svalbard.

Go north

15 With winters becoming generally milder in the UK, a trip north to colder areas that have more guaranteed winter conditions can pay dividends. There are excellent hides set up in Norway and Finland to photograph a wide range of animals, including golden and white-tailed eagle. It is even possible to see puffins in the snow on Hornoya Island in the Varanger Peninsula, Norway. For the ultimate winter photography, a multi-day boat trip around Svalbard, such as the ones run by WildPhoto Travel (<https://wildphoto.com>) offers the opportunity to photograph polar bear, reindeer, walrus, Arctic fox and a wide range of Arctic birds. Wintry conditions can be found around Svalbard all year round, so summer is a great time to photograph polar bears in the Arctic sea ice. →





16

Camera settings

Snowfall can confuse autofocus systems and bright white conditions can disrupt your camera's metering, so taking back control is vital when shooting in wintry conditions

16 METER FOR THE SNOW

Nikon DSLRs and mirrorless cameras are designed to expose for a neutral tone (known as 18% grey). As a result, they tend to underexpose snow, making it appear a dirty grey and thus any animal in the scene will be too dark. To correctly expose for wildlife in a snow, it is usually necessary to apply some positive exposure compensation.

The amount of compensation will depend on the tonality of the animal subject and its size relative to the amount of snow in your composition. The lighter and smaller the animal, the less will be needed. Applying +1EV is a good starting point, checking the playback image histogram will help you to correctly expose the subject and the snow. For mirrorless Nikons, it is helpful to have the histogram displayed in the viewfinder while shooting, as any exposure compensation adjustments will be reflected in the electronic viewfinder before you take the shot.

17 AUTOFOCUS SETTINGS

There are multiple ways to set up autofocus on Nikon

cameras for wildlife, the basic setting is to use AF-C (Continuous autofocus) and then to select the best focus mode for the situation, and being able to quickly change between autofocus modes is key. On Z-series Nikons, animal subject detection is supremely accurate.

For stills photography, I have the video record button on my Z 9 set to AF-area mode. By pressing and holding the video record button and rotating the front sub-control dial, I can quickly change the autofocus mode to the setting that works best for the situation without taking my eye from the viewfinder – and without otherwise moving my hands. I also have all three function buttons (Fn1-3) on my Z 9 set to 'Recall shooting functions (hold)', with the Autofocus mode set to either '3D Tracking' or 'Auto-area AF' with animal subject detection selected. This allows me to instantly change the autofocus mode to one of these All-area modes by pressing *any* of the function buttons, making it just as easy whether shooting portrait or landscape *and* while wearing gloves. These customizations are made in the Custom Settings Menu > f2 Custom Controls.

17

**18 MANUAL EXPOSURE**

With recent Nikon cameras, using manual metering with Auto ISO enables the aperture and shutter speed to be quickly set, and exposure compensation additionally applied, with the camera automatically adjusting the ISO. However, when photographing wildlife in winter conditions with constant light (such as under an overcast sky), by setting the ISO manually and metering for the snow, the scene will remain correctly exposed irrespective of the colour and size of the animal when it comes into the frame. If the light changes, don't forget that you will have to re-meter to correctly expose the snow.

19 MANUAL FOCUSING

Even the latest and greatest Nikon DSLR and Z-series cameras' phenomenal autofocus systems may struggle in the most challenging conditions. When photographing in falling snow, large flakes can cause confusion and you may find that autofocus struggles to find and lock onto your intended subject. When this happens, one approach is to select as few focus points as possible, even right down to Single-point AF, which will reduce the area the autofocus will hunt, affording you more control. Manually pre-focusing on the area where the subject is – or you think it will be – before engaging AF, will help the camera to lock on to the subject more reliably. When conditions are very challenging, it may be necessary to resort to manually focusing.



Setting ISO manually and metering for the snow, the scene will remain correctly exposed irrespective of the colour and size of the animal

[16] Boost exposures to keep snow white, allowing just enough detail in your images.

[17] Short-eared owls look amazing, when photographed backlit against the setting winter sun.

[18] Switch off Auto ISO and meter for snow for consistent exposures when using Manual mode.

[19] Prefocus in challenging conditions to greatly help AF lock onto your subject.

[20] Set your camera to its highest burst rate, so you're ready for any encounter.

20



18

19

**Burst mode**

20 When photographing wildlife in falling snow – particularly when it is moving – there is the risk of having the animal's eye(s) fully or partially obscured by a snowflake. In these conditions, shooting a burst of images at your camera's fastest frame rate will give the best opportunity of capturing the animal in the most photogenic pose with a clear shot of its eye. Shooting bursts of images at high frame rate can assist when manually focusing in really challenging conditions. One technique is to shoot a burst of images whilst 'rocking' the manual focus ring back and forwards, this should produce at least one sharp image in your burst. →



21

Creative ideas

From high-key portraits to long exposures of birds in flight, never be afraid to exercise your creative muscles once you've bagged enough keepers – you might surprise yourself!

21 GET DOWN LOW

Photographing from the same height as an animal so that you are shooting at their eye level creates a more intimate perspective that does not make the animal look subservient. By photographing from ground level, we can also more effectively blur the foreground and background around an animal so that the sharp band of focus is on them. When photographing an animal in snow, this effect can produce images where animals really pop against an out-of-focus white blur. Lying on cold, snowy ground for long periods of time is far from comfortable, so where possible, look for positions where you can get down to eye level without having to lie flat. However, if this is unavoidable, make sure you are wearing really warm clothing with a waterproof outer layer, and ideally in combination with an insulated mat to protect yourself from the cold.

22 HIGH-KEY IMAGES

With a blanket of snow covering the land, many details are hidden – creating a more monochromatic and less cluttered scene. These wintry conditions lend themselves to a simplified style of image. By overexposing the snow, any details in it will be removed, leaving you with a high-key image of the wildlife you are photographing on a pure white canvas. This high-key approach also works well with birds, such as red kites, flying against a bright, overcast sky.

23 GET CREATIVE

Winter is a great time to experiment with different techniques. When you have a selection of 'keepers' safely on your memory cards, adopt a more creative approach. The hit rate will not be as high, but you may well create some of your best images. Long exposures of birds, whether in flight or roosting, can create very different images. Experiment with panning with birds in flight or try locking your camera on your tripod and using a long exposure to juxtapose the movement of the birds against a fixed background. By showing a part of an animal, for example a red deer peering around the side of a tree or the ears of a mountain hare popping over a snow bank, you can add a sense of mystery to your wildlife images.

24 SHOW THE ENVIRONMENT

There is a tendency to always photograph wildlife with the longest focal length we have at our disposal so that it fills as much of the frame as possible. However, photographing wildlife with a variety of focal lengths will give a much greater diversity of images and will allow you to show the animal in the context of its wintry environment. So in addition to my workhorse super-telephoto prime (Nikon 600mm f/4 TC 1.4), I always carry wide-angle and standard zooms (Nikon 14-24mm f/2.8 and 24-70mm f/2.8), plus a mid-range telephoto zoom (Nikon 70-200mm f/2.8, which may be used with or without a 1.4x teleconverter) in my kit bag.

22



A variety of focal lengths will give a much greater diversity of images and will allow you to show the animal in its wintry environment



25

Shoot backlit

25 With the sun low in the sky, winter is a great time to photograph backlit wildlife. Owls, particularly barn owls and short-eared owls (with their pale, almost-translucent wing feathers) look spectacular as they hunt low over the ground with the sun behind them. Mammals (such as mountain hares) that have a good coat of fur when backlit can have a beautiful rim light. Some degree of underexposure will be required when shooting animals backlit, the amount will depend on the overall effect you want to achieve and how much detail you want to have in the animal. **N**

[21] Make the most of ambient light sources. This image was captured in front of a red traffic light.

[22] A bright exposure has simplified this image; the red squirrel 'pops' against the white backdrop.

[23] A long, four-second exposure blurred the water the golden plovers were roosting in.

[24] Wider focal lengths (this was shot at 70mm) allow you to show your subject in its environment.

[25] When shooting backlit, look for compositions that work as silhouettes, like this crested tit.



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Sanja Bosnia and Herzegovina

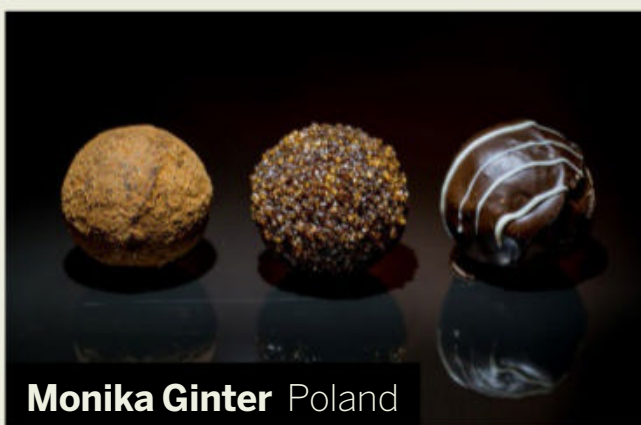


GuruShots

We joined up with online photo game GuruShots to print the winning images from the 'Still Life' challenge, and here are the winners!

GuruShots is billed as the world's leading photo game. It's an online platform conceived to give global exposure to people who love taking photographs. GuruShots members start out as 'Newbies' and compete with other photographers to win challenges, increase their ranking on the site, and eventually

progress to coveted 'Guru' status. Challenges are voted on by Gurus and the wider GuruShots community, and there's a fresh challenge – like 'Still Life' – daily. Winners receive prizes from GuruShots' sponsors, including Lowepro, BlackRapid and Lensbaby. Check out www.gurushots.com to find out more.



Monika Ginter Poland



Neo Sky Croatia (Hrvatska)



Iena Feldmans Sweden



Helkoryo United Kingdom



Yana Raaga Latvia



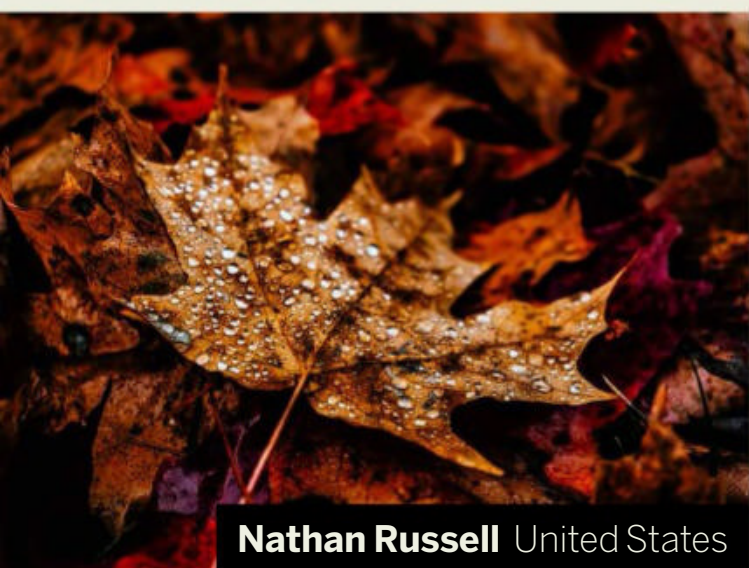
TOP PHOTO Winner

Lu Boes Germany



GURU'S TOP PICK Winner

Pauline Zipper Czechia



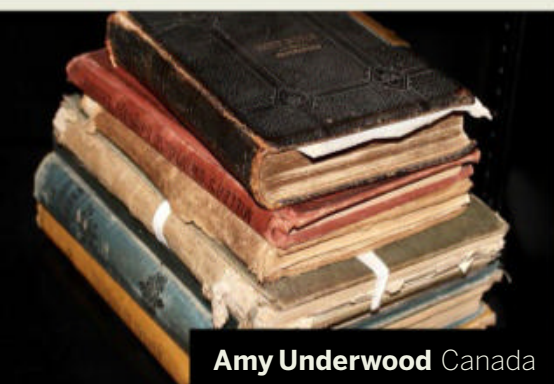
Nathan Russell United States



Nijole Byer United States



Mario Congreve United States



Amy Underwood Canada



Rod Shantz Canada



Nahal Tabatabai-Chury Austria



Dominica DeAngelo United States



Scott Greywacz United States



Meadow Fox United States



Bryony Herrod-Taylor United Kingdom



Karen Elphick Australia



Marij Laurijssen Belgium



Carmen Walters Germany



Ashley Levinson United States



Maria Fremming Denmark



**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

On thin ice

My cheeks are tingling, my feet are on fire and my hands are like ice... so I'm loving my parka



The fur trim of my rather wonderful Shackleton parka is buffeting against the wind... and yes, that is another new coat! I'm glad of it though, as the onslaught of the northern wind is constant and harsh.

Without its down fill, I'd likely be suffering from frostbite and hypothermia, but instead I'm enjoying a pleasant temperature, well, other than my hands. I keep dunking my exposed extremities into my fleecy pockets, mainly to stave off any 'real' damage from the frigid conditions. I'm only wearing the lightest of liners to protect my digits and any prolonged exposure could be detrimental. I've read enough of Ranulph Fiennes' memoirs – and shaken the hand of the man who's suffered from true frostbite – to know one mustn't be complacent in these conditions. But still, I can't bring myself to wear thicker gloves, because the idea of lacking the dexterity to nail the shot at a moment's notice is a price I'm not willing to pay. So my hands dart in and out of my pockets as I maintain my watch through the EVF of my Z 9.

If nine-year-old Tom were here, he'd be over the moon. All those years ago, sitting in a lecture hall full of adults at The Outdoor Show, I watched Sir Ranulph, fixated as he retold his adventures in cold places. Ice for miles; a brutal landscape filled with some of the hardest and most incredible wildlife on the planet. The polar bear was obviously the one that would capture and ignite my intrigue of the world's colder zones.

So 21 years on I'm wrapped up, leaving the compound of a remote lodge north

of Churchill, Manitoba, with my Nikon Z 9 complete with a 600mm over my shoulder. I'm venturing out on foot in pursuit of the magnificent *Ursus maritimus* to fulfill the words of my nine-year-old self, who told Mr Fiennes, as I shook his frost-damaged hands, that I, too, would one day see a polar bear.

Bear necessities

Now obviously I'm not alone. I'm here with the fantastic team at Churchill Wild, who have been guiding polar bear walks for as long as I have been alive! The guides are knowledgeable in the behaviour of these magnificent animals, allowing the amazing opportunity to approach on foot and the chance for an incredible perspective to both see and, with any luck, make some images of these awesome Arctic mammals. I am here, too, with my girlfriend of 10 years, a marine biologist and wildlife lover. The idea of not sharing this moment together was out of the question so, along with a few others, we are trudging out into the great white expanse of Hudson Bay.

After an hour or so battling the wind, we are making our way towards a bear spotted a good 500 metres away. We have slowly, methodically, moved closer in silence, the group in single file to reduce our profile. Our guides watch the behaviour as we approach. Now 250 metres or so away, we ensure the bear knows of our presence, as you don't want to spook a polar bear. Edging upwind of the young female, we let the wind carry our scent. This process happens almost instantly, with her head going up and looking towards us in a matter of seconds, assessing our threat before casually getting back to sleep.

Obviously, we all want to watch this magnificent ball of white, but this also



It's a life-long dream realized, shared with someone I love. Life doesn't get much better

serves to form a dominant shape that has no spaces or vulnerabilities. So we wait and watch, the hope being she'll be keen to take a closer look! Half an hour passes, but our bear seems a little camera-shy. A few slight adjustments and a short stretch of the legs as she susses us out, but nothing to provide the perfect image, even with my 600mm and the built-in TC engaged. You would think that would be annoying to a professional wildlife photographer, but I can't lie, standing on my own two feet, out on the ice, with nothing between myself and a polar bear... well, this moment is a life-long dream realized, shared with someone I love. Life doesn't get much better.

Of course, I made a few frames and scouted a new location but, as I'm lacking that *perfect* shot, I suppose I'll just have to come back and do it all again. ■



Above: Working on foot gave me the opportunity to get low when photographing the bear. With the guide standing behind me to maintain my outline, I could drop down onto one knee and remain fairly safe while getting some low-angled images.

Left: For a shoot like this I knew I would be working at distance, so my 600mm f/4 TC was an essential tool for getting closer to the action.

IF I HAD SOMEWHERE TO LIVE...

I COULD GO ANYWHERE IN LIFE



When Abi's mum died, life got tough. She didn't get on with her dad and the arguments became violent. Abi felt her only choice was to leave home. With just the clothes on her back, and no idea where to go, she ended up sleeping on the streets in the freezing cold.

Right now, you could give a homeless young person like Abi somewhere to start their future

Abi's life changed when she was given a room at Centrepont. A safe place to sleep and recover. A place to develop the skills and confidence she needed to rebuild her life – and leave homelessness behind for good. Now, Abi believes she can go anywhere.

Thousands of homeless young people like Abi are desperately trying to find their place in the world – but first they need a place to start again. **You could help right now by sponsoring a room at Centrepont for just 40p a day.**

We know this support changes lives. 88% of the young people we help move on positively in life. So please, help someone like Abi today. **Thank you.**

Text PLACE to 78866 to donate £3

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Name(s) of Account Holder(s)	
Bank Sort Code: <input type="text"/> - <input type="text"/> - <input type="text"/>	Account Number: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Instructions to your Bank or Building Society: Please pay Centrepont Direct Debits from the account detailed in this instruction, subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Centrepont and, if so, details will be passed electronically to my Bank/Building Society.	
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Your donation will go towards funding Centrepont's vital work with young people all year round providing accommodation and support. We sometimes use models and change the names of the young people we work with to protect their identity; however all stories are true and as told by the young person.

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Thank you for donating to Centrepont today.

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Please contact me by email **Please contact me by phone**

Last year our supporters helped us change the lives of over 15,000 homeless young people. By letting us know we can count on you, we can continue helping young people with a home and a future.

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NPhoto Nikon Skills

Ingenious recipes for stunning shots



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Ridiculous resolutions

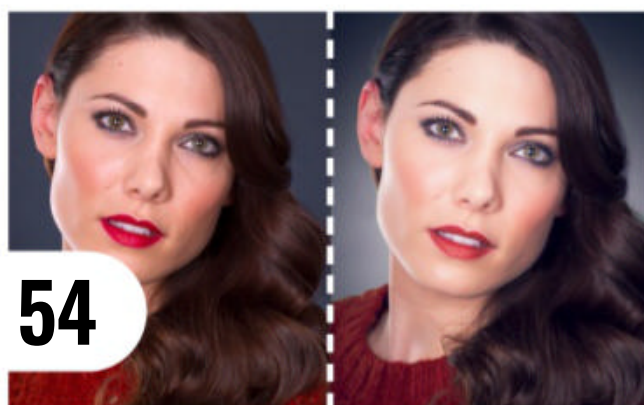
See the bigger picture by stitching and shooting a multi-row panorama with insane levels of detail



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Whisker wonderland

Transform your photographs into stunning Christmas cards with Affinity Photo layers



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Auto portrait masking

Make the most of the face-masking tools in Adobe Camera Raw and Lightroom



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Reach for the stars

Follow our tried-and-tested techniques for shooting spectacular circular star trails



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Deck the table

Set the scene for a festive food photography spread that looks good enough to eat



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Let it snow!

Advice for shooting winter wonderlands that will have you dreaming of a white Christmas



Whenever you see this logo, it means there's a video to accompany the tutorial, taking you through things step-by-step. If a tutorial has accompanying project files, there will be an accompanying download link too.



Project one: Star trails

Reach for the stars

Astro aficionado **Nigel A Ball** shares a tried-and-tested technique for shooting star trails

My first attempt at star-trail photography was on film. I used 'bulb' to leave the shutter open, my ISO was low and I hoped for the best. Modern digital cameras provide instant feedback and afford you the ability to capture thousands of shots, so you can experiment freely, but there are still a few basic rules you need to follow. To form classic, concentric circles of star trails, the

camera needs to face due north (in the northern hemisphere). But all points of the compass can be used to create different patterns. Perfectly clear skies aren't always a necessity either; clouds passing through can add to the mood of an image.

While I will use my Nikon D810A for star trails, I favour my trusty D3S. Its lower pixel count produces thicker trails, which I prefer.

Expert Tip



Focusing on stars can be tricky as you need to do it manually. Find a bright star and zoom into it as much as possible using Live View. Carefully twist the focus ring until the star is sharply focused. A good tip when trying to gauge the star's sharpness is to twist the focus ring until it's as small and bright as you can get it.

How to shoot star trails

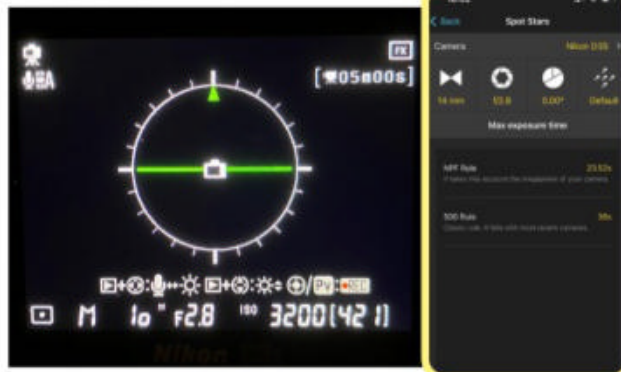
1 Find the pole star

I recce locations in daylight to get my shooting positions ironed out. For circular star trails, you'll need to frame your image towards the necessary pole star (Polaris, if you're in the northern hemisphere). Apps like Stellarium can help you locate it. Pole stars are roughly aligned with the Earth's axis, which is why the trails look circular.



2 Weather patterns

You don't have to shoot north. Look west and you can capture the stars setting, look south and trails above the equator curve upwards, contrasting with those below. Weather can add interest, too. Near the end of this star-trail sequence, clouds blew in from the south while the glow of light pollution illuminated them.

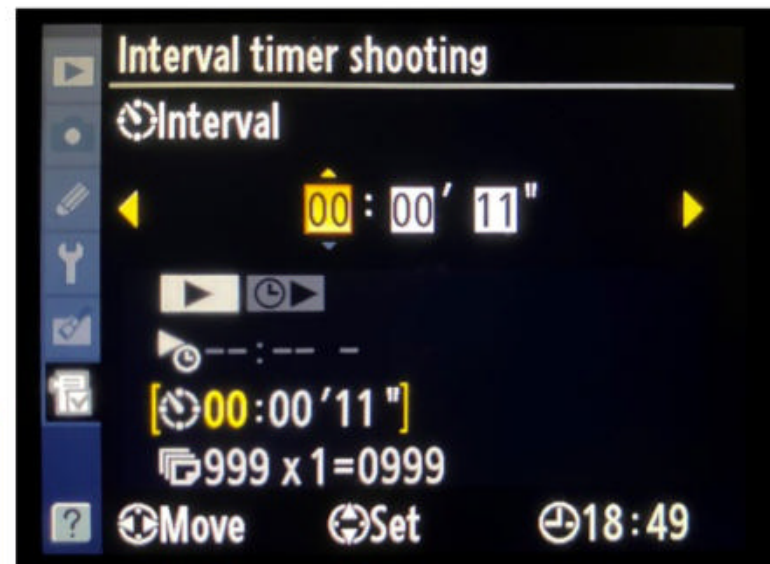


3 The NPF Rule

I tend to shoot with the slowest shutter speed that will still give me pinpoint stars. I use PhotoPills' NPF Rule calculator to determine the exposure length. I can then pull individual frames from my star-trail sequence if, for example, a meteor has been captured. A good starting point is 10 secs, a wide-open aperture and ISO3200.

4 Intervalometer

I tend to shoot star trails for a maximum of 40 minutes; this gives a good length to the trails with a 14mm focal length. A longer time can, in my opinion, get too busy. I use Interval Timer Shooting to capture a series of shots and set the interval to slightly longer than my exposure setting, usually a second longer.



Camera:	Nikon D810A
Lens:	14-24mm f/2.8
Exposure:	Multiple exposures

After shooting the main star-trail sequence, Nigel set a five-minute exposure to light-paint the building.

5 Stack your stars

I pre-process Raws in Lightroom; any frames that contain aircraft or satellite trails are marked for correction. I use a Photoshop plug-in to stack the images (Advanced Stacker PLUS). StarStaX is a great free option with a useful gap-filling mode to make trails look more consistent.







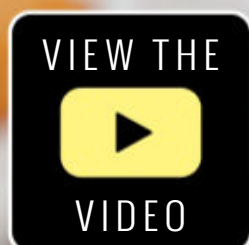
Project two: Festive food

Deck the table

Mike Harris shoots a feast for the eyes; learn how to capture a classic Crimbo food photo

Christmas might be the most wonderful time of year – especially if you're showered with photography goodies – but it can very often prove difficult to find the time to head out with your camera, while you feign Christmas cheer when visiting relatives, shop for last-minute gifts on Christmas Eve or fall asleep while watching *Miracle on 34th Street* for the 34th time. If only there was an easily accessible subject that you could quietly photograph among all the Crimbo chaos. Well, maybe there is...

In-keeping with the festive season's penchant for feasting excess, there's no better time to try your hand at a little food photography. Not only are props – such as crackers, ornaments and lights – readily available, but you really don't need much camera equipment beyond a kit lens and a tripod. You don't even have to cook; shop-bought food will look the part. Best of all, you don't have to brave the winter weather and when you're finished, you can tuck in! →



www.bit.ly/np158food



1 Set the table

Diffused or indirect window light is a great way to illuminate food photography. If you find the light is lacking, consider illuminating your setup with an LED panel or even a household lamp. You could also use a reflector to bounce the natural light back onto the arrangement to fill shadows. Begin by setting up empty plates and adding a few Christmas decorations to 'sketch' your composition without spoiling the food. We laid a tablecloth partially across the wooden table to provide multiple textures to add interest to the image.

2 Tripod and lens

Food shots hinge on the arrangement. We put our camera on a tripod to roughly gauge the framing and keep it consistent, while we tweaked the arrangement of the food. If you're shooting a static food display, use Exposure Delay Mode to avoid camera shake and mirror slap. If you're capturing movement, like pouring cream or a dusting of flour, a remote shutter release and burst mode is preferred. We used the Nikon Z 35mm f/1.8, but a 'nifty fifty' is a great alternative, like our DSLR-friendly AF-S 50mm f/1.4G. A kit lens would work well, too.

3 Add the food

Once you've put together a rough layout and framed a rudimentary composition, you can begin to add in cold food items. If you're photographing food that's still cooking, try using similar-sized props in its stead. We elected to keep our Christmas pudding in its tub – prior to heating – so there was no danger of it collapsing while we were moving items around. Try not to make your arrangement look too uniform; it should resemble a real Christmas spread that invites the viewer to sit at the table. Framing a chair or two reinforces this.



Crimbo close-up

After you've shot your festive spread, try capturing some frame-filling close-ups. Our flaming figgy pud was shot with a 70-200mm f/2.8. Place the pud against a dark background to make the flames really pop and set your camera on a tripod. Use single-point AF to focus on the pudding and switch to manual focus to prevent hunting. The flames burn brightest as soon as the pudding is lit, so enlist a friend to light it while you fire off a high-speed burst. We used 1/125 sec to freeze the flickering flames and a wide-open aperture to separate the pudding from the background. Always take great care when lighting a Christmas pudding.



4 I like big bokeh

The festive season gives you an excellent excuse to add lots of bokeh to the background of your food shots. We put a Christmas tree behind our spread and opted for a simple string of white lights, so as not to distract too much from the food. There are a myriad of ways to increase the size of bokeh: a wider aperture, longer focal length, physically moving the tree further back or placing the camera closer to the point of focus. But bigger doesn't always mean better. If the bokeh is too intrusive, it may detract from the subject.



5 Camera settings

We used single-point AF to focus on the Christmas pudding. If you're shooting a completely static food display, you can select your base ISO and dial in any shutter speed to compensate. We captured a hand pouring cream over our pudding, so we settled on 1/100 sec to freeze the movement, requiring us to up our ISO to 200. We found that the Flash white balance preset provided a neutral colour temperature, which we tweaked in post. Being able to freely alter white balance is one of many reasons why shooting Raw is always preferred.



6 Make the grade

Colour grading allows you to tweak individual colours within your image. After inputting general tonal edits in Adobe Lightroom, we added magenta (+4) via the Tint slider and then headed into the Color Mixer's Hue panel. We increased the intensity of Greens (+35), added red to Yellows (-20) and Oranges (-12), while using the Saturation panel to boost Reds, Oranges and Greens. We then used the Color Grading panel to add red to Midtones, orange to Highlights and blue to Shadows. Reds and greens really add to the festive vibe. **N**

Let it snow!

Carmen Norman's advice on winter wonderlands will have you dreaming of a white Christmas

Winter is my favourite time for photography; the Lake District never disappoints in winter and I love to be up a mountain or by a lake to capture the frosty scenes. The light is softer and sunrise is at a much more civilized time. The snow brings new life to an otherwise dull scene, with new textures and patterns.

1 Wrap up warm

When you are planning on some winter photography, the most important thing is to wrap up warm. Wear fingerless gloves under some mittens, when you take off the mittens to work the camera, your hands still have some protection. Waterproof boots, a warm jacket, layers and a hat are all vital.

2 Your camera and gear

Do not place your camera under your coat, the warmth of your body can cause the lens to fog as soon as it's re-exposed to the cold. Do keep spare batteries warm as cold batteries drain quicker. Always have microfibre lens cloths to wipe smudges. A polarizer can help minimize glare from the snow.

3 Exposure

It is a good idea to slightly overexpose your image to compensate for your camera's metering, which is standardized for middle grey. Overexpose to let more light into your scene, to avoid muddied exposures, ensuring the snow stays white in your shot. Rely on the histogram readout, not the LCD.

4 White balance

Finding the correct white balance while photographing snow can be tricky to master. Snow usually reads on the blue side of the colour spectrum. Use a warmer white balance to compensate for the blue, such as Flash or Shade to warm up your snow-filled image.

5 Composition and light

The composition of snowy scenery works best when vast white areas include contrast or a bright colour. Check where you walk to avoid shooting your footprints. If snow is falling, try a fast shutter speed. Light changes quickly; you won't have as much time to capture multiple images with the same light! **N**



Warnscale Bothy looks over the deep-frozen landscape of the Lake District in a perfect winter picture.

Camera:	Nikon D850
Lens:	14-24mm f/2.8
Exposure:	1/125 sec, f/10, ISO64





Project four: Affinity Photo

Whisker wonderland

James Paterson shows you how to transform your photos into stunning Christmas cards with Affinity Photo layers



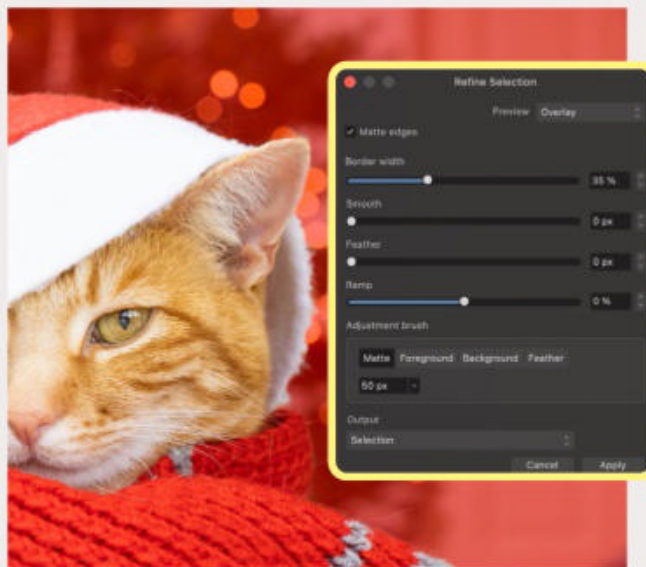
www.bit.ly/np158card

What better way to send season's greetings to friends and family than with a homemade Christmas card? In this project we'll show you how to craft a vibrant festive effect in Affinity Photo, bringing together snowflakes, colourful bokeh and eye-catching sparkles with simple layer skills, before capping it off with a Christmas message. To speed up the process, we've supplied a range of images amongst the project files that we can bring together with simple layer skills. We've also included our

furry friend for you to practise on, but of course the idea here is to use your own festive portrait. Try shooting a person or pet in a Christmas hat or carrying a present, then follow the steps to transform it into a merry masterpiece.

We'll begin here by cutting out the subject, which is a simple task if we use a combination of Affinity Photo's Selection Brush and the Refine command. After removing the original background we can add a new one of bold green. From here, we

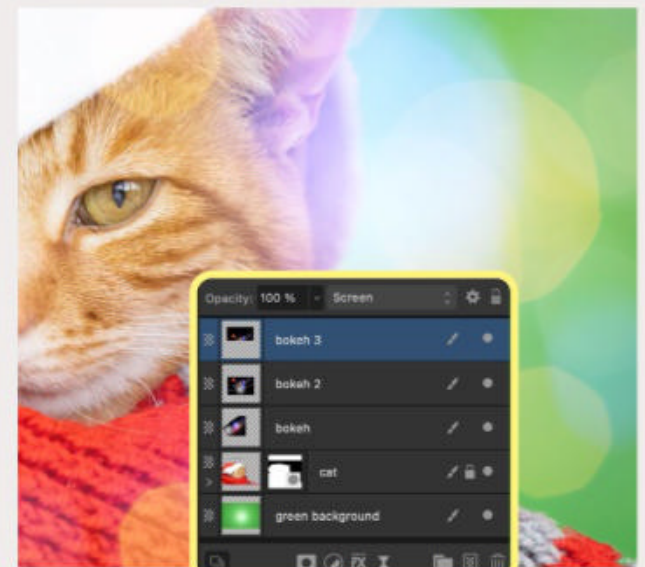
can blend our bokeh photos and sparkles to add depth and colour to the effect. Then comes the snow. Thanks to a handy brush tool setting, we can paint a blizzard of snow in seconds. There's an 'Ink Spatter' brush tip that handily looks like flurries of snowflakes, especially if we blur it slightly with the Motion Blur filter. Finally, we can add a line of text using Affinity Photo's text tools. These might be little-used by photographers, but they create a surprisingly powerful addition.



1 Remove background
 You need to cut the background. Open the image into Affinity Photo. Grab the Selection Brush, check 'Snap to edges' in the options and paint the subject to select it. Click the Refine button at the top, increase Border Width then choose Output: Mask and hit Apply.

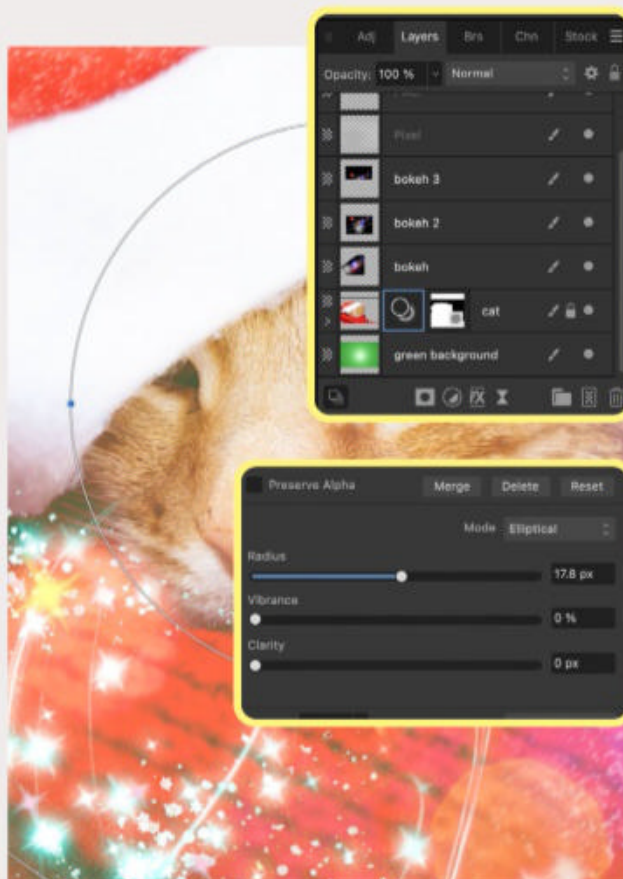


2 Add some colour
 Make a new pixel layer and drag it below the other layer, then go to Edit > Fill. Choose a colour (we used #439a3e). Next grab the Dodge tool. Set Tonal Range: Midtones then use a large soft brush to lighten the centre of the background to create a vignette effect.

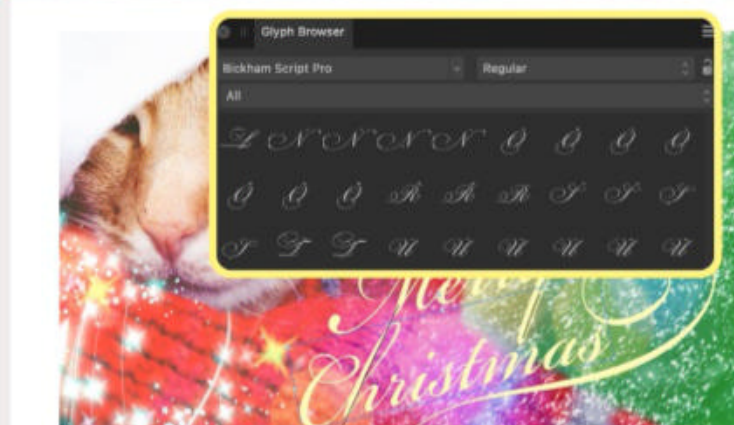


3 Blend the bokeh
 Open the supplied bokeh images. Hit Cmd/Ctrl+C to copy then go back to the main image and hit Cmd/Ctrl+V to paste it in. Go to the Layers panel and change the blend mode from Normal to Screen. Use the Move tool to position, resize and rotate the bokeh.

4 Paint the snow
 Grab the brush tool then go to the Brush panel (Window > Brushes). Click the dropdown and choose the Sprays and Spatters set, then select the 'Ink Spatter Tilting' brush. Paint with white over the image. Go to Filter > Blur > Motion Blur to blur the snow slightly. Duplicate the layer and enlarge it to create a few larger blobs.



5 Add sparkles
 Open the tree image, and copy and paste it in. Change the layer blend mode to Lighten. Use the Move tool to enlarge and position the sparkles. Next, highlight the cat layer and go to Filter > New Live Filter Layer > Blur > Depth of Field Blur. Set Mode: Elliptical and increase Radius.



6 Write your message
 Click the adjustment icon in the Layers panel, choose Recolour and set Hue 235. Set blend mode to Overlay and layer opacity 15%. Grab the Artistic Text tool. Choose a font and type, using the top bar for style and colour.

Expert Tip



Affinity Photo might be geared towards photo editing, but it still offers a powerful array of text tools. After adding your text with the Artistic Type tool, go to Window > Text > Character to adjust the sizing, change the colour and tweak things like kerning, tracking and leading. The Glyph Browser (Window > Text > Glyph Browser) can also be very useful.

BEFORE



AFTER



Project five: Adobe CC



www.bit.ly/np158face

Auto portrait masking

Discover the face-masking tools in Camera Raw and Lightroom with **James Paterson**

Introduced back in 2021 and having seen a raft of updates since, the Masking panel has been one of the best improvements to Lightroom and Camera Raw in recent years. Intelligent AI-powered tools allow us to isolate intricate objects or backgrounds with a couple of clicks, without any need to spend time painstakingly masking out areas by hand. In particular, portrait lovers have been treated to an array of masking features that enable us to target parts of a face or body with ease.

Enhancing portraits is often about making delicate changes to different

parts of a face, perhaps to lift the whites of the eyes, boost the iris or soften the skin. Previously, these kind of local adjustments would require manual masking with a brush, but now we're offered a list of attributes that can be targeted automatically, like hair, skin or eyes. Once targeted, we can make changes to the area using an array of tonal tools that now include Curves. As such, we can make a series of powerful local adjustments to our portraits, and like all Raw edits made in Camera Raw or Lightroom, these changes remain non-destructive and endlessly editable.

Expert Tip



Rather than working over the whole image as normal presets do, Adaptive Presets use the power of AI masking to target specific parts of an image. To coincide with People Masking tools, you'll find a set of Adaptive Presets for common portrait fixes like teeth whitening and hair smoothing. Click the Preset icon in the toolbar, then scroll down to the Adaptive Portrait set to experiment.

1 Target people

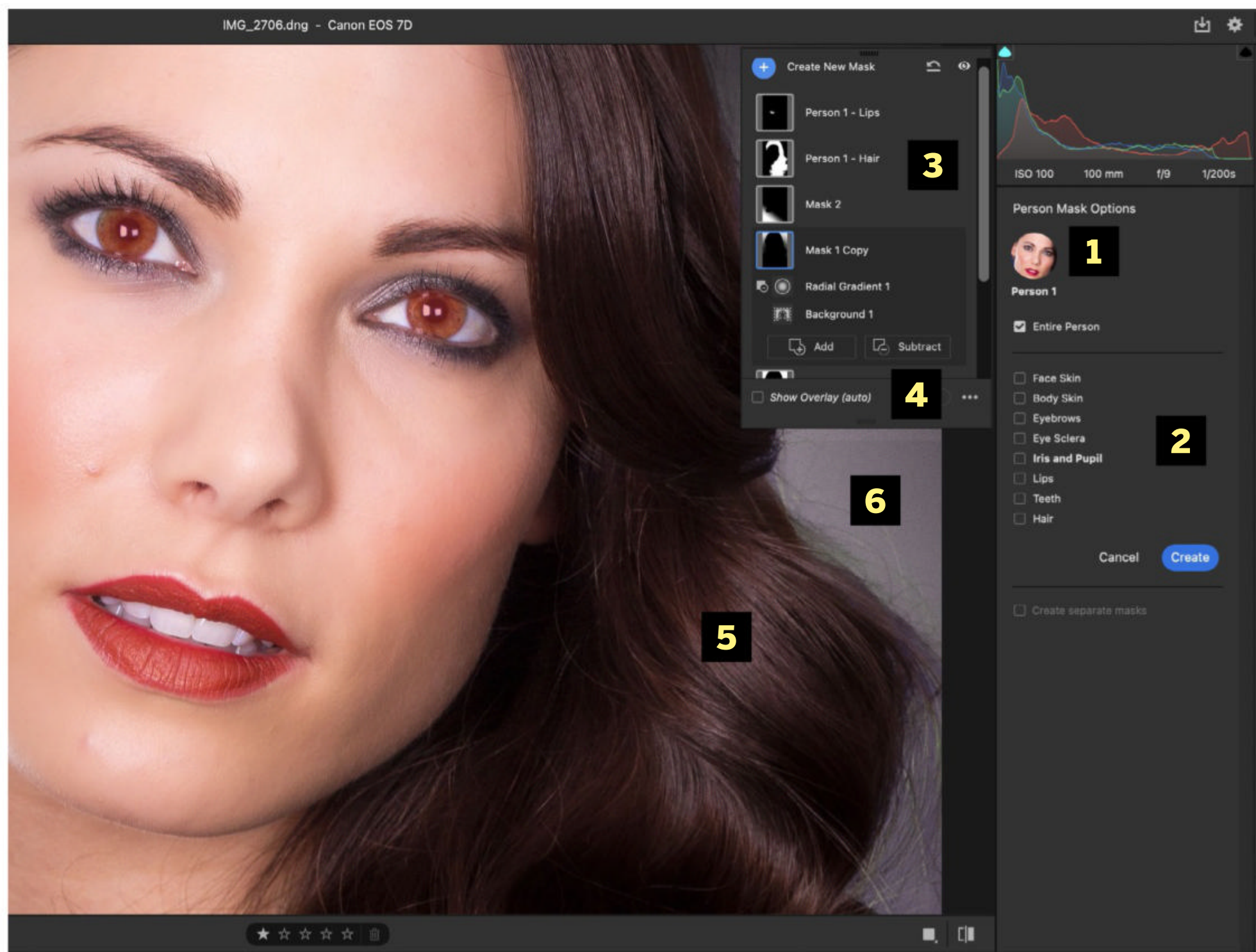
If using Photoshop, right-click a portrait in Adobe Bridge and choose Edit in Camera Raw, or import the image into Lightroom and head to the Develop module. Click the circular masking icon in the toolbar on the right to open the Masking panel, then go to the People panel. You'll find a list of all the people in the image. If your image has several people in it, you can target and adjust each one individually.

2 Select an attribute

Click on the thumbnail of the person to target. This opens masking options that target different parts of the face or body. Hover over each to see a preview overlay. You can choose a single attribute, or check several boxes to combine them into a single mask. Alternatively, to create several individual masks at once, check the 'Create separate masks' box. Once done, click Create to generate your masks.

3 Make your changes

Once you've defined an area for your mask, you can alter it using the tonal sliders. We can apply a softening effect by reducing the value of Texture slider, and target and alter other areas in the same way. Click the Create Mask icon to go back to the People Mask options. We've chosen Lips, then reduced the saturation of the lips slightly. Next, we were able to lift the sclera (the whites of the eyes).

**4 Combine your masks**

With the Masking panel, we can combine our local adjustments with other tools, so after making a people mask we can subsequently go ahead and alter it. Here, the skin softening mask has affected a mole on the face, so we can click the Subtract button next to the mask, choose Brush, then paint over it. Alternatively, you can use Alt+K to paint a 'subtract' mask, and Shift+K to paint an 'add' mask.

5 Local curves

Also available in more recent editions of Camera Raw is the option to tone your masks with Curves, so you can utilize them in specific areas. Simply make a mask, then scroll down to the Curve section. Dragging up on the curve line lightens, and dragging down darkens. You can also make an S-shaped curve to boost contrast, or target the red, green and blue channels for creative colour shifts.

6 Alter the background

The Background button in the Masking panel lets us target the background. Here, it's too bland so we've reduced saturation. Like all masks, we can combine it with other tools. We've also made a vignette – to do so, click the Create Mask button, choose Select Background, click the Subtract button and choose Radial Filter. Drag a circle over the image and drag down on Exposure to darken edges. **N**

The Swiss village of Spiez on the banks of Lake Thun – with the added detail of a stitched panorama.

Project six: The big project

Ridiculous resolutions

Shoot and stitch a multi-row panorama for insane levels of detail with **James Paterson**

If you love lots of fine detail in your photos, then you simply have to try multi-row panoramas. Essentially, the technique involves shooting the scene in a series of overlapping segments just as you would with a regular panorama. But instead of a single row you do several rows to create an entire grid of photos. The longer the lens and the wider the grid, the more resolution you can achieve. The individual images are stitched together in Photoshop or a pano stitcher like PTGui. This can give you an astonishing level of detail and allows you to make a huge print or a wall mural.

We'll begin here by looking at the basics of multi-row panoramas, from camera settings to shooting technique. The fundamentals are simple, but it gets more advanced depending on what you're shooting. Essentially, if you decide to include objects that are close to the camera then things can get more complicated, as you have to account for parallax when rotating and tilting the camera, which can lead to misalignment between frames. As such, we'll delve into parallax correction and nodal points over the page. But if you're shooting a relatively distant scene like the Swiss village of Spiez here, then parallax has minimal effect, which makes the technique a little easier as there's no need to find the optical centre of the lens, you can just stick the camera on a tripod and eyeball it. →



www.bit.ly/np158stitch



Shoot a multi-row panorama

CAPTURE A LANDSCAPE IN A SERIES OF OVERLAPPING SEGMENTS FOR MIND-BLOWING RESOLUTION

1 Level tripod

A tripod isn't essential for multi-row panoramas, but it greatly improves accuracy and allows you to shoot longer shutter speeds. The key thing is to keep the tripod level, so that the top plate is perfectly horizontal. A spirit level in the tripod head can help. This will ensure the camera will stay horizontal during panning.

2 Pan-and-tilt head

You can spend vast sums on panorama heads, but if you're on a budget a simple pan and tilt head is ideal. First ensure the head is level, either by adjusting the legs or – even better – using a levelling base. Once done, you can lock off the tilt axis and pan each row in the sequence, before tilting up or down.

3 Consistent exposure

Keep exposure consistent for the entire sequence, and switch to manual focus to lock it in place. Set Manual mode then use a mid-range aperture like f/8. If you want maximum quality use ISO100, but you might want to prioritize a faster shutter speed and use a higher ISO. Here we had ISO200 with a 1/160 sec shutter speed.



4 Shoot a grid

Think of the scene as a grid and decide where the edges will be, noting details to use as markers (the edges of the window frame here formed to boundary our grid). Start in one corner then shoot a horizontal row before tilting and shooting the next. Shoot quickly to keep cloud motion to a minimum.

5 Overlap by a third

Overlap each column and row in the panorama grid by a third of a frame. It might be helpful to mark out each segment in the pan with tape, or use the markings on your tripod – but it's easy enough to eyeball it. Note a detail a third of the way into the frame, then pan until your camera is on the other third.

6 Elevated position

An elevated position, like the window here, is ideal. There's no need to worry about parallax (misalignment caused by the camera movement) as there's no close foreground in the frame (the nearest objects are about 30 metres away). Parallax only really causes a problem when you include close-up details.



Shoot and stitch

1 Shoot extra around edges

It can be difficult to visualize how the aspect ratio of the final panorama will look, so it's usually best to shoot more around the edges than you think you'll need. Shoot frames further to the right, left, up and down as this will give you more wiggle room for cropping and choosing an aspect ratio later.



2 Which orientation?

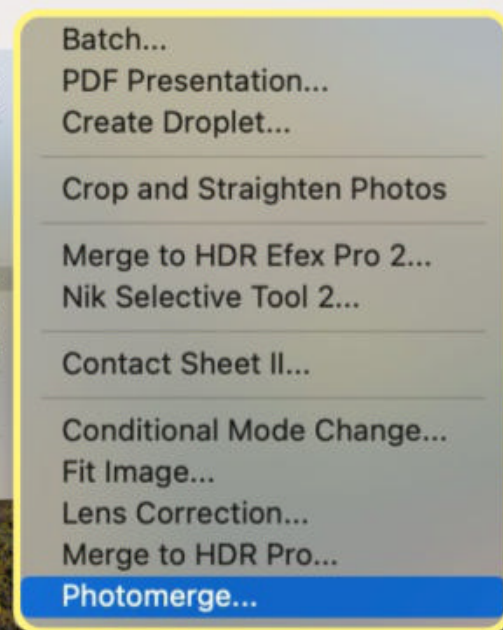
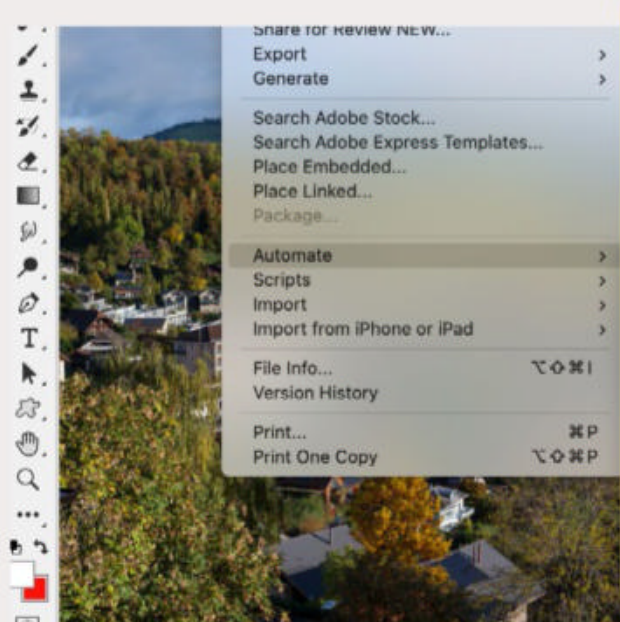
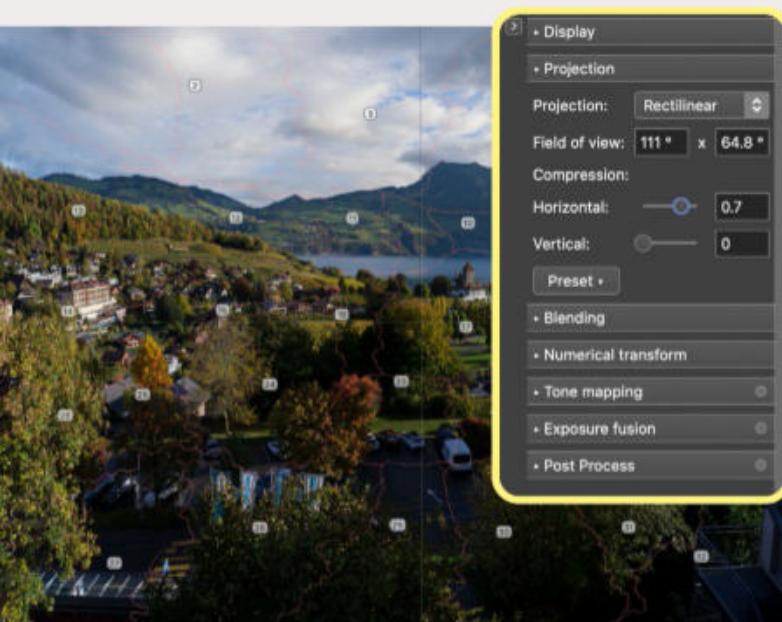
The advice for panoramas is usually to shoot with the camera in a vertical orientation, but this only really applies to single row panos (and then only if you need maximum resolution). For a multi-row, you can shoot horizontally or vertically, whichever works best for you.

3 Use your level

Turn on the virtual horizon in your camera. It's far more accurate than the bubble level fitted in the tripod or nodal rail, and it will help you to shoot more quickly. You might also find it helpful to turn on a rule of thirds grid to help you judge where to place your overlaps.

4 An automated head

A motorized panorama head, like the Nodal Ninja Mecha, lets you shoot multi-row panoramas with minimum effort and is especially useful for 360 degree images. Many gimbals used primarily for video work, like the DJI Ronin RS2 here, also have a handy panorama feature.

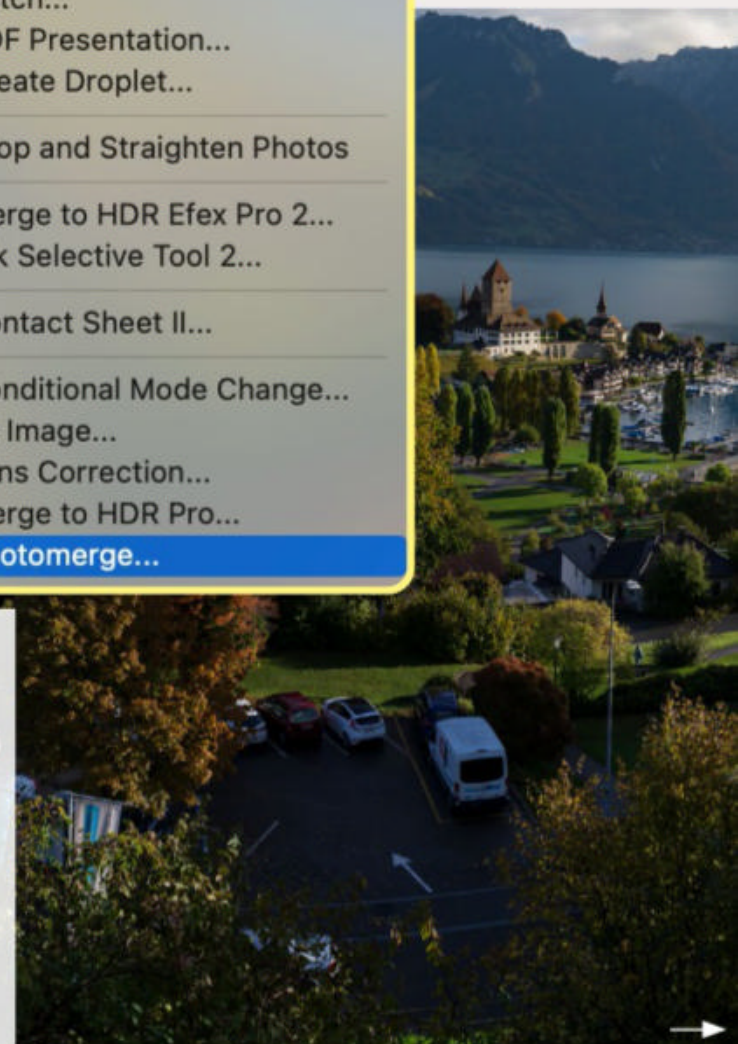


5 Merge in Photoshop

Open Photoshop and go to File > Automate > Photomerge then select your set of images and choose a layout (we used Auto here). If you want even more resolution, consider running your set of images through the Super Resolution command in Camera Raw beforehand (right-click and select Enhance).

6 Try PTGui

A dedicated panorama stitcher like PTGui gives you more options for setting different projections and correcting undetected images. Sometimes segments that lack discernible detail, like blue skies, can cause problems in a multi-row stitch. PTGui lets you manually add control points to link parts from different photos.



Fix parallax error

MAKE THE PERFECT PANORAMA STITCH BY ROTATING YOUR CAMERA AROUND THE CORRECT AXIS



1 What is parallax?

Parallax occurs when two overlapping objects – one close, another further away – shift position depending on the viewpoint. Hold a finger up to your nose and close one eye then the other to see parallax. If you use the tripod thread, the rotation of the camera causes parallax, which can affect panorama stitching.

2 Shift the camera

If your panorama includes close foreground details you need to shift the camera back to prevent parallax, so that the horizontal axis of rotation is matched with the optical centre of the lens (usually near the centre of the lens). A long Arca-Swiss tripod plate called a nodal slide lets you shift backwards.

3 Correct for tilt

With multi-row panos you need to tilt up and down, which can throw off the optical centre unless you align the vertical axis. Use a gimbal or panorama head and move the centre point of the lens up so that it's in line with the pivot point on the gimbal. This way, it matches the vertical axis of rotation.

Find the optical centre

SET UP A SIMPLE EXPERIMENT AT HOME TO FIND THE OPTICAL CENTRE OF EACH OF YOUR LENSES

Often – if not correctly – referred to as the nodal point, the optical centre of the lens is a point where the rays of light converge, and if we pan around this point we can prevent parallax. You can find the optical centre in your own lenses by setting up a simple experiment. Place a long, thin object, like a light stand, dead centre of the frame about a metre away, with plenty of space beyond it. Take note of the background details that lie beyond its tip (use Live View and zoom in). Next rotate the camera so that the stand is at the left edge of the frame, then shift the camera backwards using a nodal rail until the stand and background detail are aligned. Test it by shifting to the right edge. Make a note of the point or mark it on the plate so that you can find it later when you shoot. **N**



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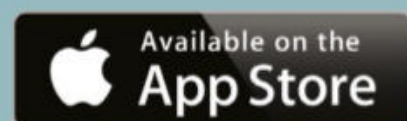


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Henley Spierers



Henley Spiers Profile

- A renowned diving pro, writer and expedition leader, Henley Spiers has fast become one of the most lauded wildlife photographers in the world.
- He began as a dive instructor in the Philippines, Indonesia and St Lucia, before becoming a full-time photographer less than 10 years ago.
- Since then, Henley's images have been awarded top prizes by HIPA, Underwater Photographer of the Year, Wildlife Photographer of the Year and other contests.
- His photographs have been published in *The Sunday Times*, *The Economist*, *BBC Wildlife*, *Der Spiegel*, *The Guardian*, *Terre Sauvage* and many other major titles.
- The author of two books, in April 2023 Henley was appointed *Oceanographic* magazine's first Storyteller in Residence.

www.henleyspiers.com

All images: Henley Spiers

While diving has been part of his life since childhood, Henley Spiers came late to photography. Now he is one of the world's celebrated underwater photographers. **Keith Wilson** flipped a few questions to him... →

THE N-PHOTO INTERVIEW

B

ack in October, the British underwater photographer Henley Spiers stepped up at the last minute to give the keynote address to the annual festival run by the German Society

of Nature Photographers. The advertised speaker, an Oscar-nominated filmmaker, pulled out with barely 24 hours' notice, so Henley took the plunge. He didn't display any nerves or trip up on any words; instead, he glided through 45 minutes of personal stories and breathtaking pictures that kept the 800-strong audience suspended in awe as if they were swimming beneath the waves with him.

But no one should have been surprised that he made it look so easy – when it comes to making the big life choices, Henley also favours diving in at the deep end. “The only wisdom I have to offer,” he says, “is to follow your heart and gut over your head when it comes to these big decisions.” That's how it was 12 years earlier when the recently promoted corporate executive decided to quit his well-paid role at a leading London marketing agency to follow his desire to be a dive professional. “Things were going pretty promisingly but I was very unhappy and very stressed,” he explains. “However, I had a passion for diving, I had

a passion for travel and I had promised myself that I would take a year out by the time I was 25, so I resigned my post two weeks after getting a promotion.” His bosses were taken aback and offered a gap year, thinking their rising star would return to the fold once he got his fantastical idea out of his system. That's not how it turned out...

After resigning from a marketing role, what did you do next?

I had this dream that I was going to be a dive professional on a tropical island, and at that point I still had the security of being able to go back if I wanted to do so.

Where was the tropical island, somewhere you had been before?

No, it was deliberately somewhere that I hadn't been. I had never visited the Philippines, so I just googled ‘Philippines dive master’ and the top result was this dive shop on Malapascua Island, a small island with no cars and a world-famous site for thresher sharks. So, that's where I went. So it was a year of changing everything in my life.

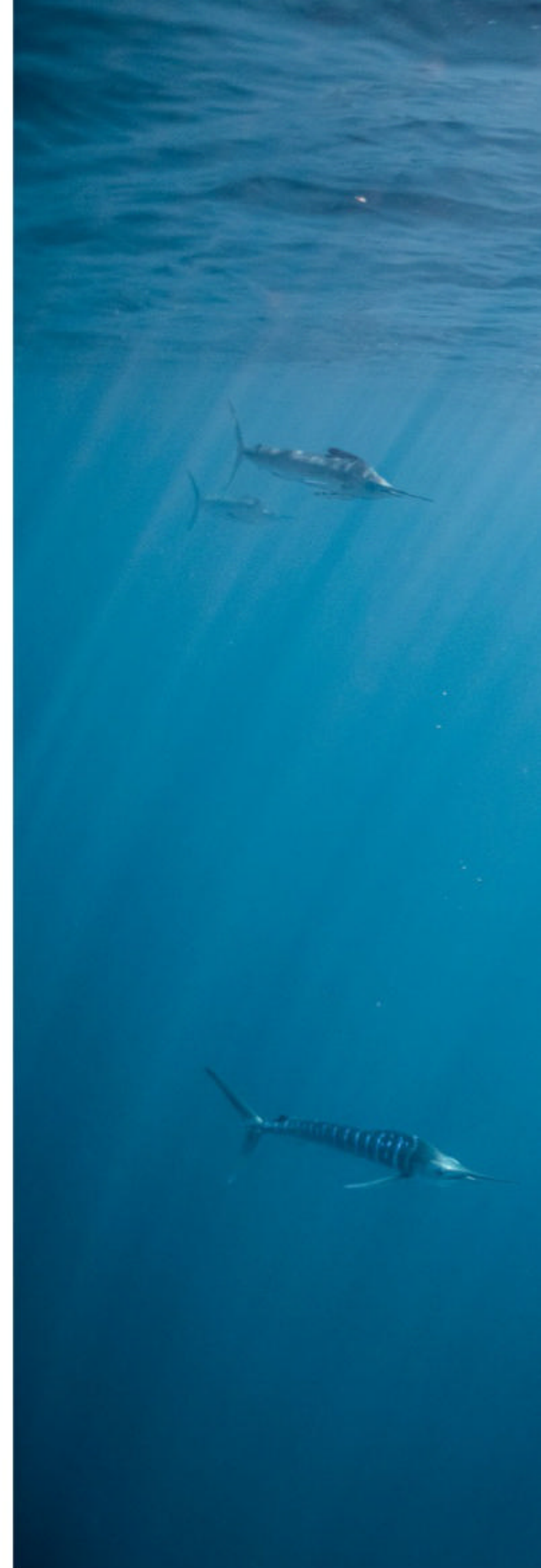


The diving became entirely about photography and that's when I really became a photographer

Previous page:
An elusive blue-footed booby rises with its catch from a vast shoal of sardines in the waters of Los Islotes, a group of islands near Baja California Sur, Mexico.

Right: A striped marlin striking a shoal of baitfish in the waters of Magdalena Bay, Baja California Sur.

Below: Fish scatter from the path of a nurse shark in Vavau Atoll, Maldives.



When did photography become a primary reason for going underwater?

Photography came so late. I was not a photographer, full stop! I became a dive pro, a dive instructor and I also felt myself in that environment. If I spend too much time indoors, I start to go stir crazy and the ocean is what keeps me sane. It was my salvation and suddenly I could breathe again. I loved it so much that even when I took a break from being a dive pro, I'd go diving! It just seemed natural.

Until you found photography...

Yeah, so I went on holiday to Lembeh Strait in Indonesia, which is off Sulawesi, and it was famous for what's called muck diving.



Is that like it sounds?

It's a form of diving where you go over dark sand and look for small, strange life, like octopus or frog fish. I went there because I'd heard everybody talk about it. I showed up and 90 per cent of the divers had big cameras. This was an underwater photography place, apparently.

What did you have?

I had a little compact camera but it was something I did for fun. I wasn't thinking of myself as a photographer in any shape or form. After a few days of diving around with these photographers and seeing their images, I was getting curious. Fortunately, the dive centre hired out cameras so I rented one and had →

Below: A school of uniquely patterned eagle rays pass beneath the photographer in the waters of South Malé Atoll, Maldives.

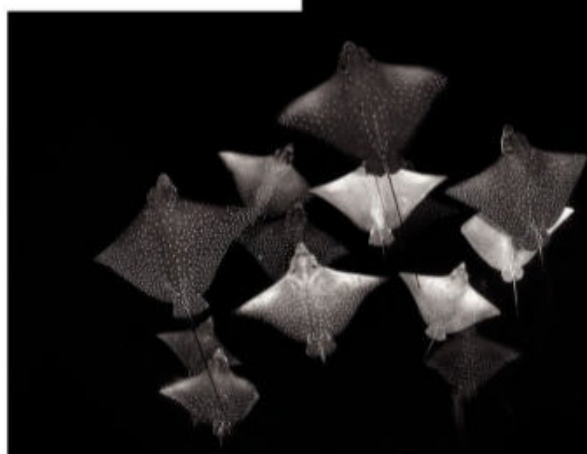


BLACK & WHITE MERITS

UNDERWATER PHOTOGRAPHERS RARELY CONVERT THEIR IMAGES TO BLACK AND WHITE, BUT HENLEY OFTEN DOES...

What makes you decide that an image will look better in black and white?

I am getting stricter with myself about the conversions so I do fewer and fewer. There are three types of black-and-white images: there's the rescue job, which is black and white applied to an image you don't like in colour – that's the one that gives black and white a bad name; there is the picture that looks good in both colour and black and white, which I think absolutely has merit; then the ultimate, for me, is to take a good picture in colour but for black and white to elevate it to something far greater.



THE N-PHOTO INTERVIEW

a little intro from the centre manager and then I took this serious camera, which was an Olympus DSLR in a housing with a single strobe. It was the most serious set-up I had ever held and I took it underwater and started taking photos.

How did you react to your first underwater results?

Having that flash bringing out all the colours and the crispness of these things underwater was a light-bulb moment, like wow! I thought: 'This is cool and it is showing these animals that I care so much about in a way that I have never considered.' In some instances, because we lose colour underwater, the photograph is more real than what you see with your own eyes because we can bring back the light with the strobe.

Exactly, that is a point that can so often be missed.

And social media was around and I could share those photos. I think there is something really nice about sharing what you have and your friends being nice and supportive.

Especially when you're starting out, you want that encouragement.

Exactly, as a pat on the back for mediocre results, it's very nice! That was the first seed. So, for my next job as a dive pro, which was in the Caribbean in St Lucia, I invested in that very same camera and that became my first rig. I was the dive team manager and took the camera to take photos for mapping sites and I would spend my days off getting back on the dive boat with the camera. That was when it just took over; I was deriving so much enjoyment that the diving became entirely about photography – that's when I became a photographer.

And this career change was only about eight years ago?

Yeah. I reached a moment where I was sitting on the dive boat wishing I was down there shooting photos. I took a second leap of faith and I decided I want to stay with the ocean but I want to be a professional underwater photographer.

Have you had any mentors or people who have inspired you?

Certainly. I considered my university degree in underwater photography



Above: With this image of a northern gannet diving rapidly through a hail of air bubbles to hunt for fish, Henley was named the Grand Prize Winner of the 2022 HIPA photography contest.

Right: A red-eared slider turtle, an invasive species, swims peacefully among the water lilies in the Aktun Ha cenote, Mexico.

to be signing up for two workshops with Alex Mustard. As well as being a world-class underwater photographer, Alex is almost certainly the pre-eminent underwater photo teacher that we have. I learned enormous amounts being around him. He gave me a good technical grounding, and then a couple of years later, I went to Mexico for the first time and met an underwater photographer called Christian Vizl. He specializes in black-and-white underwater photography.

Yes, I notice black and white is a significant part of your portfolio.

I really looked up to Christian and we shot side by side for 10 days and I learned a lot from him and took a lot of inspiration. Christian is almost the opposite of Alex.

How do you mean?

I was probably more technically competent than Christian, which



I probably do 90 per cent of my photography shooting from the hip, so I don't look through viewfinders

came as a surprise, but Christian's great talent is his eye and his artistic sense. To spend time with him was to learn how to feel a scene, to feel an image, so then I was blending technical and artistic and putting them together. I would say the last big influence – and it continues to this day – is Laurent Ballesta.

Hasn't he just won Wildlife Photographer of the Year?

Yes, but I feel he is still very under-appreciated considering his achievements. What inspires me about him is the quality of the work and the ambition of it. Laurent and I are friends and we have done a project together that hasn't been released yet. It's not any specific thing that Laurent teaches me, it's more that I love the scale of his ambition, to make these ridiculous sounding projects and images come to life. I find that hugely inspiring and I sometimes use it as a stick at my back to say, 'well, what would Laurent say about what you're doing now? Is it good enough? Are you pushing yourself hard enough?'

You began with an Olympus in a housing, but what do you use now?

Today, I shoot mostly with a Nikon D850. Underwater, the physical properties of water change the way that we shoot, which means you can't shoot far and you lose all →





the colour and you lose all the contrast, so everything has to be close to the camera.

Does that necessity of closeness determine your lenses of choice?

If you just put a very expensive lens behind a glass window, it's not going to perform in the same way, so some of the lenses that we use are quite different. Some of the Nikonos vintage lenses, such as the Nikonos 13mm, are still very relevant – it's the lens that Laurent won the overall title of Wildlife Photographer of the Year with. It is glass designed to shoot in water and always outperforms a land lens behind a glass or acrylic window.

So would you say that the Nikonos 13mm is your go-to lens?

My two favourite lenses right now are

that and a Nikon 28-70mm, which they don't even make any more, paired with a Nauticam WACP-1 (Wide-angle Correct Port 1). It turns that kit lens into one of the most versatile, sharpest options you could use underwater. It's a big chunk of glass but it's not just a window; it's a lens that goes with the lens on your camera, then widens it and sharpens it for shooting underwater.



Snorkelling is the route to another world, it's a route into underwater photography

Left: A Californian sea lion makes direct eye contact in the waters of the Espiritu Santo National Park, Baja California Sur.

Top right: An olive ridley turtle cruises idly along the sandy ocean bottom while being tended by a group of cleaner fish.

Right: Britain is home to some of the world's largest populations of grey seals, so Henley didn't have to travel far to capture this waking pup.

What strobes do you use?

I'd always have two on the camera housing and I've used some Retra strobes, UW strobes... flash photography is a vital part of underwater photography, so those strobes are a key part of the kit.

Absolutely. What's your view of mirrorless cameras underwater?

I bought the Sony A7R V because I ran out of time waiting for the Nikon Z 8 to come out! I was waiting for it but it was just too late. I was very curious to shoot it.

I'm sure when they read this there will be one heading your way!

Well, that would be nice. The lenses are very different underwater so, for example, that vintage Nikonos lens is adapted to go on a DSLR right now.



SNORKELLING RULES!

**SCUBA DIVING OR SNORKELLING?
FOR HENLEY IT'S DEFINITELY NOT A CHOICE
OF ONE OVER THE OTHER...**

You started snorkelling in the bathtub, where does it fit in with your underwater photography work now? I absolutely love snorkelling. It gives me better light, it gives me more time in the water, it gives me more elements to play with in terms of the surface, reflections, so snorkelling plays a huge part. What's strange is that many underwater photographers started off as scuba divers and they can be unusually snobbish about snorkelling. I see people retiring from diving and therefore selling their underwater set-ups and I think, 'okay, maybe you've got some physical issues that stop you from diving, but why aren't you snorkelling?' So many people are capable of snorkelling, it's the route to another world, it's a route to underwater photography.

a lot of forgiveness in the scenes that you're framing. Two, the golden rule of underwater photography is always get closer and I can always be closest when I am holding the camera by reaching my hands out. Often underwater subjects look best with a straight or slightly upward angle and if I'm shooting from the hip I can unlock new angles so much quicker than if I've pushed in my whole body looking through that viewfinder. Three, I can track action so much better, I see the scene and I can pre-empt the peak of the action far better looking at it up with my camera away from the face than I can through a viewfinder. I enjoy it more doing it that way, I'm not a photographer lost in his viewfinder.

Do you have favourite locations that you never tire of seeing again?

I'm not sure I ever tire of anywhere underwater. I've been going to Shetland for the past few years, I've been going to Mexico and Costa Rica – those are the three places where I've been working a fair amount for very different reasons. To go to Shetland, I don't even need to take my passport, it's still part of my country even though it feels like a group of remote islands out in the middle of the ocean, which they are! You have that sense of remoteness and I can drive around and there's all these bays and I think, 'okay I'll go diving there', and I can lose myself in

Next Month
Shooting the
night sky with
Swedish astro
photographer
Göran Strand

nature up there. The people are great, the wildlife is special and the water is pretty clear for Britain, so Shetland is a part of my life for good.

Where will you go next?

I'm sussing out whether to go back to Mexico and the Baja Peninsula before the turn of the year because I've just been and the water was green, murky and 32°C. That extreme temperature was a recipe for hurricanes and we had two storms while I was there. This is a place I have been going to for the past six years of my life in the same season and this year it was unlike any other year, in a very worrying sense.

You once said: "I believe diving is much more akin to meditation than a sport." Is that meditative state something that you try to express in your images?

I hadn't thought about that. So, consciously, no, but... some people call diving a sport, but it doesn't feel like a sport to me. What I do is a far more organic feeling of just being part of an environment.

Do you find it immersive?

Yeah, immersive. One thing that has always turned me on is the art of nature, and even if my image has a troubling message to it, I still like it to be artistic in some sense. If we can say that artistry has a soothing, meditative effect, then maybe... I believe the intangible in every picture is the emotion of the moment, which a photographer is able to put into a picture and then moves someone else. With all my best or most recognized images in the moment, I felt fantastic taking them.

Was there a feeling of euphoria?

It's absolutely a high. The thing I struggle with is that my profession and my passion deliver such enormous highs that it's probably like being a professional athlete or a musician. To have those highs and then go back to doing the school and grocery run, it really messes with your mind. I very much want both of those worlds. I want my family and I also want this ocean-nomadic adventurous life, but when I move from one world to the other there are usually a few days where I feel a bit funny about it. ■

How do you focus when you're shooting underwater?

Autofocus is critical to the work that I do underwater, especially with very fast-moving animals. I am not yet convinced about the autofocus of mirrorless versus DSLR. When you trust a camera, it's such a great feeling because you click and you just know what you're going to get. That's what I need from a mirrorless set-up for me to completely drop the D850. I need to be sure that it's going to focus because I probably do 90 per cent of my photography shooting from the hip, so I don't look through viewfinders.

So you always use autofocus?

I have to really trust the autofocus. My reasons are threefold. One, we're using very wide lenses, so there's

Meeting the legend



Michel Haddi reminisces on photographing legendary rapper Tupac at the height of his fame, just three years before his untimely death

Back when I lived in America, I worked for all the best glossy magazines. One day I got a call to photograph Tupac for the release of *Poetic Justice*, a movie he was starring in. I had never worked with a rapper before, but I liked him very much, and he reminded me of a young Martin Luther King.

I had read before about Tupac's mother and she was a true activist, back in the day, with the Black Panthers. I also had the pleasure to work with the daughters of Malcolm X, so I thought it would be a smart move to have Tupac moving away from the rap style and giving him a chic styling tweak, in maybe a suit and maybe something to bring out his aura.

More than anything – I wanted to show that, in my world, a young black man, handsome and well versed in the art of poetry, has the right to be or to dress like a young lion coming out of an Armani show.

The photos were taken over a single day in a Los Angeles studio – a very large one

with all the necessary comforts. One thing you need to know: Americans do it better! When they open a studio, you have four assistants, lights galore. They know how to put a show together, and the show happens the minute you go in the studio; you feel like a million dollars, baby. You have a sense of a movie studio, everything is there to cater for all your fantasies. I could have asked for an elephant, it would have been done!

True artist

This is one of the reasons why I love working in California, and if you work with a star like Tupac, you better be on point. But the shoot was not without its challenges. They are always the same, it is more about human behaviour – never the talent but always the people around them that give you advice on everything. I am still flabbergasted why so many people on a shoot like to tell you how to work, and it did happen, with the friend of our dear, late Tupac: it was the director of the movie, John Singleton, and he didn't want to see Tupac as a young and glorious Martin Luther King. So I simply said: "John, here is my camera, I am going..." Here is

when a true artist comes to the rescue, as Tupac said: "Let the man work, John."

I used the old-school film Nikon F2 with the original Nikon 58mm Noct. The Nikon F2 is a fabulous beast, and the lens was very sharp and was made especially for Apollo moon missions. I have been working with Nikon since the late '70s and to this day, I use the digital Nikons. They are spectacular.

The studio shoot was just three years before Tupac was killed. Fast forward to last year when I discovered long-lost images of Tupac. The timing just felt right for a book, and I have a list of stars I have worked with, from which I created *The Legend* series of coffee table books. The concept of *The Legend* is to see who becomes a legend. I shoot some of the most incredible artists of our time; they deserve a place in the pantheon of the legends.

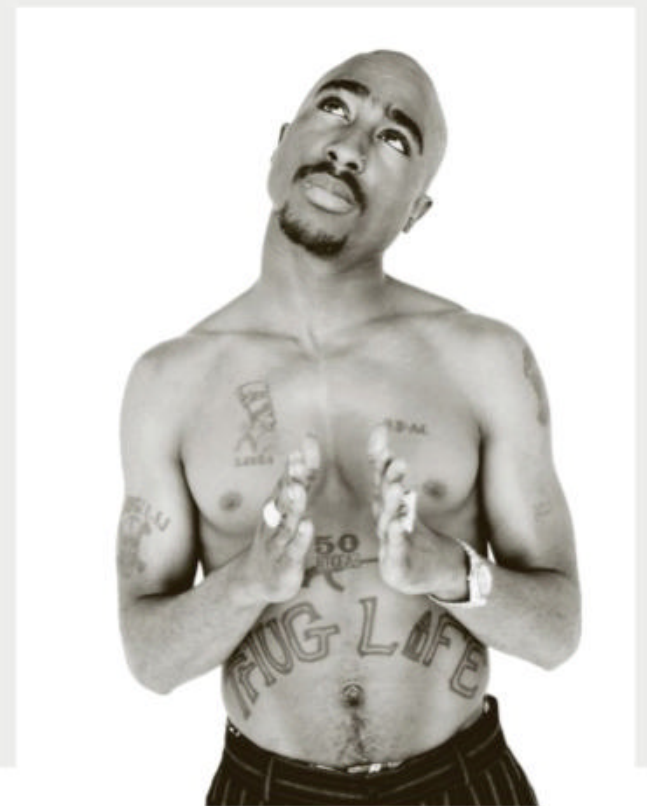
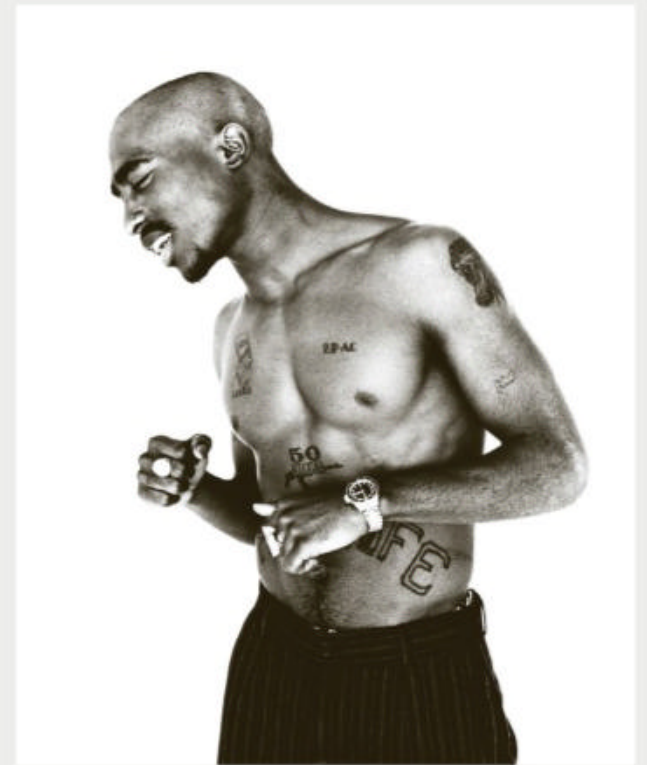


Tupac The Legend (£100, MHS Publishing) is a limited-edition, signed, glossy coffee table book featuring exclusive and unseen shots by Michel Haddi, along with quotes

from Tupac. www.mhspublishing.com.



I thought it would be a smart move to have Tupac moving away from the rap style and giving him a chic styling tweak



Far left: Michel set out to depict Tupac as a true American hero, so added the Stars and Stripes.

Above left: When Tupac decided to get stoned, Michel found himself in an interesting atmosphere but was still able to capture the shot.

Top right: Posing like a young boxer – complete with his Rolex, Tupac was always dapper.

Above right: In this image, Tupac is praying, which Michel found utterly spiritual.

Left: The tryptic transforms Tupac into a '60s soul man and evokes memories of a young Martin Luther King.

NIKOPEDIA

The only camera manual you'll ever need...

72 Nikon Know-How Learn to squeeze more light into your images

76 Ask Matthew Queue up your questions, Uncle Matty has the answers...



Understand dynamic range and you'll know how to capture detail in the brightest skies and deepest shadows in every shot.

NIKON KNOW-HOW

What is dynamic range?

Dynamic range is a measure of the amount of light captured in your image

Dynamic range can be a confusing concept, but only because it can mean two different things. In principle, 'dynamic range' describes the brightness range of the scene you're photographing. A scene with high dynamic range will have a large difference in brightness between the darkest zones and the brightest. Photographers often discuss a scene's 'contrast' or 'contrast range', which is the same thing.

Camera makers, such as Nikon, also talk about the 'dynamic range' of their sensors. In this case, it's the ability of the sensor to record these very high brightness ranges.

In both cases dynamic range is measured as EV values, or 'stops', and the secret of exposure measurement is to try to make sure the dynamic range of the scene you're

shooting isn't greater than the dynamic range of your camera. You also need to learn what you can do to fix things if it is.

Fortunately, you don't have to get caught up with f-stops and exposure values and complicated calculations, because your camera's histogram display can tell you everything you need to know at a glance. Our diagram opposite shows you how to interpret what your histogram is telling you.

OLD METHODS & PROBLEMS

Nikon digital cameras come with a selection of metering modes to help you get the exposure right. Matrix mode will analyse the whole scene, Centre-weighted mode will average the light but pay more attention to the centre of the scene, while Spot mode

lets you base the exposure on a small area. All three metering modes have their uses, but they're all designed to achieve a balanced-looking exposure – they don't measure dynamic range. They can all produce shots where the highlights and/or shadows in the scene are lost.

In a way, these metering modes are a throwback to a pre-digital age, whereas we can now measure and see dynamic range of a scene very easily. So you can stick to your current ways of working out the exposure by all means, and most of the time they'll work fine. But there will be situations where an understanding of dynamic range, and how to read it digitally, can produce pictures with a range of tones that you might not have been able to achieve otherwise. ■

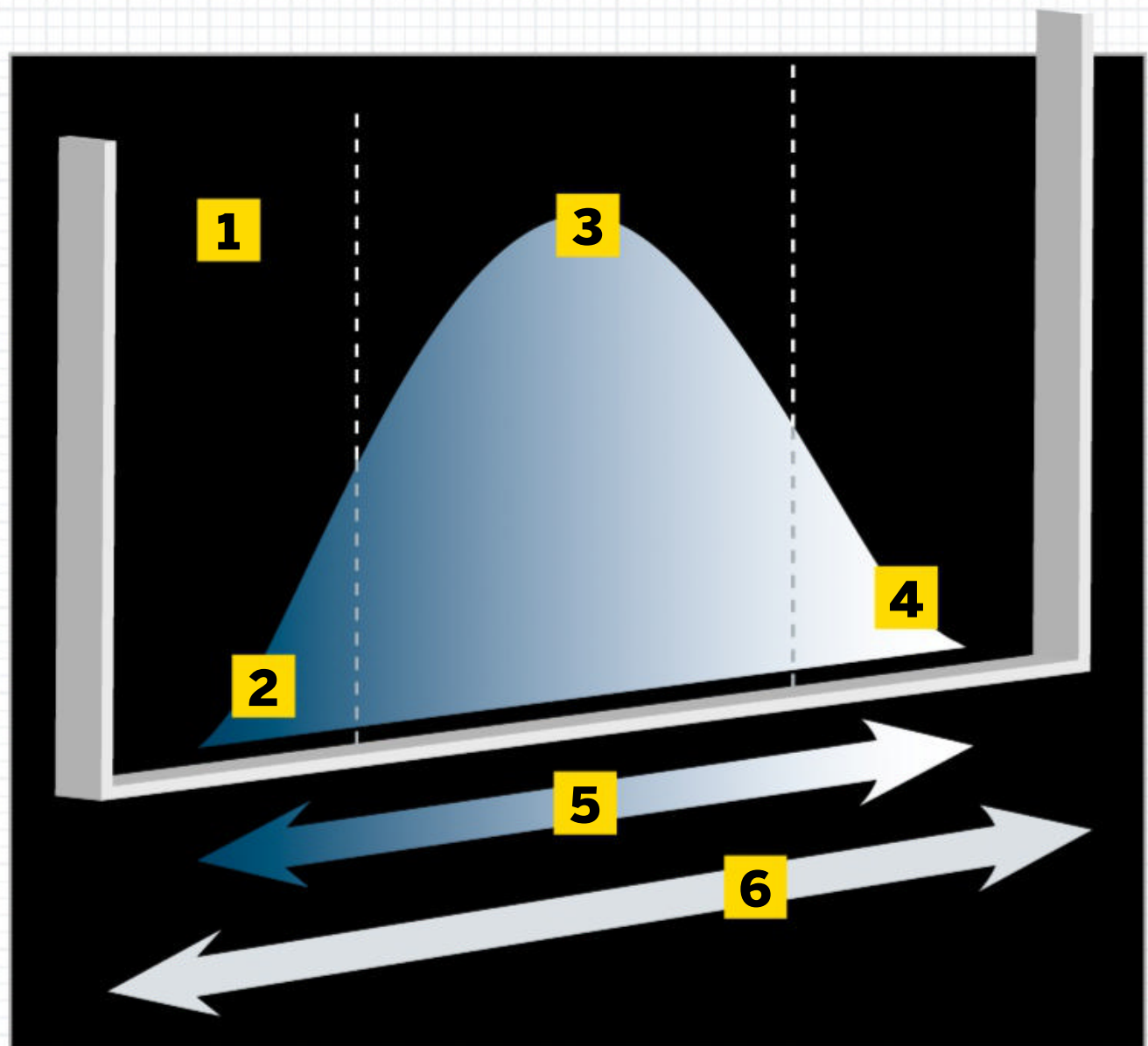
READING THE HISTOGRAM

See dynamic range in action

The dynamic range of the scene and of your camera are two different things

The image histogram on your camera's LCD display tells you everything you need to know about the brightness range in your subject and whether your camera can capture it.

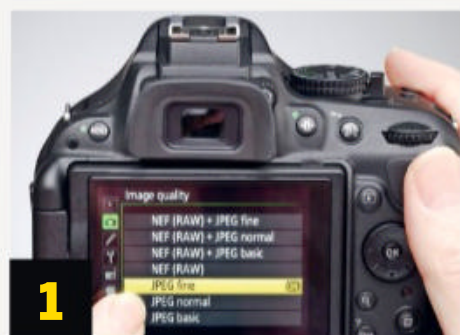
- 1** The histogram is a graphical representation of the tones in your picture, showing the number of pixels at different brightness levels from pure black (on the left of the scale) to pure white (on the right).
- 2** The 'shadows' in your picture are roughly the left quarter of the overall brightness range.
- 3** With average subjects the histogram peaks in the midtones, though histogram shapes will vary wildly (see overleaf).
- 4** The 'highlights' are in the right quarter of the brightness range.
- 5** The dynamic range of the scene you're photographing is shown by the width of the histogram.
- 6** The dynamic range your camera can record is shown by the width of the histogram scale. If the histogram won't fit, it's a warning sign.



TAKE CONTROL

How to use Active D-Lighting

Balance high-contrast scenes in-camera using exposure and processing together



Raw or JPEG?

With Active D-Lighting, the exposure is adjusted so the camera captures the brightest parts of the scene, then it processes the shot to bring out the shadows, so you'll need to shoot JPEG.



Matrix metering

It's best to use Matrix metering mode, so the camera will be able to identify the brightest areas. The Centre-weighted and Spot modes are more selective and the camera may not expose properly for the highlights.



Active D-Lighting

You can choose the strength of the D-Lighting setting manually, or select Auto if you're not sure how much compensation is needed. High settings are good for very high-contrast scenes, but results can look unnatural.



Bracketing options

To compare an uncorrected shot and one with Active D-Lighting applied, find the Auto Bracketing option in the Shooting or Custom Setting menu and change the Auto bracketing set from AE bracketing to ADL bracketing.

NIKON KNOW-HOW

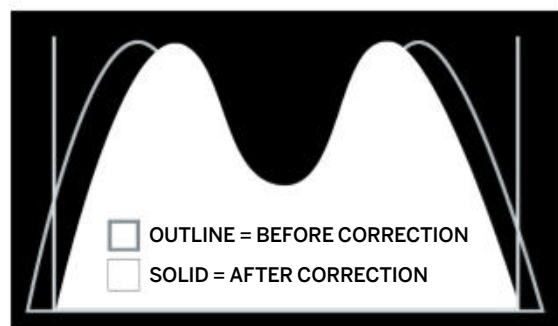
Dynamic range problems

Here are four common shooting situations where dynamic range may become an issue – and what you can do about it

1 LANDSCAPES: DOUBLE PEAKS

In landscapes, the sky is often much brighter than the landscape itself, and no single exposure can capture both.

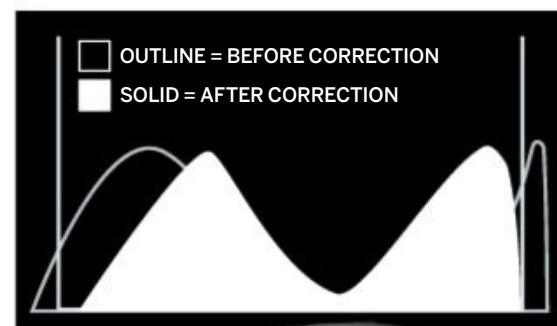
The solution: Landscape photographers use graduated filters to block some light and bring the bright sky back into the camera's dynamic range.



2 PORTRAITS: FACE IN SHADOW

Backlighting will either leave your subject's face in shadow or, if you increase the exposure, leave the background blown out.

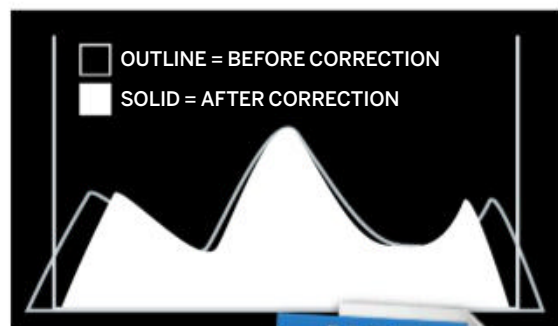
The solution: Use fill-flash to lighten the face and bring the scene back into the camera's dynamic range.



3 SUN AND SHADE: HIGH CONTRAST

Bright sun under a clear sky can produce a difference between light and shade that's just too large for the camera to cope with.

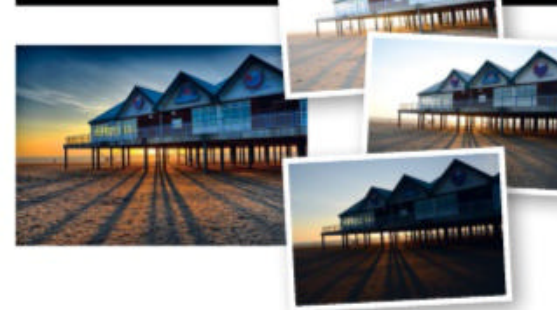
The solution: Raw files contain extra highlight and shadow detail that you can recover later on your computer.



4 DAWN AND DUSK: HUGE CONTRAST

At sunset and twilight, the sky is often so much brighter than the rest of the scene that you can't capture the full range, even with Raw.

The solution: Use HDR. Shoot the scene at different exposures and use software to merge them into one image.



Step by step Using the built-in HDR mode

This handy feature on some Nikons combines two separate exposures into a single merged image



JPEG not Raw
Nikon's in-built HDR option uses in-camera processing, so you need to set the image quality to JPEG not Raw, or the HDR option will be greyed out.



HDR mode
Find HDR in the Shooting menu. The camera will take the two exposures needed with a single press of the shutter button. It resets to 'Off' after each shot.



HDR strength
HDR mode comes in different strengths. Use Auto if you're not sure how much to apply or pick a manual setting if you know the effect you're after.

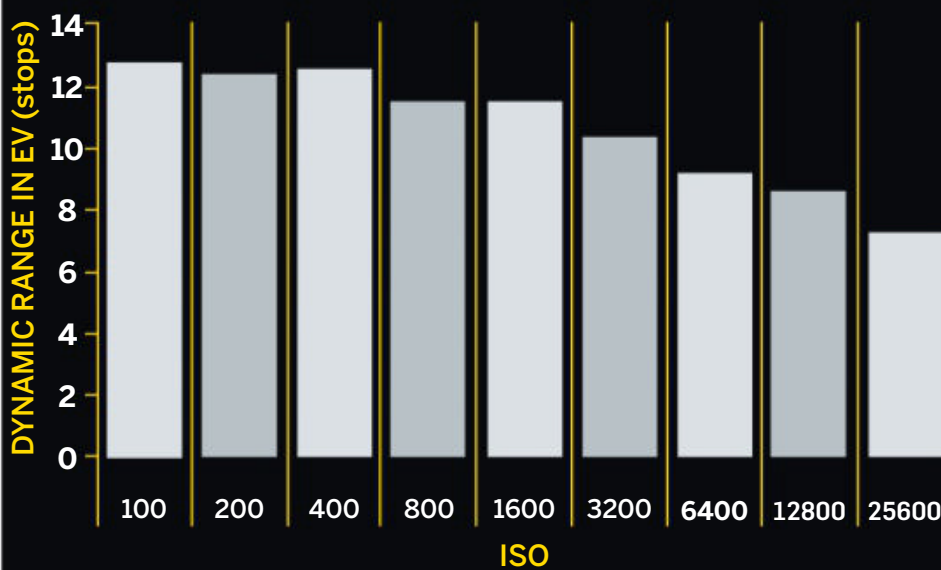


HDR software
To merge exposures using HDR software, set Auto Bracketing to AE Bracket. Try three shots with an increment of +/-2EV. Some Nikons have a BKT button.

Dynamic range and ISO

Higher ISOs reduce the degree of dynamic range that your camera is able to capture

When you set a higher ISO, you're effectively underexposing the sensor and then amplifying a weaker signal. It lets you shoot with faster shutter speeds in low light, but it means the camera is capturing a reduced brightness range. The *N-Photo* camera testing procedure includes dynamic range testing at different ISO values, and here are the results from a typical Nikon camera, which has excellent dynamic range at ISO100, but this changes further up the scale.



How dynamic range changes with ISO: for the maximum dynamic range from your camera, use its lowest ISO setting.

Dynamic range vs exposure latitude

Exposure latitude isn't a feature of the camera or sensor – it depends on the scene's dynamic range

LOW CONTRAST

'Exposure latitude' is the amount of leeway you have for over- or under-exposure. In a low-contrast scene there's plenty of exposure latitude because the histogram is narrow and there's lots of leeway at either end.



A low-contrast scene like this could let you change the exposure by as much as one stop (EV) either way.

HIGH CONTRAST

The histogram for a high-contrast scene will be much wider and will probably fill the full width of the histogram scale. This means there's no exposure latitude at all, because even a slight shift will clip either the shadows or the highlights.



A high-contrast scene, however, generates a wide histogram. Here, you've got no exposure latitude at all.

PUTTING IT INTO PRACTICE

JPEG vs Raw

Set your Nikon to shoot both JPEG and Raw files to show the difference in the dynamic range available

Many photographers shoot both formats with the aim of using the JPEG file if it turns out fine, but keep the Raw file in reserve in case there are problems with the exposure. You'll find the Raw+JPEG setting in the Image Quality options on the Shooting Settings menu.

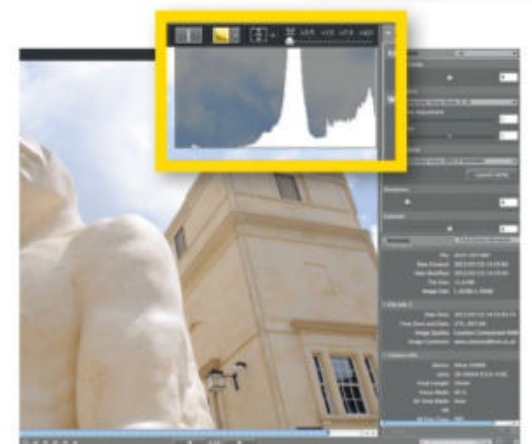
1 JPEG HISTOGRAM

This histogram shows that the highlights are clipped – the right end of the is chopped off. This is a JPEG file, and the problem can't be fixed. What you see is what you get!



2 RAW VERSION

It is possible to recover some of the highlight detail in the Raw file. The histogram looks the same as the JPEG's, but that's because it's currently being displayed 'as shot'.



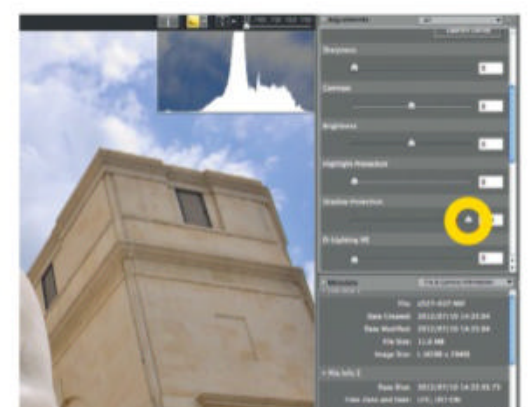
2 EXPOSURE COMPENSATION

To recover the lost highlights, use the Exposure Compensation slider. It's too late to change the exposure, so Nikon NX Studio uses the extra highlight data in the Raw file instead.



4 SHADOW PROTECTION

This can make the rest of the picture dark, but the Shadow Protection slider can fix this. In effect Nikon NX Studio is selecting the darker tones only, and then lightening them.





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'm considering the Z 180-600mm for wildlife photography but would the Sigma or Tamron 150-600mm with an FTZ adapter give similar performance at a lower purchase price?

Andrew Pearce

A I'm a big fan of the Nikon Z 180-600mm f/5.6-6.3 VR (£1799/\$1697). I'd definitely go with this lens if you can afford it. It's super-sharp with great handling, and takes full advantage of the Z-mount system for mirrorless cameras.

For a more budget-friendly option, I'd buy the Sigma 150-600mm f/5-6.3 DG OS HSM | C (£849/\$939) with an FTZ or FTZ II mount adapter. I've used this lens many

times and think it's the best lower-price option for all-round performance and advanced handling characteristics, and it's comparatively lightweight too. It can't match the Z 180-600mm for image quality, but it remains a smart budget buy at about half the price in many world regions.

Q The Z f looks like my ideal camera, apart from the lack of a proper sculpted handgrip. Can you tell me more about the SmallRig grip, mentioned in issue 156?

Fred Fellowes

A I know exactly what you mean! I have a Z fc which has no sculpted grip at all and can feel quite



A bonus of the SmallRig Z f grip is that it has an Arca-Swiss style base plate, which can slot directly into compatible tripod heads.

slippery in the hand. I've solved that issue with a tailor-made SmallRig grip which makes the camera feel much more secure, and facilitates natural handheld shooting. As we mentioned, Nikon UK and various independent retailers offered the SmallRig L-Shape Grip for Nikon Z f as a free accessory with early orders of the Z f.

Unlike the Z fc grip, it doesn't have an additional threaded socket that enables it to work as an L-bracket. Even so, it's really nicely made, with a black aluminium base plate and textured grip area to seamlessly match the finish of the Z f. It's also great value at around £45/\$40.

Q I'm torn between the budget-friendly Z 70-180mm and pricey Z 70-200mm lenses for my Z 6II. Is the latter really worth the extra outlay? Which would you go for?

Claire Davies

A We recently covered both lenses in issue 156's big test of 'fast telephoto lenses'. Personally, I feel that a 70-200mm f/2.8 is the most essential zoom lens to have in my kit bag, and the Nikon Z 70-200mm f/2.8 VR S



Even under very gloomy lighting at its longest 600mm focal length, the Z 180-600mm delivers sharp, punchy results with an excellent hit rate in the toughest of conditions.



Taken with the Z 70-180mm at 180mm, f/2.8, this wildlife shot has excellent sharpness and clarity, along with lovely bokeh that highlights the subject.

is the best I've ever owned, although it is pricey at £2339/\$2397.

The handling characteristics of the Nikon Z 70-180mm f/2.8 are more basic, without any function buttons or an OLED display. Even so, I don't mind the slightly shorter zoom range, while big plus points are that it's only about half the price and weight, at £1299/\$1247 and 795g. It lacks optical VR but in practice, when coupled with the IBIS of the Z 6II, I get consistently sharp shots that also have really nice bokeh. With money no object, I'd go with the Z 70-200mm S-line lens but the Z 70-180mm is a great performer and excellent value.

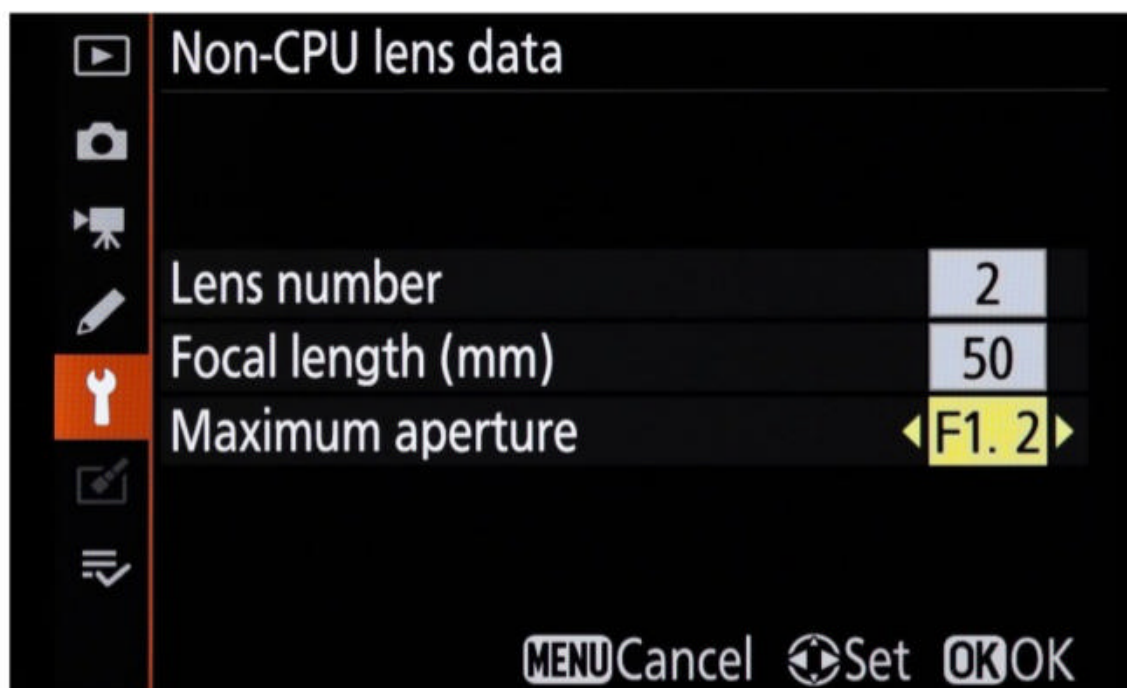
Q I've bought some 'dumb lenses' on eBay for my Z 5 and have found that VR is greyed out in the camera menu. Does

this mean I can't get any stabilization?

Phil Osborne

A So-called 'dumb lenses' are fully manual so you have to adjust the aperture as well as the focus via the lens's control rings, and there's no electronic communication between the lens and the camera body. They're officially known as 'non-CPU' lenses.

Because the camera can't recognize the attached lens, in-body stabilization is disabled by default, as there's no way of communicating the focal length and aperture rating. However, you can make IBIS available by going into the camera's Setup menu and selecting the 'Non-CPU lens data' option. Here, you can register the focal length and widest aperture for up to 20 different fully manual lenses, after which in-body stabilization will work if you switch it on in the 'i' menu. **M**



For purely mechanical lenses with no central processing unit, you can set up 'Non-CPU lens data' to enable a camera's in-body stabilization.

Secondhand superstar

Q I'm after a 'travel zoom' with a big range for my D7100. What would you recommend as a secondhand buy?

Steve Watts

A **Matthew recommends...** The Nikon AF-S DX 18-200mm is one of my all-time favourite superzoom lenses and one that I used for many years. It's been discontinued but makes a great used buy.



Nikon AF-S DX 18-200mm f/3.5-5.6G ED VR II
LIKE A LOYAL TRAVEL COMPANION, THIS LENS HAS BEEN AROUND THE WORLD WITH ME

RELEASED: 2009
PRICE NEW: £479/\$647
SECONDHAND PRICE:
 'Excellent' £180/\$220
 'Good' £150/\$180

This is the Mark II edition of Nikon's classic superzoom lens for DX format DSLRs. With an 'effective' range of 27-300mm, it covers everything from useful wide-angle coverage to serious telephoto reach with the twist of a zoom ring, avoiding the need to swap the lens.

Upmarket features include dual-mode Normal/Active VR, ring-type ultrasonic autofocus, and a focus distance scale. The Mk II adds a zoom lock switch and has a revised mechanism to reduce the possibility of zoom creep.

Key points

1. Dual-mode VR
 The switchable VR system

features Normal and Active modes, the former with auto panning detection and the latter coping with larger vibrations.

2. M/A autofocus
 Ring-type ultrasonic autofocus comes with a manual-priority mode.

3. Focus distance scale
 Unlike the Nikon DX 18-140mm and the smaller of the two DX 18-300mm zooms, this lens has a focus distance scale.

Full-frame compatible: No
Effective focal length (DX): 27-300mm
Min focus distance: 0.5m
Maximum magnification: 0.22x
Autofocus: Ultrasonic (ring type)
Diaphragm blades: 7
Filter size: 72mm
Dimensions: 77x97mm
Weight: 565g



The search for the **world's best Nikon photographer of 2023** is almost at an end! Each issue the monthly *N-Photo* POTY 2023 photo contest's top 10 images are selected by the *N-Photo* team. The final round has the theme of **Winter** photography...

NPOTY is powered by  Photocrowd



1

1. On the Edge

BY PAWEŁ ZYGMUNT

This image of the Cadini di Misurina, Italy, is proof a panorama doesn't have to conform to letterbox dimensions. The sheer amount of detail produced by a combination of four telephoto images has created a medium-format look, enhanced by the lack of barrel distortion. Including the tiny hiker in the midground was genius, amplifying the immense scale of the surrounding landscape.

Camera:	Nikon D810
Lens:	100-400mm f/5-6.3
Exposure:	0.5 secs, f/19, ISO64



2

2. Sombre Moods

BY TREVOR COLE

The wreck of a US Navy Douglas DC-3 aircraft at Sólheimasandur is one of Iceland's most photographed landmarks and this image is a fine example. We like the use of an ultra-wide 14mm focal length – while framing as little of the beach as possible – to capture a large portion of the brooding sky, which matches the mood created by the wrecked aircraft. A striking image.

Camera:	Nikon D800
Lens:	14-24mm f/2.8
Exposure:	1/160 sec, f/13, ISO250



3

3. Ice Illumination

BY HAGEE

A frame within a frame has been created by the ice, drawing the viewer straight to the caver. This subject stands out even more thanks to their yellow jacket and orange helmet, which contrasts against the cool hues. The torch is a clever touch. Again, it draws the viewer's gaze, while helping to illuminate both the subject and their immediate surroundings.

Camera:	Nikon D750
Lens:	16-35mm f/4
Exposure:	4 secs, f/11, ISO400



WIN! A WhiteWall Photo Lab voucher Worth £100!

Witness your work as a glorious gallery-quality print from award-winning online photo laboratory WhiteWall. The winner, as judged by the *N-Photo* team, will receive a £100 WhiteWall voucher to have their entry printed in a range of stylish options including acrylic, aluminium, giclée and canvas in a huge array of sizes. See www.whitewall.com/uk



4

4. Out of the Trees

BY ERIC BROWETT

This magnificent eagle owl has been captured mid-flight. The 1/800 sec shutter speed was a great choice. It's rendered the bird's face sharp, while allowing for a sense of movement in the wings.

Camera:	Nikon D7100
Lens:	80-400mm f/4.5-5.6
Exposure:	1/800 sec, f/5.6, ISO400

5. The Fight

BY KNUT M SELMER

These fighting mountain hares have been illuminated with a couple of cleverly placed LED lights. Backlighting has created a *contre-jour* effect, accentuating their boxing stances.

Camera:	Nikon Z9
Lens:	100-400mm f/4.5-5.6
Exposure:	1/1000 sec, f/5.6, ISO3200



5

6. The Shepherd

BY SEYED ALI HOSEINIFAR

This image of a shepherd, driving their flock in a blizzard, is a lovely example of documentary photography. The mono conversion allows the viewer to focus entirely on the moment.

Camera:	Nikon D500
Lens:	150-600mm f/5-6.3
Exposure:	1/2000 sec, f/8, ISO1800



6



7. The Frosty Rabbit

BY FREDERIKGUSTAVSSON

What really makes this close-up portrait of a rabbit is the dusting of snowflakes on the little mammal's head. The morning light has added a pink glow to the subject and its surroundings, while the shallow depth of field and tack sharpness makes the rabbit pop against the background. Eye contact is the finishing touch, which captures and holds the viewer's attention.

Camera:	Nikon D500
Lens:	200-500mm f/5.6
Exposure:	1/100 sec, f/5.6, ISO2200

8. Light up the Night

BY ROBERT JUVET

This is a fine example of an aurora; it sweeps across the entire sky and is framed via the reflection below. The punchy green tones have been captured beautifully, while the rule of thirds has been used to place the horizon on the bottom third, giving more weight to the incredible natural phenomenon, hanging in the night sky.

Camera:	Nikon D850
Lens:	15-30mm f/2.8
Exposure:	20 secs, f/2.8, ISO200

7

8





9



10



9. Winter Lagoon

BY FARY AFSHAR

This magnificent landscape was created by stitching together six vertical images to create a seamless pano. Not only is the image technically very impressive, but it's hard to imagine better conditions. The warm sunset contrasts beautifully with the cool hues. Light sweeps across the range and a still lake provides a glassy reflection.

Camera:	Nikon D850
Lens:	14-24mm f/2.8
Exposure:	0.4 secs, f/9, ISO64

10. Loneliness

BY MARTA

A blanket of white snow provides an excellent opportunity to photograph minimalist compositions like this lone tree. The layers in the snow provide additional interest, without detracting from the main subject, while the rest of the frame is devoid of all distractions. The way the hill rises on the left helps to balance the shot.

Camera:	Nikon D90
Lens:	18-105mm f/3.5-5.6
Exposure:	1/500 sec, f/5.3, ISO100

NIKON Z 9 WINNER REVEALED NEXT ISSUE!

NIKON'S FLAGSHIP MIRRORLESS – A PHOTO & VIDEO POWERHOUSE

The Nikon Z 9 features some truly ferocious specs, befitting a pro-grade, full-frame, flagship mirrorless camera and then some. It boasts a stacked 45.7Mp CMOS sensor, the latest EXPEED image-processor and Nikon's most advanced AF system. Not only is it the most powerful Nikon camera on the market, it was the first pro-grade camera to debut an all-electronic shutter, allowing for 120fps burst speeds and a max shutter speed of 1/32,000 sec. It's a bonafide video behemoth too. It can capture 8K 60p and 4K 120p footage, as well as 4K 60p UHD video oversampled from 8K.



WORTH
£5299!

How to enter

HOW OUR COMPETITION WORKS

- Next issue, we award the overall winner of *N-Photo* Photographer of the Year 2023 the grand prize of a Nikon Z 9!
- We also have a brand-new competition, and a great new prize (revealed next issue). NPOTY 2024 is open now!
- The first round of NPOTY 2024 has the theme of still life. You can enter at www.photocrowd.com/npoty24still
- The deadline for entries is 18 January 2024 and the top 10 gallery will appear in *N-Photo* 160, on-sale 15 February 2024
- Here are our upcoming competitions:
Portraits Opens: 11 Jan Closes: 15 Feb
www.photocrowd.com/npoty24portraits
Wildlife Opens: 08 Feb Closes: 14 Mar
www.photocrowd.com/npoty24wildlife
- Images *must* be shot on Nikon cameras!
- 12 competitions will appear throughout 2024, and the overall *N-Photo* Photographer of the Year 2024 – and winner of the grand prize – will be crowned in the issue that goes on sale in January 2025. Good luck! 

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 📘 facebook.com/nphotomag 📷 instagram.com/nphotomag

★ Star Letter

Mind the gap

After reading the November 2023 issue (*N-Photo* 156), Mike Harris's Parting Shot column struck a chord. I'm left-handed and, for some strange reason, I always start with Parting Shot on the back page and work backwards through the magazine!

We were on a cruise ship in the Canaries when news reached us of the demise of

the Sycamore Gap tree – how news travels! We live in Northumberland, by the way, and the tree is – or was – a great favourite. I think a local blacksmith could create a replica in metal to fill the gap. It would be a great thing to look at and bring the tourists back. A fundraising appeal would work, I am sure. Any leftover money could go to The National Trust.

Moving to the front of the magazine, I read about the



red squirrels in your Apprentice feature. I was photographing there a few months ago as we have a caravan not far away. Another great article.

A great magazine – many, many thanks – two very special articles surpassed only by Gareth Cattermole's



incredible image of the Queen's coffin in the *N-Photo* interview.

I'm a volunteer at The Alnwick Garden in Northumberland. It's a great place to photograph, with locations such as the Poison Garden and Cherry Orchard. I have 20 years of images. A good Apprentice location idea? Just a thought!

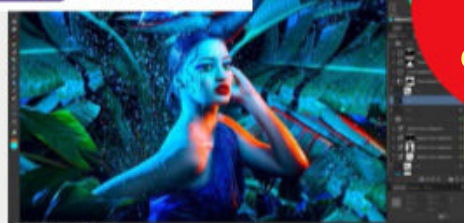
Margaret Whittaker

Thanks for sharing your shots – and your kind words Margaret! We tend to be guided by the professional photographers we work with for our Apprentice locations, but Alnwick does indeed look very photogenic. We always need new apprentices, and applying is really easy, via: www.bit.ly/npapprentice



Images: © Margaret Whittaker

The November edition of *N-Photo* inspired Margaret to share her shots of Sycamore Gap and red squirrels – as well as Alnwick Garden, which she reckons should be our next Apprentice location.



**WORTH
£49**

WIN! A copy of Affinity Photo 2

Write our star letter and you'll win a copy of the amazing Affinity Photo* for Mac or PC from Serif. This feature-packed software is just as powerful as programs that retail for many times its price – and all without having to pay a monthly subscription fee. With full support for Raw files, layers and 'professional' features such as Curves and live filters, it also boasts top-class focus stacking, HDR merging, panorama stitching and batch processing. Affinity Photo is available for Mac, PC and iPad, and files can be easily shared between devices so you can continue editing on the move. It opens Photoshop files, too. www.affinity.serif.com

*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.

www.DigitalCameraWorld.com
The best from our companion website



Image: ESA / A.Romeo

1. Nikon Z 9 to be the next camera on a lunar mission?

Will the Nikon Z 9 be the next mirrorless camera on the moon? Judging from pictures recently released by the European Space Agency, we think it may well be. The images show the Handheld Universal Lunar Camera being put through its paces, ahead of it being used on the Artemis III mission, which is due to land on the south pole of the moon in 2025. <https://bit.ly/3QH0tok>

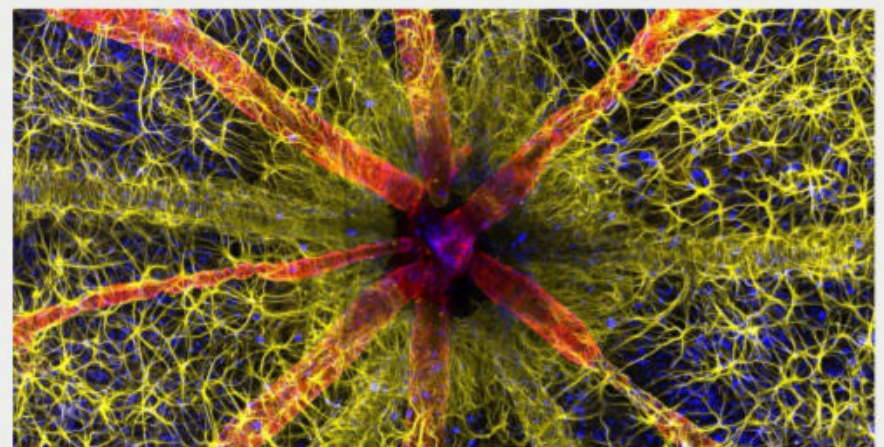


Image: Qambari Hassanain

2. It's a small world for Photomicrography winners

Under the lens of a microscope, the world looks very different; abstract patterns, unusual shapes and vibrant colours create beautiful works of art the naked eye cannot see. Now in its 49th year, the Nikon Small World Photomicrography competition showcases life's beautiful complexities, from the ignition of a matchstick to pollen on a needle. <https://bit.ly/40JaJ5R>



Image: Future

3. The Nikon Z f rekindles my love affair with the FM2...

I must confess to feeling a distinct twinge in the wallet area when I saw the Nikon Z f. It looks sensational – especially with the coloured inserts – and does a pretty convincing job of creating a digital-era representation of the FM2. Under the skin, the two cameras are poles – and over 40 years of camera technology – apart, but you get the picture. <https://bit.ly/47AhgSu>



Sign up to our newsletter for the latest Nikon news! Simply scan this QR code or go to <https://bit.ly/dcwnews>



Auto ISO or not Auto ISO when shooting birds – that is the question on John's mind.

Bird brains

I've been a reader of *N-Photo* from the very first issue and I am a subscriber. I am a bit confused by the advice given in the Summer 2023 issue (*N-Photo* 154) regarding photographing birds in flight. I wonder if you would say which is your 'best' advice?

In the Wildlife section of the Shoot the Great Outdoors feature, Tip 13 is Avoid Auto ISO when photographing birds in flight. However, in the Apprentice section on shooting red kites, Gary Jones said: "I shoot... with Auto ISO". So which is best?

John Gore

Ask two different photographers how to shoot the same subject and, more often than not, you'll get two different answers! The case for Auto ISO when shooting fast-moving birds is that you can determine both the aperture and shutter speed, while the case against is that if your subject is moving against a changing background, then the exposure can be radically different between images. Ultimately, it's down to finding the method that works best for you.

What's the alternative?

I am a subscriber to *N-Photo* and would like to respectfully ask why – as an independent,

unofficial magazine that reviews lenses by other manufacturers than Nikon – why lenses made by Voigtländer do not seem to get reviewed or listed in the at-a-glance guide to current Nikon-fit lenses? I believe there are 14 lenses in the F or Z mount format that seem to be reasonably well respected by other reviewers. I would like to see your reviews alongside comparisons with their contemporaries, please.

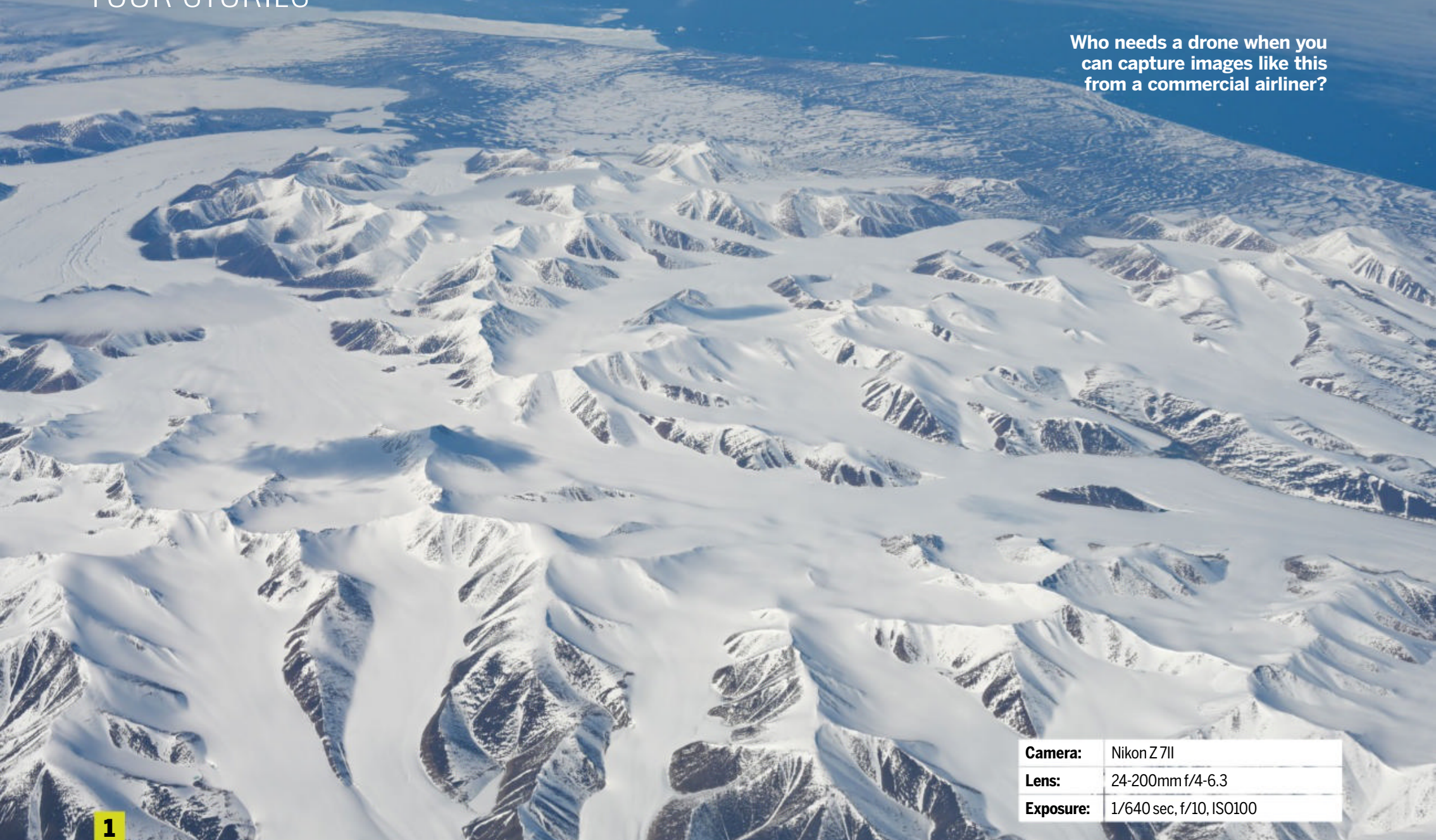
I enjoy reading your magazine and have been a reader since its initial publication but feel that this is an oversight in not reviewing this manufacturer.

We have had difficulty getting hold of review samples of Voigtländer lenses in the past, but this issue we bring you the review of the manufacturer's 23mm f/1.2 lens for DX mirrorless Nikons, and promise that it'll be the first of many... N



We're righting the wrong of not having reviewed any Voigtländer lenses from this very issue, see page 96.

Who needs a drone when you can capture images like this from a commercial airliner?



Camera:	Nikon Z 7II
Lens:	24-200mm f/4-6.3
Exposure:	1/640 sec, f/10, ISO100

I'll be your guide



Andrew Corless went on his first tour group holiday and, despite a few photo-thwarting misgivings, found ways to make it work

MISSION: Turn a holiday tour of Alaska into a red-letter photography trip

PHOTOGRAPHER: Andrew Corless

LOCATION: Oxfordshire, UK

KIT USED: Nikon Z 7II, Z 24-200mm f/4-6.3 VR

FLICKR: www.flickr.com/photos/travelphoto588

I've been travelling at every opportunity all of my life. My parents used to drag me off across Europe in the early '50s, before roll-on/roll-off ferries. Cars were craned into the ship's hold – even going to France was an adventure. Unfortunately, 10 years ago I had a stroke. Lying in hospital, I imagined that at least I would now have more time for photography. Imagine my dismay when I got home to find that I didn't have the strength

in my arms even to lift my Nikon D800.

Thankfully, after some time with a compact camera, I'm back. Armed with a Z 7II and a 24-200mm lens, my wife and I decided to head off to Alaska. I like to travel independently, but we now felt we needed the security of joining some group tours.

Photo tour tips and tricks

This curtailed many photo opportunities of course, but it wasn't a complete disaster as it opened up many others. I spent some time considering this dilemma and came up with some constructive ideas so that we returned home with some credible images, not just factual reminders of our trip. Alaskans describe their state as the last frontier; every day was an adventure with photographic opportunities abounded.

Firstly, I always like to go for a window

seat on a plane; seat reclined, beer in one hand and camera in the other. It's surprising what you can capture as the world flies by and what comes along may be a complete surprise. It's certainly easier than battling the elements so you can position yourself, ready for that planned dawn shot.

As we crossed over Greenland, the mountain peaks towered above the valleys, filled with hundreds of years' worth of snowfall, compacted to form glaciers [1]. And flying over the 'Rockies' I got a bird's-eye view of the peaks [2], enabling an image that is not normally available to us.

Photography via train and coach trips can obviously cause problems; you can't plan or prepare your mission for one. But they do take you to the heart of the attraction that you want to see. Always be prepared to grab a quick shot from a coach window; you'll be surprised what opportunities might come your way if you're prepared. I travel with my Z 7II at the ready: Shutter Priority →



Alaskans describe their state as the last frontier, every day was an adventure with photo opportunities abounded



Andrew's Top Tips



- I suggest travelling as light as possible. I have a gilet with large pockets – this enables me to ‘wear’ my daily equipment. A versatile superzoom lens, such as my 24-200mm, also allows you to shoot multiple genres.
- Travelling with a tour group does limit your freedom but opportunities will occur. Be prepared by keeping your camera at the ready, as you often only have a split second to grab an image.
- If you have a choice, plan activities carefully. For example, opt for nature tours in the early morning or late afternoon for the best chance of catching animals in action.

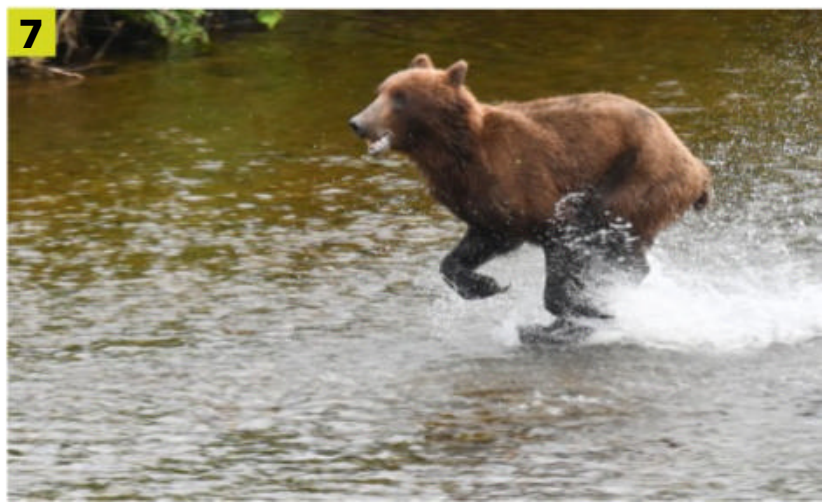
[2] Andrew didn't wait around to start capturing photos; this landscape was taken from the window of a plane!

[3] A rest stop turned into an impromptu landscape opportunity, once Andrew managed to avoid crowds of selfie-takers.

[4/5] A whale-watching trip turned into a once-in-a-lifetime experience, and Andrew's Z 7II was on hand to capture every moment.

[6] Organized animal-viewing tours are a great way to see and photograph some truly magnificent subjects.

[7] Andrew used DX mode to increase the reach of his zoom lens while capturing this salmon-hunting brown bear.



8

If it wasn't for the coach driver's local knowledge, Andrew might never have captured this rare view of North America's tallest mountain.



Camera:	Nikon Z 7II
Lens:	24-200mm f/4-6.3
Exposure:	1/320 sec, f/10, ISO160

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

selected and set at, say, 1/400 sec, Auto ISO activated and on single-point AF with focus prioritized so that the shutter only fires when the subject is in focus. This is usually successful, and I have collected some interesting travel images using this formula. I'm also confident that with the Z 7II's 45Mp ability there is plenty of scope to crop and still have a printable image.

When travelling on a bus, I like to select a window seat on the opposite side to the driver. This way, I don't have to shoot across another lane of traffic. I've found that by pushing a finger hard onto the window and, an inch further up, a finger onto the lens hood, I can absorb some of the vibrations caused by the vehicle, while getting close enough to the glass to avoid reflections. One bonus is that modern coach and train windows are tinted, which I've found can work like a polarizer. This chocolate-box landscape image [3] was made available at



By walking just 20 yards away down the path, I was able to dodge the crowd and capture the shot

a comfort stop on the bus tour. While some rushed to the loo, others waved their phones about taking selfies, crowding around each other for the best vantage point. By walking just 20 yards away down the path, I was able to dodge the crowd and capture the shot, still leaving time enough to use the facilities!

On a very rough whale-watching tour – everyone looked very green – we were lucky enough to see four whales diving and forcing their prey up to the surface [4/5]. It was a tremendous opportunity for my Nikon, just like a David Attenborough documentary. Despite our good luck, we couldn't stand up safely for the rolling boat. I was able to get to the very stern of the craft and, by forcing one foot on the port side (left) of the boat, the other on the transom (rear) and pushing my back into a fixed seat, I was able to transform my body into a tripod, leaving my hands to fire away.

We joined a small group on a brown bear viewing tour. Along with our guide, we ventured along a salmon river and, once again, we were in luck. Not only did we see bears [6], but we witnessed one chasing after a salmon [7]. I only had my trusty 24-200mm zoom lens and getting closer wasn't an option, so I swapped to DX crop mode, which effectively turned the lens into a 300mm, while sacrificing some pixels.

Mount Denali (once referred to as Mount McKinley), is the highest mountain in North America, but the peak is rarely visible as it's usually covered in cloud. This view is so occasional that the bus driver made an unscheduled stop at the nearest lay-by and let passengers off for photos [8]. Even the driver joined in capturing this rare photographic opportunity.

This time I set my camera to Aperture Priority and once again changed the crop mode from FX to DX. This wasn't solely to fill more of the frame with the mountain, but to bring in more forest, because I liked the contrast between the green trees, white snow and beautiful blue sky.

Tours can be limiting to those with an interest in photography, but there are plenty of opportunities to be found if you are flexible in your approach. And, at my stage of life, it's so nice not to have to lug a suitcase around everywhere! **N**

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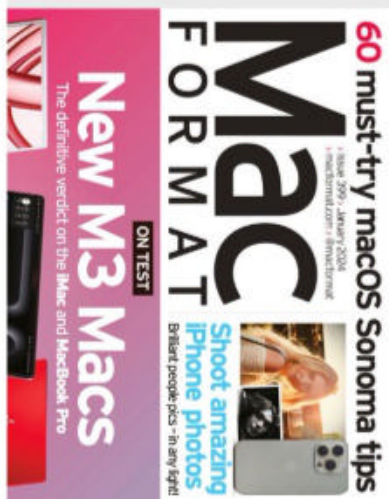
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New M3 Macs



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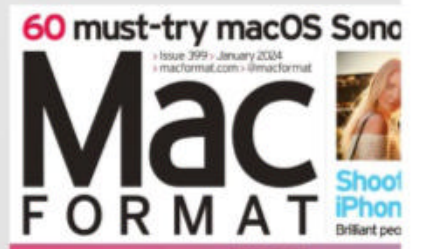
ON TEST

New M3 Macs

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New M3 Macs



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REVIEW

94 Nikon Z 135mm f/1.8 S Plena

A portrait prime that's so sublime it's engraved with its own special name



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REVIEW

96 Voigtlander D23mm f/1.2

Retro-styled, fully manual fast wide prime for DX-sensor mirrorless Nikons

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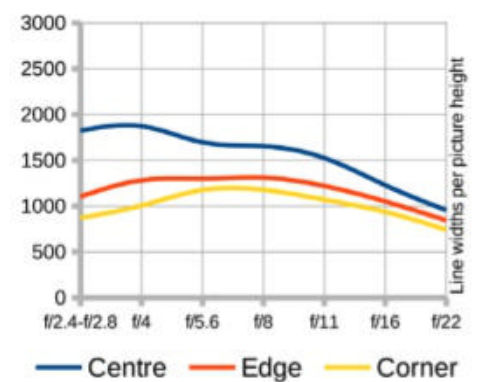
Every current Nikon camera, plus an exhaustive round-up of lenses to put on 'em



Lab tests explained

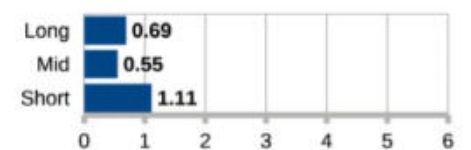
Sharpness

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



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The very best kit that really sets the standard

Our scoring system



New gear

Here's what caught our eye this month

Nikon Z 600mm f/6.3 VR S

£4999/\$4799 www.nikon.co.uk

Nikon has added a new premium super-telephoto prime lens to its range, which is designed to offer handheld shooting for wildlife, sports and aviation photographers.

The Nikon Z 600mm f/6.3 VR S is just 278mm (11ins) long and weighs 1390g (3lbs), which Nikon says makes it the lightest in its class. The supertele prime becomes the third in the Nikon Z lens line-up to offer a focal length of 600mm – and in terms of pricing falls in between that of the Nikon Z 600mm f/4 TC VR S and the Nikon Z 180-600mm f/5.6-6.3 VR.

As used on previous Nikon lenses, a Phase Fresnel (PF) lens element has been used in the design to lead to a significantly smaller overall size and weight, reducing the need for a

tripod. The Vibration Reduction (VR) system provides up to 5.5 stops of stabilization in normal mode. Synchro VR offers a boost to six stops of image stabilization with a compatible body

Unusually for a lens of this focal length, the new 600mm is designed to take video recording into consideration “with quiet operation, stable exposure and a focus-breathing suppression function”.

Interestingly, the lens was not one

that features on the Nikon Z lens roadmap – which tallies with rumours that Nikon is no longer going to pre-announce new lenses in this way, now that it has 36 different Z-mount options on offer.

With a maximum aperture of f/6.3, it is around a stop and a quarter slower than the flagship Z 600mm f/4 TC VR S, which costs £15,000/\$15,500 and comes with a built-in 1.4x teleconverter. But the new lens does not offer any speed advantage over the significantly

more affordable Z 180-600mm f/5.6-6.3 VR zoom (which retails at £1700/\$1700). As such the new lens will have to impress optically when we get a chance to test it in order to be a viable choice for the price.

FIRST IMPRESSIONS

The Nikon Z 600mm f/6.3 VR S is a third of the price of the monster Nikon Z 600mm f/4 TC VR S, but it is still not cheap at nearly three times the price of the Z 180-600mm f/5.6-6.3 VR. We'll have the full review next issue!



Really Right Stuff MC-LS Universal L-Set

£TBA/\$140 <https://reallyrightstuff.com>

Really Right Stuff (RRS) has released a new premium L-bracket designed to be compatible with most DSLR and mirrorless cameras.

If you're unfamiliar with this type of accessory, the best L-brackets are particularly useful when using a tripod and switching from portrait to landscape orientation, as they enable you to do so without repositioning the tripod head, and you can maintain the same focal plane and weight distribution. Extra mounting points on the bracket

itself also allows for easy fitment of accessories, this L-bracket ideal for videographers.

The MC-LS Universal L-Set incorporates an anti-twist flange plate with up to 29.9mm of lateral adjustment, enabling it to fit around the vast majority of camera shapes. The plate also allows 5mm of fore-aft adjustment, so it can be set against the front or back of the camera, while also allowing you to fine-tune the optical centre to adjust for a camera's articulating screen. The two-piece L component has a 28.1mm-wide cut-out for cable

pass-through, it can also be slid away from the camera, or even removed entirely.

The L-bracket will attach to any Arca-Swiss tripod head via RRS's Dovetail Standard mount, and it incorporates RRS-Lock, enabling lens-centred indexing while also ensuring a secure attachment in Really Right Stuff's Lever-Release Photo Clamp.

While the MC-LS has been designed to fit most cameras, it won't be suitable for dual-grip designs like the Nikon Z 9, or a camera equipped with an

optional battery grip, as the L component would block the camera's side ports.

FIRST IMPRESSIONS

This universal L-bracket is designed to fit almost any camera, making it a breeze to switch from portrait to landscape orientation during tripod shoots if you own multiple Nikon bodies.





Meyer Optik Görlitz Biotar 75mm f/1.5 II

€1399 (approx £1230)/\$1399 www.meyer-optik-goerlitz.com

The Biotar 75mm f/1.5 lens is on sale once again! Pioneered by legendary German lens designer Willi Merté in the 1930s, the short telephoto lens was at the time renowned for being one of the fastest portrait lenses available, with a characteristic swirly bokeh that earned the title the Vortex King.

Meyer Optik Görlitz has now brought the lens back to life, using the same Double-Gauss construction with six lenses in four groups. With high image sharpness in the centre, coupled with a strong swirly bokeh at open aperture, the legendary imaging characteristics of the Biotar 75 f/1.5 II live once again.

The Biotar 75mm was one of the lenses first promised by the iconic company when it was itself brought

back to life in 2021. "We are very excited to be able to bring this wonderful lens to market, after some unforeseen circumstances that have caused several delays," said Marco Pfeiffer, Managing Director Meyer Optik/OPC Optics.

The lens follows the launch of the Biotar 58mm f/1.5 II last year and again will be handmade in Hamburg. The manual focus prime will be available in practically every current lens mount you could name, including both Nikon F and Z mounts for DSLR and mirrorless cameras.

FIRST IMPRESSIONS

The Meyer Optik Görlitz Biotar 75mm f/1.5 is somewhat legendary, so it's exciting to see it reborn for today's generation of digital cameras.



Elinchrom THREE

£979/\$999 www.elinchrom.com

The Elinchrom THREE is a new battery-powered off-camera flash, adding to the already established Elinchrom ONE and Elinchrom FIVE. The THREE's addition to the line-up provides extra features and price points, and delivers more options for multi-light photographers.

The THREE weighs only 1.6kg, yet still packs a punch by providing 261Ws of power. Powered by its integrated Li-ion battery, it provides 525 full-power flashes from a single charge. With fashion photography in mind, it offers a very fast recycle time of just 1.2 seconds at full power.

However, if the need for more power does come, perhaps from a particularly extensive shoot, the THREE can connect to a USB-C

power source to continue shooting regardless of the battery's power level. You can also carry on shooting while charging the THREE, enabling more versatility so you're ready to go faster. Shooting can be extended with an additional battery pack if you need to remain mobile.

The light is operated via a touchscreen interface and the ease of control is further aided by the Bridge companion app that allows you to control all features of the THREE and other Elinchrom units from a smartphone or computer.

FIRST IMPRESSIONS

The Elinchrom THREE is small, powerful and can be operated with ease. It will appeal to established photographers and those looking to try off-camera flash.

Peak Design

Camera Cubes V2

From £41/\$50 www.peakdesign.com



Peak Design has just launched a set of upgraded Camera Cubes with enhanced protection, better organization and more sizes to choose from.

For travel photographers, making sure kit is safe and easily accessible is the number one priority, but all the better if it can look stylish too. Known for making some of the best camera backpacks, bags and cases, Peak Design's Camera Cubes can be used as standalone cases or used

alongside its range of travel backpacks. Following customer feedback Peak Design has added two new sizes to the collection – X-Small (£41/\$50) and Smedium (£58/\$70) – alongside existing sizes Small (£49/\$60), Medium (£74/\$90) and Large (£90/\$110).

Camera Cubes are an ultra-protective, easy-access packing solution for travel photographers and videographers and cure the worry of transporting expensive kit on the move. Whether you travel

with a single mirrorless camera and a couple of lenses or multiple camera bodies, a drone, a flashgun and all the accessories, there should be a perfect cube for your needs.

The new V2 Cubes benefit from an expanded main opening so you can see everything you have and access it easily. Medium and Large cubes also feature dual-side zips so you can access your kit using the side pockets if you have the Peak Design 45L Travel Backpack, while the smaller cubes have a designated

pocket for storing small accessories such as filters, lens caps, SD cards or spare batteries. All cubes feature weatherproof #8 Ultra Zips, weatherproof taping on external seams and are made from a recycled, 160D nylon canvas shell.

FIRST IMPRESSIONS

Now available in five sizes, Peak Design's newest camera cases offer better protection and more versatility than the original Camera Cubes. **N**

REVIEW



Nikon Z 135mm f/1.8 S Plena

£2699/\$2499 www.nikon.co.uk

The Nikon Z 135mm f/1.8 S Plena is practically perfect in every way, super-sharp yet deliciously blurry and utterly fabulous

T

The Nikon Z 135mm f/1.8 S Plena has a tough act to follow. We were highly impressed with the Nikon Z 85mm f/1.2 S, but the Plena sets out to take everything to a new level. Naturally, it doesn't have such a fast aperture rating (which would be impractical) but the longer focal length still enables a really tight depth of field. We love the way the Plena is perfectly suited to tight head-and-shoulders portraiture but it's equally epic for still-life photography and pretty much any time you want to compress perspective with a medium telephoto focal length, while isolating the main subject within a scene by blurring its surroundings.

Key features

As we'll come to later, the performance of the Plena is absolutely top-drawer. That's

thanks to an impeccable design that puts great glass at the top of the features list. The optical path incorporates 16 elements in total and includes four ED (Extra-low Dispersion) elements, one aspherical element and one SR (Short-wavelength Refractive) element. Nikon's ED glass has long been renowned for delivering excellent sharpness, contrast and colour accuracy, even at wide apertures, while reducing chromatic aberrations. The newer SR glass further reduces chromatic aberration at the blue end of the spectrum, while the use of an aspherical element can also reduce aberrations as well as the physical size.

Building on the quality of the glass itself, the lens features ARNEO coating, which is particularly effective at minimizing ghosting and flare, as well as Meso Amorphic Coat, which is even more effective at minimizing reflections from light entering the lens from just about any angle.

The overall design aims for scintillating levels of sharpness, across the whole frame,

along with beautiful bokeh, which we'll come back to later. A particularly well-rounded 11-blade aperture diaphragm helps to maintain top quality bokeh when stopping down.

Build and handling

As we've come to expect from Nikon's S-line lenses for its Z-system cameras, build quality feels robust and solid. For a full-frame compatible lens that combines a 135mm telephoto focal length with a fast f/1.8 aperture, it's not overly large and squeaks in at just under a kilogram.

Although the autofocus system is fast and ultra-precise, there's a wide manual focus ring, if you prefer to be in control. As usual with Nikon Z lenses, you can customize the action of this to take on other functions while in autofocus mode, or to enable the usual full-time manual override. A secondary control ring is also on hand, which is useful for stepless aperture control when shooting video, or for adjusting the

Specifications

Mount: Nikon Z FX

Construction: 16 elements/14 groups

Angle of view: 18.2 degrees

Diaphragm blades: 11

Min aperture: f/16

Min focusing distance: 0.82m/2.69ft

Max magnification ratio: 0.2x

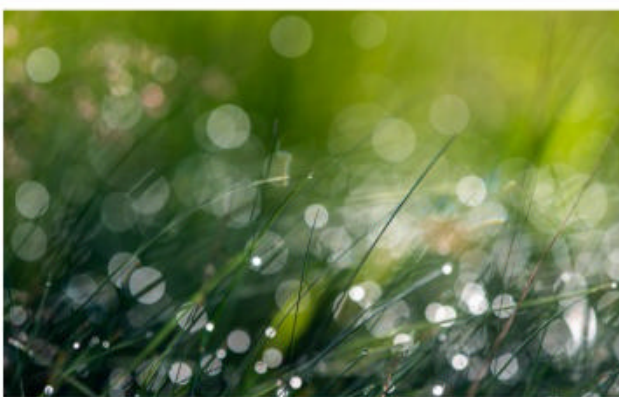
Filter size: 82mm

Dimensions: 98x139.5mm/3.9x5.5in

Weight: 995g/2.2lb



Weighing in a shade under a kilogram, it's a large and weighty lens, but not excessively so.



Out-of-focus highlights are rendered into delightful circular discs of bokeh.

likes of exposure compensation or ISO.

Given the suitability of the lens for portraiture, there's a customizable L-fn (Lens-function) button, which is duplicated so that it neatly falls under the thumb in landscape or portrait orientation shooting. Typical uses include AF-ON and AF-Hold.

Performance

While the features, specifications, build quality and handling of the Plena are all very impressive in their own right, everything comes together to make this lens more than the sum of its parts. Autofocus is fast and incredibly accurate, ensuring that it really hits the spot with excellent reliability. But it does slow down in really tricky conditions, such as very low-contrast scenes or extreme close-ups.

Fast glass can be somewhat notorious for being less than sharp, especially at the widest aperture and towards the edges and corners of the frame. The Plena dispels any such concerns with spectacular sharpness and contrast across the entire image frame, even at f/1.8. Sharpness gets even better if you stop down a little. Longitudinal or 'axial' chromatic aberration is another common problem with fast lenses but the Plena excels here as well, with negligible colour fringing around high-contrast edges just in front of or behind the plane of focus.

Naturally, it's not just about sharpness. For this type of lens in particular, the quality



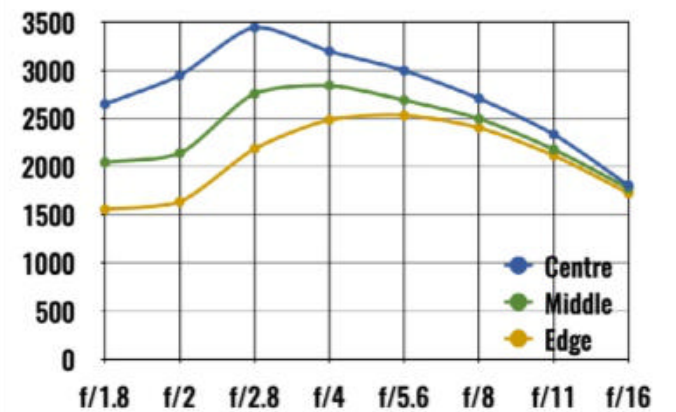
The long 135mm focal length and fast f/1.8 aperture combine for a tight depth of field.

of bokeh can be even more important as far as discerning photographers are concerned. And that's where the Plena comes into its own. The smooth silkiness of bokeh is absolutely gorgeous, with a really natural-looking roll-off in the transition between focused and defocused areas. But that's not all. Bokeh discs (typically caused by defocused small areas of light) are completely devoid of the dreaded onion-ring effect and remain amazingly well-rounded even out towards the edges and corners of the frame, rather than taking on the more common cat's-eye shape. Bokeh discs also have a fairly soft outline, despite the lens lacking an apodization filter. **N**

Features

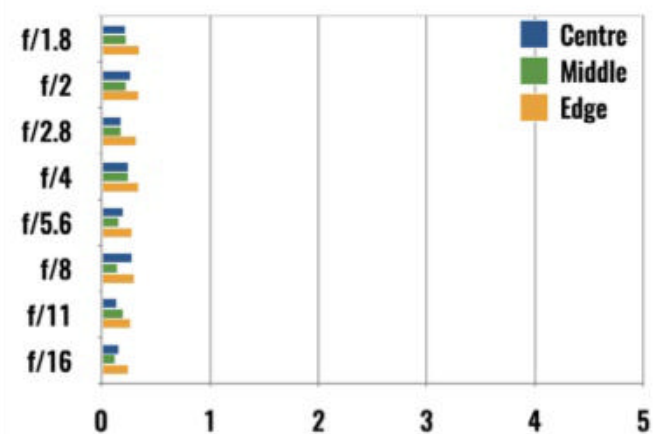
- 1 There's an 82mm filter thread, and lens coatings minimize optical anomalies.
- 2 11 rounded aperture blades ensure truly exquisite bokeh, even when stopping down.
- 3 The L-fn button is duplicated for ease of handling in landscape and portrait shooting.
- 4 The 'Plena' name is etched onto the barrel, signifying that this is something special.
- 5 Inside, 16 elements, including some pretty exotic ones, result in razor-sharp images.

Sharpness



It's a testament to the Plena's design that wide-open sharpness is so excellent right across the entire image frame. Stop down to apertures between f/2.8 and f/11 and the lens is scary-sharp from edge-to-edge and corner-to-corner.

Fringing



There's remarkably little axial chromatic aberration, even wide-open at f/1.8, while lateral chromatic aberration (more commonly noticeable towards the edges and corners of the frame) is also minimal. And that's without any automatic correction.

Distortion



There's a slight touch of pincushion distortion but it's of such a low order that you'll generally not notice it in real-world shooting, compared with taking shots of test charts. Either way, automatic in-camera correction is available.

N-Photo verdict

The Collins English Dictionary gives one definition of the word Plena as 'the condition or quality of being full'. This lens is packed with top-quality glass, high-tech coatings, a super-fast autofocus and a really well-rounded 11-blade diaphragm. Build quality is robust, handling is refined and image quality is absolutely exquisite, making it one of the best Nikon lenses of all time.





Voigtlander D23mm f/1.2 Nokton Z Aspherical

£649/\$699 www.voigtlaender.de

The Voigtlander D23mm f/1.2 Nokton Z adds extra nostalgia and some rich heritage to the Nikon Z fc and other Z DX system cameras

T

The Voigtlander D23mm f/1.2

Nokton Z Aspherical is steeped in history.

Voigtlander started making lenses all the way back in 1840, more than 180 years ago. The D23mm builds on a pioneering spirit and great attention to detail, being a thoroughly modern lens with real retro charm. Factoring the

1.5x crop factor of Nikon Z DX (APS-C format) camera bodies into the equation, the lens has the same field of view as using a 35mm lens on a full-frame camera. This 'effective' focal length is widely favoured by street photographers, who pride themselves on capturing definitive moments. Indeed, manual focusing is the convention for this type of photography,

so you can set the focus distance in advance and shoot from the hip, so to speak. We'll come back to that later.

Nikon recently launched its first Z DX format prime lens, in the diminutive and very affordable shape of the Z DX 24mm f/1.7. Another cut-price contender is the excellent Viltrox AF 23mm f/1.4 Z. Both of these lenses are autofocus lenses, although the Viltrox adds an aperture control ring and has an all-metal rather than all-plastic build. The Voigtlander beats them both for aperture speed and has definite handling benefits if manual focusing is your thing.

Key features

Although it's a manual focus lens, it's not a fully manual 'dumb lens'. It has electronics for data communication with the camera body. Even so, unlike most electronically equipped lenses with a manual aperture

Specifications

Mount: Nikon Z (DX)

Full-frame: No

Autofocus: No

Stabilization: No

Lens build: 10 elements in 6 groups

Angle of view: 63.3 degrees

Diaphragm blades: 12

Minimum aperture: f/16

Minimum focusing distance: 0.18m

Maximum magnification ratio: 0.2x

Filter size: 46mm

Dimensions: 66x45mm

Weight: 240g

ring, you can't control the aperture from the camera body when the ring is set to its narrowest setting (f/16 in this case). You can therefore only effectively shoot in aperture-priority and manual modes, but not in Program AE or shutter-priority shooting modes.

At the time of writing this review, there were no foreseeable Z DX cameras on the horizon with in-body image stabilization. However, electronic coupling lets you shoot on a Z FX (full-frame) body in DX crop mode and take advantage of 3-axis IBIS without the need to dial in 'non-CPU lens data'.

Typically for Voigtlander lenses, the D23mm looks something of a retro item but



With its stylish retro looks and clickable aperture ring, this is a perfect match for a Z fc.



This tight crop of a shot taken at f/1.2 reveals 'bokeh fringing' is well controlled.

the optical design is bang up to date. There are 10 optical elements, featuring a complex double-sided aspherical element and two 'abnormal partial-dispersion' glass elements to minimize chromatic aberration.

The f/1.2 aperture rating is a key feature, enabling relatively fast shutter speeds even when shooting under very low lighting conditions without the need to bump up the ISO setting. Despite the fairly short 23mm focal length, the super-fast aperture also enables a tight depth of field at close shooting distances. And to maintain high-quality bokeh when stopping down, the lens features a very well-rounded 12-blade aperture diaphragm.

Build and handling

The build quality of the D23mm feels deeply satisfying, based on a precision-engineered metal casing, metal control rings, metal mounting plate and even a screw-in metal hood. Ideal for candid street photography, as well as making the lens very easy to live with, it's very compact for such a 'fast' lens with a super-bright f/1.2 aperture, measuring just 66x45mm and weighing a mere 240g. However, the construction doesn't include any weather-seals.

Handling is simply sublime. As you'd hope for in a manual focus lens, the focus control ring has a long, rotational travel and a smooth, fluid feel. The aperture ring works in 1/3rd f-stop click steps but lacks a

de-click option, favoured by videographers. The Z-mount edition has its aperture ring at the rear rather than at the front of the barrel, like old-school Nikon lenses. Focus distance scales are shown in both feet and metres as well as colour-coded Depth of Field markers for apertures of f/4, f/8, f/11 and f/16 engraved on the lens.

Performance

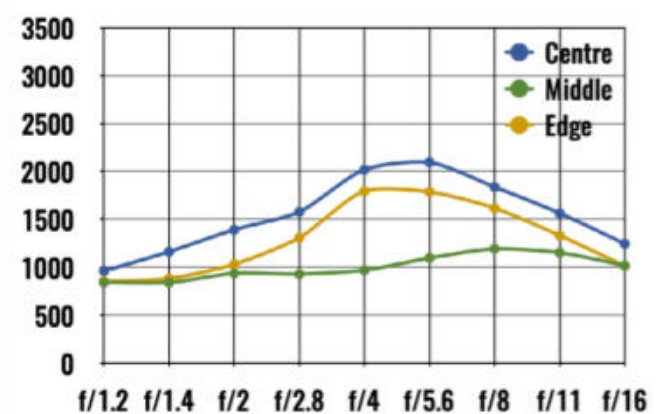
If you're after the sharpest tool in the box, this Voigtlander lens isn't for you. In our real-world testing and lab tests, we found sharpness to be a bit lacklustre at apertures wider than f/2.8. That's not unusual for lenses with such a super-fast aperture. Either way, image quality is very satisfying overall. There's good contrast and clarity even when shooting wide-open at f/1.2, with lovely colour rendition.

Summing up performance on the whole, the Voigtlander D23mm is capable of delivering gorgeous image quality and, for our money, its creamy bokeh more than makes up for any lack in razor-sharpness at really wide aperture settings. **M**

Features

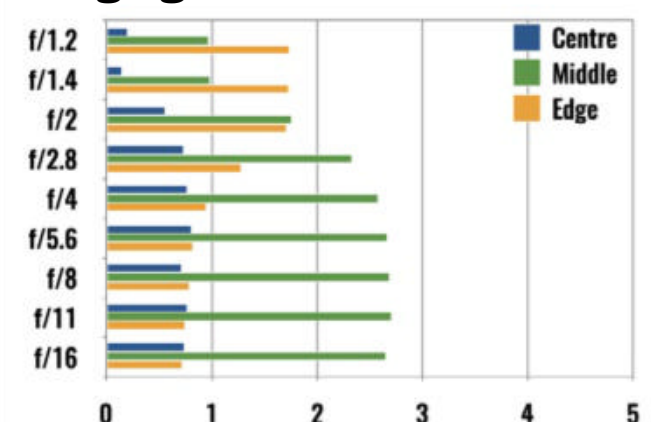
- 1 Precision engineered and immaculately finished, it's a beautiful to behold bit of kit.
- 2 Knurled focus and aperture rings enhance the excellent handling characteristics.
- 3 Wide open the lens boasts a fast f/1.2 aperture, but it's not particularly sharp.
- 4 Colour-coded markers show approximate depth of field in feet and metres.
- 5 The aperture ring, positioned towards the rear of the barrel, works in 1/3 f-stop steps.
- 6 The 23mm focal length on a DX body equates to about 35mm in full-frame terms.

Sharpness



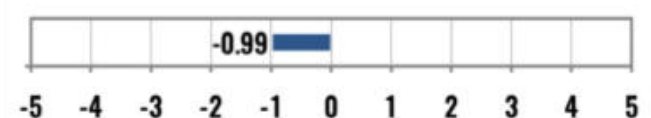
Wide-open sharpness is lacklustre but there are advantages. For example, you might not want to draw attention to every tiny blemish in portraiture. Sharpness picks up well at f/2.8, especially in the central region of the frame and at the extreme edges and corners.

Fringing



Lateral chromatic aberration can be a little noticeable but this is automatically taken care of with in-camera correction in Nikon Z-system cameras in JPEG and Raw quality settings. The lens also does very well to minimize 'bokeh fringing' at wide apertures.

Distortion



There's a slight touch of barrel distortion, for which automatic in-camera correction can be switched on but has no effect. Even so, it will generally go unnoticed in the vast majority of images.

N-Photo verdict

Designed exclusively for the latest Nikon Z DX (APS-C) format mirrorless cameras, this lens builds on a rich Voigtlander history that stretches back to the dawn of photography itself. It looks that way too, with a beautiful retro design that fits right in with the Nikon Z fc camera, and it works equally well on other Z DX bodies. This Voigtlander looks and feels a top-quality lens, a great buy at the price for a lens that's ideal for traditional street photography and more besides.



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NPhoto

Next issue

**Don't miss
N-Photo 159**

See page 24 for
our free bag
subs offer!

NEW NIKON SKILLS

24 things to shoot in '24!

Kick-start your New
Year photography
with our inspirational
shooting ideas to
get your creative
juices flowing

ALSO NEXT ISSUE

Street photography
Speedlights on test
Natural light portraits
Nikon Z 600mm f/6.3 S VR

Image: © James Paterson

ON SALE THURSDAY 18 JANUARY

•Contents subject to change

NPhoto

GEAR OF THE YEAR

2023

Join us as we roll out the red carpet and hand over this year's awards for some of the best Nikon kit we've ever seen

T

his year, perhaps more than any other, we've been truly amazed. *N-Photo* has been running for 12 years now and, for each and every one of them, we've had a sparkling stream of new kit passing through our hands and our test lab. Some cameras, lenses and accessories have always shined more brightly than others, but over the past 12 months, we've tested and reviewed kit that has a

real wow-factor. Not just once or twice, but over and over again. All in all, it's been a bumper year for new launches, while other recent products have also resurfaced in big tests. Two new camera launches over the past year really stand out but the emphasis in 2023 has been on lenses. Z-mount glass has mightily impressed us right from the start, but everything just keeps getting better, with new lenses to suit every need and budget. Here's the kit that's really bowled us over... →

WINNER: PANCAKE PRIME LENS

Nikon Z
26mm f/2.8

£529/\$497 Tested in issue 150

★ WHAT WE LOVE

Tiny but mighty, we love that the Z 26mm truly qualifies as a 'pancake lens', being just under an inch thick. You'd be forgiven for thinking that Nikon can't really squeeze much quality glass into such a small package, but we've been hugely impressed by the image quality from this lens. It's a superb optic for walkabout and travel photography with full-frame Z cameras, and also works a treat on DX format bodies, where it has a very natural 39mm effective focal length.

★ WHAT'S MISSING?

You can only fit filters via the circular HB-111 hood, which is supplied with the lens.

★ WHY UPGRADE?

If you're after a versatile, fairly fast prime lens that you can slip into a spare pocket, look no further.



WINNER: DX STANDARD PRIME LENS

Nikon Z
DX 24mm f/1.7

£289/\$277 Tested in issue 153

★ WHAT WE LOVE

Nikon's first DX format prime lens for Z-system cameras is literally a small wonder. We love that it's so compact and lightweight, making it a perfect fit for street photography and candid shooting with a slimline Z 30, Z 50 or Z fc. The focal length is ideal for wide-ranging scenarios, equating to 36mm in full-frame terms, while the fast f/1.7 aperture enables sufficiently fast shutter speeds to freeze motion, even in dull lighting. It's also great for bokeh with close-ups.



★ WHAT'S MISSING?

There's no optical VR, which can be an issue as there are currently no DX format Z cameras with IBIS.

★ WHY UPGRADE?

A fast prime is a must-have for most photographers, and the combination of this lens's field of view and aperture make it very versatile.

WINNER: DX PORTRAIT PRIME LENS

Viltrox AF
56mm f/1.4 Z

£260/\$329 Tested in issue 149

★ WHAT WE LOVE

Viltrox currently makes four f/1.4 fast primes for Z DX format cameras and we love them all. The 23mm, 33mm and 56mm are all virtually the same size and weight, have the same filter thread and feature an aperture control ring. The ultra-wide-angle 13mm is a little larger. We particularly like the way the aperture ring works so well with the Z fc's hands-on approach to controls, and we love that the 56mm works so well for portraiture, with its 84mm

effective focal length, but they're all equally appealing for different scenarios, the 23mm is excellent for street photography, while the 33mm is a great 'standard prime'.

★ WHAT'S MISSING?

There are no weather-seals but build quality is very good, with a metal barrel and mounting plate.

★ WHY UPGRADE?

For portraiture and still-life photography on a Z DX format camera, this lens ticks all the right boxes.



WINNER:
BUDGET TELEPHOTO
ZOOM LENS

Tamron 70-300mm f/4.5-6.3 Di III RXD

£649/\$599 Tested in issue 147

★ **WHAT WE LOVE**

Call us old-fashioned but we've had a soft spot for 70-300mm telephoto zooms since the days of Nikon film cameras. This Tamron is anything but 'soft' and puts a modern twist on the classic zoom range. We love the fast and virtually silent linear

stepping motor-based autofocus system for tracking action, and the weather-resistant build quality, wrapped up in a conveniently lightweight package. It's full-frame compatible and naturally gives a mightier effective zoom range of 105-450mm on DX format Z cameras.

★ **WHAT'S MISSING?**

There's no optical VR, which can be a problem when shooting on DX format Z cameras in dull lighting.

★ **WHY UPGRADE?**

This is a smart choice

for anyone wanting a generous zoom range with serious telephoto reach, in a reasonably compact and lightweight lens.



WINNER:
DX WIDE-ANGLE
PRIME LENS

Sigma 16mm f/1.4 DC | C

£449/\$499 Tested in issue 154

★ **WHAT WE LOVE**

Whereas the Nikon Z DX 24mm lens gives a very natural, if slightly wide, viewing angle, this Sigma 16mm lets you see the bigger picture. With an 'effective' focal length of 24mm, it's a great wide-angle prime for DX format Z cameras. As one of Sigma's 'Contemporary' lenses, it's built to be compact and lightweight, and we really like that it's so travel-friendly. Better still, we're impressed by its edge-to-edge sharpness, even when shooting at f/1.4.



★ **WHAT'S MISSING?**

There's no VR, nor an onboard switch for swapping between autofocus and manual focus modes, but it does come with a hood.

★ **WHY UPGRADE?**

This is a seriously smart lens for landscape and architectural photography, as well as for getting a tight depth of field in close-ups.

WINNER:
VLOGGING /
VIDEO LENS

Nikon Z DX 12-28mm f/3.5-5.6 PZ VR

£379/\$357 Tested in issue 152

★ **WHAT WE LOVE**

Last year we gave a gong to the Nikon Z 30, a practically perfect camera for vlogging. That perfection is completed by the compact but highly capable Z DX 12-28mm. We love that the wide angle of view lets you literally put yourself in the scene, ideal for travel vlogs and any time you want to include your surroundings while putting yourself centre-stage. The motorized zoom works

brilliantly well for shooting video, and the VR is highly effective.

★ **WHAT'S MISSING?**

The petal shaped HB-112 lens hood is sold separately and it doesn't come cheap, at around £35/\$42.

★ **WHY UPGRADE?**

It enables a much more expansive viewing angle than the Z DX 16-50mm lens, ideal for close-range vlogging.



WINNER:
ENTHUSIAST
CAMERA

Nikon Z f

£2299/\$1997 (body only)

Tested in issue 157

★ **WHAT WE LOVE**

On a personal note, I love the styling of the Z f so much that I leave mine on the mantelpiece when I'm not using it, as an *objet d'art*. We love that the new Z f has almost identical handling characteristics and is barely any bigger or heavier, despite being a full-frame rather than DX format camera. Despite its classic retro looks, the Z f is bang up to date with an EXPEED 7 image processor and the very latest deep-learned AI autofocus system. When it comes to performance, the Z f certainly isn't a case of style over substance. We'd add



a SmallRig grip (originally bundled with the camera) to enhance handling.

★ **WHAT'S MISSING?**

The Z f doesn't come with a battery charger but EN-EL15c

(and EN-EL15b) batteries can be charged in-camera.

★ **WHY UPGRADE?**

For photographers who

appreciate retro design and want the very latest in technical excellence and overall performance, the Z f really delivers.

**WINNER: BUDGET
FX PORTRAIT
PRIME LENS**

**Yongnuo YN85mm
f/1.8 DF DSM Z**

£320/\$345 Tested in issue 148

★ **WHAT WE LOVE**

The Nikon Z 85mm f/1.8 S is a cracking lens that's perfect for portraiture. But there's no denying it's pretty pricey for an f/1.8 prime. We love that this Yongnuo only costs half as much to buy but is really well turned out, with a tough metal barrel and mounting plate, gold-plated electronic contacts, a customizable L-fn button and AF/M focus mode switch. It also features a USB-C port for applying firmware updates. Best of all, it simply performs really well



and delivers crisp sharpness along with beautiful bokeh.

★ **WHAT'S MISSING?**

Yongnuo's 50mm lens doubles up on L-fn buttons, so they're more easily accessible in both portrait and landscape orientation shooting.

★ **WHY UPGRADE?**

If you're after a classic portrait prime for your full-frame Z camera, with an eye on budget, this lens will do you proud.

**WINNER: COMPACT
TRINITY WIDE-
ANGLE ZOOM LENS**

**Nikon Z
17-28mm f/2.8**

£1199/\$997 Tested in issue 145

★ **WHAT WE LOVE**

Last year, we gave an award to the Nikon Z 28-75mm f/2.8. It's a superb standard zoom with that all-important fast and constant f/2.8 aperture, although it's a little lacking in wide-angle potential. The Z 17-28mm puts that to rights, delivering an expansive field of view for landscape and architectural shoots. We love that it's so compact, lightweight and easy to live with for a lens that really takes the blinkers off in terms of viewing angles.

★ **WHAT'S MISSING?**

There's no AF/M focus mode switch but, as usual, the lens has a customizable focus/control ring.

★ **WHY UPGRADE?**

An ultra-wide-angle lens can really give a different perspective to your photography. This one's relatively compact, lightweight and reasonably priced.



WINNER: COMPACT TRINITY TELEPHOTO ZOOM LENS

Nikon Z
70-180mm f/2.8

£1299/\$1247

Tested in issue 155

★ WHAT WE LOVE

One of Nikon's most exciting lens launches of the year, the Z 70-180mm f/2.8 completes the lightweight 'trinity' of f/2.8 zooms. Building on the success of the Z 17-28mm and Z 28-75mm f/2.8, this takes the same constant aperture rating into telephoto territory. Conventional 70-200mm f/2.8 lenses tend to be big, heavy and very expensive, which makes this lens very easy to live with and relatively affordable to buy, and we find that we don't really miss the extra 20mm in zoom range.

★ WHAT'S MISSING?

There's no optical VR so handheld telephoto shooting is more of a challenge on DX format cameras that lack IBIS.

★ WHY UPGRADE?

This telephoto zoom with its fast f/2.8 aperture works brilliantly well for portraiture, action, sports and wildlife, without breaking the bank.



WINNER: TRAVEL TRIPOD 3 Legged Thing Punks Corey 2.0

£169/\$199 Tested in issue 151

★ WHAT WE LOVE

The Corey 2.0 was the winner in our recent big test of travel tripods. Bypassing the common choices of carbon fibre or aluminium, it's actually made from magnesium alloy. We love that it's genuinely travel-friendly, shrinking down to just 36cm and being able to stow away inside a camera bag or daypack, instead of being strapped to the outside of it. Even so, it stretches to a useful maximum operating height of 146cm and, despite weighing just 1.78kg, it's really solid with a load rating of 14kg.

★ WHAT'S MISSING?

There's no D-ring on the



head's quick-release mounting plate, so you need to use a coin or the supplied tool.

★ WHY UPGRADE?

We all need a little support from time to time. This tripod is small and light enough to take pretty much anywhere, but is rock-solid.

WINNER: SUPER-TELEPHOTO ZOOM LENS

Nikon Z
180-600mm
f/5.6-6.3 VR

£1799/\$1697 Tested in issue 157

★ WHAT WE LOVE

Much as we love the Z 70-180mm, sometimes its telephoto zoom range simply doesn't cover the distance. For birds in flight, air shows and sporting events when you physically can't get as close to the

subject as you might like, the Z 180-600mm makes all the difference. Sure, it's relatively big and heavy but we find it easily manageable even for long periods of handheld shooting, where the 5.5-stop VR comes in really useful. We also love that the pro-grade controls, image quality and all-round performance come with a very competitive price tag.

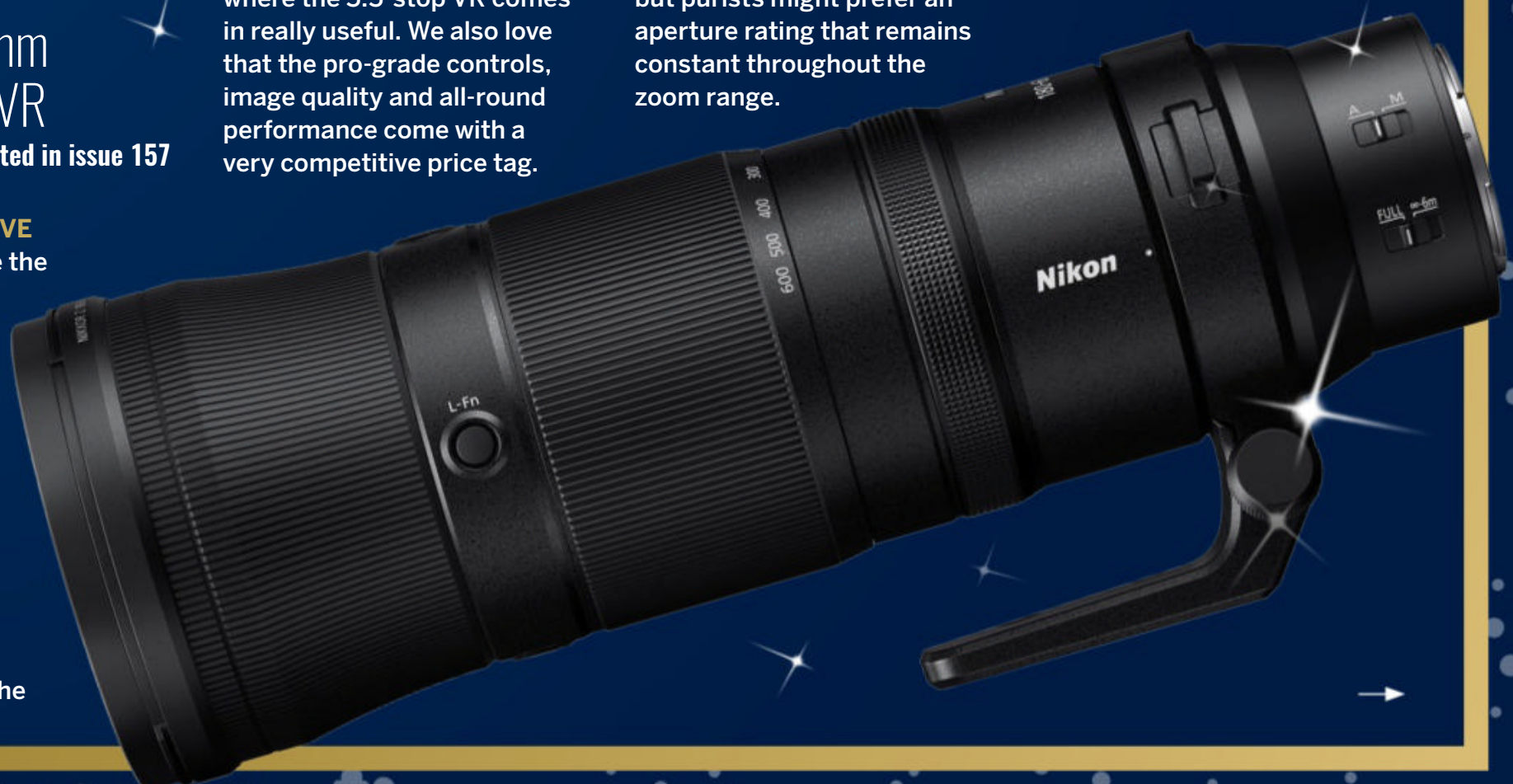
It's not a top-flight S-line lens but the image quality is epic, nonetheless.

★ WHAT'S MISSING?

There's nothing really missing but purists might prefer an aperture rating that remains constant throughout the zoom range.

★ WHY UPGRADE?

It's a must-have lens for any photographer who wants to shoot birds and other small wildlife, aircraft and the like, without blowing the budget.



WINNER:
BOKEH LENS

**Nikon Z 135mm
f/1.8 S Plena**

£2699/\$2497

Tested in issue 158

★ **WHAT WE LOVE**

85mm might be the classic focal length for full-frame portraiture but 135mm is a better fit for really tight head-and-shoulders shots, and for shooting from a more discreet distance. Nikon bills this lens as the first to maximize the potential of the Z-mount flange's large diameter and close proximity to the image sensor. The result is a medium telephoto focal length with a fast f/1.8 aperture that's great in itself, but we're most impressed by the beauty of

the bokeh and the relative absence of vignetting.

★ **WHAT'S MISSING?**

As with the Z 85mm f/1.2, there's no optical VR but that's essentially unnecessary and bokeh quality is maximized.

★ **WHY UPGRADE?**

This is a fabulous lens for full creative freedom for both stills and video.



WINNER:
FILTER HOLDER

**Cokin NX-Series
Filter Holder**

£100/\$90 Tested in issue 154

★ **WHAT WE LOVE**

It's pretty rare to find a fully professional-grade bit of kit for just £100/\$90. Naturally though, that's the price of just the filter holder in this case, not including any filters. You'll also need aluminium frames for slotting your filters into the holder. However, we love the way the whole system comes together, using ball bearings to smoothly slot one or two square or rectangular filters into the low-profile housing, as well as accommodating a circular polarizing filter, complete with a control wheel built into the holder.



★ **WHAT'S MISSING?**

You need to buy the relevant aluminium frames separately for mounting square or rectangular filters.

★ **WHY UPGRADE?**

There are plenty of filter holders and complete filter systems on the market but the Cokin NX Series works particularly well.

WINNER:
**PROFESSIONAL-
GRADE CAMERA**

Nikon Z 8

£3999/\$3997 Tested in issue 151

★ **WHAT WE LOVE**

The comparatively veteran Z 6II won out as our 'everyman' camera in issue 155's big test but, money no object, the Z 8 is a phenomenon. It packs all of the best bits of the mighty Z 9 into a comparatively compact and lightweight build. We love the pro-style control layout that gives the Z 8 superb handling characteristics for creative photography, along with its intuitive 4-axis tilting touchscreen. The combination of 45.7MP FX format stacked BSI CMOS sensor and EXPEED 7 processor deliver spectacular performance and image quality,

for both stills and video. There's no denying that it's a little bulky compared with the Z 6II and Z 7II, but handling is altogether excellent, and the camera feels very natural when using larger, heavier lenses.

★ **WHAT'S MISSING?**

Being 30 per cent smaller than the Z 9, it doesn't feature a built-in vertical grip with duplicate shooting controls.

★ **WHY UPGRADE?**

It's twice the price of the Z 6II but for the ultimate in all-round performance, the Z 8 is a powerhouse.



WINNER:
TRINITY TELEPHOTO
ZOOM LENS
Nikon Z 70-200mm
f/2.8 VR S

£2499/\$2397 Tested in issue 156

★ **WHAT WE LOVE**

Many of the most demanding photographers tend to only shoot with prime lenses. A 70-200mm f/2.8 is often the exception to the rule, seen as the only really essential zoom lens to earn a place in the kit bag. And they don't get any better than this. As with Nikon's other top-flight 14-24mm and 24-70mm f/2.8 trinity zooms, we love this lens's highly sophisticated controls and OLED info screen. But it's the sheer image quality of the

70-200mm that really dazzles, backed up by super-fast autofocus and highly effective stabilization. The lens works supremely well for everything from sports and wildlife to portraiture, wedding and event photography.

★ **WHAT'S MISSING?**

Tipping the scales at 1360g, it's getting on for twice the weight of the Z 70-180mm f/2.8, and is about twice the price.

★ **WHY UPGRADE?**

If you want the best 70-200mm zoom on the planet, look no further. It's an absolute classic.



WINNER:
SUPER-TELEPHOTO
PRIME LENS
Nikon Z 600mm
f/4 TC VR S

£15,499/\$15,497

Tested in issue 146

★ **WHAT WE LOVE**

If you're going to spend as much on a lens as many of us would pay for a family car, it needs to be something special. And this one certainly is. Its built-in teleconverter gives the options of 600mm and 840mm focal lengths and

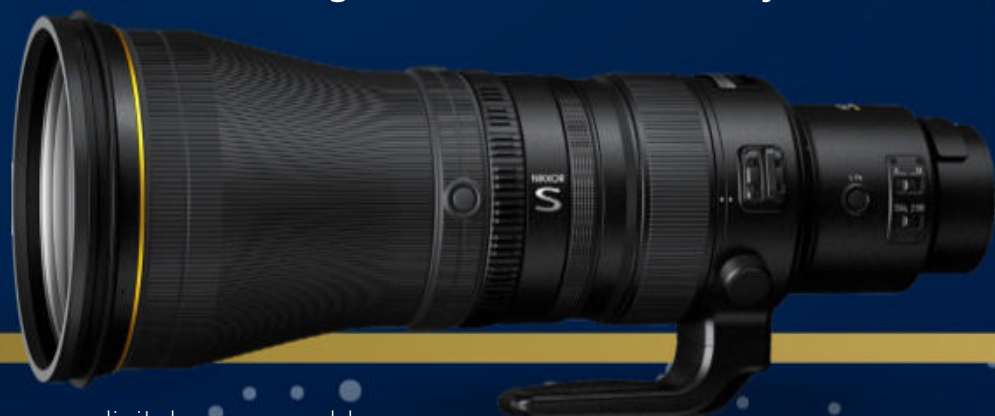
it's compatible with Nikon's separate 1.4x and 2.0x Z-mount teleconverters. We're impressed that the lens is scary-sharp but we love most that the ultra-fast 'Silky Swift Voice Coil Motor' autofocus system and 5-stop optical VR deliver an amazing hit rate.

★ **WHAT'S MISSING?**

It would be nice if an interest-free loan was part of the overall package.

★ **WHY UPGRADE?**

When you simply have to nail the decisive moment in action, sport and wildlife photography, this monster of a lens won't let you down.



WINNER:
PORTRAIT
PRIME LENS
Nikon Z
85mm f/1.2 S

£2999/\$2797

Tested in issue 151

★ **WHAT WE LOVE**

Ultra-fast prime lenses are notorious for being a bit soft, especially when shooting wide-open. The Z 85mm f/1.2 S rewrites the rule book, delivering scintillating sharpness throughout its entire aperture range, along with negligible colour fringing. But photographic quality isn't just about sharpness. What we really love about this lens is that the combination of focal length and f/1.2 aperture enables a really tight depth of



field, and that the quality of bokeh is so deliciously soft and dreamy. It's a portrait prime to rule them all.

★ **WHAT'S MISSING?**

It's not the least bit surprising that such a fast lens lacks optical VR, but it can take full advantage of the IBIS in all full-frame Z cameras.

★ **WHY UPGRADE?**

It's an undeniably expensive lens but if you want the very best portrait prime on the market, it's well worth the asking price. 📷

Nikon cameras

The current range of Nikon DSLR, Coolpix & Z-series mirrorless cameras

Current market prices are checked regularly with reputable stores to serve as a guideline. Body-only prices quoted unless stated. Different lens bundles are available. Prices correct at time of going to press.

Category	Model	Description	Tested In Issue 155 Price																
DX DSLRS	NIKON D7500	THE D7500 SHOEHORNS the best bits from the now discontinued pro-grade D500 into a smaller more affordable body. The control layout makes everything is easy to get at, and there's a top-plate info LCD, 51-point autofocus system, fast 1/8000 sec shutter speed and 8fps continuous drive rate. Video resolution stretches to 4K. ★★★★★	TESTED IN ISSUE 155 • £1049/\$897																
			<table border="1"> <tr><td>Sensor</td><td>20.9Mp, DX (5568x3712)</td></tr> <tr><td>Processor</td><td>EXPEED 5</td></tr> <tr><td>Viewfinder</td><td>Pentaprism, 0.94x, 100%</td></tr> <tr><td>ISO</td><td>100-51,200 (50-1,640,000 expanded)</td></tr> <tr><td>AF</td><td>51-point (15 cross-type)</td></tr> <tr><td>LCD</td><td>3.2-inch, tilt, touch</td></tr> <tr><td>Max burst (buffer)</td><td>8fps (50 Raw)</td></tr> <tr><td>Memory card</td><td>SDXC UHS-I</td></tr> </table>	Sensor	20.9Mp, DX (5568x3712)	Processor	EXPEED 5	Viewfinder	Pentaprism, 0.94x, 100%	ISO	100-51,200 (50-1,640,000 expanded)	AF	51-point (15 cross-type)	LCD	3.2-inch, tilt, touch	Max burst (buffer)	8fps (50 Raw)	Memory card	SDXC UHS-I
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NIKON D780	THE D780 TAKES the D750's winning design and handling cues, but adds on-sensor phase-detection autofocus and EXPEED 6 processing, inherited directly from the Z 6, resulting in a capable and natural-feeling DSLR for shooting stills in viewfinder mode, coupled with the same kind of performance as a mirrorless camera in live view. ★★★★★	TESTED IN ISSUE 155 • £2029/\$1897																	
		<table border="1"> <tr><td>Sensor</td><td>24.5Mp, FX (6048x4024)</td></tr> <tr><td>Processor</td><td>EXPEED 6</td></tr> <tr><td>Viewfinder</td><td>Pentaprism, 0.7x, 100%</td></tr> <tr><td>ISO</td><td>100-51,200 (50-204,800 expanded)</td></tr> <tr><td>AF</td><td>51-point (15 cross-type)</td></tr> <tr><td>LCD</td><td>3.2-inch, 2359k, tilt, touch</td></tr> <tr><td>Max burst (buffer)</td><td>7fps (68-100 Raw)</td></tr> <tr><td>Memory card</td><td>Two SDXC UHS-II</td></tr> </table>	Sensor	24.5Mp, FX (6048x4024)	Processor	EXPEED 6	Viewfinder	Pentaprism, 0.7x, 100%	ISO	100-51,200 (50-204,800 expanded)	AF	51-point (15 cross-type)	LCD	3.2-inch, 2359k, tilt, touch	Max burst (buffer)	7fps (68-100 Raw)	Memory card	Two SDXC UHS-II	
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Memory card	Two SDXC UHS-II																		
NIKON D850	THE D850 GOES extra-large in megapixel count with a 45.7Mp image sensor. Further attractions include a high-spec 153-point autofocus system and fairly recent EXPEED 5 processor. For live view and video capture, however, the contrast-detection autofocus system is massively inferior to that of Nikon's mirrorless cameras and the D780. ★★★★★	TESTED IN ISSUE 155 • £2339/\$2497																	
		<table border="1"> <tr><td>Sensor</td><td>45.7Mp, FX (8256x5504)</td></tr> <tr><td>Processor</td><td>EXPEED 5</td></tr> <tr><td>Viewfinder</td><td>Pentaprism, 0.75x, 100%</td></tr> <tr><td>ISO</td><td>64-25,600 (32-102,400 expanded)</td></tr> <tr><td>AF</td><td>153-point (99 cross-type)</td></tr> <tr><td>LCD</td><td>3.2-inch, 2359k, tilt, touch</td></tr> <tr><td>Max burst (buffer)</td><td>7fps (29-200 Raw)</td></tr> <tr><td>Memory card</td><td>One XQD/CFexpress, one SDXC UHS-II</td></tr> </table>	Sensor	45.7Mp, FX (8256x5504)	Processor	EXPEED 5	Viewfinder	Pentaprism, 0.75x, 100%	ISO	64-25,600 (32-102,400 expanded)	AF	153-point (99 cross-type)	LCD	3.2-inch, 2359k, tilt, touch	Max burst (buffer)	7fps (29-200 Raw)	Memory card	One XQD/CFexpress, one SDXC UHS-II	
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FX DSLRS	NIKON D6	THE D6 HAS the best autofocus module of any DSLR in Nikon's history, based on a 105-point system in which all of the points are cross-type. Eye-detection is also available in 3D tracking mode and the 14fps burst rate is impressive. The flipside is that the D6 only has a 20.8Mp image sensor. One significant advantage over the Z 9 is a 3,580-shot battery life. ★★★★★	TESTED IN ISSUE 155 • £6799/\$6497																
			<table border="1"> <tr><td>Sensor</td><td>20.8Mp, FX (5568x3712)</td></tr> <tr><td>Processor</td><td>EXPEED 6</td></tr> <tr><td>Viewfinder</td><td>Pentaprism, 0.72x, 100%</td></tr> <tr><td>ISO</td><td>100-102,400 (50-3,280,000 expanded)</td></tr> <tr><td>AF</td><td>105-point (105 cross-type)</td></tr> <tr><td>LCD</td><td>3.2-inch, 2359k, touch</td></tr> <tr><td>Max burst (buffer)</td><td>14fps (105-186 Raw)</td></tr> <tr><td>Memory card</td><td>Two XQD/CFexpress</td></tr> </table>	Sensor	20.8Mp, FX (5568x3712)	Processor	EXPEED 6	Viewfinder	Pentaprism, 0.72x, 100%	ISO	100-102,400 (50-3,280,000 expanded)	AF	105-point (105 cross-type)	LCD	3.2-inch, 2359k, touch	Max burst (buffer)	14fps (105-186 Raw)	Memory card	Two XQD/CFexpress
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Memory card	Two XQD/CFexpress																		
COOLPIX	NIKON P950	SMALLER & LIGHTER than the P1000, the P950 has broader appeal, but a smaller full-frame equivalent zoom range of 24-2000mm. Like all bridge cameras, image quality is the pay-off for unrivalled versatility. £849/\$697 ★★★★★																	
																			
	NIKON P1000	ANOTHER BRIDGE CAMERA, the P1000 offers a zoom range equivalent to 24-3000mm in full-frame terms, so it's ready for any shooting situation. The camera has a 16Mp sensor and supports Raw photography. £1049/\$997 ★★★★★																	
																			
DX Z-SERIES	NIKON Z 30	THE Z 30 LOOKS and feels like the Z 50 with the viewfinder lopped off, and the tilting rear screen replaced by the vari-angle screen of the Z fc. The rangefinder style makes the camera about 20mm shorter and 40g lighter. The Z 30 is good value for vloggers, with little difference in image or video quality between it and the Z 50/Z fc. ★★★★★	TESTED IN ISSUE 155 • £599/\$607																
			<table border="1"> <tr><td>Sensor</td><td>20.9Mp, DX (5568x3712)</td></tr> <tr><td>Processor</td><td>EXPEED 6</td></tr> <tr><td>Viewfinder</td><td>None</td></tr> <tr><td>ISO</td><td>100-51,200 (100-204,800 expanded)</td></tr> <tr><td>AF</td><td>209-point</td></tr> <tr><td>LCD</td><td>3-inch, 1040k, vari-angle, touch</td></tr> <tr><td>Max burst (buffer)</td><td>11fps (30-35 Raw)</td></tr> <tr><td>Memory card</td><td>SDXC UHS-I</td></tr> </table>	Sensor	20.9Mp, DX (5568x3712)	Processor	EXPEED 6	Viewfinder	None	ISO	100-51,200 (100-204,800 expanded)	AF	209-point	LCD	3-inch, 1040k, vari-angle, touch	Max burst (buffer)	11fps (30-35 Raw)	Memory card	SDXC UHS-I
	Sensor	20.9Mp, DX (5568x3712)																	
Processor	EXPEED 6																		
Viewfinder	None																		
ISO	100-51,200 (100-204,800 expanded)																		
AF	209-point																		
LCD	3-inch, 1040k, vari-angle, touch																		
Max burst (buffer)	11fps (30-35 Raw)																		
Memory card	SDXC UHS-I																		
NIKON Z 50	WITH ITS DOWNSIZED DX format image sensor, the Z 50 nevertheless inherits the same oversized lens mount from full-frame Z system bodies. The slimline build makes the most of the mirrorless design ethic. The 20.9Mp image sensor matches the megapixel count of the later Z fc and Z 30. It's a real joy to use and very travel-friendly. ★★★★★	TESTED IN ISSUE 155 • £759/\$757																	
		<table border="1"> <tr><td>Sensor</td><td>20.9Mp, DX (5568x3712)</td></tr> <tr><td>Processor</td><td>EXPEED 6</td></tr> <tr><td>Viewfinder</td><td>OLED, 2360k, 0.39-inch, 100%</td></tr> <tr><td>ISO</td><td>100-51,200 (100-204,800 expanded)</td></tr> <tr><td>AF</td><td>209-point</td></tr> <tr><td>LCD</td><td>3.2-inch, 1040k, tilt, touch</td></tr> <tr><td>Max burst (buffer)</td><td>11fps (30-35 Raw)</td></tr> <tr><td>Memory card</td><td>SDXC UHS-I</td></tr> </table>	Sensor	20.9Mp, DX (5568x3712)	Processor	EXPEED 6	Viewfinder	OLED, 2360k, 0.39-inch, 100%	ISO	100-51,200 (100-204,800 expanded)	AF	209-point	LCD	3.2-inch, 1040k, tilt, touch	Max burst (buffer)	11fps (30-35 Raw)	Memory card	SDXC UHS-I	
Sensor	20.9Mp, DX (5568x3712)																		
Processor	EXPEED 6																		
Viewfinder	OLED, 2360k, 0.39-inch, 100%																		
ISO	100-51,200 (100-204,800 expanded)																		
AF	209-point																		
LCD	3.2-inch, 1040k, tilt, touch																		
Max burst (buffer)	11fps (30-35 Raw)																		
Memory card	SDXC UHS-I																		



DX-Z-SERIES

NIKON Z FC



IT'S NOT JUST the retro chic styling that make the Z fc so alluring. The direct-access shutter speed, exposure compensation and ISO dials, as well as the usual command dial for aperture control, enable a really hands-on approach to creative shooting. It features highly competent people/animal autofocus modes, along with a vari-angle touchscreen. ★★★★★

TESTED IN ISSUE 155 • £789/\$857

Sensor	20.9Mp, DX (5568x3712)
Processor	EXPEED 6
Viewfinder	OLED, 2360k, 0.39-inch, 100%
ISO	100-51,200 (100-204,800 expanded)
AF	209-point
LCD	3-inch, 1040k, vari-angle, touch
Max burst (buffer)	11fps (30-35 Raw)
Memory card	SDXC UHS-I

NIKON Z 5



THE MOST 'AFFORDABLE' FX format mirrorless Nikon camera, the Z 5 costs much less than the Z 6II, although it lacks a top-panel OLED display. Dual card slots enable instant backups while you shoot. Like all other FX format Z-system cameras, the Z 5 features 5-axis IBIS, which is a major plus point over the DX format cameras. ★★★★★

TESTED IN ISSUE 155 • £1029/\$997

Sensor	24.3Mp, FX (6016x4016)
Processor	EXPEED 6
Viewfinder	OLED, 3690k, 0.5-inch, 100%
ISO	100-51,200 (50-102,400 expanded)
AF	273-point
LCD	3.2-inch, 1040k, tilt, touch
Max burst (buffer)	4.5fps (100 Raw)
Memory card	Two SDXC UHS-II

NIKON Z 6II



THE Z 6II HAS a pair of late-generation EXPEED 6 processors, a superb 3690k OLED electronic viewfinder and tilting 2100k touchscreen, as well as an identical control layout to the Z 7II. But with fewer megapixels to process, the Z 6II beats the Z 7II with a 14fps rather than 10fps drive rate, and the buffer holds around twice as many Raw files. ★★★★★

TESTED IN ISSUE 155 • £1639/\$1597

Sensor	24.5Mp, FX (6048x4024)
Processor	Dual EXPEED 6
Viewfinder	OLED, 3690k, 0.5-inch, 100%
ISO	100-51,200 (50-204,800 expanded)
AF	273-point
LCD	3.2-inch, 2100k, tilt, touch
Max burst (buffer)	14fps (19-200 Raw)
Memory card	One XQD/CFexpress, one SDXC UHS-II

NIKON Z F



ITS RETRO DESIGN may be heavily inspired by the classing Nikon FM2 film camera, complete with brass dials for inputting exposure settings, but this stylish full-frame mirrorless Nikon is crammed with the latest tech. With an EXPEED 7 processor at its heart, it has better ISO, AF and subject tracking capabilities than the Z 6II, and a trick pixel-shift mode for super-hi-res images. ★★★★★

TESTED IN ISSUE 157 • £2299/\$1997

Sensor	24.5Mp, FX (6048x4024)
Processor	EXPEED 7
Viewfinder	OLED, 3690k, 0.5-inch, 100%
ISO	100-64,000 (50-204,800 expanded)
AF	299-point
LCD	3.2-inch, 2100k, tilt, vari-angle
Max burst (buffer)	7.8fps Raw (35 Raw), 30fps JPEG
Memory card	One SDXC UHS-II, one MicroSD

FX-Z-SERIES

NIKON Z 7II



A MASSIVE 45.7MP super-high-res image sensor and astonishing 493 phase-detection AF points in its hybrid autofocus system are the chief enhancements over the Z 6II. Dual XQD/CFexpress and SDXC memory card slots are a big bonus over the single XQD slot of the original Z 7, and the bigger memory buffer enables much longer bursts. ★★★★★

TESTED IN ISSUE 155 • £2449/\$2297

Sensor	45.7Mp, FX (8256x5504)
Processor	Dual EXPEED 6
Viewfinder	OLED, 3690k, 0.5-inch, 100%
ISO	64-25,600 (32-102,400 expanded)
AF	493-point
LCD	3.2-inch, 2100k, tilt, touch
Max burst (buffer)	10fps (46-82 Raw)
Memory card	One XQD/CFexpress, one SDXC UHS-II

NIKON Z 8



SHARING THE SAME new-generation EXPEED 7 image processor as the Z 9, the Z 8 is step ahead of the Z 6II and Z 7II, boasting 'intelligent' autofocus recognition and tracking for vehicles in addition to people and animals. Its fully electronic shutter matches the Z 9's 1/32,000 sec max shutter speed and 20-120fps burst rate. ★★★★★

TESTED IN ISSUE 155 • £3789/\$3697

Sensor	45.7Mp, FX (8256x5504)
Processor	EXPEED 7
Viewfinder	OLED, 3690k, 0.5-inch, 100%
ISO	64-25,600 (32-102,400 expanded)
AF	493-point
LCD	3.2-inch, 2100k, v/h tilt, touch
Max burst (buffer)	20fps Raw (79-1000 Raw), 120fps JPEG
Memory card	One XQD/CFexpress, one SDXC UHS-II

NIKON Z 9



HEADLINE ATTRACTIONS INCLUDE shutter speeds up to 1/32,000 sec and a 120fps continuous drive rate in JPEG mode – dropping to 20fps Raws, albeit with a massive 1000-shot buffer. A built-in vertical grip offers duplicated shooting controls and houses an EN-EL18d battery with sufficient stamina for 700-770 shots. ★★★★★

TESTED IN ISSUE 155 • £4849/\$5497

Sensor	45.7Mp, FX (8256x5504)
Processor	EXPEED 7
Viewfinder	OLED, 3690k, 0.5-inch, 100%
ISO	64-25,600 (32-102,400 expanded)
AF	493-point
LCD	3.2-inch, 2100k, v/h tilt, touch
Max burst (buffer)	20fps Raw (79-1000 Raw), 120fps JPEG
Memory card	Two XQD/CFexpress

Nikon-fit lenses

Your at-a-glance guide to the current crop of Nikon-fit lenses

KEY: ■ BEST ON TEST ■ GOLD AWARD ■ GREAT VALUE ■ Ratings/awards based on most recent review or Big Test. Current market prices are checked regularly with reputable stores to serve as a guideline. Prices correct at time of going to press.

	LENS NAME	Price	Mount	DX/FX	Max zoom	Stabilizer	Autofocus	Weight	Min focus	Magnification	Filter size	Aperture blades	Issue reviewed	Rating	Awards
WIDE ZOOMS	Nikon AF-S 8-15mm f/3.5-4.5E ED	£1449/\$1246	F	FX	1.9x	No	Ultrasonic	485g	0.16m	0.34x	None	7	149	★★★★★	
	Nikon AF-P DX 10-20 mm f/4.5-5.6G VR	£299/\$308	F	DX	2x	Yes	Pulse	230g	0.22m	0.17x	72mm	7	149	★★★★★	■
	Nikon AF-S DX 10-24mm f/3.5-4.5G ED	£949/\$900	F	DX	2.4x	No	Ultrasonic	460g	0.24m	0.2x	77mm	7	77	★★★★★	
	Nikon AF-S 14-24mm f/2.8G ED	£1619/\$1749	F	FX	1.7x	No	Ultrasonic	1000g	0.28m	0.15x	None	9	122	★★★★★	
	Nikon AF-S 16-35mm f/4G ED VR	£1149/\$1097	F	FX	2.5x	Yes	Ultrasonic	680g	0.28m	0.25x	77mm	9	149	★★★★★	
	Nikon Z DX 12-28mm f/3.5-5.6 PZ VR	£329/\$357	Z	DX	2.3x	Yes	Stepping	205g	0.19m	0.21x	67mm	7	152	★★★★★	
	Nikon Z 14-24mm f/2.8 S	£2169/\$2497	Z	FX	1.7x	No	Stepping	650g	0.28m	0.13x	112mm	9	149	★★★★★	■
	Nikon Z 14-30mm f/4 S	£1069/\$1347	Z	FX	2.1x	No	Ultrasonic	485g	0.28m	0.16x	82mm	7	149	★★★★★	■
	Nikon Z 17-28mm f/2.8	£1099/\$1200	Z	FX	1.65x	No	Stepping	450g	0.19m	0.19x	67mm	9	145	★★★★★	■
	Sigma 12-24mm f/4 DG HSM A	£1259/\$1299	F	FX	2x	No	Ultrasonic	1150g	0.24m	0.2x	None	9	149	★★★★★	
	Sigma 14-24mm f/2.8 DG HSM A	£1169/\$1299	F	FX	0.19x	No	Ultrasonic	1150g	0.26m	0.19x	None	9	149	★★★★★	■
	Tamron SP AF 10-24mm f/3.5-4.5 Di II VC HLD	£459/\$500	F	DX	2.4x	Yes	Modulated	440g	0.24m	0.19x	77mm	7	135	★★★★★	■
Tamron SP 15-30mm f/2.8 Di VC USD	£1169/\$1300	F	FX	2x	Yes	Ultrasonic	1100g	0.28m	0.2x	None	9	142	★★★★★		
Tokina atx-i 11-16mm f/2.8 CF Plus	£480/\$449	F	DX	1.5x	No	Electric	555g	0.3m	0.09x	77mm	9	32	★★★★★		
Tokina atx-i 11-20mm f/2.8	£500/\$529	F	DX	1.8x	No	Ultrasonic	560g	0.28m	0.12x	82mm	9	135	★★★★★		
Tokina Opera 16-28mm f/2.8 FF	£700/\$700	F	FX	1.7x	No	Electric	940g	0.28m	0.19x	None	9	101	★★★★★		
STANDARD ZOOMS	Nikon AF-S 24-70mm f/2.8E ED VR	£2099/\$2400	F	FX	2.9x	Yes	Ultrasonic	1070g	0.38m	0.27x	82mm	9	138	★★★★★	
	Nikon AF-S 24-85mm f/3.5-4.5G ED VR	£579/\$500	F	FX	3.5x	Yes	Ultrasonic	465g	0.38m	0.22x	72mm	7	88	★★★★★	
	Nikon AF-S 24-120mm f/4G ED VR	£1069/\$1097	F	FX	5x	Yes	Ultrasonic	710g	0.45m	0.24x	77mm	9	153	★★★★★	
	Nikon Z DX 16-50mm f/3.5-6.3 VR	£329/\$307	Z	DX	3.1x	Yes	Stepping	135g	0.2m	0.2x	46mm	7	153	★★★★★	
	Nikon Z 24-50mm f/4-6.3	£449/\$397	Z	FX	2x	No	Stepping	195g	0.35m	0.17x	52mm	7	153	★★★★★	
	Nikon Z 24-70mm f/2.8 S	£1899/\$2300	Z	FX	2.9x	No	Ultrasonic	805g	0.38m	0.22x	82mm	7	138	★★★★★	■
	Nikon Z 24-70mm f/4 S	£949/\$997	Z	FX	2.9x	No	Stepping	500g	0.3m	0.3x	72mm	7	153	★★★★★	
	Nikon Z 24-120mm f/4 S	£899/\$1097	Z	FX	5x	No	Stepping	630g	0.35m	0.39x	77mm	9	153	★★★★★	
	Nikon Z 28-75mm f/2.8	£849/\$897	Z	FX	2.7x	No	Stepping	565g	0.39m	0.34x	67mm	9	153	★★★★★	■
	Sigma 24-70mm f/2.8 DG OS HSM A	£1149/\$1299	F	FX	2.9x	Yes	Ultrasonic	1020g	0.37m	0.21x	82mm	9	153	★★★★★	
	Sigma 24-105mm f/4 DG OS HSM A	£639/\$899	F	FX	4.4x	Yes	Ultrasonic	885g	0.45m	0.22x	82mm	9	153	★★★★★	■
	Tamron SP AF 24-70mm f/2.8 Di VC USD G2	£1199/\$1200	F	FX	2.9x	Yes	Ultrasonic	905g	0.38m	0.2x	82mm	9	88	★★★★★	
TELEPHOTO ZOOMS	Nikon AF-S 70-200mm f/2.8E FL ED VR	£2199/\$2350	F	FX	2.9x	Yes	Ultrasonic	1430g	1.1m	0.21x	77mm	9	156	★★★★★	■
	Nikon AF-P DX 70-300mm f/4.5-6.3G ED VR	£385/\$397	F	DX	4.3x	Yes	Stepping	415g	1.1m	0.22x	58mm	7	148	★★★★★	
	Nikon AF-P 70-300mm f/4.5-5.6E ED VR	£629/\$597	F	FX	4.3x	Yes	Ultrasonic	680g	1.2m	0.25x	67mm	9	148	★★★★★	■
	Nikon AF-S 80-400mm f/4.5-5.6G ED VR	£2299/\$2297	F	FX	5x	Yes	Ultrasonic	1570g	1.5m	0.2x	77mm	9	157	★★★★★	
	Nikon AF-S 120-300mm f/2.8E FL ED SR VR	£10499/\$9500	F	FX	2.5x	Yes	Ultrasonic	3250g	2m	0.16x	112mm	9	156	★★★★★	
	Nikon AF-S 200-500mm f/5.6E ED VR	£1399/\$1397	F	FX	2.5x	Yes	Ultrasonic	2300g	2.2m	0.22x	95mm	9	157	★★★★★	
	Nikon Z DX 50-250mm f/4.5-6.3 VR	£289/\$377	Z	DX	5x	Yes	Stepping	405g	0.5m	0.23x	62mm	7	148	★★★★★	■
	Nikon Z 70-180mm f/2.8	£1199/\$1247	Z	FX	2.6x	No	Stepping	795g	0.27m	0.48x	67mm	9	156	★★★★★	
	Nikon Z 70-200mm f/2.8 VR S	£2149/\$2600	Z	FX	2.9x	Yes	Stepping	1140g	0.5m	0.2x	77mm	9	156	★★★★★	■
	Nikon Z 100-400mm f/4.5-5.6 VR S	£2199/\$2697	Z	FX	4x	No	Stepping	1355g	0.75m	0.38x	77mm	9	157	★★★★★	■
	Nikon Z 180-600mm f/5.6-6.3 VR	£1799/\$1697	Z	FX	3.3x	Yes	Stepping	1955g	1.3m	0.25x	95mm	9	157	★★★★★	■
	Sigma 50-100mm f/1.8 DC HSM A	£999/\$1100	F	DX	2x	No	Ultrasonic	1490g	0.95m	0.15x	82mm	9	72	★★★★★	
Sigma 60-600mm f/4.5-6.3 DG OS HSM S	£1699/\$2000	F	FX	10x	Yes	Ultrasonic	2700g	0.6m	0.3x	105mm	9	127	★★★★★		
Sigma 70-200mm f/2.8 DG OS HSM S	£1099/\$1380	F	FX	2.9x	Yes	Ultrasonic	1805g	0.95m	0.21x	82mm	11	156	★★★★★	■	
Sigma 100-400mm f/5-6.3 DG OS HSM C	£699/\$699	F	FX	4x	Yes	Ultrasonic	1160g	1.6m	0.26x	67mm	9	157	★★★★★	■	
Sigma 120-300mm f/2.8 DG OS HSM S	£2699/\$3600	F	FX	2.5x	Yes	Ultrasonic	3390g	1.5-2.5m	0.12x	105mm	9	156	★★★★★	■	
Sigma 150-600mm f/5-6.3 DG OS HSM C	£849/\$939	F	FX	4x	Yes	Ultrasonic	1930g	2.8m	0.2x	95mm	9	157	★★★★★	■	
Sigma 150-600mm f/5-6.3 DG OS HSM S	£1429/\$2000	F	FX	4x	Yes	Ultrasonic	2860g	2.6m	0.2x	105mm	9	137	★★★★★		
Tamron SP 70-200mm f/2.8 Di VC USD G2	£1369/\$1200	F	FX	2.9x	Yes	Ultrasonic	1500g	0.95m	0.16x	77mm	9	156	★★★★★	■	
Tamron 70-300mm f/4.5-6.3 Di III RXD	£649/\$699	Z	FX	4.3x	No	Stepping	580g	0.8-1.5m	0.11-0.2x	67mm	7	148	★★★★★		
Tamron SP AF 70-300mm f/4-5.6 Di VC USD	£325/\$450	F	FX	4.3x	Yes	Ultrasonic	765g	1.5m	0.25x	62mm	9	109	★★★★★		
Tamron 100-400mm f/4.5-6.3 Di VC USD	£799/\$799	F	FX	4x	Yes	Ultrasonic	1115g	1.5m	0.28x	67mm	9	157	★★★★★		
Tamron SP 150-600mm f/5-6.3 Di VC USD G2	£1279/\$1399	F	FX	4x	Yes	Ultrasonic	2010g	2.2m	0.26x	95mm	9	157	★★★★★		
SUPERZOOMS	Nikon AF-S DX 18-140mm f/3.5-5.6G ED VR	£579/\$500	F	DX	7.8x	Yes	Ultrasonic	490g	0.45m	0.23x	67mm	7	27	★★★★★	
	Nikon AF-S DX 18-300mm f/3.5-6.3G ED VR	£629/\$700	F	DX	16.7x	Yes	Ultrasonic	550g	0.48m	0.32x	67mm	7	136	★★★★★	
	Nikon Z DX 18-140mm f/3.5-6.3 VR	£599/\$650	Z	DX	7.7x	Yes	Stepping	315g	0.2m	0.33x	62mm	7	136	★★★★★	
	Nikon Z 24-200mm f/4-6.3 VR	£729/\$900	Z	FX	8.3x	Yes	Stepping	570g	0.5m	0.28x	67mm	7	136	★★★★★	■
	Sigma 18-200mm f/3.5-6.3 DC Macro OS HSM C	£275/\$400	F	DX	11.1x	Yes	Ultrasonic	430g	0.39m	0.33x	62mm	7	99	★★★★★	
	Tamron 16-300mm f/3.5-6.3 Di II VC PZD Macro	£409/\$630	F	DX	18.8x	Yes	Ultrasonic	540g	0.39m	0.34x	67mm	7	115	★★★★★	
WIDE PRIMES	Tamron AF 18-200mm f/3.5-6.3 Di II VC	£208/\$250	F	DX	11.1x	Yes	Electric	400g	0.49m	0.25x	62mm	7	136	★★★★★	■
	Tamron AF 18-400mm f/3.5-6.3 Di II VC HLD	£699/\$650	F	DX	22.2x	Yes	HLD	710g	0.45m	0.34x	72mm	7	136	★★★★★	
	Irix 15mm f/2.4 Blackstone	£625/\$480	F	FX	None	No	None	653g	0.28m	0.1x	95mm	9	142	★★★★★	
	Laowa 20mm f/4 Zero-D Shift	£1179/\$1100	F	FX	None	No	None	747g	0.17m	0.17x	82mm	14	138	★★★★★	
	Nikon AF-S 20mm f/1.8G ED	£799/\$720	F	FX	None	No	Ultrasonic	355g	0.2m	0.23x	77mm	7	116	★★★★★	
	Nikon AF-S 24mm f/1.8G ED	£749/\$680	F	FX	None	No	Ultrasonic	355g	0.23m	0.2x	72mm	7	116	★★★★★	
	Nikon AF-S 24mm f/1.4G ED	£1999/\$2000	F	FX	None	No	Ultrasonic	620g	0.25m	0.18x	77mm	9	59	★★★★★	
	Nikon PC-E 24mm f/3.5D ED (tilt & shift)	£2099/\$2200	F	FX	None	No	None	730g	0.21m	0.37x	77mm	9	25	★★★★★	■
Nikon AF-S 28mm f/1.8G	£699/\$700	F	FX	None	No	Ultrasonic	330g	0.25m	0.22x	67mm	7	87	★★★★★		
Nikon AF-S 35mm f/1.8G ED	£529/\$530	F	FX	None	No	Ultrasonic	305g	0.25m	0.24x	58mm	7	125	★★★★★		
Nikon AF-S DX 35mm f/1.8G	£169/\$177	F	DX	None	No	Ultrasonic	200g	0.3m	0.24x	52mm	7	111	★★★★★	■	
Nikon AF-S 35mm f/1.4G	£1799/\$1700	F	FX	None	No	Ultrasonic	600g	0.3m	0.2x	67mm	9	25	★★★★★		
Nikon Z 20mm f/1.8 S	£999/\$1047	Z	FX	None	No	Stepping	505g	0.2m	0.23x	77mm	9	149	★★★★★		

WIDE PRIMES

STANDARD PRIMES

TELEPHOTO PRIMES

MACRO

LENS NAME	Price	Mount	DX/FX	Max zoom	Stabilizer	Autofocus	Weight	Min focus	Magnification	Filter size	Aperture blades	Issue reviewed	Rating	Awards
Nikon Z DX 24mm f/1.7	£289/\$279	Z	DX	None	No	Stepping	135g	0.18m	0.19x	42mm	7	153	★★★★★	
Nikon Z 24mm f/1.8 S	£959/\$1000	Z	FX	None	No	Stepping	450g	0.25m	0.18x	72mm	9	116	★★★★★	🏆
Nikon Z 26mm f/2.8	£479/\$499	Z	FX	None	No	Stepping	125g	0.2m	0.19x	52mm	7	150	★★★★★	
Nikon Z 28mm f/2.8	£229/\$300	Z	FX	None	No	Stepping	160g	0.19m	0.2x	52mm	7	134	★★★★★	🏆
Nikon Z 35mm f/1.8 S	£789/\$850	Z	FX	None	No	Stepping	370g	0.25m	0.19x	62mm	9	125	★★★★★	🏆🏆
Samyang 8mm f/3.5 IF MC CSII Dh Circular Fisheye	£299/\$280	F	FX	None	No	None	435g	0.3m	N/S	None	6	12	★★★★★	
Samyang 10mm f/2.8 ED AS NCS CS	£429/\$400	F	DX	None	No	None	600g	0.25m	N/S	None	6	113	★★★★★	
Samyang MF 14mm f/2.8 Z	£359/\$349	F	FX	None	No	None	810g	0.28m	0.08x	None	6	142	★★★★★	
Samyang 14mm f/2.8 AF	£559/\$800	F	FX	None	No	None	474g	0.2m	0.15x	None	7	105	★★★★★	
Samyang 14mm f/2.4 XP	£899/\$730	F	FX	None	No	None	791g	0.28m	0.08x	None	9	142	★★★★★	🏆🏆
Samyang 14mm f/2.8 IF ED UMC	£349/\$350	F	FX	None	No	None	560g	0.28m	N/S	None	6	70	★★★★★	
Samyang 20mm f/1.8 ED AS UMC	£499/\$580	F	FX	None	No	None	488g	0.2m	N/S	None	7	116	★★★★★	
Samyang 24mm f/1.4 ED AS UMC	£559/\$550	F	FX	None	No	None	680g	0.25m	N/S	77mm	8	104	★★★★★	
Samyang T-S 24mm f/3.5 ED AS UMC (tilt & shift)	£599/\$800	F	FX	None	No	None	680g	0.2m	N/S	82mm	8	25	★★★★★	
Samyang 35mm f/1.4 AS UMC AE	£499/\$500	F	FX	None	No	None	660g	0.3m	0.2x	77mm	8	125	★★★★★	
Sigma 14mm f/1.8 DG HSM A	£1399/\$1599	F	FX	None	No	Ultrasonic	1170g	0.27m	0.1x	None	9	149	★★★★★	
Sigma 15mm f/2.8 EX DG Diagonal Fisheye	£599/\$610	F	FX	None	No	Electric	370g	0.15m	0.26x	None	7	12	★★★★★	
Sigma 16mm f/1.4 DC CN C	£449/\$499	Z	DX	None	No	Stepping	405g	0.25m	0.1x	67mm	9	154	★★★★★	
Sigma 20mm f/1.4 DG HSM A	£779/\$900	F	FX	None	No	Ultrasonic	950g	0.28m	0.14x	77mm	9	116	★★★★★	
Sigma 24mm f/1.4 DG HSM A	£629/\$850	F	FX	None	No	Ultrasonic	665g	0.25m	0.19x	77mm	9	116	★★★★★	🏆🏆🏆
Sigma 30mm f/1.4 DC HSM A	£449/\$500	F	DX	None	No	Ultrasonic	435g	0.25m	0.15x	62mm	9	111	★★★★★	
Sigma 30mm F1.4 DC DN C	£349/\$399	Z	DX	None	No	Stepping	265g	0.3m	0.14x	52mm	9	152	★★★★★	
Sigma 35mm f/1.4 DG HSM A	£649/\$800	F	FX	None	No	Ultrasonic	665g	0.3m	0.19x	67mm	9	125	★★★★★	
Tamron SP 35mm f/1.4 Di USD	£829/\$900	F	FX	None	No	Ultrasonic	805g	0.3m	0.3x	72mm	9	111	★★★★★	🏆
Tamron SP 35mm f/1.8 Di VC USD	£585/\$600	F	FX	None	Yes	Ultrasonic	480g	0.2m	0.4x	67mm	9	125	★★★★★	
Viltrox AF 13mm f/1.4 Z	£349/\$459	Z	DX	None	No	Stepping	420g	0.22m	0.1x	67mm	9	142	★★★★★	🏆🏆
Viltrox AF 23mm f/1.4 Z	£230/\$320	Z	DX	None	No	Stepping	300g	0.3m	0.1x	52mm	9	144	★★★★★	🏆
Viltrox AF 33mm f/1.4 Z	£210/\$279	Z	DX	None	No	Stepping	270g	0.4m	0.1x	52mm	9	152	★★★★★	🏆
Voigtlander D23mm f/1.2 Nokton Z Aspherical	£649/\$699	Z	DX	None	No	None	240g	0.18m	0.2x	46mm	12	158	★★★★★	
Zeiss Milvus 18mm f/2.8 ZF.2	£2190/\$2300	F	FX	None	No	None	675g	0.25m	0.1x	77mm	9	116	★★★★★	
Zeiss Milvus 35mm f/2 ZF.2	£1160/\$1200	F	FX	None	No	None	650g	0.3m	0.19x	58mm	9	87	★★★★★	
7Artisans 50mm f/1.05	£450/\$349	Z	FX	None	No	None	606g	0.57m	0.13x	58mm	13	152	★★★★★	
Nikon PC-E Micro 45mm f/2.8D ED (tilt & shift)	£1799/\$2050	F	FX	None	No	None	740g	0.25m	0.5x	77mm	9	25	★★★★★	
Nikon AF-S 50mm f/1.8G	£229/\$220	F	FX	None	No	Ultrasonic	185g	0.45m	0.15x	58mm	7	130	★★★★★	
Nikon AF-S 50mm f/1.4G	£459/\$450	F	FX	None	No	Ultrasonic	280g	0.45m	0.15x	58mm	9	130	★★★★★	
Nikon AF-S 58mm f/1.4G	£1699/\$1600	F	FX	None	No	Ultrasonic	385g	0.58m	0.13x	72mm	9	40	★★★★★	
Nikon Z 40mm f/2	£259/\$280	Z	FX	None	No	Stepping	170g	0.29m	0.17x	52mm	9	140	★★★★★	🏆
Nikon Z 50mm f/1.8 S	£499/\$700	Z	FX	None	No	Ultrasonic	415g	0.4m	0.15x	62mm	9	140	★★★★★	🏆🏆
Nikon Z 50mm f/1.2 S	£2099/\$2099	Z	FX	None	No	Stepping	1090g	0.45m	0.15x	82mm	9	122	★★★★★	
Nikon Z 58mm f/0.95 S Noct	£8299/\$7999	Z	FX	None	No	Stepping	2000g	0.5m	0.19x	82mm	11	108	★★★★★	
Sigma 50mm f/1.4 DG HSM A	£649/\$950	F	FX	None	No	Ultrasonic	815g	0.4m	0.18x	77mm	9	130	★★★★★	
Sigma 56mm f/1.4 DC DN C	£449/\$499	Z	DX	None	No	Stepping	280g	0.5m	0.14x	55mm	9	152	★★★★★	
Tamron SP 45mm f/1.8 Di VC USD	£399/\$550	F	FX	None	Yes	Ultrasonic	540g	0.29m	0.29x	67mm	9	130	★★★★★	
Viltrox AF 56mm f/1.4Z	£250/\$299	Z	DX	None	No	Stepping	320g	0.6m	0.1x	52mm	9	152	★★★★★	🏆🏆
Yongnuo YN50mm f/1.8Z DF DSM	£345/\$359	Z	FX	None	Yes	Stepping	417g	0.45m	0.15x	58mm	9	152	★★★★★	🏆
Zeiss Milvus 50mm f/1.4 ZF.2	£1245/\$1200	F	FX	None	No	None	875g	0.45m	0.15x	67mm	9	130	★★★★★	
Nikon AF-S 85mm f/1.8G	£489/\$430	F	FX	None	No	Ultrasonic	350g	0.8m	0.12x	67mm	7	140	★★★★★	
Nikon AF-S 85mm f/1.4G	£1699/\$1600	F	FX	None	No	Ultrasonic	595g	0.85m	0.12x	77mm	9	124	★★★★★	
Nikon AF-S 105mm f/1.4E ED	£2099/\$2200	F	FX	None	No	Ultrasonic	985g	1m	0.13x	82mm	9	124	★★★★★	
Nikon AF-S 300mm f/4E PF ED VR	£1799/\$2000	F	FX	None	Yes	Ultrasonic	755g	1.4m	0.24x	77mm	9	63	★★★★★	
Nikon AF-S 400mm f/2.8E FL ED VR	£12999/\$11200	F	FX	None	Yes	Ultrasonic	3800g	2.6m	0.14x	40.5mm	9	143	★★★★★	🏆
Nikon AF-S 500mm f/4E FL ED VR	£10999/\$10300	F	FX	None	Yes	Ultrasonic	3090g	3.6m	0.15x	40.5mm	9	143	★★★★★	🏆
Nikon AF-S 500mm f/5.6E PF ED VR	£3279/\$3600	F	FX	None	Yes	Ultrasonic	1460g	3m	0.18x	95mm	9	143	★★★★★	
Nikon AF-S 600mm f/4E FL ED VR	£12999/\$12300	F	FX	None	Yes	Ultrasonic	3810g	4.4m	0.14x	40.5mm	9	143	★★★★★	🏆
Nikon Z 85mm f/1.8 S	£699/\$800	Z	FX	None	No	Ultrasonic	470g	0.8m	0.12x	67mm	9	124	★★★★★	🏆🏆
Nikon Z 85mm f/1.2 S	£2799/\$2797	Z	FX	None	No	Ultrasonic	1160g	0.85m	0.11x	82mm	11	151	★★★★★	🏆
Nikon Z 135mm f/1.8 S Plena	£2699/\$2499	Z	FX	None	Yes	Stepping	995g	0.82m	0.2x	82mm	11	158	★★★★★	🏆
Nikon Z 400mm f/2.8 TC VR S	£13499/\$14000	Z	FX	None	Yes	SSVCM	2950g	2.5m	0.17x	Drop-in	9	143	★★★★★	🏆
Nikon Z 400mm f/4.5 VR S	£2899/\$3250	Z	FX	None	Yes	Stepping	1245g	2.5m	0.16x	95mm	9	143	★★★★★	🏆🏆🏆
Nikon Z 600mm f/4 TC VR S	£15499/\$15497	Z	FX	None	Yes	Stepping	3260g	4.3m	0.14-2x	Drop-in	9	146	★★★★★	
Nikon Z 800mm f/6.3 VR S	£5499/\$6500	Z	FX	None	Yes	Stepping	2385g	5m	0.16x	Drop-in	9	141	★★★★★	🏆🏆
Samyang AF 85mm f/1.4 F	£550/\$530	F	FX	None	No	None	480g	0.9m	0.11x	77mm	9	140	★★★★★	
Samyang MF 85mm f/1.4 Z	£319/\$399	Z	FX	None	No	None	730g	1.1m	0.09x	72mm	8	152	★★★★★	
Sigma 85mm f/1.4 DG HSM A	£929/\$949	F	FX	None	No	Ultrasonic	815g	0.85m	0.12x	86mm	9	124	★★★★★	🏆🏆
Sigma 105mm f/1.4 DG HSM A	£1249/\$1600	F	FX	None	No	Ultrasonic	1645g	1m	0.12x	105mm	9	124	★★★★★	
Sigma 500mm f/4 DG OS HSM S	£4699/\$6000	F	FX	None	Yes	Ultrasonic	3310g	3.5m	0.15x	46mm	9	143	★★★★★	🏆🏆
Tokina SZX Super Tele 400mm f/8 Reflex MF	£209/\$229	F, Z	FX	None	No	None	355g	1.15m	0.4x	67mm	None	148	★★★★★	
Yongnuo YN85mm f/1.8Z DF DSM	£345/\$379	Z	FX	None	Yes	Stepping	405g	0.8m	0.13x	58mm	7	152	★★★★★	🏆
Irix 150mm f/2.8 Macro 1:1 Dragonfly	£510/\$495	F	FX	None	No	None	831g	0.35m	1x	77mm	11	150	★★★★★	
Laowa 90mm f/2.8 2:1 Ultra Macro APO	£569/\$499	Z	FX	None	No	None	619g	0.21m	2x	67mm	13	150	★★★★★	
Laowa 100mm f/2.8 2:1 Ultra Macro APO	£569/\$499	F, Z	FX	None	No	None	650g	0.25m	2x	67mm	7, 13	150	★★★★★	
Nikon AF-S DX 40mm f/2.8G Micro	£299/\$280	F	DX	None	No	Ultrasonic	235g	0.16m	1x	52mm	7	110	★★★★★	
Nikon AF-S DX 85mm f/3.5G ED VR Micro	£459/\$557	F	DX	None	Yes	Ultrasonic	355g	0.29m	1x	52mm	9	150	★★★★★	
Nikon Z MC 50mm f/2.8	£549/\$647	Z	FX	None	No	Stepping	260g	0.16m	1x	46mm	9	150	★★★★★	
Nikon Z MC 105mm f/2.8 VR S	£909/\$1047	Z	FX	None	Yes	Stepping	630g	0.29m	1x	62mm	9	150	★★★★★	🏆🏆🏆
Samyang 100mm f/2.8 ED UMC Macro	£429/\$490	F	FX	None	No	None	715g	0.31m	1x	67mm	9	110	★★★★★	
Tokina atx-i 100mm f/2.8 FF Macro Plus	£424/\$429	F	FX	None	No	Electric	515g	0.3m	1x	55mm	9	150	★★★★★	

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Awards season



As NPOTY 2023 draws to an end, **Mike Harris** provides a few reasons why you might like to enter next year's comp

In this issue we launched *N-Photo* Photographer of the Year 2024 (page 83) and it seems like just yesterday that we launched NPOTY 2023 back in issue 145. I can't wait for the big reveal next issue, when one of our 12 monthly contest winners will be taking home a beautiful Nikon Z 9. But choosing the winner of a single contest, let alone an overall winner, can feel like an insurmountable task.

It's a win-win situation

This year's competition garnered well over 15,500 entries, which is a *lot* of photographs. And when the team has whittled down so many quality entries, it can often be very hard to split the difference between two, three or even more potential winners.

Art is entirely subjective. Nobody has ever entered a photography competition certain of victory. But submitting your finest photos is about so much more than emerging victorious. Entering competitions is a great way to add a sense of purpose to your photography, as you work to meet closing date deadlines or push yourself to capture a better image than last time.

Consistently entering competitions is a great way to improve your photography

skills and challenge yourself by trying out new techniques and genres. Many competitions also boast healthy communities. We host NPOTY via Photocrowd, where you'll find a great community of like-minded Nikon fans.

So, if you haven't entered NPOTY before, why not get stuck in during 2024? If you make the top 10, you'll get your image published in your favourite international magazine. And if you top the round, you'll take home a £100 WhiteWall voucher and be in with a chance of winning our soon-to-be-revealed grand prize.

You've got to be in it to win it, as they say, but to better your chances, there are a few things you can do – beyond taking a cracking photo – that will make your entry stand out. Firstly, ensure that you have supplied all necessary EXIF data: exposure settings, the lens and Nikon camera. Make sure your image has a resolution of at least 3000px on the longest edge. And write a detailed description – it doesn't have to be long – about your entry: how, when and why it was taken.

Finally, please refrain from submitting photographs with watermarks, as we are unable to print these in the magazine. Beyond that, enjoy the process. Whether you win or lose, it really doesn't matter, you'll emerge a better photographer. After all, it's the taking part that counts... **N**



Future PLC Quay House, The Ambury, Bath BA1 1UA

Editorial

Editor **Adam Waring**
adam.waring@futurenet.com • 0330 390 6026
 Senior Art Editor **Rebecca Shaw**
 Deputy Editor **Mike Harris**
 Production Editor **Chris McGine**
 Lab Manager **Ben Andrews**

Contributors

Iain Ashfar, Nigel A Ball, Andrew Corless, Michel Haddi, Catherine Kirkpatrick, Andrew Mason, Tom Mason, Carmen Norman, James Paterson, Matthew Richards, Henley Spiers, Keith Wilson

Cover image

Getty

Photography

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Advertising

Media packs are available on request
 Account Director **Matt Bailey**
matt.bailey@futurenet.com • 0330 390 6272
 Account Director **Chelsea Speakman**
chelsea.speakman@futurenet.com • 0330 390 6065
 Head of Advertising **Matthew Johnston**
matthew.johnston@futurenet.com

International Licensing

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 Head of Print Licensing **Rachel Shaw**
licensing@futurenet.com

Subscriptions

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 Overseas order line & enquiries **+44(0)330 333 1113**
 Online enquiries www.magazinesdirect.com
 CRM Director **Louise Dudfield**

SUBSCRIPTION DELAYS

Disruption remains within UK and International delivery networks. Please allow up to seven days before contacting us about a late delivery to help@magazinesdirect.com

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Printed by Buxton Press Limited, Palace Rd, Buxton SK17 6AE

Distributed by Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU www.marketforce.co.uk
 Email: mfcommunications@futurenet.com

ISSN 2048370



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N-Photo (ISSN 2048-3708) is published monthly with an extra issue in July by Future Publishing, Quay House, The Ambury, Bath, BA1 1UA, UK

The US annual subscription price is \$181.87 Airfreight and mailing in the USA by agent named World Container Inc., c/o BBT 150-15 183rd St, Jamaica, NY 11413, USA

Application to Mail at Periodicals Postage Prices is Pending at Brooklyn NY 11256.

POSTMASTER: Send address changes to *N-Photo*, World Container Inc., c/o BBT 150-15 183rd St, Jamaica, NY 11413, USA

Subscription records are maintained at Future Publishing, c/o Air Business Subscriptions, Rockwood House, Perrymount Road, Haywards Heath, West Sussex, RH16 3DH, UK



Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR)
www.futureplc.com
 Chief Executive **Jon Steinberg**
 Non-Executive Chairman **Richard Huntingford**
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