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EXCLUSIVE INTERVIEW

Frans Lanting

The wildlife legend shares the secrets of his success

Master winter landscapes

Be inspired by our hands-on guide to shooting mountainscapes, seascapes and more

THE ART OF TRAVEL

We reveal the year's best travel photos shot on a Nikon



If you follow the paths of other photographers you end up doing the same thing that they did

Frans Lanting, *nature photographer* **p92**

Portraits made easy

- Essential kit & settings ● Posing guide
- Natural lighting ● Location lighting
- Simple set-ups ● Creative tricks



Movie poster

Turn a friend into a fantasy film star **p40**



Prime time

The best portrait lenses for Nikon **p112**



Trump card

Joe McNally on shooting 'The Donald' **p130**

Future

"PortraitPro blows Photoshop Elements out of the water with its dazzling array of tools and effects." N-Photo November 2015

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About the cover



Title Hamnøy at Dusk

Photographer James Paterson

Camera D800

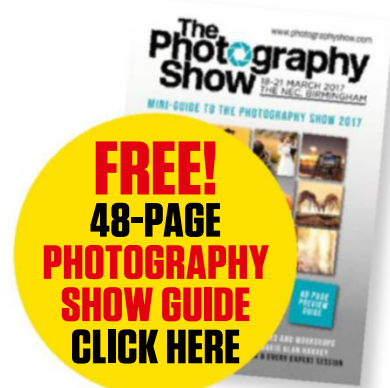
Lens Nikon 16-35mm f/4

Exposure 296 secs, f/16, ISO100

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THE NEW WAY TO SUBSCRIBE **SEE PAGE 28**
PhotoClub

Subscribe today and get a Lowepro Traveler bag worth £49, a copy of *Outdoor Landscape and Nature Photography* worth £9.99, bonus eBooks, video tutorials, Club discounts and more! Turn to p28...



Welcome to issue 69

One of the age-old frustrations of landscape photography is that the weather doesn't always play along, especially in winter. How can you capture stunning – heck, even passable – images when the wind is threatening to whip your tripod into the nearest lake and the rain/sleet/snow/hail (delete as appropriate) is making a good case for built-in lens wipers?

Well, *N-Photo* reader Steven Henriksen might have the answer. He found himself shooting landscapes in precisely these conditions on this issue's Apprentice shoot in Norway. You can find out how he got on, and how he was able to work with the conditions rather than against them, on page 50.

Other highlights this month include our brilliant guide to taking the next – or even first – step with your portraiture (it really is as simple as turning on the lights); our inspirational gallery of the year's best travel images taken on a Nikon; our story of a multi-award winning press pro who got his first big break when he was just 19 (a real-life example of the old adage 'f/8 and be there'); and our wide-ranging interview with legendary nature pro Frans Lanting, whose own sage advice you can find on this issue's cover. Enjoy!

Paul

Paul Grogan, Editor

paul.grogan@futurenet.com

MEET YOUR PHOTO HEROES!

The Photography Show, which takes place at the NEC in Birmingham from 18-21 March 2017, isn't just the UK's biggest photography exhibition; it also features hundreds of inspirational talks and workshops from the biggest names in photography. This year's stellar line-up includes legendary nature pro **Frans Lanting** (see page 92), *Nat Geo* supremo **David Alan Harvey**, and *N-Photo*'s very own **Jason Parnell-Brookes**, who will be showing you how to get more from your Nikon using DIY kit. For more details and tickets visit www.photographyshow.com



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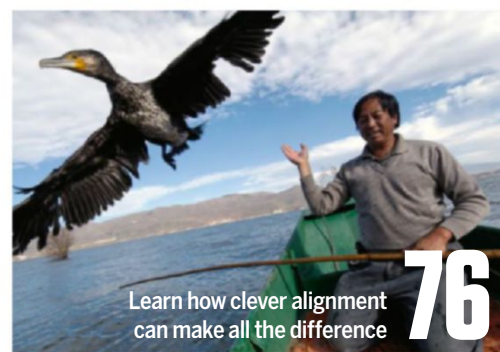
Follow our guide to capturing your subjects in the best light – from naturally-lit headshots to moody outdoor portraits



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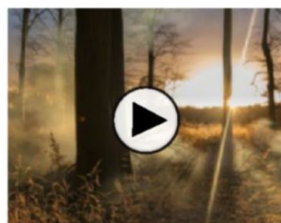
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NIKON SKILLS

Nikon School

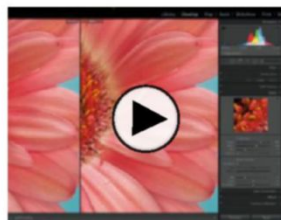
Master your Nikon with our expert videos



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03 Tease out delicate detail without adding noise



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05 Piece together a photo collage inspired by Hockney



06 Make your own colour filter with Nikon Capture NX-D



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videos online!

bit.ly/NPhoto69

TURN TO PAGE 6 TO MEET THE TEAM

NPhoto

This issue's special contributors...



James Paterson
PAGE 16

Want to give portraits a go but not sure where to start? James takes you step by step through the skills you need.



Christian Hoiberg
PAGE 50

Landscape pro Christian takes this month's Apprentice on a spectacular shoot in Norway's majestic Lofoten Islands.



Michael Freeman
PAGE 76

In part three of his new series, Michael shares another path to help liven up your photos: getting creative with alignment.



Karwai Tang
PAGE 91

Award-winning press pro Karwai describes how a shot he took when he was just 19 helped to launch his stellar career.



Frans Lanting
PAGE 92

The legendary wildlife pro reflects on his extraordinary 40-year career, and discusses the secrets of his success.



Joe McNally
PAGE 130

Joe recalls how two portraits he shot in the '80s – of Donald Trump and Joe Biden – each demanded different approaches.

The N-Photo team on... Travel photos



Paul Grogan
Editor

Getting away from it all can inspire us to slow down and look at the world a little differently, as this issue's inspirational Lightbox shows (p. 8).
paul.grogan@futurenet.com



Jason Parnell-Brookes
Staff Writer

I loved working on this issue's Apprentice in Norway (p. 50). The landscapes and light were so different, and I'm already itching to go back in the summer.
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Ben Andrews
Lab Manager

Shooting a festival, as Vinaya did for this issue's Photo Stories (p. 60), is well worth it – your photos will be much more interesting than a beach shot!
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Rod Lawton
Head of Testing

A fast prime lens is a key bit of travel photography kit in my book. I – like many travel photographers – love to be able to shoot handheld in low light.
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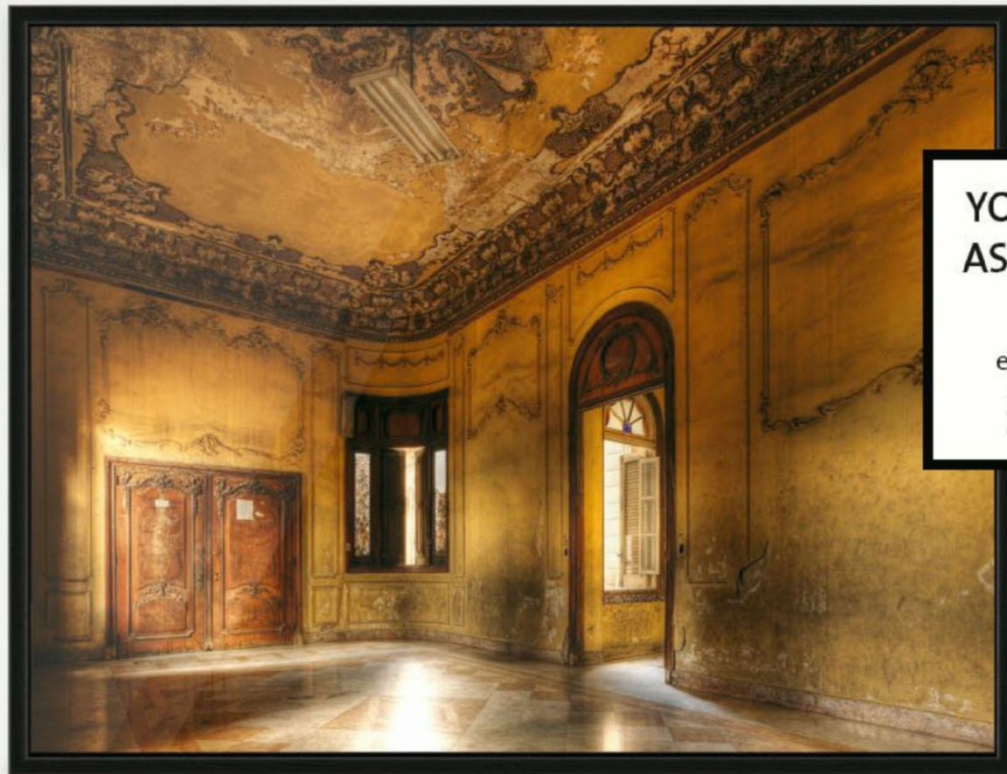


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LIGHTBOX

The best Nikon images from the Travel Photographer of the Year competition

Photographers from 20 countries have won awards for their portfolios and single images in the Travel Photographer of the Year competition 2016. Here's a selection of our favourite photos from Nikon shooters

**WINNER, BEST SINGLE IMAGE,
JOURNEYS & ADVENTURES**

Night Mare
Lluís Salvadó, Spain

 A rider urges his horse through the flames of a bonfire during Las Luminarias de St Anton, an annual festival which takes place every January in San Bartolomé de Pinares, near Madrid. St Anton is the patron saint of animals, and riding horses through the flames is thought to purify and protect them from harm.

Lluís Salvadó/www.tpoty.com

Nikon Df, 24-120mm f/4,
1/640 sec, f/4.5, ISO1250

N-Photo says: There's real drama in Lluís's very graphic photograph of a horse and rider silhouetted against the flames.



Marsel van Oosten/www.tpoty.com

SPECIAL MENTION, MANKIND

Tidal Farming

Marsel van Oosten, Netherlands



A farm worker rows out to inspect the nets of a large crab farm in the sea near Xiapu, in Fujian, China.

Nikon D5, 80-400mm f/4.5-5.6, 1/250 sec, f/11, ISO800

N-Photo says: In Marsel's deceptively simple image, the translucent colours make the nets appear delicate, perhaps echoing the precarious way of life here, while the farmer's boat – perfectly positioned between the nets – gives the image balance and a sense of scale.

SPECIAL MENTION, JOURNEYS & ADVENTURES

Net Service Providers

Ly Hoang Long, Vietnam

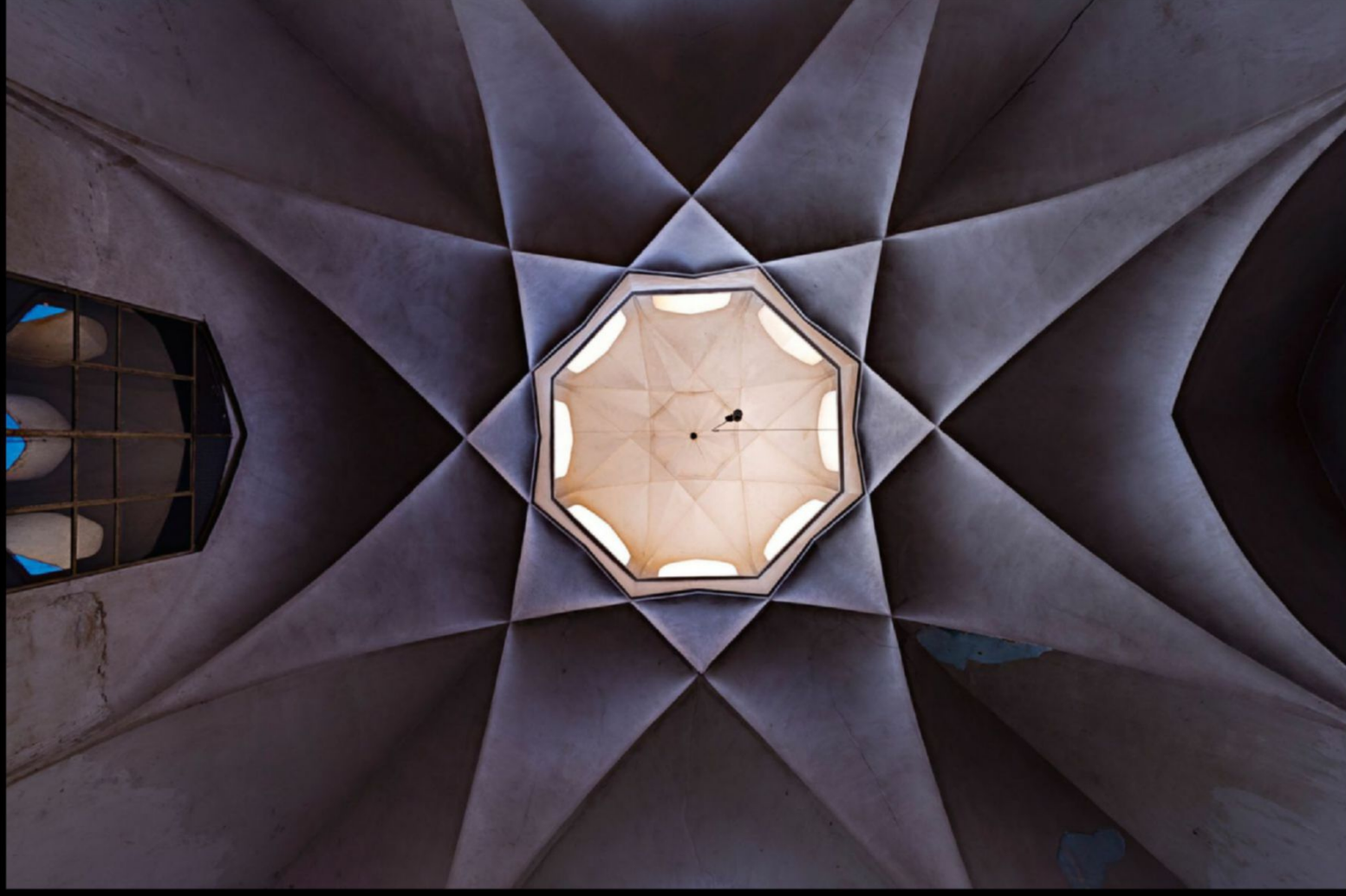


Women mending fishing nets in Bac Lieu, Vietnam.

Nikon D4, 24-70mm f/2.8, 1/20 sec, f/11, ISO1000

N-Photo says: Everything about Ly's image sings of the sea. The nets seem to flow around the room in wave-like swirls, the highlights like white horses in surf. Even the green thread reminds us of seaweed, while splashes of orange and red complement the cooler blues and greens.





SPECIAL MENTION, MANKIND

Friday Prayer

Jacob Maentz, USA



A Tausug woman during Friday prayers at a mosque in Bongao, the Philippines. The majority of Bongao's population is Muslim and belongs to either the Tausug or Sama-Bajau people.

Nikon D800, 70-200mm f/2.8, 1/250 sec, f/3.2, ISO800

N-Photo says: Jacob's clever selective focusing lends an element of privacy to this image, and draws us to the woman's focused expression.

SPECIAL MENTION, JOURNEYS & ADVENTURES

Bazaar of Yazd

Jason Edwards, Australia



The star-shaped ceiling of an ancient Persian bazaar in Yazd, Iran.

Nikon D3s, 14-24mm f/2.8, 1/100 sec, f/7.1, ISO400

N-Photo says: At first glance this geometric pattern seems like a painting, but then you notice the imperfections in the flaking walls that bring it back to reality. The muted colour palette makes the hint of blue sky on the left all the more vibrant and eye-catching.

WINNER, LAND, SEA AND SKY PORTFOLIO

Reflection

Craig Easton, UK



A Buddhist monk walks around the boundary wall of West Kirby Marine Lake in Wirral, England.

Nikon D3x, 70-200mm f/2.8, 1/125 sec, f/4.5, ISO100

N-Photo says: This tranquil lake is the perfect setting for Craig's monk. The simplicity of the horizon line, and the lone duck, both add to the sense of serenity in this very peaceful image.



Darpan Basak/www.tpoty.com



Ye Hongbing/www.tpoty.com



**WINNER, YOUNG TRAVEL PHOTOGRAPHER
OF THE YEAR 2016**

From Joy to Eternity

Darpan Basak, India (age 14)



A young child skips in the shallows at Chandipur beach, India.

Nikon D7000, 18-105mm f/3.5-5.6, 1/500 sec, f/10, ISO500

N-Photo says: Darpan's shot brilliantly captures the joy and innocence of playing at the beach. We love the simplicity of the composition, and the way the subject is silhouetted against the setting sun.

COMMENDED, NEW TALENT, EYE TO EYE PORTFOLIO

Eye on the Ball

Ye Hongbing, China



A young boy plays football in the colourful streets of Hamar, Ethiopia.

Nikon D4s, 24-70mm f/2.8, 1/640 sec, f/8, ISO640

N-Photo says: The vibrant colours, the balanced composition, the exquisite timing; all combine to create an image that provides a masterclass in capturing the decisive moment. Even the cracks in the wall lead the eye to the ball. Superb!

Travel
Photographer of the Year

Founded in 2003 by professional photographer Chris Coe and his wife and business partner, Karen, the Travel Photographer of the Year (TPOTY) competition is run by photographers for photographers. It is judged by leading photographers and photography experts, with winning and highly placed images featuring in a touring exhibition and book. This year's winning images will be on show in Hull from 18 May to 30 June as part of the city's UK City of Culture celebrations, and in Greenwich, London, from 4 August to 3 September. For more information visit www.tpoty.com



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NPhoto's **ULTIMATE** **GUIDE TO** **PORTRAITS**

- Master the headshot
- Work with natural light
- Try flash and studio lighting
- Learn how to modify light
- Get creative with off-camera flash

Start shooting better portraits today with our definitive guide to essential camera skills, lighting options and posing you subjects with confidence

Portraiture is the photography genre that keeps on giving. There are always new skills to learn, new faces to shoot and new looks to achieve. Our advice over the next 10 pages will help see you through, to make sure that you do justice to your subjects, whether they're a loved one or a model.

There's a heavy emphasis on lighting in this guide, and with good reason. Whether it's coming from the sun, a Speedlight or a continuous lamp, light always plays a huge part in the success of any portrait. Learning how to find or create the right light lies at the heart of great portraiture.

As well as lighting, we'll look at camera settings and posing. Join us as we share the secrets of taking great portraits in all sorts of settings and styles.





Master the headshot

Simple, elegant and timeless, a good headshot can reveal more about a person than any other type of portrait

If you think of some of the world's most celebrated and creative portrait photographers – names like Richard Avedon, David Bailey, Irving Penn – it's their headshots that really stick in the memory. That's because those pictures do something that all great portraits should: reveal the character of the subject.

From the neck down, one person may be pretty indistinguishable from another. It's what's up top that marks us all out as individuals. Our faces are our most expressive feature, and a good headshot should celebrate this.

Simple but effective

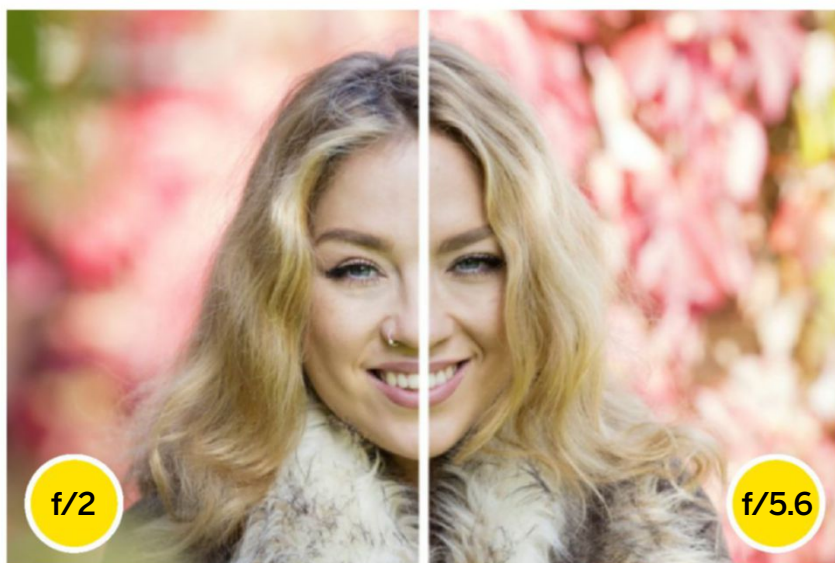
Compared to some kinds of portrait, the humble headshot might seem a tad rudimentary, but there's an art to getting it right, and it's an important string in any portrait photographer's bow. Headshots are always in demand, whether it's for a company website, school photos, passport pictures, or just for fun.

In some ways a headshot is a simple thing: you don't have to think too much about composition or the background, as the head dominates the frame. But simplicity brings its own challenges, as it means you need to get the basics of lighting, depth of field and focal length absolutely spot-on. There's nowhere to hide with a headshot.

However, the technical aspects are secondary here. More importantly, we need to coax something interesting out of our subject...

Alena Zamotava/Shutterstock





LENS SET-UP DEPTH OF FIELD

Get your aperture right for flattering portraits and blurred backdrops

Wide apertures restrict depth of field and ensure blurred backgrounds – but how wide do you need to go? Here, the difference between f/2 and f/5.6 is obvious. You might think f/5.6 – the typical maximum aperture of a standard kit lens – is fairly wide, but for beautiful blur it's often not wide enough. This is why a prime lens with a much wider maximum aperture is often used to shoot portraits (see page 112 for more on this).

KEY SETTINGS

EXPOSURE

Start with these tried-and-tested settings for natural light or flash-lit headshots

When the subject is moving (as people almost always are), you're restricted to fast shutter speeds. Here's a good stock set-up for outdoor headshots: Manual mode, Auto ISO, a shutter speed of 1/250 sec and your lens's widest aperture setting, such as f/4. With flash, use similar settings but with ISO100. Take test shots to work out the best pairing of aperture and flash power.



STUDIO SET-UP LIGHTING

Control the way light falls across your subject's face

If you're using natural light, placing your subject by a window or in a shady spot is ideal for headshots. However, a flash kit gives you more control. A home studio kit is ideal, along with a plain wall or sheet for a 'clean' background. For simple, attractive lighting, try the so-called 'clamshell' set-up shown in the diagram above: simply position one light (ideally with a softbox or umbrella) above the face and camera, with a reflector held below the chin to bounce the light back upwards. If you're using a second light, direct it onto the backdrop.

EXPERT ADVICE

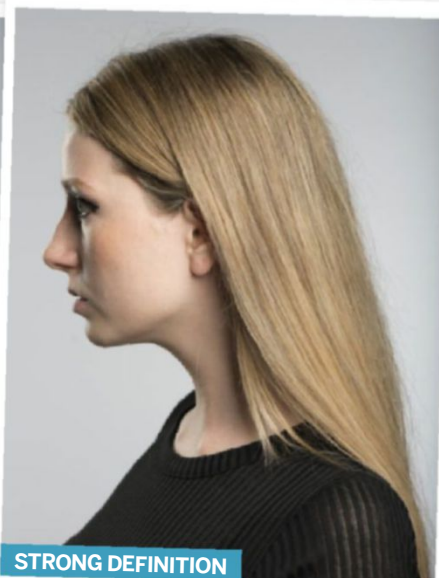
Posing the head

Even small adjustments can have a big impact on the look of the face. All subjects are different, but in general a slightly side-on stance works well.

As you can see in these profile shots, asking the subject to roll back their shoulders and push their head forwards slightly will tighten the skin and reduce double chins. Camera height is important too: having the camera level with the eyes creates a strong connection. As with any portrait, it's vital to put the subject at ease, so chat to them as you shoot, perhaps put some music on to help them relax and, vitally, offer lots of encouragement.



WEAK DEFINITION



STRONG DEFINITION

Seek out places where the natural light is coming from one direction, such as a window or doorway indoors, or a covered spot outdoors

Use natural light

Harness the power of the sun for beautifully lit portraits anywhere

When you're starting out, there's no need to buy a host of expensive lighting gear when you already have a source of free light that offers endless variety. Direct sunlight can be a bit harsh, but when diffused through clouds or bounced off other surfaces it can take on all kinds of wonderful qualities. Then there's the fact that it changes position and colour throughout the day, from warm and low in the morning to cool and overhead at midday, then back again. The great advantage you have with portraiture is that your subject is mobile, so you can place them where the light looks best.



WITHOUT REFLECTOR

ESSENTIAL KIT REFLECTORS

Add more punch by lifting the shadows

Light, inexpensive and hugely versatile, a simple reflector is one of the most important items in the portrait photographer's kit bag. It acts almost like a secondary light source by letting you bounce light into shadows on the face. In the two images to the right you can see the difference it makes: with the sunlight coming from behind, the reflector bounces light back towards the face, evening out contrast and adding catchlights in the eyes for a punchier, more saturated portrait.



WITH REFLECTOR

Oleg Golovnev/Shutterstock

EXPERT TIPS



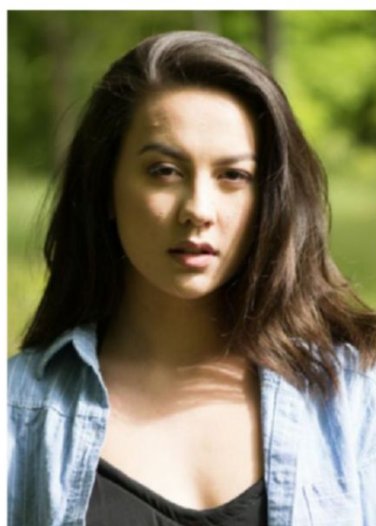
1 Use soft window light

Window light offers soft, directional illumination that can fall beautifully over a face. North-facing windows are best (when north of the equator) as they don't see direct sunlight. Try having the subject side-on to the window light (perhaps with a reflector to bounce light back into the shadow side of their face), or shoot with their back to the window and expose for their face for a more high-key feel.



2 Seek out contrast

In most good portraits, the subject stands out from the background to draw the eye. One way to do this when you're shooting outdoors is to look for contrasting lighting between the subject and the backdrop – either by having the subject in shade with a bright patch behind them (like this, left) or by finding a spot where the light falling on them is brighter than the backdrop, such as a shaded doorway.



3 Avoid strong sunlight

When the sun is out in full force, you may think it's the ideal time to go out to shoot portraits, but strong sunlight can be unkind to faces. It casts shadows across the face, shows up spots and makes subjects squint. This is because light that comes from a small source is harsh, like a bare bulb; and while the sun is huge, for us it's a small, bright spot in a big sky. Either shoot into the sun (see tip 2) or find some shade (tip 4).



4 Look for soft shade

A cloudy sky or a shady spot is much more attractive for portraiture work than direct sunlight. In the shade, the light is far softer. It's also dimmer, which might mean you have to increase the ISO, but that's a worthwhile compromise for having more flattering light. If there's no cloud cover, look for a spot in the shade of a tree or a wall. If you can't find any, make your own shade with your reflector. ➔

Add in artificial lighting

Try a fresh lighting approach to help your portraits stand out in a world that's awash with cameras

Now that anyone with a decent camera can take a competent photo, photographers are constantly looking for ways in which technology can help to set their lighting and techniques apart from the crowd. One modern lighting technique that's being used more and more often by wedding and portrait photographers is to supplement the ambient light with off-camera flash, giving these images an edge over natural-light portraits.

Another technology that has come on in leaps and bounds is continuous lighting options, including LED panels, fluorescent tubes and even simple lamps. These aren't as powerful as flash, but the effect of any changes to the angle or power of the light can be assessed instantly, and they're ideal if you shoot both stills and video.

For off-camera flash, a Speedlight only needs to offer manual power control and an optical slave – features found on even the cheapest models



WITHOUT SPEEDLIGHT



WITH SPEEDLIGHTS

TECHNIQUE 1

ADD FLASH OUTDOORS

An off-camera Speedlight or two can lift your outdoor portraits to a new level

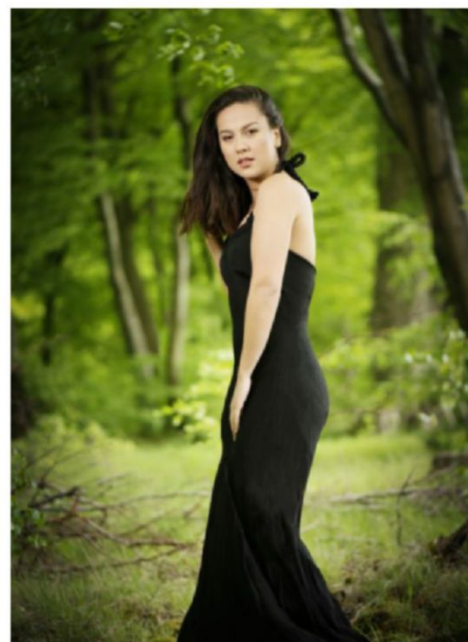
Supplement natural light with flash to create a huge variety of looks, perhaps with a pop of fill flash to even out shadows, or something more dramatic (left). Here the deep shade under the trees makes a balanced exposure between foreground and sky impossible without the use of flash. Two Speedlights lift the subject: one placed to the left of the camera, the other behind the model, to our right (see page 26 for more on this).

TECHNIQUE 2

LIGHT WITH LEDS

Continuous lighting is affordable, simple to use and readily adaptable to all kinds of shooting situations

LED panels have become increasingly popular. They're far less powerful than flashes, but with D-SLRs performing ever better at higher ISOs, many will find this option a worthwhile compromise for the ease of use and colour temperature control that LED lighting offers you. The Interfit LED panel we used for this outdoor portrait shoot (right) provides a welcome fill light to lift the shadows and to counteract the effects of the green light filtering through the leaves.



TECHNIQUE 3

USE STUDIO LIGHTS

When you need more power and control, studio lights are the way to go

With a greater output than a Speedlite or LED panel, a studio light gives you freedom to position the light further from the subject, shape the light with modifiers (see overleaf) and use smaller apertures without having to increase the ISO. Using a battery-powered studio light outdoors makes it easier for you to 'overpower' bright sunlight – to expose the subject properly while rendering the background darker than it is in reality. ➔

Take control

Learn how to control the light your flash emits with lighting modifiers

One of the great things about using studio heads is the sheer variety of modifiers and other accessories that you can choose to attach to them to change the lighting effect. From huge softboxes to tiny snoots, these accessories will help you to become a master of light, bending it to your will for any look you like, whether dramatic or subtle.

Essentially these modifiers enable you to change three qualities in the light from your studio head. These are its spread, its strength and its softness. You can tell a lot about

each different light option by the way it affects the shadows under the chin on the images below. Smaller light sources such as a bare bulb or a snoot cast sharp, harder-edged shadows, while larger sources such as a softbox or beauty dish create softer shadows, with more gentle transitions between light and dark areas.

You also need to bear in mind the environment you're shooting in. In a small room with white walls, the light will bounce off them and fill the shadows, while in a dark, cavernous room there will be much less fill.



MODIFIER 1

BARE BULB

Direct flash, with no attachments or modifiers, can be highly effective

Firing a single light source – such as our Elinchrom head here – bare provides 180 degrees of hard light, which isn't the most flattering or refined look, but it can be very dramatic. Like all of the shots here (barring the ring light), the light is positioned to the right of camera and above the face, and the subject's body and face are angled towards it. Harsh light is often best employed with the subject's face angled towards it: at other angles it can produce unattractive shadows across the face. Bare-bulbing in a small room or next to a wall will give plenty of fill light because the spread is so wide that the flash bounces off all of the surrounding surfaces.



MODIFIER 2

UMBRELLA

Diffuse the light for a soft, flattering effect with a shoot-through brolly

A white umbrella will diffuse and spread the light to cover a wide area. It'll give you a nice even illumination and fill in a lot of the shadows. With white umbrellas you can either angle the head away from the subject so that the light bounces back off the umbrella, creating a very wide spread; or angle the head towards the subject and shoot through the umbrella to get more directional light. While great for producing a spread of soft, flattering light, umbrellas are less useful if you need control over where the light falls.



MODIFIER 3

SOFTBOX

Offering softness and direction, it's the portrait photographer's first choice

A softbox is a rectangular-shaped panel fitted with diffusers, which produces a wide bank of even illumination. Like an umbrella, softboxes will also produce soft light, but it's more directional. You won't get as large a spread of light with a softbox, so you have more control over which areas are lit and which are in shadow. And when shooting close-ups, softboxes create more attractive, rectangular-shaped catchlights in the eyes. Softboxes come in all shapes and sizes, each with differing effects. The larger the softbox, the softer and more even the light.



EXPERT ADVICE

Size and spread

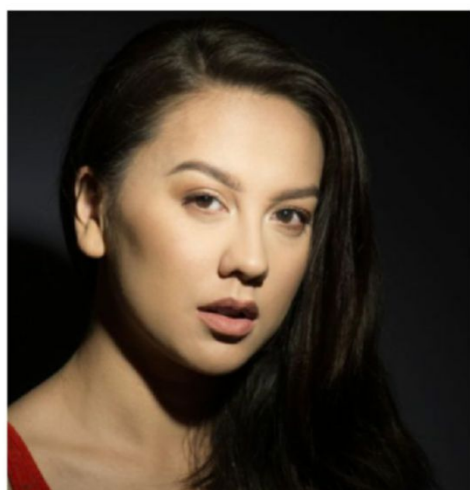
It might sound slightly counter-intuitive, but the closer a light source is to your subject, the softer the light appears. That's because closer in, the size of the light increases in relation to the subject, and the larger a light source is, the more it fills out the shadows and the softer the effect becomes. As such, portrait photographers often bring the lights in very close to the face.



LIGHT CLOSE TO SUBJECT



LIGHT FURTHER FROM SUBJECT



MODIFIER 4

SNOOT

Channel the light into a tight beam for a dose of drama or to pick out details

A snoot like the Interfit S-Type here channels the light down a tube into a circular opening, producing a very narrow beam of light. The light on the face here is hard, with deep shadows under the nose and chin. Unlike in the other shots here, there's no spill of light across the background, so it comes out looking almost black. Because of this, snoots are useful for directing the light to a specific part of your subject. You wouldn't often see one used alone like this to light the face. More often they're teamed with other lights, perhaps as a back light for some hair or rimlighting.

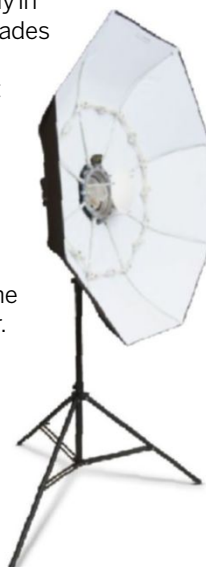


MODIFIER 5

BEAUTY DISH

Get a velvety fashion look with a large satellite-dish shaped reflector

A beauty dish is a large parabolic reflector often used in fashion photography. A white, circular deflector directly in front of the bare bulb shades the subject from direct flash, bouncing the light back into the dish to produce a velvety-soft directional light that's somewhere between direct flash and a softbox. Shadows are soft yet defined, while the eye catchlight is circular. There are two kinds of beauty dish: the metal kind that can be fitted with honeycomb grids or diffusers; or the collapsible kind like our Interfit beauty dish.



MODIFIER 6

RING LIGHT

Harness smoothing, shadowless light and beautiful catchlights

Not an accessory as such, but a different kind of light altogether. A ring light is simply a circular ring of light that provides frontal illumination with minimal shadows. You direct your lens through the circle, so the light comes from the camera position. It's similar in some ways to the light from a pop-up flash, but it's far more attractive as you don't get the hard shadows pop-ups inevitably produce. Instead, you get beautiful, shadowless illumination, which is very kind to faces, and useful if you want to soften wrinkles. The other benefit is the attractive ring-shaped catchlights you'll get in the eyes.



Get creative

Use Speedlights to overpower direct sunlight for dramatic results with an affordable outdoor lighting set-up

When you shoot portraits purely with natural light, you're usually restricted to one 'correct' exposure. But when you start to mix natural light with flash, you can manipulate the exposure to suit your artistic needs (see page 36).

Any time that you work with two different light sources, the key is all about the ratio between the two. You can't control the power of the sun, for example, but you can change your Speedlight power to alter the ratio between the two – as we've shown in our image (right) by overpowering the midday sun for a moody portrait.

Notice how the boy's hair has the look of a studio portrait, with a nice hair light to bring out detail and texture. But this is, in fact, sunlight. With the boy posed with his back to the sun, the natural light hits his hair, making it shine. By under-exposing the natural light, we effectively transform the sun into our secondary light source. Then we simply lift the exposure of the face with our flash. Here's how you can achieve similar results in a few simple steps, with the help of an off-camera flashgun and the sun...

Light from a Speedlight will almost always look better when it's diffused with a modifier such as an umbrella, or bounced off a wall

STEP BY STEP



1 Get the shot set up

All you need to capture this type of portrait is a Speedlight fixed to a stand with a silver umbrella attached, plus an ND filter and a means of triggering the flash off-camera, such as radio triggers, a sync lead or your camera's wireless flash system. (We used Nikon's commander mode to control the SB-900 Speedlight here). Directing the Speedlight into the silver umbrella will ensure you have a soft, diffuse light to flatter your subjects.



2 Expose for the ambient light

Don't turn on the flash light yet. Instead, you need to set the camera to Manual mode and work out an exposure for the ambient light. If sunlight is making the scene very bright, start with ISO100 and 1/200 sec, then adjust the aperture in a series of test shots until the face is correctly exposed. Here we used f/4. With the boy's back to the sun, this correctly exposes his face but blows out the sky – but don't worry about that yet.



3 Under-expose with filters

Next, under-expose for the ambient light. You could do this by setting a much smaller aperture, such as f/11 or f/16, but then you'd also increase the depth of field, and in this case you want that to be shallow so that it blurs the background. So instead, add a standard two-stop ND filter and a polariser. The two filters combined block out about four stops of light, which makes the sky look moody, but leaves the face too dark.



4 Light up the face

Now you can turn on your flash and set it to Manual mode. On a bright, sunny day you'll be working at the power limits of most Speedlights, so start at full (1/1) power, and then reduce it if necessary. We positioned our flash (bounced off our silver umbrella) directly above the face here, from roughly one metre away. We also placed a silver reflector on the ground beside our model to bounce extra light back up into the shadows.



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WATCH THE VIDEO



Whenever you see this logo, it means there's a video to accompany the tutorial, taking you through things step-by-step. You can watch all of our photography tutorial videos online – just go to bit.ly/NPhoto69



The mission

- To add a hint of atmospheric mist to an outdoor scene

Time

- One hour

Skill level

- Beginner
- Intermediate
- Advanced

Kit needed

- Nikon D-SLR
- Tripod
- Fog machine and fog liquid
- Extension cable
- Power inverter (optional)
- Car battery (optional)

PROJECT ONE / CREATIVE TECHNIQUES

Just add fog

For atmospheric landscape photos, nothing beats a bit of mist – even if you have to make it yourself. **James Paterson** fires up a fog machine...

Mist is a wonderful mood-setter, but the problem is that for mist to appear naturally, the conditions have to be just right. Natural fog only occurs when drops of moisture in the air cool suddenly. The rapid cooling transforms the invisible gas to visible droplets – think of warm breath on a cold day. It happens a lot where warm air above water meets cold land, or when a cold night air falls over warm ground.

These kinds of conditions happen fairly often, but if you want guaranteed atmosphere,

why not take matters into your own hands? You might think of a fog machine as a film maker's tool, used in spooky horror films to heighten the atmosphere. But these are great for stills too, and not as troublesome or nearly as expensive to set up as you might think. A cheap fog machine like ours can be bought for around

£30, and can transform an outdoor scene in seconds.

Basic fog machines are mains-powered, so you can try this in your garden. But if you connect a power inverter to a car battery, you can venture further into the wild to create fog anywhere within an extension cable's length of a car. Here's how...



Fog machines are great for stills, and not nearly as expensive as you might think

STEP BY STEP / Get all misty-eyed



1 Hire a fog machine

First, get hold of an inexpensive fog machine. You can buy these outright from around £30, or hire them. You also need the liquid for it, which costs about £10 and lasts for ages. The machine takes about five minutes to heat the liquid, then spurts out a stream of fog.



3 Look into the sun

Wait for a still, windless day. A spot with direct sunlight is best, as this results in strong light rays that will reflect well in the fog. Set your camera up facing into the bright light (a tripod isn't essential for this, but it's handy), with a tree trunk obscuring the sun from the lens.



5 Catch some rays

The fog might be too thick, like in this shot. If so, wait for a few seconds for the fog to dissipate and then shoot. To capture shafts of misty light, compose the shot so that there are shadowy areas in the frame. The light rays will show up more clearly against a darker background.



2 Power it up

If you don't want to be restricted to mains sockets, consider getting a power inverter. These turn your car battery into a usable power source (make sure it's suitable for the wattage of your fog machine). You can even connect this to an extension cable for extra reach.



4 Spray your scene

Spray the fog upwind so that it drifts across the scene, and move the position around so that it's distributed in the foreground and background of the scene. Shoot into the light so that the sun catches the particles in the air and shows up as beautiful shafts.



6 Expose for the highlights

The foreground will be in shadow, so expose for the highlights – it's better to capture the trees in silhouette than to blow out all of your fog. Here we're at 1/6 sec, f/13, ISO100. If you don't want to shoot manual, try fine-tuning brightness with exposure compensation.

Keep it cool

The fog that a machine like this produces is very light, and dissipates quickly, so it won't be able to withstand even a hint of wind. If you want the fog to come out thicker and stay lower to the ground like in the shot below, cool it down. In colder conditions this will happen naturally, but when it's warmer, a makeshift tube half-filled with ice cubes works perfectly. Directing the nozzle through the tube will force the fog through the ice, making it emerge thicker and heavier out of the other end.



Quick tip

Aim to create a sense of depth in your foggy compositions by including silhouetted foreground objects such as trees.



The mission

- To balance ambient and flash light in photos of lit subjects

Time

- One hour

Skill level

- Beginner
- Intermediate
- Advanced

Kit needed

- Nikon D-SLR
- Tripod
- Flashgun
- Light stand
- Flash diffuser
- Wireless flash trigger

PROJECT TWO / TEACH YOURSELF FLASH

Let it glow

Discover how to combine flash and ambient light to capture vibrant images of illuminated subjects. **Jason Parnell-Brookes** is your guide...

When something's too dark, simply pop a trusty flashgun on your Nikon and it becomes well-exposed, right? Well, not always. We hope that the series so far has helped you to feel pretty confident about getting good exposures with your flashgun, which you can use in many instances. But if you're shooting an object with its own

light source, there's a little more to think about than usual.

When photographing subjects that light up themselves, it can be easy to run into all sorts of problems. One of the pitfalls you need to avoid is destroying the light of the subject in favour of brightly exposing the image with flash light. Here we'll show you how you can balance the ambience and the interest of

the subject that's lit up with the power of the flash light, for a brilliantly exposed photograph.

We went to the Odeon cinema in Weston-super-Mare to shoot the original, and still functioning, 1930s Compton theatre pipe organ. The organ is enveloped in cascading, colour-changing lights that look beautiful to the naked eye but make it difficult to balance the exposure of the flash and ambient light.

If you can't get to Weston, you can apply this technique to any subject you're photographing that lights up, including toys, models and lighting fixtures. Let's see what we need to do...



One of the pitfalls you need to avoid is destroying the light of the subject

Teach Yourself Flash
Part 10



STEP BY STEP / Strike a balance



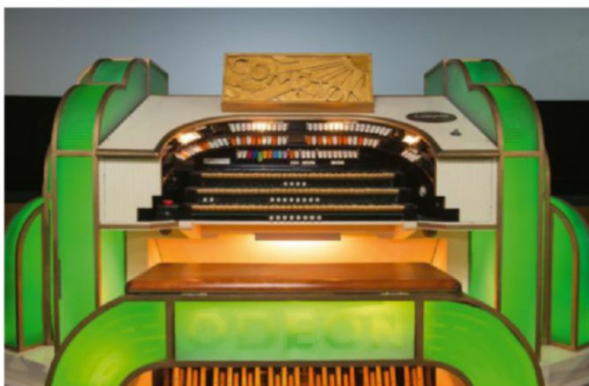
1 Read the meter

Set your Nikon on a tripod and put it in manual mode. Take a meter reading by looking through your viewfinder and noting the light meter. Aim for around the centre of the meter for this situation, because we have no bright highlights or dark shadows.



3 Light it up

Put a flash trigger on your Nikon and your flashgun. Put the flashgun on a light stand and set the power to 1/32 power. Put a diffuser on the light to spread it over the entire subject. If it's not bright enough, turn up the flashgun power, but don't touch the camera settings.



5 Frame your shot

Try out some compositional tricks to see what works for your subject. If you're shooting a symmetrical subject, frame up to emphasise that symmetry. By framing the console straight-on you can see the butterfly switches bowing around the horseshoe shape at the edge.



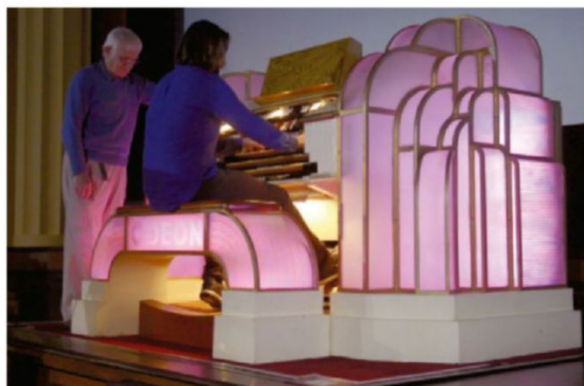
2 Set the speed

At 24mm, an aperture of f/5.6 kept the organ in focus from front to back. Starting at the flash sync speed (1/200 sec), decrease the shutter speed until you get the light meter reading the correct exposure. During the shoot we experimented with speeds of 1/125-1/20 sec.



4 Move it around

Move the flash around to get different looks and frame it so you can still see the lighting underneath. We side-lit the keys and turned the Nikon side-on to the keys to get that shine on the front of the black keys. Because the light was diffused by an umbrella, the keys were lit evenly.



6 Add a model

Use a model to bring your subject to life and to add a sense of scale. If your subject is something that can be used, then capture it being used. Jason is actually a theatre organist, so he jumped up on the bench and ran the organ through its paces for a few shots.

Work while you adjust

Nikons are unique in enabling you to continue to shoot while adjusting the shutter speed, rather than having to stop depressing the shutter button, readjust the shutter speed and then repress it. This speeds up your shooting abilities – just make sure you don't rock the camera on longer exposures.



WITH THANKS TO:
Dawn at The Odeon Cinema, Weston-super-Mare, and Fred Smedley and all at the West of England Theatre Organ Society. For concert times and info, visit www.wetos.co.uk



The mission

- To sharpen details in soft images without added artefacts

Time

- 20 minutes

Skill level

- Beginner
- Intermediate
- Advanced

Kit needed

- Lightroom 5 or later

PROJECT THREE / TEACH YOURSELF LIGHTROOM

Sharpen with care

Give your images added bite without adding unwanted noise

Getting photos pin-sharp can be a challenge for a variety of reasons. Many digital cameras have a built-in filter that blurs the image a little to avoid producing moiré patterns. But this low-pass (or anti-aliasing) filter can also soften important details such as a flower's fine stigmas.

By placing the camera close to a small subject, such as a flower, you risk getting a shallow depth of field. This leaves only a narrow band of detail in focus. Features

in front of and behind this zone will look blurred. An image that appears sharp on your camera's LCD may look disappointingly soft when examined on your PC's larger screen.

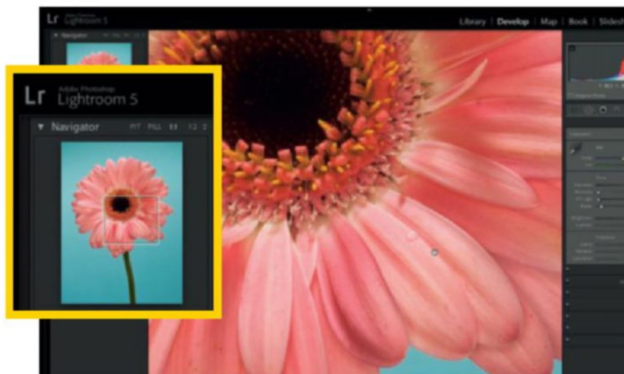
Fortunately, Lightroom's aptly named Detail panel is packed full of tools designed to tease out the fine details in a soft-looking photo. These post-production sharpening tools work their magic by increasing the contrast around the edges of details in the image, giving them more

impact. However, when you digitally sharpen a photo using Lightroom's sliders you risk exaggerating picture noise in smooth areas such as the clear blue background in our image here. You can also accidentally introduce artefacts such as blown-out highlights, clipped shadows and distracting haloes to the sharpened areas.

In the following walkthrough we'll examine ways to sharpen key areas of your photos while keeping artefacts at bay.

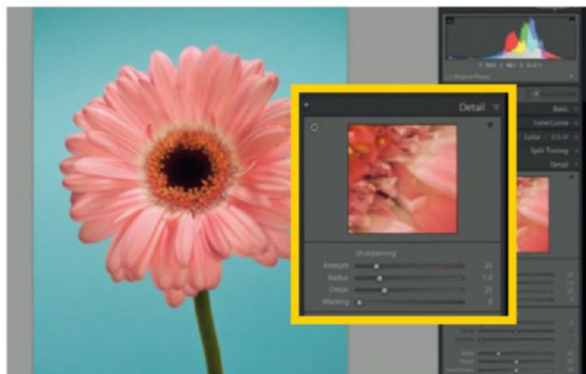


STEP BY STEP / Look sharp



1 Zoom right in

Open 'TYLR36.dng' in Lightroom's Develop module. To accurately assess how in-focus a photo is, look at it at 100% by clicking the 1:1 option in the Navigator panel. Then drag the Navigator's white preview box around to closely examine the focus in sections of the photo.



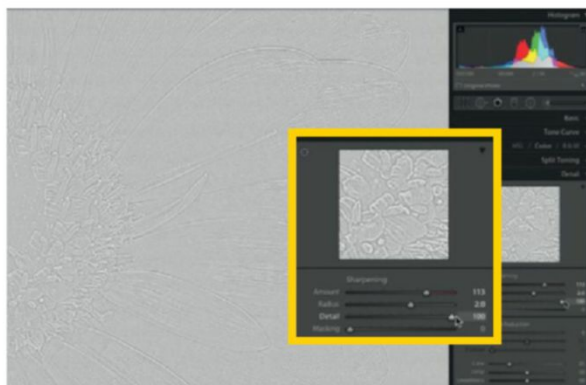
2 Check the detail

Toggle open the Detail panel and click on the crosshair icon at the top-left, then move the cursor over the image in the main window. Click to render a 100% size view in the Detail zoom window. You can use this tool to check the sharpness of small details within the photo.



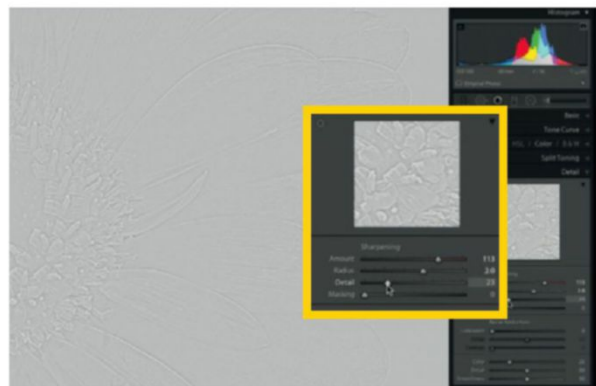
3 Set the amount

In the Detail panel, set the Sharpening Amount slider to a subtle value of 113 and Radius to 2.0 to avoid too many visible ugly haloes. To see how your sharpened version compares with the original, click the Before and After icon at the bottom-left of the workspace.



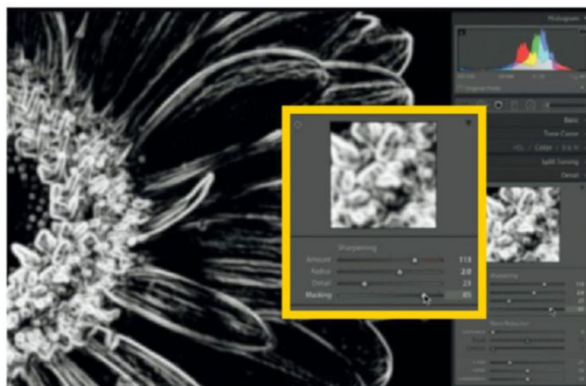
4 Balance it out

Details in the image now have more impact, but there's also more picture noise. The Detail slider helps you get a balance between sharpening details and keeping noise at bay. Hold Alt and drag Detail to 100. A greyscale preview shows you sharp detail plus noticeable noise.



5 Reduce the noise

Hold Alt and drag Detail down to 23 to reduce the noise in the sharpened areas, but still see definition in important details such as the petal edges. The Masking slider below works with the Details slider to restrict the sharpening to important areas only, while keeping noise at bay.

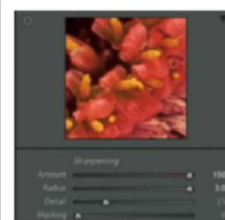


6 Add a mask

Hold Alt and drag the Masking slider. At 0, the screen will turn white to show no masking. As you hold Alt and drag the slider right, the masked areas appear in black. These masks protect parts of the photo from being sharpened, so you can keep some areas (such as the petals) smooth.

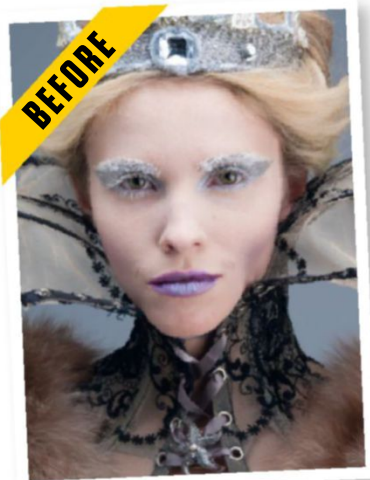
Experiment with Amount

Lightroom applies a Sharpening Amount of 25 to all photos to counteract the blurring effect of the camera's low-pass filter. If you reduce the Amount slider to 0 you'll see that the unedited photo looks softer, while the maximum setting of 150 makes the photo look sharper, but it also exaggerates picture noise.



Quick tip

The Radius slider increases the spread of the contrast change produced by the Amount slider. To see how it works, drag it up to 3.0. You'll see ugly artefacts such as white and dark haloes clinging to the petal edges.



The mission

- To turn a portrait into a stylised film poster

Time

- 30 minutes

Skill level

- Beginner
- Intermediate
- Advanced

Kit needed

- Photoshop Elements

If you need inspiration for a creative Photoshop project, take a look at the latest film posters. These are often at the cutting edge of Photoshop design, merging photography with type, graphics and effects. Here we'll show you how you can create your own film poster, with a bit of a fantasy theme.

As well as learning how to position images and words for a striking design, we'll also show you how to turn ordinary people into larger-than-life CGI-like characters with the Liquify filter.

What's more, you'll learn how to use layer styles to give your type impact, and we'll even show you how to make a quick digital snowstorm. By using these professional-looking techniques you can make your own posters starring your friends and family, complete with your own fun film titles and taglines. You could even make posters for a movie that you've shot on your camera.

These skills aren't just useful for posters; they will come in handy for any work that involves combining photography and type in an imaginative way.

PROJECT FOUR / CREATIVE PHOTOSHOP

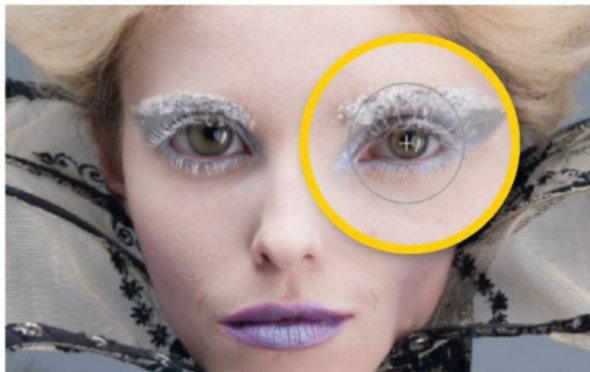
Make a movie poster

Design a striking film poster with larger-than-life characters using these simple Photoshop techniques. **James Paterson** is in the director's chair...



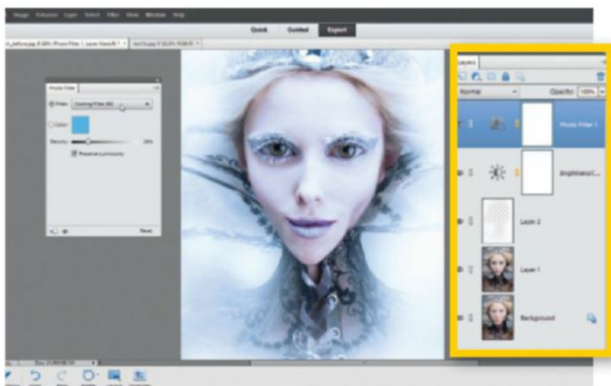


STEP BY STEP / Photoshop witchcraft



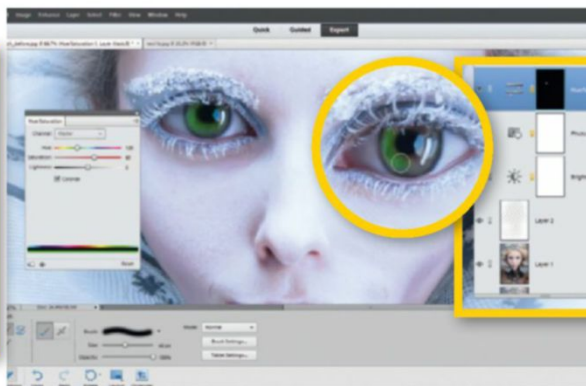
1 Enlarge the eyes

Open movie_witch.jpg and press Ctrl+J. Go to Filter>Distort>Liquify. Click the Bloat tool, then resize the brush until it's larger than the eyeball. Click each eye a few times to enlarge them, then switch to the Pucker tool and reduce the brush size to shrink the pupils.



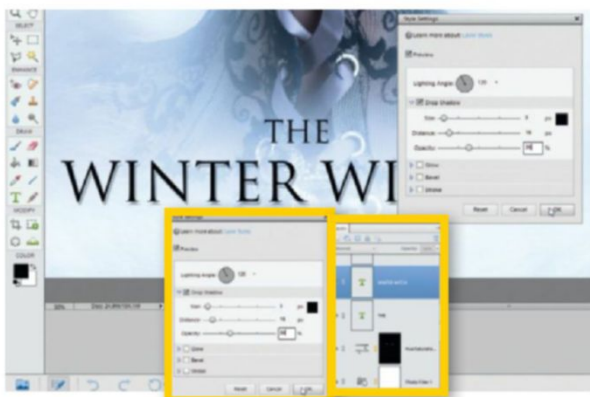
2 Thin the chin

Use the Warp tool to push in the nose and chin in short, sharp movements so that they're exaggeratedly small and pointy, and make the neck thinner. Push the mouth up to give it a subtle smile. Click OK. Next, click the New Layer icon in the Layers panel and click the Brush tool.



3 Soften the edges

Set the brush's Opacity to 30%, then paint the edges of the hair and costume with a large soft-edged brush to fade them. Create a Brightness/Contrast adjustment layer, set Contrast to 21, Brightness to 24. Add a Photo Filter adjustment layer with the Cooling Filter (82).

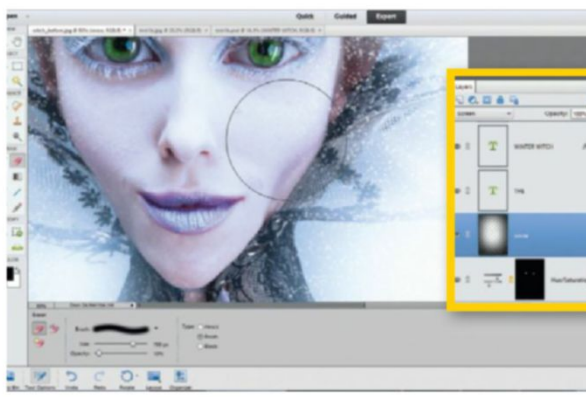


5 Transform the title

Grab the Move tool, check Show Bounding Box, then click the box to transform the title. Go to Layer>Layer Style>Style Settings and check Drop Shadow. Set Angle to 120, Size to 5, Distance to 16 and Opacity to 36. Title done, add smaller text for the tagline and credits.

4 Colour the eyes

Add a Hue/Saturation adjustment layer. Check Colorize and set Hue 120, Saturation 60. Press Ctrl+I and reduce the brush size, then paint green around the pupils. Next, click on the Type tool. Choose a bold font such as Trajan Pro in black, then type a title on a faded part of the image.



6 Let it snow

Fill a new layer below the type with black, then go to Filter>Noise>Add Noise. Choose Amount 400, Type: Gaussian, Monochromatic. Then Filter>Artistic>Dry Brush>OK, then Filter>Blur>Gaussian Blur. Set 1px. Set Blend Mode to Screen, and erase the snow on the face.

Try creative Layer Styles

Layer Styles are editable effects that usually work around the edges of a layer, so they're very useful for making text stand out. There are four of them to choose from in Photoshop Elements: Drop Shadow, Glow, Bevel and Stroke. When a style is applied, a little 'fx' icon appears on the text layer. Double-click this at any time to edit the effect. You can also find lots more ready-made Styles in the Effects Panel to spruce up your type.



Quick tip

Take a photo that gives you plenty of space around the main focus of your subject, for you to add text.

PROJECT FIVE / THE BIG PROJECT

Piece things together

James Paterson explains how to create a portrait collage inspired by the famous photo-joiner artworks of David Hockney and other artists



The mission

- To create a collage that shows a subject from multiple angles

Time

- One hour

Skill level

- Beginner
- Intermediate
- Advanced

Kit needed

- D-SLR
- Photoshop
- A printer (optional)

Back in the 1980s, the artist David Hockney pieced together Polaroid photos into collages that showed a subject from multiple angles. Hockney's joiners captured the public imagination. Since then, the technique has been much-imitated, to the point where it has almost become a bit old hat. There's even a phone app – the Hockneyizer – that will do the job for you, which is probably about as far from the original spirit of the idea as you can get.

But experiment with this photo collage technique and you'll find there's still life in it, in the unusual point of view that it creates and

the effect that it has on an everyday scene. Hockney's joiners were all about playing with space and time – he was interested in how our eyes see a scene by picking out details and studying them from different angles, and how we turn a 3D world into a 2D image. If we stay true to those ideals when shooting the images we need for this, then the results can be stunning.

So to begin with, we shoot a set of portraits taken from different angles, some cropped in tight, others looser. Variety is a good thing here, as subtle differences between the frames will help to set them apart.

From here you've got two options – you can arrange your collage in Photoshop, piecing the images together and then adding shadows to suggest depth. Or you can take the old-school approach and print out the photos and arrange them by hand. We'll explain both of these methods over the page.







ON LOCATION / Pieces of the puzzle

1 Natural light

We shot our set of portraits outdoors on a cloudy day. This soft and diffuse natural light is flattering and even, ensuring each frame looks consistent.

2 Different angles

Ask your subject to move in between frames. Shoot them straight on, in profile, or position them at 45 degrees. Crop out clothing for a strong shape.

3 Zoom lens

Vary the crops as you shoot, with some frames in tight to different parts of the face and others further away. A zoom lens will help you with this.

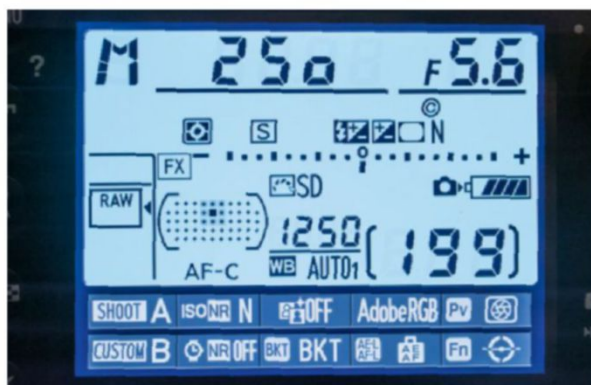
4 White wall

To create a strong shape to the head, a simple, clean backdrop will work best as it helps to define the shape of the face. We used a plain white outdoor wall.

Think outside the box

This is one of those projects where the entire technique is an exercise in thinking outside of the box, of seeing the world in an entirely new way. So, take the initial concept and run with it in whichever way you like. You don't necessarily have to use a person as your collage subject, you could shoot anything you like – the weirder and more wonderful the better!

SHOOTING ESSENTIALS / Capture your joiner images



1 Set the exposure

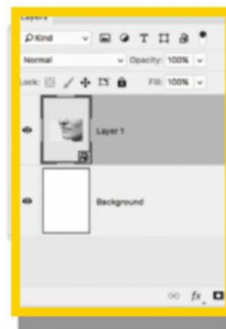
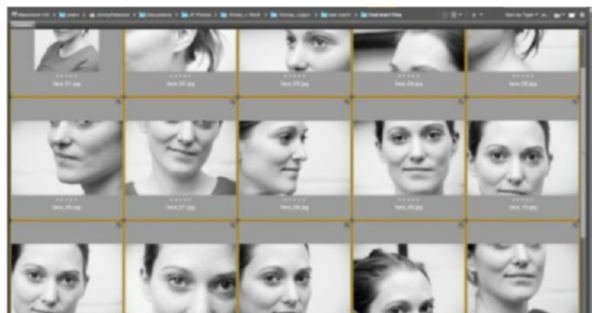
A good stock exposure setting for outdoor portraits is: Manual mode, shutter speed 1/250 sec, aperture f/5.6, Auto ISO. This shutter speed will freeze the action, and the wide aperture will blur the backdrop. The ISO adapts to suit the light, which is fine in bright, cloudy conditions.



2 Work the angles

Take a series of at least 20 shots of the face. Move around slightly as you shoot so that you can capture different angles. You could also try adding variety with your focus point – perhaps focus on the closest eye in one frame (as above) and the furthest eye in the next.

STEP BY STEP / Joined-up thinking

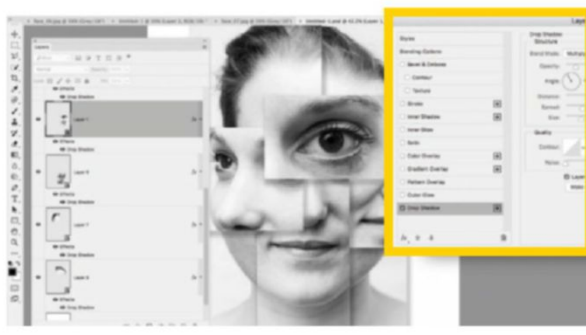
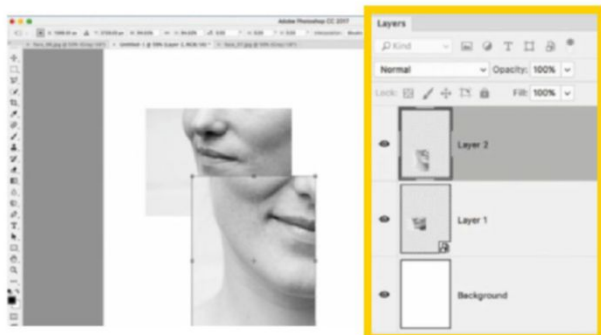


1 Tweak the set

In Adobe Bridge, right-click an image and choose Open in Camera Raw. Then make any changes (we converted to mono) and hit Done. Right-click the image, choose Develop Settings>Copy Settings. Select other files, right-click and select Develop Settings>Paste Settings.

2 Copy and paste

Open an image, then use the Rectangular Marquee tool to select and copy the part of it you want to use. Make a new A3 document with a white background. Paste in your first image's selection. Go to the Layers Panel, right-click the layer and click Convert to Smart Object.



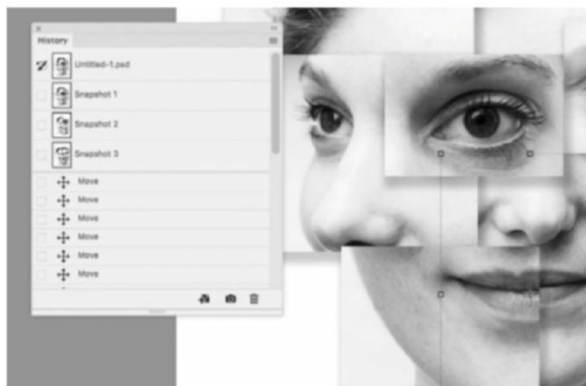
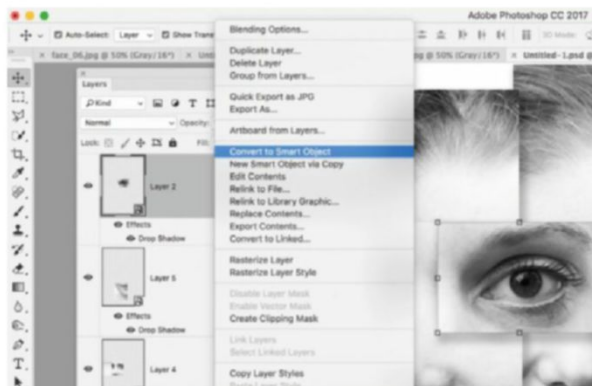
3 Resize and position

Grab the Move tool, check 'Show Transform Controls' and 'Auto-select Layer' in the options. Move the piece roughly into position and click the corner of the box (holding Shift) if you need to resize it. Repeat this with portions of other images to build up your collage.

4 Create shadows

Once the positioning's done, add shadows. Double-click any layer to open the Layer Styles box. Choose Drop Shadow then adjust the settings to tweak the shadow size and position. Once done, hold Alt and drag the Drop Shadow effect from one layer to another to replicate it.

EDITING ESSENTIALS / Use non-destructive editing



1 Convert to Smart Object

This technique involves lots of resizing. When we make a pixel-based layer smaller, we're effectively throwing away pixels, which is a problem if we decide to go larger again. However, if we convert a layer to a Smart Object we can resize as much as we like with no loss in quality.

2 Take a snapshot

In a project like this there are myriad ways to take your montage. With Snapshots, you can save a point in your workflow then go back to it later if you choose, giving yourself several attempts at once. Create a snapshot in the History panel and it'll appear at the top of the panel.

Beyond Hockney

David Hockney might be the most renowned exponent, but photo collage has been explored by many other artists.

● Thomas Kellner creates his collages by shooting a roll of 35mm film, cropping in to each part of a scene from one frame to the next. The entire roll is then laid out as a contact sheet (like the image below).

● Renowned portrait photographer Rankin asked his celebrity portrait sitters to chop up and rearrange them to create eclectic self-portraits in his series 'Destroy'.

● Taking joiners into a huge scale, the Japanese artist Sohei Nishino creates hugely detailed cityscapes made up of thousands of photos taken over several months.



Quick tip

Try shooting your set of portraits with your D-SLR set to monochrome.

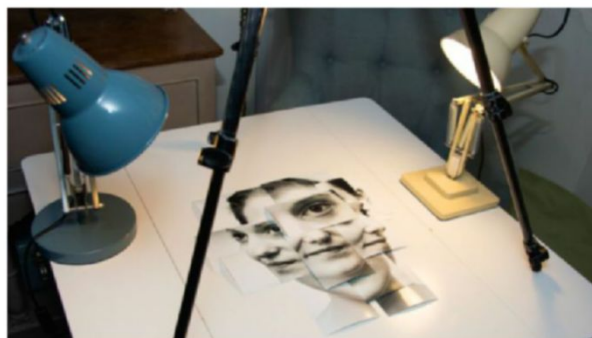


STEP BY STEP / Go old-school



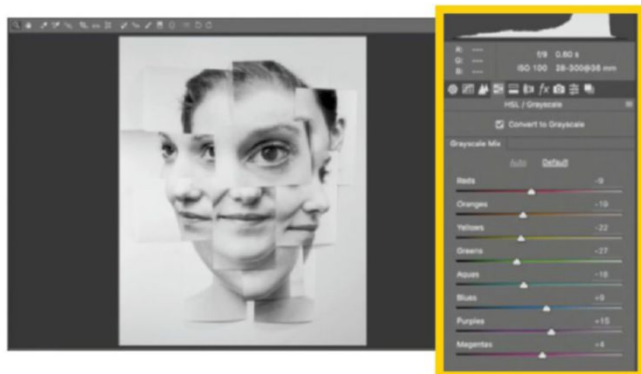
1 Print and position

Using a high street printer, print your portrait shots as 6x4s – some vertical, others horizontal – then lay them out on a white surface. Like the Photoshop method, you can play with positions and move prints up or down, but it feels more authentic to do it by hand, and the results are often more pleasingly random.



2 Light the artwork

For even lighting, position two equally powerful lamps either side of the artwork at a 45-degree angle. Set up a tripod directly above the prints and angle your camera straight down. Some tripods enable you to reverse the central column so that the camera faces downwards, which can help in a setup like this.



3 Shoot the prints

Check for hotspots and reflections over the prints and adjust the position of the lights if necessary. Also, make sure the tripod legs don't cast shadows over the print. Set your camera to aperture priority at f/5.6, ISO100 then take your shot. Open in Photoshop to fix any colour casts or convert to mono.



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Forthcoming workshops

Here are just some of the workshops that Nikon School has got coming up in the next few months

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9 March, Surrey

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10 March, Andover

Photograph over 150 birds of prey



20 April, Yorkshire

Capture some striking Dales waterfalls



25 April, London

Get started with macro photography skills



3 May, Skye

Capture Skye's dramatic and rugged landscapes



25 May, Droitwich

Photograph kingfishers, kestrels and little owls

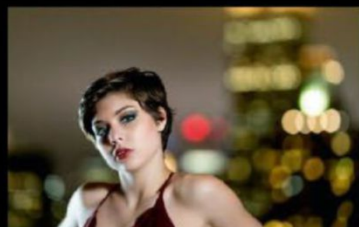


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OVER TO YOU...

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N-Photo Magazine, Future Publishing, Quay House, The Ambury, Bath, UK, BA1 1UA mail@nphotomag.com



THE **N**Photo APPRENTICE

THE PRO...

NAME Christian Hoiberg
CAMERA Nikon D810

Fine-art landscape photographer Christian bought his first camera aged 15. It didn't take long before he was hooked, and he upgraded to a Nikon D3200. He hasn't ever considered changing brands, and he now uses a D810. While he has a degree in economics, he quickly realised that photography was his true passion. He has worked with Nikon Nordic and he also teaches photography through his website www.capturelandscapes.com

THE APPRENTICE...

NAME Steven Henriksen
CAMERA Nikon D810

A Lofoten native, Steven works as a project manager for a kitchen-design company on the Islands. He's been into photography since childhood, and got a D7100 a few years ago. Norway's Northern Lights got him hooked, and he tries to get out and shoot them at every opportunity. Steven also does some interior photography for his work, but prefers having the wilds of the Islands in his viewfinder. Having upgraded to a D810, he now hopes to moonlight as an aurora photography guide.

Help me shoot a winter wonderland!

This issue, landscape pro Christian Hoiberg and *N-Photo* reader Steven Henriksen meet up in Norway's remote Lofoten Islands for one of our most challenging Apprentices yet...



Introduction

Norway's Lofoten Islands boast a lot of stunning scenery – and a lot of challenging weather! During Christian and Steven's shoot, a heavy snowstorm rolled in, making it tough going. With sunrise at 11:15am and sunset at 1pm, they had less than two hours of sunlight to work with. Their first location was the picture-postcard village of Hamnøy, but before they got started, Christian suggested that Steven take a few shots using his usual settings, to see if there was any room for improvement.

Technique assessment

SELF-TIMER MODE

Christian says... Initially, Steven's shots were a little blurry, and to me it looked like camera shake, but his D810 was on a tripod, so it wasn't that. It turned out to be the movement of Steven's hand pressing the shutter release button. To prevent this I suggested setting the self-timer to 2 seconds, so Steven could take his hand away before his camera took the shot.



FOCAL LENGTH

Christian says... Steven's Nikon 24-70mm f/2.8 was ideal for shooting in the very challenging weather; its versatile focal length range meant he could shoot wide or crop in without having to change lenses (and risk exposing his D810's sensor to the elements). Plus it's pin-sharp, especially at the mid-range apertures that are typically used for landscapes.



VIRTUAL HORIZON

Christian says... Steven's approach to shooting was quite methodical, but instead of shooting through the viewfinder, I urged him to engage Live View and press the 'i' info button to get to the Virtual Horizon tool. This overlays your image with a line that turns green when your horizon is straight. It's a very quick and easy tool that I use all the time.



Our Apprentice says... I tried to frame this first Hot Shot so there was interest in every part of the scene, with the wave-washed rocks in the bottom third of the frame, the village in the middle and the mountain behind in the upper third. I experimented a bit with focal length, but in the end I went for the widest end of my 24-70mm. I wanted to keep the exposure to around two seconds to capture the movement of the waves [see below], so I had to open up the aperture to f/5.6 to let in enough light for a correct exposure. This is slightly wider than I'd normally go for a landscape, but because I was using the wide-angle end of my lens, I knew f/5.6 would still give me a pretty decent depth of field.

Don't always go slow

➔ Using a very slow shutter speed might be your first thought for a seascape shot, to give the water that milky look, but often it's more interesting to use a slightly faster shutter speed to add a hint of motion blur, and capture the movement and energy of the waves (but not too fast, or they will end up looking too static). In this shot (right) you can see the difference a 15-second exposure makes over the Hot Shot, which was shot at 2.5 secs.



Strike a balance

⬆ When you're shooting either side of sunrise/sunset, or when direct light is obscured by thick cloud, it can be tricky to know what white balance to set, as the technically 'correct' white balance might actually counteract the cast that gives the scene its mood and atmosphere. One option is to take a reference shot of yourself in the scene using the flash or sunlight preset, as this will give you some indication of the overall, uncorrected mood of the scene (as in the cool blues of the image above).



WINTER LANDSCAPES

HOT SHOT #1

EXPOSURE 2.5 secs, f/5.6, ISO100
LENS Nikon 24-70mm f/2.8

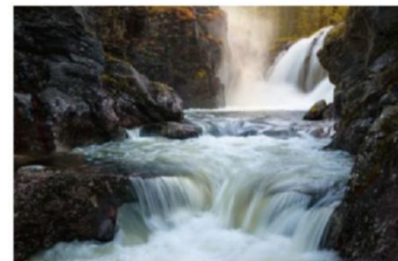


HOT SHOT #2

EXPOSURE 1 sec. f/8, ISO100
LENS Nikon 14-24mm f/2.8

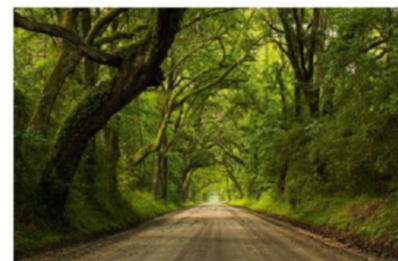
Pro portfolio Into the wilds

HERE'S A SELECTION OF CHRISTIAN'S FAVOURITE LANDSCAPE SHOTS FROM AROUND THE WORLD



RJUKANDEFOSSEN

It wasn't until last year that I began exploring landscape locations closer to home. For some reason I've always been more attracted to travelling long distances than to getting in the car for a few hours. Rjukandefossen waterfall in Hemsedal was one of many local gems I found.



BOTANY BAY

After nearly two weeks of driving around the southern US states I finally reached the stunning entrance to my destination, Botany Bay in South Carolina. It's scenery like this that inspires me to keep improving my work and to explore new places.



DARK WAVES

Clear blue skies and sunny days are rarely what I prefer to photograph. I find much more pleasure in photographing in more challenging conditions, as the images feel more rewarding. I also enjoy capturing more moody shots that convey a better story than the 'perfect day'.



Our Apprentice says... For our next Hot Shot we stopped at a layby overlooking this striking mountain. I tried shooting from the water's edge, but Christian reminded me that having interest in the foreground is what separates the hobbyist from the enthusiast. With this in mind I used the sweeping lines of the shoreline to lead the eye into the frame. Placing the rocks on the left third, grass in the middle and snow on the right helped to balance the composition, while the grass injected some colour into the otherwise mono scene.

Expert insight Master exposure

Christian says... I like to use Live View alongside the camera's metering when deciding on exposure settings. With ISO set to 100, I set the aperture in Manual mode [see below], and then adjust the shutter speed based on how the scene looks in Live View, rather than what the camera recommends (as left to its own devices the camera will try to render the scene as an average midtone, even if it's actually darker or lighter than midtone). Once it looks right, I'll double check the exposure using the histogram view.



Clear the mist

↑ A dirty lens can spell disaster for its longevity, and for getting clear photos. After changing locations, Christian showed Steven how to clean his lens. He used an air blower to demist the lens without creating unwanted smears, and then a clean camera cloth to carefully wipe off any specks of dust and dirt, or larger droplets of water.

Pro's killer kit Induro CT314 tripod

↓ **Christian says...** Low weight and sturdiness are the two qualities you should look for in a tripod. If you can carry it easily for a long time then you're more likely to use it. Although carbon fibre tripods like this are more expensive, they're worth their weight in gold. They're also as strong as – if not stronger than – heavier metal models.



Maximise depth of field

↑ Keeping the foreground in focus is key to a strong landscape, and many people use big words that complicate what is essentially a quick adjustment. If you want a bigger depth of field, then use a wide-angle lens and a narrow aperture. This hot shot was taken at 16mm at f/8, ensuring both the grass and the mountain are pin-sharp. Lens choice is also important: the Nikon 14-24mm f/2.8 used here is super sharp at any aperture.



HOT SHOT #3

EXPOSURE 8 secs, f/7.1, ISO200
LENS Nikon 14-24mm f/2.8



Our Apprentice says... Sunset was long gone by the time we got to our next location, at Skagsanden beach, but we still had an hour of blue light to work with before it got dark. Christian pointed out these amazing lines in the sand, so I started shooting them from down low, but he advised me to get up high to really show them off. I placed the rocks in the top third of the frame to hold the eye in the photo, and set an aperture of f/7.1 to ensure both the rocks and the foreground sand were sharp. It's a shame the mountain in the distance is obscured, but in some ways this just adds to the mood.

Expert insight Filters

Christian says... Filters are great for making the most of winter landscapes. You can balance bright skies and dark foregrounds with an ND grad – as in the shot above, which was shot using a two-stop ND grad with a soft transition – or reduce glare with a polariser. I use Nisi filters, as unlike some filters they don't introduce unwanted colour casts.



WINTER LANDSCAPES

Be selective with processing

⬆ Black and white photography lends itself well to textural shots. Turning slightly to his right, Steven found amazing patterns in the sand leading to a mountain beyond. His black-and-white processing separates this image from the blue hues of its Hot Shot sibling. Both photos were taken at the same location, but look drastically different due to the different processing and angles.

Pro's killer kit Really Right Stuff L-Plate

⬇ **Christian says...** One piece of kit I'd recommend to the budding landscape photographer is my Really Right Stuff L-Plate mount. It's quick and easy to switch between taking vertical and horizontal shots because you don't need to recompose or adjust the tripod. You unlock the mount, flip it and just keep shooting. The bracket is solid as a rock and doesn't budge an inch. I've even dropped my camera in the sea before and the bracket survived (though the camera definitely didn't!).



Tread carefully

⬅ When shooting on soft ground like snow or sand, it's important to be aware of footprints. "After we'd been at Skagsanden a while, other photographers had walked over the area we were shooting and it was completely spoiled," says Steven. "My best images came in the first few frames before anyone else arrived." Be aware of others, too – if you wander into someone else's shot, you'll get some angry looks.





SHOT OF THE DAY

EXPOSURE 2 secs, f/11, ISO100
LENS Nikon 14-24mm f/2.8

Expert insight Be tenacious

Christian says... If there's one word of advice I would give to budding landscape photographers, it's this: persevere. Turning up at a location and initially seeing nothing doesn't mean there isn't a shot there somewhere. If you move around you'll eventually see something worth photographing. Then you need to decide if the time and light is right; if it isn't, make a note and come back when it is.



Our Apprentice says...

After using all of the compositional and camera tricks Christian had shown me throughout the day, I wandered off into a field near Fredvang, in the same location where I took Hot Shot 2.

I came across this frozen puddle, which I thought complemented the jagged angles of the mountain beyond quite nicely. I decided to place it in the bottom third of the frame, with the mountain behind it in the top third, to provide a visual link between the two. I used a narrow aperture to get as much of the scene in focus as possible, and I extended my tripod legs to enable me to get up high and emphasise the shape of the puddle.



Our pro's verdict...

Despite the challenging weather, Steven was able to capture this beautiful and well-exposed image. The composition is simple but strong, with the frozen puddle in the foreground perfectly aligned with the snow-covered mountain in the background. My

only negative comment would be that there was a dust spot in the sky and a couple of smudged wet spots over the landscape. These could have been removed by wiping the lens in the field, but with the conditions we had they were hard to avoid. Steven made a really great shot here, and has every reason to be happy with this image.



Plan your own photography trip to Norway

A big thanks to Sonja Birch-Olsen at **Visit Norway** for her help in making this shoot possible. For more information on Norway, go to: www.visitnorway.com
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Next month: School of rock

Push to the front row with our apprentice as she learns to shoot brilliant concert stills.

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Relax, shoot, unwind



Vinaya Mohan relieves stress with a good dose of photography, finding peace in capturing colourful traditions and festivals on holiday in India



Mission: To capture the colour and spirituality of Varanasi and the Dev Diwali festival rituals

Photographer: Vinaya Mohan

Age: 54

Location: Dubai, United Arab Emirates

Kit: Nikon D4s, Nikon 24mm f/2.8 and Nikon 70-200mm f/2.8

My brother-in-law inspired me to try photography on a vacation. He noticed that I had become frustrated with my hectic job, so he showed me some photos taken by well-known photographers from around the world. He and some friends helped me to learn the basics of photography, and I realised that this helped me to overcome the stress and pressure of my job. It's 10 years since I started enjoying my life and work at the same time.

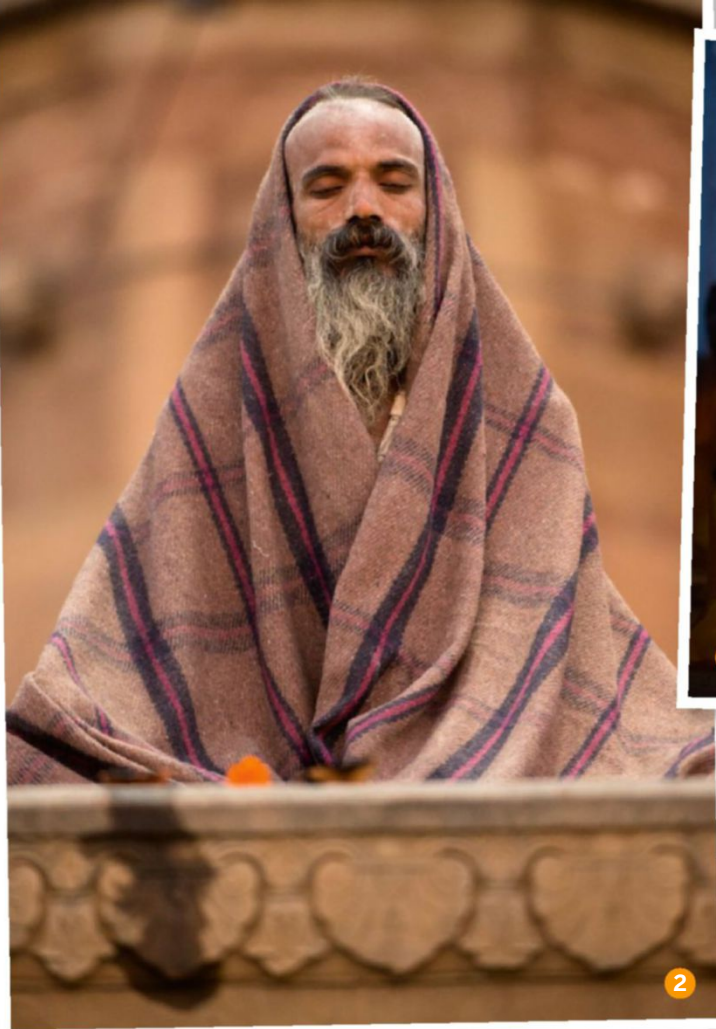
Varanasi, in Uttar Pradesh, is regarded as the spiritual capital of India. Every year millions of Hindus are drawn to Varanasi to bathe in the sacred water of the River Ganges, to wash off their sins, or to perform funeral rites. It's a colourful place, with lots of activity throughout the day and night, and a multitude of people and cultures, which make it a street photographer's paradise. I had a chance to visit Varanasi during Dev Diwali, also known as the Festival of Lights of the Gods, which takes place 15 days after Diwali.

Since the streets of Varanasi are narrow and it's possible to get close to any subject there, I normally take a 14-24mm lens and a 70-200mm lens. For this trip I wanted to try something different, so I took a 24mm lens instead of the usual 14-24mm. I carried two D4s bodies with me to avoid changing lenses. I knew I would take a lot of the photos in low light, so I needed a body that could take low-light photos with relative ease.

Quiet meditation

I was so excited on the day that I landed in Varanasi that I didn't know where I should start or what I should do, so I decided to explore Varanasi as a tourist and started to wander all over the place. By the end of that day I had a clearer idea of the sort of images I wanted to try to shoot.

The next day I woke up at 3am to start my photographic tour. I got attracted to one sadhu [1 & 2] with a very



1
River Ganges
Nikon D4s, 24mm
f/1.4, 1/1250 sec,
f/2.8, ISO400

2
Sadhu
Nikon D4s, 70-200mm
f/2.8, 1/800 sec,
f/2.8, ISO3200

3
Daily Ritual
Nikon D4s, 70-200mm
f/2.8, 1/400 sec,
f/2.8, ISO6400

4
Dev Diwali
Nikon D4s, 70-200mm
f/2.8, 1/320 sec,
f/2.8, ISO6400

spiritual expression on his face. A sadhu is a holy person who is solely dedicated to achieving liberation through meditation and contemplation. Sadhus dedicate their lives to praying, chanting and meditating. They lead very simple lives and do



not expect anything in return. I was attracted to him by his aura and radiance, and I started to follow him from morning until night, without disturbing him. He was engaged only in prayers and meditation. He was not bound to anything other than God. It was quite a challenge to take photos of him without disturbing his meditation. My D4s's quiet mode helped me a lot in this respect.

The following day I decided to explore more of Varanasi. Every day here starts and ends with the Ganga Aarti ritual [3]. A group of priests perform Agni Pooja (fire worship) where

! Vinaya's top tips

- Avoid changing lenses too often as you may miss out on getting a great shot
- Choose a camera that handles low light well, such as the D750
- Find the time to unwind, and be patient with your photography – don't rush

a dedication is made to Lord Shiva and to the River Ganges. After shooting the Ganga Aarti, I took a boat ride along this sacred river, taking in Varanasi's famous temples and many ghats.

The next day was Dev Diwali itself. This festival starts with the offering of prayers and flowers to Lord Ganesh. This is then followed by the offering of lit earthen lamps, or diyas, by Brahmins and young girls, with the chanting of vedic mantras in the background.

A lot of devotees take a dip in the River Ganges on this auspicious day. This ritual is believed to rid a person of their sins. It was madly crowded and I found it extremely difficult to walk around without stepping on someone or a lamp, but the whole of Varanasi and the River Ganges looked very beautiful and colourful lit by millions of these diyas [4]. It was a very spiritual experience.



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Dilapidated Detroit

YOUR PROJECTS CRITIQUED



Giorgio Orlandi uses his trusty 35mm lens to capture beautiful images of a once thriving city

Detroit, Michigan, is one of the largest cities to ever file for bankruptcy. This happened in 2013, when I first moved here. It was hard to imagine that this dilapidated city, which was littered with decaying factories, office spaces and theatres, was the home of the US auto industry for almost a century.

I took the wet floor shot [1] in an old abandoned factory, just outside downtown Detroit. I was drawn by the apparent symmetry, with the leading lines in the ceiling reflected in the puddles of water on the floor. I typically shoot in Aperture Priority mode, and to capture the ripples and freeze the wall fan that was spinning in the gusty wind, my shutter speed needed to be quite quick, so I had to increase the ISO.

I use a fixed 35mm lens because I once read that it is a great way to force oneself into thinking about each shot, and this was certainly true for the shot with the planks by the window [2]. I was drawn by the messy stack of wooden planks, but I didn't immediately see a composition that worked. I snapped a few photos with the window on the left, but I just felt it didn't quite work. I then noticed the green tank through the other

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window. I thought I could try framing it while using the planks as my anchor, and to do so I had to move around quite a bit, and to shoot from different heights for different perspectives.

The final photo [3] was taken at the Fisher 21 Plant, an abandoned industrial paint shop. I shot it with a shallow depth of field because I wanted the viewer to focus on the blue pieces of glass that had fallen from the surrounding windows, but I also wanted to give a sense of the vastness of the plant by playing with an out of focus background. I feel that

the windows in the back give it the sense of depth I was looking for.

N-Photo says

These images are fantastic, Giorgio. They are technically proficient, plus they capture a fascinating, sombre part of history. Your central framing in the factory floor shot is spot-on. The leading lines on the ceiling and in the water below draw the eye in to the centre of the frame, as you say. The graphic shape and deep contrast of the fan blades in the distance hold our

gaze as the main feature within the photo, underlined by the stripes of light pouring in through the windows and onto the floor. And the piles of rubbish on the right and graffiti on pillars on the left add weight to the edges of the frame, holding the eye inside the photo.

Taking the time to reposition, recompose and study a scene is the hallmark of a skilled photographer, and the time you spent setting up the planks and window scene has paid off. A random jumble of timber placed against a wall is a chaotic nightmare for composition, but you've managed to create structure in your shot of it (see page 76 for more on this). You're right to place the window to the right, and to frame the water tower inside the window. It would have been easy for a less experienced photographer to crop that out, miss it entirely or

1

Factory Floor

Nikon D5500, 35mm
f/1.8, 1/30 sec, f/5.6,
ISO640

2

Room with a View

Nikon D5500, 35mm
f/1.8, 1/350 sec, f/8,
ISO500



I use a fixed 35mm lens because I once read that it is a great way to force oneself into thinking about each shot, and this was certainly true for me





simply cut the end of the window frame out. By running an imaginary diagonal line from top-left to bottom-right, you can see there's interest but simplicity in each half of the frame.

Your close-up of broken glass completes your trio of images brilliantly. Getting in close like this really focuses the viewer's attention on the grit, grime and glass of a city that's quite literally broken, and the result is both an intimate portrait,

and a reflection on what's been lost. You've managed to turn broken glass and concrete into something that's really rather beautiful. We especially like the placement of the shards at the

bottom right, and how they balance and echo the shapes and colours of the openings at the top left; and the way the hard shadows lead the eye from one to the other.

3

Broken Glass

Nikon D5500, 35mm
f/1.8, 1/30 sec, f/9.5,
ISO1000



You've managed to turn broken glass and concrete into something that's really rather beautiful

TECHNIQUE TIPS

The N-Photo experts say...

PACK A TRIPOD

To nail your composition, take a tripod with you. If you find it tricky to carry lots of gear, invest in a lightweight tripod made from aluminium or carbon fibre. Mounting your Nikon on a tripod leaves both hands free to manipulate the framing and settle on one fixed position.

PRIORITISE APERTURE

Set Aperture Priority mode so you can decide on the depth of field. When your subjects are static, like these structures, shutter speed doesn't matter as much, so you can be as fierce with your aperture as you like. Go for a narrow aperture such as f/16 to increase the depth of field.

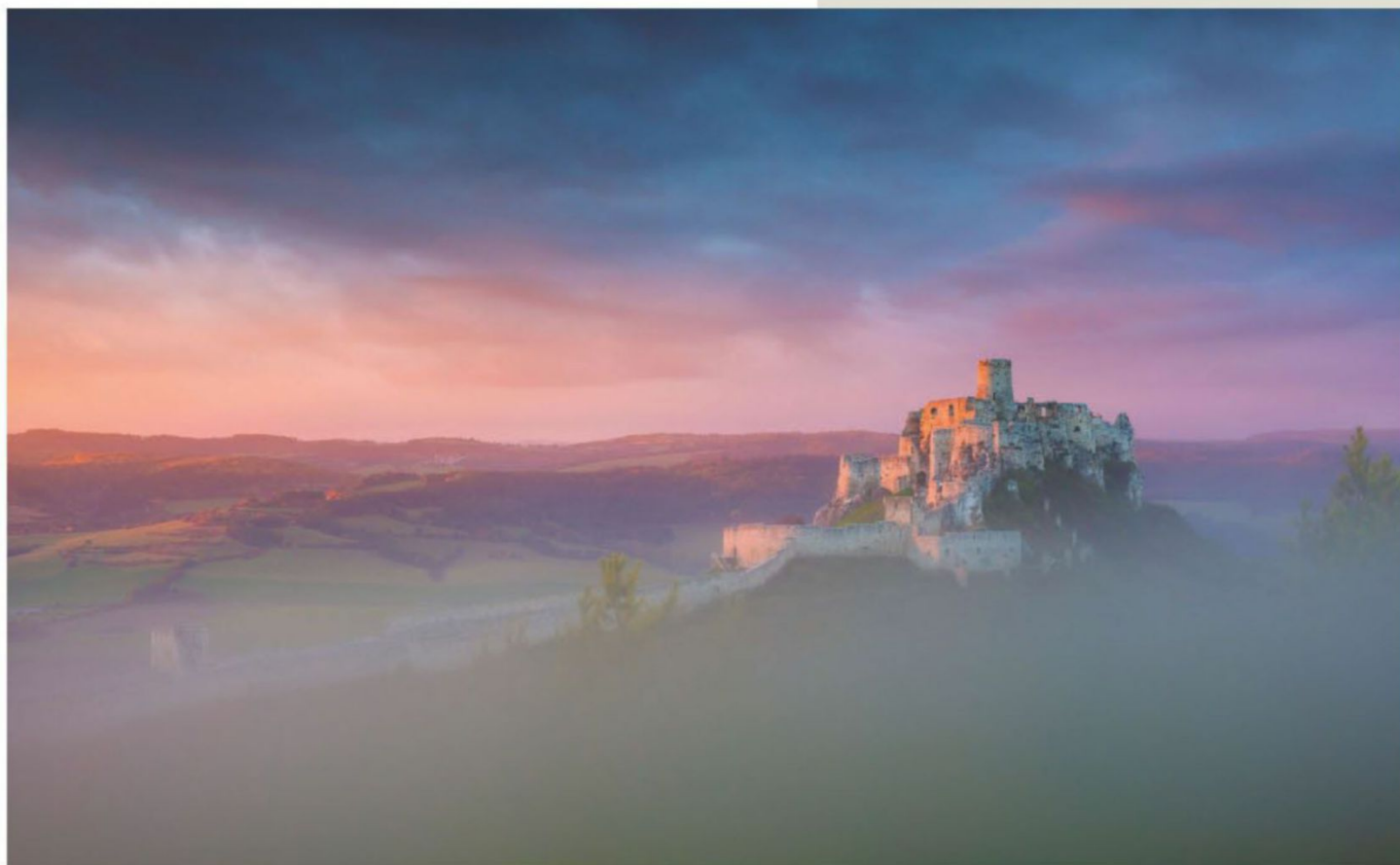
CONSIDER WEIGHTING

Think about the visual weight in your images. If there's a dark section on the left of your frame, do you want a light section to the right? Your eye is drawn to the brightest part of a photo, so ask yourself if the tonal balance of your photo is keeping the eye inside the frame.

TRY GOING MONO

Giorgio's use of black and white is purposeful. By making the more complex image monochromatic, he places focus on the texture rather than any particular subject in the photo. Monochrome doesn't just mean black and white, though – it means 'one colour' – so experiment.

NEXT MONTH: STUNNING IMAGES OF LONDON BY NIGHT



The Mist Stripe

Spis Castle, Slovakia

LEE Filters 0.6 ND Medium Grad and a LEE Filters Mist Stripe

Nikon D810, Nikkor 24-70 F2.8, 1/4 second at f11 at 100 ISO

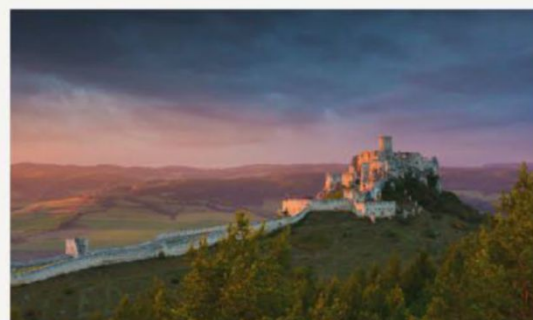
The stunning ruins of Spis Castle in eastern Slovakia are perched upon a rocky outcrop towering over the valley and surrounding countryside. Its location is magnificent and the castle itself well worthy of its UNESCO World Heritage Site designation.

I had a great viewpoint from which to shoot the castle and the warm light was gorgeous, but I felt that the whole image needed something to give it an edge, something extra that would make it stand apart.

The LEE Mist Stripe is a filter like no other. It gives an effect that cannot be replicated in post-production. It behaves the way natural mist will when backlit by the sun, it will glow and the image will have a softer more ethereal look. In this image not only does the Mist Stripe help create more mood and atmosphere it is also hiding a messy and distracting foreground.

The effect and drama of the LEE Mist Stripe will vary from focal length to focal length, making the band of mist appear thinner or thicker. Aperture will also play a role in how the mist will look. Focal lengths of about 35mm to 50mm and apertures between f5.6 and f11 will be a good starting point when first using this filter.

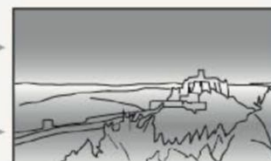
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Letters

We'd love to hear your thoughts on the mag and all things Nikon-related. Email us at mail@nphotomag.com or write to us at **N-Photo, Quay House, The Ambury, Bath, UK, BA1 1UA**. We reserve the right to edit any queries for clarity or brevity.

★ LETTER OF THE MONTH

McNally's lighting magic

The January issue (67) has dropped through the door and immediately called into question this old atheist's convictions! I've suspected for a while that Joe McNally has a contract written in scarlet with an underworld lighting representative, and his latest article has only strengthened this notion.

When I try to use a flash, you can guarantee that my single light source and reflector will bleach out everything, will be too harsh or will be ineffective. Yet here is Joe using what looks like 12 or 13 light sources, plus daylight, at ISO 400, f/8 and 1/250 sec, and his superb image is still dark and moody and full of mystery. Surely this is the result of some necromancy or other dark art!

If ever you were to offer me the chance to be in your Apprentice feature with a



The final word
Joe McNally

pro photographer, I'd love to learn how Joe works his illuminated magic.

Adam Taylor, via email

Thank you for your letter, Adam. We agree that Joe McNally does seem to have a magic touch when it comes to lighting. You can catch Joe's Lighting Masterclass at The Photography Show in March (see page 3), where he'll share some of his secrets!



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Add a burst
Add a Threshold adjustment layer set to white, click on the right side of the photo to add a layer and highlight the new layer. Go Filter>Blur>Blur, Amount 10. Go Filter>Blur>Radial Blur, Method: Zoom, position the blur on the flash.

Watch the video online at bit.ly/NPhoto68

LETTERS

Video replay

Our computer, which had a CD/DVD rewriter, died just before Christmas. We bought a replacement laptop but it doesn't have a CD/DVD drive, so we can't access the videos on the *N-Photo* cover disc. Can you help?

Roy McIntyre, via email

We're sorry to hear of your computer woes, Roy. All the videos and start files on our cover discs are also available online – you can find the link at the bottom of every tutorial page. For this issue, the link is bit.ly/NPhoto69.



Single-shot HDR

I found the HDR tutorial in issue 66 very beneficial, but what about existing images that might benefit from HDR processing? Could you select a prospective image and then create three duplicates – an unchanged master, and two duplicates that are under- and over-exposed – and then merge these using the HDR command in Lightroom? I've tried this and it seems to work, but is this true HDR?

Peter Ferrier, via email

We're glad that you liked our HDR tutorial, Peter. Processing the same shot three times to create an HDR image is a great idea. If you're using a RAW file, it is still HDR, since you're increasing the dynamic range by processing it three times.

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N PHOTOGRAPHER OF THE YEAR 2016

Photo

We're now into the 10th month of our year-long photography contest, which features a different theme each month, with all shortlisted images being put forward for the coveted title of N-Photo Photographer of the Year. The theme we set last issue was 'winter landscapes', and as you'll see from the photos on the following pages, we had some stunning entries.

If you feel inspired by these images, our next two themes are 'nightscapes' and 'portraits' (see this issue's feature on page 16 for tips on the latter). Enter or vote for your favourites at www.photocrowd.com/contests

The monthly competition prize is a **£100 voucher** for online printing specialists WhiteWall, while the Crowd Vote winner will receive a bundle of photography guides. The overall N-Photo Photographer of the Year will win a **Nikon D500**, and a **metre-wide acrylic print of the winning image** from WhiteWall.

HOW TO ENTER

Here's how our photo competition works:

- A theme is set each issue by the *N-Photo* team. We'll tell you about it in the magazine, but because of the way our deadline falls, the easiest way to see when a new theme is announced is to check our Facebook page, www.facebook.com/nphotomag

- Visit www.photocrowd.com/contests to enter.

- Images are judged by the *N-Photo* team. Your fellow *N-Photo* readers are also able to vote for their favourite image over on Photocrowd.

- The Judges' Vote winner will receive the WhiteWall voucher, while the Crowd Vote winner will receive a bundle of photography guides. The overall winner will be announced in June.



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WIN A NIKON D500 AND A METRE-WIDE ACRYLIC PRINT!

Each issue we judge on a theme, but for our grand prize, the winning image simply has to be the best, and a photo that good deserves a fantastic prize. If you read our full review of the Nikon D500 in issue 60, you'll know what an amazing camera it is – and we're delighted to be able to offer one as the grand prize for this year's contest.

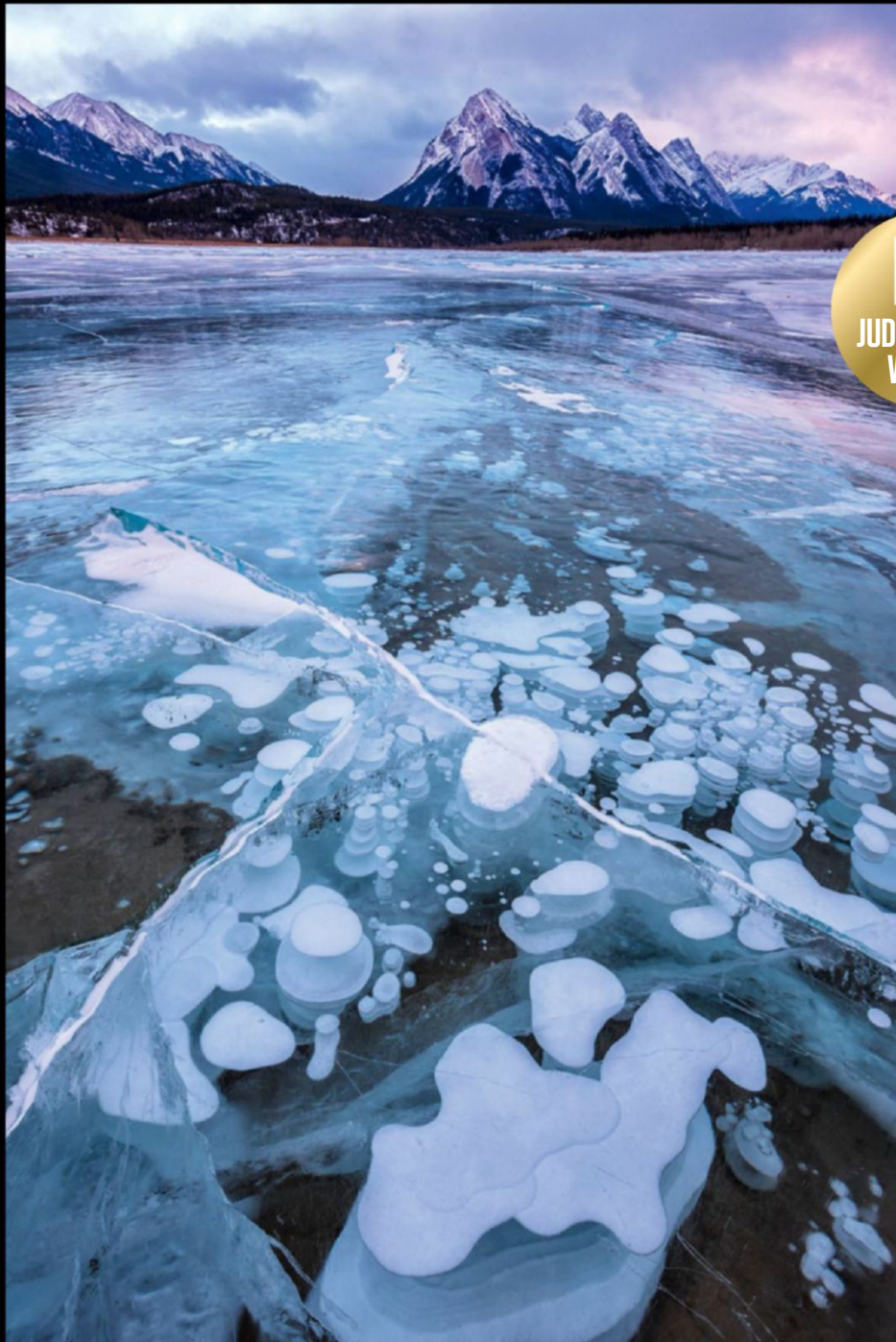
The winner will also receive a £300 voucher from WhiteWall – enough to buy a metre-wide print of their winning image mounted under acrylic glass, so they can show it off to friends and family in style. And remember, the more months you enter, the more chance you have of winning. Happy shooting, and good luck!



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01 Frozen in Time

Kathleen Croft



There's interest through every section of this image, starting at the bottom and leading all the way up to the top. The peaks in the distance are glowing with purple hues that gradually fade into the sky. That colour is also reflected all across the frozen lake beneath. The methane bubbles trapped in the ice really make the foreground come alive, while the cracks in the ice cut through the foreground and draw the eye up, towards the mountains.

Nikon D810, 14-24mm,
1/3sec, f/16, ISO64

02 House of the Rising Sun

Marek Kosiba



A classic view of the Mesa Arch in Utah at sunrise has made it to our number two spot. The timing of this shot is perfect. Firstly, the time of day you shoot this scene has to be spot-on for the sun to hit the arch and make it glow so vividly; and secondly, the time of year has to be spot-on if you want to include a dusting of snow that doesn't cover the orange of the rocks. A little altocumulus in the sky lifts the right-hand corner, while the saturated blues and oranges complement each other perfectly.

Nikon D300, Sigma 10-20mm f/4,
no exposure info supplied





03 Winter View

Lotte Grønkjær

← Taken from 11 floors up in a high rise, this graphic, almost abstract image offers a very original take on the 'winter landscape' theme. Lotte has taken great care to frame out any extraneous details, to ensure an abstract feel, but closer inspection reveals more about its location. The block-cut shrubs echo the uniformity of the high-rise block, while the wandering tracks and footprints capture the more free-flowing movements of the block's inhabitants.

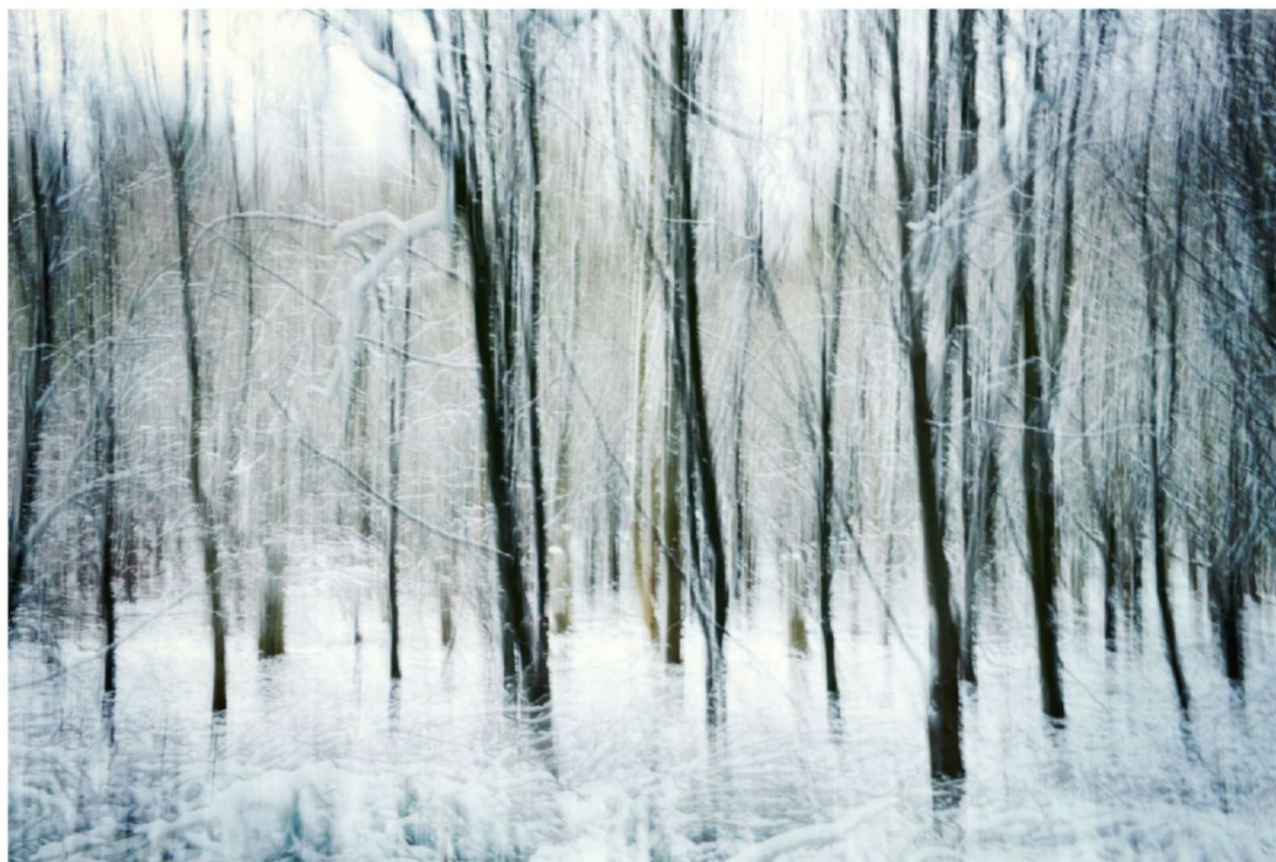
Nikon D300, Nikon 50mm f/1.8D, 1/125 sec, f/9, ISO200

04 Winter Woods

Becks

→ A wintry take on the panning technique gives us a sense of winter, but smooths out the details. This shot was taken at 1/2 sec – a longer shutter speed might have made it too blurry to discern the trees, while a shorter one would have made it look like unintentional blur. The vertical panning motion suits the tall trees well, as it allows them to stretch out above and below their normal positions, and the white snow contrasts nicely with the darker trunks.

Nikon D800, 24-70mm, 1/2 sec, f/22, ISO100





05 Fusion of Marine and Terrestrial

Trevor Cole

← We couldn't have put it any better than Trevor himself, who wrote: "A winter's morning with sub-zero temperatures, a hint of sunshine and clarity in the sky [is] a perfect moment to capture the spectacle of dunes, beach, sea and mountains in this untouched area [of South East Iceland]." We especially love the light in this image, and the contrast between the sun-kissed grass and the black sand.

Nikon D800, Nikon 14-24mm f/2.8GED, 1/60sec, f/10, ISO200



06 Geyser Erupting In Winter

Wayne Klierer

← In this very striking image of a geyser in Yellowstone National Park, adding a burst of flash at the end of a 30-second exposure helped to retain detail in the geyser spout.

Nikon D3S, 24-70mm f/2.8, 30secs, f/2.8, ISO6400



07 Changing Light

Paul McGreevy

↑ This scene in the UK's Lake District is lit by peeking rays that reach down into the valley and make the grass glow. The light just grazes the tops of the fells, too, to pick out their rugged outlines.

Nikon D7000, 10-24mm f/3.5-4.5, 1/250sec, f/11, ISO200



08 The Lonely Tree Simon Saunders

← You're initially drawn to the lone tree in this shot, but as you look further into the frame, you notice how well the foreground reeds follow the contours of the reflected mountains.

Nikon D810, no lens info supplied,
1/10sec, f/11, ISO64

09 Winter Snowfall on Trio of Trees David Paul Wilson

David Paul Wilson

↖ We're used to seeing snow on the tops of branches, but in this carefully composed image wind has blasted snow onto the trunks to create a striking linear pattern.

Nikon D200, no lens info supplied,
1/160sec, f/7.1, ISO400



10 Cold Water Dinko Brozicevic

↑ It's the contrast between the ice-cold blues of the wind-whipped waves and the warm glow of the orange buoy that makes this image – and that makes you feel cold just looking at it!

Nikon D5200, 18-55mm f/3.5-5.6, 1/2000sec, f/5.6, ISO500



CROWD VOTE WINNER

Moody Blues Trevor Cole

← In this stunning image of Moraine Lake, in Canada, the muted colour palette of winter provides the perfect opportunity to capture the otherworldly blues of the lake itself.

Nikon D810, Nikon 14-24mm
f/2.8GED, 1.6secs, f/10, ISO80



CROWD VOTE WINNER



In the next issue we'll be sharing your best nightscapes – to enter, just head to www.photocrowd.com/contests

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76 Michael Freeman's Creative Paths...

Michael explores how to make a scene your own by getting creative with alignment

**NEW
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IN NIKOPEDIA THIS MONTH



82 Nikon software

Discover how to make your own filter using Capture NX-D, and add a dramatic graded look to your image's colours and tones



84 Ask Jason

Jason helps out with some monitor trouble, and advises on the best lenses for bird photography, indoor sport and landscapes



86 Head to head

When it comes to shooting portraits, is it best to go for the quality of a prime lens or the versatility of a zoom?



Our globetrotting Contributor at Large, renowned photographer and prolific author **Michael Freeman**, presents a new month-by-month masterclass that's exclusive to *N-Photo*, in which he explores his tried and tested paths to more creative photography. Michael has published dozens of books on photography, including the bestselling *Perfect Exposure*.



**NEW
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FREEMAN'S CREATIVE PATHS

CREATIVE ALIGNMENT

In part three of his new 13-part series, Michael Freeman explores how getting creative with alignment can be a recipe for both visual order and graphic control

Bringing some kind of personal order to a scene is one of the basic reasons for bothering at all with composition. Indeed, it's composition's primary purpose, but the emphasis is always on personal preference, because once you start saying that certain things must happen in the frame, it becomes formulaic and cuts out the possibility of creativity.

With this creative path – alignment – many people think you should have set, orderly rules. Well, no you shouldn't automatically; only if you're attracted to precision. As prolific American street photographer Garry Winogrand once said: "The world isn't tidy; it's a mess. I don't try to make it neat."

So, as with all of these creative paths, the following advice is not a prescription for excellence, just a tried and tested formula that you might like to try – occasionally, often, or whenever you feel like it.

In practice, alignment is possibly the most obvious compositional idea – most of us use it to at least some degree without even thinking, simply because it's ingrained that the camera and view ought to, by default, appear level. That means a straight horizon whenever there is one in view, with 'straight' meaning parallel to the top and bottom edges of the frame. That, however,

is the ingrained view, and it comes from a sense of what ought to be, not what could. We accept that even a slight misalignment of a horizon – or any level that stands in for it, such as the opposite pavement in an across-the-street view – catches attention, and not usually in a good way.

Avoid the obvious

Simply aligning something that we feel ought to be horizontal or vertical with a frame edge doesn't score any credit points. It becomes interesting only when it seems a little difficult or unexpected to achieve – when there's an element of precision and therefore skill involved – so naturally this kind of composition will appeal only to those who enjoy precision, and that's not everyone, by any means.

In the example here, precise vertical alignment turns an already pleasant view into a photograph. The setting was already attractive; looking out toward Holy Island,



MICHAEL
FREEMAN
FIFTY PATHS TO
CREATIVE
PHOTOGRAPHY

If you enjoy this article and want to learn more, there are 50 more paths to be discovered in Michael's new book *Fifty Paths to Creative Photography* (NB: all 50 are different from those that will be featured here in the magazine).



In this shot of fishing boats and Holy Island, the alignment of the red rowing boat pointing towards a more distant boat gives the image structure. Three earlier shots lacked precision, but taking a couple of steps to the right set up the viewpoint for the boats to align.

in Northumberland, from the side of a small dock, beautiful light, everything delicate. Even so, making a useful image hinged on adding something.

The fisherman getting his red rowing boat ready made for a good starting point, but it still seemed to need some extra graphic interest, and surely that was possible with the various boats dotted about? The rowing boat swung slowly left and right on its mooring, and that gave me

the extra element I needed. The moment when prow and stern were vertical in the frame could provide the beginning of an alignment, and by stepping a little to the right, I could line this rowing boat up with one of the boats further out. The bonus was that the man stood up and faced out, which enhanced the vertical line.

The result, which is added to by the misty suggestion of the horizon, was a frame alignment that was fleeting, and for that

reason worthwhile. Connoisseurs of the golden ratio (a symmetrical relationship between two proportions, which is widely considered very pleasing to the eye) might notice that the left-right division is very close to this ratio. That wasn't intentional, or at least not calculated, and it underlines how cautious you need to be when you think about formulae like these. There is rarely a moment in framing where it all becomes magically harmonious.



Corner to corner

Corners offer a more dynamic and active target for alignment, and bring diagonals into play

While the sides of your frame are already lines that invite some kind of matching with edges or subjects inside, the corners of an image can often work more strongly for alignment. It helps if the corners are 'clean' and without clutter, so that they stand out clearly – as in the upper corners of the main image here, which are just sky.

Fitting things into a corner inevitably means working with diagonal lines, which simply have more graphic energy than horizontal and vertical lines. One way to use corners is to take one long subject and align it from one corner to its opposite. Another way is to project the subject into one corner, as seen here. It's quite a simple technique, and if the pieces fall into place it can be surprisingly effective.

Add some direction

This image was taken in Yunnan, China, as part of a series on cormorant fishing. This is a traditional method in which cormorants dive to catch fish and return to the boat to disgorge them. From a shooting sequence in which the fisherman releases the bird into the air, this was the strongest image, and it worked because the cormorant flies straight into the upper corner.

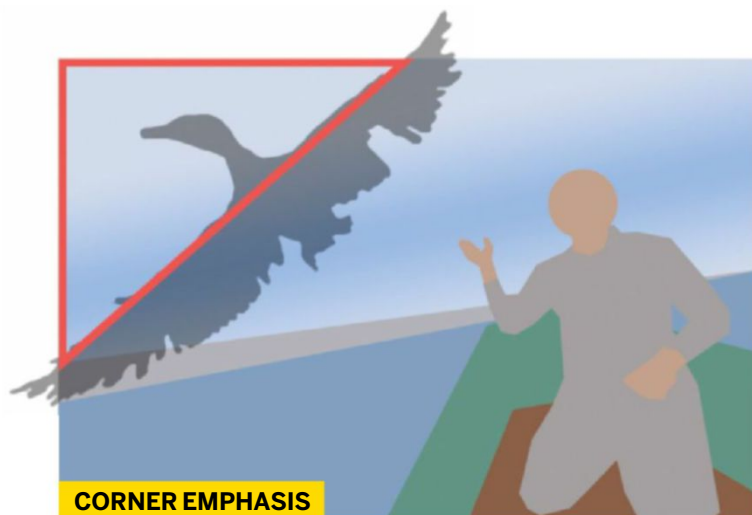
The alignment begins with the man and boat in the lower-right corner, and there's a flowing diagonal line of interest up through the frame that is helped considerably by the man's arm and wrist as he releases the bird.

Would it have been a better shot if the cormorant's wings hadn't clipped the frame? I don't think so for a moment, and I'm not just making excuses. Apart from the slightly strange but sweet gesture of the man as he releases the bird on its way – which helps the diagonal movement up and to the left – the wings actually close off the upper-left of the frame into a neat triangle that strengthens the composition (as the diagrams to the right illustrate).



 A cormorant takes off to fish on Erhai Lake in Yunnan, China. Tilting the camera slightly makes a broad diagonal of the action, and ensures the bird is heading directly into the upper-left corner, its beak and body pointing the way. Breaking the frame with its outstretched wings, it also creates a strong triangle out of this corner, so emphasising it.





The Dutch angle

Straight out of 20th century cinema, tilting the camera strongly to one side has an occasional place in the repertoire of camera angles, but tends to arouse fairly strong opinions for and against. Called the Dutch angle in the movies (actually from Deutsch, referring to its first use in German Expressionistic cinema), the main purpose of the angle is to introduce a sense of unease in the audience, as in film noir movies such as *The Third Man*.

It works slightly less aggressively in still photography, but even so the tilt needs to be quite strong in order to make it look intentional rather than just sloppy. You really should have a reason to use it, which may be graphic (to make something align), to make the scene fit or – better still – to convey a mood.

Both Robert Frank and Garry Winogrand used it for its disjointed effect. The shot below, of a typically drunken Friday night on the Tokyo subway, seemed to call for the effect, and there is an alignment (as the illustration shows). Martin Scorsese wrote of *The Third Man*: “There’s this extraordinary sense of a world that’s come apart, accentuated by the off-centred cameras, the canted angles.”



Tilting the camera underlines the typical aftermath of after-work drinking in Tokyo, and also solves the problem of empty floor space by lining up feet and briefcase with the lower edge of the frame.





Lining things up

Frame boundaries aside, look for graphic alignments between subjects, even if they have nothing in common in real life

Alignment doesn't always have to be tied to the frame edges or corners. Bringing together different objects in the frame so there's some sort of order between them is a more personal kind of alignment. It's more personal because it depends first on you seeing the opportunity for this – which usually isn't a real tangible connection, just a graphic one – and second on your viewpoint.

Graphic juxtapositions like the one pictured to the right exist only from one camera position, so stepping to one side is usually part of the technique. The setting here was the Kaveri river in Karnataka, India, on a foggy morning. Like the Holy Island scene on page 77, it had the basic ingredients for a photograph, but it also needed something more.

Fog can be wonderful for simplifying any scene, as well as for isolating subjects (see page 34 for our fog tutorial), but you still need at least a couple of elements to work

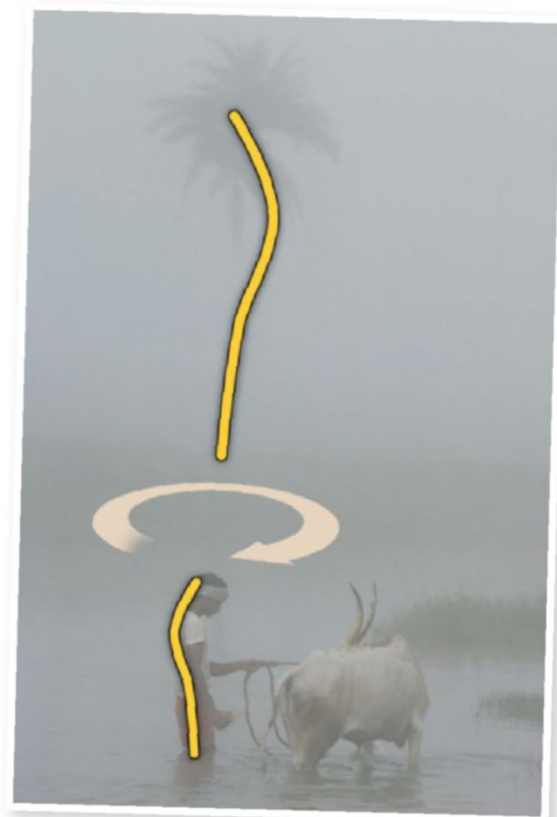
with. Here I started with a farmer, who led his cow into the shallows of the river to drink. So far so good, but the subject was still just a man with a cow on a foggy day, which wasn't particularly riveting. However, the way that fog works in an image is that it separates subjects, and from that you can find a way to link them.

Make the connection

In this scene, there was a lone palm tree isolated by the fog on the far bank of the river, and the obvious thing to do was to fit that together somehow with the man and cow. As the illustrations show, my first idea was a simple L-shape. Then, as the man and cow moved about, I tried an inverted T with the suggestion of a triangle. Next I used a simple up-and-down connection.

But the one that worked much better than the others was the last, when the man's stance aligned him perfectly with the sinuous curve of the tree trunk. Not only that, but the slope of his shoulders was a mirror image of the tree's shape. As with the other two main photos in this month's feature, this final step towards a successful image was small but significant – and very much down to luck. Chance plays a large part in photography, but you need to be prepared to take advantage of it.

This is also a classic example of the Gestalt law of good continuation. Gestalt theory suggests we naturally jump to



Looking for a way to connect the palm tree with an Indian farmer leading his cow to drink, I tried a few graphic relationships (shown in the top strip). The most effective (above and right) works because of the flowing curves that link the tree trunk to the man's posture. The curved line of the man's profile echoes that of the tree, and is itself echoed by the curve of the cow's horns.

conclusions with images, and assume that, basically, things join up. Here, the slightly undulating but distinctly vertical line of the palm tree 'continues' into the profile of the farmer. It's the repetition of the curve that makes it work, and the resulting alignment dominates and orders the composition.



The way that fog works in an image is that it separates subjects, and from that you can find a way to link them





Create your own filter

Get graded colour and tone effects in Capture NX-D, with **George Cairns**

As well as correcting common photographic problems such as colour casts, incorrect exposure, poor composition and lens-related distortion, Capture NX-D's tools can be used in a more creative capacity. We'll demonstrate one of its creative features on this spread and in the accompanying video lesson.

Many paid-for apps – such as Photoshop Elements – enable you to apply ready-made filters that can creatively alter a shot's colours and tones. These filters quickly give your photographs

a more stylised look that helps you to evoke a particular mood or atmosphere. This creative filter-based adjustment is pretty similar to the process of grading a TV show's colours to give scenes a distinctive look.

Nikon's free Capture NX-D software lacks the filter menu found in many other photo editing apps, but with a bit of tinkering you can still produce a distinctive graded look that can help add interest and impact to your images.

The Levels & Curves panel enables you to make selective

tonal adjustments by altering the points along different parts of a Curve. If you dig a little deeper and change each colour channel's Curves independently, you can produce your own creative shifts in colour.

You can use the Lightness, Chroma and Hue (LCH) panel to selectively lighten or darken a particular range of colours to enhance your bespoke creative look. This enables you to add a sense of drama to a landscape's skies and shadowy areas, for example, as we demonstrate in the annotated image above.

JARGON BUSTER

RGB

Your Nikon reproduces a scene's colours by mixing red, green and blue channels together. This RGB combination can produce millions of different colours.

S-CURVE

Dragging the RGB Curve down at the bottom-left and up at the top-right, to produce a shallow S-shape, will result in an image with more contrast

Set the tone

Adjust Levels & Curves in Capture NX-D to create dramatic colours and tones

1 LEVELS & CURVES PANEL

Access this powerful colour-editing panel in the Edit section at the right of the workspace. Here we've undocked the Levels & Curves and the LCH panels and used Window>Edit to hide docked editing panels for a cleaner workspace.

2 RGB



This drop-down menu defaults to viewing and editing points on all three RGB Curves at once, changing tone rather than colour. Adjusting points on each individual colour channel can produce creative colour changes (see the walkthrough below, and our accompanying video).

3 COLOUR CHANNELS

Here the highlights in the red channel have been pushed up and its shadows darkened, creating a classic S-curve. The blue Curve's highlights feature a more severe dip, which helps add a cyan hue to lighter patches of sky.

4 GAMMA

You can adjust a range of colours in a channel by placing an anchor point on a Curve and dragging it up or down (see point 7). Alternatively, select a Curve anchor point and drag the Gamma

slider right to make the point dip, or left to raise it up. These adjustments to the initially diagonal Curve change the way that the RGB colours mix together, producing creative changes in colour.

5 RESET CHANNELS

Tinkering with Curves can dramatically shift colours and tones. Click here if you need to reset the RGB channels.

6 LCH PANEL

The Lightness, Chroma and Hue panel enables you to use Curves to change a range of image properties. We've set the drop-down to adjust Color Lightness.

7 ADD ANCHOR POINT

By clicking on this icon you can then sample a specific colour by clicking an eyedropper on the image. Here we clicked on the sky to add an anchor point to the blue section of the Color Lightness Curve. We then dragged the anchor point downwards to darken the sampled colour.

8 WIDTH

Once you've sampled a specific colour, increase the spread of the adjustment to include similar colours by increasing the Width value here. Doing this enabled us to darken a range of blues in the sky.

9 REGISTER ADJUSTMENT



Once you've adjusted

a shot's colour Curves to produce a distinctive look, click on this drop-down menu, then Register Adjustments. Type in a label to help you identify your filter and click Rename. Click OK. You can now access and apply your custom filter to other photos from the Levels & Curves panel's drop-down menu.



WHERE TO GET CAPTURE NX-D

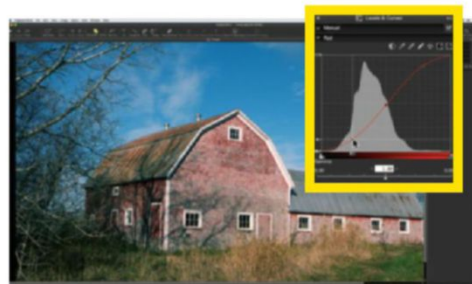
It's made for Nikons, and it's completely free!

Capture NX-D is available as a free download from the Nikon website at <http://nikonimglib.com/ncnxd/>. As new Nikons are introduced, Capture NX-D should be the first software to support them. Another advantage is that it replicates Picture Controls and other settings.

NIKON KNOW-HOW

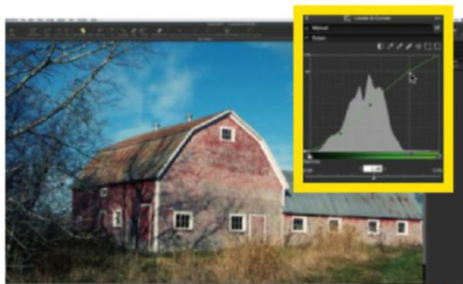
Make creative colour changes

Grade a shot's colours by adjusting individual colour Curves



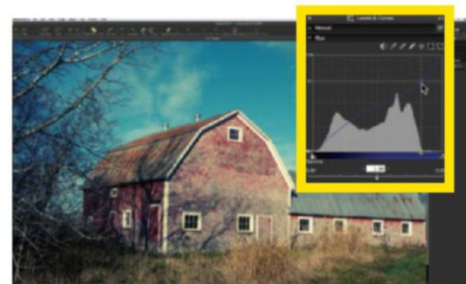
1 SEE RED

Browse to curves_start.jpg. Open the Levels & Curves panel. Set the drop-down menu to Red. Place an anchor point in the middle of the Curve. Drag a top-right point upwards to lighten the red highlights. Drag a bottom-left point down to darken the red shadows.



2 GO GREEN

Select the Green channel from the drop-down menu. Create another S-curve by placing three new anchor points. By darkening the Green channel's shadows we reduce the amount of green in these darker areas. Lightening the green highlights creates a more cyan sky.



3 FEEL BLUE

Select the Blue channel. Click to place an anchor point in the middle of the Curve. Place a point in the highlights at the top-right and drag it down to reduce the strength of the blues in the brighter areas. This enables the Green channel's highlights to become more dominant.



Q+A Ask Jason...

Our resident Nikon expert Jason Parnell-Brookes answers your questions and solves your problems. If you'd like Jason to come to the rescue regarding your Nikon-related question, email it to mail@nphotomag.com. Please note that we reserve the right to edit queries for clarity or brevity.

? I've just taken up photography and bought myself a D5500. Would Nikon's 200-500mm VR be a suitable lens for bird photography with this camera?

Brian Sault, via email

JASON SAYS... That's an excellent choice of first camera and, thanks to the 1.5x crop factor of DX format bodies, the Nikon 200-500mm lens would give you a mighty maximum reach, equivalent to a 750mm lens on an FX (full-frame)

camera. However, even with this much telephoto power, it can still be a struggle to get close enough to small birds.

I'd be tempted to go for Sigma's 150-600mm f/5-6.3 DG OS HSM | C lens kit that comes complete with Sigma's 1.4x teleconverter. At £850/\$1290, it's less expensive than the Nikon (£1179/\$1399) and will give you an effective telephoto reach of 900mm, or 1260mm with the teleconverter fitted. The only catch is that, as your D5500 doesn't support autofocus at f/8, you'd have to focus manually when using the teleconverter.



Coupled with a 1.4x teleconverter, the Sigma 150-600mm delivers incredible telephoto reach



Compact, lightweight and inexpensive, the Nikon 55-200mm VR II is an ideal supplement to the D3400 18-55mm kit

? My nephew has been using my D90 and 18-105mm lens, but his parents are buying him a D3400 with 18-55mm kit lens, which doesn't have the same telephoto reach. Would the 18-105mm be a better pairing?

Peter Williams, via email

JASON SAYS... The small, lightweight AF-P 18-55mm VR kit lens is well suited to the D3400. It features Nikon's new AF-P (Pulse) stepping motor autofocus system and effective vibration reduction (VR), rated at four stops. The retractable design makes it very compact, and it delivers impressive image quality. At retailers where the D3400 body is available without the kit lens, it's not much cheaper, so it makes sense to get the complete kit.

To add decent telephoto reach at a reasonable price (around £130/\$150), he could supplement it with Nikon's AF-S DX 55-200mm f/4-5.6G ED VR II, which also boasts a retractable design.



Tamron's SP 70-200mm f/2.8 Di VC USD offers impressive build quality and performance at an affordable price

? I'm shooting outdoor football games and indoor basketball games on a D5300. Would I be better off with a 70-200mm f/2.8 lens or a 150-600mm from Sigma or Tamron?

Arthur Redman, via email

JASON SAYS... The Sigma and Tamron 150-600mm lenses both have widest available apertures of f/5 at 150mm, shrinking to f/6.3 at 600mm, so you'll struggle to get sufficiently fast shutter speeds for sharp shots in gloomy weather or indoors. I'd sacrifice some telephoto reach for a wider aperture, so a 70-200mm f/2.8 lens would be the best choice.

The two current Nikon f/2.8 VR options deliver superb performance, but they're not cheap, at £1799/\$2099 for the 'G' edition and £2649/\$2799 for the 'E' edition. I'd go for the more cost-effective Tamron 70-200mm f/2.8 Di VC USD (£1099/\$1499) – or, if that's still a bit pricey, the Sigma 70-200mm f/2.8 EX DG OS HSM (£655/\$1149).

? I'm trying to get into photo editing, but my pictures look mushy and unsatisfying on my computer screen. It has a resolution of 1680x1050 but my PC card supports 2560x1600 resolution. Should I upgrade?

Martyn Jones, via email

JASON SAYS... It sounds like you're using a TM (Twisted Nematic) monitor. They're often bundled with PCs as they're relatively cheap to manufacture, yet have fast response times. But they suffer from inaccurate colour rendition, and brightness and contrast can vary enormously, depending on your viewing angle. An IPS (In-Plane Switching) monitor will typically deliver far greater accuracy for colour and tonal range. Popular makes include Acer, Asus, iiyama, LG and ViewSonic, and prices for a 27-inch widescreen IPS monitor start at around £200/\$250.

This Acer H277H 27-inch IPS monitor delivers superb image quality at a reasonable price of about £230/\$280



Secondhand Superstar

? Can you recommend a good and fairly compact ultra-wide lens that would be suitable for landscape photography with my D610?

Steven Cunningham, via email

JASON SAYS... One of my favourite ultra-wide lenses is the Nikon AF 20mm f/2.8. It was launched at the end of the 1980s, before a revised 'AF-D' edition that communicates distance information became available in 1994. It was built to last, and is remarkably compact and lightweight for an ultra-wide.

Nikon AF 20mm f/2.8D

THIS SMALL WONDER OF A LENS LETS YOU SHOOT ULTRA-WIDE WITHOUT GOING EXTRA-LARGE



RELEASED: 1994
PRICE NEW: £500/\$625
PRICE USED: FROM £315/\$340

Less than two inches long and weighing just 270g, this Nikon lens is a slip of a thing. Don't be fooled, though – it's full-frame compatible and gives a mighty viewing angle of 94 degrees on the diagonal, and a respectable 70 degrees on a DX camera. It will autofocus on any current body that has a built-in motor, so the D7200, D500 and all full-frame bodies. For bodies without a built-in motor, the distance scale and depth-of-field markings, along with the potentially large depth of field, make it ideal for zone focusing, or using hyperfocal distances.

The widest aperture of f/2.8 enables fast shutter speeds in low light, but vignetting is an issue at wide apertures. It's not an issue for landscapes, though, where apertures of around f/8 to f/16 tend to be the norm. As well as ensuring good depth of field, these apertures also result in images that are pin-sharp across the whole frame.

KEY POINTS

Super Integrated Coating (SIC)

Nikon's SIC predates the latest nano-structure glass coatings, but it still does a decent job of fending off ghosting and flare in landscape photographs.

Close Range Correction (CRC)

The closest focus distance of just 25cm (measured from the focal plane mark on the camera body) helps with creating dramatic perspective effects, and the CRC system ensures optimum picture quality at short focus settings.

Focus distance scale

The focus distance scale and depth of field markings help with zone focusing, so you can leave autofocus out of the equation and be ready to shoot instantly.

SPECS

Elements/groups: 12/9

Autofocus type: Camera-driven

Minimum focus distance: 25cm

Angle of view, FX/DX: 94/70°

Filter thread: 62mm

Dimensions: 69x43mm

Weight: 270g

GOT A QUESTION? Email us at mail@nphotomag.com

Best lens for portraiture

Zoom or prime – if you had to pick one for shooting portraits, which should you go for?



Nikon ← AF-S 70-200mm f/2.8G ED VR II

ELEMENTS/GROUPS 21/16
DIAPHRAGM 9 blades
OPTICAL STABILISER Yes
FOCUS TYPE Ultrasonic (ring-type)
MIN FOCUS DISTANCE 1.4m
MAX REPRODUCTION RATIO 0.12x
FILTER SIZE 77mm
ACCESSORIES INCLUDED
 Hood, soft case
DIAMETER X MIN LENGTH 87x206mm
WEIGHT 1.54kg
PRICE £2000/\$2100

Focal length

With its 2.9x zoom range, this lens gives you great versatility for portraiture at weddings and other events, where you might need to react quickly and won't necessarily have the time to manoeuvre yourself and others when composing the shot.

Features

This feature-rich zoom also boasts dual-mode optical stabilisation, a whopping seven Extra-low Dispersion (ED) elements, nano crystal coatings, an autofocus limiter switch and more besides – all wrapped up in a rugged, weather-sealed magnesium alloy shell.

Size

There's no disguising the fact that this is a big, heavy lens. It's 206mm long, not including the lens hood, and weighs more than 1.5kg. It's a weighty proposition for lengthy periods of handheld shooting, and can seem intimidating for portrait sitters.

Sharpness

Usually, top-notch prime lenses are better than zoom lenses for outright sharpness. In our tests, however, this 70-200mm zoom matches or beats most pro-grade prime lenses for sharpness, throughout its entire zoom range, even when shooting wide open.

Blur

Bokeh, or the quality of defocused areas, is often an essential part of portraiture. At a competing focal length of 85mm, this lens is no match for the f/1.4 prime when it comes to minimising depth of field, but it's very good at the 200mm end of its zoom range.

Vs

→ Nikon AF-S 85mm f/1.4G

ELEMENTS/GROUPS 10/9
DIAPHRAGM 9 blades
OPTICAL STABILISER No
FOCUS TYPE Ultrasonic (ring-type)
MIN FOCUS DISTANCE 0.85m
MAX REPRODUCTION RATIO 0.12x
FILTER SIZE 77mm
ACCESSORIES INCLUDED
 Hood, soft case
DIAMETER X MIN LENGTH 86x84mm
WEIGHT 595g
PRICE £1350/\$1600



85mm is an ideal focal length for portraiture with a full-frame camera, since you can give your subject plenty of breathing space while not being too distant and remote. There's naturally no zoom facility, so you'll just have to use your feet.

This lens doesn't feature any ED or aspherical elements, or vibration reduction (VR). However, it does boast fast ring-type ultrasonic AF, a well-rounded aperture based on nine diaphragm blades, nano crystal coatings and pro-grade build quality with weather seals.

At much less than half the physical length and weight of the 70-200mm lens, the prime is more manageable for handheld shooting. It's also a lot less threatening for timid portrait sitters, who might feel nervous in front of a big telephoto zoom.

Fast lenses tend to lose sharpness at their widest apertures, and this lens is no exception. While it beats the 70-200mm at f/2.8, it's quite soft at f/1.4. That's not altogether a bad thing, though, as it gives the option of beautiful, dreamy-looking portraits.

The 85mm focal length and f/1.4 maximum aperture enable an extremely tight depth of field. This offers the potential to blur not just the background, but everything apart from the subject's eye. The rounded aperture also results in wonderfully creamy bokeh.

NEXT MONTH: CIRCULAR VS SQUARE FILTER KITS

VERDICT

For classic portraiture, the 85mm lens wins out with the availability of a super-tight depth of field and fabulous bokeh. It's a beautifully

built lens that's discreet and manageable for intimate portraiture. However, the 70-200mm zoom is supremely

versatile, making it perfect for weddings and events, while the addition of VR can be very useful for shooting in low light.

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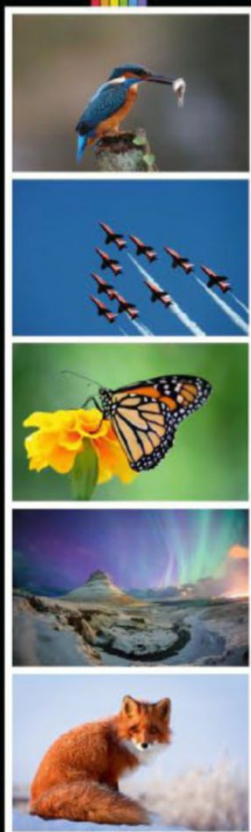
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The legendary nature photographer reflects on his amazing 40-year career, and reveals what it takes to stand out from the herd



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Press pro Karwai recalls how a precarious balancing act on the Queen Mother's 90th birthday led to the image that helped launch his career



ON ASSIGNMENT

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Editorial photographer Rob describes his year-long quest to capture images for a book that celebrates Britain's traditional trades and crafts



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My big break Karwai Tang



Karwai Tang began his photography career at the age of 17. He won the UK Picture Editors' Guild Royal Photographer of the Year award in both 2003 and 2006, and its Olympics News Photographer of the Year award in 2012. He specialises in celebrity, royal and sports photography. See more of his work at www.karwaitang.com

4 AUGUST 1990 • LONDON, ENGLAND • NIKON F-301

The Queen's 90th birthday, in 2016, was marked by pageants, concerts, galas and street parties. Some 26 years earlier, the Queen's own mother was fêted in a similar way for her 90th birthday.

Tradition had it that the public would gather outside the gates of Clarence House in London on the morning of the Queen Mother's birthday, waiting for her to step out and greet them. On the morning of her 90th birthday, around 40 press and official photographers were assembled in a closed-off area ready to photograph the historic occasion. They were joined by an unknown teenager with a camera and telephoto lens. This teenager was Karwai Tang.

"I was 19 at the time and working as a runner for one of the picture agencies in Fleet Street," Karwai recalls. "It was the Queen Mother's 90th birthday so I took the morning off. I didn't have accreditation for

the press pen in front of Clarence House, but I remember climbing on top of the security barriers and balancing one foot on a photographer's ladder and one foot on top of the police barriers."

The Queen Mother soon appeared, and Karwai used a 300mm f/4 telephoto on his Nikon F-301 – loaded with Ektachrome E6 slide film – to snap her as she talked to well-wishers and accepted cards and flowers. Minutes later he climbed down and rushed to his agency, Universal Pictorial Press, to process the film. "They agreed to syndicate the picture on a 50:50 split. There had been 30 or 40 photographers there but my picture got picked up all over."

Royal approval

Later that year, royal photographer Lord Lichfield – the Queen's cousin – published his commemorative book *Queen Mother: The Lichfield Selection*. The hardback featured 160 pages of photographs chosen by Lichfield, documenting the Queen Mother's 90 years. For the cover image, Lichfield chose Karwai's portrait taken outside Clarence House.

"I don't know why my picture got picked out for the Lord Lichfield book. I was just lucky," Karwai says. "It was so exciting for me to have someone so prominent as a photographer pick my picture." The photograph was also selected for the Martini Royal Calendar. "She was Miss August!" Karwai laughs.

The publication of the book marked the turning point in the 19-year-old's career, and it wasn't long before his duties at the agency included more photo assignments and fewer errands to run. Karwai soon turned professional and a quarter of a century later he is now firmly established as one of the UK's most acclaimed celebrity, royal and sports photographers.

Keith Wilson



Profile

FRANS LANTING GAINED GLOBAL RECOGNITION FOR HIS WORK FOR NATIONAL GEOGRAPHIC

- Born and raised in The Netherlands, Frans moved to the US in the 1970s.
- His published books include *Jungles*, *Eye to Eye*, *Okavango: Africa's Last Eden*, *Penguin*, *Living Planet*, *Bonobo* and *Madagascar: A World Out of Time*.
- In 2006, Frans and his wife/creative partner Chris Eckstrom launched *Life*, an epic history of life on Earth from the Big Bang to the present, as a book, exhibition, interactive website and multimedia orchestral performance with music by composer Philip Glass.
- His numerous awards include World Press Photo, BBC Wildlife Photographer of the Year, and the Sierra Club's Ansel Adams Award.

All images: © Frans Lanting

FRANS LANTING

He is without a doubt one of the world's most prolific and celebrated natural history photographers. Now 65, Frans Lanting is not slowing down. In fact, as Keith Wilson discovers, there is much more to come from the lens of this master visionary...



One the world's most revered nature photographers, Frans Lanting has no formal qualifications or training in his chosen field. Like his equally famous contemporary, Sebastiao Salgado, Frans is an economist, having completed a master's degree in the subject before moving to the United States to study environmental planning. But soon after crossing the Atlantic in the '70s, he began to photograph the natural world in earnest, and never looked back...

When you were younger and a student studying economics, what part did photography play in your life?

I was surrounded by nature of a sort when I was growing up in a small town in The Netherlands. It wasn't nature on a grandiose scale like you find in the United States or elsewhere, of course, but I've always been drawn to the natural world. Picking up a camera was a natural extension of that, but I didn't do that until my early 20s and then I had no clue what I was doing. It took me a while to figure out that I was actually better off being a bit more methodical about teaching myself.

Did you have any mentor in those early days – someone you looked up to or who helped you?

There were a couple of photographers in The Netherlands who were active

and quite accomplished, so I sought them out and they took me under their wing. Out of that came my first book, *Visions of the Dutch Landscape*, which has become a bit of a collector's item. But I pretty much did things on my own, because there weren't a lot of resources back then. It's unthinkable for beginner photographers today to imagine a situation where you can't go to the internet to find every answer to every question; where you're not surrounded by millions of images of every kind that can inspire you or can baffle you. Photography was more of a closed universe back then.

When I ask other photographers in the field of natural history and wildlife who inspired them, your name is mentioned a lot. Who were the photographers who inspired you early in your career?

In the UK there was Eric Hosking, who was a real pioneer in bird photography. When you look at his work today most of his portraits look very conventional, but he was ingenious. He brought a deep understanding of birds to his craft, and that really appealed to me. Then in the USA there was a whole



In those days the magazine world was much richer and there were more possibilities



Previous page
SCARLET MACAW
No exposure
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FEMALE BONobo
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generation of *National Geographic* photographers who were doing things that I thought were unbelievable. A photographer called Ernst Haas, who wasn't a natural history photographer, published a book called *The Creation* that became a big influence on how I looked at the world and how I tried to capture it with my camera.

Speaking of *National Geographic*, how did your relationship with the Society begin?

Like every photographer, I had dreams of contributing images to the Society, and for me it came about step by step. I started doing work for magazines around the world first. I moved to the United States in the late '70s, then started contributing to natural history publications in Europe, and to British and American publications, then I started doing assignments for bigger magazines such as *Life* and *Geo*.

In those days the magazine world was much richer and there were more possibilities to interact with editors and art directors than there are today. It was a matter of getting published first, then once I started doing things that were a little different from what is conventional, editors and art directors started paying attention to my name and to what I was doing.

You are also well known for your books, especially *Jungles* and *Okavango*.

I like to come up with image ideas that can help to tell a story. For magazines this story needs to be specific, and it requires an editorial point of view. But sometimes these ideas can grow into something bigger or more conceptual. That typically leads to something like a book or an exhibition, or an event. Depending on the scope of the work, it can take a couple of months or a couple of years to pull together.

Jungles was a good example of that. It looked at the tropical forests around the world that had been covered many times by other photographers, writers and philosophers. Others had tended to shoot or discuss them quite literally, so we decided instead to look at these forests conceptually – to portray the things that happen in all jungles, the things they have in common, rather than a load of images ordered by location. Whether images are from the Congo or Indonesia, they help to

A BLESSING AND A CURSE

FRANS HAS TAKEN DIGITAL IMAGING FURTHER THAN MOST, COLLABORATING WITH AN ORCHESTRA AND THE COMPOSER PHILIP GLASS TO PRODUCE THE EPIC 2006 LIVE MULTIMEDIA PROJECTION *LIFE: A JOURNEY THROUGH TIME*. BUT, AS HE EXPLAINS, THE PROJECT CONTINUES TO EVOLVE...

"With *Life*, we have been able to upgrade the performance and the experience over time. It continues to evolve, shall we say. We did another performance last summer in Chicago as a big outdoor show that was attended by 10,000 people.

Every time we've done a show there's been a way to make it a little better, so that's both a blessing and a curse, I think. In digital technology as it applies to photography, the work is never done because it's so easy to go back to images to

tweak them and adapt them to new circumstances.

So in that sense we live in a world that's analogous to what painters went through many decades ago, where the absolutes no longer exist. It's a wild and woolly world out there for photography."







The evolution of a living planet is a science story, but as soon as you start reciting scientific theories, people's eyes glaze over



LAVA RIVER,
HAWAII
No exposure
info available

create a mosaic of themes and ideas. We developed chapter titles including Anarchy and Order, Form and Evolution, Colour and Camouflage, then started looking for and creating images to fit these themes.

But your multimedia show *Life* was a far more ambitious undertaking, combining images choreographed to music. How did that production come to mind and what was involved in delivering it?

In the case of *Life*, my ambitions grew into an attempt to look for the roots of diversity on our planet. Of course, I'm not the first person to dream about what the Earth looked like when it was much, much younger.

One of my enduring sources of inspiration is David Attenborough.

One of David's seminal TV series, *Life on Earth*, was quite similar to *Life*. He took a parallel approach to go to see what he could find, which got him a little closer to witnessing all of these phenomenal things that helped to shape the Earth as it is today.

But my wife Chris – who's also my creative partner – and I took this idea in a different direction for *Life*. We wanted to make it a lyrical portrayal. Of course, the evolution of a living planet is a science story, but as soon as you start reciting scientific theories a lot of people's eyes tend to glaze over. So we wanted to make the work more experiential, to lure people into a journey of discovery that was based on a set of images that would act as stepping stones from the present day to the beginning of time.

We had to be careful about where these stepping stones were, because each of them needed to lead logically on to the next one. It required as many decisions about what *not* to feature as choices about what *to* show. In that sense you can compare creating it to the work of a sculptor – you have to constantly say 'no, no, no' until you end up with things that are really worth showing and sharing.

The *Life* project also involved digital technology to put together the whole multimedia symphony, incorporating digital editing and digital projecting technology. Just 10 years ago when we premiered that performance, the technology was barely there – it was a leap into the unknown. When I think back to what we tried to do back then, sweat still breaks out!



Was *Life* the most fearsome assignment that you've ever undertaken, then?

Well it was fearsome in the sense that if you commit yourself to put a show on, live, in front of 2,000 people in a concert hall then there are a lot of things that can go wrong.

But it was also a really interesting experience to become a collaborator in a huge creative team that included a composer, a symphonic conductor, an orchestra of 60 people, a visual choreographer and a projection coordinator. In a team like that you have to understand a lot more about how you'd like other people to view your project. Your mission can't just be, 'I want to make my photographs look good', because that's just a small part of the equation.



**ASIATIC CHEETAH
CAUGHT BY
CAMERA TRAP
No exposure
info available**

KEEN ON BOOKS

HE MAY HAVE MADE HIS NAME AS ONE OF *NATIONAL GEOGRAPHIC*'S MOST PUBLISHED PHOTOGRAPHERS, BUT FRANS LANTING HAS ALSO PRODUCED A HUGE COLLECTION OF SUCCESSFUL BOOKS...

How many assignments have you done for *National Geographic*?

I think I've published between 30 and 35 stories in the magazine and done a number of other assignments for the Society, so it adds up to quite a bit of work overall. But I've also always been interested in doing different things across different media platforms (as we call them now).

I've been keen on books for many years, because they have a longer life than a magazine, which is here one month and becomes old paper the next. We've been very careful with how we approach books. We're working on the next one right now: *Into Africa* (to be published in the autumn) is based on a big exhibition I produced for the Smithsonian. It's an overview of the work I've done in Africa over the years.





You have experienced a lot of changes since switching from film to digital. In making that transition, did you take to digital technology immediately?

The change over from analogue to digital photography was something that happened over a period of years. I was doing digital prints first because it became apparent to me early on that digital printing technology was superior to the old E6 method where you had virtually no control over the contrast and colour fidelity, and that led me on a path to discover and apply scanning technology. I was guided by someone who has become a real guru in that technology, an early Apple engineer called Bill Atkinson. Then eventually I switched over from analogue to digital capture as well.

Let's look at cameras: what was your first digital SLR?

I've used Nikon D-SLRs for years, but I also use Nikon 1 cameras because I



ANTARCTICA
No exposure
info available



**ELEPHANTS
AT TWILIGHT**
No exposure
info available



think mirrorless technology is one of the more interesting branches of the digital photography tree. I also use my smartphone a lot. In fact, I'm working on a project at the moment that combines images that I've taken on my smartphone with music, for another performance piece that is steadily growing.

But I'm also going right back to the beginnings of photography. I was in

Antarctica recently for a voyage that aimed to get closer to the work of Frank Hurley, who was Shackleton's expedition photographer. It's exactly 100 years now since the crew made it back to safety after the *Endurance* went down.

I've been familiar with Hurley's work for many years and I've crossed paths with the places where he worked a number of times. In Antarctica I used



the same type of camera that he used after the ship went down – it's an early model Kodak folding camera with roll film.

What was that like to work with?

It felt humbling. I use lots of different cameras for different purposes, such as camera traps in situations far afield, but also close to home. I think that's one of the amazing and bewildering

things about photography today – there are so many different tools available now, and it's not a linear process any more.

Many of your images now have an iconic status. When you took them, did you feel you'd got something more special?

I think images such as Elephants at Twilight (above) and Scarlet Macaw



I think my images such as Elephants at Twilight (above) have grown both in my mind and in the minds of other people over time



in Flight (page 92) have grown both in my mind and in the minds of other people over time. When you take an image you're so preoccupied with the technical challenges that it is hard to take a step back and to appreciate it in context, but I feel gratified that images like these have made some contribution to the perception of the animals, as well as to the lexicon of images that apply to elephants and macaws. It's not easy to come up with a different point of view.

No, in fact it gets harder in this digital age with so many more images being taken. How do you approach it?

When you've been doing something for a while it's important that you continue to challenge yourself, instead of relying on your routine and instincts. The Antarctica project with Hurley's camera is one way I'm stretching myself, and adapting to the realities of Instagram is another example of this.

Being on Instagram is a whole new way of communicating that is much more spontaneous than putting together a book or a symphony that can take years. So I can respond to current events, like when the Chinese government announced a ban on the sale of elephant ivory. I could respond and share that information with hundreds of thousands of people around the world instantly.

On the topic of conservation, a lot of people are fearful of what Donald Trump's new presidency may bring. As someone active in conservation, are you worried?

I don't want to get dragged into the mundane details of the new political realities, but I do believe that no matter who is in the White House in Washington DC, there are many paths to progress if you believe in a more sustainable relationship between people and the planet.

So it's still possible for anyone to make a difference, starting locally or starting personally. We can all make decisions that, even though they may not have a big effect on the planet at large, are at least steps in the right direction. I think that the closer to yourself you begin to make change, the more effective you are.

Plus, by banding together with like-minded people you also can scale up your engagement. So I don't think that whatever happens in the US will stop every possible path towards protecting our planet.



When you've been doing it for a while it's important that you continue to challenge yourself



ORANGUTAN JUVENILE
No exposure info available



COLLECTING KATYDIDS AT NIGHT
No exposure info available

On another note, what has been your proudest or most memorable moment as a photographer?

Oh boy! I don't look at my work as a top 10, so I'll have a hard time answering.

Okay then, what has been the most embarrassing moment?

Oh, there have been quite a few of those as well! It's hard to think of one particular case, but in general terms it was so difficult in the film era to do things right – especially when you were working on location, with no way to see whether you were actually 'in the zone' or not. Since I experimented a lot instead of producing conventional images, my hit rate went way down.

One of the tools I used to help me overcome this was a Polaroid camera back that I could attach to a 35mm SLR camera. It was a very ingenious design by a legendary camera engineer and repairman named Marty Forscher for New York commercial photographers to use [to preview their shots] while they were on location and surrounded by art directors and stylists. Jay Maisel, Pete Turner and I used them early on, too.

This camera back used Polaroid film, so I could pull out 35mm-sized prints of whatever I wanted. That was a godsend, because I could instantly see better unusual exposure techniques, or whether or not mixed lighting would actually produce any good results.

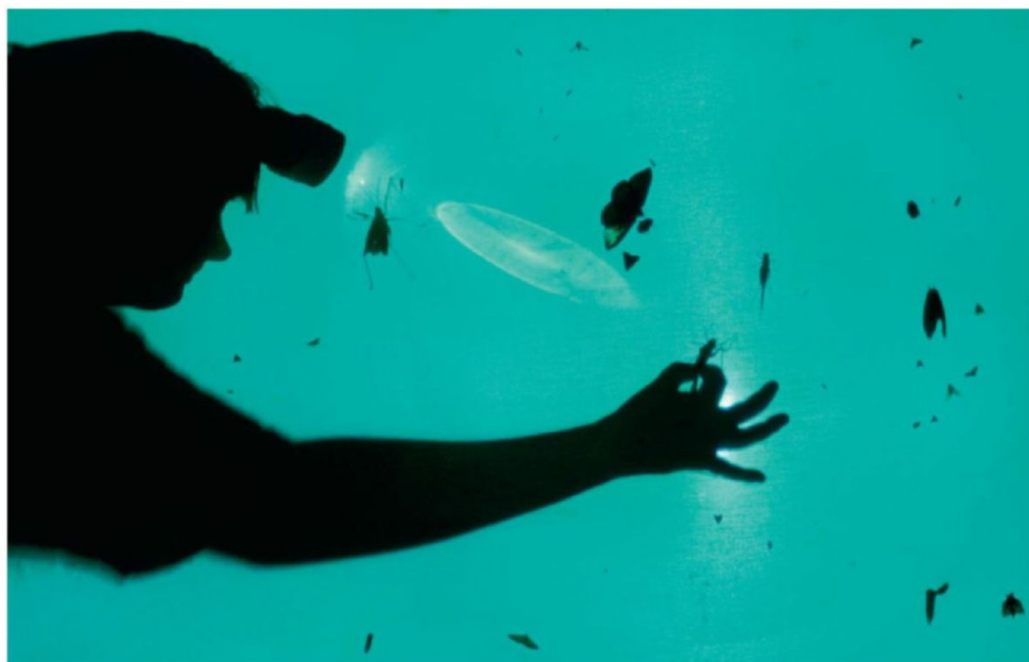
It also means that some of my best work is only available as a very small Polaroid print in an edition of one!

If you could do it all again, is there anything you would do differently? What would you tell those wanting to follow in your footsteps?

I would like to revisit all of the places I have photographed over the years to shoot them better, with cameras that can do so much more.

To other photographers, I would say take risks creatively. If you follow the paths that have been trodden by many other photographers before, you just end up doing the same thing that they did, and that is no way to distinguish yourself or to cultivate your own personal style.

Frans Lanting is speaking at The Photography Show on 19 and 20 March 2017. For more details visit www.photographyshow.com



NEXT MONTH: PHOTOJOURNALIST AMI VITALE



Trading places

Photojournalist **Rob Scott** documented traditional crafts that have survived into the modern world for his new book

The book *Crafted in Britain* is a celebration of Britain's surviving traditional crafts and industries. I shot images of fascinating workplaces and practices, and Tony Burton wrote descriptions of them. I met Tony by chance in a wonderful old Bristol pub about 25 years ago, as I was returning from a shoot for *The Observer* on the automation of Britain's lighthouses, and he had just completed his 40th book about Britain's industrial history. We decided to produce a book documenting the country's disappearing industries and working practices.

When I was offered a job running a large editorial photography studio and Tony was commissioned to present a series of TV shows, however, we put our book project on hold. By the time we returned to it more than 20 years later, most of the industries that we had intended to feature had disappeared.

We returned to the project in 2011 and began producing magazine articles on the subjects that we wished to cover in the book – the traditional crafts, trades and processes that were still going. It wasn't until 2015 that we signed a contract with Bloomsbury to produce *Crafted in Britain*. At that point we had about half of the work completed and had to deliver all of the pictures and words within 12 months. The final hardback is 224 pages, and we travelled the country to cover

more than 25 industries, from cider making to pub sign painting.

Tony and I visited all of the sites together initially. I would then have to go back, either to photograph different stages of a process or to get shots at various times of year. With such a range of industries to cover, most of the shots had to be reactive. I often had no idea what I would find until I got there, and had to think very quickly to come back with enough strong shots to tell the story.

Most of the people who showed us around their workplaces had no idea



I often had no idea what I would find until I got there, and had to think very quickly to come back with enough strong shots to tell the story

what professional photography involves – they assumed I would simply turn up with my camera, take a few snaps and be gone within the hour. In reality I was never at a shoot for fewer than four hours, and they usually lasted for eight or nine.

I travelled around with a lot of equipment, never knowing what I would need to get the job done. I've been using Nikon for 35 years, and currently shoot with a D5, D4 and

D800. I used a vast range of lenses for the series, including a Nikon 17-35mm f/2.8, a 24-70mm f/2.8, a 28mm f/1.4, a 50mm f/1.4, an 85mm f/1.4, a 105mm Micro f/2.8 and an 80-200mm f/2.8. The rear of my car was also jammed with lights, tripods, stands, softboxes, diffusion screens, reflectors, blackouts (for problem window light) and gaffa tape.

Impressive cast

The photographs of the bell-casting required three days of shooting and a lot of negotiation to get permission.

The first day became a recce for me, although it was all Tony needed to get his interviews and descriptive notes. I worked out when the next big casting was taking place and the shots I would need, and then went on to negotiate where I would be allowed to stand and where I could place lights. I returned a week later to shoot the actual casting of the bells and then for a third time five days later once the bells had cooled down

sufficiently in the sand to be raised and freed from their moulds [1].

I have travelled and worked in more than 35 countries, but to photograph the amazingly rich and often hidden industrial and cultural heritage of my own country was both immensely satisfying, and has helped me to keep in touch with my roots.

***Crafted in Britain* is out now. For info, visit www.bloomsbury.com**

1

BELL FOUNDRY
Rob returned to the bell foundry several times to document the whole casting process. The bell casing features on the front cover of the book

2

PUB SIGN ARTIST
Rob and Tony had the idea for the book years ago, after meeting in a pub. Rather aptly, a whole chapter is devoted to pubs and brewing

3

STAINED GLASS
A vast array of kit was needed in order to cover every type of lighting situation Rob encountered, from direct sunlight to dark interiors





NEXT MONTH

**On sale
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Acclaimed photojournalist
Ami Vitale discusses her
immersive approach

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a concert photography
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● ● ● ● ●
Good for the money

● ● ● ● ●
Excellent product

● ● ● ● ●
Best-in-class

Our awards
in a nutshell



The best
performance,
design and value



A product that
gives you more
for your money



The very best kit
that really sets
the standard

IN-DEPTH REVIEWS / GROUP TESTS / BUYER'S GUIDES



BIG TEST

112 Portrait lenses

Inspired by our main feature and want to invest in a dedicated portrait lens? We take an in-depth look at eight great options to suit a range of budgets

NEW GEAR

108 The latest kit

From fun retro lenses to a tiny continuous light that packs real punch, we've got it covered



MINI TEST

110 Retro plug-ins

If you're a fan of the analogue look, don't miss our round-up of six film-effect plug-ins for Lightroom



BUYER'S GUIDE

124 Nikon cameras

Compare the key facts and figures about all of the current Nikon D-SLRs and the best Nikon 1 models on the market



New gear

Here's what's caught our eye this month...

Lomography Daguerreotype Achromat 64mm f/2.9 art lens

\$499 (around £400) www.lomography.com

As this month's Big Test makes clear, there's no shortage of conventional portrait lenses, but here's an alternative that's anything but conventional. Lomography has taken the design of the world's first photographic optic and reworked it to provide fun, creative effects that are particularly suitable for portrait photography.

At its maximum aperture the Achromat produces atmospheric soft-focus effects, but stop down to f/5.6 or smaller and you get images with deep contrast and razor-sharp definition. Aperture is controlled by slotting small aperture plates into the lens, with each plate corresponding to a specific aperture size. Use the Lumière plates for images with a soft, even glow, or go for the Aquarelle plates if you want out-of-focus areas to have a textured, watercolour look.

With a minimum focus distance of just 50cm, the Achromat is also ideally suited to creative macro photography, whether you want to blur out the background or keep everything sharp. Whatever your chosen subject, though, you'll just have to bear in mind that it's a strictly manual affair, so you'll need to experiment with exposure.

First impressions _You'll probably have to experiment a bit to get eye-catching results with this lens, but it should nonetheless provide plenty of scope for fun and creative portrait, macro and still-life photography.



The Achromat 64mm art lens is available in brass or black finishes, with black costing an extra \$100 (around £80)



Metz mecablitz M400

£239/\$280 www.metz-mecatech.de/en

Metz's mid-range flashgun provides a suitable alternative to Nikon's SB-500 Speedlight. It's deeper than the Nikon, but much shorter, making it ideal for those who like their kit to be compact. Despite its diminutive size, though, it's rated at GN40 (the SB-500 is rated at just GN24) and it features a motorised zoom (24-105mm). It's also i-TTL compatible, and boasts an OLED display, master/slave modes, and high-speed sync. There's even an LED video light capable of 100 Lux at one metre.

First impressions _A compact flash that punches well above its weight.



MeFOTO RoadTrip Air

£140/\$175 www.mefoto.com

The RoadTrip Air is a true travel tripod that's just 29cm long when packed down, and tips the scales at a mere 1.13kg – and this includes its matching Arca-Swiss compatible ball head. In fact, when it's packed down you'll find it hard to believe that it will extend up to 155cm. Setting up is a doddle, thanks to five-section legs that each lock with a single twist, but MeFOTO's 6kg load rating is optimistic, especially if you extend the centre column. At maximum height, perching anything bulkier than a D5500 with a kit lens on top might feel a bit precarious.

First impressions _A great option if you want to travel light and aren't expecting rock-solid rigidity.



Sevenoak Electronic Ball Head Pro

£70/\$100 www.kenro.co.uk

With Nikon D-SLRs from the D5000 upwards – and now the KeyMission action cam line-up – featuring built-in intervalometers, it is easier than ever to capture a captivating timelapse sequence of images. But what if you could record a timelapse while simultaneously panning your Nikon, for even more visual impact? This motion timelapse effect can be ideal for shooting star trails or a nighttime cityscape in fast forward, and this electronic tripod head will automate the panning process for modest money.

The head can rotate your Nikon between 15 and 360 degrees, in 15-degree increments and in either direction. With the angle set, you just have to decide on pan duration, which can last for five, 15, 30 or 60 minutes. It's a pity that this time range is relatively limited compared to some rival heads, but it's good enough for most scenarios.

Programming couldn't be simpler, and an array of LEDs confirms your chosen angle and duration. You don't have to worry about carrying batteries either, as the head boasts



its own rechargeable 1200mAh power pack. This is good for around six hours' use when supporting a 1kg load, or approximately 50 hours of standby time, with a full recharge taking around eight hours via the USB input.

A maximum load capacity of 2kg means the head should support most DX set-ups, and it'll attach to any tripod with a standard or 1/4-inch head mount.

First impressions If you fancy getting creative with your timelapses, this foolproof entry-level mount looks like a great place to start, even if it's not bristling with features.

Lume Cube

£90/\$80 www.lumecube.com

As this issue's feature explains, continuous lighting can provide an easy-to-use alternative to studio lighting, and it's essential for shooting video. If you want to give it a go without spending a fortune, Lume's dinky Cube, which measures just 1.5 inches across, might be just the thing. It's capable of putting out a whopping 1500 lumens at three metres, and you'll get 20 minutes at full power, or two hours at 50% brightness, from the built-in battery. A smartphone app enables you to control brightness, use it as a simple flash or sync multiple cubes.

First impressions It's hard to believe you can get this much light from such a tiny package.



Simon King Ultimate Wildlife Hide

£149/\$185 www.shop-simonkingwildlife.com

If you're serious about wildlife photography, a hide will up your chances of capturing great shots. This hide has been designed by wildlife enthusiast and cameraman Simon King, with windows on all sides, plus one at ground level. These can be configured to provide a large opening for wide shots, or a smaller porthole for stealth. It measures 1.5m wide and 1.7m high – plenty big enough to get comfy – and the wind and waterproof outer will keep you warm and dry. And best of all, it can be erected (and packed back down) in seconds thanks to its pop-up design.

First impressions This is a great time of year to invest in a hide, and this easy-to-erect pop-up option is well worth a look.



Lightroom plug-ins

Indulge your analogue nostalgia with a retro Lightroom plug-in

Isn't it funny how, as camera technology gives us ever-increasing image quality, many people still crave the imperfections of analogue film and the visual character that these bring? Thankfully, you can now get all of the retro flare of film and still retain the convenience of digital photography. As our tutorial on page 82 shows, you can make your own filters to create a grading effect in Capture NX-D. There's also no shortage of Lightroom plug-ins loaded with filter effects designed to faithfully emulate many of the colour and monochrome film stocks of yesteryear.

Most plug-ins go further, though, incorporating effects to mimic light leaks, cross processing, infra-red looks, and even double exposures. The starting point in each plug-in will usually be selecting one of many preset effects, but all of the apps here will also enable you to fine-tune a preset to create a bespoke look. Expect to find customisation options that'll tweak everything from grain intensity to adding dust and scratches. But a word of caution: different plug-ins emulate the same film stock in different ways. Which is correct? You decide.

Five key features

PROPERTIES OF PUKKA PLUG-INS

Going it alone

All of these apps integrate with your Lightroom workflow, but they can also go it alone or have separate standalone versions available.

Being selective

Lightroom struggles to target a specific area with an effect, but some plug-ins enable you to brush in effects and create layer masks.

Little extras

Some plug-ins do more than just emulate analogue film,

but extras such as image management and cropping tools may be redundant if you already have Lightroom.

Custom presets

If you tweak a preset effect, some plug-ins give you the option to save your effect as a custom preset, so you can use it on other images.

Processing power

Most of these plug-ins need serious processing power to preview and load effects quickly, so check that your computer's specs match up.



Despite its enormous catalogue of over 500 effect presets, Exposure X2 is very easy and intuitive to use

Alien Skin Exposure X2

£149 (around £123)

www.alienskin.com

Exposure is aiming to be more than just an effects plug-in, as you can also use it to cull and organise your photos. New features in version X2, such as spot healing and lens distortion correction tools, further add to Exposure's versatility.

But it's Exposure X2's range of over 500 effect presets that impresses most. The selection includes numerous emulations of colour and mono film stocks, as well as a decent selection of generic retro looks. All can be endlessly customised to adjust everything from colour and detail to grain and vignetting, while a Brush tool enables you to selectively adjust a specific area or stack multiple effects.

Despite this vast array of effects, we found navigation slick, with previews loading almost instantly. It's a pity that Exposure X2 lacks the ability to combine images in layers, but it's still highly accomplished.

Exposure X2 works on Macs and PCs, with Lightroom 6 or later. It requires an Intel Core 2 or equivalent processor and supports JPEG, TIFF, PSD and DNG files, plus RAW formats.

Pros Vast selection of attractive presets; intuitive interface; selective editing; fast

Cons No layers support; not the cheapest option

We say Top-notch performance and extensive features make Exposure X2 hard to beat

Overall score ●●●●●



FilmPack 5 is also available as a Standard Edition (£79/£69/\$83), which has fewer features and presets

DxO FilmPack 5 Elite Edition

£129 (around £112/\$136)

www.dxo.com

DxO's FilmPack 5 gets off to a good start with one of the cleanest and most intuitive interfaces out there. It also runs as smoothly as Exposure X2, though you'll have to do without selective editing features.

At FilmPack's heart are over 120 film effect presets, of which around 80 are emulations of real analogue film stocks, including a good range of iconic and more niche films. We noticed that its rendition of the famed Fuji Velvia 50 seemed unusually muted, but that aside, DxO's film expertise shines through, with an information panel accompanying each preset that provides stats and an interesting back story about each film.

Tweaking presets is very straightforward, and you can add a frame, light leak, or even the grain characteristics of a different film.

FilmPack 5 works on Macs and PCs, with Lightroom 3 or later. It needs 2GB RAM and an Intel Core 2 Duo/i5 processor. It supports JPEG, TIFF and PSD files in Lightroom, while DNG and other RAW formats are only supported in the standalone app.

Pros Comprehensive selection of film renditions; well-designed and intuitive interface

Cons Questionable accuracy of some film emulations; no selective editing

We say The film connoisseur's choice, but falls short on value

Overall score ●●●●●

111



Portrait prime time

Strike a pose, as **Matthew Richards** puts the best Nikon-fit portrait lenses to the test

Now that our portrait guide on page 16 has inspired you to shoot more portraits, you may be evaluating your kit's suitability. Kit lenses are suitable for a wide range of subjects, but alas, portraiture isn't one of them; with a widest available aperture of f/5.6 at the long end of the zoom range, they simply can't give you the tight depth of field that you really need for portraits, for blurring the background and making the person you're shooting really stand out.

Even a top-end standard zoom with an f/2.8 constant aperture can leave you wanting a little more when it comes to limiting depth of field. And while some find a fast telephoto zoom a viable alternative for portraiture (see our Head to head on page 86), the sheer size and weight of a 70-200mm f/2.8 lens certainly isn't ideal. Yet another option is to go for a 'portrait macro' lens that has a suitable focal length. But, again, the widest available aperture there is usually a still-limiting f/2.8.



The contenders

NIKON AF-S 50mm f/1.8G	£190/\$220
NIKON AF-S 50mm f/1.4G	£385/\$450
NIKON AF-S 85mm f/1.8G	£400/\$480
SIGMA 50mm f/1.4 DG HSM A	£570/\$950
TAMRON SP 45mm f/1.8 Di VC USD	£600/\$600
TAMRON SP 85mm f/1.8 Di VC USD	£750/\$750
SIGMA 85mm f/1.4 DG HSM A	£1200/\$1200
NIKON AF-S 85mm f/1.4G	£1350/\$1600



The best portraiture solution is to add a fast prime lens to your D-SLR outfit. For FX (full-frame) cameras, the classic focal length of 85mm enables you to shoot head-and-shoulders or half-length portraits from a natural distance, without invading your subject's personal space. If you're using a DX-format camera with a 1.5x crop factor, a 'nifty fifty' lens will give you a similar effective focal length of 75mm.

There's a variety of 50mm and 85mm portrait-friendly prime lenses on the market, typically with a widest aperture of f/1.8 or f/1.4. Compared with the f/5.6 aperture of a standard zoom, these have an aperture rating that's 3.33 or four full stops faster, respectively. Faster shutter speeds can be a bonus, especially for indoor portraiture or when putting your subject in

the shade to avoid the glare of the sun, but it's the tighter depth of field offered by wide apertures that's the main attraction.

How sharp should you go?

Corner sharpness is of little importance if you'll be blurring the background of portraits, and vignetting at wide apertures can actually be an added attraction. Even extreme centre sharpness might not be highly desirable, as it'll show up every wrinkle and blemish. There's something to be said for a lens that smooths over the cracks at wide apertures, to

give a more dreamy look to portraits. Even so, you might prefer to capture as much sharpness as possible in the eyes, and it's certainly easier to add smoothing at the editing stage, rather than trying to inject some sharpness that simply isn't there.

Whatever your take on image sharpness in portraits, the bokeh of a portrait lens is often more important. Bokeh is a subjective measure of the pictorial quality of defocused areas within an image, which should be smooth and creamy. The transition between focused and defocused

areas should be smooth too. Fast lenses can also be afflicted with increased longitudinal chromatic aberrations and coma (see jargon buster, below).

From a budget point of view, f/1.4 lenses are typically more expensive than their f/1.8 counterparts. The forward elements in a faster lens need to have a larger diameter, to let in more light, so faster lenses are bigger and more expensive to manufacture. However, the quality of glass and construction can still be just as good in 'slower' lenses, or maybe even better. The two Tamron lenses on test aim to keep size and weight to easily manageable levels with a modest f/1.8 aperture rating, while also adding optical stabilisation, which is practically unheard of in portrait prime lenses.



Faster shutter speeds can be a bonus, but it's the tighter depth of field offered by wide apertures that's the main attraction

What to look for...

FOCAL LENGTH AND APERTURE ARE KEY CONSIDERATIONS, BUT THEY'RE NOT THE ONLY FACTORS

DIAPHRAGM BLADES

A larger number of diaphragm blades tends to produce a more rounded aperture when stopping down. This helps to enhance the quality of the lens's bokeh.

OPTICAL STABILISATION

It's very rare to find optical stabilisation in a fast lens with an aperture rating wider than f/2.8. The two Tamron VC lenses are the only options on test to feature this.

AUTOFOCUS SYSTEM

All of the lenses on test have ring-type ultrasonic autofocus, which works with all Nikon D-SLRs. It's whisper-quiet and enables full-time manual override.

SEALED MOUNTING PLATE

All of the lenses in the group feature a weather-sealed mounting plate, apart from the Sigma 50mm lens. Assuming you don't shoot portraits in the rain, this might be a moot point



FOCAL LENGTH

50mm and 85mm lenses are ideal for DX and FX portraiture, respectively. 50mm lenses work well for wider environmental portraits on FX-format cameras too

Jargon buster

LONGITUDINAL CHROMATIC ABERRATIONS

Unlike lateral chromatic aberrations, longitudinal chromatic aberrations can show up across the whole frame – most commonly as red and green fringing – and can't be automatically corrected for in-camera.

COMA

Comatic aberration (coma) affects pinpoints of light in a scene, mostly around the periphery of the image frame, distorting them to look like they have comet tails.

APERTURE RATING

An f/1.4 aperture is two-thirds of a stop faster than f/1.8. This enables a slightly tighter depth of field, but in reality it can be hard to tell the difference



Nikon AF-S 50mm f/1.8G

£190/\$220

NOT THE SHARPEST, BUT A GREAT LENS FOR THE MONEY

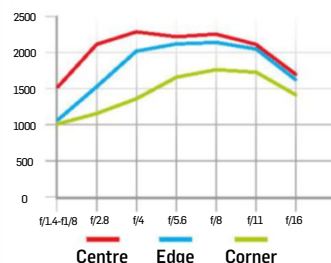
This isn't the cheapest Nikon 50mm f/1.8 lens on the market: there's also an AF-D version, which is about half the price, but it can't autofocus on bodies like the D3400 and D5500. The AF-S version is much newer, and features a ring-type ultrasonic autofocus system that works on any Nikon body.

Though only slightly smaller than the f/1.4 version (see right), it's 50 per cent lighter, but build quality feels pretty good, right down to the weather-sealed metal mounting plate. Optical finery includes an aspherical element. The front element is deeply recessed, especially at longer focus distances.

Performance

As with the f/1.4 version, AF speed is a little pedestrian, but sharpness and contrast are impressive, even at wide apertures. Defocused points of light take on a visible geometric shape at smaller apertures, as the seven-blade diaphragm isn't that well rounded. Barrel distortion is also a little worse than with the other lenses on test, but is much reduced when the lens is used on a DX body.

Sharpness (Higher is better)



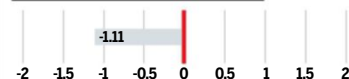
It's as sharp as the pricier Nikon 50mm f/1.4 across most of the frame.

Corner fringing (Lower is better)

f/2.8 0.9 f/8 1.21 f/16 1.15

Lateral chromatic aberrations are a little worse than average, but well controlled.

Distortion (Nearer 0 is better)



Less barrel distortion than from the Nikon 50mm f/1.4, but it's worse than average.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



Bokeh isn't especially smooth, but the lens is great value at the price.

Nikon AF-S 50mm f/1.4G

£385/\$450

REMARKABLY COMPACT AND IMPRESSIVELY SHARP

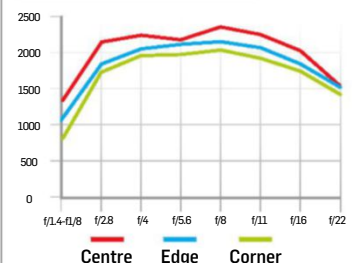
Despite the fact that this is the most upmarket option in Nikon's 50mm line-up, it's still around 50 per cent cheaper than the competing Sigma 50mm and Tamron 45mm lenses – and the latter only has a maximum aperture of f/1.8 lens. It's also remarkably compact for a 50mm f/1.4: it's only 1.5mm longer and wider than the f/1.8 version, and has the same 58mm filter thread. And while it is noticeably heavier than the f/1.8, it's just a third of the weight of the Sigma 50mm f/1.4 A.

It feels similar to the f/1.8 in terms of build quality and handling. However, it features an additional optical element, plus two extra iris blades, which means the aperture is more rounded when stopping down.

Performance

Bokeh isn't altogether pleasing when shooting wide open, as bokeh fringing and coma are quite visible. However, contrast and sharpness are impressive, vignetting is fairly minimal, and bokeh becomes much smoother when stopping down to f/1.8, beating the Nikon 50mm f/1.8G at the same aperture.

Sharpness (Higher is better)



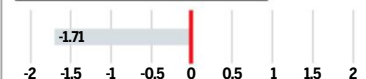
Sharpness across the whole frame is excellent, even at very wide apertures.

Corner fringing (Lower is better)

f/2.8 0.69 f/8 0.82 f/16 0.82

Lateral fringing is minimal, but longitudinal fringing is noticeable at wide apertures.

Distortion (Nearer 0 is better)



Barrel distortion is more pronounced than you might expect.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



Super sharp for an f/1.4 lens, but bokeh isn't problem-free at the widest aperture.



Nikon AF-S 85mm f/1.8G

£400/\$480

A CLASS ACT THAT OFFERS GREAT VALUE FOR MONEY

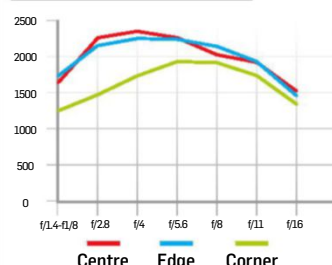
Like the Nikon 50mm f/1.8, this is the smallest and lightest lens in its class, measuring just 80mm long and weighing in at a modest 350g.

Further similarities with the 50mm f/1.8 include the fact that it features a seven-blade diaphragm, whereas all of the other lenses on test have nine-blade diaphragms. Build quality feels much the same, too, down to the weather-sealed mounting plate, and the inclusion of a single aspherical element.

Performance

Autofocus is faster than in the both of Nikon's 50mm lenses, thanks in part to the fact that it involves the movement of the smaller rear elements, rather than the larger front ones. It's superbly sharp, even shooting wide open, although naturally the aperture doesn't go as wide as in the f/1.4 lenses. Vignetting is more noticeable than in the bigger Nikon 85mm f/1.4 lens and, while bokeh is beautifully soft, stopping down gives specular highlights a heptagonal appearance – a consequence of the diaphragm having seven rather than nine blades.

Sharpness (Higher is better)



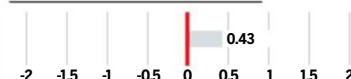
Sharpness across the whole frame is very impressive, even at the widest aperture.

Corner fringing (Lower is better)

f/2.8 1.1 f/8 0.99 f/16 0.96

Both longitudinal and lateral fringing are well controlled, and quite negligible.

Distortion (Nearer 0 is better)



Some minor pincushion distortion is visible, but it's not too noticeable.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



A high performance portrait lens for FX cameras at a bargain price.



Sigma 50mm f/1.4 DG HSM | A

£570/\$950

A BIG BRUISER OF A NIFTY FIFTY

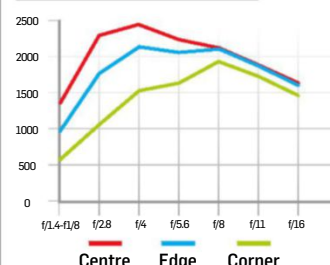
This Art lens from Sigma's Global Vision line-up is a heavyweight contender that's almost twice the length and three times the weight of Nikon's competing 50mm f/1.4 lens. It's full-frame compatible, but undeniably hefty for a portrait lens on lightweight DX format bodies such as the D5500, tipping the scales at 815g.

The relatively complex design incorporates 13 optical elements in all, including an aspherical element and three SLD (Special Low Dispersion) elements. Construction feels reassuringly robust, but this is the only lens on test that lacks a weather seal on its mounting plate.

Performance

An upside of the large front element is that vignetting is comparatively minimal here. Bokeh is deliciously creamy at f/1.4 and remains of exceptional quality even when stopping down a little. This is helped by a well rounded aperture based on nine diaphragm blades. There's a lack of outright sharpness in the corners of images when shooting on an FX body, but this isn't really an issue for portraits.

Sharpness (Higher is better)



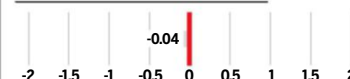
Generally excellent, except in full-frame image corners between f/1.4 and f/2.8.

Corner fringing (Lower is better)

f/2.8 0.67 f/8 0.53 f/16 0.56

Colour fringing is minimal throughout the aperture range, across the whole image.

Distortion (Nearer 0 is better)



It's essentially a distortion-free lens, with a practically perfect score in our lab tests.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



Worth the weight penalty, it makes a spectacular portrait lens for DX cameras.



Tamron SP 45mm f/1.8 Di VC USD

£600/\$600

SUPERB CENTRE SHARPNESS WITH ADDED STABILITY

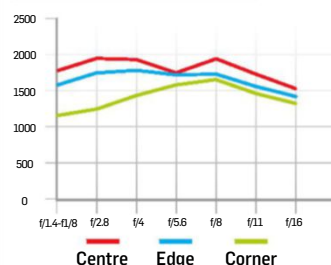
Some say you don't need stabilisation in fast lenses, but if you want to take advantage of prime lens image quality at medium aperture settings, stabilisation can be a real help – hence the inclusion of Tamron's Vibration Compensation (VC) system in this lens.

The modest f/1.8 aperture rating in this 'standard' prime helps keep the size down and the weight off, and the lens is nicely engineered, with premium build quality and weather seals. At 45mm, the focal length is a touch shorter than the more standard 50mm. This equates to 67.5mm on a DX-format body, though the lens is also full-frame compatible.

Performance

Autofocus isn't superfast, but it was highly accurate in our tests. The stabiliser gives a benefit of about four f/stops, and manual focusing benefits from greater travel in the focus ring than with the other lenses on test. Sharpness is excellent, even when shooting wide open, while bokeh is impressively smooth, both at f/1.8 and when stopping down.

Sharpness (Higher is better)



Centre sharpness is superb when wide open, and corners aren't far behind.

Corner fringing (Lower is better)

f/2.8 0.91 f/8 0.93 f/16 0.97

Longitudinal or bokeh fringing is minimal, as are lateral chromatic aberrations.

Distortion (Nearer 0 is better)



More barrel distortion than in the Sigma 50mm, but less than in both Nikon 50mm.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



Its widest aperture is only f/1.8, but it's still a cracker of a portrait lens.

Tamron SP 85mm f/1.8 Di VC USD

£750/\$750

A SOLID PERFORMER IN EVERY RESPECT

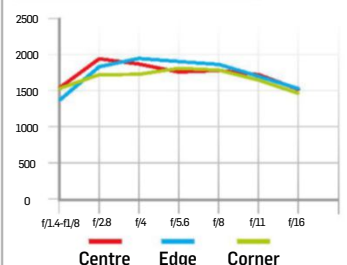
Despite its much longer focal length, the big brother to the Tamron 45mm is actually a fraction shorter, and has the same 67 mm filter thread. It also shares the same combination of an f/1.8 aperture rating and VC image stabilisation. The styling, build quality and weather seals are also the same.

One notable difference, however, is that the 85mm lens is heavier, at 660g rather than 520g. The main reason for this is that it features 13 elements, compared with just 10 in the 45mm. Both XLD (eXtra Low Dispersion) and LD elements are included to reduce aberrations, and two types of nano structure coatings are included to combat ghosting and flare.

Performance

Bokeh is even smoother than in the Tamron 45mm lens, but coma is a little more noticeable at apertures wider than f/2.8. Autofocus is faster, but the manual focus ring has less rotational travel. Again, centre sharpness is impressive when shooting wide open, but here it's also excellent right out to the extreme corners of the frame.

Sharpness (Higher is better)



Sharpness is excellent across the whole image, throughout the aperture range.

Corner fringing (Lower is better)

f/2.8 0.81 f/8 0.54 f/16 0.45

Colour fringing is negligible, with lateral fringing being practically unnoticeable.

Distortion (Nearer 0 is better)



There's very slight pincushion distortion, but it's pretty much impossible to spot.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



Image quality is sumptuous and the optical stabiliser is a bonus.



Sigma 85mm f/1.4 DG HSM | A

£1200/\$1200

A HEAVYWEIGHT LENS THAT PACKS A PUNCH

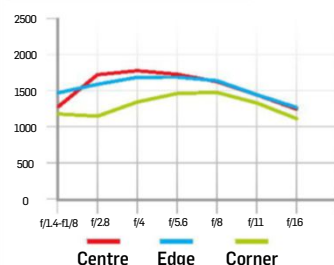
Given that its 50mm sibling was unveiled three years ago, Sigma's recently-unveiled 85mm f/1.4 Art lens has been a long time coming, but has it been worth the wait? It certainly feels the part: at 1130g, it's nearly twice as heavy as the Nikon 85mm f/1.4. To put that into perspective, that makes it only 300g lighter than Nikon's new 70-200mm f/2.8E VR.

Its complex optical design is based on 14 elements, including an aspherical element and two SLD elements. Like Tamron's 85mm, the Sigma features an electromagnetically controlled diaphragm for greater accuracy in high-speed continuous mode. Unlike its 50mm sibling, it also features weather seals.

Performance

Autofocus is extremely fast and accurate, and image quality is excellent, with a wonderfully soft and creamy bokeh, although the lens isn't as sharp as some of its rivals. Colour fringing, coma, distortion, ghosting and flare are all negligible. All in all, the Sigma 85mm packs a heavyweight punch that's in keeping with its construction.

Sharpness (Higher is better)



Corner fringing (Lower is better)

f/2.8 0.4 f/8 0.39 f/16 0.33

With similar lab test scores to the Tamron 85mm lens, colour fringing isn't an issue.

Distortion (Nearer 0 is better)



It's essentially a distortion-free lens, with just the merest hint of barrel distortion.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



It's bulky and heavy, but the new Sigma is capable of beautiful portraiture.

Nikon AF-S 85mm f/1.4G

£1350/\$1600

DOESN'T QUITE LIVE UP TO ITS PREMIUM PRICE TAG

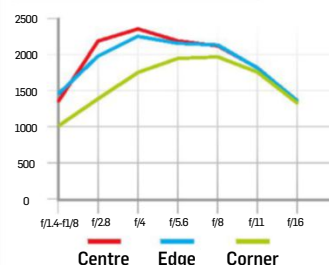
Nikon's 85mm lens is relatively compact and lightweight. Even so, it boasts a fast f/1.4 aperture and plenty of upmarket finery: for example, it's the only Nikon lens on test to feature nano structure coatings and, unlike both of Nikon's f/1.8 lenses, it has a nine-blade diaphragm for more rounded apertures.

Less complex than the Sigma and Tamron 85mm lenses on test, the Nikon features just 10 optical elements. That's only one more than in the much less expensive Nikon 85mm f/1.8 lens, but the forward elements are considerably larger, and the filter thread is bumped up from 67mm to 77mm. Build quality is of a fully pro standard.

Performance

Although it drops off a little at f/1.4, sharpness is impressive throughout the rest of the aperture range. Even so, it's mostly matched by Nikon's much cheaper 85mm f/1.8 lens. Colour fringing, meanwhile, proved slightly worse than in the f/1.8, while coma was about the same. However, vignetting was less noticeable, and bokeh was better when stopping down.

Sharpness (Higher is better)

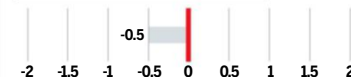


Corner fringing (Lower is better)

f/2.8 1.75 f/8 1.53 f/16 1.4

There's very little colour fringing, but lab scores are nonetheless the worst on test.

Distortion (Nearer 0 is better)



Barrel distortion is minimal and should go completely unnoticed in portrait shots.

Verdict

Features
Build/handling
Performance
Value for money
OVERALL



It's a decent-enough lens, but struggles to justify its relatively high price.

Comparison table

HOW THE LENSES COMPARE

								
	NIKON AF-S 50MM f/1.8G	NIKON AF-S 50MM f/1.4G	NIKON AF-S 85MM f/1.8G	SIGMA 50MM f/1.4 DG HSM A	TAMRON SP 45MM f/1.8 Di VC USD	TAMRON SP 85MM f/1.8 Di VC USD	SIGMA 85MM f/1.4 DG HSM A	NIKON AF-S 85MM f/1.4G
	www.nikon.com			www.sigma-global.com	www.tamron.com		www.sigma-global.com	www.nikon.com
Street price (UK/US)	£190/\$220	£385/\$450	£400/\$480	£570/\$950	£600/\$600	£750, \$750	£1200/\$1200	£1350/\$1600
DX/FX	FX	FX	FX	FX	FX	FX	FX	FX
Equiv. focal length (DX)	75mm	75mm	127.5mm	75mm	67.5mm	127.5mm	127.5mm	127.5mm
Elements/groups	7/6	8/7	9/9	13/8	10/8	13/9	14/12	10/9
Diaphragm (blades)	7	9	7	9	9	9	9	9
Optical stabiliser	No	No	No	No	Yes	Yes	No	No
Focus type	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)	Ultrasonic (ring-type)
Min. focus distance	0.45mm	0.45mm	0.8m	0.4m	0.29m	0.8m	0.85m	0.85m
Max. reproduction ratio	0.15x	0.15x	0.12x	0.18x	0.29x	0.14x	0.12x	0.12x
Filter size	58mm	58mm	67mm	77mm	67mm	67mm	86mm	77mm
Accessories inc.	Hood, pouch	Hood, pouch	Hood, pouch	Hood, soft case	Hood	Hood	Hood, soft case	Hood, pouch
Diameter x min. length	72 x 53mm	74 x 54mm	80 x 73mm	86 x 99mm	80 x 89mm	85 x 89mm	95 x 126mm	86 x 84mm
Weight	185g	280g	350g	815g	520g	660g	1130g	595g
FEATURES								
BUILD/HANDLING								
PERFORMANCE								
VALUE FOR MONEY								
OVERALL								

The winner is...

Tamron SP 85mm f/1.8 Di VC USD £750/\$750

What's good: Premium weather-sealed build, great image quality, optical stabilisation.

What's bad: Two-thirds of a stop slower than the competing f/1.4 lenses on test.

Our verdict: Superb all-round quality and value, easily manageable for handheld shooting.

It's almost too close to call: the Sigma and Tamron 85mm lenses both deliver fabulous image quality for portraiture. The Sigma has a slightly wider f/1.4 maximum aperture rating, but the Tamron is smaller and lighter – making it more manageable when shooting handheld – and it features Tamron's highly effective Vibration Compensation system. It's also much less expensive.

By comparison with the Tamron and Sigma 85mm lenses, Nikon's 85mm f/1.4



looks overpriced and outdated, although the Nikon 85mm f/1.8 lens performs very well, and represents outstanding value for money for an 85mm lens.

For portraiture on DX-format cameras, Sigma's 50mm Art lens delivers the best outright image quality, but it's only marginally ahead of the smaller, lighter, stabilised Tamron 45mm lens. Again, the Nikon 50mm f/1.8 lens is the best budget option, delivering good image quality and handling at a very reasonable price.

Runners-up

Sigma 85mm f/1.4 DG HSM | A £1200/\$1200

What's good: Beautiful image quality, fully pro-grade build, weather sealed.

What's bad: It's huge, and very heavy for an 85mm f/1.4 lens.

Our verdict: Lovely image quality, but it's cumbersome and could be sharper.



Sigma 50mm f/1.4 DG HSM | A £570/\$950

What's good: Fast f/1.4 aperture, premium build, excellent performance.

What's bad: Relatively big and heavy, lacks stabilisation, no weather seals.

Our verdict: It's the best 50mm for image quality, but it's quite a handful on a lightweight DX body.



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Buyer's guide Nikon cameras



Not sure which Nikon body will be the one for you? Here's a rundown of the current range*

NIKON 1 J5



A CSC THAT D-SLR USERS WILL LOVE, the J5 has the highest resolution of any Nikon 1 camera to date (20.8Mp) and a decent sensitivity range. The top dial also gives access to semi-automatic and manual exposure modes, plus you can shoot in RAW, which is real bonus.



TESTED IN ISSUE 47 PRICE: £370/\$500	
Sensor	20.8Mp, CX (5232x3488)
Processor	EXPEED 5A
Viewfinder	N/A
ISO	200-12800
AF	171 area-contrast (105 area-phase)
LCD	3-inch tilting touchscreen
Max burst	60fps
Memory card	microSD/HC/XC

NIKON 1 S2



SMALL IN SIZE BUT BIG ON QUALITY, the svelte Nikon 1 S2 is responsive and speedy. With a 14.2Mp image sensor, and the omission of built-in Wi-Fi or a touchscreen, it's more basic than the J5, but still a highly capable camera that you can slip into your bag as a lightweight back-up.

PRICE: APPROX. £300/\$350 (no longer on sale)	
Sensor	14.2Mp, CX (4592x3072)
Processor	EXPEED 4A
Viewfinder	N/A
ISO	200-12800
AF	135 area-contrast (73 area-phase)
LCD	3-inch
Max burst	20fps (60fps fixed AF)
Memory card	microSD/HC/XC

NIKON 1 AW1



VERY MUCH THE ACTION ADVENTURER, the Nikon 1 AW1 is shockproof, waterproof to a depth of 15 metres, and even freeze-proof down to -10°C. To keep pace with a truly active lifestyle, it also has a built-in compass, altimeter, depth gauge and GPS.



TESTED IN ISSUE 46 PRICE: £600/\$800	
Sensor	Sensor 14.2Mp, CX (4608x3072)
Processor	EXPEED 3A
Viewfinder	N/A
ISO	160-6400
AF	135 area-contrast (73 area-phase)
LCD	3-inch
Max burst	15fps (60fps fixed AF)
Memory card	SD/HC/XC

NIKON 1 V3



THE FLAGSHIP NIKON 1 CAMERA adds a vari-angle touchscreen to the comfortable ergonomics of the preceding V2, along with key upgrades to the image sensor, processor and autofocus system. It also includes built-in Wi-Fi. An electronic viewfinder is optional.



TESTED IN ISSUE 46 PRICE: £800/\$1200	
Sensor	18.4Mp, CX (5232x3488)
Processor	EXPEED 4A
Viewfinder	Electronic
ISO	160-12800
AF	171 area-contrast (105 area-phase)
LCD	3-inch vari-angle touchscreen
Max burst	20fps (60fps fixed AF)
Memory card	SD/HC/XC

NIKON D3200



AN INSTANT FAVOURITE WITH BEGINNERS when launched back in 2012, the D3200 eases you into creative photography with a built-in Guide mode that serves up interactive tutorials. This is backed up by impressive image quality, thanks to its 24.2Mp image sensor and EXPEED 3 processor.



TESTED IN ISSUE 53 PRICE: £300/\$400	
Sensor	24.2Mp, DX (6016x4000)
Processor	EXPEED 3
Viewfinder	Pentamirror, 0.8x, 95%
ISO	100-6400 (12800 expanded)
AF	11-point (1 cross-type)
LCD	3-inch
Max burst (buffer)	4fps (18 RAW/80 JPEG)
Memory card	SD/HC/XC

NIKON D3300



THE D3300 BOASTS A BEGINNER-FRIENDLY GUIDE MODE too, but boosts performance with a current-generation EXPEED 4 processor, faster continuous shooting and greater low-light potential than the D3200. There's also a user-friendly Effects shooting mode and handy 'easy panorama' mode.



TESTED IN ISSUE 53 PRICE: £320/\$450	
Sensor	24.2Mp, DX (6000x4000)
Processor	EXPEED 4
Viewfinder	Pentamirror, 0.85x, 95%
ISO	100-12800 (25600 expanded)
AF	11-point (1 cross-type)
LCD	3-inch, 70-degree viewing angle
Max burst (buffer)	5fps (11 RAW/100 JPEG)
Memory card	SD/HC/XC

NIKON 1 COMPACT SYSTEM CAMERAS

ENTRY-LEVEL D-SLRs

* Current market prices (for body + a kit lens) are checked regularly with reputable stores to serve as a guideline. Different lens bundles are available. Prices correct at time of going to press.

NIKON D3400



THE D3400 MAKES ROOM FOR NEW FEATURES BY DOWNGRADING OTHERS, offering a relatively minor upgrade to the D3300 that includes wireless connectivity. While it's perfectly capable, the great price of the D3300 means that one is still our preferred entry-level Nikon D-SLR.



TESTED IN ISSUE 65 PRICE: £400/\$500

Sensor	24.2Mp, DX (6000x4000)
Processor	EXPEED 4
Viewfinder	Pentamirror, 0.85x, 95%
ISO	100-25600
AF	11-point (1 cross-type)
LCD	3-inch, 170-degree viewing angle
Max burst (buffer)	5fps (11 RAW/100 JPEG)
Memory card	SD/SDHC/SDXC

NIKON D5300



AN AFFORDABLE INTERMEDIATE-LEVEL CAMERA, this body features a new generation processor, plus built-in Wi-Fi and GPS, all wrapped up in a tough carbon-fibre-reinforced shell. Plus the optical low-pass filter is omitted to maximise the potential to capture image sharpness.



TESTED IN ISSUE 53 PRICE: £460/\$700

Sensor	24.2Mp, DX (6000x4000)
Processor	EXPEED 4
Viewfinder	Pentamirror, 0.82x, 95%
ISO	100-12800 (25600 expanded)
AF	39-point (9 cross-type)
LCD	3.2-inch vari-angle
Max burst (buffer)	5fps (13 RAW/100 JPEG)
Memory card	SD/HC/XC

NIKON D5500



THE SAME PIXEL COUNT AND PROCESSOR AS THE PRECEDING D5300, built into the same style of monocoque (one-piece) body shell. The most notable upgrade in the newer D5500 is that its vari-angle LCD is a touchscreen. However, it loses the D5300's built-in GPS.



TESTED IN ISSUE 61 PRICE: £650/\$600

Sensor	24.2Mp, DX (6000x4000)
Processor	EXPEED 4
Viewfinder	Pentamirror, 0.82x, 95%
ISO	100-12800 (25600 expanded)
AF	39-point (9 cross-type)
LCD	3.2-inch vari-angle touchscreen
Max burst (buffer)	5fps (13 RAW/100 JPEG)
Memory card	SD/HC/XC

NIKON D5600



NIKON'S LATEST DX-FORMAT CAMERA ADDS SNAPBRIDGE image-transfer tech to the same sensor and processor as the D5500. It features a built-in sensor-cleaning system and powerful pop-up flash, plus a neat Time Lapse Movie mode previously only found in more advanced D-SLRs.



TESTED IN ISSUE 68 PRICE: £800/\$900

Sensor	24.2Mp, DX (6000x4000)
Processor	EXPEED 4
Viewfinder	Pentamirror, 0.82x, 95%
ISO	100-25600
AF	39-point (9 cross-type)
LCD	3.2-inch vari-angle touchscreen
Max burst (buffer)	5fps
Memory card	SD/SDHC/SDXC

NIKON D7100



THE D7100 GETS A NOTABLE HIKE IN PIXEL COUNT compared with the preceding D7000, along with the removal of the optical low-pass filter to maximise sharpness. Its autofocus system gets a boost too, and a 1.3x crop facility increases the maximum drive rate to 7fps.



TESTED IN ISSUE 19 PRICE: £900/\$1000

Sensor	24.1Mp, DX (6000x4000)
Processor	EXPEED 3
Viewfinder	Pentaprism, 0.94x, 100%
ISO	100-6400 (25600 expanded)
AF	51-point (15 cross-type)
LCD	3.2-inch
Max burst (buffer)	6fps, 7fps crop (6-9 RAW/33 JPEG)
Memory card	2x SD/HC/XC

NIKON D7200



BUILDING ON THE D7100'S SPECIFICATIONS, the D7200 boasts better low-light autofocus, a bigger memory buffer, an updated processor, built-in Wi-Fi and NFC connectivity, plus trick modes for doing light-trail photography and making time-lapse movies in-camera.



TESTED IN ISSUE 61 PRICE: £1000/\$1300

Sensor	24.2Mp, DX (6000x4000)
Processor	EXPEED 4
Viewfinder	Pentaprism, 0.94x, 100%
ISO	100-25600 (102400 expanded, mono only)
AF	51-point (15 cross-type)
LCD	3.2-inch
Max burst (buffer)	6fps, 7fps crop (18-27 RAW/100 JPEG)
Memory card	2x SD/HC/XC

NIKON D610



FULL-FRAME PHOTOGRAPHY STARTS HERE, with the most affordable of Nikon's FX cameras. It's no slouch, with a 6fps maximum drive rate and a quiet (but slower) continuous drive option. It also features a weather-sealed body and, compared with the D600, a revised shutter unit.



TESTED IN ISSUE 61 PRICE: £1700/\$2000

Sensor	24.3Mp, FX (6016x4016)
Processor	EXPEED 3
Viewfinder	Pentaprism, 0.7x, 100%
ISO	100-6400 (50-25600 expanded)
AF	39-point (9 cross-type)
LCD	3.2-inch
Max burst (buffer)	6fps (14-26 RAW/51 JPEG)
Memory card	2x SD/HC/XC



NIKON D750



THE D750 IS EASILY MANAGEABLE FOR A SEMI-PRO FULL-FRAME BODY. A reasonably priced addition to the line-up, it includes a tilting LCD screen and built-in Wi-Fi. The pixel count strikes a happy balance between the 16.2Mp Df/D4s and the 36.3Mp D810.



TESTED IN ISSUE 61 PRICE: £2100/\$2400

Sensor	24.3Mp, FX (6016x4016)
Processor	EXPEED 4
Viewfinder	Pentaprism, 0.7x, 100%
ISO	100-12800 (50-51200 expanded)
AF	51-point (15 cross-type)
LCD	3.2-inch tilt
Max burst (buffer)	6.5fps (15-33 RAW/87 JPEG)
Memory card	2x SD/HC/XC

NIKON D500



NIKON'S SEMI-PRO DX-FORMAT D-SLR is in many respects a dream camera. It boasts a blazingly fast, effective AF system and 10fps continuous shooting with a huge 200-shot RAW buffer, plus first-rate metering and white balance. For the money, it might just be Nikon's best DX D-SLR yet.



TESTED IN ISSUE 61 PRICE: £2480/\$2600

Sensor	20.9Mp, DX (5568x3712)
Processor	EXPEED 5
Viewfinder	Pentaprism, 1x, 100%
ISO	100-51200 (50-1640000 expanded)
AF	153-point (99 cross-type, 15 sensitive to f/8)
LCD	3.2-inch tilting touchscreen
Max burst (buffer)	10fps (200 RAW/200 JPEG)
Memory card	1x XQD, 1x SD/HC/XC

NIKON Df



ICONIC DESIGN MEETS HIGH-TECH EXCELLENCE IN THIS RETRO BEAUTY. The Df is amazingly compact for a full-frame body, but direct-access dials and buttons ensure that shooting controls are always within easy reach. The lack of a video shooting capability is a surprise omission, though.



TESTED IN ISSUE 54 PRICE: £2400/\$3000

Sensor	16.2Mp, FX (4928x3280)
Processor	EXPEED 3
Viewfinder	Pentaprism, 0.7x, 100%
ISO	100-12800 (50-204800 expanded)
AF	39-point (9 cross-type)
LCD	3.2-inch
Max burst (buffer)	5.5fps (25-47 RAW/100 JPEG)
Memory card	SD/HC/XC

NIKON D800e



A SPECIAL EDITION OF THE ORIGINAL D800, this one has a modified optical low-pass filter that omits an anti-aliasing feature. It's therefore better able to capture extraordinary levels of fine detail, maximising the potential of its ultra-high-resolution image sensor.



TESTED IN ISSUE 11 PRICE: £2250/\$3300 (no longer on sale)

Sensor	36.3Mp, FX (7360x4912)
Processor	EXPEED 3
Viewfinder	Pentaprism, 0.7x, 100%
ISO	100-6400 (50-25600 expanded)
AF	51-point (15 cross-type)
LCD	3.2-inch
Max burst (buffer)	4fps, 5fps DX crop (16-25 RAW/56 JPEG)
Memory card	1x CF, 1x SD/HC/XC

NIKON D810



THE KING OF THE RESOLUTION STAKES, the D810 boasts 36.3 million pixels and, unlike the older D800e, has no optical low-pass filter. It has a later-generation processor and an extended sensitivity range. A special astrophotography edition, D810A, is also available (£2700/\$3800).



TESTED IN ISSUE 54 PRICE: £2400/\$2800 (body only)

Sensor	36.3Mp, FX (7360x4912)
Processor	EXPEED 4
Viewfinder	Pentaprism, 0.7x, 100%
ISO	64-12800 (32-51200 expanded)
AF	51-point (15 cross-type)
LCD	3.2-inch
Max burst (buffer)	5fps, 7fps DX crop (18-58 RAW/100 JPEG)
Memory card	1x CF, 1x SD/HC/XC

NIKON D4s



THE D4s DELIVERS 11FPS SHOOTING, and image quality is immaculate, even at ultra-high ISO settings, making it popular with professional sport and wildlife photographers for years. But it has been superseded by Nikon's newer, higher spec'd flagship D-SLR, the D5.



TESTED IN ISSUE 54 PRICE: £4100/\$6000 (no longer on sale)

Sensor	16.2Mp, FX (4928x3280)
Processor	EXPEED 4
Viewfinder	Pentaprism, 0.7x, 100%
ISO	100-25600 (50-409600 expanded)
AF	51-point (15 cross-type)
LCD	3.2-inch
Max burst (buffer)	11fps (36-176 RAW/200 JPEG)
Memory card	1x CF, 1x XQD

NIKON D5



CAPABLE OF SHOOTING 12 FRAMES PER SECOND, and with a buffer capacity of 200 RAW files, Nikon's flagship D-SLR also boasts 153 AF points – three times more than the D4s. The pixel count has also gone up, to 20.8Mp, as has the maximum ISO, to a staggering 3.3 million.



TESTED IN ISSUE 59 PRICE: £5100/\$6500 (body only)

Sensor	20.8Mp, FX (5568x3712)
Processor	EXPEED 5
Viewfinder	Pentaprism, 0.72x, 100%
ISO	100-102400 (50-3280000 expanded)
AF	153-point (99 cross-type, 15 sensitive to f/8)
LCD	3.2-inch touchscreen
Max burst (buffer)	12fps (200 RAW/200 JPEG)
Memory card	2x XQD (version with 2x CF also available)



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D2x body.....	£349
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D700 body box.....	£699
D600 body box.....	£799
D300s body box.....	£429
D300 body box.....	£299
D200 body box.....	£149
D7100 body box.....	£499
D7000 body.....	£299/349
D90 body.....	£199
D80 body.....	£169
D50 body.....	£79
MBD-15 grip.....	£149
MBD-14 grip.....	£149
MBD-10 grip M- box.....	£129
MBD-10 grip.....	£79
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MBD-100 grip.....	£39
MBD-200 grip.....	£49

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F4E body inc MB-23.....	£299
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14-24 F2.8 AFS M- box.....	£1099
14-24 F2.8 AFS.....	£999
16 F2.8 Fisheye AFD.....	£499
16-35 F4 VR.....	£749
16-85 F3.5/5.6 AFS VR.....	£399
17-55 F2.8 AFS.....	£449
18-35 F3.5/4.5 AFS.....	£479
18-35 F3.5/4.5 AFD.....	£299
18-55 F3.5/5.6 AFS VR.....	£99
18-105 F3.5/5.6 AFS VR.....	£169
18-135 F3.5/5.6 AFS G.....	£169
18-200 F3.5/5.6 AFS VRII.....	£249
20 F2.8 AFD.....	£329
20 F2.8 AF.....	£279
24-70 F2.8 AFS box.....	£849
24-85 F3.5/4.5 VR.....	£329
24-120 f4 AFS VR.....	£699
24-120 F3.5/5.6 AFD.....	£199
28 F1.8 AFS G.....	£479
28-100 F3.5/5.6 AF G.....	£69
28-300 F3.5/5.6 VR.....	£599
35 F1.8 AFS DX.....	£139
35 F2 AFD.....	£199
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50 F1.4 AFD.....	£199
50 F1.8 AFD.....	£99
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60 F2.8 AF.....	£199
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70-200 F2.8 AFS VRI.....	£899
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85 F1.4 AFD.....	£499
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85 F1.8 AFD.....	£249
85 F3.5 DX M- box.....	£269
105 F2 AFD.....	£649
105 F2.8 AFS VR.....	£579
105 F2.8 AFD.....	£399
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180 F2.8 AFD M- box.....	£449
200 F4 AF.....	£999
200-400 F4 AFS VRII.....	£3799
200-500 F5 AFS VR.....	£999
300 F2.8 AFS VRI.....	£2699
300 F4 AFS box.....	£549
400 F2.8 AFS VR.....	£5799
400 F2.8 AFS non VR.....	£3999
600 F4 AFS VR.....	£6299
600 F4 AFS VR serviced.....	£5799
600 F4 AFS II non VR.....	£4499
TC14EII.....	£299
TC17EII.....	£249
TC20EIII M- box.....	£249
TC20EII.....	£199
TC20E.....	£149

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15 F2.8 EX DG.....	£399
18-200 F3.5/6.3 DC OS.....	£199

24-70 F2.8 EX DG serviced.....	£299
28-200 F3.5/5.6 early.....	£69
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50 F1.4 Art M- box.....	£499
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70-200 F2.8 EX DG.....	£399
70-300 F4/5.6 APO DG.....	£99
80-400 F4.5/5.6 DG OS.....	£399
105 F2.8 EX.....	£199
120-400 F4/5.6 DG.....	£399
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24-70 F2.8 USD.....	£599
28-300 F3.5/6.3 XR Di.....	£149
70-300 F4/5.6.....	£79

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TOK 11-18 F2.8 ATX Pro.....	£329
TOK 12-28 F4 ATX DX.....	£399

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SB-25.....	£49
SB-28.....	£69
SB-80DX.....	£79
SB-600.....	£169

SB-900.....	£249
SB-R1 kit M- box.....	£399
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MB-23 (fits F4).....	£69
MC-30 remote.....	£39
MF-23 (date back F4).....	£79

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FM2n body chr.....	£249
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20 F3.5 AI.....	£199
20 F2.8 AI.....	£199
28 F2.8 AIS.....	£199
28 F3.5 AIS.....	£99
28 F2.8 E box.....	£69
28-85 F3.5/4.5 AIS.....	£199
35-70 F3.3/4.5 AIS.....	£129
35-70 F3.5 AIS.....	£99
35-105 F3.5/4.5 AIS.....	£79
50 F1.4 AI.....	£199
50 F1.8 AIS pancake.....	£139
50 F1.8 E.....	£59
55 F2.8 AIS.....	£199
105 F2.8 AIS macro.....	£199
180 F2.8 AIS ED scruffy.....	£179
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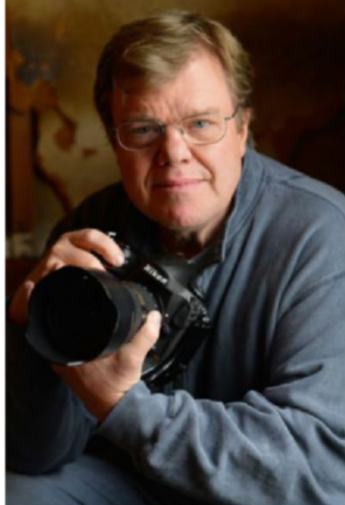
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“ The final word Joe McNally

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Sometimes your approach to portraits mirrors the subjects, says Joe...

This is not a political column, saints be praised. I talk about Group A, Channel 1, and stuff like that, not the results of the latest political polls.

But the life of a photographer is punctuated with encounters, large and small. And you make pictures of these encounters! That's the job.

In the '80s I photographed Trump for *Newsweek* and Biden for *People*. Different magazines, different approaches. Trump was a week-long encounter, Biden just a day or so. Trump was in colour, with lights and an assistant. Biden was by myself, no flash, working with window light. I'm a generalist, doing what the job requires, so I was comfortable with both approaches.

The recent roiled political waters caused me to do a bit of an archive rummage, which was, well, interesting. I think the stories, and the way I had to approach them, might have mirrored the men.



Trump was all in colour, all glitz and powerhouse ego, and I did my requisite lighting and staging. Biden I met at the train station in Wilmington, Delaware [where he was Senator at the time], and we shared a Metroliner train to his Senate office. I shot in B&W, with available light, all day. The Trump days were often

set-up-and-wait. With Biden, it was shoot and move, shoot and move, all day, my camera bag over my shoulder.

Trump gadded about in what he claimed at the time was the only non-military Puma helicopter in service in the world. Biden had, well, the Metroliner. And some big windows in his office, thankfully.

Trump's presidential campaign and win was the big, unmissable news story of 2016. Biden chose not to run for president. Two different people, two sets of very different coverage, done in very different ways.

That's the job of a photographer. You adapt. You keep your views and opinions to yourself and you cover the job. On those days, you simply observe the world you are assigned to, and you make pictures. And those pictures stick with you, amazingly. These jobs were shot in the '80s! And here, now, I have cause to look at them again. What a wonderful and forever relevant thing we do, us photog types.



Trump was all in colour, all glitz and powerhouse ego



Images: Joe McNally, Profile shot of Joe by Mike Corrado.

IN NEXT ISSUE: INSPIRING IDEAS FROM JOE



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