

PANASONIC GH5 ON TEST
IS THIS LUMIX SET TO BE A LEGEND?



THE WORLD'S BEST-SELLING DIGITAL PHOTO MAGAZINE

1-7 JUNE ISSUE 245

Photography week



INSPIRATION | IDEAS | IN-DEPTH REVIEWS



CAPTURE THE BIG VIEW

MAKE INSTANT IMPROVEMENTS TO YOUR LANDSCAPES

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Photography Week



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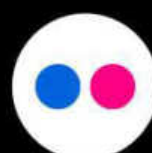
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We're more than just a magazine – read on and discover the many ways you can interact with and enjoy *Photography Week*



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WHAT'S HOT

THE WEEK'S TOP HEADLINES IN PHOTOGRAPHY

DJI SPARK IS A MINI DRONE
EVERYONE CAN FLY

The first truly mainstream drone?



Drones may be getting smaller and more affordable than ever, but few have yet to offer truly mainstream appeal. To that end, DJI is putting a big bet on its smallest and easiest-to-control drone yet, the Spark.

Although the DJI Spark comes with a controller, you practically don't need it, thanks to its intuitive gesture controls. Users can easily launch the drone from the palm of their hand simply telling it where to fly with hand gestures, and tell it to take a photo by forming a picture frame with their fingers.

The DJI Spark comes with the same collision-avoidance technology as its

bigger Mavic Pro brother, and then some, with two GPS/GLONASS radios as well as infrared cameras.

Additionally there are four new preset flight maneuvers called Quickshots, similar to the GoPro Karma's Auto Shot Paths. Dronie Mode is for aerial selfies, Helix Mode has the drone take an upwardly spiralling path, Rocket sends the drone straight into the sky with the camera looking down, and Circle has the drone rotate around the users. From these Quickshots, the Spark will stitch together 10-second videos.

The Spark measures a scant 143 x 143 x 55mm – but it's no small fry, with

the ability to fly up to 31mph and a maximum flight time of 16 minutes.

The DJI Spark is equipped with a 12-megapixel 1/2.3-inch CMOS sensor that can capture Full HD video at 30p and 3968 x 2976 resolution images. In front of this sensor is a 25mm lens (35mm equivalent) that captures an effective 81.8-degree field of view.

The DJI Spark is available for preorder now for \$499/£519, and will begin shipping in mid-June. DJI is also selling a Fly More kit that includes the drone plus a set of replacement propellers, an additional battery, a battery charging hub, and a shoulder bag for \$699/£699.



WHAT'S HOT

THE WEEK'S TOP HEADLINES IN PHOTOGRAPHY

SONY UNVEILS TWO NEW WIDE-ANGLE ZOOM LENSES

Another solid G-Master lens from Sony, and a great FE option too



Sony has followed a pattern of launching a new G-Master lens alongside a more affordable, lesser-specced lens that's still an attractive option, and it's the same story with its two latest wide-angle zooms.

Despite not having the best specs of Sony's latest wide-angle lenses, the FE 12-24mm f/4 G offers a serious ultra-wide field of view, whereas Sony's new 16-35mm f/2.8 GM lens is a little less extreme, but still ultra-wide.

The FE 12-24mm f/4 G is comprised of 17 elements including four aspherical and three extra-low dispersion elements, and one piece of Super

ED glass. These all work together to minimise chromatic aberration, flare and ghosting, and seven aperture blades should deliver smooth bokeh in out-of-focus areas. The new Sony FE 16-35mm f/2.8 GM, meanwhile, promises to deliver some of the best image quality we've seen from a wide-angle zoom. Sony claims its latest G-Master lens offers better sharpness and smoother bokeh across the frame than the Canon 16-35mm f/2.8L USM III.

This is thanks to the 16-35mm f/2.8 GM's 16-element construction, the highlights of which are its two extreme aspherical elements, which have been

cut to high degree of surface precision that's uniform across the glass. What's more, the lens includes an 11-bladed aperture that should produce smooth and attractive bokeh.

Other specs include a Nano AR Coating to reduce flare and ghosting, ED glass with multi-coating to minimise chromatic aberration, and two Direct Drive SSM (DDSSM) motors for silent, precision focusing.

The Sony FE 12-24mm f/4 G will be available in July for \$1,700 (about £1,320) while the FE 16-35mm f/2.8 GM is set to release at the end of August and will retail for \$2,200 (about £1,700).



NEWS

WHAT'S HOT

THE WEEK'S TOP HEADLINES IN PHOTOGRAPHY

GARMIN'S FIRST 360-DEGREE CAMERA SHOOTS 5.7K VIDEOS

A cut above other 360 cameras



Garmin might be best known as a purveyor of GPS systems and sports watches, but now the company is striking out with its first 360-degree camera, the VIRB 360.

It's far from the first 360 camera we've seen, but the Garmin VIRB 360 stands out with the ability to shoot videos at a maximum 5.7K resolution. That's quite a few more pixels than other 360 cameras, which max out at 4K, although keep in mind that's the resolution of the entire frame, and not just the section of video you're looking at.

Shooting at maximum resolution also means sacrificing in-camera stitching

and stabilisation – if you want those two perks you'll have to drop the VIRB 360's recording resolution to 4K. Users can also use the 360 camera to capture an entire scene in one 15MP spherical photo, with specific modes for capturing a burst or timelapse.

Log your adventures

Aside from offering 5.7K video recording, the VIRB 360 comes with all the sensors Garmin has become acclaimed for, including GPS, gyroscopes, and accelerometers. The camera collects data about your adventures as you go, and you can overlay this information

over your 360 videos to show just how fast, high or far you went.

The VIRB 360 also features four microphones to record sounds as you experienced them, and the whole thing is wrapped up in a rugged, waterproof shell. Users can connect their iOS and Android devices to the camera over Wi-Fi and Bluetooth via the accompanying app.

One area where we think the VIRB 360 falls a little short is battery life – Garmin projects that users will only be able to record for a hour. The camera also quite pricey compared to some rivals, starting at \$799 (about £620).



5 STEPS TO LANDSCAPE SUCCESS

The pros share their secrets to help you take your scenic shots to the next level

Professional landscape photographers spend years honing their craft in the field in pursuit of the perfect shot. Of course, roaming remote locations at the break of dawn – and in all kinds of weather conditions – is not for the faint-hearted. To succeed, you need plenty of patience, passion and determination.

In this feature, you'll discover what it

really takes to capture successful and striking landscape image in-camera. We've broken the process down into five stages for you to follow, which cover everything from planning and preparation, to composing in camera and ultimately capturing the perfect exposure. There's even some editing advice to help you get the most out of your perfectly composed images.

You'll learn what equipment you'll need to shoot sharper scenes, the best apps to help you plan ahead, and pro tips on how to frame a balanced vista. We'll also look at key camera settings to ensure that you get even exposures, as well as share advice on capturing creative effects. So read on to discover all you need to know before you embark on your next outdoor shoot.



FEATURE

1. ESSENTIAL KIT

Ensure your camera bag is packed with the essential tools for your next shoot

Investing in the right gear is the first step towards taking better landscapes in camera. But you don't necessarily have to break the budget here, as a few key pieces of good-quality, reliable kit will serve you well in most situations.

Aside from the essentials – a camera and a wide-angle lens – there are a few extra accessories it's really worth loosening the purse strings for, including a top-of-the-range tripod and a set of neutral density filters. Edwin Martinez (www.edwinmartinezphoto.com), a professional landscape photographer and Canon Philippines brand ambassador, regularly runs a premier landscape photography course, Chasing Light Workshop. He says: "I have been asked by many of my students about equipment. I think the most important piece of kit would be a sturdy tripod. I am a perfectionist and want my photos to be ready for big prints. Iso sharpness is very important for me.

Having a tripod means I can use minimum apertures such as f/16 and retain the needed depth of field. Nothing in post can really produce sharp images when the captured files to start off with are blurred and soft."

As with any important purchase, do your research beforehand. High-quality materials are essential when you're working outdoors, especially in varied terrains with often-changing weather conditions to contend with.

You don't need a camera bag full of the latest kit to get great landscape shots. A simple setup and the right approach will guarantee fantastic results



REMOTE RELEASE

To guarantee pin-sharp shots and minimise any chance of camera shake, consider investing in a remote shutter release. Alternatively, delve into your camera menu and set up your camera's self-timer.

GET HOLD OF THE RIGHT GEAR

Durable tripod - £320 / \$360

www.manfrotto.co.uk

The Manfrotto MT190CXPRO4 Carbon Fibre Tripod is a solid, sturdy but lightweight option that should last you a long time.



Wide-angle lens - £950 / \$1,100

A high-performance lens like the Canon EF 16-35mm f/4L IS USM or Nikon AF-S 35mm f/1.4G will enable you to get more of the scene in shot.



ND filters - £200 / \$320

www.leefilters.com

The filter holder and starter set of ND (neutral density) and ND grad filters from Lee will set you back a bit but are of high quality.



FEATURE

2. PLAN AHEAD

Discover the importance of research and planning before you go on a shoot



GET AHEAD

If you're planning to shoot the golden hours, turn up ahead of time to set up and compose your shot. Waiting for the right light is better than missing out on the action.

© Miles Morgan

Never expect to turn up to a picturesque location and just start shooting breathtaking scenes. Even the pros put in a lot of planning prior to a shoot in order to maximise the potential for a great shot.

One of the UK and Ireland's leading landscape photographers, John Miskelly (www.johnmiskelly.co.uk), runs workshops on shooting scenic vistas. He points out the importance of doing your research: "I am known for doing

a lot of research before going to a location, especially one I haven't been to before. I will check the access to the location with Google Maps, the sunrise and sunset times and angles of the sun. I will also look at tide times if I'm at a coastal location and lastly, but by no means least, I will check the weather forecast. By planning, I don't guarantee an image, but I do increase my chances of getting something really good."

Pro Edwin Martinez agrees and adds:

"The advent of apps in smartphones and the easy availability of information through the internet has made it easier for landscape photographers. From weather apps, to Google Maps and Street View, you can visualise before you even set foot in a location. I urge budding landscape photographers to make this part of their creative process, it certainly helps when you arrive at the scene as you then only have to worry about composing your shots."

USEFUL APPS



The Photographer's Ephemeris
Price: £5.99 / iOS, Android

The Photographer's Ephemeris is available on iOS and Android. Select a location and it will give you details on the time and direction of sunrise and sunset, as well as the Moon phase.



Tides Near Me
Price: Free / iOS, Android

If you shoot coastal scenes it's important to know tide information, to help you plan compositions and ensure your safety. Tides Near Me offers info on current and expected conditions.



AccuWeather
Price: Free / iOS, Android

AccuWeather provides detailed 15-day forecast information including animated maps, and can even integrate with your calendar app for precise planning ahead.



3. COMPOSITION

Capture striking images in-camera by focusing on framing strong compositions

Composition is the foundation of a fantastic image. In landscape photography especially, it can add much-needed structure to a scene, and even set one photographer's work apart from another's.

Conventional composition rules have been employed by the pros for many years, and with good reason. "The use of dynamic elements in photos makes the viewer feel that they're there," says Edwin Martinez. "Diagonal or lead-in

lines are one of those components. Most captivating landscape images contain this particular element." The rule of thirds and the inclusion of a focal point will also help to strengthen a composition, particularly if you're shooting a vast vista where a lot of detail rests along the horizon.

Using your camera's Live View capabilities and built-in grid lines can help simplify the framing process too, as John Miskelly points out. "Using

the Live View facility in modern digital cameras helps the photographer see what the final output will be like. It is akin to the large-format camera screens that enabled the likes of Ansel Adams to compose wonderful images.

"Composition is an area almost every photographer can improve on. When I work with photographers on composition they usually find it improves their images more than any other aspect of their photography."



RULE OF THIRDS

Use the rule of thirds as a good starting point when composing. Simply visualise a 3x3 grid – the horizon should sit across one of the horizontal grid lines, with any objects of interest positioned at intersecting points.

© Miles Morgan

COMPOSITION TRICKS

1 Secure the camera

Set up your tripod and check the spirit level to ensure it's straight. Attach your camera bag to centre column for added weight.



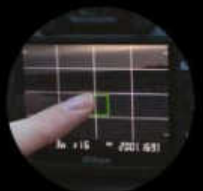
2 Select Live View

Switch to Live View so you can compose on the camera's screen. Reposition the tripod if necessary, or adjust the head for a better angle.



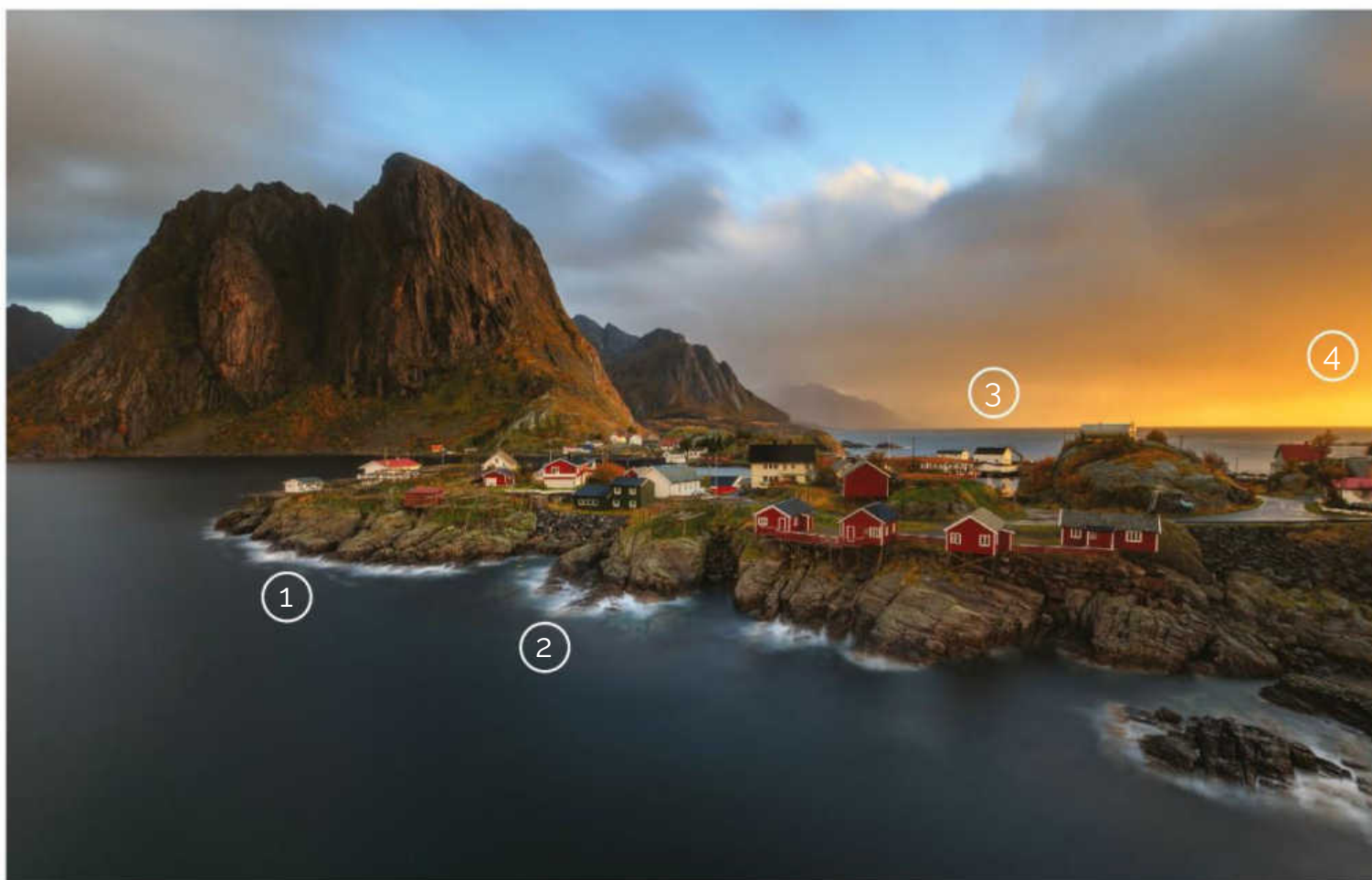
3 Adjust focus

Select single AF mode and set the focal point. Calculate the correct hyperfocal distance to maximise depth of field.



FEATURE

COMPOSITION



© Edwin Martinez

FRAME THE VIEW



Bio: Fine-art landscape photographer Miles Morgan shares his secrets to composing stunning shots. Based in the US, Morgan travels the world as an airline pilot, which fueled his passion for landscape photography.
www.milesmorganphotography.com

Do you follow compositional rules when framing a landscape?

For the most part I do try to follow the rules, but the old axiom, 'rules are made to be broken', should always be in the back of your mind. For me, it's all about making sure the image is balanced; that the visual weight of the elements doesn't make your eye get stuck in one side of the image or the other.

Do you prefer to use Live View or the viewfinder to compose photos?

I usually compose my landscape images through the LCD. When it's too dark to get a decent read from the LCD I'll switch to the viewfinder and make sure that I've scoured all four corners of the screen to be sure that what I want is in the frame, and what I don't want is out of it.

How important it is to scout a location before you set up and compose your actual shot?

The world looks different through a lens. I shoot 99.9 percent of my landscape images on a sturdy tripod, but when I'm scouting [a location], I have my camera off the tripod, and I'll wander all over the place looking at different viewpoints.

1 LEAD-IN LINES

Include natural lead-in lines to give the image a three-dimensional feel. This will also help to draw the viewer into the photo.

2 POINT OF VIEW

Scout the location before you shoot to ensure you have the best vantage point. Experiment with different angles and perspectives for more original results.

3 BALANCED FRAME

Use the rule of thirds as a guide to help balance the composition. Here, the large rock in the background is balanced by the foreground detail.

4 WAIT FOR THE LIGHT

Landscapes are defined by the quality of light, so ensure this is a part of the composition. Do your research, and wait patiently for the golden hours to illuminate the scene.



4. CONTROL YOUR EXPOSURE

Get the perfect exposure with these pro tips for camera settings and technique



© Edwin Martinez

FOCUS THE FRAME

Once you've increased the depth of field you'll need to ensure your focal point is positioned correctly. Use the hyperfocal distance technique for accurate results. Apps like Simple DoF Calculator (<http://tiny.cc/x2kcly>)

can help you determine how far into the frame you need to focus in order to get a sharp shot from front to back. You just need to input your aperture and focal length.

WHITE BALANCE

Provided you're shooting in raw, you can correct white balance or add a warm or cool colour cast to your images later in post-production. For instant results in camera however, experiment with the custom white balance function.

LEFT Maximise depth of field by using the hyperfocal distance technique when focusing your landscapes

KEEP ISO LOW

Noise introduced by high ISO settings can be destructive, especially if you're planning on producing large prints. Keep your ISO setting to a minimum if possible, even in low light, by adjusting your aperture and shutter speed combination first. Pro John Miskelly says: "I will use the lowest native ISO my camera allows. [With] this, I virtually eliminate any noise in the shadows. If I need to raise my ISO to freeze the movement of, say, large waves, then I will do so, but rarely any higher than ISO1250 for my landscape."

RIGHT Use a low ISO in order to minimise noise and maximise image quality for images with impact



© John Miskelly



FEATURE

CONTROL YOUR EXPOSURE

SLOW THE SHUTTER

Slow shutter speeds are essential for even exposures if you're using small apertures to increase depth of field. They're also necessary in low light, and can help you to capture more creative effects in-camera, such as smooth water and moving clouds. Miles Morgan says: "They can simplify a complex scene, especially in waterfall shots or ocean images. When shooting water I will use varying strengths of ND filters to slow my shutter speed further, but I will typically try to keep some texture in the water. Depending on the speed it's flowing, that can be between 1/4 sec and two seconds." For moving clouds, Edwin Martinez advises "Always be aware of cloud movements – it is best to capture them as they are coming either towards or away from you. This path will create streaking diagonal lines in your image."

Remember to always support your camera on a tripod when using slow shutter speeds and use mirror lock-up as well as a remote shutter release or self-timer to eliminate any possibility of blur caused by camera shake.

SLOW SHUTTER



FAST SHUTTER



1



2

1. CONTROL THE APERTURE

If you want a landscape to appear pin-sharp, you must use smaller apertures to increase depth of field and prevent the foreground or background from blurring out. Martinez says: "Find the aperture sweet spot. You can download a focus chart and do it at home. Go from f/8 to f/16 and check the results."

2. EXPOSE PROPERLY

It's not always easy to capture a balanced exposure in camera. Pros work around this in one of two ways, either using ND grad filters or an exposure-blending technique in post-production. ND grads are good to have on hand, as they enable you to darken the sky so highlights don't blow out as you expose for the foreground.



5. ENHANCE YOUR CAPTURES

Boost colour and contrast to bring out the best qualities of light in landscapes

AFTER



LAYER MASKS

Use layer masks in Photoshop to edit selected areas of your landscape. Apply a layer mask to an adjustment layer and use the Brush Tool to remove parts you don't want to be affected by the adjustment.

BEFORE



With the right preparation and technique you'll maximise your chances of capturing breathtaking scenes in camera. That means post-production should only involve a few enhancement tweaks, unless you're blending multiple exposures, in which case a little more editing expertise may be required.

Simple yet effective adjustments to colour and contrast take only a matter of minutes, and provided you've shot

in raw they won't have a damaging effect on the image quality or size. Experiment with editing programs such as Photoshop, which are equipped with all the tools for making both basic and more advanced improvements.

There are no hard or fast rules when it comes to editing, either; it's simply a matter of taste. As Miles Morgan points out, "I spend literally hours in the digital darkroom working on each image," he says. "For many photographers, this is

a hated process, but I love it. It allows me to be creative with my images and I frequently try to create whimsical, painterly types of images through post-processing. Purists hate it, but I don't shoot for the purists – I shoot for me."

EDITING ADJUSTMENTS

- 1 Enhance contrast**
Add a Curves adjustment layer, and place an anchor point near each end of the line. Pull the top point left and the bottom point right to make an S shape.



- 2 Boost colour tones**
Add a Hue/Saturation adjustment layer. Work your way through the colour hues in the Master menu, and increase the saturation and lightness for each.



- 3 Sharpen up**
Click the top layer and press Ctrl+Shift+E to create a merged layer. Set this to Overlay mode, then go to Filter > Other > High Pass and adjust the Radius slider.



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G A L L E R Y

XPOSURE

THE WEEK'S MOST INSPIRING READER PHOTOS



LIFESTYLE SHOOT

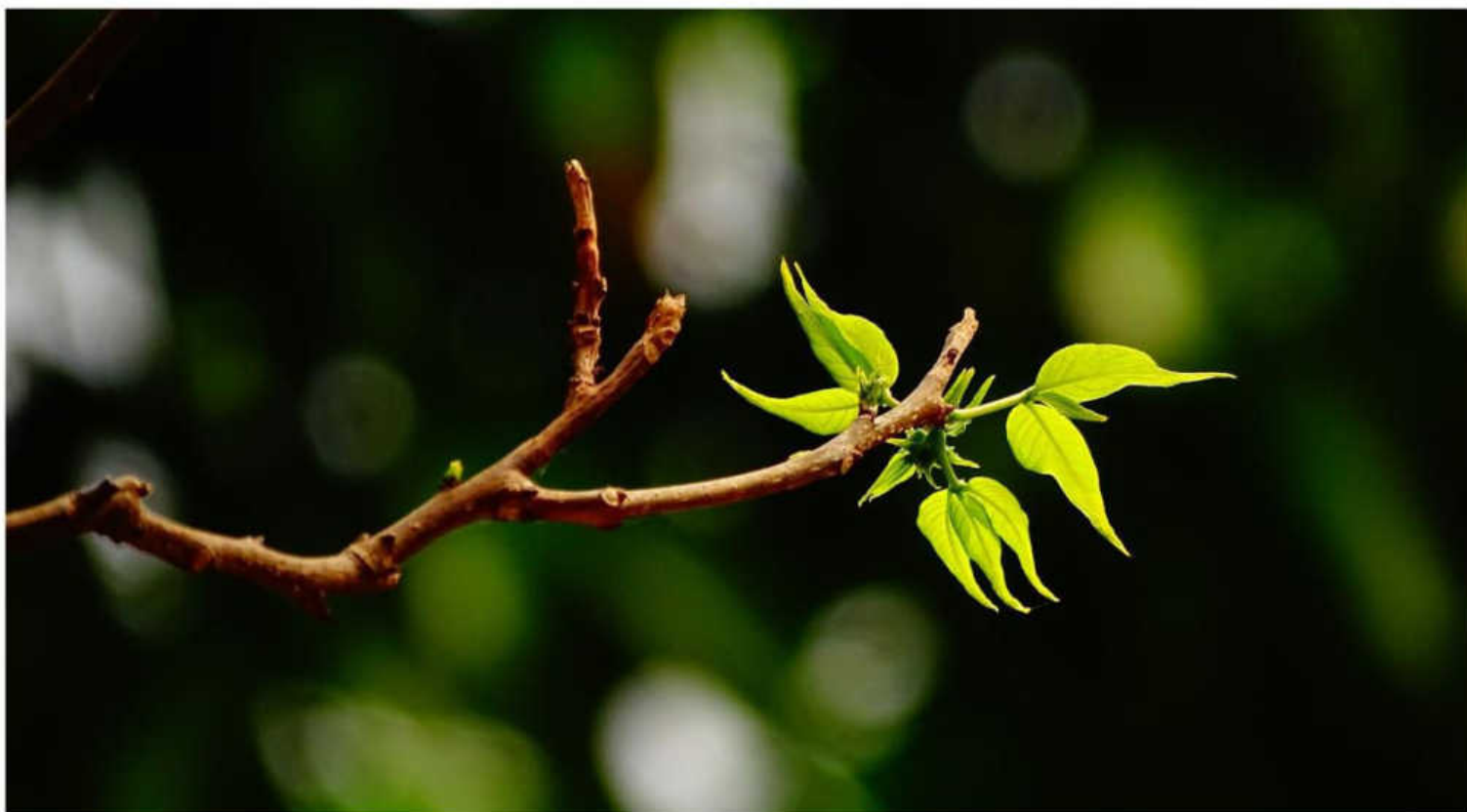
BARTLOMIEJ STASZOWSKI

"This image is from a shoot I did for a fourth-year fashion promotion student, centred on Elle Decoration magazine, in which I focused on different cultures."

<http://tiny.cc/3gl6ky>

GALLERY

THE WEEK'S MOST INSPIRING READER PHOTOS



SPRING FORCE

JOHN MAN

John's image makes great use of natural light, and is perfectly composed and focused to separate the foreground detail from the background.

<http://tiny.cc/zml6ky>

SELF-PORTRAIT

KARA KNOWLER-DAVIES

"This is a self-portrait inspired by the glamorous Hollywood looks of the 1940s. It's portrayed in black and white to make the photo appear timeless."

<http://tiny.cc/mjl6ky>

GALLERY

THE WEEK'S MOST INSPIRING READER PHOTOS

CUTE FROG

ANGI WALLACE

"I love frogs as much as I love photography, and can't resist taking photos of them. I keep several as pets; this one is a baby White's tree frog."
<http://tiny.cc/xql6ky>



ULLSWATER REFLECTIONS

TERRY MORRIS

"I travel to the Lake District in northwest England every November. This particular morning I was en route to Blea Tarn when this beautiful scene unfolded in front of me."
<http://tiny.cc/vri6ky>



GALLERY

THE WEEK'S MOST INSPIRING READER PHOTOS



RAY OF LIGHT

PHILIPPE SAINTE-LAUDY

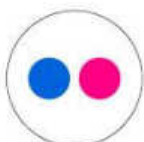
"The light and the colours appeared as I turned a corner, as if they were just waiting to be captured. I was very lucky to witness this morning spectacle."

<http://tiny.cc/lcl6ky>



FACEBOOK

<http://tiny.cc/qi0oey>



FLICKR

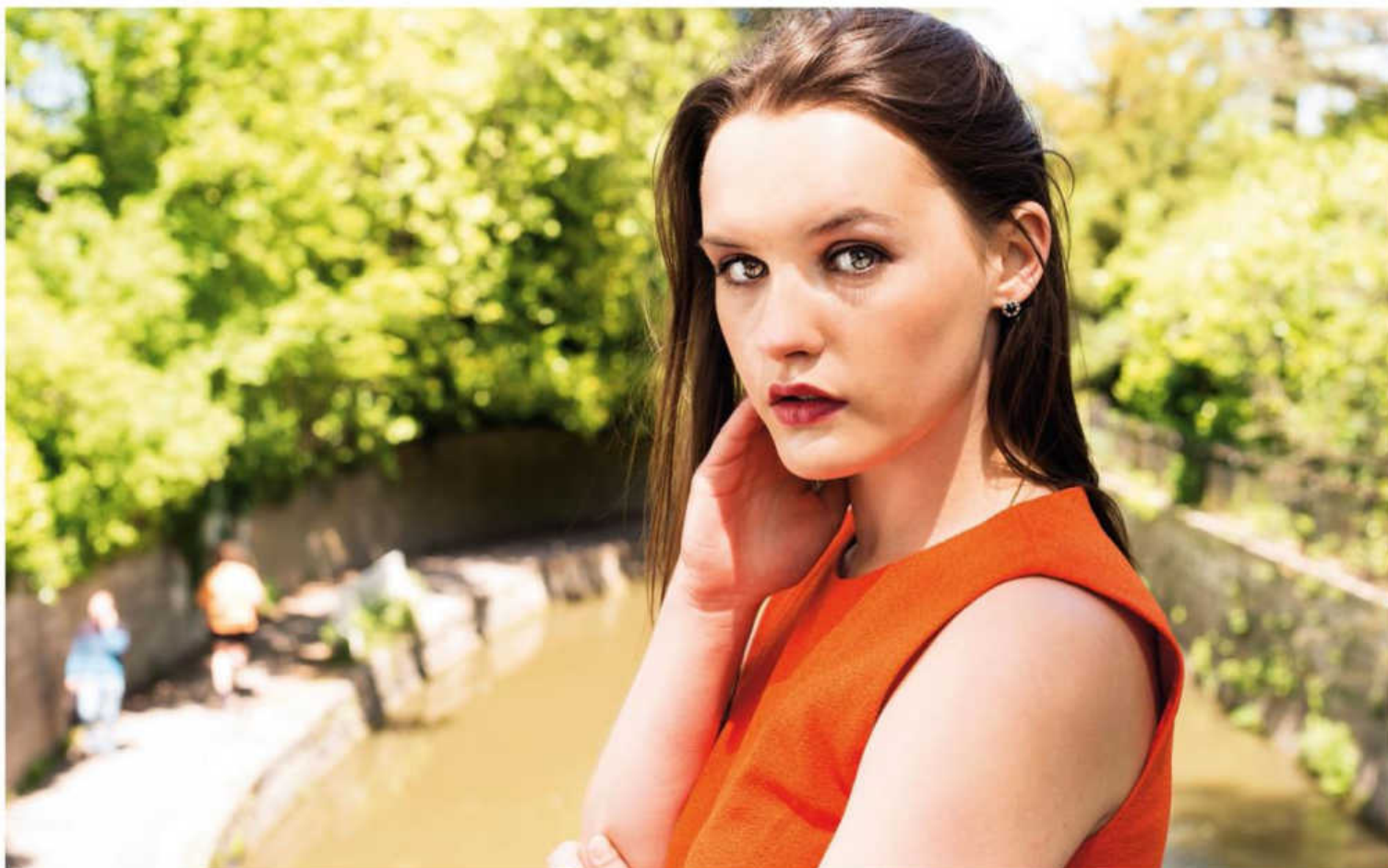
<http://tiny.cc/rn0oey>

PHOTOGRAPHY WEEK WANTS YOUR PHOTOS!

Taken a portrait you're particularly proud of? Shot a sensational sunset you'd like to show off? Then join the *Photography Week* Facebook community and share your best photos today! You'll get feedback from fellow readers and the *Photography Week* team, plus the chance to appear in *Xposure*, or even on our cover!

CRASH COURSE

ESSENTIAL PHOTO SKILLS MADE EASY



WORK THAT REFLECTOR!

Reflectors are one of the easiest to use and versatile accessories you can add to your photography kit – here's how to get the best out of them

1
HOUR

Reflectors might seem like a fairly basic piece of photographic equipment, but they can improve your images dramatically if you know how to get the most out of them.

Light travels in all directions, bouncing off everything in its path, and you can use this quality to your advantage. You can, for example, use a reflector to bounce light from a studio flash back onto your subject, instead of adding an extra 'fill' light to your lighting setup. Pairing a reflector with a flashgun or studio flash like this is a simple way to

create attractive, even lighting.

A reflector also comes in handy when you're shooting on location, because you can bounce light into shadows, fill in dark eye sockets and even block out harsh light sources altogether. And, as you'll see in the following steps, reflectors aren't just useful for reflecting light – they can also be used to diffuse it.

Most modern reflectors fold away, making them easily portable. They also usually boast multiple surfaces; some are double-sided, and more elaborate models may have interchangeable covers for maximum versatility. A plain

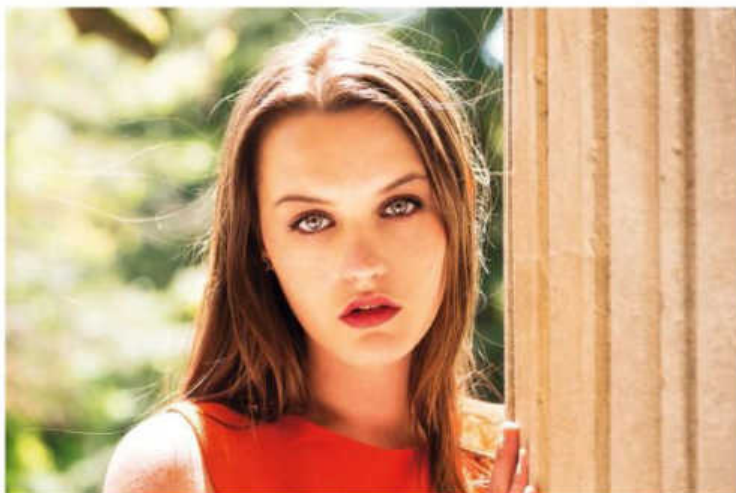
white surface will produce a neutral light, silver offers increased brightness (and often cooler tones), while gold produces a warm colour cast. Black will prevent any reflection of light at all, which is useful if you're after a strong high-contrast effect.

Reflectors are relatively inexpensive, but if you're shooting at home and want try out these effects you can create a simple DIY reflector by covering a sheet of card with kitchen foil; use white card and you'll have made yourself a silver/white double-sided reflector. Here's how to get the most out of it...



S K I L L S

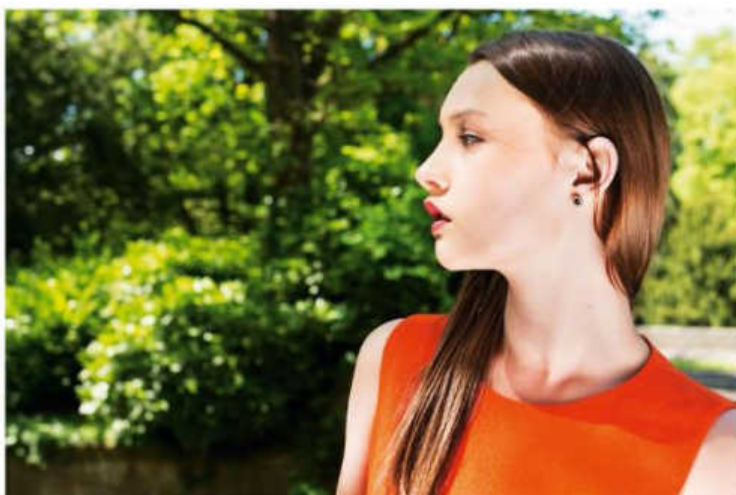
STEP BY STEP TAKE TIME TO REFLECT



1

BOUNCE LIGHT BACK

The standard use for a reflector is to bounce light back onto your model. When your subject is lit from one side, holding a reflector up to the shaded side will balance things by filling in the shadows. You'll be able to see the difference made by tilting the reflector towards the light source.



2

LIGHT FACES FROM BELOW

When the sun's overhead you can get rather unflattering shadows on your subject's face. Holding a reflector under their chin will bounce the light back in underneath – this fills in the shadows and gives a much nicer soft light across the image, which complements the skin tones.

3

MAKE A SPOTLIGHT

You can create a spotlight effect using the silver or gold sides of the reflector, which are highly reflective. When your model is in the shade, stand back and angle the reflector between the sun and the model, creating a spotlight which you can target wherever you want.



QUICK TIP

You can hold a reflector yourself, or balance one in place, but having an assistant will make your shoot significantly easier. They can hold your reflector where you'd like, and direct it precisely as you shoot.



S K I L L S

STEP BY STEP TAKE TIME TO REFLECT



4

DIFFUSE THE LIGHT

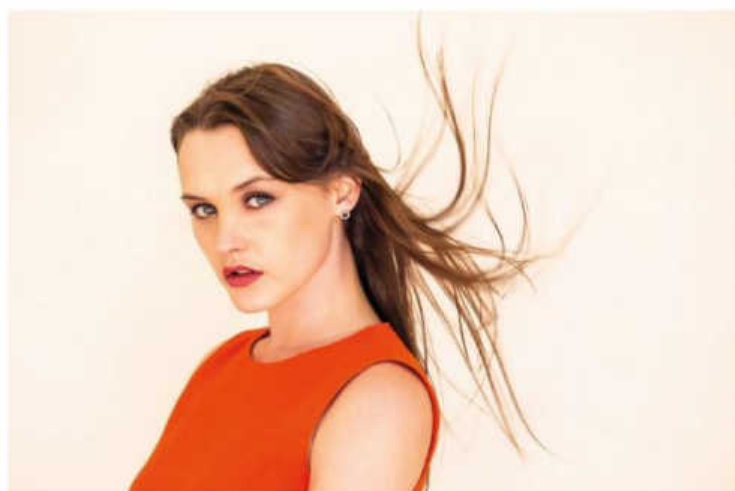
Take the cover off most reflectors and you'll find a diffuser that allows a limited amount of light to pass through it. To soften harsh highlights created by strong sunlight or flash, simply hold the reflector between the sun or your flash and the model to create some instant shade.



5

FAN THE HAIR

For classic windswept hair, bend the reflector slightly into a scoop; this will stiffen it so you can move it without it flapping around. You can then use it to fan your model. Do this from the front, and keep within 90 degrees of the camera to avoid their hair blowing in front of their face.



6

BANISH REFLECTIONS

You can also use a reflector to get rid of unwanted reflections. Eyes will reflect what is around them, but if you hold up the white or black side of your reflector in front of what's being reflected, this will replace the reflection with the flat, neutral tone of the reflector.



COLOUR VARIETY

Reflectors generally feature four different sides: white, black, gold and silver. Each of these faces will alter the light in different ways. Usually white is the best option for neutral lighting. Gold and silver can alter the colour of your image, while silver also reflects much more light, resulting in a much brighter and often more harsh light.

I N S P I R A T I O N

IT'S COOL, THAT

THE BEST THING WE'VE SEEN THIS WEEK



Images © Jamie Scott

THREE YEARS IN THE MAKING: THE ULTIMATE FLOWER SHOW

Filmmaker shoots 8TB of footage to create remarkable four-minute timelapse movie

We've featured a fair few stunning flower timelapse movies in this slot, but we don't think we've seen one that looks quite as spectacular – or which took as much effort to produce – as *Spring*, by New York-based filmmaker and visual effects artist Jamie Scott.

Determined to create something special, Scott combined indoor and outdoor scenes, and close-ups and wide shots, as well as capturing seasonal changes. And while the individual sequences are stunning enough, what really makes Scott's film is the way he painstakingly composited the various scenes

together – some of the transitions are worth watching for on their own.

Scott took three years to complete *Spring*, during which time he amassed a staggering 8TB of footage. Among the problems he encountered was flowers bending towards the light source after a few days in the indoor sequences – a problem he solved by lighting the flowers from above.

Click the link to watch the video, and head to Fstoppers (<http://tiny.cc/qkedly>) to read more about how Scott created his masterpiece. You can see more of his work at his website (<http://tiny.cc/tledly>).



WATCH THE VIDEO

<http://tiny.cc/udedly>



E D I T I N G

PHOTOSHOP

LEARN ESSENTIAL EDITING SKILLS FAST!

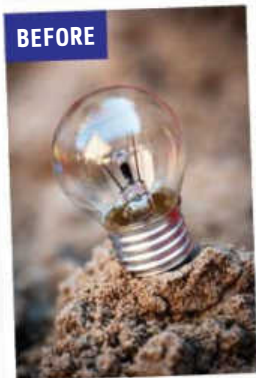
HOW TO...

MAKE A LIGHT BULB MOMENT

How many Photoshop tools does it take to change a light bulb? Bright spark James Paterson has the answer...

There's much fun to be had in Photoshop by merging two seemingly disconnected images into an offbeat montage. The technique also calls on many of the most fundamental tools and features in Photoshop, such as layers, masks and blending modes, so it's a great way to learn core skills.

Here we'll combine a light bulb and a snowy tree into a seamless scene. One way to do this would be to cut out the tree, but this would take some time. Instead, we can get almost instant results with the Multiply blending mode. This multiplies the darkness value of the blended layer with those below, so because the tree is a dark object against a very light backdrop, lighter areas are effectively eliminated. So why not give it a go and make your own fantastical montages?



BEFORE



DOWNLOAD THE
PROJECT FILES

<http://tiny.cc/sh63ky>

ON A PC OR MAC



WATCH THE VIDEO

<http://tiny.cc/nc63ky>



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For more Photoshop tutorials, tips and advice subscribe to Practical Photoshop, the world's premier Photoshop magazine. Each month you'll find an array of inspirational tutorials and accompanying video lessons that will help you master Adobe's industry-leading photo-editing software, plus amazing images from the world's best Photoshop creatives, free downloadable content, and a beginner's guide to the basics.

iOS: <http://tiny.cc/99ehfy> Android: <http://tiny.cc/l8ehfy> Zinio: <http://tiny.cc/g65jiy>



G E A R

REVIEW

EXPERT OPINION ON THE LATEST KIT



PANASONIC LUMIX GH5

Panasonic's flagship Micro Four Thirds mirrorless camera blurs the lines between stills and video capture

www.panasonic.co.uk [£1,700/\\$2,000 \(body only\)](#)

The Lumix GH5 is the latest in the line of Panasonic's top-of-the-range GH series of mirrorless cameras, which have carved out quite a reputation for themselves

among videographers thanks to their breadth of movie-making features. Panasonic is hoping that its latest model will not only cement the brand as the number one choice for the

professional videographer, but will also appeal to a wider market of enthusiast photographers who are looking for a highly capable camera that can shoot great stills and movie footage.



FULL REVIEW PANASONIC LUMIX GH5

Features

The GH5 features a 20.3MP Micro Four Thirds sensor with no low-pass filter, for maximum detail. While the resolution matches that of the Lumix GX8, Panasonic says it's a different sensor, and claims it'll yield the best image quality yet from a Lumix camera.

There's also a new Venus Engine, with 1.66x faster processing power thanks to an additional processor core, with Panasonic promising more natural, true-to-life images with better noise control.

The GH5's sensitivity range runs from ISO 100-25,600 compared to 200-25,600 on the GH4. The reduction in base sensitivity to ISO100 is welcome, especially if you want to take advantage of some of those fast Micro Four Thirds prime lenses in bright conditions. It would have been nice to have seen the ISO range extended further at the higher end of the range, though, where the GH5 loses out to rivals like the Nikon D500 and Sony Alpha 7S II.

The GH5's electronic viewfinder offers a staggering 3,680,000-dot resolution and 0.76x magnification, while the 3.2-inch touchscreen vari-angle display has a 1,620,000-dot resolution, and employs Panasonic's WhiteMagic technology for increased brightness.

The GH5 also gets Panasonic's Axis Dual IS II anti-shake system. This in-body image stabilisation system works in tandem with Panasonic's range of optically stabilised lenses to deliver up to five stops of correction.

Much has been made of the ability to extract 8MP still images from 4K footage in the past, but the GH5 takes



1 Inside the GH5 is a newly-developed 20.3-megapixel Micro Four Thirds sensor, which Panasonic claims delivers its best quality yet.

2 The electronic viewfinder boasts a very high resolution of 3,680k dots, together with 0.76x magnification and a longer-than-usual 21mm eye point for easier viewing.

3 A lot of thought has gone into the controls. The white balance button is convex, the ISO button is flat with two dimples, and the EV compensation button is concave.



FULL REVIEW PANASONIC LUMIX GH5

this idea even further, offering what Panasonic calls 6K Photo. This means it's possible to extract 18MP still images (at either 4:3 or 3:2 ratios) from ultra-high-quality video footage at 30fps, and at an unlimited burst rate.

The GH5 will also allow 4K Photo extraction, but this will now be possible from footage captured at 60fps – staggering when you consider that a £5,000/\$6,000 Canon EOS-1D X Mark II has a maximum burst rate of 14fps (although admittedly that's from a 20.2MP full-frame sensor). If you require the full sensor resolution, the GH5 can shoot at up to 12fps with focus locked at the first shot, or 9fps with continuous AF – that's with a 100-shot raw buffer, too.

There's built-in Wi-Fi and NFC, as well as a low-energy Bluetooth option that

GIVEN THE GH4'S VIDEO CAPABILITIES, IT'S NO SURPRISE TO SEE THE GH5 SPORTING AN IMPRESSIVE MOVIE SPEC

establishes a permanent connection between your camera and smart device.

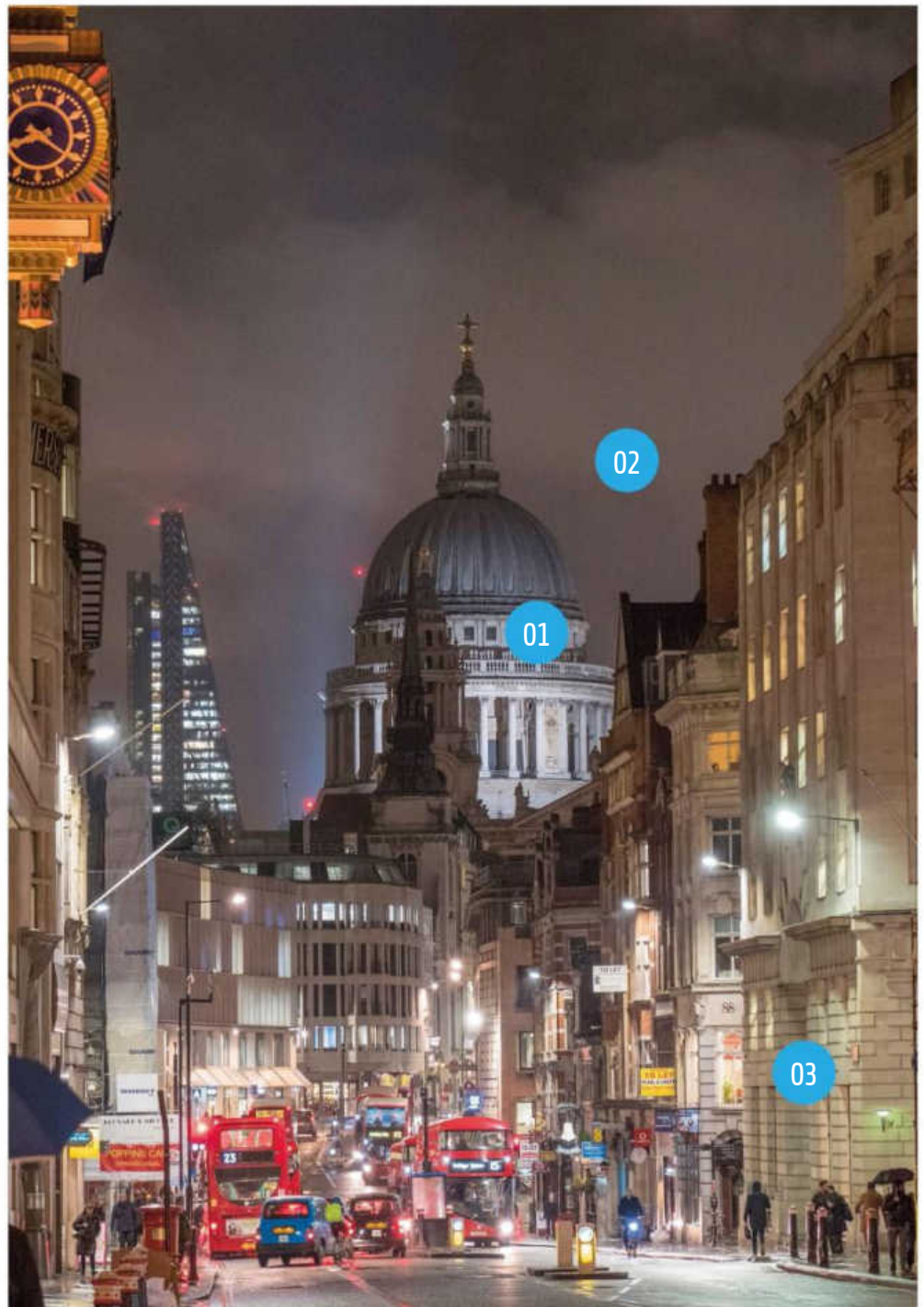
Given the GH4's video capabilities it's no surprise to see the GH5 sporting an impressive movie spec. Rather than using a cropped area of the sensor when shooting 4K, as on the GH4, the GH5 uses the entire width of the chip, then downsamples the footage in-camera. This also means that framing won't be cropped, and you'll be able to use your lenses as if you're shooting stills.

Currently the Lumix GH5 allows you to shoot Cinema 4K (4,096 x 2,160) at 60p with a bit rate of 150Mbps, while Full HD video is obviously also possible, up to a very impressive 180p.

Build and handling

The Panasonic Lumix GH5 is actually 13% larger than the GH4, but it's all the better for it. Panasonic has done away with the GH4's built-in flash; this design tweak, combined with the magnesium alloy chassis and large, purposeful hand grip, means the GH5 feels every inch the high-end piece of kit it's meant to be.

It's fully weather-sealed, and freeze-



1 DETAIL RENDITION

The GH5 uses Panasonic's latest sensor and processor combination, and delivers very good image quality.

2 IMAGE NOISE Panasonic's noise control is first-rate, and the GH5 holds up well against rival cameras with larger sensors.

3 DUAL IMAGE STABILISATION

The GH5 features in-body stabilisation, which works alongside the optical stabilisers in Lumix lenses.



FULL REVIEW PANASONIC LUMIX GH5

proof to -10 degrees Celsius, while the heat-dispersing design means recording time is only limited by the capacity of your storage media. Panasonic has also overhauled the shutter. It's rated to 200,000 cycles, as on the GH4, but there's a new spring drive, with a floating construction for the shutter frame that reduces the shock to the camera body by one sixth when the shutter is fired.

The inclusion of a touchscreen hasn't stopped Panasonic littering the GH5 with a wealth of buttons and controls. On either side of the pentaprism are chunky drive and mode dials, while just behind the front command dial are buttons to access White Balance, ISO and exposure compensation.

All three buttons are finished slightly differently – the White Balance button is convex-shaped, the ISO one is flat with two little dimples on it, and the exposure compensation button is concave, so you should know which of the three controls you're accessing just by feel.

Performance

The Lumix GH5's AF system has seen quite a jump from the GH4, to a 225-area system that covers the vast majority of the frame. You can

also set up four different profiles with adjustable sensitivity, AF area switching sensitivity and moving object prediction, depending on the type of subject you're intending to shoot. (The GH5 now has motion-tracking built into the system.)

AF performance is brisk. Paired with the new 12-60mm f/2.8-4 Leica lens the GH5 quickly and silently locked onto subjects under a range of lighting conditions (the GH5 can focus down to minus -4EV) without hesitation. With the GH5's uprated DFD (Depth From Defocus) autofocus technology, we found the camera's tracking performance to be very good, happily following fairly fast-moving subjects.

The GH5 uses Panasonic's tried-and-tested 1,728-zone metering system to work out exposure, and it does a solid job; there were very few occasions when we had to use exposure compensation. It's a similar story with the Lumix GH5's auto white balance system, which delivers natural-looking results.

The GH5's hybrid stabilisation system works a treat – even when the shutter speed was at a slow 1/10 sec it was possible to get sharp hand-held shots with a focal length equivalent to 120mm.

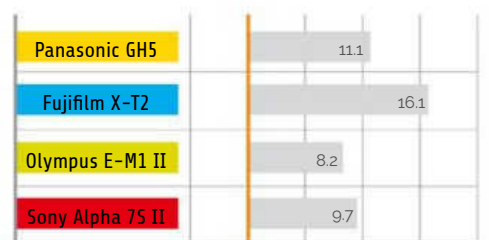
Dynamic range is very good, and it's possible to recover a good amount of detail even in JPEG files, although raw files obviously deliver the widest latitude, enabling you to pull back plenty of detail in shadows and highlights.

Phil Hall

S P E C S

SENSOR 20.3MP LIVE MOS SENSOR (17.3 X 13.0MM) **FOCAL LENGTH CONVERSION** ON LENS 2X **MEMORY** 2X SD CARD SLOT **VIEWFINDER** OLED EVF, 3,680K DOTS **MAX VIDEO RESOLUTION** 4K (3,840 X 2,160) **ISO RANGE** 200-25,600, EXPANDABLE TO 100-25,600 **AUTOFOCUS** 225-ZONE DFD **CONTRAST AF** **MAX BURST RATE** 60FPS (4K PHOTO), 30FPS (6K PHOTO), 12FPS **SCREEN** VARI-ANGLE 3.2-INCH TOUCHSCREEN TFT, 1,620K DOTS **SHUTTER SPEEDS** 60-1/8,000 SEC, BULB **WEIGHT** 725G (BODY ONLY, WITH BATTERY AND MEMORY CARD) **DIMENSIONS** 139 X 98 X 87MM **POWER SUPPLY** LITHIUM-ION BATTERY (SUPPLIED), 410 SHOTS

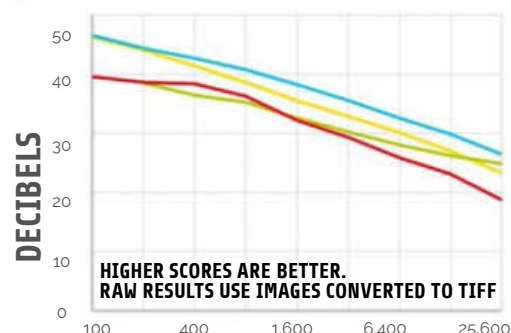
COLOUR ERROR



SCORES CLOSER TO ZERO ARE BETTER

The GH5's colour accuracy was roughly in the middle of the pack, although few users at this level would leave images unprocessed.

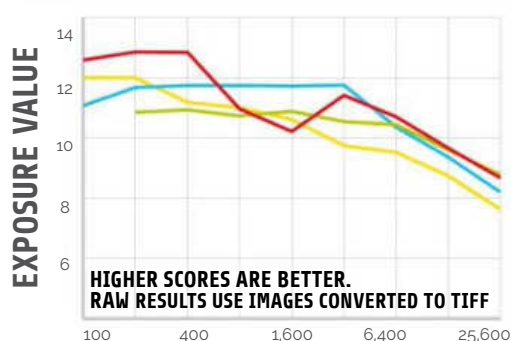
RAW SIGNAL-TO-NOISE RATIO



HIGHER SCORES ARE BETTER. RAW RESULTS USE IMAGES CONVERTED TO TIFF

Despite having one of the smallest sensors, the GH5 delivered some of the best noise control. High-ISO images start to suffer in comparison with APS-C models.

RAW DYNAMIC RANGE



HIGHER SCORES ARE BETTER. RAW RESULTS USE IMAGES CONVERTED TO TIFF

The smaller size of the Panasonic's Micro Four Thirds sensor shows up in the dynamic range results, which lag slightly behind those of APS-C and full-frame rivals.



VERDICT

The GH5 can shoot great stills as well as breathtaking video, while build and handling are both good. Then there's the five-axis IS and super-quick AF system, as well as the rapid shooting speed and very good image quality, making the Lumix GH5 a camera that will keep up with even the most demanding of shooting situations.



A P P S

MORE GREAT MAGAZINES FROM THE MAKERS OF PHOTOGRAPHY WEEK

N-PHOTO

N-Photo is a monthly magazine for Nikon photographers, and is packed with technique and Photoshop video lessons every month.



<http://tiny.cc/x2ehfy>



<http://tiny.cc/32ehfy>



PHOTOPLUS

PhotoPlus is a monthly magazine for Canon photographers that features expert advice, tips and video tutorials on all things Canon.



<http://tiny.cc/i4ehfy>



<http://tiny.cc/y5ehfy>

DIGITAL CAMERA WORLD

A monthly magazine that aims to improve your photography with an inspirational mix of amazing images and how-to articles.



<http://tiny.cc/s6ehfy>



<http://tiny.cc/b7ehfy>



PRACTICAL PHOTOSHOP

Improve your Photoshop skills with the monthly guide to creating stunning images. Each issue comes with expert video lessons.



<http://tiny.cc/i8ehfy>



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Check out these other fantastic photography apps for iPad & iPhone



TEACH YOURSELF PHOTOSHOP

Transform your images with the expert tips and advice in 50 Photoshop video tutorials. Discover the power of layers, blending modes, raw file editing and more with this easy-to-follow course.
<http://tiny.cc/2oxogy>



TEACH YOURSELF LIGHTROOM

Unleash the creative power of the Lightroom digital darkroom with this 50-part video course. Enhance landscapes, master black and white, make gorgeous portraits and more.
<http://tiny.cc/dqxogy>



TEACH YOURSELF RAW IN PHOTOSHOP

Learn how to use Adobe's professional-level raw file editor to make amazing prints from your photos. Every important tool in Camera Raw explained in detail by our experts.
<http://tiny.cc/6rxogy>



CREATIVE SLR SKILLS

Learn a range of new photography skills with this 30-part video training course designed to stimulate your creativity and boost your photographic confidence.
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Photography Week

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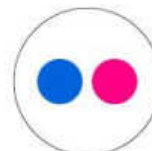
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