

LET IT SNOW, LET IT SNOW, LET IT SNOW

MASTER WINTER SPORTS ACTION SHOTS WITH AN ALPINE PRO

THE WORLD'S BEST-SELLING DIGITAL PHOTO MAGAZINE

16-22 FEBRUARY

ISSUE 230

Photography week

INSPIRATION | IDEAS | IN-DEPTH REVIEWS

OM-D OMG!

THE BIG OLYMPUS OM-D E-M1 II REVIEW



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Photography week



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Welcome to the world's No.1 weekly digital photography magazine. If you're already a

reader, thanks for your continued support and involvement; if you're new to *Photography Week*, you've come to the right place! In addition to expert advice, brilliant tips and step-by-step tutorials, every issue features interactive galleries of the best new photos, how-to videos on

essential shooting and editing techniques, and in-depth reviews of the latest camera kit.

But that's not the whole story. *Photography Week* is more than a magazine – it's a community of like-minded people who are passionate about photography. To get involved, just follow any of the links below and share your shots and comments – your photo might even appear on our cover!

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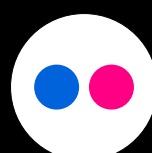
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We're more than just a magazine – read on and discover the many ways you can interact with and enjoy *Photography Week*



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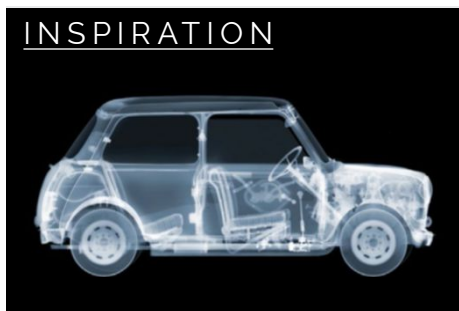
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Learn how to diagnose and correct exposure problems

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OLYMPUS OM-D E-M1 II

Has Olympus improved on one of the best CSCs in the business?



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NEWS

WHAT'S HOT

THE WEEK'S TOP HEADLINES IN PHOTOGRAPHY

BACK-IN-ACTION CAM: GOPRO'S KARMA DRONE SOARS AGAIN

GoPro's photography drone is back on sale after recall prompted by crashes



After a three-month recall and some serious retooling, the GoPro Karma Drone is finally back on shelves, and back in the air.

GoPro announced in a press release that it has redesigned the faulty battery latch that caused some Karmas to lose power and suddenly fall from the sky mid-flight. The company also says the updated drones went through "extensive testing" to ensure the issue was fixed.

For now, GoPro is only reintroducing the Karma on its own website and via select retailers (including Best Buy, B&H

and Amazon), although we imagine wider availability will soon follow.

The Karma drone returns with its original price tag of \$1,099 (£999) fitted with a GoPro Hero5, or \$799 (£719) without a camera.

GoPro has also added a few new SKUs, including a \$599 (about £470) Flight Kit package that includes everything but the Karma grip and gimbal for users who've purchased one separately. Alternatively, a newly added Karma core – which is essentially the drone by itself without a controller,

gimbal or backpack – comes priced at \$399 (about £320).

The Karma drone and GoPro have been through a bumpy ride to say the least. After years of development, the company had to recall 2,500 sold Karma drone units around the same time that rival DJI was introducing one of its most impressive and smallest drones yet in the shape of the Mavic Pro.

However, we're hoping for a big comeback from GoPro – and the Karma might be just be the machine to dethrone DJI as the king of drones.



PRO THOMAS HUMPAGE

Thomas is a 34-year-old action sports photographer based in Chamonix, France. He shoots everything from mountaineering and mountain biking to snowboarding and skiing, so he was just the man to show Nigel how to improve his winter sports photography.
<http://tiny.cc/6od2iy>



APPRENTICE NIGEL PROCTOR

Nigel, 46, is an IT manager and keen snowboarder. He's been interested in photography since his schooldays, and loves to shoot "anything that moves". He owns a Canon EOS 7D Mark II and Canon EF 70-200mm f/2.8L IS II USM lens, and was keen to improve his winter sports shots.

SNOW BUSINESS

A keen photographer and snowboarder heads to the French Alps to improve his winter sports photography with a pro
Words and location images:
Adam Waring



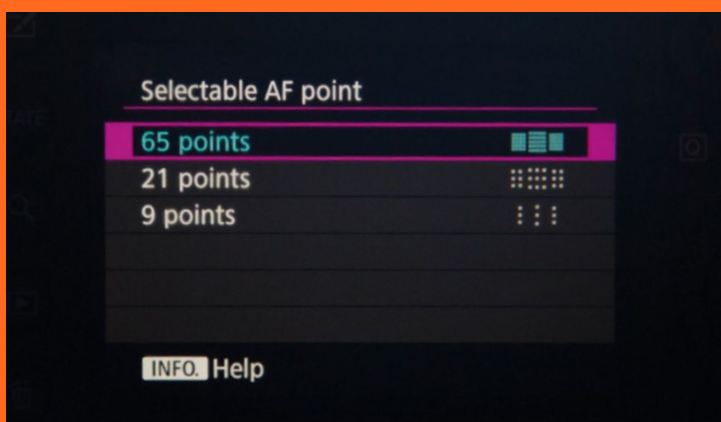
TECHNIQUE ASSESSMENT

Thomas checked Nigel's camera settings to ensure that he was ready for a day's shooting on the slopes...



SHUTTER PRIORITY MODE

"Nigel had selected shutter priority mode, which is a good choice for action photography," says Thomas. "I shoot Manual, but Tv mode gives you one less thing to worry about. However, Nigel's shutter speed was too low – you need to be shooting at least 1/500 sec – and ideally 1/1000 sec – to freeze the skiers for a sharp shot, in conjunction with AI Servo autofocus mode and High-speed Continuous drive mode to give you the best chance of bagging the perfect pose."



AUTOFOCUS

"Nigel had set nine selectable AF points on his 7D Mark II, and while this may seem like a sensible option as these are the most accurate, I prefer to make all 65 points active, then move a cluster of nine points around the frame so I have more flexibility to shoot wherever the skier is in shot. I then delve into the AF menus to ensure it selects the moving subject."



DUAL CARDS

"Nigel's 7D can record to CF and SD cards simultaneously, so I suggested that he popped a second card into his camera and set it to save images to both. Card failures are rare, but they do happen, and if you ensure that you're using fast cards of both formats it won't slow down your camera's performance."



FEATURE

THE PRO'S KILLER KIT

Thomas's essential gear for great ski shots

1 UV filters

These filter UV light from the shot, but their primary purpose is to protect the lens. "When you're shooting any sports where there's snow, water, or dirt flying around, you don't want lenses costing thousands of pounds to have anything hitting their precious front elements," says Thomas.

2 F-Stop Loka backpack

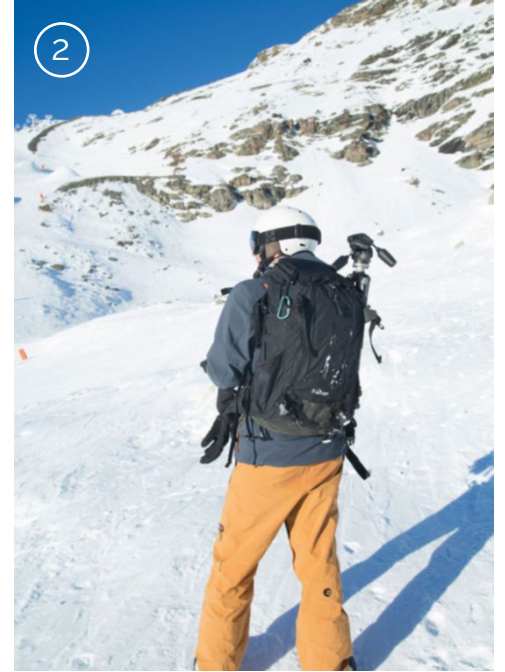
"When you're carting your gear around on the slopes, you need to make sure that it's well protected," says Thomas. "My F-Stop bag has an internal metal frame and interchangeable inner compartments, so I can make sure everything fits snugly. And it stays rigidly in place when on my back – others I've had shift as I turn, which isn't ideal when thundering down the slopes!"

3 Spare batteries

"I carry around five spare batteries with me. I can take thousands of frames on a day's shoot, and batteries don't hold onto their charge well in cold temperatures, so I keep them wrapped up warm in my camera bag and close to my back."

4 Walkie-talkies

"When working with a skiing or snowboarding model it's vital that we communicate," explains Thomas. "This pair of radio transmitters enables me to tell them where to go and when to start moving, so that I'm ready for them, even if they're halfway up the hill and out of view."





HOT SHOT #1

NIGEL SAYS...

There was a slalom competition while we were at Val Thorens. We set up halfway down the course at a vantage point where the skiers would pass relatively close by. I shot up the piste with my telephoto zoom at full stretch, composing to get a number of gates in the shot, but with no distractions. Then I simply waited for the skier to hit the centre-most gate and fired off a bunch of shots.

EXPERT INSIGHT TELL A STORY

A series of related shots can be more than the sum of its parts. For the giant slalom, a shot of the skier taking off from the starting ramp isn't so photogenic on its own, but combined with shots of them flying through the gates, kicking up a spray of snow and wider scene-setting shots, can really set the context and tell the story of the event.





HOT SHOT #2

NIGEL SAYS...

I took dozens of shots of the skiers slaloming through the gates, but although dramatic they were lacking a certain something. By shooting low to the ground here, the foreground snow is thrown out of focus and provides depth to the shot, helping to give a sense of scale.

EXPERT INSIGHT SET THE SCENE

The mountains can be a truly breathtaking place to be, so as well as shooting skiers and snowboarders, take shots of the wider scenery. Chairlifts criss-crossing each other can make for wonderfully abstract scenes, as can a cable car towering high above a resort.





HOT SHOT #3

NIGEL SAYS...

As a giant slalom race has one skier on the piste at a time there was plenty of time to zoom in and out with my telephoto zoom, from shooting wide as skiers approached, to panning as they passed my vantage point, and zooming right in as they attacked the gates down the piste, dramatically kicking up snow for an action-packed shot.

PRO TIP SKETCH THE SHOOT

"I always make a rough plan of what I want to shoot, and sketch a few ideas in a notepad," says Thomas. "Not only is this a handy reminder, but I can show models what I have in mind for a particular shot. And as you can see from my stick figures, you don't have to be a great artist to give them the gist!"



FEATURE



HOT SHOT #4

NIGEL SAYS...

The snow park offers a fantastic opportunity for action shots; snowboarders are a showy bunch and will happily play to the camera. I set a narrow aperture to turn the low sun into a starburst, and upped the ISO to compensate and retain a fast enough shutter speed to freeze the action. Then I set up my composition close to a kicker, and waited for obliging snowboarders to catch some air.

PRO TIP LENS SWITCHES

The Canon 70-200mm f/2.8L has an AF limiter switch that toggles between the full range to a narrower 2.5m-infinity; you won't be shooting closer than that, so select this for faster focusing. IS should always be turned on; select Mode 1 if you're not moving the lens, and Mode 2 for tracking subjects.



FEATURE



HOT SHOT #5

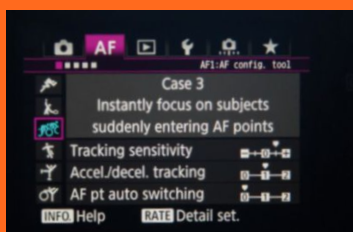
I shot with a wide-angle lens towards one side of the piste and asked our model, Emilie, to ski as close as possible – but without knocking me

over! The wide perspective really exaggerates the angle of view, making the background chairlift seem more distant than it actually was. The spray

of snow and dramatic angle of the skier conveys a real sense of action, while the fast 1/1000 sec shutter speed ensures a razor-sharp shot.

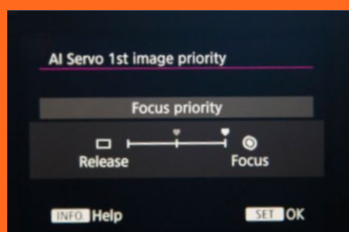
EXPERT INSIGHT AUTOFOCUS OPTIONS

Nigel's 7D Mark II boasts advanced autofocus options, with several dedicated menu screens (higher-end DSLRs from other manufacturers will have similar options). Thomas tinkered with the options to ensure Nigel's hit-rate was more hit than miss...



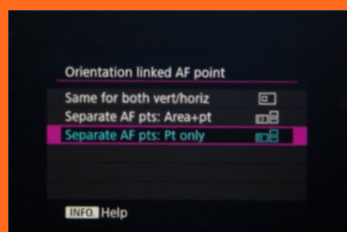
AF CASES

AF Case 3 instantly switches to track objects that enter the selected cluster of AF points – ideal for locking onto skiers who suddenly enter the frame.



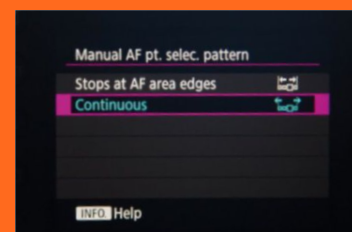
1ST/2ND IMAGE PRIORITY

Set both to Focus; a shot isn't taken until focus is achieved – and a slight delay and sharply focused shot is better than an instant blurred one.



ORIENTATION LINKED AF

Lets you go from a horizontal shot with the skier one side of the frame, then rotate and zoom to the central AF point to capture their expression.



MANUAL AF SELECTION

Set to Continuous to wrap from the left-most AF points to the right-most, saving time when composing at opposite edges of the viewfinder.



FEATURE

SHOT OF THE DAY



OUR APPRENTICE SAYS...

Having a model skiing for you means you can control your shot by giving them directions. I set up below the crest of a hill, shooting from down low, and asked Emilie to ski straight towards me, carving tight turns. Thomas told her when I was ready to go via walkie-talkie, and I fired a series of shots as she hit the crest of the hill. By shooting from such a low angle the snow that Emilie kicked up contrasts dramatically against the bright blue sky.



OUR PRO'S VERDICT...

Nigel learned almost as quickly as he was able to whiz down the mountain on his snowboard! It can be difficult to make it look as if your skier is the only person on the slopes, but Nigel's tight telephoto angle of view has done just that. His focus is spot on, thanks to using the Case 3 AF setting, which snapped onto Emilie as soon as she entered the frame. Well done!





TOP TEN WINTER SPORTS PHOTOGRAPHY TIPS

1 SLAP ON THE SUNSCREEN

Sunscreen isn't just for lazing around on the beach. Despite the cold, you can get badly sunburnt when out all day on the mountains, so cover the exposed parts of your face before heading to the slopes.

2 CHECK THE HISTOGRAM

Expect to dial in around +1 stop of exposure compensation in Tv mode for white-looking snow. Take a shot and check the histogram; it should bulge to the right, but make sure it's not clipped.

3 HIGHLIGHT ALERT

Turn on the Highlight Alert display if your camera has this feature, so that any overexposed pixels 'blink' in playback – this will give you an instant warning if your images are overexposed.

4 A TIME FOR REFLECTION

The pistes are only open in daylight, but snow acts as reflector,

bouncing light back onto your subjects, which helps to fill in shadows.

5 LEARN TO SKI!

It goes without saying that you'll need to be competent on the slopes to get to a variety of locations in a reasonable time. Sitting around on chairlifts eats up time too, so plan your day accordingly.

6 TAKE IT EASY

Skiing – or boarding – with a bagful of camera equipment on your back shifts your centre of gravity, so take it easy when traversing the slopes.

7 FOLLOW THE LIGHT

Don't bother shooting on shady slopes. As the day moves on, the sun will light different pistes throughout the resort, so recce how the sun lights each piste and at roughly what time of day, then plan to follow this light through your shoot.

8 LET YOUR CAMERA ACCLIMATISE

Condensation forms when cold surfaces warm rapidly. Moving from -20°C outside to +20°C indoors will not only fog up your lenses, but could damage the delicate electronics inside your camera. Allow your gear to warm up gradually in your bag for half an hour before unpacking it and checking through images; a few silica gel sachets in your bag can help too.

9 GET UP EARLY

A day can go surprisingly quickly when you're taking photos as well as getting in all that skiing, so aim to be out to catch the first chairlift of the day.

10 TURN UP THE BRIGHTNESS

Your camera's LCD display can be very difficult to see if it's set to auto brightness when it's surrounded by all that white, reflective snow. Set the brightness to Manual, and crank it all the way up to the maximum setting.

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GALLERY

XPOSURE

THE WEEK'S MOST INSPIRING READER PHOTOS



COLD WINTER
JOVANA RIKALO

"This photo was taken in Serbia on a cold winter day, when the temperature was -10 degrees and it was snowing. I wanted to capture an image that really conveyed the feeling of how cold it was."

<http://tiny.cc/jvh1iy>

GALLERY

THE WEEK'S MOST INSPIRING READER PHOTOS



COLD FEET JUNCO

ROBERT LACHAINE

"I was walking along one of my favourite trails close to our home in Ottawa in Canada. I always take bird seed with me to feed the little birds who are brave enough to stick around during our very cold winters. This cute little guy was standing in the fresh snow having his breakfast. He was hopping from one leg to the other, seemingly because his little feet were cold."

<http://tiny.cc/kxh1iy>



THE SHADOW OF THE WIND

JUKAI FUJIKI

"I was waiting for the sunset on Hong Kong's Tate Cairn mountain when the fog enveloped me, and then a strong wind whipped up. The sunlight broke through the fog, and I could see nothing but the silhouettes of this silvergrass."

<http://tiny.cc/s2h1iy>

GALLERY

THE WEEK'S MOST INSPIRING READER PHOTOS

DUSK OVER SWANWICK BAY

WILL STOKES

"This is Swanwick bay in the Australian state of Tasmania. Given the peacefulness of this place it's hard to believe the busy Freycinet National Park is just down the road. Adding to the scene, but not visible in this shot, were several large stingray lazily gliding across the surface of the water."

<http://tiny.cc/q7h1iy>



#NOMUSLIMBAN

TØRE BUSTAD

"This shot was taken outside the Norwegian Parliament in Oslo during a demonstration against President Trump's immigration restrictions."

<http://tiny.cc/abliiytorbus/>



GALLERY

THE WEEK'S MOST INSPIRING READER PHOTOS



GLASGOW SHOPPING

MARTIJN VAN SABBen

"This was shot in the centre of Glasgow, on my last day in Scotland before heading home to the Netherlands."

<http://tiny.cc/fii1iy>

BATTERY SPENCER AT SUNRISE

GUY KIRKHAM

"San Francisco is an amazing place, with so much to see and do. My body clock was out of sync as I was still on UK time, but this brought advantages as well as disadvantages – I was awake at the perfect time to catch the sunrise anywhere in the city. This is Battery Spencer, overlooking the Golden Gate Bridge."

<http://tiny.cc/3ki1iy>



GALLERY

THE WEEK'S MOST INSPIRING READER PHOTOS

SHOOT AND LADDER

MICHAEL WALSH

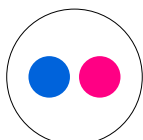
"This photo was taken during the 'blue hour' in Brenton Point State Park, which is on Aquidneck Island in the town of Newport, Rhode Island"

<http://tiny.cc/n6a2iy>



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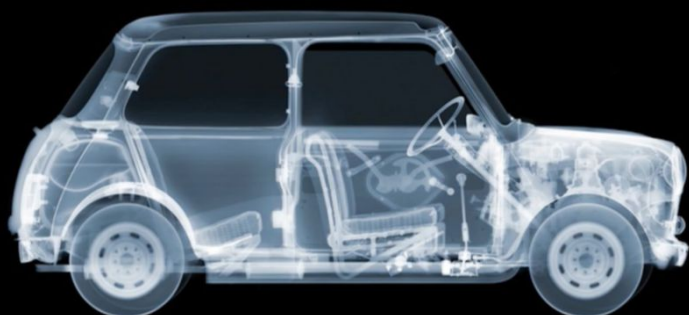
PHOTOGRAPHY WEEK WANTS YOUR PHOTOS!

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!

INSPIRATION

IT'S COOL, THAT

THE BEST THING WE'VE SEEN THIS WEEK



Images © Nick Veasey

AN INSIDE LOOK AT NICK VEASEY'S AMAZING WORLD

How the acclaimed photographer creates his X-ray images of everyday objects

They say it's what's on the inside that counts, and that's certainly true of the work of X-ray photographer Nick Veasey. Veasey has made a name for himself with images of everything from guns and classic motorcycles to a Boeing 777 airliner, and this video from Adobe Create Magazine (www.create.adobe.com) gives us an fascinating inside into how he creates his remarkable images.

As most of Veasey's subjects are too large to fit in a single frame, his images are generally made up of multiple shots,

taken in his lead-lined studio near London, which he combines in Photoshop; his images of motorcycles, for example, are typically created from 30-50 frames, and Veasey dismantles larger objects and shoots them piece by piece. Where human figures are included, Veasey uses tricks such as placing a skeleton in a pressurised rubber suit to hold it in position.

You can watch the six-minute video, and see a selection of images, at PetaPixel (<http://tiny.cc/4cw3iy>). And you'll find lots more of Veasey's amazing work at his website (www.nickveasey.com).



WATCH THE VIDEO
<http://tiny.cc/jc81iy>





S K I L L S

CRASH COURSE

ESSENTIAL PHOTO SKILLS MADE EASY

STACK 'EM UP!

Matt Tuffin reveals the secret to better beach shots: layering multiple filters

1-2
HRS

Screw-in filters are all very well, but they only allow you to apply one filter effect at a time. Using a slide-in filter system enables you to stack multiple filters, so you can balance bright skies, blur moving water or clouds, and even polarise reflections, all at the same time.

When you're shooting early or late in the day you'll often be faced with

a sky that's much brighter than the foreground landscape, and this is where a graduated ND filter comes in useful. These are dark at the top and clear at the bottom, enabling you to darken bright skies without affecting the exposure of the landscape below; and because you can slide the filter up and down in its holder you can choose exactly where to place the transition

from dark to clear. A full ND filter, meanwhile, darkens the whole image; this allows you to set a slower shutter speed, which in turn enables you to effectively blur the movement of water, clouds and more, even on bright days.

Using both sorts of filters at the same time might sound complicated, but you just have to do things in the right order. Here's how it's done...



S K I L L S

STEP BY STEP THE MORE THE MERRIER



1

FIND YOUR SEA LEGS

As you'll be using a slow shutter speed, you'll need a tripod and a remote release. Screw in a filter adapter, then attach the filter holder. If you're using a wide-angle lens, there's a chance you'll catch the edge of the adapter in your shot, so either zoom past it, or crop the image later.

2

STAY GROUNDED

As you'll be using an ND grad to balance out the sky, you can set your exposure for the foreground. Put your camera in manual mode, select an aperture of f/22 and an ISO of 100, and then adjust the shutter speed until the exposure needle lines up with the '0'.



3

THE FIRST FILTER

Next, slide your weakest grad into the slot that's nearest the lens, with the dark end at the top, and slide it down until the transition from dark to clear just kisses the horizon – if it's too high or too low the effect will be obvious in the final image. Take a test shot and check your histogram.



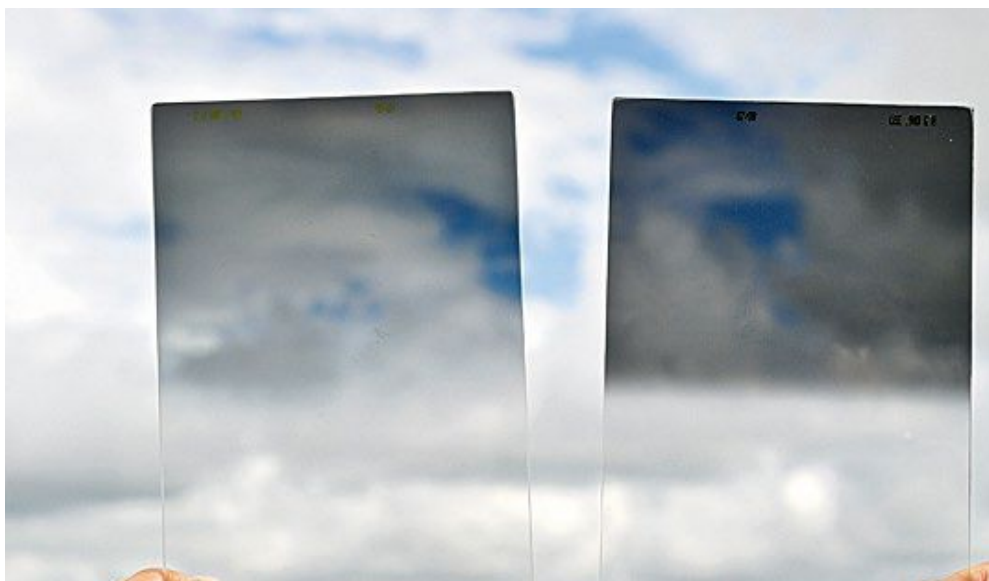
WHAT IS A STOP?

A lot of references are made to 'stops' when we're using ND and ND grad filters. A stop represents a change in either the shutter speed, aperture or ISO, and denotes the halving or doubling of light levels; if you halve the shutter speed (going from 1/60 to 1/30 sec, for example), that equates to a stop. Most DSLRs allow adjustments in smaller increments, so you may need to move the dial two or three 'clicks' before achieving a full stop.



S K I L L S

STEP BY STEP THE MORE, THE MERRIER



4

TWO'S COMPANY...

If the histogram information falls inside the edges of the graph you won't need to attach a second ND grad, but if it's stacked towards the right-hand side you'll need a second filter to darken the sky even further, until the graph isn't cut off or 'clipped' on the right.

5

...THREE'S A WOW

Once the ND grads have ensured a balanced exposure, it's time to add a full ND to enable a longer shutter speed. A one-stop ND will enable you to double the exposure time, a two-stop ND will enable you to double it again, and so on.



6

THE RIGHT TIME

Because NDs are very dark, make sure you're happy with your composition before adding one. With the filter attached, increase the exposure time the correct number of stops, take a test shot, and adjust again if needed.



QUICK TIP!

Rather than buying multiple adapters for your filter holder, use a stepping ring to save time.

E D I T I N G

PHOTOSHOP CC

LEARN ESSENTIAL EDITING SKILLS FAST!



BEFORE

HOW TO...

UNDERSTAND THE HISTOGRAM

Use the histogram and a Levels adjustment layer to fix exposure problems

A histogram is a graph that represents the spread of tonal information in a photograph. You can see an image's histogram on your camera's screen when reviewing images, enabling you to quickly check for exposure problems, and also in image-editing software such as Adobe Camera Raw and Photoshop.

Shadow information is displayed towards the left of the histogram, midtone information in the middle and

the highlights towards the right, and the height of the graph at a given point indicates the amount of pixels with that brightness level in the image.

You can look at a photograph's histogram and instantly see whether the shot is overexposed or underexposed. If a shot is underexposed, there may little or no information displayed at the right-hand side of the histogram; if a shot is overexposed, there will be a lack of information in the shadow section on

the left-hand side of the histogram.

In addition to diagnosing tonal problems, you can combine the histogram with Photoshop's tonal adjustment tools, such as Levels or Curves, to correct images by lightening or darkening pixels in particular areas of the tonal range. In this video lesson we'll show you how to rescue an underexposed image by using a Levels adjustment layer to brighten pixels throughout the image.



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G E A R

HANDS-ON

EXPERT OPINION ON THE LATEST KIT



OLYMPUS OM-D E-M1 II

With a 60fps full-resolution burst mode, plus a new autofocus system and sensor, Olympus's new CSC promises a great deal

www.olympusamerica.com £1,850 / \$1,999 (body only)

Olympus has played two aces with the E-M1 II. Its 60fps burst mode is a spectacular leap forward in high-speed shooting, and even though you have to step down to 18fps to get focus tracking with moving

subjects, that's still a poke in the eye for heavier, more expensive – and slower – pro-level DSLRs such as the Canon EOS-1D X II and the Nikon D5.

This camera's other party trick is its new all-phase-detection autofocus

system – designed to prove that mirrorless cameras can match DSLRs for tracking moving subjects. The AF system uses 121 on-sensor phase detection AF points arranged in a rectangular array that covers a much



HANDS-ON REVIEW OLYMPUS OM-D M1 II

larger area of the frame (80% of the frame width, 75% of the frame height) than regular DSLR systems.

But let's get back to that continuous shooting capability. The bald fact is the E-M1 II can shoot full-resolution, uncropped 20-megapixel images at 60 frames per second, and it can keep this up for 48 frames (raw or JPEG) – long enough to be much more likely of capturing a key frame than a regular DSLR. And if you're not sure that your

THE E-M1 II CAN SHOOT FULL-RESOLUTION, 20-MEGAPIXEL IMAGES AT 60FPS, AND KEEP THIS UP FOR 48 FRAMES

reactions will be quick enough, there's a Pro Capture mode that starts buffering frames as soon as you half-press the shutter release, so that when you press it the rest of the way you capture not just frames from that point on, but the preceding 14 frames too.

All this happens using the OM-D M1 Mark II's silent shutter mode. It has to



lock focus and exposure at the first frame, but it's designed to be used where the point at which the action will occur can be framed up in advance.

The new camera is splash-proof, dust-proof, and cold-proof down to 10 degrees Centigrade. It comes with a quoted shutter life of 200,000 shots, and there's also a new optional HLD-9 battery grip doubles the battery life (always a sore point with mirrorless cameras) and has dedicated controls for vertical shooting. Inside the OM-D M1 Mark II is a 20.4-megapixel Live MOS sensor

measuring 17.3 x 13mm, with an ISO range of 'Low' to 25,600. The camera is equipped with a newly redesigned five-axis image stabilisation system, which can work in conjunction with Olympus's new 12-100mm f/4 IS lens.

1 The E-M1 II's smaller sensor format pays dividends with smaller, lighter lenses.

2 The electronic viewfinder has a high resolution (2.36MP) and a higher frame rate for less lag.

3 The fully-articulating LCD display is a step forward from the simple tilt mechanism in the original E-M1.

4 You'd hope the E-M1 II would have a dedicated drive mode dial; instead, you have to press this button and turn the rear dial.



HANDS-ON REVIEW OLYMPUS OM-D E-M1 II

The E-M1 II can shoot 4K video in both the C4K (4,096 x 2,160) and 4K/UHD (3,840 x 2,160) formats – and this new lens is designed not only to offer a useful focal range for videographers

THE SMALLER SENSOR SIZE BRINGS WITH IT TWO BIG ADVANTAGES: SIZE AND WEIGHT

(24-200mm equivalent) but also even better hand-held footage thanks to its in-built image stabiliser. Olympus is claiming a 6.5-stop shutter speed advantage for this camera and lens.

Build and handling

The E-M1 Mark II is the largest camera in Olympus's OM-D range, but it's positively diminutive next to a pro DSLR. The smaller sensor size of the Olympus means it's at a disadvantage for ultimate image quality, but brings with it two big advantages: size and weight.

It's not just about the size of the body, but the lenses too. The 12-40mm f/2.8 Pro lens (24-80mm effective) is half the size and weight of a full-frame equivalent; and this applies right across the board, right up to Olympus's 40-150mm f/2.8 (80-300mm equivalent) and 300mm f/4 super-telephoto (600mm equivalent) optics.



With a continuous shooting rate of 60fps, the E-M1 II can reliably capture moments that would require sheer luck with any other camera

Despite the E-M1 II's relatively small size, Olympus has managed to squeeze on a lot of controls without making them feel cramped. The key dials are on the right side of the top plate, and consist of a regular mode dial and two unmarked control dials whose function depends on both the mode you're in and the position of a lever on the back of the camera, just to the right of the viewfinder eyepiece. This effectively doubles up

on the control dial functions – as long as you remember to set the lever to the correct position.

This is a camera you can easily get confused with, at least initially. Despite the array of external controls it also relies heavily on its menu system and an interactive touchscreen control layout, activated by the OK button in the middle of the four-way controller. You don't have to use the touch system – you can



1 COLOUR RENDITION

Olympus cameras are known for their nice-looking JPEG images. The Vivid style used here has added vibrancy to a dull, overcast afternoon.

2 AUTOFOCUS

The autofocus response is exceptional: the OM-D E-M1 II's high-tech phase-detection system focused on this bird of prey in an instant.

3 DEPTH OF FIELD

The smaller sensor format gives greater depth of field, although it's still easy to throw backgrounds out of focus with a fast prime lens.



HANDS-ON REVIEW OLYMPUS OM-D E-M1 II

also navigate through the options using the four-way controller buttons and the control dials on the top of the camera.

But what about the revolutionary continuous shooting and AF modes? These are key features that surely deserved a rethink of the camera's external layout, with dedicated controls

THE ELECTRONIC VIEWFINDER IS CRISP AND CLEAR WITH LITTLE LAG, EVEN IN LOW LIGHT

for each. Instead, the E-M1 II follows the same generic exterior layout as its predecessor, giving no real external clue to its enhanced capabilities.

The shooting experience is hard to fault, though. The electronic viewfinder is crisp and clear with little lag, even in low light, and the shutter action is unusually soft – much softer than its predecessor's. The feel of the materials and controls is first-rate – this feels such a finely made, high-precision device that you have to remind yourself that it's also been 'ruggedised' for outdoor use.



VERDICT

We'd want to do more extensive tests before reaching any final decision about the E-M1's continuous focus tracking performance, but it's an extraordinary camera in every other respect. The image quality belies its small sensor, and its static autofocus and burst shooting modes are exceptional.



Performance

The OM-D E-M1 II's sensor is half the size of APS-C and around one-quarter the size of a full-frame DSLR sensor, yet you wouldn't know it from the images it produces. They're extremely sharp, the roll-off in highlights is smooth, and lens aberrations like distortion and fringing are processed out so well that they effectively cease to exist. The OM-D II performs well at higher ISOs too, although larger-sensor rivals pull ahead here.

The high-tech autofocus system is harder to judge. We got a mixture of duds and successful shots in our early test shooting. What's obvious straight away is its static AF speed. It feels at least as fast in single-shot AF mode as any pro DSLR. It hunts from time to time in low light, however, or with low-contrast subjects, but the speed at which it can refocus from infinity to a subject close to the camera and back again borders on the uncanny.

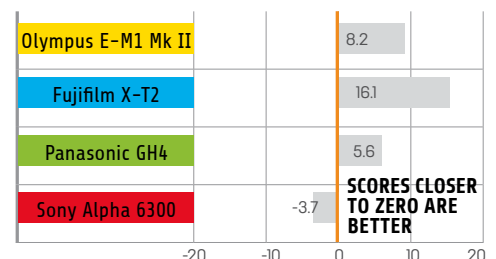
The E-M1 II is a fraction of the weight and cost of a high-speed pro sports DSLR, but it has an autofocus system which narrows or perhaps even eliminates the performance gap between mirrorless and DSLR technologies – and can shoot at speeds that no DSLR can match.

Rod Lawton

S P E C S

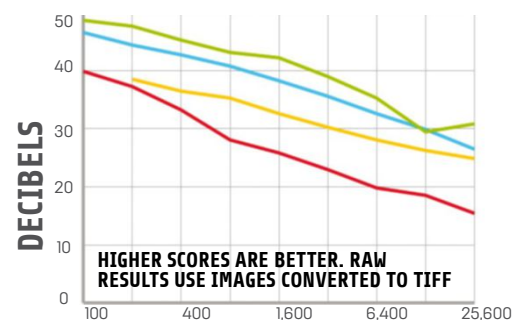
SENSOR 20.4MP MICRO FOUR THIRDS LIVE MOS SENSOR (17.3 X 13MM) **FOCAL LENGTH CONVERSION ON LENS** 2X **MEMORY** 2X SD/SDHC/SDXC (1X UHS-I, 1X UHS-II) **VIEWFINDER** EVF, 2,360K DOTS **MAX VIDEO RESOLUTION** 4K (4,096 X 2,160) **ISO RANGE** 'LOW'-25,600 **AUTOFOCUS** HYBRID PHASE/CONTRAST DETECTION, 121 POINTS, ALL CROSS-TYPE **MAX BURST RATE** 60FPS AF LOCKED, 18FPS WITH AF **SCREEN** 3-INCH VARI-ANGLE, 1,037K DOTS **SHUTTER SPEEDS** 60-1/8000 SEC, BULB **WEIGHT** 574G, BODY ONLY, WITH BATTERY AND MEMORY CARD **DIMENSIONS** 134 X 91 X 69MM **POWER SUPPLY** BLH-1 LITHIUM-ION BATTERY (SUPPLIED), 440 SHOTS

COLOUR ERROR



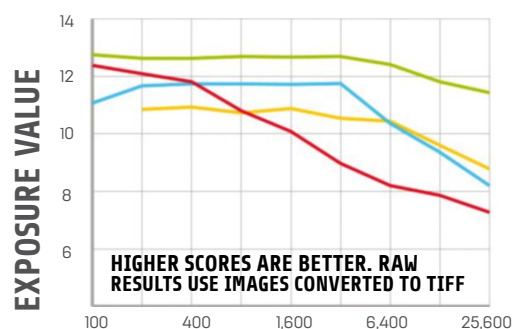
It's not the worst, it's not the best. The OM-D E-M1 II's colour rendition is more accurate than the X-T2's, but the Sony A6300 and Panasonic GH4 are more neutral.

RAW SIGNAL-TO-NOISE RATIO



The Olympus doesn't achieve the same performance as the X-T2 or, surprisingly, the rather good GH4. It did better than the Sony A6300 at higher ISOs, though.

RAW DYNAMIC RANGE



The Panasonic GH4 and Sony A6300 are the winners here, but the Olympus is not so far behind, and maintains its dynamic range right through to higher ISO settings.

A P P S

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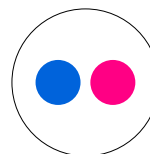
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