Photography week

INSPIRATION | IDEAS | IN-DEPTH REVIEWS

SIGMA 100-400MM F/5-6.3 DG DN OS | C
WE TEST SIGMA'S COMPACT ZOOM FOR SONY AND LEICA CAMERAS

FAMILY BUSINESS

PRO TIPS FOR SHOOTING CAPTIVATING AND CANDID PORTRAITS OF CHILDREN

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THE WORLD'S BEST-SELLING DIGITAL PHOTO MAGAZINE

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JOIN THE CLUB...

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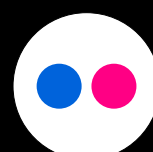
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We're more than just a magazine – read on and discover the many
ways you can interact with and enjoy *Photography Week*

Photography week

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FIND OUT WHAT'S INSIDE THIS ISSUE

WHAT'S HOT
THE WEEK'S TOP HEADLINES IN PHOTOGRAPHY

THE FUJIFILM GFX 100 CAN NOW CAPTURE 400MP IMAGES

New firmware adds Pixel Shift Multi-Shot for 'unparalleled' colour and detail

© Future

The already highly capable Fujifilm GFX 100 has added another string to its bow with the ability to capture 400-megapixel images, courtesy of new firmware.

With its 102MP medium-format image sensor, the GFX 100 could already take enormous (and highly detailed) files, but the new firmware version 3.00 adds the much-anticipated Pixel Shift Multi-Shot feature, which captures and combines 16 frames into a single 400MP image.

This is made possible by the GFX 100's in-body stabilisation system, which is designed to counteract camera shake by making micro-adjustments to the sensor. Pixel Shift Multi-Shot turns this technology on its head, shifting the image sensor by 0.5 pixels between each frame to incrementally record high-resolution RGB pixel information while capturing 16 raw images.

You can then open these files into Pixel Shift Combiner to merge them into a 400MP image, which can be outputted as a DNG raw file in software. It appears that this process isn't an in-camera one (as it is with cameras like the Olympus OM-D E-M1 Mark III, which captures 16 frames from its 20.1MP sensor and combines them into an 80MP raw file). Rather, it seems the file merging needs to be conducted on a computer – and this can be performed via the tethered capture functionality that's also facilitated by the new firmware.

Fujifilm says the GFX 100 offers "unparalleled colour reproduction, with next to no false colours," making it the ultimate way to record images "that require immense color fidelity and the reproduction of fine details".

With its 45MP full-frame CMOS sensor, 8K RAW video capture and in-body image stabilisation, Canon's EOS R5 is the ultimate hybrid camera

JOIN THE REVOLUTION

Meet the Canon EOS R5 and Canon EOS R6 – the full-frame mirrorless cameras that are changing the game for photographers and film-makers

Canon's EOS R series of full-frame mirrorless cameras deliver all the benefits of large-sensor photography and movie-making in bodies that are more compact and lightweight than traditional DSLRs. The latest pro-spec Canon EOS R5 and Canon EOS R6 redefine mirrorless performance, offering advanced, industry-first features that set a new benchmark for hybrid cameras. As the flagship of the EOS R range, the EOS R5 packs the cream of cutting-edge Canon technology. Capable of recording sensational 45-megapixel high-resolution stills in bursts up to 20fps, it never misses a beat. With 5,940 autofocus positions, Animal Tracking and Eye Detection AF, the EOS R5's next-level Dual Pixel CMOS AF II system offers exceptional focusing precision. Powerful image stabilisation, achieved through a combination of an in-body image stabilizer and lens-based stabilisation, delivers up to eight stops of shake reduction for super-sharp images every time.

The EOS R5 is a fully-featured tool for all filmmakers too. It's the first ever

Canon

Live for the story_

The Canon EOS R6 offers confidence-inspiring EOS handling, 'deep learning' autofocus and silent, high-speed capture

REVOLUTIONARY RF LENS MOUNT

At the heart of the Canon EOS R system is the innovative RF lens mount. Its combination of a large diameter and shorter flange distance from the mount to the sensor allows for large-aperture lens designs that offer superior image quality.

The future-proof 12-pin RF mount features four more electrical contacts than the EF mount, and enables higher-bandwidth communication between the lens and the camera. The increased amount of data being passed back and forth enables a host of improvements, including high-precision autofocus tracking with Eye Detection AF, superior image stabilisation, and real-time Digital Lens Optimizer, which corrects for distortions and aberrations without any effect on shooting performance.

Canon EOS R5

Canon EOS R6

full-frame mirrorless camera to record cinematic 8K 12-bit RAW video up to 30fps internally, as well as high-frame-rate 4K to 120p for smooth slow-motion playback. You can even extract 35MP stills from 8K video clips, so you can find and freeze the perfect moment in your own time.

If you don't need the 8K video specification, but still want to step up to professional mirrorless performance, then the EOS R6, with its manageable 20.1-megapixel file size, is a great choice. Like the EOS R5, it offers up to 12fps shooting with its mechanical shutter, as well as a silent electronic option that captures high-speed bursts at up to 20fps. It can also record crisp and detailed 4K video footage at up to 60p, and features Canon Log and HDR

PQ options if you need to capture more dynamic range.

The EOS R6 shares the same groundbreaking intelligent autofocus technology as the EOS R5. Powered by the new DIGIC X processor, the Dual Pixel CMOS AF II system stays locked onto people even if they turn away from the camera, and it can even identify and track cats, dogs and birds with its intelligent AF.

You're able to push the EOS R6's sensitivity all the way to ISO102,400, which means it's also the perfect camera for low-light photography. Its in-body five-axis image stabilizer works co-operatively with stabilised RF lenses to provide up to eight stops of stability for sharp handheld results as light levels drop.

CANON RF LENSES

The EOS R system is supported by a growing range of dedicated Canon RF lenses. These include unique zooms, such as the bright, prime-quality Canon RF 28-70mm F2L USM and discreet Canon RF 70-200mm F2.8L IS USM, as well as pioneering fixed-focal-length lenses like the Canon RF 800mm F11 IS STM. You can even use your EF and EF-S lenses on an EOS R series camera, via a range of EOS R mount adapters.

PRO
TAYLOR BRADY
CAMERA:
CANON EOS 7D MARK II

Taylor has been working as photographer for around nine years. She's explored lots of different genres, but portraiture was always her main interest, and after completing her degree she set herself up as a freelance photographer, specialising in newborn and family photo shoots at her home studio.

FAMILY BUSINESS

Professional family portrait photographer Taylor Brady shows enthusiast Jonathan how to take enagaging pictures of babies

APPRENTICE
JONATHAN CROOK
CAMERA:
CANON EOS 760D

Jonathan is a keen camera enthusiast who's looking to improve his portraiture and lighting skills. His teenage son is an aspiring actor, so Joanthan would also like some guidance on posing subjects, so that he can shoot professional-looking portraits for his son's portfolio.

TECHNIQUE ASSESSMENT

Taylor started out by showing Jonathan how to set up
his camera to help him capture perfect portraits

SHOOT IN MANUAL

The portraits in the morning session were all going to be lit with natural light coming through the large window in Taylor's living room – this would give the images a soft, gentle feel, especially as the lighting was very overcast on the day. Thanks to the total cloud coverage the lighting was consistent throughout the shoot, so Taylor set both her camera and Jonathan's to Manual mode and dialed in settings of 1/160 sec, f/2.8 and ISO800.

SHOOT RAW

Taylor suggested Jonathan set his Canon EOS 760D to shoot raw files, as these capture much more detail than JPEG files, which are processed and compressed in-camera. This additional detail is hugely beneficial, especially if an image is a little overexposed or underexposed, as you can restore blown out highlights or lift dark shadows with the push of a slider in software.

LENS 35mm f/2
EXPOSURE 1/160 sec, f/2, ISO200

HOT SHOT
#1

TAYLOR SAYS

For our morning session we met up with mum Becky and her six-month-old baby daughter Penelope. Prior to the shoot I had asked Becky to bring a few changes of clothes, and I also had a Christmas set I wanted to try later. Having a good selection of outfits, and different backgrounds, helps to give the baby portraits some variety. To get this shot I asked Becky to get Penelope sitting upright on this soft mat, and I gave her a toy camera to play with. The window light is coming in from the right, so as she's looking in that direction her face and eyes are nicely lit, with the rest of her in soft shadow. I had Becky sat just out of shot so that she could catch Penelope if she fell forwards or backwards.

PRO TIP
USE FACE DETECTION
FOR EASY FOCUS

Face detection is getting increasingly smart in DSLRs and mirrorless cameras, and it can be very handy when shooting small children or animals, as both subjects tend to move in unpredictable ways. The algorithm finds the face, and continually focuses on it until you take the shot.

HOT SHOT #2

JONATHAN SAYS

For this shot we asked Becky to carefully lower baby Penelope into this small wooden crate lined with a soft blanket. I used Live View to focus, and as I was using a 60mm lens I could get a tight frame-filling portrait. I think Penelope is looking at her mum or Taylor here, and it makes for a nice off-camera portrait. I opened the aperture to f/2.8 and set the ISO to 400, which helped me get a fast enough shutter speed – 1/160 sec – to shoot handheld. Taylor said I should aim to get a shutter speed equal to or faster than my focal length, so 1/100 sec at 100mm or 1/200 sec at 200mm and so on. As I was working with a Canon APS-C body I then had to multiply the shutter speed by 1.6, so 1/100 sec becomes 1/160 sec, for example.

LENS 35mm f/2
EXPOSURE 1/160 sec, f/2, ISO200

EXPERT INSIGHT
GOVERNMENT GUIDELINES

We were in a part of England where it was safe for up to six people from different households to meet up indoors, but we also made sure that Jonathan and Taylor wore face visors and kept a distance of one metre when possible. Taylor also makes sure everyone coming into her studio scans the QR code for the Track and Trace app. Be sure you follow the government guidance for your location, as this will differ depending on where you are in the UK, and note that guidance changes frequently.

HOT SHOT #3

JONATHAN SAYS

You often think about high-angle photos being associated with drones looking down on cities from high above, but it was nice to replicate this top-down shooting method here. I carefully leaned over Penelope and held my camera high up, using the tilting LCD screen on my EOS 760D to compose. I held the camera securely, ensuring I wore my camera strap around my neck for extra safety. I also pulled some funny faces to get Penelope to up towards the camera. I composed leaving a bit of space on the right so she was off-centre, and took a burst of images from this high-angle perspective, hoping that one would be focused correctly.

LENS 35mm f/2
EXPOSURE 1/160 sec, f/2, ISO200

HOT SHOT
#4

TAYLOR SAYS

For babies of Penelope's age I'd usually expect to get around 30 minutes of shooting time in a two-hour shoot, as they can take a while to settle down – having the heating on so it's warm definitely helps them settle sooner. Penelope was a superstar and had no tantrums whatsoever. For this Christmas-themed setup I placed prop presents behind her and sat her in this 'snow' material. The 'snow' came out looking a bit blue, so I tweaked the white balance in post to make it look wonderfully white and airy.

PRO TIP
MACRO LENSES

Macro lenses are great for portraits, as not only do they allow you to get much closer than normal lenses, so you can focus on the finer details like an eye, or a baby's tiny hands, for example, but they usually have wide apertures, such as f/2.8, making it easy for you to blur the backgrounds of your portraits.

HOT SHOT #5

TAYLOR SAYS

In the afternoon we met up with parents Sophie and Michael and their seven-month-old boy Romaeo. It had just started to rain when we arrived at our nature reserve location, but luckily the rain soon passed. You can have some fun shooting on rainy days if the kids are dressed up in colourful waterproofs and wellies, but we didn't have to go that far. I had scouted the location beforehand, and I took the family over to this old bridge. There are some nice tree branches hanging above them, and the side rails of the bridge act as lead-in lines, guiding the eye into the frame. This image was perfect for a high-key black-and-white conversion, and I added a vignette to again make sure the eye is drawn towards the subjects.

EXPERT INSIGHT
BRING A BROLLY

Taylor has a boot full of handy props for her shoots, and when it began to rain lightly she reached for this colourful rainbow brolly. This helped keep our family dry while we waited for the rain to pass, and provided some fun photo opportunities too. We asked Sophie to twirl the umbrella, and used a slow shutter speed to blur the colours for a vibrant backdrop.

LENS 50mm f/1.8
EXPOSURE 1/320 sec, f/2.8, ISO200

LENS 50mm f/1.8
EXPOSURE 1/2500 sec, f/3.2, ISO320

EXPERT INSIGHT
KEEP THEM DISTRACTED

While it's easy enough to ask the parents to look towards your camera, it's not as simple with babies. Holding a colourful toy in one hand and waving it around, or having somebody else do this, usually works pretty well for getting babies looking towards your camera, so you can capture that perfect family photo.

HOT SHOT #6

JONATHAN SAYS

We asked Michael and Sophie to sit on a large wooden bench for a few shots, with baby Romaeo sitting on Michael's lap. I love this photograph because there's a strong interaction between the parents, and also good eye contact with Romaeo, who looks very happy. An aperture of f/3.2 was enough to keep the three of them in focus, but I found it tricky to get a good composition with the full aspect ratio in portrait or landscape orientation, as there was too much empty space. In the end this square crop has worked well – and it's how an image like this would typically be cropped for sharing on social media sites such as Instagram.

LENS 35mm f/2
EXPOSURE 1/160 sec, f/2, ISO200

SHOT OF THE DAY!

JONATHAN'S COMMENT

To give this final portrait from the morning shoot a Christmas vibe, we asked Becky to change Penelope into this Christmas pudding outfit that Taylor had brought along. While she was doing that we set up the scene, keeping it simple, with prop presents in the background and a large red tartan cushion for Penelope to sit on. Following Taylor's lead I crouched low so that I was at eye level with Penelope, and framed up to get the baby and presents all in one shot. Shooting with Taylor was a fantastic experience, and I'm really looking forward to using the portrait skills I picked up when I'm taking headshots for my son's acting portfolio at home.

TAYLOR'S VERDICT

Jonathan was a great sport throughout the day, and it was lovely to see him capture some fantastic and intimate moments as his confidence grew. Shooting inside in a studio setting in the morning and outside with natural light in the afternoon should hopefully give him more options when he's taking his family photos. It would definitely be worth Jonathan investing in an inexpensive reflector and a budget flashgun to expand his lighting options, and some decent backdrops, which are handy for creating different looks in the studio. But he's got the core equipment, and an eye for a good shot, so he's well on his way to taking some brilliant family photos.

TAYLOR'S TOP 10 TIPS

1 CARRY SPARE BATTERIES
Carrying a spare battery may seem obvious, but it's vital on a shoot. Have plenty of batteries on charge – you don't want to end a shoot early because you ran out of power.

2 FOCUS ON THE EYES
The eyes are usually the most important part of a portrait, so this is where you should position your active AF point when shooting. When working with wide apertures, like f/1.8, check on the LCD to make sure your pictures are coming out sharp.

3 GET DOWN TO EYE LEVEL
Make your images look more professional and intimate by crouching down so that you're level with the baby's eyes. If you're struggling to manage this throughout a long shoot a tiltable LCD screen will help.

4 PROPS
Having a big box of props helps keep your young subjects interested and having fun, and also allows you to get a bit of variety in your images.

5 KEEP THE ROOM WARM
When working indoors I always crank up the central heating, as I find babies take much longer to settle when it's cold. For outdoor shoots make sure they're wrapped up nice and warm too.

6 ALLOW TIME FOR SETTLING
I expect to get about 30 minutes of good behaviour out of six-month old babies, so factor in time for them to settle, and then try and take as many pictures as possible while they're in a good mood.

7 KEEP SOOTHING SONGS ON STANDBY
Parents usually have songs or videos on their phones that will help to stop their babies crying and soothe them if they get upset, helping you get back to capturing happy smiles.

8 MODEL RELEASE
These are readily available online to download and print out for free, and I always recommend you get your clients to fill them out, so you have a written agreement of what you can do with the images, payment, and so on.

9 WATCH THE BACKGROUND
Always make sure to check for any distractions in the background of your portraits that could pull the viewer's eye away from your subject.

10 KEEP CONVERSATION FLOWING
Talk to the parents throughout the shoot, show them your shots, interact with babies to get their attention, and generally keep the conversation flowing, as this will result in much better poses than if you're shooting in an uncomfortable silence.

ESSENTIAL GEAR

The kit Taylor relies on for capturing pro-quality family portraits

① FAST 35MM PRIME LENS

Taylor uses a Canon EF 35mm f/2 IS USM lens, which has an equivalent focal length of 56mm on her APS-C EOS 7D Mk II. This is an ideal focal length for mid-length portraits, and has a wide maximum aperture of f/2, making it easy to blur backgrounds. It also has Image Stabilization to reduce camera-shake when hand-holding the camera and shooting using natural light.

② CANON EOS 7D MARK II BODY

The 7D Mark II camera body is amazing for working in tough lighting scenes. Taylor often works with natural lighting rather than artificial flash, and the camera's high-ISO performance is very good, while shooting in raw provides plenty of extra highlight and shadow detail. Taylor says she'd love to upgrade to a full-frame Canon body in the future, but the 7D Mark II has served her so well that she's not in a rush to go out and get one.

③ A 'NIFTY FIFTY' PRIME LENS

One of Taylor's go-to lenses is Canon's EF 50mm f/1.8 II, as being a prime lens it offers excellent image quality, and it also has a super-fast f/1.8 maximum aperture, so it can flood the image sensor with light and allow Talyor to capture beautifully defocused backgrounds. These are often called 'nifty fifty' lenses, because they're so affordable, with the latest Canon EF 50mm f/1.8 STM lens retailing for around £100/$125.

④ SANDSTRØM SWCAMBP16 BACKPACK

This is Taylor's trusty backpack, which she takes to all her location shoots. It safely holds all of her lenses and lighting kit thanks, which are protected by padded internal dividers, and has compartments and pockets for her memory cards, spare batteries, business cards and more. There's padding on the straps for extra comfort, and buckles as well as zips to make sure nothing gets lost.

PRO TIPS

NONE

WHITE

GOLD
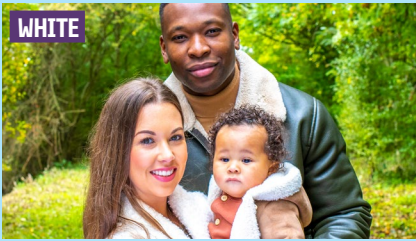
USE A REFLECTOR
A reflector offers huge bang for your buck, as it's inexpensive but make a big difference to your lighting. Whether you're using the available natural light or flash, you can position a reflector to fill in shadows and make the lighting look more even. We used a 5-in-1 reflector which has gold, silver, white and black sides, and serves as a diffuser when no cover is fitted. As you can see here the white side lifts shadows nicely, while the gold side gives them a warmer quality.

PRECISE AUTOFOCUS
Free of their face masks and safely spaced out when shooting outside, Taylor and Jonathan reverted back to using optical viewfinders and the more accurate phase detection AF. They used Single-point AF mode so they could choose the specific part of the frame they wanted to focus on, generally preferring the more accurate central AF point.

REVIEW YOUR SHOTS
To build a good rapport with your clients it's a good idea to show them some of your best photos on the LCD screen. It's also worth zooming in and checking images are pin-sharp and that your exposure is good, as it's easier to reshoot than fix problems later.

TAYLOR'S TOP PICS

NEWBORN & SIBLING I aim to capture the soft nature and beautiful moments shared between family in shoots. This 'big sister, little sister' photo is a personal favourite of mine.

MILK BATH I like the soft blend of tones created by the milk bath in this photo. The milk bath gives the photo a more interesting look than a standard studio baby shoot.

MATERNITY This photo is a different style to what I usually shoot in – the colours and tones are darker, but I believe it works effectively for the subject of this photo.

CALM BEFORE THE STORM
RAY ABRAHAMS

"The Pilgim of Brixham (BM45) making its way across Tor Bay in Devon,
dwarfed by the cruise ship Zaandam as storm clouds gather overhead."
https://bit.ly/36TqrQx

TOO WET TO GO OUT
DAVID FEUERHELM
"I shot this in Senate House Passage in Cambridge, UK, on my Nikon D750
with a 35mm f/1.8 lens. I processed the image in Silver Efex Pro."
https://bit.ly/3flC9Hi

HOT DOG
GILL STAFFORD

"An advertising figure outside a seaside food kiosk in Bridlington, Yorkshire, UK."

http://tiny.cc/9vsf1y

MISSIN' HIS FISHIN'

SHANNON O'SHEA

"This is a black-crowned night heron with a recently caught smallmouth bass at Wildwood Lake in Harrisburg, Pennsylvania. These birds kept us entertained all summer, and I miss them already – although I'm sure the fish don't!"
http://tiny.cc/5wwn7y
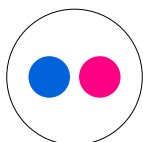
PHOTOGRAPHY WEEK WANTS YOUR PHOTOS!

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!

FACEBOOK
http://bit.ly/39py9lg

FLICKR
http://bit.ly/2VIgsJ0

IT'S COOL, THAT

THE BEST THING WE'VE SEEN THIS WEEK

James Simmons – Grand Winner and 1st place, Black & White

Midhat Mulabdic – 1st place, Solo Portrait

Virginia Strobel and Evan Cikaluk – 1st place, Epic Location

Antonio Crutchley – 1st place, Engagement/Non Wedding

Images © The photographer and courtesy International Wedding Photographer of the Year

THESE ARE THE WORLD'S BEST IMAGES OF THE BIG DAY

Winners of International Wedding Photographer or the Year 2020 are announced

The winners of International Wedding Photographer have been announced, showcasing a selection of captivating images ranging from the informal and spontaneous to elaborately staged set pieces. Australian photographer James Simmons took top prize for his striking mono image of a silhouetted groom and brightly lit bride against contrasting white and black backdrops (above, top-left).

Simmons says of his winning image: "The Ying Yang symbol instantly came to mind, and later as I refined the image in Photoshop the king and queen chess board design was also an influence that worked well visually."

Simmons also won the Black & White category, while prizes were also awarded in categories including Bridal Party, Dance Floor and Epic Location. Click the link to see all the winning and commended images at the competition website, and to read the stories of how they were created.

SEE MORE IMAGES
https://bit.ly/37noe03

LIQUID MOTION

James Paterson shows you how to reshape images to create a stunning digital abstract figure, using both in-camera techniques and Photoshop

2 HOURS

In this Crash Course we'll show you how to craft a colourful dancer image from a series of photos of paint, using a combination of shooting skills and Photoshop techniques.

First, we'll get set up to shoot vibrant photos of paint by capturing the colours as they travel through water. Once this is done, we'll head into Photoshop, where we'll warp the photos into the shape of our springing dancer. As such, this is effectively two techniques in one – so if you're mainly interested in capturing beautiful paint abstracts you can follow along with the first part, and if you'd rather work on the Photoshop skills, you can skip the shooting part and use the supplied images to craft your own painterly figures.

For the shoot, we need a clear container full of water; a fish tank is ideal, but any clear plastic or glass container will do. You can use natural light at a push, but you'll get better results with an off-camera flash – any budget flashgun will do. The flash helps to bring out the colours in the paints, and freezes the action as the paint travels through the tank of water, and we'll show you how to get set up with your off-camera flash, and how to expose for the shot.

We'll then move on to the Photoshop part of the technique. It might seem complicated, but it's actually much easier than it looks…

Get set up for paint abstracts with these bits of kit

1 FISH TANK

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

2 SPEEDLIGHT

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

3 REFLECTOR

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

4 BLACK BACKGROUND

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

5 WIRELESS TRIGGER

A wireless trigger will enable you to fire your off-camera flash remotely. If you don't have one, you could set your flashgun to optical remote mode and use your camera's pop-up flash to trigger it. Or, alternatively, you can use a flash that's wirelessly compatible with your camera.

6 CAMERA SETTINGS

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

1

CHOOSE YOUR PAINTS

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

2

THE DROP SPOT

Before you start dropping paints into the water you'll need to pre-focus on the spot where they'll land. Hold an object like a spoon in the centre of the water, focus on it and then switch your lens to manual focus in order to lock the focus. Now drop the paints in the same spot.
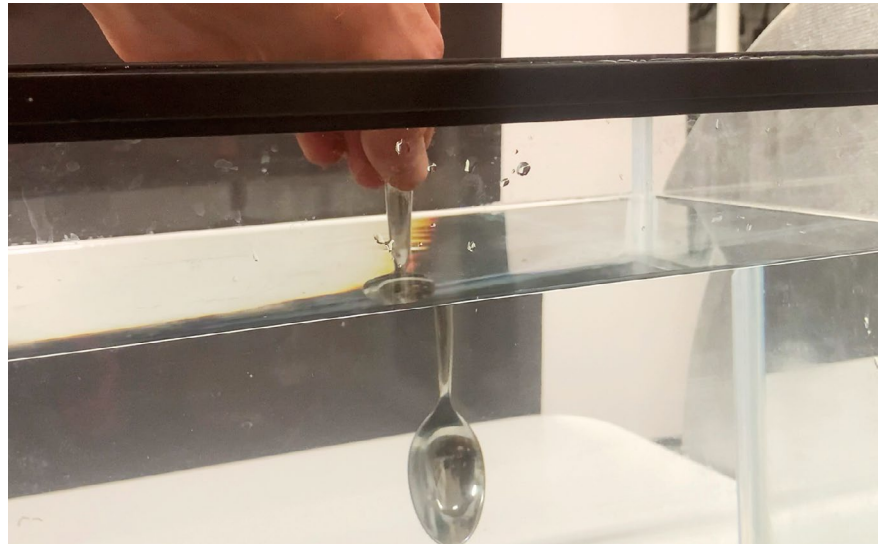
3

MIX YOUR COLOURS

Try pouring more than one colour into the water at once, as the best photos will be those where the paint streams intertwine with one another. Use contrasting colours and bold shades. If need be you can always change the colours in Photoshop using the Hue/Saturation command (Cmd/Ctrl+U).
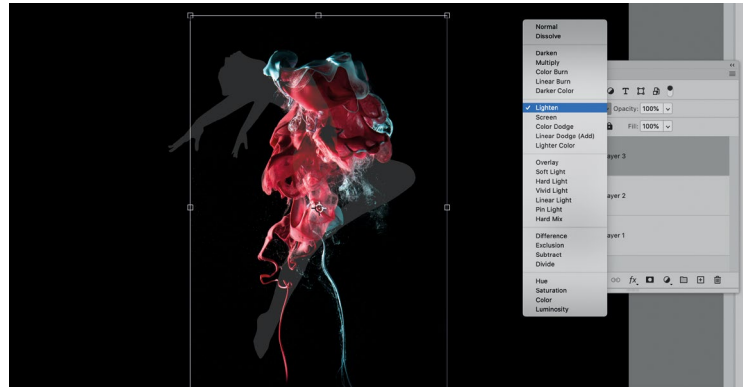
1 DROP IN A SHAPE

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

2 COPY IN THE PAINT

Copy in a paint photo and position it roughly over the figure. In the Layers panel, set the blending mode to Lighten. Next, go to Filter > Liquify. Check 'Show Backdrop' in the settings on the right, select your shape from the Use dropdown, set Mode to In Front, then adjust the opacity slider to suit.
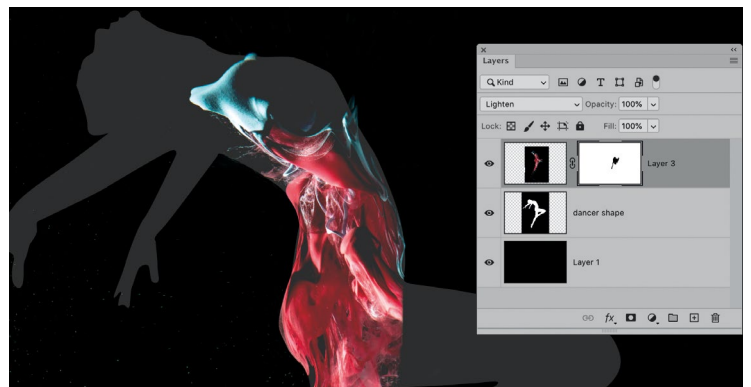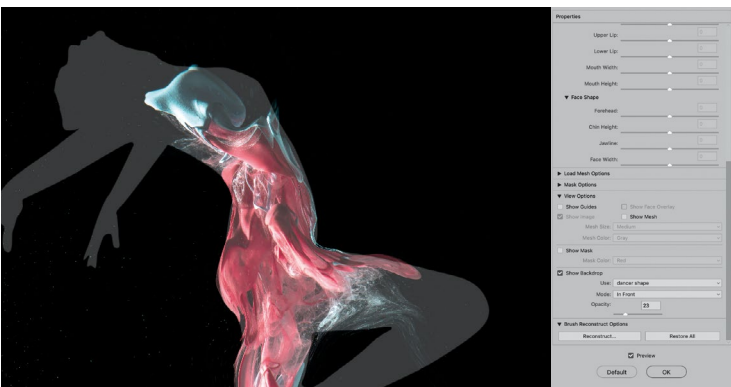
3 WARP THE PAINT

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

4 ADD A MASK

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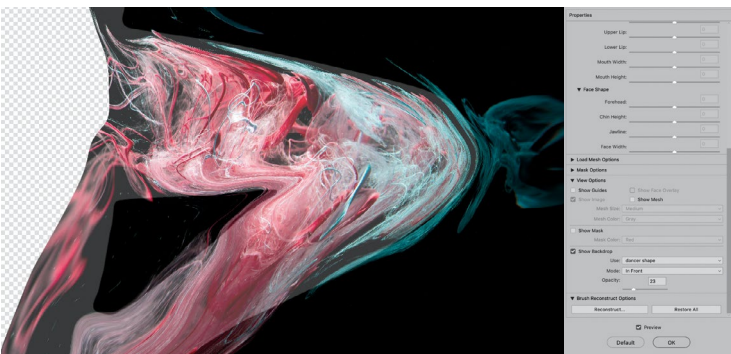
5 MORE PAINT IMAGES

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

6 BUILD IT UP

Continue to build up the effect. When you're done, hide the dancer shape layer and add a contrasting paint image as a backdrop, dropping it in and changing the blending mode to Lighten. Use Hue/Saturation to adjust the colours if you like, then add a mask to hide any areas that you need to.

HOW TO...

DO MORE WITH LEVELS

Use this powerful tool to apply a range of tonal and colour adjustments

The Levels command has long been one of the most useful tonal tools in Photoshop. Not only can you use it to lighten or darken an image, you can also correct colour casts, increase contrast, fix exposure, and introduce colour shifts. It's worth noting that if you shoot in raw, it's best to make as many tonal edits as you can in Camera Raw before opening the image into Photoshop; but if you need to alter tones once your image is open, Levels offers a fine degree of control.

There are two ways you can apply Levels to your photo: either directly to an image layer (Image > Adjustments > Levels, or press Cmd/Ctrl+L), or as an adjustment layer, via the 'New adjustment layer' icon in the Layers panel. Using adjustment layers gives you more control, as it means that all your edits will be non-destructive, and can be fine-tuned at any time.

Adjustment layers work by affecting all the layers below them in an image, and this means you can build up your effects over several layers – in this video tutorial we'll use separate Levels layers to correct colours, dodge and burn, and add contrast.

Change gear.

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SIGMA 100-400MM
F/5-6.3 DG DN OS | C

A reinvented optic for Sony E and Leica L-mount

www.sigma-imaging-uk.com £899/$949

T elephoto zooms with a range of around 80-400mm or 100-400mm tend to be quite large and heavy – Canon and Nikon's current offerings for their DSLR cameras weigh in at 1,640g and 1,570g respectively, and they're both pricey to boot.

In 2017 Sigma launched its 'light bazooka' 100-400mm, which is only about two thirds the weight of those lenses, and less than half the price. It was very well received, and Sigma has now brought out a similar lens for mirrorless cameras, available in Sony E and Leica L mount options. Tipping the scales at 1,140g (Sony) or 1,135g (L-mount), it keeps the weight off but boasts a redesigned optical path and a new autofocus system.

The stepping motor-based AF is fast and virtually silent, aided by an electronically coupled manual focus ring that operates with excellent precision. As well as an AF/MF switch, there's an autofocus range limiter which operates either side of 6m, and an AF-Lock button which can be customised for other functions.

The older lens for DSLRs featured four SLD (Special Low Dispersion) elements, and the new DN edition supplements these with a top-grade FLD ('Fluorite' Low Dispersion) element, the FLD element being one of the largest-diameter pieces of glass at the front end of the lens.

Performance
Autofocus speed is rapid and, in the Sony E-mount version of the lens that we tested, the AF is well able to track fast-moving subjects. The optical stabilisation is worth about four stops on its own, and works even better in conjunction with any in-body stabilisation in the host camera.

In both our lab tests and real-world shooting, the DN proved consistently sharper than the older lens across the frame, and throughout the entire zoom and aperture ranges. Colour fringing is even more negligible than in the older lens, though pincushion distortion can be marginally more noticeable in the 300-400mm sector.
Matthew Richards

CENTRE SHARPNESS
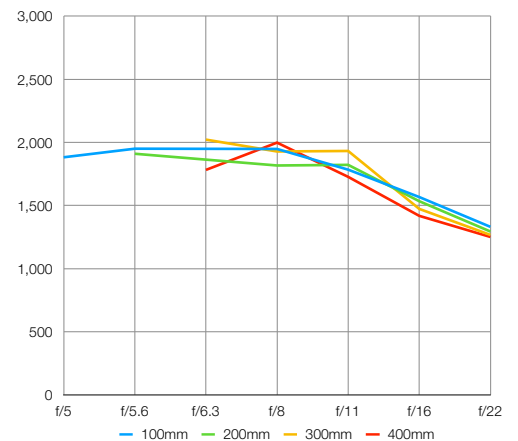
Sharpness is very impressive at all focal lengths; and, crucially for a relatively 'slow-aperture' zoom, sharpness is very good when you shoot wide open.

FRINGING   SHORT 0.14 LONG 0.36

Colour fringing is negligible, even at the extreme edges and corners. This holds true throughout the entire zoom range, and at all available apertures.

DISTORTION SHORT 1.04 LONG 2.31

Pincushion distortion can be slightly noticeable at longer zoom settings, but it's quite uniform, making it easy to correct at the editing stage.

VERDICT

Typical of Sigma's Contemporary line of lenses, the 100-400mm DG DN OS offers good performance in a compact and light package, at a competitive price. It comes up trumps for image quality, delivering excellent sharpness and contrast, while keeping fringing, distortions, ghosting and flare to a minimum. It's pricier than the original DSLR-mount DG OS HSM version of the lens, but the boost in image quality justifies the extra outlay.

★★★★½

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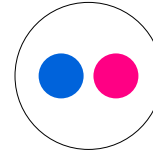
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