Newsletter for week ending the 7th April 2018

Setup for Simple Flower Portraits

With a simple, plain coloured, background a white reflector board and just window light it is possible to capture some very nice images of flowers and small objects.
If you choose an overcast day (not very difficult here in the north of England) rather than one when sun may be streaming through the window the light is very soft. This allows you capture the very subtle shades of colours that may be present in the subject.
I've shown the setup that I used to create the images in this newsletter.

If you can get a roll of cheap craft paper from a craft store, then this is ideal. Choose a colour complement to your subject for best effect. Otherwise look for wallpaper in the DIY stores and get a few contrasting samples to your subjects.
The light is coming from the left-hand side so to bounce light back into the shadow side I use the reverse side of a sheet of art board but any large white card would suffice.

You could make on from a large sheet of cardboard and cover it with white sheets of paper. The fact that it is white is all that is needed for this reflector.
For stronger reflected light, you could use the board covered in aluminium kitchen foil. It is important though, if you use this material, to first "crumple" it up and then flatten it out.
This produces a much brighter, but softer, reflected light than using the flat foil which gives harsher light.
It is best to shoot using a tripod as this allows you time to create the right composition and set the focus point exactly where you want it to be.

Here are a few images captured with this setup.
They are fabric flowers that I picked up in the local craft shop when I was looking for the roll of background paper.

These are real daffodils from the garden, not the fabric flowers!

The choice of viewpoint, whether it is a shot to include the whole of the display or just a section of it, depends upon how you want the final shot to look.
For example, in the daffodil shot I just wanted the front flower head to be in focus. This meant shooting at a longer focal length and a wider aperture. For all these shots, I was using the Panasonic Lumix G9 with the 12-60mm lens with exposures of 1/25 sec, F8 @ ISO 200
If you have anything of an artistic flair you could then add a different background, add a watercolour painterly look and finish off in a frame as shown below.

Here's one from reader KathyWard of Canada who uses Smart Photo Editor to create her flower images. You can download a free trial of this programme and a 10% reduction on offer from the £19.95 price.

The Benefits of the Arca Style "L" Bracket

When it comes to shooting on a tripod nothing is more infuriating than trying to go quickly from a landscape orientation to a portrait one. If you have a ball-head, then sometimes there is a notch in the housing to allow the camera to pivot to a vertical orientation.
If you are using a traditional 3-way head, then you can swing the camera into the vertical position with a few moves.
If you have the "Arca" style quick release plate then there is a neat "L" bracket that quickly allows you to go from landscape to portrait, or the other way around, very quickly and precisely.

Depending upon camera model you may still get access to the ports on the side of the camera.
Ideally suited to DSLR's with fixed LCD Screens or CSC cameras with flip up/down LCD screens
However, cameras with fully articulated screens will not be able to pivot the screen out to the side as the bracket will prevent the hinge fully opening.

Electronic Versus Mechanical Shutter on Cameras with that Option

The debate about the use of electronic versus mechanical shutter can be summarised as follows:

Here's what the electronic shutter (ESHTR) can do for you:

- Completely silent shutter release – for use in situations where this would be a nuisance
- No shutter shock, hence less camera shake
- Fast shutter speeds (up to 1/16000s) allow wide-open use of f/1.8 lenses (on interchangeable lens cameras) in bright daylight without attaching an ND filter to reduce the light
-

And here are some drawbacks of the electronic shutter:

- The ESHTR is not suitable for moving subjects (rolling shutter effect). Accordingly, AF-C tracking isn't available in burst mode when ESHTR is engaged.
- The electronic shutter cannot be used with a flash. Not the built-in flash, nor an external flash. Not even with the external flash in non-TTL auto mode, or in manual mode.
- You cannot use the mode with exposures longer than 1s
- Camera shake can also be a big problem. Even if you use a very fast shutter speed, the sequential readout from the sensor will be rather slow (around 1/10 second from bottom to top).
- Any camera shake during this time means that the image gets a "wobbly" look. Panning results in very distorted images.

SHUTTER TYPE menu settings offers three different shutter settings:

MSHTR is the standard mode that exclusively uses the mechanical shutter. Hence, maximum shutter speed is limited to 1/4000s. Flash and AF tracking work as usual.

ESHTR exclusively uses the electronic shutter. Shutter speed is limited to 1s -1/16000. No flash photography, and no AF-C tracking in burst mode.

AUTO combines both shutter types: The camera defaults to the mechanical shutter, but it will automatically use the electronic shutter for shutter speeds beyond 1/4000s. The speed limit is 1/16000s.

Once again, no AF-C tracking in burst mode.
If you fire a flash, the camera will always use the mechanical shutter with the usual maximum sync. speed of 1/250s and maximum shutter speed of 1/4000s.

So, for static subjects and where the camera can be held very firmly, or locked down on a tripod, the ESHTR is an advantage - especially if the silent operation is required.

The MSHTR is still the best option, in my opinion, for general purpose photography.

There doesn't appear to be any image differences between the two shutter operations when comparing images hot in both modes.

With 4K photo and video modes use the ESHTR mode exclusively.

Which Mode Should I Use?

The beauty of all digital cameras is the provisioning of a mode dial with several exposure mode choices. For new camera users, this can become a real challenge as to which, if any of the semi-automatic modes they should choose.
Let me summarise the main reasons for selecting one of the PAS or M modes.

P Mode:

Is the same as iA/iA+ mode however it does not include any scene recognition to enhance the images such as you would find using landscape parameters. In this mode aperture, shutter and ISO are all under the control of the camera. If you want to change the selected aperture/shutter speed combination you can use the program shift facility.
The advantage is that you now have access to some of the more useful image producing menus such as the Photo Styles.

A Mode:

Probably the widest used of all modes as it allows you to set the aperture to a value where you are in control of the amount of light entering the camera and the depth of field.
Setting a small aperture, like F8, allows the lens to produce the greatest amount of depth of field (i.e the front to back sharpness) in the image.
Stopping the lens down also reduces the light falling on the sensor so automatically the shutter speed is reduced to produce the correct exposure.
In conjunction with ND (neutral density) filters this is the way we achieve silky looking waterfalls and seascapes.

S Mode:

This is primarily used where there is any action involved in the subject. This could be sports or wildlife.
By selecting a fast shutter speed, we can stop any motion blur in the image. The camera in this mode automatically adjusts the aperture to compensate.
As a rule of thumb selecting a shutter speed equal to 1/focal length of the lens will ensure good results.
So, with the FZ300/330 you can see the effective focal length as you zoom in or out or with the FZ200 if you multiple the on screen zoom factor by 25 you will get the equivalent focal length.

As an example, x3 would be 75mm x8 would be 200mm. Set the shutter speed to 1/200 in this example. The OIS (optical Image Stabilisation) provides image stabilization for camera movement, not subject motion so it is worth bearing this in mind!

M Mode:

Manual mode allows full control of all the key elements in the exposure triangle. Aperture, Shutter Speed and ISO.

We can have a small aperture for depth of field, a fast shutter speed to arrest subject motion and then adjust the ISO for the correct exposure.

Unlike the P, A or S mode the adjustment of the aperture/shutter speed/aperture are all independent you must look at the exposure meter to ensure you have set up a combination which gives the right exposure.

A New Camera Body Added to my Kit – The Panasonic G9

Panasonic's Lumix G9 is a high-end compact system camera aimed at enthusiasts, delivering the best photo quality and fastest shooting from a Lumix G body to date. It was announced in November 2017 and becomes a joint flagship model with the Lumix GH5. Whilst both are very capable at photo and video, Panasonic describes the newer G9 as its ultimate stills camera.

The Lumix G9 inherits the same 20 Megapixel Micro Four Thirds sensor of the GH5 but with the low pass filter removed for sharper results.

It is reported that Panasonic engineers have fine-tuned the output with improved JPEG processing for more natural skin tones, greater detail and better noise reduction.

It also has an improved, built-in 5-axis stabilisation going now from 5.5 to 6.5 stops effectiveness.

This has also allowed Panasonic to implement a tripod-based composite High Resolution mode that captures and combines eight images to boost detail and eliminate false colour artefacts, generating 40 or 80 Megapixel files! This is like the system first employed by Olympus in their OMD M1 & M5.

The newly-designed weatherproof body (with a red ring between the mode and drive dials to indicate the flagship status) features a fully articulated touchscreen, AF joystick, twin SD card slots (both exploiting UHS-II speed), a USB-3 port exploited by supplied tethering software (the port can also be used for charging as well as providing power), a full-size HDMI port, along with microphone, headphone and PC Sync ports.
In a first for a Lumix G body there's a backlit LCD status screen on the top surface and a front-mounted custom function lever (for switching between banks of settings), and the G9 also boasts the largest viewfinder to date with 3680k dots and 0.83x magnification; the view is so large you can switch to lower 0.77x or 0.7x magnifications if preferred.

The Lumix G9 is also about speed, boasting 20fps with continuous autofocus and a 50-frame RAW buffer using the electronic shutter or 60fps with single AF; switch to the mechanical shutter and you'll get 9fps with continuous AF and a 60-frame RAW buffer or 12fps with single AF.
Alternatively, you can extract 18 or 8 Megapixel JPEG stills from the 6k or 4k photo modes at 30fps or 60fps respectively.
Focus remains contrast-based only, but Panasonic's Advanced DFD system works down to -4EV and now calculates at 480fps.
It offers four custom pre-sets and, with a 0.04 second response, claims to be faster than the GH5 not to mention several rivals with Phase Detect AF.
While the G9 is Panasonic's ultimate stills camera, it is still a very capable video camera, sporting 4k at up to 60p, 1080 at 180fps, relay-recording by auto swapping SD cards.

In summary, it is a very complex camera and a true contender against the middle group of DSLR's like the Canon 80D and the Nikon D750. It has the major benefit over this group as it has the option to shoot 4K video.
This is where Canon and Nikon are so far behind in the consumer market with their cameras.

Canon have introduced the M50 mirrorless camera with APS-C sensor which does shoot 4K UHD but is cropped from the whole sensor area making the 28mm lens more like 39mm.
It does of course mean the telephoto modes will benefit from this crop if you are a wildlife videographer!

I have found that it has taken a good few weeks for me to feel comfortable with this camera, something that I have not experienced before with a Panasonic camera.
Whilst the menus are broadly similar they are different enough to make the navigation to set options a little slower. There are so may customisable options available that I have not even began to look at these.
The only thing that is a real annoyance still is the featherweight shutter release.
Whilst trying to find the “half-way” focus and metering position I quite often end up taking the picture.

I have also lots of pictures of my feet as I walk from one shot location to another.
It's quite easy to fire a complete burst of images without realising that you have pushed the shutter button down. The Olympus OMD M1 mk2 has a very similar shutter release feel.
Image quality wise I have no complains. Exposure seems very accurate and when shooting in A mode just the occasional shot needed exposure compensation – depending upon background to foreground brightness ratios.
Whilst the new EVF is very large it is a good thing that Panasonic provided three different viewing magnifications as I found that at the default setting of 0.83X I was having to scan each corner of the viewfinder to see the whole image. Dropping the magnification to 0.77X helped enormously.
I have shot quite a few test images with a variety of lenses and the overall result is quite positive.
I still must make comparisons against my OMD-M1 mk2 and as soon as my health and the weather improves I will be out there with both to do a head to head comparison in both stills and video modes.
Is it better than my Canon 80D or 5D Mk3 and my L glass collection? Well the answer must be no but for most shoots it would be hard to tell the difference at normal light levels.
As the ISO needs to be raised in lower light conditions then the larger APS-C and full frame sensors have the advantage. Of course, the Canon's only shoot 1080p which is now becoming outdated for video shooting – even if you only make 1080p videos the option to perform cut ins or zooms from the 4K footage is a real advantage.

Image Sharpness - What Defines It?

The term "sharpness" can be broken down into two component parts, resolution and acutance.
Resolution is the amount of detail that can be captured in an image.
We, as digital photographers, are programmed to think about resolution in terms of the number of pixels on the camera sensor and the lines per millimetre resolving power of our lenses.
Acutance is described as the change in brightness across the edge of an object within an image.
The higher the contrast across the edge the sharper it will appear.
It is acutance which is enhanced in software editing with filters like USM (unsharp mask).
It is extremely important to understand that sharpening filters cannot add any extra resolution to our digital images.
Sharpening only adds perceived resolution but is a necessary step in every digital image workflow either JPEG or RAW. It's very important not to overdo it otherwise you will see "halos" around the edges of objects.
Smaller images require more sharpening than larger ones - due to the image viewing distances that we normally associate with them.

Resolution determines how many pebbles we might see on the beach shore, whilst acutance will determine how sharp they appear to be.
With in-camera JPEG processing the processing workflow uses the values that are set in the Photostyle options.
Here we can change the processing choices of Saturation, Contrast, Sharpening and Noise Reduction.

With cameras like the FZ200 the range of control is +/- 2 units.
With the later cameras like the FZ300/330 this was expanded to +/- 5 units to allow some finer control.
Whilst these changes don't affect the image quality very much at the low ISO settings they can be seen more at the higher ISO's.
Even so the noise reduction works by applying a very slight "blur" to the image to mask the visible noise.
To reduce this effect, you can set the noise reduction slider to -5 (-2 on the FZ200).
Similarly, the default sharpening might be introducing sharpening artefact which manifest as darker pixels which do not represent any detail in the image. It is also worth reducing this value as well.
As with any digital image you then need to apply your own level of sharpening and noise reduction depending upon the image type.
It is best that you make this choice as the camera is very dumb in this respect – it just applies the same amount of correction irrespective of the subject type.
If you have the i.Resolution option also turned on it may over sharpen high contrast edges in the image, again it is better to choose your own level of clarity in the image by eye to achieve the best results.

Wigan old law courts – Panasonic G9 with 12-32mm compact lens

Performing a Factory Reset with Panasonic Cameras.

Sometimes, for no apparent reason the camera begins to operate strangely, and at other times when we have been experimenting with settings and got a little lost with getting back to an understandable setup we need to resort to perform a Factory Reset.
This facility is in the Tools menu (the spanner/wrench icon) under the menu heading of RESET.
This operation allows you set the camera back to the out of box set up.
Depending upon model you may be asked to RESET up to three settings. It is best, in my experience, to reset all the options even though you will lose any faces that you may have set up in face recognition.
After you have done the reset operation you then proceed to setup the camera as you like it, setting customised button operations, Photostyle default parameters, metering modes etc.
Things like the shutter count, power on cycles and errors are not cleared when you do this reset and your image data will stay the same when you begin to shoot again with the camera so there will be continuity of the image numbers etc.

A Warning for Users of the JJC TR2 Ring for Mounting the LA7 Tube and LTE55 Lens

I was alerted to the potential disaster of the failure of the weak mounting foot of this ring by John Casperson
In his image, you can see how the foot had broken at the mounting point of the threaded insert.
In view of this failure it might be worth having a look at yours if you have purchased this model and maybe epoxy resin a thin piece of metal with a 5/16 (7mm) hole where the threaded insert is. This will add extra strengthening to the foot.

180 Degree Panoramas

Taken with the iPhone 8Plus a full 180-degree panorama showing the wall, where I took the image, on both the left and the right-hand sides of the image!
Because of the sweep of the camera during this traverse you do get image distortion with the image taking on the familiar “bow” shape as it passes through the central point of the image. Zoom into the image though and the results are amazingly true to the original view!

New Tutorial Series for Panasonic Bridge Camera Users is Underway

I finally got clear of my chest infection and began work on the new tutorial for Panasonic Bridge cameras concentrating more of a hands-on approach rather than theoretical.
In the first of the new series I begin by showing how to reset the camera back to factory defaults and then set up some basic adjustments that I use to get good out of camera JPEG images.
As the weather was bad on my planned filming day I had to switch the topic to one where I could shoot indoors – I chose to illustrate how just window light can be used for flower or product photography.

Unfortunately, I recorded the episode with my repaired FZ2000 camera unbeknown that it still had a problem with it!
It had been at the Panasonic approved repair agents for nearly a month after an accident with a USB to 8.4v power supply caused the failure of the lens electronics, main and the flash circuit boards in the camera.
The lens and all the pcb's in the camera were replaced! So effectively I have a new camera again!

Somewhere in the repair checkout they must have missed testing the external mic input – they probably just did not connect the small ribbon cable to the main PCB when re-fitting it.
Thus, I did not know that the audio was being recorded with the camera internal mics even though I had plugged in my radio mic.
The audio sound level test looked OK but I wasn't aware that that was only from the internal mic.
Hopefully it doesn't distract from the video too much.

I have included an extra section on post processing the image using the Smartphotoeditor software to show how versatile this program is for this type of editing.

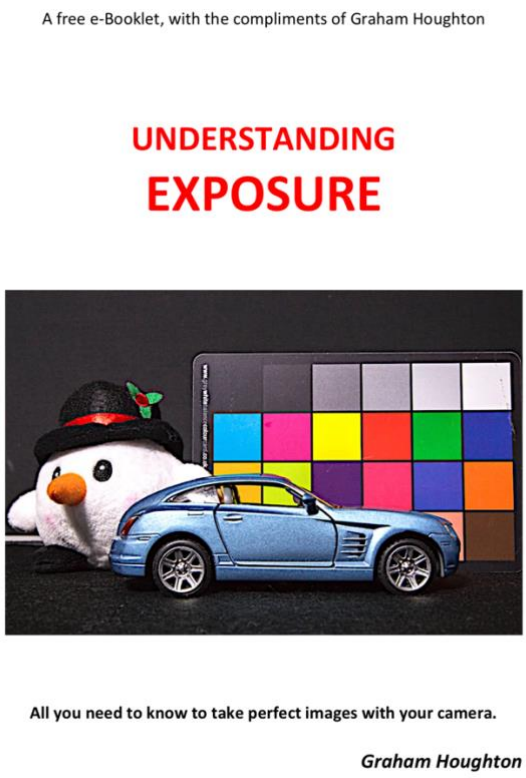
You can get up to 10% off from the £19.99 list price or you can download a full functional trial of the program from this website.

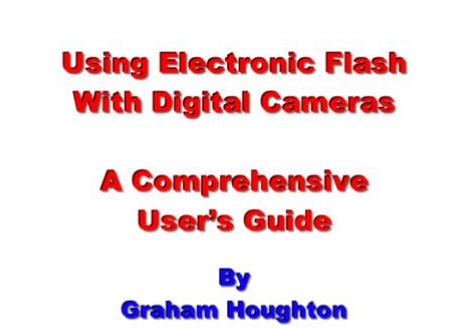
You can view this new video on YouTube here.

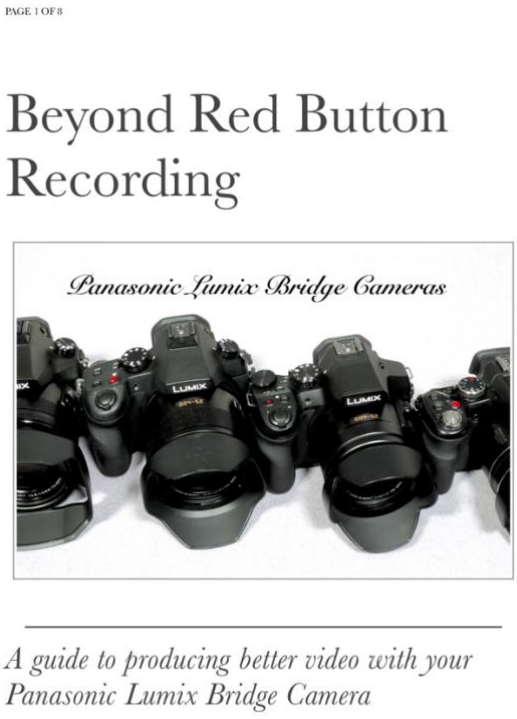
My Free E-book on Exposure

New subscribers to the newsletter may not be aware of three free publications that are available:

They are:







These are available on the [Downloads page of my Photo Blog]