

### Camera Club – good or bad?

Once again I have received a couple of emails from subscribers commenting upon their experiences when trying to join local camera clubs.

In one instance, they were not allowed to join as they only had a “bridge camera” and on another occasion the subscriber went along to a close-up class and the instructor just didn’t understand the physics of small sensor bridge cameras being able to get such large depths of field even at wide open apertures.

I get annoyed when I hear stories like this as the essence of a camera club, in my opinion, should be about sharing knowledge and experience and not about equipment.

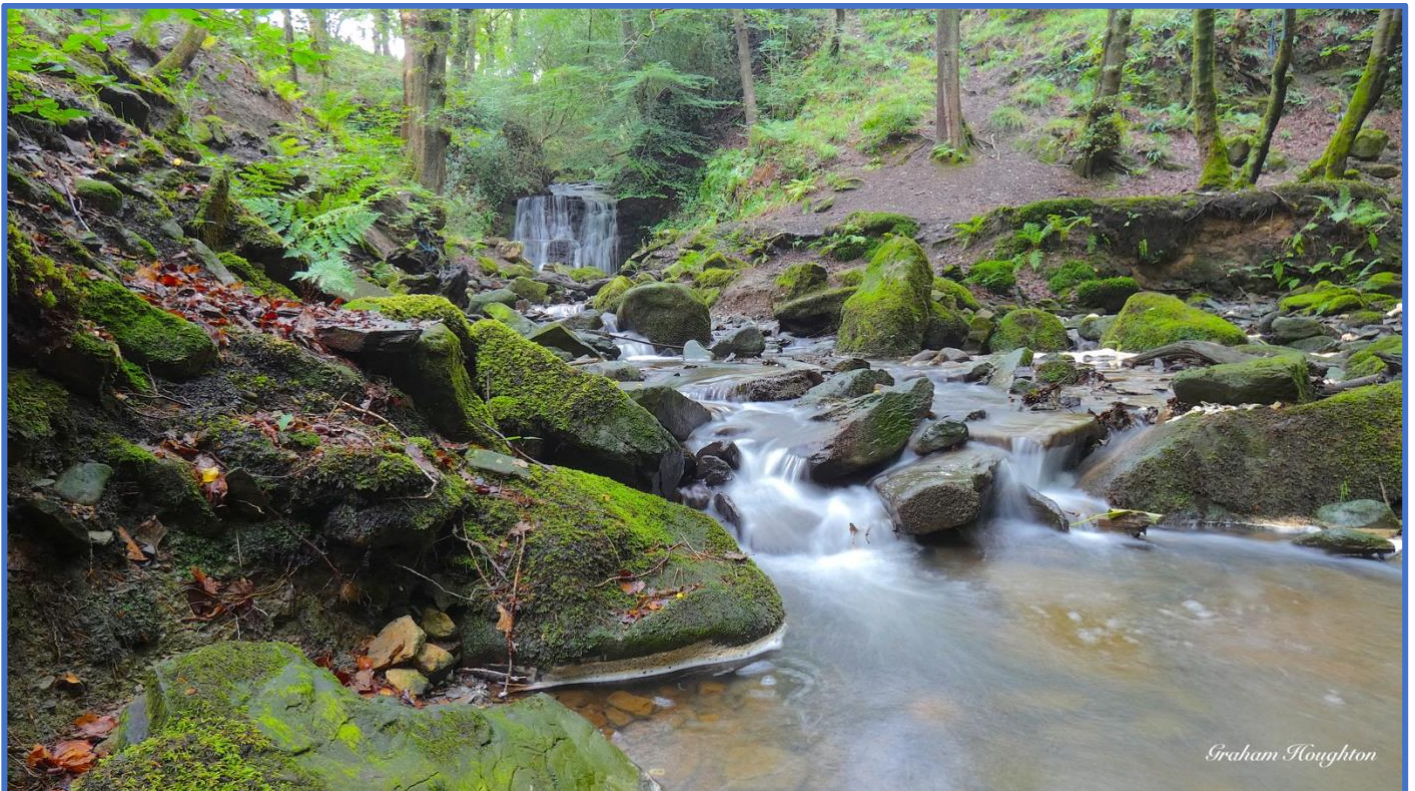
To be excluded just because you only have a bridge camera is an absolute travesty and show again the snobbery that is sometime found with some of these clubs. My own experience is very similar.

I was once an active member at a large club and enjoyed entering competitions (and winning sometimes!) However, the club quickly became a travel club exclusive meeting. If you didn’t have images from Angkor Wat, Thailand or other exotic locations it just wasn’t worth showing your images anymore. Let’s face it even the best of Lancashire doesn’t compete with these iconic places.

It became very hard to keep up with many of the other members who seemed to upgrade kit monthly. I left the club after 2-3 years and I tried a “taster” evening just a few years ago but I still got the feeling it was not an environment that I would feel comfortable in.

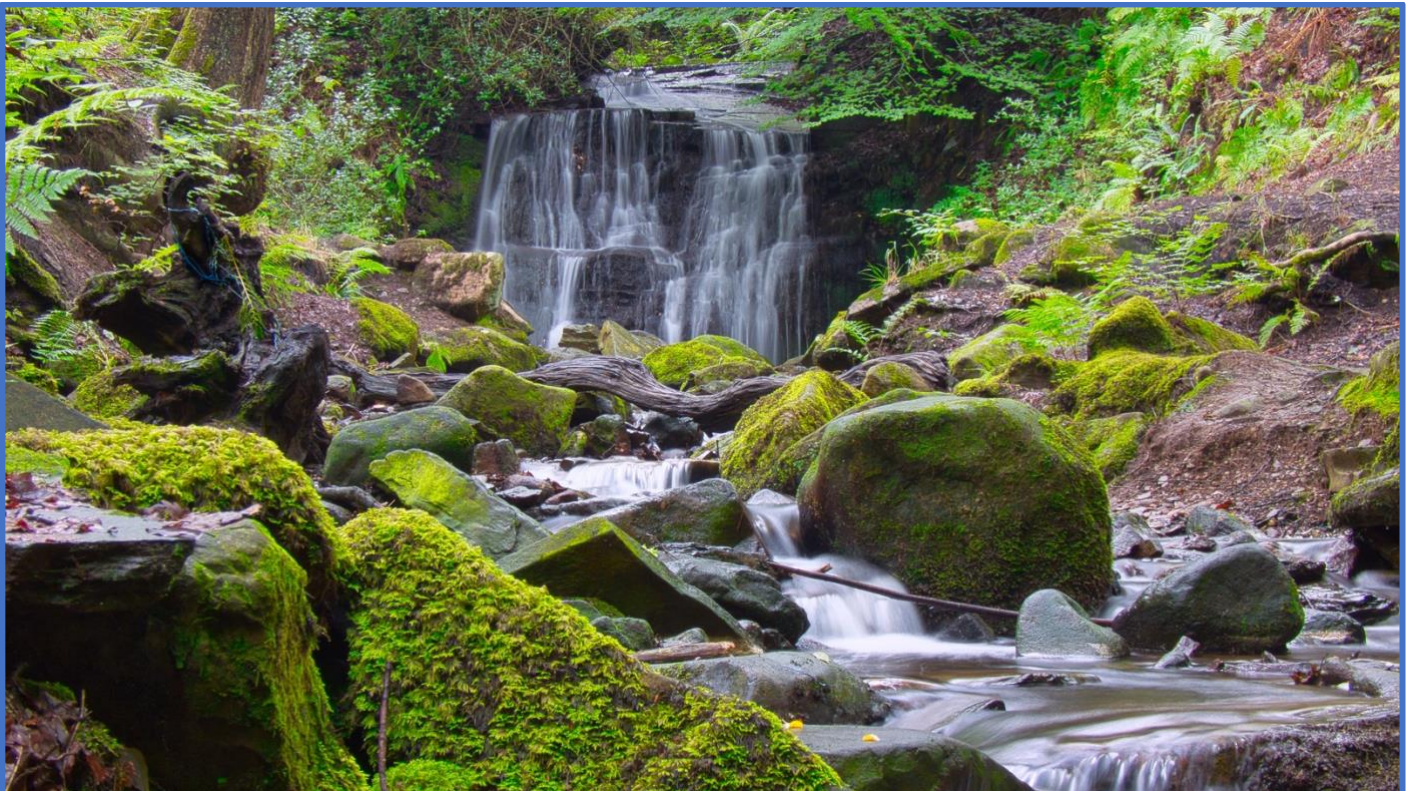
I would be interested to hear your experiences, good or bad, about your local clubs.

### The rivers run again!



After weeks without any meaningful rainfall we have just had several days with some heavy downpours and this had led to the watercourses beginning to flow once again.

One of my favourite local haunts is the upper region of the river Yarrow on the moorland close to my home location. The watercourse is normally quite full after the water sodden peat has taken in all that it can hold and it normally runs with a rich brown colour. Now, it is mainly water that has not been absorbed and is just rapid run off from the dry earth and is quite clear and better for photography.



All the images captured with the Panasonic FZ80/82 during my review of the camera performance.

### **Manual Focus not working on FZ300/330**

I had a question posed on my YouTube channel concerning the fact that the subscriber had lost the facility to use manual focus in all modes except the "C" custom mode setting on the mode dial. Now it took me a while to figure out what was happening here as initially I could find no logical explanation until I tried the last think that I could think of before suggesting a full camera reset and that was the fact

that when you set the POST FOCUS method on the camera it disables the manual focus operations in all modes. That indeed turned out to be the cause of the problem.

### The Panasonic Lumix FZ80/82 tutorials



I'm pleased that the feedback on this series has been so positive and generally well received. The series has now reached part 5a in which I start to look at shooting video with this camera and examine the set-up of the camera looking at the quality modes, choice of recording codec and memory card. I also look at the need to provide mechanical stabilisation to the camera to prevent micro jitters or "jello" effects from the rolling shutter.

An e-book to accompany the series is also available for free from my [downloads section of the photoblog](#).

### FZ300/330 versus FZ80/82 Video test

I've been asked several times for a head to head video of these two cameras so here is the [test video](#) on YouTube.



**Impressive iPhone Photos (again!)**



They say that the best camera is the one that you have with you at the time!  
How true this was in the case of a visit with my granddaughter last Saturday to a large shopping mall in Wigan, Lancashire.  
Elise was thrilled to meet her favourites from “frozen” Anna and Elsa who were both there with spider man the super hero as part of a children’s event taking place there.  
The two girls were willing to have their photo taken with Elise.  
I had only my iPhone X with me.  
Overall the image quality is quite impressive given the lighting in the mall is a mixture of daylight and mercury vapour lamps. 1/20sec, F1.8 @ISO 40.

## A new photo challenge for me



I have set myself a new challenge in the form of trying to get a good capture of this black model Mercedes GT3 car.

The kind of image you would see in an advertising brochure. This will be quite a challenge to get the reflections right to show the contours yet not appear as too bright a highlight. Already the challenge is the small dust particles which cling to the model and don't show up until you see them at the image size. I've got an air duster now to try and remove as much as possible just before the image is taken. I'll post a future image when I have the technique mastered.

## A fun purchase



I spotted these two figurines in the clearance section of a large department store. I just had to buy them as they just looked so "cute". I foresee a trip to the seaside to capture them in a natural setting!

## Travel zoom cameras and the dust problem



One of the major issues with the travel zoom cameras is the ingress of dust and pollen etc., either inside the lens or on the sensor.

This is one of the reasons that I stopped purchasing the Panasonic travel zooms as they are renown for this problem and Panasonic just don't seem to want to address this issue.

The problem is that this dust accumulates around the lens shutter and as the lens extends the vacuum effect from the extending lens frames draws in air and dust.

Over time this leads to a build up inside the lens frames and then eventually it gets drawn inside the lens.

The early Panasonic travel zoom lenses were easily disassembled for cleaning if you had the basic tools and a little expertise. However, the latest lenses are just too complex to split and clean.

As the cost of the cameras is often more than the cost of an entry level DSLR the point arrived where I was not willing to have these cameras in my kit anymore

The Canon SX series do appear to have some better sealing but I haven't had mine long enough to make any scientific judgement yet.

My solution to reducing the amount of dust collected whilst the camera is in my pocket or bag is to fit a lens cap over the lens bezel. I had to find a cap with a large enough diameter and then add some felt inside to help it grip the bezel.



I'm hoping this reduces the problem with dust build up within the lens. I'll update you on any problems with this series of Canon Camera.

## Canon, Apple and Panasonic colour science compared



Canon's colour rendering is generally considered the most accurate in the digital photography world, especially when it comes to skin tones. In a non-scientific test, I just wanted to see how the SX720, TZ70 and iPhone X rendered a standard test target. I white balanced each of the cameras using the Mennon pro grade exposure card and then shot the three images. In the iPhone, I used Lightroom CC to get the DNG file.

The SX720 appears to have captured the most "neutral" background and the colours look "cleaner" and more vibrant. The iPhone image looked a little underexposed and had quite a lot of digital noise.

For most users, the individual colour science that is hard wired into each camera will be largely irrelevant. Canon have years of experience in this field where Panasonic and Sony were largely electronic pioneers and have come to the digital arena using their own TV and video engineer's knowledge. Bottom line is that it probably doesn't matter!

## A very nice USB LED light



I found these LED lights in a local store. They have a flexible gooseneck cable and it is possible to conform the shape to quite a tight radius. The colour temperature is very close to daylight. I intend to build these into a macro photography light to aid exposure in low light shoots. I will build a power bank rig to do this and may bring the finished design in a later newsletter.



With every new camera and lens that I purchase I usually use a Moon shot to determine image quality. This image is a 2x i.Zoom image (2400mm EFL) shot from the Panasonic FZ80/82. I don't think this is too bad at all even considering the 2x zoom! I used spot metering to set the exposure by aiming the target into one of the craters. Use the lowest ISO (to reduce noise). In this case I set the FZ80/82 to its lowest value of 80. I used the P mode to capture the exposure and used the maximum telephoto setting which resulted in an aperture of F5.9 and the shutter speed was 1/250 sec. To stabilise the camera, I held the camera against the side of a window frame to eliminate as much handshake as possible. I shot about a dozen images and 4 of these were acceptably sharp, the rest showed some handshake. I didn't want to raise the ISO as this would add too much noise to the image. A tripod would have been a better solution and use the 2 second timer. This was taken at about 1.30 in the morning during a trip to the loo!



## White balance – white or grey card?

If you use Panasonic cameras the process of setting a manual white balance is pretty much fool proof as the camera will not set the operating point if the scene is too bright (reduce the exposure if it is) Other camera manufacturers like Canon allow you to proceed with a white balance that may result in an incorrect setting (but it does warn you!).

The debate is whether to use a white or neutral grey target for setting white balance. Panasonic say use a white sheet of paper/card to set this operating point. I think that you must understand why this may lead to you getting images that may not be truly representative of the colours in the subject.

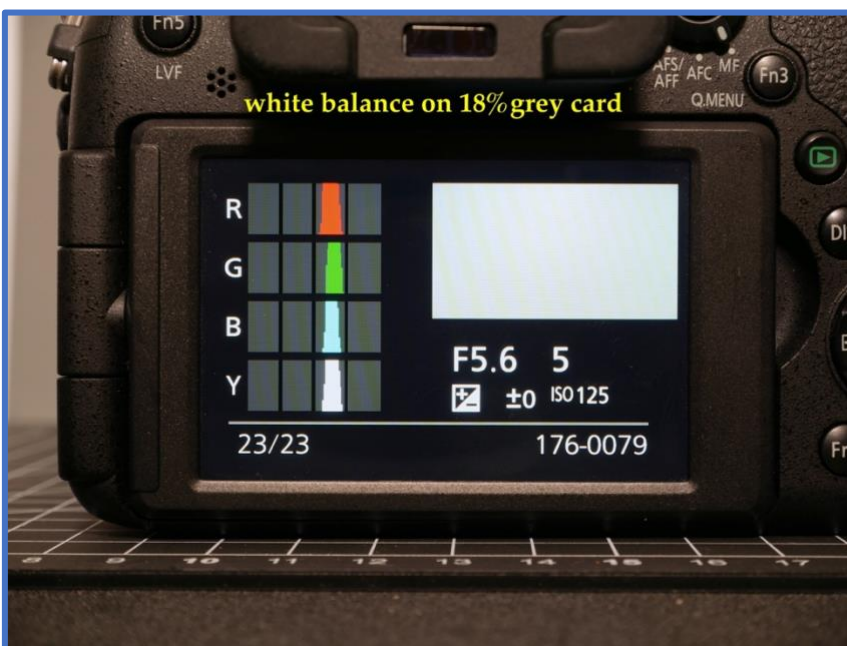
White card may have some artificial blue whiteners added to make the paper appear bright white and this can skew the resulting image used for calibration.

If you use a white card it is essential that the exposure keeps all the R,G,B pixels in the 0-255 range and does not let any colour exceed these values (hence the Panasonic check).



Look at this histogram of an image that was captured after setting white balance set using a white sheet of paper. As you can see the exposure is almost clipping the green pixels at the RHS of the graph. However, the Panasonic process still managed to set the operating point correctly

It is better to have the camera set the white operating point with an exposure that is more positioned well away from the extreme edges of the graph.



Here the white balance was set using the Mennon 18% grey card and then an image taken of the grey card.

You can see that the R,G,B peaks are in line with each other.

The peaks are slightly to the right of the central graticule meaning that this exposure was slightly overexposed.



Here's a histogram of a grey card image taken without performing a white balance procedure.

You can see the R,G,B peaks are not aligned.

The blue channel is skewed to the left and you can probably see the image looks slightly yellow.

There are what are referred to as white balance reference cards which are about 10% reflectance.

In practice, it does not matter what the reflective % is used if it is perfectly neutral and that's why it is preferable to purchase a white balance or grey card which is certified neutral.

I hear people screaming but white balance is only important for JPEGS and that if you shoot RAW then it doesn't matter. Well actually, it does!

If you shoot JPEG + RAW and set the white balance incorrect the RAW file will also show the incorrect image and you will still need to adjust the white point in your editing.

Try it and see if you don't believe it. Setting the white balance as close as possible means far less work in your editing of the image.

If you are unsure of how to set a manual white balance, then in my next FZ80/82 tutorial on YouTube I will be demonstrating how to do this. The procedure is the same for all Panasonic cameras.

### The Panasonic Lumix 100-300mm Lens ring



In the previous newsletter, I showed you how I modified a Sigma lens ring to fit the 100-300mm lens.

After a little bit of thought I decided to cut a hole in the ring just where the OIS switch placement is.

I just drilled out the hole and then used a square file to cut the slot to allow the switch to be operated.

I did not cut a second hole where the lens would be used in portrait mode as I can just flip my tripod head to achieve this.

I just use my pen tip to switch it over if I need too.

## The Godox Xpro flash trigger for Panasonic/Olympus



If you have followed my blog and newsletters you will know that I have started to use Godox TT3500 and 6500 flash guns in addition to my AD200 and 600 studio flashes.

The original flash trigger was a bit of a pain to set up for more than one channel but it did work reliably. With a multi-flash set up it is far easier to use the latest Xpro trigger which allows up to 5 channels to be quickly set.

I'll be doing a full review/operating instruction shortly for this unit.

## Canon M50 ordered

There has been a lot of bad press surrounding this latest mirrorless camera for consumers which now supports, for the very first time, 4K UHD video.

I have a lot of Canon lenses for both the previous M5 and my 80D/5D cameras and with the EOS EF/EOS M adaptor can use them all so the addition of 4K to the Canon line is very appealing.

The arguments against the camera are not deal breakers for me. The fact that dual pixel AF doesn't work in the 4K video mode is of no concern as I do manual focus during video shooting as I want to be in control of that. It is said that the crop factor when using the camera goes from 1.6 to 2.5 thus narrowing the field of view and thus the wide-angle advantage is lost.

Additionally, the use of electronic image stabilisation also increases this crop even further. Again, I rarely shoot hand held video as all cameras that don't have a global shutter show micro jitter or "jello" if the camera moves during the vertical scan of the sensor.

So, I won't be bothered about loss of field of view as I won't be using the electronic IS anyway.

The additional crop will benefit the longer telephoto shots which will be of use to me to get the extra reach for wildlife images.

I hope I'm right as I think this camera will be a very useful camera for video production as I'm exclusively shooting in 4K now even if I render to 1080p for upload. The benefits are enormous.

I hope to bring good news in the next newsletter.

## The travel zoom alternative?

If I look through the library of images taken with my travel zooms using the feature in most image cataloguing systems (like Adobe Lightroom or Bridge) I can quickly see that most images are captured with focal lengths less than 100mm EFL. So, the question I ask myself is do I need 40X zoom on a 1- 2/3-inch sensor with a f3.5 lens at best?

What's the alternative. A 1 inch sensor TZ100 (no I don't like the lens vacuum system!) a LX100 with a four thirds sensor (no I had one and returned it - bad evf and another vacuum cleaner).

A Sony RX100 Mk 6 (no too expensive £1100).

What about a compact micro four thirds system camera with a compact pancake zoom lens?



*This is my Panasonic Lumix GX80 (GX85 in USA) fitted with the collapsible 12-32mm f3.5-5.6 lens*

I've been using this system now for over 6 months after I picked up the GX80 body second hand and then added the pancake lens. Being M4/3 gives a 2x crop factor so the equivalence in 35mm terms is that this is a 24-64mm lens with the same DOF as a f5.6 to f8 35mm lens of this focal length.

ISO performance is good (from ISO 200 native and ISO 100 expanded Low) and ISO 1200 is still acceptable. The beauty is that being an interchangeable lens camera I can fit any of my M4/3 lenses or Canon lenses with my Viltrox electronic EF-M4/3 adaptor.

I can even use my vintage Pentax lenses with dumb adaptors as they have mechanical apertures and are really sharp.

The camera shoots 100Mb 4K UHD and has Dual IS meaning that in body stabilisation can be used with non-IS lenses (like the 14mm and 20mm pancakes).

It is 5 axis image stabilisation (which combats rotational movement and is available whilst shooting 4K video as well!)

The low pass filter has also been removed from this 16M sensor which means that more detail can be captured and rivals the GX8 20M camera images.

If I want real low light pictures I can fit the excellent 20mm F1.7 lens which arguably is one of Panasonic's sharpest lenses. Using the mechanical shutter as opposed to the electronic shutter means that the full dynamic range (from 14bit ADC rather than 12 bit from the electronic shutter) it is possible to underexpose by about 3 f-stops (-3EV) and use the RAW file and brighten the image in post.

Why do this rather than shoot at ISO 1600? Well in my mind it is better to keep in camera signal amplification as low as possible (AKA ISO) and you can then use the power of the RAW file latitude, bring up the overall brightness, and get a better image than shooting with a higher ISO.

Thinking about this last statement maybe a tutorial on this would be beneficial and would this help with 1- 2/3-inch sensor cameras shooting RAW?

The dynamic range isn't quite the same so I don't know just what exposure latitude there will be in those files but it would be interesting to find out! The only negatives are the non-tilting evf, only tilting LCD (not flip out) and no microphone port otherwise a 9/10 from me.

## Panasonic Lenses for HD video recording



Lenses that are primarily designed for use with video recording have the HD designation as this means that the aperture control is “step less”.

If you are using a video recording mode like Shutter priority the camera can then adjust the aperture as the scene brightness changes and you don't see the usual step change with non-HD lenses.



*image from Panasonic Lumix FZ80/82*