The Camera Club of Central Minnesota

The Newsletter of the Camera Club of Central Minnesota

Volume 10, Issue 5 **May 2018**

Club Meetings and Other Bits of Information

The Camera Club of Central Minnesota will be meeting on the first Monday of each month with the second Monday of the month as back up starting in January 2017. We will meet at the Public Library in St. Cloud from 6:45 to 8:45 pm.

The club has monthly photo topics, image sharing and critique, hands on demonstrations of photographic gear and software, member online gallery links, discussions about photography, and is open to all.

Remember, all your photo assignments and meeting dates are online at:

http://cameraclubmn.com

Assignments

Monday May 7, 2018, *Bremer Community Room 104,* **People***: showing emotion, activities, musicians, etc.*

Monday June 4, 2018, *Bremer Community Room 104,* **Sports:** Any of the traditional sports or it could even be a rodeo.

Monday July 2, 2018, *Bremer Community Room 104,* **Flowers:** Formal gardens, wildflowers, close-ups, still life, etc.

Monday August 6, 2018, *Bremer Community Room 104,* National, State, or Local Park – spend a day or part of a day photographing. Select five photos.

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Notes from the April Meeting

Only six people showed up for the meeting. Could it have been that we had a snow storm with up to eight inches of snow coming down?

Still, the meeting was great with all the photos that were shown and discussed. We learned different techniques and how to apply them.

Then club member, Bruce Regan, presented a class on photography workshops, what we could learn from them, and what the cost is. We discussed what to look for, how to prepare ourselves for the adventure, and where the workshops are given.

Yes, there is much available and much we can do to learn how to become better photographers.

Baffling Photography Acronyms

"So if you shoot in RAW or JPEG on your APS -C DSLR, make sure you choose AWB, not forgetting your optimum ISO to ensure that your CMOS/CCD captures a great image bearing in mind the IS capabilities of the lens!"

Did that paragraph make any sense to you? No? Then read on.

What is an acronym? Let me give you an example. —JPEG—. This stands for Joint Photographic Experts Group. Is that explanation any use to you? Of course not. But you get the idea. And there are lots more of these in the world of photography. Small groups of words which someone somewhere has taken and reduced to a sequence of letters.

And do you know what? I hate them!

The English language is made up of words,

Exploring Macro Photography (continued)

not abbreviations and acronyms. I find that in my normal daily life I can manage to get the actual words out. I know this is not confined to photography, but that is what we are interested in here.

Here are my first 10 photography acronyms explained in plain English. Enjoy!

APS-C

What is this? I knew this without having to look it up. Advanced Photo System Type C.

That's clear then!

This actually refers to the size of a sensor, commonly called a crop sensor.

To explain, a full frame sensor is 36mm by 24mm. This is the size of a 35mm negative back in the good old days of film.

Not the new days of film – I don't get that at all.

An APS-C sensor is similar to the size of the Advanced Photo System negative size, which was 25.1mm by 16.7mm. C refers to the classic size (there were also Classic and panoramic sizes, formed by cropping).

Both full frame and APS-C sensors are in the same aspect ratio, 3:2. But the APS-C sensor is smaller. Forget the numbers – that is enough.

AND WHAT ACTUALLY IS A SENSOR? A SENSOR IS THE DIGITAL EQUIVALENT OF FILM.

To explain using Canon cameras as an example. As an APS-C sensor is smaller than a full frame sensor, the size of the sensor is described in relative terms to a full frame sensor. The term describing this relationship in sizes is the crop factor. On a Canon camera the crop factor is 1.6.

Bear with me – it is about to all make sense.

A Canon APS-C sensor is (approximately) 22.2mm by 14.8 mm. Multiply these dimensions by 1.6 and you are pretty close to 36mm by 24mm.

OK. What does this mean? Should we care?

APS-C sensors are smaller than full frame sensors. APS-C cameras are generally cheaper than full-frame cameras.

If you put a 50mm lens on a full frame camera you get 50mm focal length.

If you put a 50mm lens no an APS-C camera (with a 1.6 crop factor) you get in effect a 80mm focal length.

That is the important difference.

Sure there are lots of other technical things that are different, but this is the most important thing for me. I shoot architectural, interior and landscape photography. I need my 17mm. If I had an APS-C camera, using my Canon 17-40mm lens I would have an actual focal length of 27mm – 64mm. And to get 17mm on an APS-C camera I would need a focal length of 10.6mm.

This is a complicated one. Just remember the focal length bit.

My advice - if you can afford full frame get full frame. If you can't don't worry about it. You will still get great shots – the important thing is what you point your camera at.

CCD

CCD stands for Charged Coupled Device.

Blimey. What's that then? I need to introduce another acronym.

CMOS

CMOS stands for complementary metal-oxide semiconductor.

What are these things then?

CCD and CMOS are both types of sensors. In crude terms, CMOS sensors are cheaper to make than CCD sensors.

And what actually is a sensor? A sensor is the digital equivalent of film. That is how I understand it.

I have no idea what a sensor actually is. Having said that, I do not understand how my TV works, I just understand how to use it. That is the point really – learn how to use something, but don't worry about how it actually works, unless you want to that is.

If all you are interested in with cameras is taking photos then just fine – you are with me on that one.

Now I know this is not the most in-depth explanation of an acronym (or two) but who cares – they are sensors, they are in your camera, and they have something to do with taking photos.

Life is too short – lets move on.

SLR/DSLR

Single lens reflex camera. The D in front is digital. Yes SLRs predate the digital camera.

As I do.

Slight digression – Canon's first DSLR was announced on the year 2000! That is how new this digital photography world actually is.

Back to the acronym.

Single lens reflex basically refers to the fact that an SLR has a mirror (and a prism) that cleverly makes the image in your viewfinder the right way up. This is all baffling maths, science and physics stuff to be honest.

Before DSLRS SLRS used film.

Imagine that – film with no digital option?

And when you press the shutter button the mirror flips up out of the way to take the photo.

That's it in a nutshell.

How is this relevant?

Guess where the term mirrorless came from? Yes you guessed it – cameras without mirrors.

If we were all starting again with cameras they would not have mirrors in them.

And come a day in the not too distant future I expect that we will all have moved on from cameras with mirrors in them.

JPEG

I explained what the acronym means at the beginning of this article. Joint Photographic Experts Group.

That didn't help much did it?

No.

This should – this is the bit that is relevant to us as photographers.

If you take a photo using the JPEG format on you camera the image saved to the memory card has an amount of processing applied at the time of image capture. This is baked into the file and cannot be undone. The image is compressed to a smaller file size.

Hold that thought for a few minutes and read on.

RAW

If you did not take a photo using the JPEG format, the other most common format is RAW.

On a Canon 6D one can shoot in JPEG, RAW or both.

A RAW file has no processing, and is not compressed at all. A RAW file looks flat and lifeless when viewed in Lightroom, especially compared to a JPEG file, but the RAW file has more information and more can be done in terms of image processing.

A RAW file is so flat Lightroom adds sharpening to 25 as a default even to a flat, dull RAW file.

But there is so much more that you can do with a RAW file.

Once I have processed a RAW file, I have to convert it to a JPEG to send to a client for them to be able to open it. To open a RAW file you need specialist software. Anyone can open a JPEG image.

So the basic rule I use is this.

Take photographs in RAW.

Convert to JPEG to share.

That's another two acronyms done

Sorry – one more point. The image you see on the screen of your camera is a Jpeg rendition of the file, even if you shoot in RAW!

ISO

Another hang-up from the days of film photography that we use in digital photography.

ISO was (sorry is) the speed of the film.

The speed of the film was related to the sensitivity of the film to light. Typically you would use ISO100 for bright daylight, 400 for less bright light and fast film, such as ISO800 and at a push ISO1600 for low light conditions.

And that was all we had back in the day.

ISO is still relevant today, as "film speed", or more accurately the ISO setting you have set for the sensor, is one of the three parts of the exposure triangle.

ISO is the relative sensitivity of the sensor to light.

I wont go into that here – there are lots of other great articles on the Improve Photography website that explains this.

Just remember that the exposure triangle is

Aperture

Shutter speed

ISO

And in general terms the lower the number of the ISO used, the better the quality of image captured.

I always shoot at the lowest ISO I can, which is 100 on my Canon 6D.

A final word on ISO – photography does not have exclusive rights to ISO.

ISO is the International Organization for Standardization. And you know those containers you see stacked on ships – they are also called ISOs in certain industries.

GUESS WHERE THE TERM MIRRORLESS CAMERA CAME FROM? YES, YOU GUESSED IT — CAMERAS WITHOUT MIRRORS.

Exploring Macro Photography (continued)

AWB

AWB is Auto White Balance.

I use auto white balance because I am intrinsically lazy. And I shoot in RAW (see above) so am able to change the white balance to whatever I want after the event.

Now I know that there will be lots of purists and cleverer people than me telling me that I should set the white balance in-camera and get it right at the time, but really – what is the point?

My priority in taking photographs is the subject matter and composition. I quite honestly find this obsession with all this technical stuff at times boring.

I can of course also use a custom white balance, but find auto works just fine for me, I sort this one out in Lightroom afterwards.

I use a grey card when shooting, and in Lightroom select the grey card as the target, put the eyedropper on the grey card and that is white balance done.

This works for most things for me.

SO, IF YOU SHOOT IN RAW OR JPEG ON YOUR APS-C DSLR, MAKE SURE YOU CHOOSE AWB, NOT FORGETTING YOUR OPTIMUM ISO TO ENSURE THAT YOUR CMOS/ CCD CAPTURES A GREAT IMAGE.

IS

Image stabilisation. A wonderful thing. I have a Canon 70-200mm F4 L lens, with 4 stops of image stabilization. What does this mean?

I will explain.

I am taking a photograph handheld. The correct exposure is 1/250th second at F4 using a focal length of 200mm.

This is fine handheld as the rule of thumb for shooting hand is to use a shutter with a number greater than the focal length – in this case the focal length is 200mm, say a shutter speed faster than 1/200th of a second should be fine handheld.

What if I want to use a different aperture – I don't want to shoot wide open? Or if it is darker than this example.

Assuming that I cannot use a tripod, I can either increase the ISO, or adjust the exposure.

1/250th at F4 is the same exposure as

1/125th second at F5.6 (a 1 stop adjustment in shutter speed and aperture)

1/60th second at F8 (a 1 stop adjustment in shutter speed and aperture)

1/30th second at F11 (a 1 stop adjustment in shutter speed and aperture)

1/15th second at F16 (a 1 stop adjustment in shutter speed and aperture)

All of the above are the same exposure, using different aperture and shutter speed settings.

And what does this actually mean?

This means that sharpness will be the same, shooting handheld at 1/15th second with 4 stops of image stabilisation as shooting at 1/250th second without image stabilisation.

Or sharp enough for handheld.

If you think about this it is actually quite a remarkable achievement – 4 stops of image stabilization has a significant positive effect on taking photographs.

You can apply this principle when determining the shutter speed for hand-held shooting in lower light.

TLA

A TLA is a three letter acronym. Sorry – could not resist that one.

Summary

I hope that I have explained some of those baffling photography terms in a way that you can understand.

When I now say:

> *"So if you shoot in RAW or JPEG on your APS-C DSLR, make sure you choose AWB, not forgetting your optimum ISO to ensure that your CMOS/ CCD captures a great image bearing in mind the IS capabilities of the lens!"*

You know what I am talking about.

Drones

Drones have allowed photographers to shake off the bounds of terra firma and take our cameras into the skies. We can now shoot images and video from up to 120m above our position and from over 7km away, where local rules allow.

However, his new perspective can throw the photographer's thought process off a little. If you are new to flying drones, you will find that while getting shots from way up high might initially look amazing, you soon come to realize they look a little bland, lacking in composition.

You can actually get the best images from a drone by applying some of your ground-based techniques to shooting from it. Here are some tips and tricks to shooting from a drone.

Composition

As we alluded to above, the thrill of going high often leads to us neglecting our composition. One factor that assists this is the need to try and get as many shots before the battery gets low. This puts pressure on us and makes us rush our compositions.

When flying, set your mind to shoot one thing and cover that well from different angles and heights. Remember that many of the compositional guidelines work as well in the air as they do on the ground. Put your horizon on one of the thirds, use roads or plowed fields as leading lines.

Perhaps a lighthouse positioned on one third is a great counter-balance to a rising sun. Try not to rush your shots, work as if you were shooting from the ground.

Go Low

Just because you can go high, does not mean you have to. The unique perspective that a drone can give starts slightly above head height. Try keeping the drone down lower to the ground and use taller objects in the surroundings as subjects or compositional elements.

This might be trees or the spire of a church, but don't go higher than the higher the top point of the subject. You will still have a very unique image but because you are closer to the ground, you have many more identifiable elements in the scene to aid your composition.

Look Down

Another unique perspective we often miss when flying drones is to shoot looking straight down. Most drones that have a gimbal allow you to turn the camera at 90 degrees to the ground. This perspective often gives us the most dramatic and interesting compositions.

It works particularly well when we have two main elements such as land and a river or road. It also is a composition that can work well at any height.

Panoramic 360 Degree Images

The software on many modern drones will allow you to automatically create a 360 degree panoramic. By activating the correct mode, the drone will take multiple images in the horizontal and the downward vertical plane.

Depending on the software the panoramic may be stitched in app or you may have to use an external editing suite to do it. Panoramic 360s often work well when the drone is not too high and when there is some interesting subject matter close to the camera.

High Dynamic Range.

Another useful function most drone applications include is the ability to shoot HDR or high dynamic range images. This is particularly useful as the combination of sky and land in a single shot often contains too much contrast for the relatively small sensors on our drones.

As it is not possible to add neutral density filters to most drones, HDR is a very good option. If you have a scene that has excessive contrast, switch over to HDR. Make sure the drone remains stationary while you shoot.

Polarize

While you might not get neutral density filters, you can get polarizing filters for drones. Foliage, in particular, is very reflective and from above there is a good chance there will be a lot of it in shot.

A polarizer will reduce the glare from reflections and add contrast and saturation to your images. Like using a ground-based polarizer, it will be most effective when shooting at a 90-degree angle to the sun.

Drones are incredible machines that have given pho-

ANOTHER UNIQUE PERSPECTIVE WE OFTEN MISS WHEN FLYING DRONES IS TO SHOOT LOOKING STRAIGHT DOWN.

CAMERA CLUB OF CENTRAL MINNESOTA

Membership is $25 per year. Members should provide: Email Address, Mailing Address, and Phone Number.

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The Camera Club of Central Minnesota publishes a monthly newsletter which is distributed via e-mail. The newsletter will contain information about up-coming meetings, summaries of previous meeting, recommendations for photographers, announcements of photographic workshops, and other material that seems appropriate.

If you would like to send suggestions, comments, or other communications concerning the club or newsletter, please send your e-mail to rheath@tds.net.

Drones (continued)

tographers the ability to get shots from unique locations. Because we are not used to the perspective that a drone can give us, we sometimes lose sight of the fact that most of the knowledge we have for ground-based photography, still applies in the air.

Applying some of the tips provided above should help improve your aerial images.

Street Photography

Whether you're just new to street photography or someone far along in the craft, there's always something you can do to make your shooting experience easier. London-based Haris Finazzi has recently shared with us a handful of tips he believes would make for easier and more immersive street photography.

Being in a such a big and busy city like London, it's natural for people like Haris to gravitate towards street photography. If you find yourself in the same boat, he has put together some pointers you can use to be able to freely and effectively document the hustle and bustle out in the streets.

Use simple gear.

It could be subjective, but to start, use the simplest gear that you have. It could be your DSLR with a 50mm lens, or a handy point-and-shoot camera. There's no need for those big, complicated lenses and other bulky gear that will just keep you distracted. You want to be able to move around, blend into your surroundings, and easily bring a camera to your eye when the so-called decisive moment strikes.

Shoot in the rain (or at least after).

It's a hassle to be out and shooting in a downpour. But given that you've opted for the simplest camera, Haris assumes you can manage to move around with ease without worrying about your gear. At least, you can hit the streets soon after the rain has stopped and take advantage of the interesting scenes created by the reflections from puddles and wet pavement. Be on the look-out and experiment!

Shoot in the Golden Hour.

You can never go wrong with the Golden Hour for any kind of photography. As Haris showed, combining other visual elements with this dramatic lighting can lead to some beautiful street snaps in fantastic colors.

Shoot handheld.

This could be just a personal preference, as Haris mentioned, but if you find yourself wanting to do a lot of shots in portrait orientation, you may find this tip especially useful. By shooting handheld, you should be able to shoot quickly and in any orientation with ease. If you're using a compact point-and-shoot, this tip is pretty easy.

Have fun.

In the end, this is the most important thing about shooting street photography, and the end goal of the first four tips.