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## **12 PHOTOGRAPHY MYTHS**

## HERE ARE A NUMBER OF POPULAR MYTHS AND SOME EXPLANATIONS TO SHOW HOW THEY ARE INCORRECT

## 1. ALL PROFESSIONALS SHOOT USING FULL MANUAL SETTINGS:

Nobody does this. It is important to understand the relationship between aperture and shutter speed, but not using the advanced metering technology built into the camera is a waste of your investment. For new photographers, it is important to learn and understand the use of aperture and shutter speeds, and their relationship, but this can be equally well learned using Aperture or Shutter Priority, especially with digital files we have all the metadata available to analyse.

No professional or advanced amateur I know uses full manual exposure settings and it is a common misconception that professionals do. They don't. I have had the opportunity to work closely with several of Australia's top professionals and none of them would consider shooting full manual to be a worthwhile option. The only instance I am aware of is those using field cameras where there is no exposure meter, so they have to apply settings manually, but this is a rare event and not typical.

There are odd and unusual circumstances where a photographer might choose to use fully manual settings (usually for scientific or forensic purposes), but these are the exception, not the rule.

Every professional I know shoots with either Aperture or Shutter priority, depending on the situation.

Most advanced users also make use of Auto ISO to maintain minimum shutter speeds for things like wildlife and sports action. The ISO will automatically increase or decrease to maintain a desired range of shutter speeds, leaving the photographer to concentrate on what they are shooting.



*Left:* The Mode dial on a DSLR. M is for manual, where you set both the aperture and Shutter speed independently.

A is for Aperture Priority and S is for Shutter priority.

None of the so called reasons to shoot manual quoted on various websites really makes any sense.

## 2. USE MANUAL FOCUS BECAUSE IT IS MORE ACCURATE

Some specialist lenses are manual focus only, but the issue is, when using manual focus, what are you using to determine focus? The camera's focussing systems will indicate correct focus in the viewfinder, but this is using the same system as auto focus, so it can't be more accurate. Trying to determine correct focus on the focussing screen in the viewfinder is not as accurate as autofocus, especially in low light, so there is really no advantage in manually focussing.

For landscape photography, using Live View on a DSLR can give more accurate results as you are focussing on the sensor, but it can be slow to implement. On a mirrorless camera, you are always focussing on the sensor, so it is always going to be accurate anyway.

There are sometimes when using manual focus is preferred, such as astrophotography, or when you want to deliberately defocus for creative effect, but otherwise there is no advantage to using manual focus.



*Left:* A typical DSLR showing the focus controls on the body and lens. Sometimes in very low contrast situations you might need to manually help the focus, but you are still relying on the camera's focussing system to determine focus.

#### 3. YOU NEED TO GET IT ALL "RIGHT" IN CAMERA

There is a persistent myth about "real" photographers getting everything "right" in camera. This of course ignores some basics of digital photography – that is, some aspects of image making are not important to be "fixed" at capture and are best determined at the point of processing the RAW data.

There are some things that *are* necessary at capture to be optimised and they are:

*Concept* – Decide what it is that attracts you as a photographer about the scene or event you are going to capture – have a clear idea of what you want to achieve and compose and frame accordingly.

*Composition –* framing, including and excluding elements – using the compositional tools.

Plane of Focus - what is important in the image needs to be the point of focus.

Depth of Field - Decide what needs to be acceptably sharp and what is of lesser importance.

*Movement* or no movement in the capture. Decide if movement is part of the subject (camera and/or image content) and take steps to include or exclude this at capture.

*Quality of data* (signal to noise) considerations such as ISO value will affect the image outcome. Decisions need to be made at capture that will impact the quality of the image. Cameras have their best "Signal to Noise" ratio at the base ISO setting, that may or may not be appropriate for any given situation. The quality of the data also includes the value of the capture exposure – whether or not there are clipped shadows or highlights.



#### Left:

A composite of two exposures after processing.

All the essential elements were handled in the field, the other settings were applied during processing. All other settings for your image can be determined at processing, so there is no value in spending unnecessary time in the field trying to control these parameters. A prime example is trying to use graduated filters in landscape photography to balance the difference between a sky and the landform. In most instances the exposure differences can be adjusted in processing, or for extreme situations, bracketing 2 or 3 exposures and blending them in Lightroom or Photoshop saves a lot of extra time at effort in the field, when you should be concentrating on other aspects of your capture.

# 4. EDITING (PROCESSING) YOUR IMAGES IS CHEATING

This is usually a statement made by people who know nothing about photography. They think that somehow the camera knows and sees all. The camera is only a recording instrument – used to capture the data that will be used to create a meaningful image. In the days of film, the negative processing was adjusted to give the photographer the look they wanted, then the image was manipulated in the enlarger by burning, dodging and other techniques.

## Ansel Adams said, "the negative is the score, the print is the performance".

Ignoring this essential part of image making is to ignore nearly 200 years of photographic heritage. The fact that we now process and edit our digital images in a different way does not change the fact that images have always been processed and edited to achieve a final image.



Above: Editing in the Darkroom or Lightroom, it is all part of the process.

Darkroom techniques such as burning, dodging, unsharp masks etc have made their way into digital imaging. Not using these techniques does not do our images justice. The camera does not know which part of a scene is important, it just gives everything equal importance (this is called *" the democracy of the lens"* by Les Walkling). It is up to the photographer to determine which elements in an image deserve scrutiny by emphasis or deemphasis during processing.

# 5. SET YOUR FOCUS POINT ON THE THING YOU WANT TO BE SHARP IN A LANDSCAPE

When shooting a landscape, it is often tempting to focus on the object that is the centre of interest. This does not necessarily give the optimum focus point however, so using hyperfocal focus and a depth of field calculation to optimise the focus point is a better option.

Be mindful that shooting with your lens set at its minimum aperture (largest number) will not give the sharpest result, due to diffraction at very small apertures, so use a mid-range aperture setting and selectively focus to ensure the important parts are going to be acceptably sharp. A rule of thumb is to focus on a point 1/3 up the frame as this often gives an acceptable result.



*Above:* determining the appropriate focus point in a scene can allow maximum depth of field, where needed.



Above: Using a wide aperture and a selective focus point to eliminate background distractions.

## 6. YOU SHOULD ALWAYS BRACKET EXPOSURES TO ACHIEVE THE BEST QUALITY IMAGE

This may have been true in the early days of digital imaging and only for situations where there was a lot of contrast in a scene, but for most images it is unnecessary. Modern sensors have a very wide dynamic range and can handle up to around 11 or more stops of contrast in a scene. For comparison, the difference between a brightly lit object and a deep shadow area at midday on a sunny day is around 15 stops (when you are unlikely to be making images anyway), so for most photographic purposes, one carefully measured exposure will give enough detail throughout. For excessively contrasty scenes, 2 or 3 bracketed exposures would be enough to expand the dynamic range enough to capture all the available tones.

Don't rely on the preview on the screen on your camera to check exposure, this is a JPEG thumbnail and will clip highlights and shadows, giving a false impression that the highlights are blown out.



- *Left:* The image on the back of the camera is a JPEG thumbnail and does not reflect the tonal range or exposure accurately.
- Flashing highlights will be inaccurate due to highlight and shadow clipping to create a JPEG from the RAW capture.

## 7. YOU NEED TO SHOOT FULL FRAME TO GET GOOD IMAGES

There are some advantages to using a larger sensor, but with the improved technology of micro four thirds and APS-C sensors, the difference is minimal and only noticeable in really large enlargements.

If only shooting to put images on the web, you don't need high resolution or large sensors, a smartphone will give perfectly good results. The differences between a crop sensor and full frame would only become noticeable when making enlargements and printing to A2 size or larger. Even then, a lot of differences are likely to be due to technique or quality of lens and data capture.

Crop sensors have an inherently greater depth of field than full frame or medium format sensors, but this is only important when shooting with large aperture lenses where a very shallow depth of field is desired.

Full frame sensors can have better high ISO performance, but it depends on the resolution of the sensor more than anything else. A high resolution sensor is likely to have higher native noise because of the size of the pixels, so it depends on both the sensor size and the resolution for high ISO performance.

So, image quality is more about capture technique and lens quality, not full frame.

# 8. YOU NEED HIGH RESOLUTION IN ORDER TO PRINT A3 OR A2

In order to print at the maximum size of A2 (approximately 580 x 386mm for 3:2 sensors) at the printer's native resolution (360 ppi for Epson and 300 ppi for Canon) you need to have an image with approximately 44 Megapixels, however, printing at such a large size does not require this sort of resolution, as the viewing distance will dictate the number of pixels necessary. For A2 size printing you can print from 20 Megapixels at 240 ppi and achieve excellent results.

Printing at A3 size and using 360 ppi for the file size, you don't need anything more than 20 Megapixels.

Note that this is the final image size when prepared for printing, after any cropping and not including any resampling in software. Capture "Signal to Noise" and lens quality are just as important and Megapixels for image quality.

So, for most people a sensor with 20 Megapixels is the most resolution you need in order to maximise print output. For putting images on the web, you need less than 2 megapixels, so for almost everyone, down sampling will be necessary before uploading to the web. Images down sampled need to be re sharpened for best results.

You can't expect to be able to print at A3 or larger with a smartphone camera image and achieve a high quality result, there are just too many compromises with this sort of image from a tiny sensor. You can print this big from a smartphone image, but it won't be at high (exhibition standard) quality.

# 9. YOU SHOULD ALWAYS SHOOT AT THE LOWEST ISO SETTING

In an ideal world, where the camera is on a tripod and the subject/content is not moving, then you would shoot at the lowest or base ISO. In other circumstances, you would aim for the lowest ISO setting that will allow you to get an acceptable image. Wildlife photographers who may be shooting in low light with moving subjects need to increase the ISO to allow for usable shutter speeds and depth of field. You should do some tests with your camera to see what is the highest usable ISO setting that you consider will give acceptable results and use that as your upper limit.

For cameras with high resolution sensors, bear in mind that when down sampling for printing or the web, most luminance noise will disappear anyway, so using higher ISO settings is less of an issue.

Most sports and wildlife photographers use Auto ISO settings on their cameras that allow them to automatically increase the ISO as lighting conditions vary, allowing them to concentrate on their subject.



*Above:* A close up of a walrus shot at 7200 ISO with a 600mm lens at 1/1250 second. This image has been processed to reduce noise and is more than acceptable. Use the lowest ISO to allow the capture settings you need; in this case a high shutter speed was required to avoid movement and camera shake.

## 10. YOU NEED TO PHOTOGRAPH ONLY IN THE GOLDEN HOURS

Shooting only in the hour or so after sunrise and before sunset is sometimes stated as being the only time you can create great images. This of course is an oversimplification. It depends on what you are photographing. If you were deep in the forest trying to capture the subtle details of trees and ferns, the last thing you want is direct sunlight, you want a soft overcast sky with even diffuse light to avoid harsh contrasts and hot spots.

You need light to photograph, but it doesn't have to be great light if the subject or scene is worthwhile, it does needs to be good enough to make a capture that can be processed to reveal the image.



*Above:* Photographing in the forest requires flat and even light. The Golden Hour does not suit this subject. Adequate light for your subject is all that is needed.

# 11. YOU NEED TO OBEY THE COMPOSITIONAL "RULES"

There are a lot of "nonsense rules" quoted in camera clubs that are just not true. Here are some examples:

You must have important content on the thirds.

You must have odd numbers of objects in an image

Never put something in the middle of the frame

Never put the horizon in the centre

Gates must be open, etc, etc

These so called "rules" are often quoted but in practice are more defined by disobeying them. There are instances when an overall composition can benefit from following some of these guidelines, but a photographer should feel free to do what works for an image. Composition is a broad subject that cannot be defined by a simple set of rules and those above are just nonsense.



Above: Never obey the nonsense rules unless they suit your image. Here they don't.

## 12. YOU NEED TO SHOOT A LOT OF IMAGES TO GET A FEW GOOD ONES

This is called the "mud on a wall" approach. Throw enough mud and some of it will stick. This of course is nonsense. Sometimes when trying to capture action or nature when there is a lot happening fast, you may want to use continuous advance and capture several frames in order to capture the "decisive moment", but in almost every other instance you should concentrate on the important aspects of image capture. Quality, not quantity should be your catchphrase.

Shooting for shooting's sake will not make you a better photographer as you are unlikely to be able to work out what it was you did right for the few "good" images you capture. Better to take a more studied approach and think before you press the shutter.

The above are what I consider the 12 greatest myths of photography, but there are many more, such as:

#### YOU SHOULD ALWAYS SHOOT LANDSCAPES ON A TRIPOD

Well, in an ideal world you might, but it isn't always possible, or necessary.

#### YOU NEED TO UNDERSTAND PHOTOSHOP IN ORDER TO PROPERLY PROCESS IMAGES

You don't need Photoshop for basic image processing, but it is needed for creating composites and advanced and creative editing. But, for many images, Lightroom or any RAW processing software will suffice most of the time.

#### NEVER SHOOT INTO THE SUN

Some of the greatest images are shot using the sun or sun flares as a compositional tool.

#### NEVER USE ON CAMERA FLASH

Using on camera flash as the only light source will not yield great results, but sometimes it is the only option. Using Fill-in flash with on camera flash can be very useful when shooting people with a bright background, or in situations when a little extra "kick" is needed.

#### YOU NEED EXPENSIVE GEAR TO GET GOOD SHOTS

The camera manufacturers and retailers would have you believe this, but of course it isn't true. Newer cameras have better sensors, but it depends on what you are using a camera for. Some cameras can shoot up to 15 frames per second or more, but I have almost never used any sort of continuous advance, let alone high speed, so it is meaningless for me. It might be relevant for some sports shooters, but even then, if you can't anticipate action you probably aren't familiar enough with the sport you are covering, so even then it may not be necessary.

Some people have "G.A.S." – Gear Acquisition Syndrome, they just have to get the latest body and lenses. They are often the people who you never see any images from, because they never get skilled enough to make meaningful images. For them it is about having the equipment, not using it.

#### YOU NEED TO USE ONLY PRIME LENSES WITH MAX APERTURE OF 2.8 OR BETTER FOR GOOD RESULTS.

This is a bit like the item above and is all about bragging rights in a lot of cases. Using any lens at its widest (lowest number) aperture will not give the best results, so stopping down to f5.6 to f8 often gives a sharper image. The only time when having a fast maximum aperture is an advantage is in poor light or when you want to deliberately use a very shallow depth of field. These days zoom lenses are pretty much as sharp as a prime lens, so this old chestnut is just not true (apologies to all those with G.A.S.).

#### PHOTOGRAPHING IS EASY, ITS NOT REALLY ART.

So many non-photographers have no idea of the work that goes into capturing and processing a good image. Many times, people have said to me that I must have a really good camera because the images are so good. Creating great images is a skill that is learned and improved with experience. Photography has for a long time been accepted by museums and galleries as another legitimate form of the visual arts, so we shouldn't even have to discuss this, but when everyone has a smartphone and can snap images, they all think they are great photographers. If only this were true. A quick scan of Facebook or Instagram will show that most people have no idea about photography.

#### YOUR CAMERA TAKES GREAT PHOTOS

See the item above. Because many people do not understand the skill involved in making great images, they think that it is all down to the equipment. It's like telling a great chef that they must have really good pots and pans because their meals are so good.

### BRAND X IS BETTER THAN BRAND Y, OR MIRRORLESS IS BETTER THAN DSLR

The only people that think that any of the above is important are the people who don't know how to use their equipment. A good photographer can make great art using the cheapest equipment. Choose the equipment and lenses that work for you and ignore the braggers.

#### FILM IS BETTER THAN DIGITAL.

Back at the beginning of the digital age, there were some Luddites that kept claiming that film was superior to digital. Anyone who has moved through the early digital equipment would realise that even the most modest 4-6 Megapixel camera could record details that film couldn't, and that is at base ISO, try using a 400 ISO film and check the results compared to digital.

You might choose to use film for nostalgic or aesthetic reasons, but certainly not for any qualitative values above digital capture.

#### BLACK AND WHITE IS A PURE FORM OF PHOTOGRAPHY

So called purists claim that monochrome or black and white photography is somehow superior to colour. Some even go as far as saying you should only capture monochrome data. They seem to have forgotten that monochrome photography was populated with colour filters and techniques designed to modify the film's response to different colours. Black and white is just a different way of presenting an image and suits some subjects and not others. Capturing a full colour RAW file and processing it digitally is by far the best way to realise a beautiful monochrome image.

## PHOTOGRAPHY IS USED TO DOCUMENT REALITY

Some people still mistakenly cling to the idea that somehow photography documents reality, that the camera is an objective observer of the real world. That of course has never been true and never will be true.

Photography cannot represent the real world – we are taking a 2 dimensional slice of a 3 dimensional world at an instant in time, so it can never be "real" in any sense. The mere act of framing an image isolates the scene in the viewfinder from the rest of reality. At best we can aim for a relatively straightforward form of documentation, especially for legal and forensic applications, but it is never "Real". A famous quote from **Richard Avedon** is "*All photographs are accurate, none are the truth*" This means that the camera faithfully records the photographer's intentions, not reality.

A viewer's response to a photograph is the "truth" in an image, but it is based on their reality and experiences, not any single objective reality.

#### THERE IS ONLY ONE CORRECT EXPOSURE

There is one correct exposure, but it is the "correct" exposure for whatever it is you are intending to represent. There is an "optimal" exposure", one that captures the most data (signal to noise), but it may or may not be relevant for a particular image. Exposure can be manipulated to suit a particular outcome, such as High or low key imagery.

## USING A UV FILTER IMAGE OVER YOUR LENS DEGRADES THE IMAGE

Various people have conducted tests with and without a UV filter and the difference is not detectible. Unless your filter is dirty or scratched, you won't see a difference in your image. A UV filter is not really relevant for filtering our unwanted UV light, but it does do a good job of protecting the front element of your lens in wet, dusty and harsh environments.

Using a UV filter over your lens and shooting directly into the sun (not recommended) will increase flare due to the extra layer of glass that the light has to pass through, but this is the only time it is going to be an issue.

## THE DPI OR PPI OF AN IMAGE AFFECTS THE VIEWING SIZE ON YOUR COMPUTER OR DEVICE

Images viewed in Photoshop or Lightroom will be sized to suit the screen space available. Images resized for data projectors will be projected at 100% if sized correctly and the image projected at full screen. The DPI or PPI has nothing to do with the size viewed.

Higher resolution images projected at full screen will have some pixels ignored, because the device has limited resolution, that's why we resize (and re sharpen) images for projection.

PPI is important when printing because the printer expects to receive the data at an optimal setting (360 PPI for Epson, 300 PPI for Canon). If it receives more or less, the printer will add or discard pixels to be able to print the image. This is the only time it is relevant.

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