



The PhotoGuides Guide to Photography

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The PhotoGuides Guide to Photography  
- Sample Edition -

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# Everything.

All the details and features you need to know about

# The Dial.

Most cameras have a dial that allows you to easily switch between different modes. Whilst manufacturers now offer many different scene modes, all dials have the same five basic functions. Please note all terms are explained later in the book.

## Auto Mode.

On Auto mode your camera does everything for you. It controls all of the settings to provide you with a correctly exposed photo. ISO, shutter speed, white balance and aperture are all automatically selected so that you only need to press the shutter button.



## Programable Mode (P).

Programable mode is the next step up from Auto mode. The camera will still control your shutter speed and aperture to ensure your photo is correctly exposed, but it will give you full control over ISO, white balance and any other options. Most photographers never use Auto mode and instead use Programable mode instead because it's simple and automated, but offers a great deal of flexibility. On P mode you can control the colours and style of your photo without having to adjust your exposure after every shot.

## Shutter Speed Priority Mode (S).

This mode will provide you with the ability to manually configure your camera's shutter speed. Using a separate dial you will be able to increase or decrease the time the shutter is open for, whilst your camera automatically selects your aperture to ensure your photo is correctly exposed. Furthermore, your white balance and ISO will be fully adjustable. This mode is perfect for when you want to capture motion or for when you want to stop a fast moving option right in its tracks.

## Aperture Priority Mode (A).

Aperture Priority mode will allow you to manually control your camera's aperture whilst the camera automatically selects the shutter speed. Aperture refers to the size of the opening within the lens, and by using a separate dial to control this aperture you can increase or decrease the amount of light that can pass through the lens. This mode gives you control over lighting and depth of field without having to worry about exposure.

## Manual Mode (M).

Manual mode gives you full control. On this setting you can adjust every element of your photo. Shutter speed and Aperture are independently adjustable, and you also have control over white balance, ISO and every other setting of your camera. This mode demands the greatest amount of thought and shouldn't be used all the time. Manual mode is perfect for when you want your photo to have a certain feel. For example when you're photographing a landscape at night, Manual Mode is perfect as it allows you to adjust every element of your camera to capture all of the light. Using Manual mode is also a great way to learn about your camera. There is no doubt that playing with this mode will give you a greater understanding of how each element affects a photograph, and this understanding is likely to improve your photography.

## Scene Modes.

Nowadays most digital cameras come with a selection of Scene Modes, most of which are selectable via the dial. These scene modes generally include a Portrait mode, a Landscape mode, a Night mode and a Sports mode. These scene modes simply automate your cameras settings to provide you with the best photo. For example, on Sports Mode a faster shutter speed will be selected to capture the action. On Portrait Mode however, a lower aperture will be selected to create a shallow depth of field, which is a convention that tends to create the nicest portrait photographs. Landscape mode will select a higher aperture to create a larger depth of field and Night mode will simply adjust the settings to ensure you capture all of the light in the dark conditions. Scene modes are like cheat sheets for different photography situations. Everything they do can be controlled through the other modes, but Scene modes let you do so without needing to think.

# Shutter Speed.

Every time you take a photo, your camera's shutter opens and closes to let light through to the sensor. The time that the shutter spends open is known as its Shutter Speed, and your ability to manipulate it gives you a great deal of photographic potential.

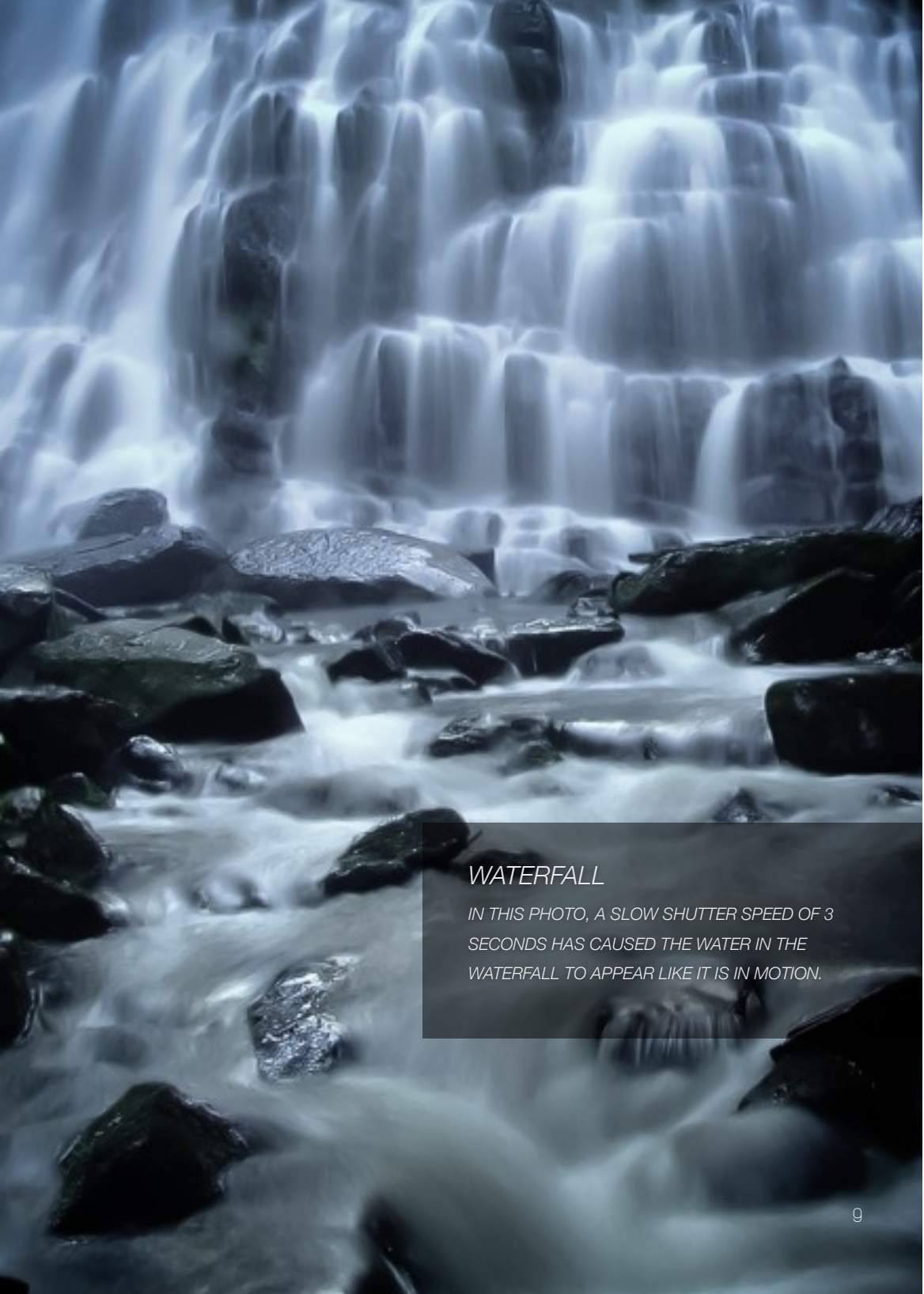
Shutter Speed is one of the most versatile features on your camera. It can usually be adjusted from 1/4000th of a second right through to 30 seconds. This broad range allows you to effectively manage your exposure, but it also allows you to capture motion or freeze life right in its tracks.

The effect on exposure is one of the most prominent influences of Shutter Speed. A longer shutter speed like 5 seconds will allow more light to reach the sensor, thus resulting in a brighter photo. Conversely, a faster shutter speed such as 1/1000th of a second will only allow a small amount of light to reach the sensor causing your photo to be darker.

Shutter Speed's effect on motion and blur is also significant. Having the shutter open for a longer period of time will allow the camera to capture the movement of an object. This can be a stunning effect when photographing waterfalls or tracking moving objects. Alternatively you can choose a fast shutter speed such as 1/2000th of a second which will allow you to capture even the fastest of objects in still life.

Many cameras have a shutter speed setting called 'Bulb'. This is often denoted by the letter B and can usually be found by scrolling beyond the 30 second shutter speed setting. Bulb mode means that the camera's shutter will open when you press the shutter button and then close when you release the button. This provides you with full control over your camera's exposure and allows you to capture exposures from a few seconds through to a few minutes. Bulb mode is perfect for star photography or some night time photography. If you're interested in this setting there are also remotes which allow you to lock the button down for endless exposures.

Understanding shutter speed will provide you with a broad range of photographic skills, allowing you to manage your exposure and capture the flow and motion of the scene as well.

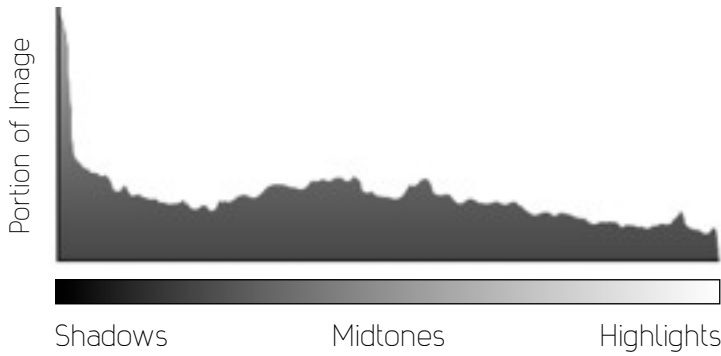


## *WATERFALL*

*IN THIS PHOTO, A SLOW SHUTTER SPEED OF 3 SECONDS HAS CAUSED THE WATER IN THE WATERFALL TO APPEAR LIKE IT IS IN MOTION.*

# Histograms.

Histograms are a graphic representation of the levels of light in your photo. To see just how histograms display colour and light information we will dissect the histogram below which represents the light tones of the image to the right.



The most common type of histogram illustrates black and white tones, but it is not uncommon to see a histogram that separates an image into its core colours as well. To understand the black and white histogram above we must first imagine that the image to the right is desaturated and presented in black and white.

The horizontal axis represents the dark and light tones and the vertical axis shows what portion of the image holds that particular tone. The image to the right is evidently dark and the top and bottom of the image hold a lot of black shadows. On the histogram we can see that there is a peak on the far left which indicates that those dark shadows are the most prominent tones in the image. Contrastingly, on the far right of the histogram we can see that there are minimal highlights. This again can be seen in the photograph as there are no significant white points.

Due to its significant shadows the photograph to the right would be regarded as underexposed. A correctly exposed photo will have the majority of the histogram in the 'Midtones' section and be evenly spread throughout the graph.

Histograms can be a very handy tool when you're trying to balance the exposure of your photo. Just remember that it should only be used as a guide and sometimes the eye serves as a better judge.



## FISHERMAN

TECHNICALLY THIS IMAGE IS REGARDED AS UNDEREXPOSED. TO THE EYE THOUGH THE DARK TONES SUIT THE PHOTOGRAPH SO IN THIS CASE THE HISTOGRAM CAN BE IGNORED.

# Tips and Tricks.

Putting your knowledge and skills into action

# 8 Tips for: Photographing Animals.

Animals can be an incredible photography subject. Everything from the sleekest of birds through to the tallest of giraffes can present you with the most stunning photo opportunities. Due to their unpredictable nature though, animals (especially the exotic sort) can be incredibly hard to photograph. Here are a few tips to help you out whether you're on a safari or in your own backyard.

## 1. Capture Life.

Photographs of cats and dogs sleeping are incredibly common. The photos that really stand out are of the animals in their element, playing, running or whatever action defines their species. If you are photographing a dog, take it outside and play with it. Or if you're photographing a lion, try to capture it roaring.

## 2. Capture the Expressions that would Embarrass a Human.

Some of the best animal photos capture an obscure look or an inquisitive stare. Focus on the animal and then as soon as it opens its mouth to yawn or turns its head to scratch, start snapping away. By looking for unusual expressions you can capture a unique photograph every time, and more often than not they'll be interesting.

## 3. Late Afternoon is the Best Time for Safari.

Animals can be lazy sometimes. I've found that exotic animals in game parks spend most of their time in the shade. Between 3pm and 5pm though are two golden hours. Wild animals tend to be most active at this time and the sun is also in its optimum position. It's to the side casting a warm glow right across the land.

## 4. They're More than just a Pretty Face.

They have feet too, and sometimes wings and tails. Look beyond the face of an animal and you might find beautiful textures or hidden patterns, like the feathers on a birds wings, the scales on a reptile or the spots on the back of a leopard.

## 5. If you're on Safari, you'll need a Monopod.

Monopods are tripods with a single leg. They act as a pivot point for your camera, and when you're on Safari this steadiness and maneuverability can be a life saver.

## 6. Don't just take Photos of Animals.

Look around you and see what else your scene offers. Try to incorporate the animals surroundings into the photo. If a dog is resting under a tree, stand back and include the tree as well. Or if there's a stunning horizon or a sunset, try to photograph this with the animal. Use the animal to compliment a beautiful landscape photograph. They don't always have to be the main focus

## 7 Zoom Zoom Zoom.

Sadly, on Safari, you aren't allowed to pat the lions. Sometimes the best view you can get of an animal is from 50 meters away. If you've got a zoom lens or a camera with high zoom capabilities then you're in luck. If you haven't then your only option is to jump out of the car and walk up to the lions for a closer look.

## 8. Savor the Sights. Use your Eyes as well.

Safari expeditions present you with some astounding sights. Just make sure you don't see it all through your viewfinder. By all means photograph the experience to your hearts content, but be sure to appreciate the sheer beauty of these animals.



# 5 Tips for: Photographing Panoramas.

Panoramic photography is a great way of capturing a vast scene. All it involves is taking multiple sequenced photos of a setting and then stitching them together to create a single, seamless and expansive photograph. In this guide you'll learn a few tips on photographing panoramas.

## 1. Overlap your photos.

When it comes to stitching your photos together, the program you're using will look for matching features in your photos and use them to blend and align the photos together. Because of this, it's important to have a distinct overlap in the original photos you take. Allow for a 10% to 20% overlap on the sides of your photo.

## 2. Don't clip main features.

If there's a distinctive object such as a tree in one of your frames, try to include all of it. If you clip half of it off then it's likely that photoshop will have a hard time aligning and matching the intricate branches of the two photos, and you'll see a distinct seam where photoshop has tried to put the two photos together. These can be hard to fix, so it's best to avoid clipping significant features when taking your original photographs.



*VALLEY OF VIEWS*

*COMPILED FROM 5 INDIVIDUAL PORTRAIT PHOTOGRAPHS*

### 3. Photograph in Portrait.

This is probably the best tip I can offer. If you photograph in portrait mode then the extra sky and land in the shots will not only allow you to include more in the end photo, but it will also add another dimension to it. The photo below has been created using 5 portrait photographs, and if you look at the left and right edges, the photo seems to be wrapping around you. This third dimension is amplified by the extra sky and ground in the portrait-shot panorama. Photographing in portrait will also give you a significantly higher resolution result. The photo below comes to almost 50 megapixels, as opposed to the 20 megapixels that would have been achieved had it been shot in portrait.

### 4. Maintain the same exposure and white balance.

Whilst the sun can still produce stunning results in a panoramic photo, its intensity can also corrupt your lighting and exposure between frames. You can quite easily combat this by using either manual mode to maintain the same exposure between shots, or alternatively use the 'AE-Lock' feature which will automatically lock the exposure between shots to ensure you end up with a balanced result.

### 5. Up, down, left and right.

Don't constrain yourself to just left and right panoramic images. Experiment and try some up-down ones as well, or maybe combine both of these and produce a grid of photos with ups, downs, lefts and rights. Photographing in this way can be handy when you're close to your subject, but if you're distant enough to include the whole scene I'd avoid photographing in a grid and sticking to one direction.



# Techniques.

Cool things you can do with your camera

# Camera Toss.

Camera Toss Photography is an amazing new trend that captures light in its most abstract form. As the name suggests, it involves throwing your camera in the air while taking a photo. Here's what to consider when trying it out for yourself.

## What you need:

- A camera with the ability to adjust the Shutter Speed and Aperture.
- A hint of bravery and a quality catch.
- A dark room or some night time.

## The Setup:

- Set the shutter speed to around 1 second.
- Set the camera's Aperture to around F5.6.
- Find some lights. 1 to 3 lights work best as they leave you with a nice simple photograph. Also, these lights should be evenly spaced. If there are too many lights or if they are unevenly spaced you could end up with a cluttered, messy photo. Mounting a few christmas lights to the roof works well.

## Camera Tossing:

There are a few different ways to throw your camera. Spinning, as the name suggests, involves spinning your camera in a clockwise or anti clockwise motion to create a beautiful spiral pattern with the lights. Flipping involves flipping your camera end over end either forwards or backwards. The third method is a combination of spinning and flipping whereby your camera is tossed in a random fashion. This type of throw creates the most abstract shapes, but the simple, uniform nature of flipping and spinning can also produce stunning results. If you find that the lights are not bright enough, simply increase the size of your aperture.

Camera Toss Photography can produce some stunning results. Experiment with different colours of light, or be creative in your throwing method. It's a simple concept to grasp, just make sure you don't drop your camera.



## *SMOKE LIGHTS*

*THIS CAMERA TOSS PHOTOGRAPH WAS TAKEN BY MOUNTING A LIGHT THAT CHANGED COLOUR TO THE ROOF AND THEN THROWING THE CAMERA TOWARDS IT IN A RANDOM FASHION.*

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