

Insights To Specialist Techniques

A look at a number of specialist techniques with explanations as to how they were produced



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www.eos-magazine.com/ebooks/es/

With grateful thanks to Brian, Mike and Samantha who endure many long hours of proofing on these books.

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Foreword by the author

When I was asked to put together a promotion ebook that was about 40-50 pages long it was difficult to think of a topic that would fit in to such a short space. Most of my ebooks are 140 to 198 pages long and look at topics in great depth.

However, there were some topics that crop up time and time again in questions I have been asked over the years as to how specific images were captured, as they are a little bit different from the normal images that we all take. So it is the answers to these questions that have formed the basis for this short ebook, which combines extracts from various things I have written, together with some new material to give an explanation of some of the more specialist photographic shooting techniques.

These techniques are achievable with any EOS in the Canon range, however a reasonably good understanding of the basics of photography will be needed for many of these techniques, as often they are shot in challenging light levels where the correct settings needed, can be difficult to obtain.

A number of the techniques will require a good sturdy tripod as long shutter speeds that are way below the handholding ranges are needed for several of the techniques.

Apart from the section on HDR photography I have not included anything on how to set the options on the camera, this can easily be found out by reading the camera's instruction manual, as its often slightly different from one model to another. However, my ebooks *The Essential Guide to Photography with EOS cameras* and *The Essential Guide To Advanced EOS Techniques* will guide you in depth through the settings available on the EOS range.

Nina



In the French Pyrenees July 2012



In Paris May 2014



Diving in the Maldives February 2008

INSIGHT

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Shooting light trails can produce great images



Fireworks can be challenging to shoot



01 - Producing light trails

Westminster bridge, London (2010)



About the location

If you want to shoot light trails you need a location where there is a lot of traffic ideally moving reasonably fast. Westminster Bridge has a lot of traffic and this was taken just after 5pm before the evening rush slowed the traffic down.

This was taken standing on the pavement on the edge of the road, which allowed me to get good traffic streaks. The higher level streaks have been produced by waiting until a double decker bus went past providing the extra lights that were going to add a lot of interest to the image.

Shooting details

Camera	EOS 7D
Focal lens used	42mm
ISO	200 ISO
Shutter speed	8"
Aperture	f29
Mode	Manual
Exposure bias	N/A
Metering	Evaluative
White balance	Preset

About the image

One of the difficulties for this type of photograph is that often you can find a good background with very little traffic, or a good flow of traffic and very little else in the image.

I like shooting on Westminster Bridge as it offers both together. Piccadilly Circus used to be a good location as well when it had its original neon lights and less pedestrian areas, today the video screens still look good but the ever changing images do not reproduce as well as the neon lights used to, requiring much shorter shutter speeds which then will not blur the traffic as much.

I tend to shoot manually as it overcomes many of the exposure problems you experience caused by the headlights of the vehicles.

On this image I overrode the white balance onto the tungsten setting to give a better colour given the amount of artificial light in the image.

When shooting this type of image you need to make sure that the place that you are standing is free from vibrations and that the tripod that you are using is sturdy enough for the job.

Producing light trails



Very simple to shoot, the art in getting good results is finding the right location to shoot them. Ideally you want to be up above the traffic or at road level with the traffic going either side of you. It helps if there is something of interest in the background.

You also need lots of traffic that moves at a reasonable speed. If shooting in one of the big cities, walking pace will suffice during the rush hours, just use a longer shutter speed.

The reason why we get the light trails is that the vehicles move and leave only the image of their lights behind. You do not capture the vehicle itself as it moves too much and is too dark to be recorded.

It is also possible to create light trails on subjects that have lights on them that move, such as fairground rides at night. I will look at how the techniques for this varies shortly

Generally, a wide angle lens is going to be needed, though a standard kit lens should be wide enough.

These images always have to be shot on a tripod due to the very long



shutter speeds that are needed to produce the effects. Use a remote release to fire the camera.

The ISO therefore needs to be low and shooting with a moderate aperture of about f11 to f22 should be about right, to get the exposures needed. You are looking to get shutter speeds of between 5 and 30 seconds, depending on how much the traffic is moving and the effects that you are after.

If you are shooting in a really bright location in a city, it may be difficult to get all the way down to 30 seconds, unless a ND filter is used.

To combat some of the light pollution and get the right colours for the buildings in the scene, the tungsten white balance will often produce the best colours.

The same techniques can also be used if shooting fairground rides at night that are lit up. As many of the rides move quite fast, it is often possible to use much shorter shutter speeds, 2 to 8 seconds is normally long enough to get a good amount of blur.

Producing light trails



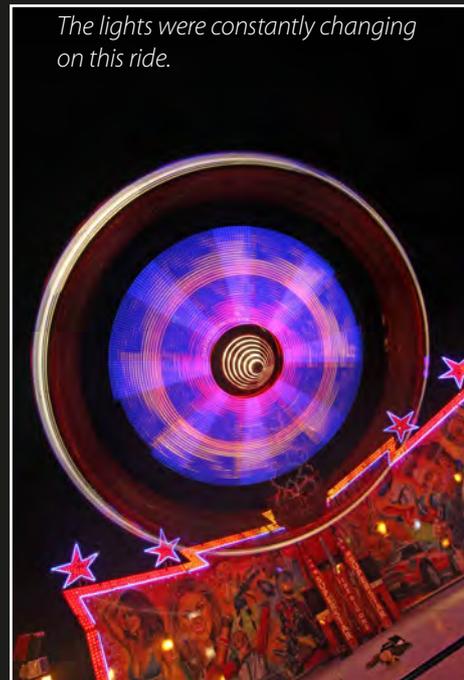
There is still going to be the need to shoot on a tripod. It's also important to look and see how the ride you are shooting moves and how well it is lit when it is moving. The more traditional rides tend to be better lit than the more modern ones.

Wide angle lenses can be a great advantage as they allow you to shoot closer up to the ride and this avoids people getting in front of you when you are shooting.

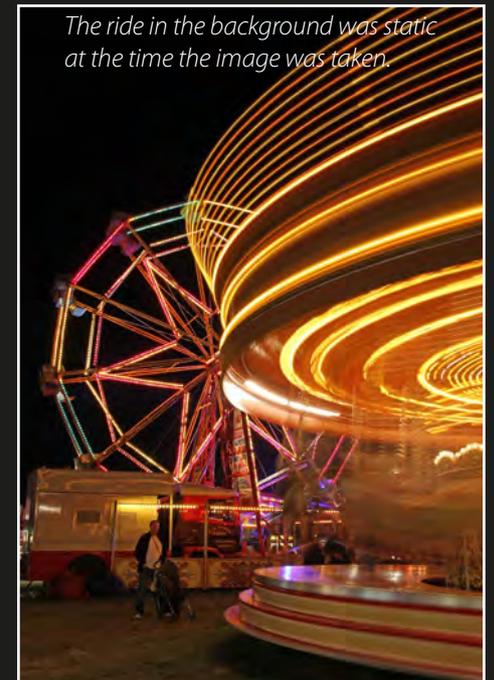
I tend to favour slightly longer exposure times of 8 to 12 seconds in busy locations, as if people move whilst you shoot, they tend to disappear from the image.

Apart from the obvious town fairs, many of the vintage vehicle and steam rallies have fairgrounds with the more traditional rides that are well lit and great to shoot.

The lights were constantly changing on this ride.



The ride in the background was static at the time the image was taken.





02 - How to shoot HDR images

Enchanted Forest, Syon Park, London (2013)



About the image

The way that the event is lit gives some very high contrast and so HDR was used to provide an image with a wider range of contrast which allowed the capturing of highlights together with better shadow details by taking three images at different exposures and then merging the resulting images together.

HDR or High Dynamic Range images are generally shot on a tripod. There are three main ways that they can be produced.

The more basic models have a HDR backlit control mode that automates the process. The more advanced models have a specific HDR mode or a set of images can be produced using the camera's AEB facility and them merged together in post production.

About the location

This event happens just before Christmas each year and provides the opportunity for photographers to take some great images. The light levels are very low and so shooting on a tripod is essential.

The high contrast at the event can prove challenging and can give some very dark shadows as in the image bottom right.

Shooting details

Camera	EOS 6D
Focal lens used	45mm
ISO	400 ISO
Shutter speed	15 seconds
Aperture	f8
Mode	Manual
Exposure bias	0
Metering	Evaluative
White balance	AWB



Using HDR backlit control mode



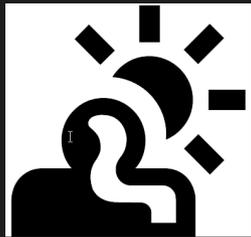
This image was taken without using the HDR mode. The camera was focused on the buildings and it has exposed the buildings correctly, however the whole sky was burnt out and if you checked it on the highlight alert, the whole sky was actually flashing.



In this image the exposure was locked off the sky using the AE lock function. This has given a very good exposure on the sky however the buildings and the cart in the foreground are both very underexposed. It would be possible when doing post production to lift them a bit but the image will generally go flatter when this is done.



This is the image taken with HDR. The exposure on the buildings is identical to what we have on the image to the left. However the sky is darker and now has some detail in it. It is not as dark as the centre image but it does look very natural within the picture above.



This is a new mode and is only found on models launched late 2012 onwards. It is only found on the models that feature the PIC and scene modes so it is not available on any of the professional level models. However the latest ones of these are featuring an alternative which is more versatile.

This mode is designed for when shooting backlit scenes to enable us to get more parts of the image correctly exposed.

In order to do this the camera uses a system called HDR or high dynamic range control.

When this mode is used the camera will automatically take three images very rapidly, each will be at a different exposure. The camera decides automatically what the bracketed amount it is giving and you have no control over it.

The shoot by ambient option is not available and so there is no way you can bias the shot to be lighter or darker.

Some of the more advanced cameras offer an HDR mode within the cameras shooting menu and this is a lot more versatile. We'll look at this briefly on the next page. It's also possible to do HDR within the post production process from a bracketed sequence.

These images are then combined electronically

to provide a single image that has the tones merged to give the best image possible under the backlit conditions.

When this mode is being used you need to frame a little looser than normal as the final image will be slightly cropped to what you are seeing in the viewfinder due to the auto alignment of the images.

This mode also works well if shooting at night or in interiors where there is always a very wide contrast range.

There are no options for the flash to be turned on and shoot by lighting or scene type options are also not available.

Blists Hill Victorian Town, Telford, Shropshire, England (2013)



About the location

Blists Hill is a living museum conveying life as it was in the early 1900's. This was taken in winter when the site was very quiet, but the light was coming from a low angle and a number of the buildings were in shade as a result.

These locations can be great fun to shoot in especially in the summer months as there are lots of demonstrations as to how things used to be done. You also find this type of museum as you travel around the world.

Shooting details

Camera	EOS 650D
Focal lens used	70mm
ISO	800 ISO
Shutter speed	1/320th
Aperture	f10
Mode	HDR backlit
Exposure bias	0
Metering	Evaluative
White balance	AWB

About the image

This was a difficult shot to take as the buildings were in deep shade and the sky was very bright.

If I exposed the buildings correctly the sky was totally burnt out. If the sky was correct then the buildings went far too dark.

The ideal solution would have been to shoot at a different time of day but by then I would not get the town minus all the visiting school children.

As I was shooting with one of the more basic models it had one of the new PIC or scene modes called HDR backlit control mode.

This is effectively doing the same as the HDR mode on the more advanced models but is designed especially to be handheld as it auto aligns the three images which are being taken and then crops the image slightly once the processing is done.

This mode did a good job fully automatically correcting the problem and retaining most of the detail in the sky which would have otherwise been burnt out.

It's a good example of why you need to understand all the settings your camera has, as often they are vital to get a good image.

Using HDR mode



HDR mode is present on all the mid range and higher level EOS cameras. The exact way that it works varies a little. The EOS 5D Mark III and the EOS 7D Mark II are the only cameras that will save the three source images that are taken. The other models that feature this mode will still take the three images and process them to produce the final image, however they will then discard those images and only the HDR finalised image will be saved. The models that save the source images can generally allow you to shoot RAW images when using this mode, however the HDR processed image will always be saved as a JPEG file. On the more basic models the mode will only work when JPEG images are being shot.

There are options on all models for the bracketed range that will be used. The auto option works well, though for interiors such as the examples used here I would normally manually use the option for +/- 3 stops.

It is important to get the central exposure as near to the correct exposure as possible as that sets the centre point for the merging. If it is too light or dark the processed images will often be too light or dark as a result.



The images at the top are the saved source images and the image immediately above is the final JPEG image that was produced by the camera's processing.

Using bracketed images and post production



There are times when it is not possible to get the whole image correctly exposed due to the conditions and it may be preferable to shoot a set of bracketed images and then produce the HDR image in post production.

The image to the right was produced using HDR or High Dynamic Range imaging. This is where we use three images taken at different exposures and merge them together to give us an image with a wider range of tones.

This image was produced using Digital Photo Professional which is supplied with all Canon cameras. It needs to be a version that has been updated within the last few years to have the HDR option on it. The images were taken using auto exposure bracketing with a bracket of +2, -2 and a correct image was taken. So this is a

technique that can be achieved with any EOS camera. The original images are shown in the sequence above.

Some of the more modern cameras also have an HDR mode which achieves the same thing in camera. This will basically produce a very similar result. We can see in the image to the right that the sky is a better colour and the shadows are lighter with more detail in them.

Normally this technique has to be used with a static subject, however as I was blurring the water to such a degree the end result is still acceptable. These images were shot on a tripod as I was using slow shutter speeds. It is also possible to shoot handheld using the HDR mode as the mode does have an auto align option and the images are taken very quickly.



How to set HDR mode and its options



The HDR options can be set on the camera from the shooting or camera menus. Once you press the set button it will take you into the main HDR window.

The options can be set with the touch controls as well if your camera features them.

The first option in the menu is the adjust dynamic range. This effectively turns on the HDR when it is not set to disable.

Within this menu there are four options on the majority of models, a few more on the higher level models. The auto setting will decide on the best amount to bracket the scene by.

There are also options to bracket the three shots by plus or minus one, two or three stops.

The bracket amount allows you to decide the dynamic range or tonal range that you want the original images to cover. In a very extreme scene you may need plus or minus three stops.

However, often the resulting images look very flat. It is also worth experimenting with the exposure compensation for the basic exposure as making that lighter will lighten up the final image, making it darker will darken that down.

The exposure is based on the camera's normal exposure for that scene, therefore where the camera is being focused will also have an effect on the basic exposure and affect everything within the process.

The next item on the menu is continuous HDR. This has two options. The default is for the HDR system to only be active for one shot. This prevents it accidentally being left set on the camera.

However, if shooting a lot with HDR it can be very irritating having to switch it on for every shot and so the other option is for every shot to use the HDR option.

Auto align is the next item in the menu. This is

disabled as a default and is designed to try and align handheld images if it is switched on.

It does this with mixed success depending on how steadily the camera has been held and how quickly the images were taken.

HDR cannot be set in the following circumstances.

- Auto Exposure bracketing is set on the camera.
- White balance bracketing is set on the camera.
- Multiple exposure is set on the camera.
- Bulb mode is set.

It is also not possible to use flash if the camera's HDR is set as the flash simply will not fire.

HDR is a useful extra feature to have and can give a better image in very tricky, high contrast situations.

However, if the images are being taken at the right time and facing the right direction for the lighting, generally the camera will cope easily with the range of tones that are available without the need to use HDR techniques.



03 - Shooting and merging Panoramic images

Marsalaform, Gozo, Malta (2008)



About the location

This is a very pretty little bay on the island of Gozo, which is the sister island to Malta.

This particular day had a few clouds in the sky and so I had to be quite quick when taking the sequence to ensure that they did not move too much, otherwise this will cause problems when the image is being stitched.

Shooting details

Number used	8
Format shot	Vertical
Camera	EOS 1D Mk III
Focal lens used	50mm
ISO	200 ISO
Shutter speed	1/160th
Aperture	f8
Mode	Program with exposure locked using the AE lock and held between shots
Exposure bias	0
Metering	Evaluative
White balance	Cloudy

About the image

This image is comprised of eight images and they were shot in a vertical format using a 50mm lens.

I was cheating slightly, being on program mode, but making sure that the exposure was locked for the duration of the shots by using the AE lock button. This is a dangerous way to work if you're not very familiar with the camera's operation.

Generally panoramic images are going to work best when the lighting is coming either from the side or from the front of the subject that we're taking, as this provides the most even and consistent lighting.

How to shoot a panoramic image



The very first thing that you need to do, is to find an image that works well as a panoramic scene. You need to look carefully at the scene to make sure that the lighting is fairly even, as the exposure needs to be identical in all the shots that you take.

I will often shoot 2 or 3 shots in various parts of the planned panorama to check that the lighting looks fairly even.

The next thing to work out is what the exposure is going to be. These images need to be shot ideally as manual exposures, to prevent the exposure from changing as you take the images in sequence. If they are different exposures they will not stitch well. For those who are not that familiar with shooting manually, the cheats way of doing it is to take an

exposure reading on program, and check that exposes the scene correctly by taking an image. Then set that aperture and shutter speed into the manual mode settings. It's also important for the ISO to be on a manual setting and not being automatically set.

Generally, the lenses that are used to shoot panoramic images are between 35mm at the widest and up to about a maximum of 135mm at the telephoto end. I normally try to shoot as close to 50 mm as possible as this prevents distortions occurring, that can prevent the correct stitching of the images.

I also shoot vertical images, as this produces an image which is higher and prevents the very long, very thin images that are so often the result of a panoramic sequence. Bear in mind, it does not really matter how many images you shoot in the sequence to give you the width that you need.

To take the images, you need to start from the left hand side of the image. Most of the software that stitches the images, wants them to be in this sequence. Then slowly pan around taking the images so that at least 30% is overlapped from one image to the next. Make sure that the camera is held level and do not allow the lens to zoom in or out whilst taking the sequence, so be careful where you are holding the lens.

You can see from the images above how much roughly I try to overlap by, the final image is shown on page 20. You have to visually remember where the images start and finish and so make sure you do not get interrupted whilst taking the pictures.

How to stitch a panoramic image

There is a very wide variety of software on the market to stitch together the images you shoot as a panoramic sequence.

However, it is not necessary to buy any software, because if you use the software that is supplied with the camera, the utility you're looking for is either called Zoom Browser or Image Browser, depending on whether you're using a Mac or PC and how late your software is.

This has an option within it called photo stitch, which is simple to use, as all you have to do is locate the images and then follow the prompts on screen. Photo stitch works within the software with both Macs and PCs. However, over the years I've noticed that whilst on a PC it performs very well and give some very efficient stitches, for some reason on a Mac it is less stable and does not stitch anywhere near as well.

It also has to be said that on the Mac Book Pro the new image browser software appears to be very flaky, and my system refuses to be able to save the image to the right, as it claims to be out of memory, which it's obviously not. Hence why there is no example from the photo stitch software from Canon.

There did used to be an excellent piece of software for the Mac called PanoEdit, which only cost a few pounds but worked superbly, but it has unfortunately disappeared without trace from the market.

Photoshop programs also have a option to do a photo merge, found within the filter menu, which is a little more complex to use, but does produce some good results though it is doing the normal Adobe trick of taking at least 10 times longer and using a much more complicated way of doing things than most other bits of software. If it did it better, then this could be excusable, but it produces virtually identical results.

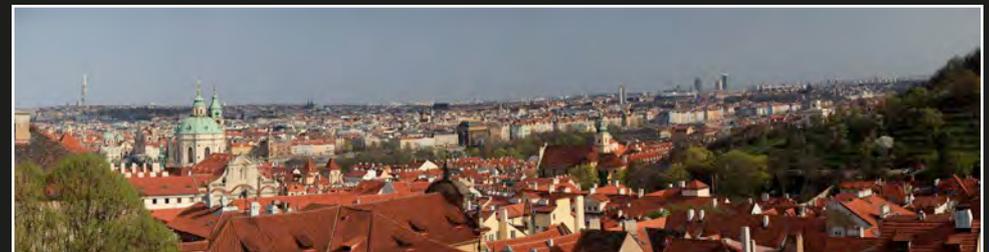
If you're using Photoshop to do the photo merging, just keep an eye on the size of the file that the program is creating. If you are only stitching three or four images, it should not be a problem, but on the sample image to the right, which is made up from 12 separate images, it managed to create a 1.2 GB file, which was over 18,000 pixels across. Unlike most of the other panoramic software, there is not an option when saving to reduce the size down to something sensible. It also tries as standard to save as



This image was produced using PanoEdit



This image was produced using Photoshop elements



This image was produced using Panorama Maker

a PSD file which will be the full 1.2 GB in size, which even my high spec Mac Book Pro struggles with. However, if you go into the resize command, the image can easily be taken down to a much more manageable size. I normally go for about 6000 pixels across which is more than enough to print most images you are likely to use.

In the Mac app store there are also a number of different apps that all produce panoramic images. If you want to search, try typing in panoramas and you will find them. There is one called panorama maker which works very well, and if you search on the web, there is a free trial download so you can test it. However, it is not the cheapest of software.

St Jean de Luz, France (2011)



About the location

This is a small village located in the Basque region of France. It is very picturesque with a small fishing harbour, providing an ideal foreground for a panoramic image.

The day was ideal for the shooting of panoramic images, as there was a clear blue sky. Unless you are very quick, shooting the panoramic on a cloudy day will prove a problem when it comes to stitching the images.

Shooting details

Number used	9
Format shot	Vertical
Camera	EOS 600D
Focal lens used	44mm
ISO	100 ISO
Shutter speed	1/60th
Aperture	f8
Mode	Program with exposure locked using the AE lock and held between shots
Exposure bias	0
Metering	Evaluative
White balance	AWB

About the image

This image was shot as nine separate JPEG images which were then stitched together using the PanoEdit software on my Mac.

The images were shot as vertical images and overlapped by about 30%.

I was using a lens in the standard focal length range, the EXIF data shows it as 44mm. Normally, I would advocate shooting on manual mode when shooting a sequence such as this. As I know the camera very well and can easily keep the shutter button depression part way on throughout the sequence, it is possible to use the AE lock for the first shot and keep it retained for the whole sequence.

The problem with doing this, is if you actually pause part way through the sequence it is easy to lose the AE lock and then very difficult to restart shooting again in the same place.



04 - In camera monochrome images

Street scene, New York, USA (2008)



About the location

New York can be a challenging place to photograph. This is taken on one of the long avenues that runs down Manhattan, I think near to the Times Square area and the sides of the street have these enormous billboards much of the way down.

There are always a lot of people in New York on the streets and they're always in a hurry. So this image sums up the atmosphere on the streets in this part of the city.

This was taken in late January and the sun is quite low, producing very pronounced shadows.

Shooting details

Camera	EOS 40D
Focal lens used	17mm
ISO	400 ISO
Shutter speed	1/100th
Aperture	f7.1
Mode	Program
Exposure bias	0
Metering	Evaluative
White balance	AWB

About the image

I particularly liked the shadows of the people walking past and shooting backlit, I knew that the people were going to be reproduced as a silhouettes. The exposure needed to be correct for the pavement rather than the peoples' shadows. So the exposure was AE Locked onto the pavement.

I have included the colour version of the image at the bottom and what this shows is why the image needed to be taken in black and white, as the red billboards just distract the eye and make it almost impossible to look at the people in the colour version of the image.

For this image there was a red filter set into the camera, which is lightening some of the reds on the billboards, making them a lighter grey and also the contrast was set up to +4, to emphasise the natural contrast that was there caused by shooting heavily backlit.



How to shoot in black and white



A colour version of the image



The same image processed into a black and white image using just the camera controls at the time of shooting hence the slightly different framing.

Using the monochrome picture style

The reality of shooting in black and white is some images work and others don't. For those that have previously shot black and white film, they will understand the complexity of what makes black and white images work and the modifications that can be done to the image via coloured filters and contrast.

For those that are new to shooting in black and white, it can be quite complex to understand why some images appear to work well and others do not. We see in colour and so it should not be too surprising that any image which looks great in colour, will not always reproduce the same when is back and white. The way that the colours convert to black and white can either make your image work, or possibly fail on a black and white level.

The monochrome picture style is a great way to learn how to shoot in black and white. You will see the image straight away and understand the images that work and those that present problems.

If you are shooting a JPEG file, you will be getting an image that is shot in black and white and how it looks on the back of the camera, is how it's going to appear on the computer. The one danger of this is that you leave the camera on black and white and shoot images in JPEG that you think you're shooting into colour. If this happens there is no way of getting the black and white image back into colour.

This is the one time that I sometimes shoot in RAW. If I shoot the image in black and white as a RAW, I have the ability to alter the file to see other variations of how I could've shot it in black and white, or alternatively return it, if it was shot in error, to colour. Of course, you can also shoot in colour and then do all your black and white conversions within the RAW processing.

If shooting in black and white as a RAW file, be aware that many third party RAW converters discard or ignore the black and white information and so the image will open up as a colour file. Canon's own Digital Photo Professional software will actually open the images as black and white and retain all the camera set options.

Customising the monochrome picturestyles



-4 contrast



-2 contrast



0 contrast



+2 contrast



+4 contrast

How the contrast affects the image

To explain why the picture style allows you to change things like the contrast when shooting in black and white, it's important to go back to how black and white was taken in the days of film.

The main aim on film, when shooting in black and white was to get a negative that was correctly exposed, with a good range of tones. There was a choice of films, but this was mostly about being able to choose different ISO speeds for the different subjects that you might be tackling.

The real work started when the film was being processed. Serious photographers in the days of black and white, always processed and printed the film themselves. They would've had a preferred developer, which gave them the type of negatives that they were happy printing. Some photographers preferred a negative with a very wide range of tones, others preferred one which was slightly higher contrast and possibly a bit easier to print.

The negatives were then printed onto paper, this was available in a range of grades from 1 to 5. Grade 1 gave a very flat looking image, which had

a very wide range of tones, in other words very low contrast. Grade 3 paper was considered the normal one that was used and gave an average contrast. Grade 5 paper was very high contrast and gave a very narrow range of tones. You chose the paper according to the negative you were starting off with, the subject and the type of result you wanted to produce.

The contrast that can be changed within the picture styles, effectively mimics these different grades of paper, when shooting in black and white.

Taking contrast down to -4, is pretty much equivalent to using a grade 1 paper, and will give a somewhat flat looking image. The contrast on its default position of zero will be the equivalent of using a grade 3 paper. Taking the contrast up to the plus settings will give an image which is much higher contrast, with +4 being very similar to the results that were obtained by using a grade five paper.

The example images above are produced by using the same settings as offered by the camera, within Canon's Digital Photo Professional software on the same RAW file.

Customising the monochrome picture styles



No filter effect



Filter effect yellow



Filter effect orange



Filter effect red



Filter effect green

How the filter effects affects the image

In the days when we used to shoot black and white on film, most photographers carried a range of two or three filters, these were used to change the way that various colours reproduced in the final result.

The filters were needed because some colours within the image could cause problems in the final black and white image. A blue sky often came out very pale, because blue when converted into monochrome comes out a very light grey. By using a filter from the opposite part of the spectrum, it blocked some of the blue light, thus enabling the sky to reproduce darker, once the negative was printed.

A yellow filter was used to darken the sky, but to keep it looking natural. An orange filter was used to darken the blue sky a little more and give it better clarity against the clouds. A red filter darkened the sky even more and in some instances made it go almost black, given a much more dramatic effect.

The orange and red filters were also used as they could lighten reds and oranges within the scene and therefore lift brickwork and red roofing tiles, to not reproduce so dark and heavy within the image.

The other filter which was around at the time but not used as much, was a green filter. This could be used to lighten up foliage within a scene. However, the more common use was within portraiture, as it lightened up the skin tone a little and defined the lips more against the face.

The filter options within the picture styles, are designed to do exactly the same thing. The big benefit is that they can be put in at the time of shooting, so you can see the effect that they are having. Something that was impossible in the days of film. They are also digital filters, so although producing the same effects, they have the benefit of not giving any light loss, which did happen with traditional screw on filters that were used with black and white film.

The effects that these filters give can also be exaggerated by taking the contrast settings up into the plus range. The sample images above were produced using the Canon RAW converter, which will give an identical effect to shooting the image in camera.

Customising the monochrome picturestyles



Standard monochrome



Toning effect sepia



Toning effect blue



Toning effect green



Toning effect purple

Using the toning effects

The final effect within the picture style options when shooting monochrome images, is the toning effect. This can either be produced at the time of shooting in camera or can be reproduced by processing a RAW file within Canon's Digital Photo Professional software.

The toning effect replicates another process that was done when we used print our own black and white images. The best known of all the toning effects is the sepia tone. This replicates the old brown colour that is seen on many vintage images.

The software also offers the option to tone the image blue, green or purple. These replicate some of the lesser known toning techniques that were used many years ago.

The toning effect offered by the Canon cameras and software is very subtle and produces a very consistent image. It is possible to apply these coloured effects within various post production software. However, many of them can produce a variable result and so if producing a set of pictures that you want to match, then this has the advantage of consistency.

It is possible to produce a monochrome image with this effect applied directly in camera. However, as these are effects that you may want to vary from one image to another, it is often wiser to shoot the images as RAW files and then apply the adjustments within Canon's own Digital Photo Professional software.

If opening the RAW image which has been shot with the toning effect in Canon's software, all the adjustments will be retained on the preview image, but you have the option to change any of them.

If you are shooting RAW images and use these effects and you put the image into third party RAW converters, the vast majority of them will ignore all the on camera settings and simply give you a preview image in colour. Most of them offer very similar options to what's available on the camera, but you will have to apply them all individually at the time of the RAW processing.



05 - How to capture fireworks

Kimbolton firework display, Kimbolton, Cambridgeshire (2011)



About the image

Fireworks can be challenging to photograph, as you only get a very short period of time to shoot them as most displays last 10 to 20 minutes at most.

This display goes on for up to 25 minutes making it one of the longest to shoot at. It takes place in a large field belonging to a local school and there is plenty of space so I normally try and stand at the back of the crowd that gives me more space to work.

Exposure times will vary, the last couple of displays varied a lot in brightness needing exposure times from 3 seconds to as long as 8 seconds to get the effects that I wanted. The aperture sometimes need to be varied, if the fireworks are especially bright but something in the range between f5.6 and f11 will bring the exposure within range.

This image was shot on a tripod as there was plenty of space to use one. This has allowed the use of the slower shutter speeds which has given better streaks within the image.

About the location

Fireworks are a subject that we get very few opportunities to shoot. True during November it is possible to get to a couple or three different firework displays as many of the local ones try not to clash with each other.

It's important to try and find one that has a reasonable amount of fireworks. Of course the large ones on the Thames in central London do fall into this category but due to the very large crowds that they attract they can be difficult to photograph. This was taken at our local display which is run by Kimbolton fireworks who also often do the fireworks for the large London displays.

Shooting details

Camera	EOS 5D Mark II
Focal lens used	22mm
ISO	200 ISO
Shutter speed	5"
Aperture	f7.1
Mode	Manual
Exposure bias	N/A
Metering	Evaluative
White balance	AWB

How to capture fireworks

This was taken on a tripod to allow a slow shutter speed to be used.



There are two key problems when we are shooting fireworks. The first is how infrequently we get the opportunity to photograph them. The second is how short a time the displays last. So you have to be able to work very quickly.

There are two different approaches to this type of photography. On the really big displays there is enough light to be able to shoot handheld. This can work well with some of the very big displays, as there are so many fireworks in the sky at once. This can also solve the problem of where to put the tripod in a very crowded area. However, as this effectively will freeze the fireworks, we do not get the distinctive streaks that we are so accustomed to in many images of fireworks. The image top right is taken handheld.

The other alternative, if there is space, is to shoot on a tripod and use shutter speeds of between 3 and 8 seconds to capture the trails of the fireworks. Both give totally acceptable results. The type of image you want, what display you are going to and how crowded it is, may decide the approach for you. The image top left is taken on a tripod with a 6

This was taken handheld and a shorter shutter speed has been used which has allowed the bonfire to be captured better.



second exposure and shows the very different effect you get using the longer shutter speeds.

Generally the fireworks are going to fill most of the sky and so wide angle lenses tend to work best. Generally anywhere between 15-35mm on the 1.6x models and 24-50mm on the full frame models can be useful. Wider lenses can work at some of the bigger displays, especially if you are very close to the fireworks.

If you are handholding, then the important thing is to keep the camera reasonably steady. With a wide lens on the camera a shutter speed of only 1/30th or 1/60th is going to be needed to achieve this. If the ISO is taken up to 800 ISO or even 1600 ISO then we should have plenty of light to take the images. The aperture can be whatever works to make the image look good. I normally find that f5.6 or f8 works well.

If shooting on a tripod then the ISO must be taken down to just 100 ISO or 200 ISO at the most. It is very easy to end up with too much light at the big displays.

How to capture fireworks

This was taken on a tripod



Generally the shutter speed is going to be between 3 and 8 seconds. The longer the shutter is open, the more fireworks and streaks are captured.

On the very big displays 8 seconds can be too much and result in a very cluttered image. The aperture will be between f5.6 and f11 depending on the brightness of the fireworks and the shutter speeds that you are using.

You have to be able to change the settings very rapidly. The only mode that really works is manual mode and so you will have to adjust the settings for the changes in brightness throughout the display. Check the images as they appear on the rear of the camera and respond to what is happening.

Generally the white balance works well on the auto white balance setting. If there is lots of light pollution present from the surrounding area then the tungsten setting will reduce it to an acceptable level.

This was taken on a tripod



This was taken handheld





06 - How to capture Northern Lights

Northern Lights (Aurora Borealis), Sarek National Park, Sweden (2004)



About the image

The Northern Lights are actually fairly easy to photograph once you understand a few key things.

Firstly you need to be in a dark location away from light to get the best view - the national park was perfect for this.

Generally the wider the lens you have the better - I was using a 14mm lens here.

You need a sturdy tripod as the normal technique is to shoot manually and set an exposure of 30 seconds at f4 at 400 ISO. The focusing needs to be set manually making sure that it is on the correct point, do not just turn the lens as far as it goes as all lenses focus past infinity. I use a bit of masking tape to keep it there. Then just shoot lots of images.

About the location

This is an absolutely beautiful national park in the Arctic part of Sweden. It is a very remote location with no transport links, normally the only way in is a 10 days hike. I had been invited out to look at the feasibility of running photographic trips and so I was flown in by helicopter.

I stayed in a small stone hut, shown to the right, which was heated by a log burning stove. It was basic, but a great location for photographing the Northern Lights.

Shooting details

Camera	EOS 1D Mk II
Focal lens used	14mm
ISO	400 ISO
Shutter speed	30 seconds
Aperture	f4
Mode	Manual
Exposure bias	0
Metering	Evaluative
White balance	AWB



How to capture Northern Lights



A national park, 10 days hike from any town gave great photographic conditions and the lake gave great reflections.



The light in the hut was coming from the log burning stove which provided the only heat at the location.

The Aurora Borealis or Northern Lights are a natural phenomenon, which occurs around the polar areas.

The one that happens in the northern hemisphere, Aurora Borealis is the most regularly photographed, as it is easily accessible in many locations.

The one that happens in the southern hemisphere is the Aurora Australis, however, this is not so often photographed, as it is only really ever seen in the Antarctic in winter and so the only images that are normally taken are by those working in research stations.

Although thought of as arctic phenomenon, the Aurora Borealis can be seen in peak years as far south as the UK, though good displays here are very rare to see.

Aurora can occur at any time of the year, but can only be seen when the sky is dark. The best months for viewing are normally October to April for the Northern Hemisphere. During the summer months, the sky never gets dark enough for the Aurora to be visible.

If you are going to photograph or view Aurora, try and avoid times when

the Moon is visible, as this will wash out some of the colour.

If you shoot in urban areas, the light pollution will in most cases overpower any Aurora display. It is best to find some darker rural locations for viewing and photography.

Generally the wider lenses will give the very best results. The aurora normally occupies most of the sky. A wider lens also allows some foreground interest to be included into the image.

Set all your lenses to manual focus. Set them to the infinity mark and tape them in place. You need to keep lights off as much as possible and the camera will not autofocus in these conditions.

Make sure you know your camera well and how to set things in the dark. Every time you turn a torch on, you lose your night vision and the ability to see the aurora for up to 10 minutes.

As a starting point, set the camera to manual mode, set the shutter speed to 30 seconds, the ISO to 400 and the aperture to the widest your lens will support.

How to capture Northern Lights

The flash should be turned off, as it will only degrade the image.

Mount the camera on the tripod, if you have a remote release then use it, otherwise enable the self timer. If you have a 2 second option select that.

Point the camera towards the sky, take a picture and look on the screen at the back at the image just captured – if the Aurora display is too bright, reduce the shutter speed, and take another image.

If the Aurora display is dim, you could try increasing the ISO, alternatively wait for a stronger part of the display.

For Aurora photography, the camera should be set to Large Fine JPEG and/or RAW quality.

If your camera has high ISO noise reduction, it's best to turn this on, if you are trying to shoot handheld at very high ISO settings.

To prevent long exposure noise, turn on, or onto auto, the long exposure noise reduction. This will halve the number of pictures you will take, as each picture will take twice as long to capture.

The Aurora tends to be mainly green in colour at high latitudes, but can contain many colours, including white, red, purple, blue, green and yellows. The colours are caused by the charged particles reacting with different gas molecules in the ionosphere.

Generally auto white balance works well and make the most of the colours, though RAW can also be shot and processed later. If you have to shoot in an area where there is lots of light pollution, then the tungsten white balance will help with the sky colour, although it will make the Aurora's colours bluer.

The image to the right was shot on film. I have since found that the various colours that may be seen, often reproduce much brighter if shooting on digital cameras and you get to adjust the camera for the very best results based upon seeing the shots.





08 - Creativity by zooming during exposures

Window, Winchester cathedral (2007)



About the image

Zooming effects are relatively easy to achieve. The key things you need is for the camera to be on a tripod, be using a zoom lens and to have a reasonably long shutter speed, ideally between 1 and about 8 seconds.

If shooting interiors or night shots this is reasonably easily achieved.

This image was taken on an EF 28-70mm lens and the lens was started at 28mm and rapidly zoomed into 70mm as soon as the shutter opened.

The window is visible in the image as it took a fraction of a second to start zooming on this image. In the example below it took less time and so more of the zoom effect but less of the window is seen.

About the location

This image was taken in Winchester cathedral. The biggest problem in creating this image was the light levels as this window is at the west end of the cathedral and it was taken in the afternoon when the light was shining through the window. Although this did make getting the right exposure for the window difficult, it did give me the opportunity to try this zooming technique which worked very well as the light coming in through the window was so bright.

Shooting details

Camera	EOS 1D Mk II
Focal lens used	70mm
ISO	100 ISO
Shutter speed	1 seconds
Aperture	f32
Mode	AV
Exposure bias	-2/3
Metering	Evaluative
White balance	AWB



Creating a zooming effect

The first thing you need to produce this effect is a zoom lens with a reasonably long zoom range. The longer the zoom, the longer the streaks that you get by zooming its full range.

Lenses such as the EF-S 18-135mm and EF-S 18-200mm are excellent to use for this effect, though lenses with a more moderate range can still produce some good effects. The lens also needs to have a zoom ring that moves reasonably freely, if it is too tight or difficult to move you do not get a very smooth zoom.

You then need a subject that has bright bits in it surrounded by a dark area for the very best results. A stained glass window in a church or cathedral is ideal but this effect can also work with illuminations and Christmas lights.

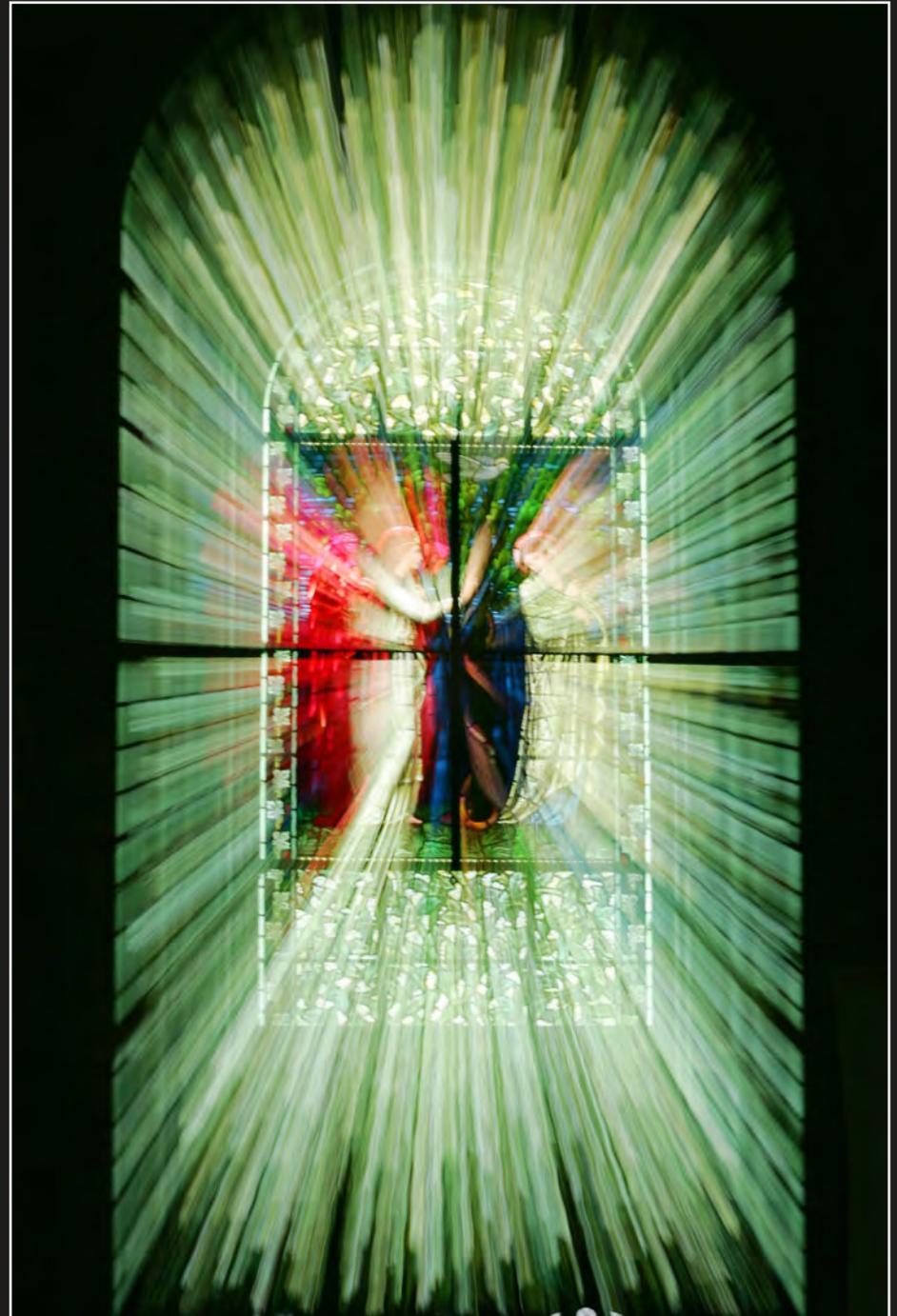
You then need to be shooting on a tripod as the shutter speeds needed to produce this effect are too slow to enable you to handhold. The tripod needs to be reasonably sturdy as it needs to not move when you turn the zoom ring on the lens.

All of those things are reasonably easy to achieve, the more difficult part of this technique will be getting the shutter speed you need to use for the effect to work. Generally shutter speeds are going to need to be between 1 and about 8 seconds. Less than 1 second and you do not have time to perform the zooming. More than 8 seconds and you have to move so slowly on the zoom that you are likely to get to the end of the range before the end of the exposure.

Outdoors it is difficult to get exposures that slow which is why you mainly see this technique used in churches and cathedrals and also at night when the light levels are low enough to permit shutter speeds that slow to be used.

If you want to try this technique in brighter locations it may be necessary to use a ND or neutral density filter to cut out some of the light. A NDx8 cuts out 3 stops of light and is normally enough to get down to a 1 second exposure in all but the brightest of locations.

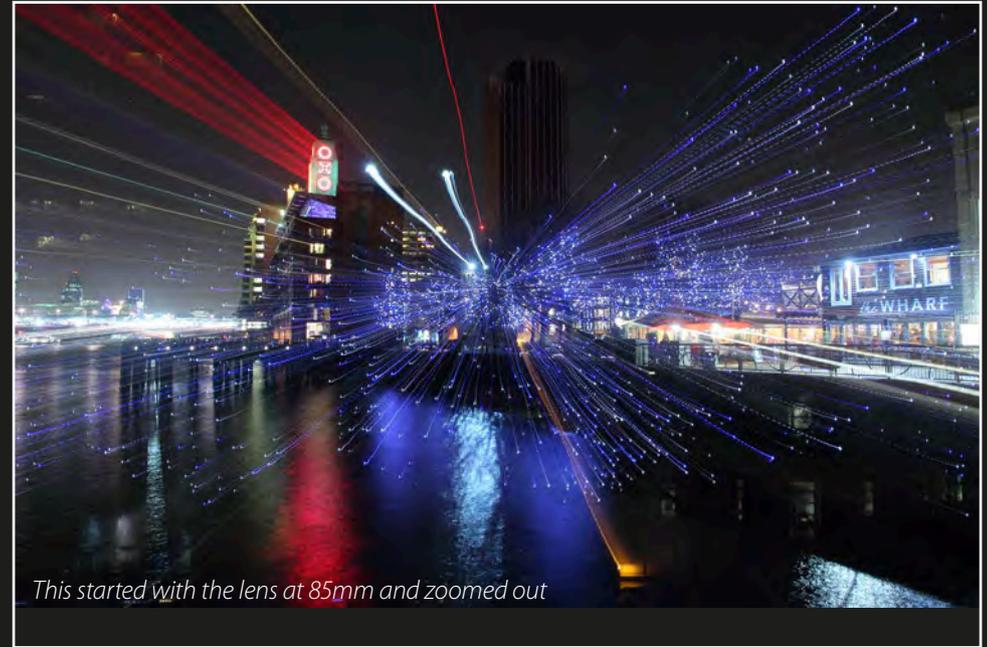
It is important that you start zooming the lens as soon as the camera's shutter has opened. How quickly you turn the zoom ring will depend on how long the shutter speed is that you are using. This technique is much easier to achieve on shutter speeds of 2 seconds and longer.



Creating a zooming effect



This started with the lens at 15mm and zoomed in



This started with the lens at 85mm and zoomed out

Which way you zoom will also make a difference to how the image looks.

The image top left was taken on a 15-85mm lens and was started at 15mm and then was zoomed in as the image was taken. The fact that the background wide angle image is visible is due to not reacting at the exact second that the shutter was opened. The light streaks however are more pronounced in this image.

The image top right was started at 85mm and then zoomed out towards 15mm. The fact that the background is much more visible in this image could partly be due to the fact that I got to the end of the zoom a second or two before the end of the exposure time and therefore the background in the image has been rendered more noticeably.



As the effect generated by this technique can vary so much, which can be seen in the image above, it is important to take lots of images at the time you are shooting. You can then simply pick the best ones that you get. As you take the images you will soon notice what is working best and can concentrate on that technique for that subject. The great advantage with digital cameras is that it costs nothing to take the shots and you get to see the images straight away.

Creating a zooming effect

The images that I have shown up to this point have all been taken by slowly zooming the lens during the exposure time.

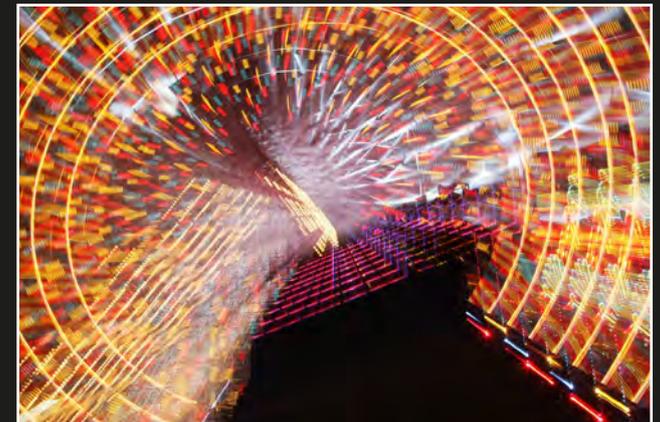
The example on this page have all used the same basic principles that I have talked about but instead of zooming consistently throughout the shot, longer shutter speeds have been used and the lens has been zoomed a small amount every couple of seconds to give a staggered zoom appearance.

For this to work well you need a subject that is illuminated as in the examples that are shown here and very low light levels that will allow you to use shutter speed between about 8 and 30 seconds. If you try this effect with shorter shutter speeds you will get very few repetitions of the image as you will only have time to zoom and stop two or three time.

This is a technique that is a bit of fun and can produce a few images with a certain wow factor.

However, it also has to be said that it becomes repetitive very quickly and there for the novelty of this technique soon wears off.

It is also possible to produce a similar effect with daylight images using post production programs such as Photoshop. One advantage of producing zoomed images in post production is that it does not have to be applied to the whole image and you have a lot more control of what is happening and the degree of zoom effect.





07 - After dark portraits using flash

Jamie, Christmas shoot, London (2003)



About the location

This image was taken along South Bank near to the London Eye very close to Christmas. The trees lining the path to the London Eye were all covered in blue lights which gave a great background to the image.

Tripods are not allowed to be used this close to the London Eye, allegedly for security reasons, so I had no choice but to handhold this image.

Shooting details

Camera	EOS 10D
Focal lens used	85mm
ISO	800 ISO
Shutter speed	1/30th
Aperture	f1.8
Mode	Manual
Exposure bias	0
Metering	Evaluative
White balance	AWB

About the image

The EOS 10D was the first digital EOS model that I used regularly. It was the first model in the Canon range to give what I felt was quality comparable to the image quality that I got when shooting on slide film.

In this location I had to handhold, and one of the problems with the very first digital EOS models is that they were not great on the higher ISO settings, though to be fair neither were the high speed films available at the time.

This was taken at 800 ISO which allowed me to handhold as I was using a very bright lens with a widest aperture of f1.8.

Using an apertures this wide gives very good background blur, sometimes referred to as BOKEH, this is an effect rarely seen with zoom lenses due to their much smaller widest apertures that most of them feature.

I was shooting on manual mode, setting the exposure to be right for the lights in the background and then letting the flash set the exposure for the model. The flash used was the Speedlite 550EX.

Using flash after dark

It might sound obvious to shoot with flash when taking portraits after dark. It is the main light source that will light our subjects. However, if we just turn the flash on and do not think about the mode and settings that we are shooting in we can end up with just our subject against a very dark background

There are times when that may be what you want to achieve, however much of the time you are taking the image to remember the location or event where you are and as a result you need the background to appear in the image to keep the context of why the image was taken.

If we shoot in the fully automatic modes, Auto + or green square as it is often called, on the PIC/SCN models that will automatically turn the flash on, then we will get our subject correctly lit but the settings used are such that much of the time the backgrounds will go dark or disappear entirely as the flash itself can only light the distance where your main subject is located.

The mode that is the main exception which is found on all models is the Night Portrait mode. This mode is designed to give fill-in flash regardless of how low the light levels are. It really mimics how the TV mode works and uses a flash exposure combined with a long exposure time to allow the background details to be captured. If an external flash is fitted it will behave in the same way as the built-in flash, just offering a better range.

In night portrait mode it is wise to shoot on a tripod as the shutter speeds are often lower than can be safely handheld. Tell the subject that they



need to stay still even after the flash has fired.

However, there was a fundamental problem with the Night Portrait mode and that is when it is in use the ISO range the camera uses is very limited on many of the earlier cameras in the Canon EOS range. Mostly 400 ISO was the maximum ISO chosen, when flash was being used and as a result camera shake was frequently seen in this mode.

However, on the very later models, the ISO has been allowed to go up beyond this, mostly to 3200 or even 6400 ISO and this has allowed

this mode to give much better results when shooting in low light levels handheld. The easy way to check how high the ISO is set on your particular camera is in a dark location set the camera to the night portrait mode and see what ISO is indicated in the viewfinder or Q screen on the rear of the camera

On models launched late 2012 onwards, there has also been another mode called Handheld night scene mode, which can also be used for night portrait type images. I will look at how this works on the next page.

Handheld night scene mode



This is a fairly new mode, only found on the later models launched from late 2012 onwards. Normally to shoot night scenes you need to be shooting on a tripod. However with the

development of higher ISO settings it is now possible to shoot more frequently handheld. This mode has been specially developed to enable handheld shooting without the need for a tripod and has an option to use flash to light foregrounds or people in the image.

When set on this mode the camera will take 4 images automatically as fast as it is able to. These images will be combined to produce an image with reduced camera shake and good brightness for the scene.

The default flash operation is for the flash to be off as night scenes photograph better without flash. However, there are options provided if the Q button is pressed to be able to turn the flash on. This is for times when there are people in the image.

The first image is taken with flash and then subsequent images taken without and then the images combined automatically. It is important that the person stays in the same place until all 4 images have been taken. If shooting with flash turned on remember that it will only light very close subjects. If more power is needed an external speedlite flash can be fitted and will work in an identical way to the built-in flash.



ISO settings, the key to great flash images

Of course a lot of photographers will want to take more control and work in the more creative modes when shooting portraits after dark.

Any of the models normally used with flash can work, though to get the background to come out right and avoid getting camera shake the correct ISO for the light level, as if flash was not being used, will need to be set.

To show the difference that increasing the ISO can make, even when shooting in a very basic mode such as program, we have taken this sequence in a low light level.

You can see the program mode has used very consistent settings for the sequence, as the ISO gets higher then we progressively see more of the background but it is only the ISO that is changing.

When the ISO gets to the level that you could have taken an image just with the ambient light, then we start to see the flash intensity reduce.

The flash switches automatically from just using flash alone to light the subject, to starting to reduce the flash light to give a better fill-in flash exposure.

Of course there other ways that the image could have had more ambient light. Shooting with a very bright lens will make a big difference, but not if shooting in the program mode.

If shooting in AV or TV mode the ISO is still as important, but these modes will utilise any wide aperture on the lens much better than the program mode.



Creative mode choice

The way that flash works within the creative exposure mode varies. In program mode it is all about getting the subject correctly exposed by flash and so the background can only be controlled by using the ISO to capture it. The problem with program mode is that it does tend to stick with apertures of f4 or f5.6, if that's as wide as your lens will shoot it's not a problem, but if you have invested in very bright lenses it can be very frustrating.

AV and TV modes are designed to always give fill in flash. This works excellently if shooting front lit in bright light levels, however as we start to shoot in lower light levels it can be prone to giving images where the flash light has not sufficiently lit the subject. Not due to lack of power but caused by the flash misinterpreting the scene as there is more light on the background than on the subject. This effectively means that you are shooting a backlit shot and it is this that gives the exposure problems to the flash part of the image.

Flash compensation can be used as a remedy to this problem, however you will find how much is needed can vary a lot according to the framing of your subject.

My preferred option when shooting in very low light levels is to shoot with the camera set to the Manual mode. The flash is still left on its normal E-TTL setting and will manage the flash part of the exposure for you.

Manual mode is used in two very different shooting situations. It is the best mode when shooting close up and macro images as it allows

Once you understand the principal of shooting on manual it can be used to balance with any type of lighting.



the photographer complete control over the apertures and shutter speeds that are in use. It is also the mode that needs to be used in situations that require balanced flash, which is what we need to use when shooting portraits at night, in order to get a good result. These two situations require quite different setting up of the camera, and totally different settings to be used at the time of shooting.

When you are shooting with flash in the manual mode it is important to understand what is being

set manually. The ambient exposure is actually the thing that is in manual control. The flash is actually being controlled by the camera.

The first thing that it is important to understand when using this method of controlling the flash is that when it all goes wrong, it is generally not the camera at fault. You need to be comfortable with being able to shoot without the flash in the manual mode.

Creative mode choice - manual mode

This is not the easiest setting to use on the camera. You need to have a good understanding of apertures, shutter speed and ISO and how the three combine to get a correct exposure.

Until you master the use of the manual mode without flash you are definitely not going to get it to work with flash. Where and when you shoot with this mode will also govern how difficult you find the mode to use.

At night the lighting is normally very consistent in a particular location and so once you work out the combination of ISO, Shutter speed and aperture that needs to be used to get the background correct, that can normally be left set and be used until you move to a different location.

You need to understand where the meter reading needs to be taken from, it has to be right for the background in the image. If this is not right the background exposure will be wrong for the effect that you are trying to create and often the flash part of the exposure will also be incorrect.

When we are shooting under artificial lighting it is often preferable to shoot with the subject away from the brightest light as this often results in a colour cast on the skin. It is this that actually creates the exposure problems that we use manual mode to overcome as there is often little or no light falling on the person in the foreground.

Once you have mastered the techniques for using flash like this then there are very few subjects that will be outside of your ability to get the exposures correct for them and then to light a person in the foreground with flash as you can see from the images on the right.

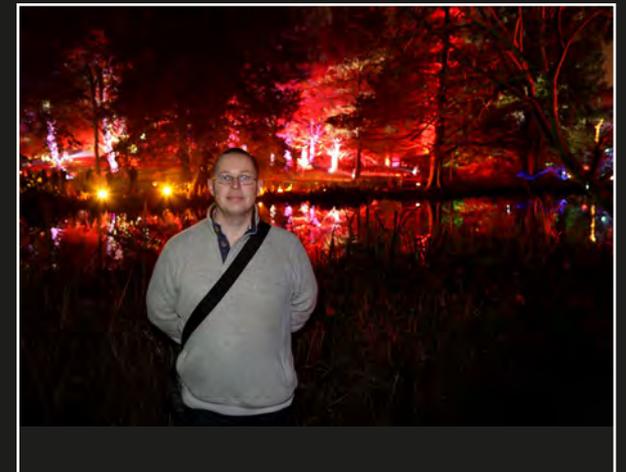
The top image combines the zooming technique that



we looked at in the last section with flash to light a person in the foreground.

The key is to set the camera up without the flash and check the background is coming out correctly. Then turn the flash on and take the image. The flash should get it correct.

Occasionally a small amount of flash compensation may be needed to get the image exactly as you want.



Summary

None of the techniques that I have looked at in this ebook are particularly difficult or even require much equipment to achieve successful results.

However, one of the things that is key to these techniques and indeed all photography is a really good understanding of what I call the basics of photography.

Its no good just understanding roughly what the terms such as aperture, shutter speed and ISO mean, you need to understand what they are, what they control within the image, how they change according to different types of lenses that you use and how they all fit together to give the correct exposure.

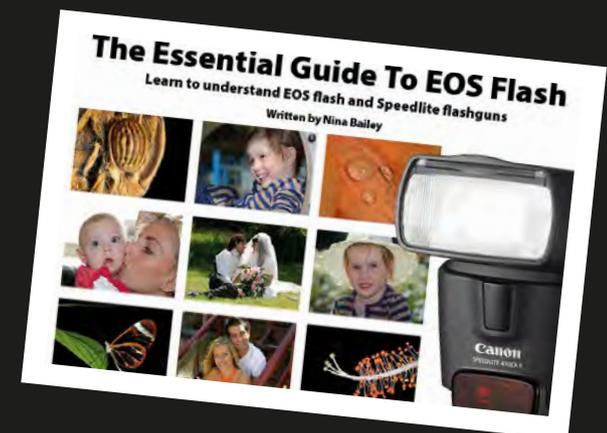
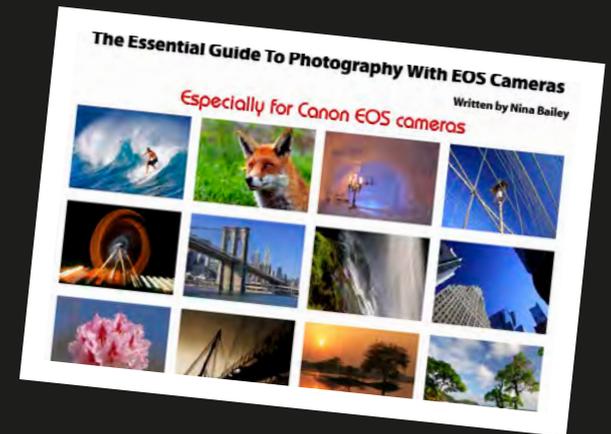
For example 1 second using f8 at 100 ISO on a tripod, gives the same brightness of image as using 1/30th at f5.6 using 1600 ISO handheld. If you do not understand that both those exposures are fundamentally the same amount of light or cannot work it out then you do not have a good grasp of photographic basics.

In my ebooks I try and avoid the repetition so often seen in the reference books on photography with the same basic ground being covered time and time again. So fundamental to my series of ebooks is The Essential Guide To Photography With EOS Cameras, this looks at the settings used within an EOS camera and the basic modes and settings and explains their place and how they are used in modern digital photograph.

The Essential Guide To Advanced EOS Features then follows on to look at the more advanced options on the cameras and allows you to be able to utilise all your camera's options to the fullest extent.

For those who shoot a lot of flash images The Essential Guide To EOS Flash does the same for the flash system.

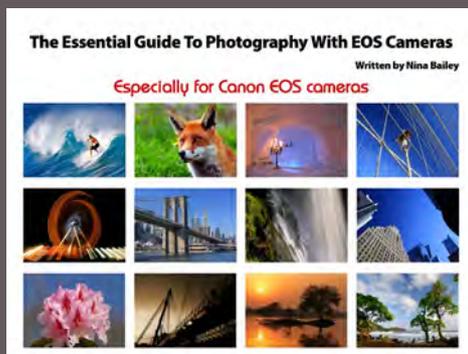
The rest of the ebooks concentrate on techniques more than setting the camera's features.



Other ebooks written by Nina Bailey

See the website at www.eos-magazine.com/ebooks/es for more details about the ebooks

The Essential Guide To Photography With EOS Cameras



Starting out with your first Canon EOS DSLR camera is a daunting prospect. There are terms you may not be familiar with, a maze of buttons, menus and settings which leave you lost and bewildered. Where can you go for the basics?

This new ebook is a comprehensive reference guide to photography with your EOS camera. Whether you are new to DSLR photography, a self-taught photographer or moving on to digital from EOS film cameras, this 169-page ebook will teach you what you need to know in order to get to grips with your EOS camera.

Cost £4.95

The Essential Guide To Advanced EOS Features

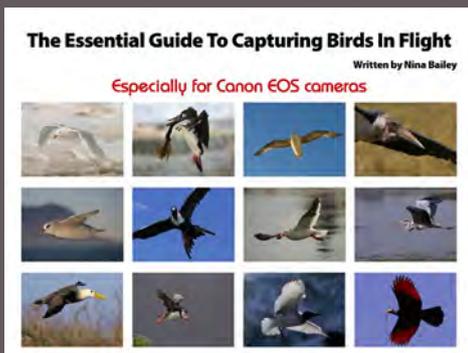


Canon packs fantastic technology and features into its range of EOS cameras. These features can help make photography easier and improve your results, but only if you can get to grips with how they work and how you use them.

This ebook focuses on the advanced features found on your EOS camera and how you can get the most out of them. It's relevant to all EOS models, with specific information on some of the more specialist features found on the EOS 70D, 7D, 5D Mark III and 1D X models.

Cost £6.95

The Essential Guide To Capturing Birds In Flight

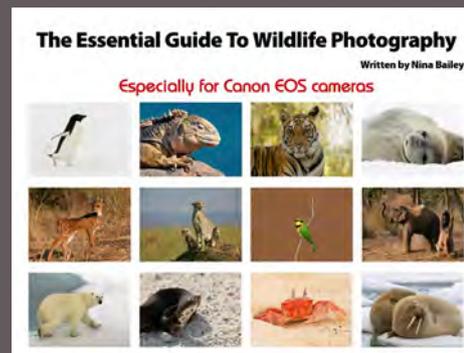


Capturing birds in flight is highly rewarding when successful, but a technically challenging area of photography. In this latest ebook Nina guides you through the settings, creative and technical processes of capturing birds in flight, whether in a captive setting or in the wild.

Nina looks at what features are important for this type of wildlife photography and also considers the impact of lens choice, not only in terms of performance but also from the perspective of manageability when out in the field.

Cost £6.95

The Essential Guide To Wildlife Photography

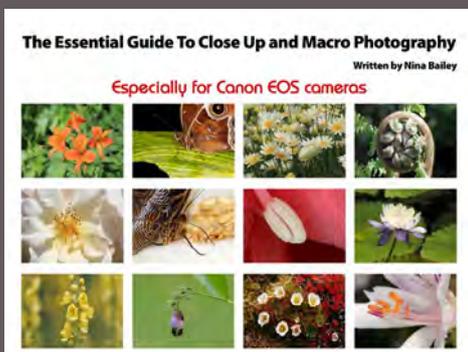


Build an in-depth understanding of the controls, settings and techniques needed to come home with stunning wildlife images with this dedicated ebook.

The Essential Guide to Wildlife Photography considers your wildlife subject – the behaviour, movement and territories – and explains the types of equipment appropriate for your subject. It also looks at available lighting, overcoming problems and how some of the Canon EOS technology can benefit your wildlife photography. Locations range from the extremes of the arctic regions to safari and equatorial places.

Cost £6.95

The Essential Guide To Close Up And Macro Photography

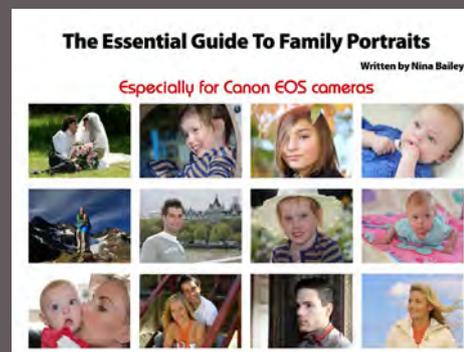


Delve into the fascinating world of close up and macro photography with Nina Bailey as your guide. In this ebook you will learn how to achieve varying levels of magnification using a range of standard and dedicated equipment including extension tubes, close up lenses and macro lenses. You will explore the photographic techniques involved in achieving great images and explain why close up and macro photography are two very different disciplines requiring specific shooting techniques for each.

You will also learn how flash can be used to illuminate the subject for dramatic results.

Cost £6.95

The Essential Guide To Family Portraits



Many family members run for cover when they see a camera pointed at them, so you have to work quickly and confidently to capture the images you want of family and friends.

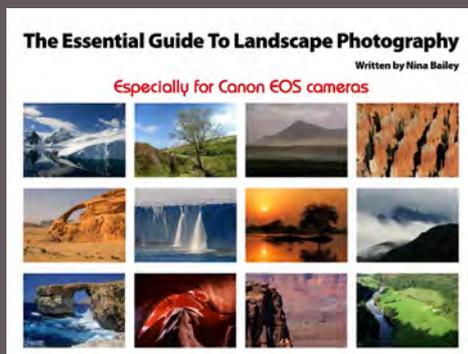
Flash is often an important element in portraiture and so this ebook will teach you what options are available, help you to understand how lighting affects your images and the settings you need to control light from your flashgun or built-in flash. You will also learn ways to manage light levels and to balance flash with ambient light.

Cost £6.95

Other ebooks written by Nina Bailey

See the website at www.eos-magazine.com/ebooks/es for more details about the ebooks

The Essential Guide To Landscape Photography

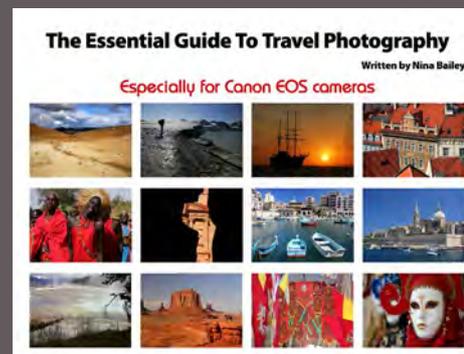


In this ebook Nina takes a look at landscape photography and how to get the very best images whether in your local area or on worldwide travels. The ebook is liberally illustrated with landscape images from around the world which will inspire and inform you in your pursuit for stunning landscape images.

The ebook also takes a look at how location, weather conditions and the time of year can affect the type of images you can realistically capture and how to make the most of the opportunities that arise.

Cost £6.95

The Essential Guide To Travel Photography

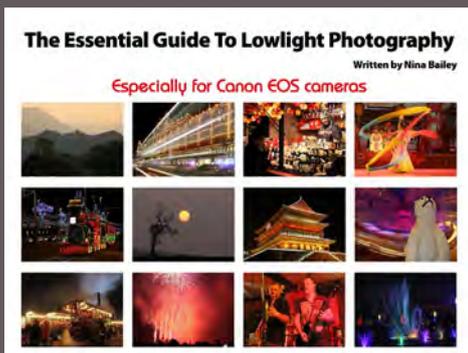


The Essential Guide to Travel Photography looks in-depth at all aspects of travel photography with your EOS camera and provides you with the knowledge and skills you need to come back from your next holiday with stunning images that capture the essence and memories of the place you visited.

This ebook looks at a wide range of topics from the logistics of the trip through to framing of your images and camera settings to get the very best results. It also considers holidays and travels in a wide number of locations with help and guidance on how to shoot the varied subjects that you may encounter.

Cost £6.95

The Essential Guide To Lowlight Photography



In this ebook Nina takes look at all the topics that you need to understand in depth to get great images of lowlight subjects. This can be a challenging area to photograph, and it is one where you need to understand the challenges facing you, to get successful images.

Nina looks at a wide range of subjects, ranging from how the lighting you shoot in is affecting the images you take, through to framing and lens usage for the specific subjects. Nina also takes a look at how to cope with some of the extreme contrasts that you encounter.

Cost £6.95

The Essential Guide To Monochrome Photography

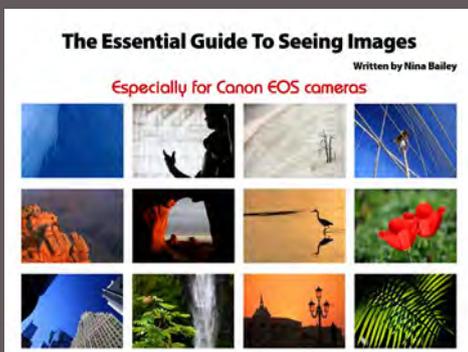


Monochrome photography can be fascinating and the techniques that you learn will stand you in good stead for all the other things you are likely to shoot.

Nina looks at a very broad range of topics in this fascinating ebook, starting off with how monochrome photography varies from colour, looking at the way monochrome was traditionally shot and how virtually every effect that was possible in the darkroom, is now possible either within the camera itself or at the time of post production.

Cost £6.95

The Essential Guide To Seeing Images

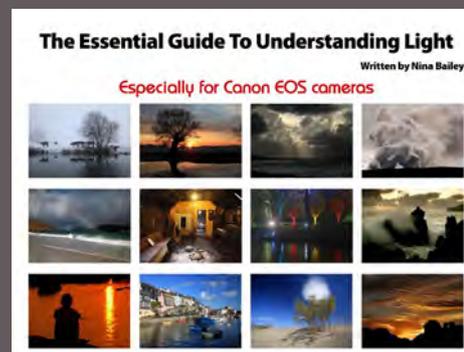


Composition is key to a successful image. Some photographers have a natural eye for seeing images, whilst others need a little help. Luckily it is a skill that can be taught, and this ebook will show you how to master the art of composition and will guide your understanding of the relationship between the different components of a successful image.

You will learn about light and lenses, framing and composition. This ebook also covers camera settings and accessories, particularly for creative effects and understanding colour and white balance. Lines, shapes and movement are also explored.

Cost £6.95

The Essential Guide To Understanding Light



How does light affect the images you shoot? Light is arguably the most critical element in the success of the final image. It can make an otherwise reasonable image shine or a stunning scene fail to impress. Yet there is often little you can do to control it. So you need to learn how to work within its constraints and take advantage of the opportunities that are available to you.

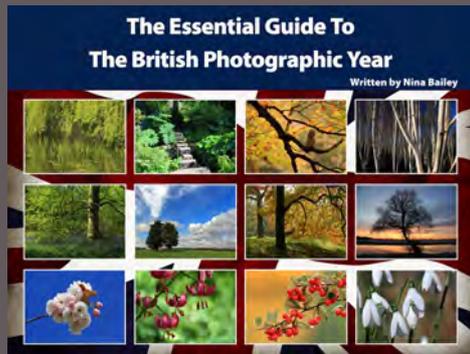
Nina Bailey's 'The Essential Guide to Understanding Light' explores the limitations and opportunities in detail, analysing the source, direction and type of light which illuminates the scene.

Cost £6.95

Other ebooks written by Nina Bailey

The Essential Guide To The British Photographic Year

193 pages Price £6.95



The ebook celebrates the diversity of photographic opportunities that surrounds us in the British Isles. The aim of this ebook is to provide inspiration throughout the year of the subjects that are great to photograph, together with lots of useful hints and tips as to how to capture them.

All too often as photographers, we travel all over the world to see spectacular sights and yet then ignore the beauty of the areas that are often on our doorstep. Nina sets out to help you see the opportunities that are there and also provides an

insight as to how much the seasons that we experience in this unique country can impact on the images we take, and why shooting the right subject at the right time of year can be so vital get getting great results.

With four topics to look at for each month of the year, this is an ebook that you will want to keep with you as a constant source of reference and inspiration for your photography.

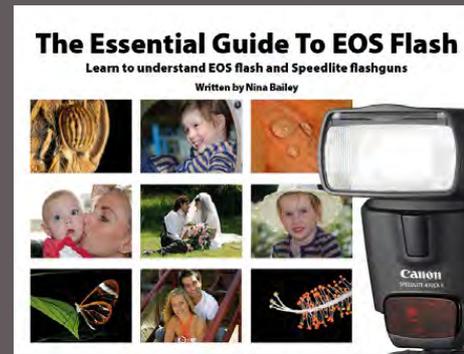
Illustrated with hundreds of Nina's inspirational images, this book is 188 pages long and will get you out and about with your camera at some very unexpected times.

Topics with hints and tips included in the ebook

- Snow
- Frost
- Bare trees and winter landscapes
- City photography
- Illuminated buildings
- Black and white photography
- Orchid festivals
- Snowdrop displays
- Spring flowers
- Fresh shoots
- Coastal scenery
- Baby animals and birds
- Rainbows
- Bluebells
- Village photography
- Stately homes
- British landscapes
- Wild birds
- Wildlife collections
- British waterways
- Air shows
- Country shows
- Family weddings
- Gardens
- Summer flowers
- Insects
- Summer action
- Heritage festivals
- The British holiday
- Family portraits
- Butterfly collections
- Heritage museums
- Traction engine rallies
- Herbaceous gardens
- Autumn landscapes
- Waterfowl
- Autumn tints
- Waterfalls
- Blackpool illuminations
- Fungi
- Fireworks
- Bonfire society parades
- Sunrise and sunsets
- Cathedral interiors
- Christmas markets
- Christmas illuminations
- Enchanted woodlands
- Christmas with the family

The Essential Guide To EOS Flash

169 pages Price £6.95



Nina's ebook The Essential Guide To EOS Flash sets out to teach you in depth to understand and be able to fully utilise the Canon EOS flash system. She looks at a wide range of topics ranging from understanding the very nature of flash, how to set up the camera and flash for the best results, through to improving your flash results by using reflectors and diffusers.

Many photographers see flash as a bit of a black art and something to be avoided if possible. In fact the flash system on EOS is very simple to use, providing you have a good grounding in both

the key settings of your camera and understand all the basic principles of photography. Its is also crucial to understand the light levels and conditions that you are shooting in as these will affect the settings that you use on the camera and sometimes also the way that flash is being used within the image that you are taking.

This ebook is applicable to any Canon EOS camera and any of the EX series flash units in the Canon range including the new 600 EX-RT flash unit and most of what Nina talks about is also applicable to the built in flash.

Topics included in the ebook

- Flash options within the EOS system
- Difference between the flash units
- Understanding the macro flash units
- Understanding the basic principles of how flash works
- Understanding why problems can occur when using flash
- Understanding the exposure modes and how to get the best from them when using flash
- Understanding the flash exposure overrides and when to use them
- Key camera settings when using flash
- Understanding the white balance system when using flash
- Understanding the camera's metering system with flash usage
- Understanding the way that flash can be used within images
- How to use flash as the only light in your images
- How to use fill in flash in the images you take
- When and how to use balanced flash in your images
- Understanding how to set the flashgun
- Understanding the camera's flash menu
- Understanding flash overrides
- How to get better flash results
- Understanding bounce flash
- Understanding reflectors and diffusers
- Using high speed sync effectively
- What second curtain sync does and how to use it

See the website at www.eos-magazine.com/ebooks/es for more details about the ebooks

Other ebooks written by Nina Bailey

Insights To Travel Photography

Part 1 181 pages Price £6.95

Part 2 168 pages Price £6.95

Over the many years that I have been involved with photography and teaching other photographers, a topic that always crops up is how specific images are taken. Sometimes it is the mode they were shot on, other times it's the overrides that are used that will be of interest.

The thought process that went into the image also has always been a popular topic of discussion, in a number of the ebooks I have written, I have looked at a few images and explained how and why they have been taken. However I always try and keep this a little generic, as all images have their own reasons why a specific setting was used.

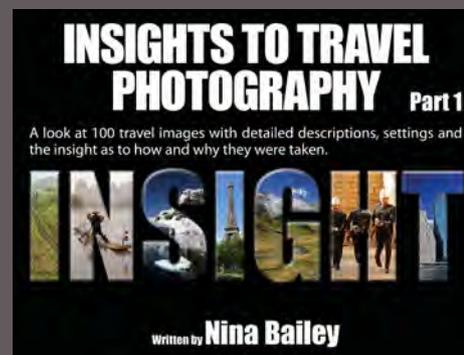
Additionally in the ebooks I am normally selecting an image, as it is a good illustration of a technique, rather than being one of my favourite images. In the Insight books I have decided to produce a very different type of book, one that looks at some of my own personal favourite images and explains in depth how they were taken and some of the background information behind the image.

I have selected 100 images for each volume, the travel one has had to be split into two parts as it covers such a broad range of topics and for each image I have given a little information about the location and then the settings used to take the image and the thought process that would have gone into the image.

I have also put a lot of additional information into the book such as why I shoot in a specific mode so much of the time, or how a feature works and why it is used. I have also covered popular topics such how climatic conditions affect cameras and the best way to travel with all the equipment.

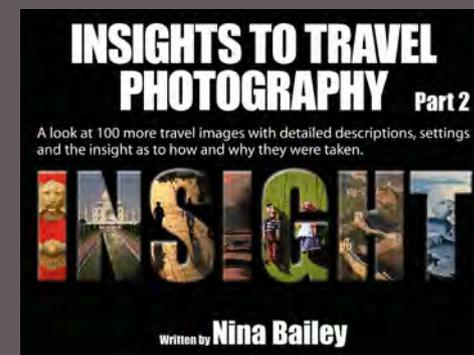
The information for the technical settings used was taken from the EXIF data saved with each file for accuracy, but I am also fortunate to have a very good memory which has served me well for filling in the other aspects of the shot.

You will also find a bit more of my slightly quirky humour emerging in this book, as the nature of the book lends itself to this style of presentation. I have arranged the ebook into distinct sections that will make it useful as a reference guide in addition to it being an entertaining read packed with information about how I approach taking images.



Part 01 contents

- Planning the trip
- What to take
- General things about how I shoot
- How new technology changes the way we shoot
- Towns and cities
- Scenery
- Capturing the character
- After dark
- People
- Interiors
- Special lighting
- Action
- Water
- Capturing the little things
- Festivals and shows
- Statues and art
- Inclement weather
- Filters and effects



Part 02 contents

- Getting the gear out there
- How do cameras cope with climatic extremes
- Looking after the camera whilst on the trip
- Sunrise and sunset
- Historic places
- Coasts
- Details
- Wildlife
- Modern buildings
- Gardens
- Looking down
- Looking up
- Colour
- Black and white
- Silhouettes
- Abstracts
- Panoramic images

See the website at www.eos-magazine.com/ebooks/es for more details about the ebooks

The EOS training academy now have a range of 23 DVDs which are designed exclusively for Canon EOS cameras. These are now available at a lower price than when launched, with some available at clearance prices starting at just £4.95.

The company is currently in a transition phase as online training will gradually take over from the camera DVD range we currently produce, so models such as the EOS 6D, 70D, 100D and 1200D are not featured in the range but most of their features and functions are covered in the Online EOS Training Academy tutorials. The superb yet complex 5D Mark III does have a DVD available for it, as does the EOS 700D.

The Making The Most camera DVDs are all chapter based for easy access of the information. These DVDs last between 5 and 8 ½ hours depending on the model that they cover. Most are a twin disc set with the 5D Mark III being a triple disc set. There is also Making The Most of Your Canon EOS Flash System DVD within the series.

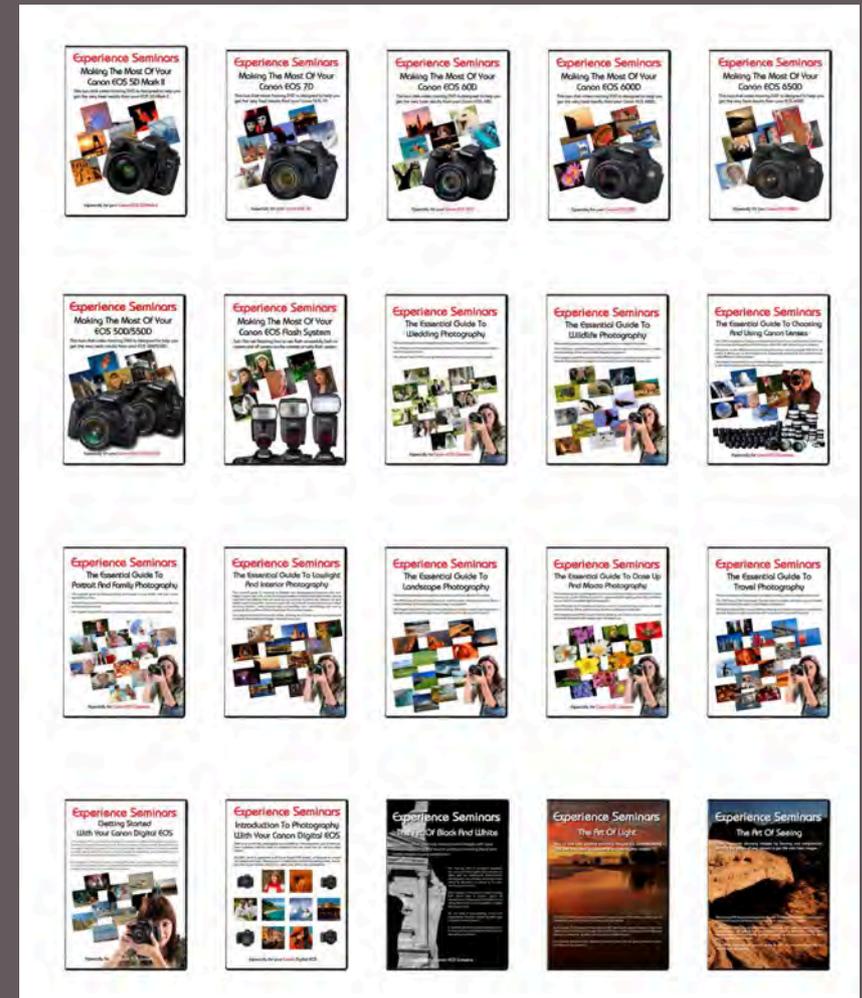
The DVDs are written by Nina Bailey and produced by the other members of the team and take a comprehensive look at all the features that are found on the EOS camera they are featuring.

The Essential Guide DVDs take a look at specific photographic techniques. There is a wide range available and these are now available at the lower price of just £14.95. These single disc DVDs have a running time of between two and four hours depending on the individual disk.

These take an in-depth look at the topic in question and includes equipment requirements, techniques, the settings to use, the effect lighting is having and framing and composition for the specific topic. On the close up in macro and portrait discs we also look at the use of flash for these subjects. These DVDs are all chapter based for easy access to the topics.

Our Art Of DVDs look at the creative side of photography, and allow you to understand the thought processes that are going on within photography and how to apply them to your photography to get better results. Once again these are all chapter based for ease of accessing specific topics.

To view the range or purchase please visit www.eostrainingacademy.co.uk and click on the DVD tab.



Online EOS Training Academy

The best thing you can buy to help you become a great photographer
A unique and exciting programme for Canon EOS photographers of all ability levels

Understanding your camera and what it can do for you is key to becoming a good, if not great, photographer.

You cannot remember everything to do with photography and your camera all of the time, so an online encyclopaedic reference manual packed with settings and techniques, simply explained by Canon experts, can really be the best photography friend you can possibly have.

Our online EOS training academy of video tutorials is a unique resource designed exclusively for all Canon EOS photographers, written, produced and presented by experts on the Canon EOS camera system.

The tutorials are available to be streamed online 24 hours a day, seven days a week, which allows you to fit your training and knowledge building into your busy schedule in small bite-size pieces. The system is designed to be accessed via a PC, Mac, smart device or tablet (using an internet connection).

There are video tutorials on understanding photography, the modes on your camera, your camera settings and overrides, the creative side of photography and lens use, the flash system and specific photographic techniques, plus workflow and software tutorials.

Every month we are adding new and exciting tutorials to the system so the resource library continues to expand and grow into the most comprehensive tutorial programme anywhere on your Canon EOS camera.

This is a fantastic resource for all Canon EOS photographers. Whether you are totally new to photography, experienced, or even professional, there will be something to expand your photographic expertise.

- Totally unique EOS learning programme
- Camera features and functions, photo techniques and post production tutorials
- Easy to use and easy to understand
- Written and presented by Canon EOS experts
- Over 250 tutorials giving over 40 hours training currently available
- Many more tutorials being added every month
- No limit to number of viewing times
- Learn in the comfort of your own home
- Learn at your own speed.
- Stop, review, go back, go forward at will on all the tutorials.
- Access via PC, Mac, ipad, tablet or other smart device
- 5 free access tutorials on our website to let you sample the programme

We are getting great feedback from the customers of already subscribe; here are some things that they have said to us:

A really great resource for all Canon EOS photographers. As a customer for many years I can honestly say that The EOS Training Academy have surpassed even their high standards with this programme, and the rest of the training is fantastic as well. BW

Most innovative, enjoyable, instructional and a bloody good thing!! Keep it going please. RH

It's been money well spent, as far as I am concerned. I am finding the courses very useful as a real beginner and am trying to get out and put some of the knowledge into practice. The presenter for those that I have tackled so far, has an excellent delivery which makes everything clear and easy to follow. As I say, one of the better subscriptions I have taken out! SB

A year's subscription is just

£79



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www.eostrainingacademy.co.uk