Photographing Waterfalls

Waterfalls present themselves as a wonderful and challenging subject matter to photographers. Firstly they're beautiful places, secondly they are often in tricky lighting situations and thirdly they're a dynamic subject as they're moving (and of course movement means a challenge but also a real opportunity for a more dynamic shot).

A lot has been written about the finer points of photographing waterfalls but the basics are fairly simple.

Working with Movement

Anytime you're presented with a moving subject a photographer really has two options. Firstly they can freeze the motion by using a fast shutter speed and secondly they can capture and enhance the motion by using a longer shutter speed that blurs the moving element in the shot (in this case – water).

Though it's starting to look a little too commonplace, most photographers take the second option and allow the water to blur. Here's how to do it. You'll need your digital camera and a tripod. It will also be helpful to have a polarizing filter if you have one. A Neutral Density filter can also help to slow your shutter speeds down – which is what you'll need to record the motion blur.

How to Photograph Waterfalls

Take a Control Shot - Before you start experimenting – switch your camera to auto mode, make sure your flash is turned off and take a shot of the waterfall. As you do – take notice of the exposure that the camera sets. Your camera will almost certainly choose an exposure that freezes the water somewhat. This photo will be a bit of a reference point to compare your shots to later and to use as a basis for your exposures.

Shutter Priority Mode – Switch to shutter priority mode on your camera (see other items on the Workshop page concerning shutter and aperture priority modes). Generally you'll want

to try to get a shutter speed of 1 to 2 seconds to get a nicely blurred water.

Tripod – Of course to take a shot at a shutter speed of this length you'll definitely need a tripod or some other way to ensure that your camera is completely still for the full time that the shutter is open.

Sounds easy doesn't it – attach your camera to a tripod, switch to shutter priority mode, set your shutter speed to 1-2 seconds and take the shot. Unfortunately in most cases it's not that simple.

The problem with lengthening the shutter speed is that it increases the amount of light that gets into your camera and unless it's quite a dark and gloomy day you'll find your image is going to be over exposed (even though in shutter priority mode the camera will choose a very small aperture to try to compensate for it).

Other Tips to Try to Get Exposure Right

There are a couple of things that you can do to decrease the amount of light coming into your camera and get your exposure levels better:

Timing – pick the right time of the day to do your waterfall photography and you can definitely give yourself more options to use longer shutter speeds. Around sunrise and sunset are obvious times as light is less bright. Also overcast days are better than bright ones.

Filters – using a filter that cuts down the amount of light entering your camera can help also. There are a variety of filters available that do this but a polarizing filter not only cuts down the light getting in but also can help you improve your shots (they cut down on reflections in shots – and waterfalls can have quite a few of these). Another type of filter you might like to use is a neutral density filter which is a filter that cuts down the light entering your camera – almost like putting sunglasses on. This will give you a nice long exposure even on the brightest days – and white water in the sunshine can be very bright indeed and trick your camera's meter (if not corrected) into giving shorter exposures.

Aperture Priority Mode - if you are still having trouble with exposure even at darker times of the day and with the use of a polarizing filter another approach that you can take is switch into Aperture Priority Mode and choose the smallest aperture possible. On most cameras this will be f/22 or f/36. The result of choosing this is that your camera will automatically choose the longest shutter speed available for that aperture. It may not be 2 seconds – but it will almost always be longer than the shutter speed in that first control shot that you took and as a result the water will blur more than in the first shot. The other impact of having a smaller aperture is that you'll have a larger depth of field and more of the waterfall will be in focus. However, using the extreme minimum aperture of a lens may also cause problems with chromatic aberration or distortion – so if your minimum aperture is f/22, go to f/16 (if your minimum is f/32, go to f/22 at most) Keep away from the extreme ends of the lens's aperture range – the 'optimum' quality is in the mid-range.

Low ISO – Choosing a lower ISO will mean that your camera's sensor is less sensitive to light and will need the shutter to be open longer. It will also mean less 'noisy' or grainy shots which will give your shots lots of nice detail.

More Waterfall Photography Tips

Of course getting the exposure right is just part of the equation when it comes to photographing waterfalls with you digital camera. here are a few extra tips.

Bracket your Shots
The first time I ever did some waterfall photography was many years ago when I was using a film SLR. I spent some time in Norway where waterfalls are very common.

What I learned was the importance of bracketing my shots – taking a series of shots at different shutter speeds and apertures. I found that in doing this that I could capture a variety of very different images of exactly the same scene with changes in the extent that the water blurred, changes in the depth of field and changes in the way the camera captured colour. Of course, bracketing was even more important with film as there was not other way to tell whether I'd captured what I wanted. Digital is a great boon to any kind of experimentation..... you just keep trying different settings until you achieve what you want.

Also use your cameras built in exposure bracketing (check your manual) and bracket your shots in this way also.

Composition
A waterfall can be photographed from many angles and in many different ways ranging from the wide angle shot that puts the waterfall into its wider context right down to tightly cropped shots that focus upon just one small part of the waterfall. Also look for the different ways the water flows. In some places it'll be multiple streams, in others it will gush explosively everywhere and in others it will flow gently in a single stream. Try a variety of positions on the waterfall (you'll find that it'll flow at different speeds in different sections also) and experiment with how the different parts look at slow shutter speeds. If you really love photography, particularly for the solitude, you could spend many quality hours trying out different viewpoints around one waterfall.

Tidy Up
While I'm a big believer in being an environmentally friendly photographer (and always leaving a location the way I find it) a little tidying up of your scene can have a big impact upon a waterfall scene. Before taking shots scan your eye over your frame and look to see if there are any distracting elements that might be able to be moved. Particularly look for litter but also consider leaves on rocks etc. Simply tidying up the image in a way that doesn't do any physical damage to the location can take your images to the next level. Having points of interest in the nearer areas of a shot can also give more feeling, but only if they don't 'jar' the eye of the viewer.

Don't Become Obsessed with Blurred Water
The effect of silky smooth moving water in your shots is difficult to resist but don't let it become the only type of waterfall image that you capture. Try taking some shots with ultra fast shutter speeds also. This can especially be a powerful technique on raging waterfalls where there is lots of spray and explosive splashes. The other impact of faster shutter speeds is that you'll need to use larger apertures which means narrow depth of field which will bring a whole new impact to your shots.