

Long Exposure Photography

Tech Tips

Bloomington Photography Club

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What is long exposure photography?

Virtually any image captured with a shutter speed that is purposely greater than needed to make a still image. Most long exposure photography uses a shutter speed between 1/8 second and 30 seconds.



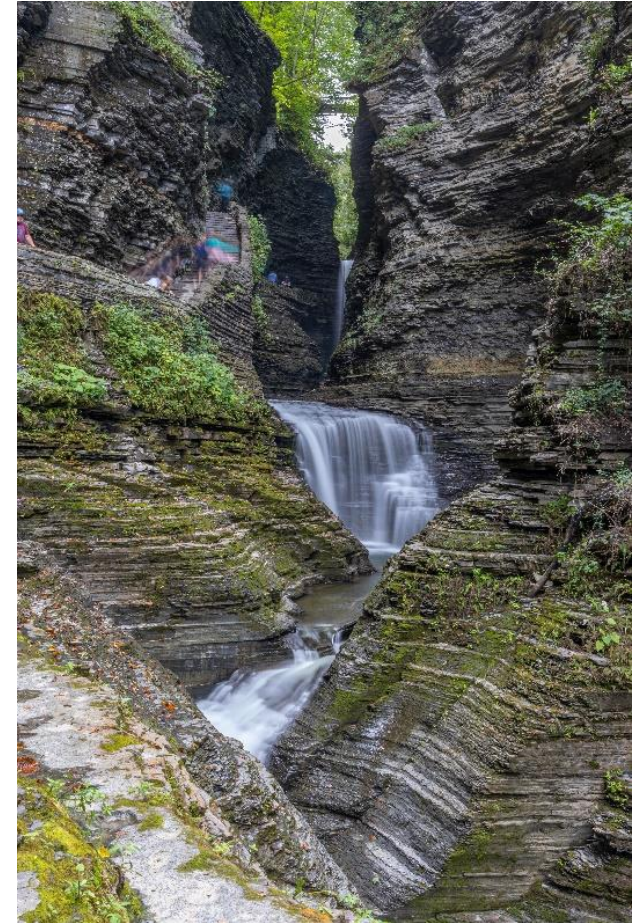
f/16 ISO400 30 second exposure

Why do long exposure photography?

In order to provide a sense of motion or activity to your image. Adds drama to your image and a sense of “being there”.



f/4.5, ISO1600, 1/125 sec



f/22, ISO100, 3 sec

How do I do Long Exposure Photography?

Have a knowledge of the Exposure Triangle.

You will want to set your camera to enable a long shutter speed.

Lower your ISO (ISO100 or lower)

Make your aperture smaller (f/16 or f/22)

In Aperture Priority Mode, the camera will select the appropriate shutter speed for the current light conditions.

You can also use shutter priority to set the exposure time and adjust ISO and f-stop from there.

Manual mode gives you the flexibility to manipulate all the settings but you may need to do more experimentation to get a satisfactory image.

Use a tripod and remote shutter release or shutter delay.

*if using a dslr, it is recommended that you use the mirror lock-up feature as well to reduce vibration.

Where can I do long exposure photography?

Capturing waterfalls



f/22, ISO100, 3 second exposure Waterfalls are best captured with a 2 to 5 second exposure although are frequently captured at 20-30 seconds for an even more dramatic effect.

Capturing moving water



f/22 ISO100 1/15 second (handheld)

Often even a handheld shot can yield a good result. Not recommended for exposures greater than 1/8 second.

Capturing moving clouds



f/11 ISO800 30 seconds

Early morning made for a good time to capture cloud movement. Blue hours/golden hours are great times to get a long exposure.

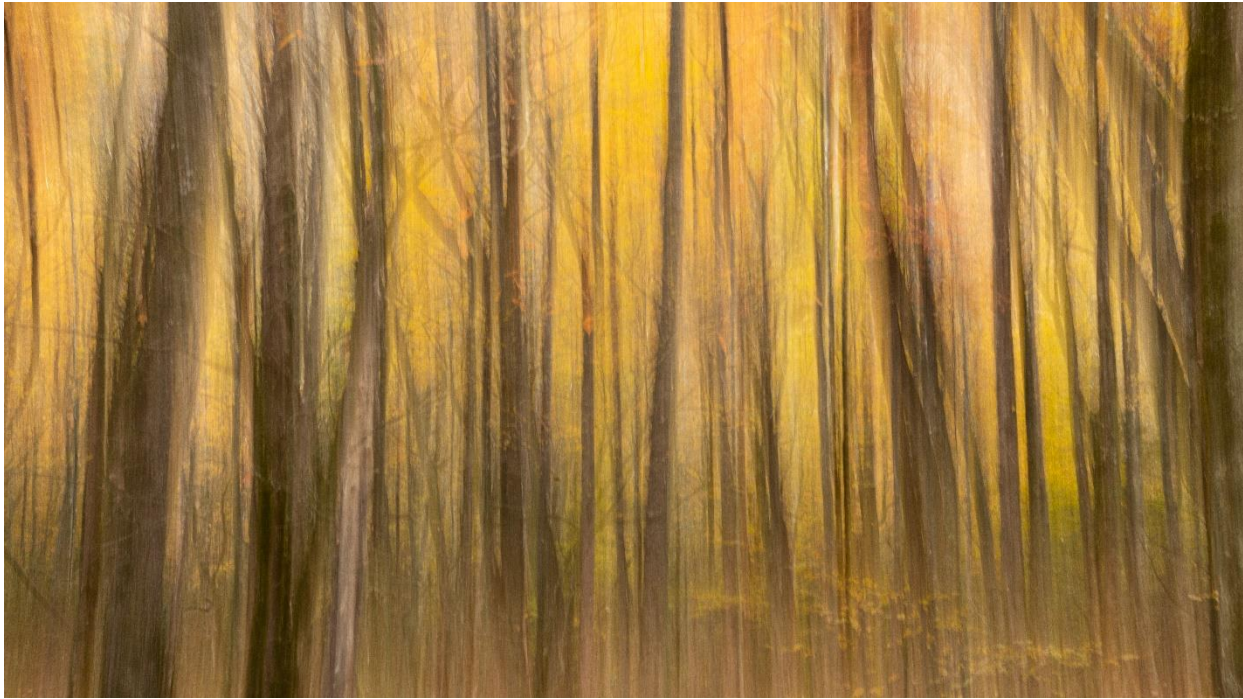
City lights



f/20 ISO640 13 seconds

A small aperture and long exposure will streak the moving lights and also give a starburst effect to any point light source.

Panning



f/22 ISO400 1/3 second handheld



f/22 ISO100 1/8 second exposure.

You can get some unusual and creative images by adjusting your exposure time to 1/8 to 1/2 second (or longer!) and actually move the camera while the shutter is open.

Getting more exposure time – use of filters

Polarizing Filter

A polarizing filter is a good idea for most landscape photography. It will act like a pair of sunglasses and neutralize much of the sun's glare as well as increase the color pop in your images.

A polarizing filter also adds about 2 stops of exposure time on your sensor. *If your exposure time is currently 1 second, a polarizer will increase that time to about 4 seconds.*

A polarizing filter can also be stacked with an ND filter.

Neutral Density Filters

ND filters act as a neutral block to incoming light. They come in a number of ratings, from a 2-stop to a 10-stop filter and even higher! Every stop will double your exposure time. ***This means that an unfiltered exposure time of 1/30 of a second becomes a 30 second exposure with a 10 stop filter!***

Variable ND Filters

Variable Neutral Density filters are a good way to diversify your shutter speed options. VND filters generally have ranges of 2-8 stops so you can dial in exactly the exposure time you're looking for or take several images with different exposure times. Do NOT use these in combination with a polarizing filter as you will have wonky results.

When shopping for a ND or VND filter you will see a lot of different price points. I suggest that you do not buy a cheap filter, but don't break the bank either. A cheap VND will give you bad results at the higher ends and also give a blue cast to your image.

An advantage to using VND or ND filters is that it also gives you an opportunity for play with your ISO and Aperture settings so, say, if you want a shallower depth of field you can dial in a larger aperture with a strong ND filter.