

LONG EXPOSURE PHOTOGRAPHY

BY DARRELL HARRINGTON



Darrell Harrington
Imag

LONG EXPOSURE PHOTOGRAPHY DEFINED

- Long exposure involves using a long duration shutter speed to sharply capture the stationary elements of images while blurring, smearing or obscuring the moving elements. Long exposure photography captures one element that conventional photography does not: an extended period of time. - Wikipedia



Darrell Harrington
Imaging



Darrell Harrington
Imaging

LONG EXPOSURE PHOTOGRAPHY DEFINED

- Long exposure photography to me is a shutter duration longer than is hand holdable.
- Long shutter duration can be used to show stillness, motion, artistic effect or to properly expose the image.



Darrell Harrington
Imaging



Darrell Harrington
Imaging



Darrell Harrington



EXTENSIVE GEAR LIST

Camera

Tripod

ND filter(s)

Cable release

EXPOSURE SETTING

What are the perfect exposure settings that you should set your camera to?

Shhhh don't tell anyone what I'm about to tell you

It depends

HOW TO GET YOUR CAMERA TO TAKE A LONG EXPOSURE?

- You really have two main options for this
 - Take the photo as its getting or already has gotten dark
 - Use a ND (neutral density) filter to make the camera think its dark

MY SUGGESTION FOR SHOOTING IN DARK SITUATIONS

- Put camera on tripod
- Set your camera to Aperture Priority (A or Av) and set aperture to lowest number possible
- Turn off auto ISO and set it to base ISO value to start
- If shutter speed is blinking at 30 seconds or meter shows you are under exposing, you have two choices at that point
 - Raise ISO until shutter speed drops to or below 30 seconds
 - Use external shutter release to set shutter speed longer than 30 seconds
 - Will need to change camera mode to manual and shutter to bulb mode in order to accomplish this.

FOCUSING IN THE DARK

- Try to focus on something through the viewfinder
- If that does not work use a flashlight and shine it on location you are trying to focus on. Once you lock on focus switch your camera/lens to MF.
- Another technique is to focus at infinity during the day and set your camera to manual focus (last resort)

LONG EXPOSURES DURING THE DAY

- How to make your camera think its dark outside when its not
- Give it a pair of shades



NEUTRAL DENSITY FILTERS

- ND filters are basically sun glasses for your camera.
- They come in various stops (3, 6, 10 are most popular variations)
 - 0.9 = 3 stop, 1.8=6 stops, 3.0 = 10 stops (1 stop = 0.3)
 - Each stop cuts shutter speed in 1/2 (be aware of compounding effect)

EXPOSURE SETTING

- In some situations you can just add an ND filter and let camera calculate the shutter duration.
- Example would be using 3 stop ND when shooting waterfall

EXPOSURE SETTING

- In other situations, especially with very dark ND's, you may need to calculate the shutter duration and enter it into camera in manual mode
- This is when a shutter release comes in handy or in the case of shooting longer than 30 seconds a requirement
- Wait, I going to have to do math?

LONG EXPOSURE CALCULATOR

- How to calculate long exposures when using ND filter
- Expose for scene without ND to come up with base shutter speed
- Enter in normal shutter speed and ND strength into calculator
- These calculators can be found as free apps on most cell phone app stores

The screenshot shows a mobile application titled "Long Exposure Calculator" with a settings gear icon in the top right corner. The main display area shows "New Shutter Speed" as "8s". Below this, there are two horizontal sliders. The first slider is labeled "ND Filter" and has three positions: "9 STOPS ND 2.7", "10 STOPS ND 3.0" (which is selected), and "11 STOPS ND 3.3". The second slider is labeled "Normal Shutter Speed" and has three positions: "1/160s", "1/125s" (which is selected), and "1/100s".

IDEAS FOR LONG EXPOSURES

- Mid day 10 second exposure to get cloud movement



IDEAS FOR LONG EXPOSURES

- Night 60 second exposure



IDEAS FOR LONG EXPOSURES

- 1.3 second exposure to smooth out water



Darrell Harrington

Experiment with shutter
duration



6 seconds



13 seconds

TIPS

- Compose your scene before adding ND
- Try different strength ND filters or even a Polarizer
- Experiment with different shutter speeds
- Be aware of items in picture that you don't want to be in motion
- The longer the shutter the more chance there is for camera shake
- Use shutter release or delay timer



QUICK BUYING TIPS FOR ND FILTERS

- Purchase quality filter
 - Don't put cheap filter on expensive lens
- Purchase in set if you can afford it
- Avoid variable ND filters
- Magnetic filters are the way to go (other options are screw on or square)
- Purchase filters for your largest diameter lens you have and use step up rings for smaller lens
- Don't forget a polarizer can also be used as 1-2 stop ND (will depend on brand)

QUESTIONS?