

## Shutter of the Night

'Click' - That characteristic sound we hear, which a camera makes as it snaps a photo is the camera's shutter. Though the shutter may move the same way each time we take a photograph, it does not always move at the same speed. If so, how exactly does the shutter speed play into the whole exposure triangle we know of?

All the pieces of the exposure triangle - Aperture, ISO and shutter speed - determine the exposure in a camera. Each of these factors complement each other and compensates in such a way that one can achieve similar exposure results by adjusting the variables in relation to one another. In short, faster the shutter speed, easier it is to capture the subject and 'freeze' motion without blur, and lesser are the effects of camera shake. In contrast, slower shutter speeds are best used to suggest motion, like the flowing waterfalls we saw in the previous article (Ref: Dṛṣṭi Nov 2020) or any moving subject.

Shutter speed is fathomably the most creative adjustment available to the digital photographer. Utilizing shutter speed to the best of its ability offers a big gamut of opportunities, such as freezing action, capturing motion, mitigating low light and enabling night photography.

In this article, we will take a broad high-level look at the shutter speed and night photography.

### Shutter Speed at Night

How does shutter speed play a role in shooting simple subjects we come across during our travels at night, be it a landscape, street, travel scene or cityscape?

We must acknowledge that photographing



1/2 sec, f/4, ISO 800, Exposure compensation of -0.67

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at night comes with its own set of challenges. Tripod is a must. Dynamic range problems abound and the process of exposure for a photographer is not often intuitive. However, if one understands the basics of exposure, then one already knows how to successfully expose night photographs.

Before looking at shutter speed, preliminary settings for night:

1. Using manual mode is better due to more control over settings
2. Shooting in raw format is a good idea - more so imperative at night
3. For starters, it is best to let the camera meter (scene used to determine the proper brightness level) attempt to average out all the tones in the scene, done by the camera's automatic metering mode. Canon calls it Evaluative; Nikon calls it Matrix and Sony calls it Multi-segment.

Now comes setting of the shutter speed:

For every scene, the shutter speed will vary depending on factors such as, how much light is available in the scene in front of you, the scene chosen to meter for exposure, how close the subject is to you or the set values of ISO and aperture.

Choosing the right shutter speed for the situation is crucial. Let us look at a rough list of shutter speeds (measured in milliseconds or seconds). One can use this as a guiding tool on the field:

**1/4000 to 1/500 of a second:** Freezing action of fast-moving subjects or sudden moments happening at varied speeds (from freezing the movement of baseball players to flight of birds to vehicles or people)

**1/250 to 1/125 of a second:** Good speed for still subjects, portrait, macro or still life situations

**1/60 of a second:** Ideal speed for handheld photography when light is low and panning

**1/15 to 1/2 of a second:** Capturing slow movements such as people walking, moving objects, vehicles in traffic, water bodies or inducing motion blurs.

**1 second:** Suited for twilight photography, where the sun has not yet set completely, but there's inadequate light for the right exposure

**More than 1 second:** This is where night photography begins to play a role. Play with settings along with setting of the ISO and aperture values.



1 sec, f/6.3, ISO 800

Singapore

Gardens by the Bay © Hema Narayanan EFIP, AFIAP, cMoL, QPSA



Dusk so divine © Hema Narayanan EFIP, AFIAP, cMoL, QPSA

8 seconds,  
f/8, ISO 200  
centre-  
weighted  
metering

Badami  
caves

Did you know that Digital photography is better for the planet than traditional photography?

Environmental junkies would really like this photography fact. We can pat ourselves on our back next time we open Photoshop because the chemicals used in a dark room are actually not so good for the environment.

Also, the majority of chemicals utilised in the black and white darkroom are classified in the order of non-toxic to slightly toxic. In spite, black and white developers can be toxic, especially if when ingested or inhaled or when it gets in contact with bare skin.

## Setting Exposure values

At times, nightscapes can be captured in even lesser than 1 second, based on the available light in the scene being sufficient as well as ISO and aperture settings.

**ISO:** Typically, we set this first. It is dark, so one could be inclined to increase the ISO to the highest value possible. But remember it leads to digital noise in the photos; suggested in most scenes: ISO 800-1600.

**Aperture:** We set this next. In night photography, we do not need a depth of field as deep as one would want if shooting

landscapes. Ultimately the backgrounds are going to be black. Hence need to look at an opening which gives a decent depth of field, but also allows a lot of light into the camera. Suggested thereby: f/4 to f/8

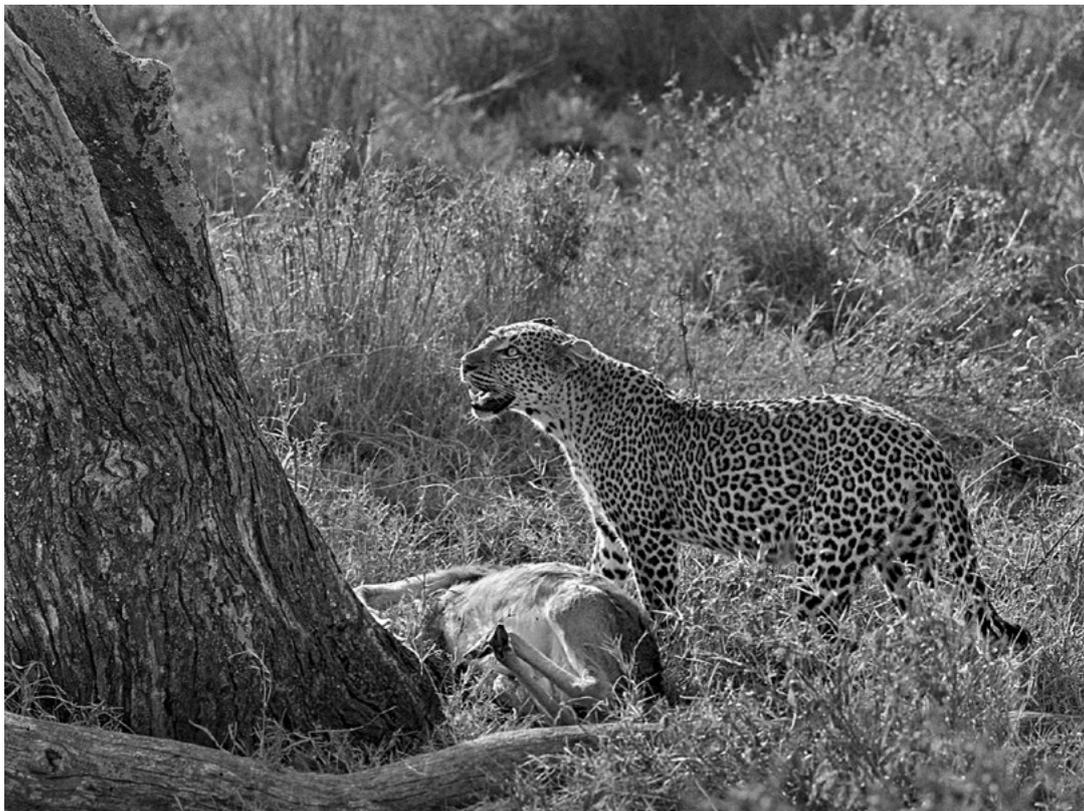
**Shutter speed:** Finally, the hero of our discussion needs to be set. As the ISO and aperture are set, just set the shutter speed to whatever the meter says to get an optimal exposure. For the most part, experiment on the ground from say 1/2 or 1 second, to find the best speed to frame what you see.

Long shutter speeds can also be calculated with the '500 rule' or the '300 rule' in photography. Have you used it before? I leave you wondering what these rules really do for a photographer!

*(to be continued)*



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Leopard with a kill © M Y Ghorpade FRPS, MFIAP