

Additional topics not included in the Notes

Fireworks – This method requires a tripod to ensure success. If you can, put your camera in manual mode, and set the shutter speed to “B” (*bulb*) using an aperture of f/8 for 100 ISO, f/11 for 200 ISO or f/16 for 400 ISO. An alternative is to use a base exposure of 12 seconds to capture several bursts at one time. There is a possibility of overexposure so be sure to check the first image on the LCD to make sure that you are getting the best image. Take plenty of shots as fireworks displays do not last too long. Try to capture some foreground interest to give a bit more interest to your image. Use a cable or electronic release to trip the shutter to avoid vibrations or use the camera’s self timer.

Painting with Light – This can be fun to do and it can be done using a number of different light sources. You can use an external flash or even a flashlight to create the effect. Find your potential subject while there is still light in the sky so that you can place the camera (*mounted on a tripod*) and focus the lens and set the shutter speed to the “B” (*bulb*) setting. Walk through the various objects you want to illuminate and make sure that when you paint with light you will not block the view to the camera. The best method of lighting is the external flash and you simply calculate the aperture based on distance from the subject. When it is dark open the shutter and set your aperture. Then go to the various objects and manually trigger your flash at the same distance for each of the objects in the scene. You can also use the flashlight but that would require that you count off the same amount of time for each exposure. After you have imaged the scene, check your LCD to make sure that it is what you want. If not you can then adjust the aperture to get it just right.

Lightning – Lighting can be handled in a similar manner to fireworks. However, you want to use a wide angle lens to cover a broad area of the sky to capture your image with multiple lightning strikes. Be sure that you can get to a safe haven if the storm comes too close to you so that you do not become a victim of having been hit with lightning or your camera is damaged by a lightning strike.

Moonlight Land and Seascapes – Most moonlight photographs are taken when the moon is full on a clear night. To get a good photograph you must use a tripod and a cable or electronic shutter release or, if you do not have a means of using a cable release, the self-timer on the camera. Select your scene and remember that the moon is illuminated by the sun so that it is reflecting sunlight in the form of moonlight. To capture the moonscape/seascape properly you do not want to overexpose the image. Don't make the mistake of a friend of mine when a number of years ago he went to photograph by moonlight a snow covered farm scene and exposed his 400 ISO film using an aperture of f/2.8 and used an exposure of 3 hours. He based his exposure using a LunaPro meter forgetting that the meter is designed to average the highlights and shadows of a scene as a neutral gray. After he got his film and prints back he was amazed to find that the wonderful moonlit night scene looked as though it had been taken in the middle of the day. In my humble opinion night photography should look like it was done at night. A good starting point for exposure would, using ISO 200, be f/5.6 at 60 seconds and then review the first image on the LCD and make adjustment to achieve the exposure that you want.

Adding a Moon to Your Image – Once of the tricks that I learned many moons ago was how to go out on the night of a full moon with the camera loaded with 100 ISO color slide film. It was necessary to mark the film with a magic marker at the point where the full width of the film was engaged in the sprocket holes. Then you were ready to go out to take a full roll of film with just the sky and the moon located in the upper left or upper right third of the slide. Then you would rewind the film making sure to leave the leader out, mark the case as “moon shots”, and put it into your refrigerator. Later on when you are heading out to do landscapes or seascapes at you would defrost the “moon shots” film and reload it in the camera making sure that your magic marker mark was right at the sprocket and then close the back and proceed to get some great moonlight shots where the moon shows up in the upper left or right third of the picture. The only time I had trouble was for a client where I was doing the front cover of their annual report. Everybody liked the shot except for one individual who said that astronomically the moon could not be in that position. Now, with a digital

camera, you can shoot the moon in one position, turn to another position for the landscape image, and simply clone the moon using your photo editing software from one image to another. The digital way, with the advantage of changing the ISO on the fly to accommodate the needed exposure, is much easier and less wasteful as compared to the trials and tribulations of using film.

Star Trails – Depending on the effect that you are seeking has a lot to do with how you go about recording star trails. The most dynamic images come from finding the North Star and placing that wherever you want in the image. Doing this the North Star will stay in the same place with the other stars traveling in circles around it creating semi-circles or, if the exposure is long enough, full circles. You can leave the shutter open for as long as you want as long as you close the shutter before the sky starts to get light. A good starting aperture would be f/4.0 for 100 ISO and so on.

Abstract Patterns – This little technique can be done in a very dark room or outdoors where there is no extraneous light. Simply set your focus on a certain point and then using penlight, with the lens stopped down to about f/11 lock the shutter on bulb, start moving the light around and vary your movement. You could even change color by placing colored filters over the penlight. Interesting abstract patterns can be had by moving the camera during a long exposure and, if motivated, try walking along a brightly lit street at night and hold the shutter open for 30-60 seconds with the lens at f/16. You would be surprised at just what you can record with your camera.

Some Observations – When a film camera is used for night pictures we usually loaded the camera with high speed film and paid the price with increased grain patterns but it was acceptable as the only way to capture the moment. When the ISO is raised to a higher speed on a digital camera we are met with a similar effect that is known as noise which, at times, will also cause tiny bits of light pixels in the image that can be of varying color. It will also have a similar look as the grainy look that was obtained with film. Some cameras are equipped with the capability to minimize digital noise and that should be used for our night photography.

We are fortunate, however, in the digital age in that our camera's sensors are not subject to reciprocity failure which was common with film when taking long exposures of night scenes. This failure forced the film user to take much longer exposures than was metered in order to compensate for this failure. Then the photographer had to wait until the film was processed to find out if the correct adjustment had been made to the exposure. With digital we can have virtually instant feedback by reviewing our image immediately on the LCD screen which then gives us the opportunity to fix the exposure on the spot.

What I Use – Everybody has individual preferences for their photographic work so you may, or may not, use the same gear that I have so what I list is for reference. I usually carry two cameras on my night expeditions – a DSLR and a P&S – to cover most situations that I would encounter. The P&S that I use has a 10X optical zoom with a maximum aperture of f/2.8 that decreases as I extend the zoom. The DSLR allows me a choice of lenses. For those times when I need the wide-angle equivalent of a 24mm lens I bring along my 17-40mm zoom and a 100mm fixed focal length f/2.0 lens. If I do not need the extra wide-angle then I bring the 24-70mm f/2.8 that has a constant maximum aperture throughout the zoom range. I also will pack the 100mm f/2.0 lens to complete my basic equipment. Other gear includes lens hoods for all of my lenses, lens cleaning tissue, a small flashlight, table-top tripod with a well built ball and socket head (*I use a Leica tripod but find the Gorilla to be an excellent choice*), a hand-held exposure meter, insect repellent, a regular heavy duty tripod in the trunk of the car, and an umbrella. I also suggest if you are going out on your first night time excursions that you have a small notebook to record details of where you were, the time of day, the season and any other incidental information that you may want to remember in the future. Remember, the EXIF data that is embedded in each of your images on a digital camera records the date and time, the exposure used, possibly the ISO speed the camera used for the picture and information about the camera and lens that was used.

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