Challenges of Night Photography

10 Steps to Better Photos

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Photography means "writing with light". The most obvious challenge of taking pictures at night is that there is so very little of this light! Consequently, obtaining proper exposure and a providing a firm camera support are two of the most important considerations in night time photography.

As is the case with photography during the daylight hours, the correct exposure of a night scene should show details in the highlight and the shadow areas.

With today's sophisticated digital cameras allowing instant viewing and evaluation of the image, night time exposure problems have become a thing of the past.

During the era of film cameras, getting good photos at night was often very difficult. Although there were some published exposure guidelines, your best bet was to do an exposure series and hope that one of the images yielded the optimum balance between highlights and shadows. Of course you had to wait until you got the film processed...

To help take some of the guess work out of this type of photography, the following list of 10 "Must Do" items, presented in no particular order of importance, should help you achieve better results from your night time photo efforts.

Use a tripod. Exposure times for your night shots will be measured in seconds, requiring some type of firm support for your camera.

photo courtesy of Claude Perdue, Jr.

Use a cable release, or other "remote" means to trip the shutter, thereby reducing vibrations and camera movement. You can also use your camera's built-in self-timer, set to 2 sec.

Use a wide-angle lens. You will find that your night time photos will look better when using a "grand view".

Use manual focusing. Few, if any, camera systems will be able to correctly focus at night in Auto-Focus mode. Focus just shy of the infinity mark (∞) on your lens. Alternately, if you are using a zoom lens, zoom to the maximum magnification setting, set the focus, then zoom back out to compose your photo.

- Use the camera's manual exposure mode, requiring you to set the aperture and shutter speed.

- Use a slow shutter speed, starting at 3-6 sec. Or use the "bulb" mode, if you camera has it.

- Shoot around f/10, then open or close the lens aperture as necessary to get the best exposure for the highlights and shadows.

Knoxville at Night: 16 sec @ f/8

8-10 sec seems to work best for fireworks

1/10 sec @ f/8
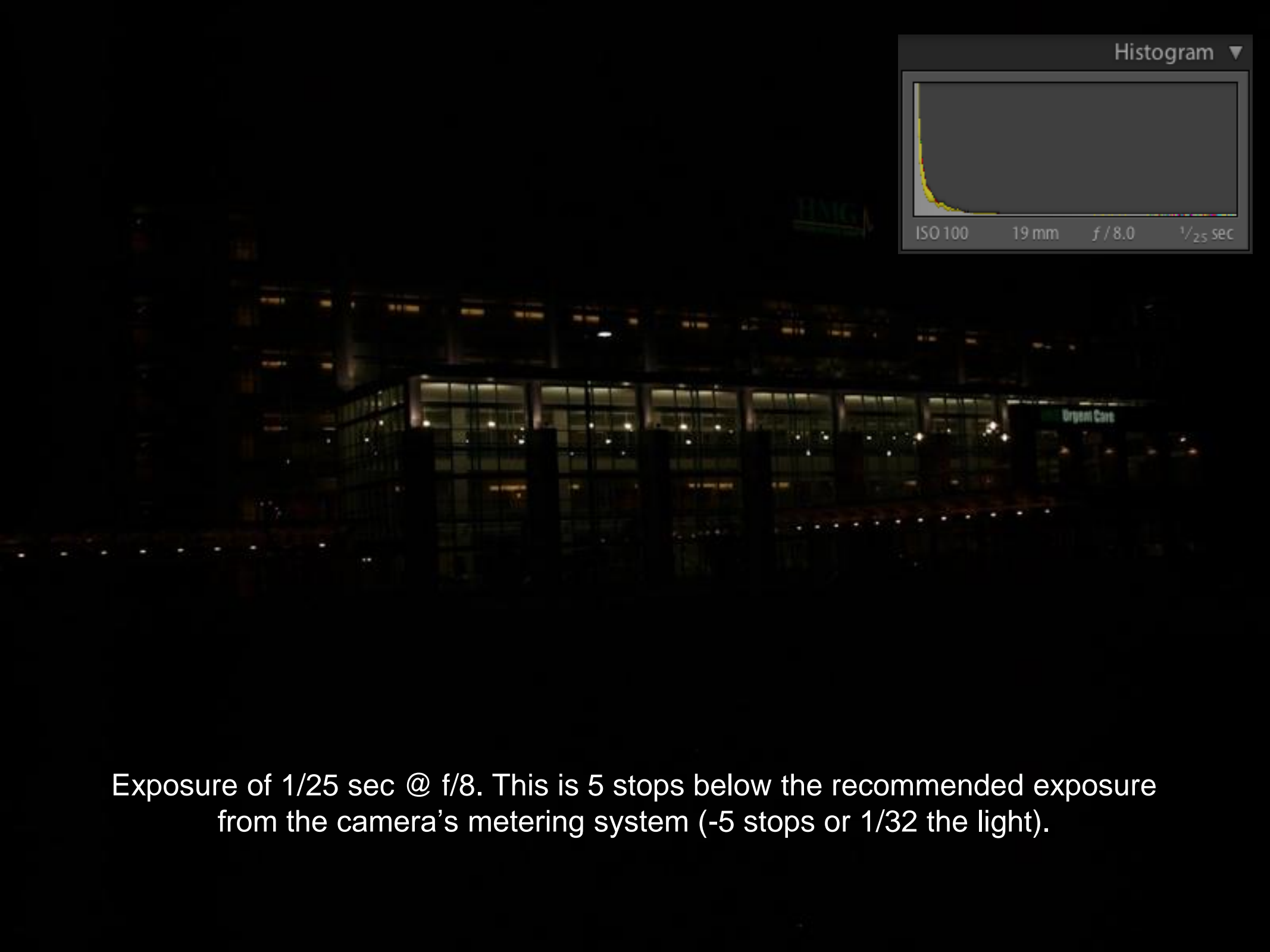
10 sec @ f/8

30 sec @ f/8

"Blue Fireworks"
10 sec @ f/11

Detail of "Blue Fireworks"
10 sec @ f/11

If in doubt, take a series of exposures, varying the time of exposure, and then select the combination of aperture and shutter speed which gives the best result. Unfortunately, your camera's histogram   will be of little help here!

Histogram ▼

ISO 100   19 mm   f / 8.0   ¹/₂₅ sec

Exposure of 1/25 sec @ f/8. This is 5 stops below the recommended exposure from the camera's metering system (-5 stops or 1/32 the light).

Histogram ▼

ISO 100   19 mm   ƒ / 8.0   ¹/₁₃ sec

Exposure of 1/13 sec @ f/8. This is 4 stops below the recommended exposure from the camera's metering system (-4 stops or 1/16 the light).

Histogram ▼

ISO 100   19 mm   ƒ / 8.0   ⅙ sec

Exposure of 1/6 sec @ f/8. This is 3 stops below the recommended exposure from the camera's metering system (-3 stops or 1/8 the light).
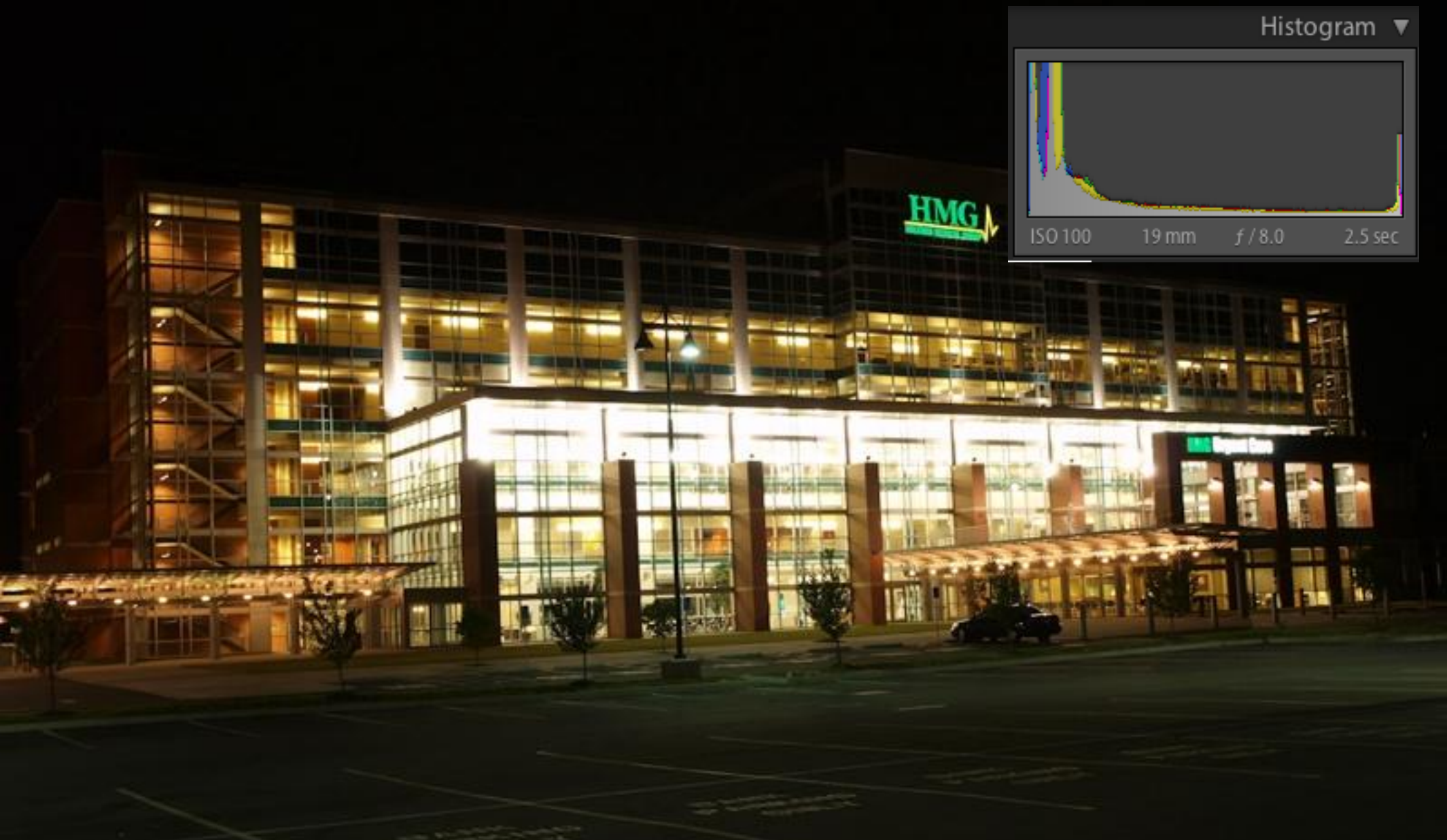
Exposure of 1/3 sec @ f/8. This is 2 stops below the recommended exposure from the camera's metering system (-2 stops or 1/4 the light).

Exposure of 0.6 sec @ f/8. This is 1 stop below the recommended exposure from the camera's metering system (-1 stop or 1/2 the light).

Histogram ▼

ISO 100　　19 mm　　ƒ / 8.0　　1.3 sec

Exposure of 1.3 sec @ f/8. This is the recommended exposure from the camera's metering system.

ISO 100   19 mm   ƒ / 8.0   2.5 sec

Exposure of 2.5 sec @ f/8. This is 1 stop above the recommended exposure from the camera's metering system (+1 stop or 2x the light).

Histogram ▼

ISO 100   19 mm   f / 8.0   5.0 sec
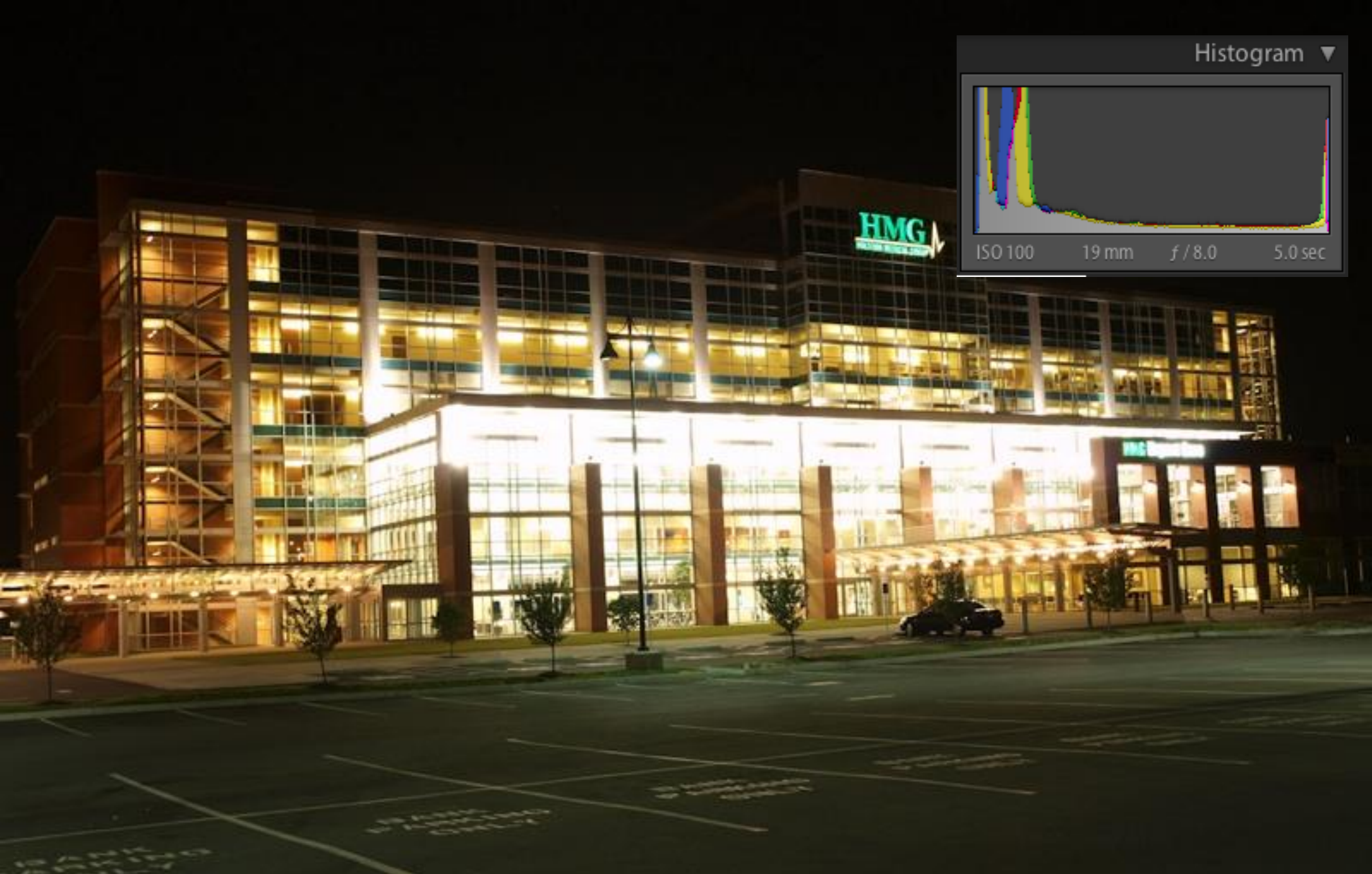
Exposure of 5.0 sec @ f/8. This is 2 stops above the recommended exposure from the camera's metering system (+2 stops or 4x the light).
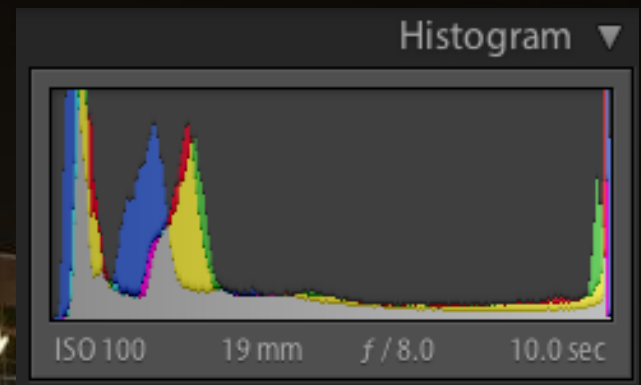
Exposure of 10 sec @ f/8. This is 3 stops above the recommended exposure from the camera's metering system (+3 stops or 8x the light).

Use ISO 100. More "digital noise" will be present in your photos at higher ISO settings.

Shoot in RAW mode!

Much better than jpegs for adjustments in

- color balance

- contrast/saturation

- sharpness

And...

- people pictures at night

- white balance adjustments

- noise reduction using software

And Finally:

Practice! Like everything else in life, the more you work at it the better you will become!

In Summary:

- Use a tripod

- Use a cable release

- Use a wide-angle lens

- Use manual focusing

- Use the camera's manual exposure mode

- Use a slow shutter speed

- Start shooting around f/10

- Use ISO 100

- Shoot RAW!

- Practice!

Now, go out and shoot!