

Photographing in the Dark

by Photographer Raymond Klass

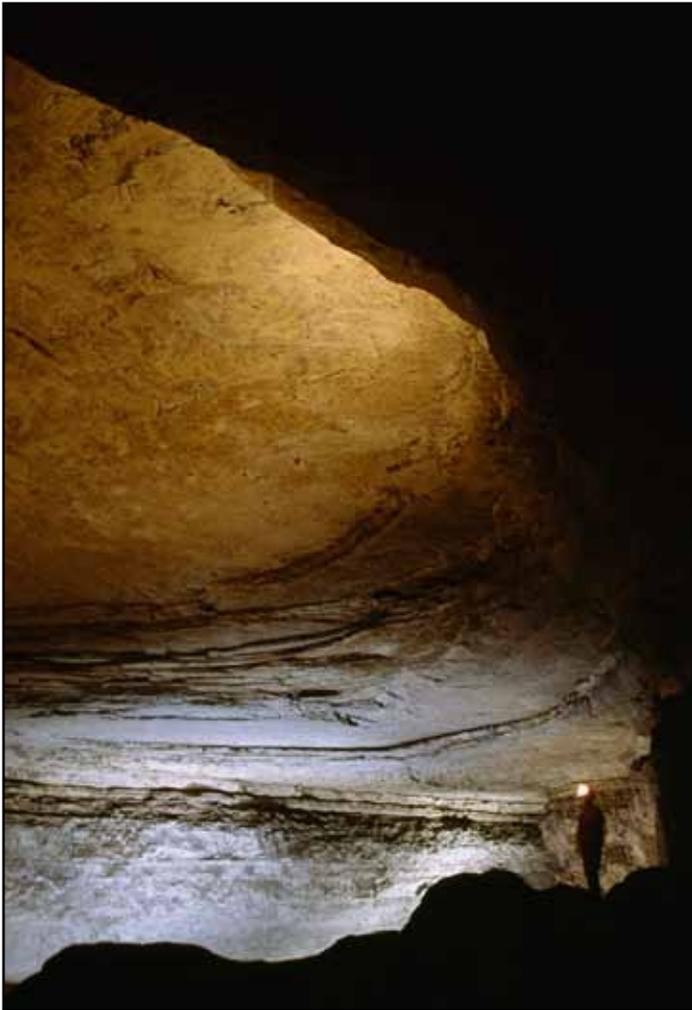
Low light photography is both an exciting and mysterious new avenue for many digital shooters. Digital cameras have drastically improved over the past few years. New advances in noise reduction have made the long exposure often required for these types of images much more feasible.

While living at Mammoth Cave National Park in Kentucky, I learned some of the key components to making low light photography work. In many ways, this very lack of natural light gave me a blank canvas with which to start. I used flashlights, lanterns, and

battery-powered flashes to illuminate areas that I felt were important, while often leaving others spaces completely black.

The first concept behind photographing in the dark is that you the photographer have great control over the way you want the final image to look. I used a technique often called "painting with light" to selectively illuminate areas of the scene that I felt should be lit. Quite simply, the technique involved keeping the shutter open and using a combination of flashes, flashlights, and sometimes lanterns to





shine light for predetermined amount of time on specific walls to light them up.

By placing my camera on its bulb setting, and locking the shutter release open, I was able to keep the camera's shutter open for a half hour or more, while I used these light painting tools to illuminate the various parts of my scene. I experimented with different light sources, and had a simple system of counting "one Mississippi, two Mississippi..." while shining the light, so I got an even and appropriate illumination. By using test exposures, I found the optimal time for each section of the scene, and then when my experimentation was through, I would put all of this knowledge into the final exposure.

If you're going to be taking exposures longer than a minute, you'll want to make sure that your camera's "long exposure noise reduction" is turned

on. If you're unfamiliar with how to do this, make sure to check your camera's manual – it is typically found in the custom settings. Another trick is that using powerful flashlights will greatly reduce the amount of time you need to paint objects. When I began cave photography, a friend told me about underwater diving lights from a company called Underwater Kinetics – these flashlights operate on C or D size batteries, and give out much more light than your average flashlight. They can be a great help if you need to paint a large object, or one that is far away.

The second concept behind night photography is that there are some really interesting effects that you can achieve because the shutter is open longer. One of the most exciting experiments is to try creating star trails. While our eyes can't actively see the stars moving, with an appropriately long exposure, our cameras can. For the best star photography, it is really important to find an area that is low in light pollution – no street lamps, buildings with lights on etc. Really, the best areas I've found are in some of our National Parks where development is non-existent.

In terms of exposure, I would recommend starting at a low ISO of 200, using a wide angle lens, and an aperture between F/4 and F/5.6. In terms of the exposure time, I find that a half-hour produces nice trails, but I've had luck with exposures up



to several hours – this is where you’ll need to experiment and find what works best for you. The longer the exposure, the longer the star trails will be. Remember that though the moon often doesn’t look very bright, it is. Shooting directly at the moon is fun, but if you keep the lens open as long as you would for a star trail, all the detail will be lost in the moon.

Lastly, these techniques are not independent of each other. I often find combining the two – painting with light, and shooting star trails, can make for a more successful image. For these types of images, I first do an experimental exposure for the painting portion of the image – perhaps trying 1 or 2 minutes painting a large object with my flashlight. Once I’ve figured out how long I need to move the flashlight around the object for, I then go for the final exposure. I place the camera on bulb, and at the beginning of the exposure, paint for the pre-determined amount of time. When I’m done painting, I then leave the camera’s shutter open for the remainder of the time needed to create the star trail effect.

Low light and night photography are two exciting creative possibilities for today’s photographer. Painting with light literally provides the visual artist with a blank canvas from which to start. The decisions made about exposure time and lighting can illuminate a world rarely seen, or they can create a surreal image captured over minutes or hours. Just because the sun has gone down, there’s no reason your photographic exploration needs to end.

