



MINIMALIST CAVE PHOTOGRAPHER

ASSIGNMENT OVERVIEW

Now that you've learned about creating a good exposure underground it's time to apply what you've learned. Don't worry about creating an amazing image. Right now we are just trying to create a picture that is not too light and not too dark, but just right.

I want you to go underground. You could always try this in a dark basement or in a forest outside at night, but why would you want to do that? You're a caver for goodness sake. Anyway, I want you to experiment with what we learned in this lesson by setting up the shots listed below and adjusting; first, the aperture to see what happens; then the ISO; then the flash intensity; and finally the flash distance. Then adjust all four to come up with the best shot.

WHAT YOU WILL MASTER

The ability to adjust aperture and ISO to control your exposure underground.
The ability to adjust the brightness of your flash through understanding the guide number, flash distance, and intensity.

The ability to focus your lens in total darkness

ASSIGNMENT CHECKLIST

Exposure controls: aperture, ISO, flash intensity, flash distance. As you shoot the list below you will want to collect images that are too dark, too bright, and just right. Don't use the screen on your camera to judge exposure. Very often that screen doesn't reflect the actual exposure, so it is good to have a buffer.

One other thing. Flash light "falls off" in other words, there will be areas that are dark and areas that are light and areas that are just right. When shooting the assignment below decide before you start shooting what is your primary subject. Is it a single formation, a caver, the back wall, the middle of the passage, etc.? Focus your attention on getting that to be the right exposure.

Photograph the following:

- A formation or something relatively small varying the aperture several times. Keep the other exposure controls the same.
- A formation or something relatively small varying the ISO several times. Keep the other exposure controls the same.
- A formation or something relatively small varying the flash intensity several times. Keep the other exposure controls the same.
- A formation or something relatively small varying the flash distance several times. Keep the other exposure controls the same.
- A small cave room varying the aperture several times. Keep the other exposure controls the same.
- A small cave room varying the ISO several times. Keep the other exposure controls the same.



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- A small cave room varying the flash intensity several times. Keep the other exposure controls the same.
- A small cave room varying the flash distance several times. Keep the other exposure controls the same.
- A small cave room varying the aperture several times. Keep the other exposure controls the same.
- A caver varying the aperture several times. Keep the other exposure controls the same.
- A caver varying the ISO several times. Keep the other exposure controls the same.
- A caver varying the flash intensity several times. Keep the other exposure controls the same.
- A caver varying the flash distance several times. Keep the other exposure controls the same.

REFLECTION

1. Compare your shots in each group.
 - a. Did adjusting the aperture cause you any problems with focus that you need to be aware of in the future? Is there an aperture range that is “safe” to use?
 - b. Did adjusting the ISO cause you any problems with grain that you need to be aware of? Was there an ISO range that is “safe”?
 - c. Did adjusting the flash intensity give you the result you were thinking? Or did you find that cutting it in half or a quarter seemed darker than you thought? Did popping the flash multiple times not brighten the image as much as you thought? What do you need to do next time to make sure you get the effect you want?
 - d. Did adjusting the flash distance impact how your shadows looked? Also did the light intensity change to the degree you thought it would? Make note of what you need to do next time to get the desired effect.
2. Next time you go underground to get a good exposure, where will your starting point be with regards to aperture, ISO, and flash intensity? What will you attempt to adjust first and where will your fall back be if you need more or less light?
3. What worked and what didn't work when it came to focusing your camera underground?



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