



Exposing film using the Zone System:

While this article deals with Black & White negative film, this method may be applied to all films.

A properly printed Gray Card lying on the ground will reflect 18% of the light falling on it. A light meter will calculate the exposure settings to render the image of the card when printed, as middle gray or Zone 5.

Replacing the Gray Card with a piece of white paper (zone 10) without changing the lighting conditions, will cause a TTL (through the lens) or a hand held Spot meter to adjust for less exposure, thereby reducing the *Zone Value* of the white paper to middle gray.

A spot meter will evaluate the reflected light from specific areas of a scene. In an imaginary scene that includes equal parts of bright, dark, and middle gray elements, you will obtain three different exposure settings. If you meter the bright area (zone 8), the meter will choose exposure settings which will render this area as middle gray, the middle gray area of the scene will then be rendered as darker than it appeared, and the dark area of the scene may lose all detail.

If you meter the dark area (zone 2) of this scene, the meter will choose exposure settings which will render the dark area as middle gray, also causing the highlight area to lose detail. Only by metering the middle gray area of this scene will both the highlight and shadow areas be correctly rendered.

A head shot of a person that features strong backlight, using the exposure settings from an averaging or center weighted meter could result in a silhouette set against a dull background. Filling the frame with the persons face and noting the exposure settings before stepping back to compose, will provide facial details. An incident meter may also be used.

I do not wish to discuss the relative merits of light meters in this space. They are simply a means to an end. There are different types available which when properly calibrated and used with care, will produce good results. I prefer the Spot Meter for its degree of precision.

With experience, the photographer learns to note exposure settings from middle gray areas of the scene and proceeds accordingly, trusting that detail and correct exposure will be preserved in all areas of the scene. With more experience, the photographer learns to *place* subjects in a particular zone in order to render or *reveal* the subject in a deliberate way.

Gray Card or middle gray (18% reflectance) is represented by Zone 5.



Since the light meter calculates exposure settings necessary to render subjects at zone 5, any subjects that fall outside of zone 5 (lighter or darker than your gray card) will require an adjustment (exposure compensation) to render them as desired.

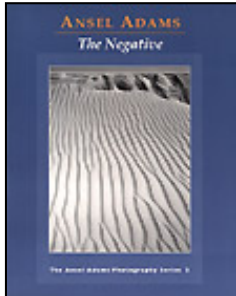
Therefore, if you are metering a rock and you wish to render it as zone 4, simply reduce your exposure by one *f*stop (from *f*8 to *f*11) or double the shutter speed (from 125 to 250). If you wish to lower the rock's value to zone 3, then apply two *f*stops of exposure compensation.

Photographing areas in bright snow may require you to increase exposure by 2 to 3 *f*stops.

Zone System

Understanding this simple method provides the control required to visualize the final print. In other words, you are much closer to creating the print you *imagined* before releasing the shutter, because now you have created a negative that more closely reveals the scene as you had intended.

For those interested, the following two books by Ansel Adams (1902-1984) are among the best available on this subject and will provide much more information than this space allows;



The Negative is the 2nd volume in The Ansel Adams Photography Series.

"Anchored by a detailed discussion of Adams' Zone System and his seminal concept of visualization."



The Print is the 3rd volume in The Ansel Adams Photography Series.

"From designing and furnishing a darkroom and making your first print to mastering advanced techniques, such as developer modifications, toning & bleaching, and burning & dodging, The Print belongs on every photographer's shelf."

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