

# Exposure.

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## What is exposure?

The Macquarie dictionary defines exposure as:-

**" the act of presenting a sensitive material to the action of light "**

This definition does not offer us much at all? If we were simply to present our light sensitive material to light. We would have an out of focus black slab of exposed negative. We need to use devices such as lenses and light meters to produce an image!

In fact an image can be made with out a light meter and lens, a pinhole and an estimate can be made, but we are now beyond this guesswork approach at photography and now should be aiming for the best exposure in any given situation. This can be achieved by the correct use of a light meter, the artistic choice of lenses appropriate the the desired or previsualised results. This class is about exposure so lets leave this aspect and look at exposure.

I would like to add the word **measured** to the above definition. Therefore the the dictionary definition reads, **the act of presenting a sensitive material to a measured action of light**. Measurement now enables some level of control over the final appearance of the negative which will then produce a reasonable print. To achieve this measurement we need some means of calculating the light levels around us.

## How do we measure exposure?

Most photographers will use a light meter. There are two main types of light meter used today, reflective and incident. The reflective light meter measures the light reflected back from the subject and the incident measures the light falling on the subject. There are many light meters available on the market today but all have one thing in common, they measure light and give it a value that then is translated back into a useful shutter speed and aperture combination. What is this value? This value is a tone called middle grey. Middle grey because it resides in the middle between the two extremes of highlight and shadow.

## All light meters read for middle grey

### Why aren't all our pictures all grey then?

So when we point a light meter at an object regardless of its colour, the light meter tells us to give it enough exposure to produce a grey photograph ( with black and white film). As most situations have a mixture of tones, trees skin clothes of different colours, etc these items reflect different amounts of light. So the film receives more or less light depending on it's colour, as indicated by the light meter in the camera.

## Who controls who?

What happens when we present a scene to the camera that does not have a mixture of tones, with in it? It is likely that we will end up with a grey photograph. Fine if we are photographing a grey object. One way to measure a scene effectively is to get as close as possible to the subject and take a reading off it. This method works well when the person/subject is in shadow, for example.

## What other aspects of exposure do I need to consider?

Alls well and fine but what about other things like movement, and Depth of Field? Each exposure setting given by the camera has an equivalent setting that will let in an equal amount of light. For example, f2.8 @ 1/500 is equal to f16 @ 1/15 of a second. The final choice then is either amount of depth of field, or the amount of movement in the shot, that you want.

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<sup>1</sup> Macquarie dictionary page 620

### **So how do I get it all to work?**

Exposure is tied in to several factors.

Quantity of light [ ie day or night ]

Film sensitivity/speed

Aperture

Shutter speed.

As we can not control the quantity of light [ day or night ] or the manufacturers film speed, we are left to the aperture and shutter to control the amount of light striking the film, guided by the light meter.1

### **Where can I find more?**

Try these references,

*"Black & White Photography, a basic manual"* chap 5 pg 43

by Henry Horenstein pub by Little Brown & company

*"Basic Photography"*,chap 10, pg 186

by Michael Langford, pub by Focal press

*"The Negative"* chap 3, pg 29

by Ansel Adams, pub by Little & Brown & company.