

MACRO PHOTOGRAPHY IN NATURE PART TWO: LIGHT AND LIGHTING

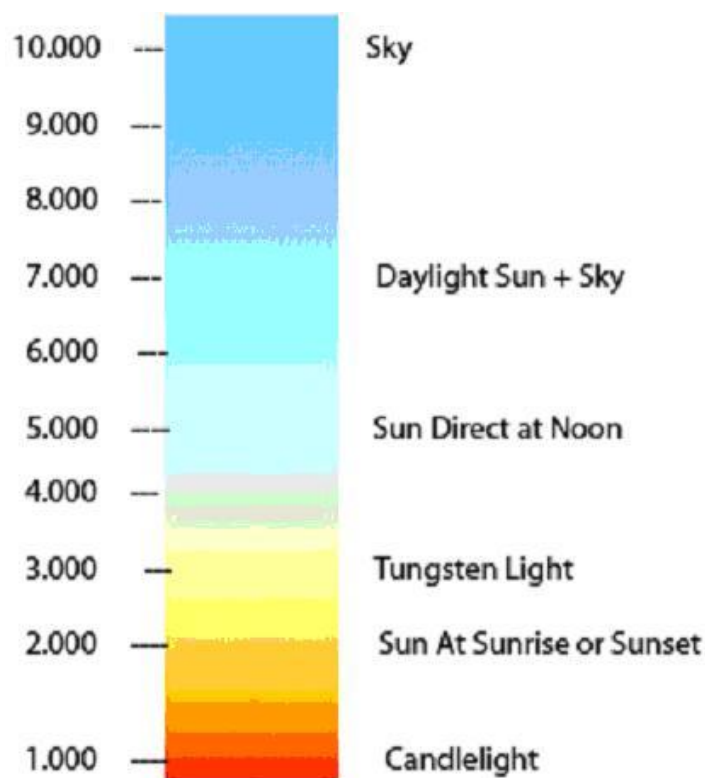
By Edwin Rosens

French man **Louis Arthur Ducos du Hauron** (8-12-1837 / 31-8-1920) was a pioneer in colour photography. In 1868 he patented some of his methods and in 1869 he wrote *Les Couleurs en Photographie*.

Colour temperature of the light is explained in Kelvin. Daylight is our primary source of light in Macro Photography. It varies from 1.000 to 10.000 Kelvin as with the time of the day it can change.

See below:

Colour Temperatures in the Kelvin Scale



Color films are developed to 5.500 - 6.000 K, tungsten films around 3.200 K. This is why sunset gives orange / red color overcast. It is important to get the right color on your film, but this can be very difficult. Your eyes can perceive a very large amount of contrast, more than your film can. This is why we get the difference between when we look at the subject the colors are warm and clear. If we are not familiar with what our film is capable of we can view prints with disappointment. There are many filters to compensate this to get the right color on your film, the main filter is 82A this compensate the early morning and the late evening sun. Even your flash gun is a great help with this but practice yourselves to

understand this. Use always the same location to photograph and do it over and over so it becomes obvious to you what I describe before.

During winter days we get more blue in our photo, see photo *Frozen Sand plate*. Our shutter speed influence also the colour, so I advice you after the right measurement use difference compensations of 1/3 stop above and below the measurement.

Time of the Year:

In spring green colors are bright and popping out of the frame when you photograph them at the right moment. It takes time to learn the right moment to photograph.

Colour meters:

There are also color meters but they are very expensive, but if you're interested I recommend the Sekonic C-500. This meter can be easily used with analog cameras.



Sekonic C-500 colour meter

Links:

www.sekonic.com



Frozen Sand plate: *Minolta 7 + 20/2.8 + Singh Ray ND filter F/16 1/10 Sec. Velvia 50*



Backlight into grasses: *Minolta 9 + 180/3.5 APO Macro F/5.6 1/90 sec. Velvia 100F*



May fly: *Minolta 9 + bellow + 90/2.8 + flash F/8 1/30 sec Velvia 100F*



Common Blue: *Minolta 9 + 180/3.5 APO Macro + flash F/6.7 1/10 sec. Velvia 50*

Exposure metering:

Exposure metering techniques are very important because photography is about two important things: Aperture and Shutter speed.

Through The Lens metering (TTL)

Most modern cameras have TTL meters but generally they read a wide subject area, up to a 30-degree area. With a small subject such as Lichen, there can be many little parts with difference reflections and colors, so you need a camera with spot metering option or a handheld spot meter so that you can measure the part of the photo that needs metering. Remember, any meter that is at your position is a reflected light meter and it measures the strength of the light reflecting to you from your subject.

Using a gray card measurement can be improved because the 18 % gray card has the same calibration as your camera build in meter. When you use your meter it will suggest an exposure that will provide an average 18% grey exposure. You can use this reading to see what values are in your subject area. The grey card target eliminates the inaccuracy and variance from reading different subjects directly. Because of this it is the best way to measured reflected light when exposing color film.



Sekonic Grey Card

Flash Gun:

The use of a flashgun makes it possible to fill the dark parts of the subject to achieve more even illumination across your entire image. Dark parts of an image can distract the viewer from what the photo is all about. The use of the building flash gives you a shadow over the image because the distance of subject and front of the lens is short. So you have to use a separated flashgun. Myself, I have a Minolta 5400 HS with cable to hold the flashgun near the camera so the light covers the entire subject. Some manufacturers also make 'ring' flashes that completely encircle the front of the lens thus providing even illumination across your entire subject. Using a flashgun for macro photography can give a harsh light to your subject even if we lower the flash output level, so you might need to use something to diffuse, or flatten, the light. I use *Omni-bounce diffuser* so the light on the subject will be nicer and softer.



Minolta Flash Gun 5400 HS With cable and Omni-bounce diffuser

Sometimes you might require a fast recycle of the flashgun. For this reason I use an External Battery pack: the Minolta EP-1. For example, to photograph an insect every 1/100 second the movement of the bug can make a big difference in the scene, so a quick battery recharge might be needed.

Links:

www.stofen.com

www.sekonic.com



Crane fly catch by Sundew: *Minolta 9 + Bellow + 90/2.8 macro + flash f/5.6 2 sec. Velvia 50*



Daddy longlegs: *Minolta 9 + Bellow + 90/2.8 macro + flash f/4 1/60 sec. Velvia 100F*



Wrinkler Crust: *Minolta 9 + Bellow + 90/2.8 macro + flash f/18 6 sec. Velvia 50*



Red Campion: *Minolta 9 + Bellow + 90/2.8 macro + flash f/8 1/6 sec. Velvia 100F*

In the last part we will cover composition and a practice assignment.

Thank you.

Edwin Brosens

www.edwin-macrophoto.com