

July - August, 2011

## HOODies ARE IN FASHION

A lenshood\* is no more complicated than a hollow cylinder attached to the front of a lens. It can be made of just about anything - from a paper towel tube to a finely machined stainless steel flared ring. Its purpose is to shade the lens from light that isn't part of the picture.

Every lens is designed to accept light from a particular angle of view. In photographic parlance, the angle of view is compared to the angle of view of the human eye (excluding peripheral vision). Any broader angle than typical human sight is referred to as wide angle, and anything narrower is called telephoto. Some lenses are capable of changing their angle and are commonly called zoom lenses.

Such reflections and stray light cause many optical problems which show up as loss of color, streaks of light, inaccurate exposures and unwanted bursts of discoloration, such as in the photo below.



In the example above, 40 degrees is the equivalent of a "normal" lens. Only light rays within the field of view of 40° create the exposure on the sensor or film. The problem is that light rays from 40° to 180° are able to get to the front element (piece of glass) and add unwanted reflections within the

Just like the hood on a winter parka, a lenshood keeps something unwanted out, in this case light. Just as a parka has to be the right size and shape, so does a lenshood. Optical engineers can design and shape the proper lens hood for almost every lens, but zoom lenses are more complicated than single focal lengths. The following chart shows an



\* also known as a lens shade or sunshade.

assortment of different designs no two of which will work on the same lens.

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The simpler conical or saucer shaped hoods are most often matched up with non zooms, where tulip or flower shaped hoods are frequently used with zooms. Today most hoods bayonet on or near the front of the lens, but some screw into the



filter ring instead. As a rule of thumb, the narrower the lens's angle, the longer the hood; the reciprocal is true as well.

Using a lenshood will never hurt a photo with two exceptions:

- using a lenshood designed for a narrower angle (longer telephoto) lens, or
- using a lenshood combined with use of the camera's built in flash.

Most cameras lacking interchangeable lenses cannot accept a lenshood, but occasionally someone with insight will rig a makeshift hood such as shown here.



We all, however, have a shading device built in - a hand. Held judiciously, an open hand, help palm down in just the right place can serve as a pretty good lenshood - just make sure it is out of view when framing the shot.

## Mirror, Mirror in the...

The "R" in SLR stands for "reflex", as in a reflected image. As described in previous issues, SLR cameras enjoyed through the lens viewing by changing the path of light away from the film (sensor) to the eye except during the instant of exposure. The mirror, and the prism which connects it to the eyepiece, appear to be on the endangered species list.

A little background may be helpful. In 1965 Canon introduced a radical SLR model - the [Pellic](#). This revolutionary design served several purposes, including:

- no loss of view during exposure
- no vibration caused by mirror movement
- exposure metering closer to the film
- (potentially) less noise

Science and industry loved the camera. It became the darling for astrophotography and photomicroscopy. No other camera company had anything like it. A problem was that the user couldn't clean the mirror, only Canon could. In fact, this writer witnessed salesmen from competing camera companies intentionally put fingerprints on retailers' display cameras - making them unsalable! After a period of this industrial sabotage the model was discontinued after a couple of years.

Within the past year, Sony introduced SLR cameras with stationary, semi-silvered mirrors which continued to accept Alpha (Minolta Maxxum) lenses without any functional or optical loss. During meetings with Sony during July, it was announced that all future Alpha models would be with stationary mirrors and no prisms.

Sooo, without the reflecting mirror, is it still an SLR?



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The Alphas function as if they had mirrors except that the viewfinder is no longer optical. It's a small LCD or LED TV monitor which still allows eye level viewing as well as rear panel viewing like compact cameras. The first models of these internal monitors were not fantastic, but all the current cameras are excellent.

One reason SLR makers are adopting this new technology is a lower manufacturing cost. A tremendous advantage to photographers is increased durability, reliability and accuracy due to fewer - if any - moving parts!

So far Leica, Olympus, Panasonic, Pentax and Sony have all released SLR cameras without mirror boxes or prisms; only Canon and Nikon have not. It is reasonable to expect that both Nikon and Canon will be forced to follow suit in the not too distant future.

The photo industry is looking for an alternative name for the new breed of interchangeable lens cameras which technically isn't an SLR any more. On the other hand, if it looks like an SLR, works like an SLR, and takes photos like an SLR, maybe it's ....



### Snap Shots

We are putting together our syllabus for autumn classes and would appreciate your input. If there are any topics you'd like covered, please let Jerry (jerry@madisonphoto.com) or Bret (bret@photo-summit.com) know.

Heat is not your camera battery's friend. Most camera batteries are designed to work well from 30° - 85° F. With temperatures being close to 100°, batteries wear down and lose their charge much more quickly. With decreased temperature, most batteries recover but the picture is usually gone. The best solution is to carry more than one battery.

Keep in mind that when taking pictures of people late in the afternoon and evening time your photos will have a reddish tint. This is due to the sun being closer to the horizon. Force the flash to fire (Many newer cameras must be taken off "AUTO" and set to "P" to accomplish this.) as long as your subject is within about 15' You'll still have your rich background but normal flesh tones.

Enjoy your photography - it's fun after all! See you in September!

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