



March, 2012

ISO Want This To Be Clear

Who was Mr. Iso and how does he affect my picture taking? Funny you should ask! There was never a Mr. Iso. There was also never a Mr. Asa. ISO stands for International Standards Organization; ASA stood for American Standards Association. These organizations established very specific rules for measuring many of the things we accept daily, such as how long an inch is, at what temperature does water boil, how much light is needed to properly expose a piece of film to yield a “normal” negative. Most nations had their own board of nit-pickers to set these standards, but these were all merged into the ISO during the 1980s.

Most of you have used a film camera at one time or another and are aware that there were (and still are) different “speed” (In this situation, substitute “sensitivity” for “speed”.) films available for differing photographic situations. Using specific shutter speeds (time intervals) and lens openings and a calibrated unwavering light source, various exposures were made on sample rolls of film. These rolls were then processed in accordance with the manufacturers’ specifications to yield what was considered a normal density negative.

The sensitivity of that particular film to light was given an arbitrary ISO rating of 100. Another film might need half the amount of exposure to light, to be identically processed to the same density, would be considered to be twice as sensitive. If it were exposed to the same light and used the same lens opening, it would require half the amount of exposure time (measured by standardized shutter speeds). This was deemed twice as responsive and rated ISO 200. This was a faster film than ISO 100 because the exposure (other things being equal) was done in less time.

Kodak, for example, manufactured common films covering a range of ISO speeds from 8 to 3200 - a 400x difference in ISO speeds. A photographer or chemist might alter the development procedure trying to achieve a correctly dense negative by exposing a film at a different exposure than recommended. As an example, a film could be underexposed (e.g. an ISO 400 film being exposed as if it were an ISO 1600 film) and developed for longer than the recommended time to compensate for the exposure difference. This underexposed, overdeveloped film might yield the same optical density as a “normal” negative, but there would be major differences in the appearance of the prints from those negatives. Changes in granularity, contrast, color fidelity and more would be noticeable.

This technique is correctly referred to as shooting an ISO rating at an Exposure Index (E.I.) other than the manufacturers’ ISO rating. Understand that the ISO of a film is permanently fixed at the time of manufacture, but the E.I. can be changed by “pushing” or “pulling” the film or using other techniques.

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Enter digital photography. The grains of silver making up a film’s emulsion are replaced by “pixels” which are grouped together to make a “sensor”. Just like film, the sensitivity of a sensor is given an ISO rating using density standards similar to that of film which is permanently defined at the time of manufacture. Unlike film, the camera or photographer can change the E.I. on a picture by picture basis instead of a roll by roll basis.



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Whatever Happened to ...?

As with film, the camera must process the information collected by the pixels to simulate a normally exposed sensor's image. Within a digital camera, however, there are magnetic fields (such as wiring, transistors, and even the sensors themselves) which cause interference which degrade the captured image. The effect of this interference is commonly referred to as "noise".

Noise **never** helps a photo. You can prove this by taking your camera off Auto ISO (a setting in the camera's menu) and shooting the same subject using different ISO settings and comparing the results. The differences between one at ISO 100 and one at ISO 1600 are striking.

Digital cameras are much more flexible in how they automatically compensate for varying amounts of light to almost always get a pleasing photo, even if it is far from optimum quality. The newest generation of sensors are tremendously improved over those in cameras just a few months ago. Software is constantly refined to counteract the effects of digital noise to improve your photos.

Why would you care about all this? Each refinement in digital capture and processing gets you clearer, sharper colors with more natural and accurate colors than ever before. As sensors' native sensitivity increases, the amount of light needed to take a good photo continuously decreases. These improvements will eventually eliminate the need for flash lighting in general photography!

If there had been a Mr. Asa and a Mr. Iso, they surely would have been sensitive fellows.

In our stores we've been hearing, "You used to carry the XYZ brand and model item but don't seem to be any longer". It may have looked that way, but the reality has been otherwise. Between the earthquake and ensuing tsunami in March of last year and the flooding in Thailand last October, many products have been unavailable.

Within the past month, for example, Nikon has finally resumed making and shipping D3100, D5100 and D7000 cameras SLR cameras and several of their lenses. Sony is able to supply NEX and Alpha cameras that were originally planned for last summer's delivery. Nikon and Canon have finally announced and are beginning Japanese manufacture of their new flagship SLR cameras, the D800 and EOS 5D Mark III, which were anticipated a year ago.

Not all supply chain problems involved high tech products. The Dennis Daniels Company, a leading picture frame importer, had nothing to sell for several months because Thai teak wood could not be processed. Our first delivery of their frames just came in. We had expected the product last November.

In Memoriam

We lament the passing of Sybil Whitman, who worked with us for 7 years. In addition to her being an absolutely wonderful person, she was a championship caliber golfer and an outstanding frame department manager.



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Snap Shots

Welcome Daylight Savings Time. We now have one more usable hour of daylight for picture taking. As we see Spring's new growth we have shadows to help intensify the vibrancy of colors. Long evening shadows add dimensionality to flowers, animals, and other signs of renewal. Flat lighting destroys depth perception and makes colorful subjects appear to be bland.

Using your camera's flash adds additional shadows complementing those created by the sun. Using flash to fill in deep shadows in backlit scenes (where the subject is between the light source and the camera) creates very dramatic lighting. It's easy to achieve - just remember to force the flash to fire.

Imagine for a moment that you enter a room where a beautiful floral arrangement dominates a central table. As you walk around it, one side looks better than the last. After walking completely around the table, you marvel at the beauty of the display.

Now imagine that you are outdoors, and all those flowers are alive and growing in the ground. The same blooms look very different because your angle of view has changed from alongside to overhead. Not only are you seeing different parts of the flowers, but the background appears much closer than was the case indoors, and is probably brighter to boot. Recapturing the beauty is really easy to do ... **bend down**. Put your eyes and camera alongside the plants instead of looking down upon them.

Repeat the procedure with children, animals, sculpture, etc. Voila! Better photos with very little extra effort and no additional expense are easily achieved!

There are 2 attachments along with this issue - a schedule of this spring's classes and a local offer. Thank you for your input and your patience while you waited for the delayed products you wanted. Be back again next month.

Happy Picture making!

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