# Light…

*"Light, not objects, is the source of color!"*
Isaac Newton, 16th Century

Nature photography is all about capturing dynamic light at Magic Hour! Naturally, you want to know *'What is dynamic light?'*

At dawn or dusk, light passes through miles of atmosphere. Whether direct or reflected, such light takes on qualities of this atmosphere. Light paints nature in dramatic, vivid colors. As a nature shooter, I find capturing dynamic light is a process of waiting for just the right moment at dawn or dusk during light's rapid change to make a captivating landscape spectacular.

## Reflections

Three years ago I read Galen Rowell's *Mountain Light* several times. Galen's images excited my imagination. Here are Galen's words about Magic Hour:

> Twice each day, the cool, blue light of night interacts with warm tones of daylight. For a full hour at either end of the day, colors of light mix together in endless combinations, as if someone in the sky were shaking a kaleidoscope. This effect takes place, not directly where the sun rises or sets, but where sun's rays bring warm, direct light on parts of the land and sky also lit by cool, reflected light of evening. These 'edges', though predictable, are not consistent.
>
> The most interesting parts of the natural world are these edges. Places where ocean meets land, meadow meets forest, timberline touches the heights.
>
> Near day's end, transmitted light becomes ever warmer, reflected light ever colder. I look for this visual edge, especially where it is emphasized against clouds and other light backgrounds In fact, my favorite way to photograph a geographical edge is to make it converge with a visual edge of light that underscores subtle differences between these two zones.
>
> When Magic Hour arrives, my thoughts center on light rather than landscape. I search for perfect light, then hunt for something earthbound to match it. The best images of this process look like visual riddles with unexpected answers. Like

verbal riddles, visual riddles have been created by starting with answers then working backward.

Two years later, I would climb Ship Rock's dike to fruitfully explore Galen's visual riddle using high dynamic range (HDR) image capture. Armed with a digital sensor capable of high ISO, I was yet fully to be armed with perceptive Photoshop masking skills; it would be almost a year before I felt such skills adequate - as Ship Rock became a 'teach me' tool. Finally, I was willing to share Ship Rock in a public competition venue.

From the viewpoint of juried exhibitions, others perceived Ship Rock as a great visual riddle whose unexpected answers they found quite pleasing. I'm referring to a popular New Mexico reaction to Ship Rock as it's progressed from image, to state fair, to gallery, to magazine contest winner.

## Digital Sensor vs Eye

One of Galen's most perceptive writings was from viewpoint of a digital sensor.

> We do not see color alike. Light sensitive sensors that receive data during my development do not produce exactly the colors you see. Of far more importance to you, however, is the fact that my tones are rigidly fixed by lighting in which you took the photo. Color changes for you whenever you walk from one kind of lighting to another, but few of you are aware, because your brains are forever making adjustments. If your companion is wearing a blue and red shirt, you think the shirt is the same color outside as it is indoors under artificial lighting. I know that isn't so. I record the same shirt and radically different colors in each situation unless you use a special filter.
>
> Vision through your eyes is filtered through your brain which interprets colors for you before you 'see' them. Humans must have had an evolutionary need to see colors in relation to one another no matter what the lighting source. Now you have visual 'appendix' left over from a time when your ancestors needed to recognize the tawny coat of a Pleistocene lion in an African savanna by moonlight, at dawn, or by light of noonday sun. When you subject me to that variation in light, I give you colors you don't recognize as really having been there.

Galen's awareness and precise English created a revolution in how I take pictures. First, it taught me that no matter how much money I spend on a camera

body or good lenses, my eye is by far the better instrument. Second, it taught me that my brain can play 'slight' visual tricks, even on my eye!

## Two Roads Diverged in a Wood...

Robert Frost's poem seems to characterize many of my life's big, but unforeseen decisions. Particularly, when he wrote,

*"... and I, I took the road less traveled by!"*

## Lavender Dawn

One February morning in 2006 just before sunrise at Magic Hour, I stood on a sweeping sand dune at White Sands with a point-and-shoot digital camera. Cold hands fired the shutter at 06:20... My eye simply couldn't believe nature's splendid combination; our sand dune's sweeping arc and magical color of dawn. I moved to *Photoshop CS3* a year later and added Pixel Genius' *Photokit Sharpener* to begin to create better digital images and reach for that distant fine art ring.

*Lavender Dawn* was worked up for 2008 state fair competition; sharpening was a big part of the toolkit which made the image sing.

Oh… I almost forgot! If you've been to White Sands or seen most pictures from there, they got that name from someone who saw them during daylight.

Lavender Dawn clearly proves Newton

*"Light, not objects, is the source of color!"*

## Let's Expand on Newton

In May, 2008 state fair judges provided a half day critique for camera club members. I took Ship Rock, which had been pretty well processed in the digital darkroom, as an 11 x 14 Costco print.

The first judge said something I didn't understand; he is a black-and-white photographer who looked for detail in dark crevices of the dike. It would be nearly 6 months before the true meaning of detail filtered through my dimly lit brain.

Literally, this judge was trying to say to me,

"You really didn't capture all light that was available!"

To shoot Ship Rock, I used auto exposure bracketing to capture three images 2EV apart. This was a 'timely' HDR mantra, depending on who you believe. Oops, a knowledge glitch

When you couple a partial light capture with a sensor deprivation, you don't really have the best of all worlds; ... you have yet to take the road less traveled.

Clearly, Frost knew I had yet another path to follow; get around my sensor, get around my eye, and ~ capture all light.

## Full Range HDR Capture

How do you use a limited digital sensor so it truly captures all light?

Most DSLR's show you a LCD histogram after you shoot an image. Set manual mode, half an f-stop change, center your meter, then move your selector until your histogram shows no highlight (blown highlights) captured. That's your first image in a long string of full range HDR capture.

Now, two clicks at a time, capture the next darker image.

Continue until your histogram shows no shadow (blown shadows) captured.

Then combine images and softly tone map...

## *I Took the Road Less Traveled by!*

Voilà... once again, Galen to our rescue!

My favorite way to shoot a geographical edge is to make it converge with a visual edge of light that underscores subtle differences between two zones at Magic Hour.

## Creating Fine Art Magic

If you've read or seen Tony Hillerman's *Skinwalkers, Coyote Waits,* or *Thief of Time*, the incredible Navajo murder mystery series, you know Joe Leaphorn and Jim Chee overcame many obstacles against strong odds to catch the murderer.

Unfortunately, the same convoluted fate awaits a photographer/shooter. When you decide to really shoot fine art images, there are both technical and digital technique barriers you must overcome. *Creating Fine Art Magic* is an upward path to creating award-winning digital photography. We call this learning process CFAM.

As a 'learned' shooter, you've conquered CFAM; you're now in a position to concentrate on full image capture and delicate tone mapping.

## Frost Said One More Thing...

"And that ~ ~ ~ has made *ALL* the difference!"

Now, combine Rowell, Frost, and CFAM...

The best nature photography occurs when Magic Hour light creates a delightful visual riddle around a gorgeous landscape. Think of it as a vivid scarf lying softly across bare shoulders of the most beautiful woman you will ever see!

If women are not your scene, simply make up your own allegory!


*121009*