



THE

LAST FRAME

February 2008

St. Albert Photo Club's Monthly Newsletter



Hoodoos taken near Drumheller with Canon 30D and 10~22mm lens set at 10mm @f8.0. Photo/AI Popil

Answers To Questions

WIDE-ANGLE LENSES

After becoming familiar with that new camera body and lens you just purchased, whether you bought it with a kit zoom lens or a fixed normal lens, your next lens will either be a telephoto zoom lens or wide-angle lens.

For those interested in photographing sports or wildlife, or just

preferring magnification of your subjects, you would opt for a telephoto lens.

If photographing landscapes or simply prefer to increase the field of view in your images, then a wide-angle lens may be your next purchase.

If a wide-angle lens is in your future, then read on.

Image size or magnification of stationary subjects will decrease as focal length decreases.

As the angle of view widens from that of a normal lens (40-45 degrees), to 70-90 degrees horizontal or more, three conditions undergoes a significant change.

First, the perception of distance from the foreground to the back-

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SPEAKER
Jim Gaa

MARCH
COMPETITION
"Snow and/or Ice"

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"Water"



ground changes.

As the field of view gets wider, it also seems to get visually deeper, so that all objects become smaller and smaller as they recede in distance from the camera plane.

Second, the relative size of similar objects scattered throughout the scene at different field planes, become more and more extreme.

Since near objects will always appear larger than distant ones, this degree of differentiation becomes extraordinary with wide-angle lenses.

And finally, there is the depth of field issue. With the smaller rates of subject magnification characteristic with wide-angle optics, depth of field per aperture setting is larger.

The decrease in subject magnification is the key ingredient in all the wide-angle effects mentioned above.

This decrease in the size of a subject as a result of shorter focal lengths is carried out along two planes: one running parallel to the film/sensor plane and the other along the lens axis, which is perpendicular to the film plane.

Similar size objects along the parallel plane should look about the same, as long as they are the same distance from the camera.

In the case of those subjects on the plane running along the lens axis, the same two factors, camera-to-subject distance and focal length, are at work, but this time resulting in an exaggeration in the change in the relative sizes of subjects.

That is, the closer the subject is to the film plane, the more exaggerated its size.

In fact, this increase in size is so noticeable that it produces a condition known as “foreground dominance”, in which anything that gets put close to the camera, is going to wind up dominating the image.

In the landscape photography, the view dominates everything because it is expansive.

We look first here, then there, moving our eyes first, and then our heads, taking it all in.

The photograph, on the other hand, is relatively small and insignificant. We can see it all at once,



Moraine Lake taken with a Nikon D70 with 12~24mm at 12mm @f22. Photo/Derald Lobay

and all those details, the things on which our eyes fixated on in the original, are so small that they escape notice.





As a result, some photographers find that short telephoto lenses, perhaps an 85mm to 105mm, are ideal for selecting those details.

However, there are certainly times when a wide-angle can be the ideal lens for a landscape image.

You need, therefore, to find something interesting in the foreground to “trap” the eye, after which it is quite natural to scan the rest of the picture.

Without that “trap” or focal point to arrest the eye, no one is likely to give the picture a second look.

Flowers, rocks, seashells, or perhaps the texture of sand or sun-dried mud will be sufficient for

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a foreground element.

Many beginning shooters like the idea of getting a lot of what they see on film, but this often results in busy pictures where the center of interest competes with other elements.

Wide-angle lenses can be broken down into three types.

Moderate wide-angle lenses, such as a 35mm or its equivalent, is the best choice for shooting situations when you can't increase the subject-to-camera distance to show a wide view.

Typically, these lenses give a wider view than normal lenses, without really losing a sense of natural proportions.

The second category, wide-angle lenses, comprises focal lengths between 28mm and 24mm.

A 28mm lens offers an angle of view of 75 degrees, roughly comparable to that of our own two eyes.

But moving down to 24mm and the view expands noticeably to 84 degrees, surpassing our visual limitations.

By increasing the field of view these lenses produce expansion within the image by increasing the apparent distance between subjects along the lens axis.

These lenses also have a strong tendency to exaggerate the size of objects or areas close to the camera,

and to diminish the size of far objects.

The final category, ultra-wide-angle lenses, from 20mm down to 14mm (rectilinear lenses) really bolsters the size of the expansiveness in front of you.

Their tremendous depth of field enables you to record sharp images from extremely close to the camera all the way to infinity.

To help establish this greater sense of depth, you can use such elements as sharply focused tree limbs or fences in the foreground to frame a distant scene.

The vantage point for a photograph in which you want to isolate a subject is close and low.

This shooting situation makes the selected subject much larger and therefore dominant.

All ultra-wide-angle lenses will elongate shapes toward the edge of the frame.

This is an inevitable consequence of projecting an image obliquely onto a flat surface.

Misshapen subject distortion will depend on how wide the lens is and how the subject is placed, relative to the lens.

This so-called "stretch" distortion is a direct result of an ultra-wide-angle lens performing as designed.

That is, if you place the subject right at the very edge of the lens's field of view, then the angle

that the subject is being viewed at represents the most extreme portion of the entire viewing area. Result: a stretch effect.

No other focal length group combines the opportunity for compositional creativity with the ability to tell a story with a single photograph.

The challenge of wide-angle photography lies in taking the space provided and filling it with meaningful elements.

Their inherent depth of field can be enhanced by the use of small apertures.

The physical limits of these lenses can be stretched even further by focusing at the hyperfocal distance (see below) or by tilting the camera so that the film plane is not perpendicular to the ground.

Aperture setting determines not only exposure but also depth of field, which is one of the most important creative compositional controls you have over your subject.

In practice, depth of field means that when you pick up your camera and focus on a subject, a certain amount of area in front of and behind that point will be sharp.

Aperture setting affects how large that area is.

The smaller the f/stop number (the larger the lens opening), the smaller the area in focus and, therefore, the shallower the depth of field.

If you stop down your

lens to a larger number (a smaller lens opening), the area of sharp focus increases with each f/stop.

The point at which the depth of field begins and extends to infinity is called the hyperfocal distance.

If you set your camera lens to its hyperfocal distance, the image will now be in focus from infinity to half the distance set on the lens.

This enables you to quickly set up depth of field zones that come in handy when you have no time to focus.

Using the hyperfocal distance as a benchmark is more accurate in terms of controlling depth of field than shooting with an auto-focus camera and lens because in practice auto-focus lenses focus on subjects or look for contrast.

By understanding this principle and using it when you shoot, you can always maximize depth of field!

In the pre-auto-focus lens days, when virtually all lenses had depth-of-field scales, it was possible to fiddle with the scales to determine what the hyperfocal settings should be.

However, many lenses, particularly zooms, have no such depth of field scales.

For math buffs, you can work out each lens hyperfocal setting for each f/stop if you the square the

focal length you are using, take 4% of this figure (X 0.04), and divide the result by the f/stop.

The result is the hyperfocal distance (in meters).

Depth of field is from half this distance to infinity.

Thus, for a 50mm lens at f/8, the hyperfocal distance is $50 \times 50 / (2500 \times 4\%)$ divided by 8.

The result, divided by 8 is 12.5 meters.

The depth of field will thus be from 6.25 meters (about 20') to infinity!

RULE OF THIRDS

The Rule Of Thirds is probably the most important of all the composition techniques.

The Rule Of Thirds means that the frame can be divided into three horizontal sections and three vertical sections and therefore, where the horizontal and vertical lines intersect, makes an ideal location for the more important parts of your picture.

By locating your main subject at one of the four intersections you give the subject more emphasis than if it was right smack in the middle of the picture.

This is also a good technique if you have more than one important subject, the intersections can still work even if there's a subject on more than one.

The divisions can also be helpful in setting up a picture, for example, help you determine how much

horizon you want.

Most famous photographs or paintings in the world today have the rule of thirds applied to them in some way.

LEADING LINES

Leading Lines are used to lure the eye deeper into a picture or to an important subject.

Straight, curved, parallel, or diagonal lines are all good at promoting interest.

Good examples could be roads, rivers, streams, bridges, branches, or fences but there are endless things that could be used.

FRAMING

Framing is the tactic of using natural surroundings to add more meaning to your subject.

It could be anything such as bushes, trees, a window, or even a doorway.

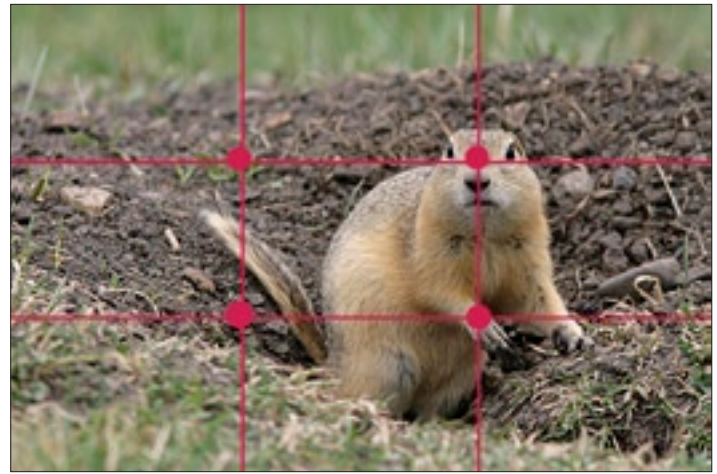
In the process of doing this you need to be careful that you don't only focus on what's framing your subject.

Make sure you focus on the main subject, and also it is a good idea to use a narrow aperture (high f/stop) to achieve a high depth-of-field.

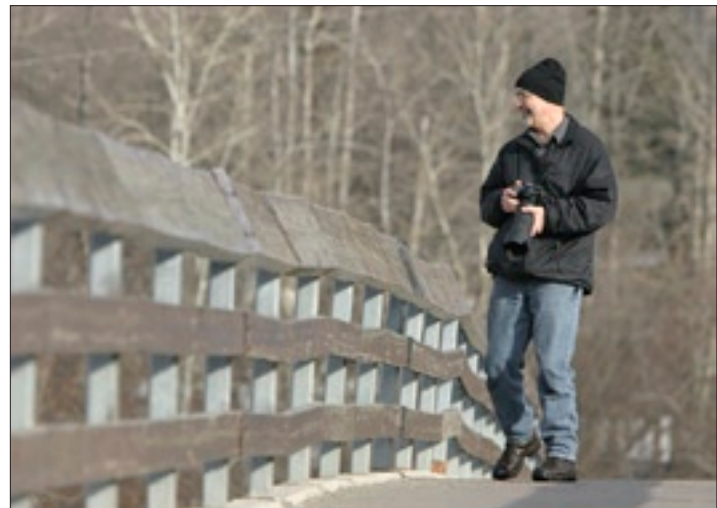
It also wouldn't hurt if the part of the picture framing the subject was darker so make sure you take your light reading on the main subject.

BACKGROUND

What is going on in the background? The background is an important



Rule of Thirds



Leading lines

part of any photograph, and in most cases you can control it in various ways.

The first and easiest step involves awareness.

Be aware of what's going on in the background.

Let's say you are photographing a baby being held by mom outdoors.

You can place the mom pretty much anywhere that is safe for her and the baby.

Now what is going on in the background? Can you see the street? Is there a telephone pole behind her? Once you learn to pay attention to the background you can then make judgment calls as to

whether the background is distracting or not.

Club Point Standings

PRINTS

- 19 - Al Popil
- 04 - Sandra Boser
- 03 - Allen Skoreyko
- 02 - Sieg Koslowski
- 01 - Dave Paris
- 01 - Mark Pesklewis

DIGITAL

- 13 - Allen Skoreyko
- 08 - Al Popil
- 03 - Derald Lobay
- 03 - Sieg Koslowski
- 02 - Muffy Mathewson
- 01 - Andrew MacLeod

THE LAST FRAME

CLUB MEMBERS WINNING MONTHLY PICTURES



PRINTS



1st Place Print - Al Popil



Above, 2nd Place
Print -
Al Popil



Left, 3rd Place
Print -
Mark Pesklewis

DIGITAL



1st Place Digital - Allen Skoreyko



2nd Place Digital -
Derald Lobay



3rd Place Digital -
Derald Lobay