

Lens Talk

Lens Perspective
(Talk #2)

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New Westminster Photography Club
Keith Griffiths

Lens Perspective

I have heard it said that all lenses for a given camera format give you the same perspective view on the world. Is this true?

Yes....and no.

From a purely technical, say even clinical point of view this really is true. Let's compare the view of a 200mm lens with that of a 28mm lens, they are just the same right? Now you have to use your imagination here, not quite to the point of quantum physics but a fair dab of it just the same. Okay, imagine you have a gazillion megapixel digital camera. Now set up your tripod and don't move it between shots. Take two photographs, one with your 28mm lens and a second with your 200mm lens. Put both photos you took onto your computer and open them up side by side. Do they look the same? Not yet. Now zoom in on the one taken with your 28mm lens. If you pick out the limits of the field of view from the telephoto shot and then zoom in on the wide angle shot to the point where the two views are the same, then yes the two pictures have the same perspective view. The trouble is that you just threw away 93.8% of the information from the 28mm shot. So if we consider a regular 8 or 10 Megapixel camera and you throw away 94% of your pixels then you are comparing a 10 megapixel image with a 0.6 megapixel image. Same picture, same perspective view, NOT the same resolution. Therefore in my humble opinion, do not discard your long lenses yet.



Trying to keep my feet dry I stayed back from the edge of the river. With my trusty little point and shoot 3x zoom at its widest setting this is what I saw.



Again with my little camera at its longest zoom setting (3x) from the same dry vantage point in the grass, this is what I saw. This is only $1/9^{\text{th}}$ of the first photo, as I did not have as large a lens range on my camera as I would wish for. The losses from the 'digital zoom' would be greater with more magnification.



This is NOT the same photo as the previous one; it is a crop or digital zoom from the centre of the first one. Note how the perspective is the same as the zoomed in version. However, this could be viewed on a computer and confused with the zoomed in version but the resolution is too low to print at a reasonable size. Also note that the detail and contrast is not as good as the optical zoom version

I must add my caveat note here; the above analysis was based on a very boring and clinical image with complete disregard for any artistic use of these lenses. I ask you this 'Would you ever take two photos of the same subject with these two lenses and stand in the same spot for both?' I wouldn't but that is only my humble opinion.

Keith Griffiths