

# Evoked Depth with Vanishing Point Perspective

*Plus seven other techniques*

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Silver Spring Camera Club Photo Forum

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*Part 2: Seven Other Techniques Plus Discussion*

## **Other ways to evoke depth**

**Overlapping objects**

**Diminishing scale perspective**

**Shadows/light angle**

**Put in a person (landscapes).**

**Depth of field**

**Atmospheric perspective (landscapes)**

**Warmer/cooler colors**

## Other ways to evoke depth

### Overlapping objects

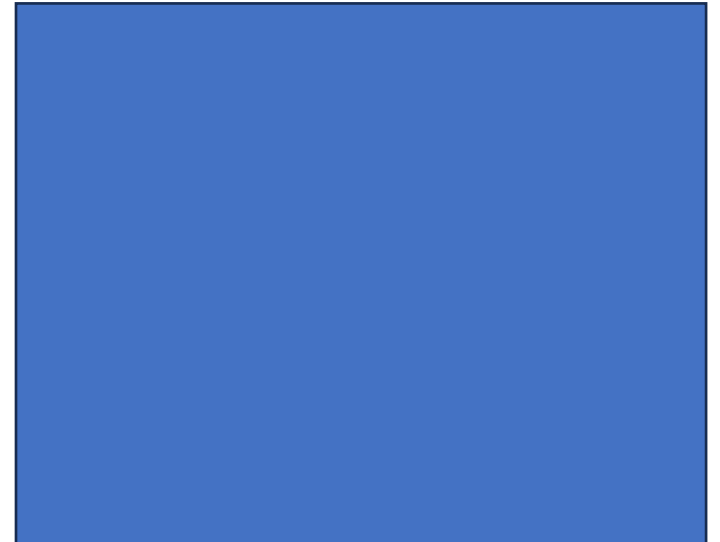
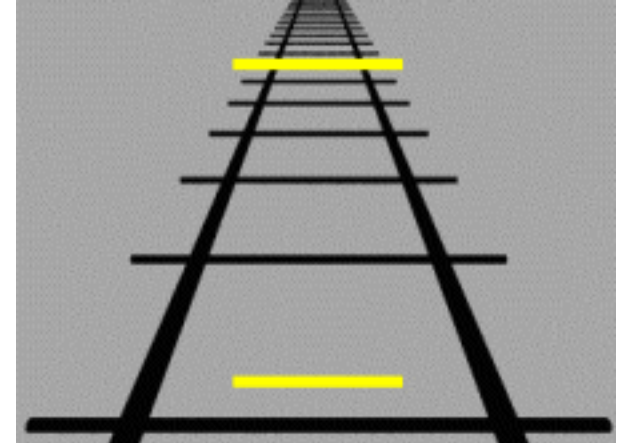
Also, foreground/middle ground/background layers.

### Diminishing scale perspective

Objects get proportionally smaller as they are further away.



“Organic”, curvy leading lines also show decreasing scale perspective.



<https://www.photos-public-domain.com/2012/12/10/curving-light-rail-train-tracks/>

<https://www.publicdomainpictures.net/en/free-download.php?image=train-track-curve&id=101206>

[https://en.wikipedia.org/wiki/Ponzo\\_illusion#/media/File:Ponzo\\_illusion.gif](https://en.wikipedia.org/wiki/Ponzo_illusion#/media/File:Ponzo_illusion.gif)

## Other ways to evoke depth

### Shadows/light angle

This is worthy of more than one whole presentation.  
Consider using side flash or window light.

**Put in a person** or other familiar object to give a sense of scale (landscapes).



# Other ways to evoke depth

## Depth of field

Objects in front or behind the subject in focus are increasingly blurry. There is a lot of latitude in what we accept with different depths of field because our eyes dart around refocusing in real life. **But...**

If you add extra blurriness via Lightroom's new Blur module or by using a tilt-shift lens, you run the risk of making your scene look smaller, like a model train set.

Alternatively, a very small sensor size (as in mobile phones) produces a larger depth of field, so it might make small subjects appear bigger.



Small sensor TG-3

Focus stacked



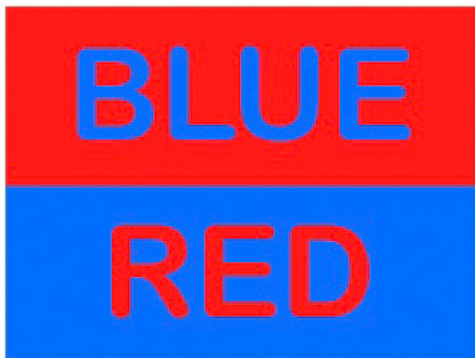
## Other ways to evoke depth COLOR

**Atmospheric perspective** (landscapes)

Further objects are whiter/bluer/fuzzier due to haze.



**Warmer(red)/cooler(blue) colors** are perceived to pop forward or to recede.



[https://commons.wikimedia.org/wiki/File:2019-09-14\\_Apfel\\_01.jpg](https://commons.wikimedia.org/wiki/File:2019-09-14_Apfel_01.jpg)



Speculate: Optimal for **Hunters** and **Gatherers**

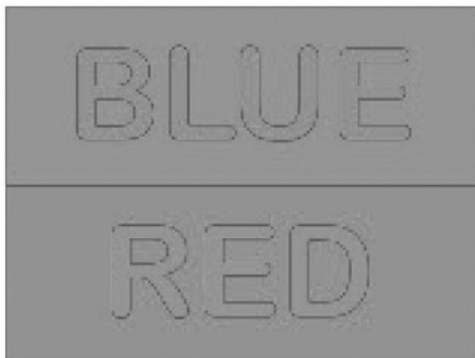
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Speculate: Optimal for Hunters and Gatherers



## Why do warm colors pop forward and cool colors recede?

Wikipedia says that “**Chromostereopsis** is a visual illusion whereby the impression of depth is conveyed in two-dimensional color images, usually of red–blue or red–green colors... Such illusions have been reported for over a century and have generally been attributed to some form of chromatic aberration.<sup>[3][4][5][6][7]</sup> Chromatic aberration results from the differential refraction of light depending on its wavelength, causing some light rays to converge before others in the eye (longitudinal chromatic aberration or LCA)...”

<https://en.wikipedia.org/wiki/Chromostereopsis>

*That's ridiculous.* Chromatic aberration is a small effect and Yellow (warm) is right next to Green (cool) on the color spectrum, yet still shows this effect. Unfortunately, this is the primary explanation offered on random web pages.

The **warm/cool** color effect is likely an **evolutionary consequence**

- Plants need to disperse seeds, so they attract animals in part by signaling ripe fruit with yellow and red colors.
- For human gatherers, at least, ripe fruit is easier to spot if the brain “highlights” those colors as popping out of a green background.

[https://en.wikipedia.org/wiki/Color\\_vision](https://en.wikipedia.org/wiki/Color_vision)

The **blue** color effect seen in **atmospheric perspective** may be also evolutionary; allowing nomads and hunters to estimate long distances.

## Evoked Depth and Volume Using

- One point perspective
- Two point perspective
- Three point perspective
- Overlapping objects
- Diminishing scale perspective
- Shadows/light angle
- Put in a person for scale (landscapes).
- Depth of field
- Atmospheric perspective (haze in landscapes)
- Warmer/cooler colors

Plus how to straighten the verticals in Lightroom.

*Discussion of buildings with 1, 2, 3 point perspective, if time:*

# Which buildings look like they take up volume and show depth? How many vanishing points?



1



2



3

Literally, change your point of view to change your perspective!

Move your feet.



4



5



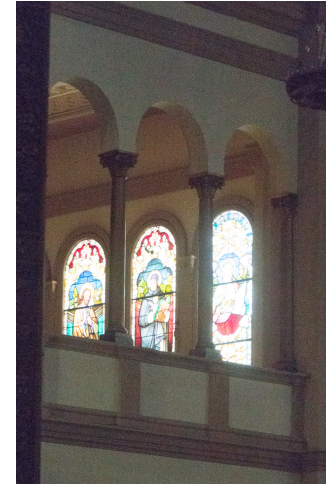
7



8



9



6



10

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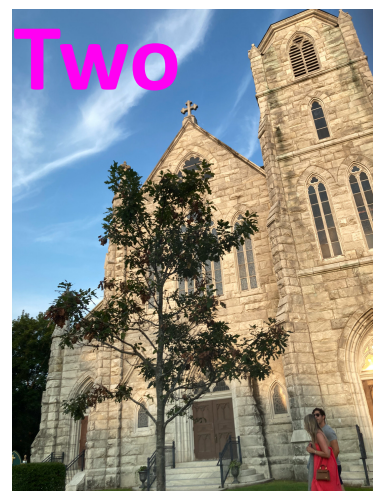
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7



8



9

But rotated



10

## Some photos are tilted too much to “correct”



This picture is a hot mess because I tilted the camera a lot to get more of the sky.  
Nothing can fix this!

Looks plausible