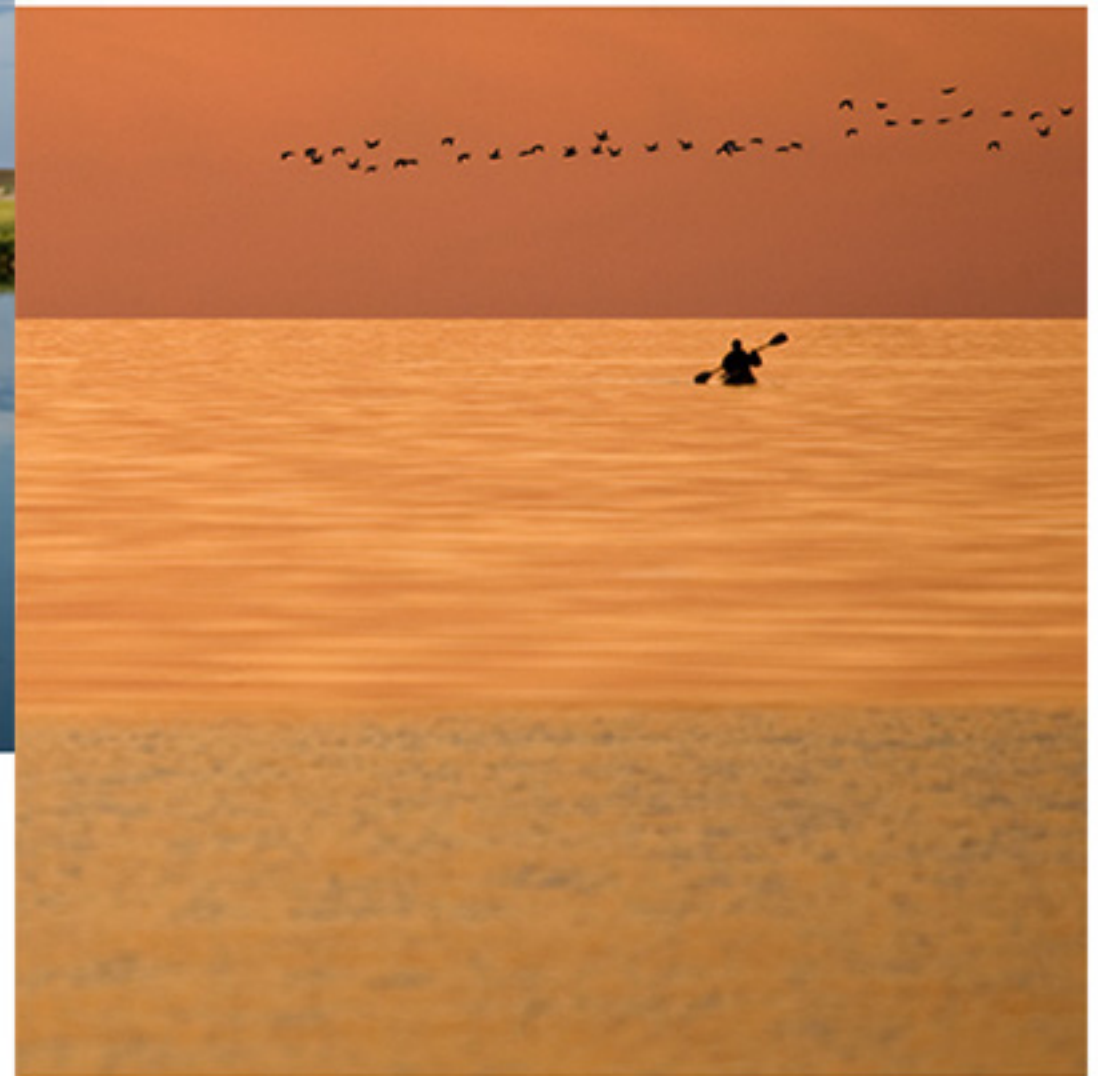


Lenses: What to Use When & Why





Wide Angle < 50mm < Telephoto

14mm
17mm
24mm
35mm

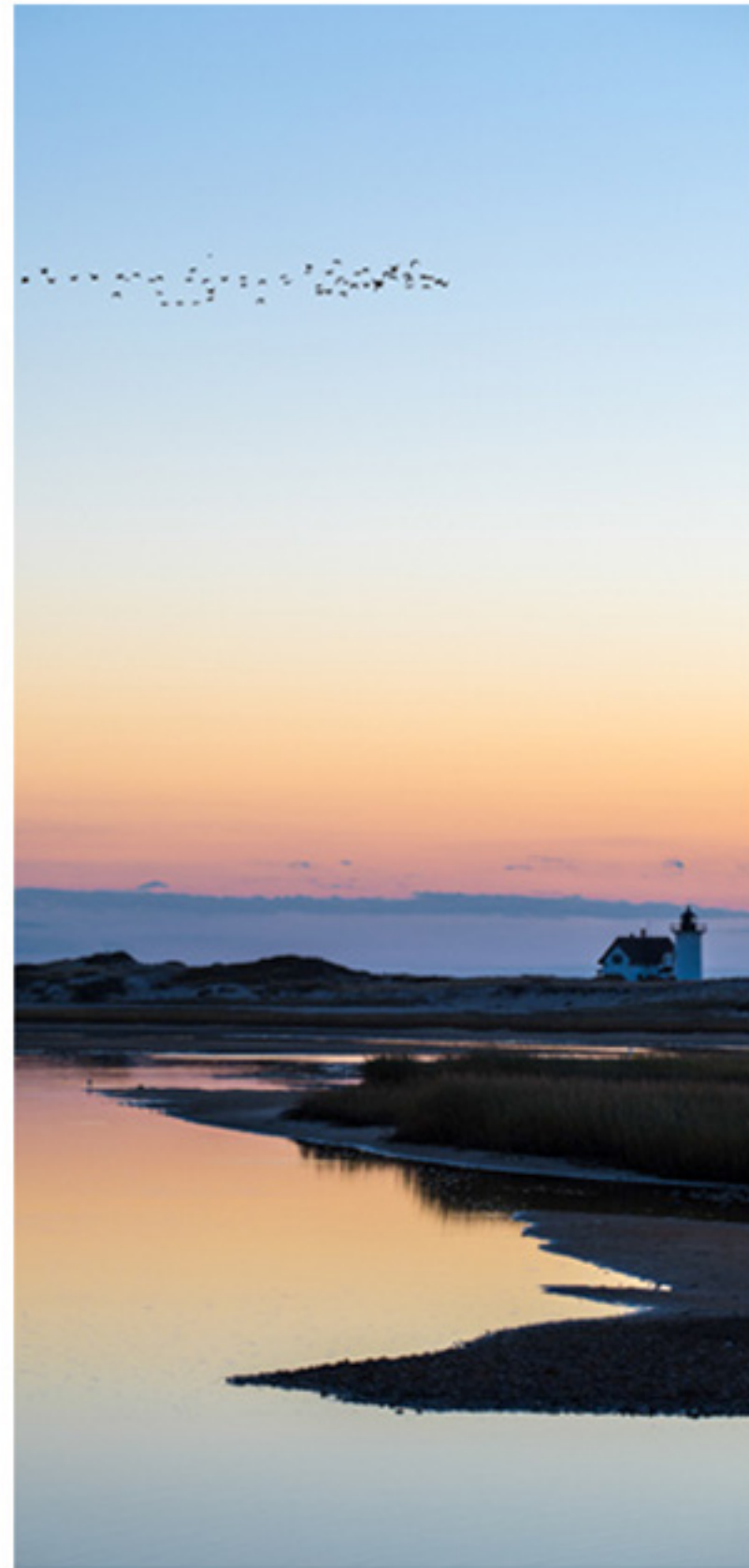
(Standard)

Primes and Zooms

100mm
200mm
400mm
600mm



Telephoto zoom
compresses scene
and depth of field



110mm @ f8



24mm @ f11

Wide angle expands scene
Increases depth of field

Focal length expansion and compression



24mm

Wide angle expands scene



70mm

Telephoto compresses scene



F8, 24mm

Expansion

Wide angle often used to emphasize foreground element in a scene with an expanded sense of space and distance.



F16, 28mm

Expansion

Wide angle often used to emphasize foreground element in a scene with an expanded sense of space and distance.



F8, 17mm

Expansion

Wide angle often used to emphasize foreground element in a scene with an expanded sense of space and distance.



F8, 17mm

Expansion



F11, 24mm

Traditional Landscapes



F4, 24mm

Large views



F16, 28mm

Wide Angle for Architectural Exteriors



F8, 23mm

Interiors



F13, 30mm

Interiors



Wide angle distortion can be corrected...

Photoshop's Adobe Camera Raw



Lens Correction Tab

Manual Tab

"A" Auto Tab

Use the sliders to make additional changes.

The screenshot displays the Adobe Lightroom interface in the Develop module. The top navigation bar includes 'Library | Develop | Map | Book | Slideshow | Print >>'. The main area shows a photo of a city skyline at night with the filename 'IMG_5986.CR2 • meta 1', date '1/20/15 8:13:14 PM', and resolution '4856 x 3289'. On the right, the 'Histogram' panel shows a color distribution graph with values 'R 25.8 G 27.7 B 41.7 %'. Below it is the 'Lens Corrections' panel, which is annotated with red lines and labels: 'Lens Correction Tab' points to the panel header, 'Basic Tab' points to the 'Basic' sub-tab, 'Enable Profile Corrections' points to the checked checkbox, 'Remove Chromatic Aberration' points to the checked checkbox, and 'Auto' points to the 'Auto' button. The 'Auto' button is highlighted in a darker shade. Other buttons in the panel include 'Upright', 'Reanalyze', 'Off', 'Level', 'Vertical', and 'Full'. A descriptive text at the bottom of the panel reads: 'Upright resets crop and perspective correction settings. To preserve these settings, press Option when choosing an Upright correction.'

Lightroom's "Auto" correct tab under "Lens Corrections" does the same thing.



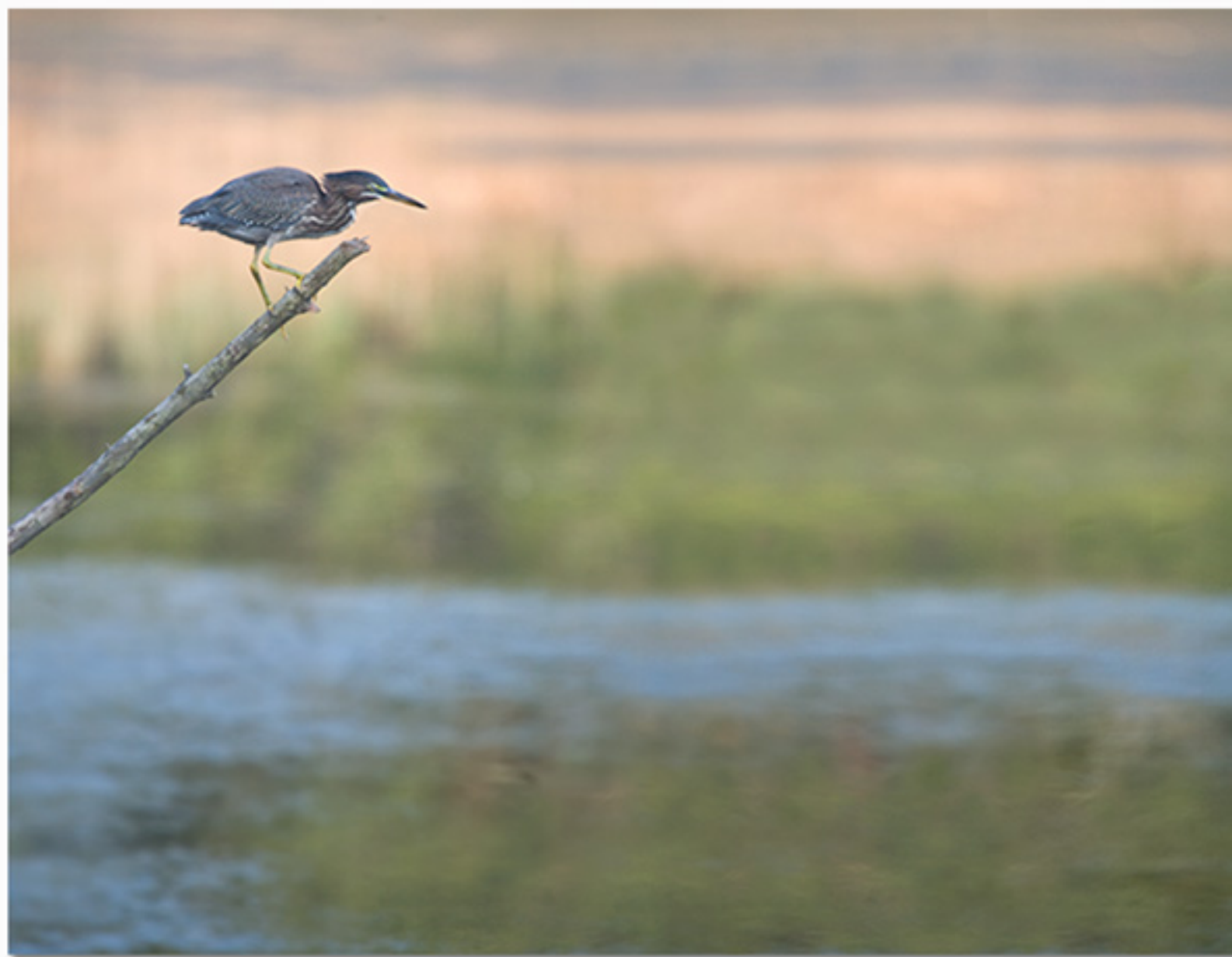
F5.6, 400mm

Telephoto Lens -
For when you can't get close



F5.6, 400mm

Or don't want to get too close



F5.6, 400mm

Telephoto lens not just about magnification



F4.5, 100mm

Telephoto Compression



Internet: Photographer unknown



Internet: Photographer unknown



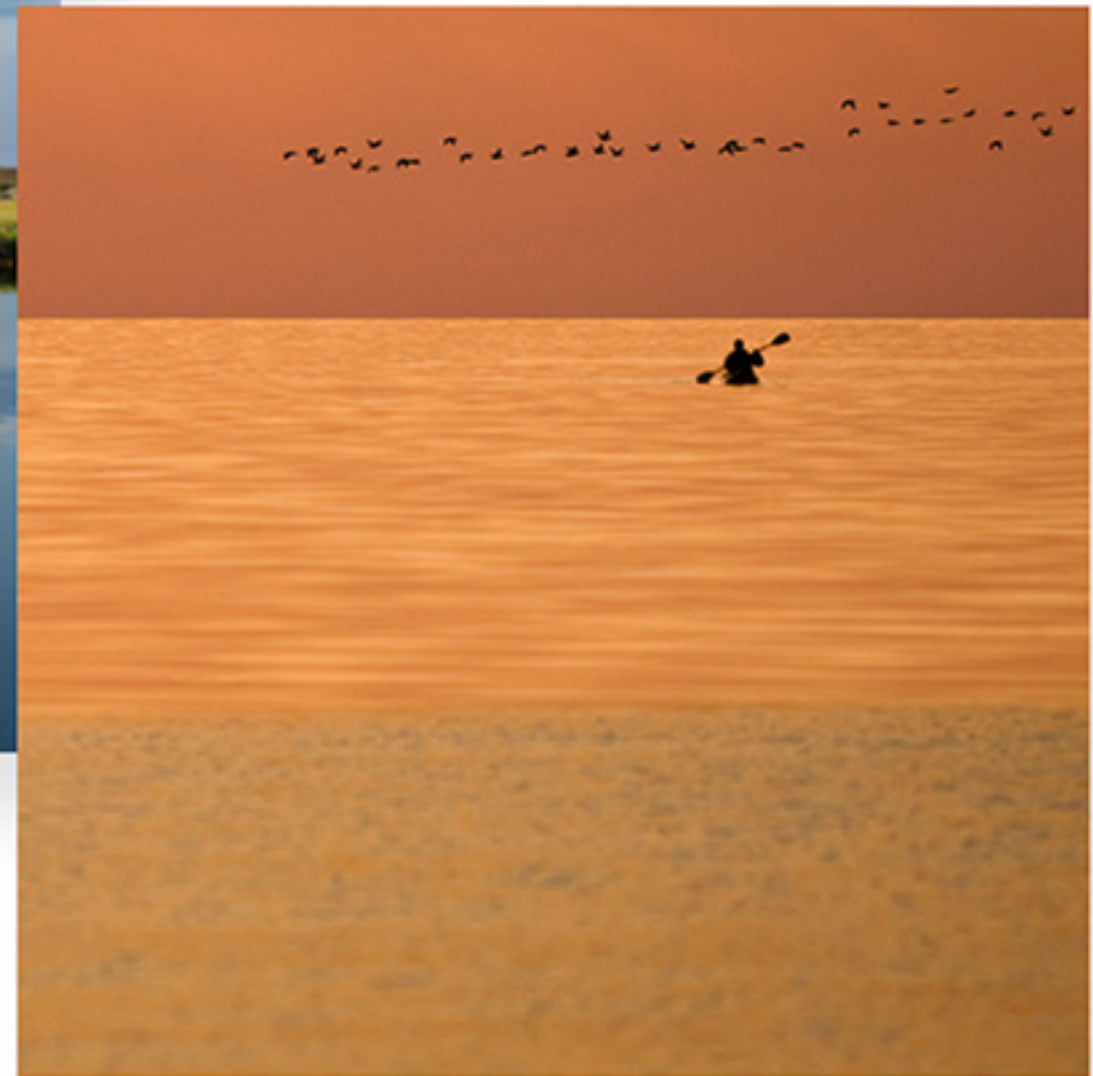
Internet: Photographer unknown



Internet: Photographer unknown



Wide Angle



Telephoto

Expansion vs. Compression



F4, 55mm

Portraits - 50-200mm lens is standard



F4, 105mm



F4, 55mm

Portraits - 50-200mm lens is standard



F5, 105mm

Portraits - 50-200mm lens is standard



Break the Rules -
Wide angle portraits distort for effect



Macro & Close-Up Lenses



100mm Macro Lens, F16



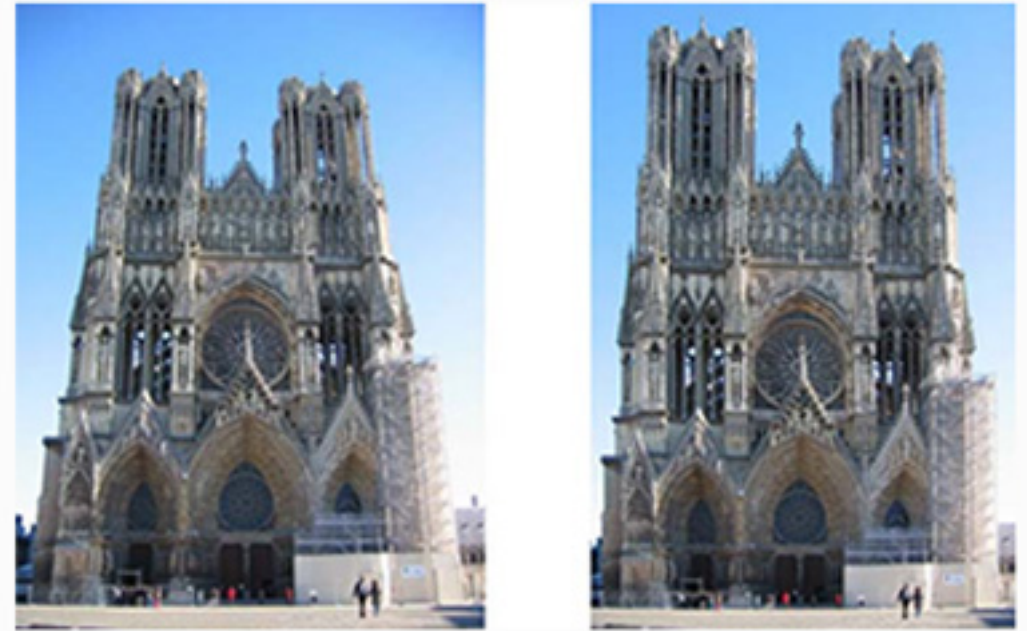
400mm, F4



F4, 220mm, Close-Up Filter



Tilt-Shift Lens



Distortion Correction



Miniaturization Effect



Enhanced Depth of Field

Zoom Lens

Variable focal length

Prime Lens

Fixed focal length
Faster (lower f-stop)
Lighter
Sharper

Third -Party Lens Manufacturers

Lens Baby

Tamron

Rokinon/
Samyang

Tokina

Sigma

Zeiss

Lens Buying Guide

Sharpness

Resolution

Focus speed

Speed (lower f-stop means faster lens)

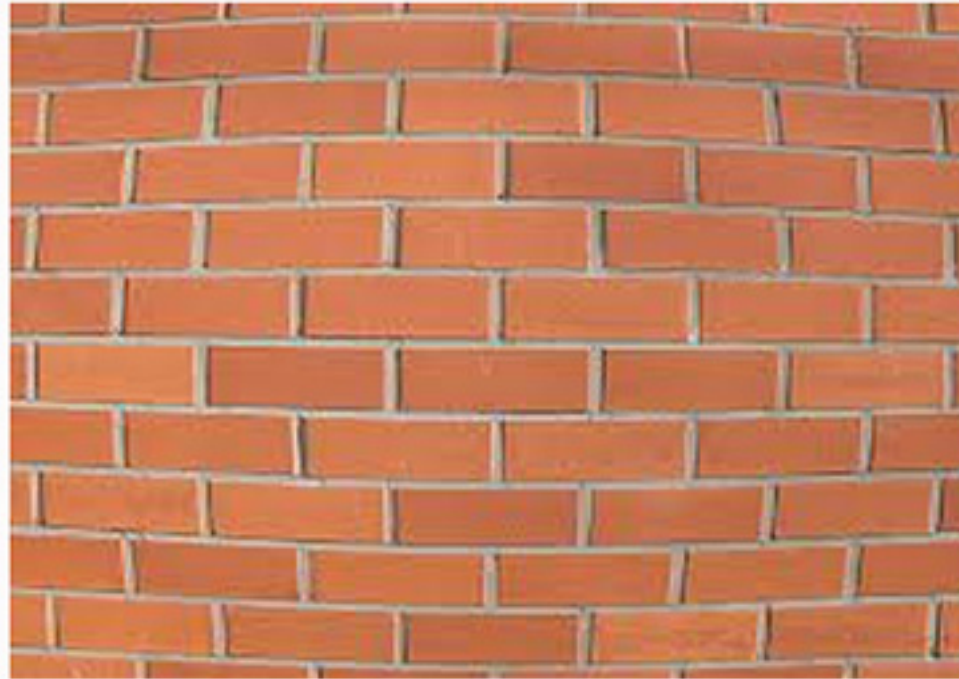
Vignetting

Chromatic aberration/Fringing

Distortion

Coma

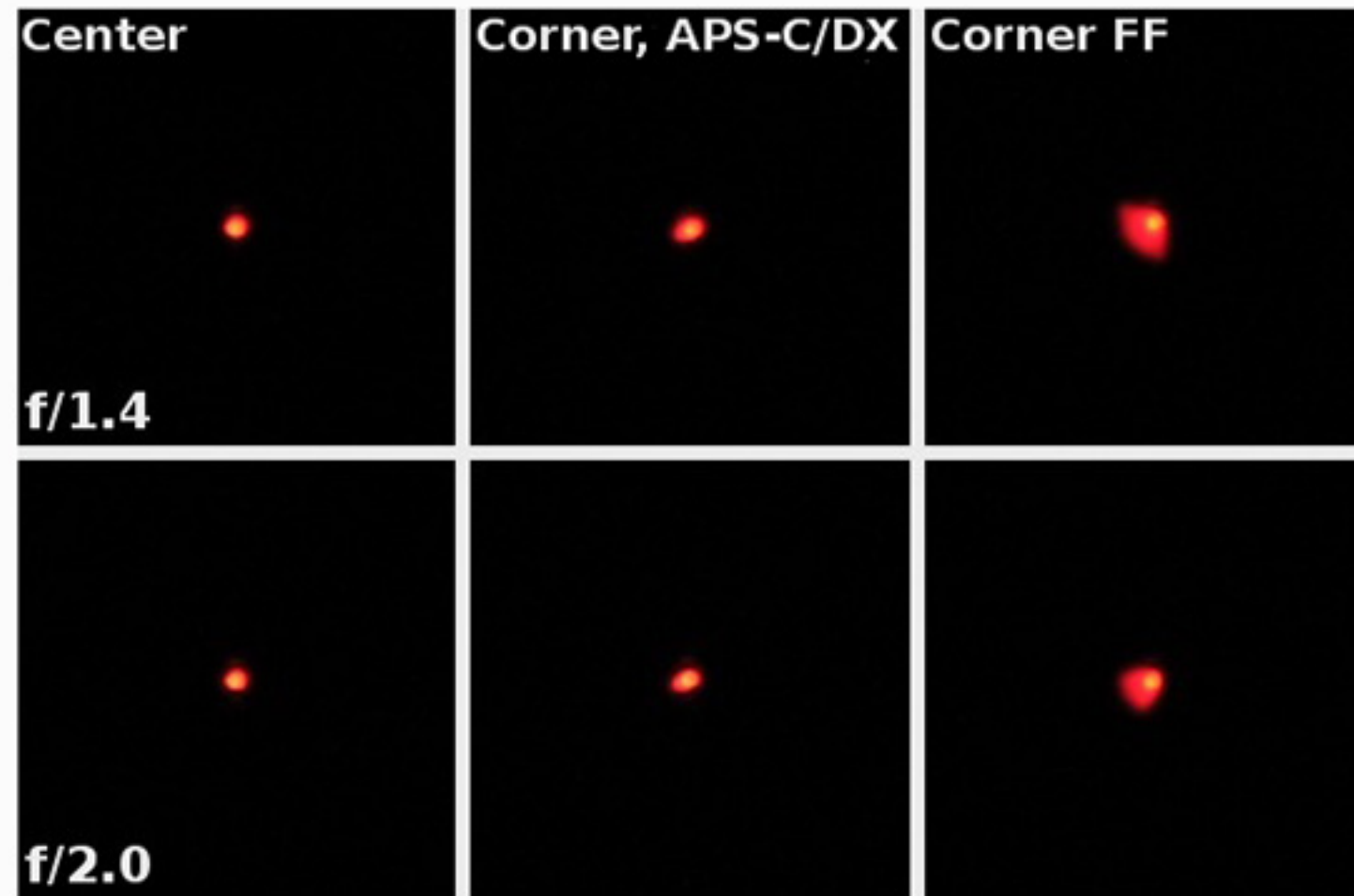
Build quality: Plastic vs. metal alloy



Barrel distortion



Chromatic aberration



Coma

Take pictures of scenes using both wide angle and telephoto lenses

- compose scenes to emphasize expansion vs compression