

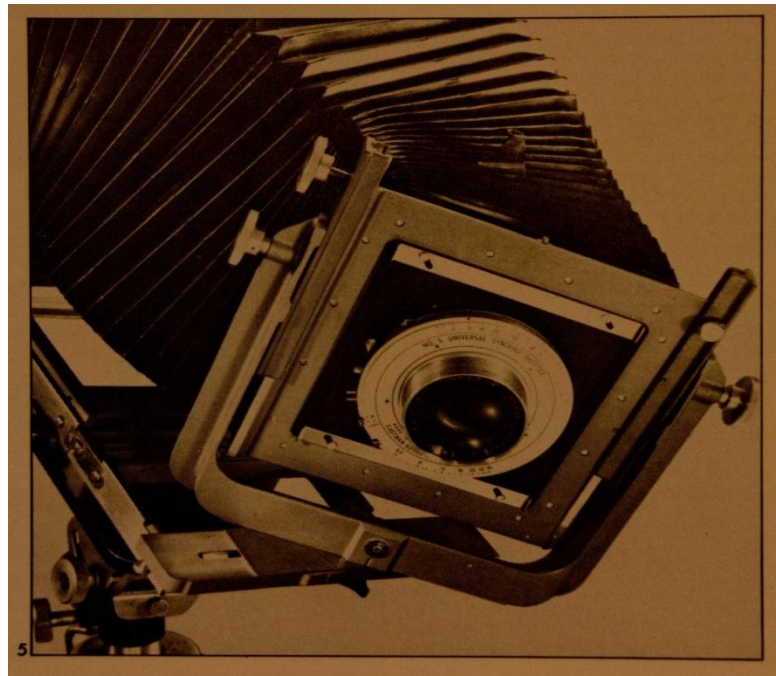
A photograph of a city street with tall buildings in two-point perspective. The buildings are tall and modern, with many windows. The street is paved and has some cars and a truck in the foreground. The sky is blue with some clouds. The text "Correcting for 2 Point Perspective" is overlaid in white, bold, serif font.

# Correcting for 2 Point Perspective

Westbridge Camera Club March 7, 2012

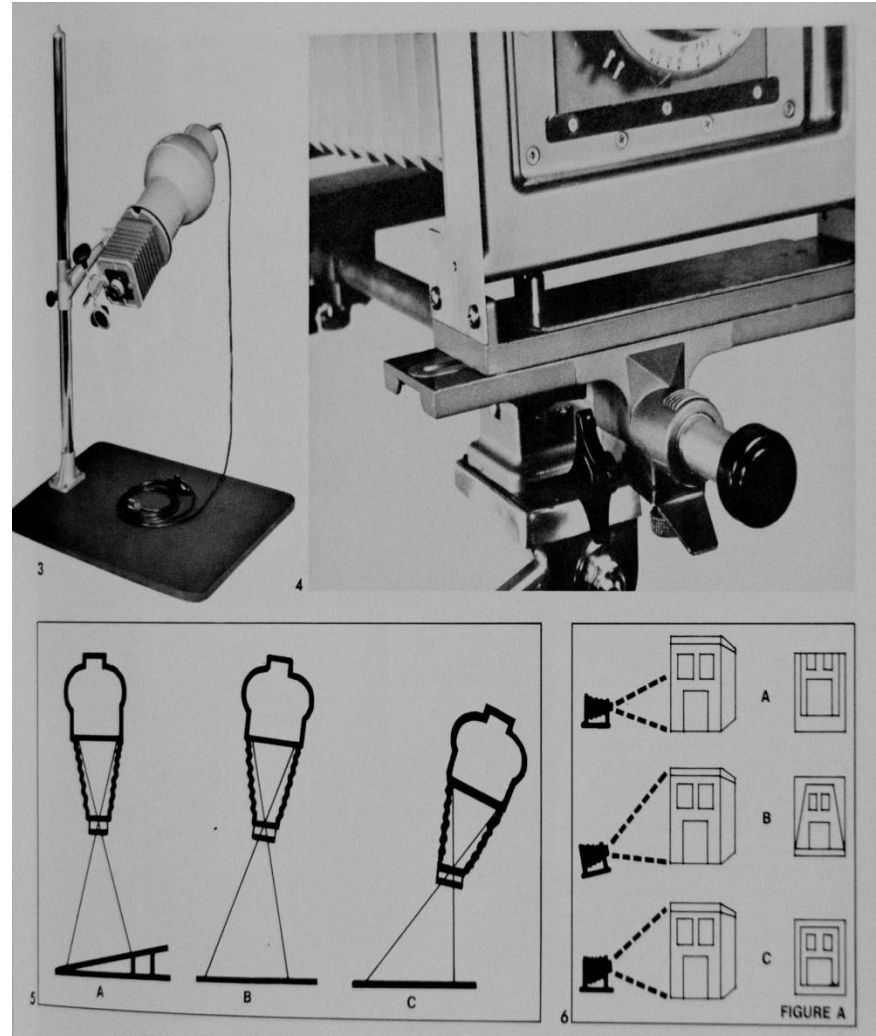
# History

- How it was done before:
- A photograph was taken on a large plate view camera with bellows allowing the front plane, (with the lens) to be out of parallel with the rear (film plane) of the camera. A bulky slow process with the camera on a tripod and the photographer correcting the view upside down on the ground glass.



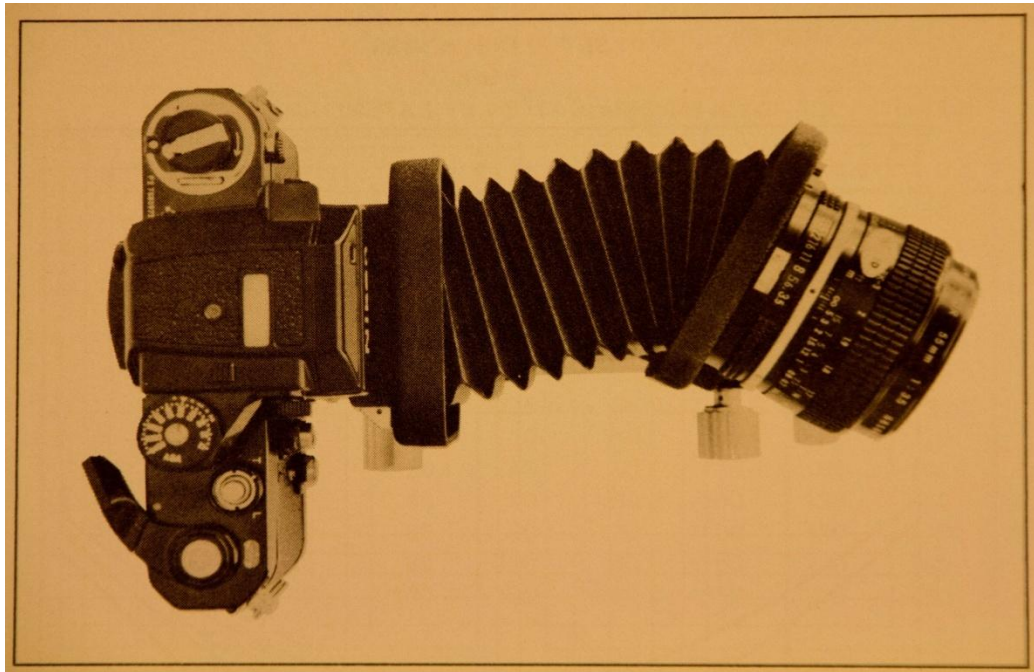
# History 2

- For those without a view camera, you could cheat in the darkroom by shifting the projector out of parallel with the print base. The problem was too much correction caused an out of focus issue with the print plane and if you stopped down the lens too much you had a long exposure and focusing was difficult.



# History 3

- With the introduction of a thru the lens SLR camera things got a little better. Nikon created a mini bellows on a rail.



# History 4

- In the 1960's Canon came up with the tilt and shift lens. This meant we could now use automatic camera controls to control the lens and the camera could be hand held although the company recommended a tripod for stability

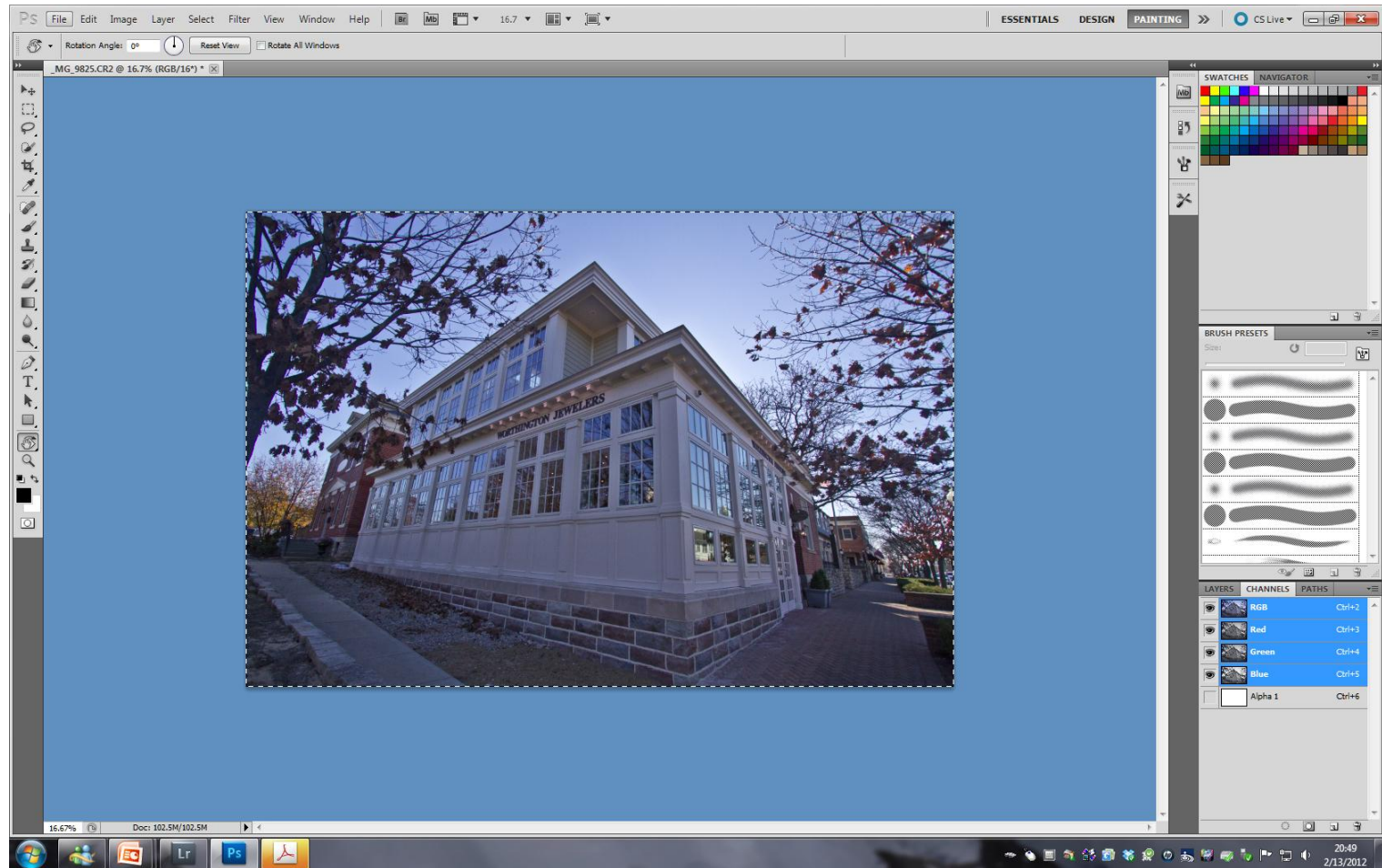


# History 5

- Then came the DSLR revolution. We were no longer tied to film and the photograph could be completely manipulated in Photoshop AFTER the picture was taken.

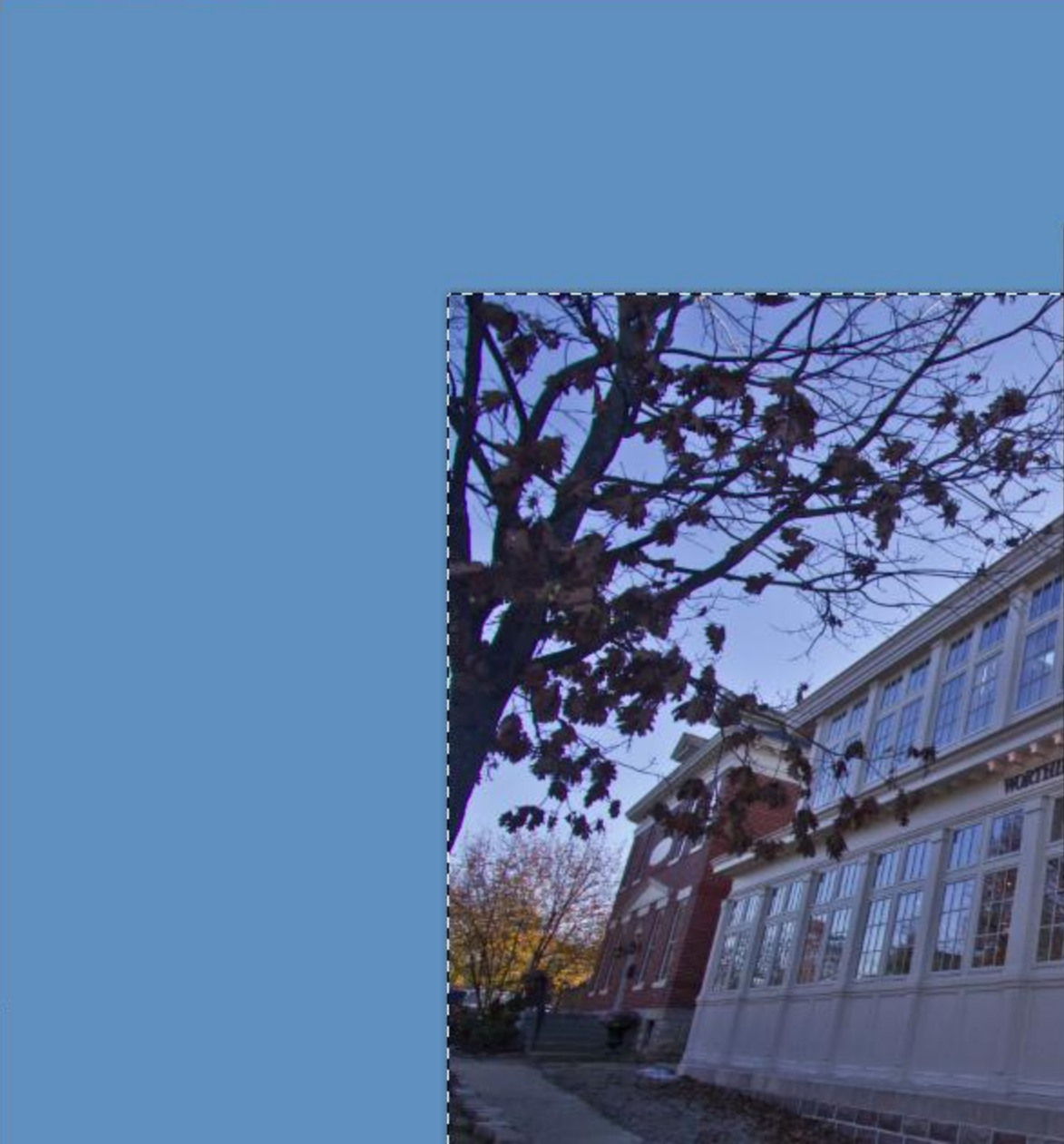


# Original photo transferred to Photoshop



# How to notes.....

- **Correcting for two point perspective on a Building Photo**
- Import a photo from LIGHTROOM 3 into PHOTOSHOP CS5.(Right Click on original Photo and select “Edit in PHOTOSHOP CS5 “( Select edit a copy with LIGHTROOM adjustments”)
- In Photoshop press Ctrl+A to select all.
- Click the Channels palette and click “Save selection as channel button” (2<sup>nd</sup> from left, lower edge of Channels palette).
- Press “D” to set default colors.
- Choose “Image>Canvas Size”, to open dialog box. Click “relative” check box in the new size group.
- Select “inches” from the Width and Height drop down list. Enter 3” in both width and height text boxes. Press Ctrl – to reduce image size to fit on screen.



### Canvas Size

Current Size: 102.5M  
Width: 21.6 inches  
Height: 14.4 inches

New Size: 141.1M  
Width: 3 inches  
Height: 3 inches  
 Relative

Anchor:


Canvas extension color: White

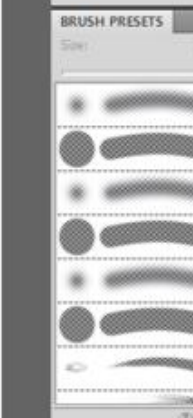
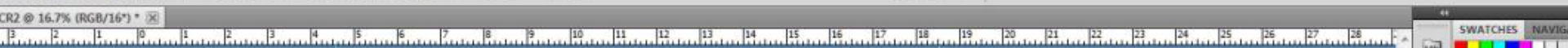
# How to notes.....

- Press Ctrl+R to turn on rulers if they are not on.
- Drag a guide from the vertical ruler and release it at the lower left corner of the building.
- Repeat for another guide to lower right corner of the building. (This gives you vertical guides for the next steps)



# How to notes.....

- In the Channels palette click the Alpha 1 channel. Click the “Load Channel as selected button” (1<sup>st</sup> from lower left edge of Channels palette).
- Click the “RGB” channel.
- Press Ctrl+T to start the transform command.
- Right-click anywhere inside the photo to open a context menu. Choose “Skew” from this menu.
- Hold down Shift Key and Drag upper left handle to the left until the vertical building wall aligns with the left guide. Repeat with the upper right handle. If the building walls run out of the 3” canvas size extension repeat the process using the lower handles but move the shift into the center. You will now have a “Trapezoidal Image” pushed in at the bottom and stretched out at the top.



# How to notes.....

- Press Ctrl+D, Ctrl+H and Ctrl+R . This deselects the action and eliminates the guides & rulers.
- File> Save: saves the modified image back to LIGHTROOM.
- In LIGHTROOM in the DEVELOP mode use the “Crop Image icon” to square up the photo (make sure the image proportion lock is off), twist if necessary, and eliminate any unwanted blank canvas.



SWATCHES NAVIGATOR

BRUSH PRESETS

Size:

LAYERS CHANNELS PATHS

- RGB
- Red
- Green
- Blue
- Alpha 1

Navigator FIT FILL 1:1 1:2

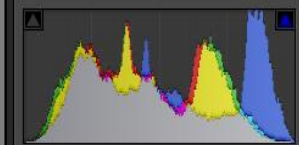


Presets +

- Lightroom Presets
- B&W Creative - Antique Grayscale
- B&W Creative - Antique Light
- B&W Creative - Creamtone
- B&W Creative - Cyanotype
- B&W Creative - High Contrast
- B&W Creative - Look 1
- B&W Creative - Look 2
- B&W Creative - Look 3
- B&W Creative - Look 4
- B&W Creative - Low Contrast
- B&W Creative - Selenium Tone
- B&W Creative - Sepia Tone
- B&W Filter - Blue Filter
- B&W Filter - Blue Hi-Contrast Filter
- B&W Filter - Green Filter
- B&W Filter - Infrared
- B&W Filter - Infrared Film Grain
- B&W Filter - Orange Filter
- B&W Filter - Red Filter



Histogram



Exposure 0

Basic

Treatment: Color Black & White

WB: As Shot

Temp: 0

Tint: 0

Tone Auto

Exposure: 0.00

Recovery: 0

Fill Light: 0

Blacks: 0

Brightness: 0

Contrast: 0

Presence

Clarity: 0

Vibrance: 0

Saturation: 0

Tone Curve

HSL / Color / B & W

Split Toning

Detail

Copy... Paste

Zoom Fit

All Photographs / 506 of 72921 photos / 1 selected / \_MG\_9825-Edit-2.psd

Filter: Custom Filter



# How to notes.....

- In Lightroom in the Develop Mode, right side tables, Notice the positions of the “Tone” Sliders. Adjust as necessary to enhance your final image.(see the adjusted image and slider positions, next for your final printable image.)



ISO 800 10 mm f/5.6 1/3000 sec

Basic

Treatment: **Color** Black & White

WB: As Shot

Temp: 0  
Tint: 0

Tone Auto

Exposure: 0.00  
Recovery: 0  
Fill Light: 5  
Blacks: 20

Brightness: +8  
Contrast: -5

Presence

Clarity: +54  
Vibrance: 0  
Saturation: 0

Tone Curve

HSL / Color / B & W

Split Toning

Detail

Previous Reset

- Grayscale
- Light
- ne
- ce
- contrast
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- trast Fi...
- n Grain
- er
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Zoom Fit

Photographs / 506 of 72921 photos / 1 selected / \_MG\_9825-Edit-2.psd

Filter: Custom Filter



# How to notes.....

- Correction of an interior perspective is similar except the 3<sup>rd</sup> vanishing point is to the bottom of the photo so the trapezoid must be stretched at the bottom and compressed at the top (see the next slide).

# Interiors



# Correcting for 2 Point Perspective

- Thank you for watching. If you have any questions or comments or troubles making this work please feel free to call me.
- Peter Lenz AIA
- 614.840.0844