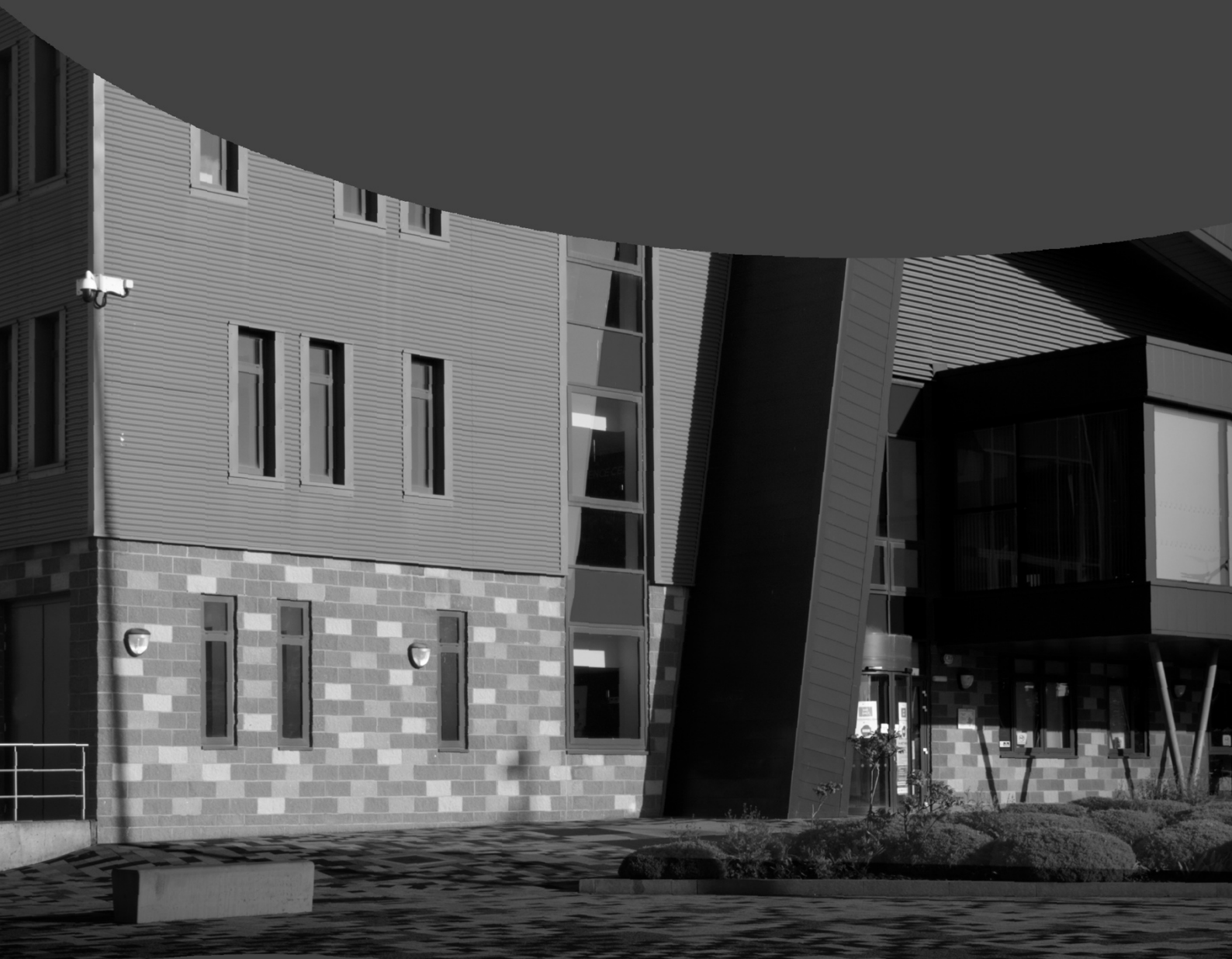


Removing Chromatic Aberration



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On commencement of the editing stage of an image, one of the first task I perform, is to examine the image for any areas where chromatic aberration is present in order to remove this during the initial stages of my workflow. If the intention is to edit the image in black and white, removing chromatic aberration is still undertaken as this could potentially create halos when the image is converted to black and white prior to the black and white editing process being carried out.

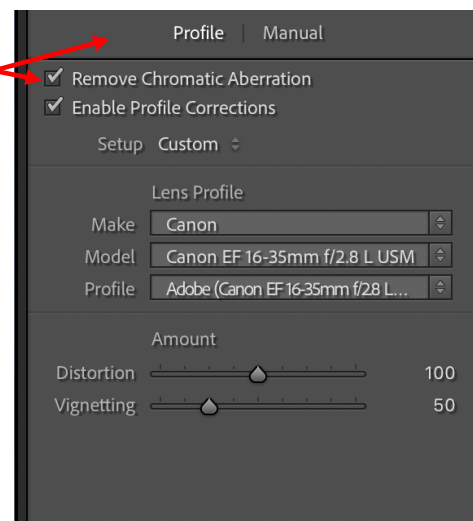
Chromatic aberration can be described as 'colour fringing' (red, green, blue, yellow, purple, magenta) and is common where there are areas of high contrast in an image. It is caused as light is made up of different wavelengths (colours) and when passing through a lens, it does so at different speeds resulting in the lens not properly refracting all the wavelengths of colour on to the same point of the camera sensor.

There are various ways to deal with chromatic aberration both in the field and during the post processing stage. In the field, if possible, avoid high contrast scenes but it's accepted this will not always be possible. If a zoom lens is being used, then consider the focal length of your lens as chromatic aberration can be more pronounced when working at either extremity of the lens' focal lengths. Another way to try and reduce it is to stop down from the widest aperture of the lens if the aperture setting is not critical to the image and compensate for the exposure by adjusting ISO and/or shutter speed.

If the afore-mentioned measures in the field fail to eliminate chromatic aberration, then there are different methods that can be utilised at the post processing stage

The first method is using the in-built features of Adobe Lightroom and Camera Raw. Go to the Develop module within Lightroom and then go to the Lens Correction panel (Optics if using Camera Raw). With the profile tab active, tick the box beside Remove Chromatic Aberration.

If fringing is still present, click on the Manual tab and select the eye dropper tool and click over the area where the fringing colour is present. The correction can be adjusted further by using the Defringe sliders and fine tuning using the Amount in combination with the Purple and Green Hue sliders.



If Lightroom or Camera Raw has not removed chromatic aberration, then it may be possible to remove using different methods within Photoshop. For the first method, start by making a duplicate of the background layer and then go to **FILTER>BLUR>GAUSSIAN BLUR**. Using the radius slider increase the pixel amount until the colour fringing disappears (if required fine tune using the layer opacity). Go to the blend mode for the layer and change this to 'Color' and then add a mask to the layer and invert the mask to make it black. Apply a white brush along the area of the fringing to mask it out.

The second method is to add a Hue/Saturation adjustment layer and then using the sampler tool on the layer (the hand), select the colour that is fringing by clicking the tool on the colour on the image then decrease the saturation slider until the fringing disappears. Invert the Hue/Saturation adjustment layer mask to make it black and apply a white brush along the area of the fringing to mask it out. If more than one colour is fringing, then repeat the process by resampling the colour in question and paint out over the area in question

A third method can be utilised by adding a blank layer and changing the blend mode to 'Color' Select the Clone Stamp tool to sample a colour that matches the area to be painted over and then paint over the chromatic aberration accordingly.

A fourth option is to try using the Lens Correction feature in Photoshop by going to **FILTER>LENS CORRECTION**. When the pop-up dialogue box appears, click on the Custom tab and use the sliders to see if this reduces the chromatic aberration.