



High Dynamic Range

Chiltern U3A Photography Group
5 February 2016

Agenda

- 1 – What is HDR?
- 2 – How to avoid it.
- 3 – Simple solutions
- 4 – Multiple exposures

What is HDR?

- Excessive dynamic range exists when the darkest parts of a subject and the brightest parts cannot be shown satisfactorily in a photograph.
- When we see a subject the eye can accommodate as it looks at the different parts. The camera takes the whole image at once.



How can we avoid the problem?

- Avoid harsh lighting.



How can we avoid the problem?

- Check the direction of lighting.



How can we avoid the problem?

- Look for a different picture.



How can we avoid the problem?

- Eliminate the extremes.



Simple processing

- Shadows/highlights.



Simple processing

- Process RAW image in ACR



Using multiple exposures

- Take several shots at different exposures
- Then combine the best parts of each
- Three exposures at -2, 0 and +2 stops is a good start
- Use a tripod to ensure all shots identical
- Combining can be done manually, with Photoshop or with specialist software

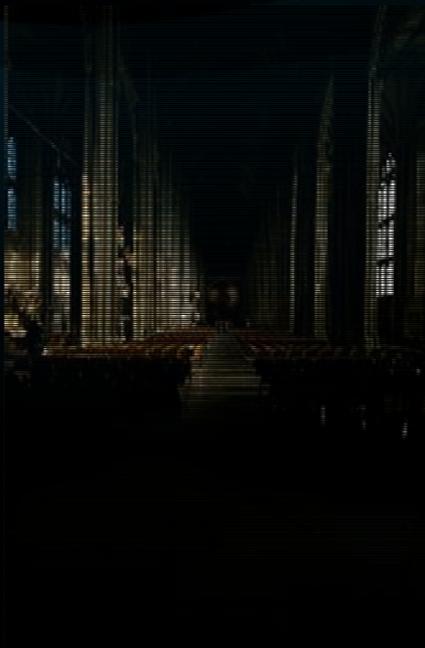
Using multiple exposures - manual

- Open all 3 images in PSE
- Make the -2 and +2 exposures layers over the 0
- Add black layer masks to these two
- Using a white brush paint on the masks to reveal the parts that are required
- Use a soft brush at low opacity normally

Using multiple exposures - manual



Normal

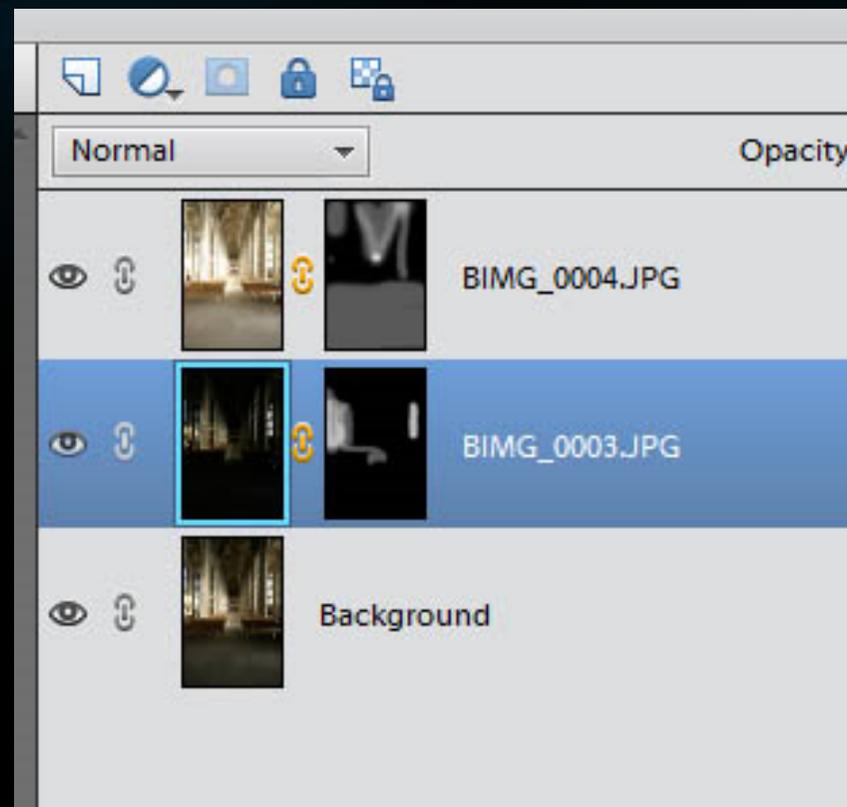


-2 stops



+2 stops

Using multiple exposures - manual



Using multiple exposures – PSE auto

- Open 3 images
- Select Enhance > Photomerge > Exposure
- Open all
- Select smart blending
- Tweak sliders to obtain best result



Using multiple exposures – PSE manual

- Open three images as before
- Select 'manual' and 'edge blending'
- Drag normal exposure to right hand frame
- Click on -2 exposure to get in left hand frame
- Select pencil with low opacity and paint over those parts that are wanted on left hand frame
- Repeat with +2 exposure
- Very little control
- Can produce hard edges

Using multiple exposures – PSE manual



Using multiple exposures – Photoshop

- Open three images
- File > Automate > Merge to HDR
- Add open files
- Select 'Attempt to auto align', if tripod not used
- OK
- Start with 'Photorealistic' in top drop down box
- Play with sliders to get desired image
- Note 'remove ghosts' of people who may have moved between exposures
- Good control over final result
- No harsh edges

Using multiple exposures – Photoshop



Using multiple exposures – Photomatix

- Dedicated HDR software, \$39. Free trial leaves watermark on image.
- Open three images
- Drag and drop source images on to Photomatix
- Select alignment and ghost options
- Select preset from RHS – ‘natural’ is a good start
- Tweak sliders on left to fine tune result
- Best results, most control, most varied presets styles.

Using multiple exposures – Photomatix

