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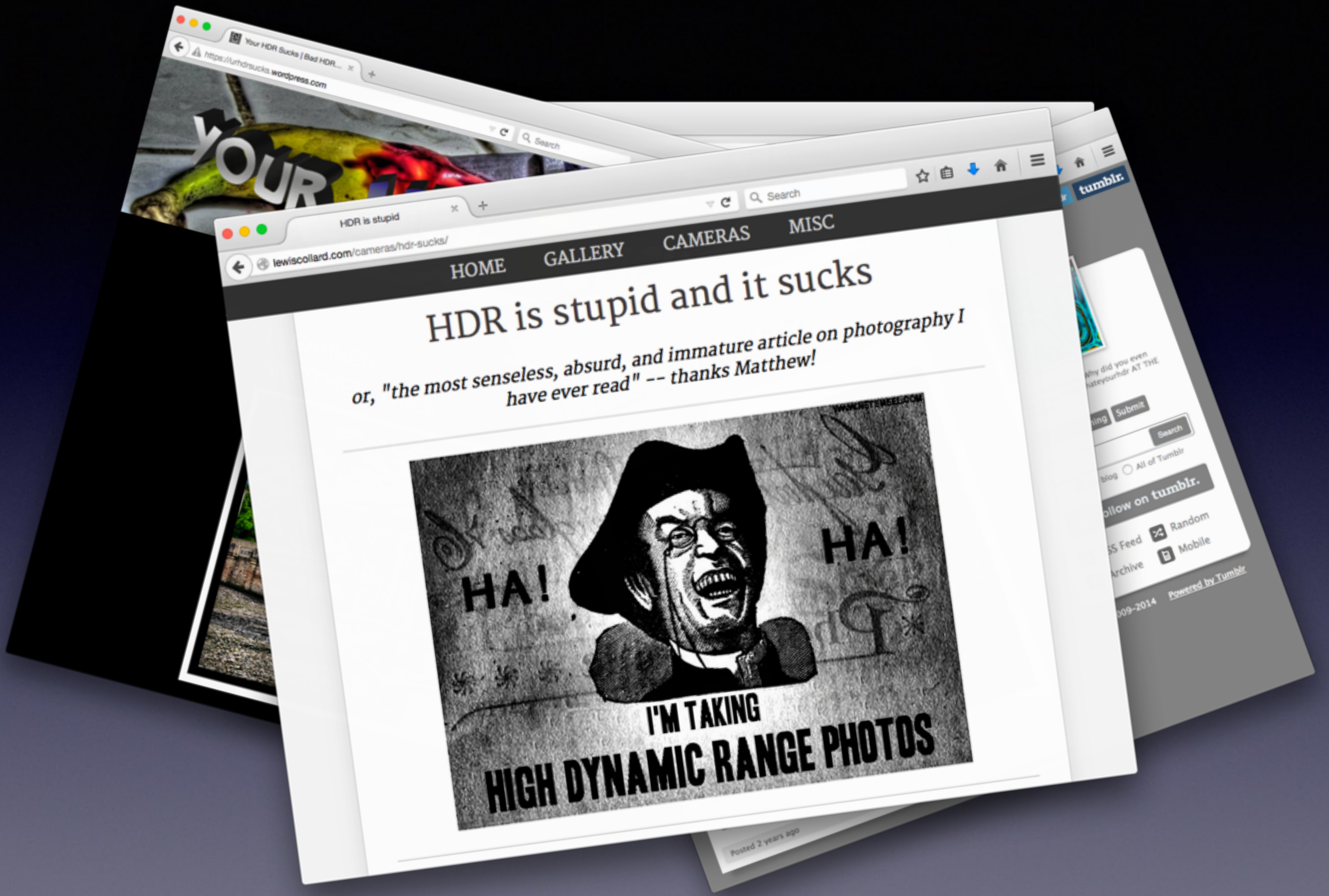
WHY HDR IMAGES SUCK!

(and how you can prevent others from coming to this conclusion about your work)

DAVE WILSON PHOTOGRAPHY

http://www.davewilsonphotography.com


Your HDR Sucks | Bad HDR...
https://urhdrsucks.wordpress.com
Search
HDR is stupid
lewiscollard.com/cameras/hdr-sucks/
Search
HOME
GALLERY
CAMERAS
MISC
HDR is stupid and it sucks
or, "the most senseless, absurd, and immature article on photography I have ever read" -- thanks Matthew!
HA!
HA!
I'M TAKING
HIGH DYNAMIC RANGE PHOTOS
tumblr.
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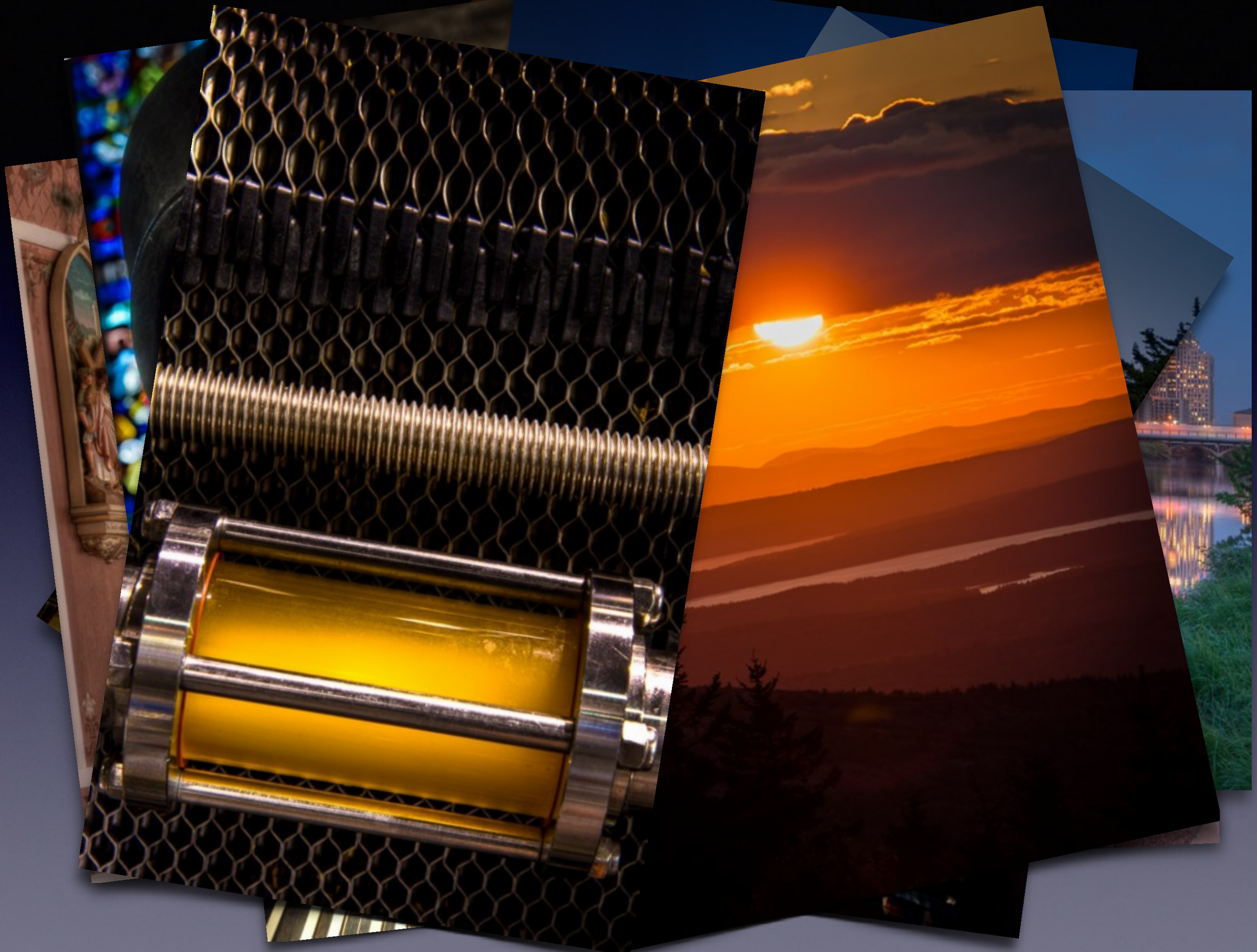
Which image is HDR?

Which image is HDR?

"Tourists de Fat!" by Greg Younger (Creative Commons)

"HDR is the American tourist of photography"



What isn’t “HDR”?

Contrary to popular belief:

- “HDR” is not a look or style.
- “HDR” is not (only) a way to make weird looking images.

What is “HDR”?

- “HDR” is an acronym for “High Dynamic Range”
- “HDR” is a set of tools and techniques allowing you to create images which, due to wide brightness variations in the scene, can’t be captured by a single exposure from your camera.

Basic HDR Workflow

1. Capture a “bracket” of images of the scene varying only shutter speed between each shot.

2. Merge those shots into an HDR file using tools such as HDRSoft Photomatix or Google/Nik HDR Efex Pro.

3. “Tone-map” the image using your HDR software and save the result as a TIFF or JPEG.

4. Tweak the final result and fix any remaining problems in Lightroom or Photoshop (or an editor of your choice).

My Tools of Choice

- HDRSoft Photomatix Pro 5.0 (www.hdrsoft.com)
  - If you are a Lightroom user, buy the "Photomatix Pro Plus" bundle to get the LR merge plug-in too and save $20
  - Coupon code "DaveWilson" gets you a 15% discount
- Adobe Lightroom 5.7 (www.adobe.com)
- Adobe Photoshop CC 2014 (www.adobe.com)

4 Main Problem Areas
(in workflow order)

1. Shooting errors
2. Workflow errors and poor choices
3. Poor tone-mapping choices
4. Incorrect or incomplete post-processing

1. Shooting Errors

- Bad composition or choice of subject
- Camera movement between exposures
- Subject movement between exposures
- Not shooting enough images in the bracket

Bad Composition or Subject

- HDR processing is not a cure for a badly composed or otherwise uninteresting photo!
- Poor subject choices:
  - People (unless they are coal miners or you want to make them look extremely ugly)
  - Sports (or anything with movement in the frame)
  - Trees and plants on windy days
  - Scenes with very shallow depth-of-field

Camera Movement

- Software can correct for limited camera movement but it’s best to avoid the need for this.
- Use a sturdy tripod for best results.
- If no tripod is available, stabilize camera on some surface.
- Hand-hold as a last resort (and shoot the bracket on continuous shutter release mode).

Subject Movement

- Movement in the frame between exposures in the bracket is a big problem
  - People, vehicles, leaves on trees, etc.
- Causes “ghosts” in the processed HDR image.
- Photomatix has some support to correct ghosting but you will still need to fix some in post-processing (which we’ll cover later).

How Many Images Do I Need?

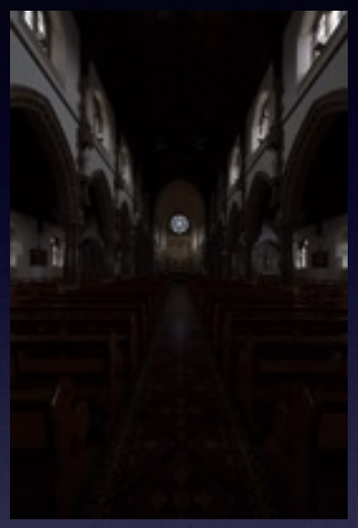
- As many as it takes!
- Ignore anyone who says "You can always shoot N image brackets" (or take them to a cathedral)
- Shoot an initial bracket using 1- or 2-stop spacing
- Evaluate your histograms
- Shoot additional images as needed

Golden Rules of HDR Bracketing

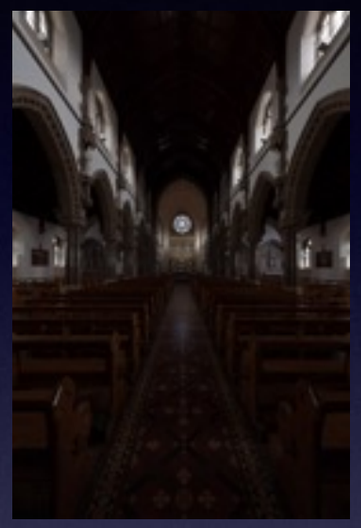
No blinkies in your darkest image.

No data in the left quarter of your histogram in your brightest image.

An example…



-4 EV



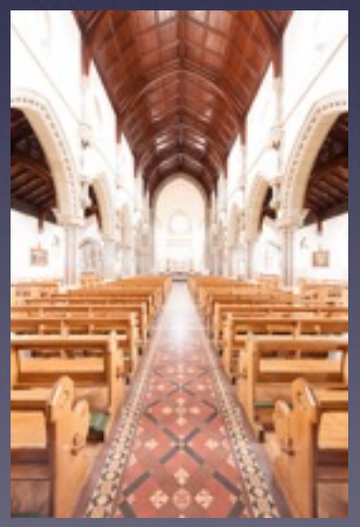
-3 EV

-2 EV

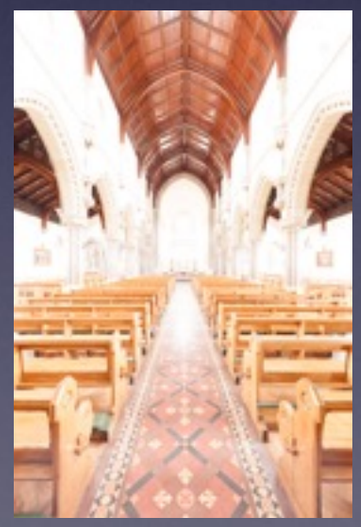
-1 EV

0 EV

+1 EV



+2 EV



+3 EV

Let’s Look at Some Histograms

2. Workflow Errors and Choices

1. Store images in the highest quality format you can until you are completely done processing!
    - Shoot RAW
    - Save intermediate tone mapped files as TIFF 16-bit
    - Never use JPEG if you intend continuing to work on an image
2. Make no local changes to any image in a bracket before merging to HDR.
    - Dust spots, dodging, burning, etc.
3. Fix global color and lens-defect-related problems before merging to HDR.
    - Distortion (if necessary)
    - Color temperature/white balance
    - Chromatic aberration (always!)

Chromatic Aberration

- A lens flaw causing color fringes along high-contrast image edges.
- Caused by the fact that different colors of light focus at slightly different distances from the lens.
- Can be corrected in software.
- HDR processing amplifies CA problems!

Chromatic Aberration

Lightroom CA Removal

Demo

3. Poor Tone-Mapping Choices

- Undoubtedly the easiest and quickest way to make your HDR image suck!

Two adjustments can change ← from this to this →

Tone Mapping

- Enormous flexibility to be creative (or muck the image up horribly)
- Friends don’t let friends use “Surreal” mode
- Highlights and shadows are good. Don’t make your image boring and flat.
- More color does not always mean better color. Leave the saturation slider at 50% (or lower).
- Let me show you…

Tone-Mapping Demo

4. Incomplete Post-Processing

- Your image isn't done when you save the tone-mapped result from Photomatix.
- General touch-up (as for any photo)
- Fix colors (Photomatix doesn't do color well)
- Fix ghosts (the ones you missed in Photomatix)
- Fix halos (weird light areas against high contrast edges)

Ghosts

- Areas of the image which have been corrupted due to movement between the individual bracket exposures.

Fixing Ghosts

- First line of defense - use Photomatix deghosting feature.
- Sometimes you miss areas so…
  - Find the single bracket image which is exposed correctly for the ghosted area
  - Tone-map it using the same settings as the main HDR image
  - Open HDR and tone-mapped images as layers in Photoshop, single image on top
  - Add black-filled layer mask to top layer
  - Paint white into the mask over ghosted areas
  - Adjust levels and saturation to match using adjustment layers.

Ghost Removal Demo

Halos

- Bright areas along high contrast edges in the tone-mapped image.
- Frequently seen in sky areas.

Fixing Halos

- When dealing with a small number of edges…
  - Find the single bracket image which contains the sky you want to drop in
  - Open HDR and sky images as layers in Photoshop, sky image on top
- Either
  - Add black-filled layer mask to top layer
  - Paint white into the mask over sky areas
- Or
  - Add “Hide All” vector mask to top layer
  - Draw around the sky using the pen tool

Simple Halo Removal

Demo

Complex Halos

- It’s tricky to paint around this…

Magic Blue Sky Replacement

- When dealing with complex halos in a blue sky…
  - Find the single bracket image which contains the sky you want to drop in
  - Open HDR and sky images as layers in Photoshop, sky image on top
  - Select “Blending options…” for top layer
  - “Blend if” Blue and adjust “This Layer” slider until bad sky just starts to appear
  - Split slider (using Option/Alt) to clean up edges.

Magic Blue Sky Replacement Demo

In Summary…

With suitable choice of subject and care in shooting and processing, great HDR images can be made which are both appealing and unobtrusive.

Go forth, be creative and…

MAKE HDR IMAGES THAT DON'T SUCK!

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“Five Star HDR”

January 31st, 2015

A full day workshop at Precision Camera in Austin to bring you up to speed on the basics of HDR and post-processing.

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