High Dynamic Range (HDR) Photography

Camera vs Eye

- Eye sees a wider range of color luminance than digital cameras
- HDR's images compensate for this by combining three or more digital images
- Normal exposure, overexposed and underexposed, easy to do with midrange or better Canon cameras
- More than three images can be used, Nikon gear can do 5 or 7 easily

Why three images?

- Normal exposure for camera's best
- Over exposed gets stuff in shadows
- Underexpose gets stuff that is blown out
- Consider case of room with window looking out on bright scene

When to Use HDR

- Scenic images
- Cityscapes, night and day
- Difficult lighting
- Your are not moving
- Subject not moving mostly

HDR Process

- Take photos
- Create HDR in photomatix or photoshop
- Import into photoshop and maybe remix with original RAW images

Photos

- Use tripod
- Aperture priority mode, f stop to get important stuff in focus f/11 to f/22?
- ISO 100 to reduce noise in process
- Turn on auto-bracketing -2,0,+2 stops
- Continuous shooting is nice and remote trigger
- Shoot RAW images

Create HDR

- Generate single HDR from auto-bracketed images

  - In photomatix choose Generate HDR Image
  - Browse to select 3 bracketed images
  - Choose the option Align Source
  - Click Generate Tone Mapping

Tone Mapping

- HDR needs tone mapping to display colors on monitor. Way too many colors at first.
- Every photo is different but as a start try:
  - Strength 100%
  - Color saturation reasonable
  - Luminosity, less contrast to right
  - Microcontrast I like a lot but play around
  - Smoothing "HDRness" of shot, middle 3 mostly

Tone Mapping Continues

- White and Black Point, Gamma adjust to get histogram inside box
- Click Process
- Save when processed

Photoshop HDR

- Open tonemapped jpg
- Process like any other image
  - Levels
  - Vibrance
  - Noise
  - Sharpen
  - And so forth

Odds and Ends

- www.hdrsoft.com is photomatix site
- 15% off with stuckincustoms
- Can HDR a single image, just open file in photomatix and generate HDR