Digital Workflow Considerations
Experiences and Recommendations
(What I Do & Why)

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Workflow Considerations

• Shooting
• Processing (w/ Lightroom video)
• Digital Asset Management
• Physical Data Management
• Reference
• Q & A
Shooting... JPG or RAW...?

• Reasons for JPG
  – Limited space on memory card
  – Hi-speed shooting, limited buffer
  – Little time, need, or desire for post processing
  – Primarily internet or low-res presentation
  – Experienced “nailing” exposure, white balance, in-camera settings, etc.

• Reasons for RAW
  – Extract optimal image
  – Provide base for creative adjustments
  – Uncompressed, 12-14bits of data
Shoot Digital As Film (i.e. JPG)

• Mindset
  – Get it right in-camera
    • Exposure, color balance, composition, crop, etc.
  – Exposed film (JPG) is a finished product
    • Maximize planning, minimize shots
    • Pick the right film (settings), right exposure, you get what you want.
    • Limited “touching” after shot

But even with film, optimal final images require some global/local processing...by lab or publisher/printer

“The negative is comparable to the composer's score and the print to its performance. Each performance differs in subtle ways. “ Ansel Adams
Histogram &
Over Exposure Warning “Blinkies”
What is your most important shot?

A test shot...!!!
White Towel / Grey Card

The brightest area in the photograph corresponds to the peak on the right side of the Histogram.
Shooting RAW

• Digital is not (necessarily) a finished product
• Shoot RAW - most leeway and highest quality (vs. JPG)
  – Dynamic/Tonal Range (bit depth, color space)
  – White Balance
  – Exposure
  – Non/Less-destructive Files & Post-processing
• Getting it right in-camera can be different.
  To optimize image quality:
  – In general, obtain the brightest exposure that does not “clip” significant highlight detail
  – Obtain adequate exposure without relying on default +50% brightness
• Expose for highlights
  – Expose (histogram) to the Right
  – White terry towel as exposure guide
• Use a grey card (optional)
What is your most important shot?

A test shot...!!!....but...
Optimize Dynamic Range
Exposé to the Right
Optimal RAW Exposure

The bottom line: if you try to darken something that is too bright, you will find that the image holds up quite well. If you try to brighten something that you have underexposed, you will find that noise lurks in the shadows.

Basic Strategy: Expose for the brightest important tone in the image to place high in tonal range... adjust contrast and final tone in PP for creative effect.
Bit Depth Effect on PP

Image with Bit Depth of 8

Darkened and Added Contrast to 8 Bit Image

Histogram of Image with Bit Depth of 8

pulled apart the histogram:

Result of Working 8 Bit Image

Histogram from 16 Bit Version with Darkening and Contrast Boost

2x------------------64x-------------------140x
Color Space

- ProPhoto RGB working color space has many advantages
  - Technology progress
    - Affordable monitors and LCDs with wider gamut display
    - Printing inks have wider gamut
  - Image files not “clipped at birth”
  - Greater manipulation without damage
  - Potential to print better, even with today’s inks/paper
- ProPhoto RGB needs to be kept in a “cage”
  - 16bit only
  - Possible “horrid’ results
    - Non-color aware/knowledgeable
    - sRGB presumed
Processing

• Calibrate monitor
• Rank images
• Lens Correction
• Global adjustments
• Spot corrections
• Capture Sharpening
• Creative (Local) adjustments
• Output Processing → Print, Upload, etc.
Digital (Data) Asset Management (DAM) Organization

• Use organization...**which works for you**
• Folder / File names (organization / structure)
• Key Words (Index)
• Backup, Backup, Backup
• K.I.S.S. → consistency → Use it !!!
Organization Structure Examples

Old Structure

- Pictures
  - _SYNCAPP
  - 2007
  - 2008
  - 2009
    - 01-5D Mark II
    - 02-CNPA
    - ContactSheets
    - Email
    - Print
    - PSD
    - Web
    - Web-Pix
  - X-Peter visit
  - X-Nativity setup
  - 13-Lunch
  - 14-Brothers Xmas house
  - 20-Snow
  - 22-Moms
  - 23-Alexandria
  - 24-Yates
  - 27-NC State
  - 31-Zamboni
  - 01-G9
  - 02-5D Mark II
  - 03-5D

New Structure

- 2010
  - 2011
    - 02
      - 02-Rodeo_7D
      - 03-VariableND_5D Mark II
      - 11-Rodeo_7D
      - Print
      - 13-Exposure_test_7D
      - 14-Augusta late Bday_5D Mark II
      - 18-BrindAmour_7D
      - 19-7D screen capture_5D Mark II
      - 19-Zamboni_7D
      - movies
      - 19-Zamboni_S95
      - 20-Butterfly_5D Mark II
      - 20-Butterfly_7D
      - Print
      - 23-NCSU-UNC_7D

Other Examples

- archive
  - cat
    - 2008
      - cat_2008
      - cat_20080302_zoe_rae_birthday
      - cat_20080801_new_york
      - cat_20080801_prada_fall_campaign
  - dng
    - 2008
      - dng_20080302_zoe_rae_birthday
      - dng_20080801_new_york
      - dng_20080801_prada_fall_campaign

- 2008
  - alaska
    - 162
  - arboretum
    - 116
  - bloedel
    - 143

- 2009-01-08_18-24-00.CR2
  - 22,727 KB
  - 2009-01-08_18-24-00.xmp
    - 13 KB
  - 2009-01-08_18-24-12.CR2
    - 27,010 KB
  - 2009-01-08_18-24-12.xmp
    - 13 KB
  - 2009-01-08_18-24-24.CR2
    - 24,563 KB
Key Words

PS Elements

Lightroom
– Controlled Vocabulary
Digital (Data) Asset Management (DAM)  
Physical Data Protection

• CF/SD Cards
  – Protect them; Small vs. Large
  – Do not delete; format in camera (on PC when switching)
  – **DO NOT** remove card while reading/writing (light on)
• Field
  – If possible, have enough cards
  – Backup (Netbook w/ USB drive, Vosonic, Hyperdrive)
• Transfer to computer
  – Reader vs. camera
  – Create Folders/names/”job” structure
• Post Processing – Daily Backup
• Archive
  – Father/Son, Offsite storage
Reference

• **Monitor Calibration**
  – DataColor Spyder3-Pro, Elite (& Print)
  – X-Rite Eye-One Display2 or ColorMunki

• **Moving Images from Cards**

• **Backup**
  – Hyperdrive Colorspace UDMA or iPad
    • [http://www.hypershop.com/category-s/119.htm](http://www.hypershop.com/category-s/119.htm)
  – Vosonic VP5700 / VP8870
    • [http://www.mydigitaldiscount.com](http://www.mydigitaldiscount.com)
  – Auto – SmartSync Pro
  – Manual – Allway Sync
  – USB/eSATA - Thermaltake BlacX eSATA USB Dock

• **Printing**
  – Qimage Ultimate
Reference

• **Camera Raw/Photoshop/Lightroom**
  – Camera RAW 101: Better Photos with Photoshop, Elements, and Lightroom -Canfield
  – Real World Camera Raw with Adobe Photoshop CS5 – Schewe/Fraser
  – Martin Evening books....Lightroom, Photoshop, “The Ultimate Workshop”
  – Mastering Exposure & Zone System for Digital Photogs-Varis
  – Vision & Voice-Refining Your Vision in Lightroom-DuChemin

• **Digital Workflow & Asset Management**
    • Also [http://super.nova.org/DPR/#PostProcessing](http://super.nova.org/DPR/#PostProcessing)
  – The DAM Book – Peter Krogh
Establish a workflow & stick with it.