Intro Photoshop
and Digital Imaging
2012

Presented by Michael Bevans

Course Description

This workshop will introduce participants to an exemplary imaging workflow and the principles behind image capture and image editing.

Common image editing tools and techniques will be demonstrated using Adobe's Photoshop and Lightroom.

Image resolution and file formats will be discussed, including JPEG, TIFF, and RAW with practical examples of each and how they are used in digital archives.
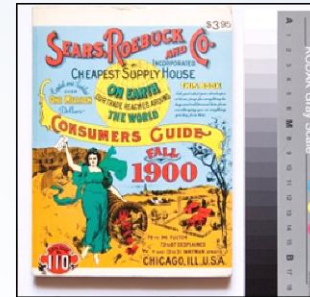
Emphasis will be placed on image quality control routines to ensure productivity and repeatability.

- **Gain understanding of an exemplary imaging workflow**
- **Develop familiarity with image resolution and its implications for reproduction**
- **Identify the differences between JPEG, TIFF, and RAW file formats**
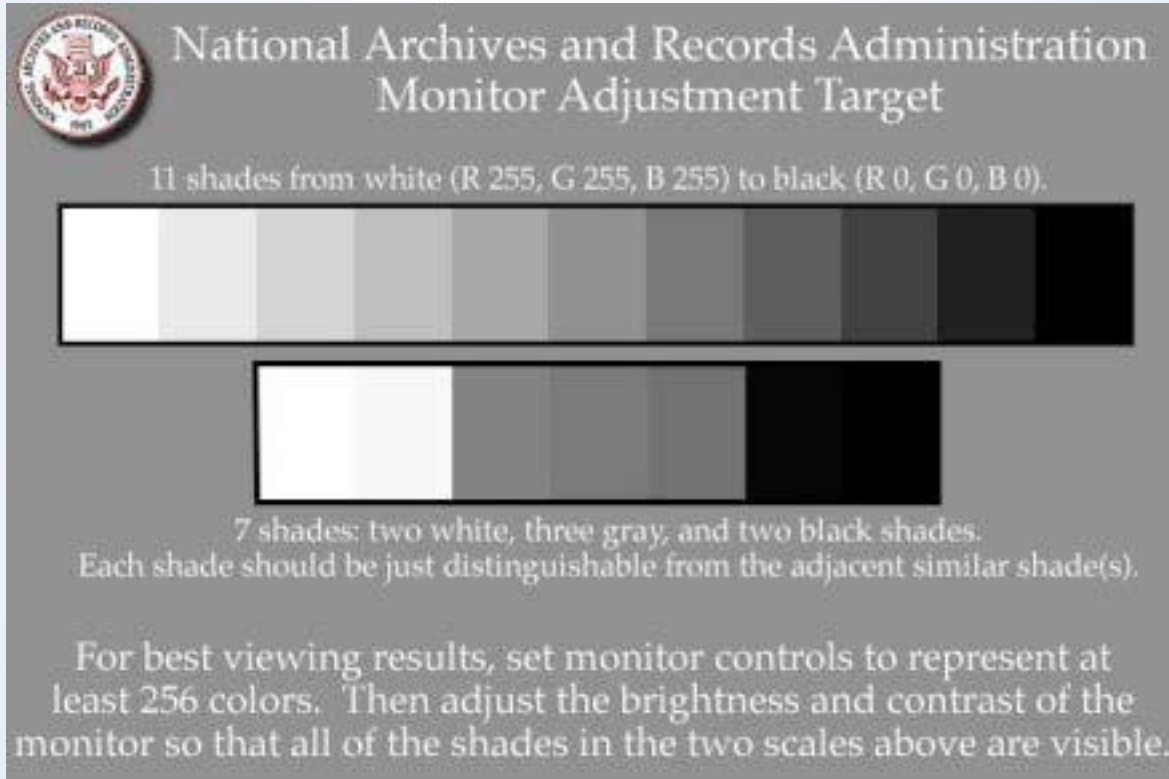- **Develop a familiarity with image editing tools**

Monitor Calibration

Set the brightness, contrast, and white point to known values.

- NARA recommends:
  - Gamma 2.2
  - 5000K
  - 85cd/m2
- Use calibration device
  - Datacolor Spyder
  - Pantone Huey
  - X-Rite i1

Calibrate By Eye

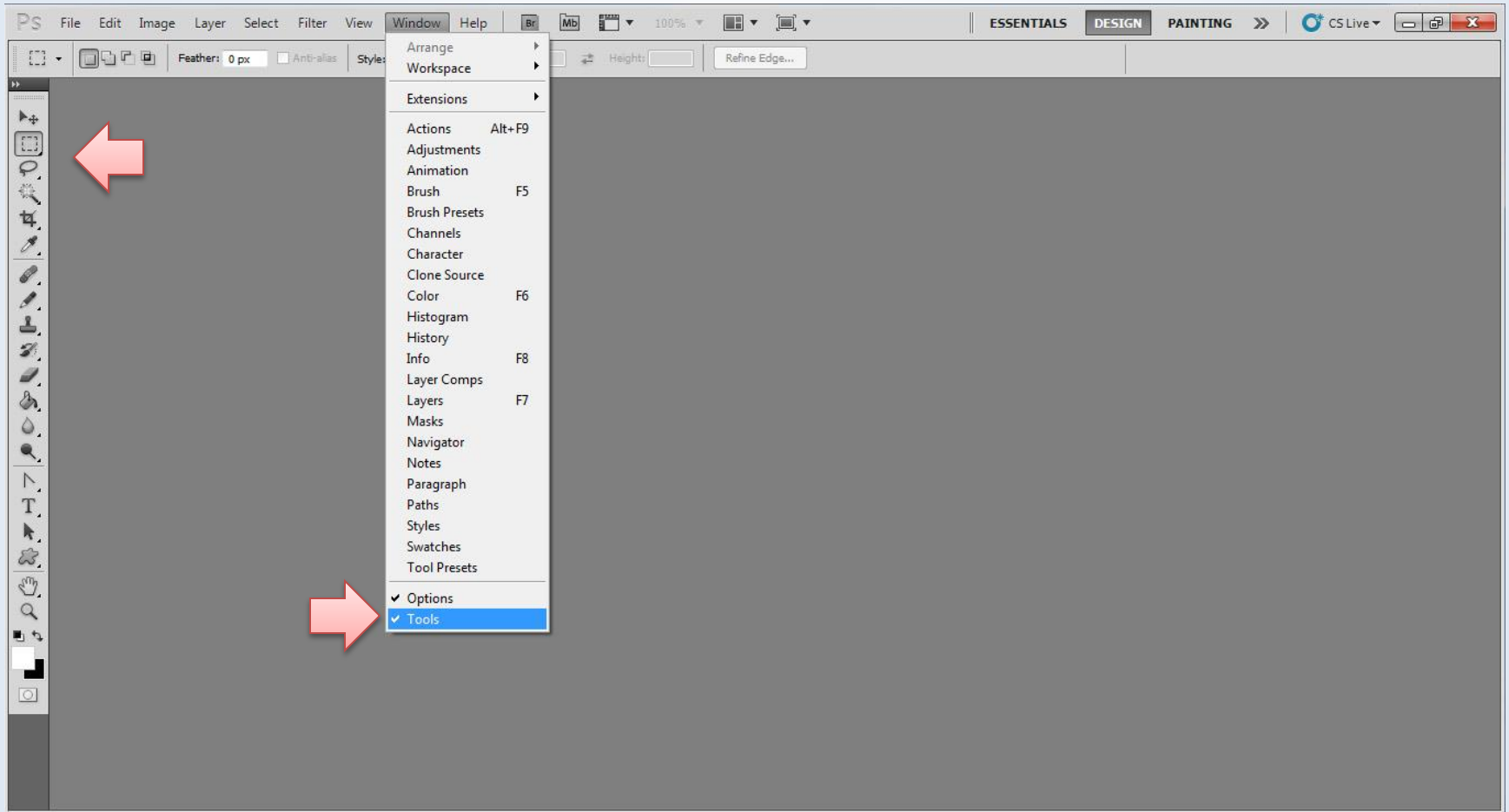# Multiple Versions

Image Optimization

- Confirm Focus
- Enhance Exposure
- White/Color Balance
- Crop/Rotate/Straighten
- Sharpen

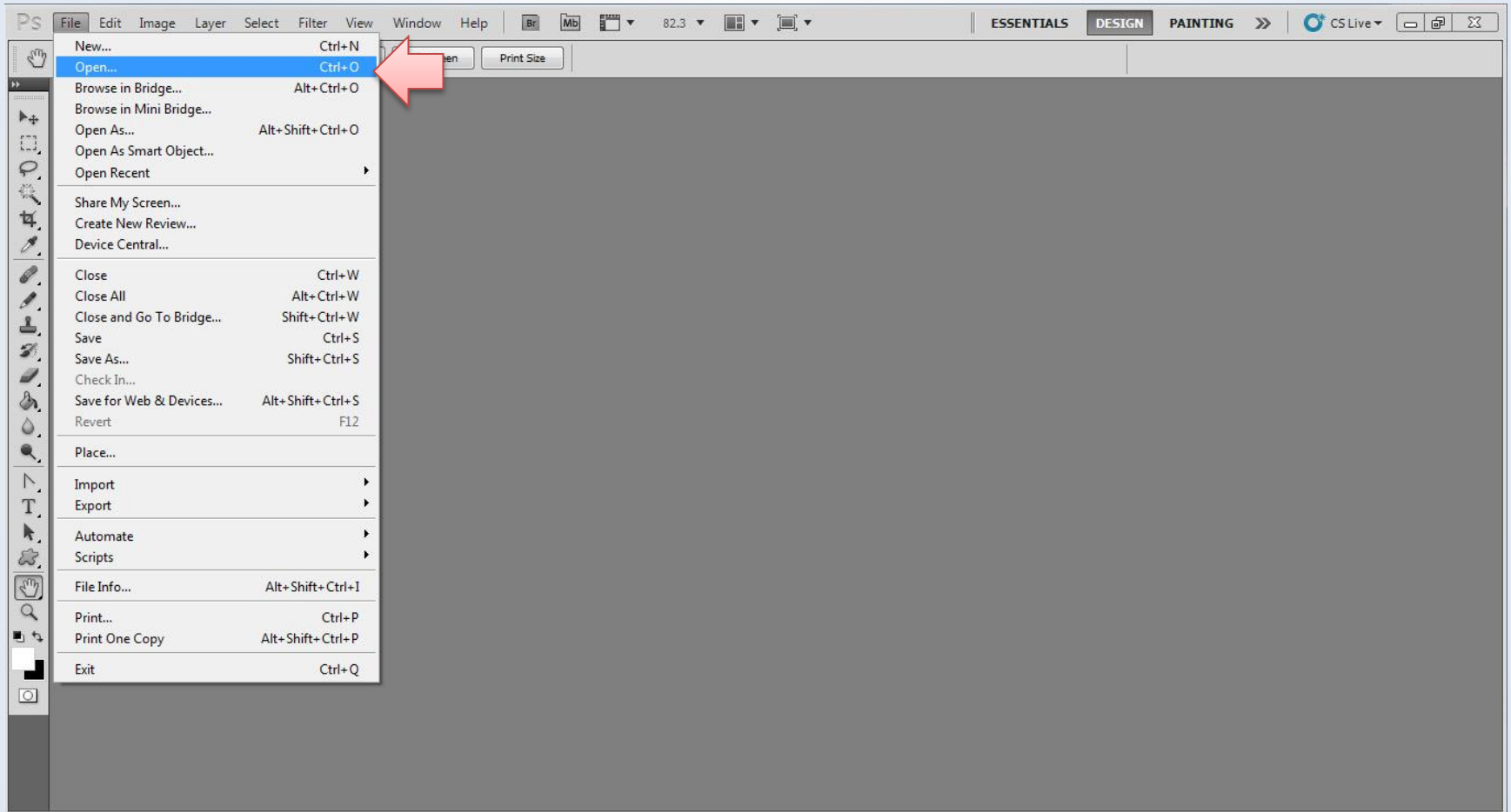Save derivative files

- Web
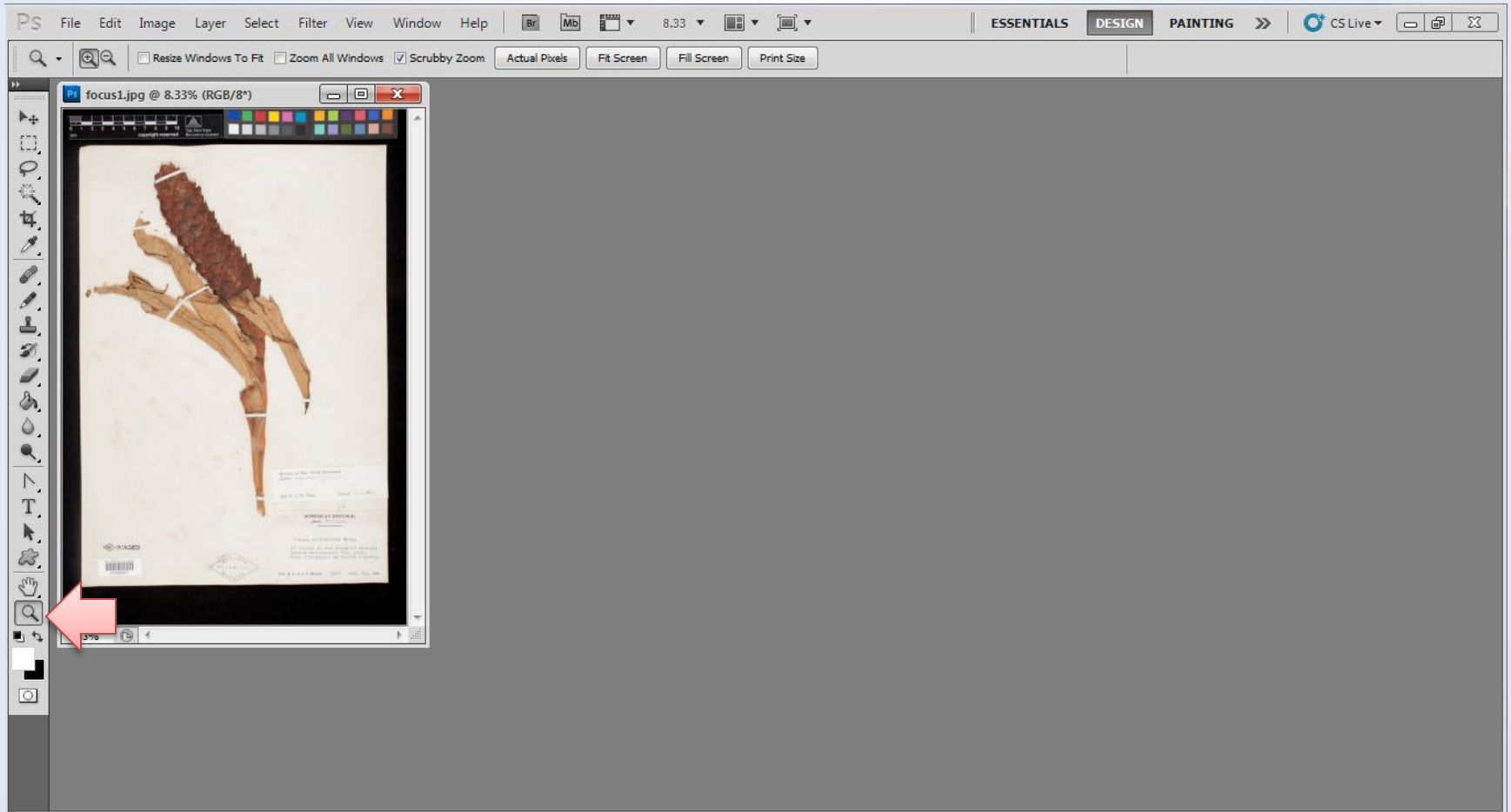- Presentations
- Print

Open Tools

Open File

Select Magnifier

Magnifier

- The letter "M" on the keyboard selects the magnifier
- Click on image to increase magnification
- Alt-click to decrease magnification
  - Double-on the magnifier to view at 100% magnification
    - Confirm focus at 100% magnification only
    - % magnification shown in title bar
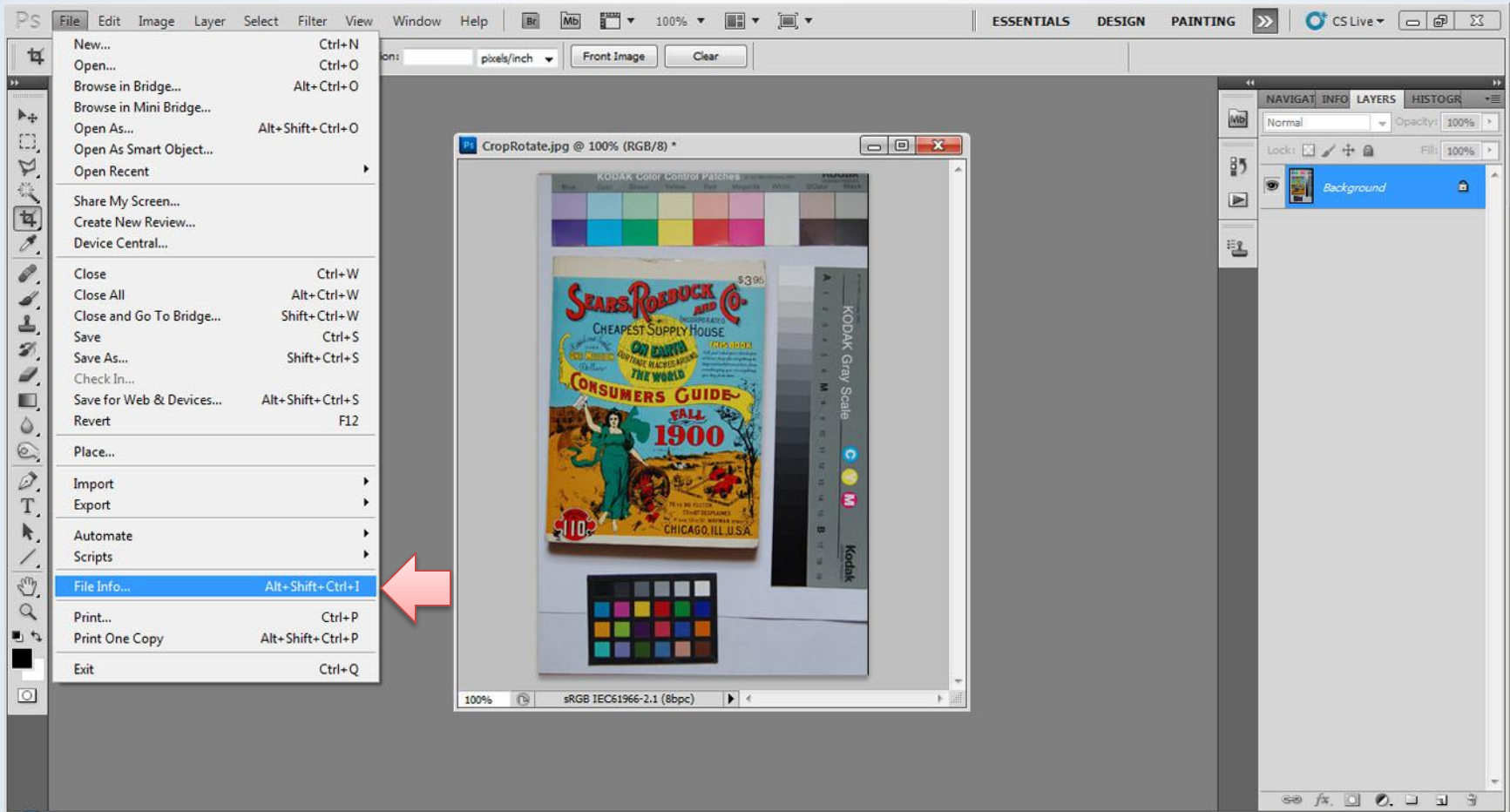 - "Ctrl+"/ "Ctrl-" zooms in and out

Scroll/Hand Tool
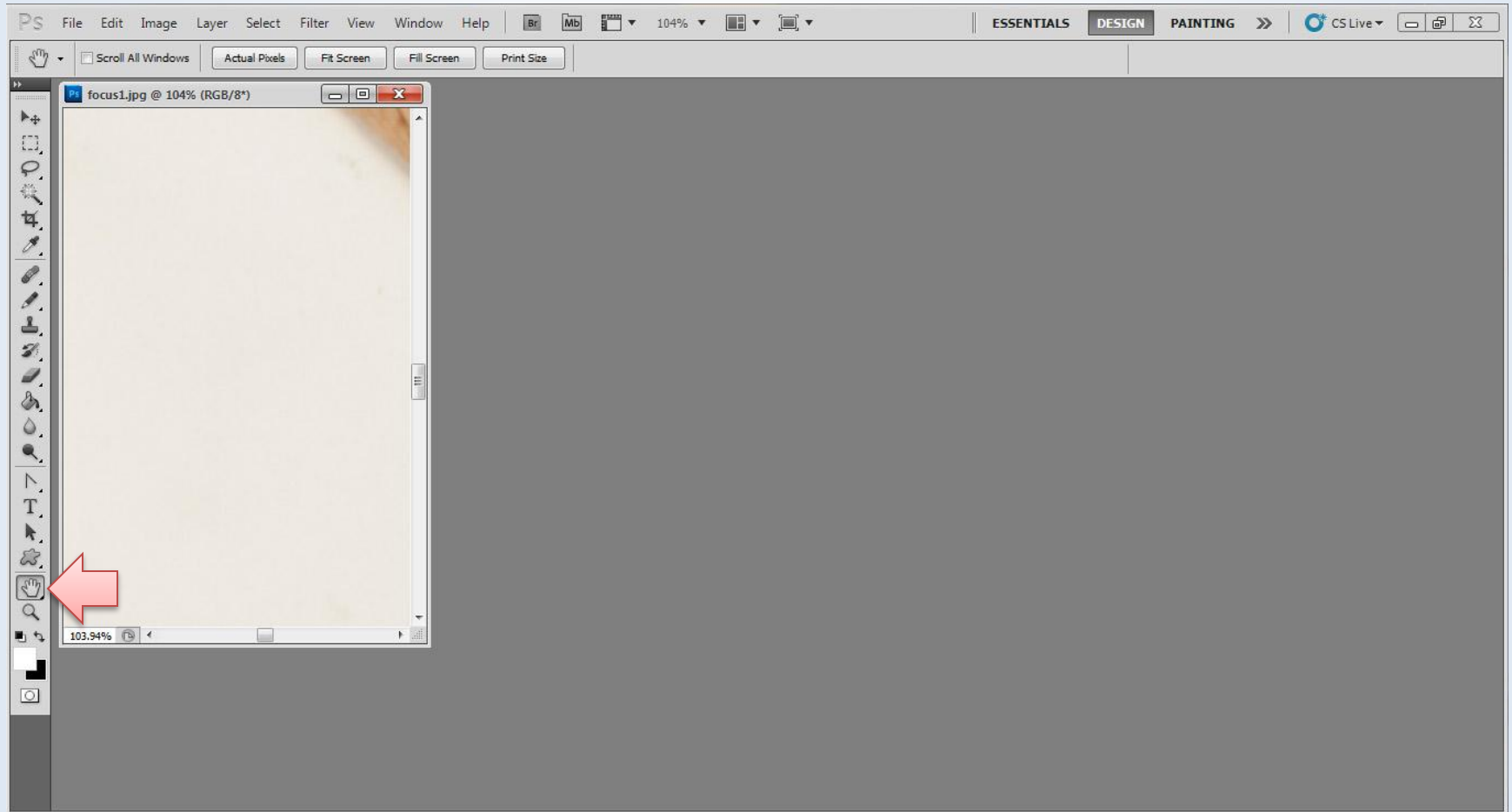
Hand Tool

- The letter "H" on the keyboard selects the hand tool
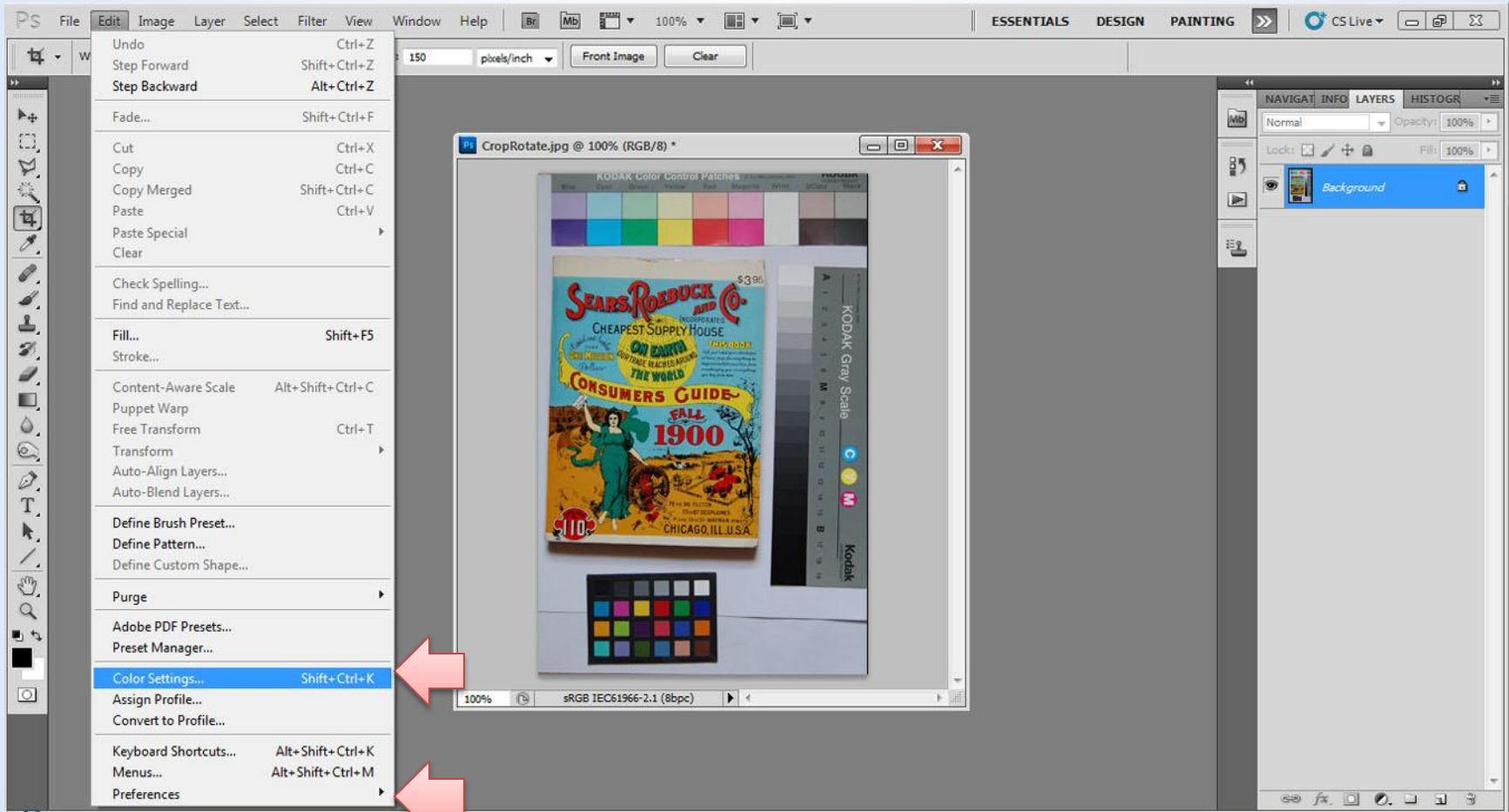
- Click and drag to navigate image

- Double click hand tool to fit screen

File Menu

File Info/Metadata

- Description
  - Title
  - Author
  - Keywords
  - Description (Caption)
  - Copyright
- IPTC
  - International Press Telecommunications Council
    - http://www.iptc.org/site/Photo_Metadata/Overview/
- Advanced
  - EXIF
    - Camera information

Edit Menu

Color Space

- Color space
  - Gives context to color
    - White point
    - Primaries
      - Gamut
    - Gamma
  - Display setting
    - Assign Profile
      - Maintains values/changes appearance
    - Convert Profile
      - Changes values/maintains appearance
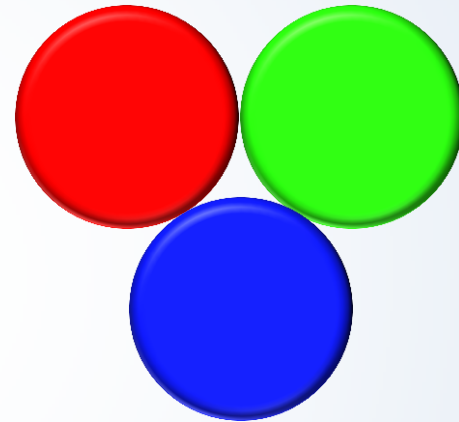
ICC Profiles

- International Color Consortium
- Standard reference for transcribing colors between different devices
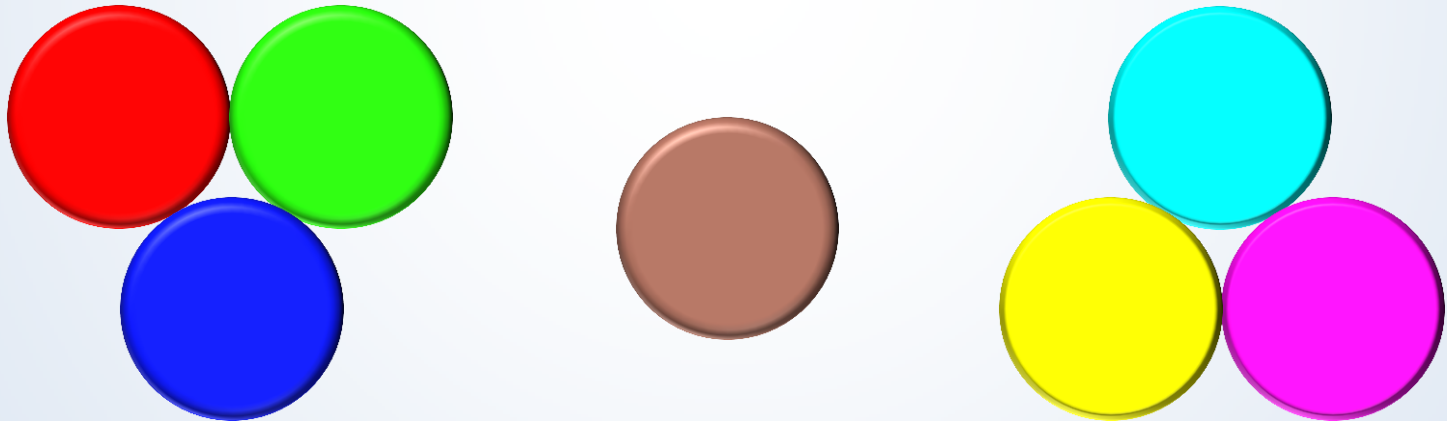
For the most repeatable results on the most devices, save derivatives as sRGB

Color Setting Suggestions

- Working Spaces
  - North American General Purpose 2
    - Suitable for most applications
      - Web
      - Print

- Color Management Settings
  - Preserve embedded profiles
  - Ask when opening

Preferences

- Performance
  - History states
- Units and rulers
- Guides, grids, and slices

Image Menu
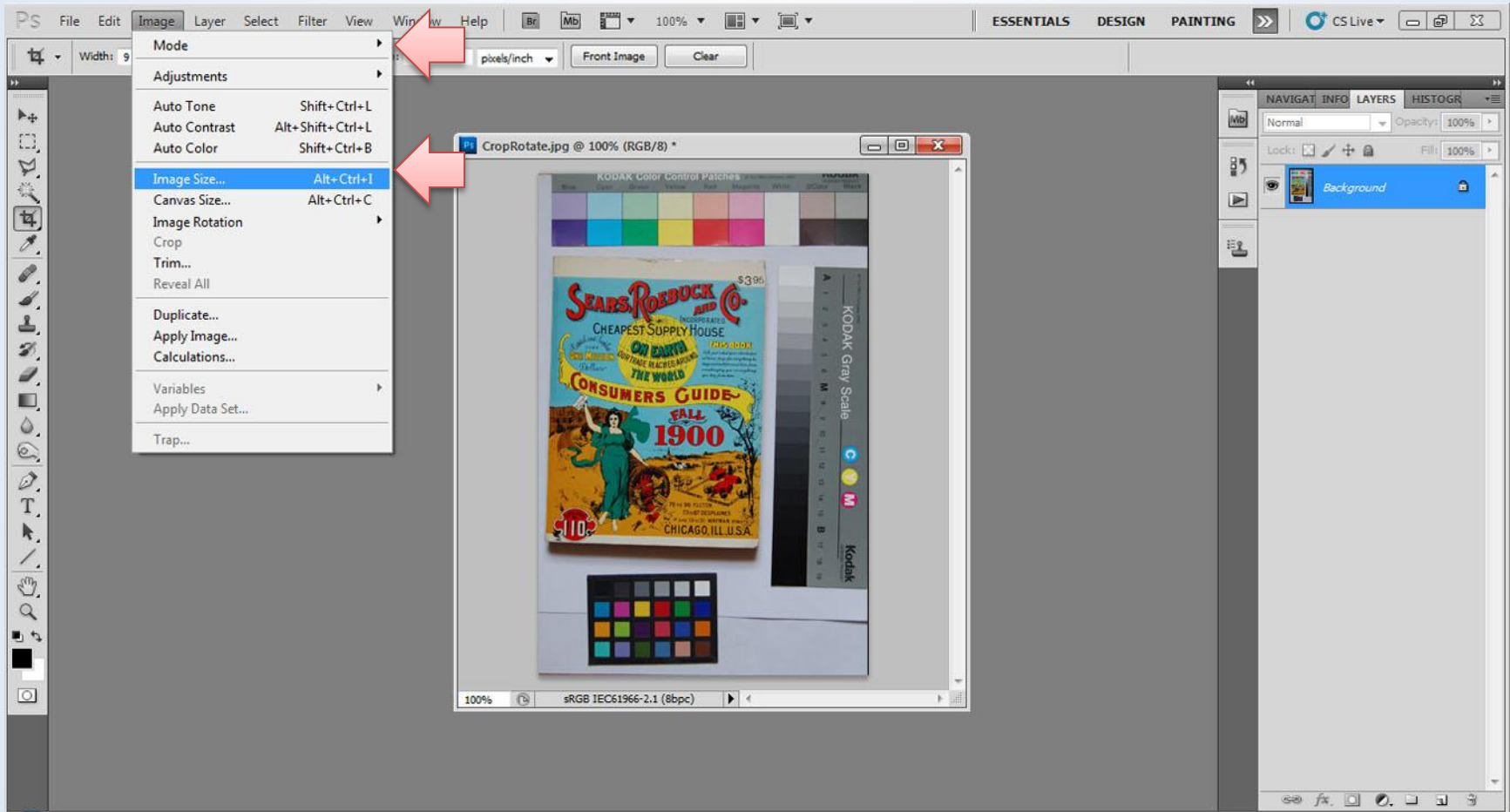
Layer Menu
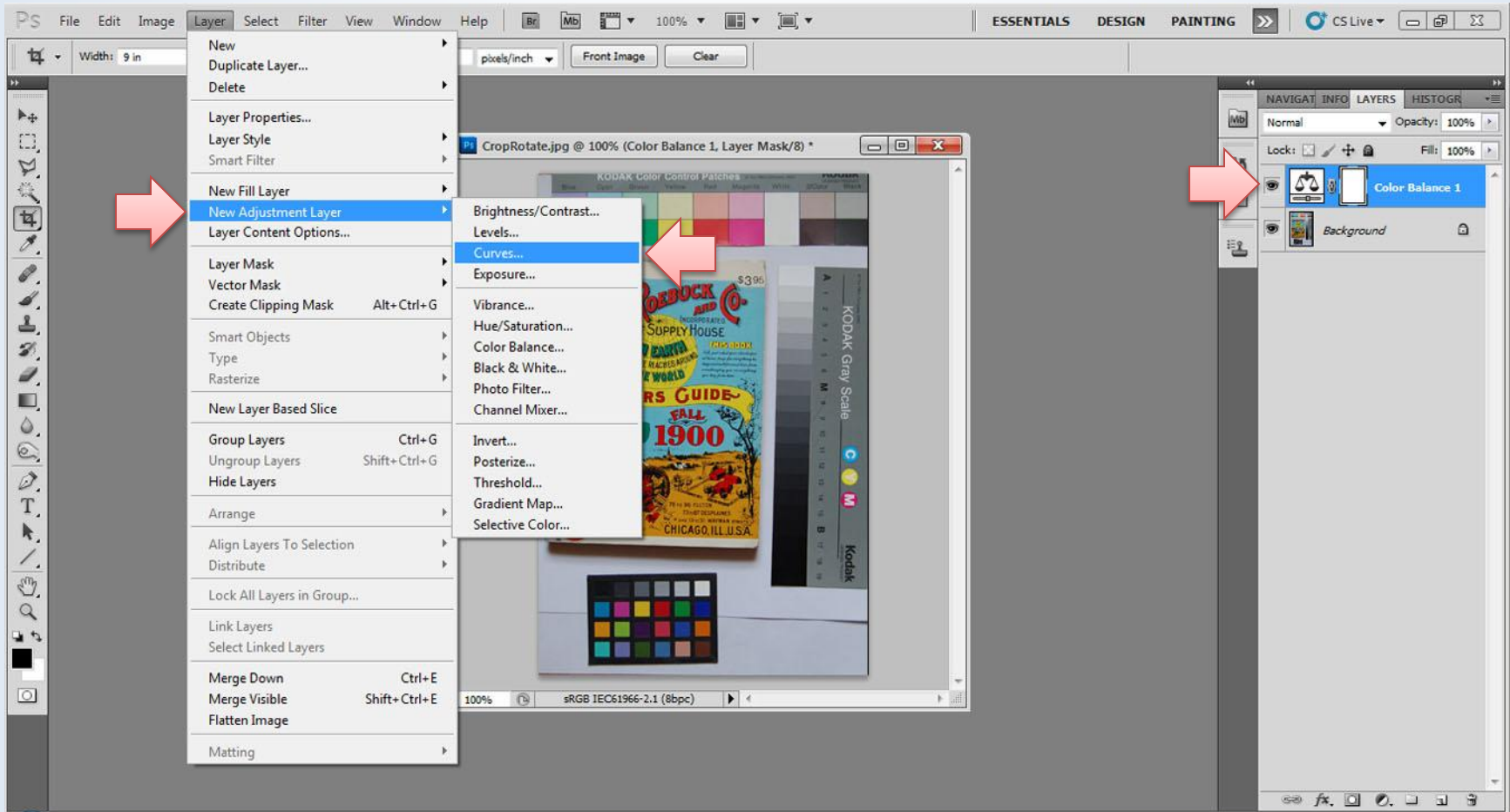
Layers

- Layers are "non-destructive" image edits
- Must be saved in a format that supports Layers
  - TIFF
  - PSD

Filter Menu
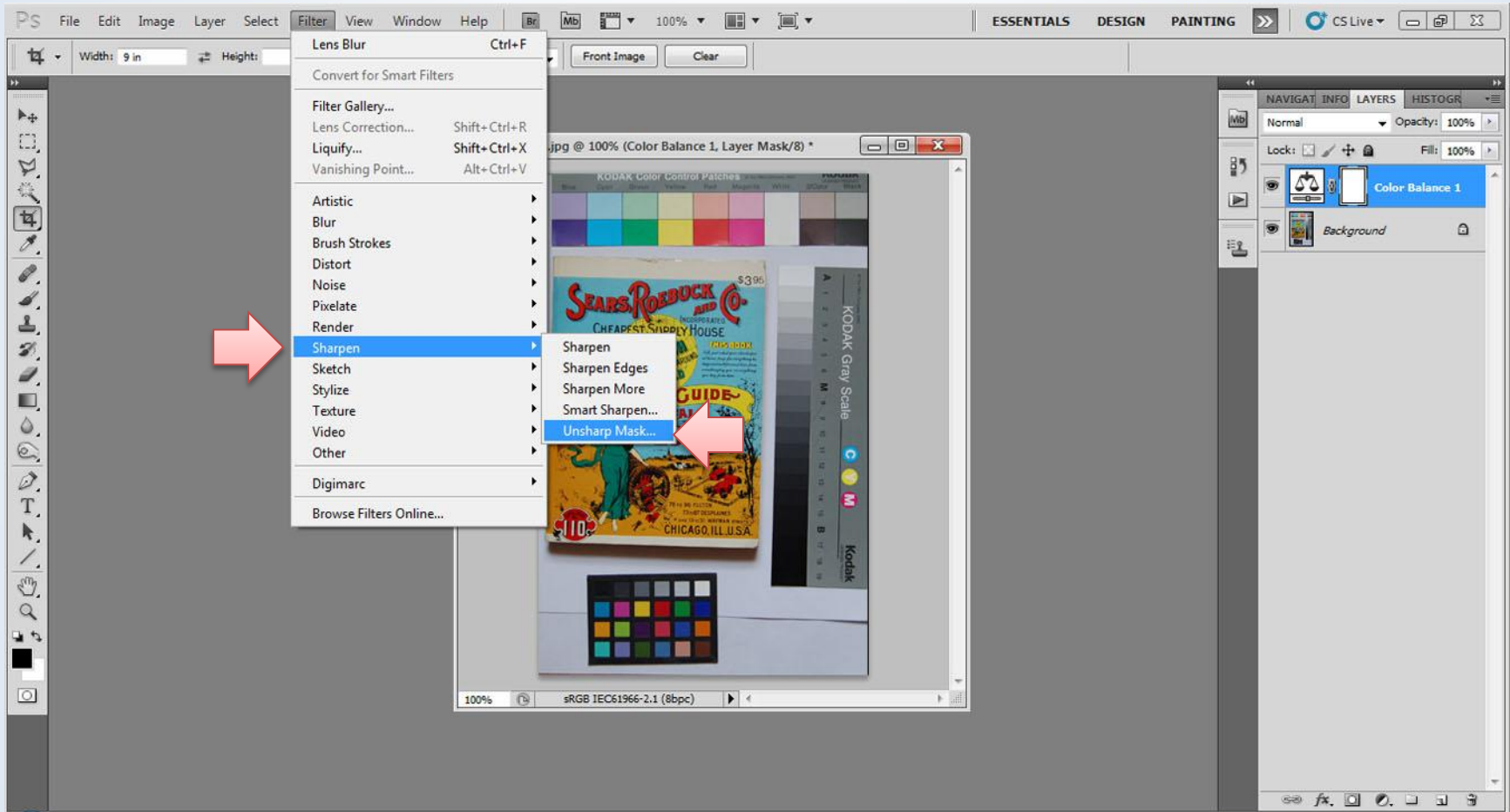
View Menu
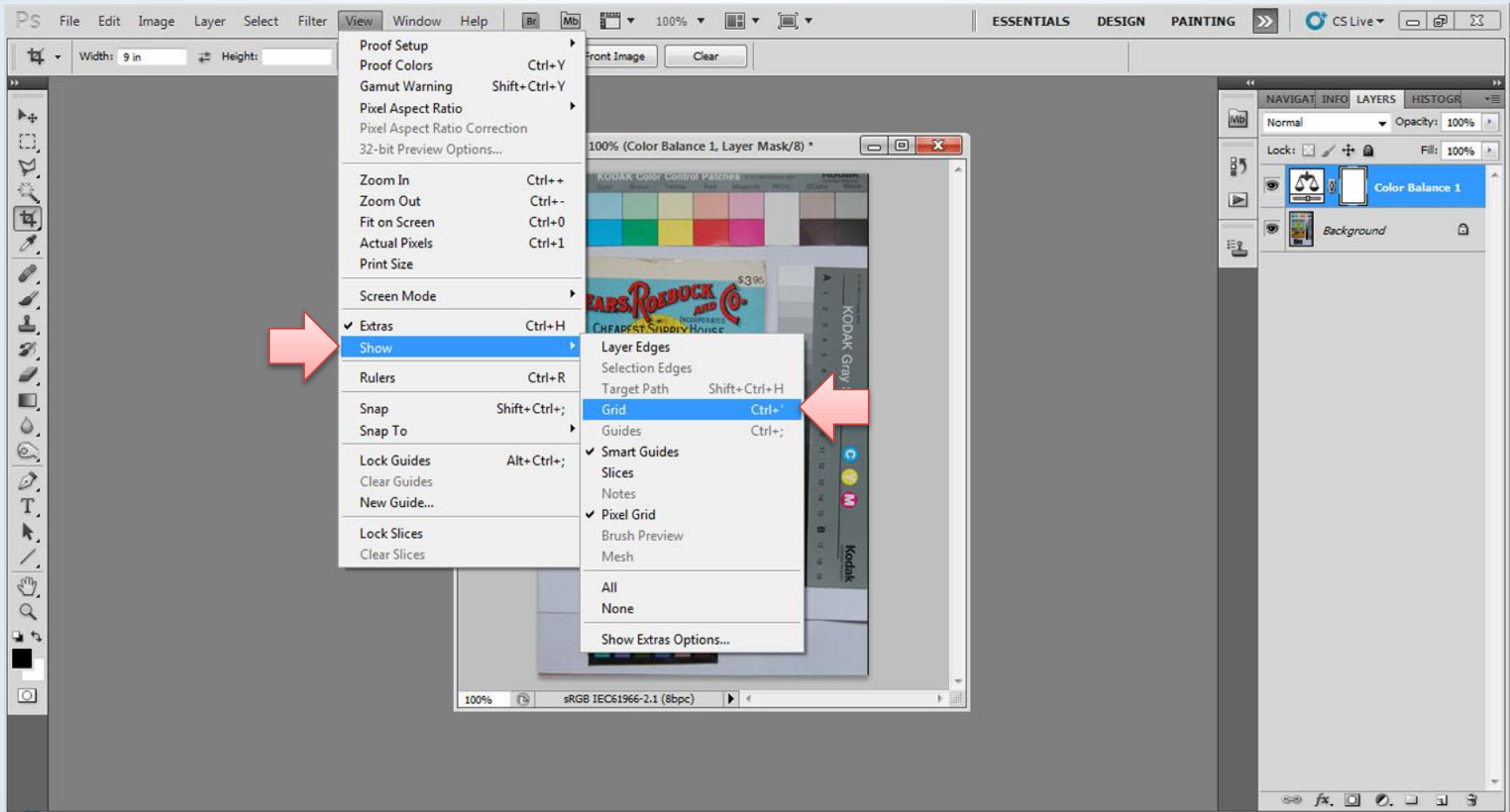
Window Menu
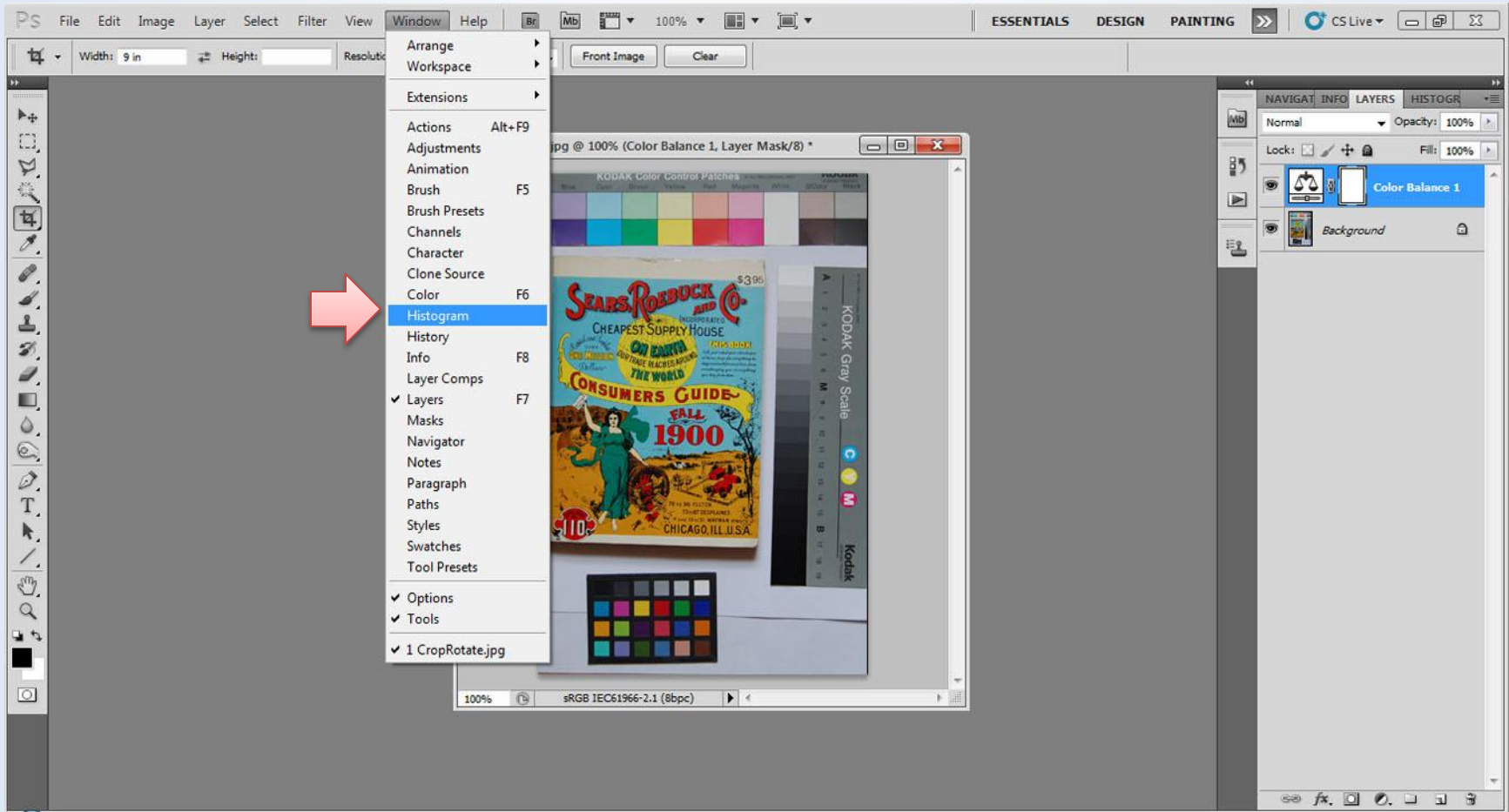
Window Menu

- Action

- Histogram

- History

- Layers

- Options

- Tools

Use the "Tab" key to hide/reveal windows
Use the "F" key to toggle to full screen

Exposure

Windows
- Info
- Histogram

Tools
- Eyedropper

Adjustments
- Levels
- Curves
- Exposure
- Brightness

Eyedropper Tool

Levels Adjustment

Color Balance

Window
- Info

Tools
- Eyedropper

Adjustments
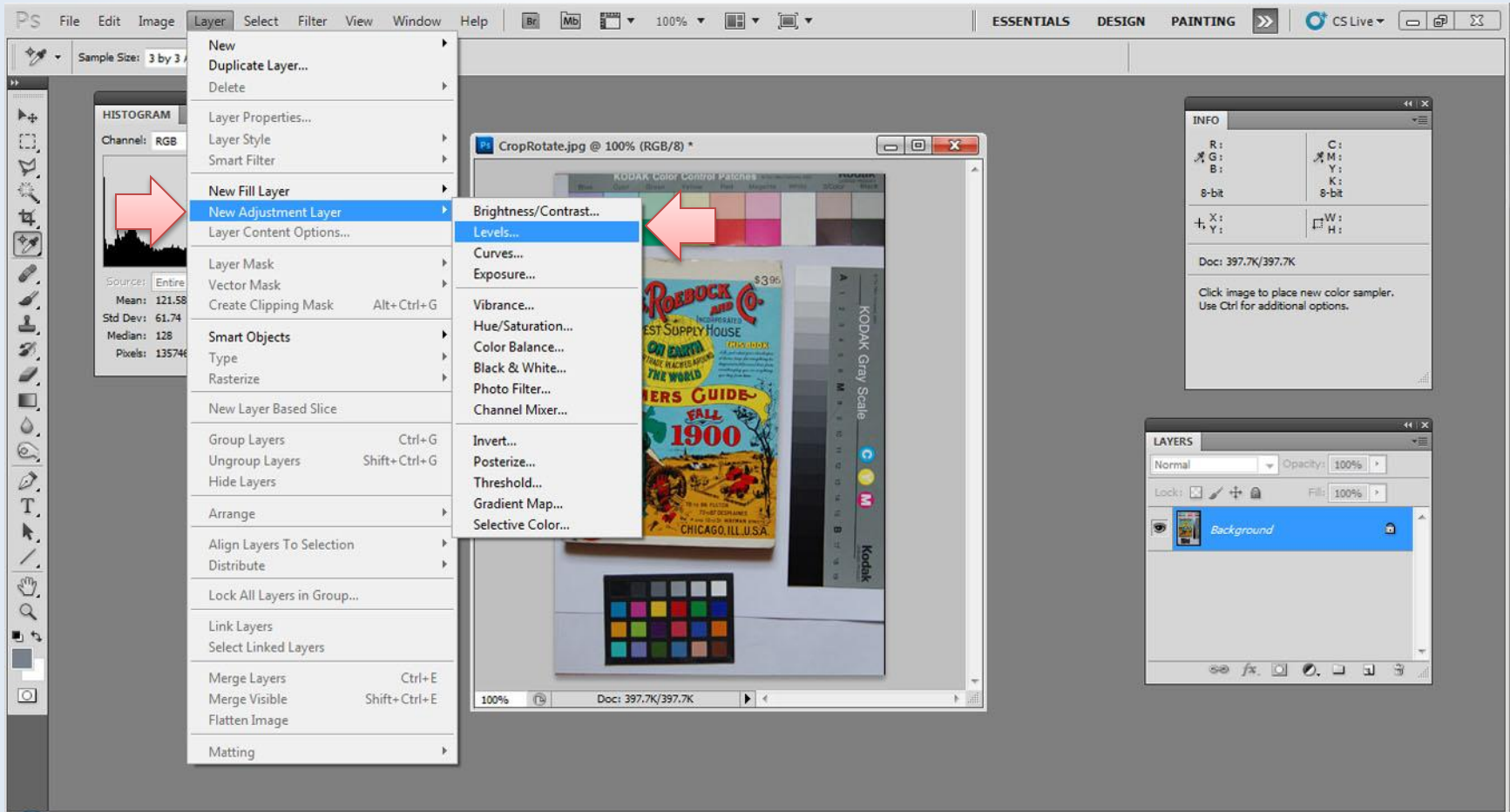- Balance
- Curves
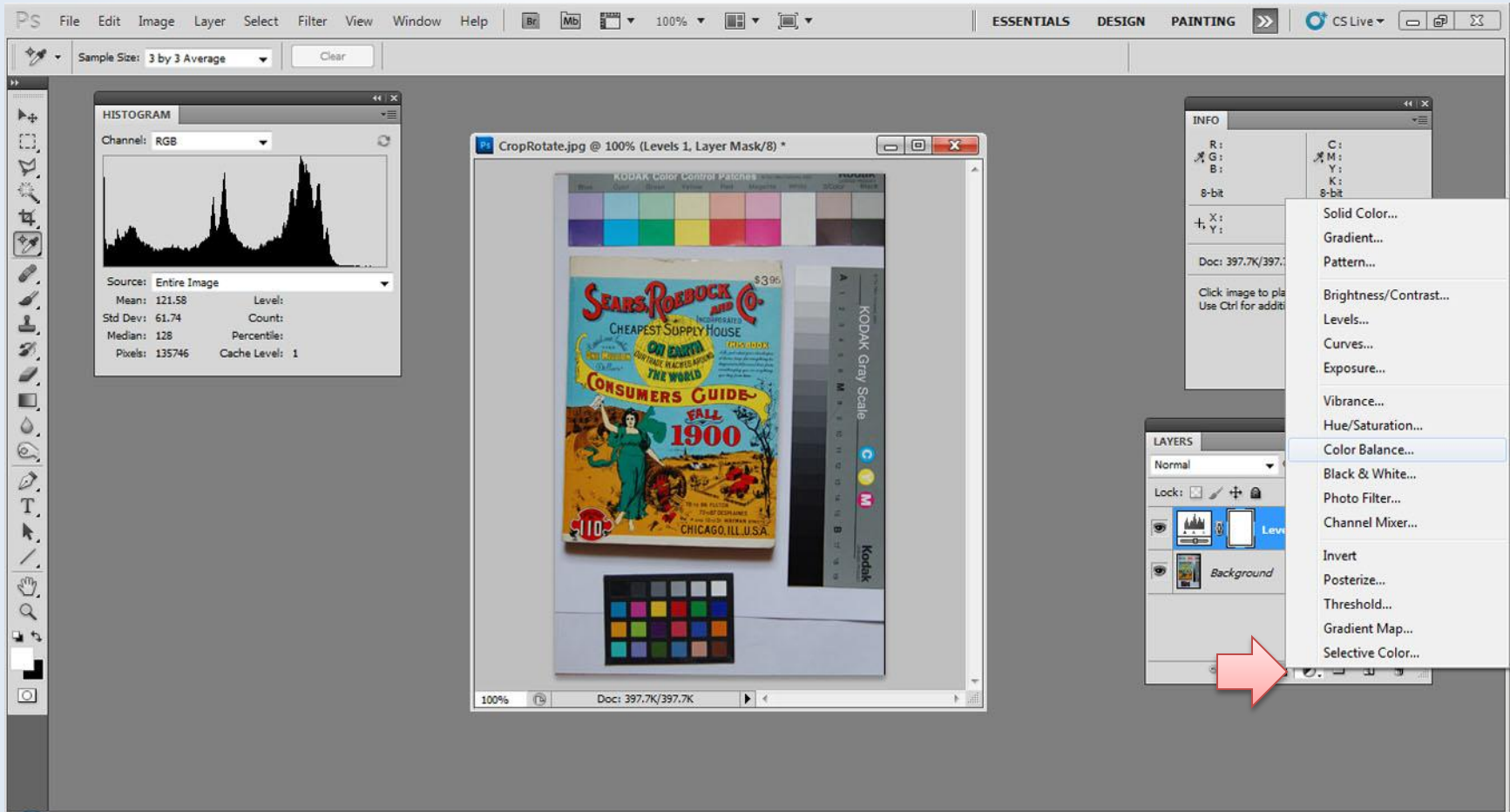- Adjustment layers
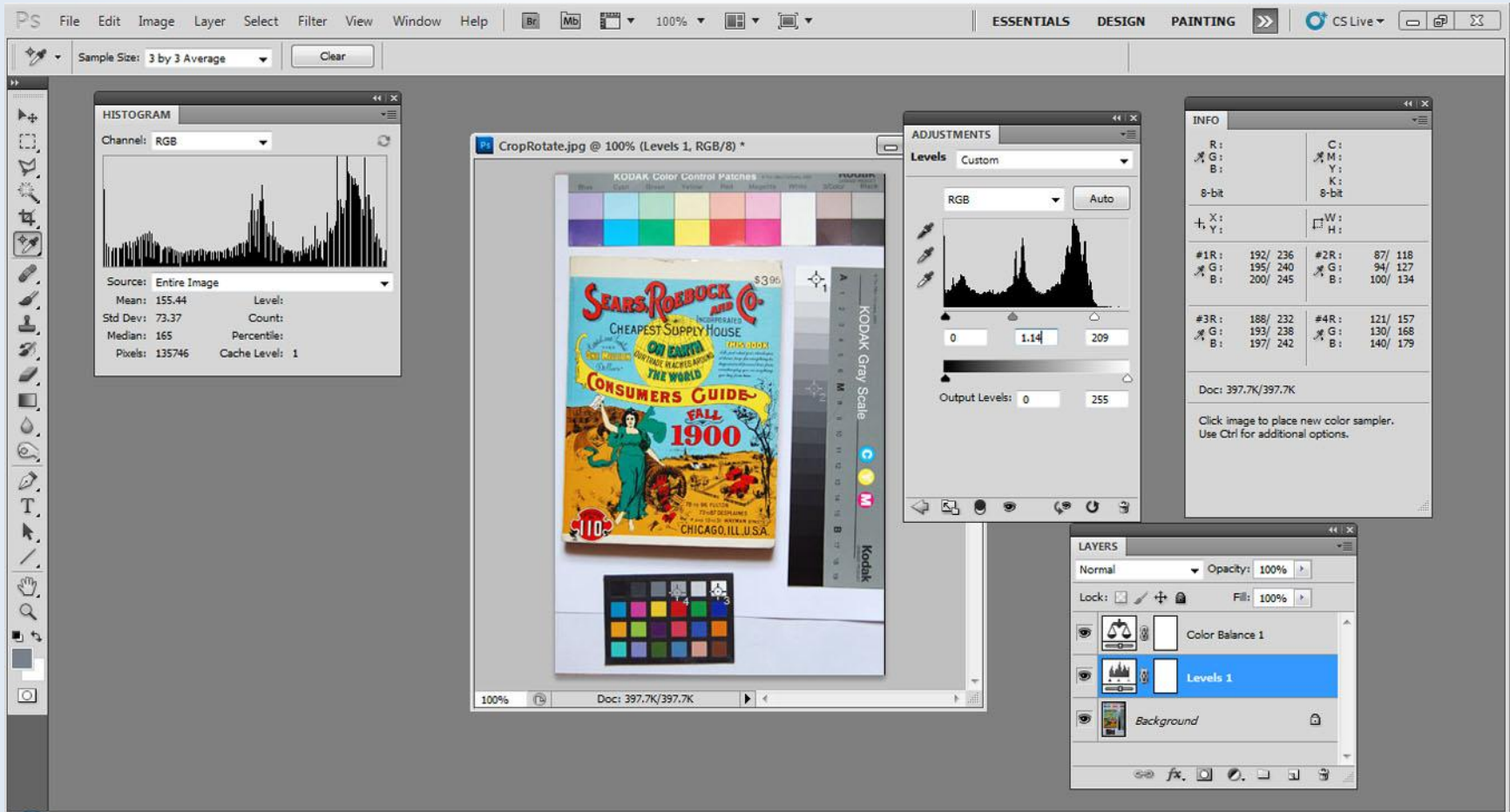
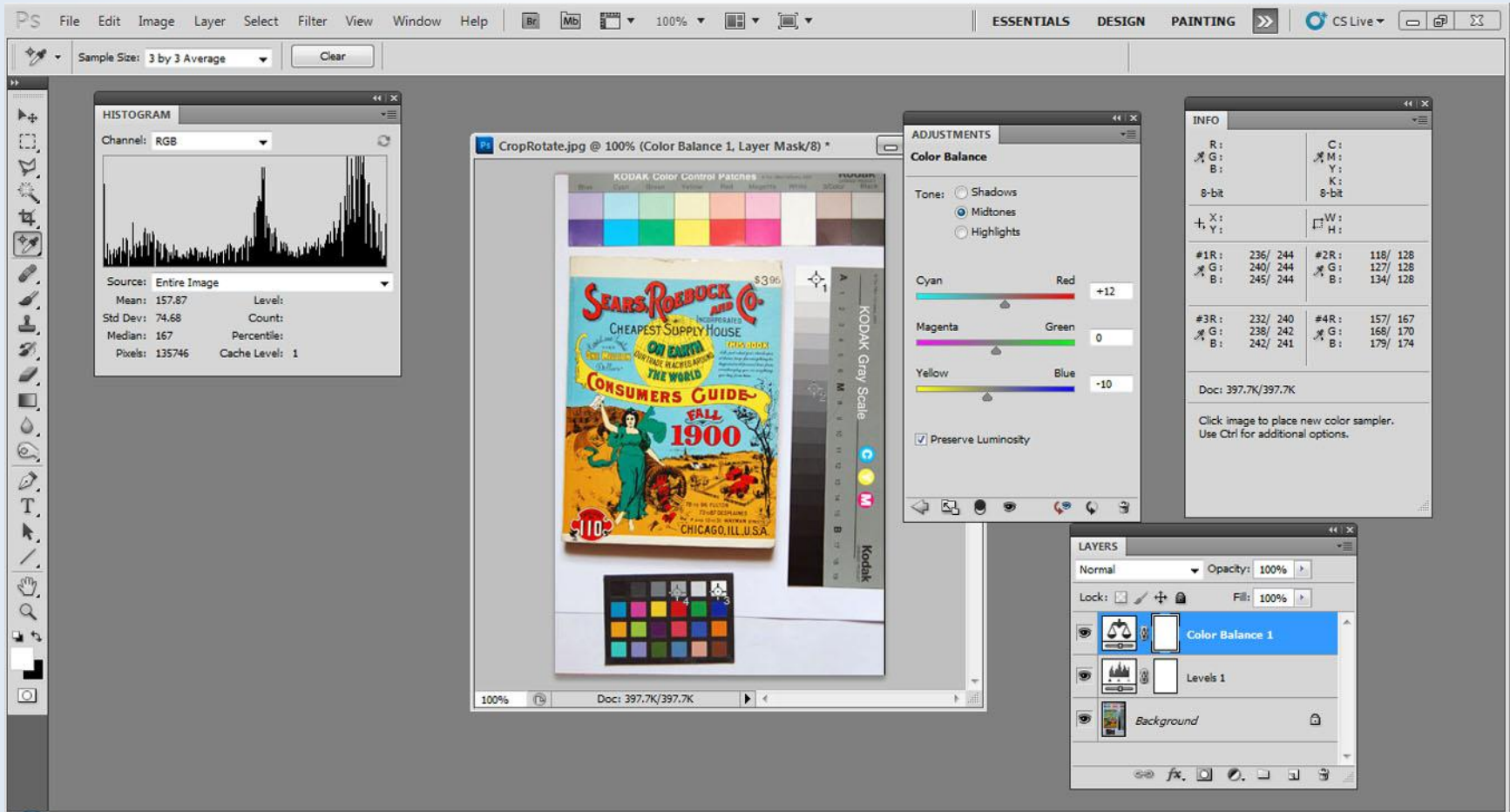# Color Balance

History

Curves

Adjustment Layers

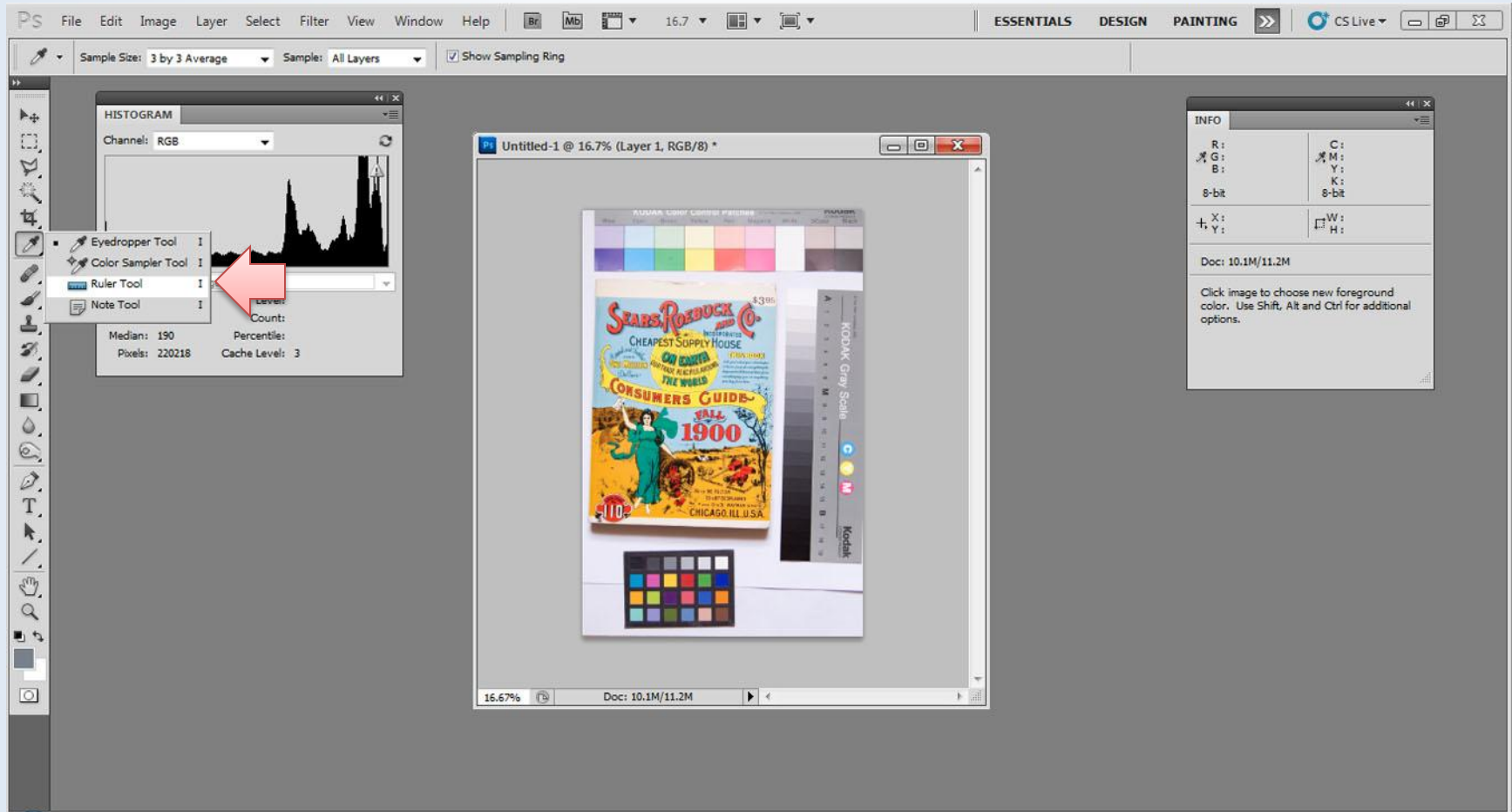# Adjustment Layers

Levels Layer

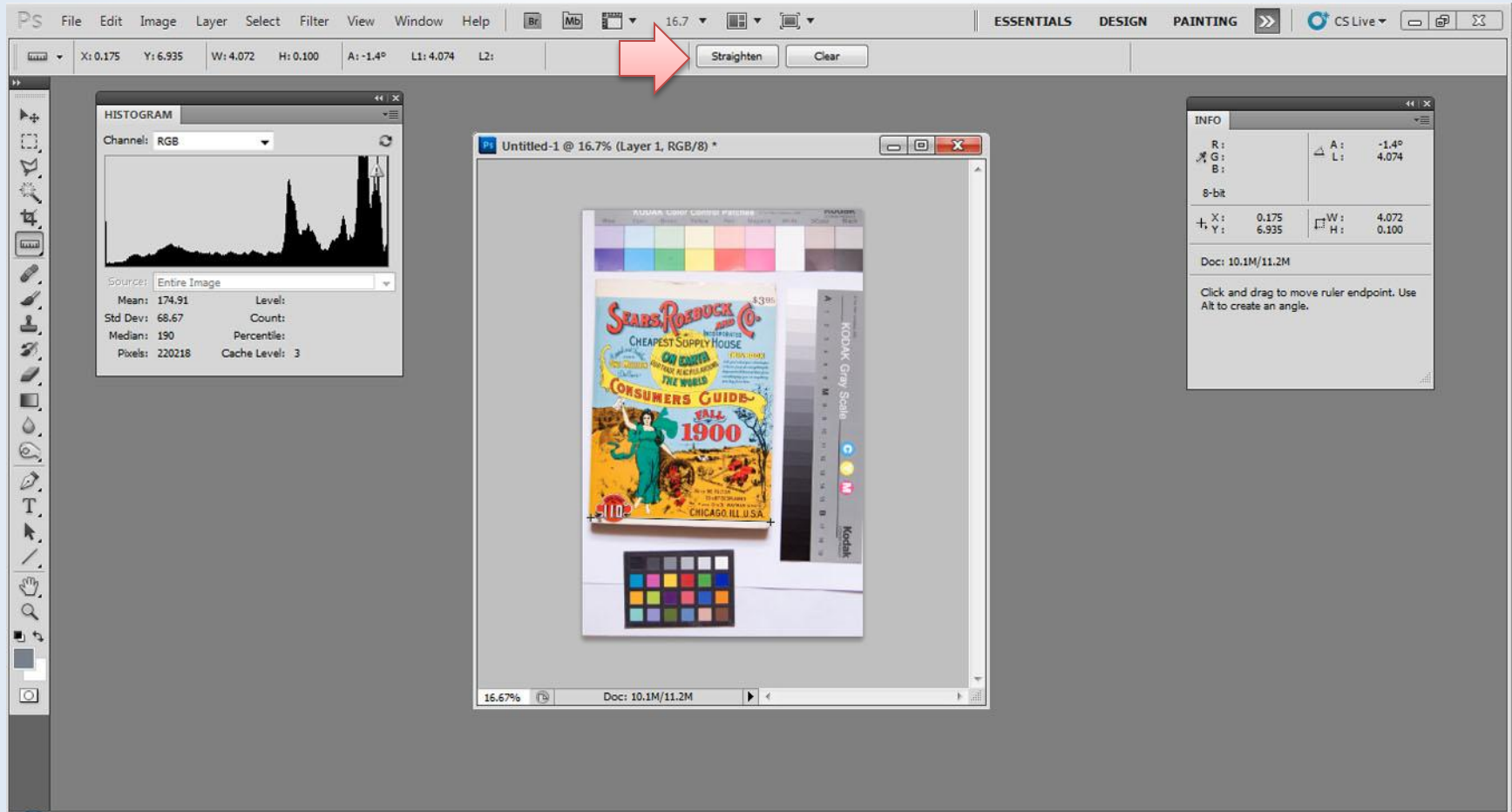# Balance Layer

Crop/Rotate
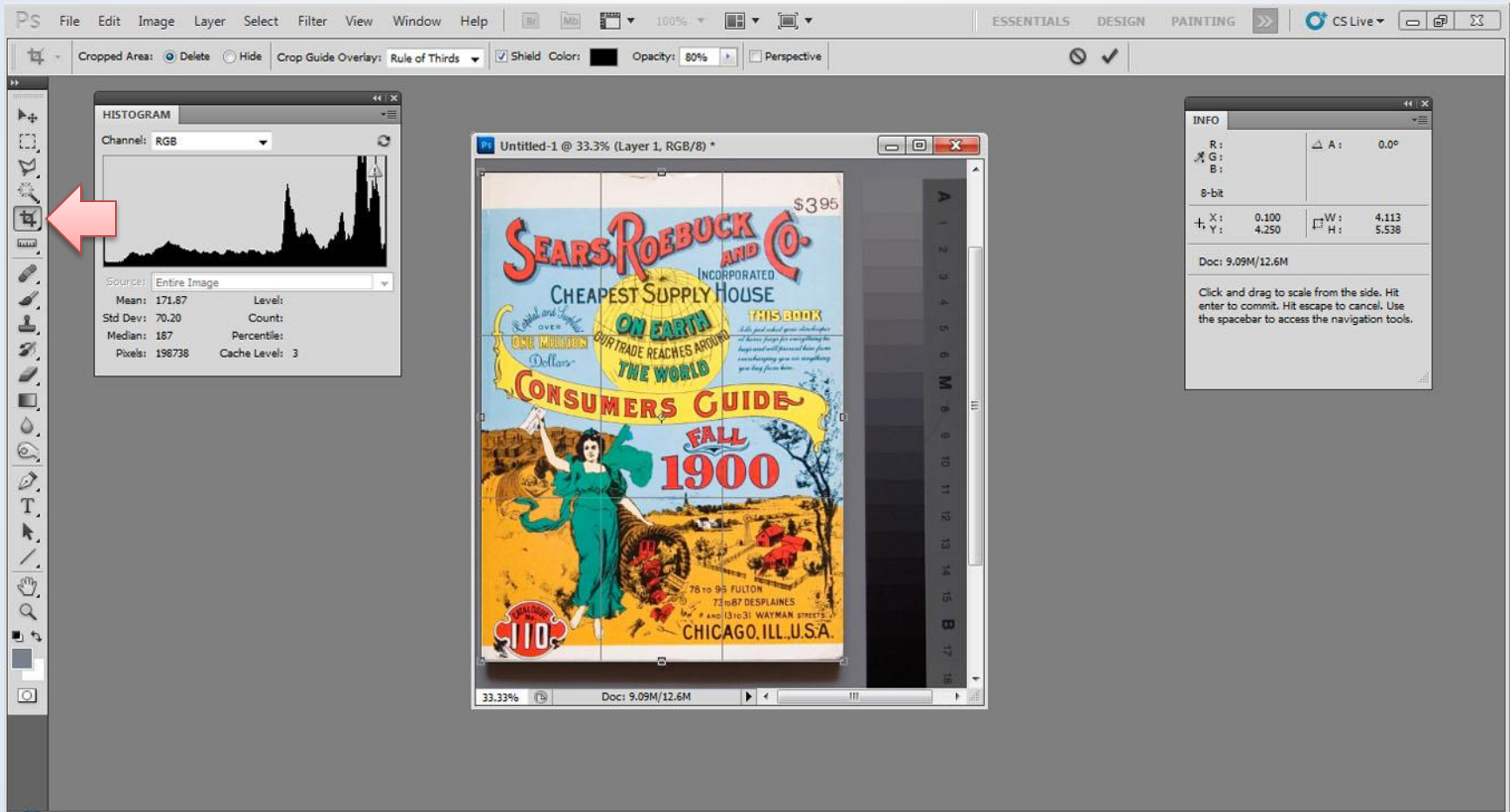
Tools

- Crop

- Ruler

Ruler

Straighten

Crop
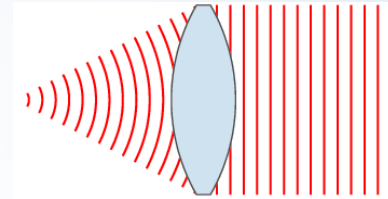
Sharpen

Tool

- Hand
- Magnifier

Adjustments

- Unsharp Mask

Sharpness

Focus is the point at which reflected or refracted rays of light converge

- Focus is a physical measurement

"Sharpness describes the clarity of detail in a photo… Two fundamental factors contribute to the perceived sharpness of an image: resolution and acutance." – Cambridge in Colour
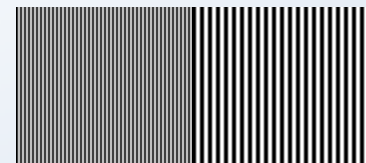
Acutance describes how quickly image information transitions at an edge, and so high acutance results in sharp transitions and detail with clearly defined borders.

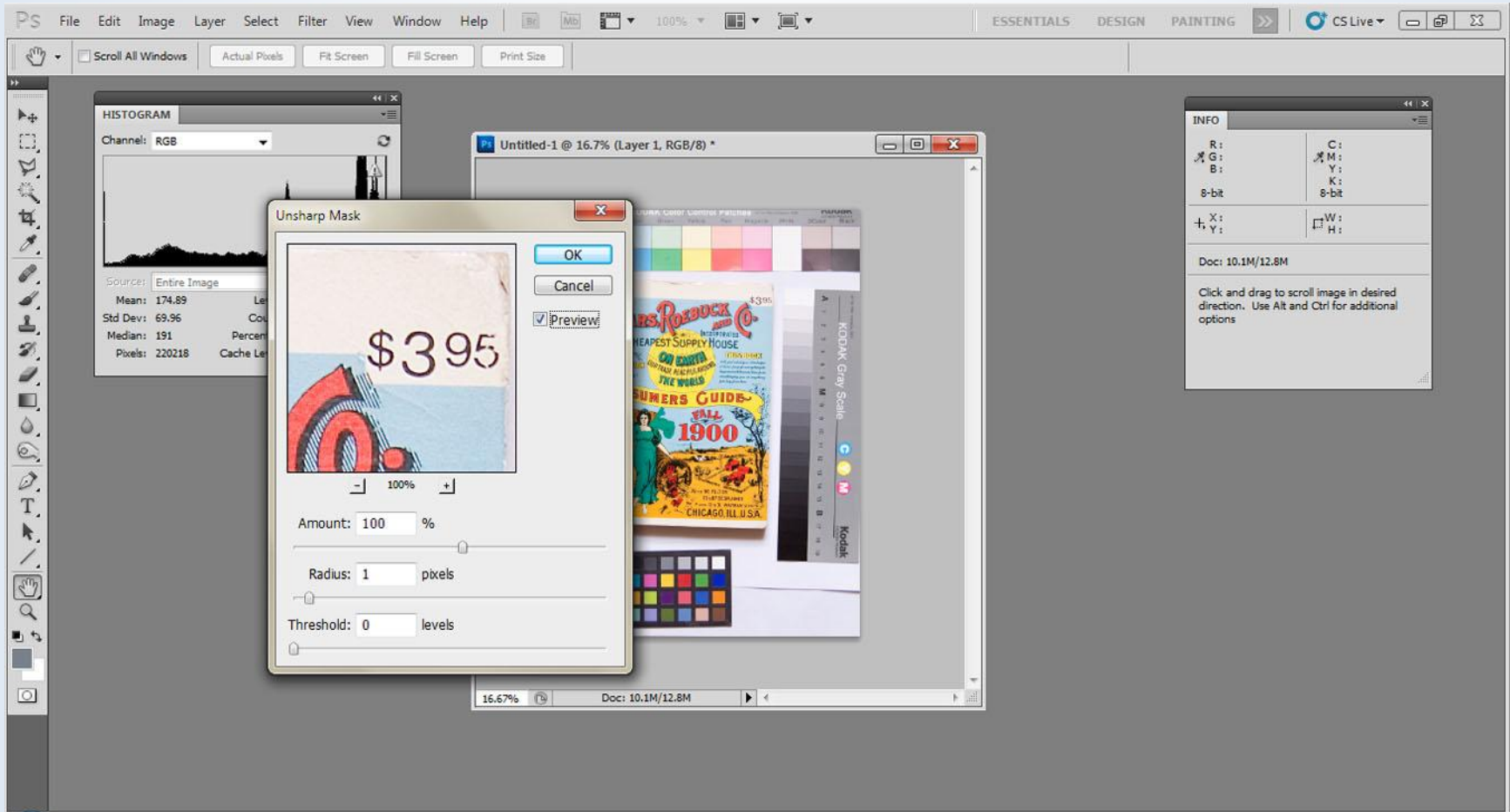Resolution describes the camera's ability to distinguish between closely spaced elements of detail, such as the two sets of lines.

Acutance
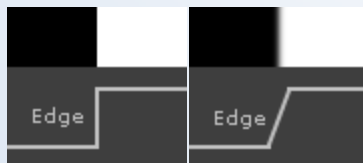
Resolution

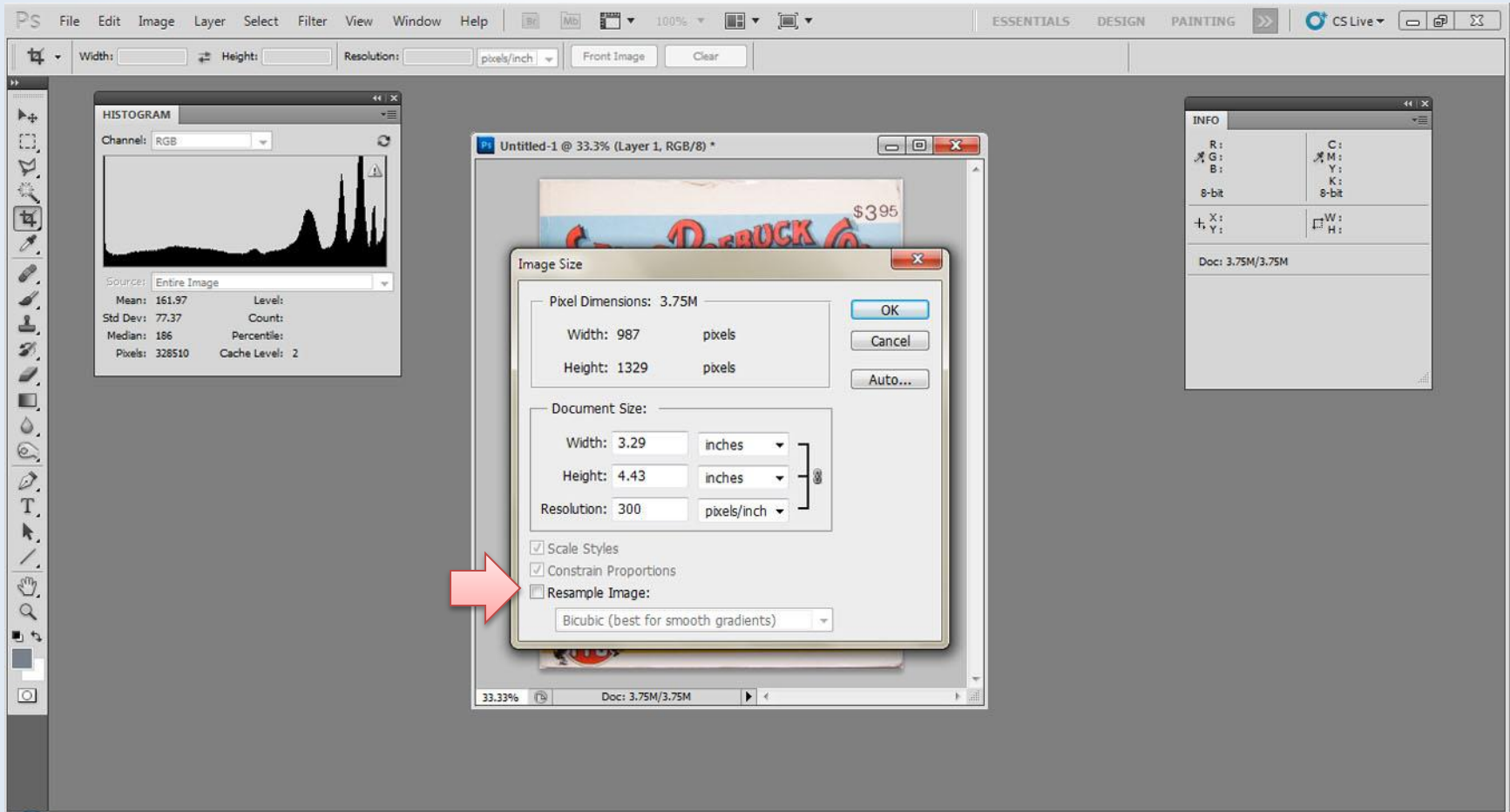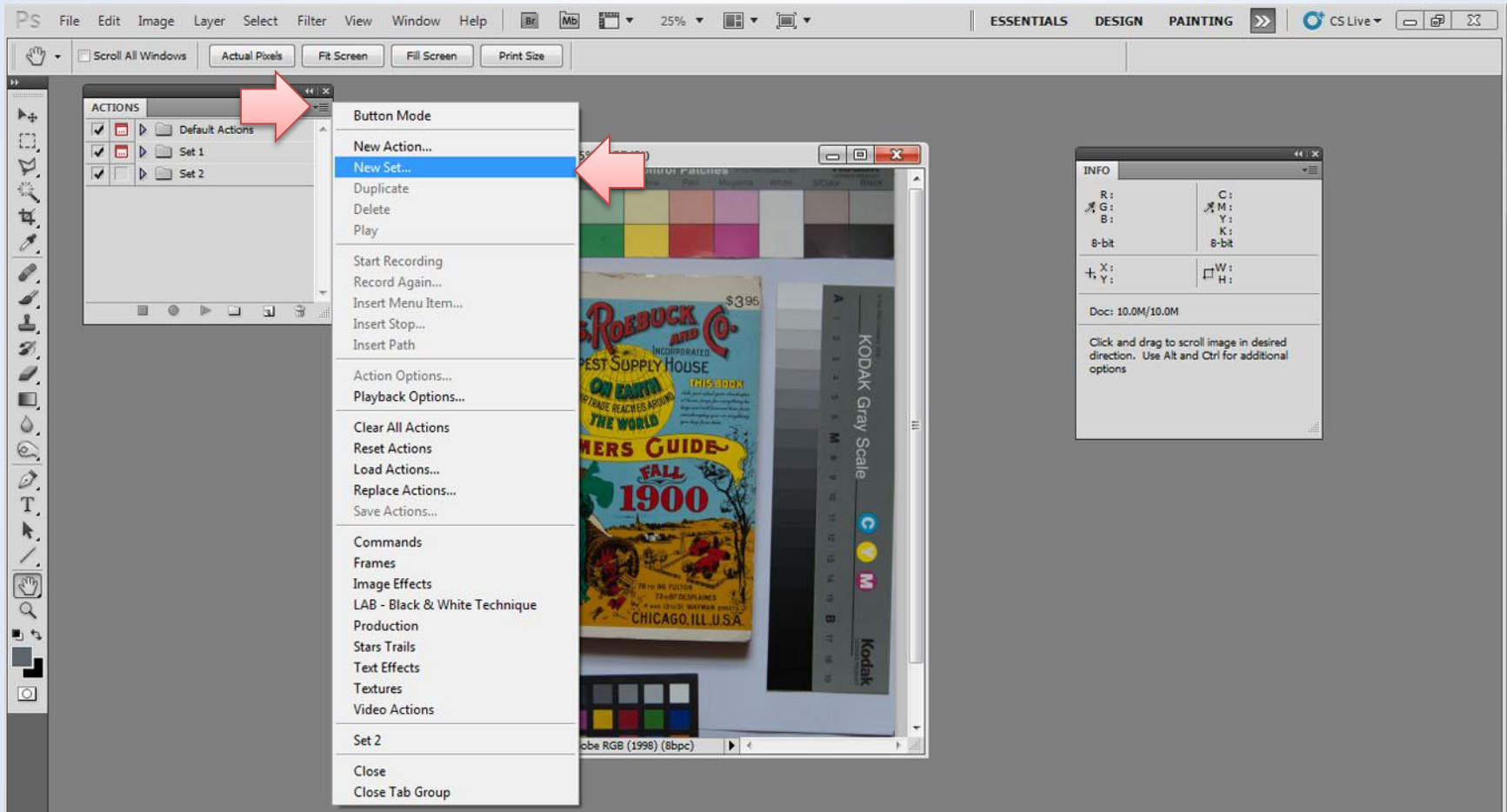# Unsharp Mask

Image Size

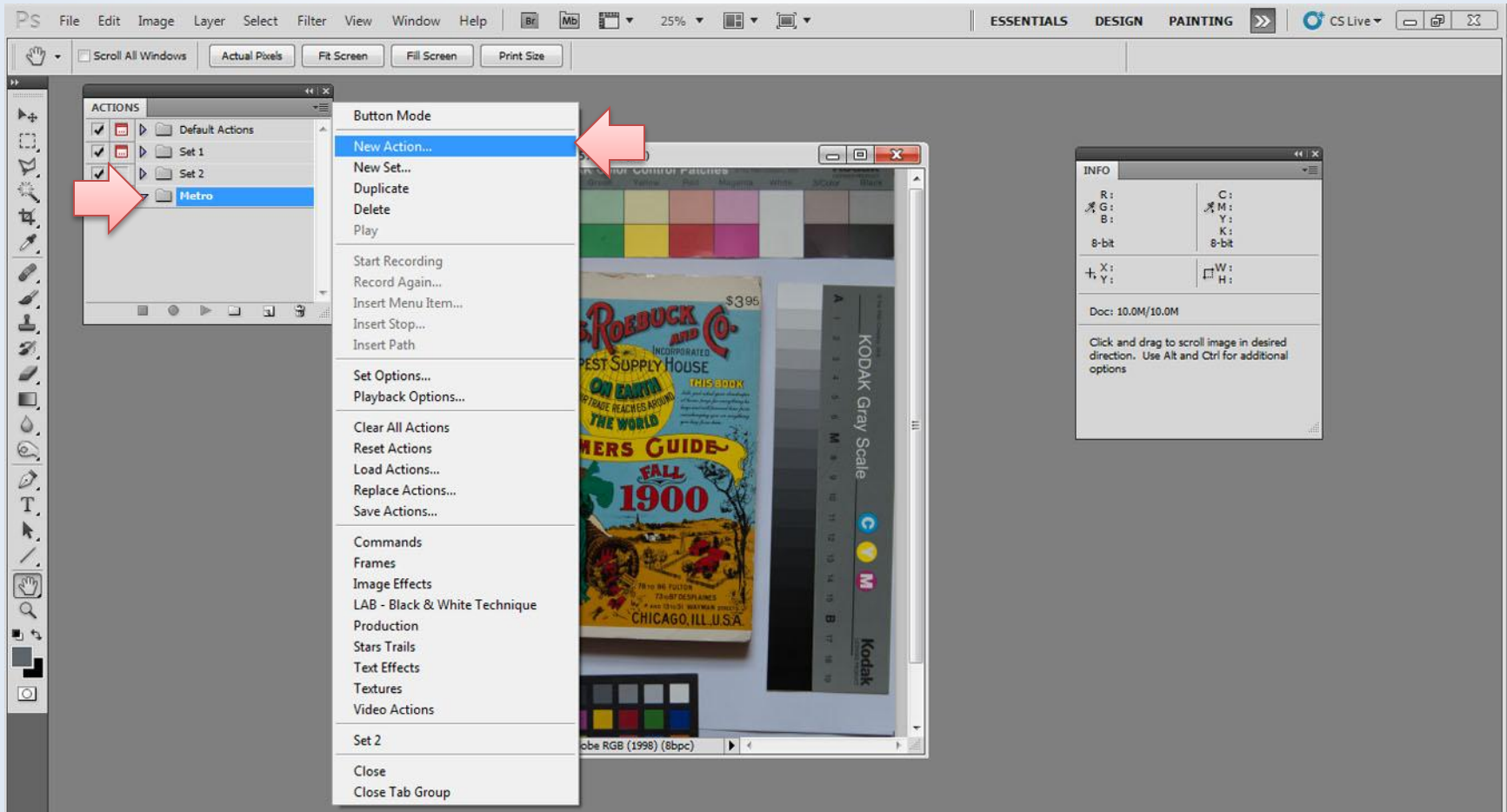# Save Derivatives

- Jpeg
  - Convert to sRGB
  - Cropped
  - Sizes/Fit
    - Print
      - High spatial resolution
      - 150-300 ppi
    - Web
      - Jpeg
      - Sized to application
      - 72 ppi
    - Presentations
      - Jpeg
      - 8.5x11" x 150ppi = 1275x1650px
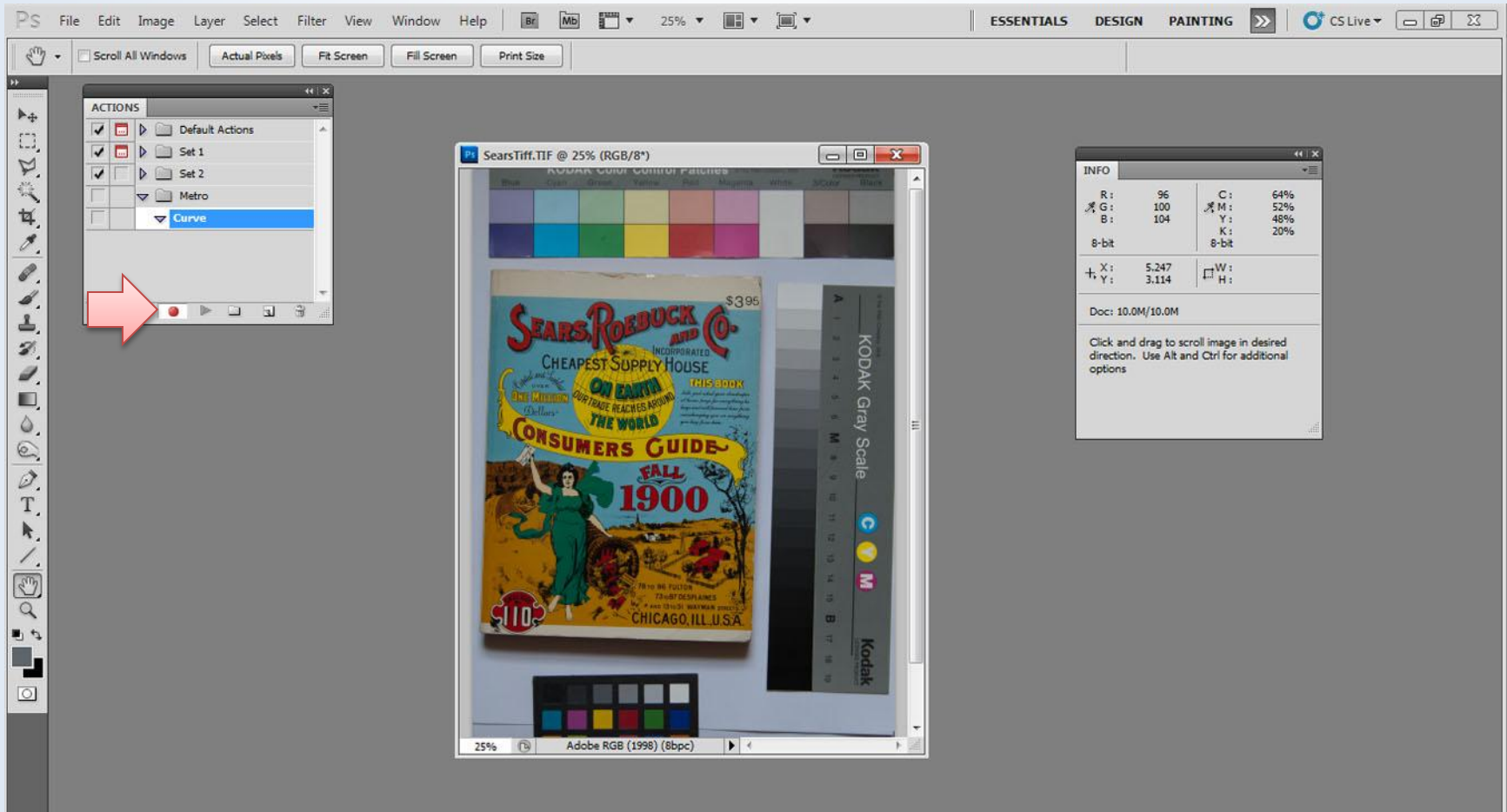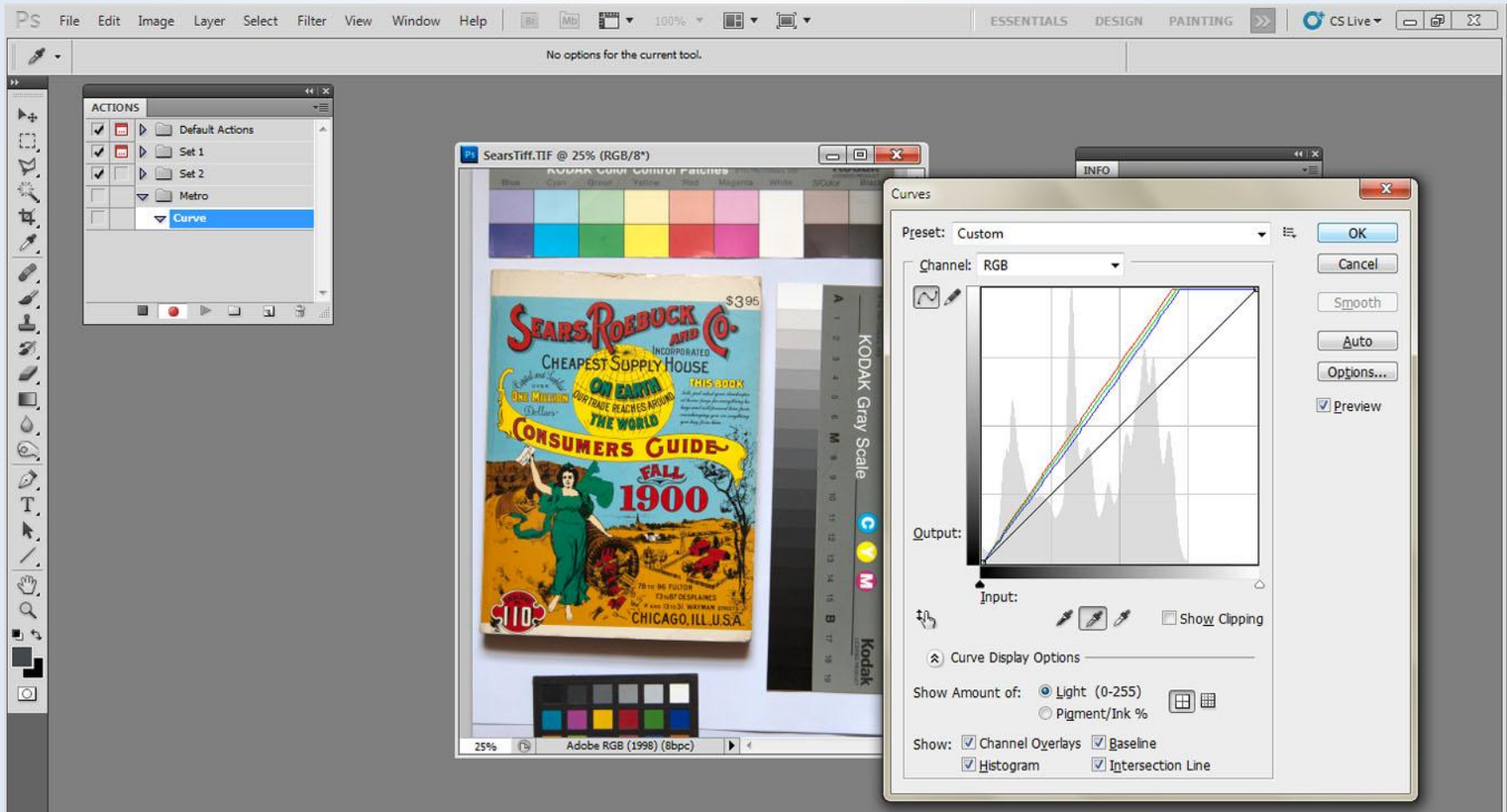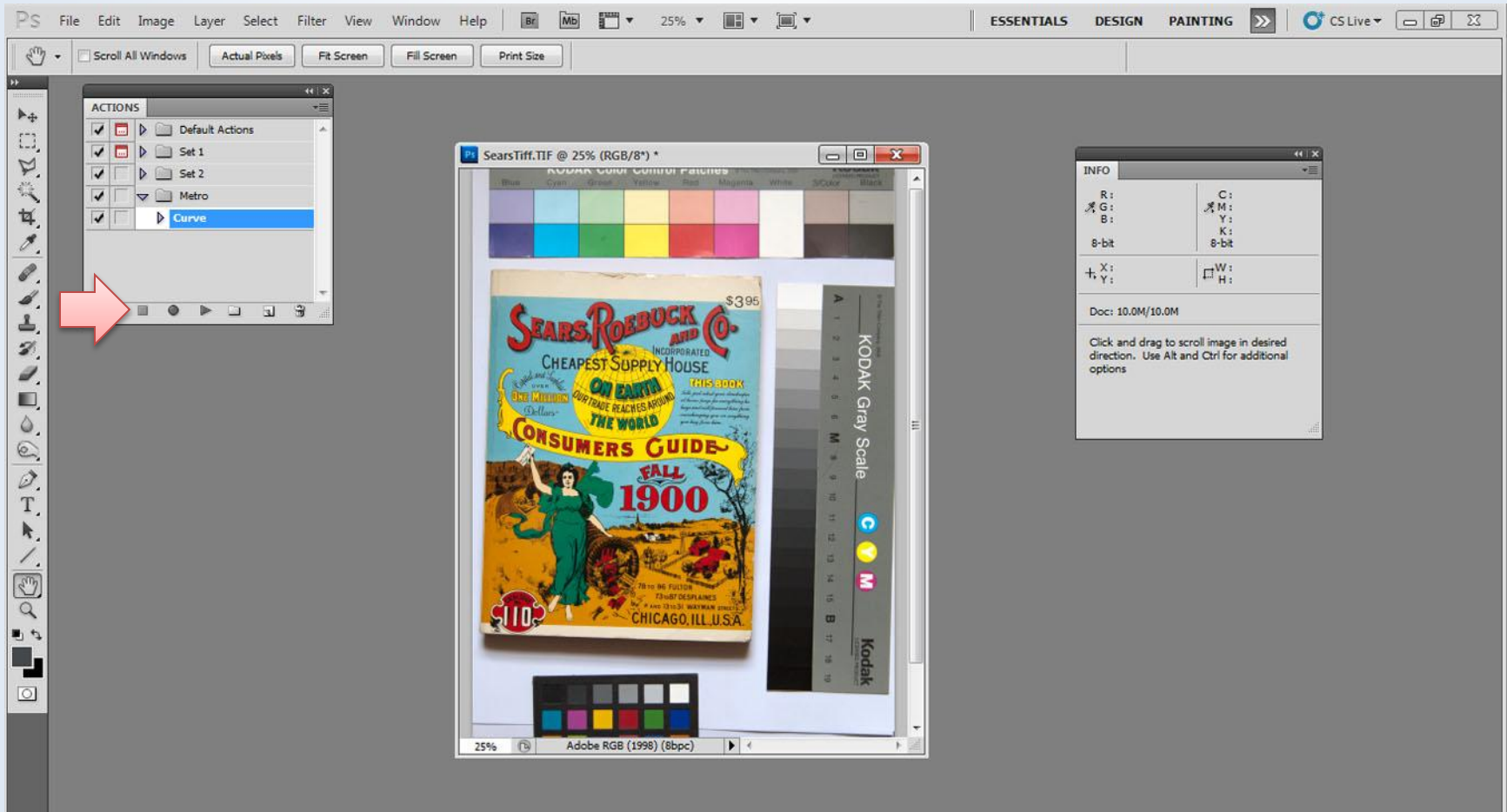   - 150 ppi
      - PNG and GIF maintain transparency
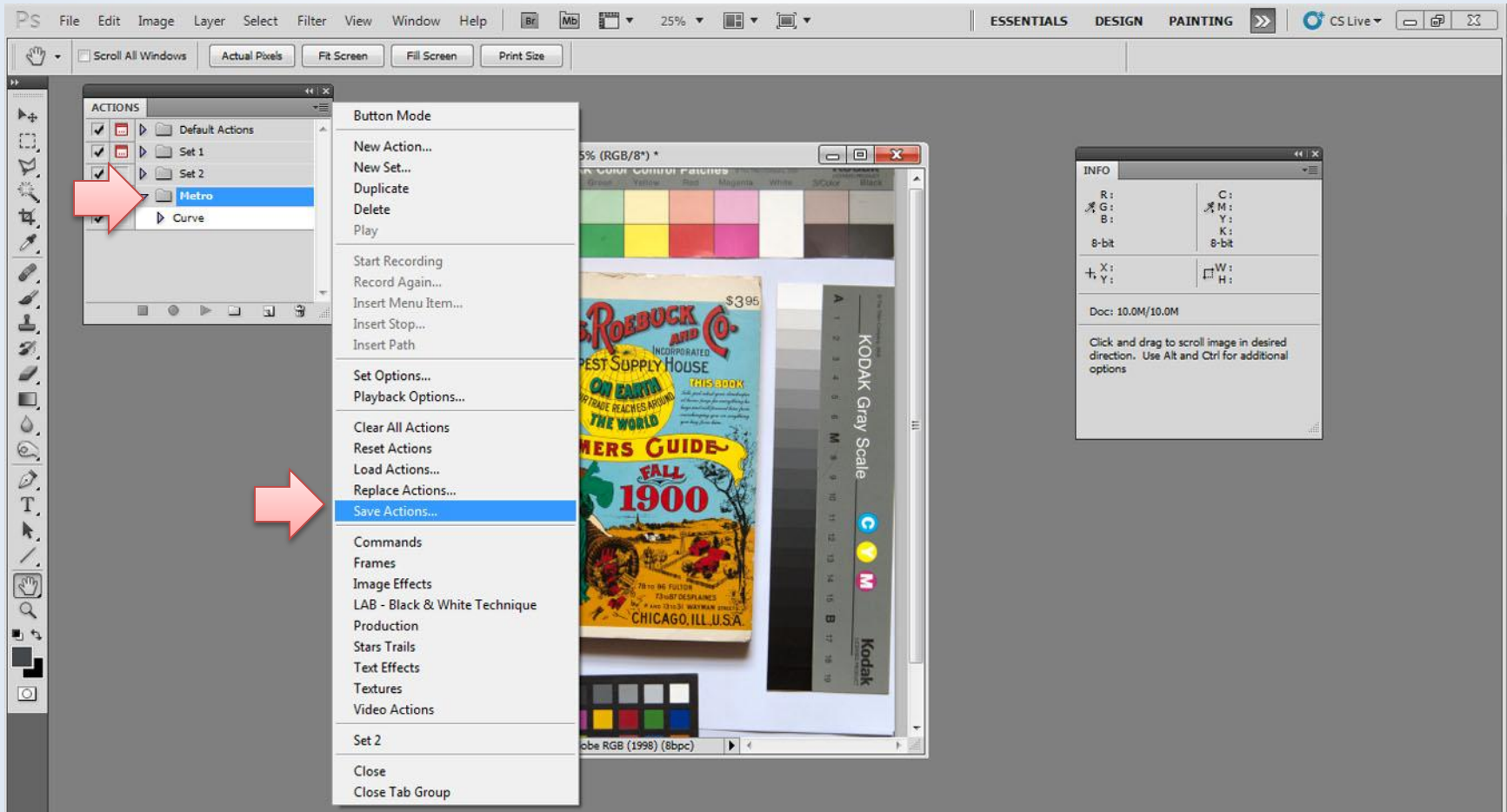
Automation
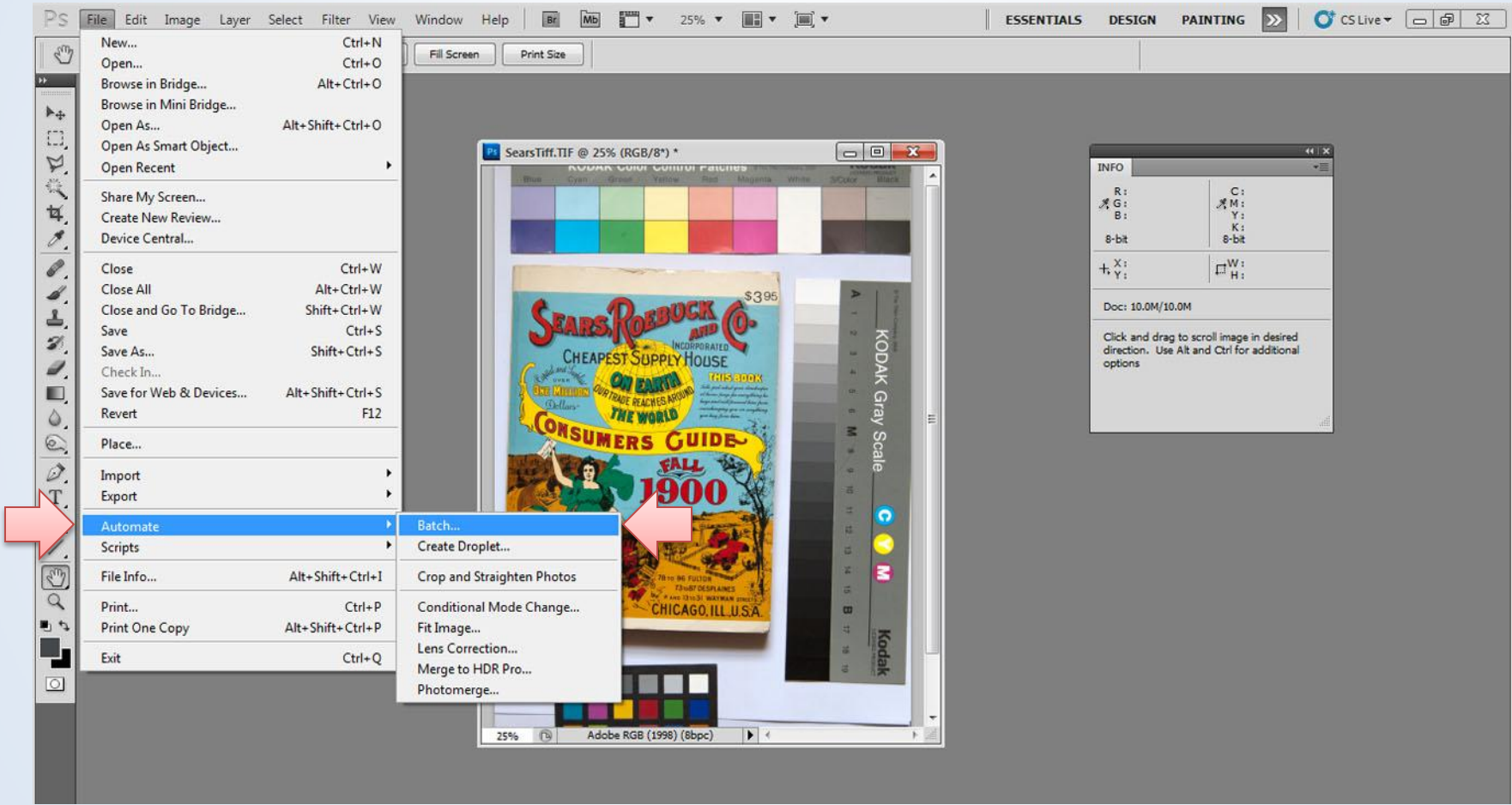
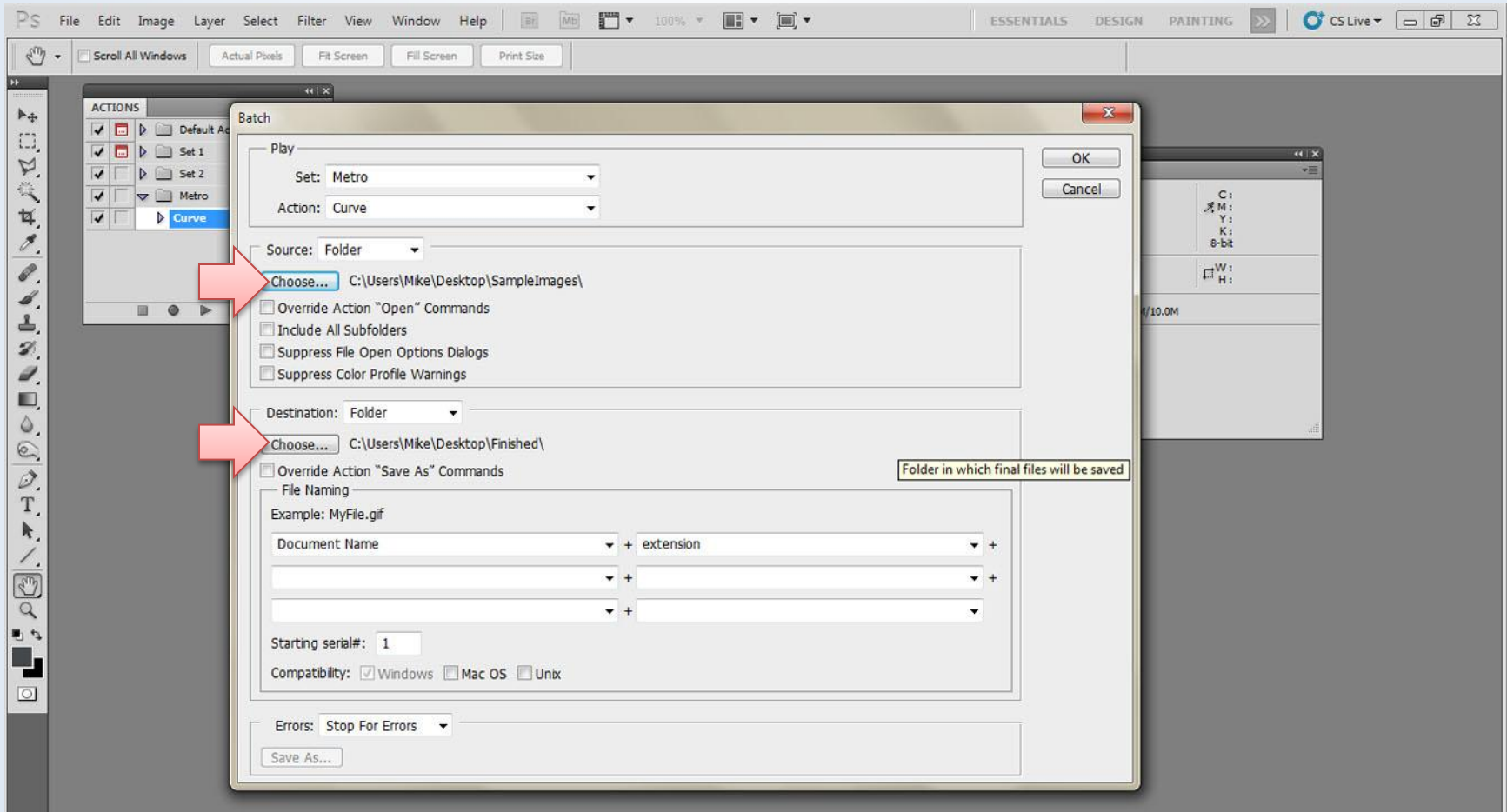# New Action

Recording

Curve
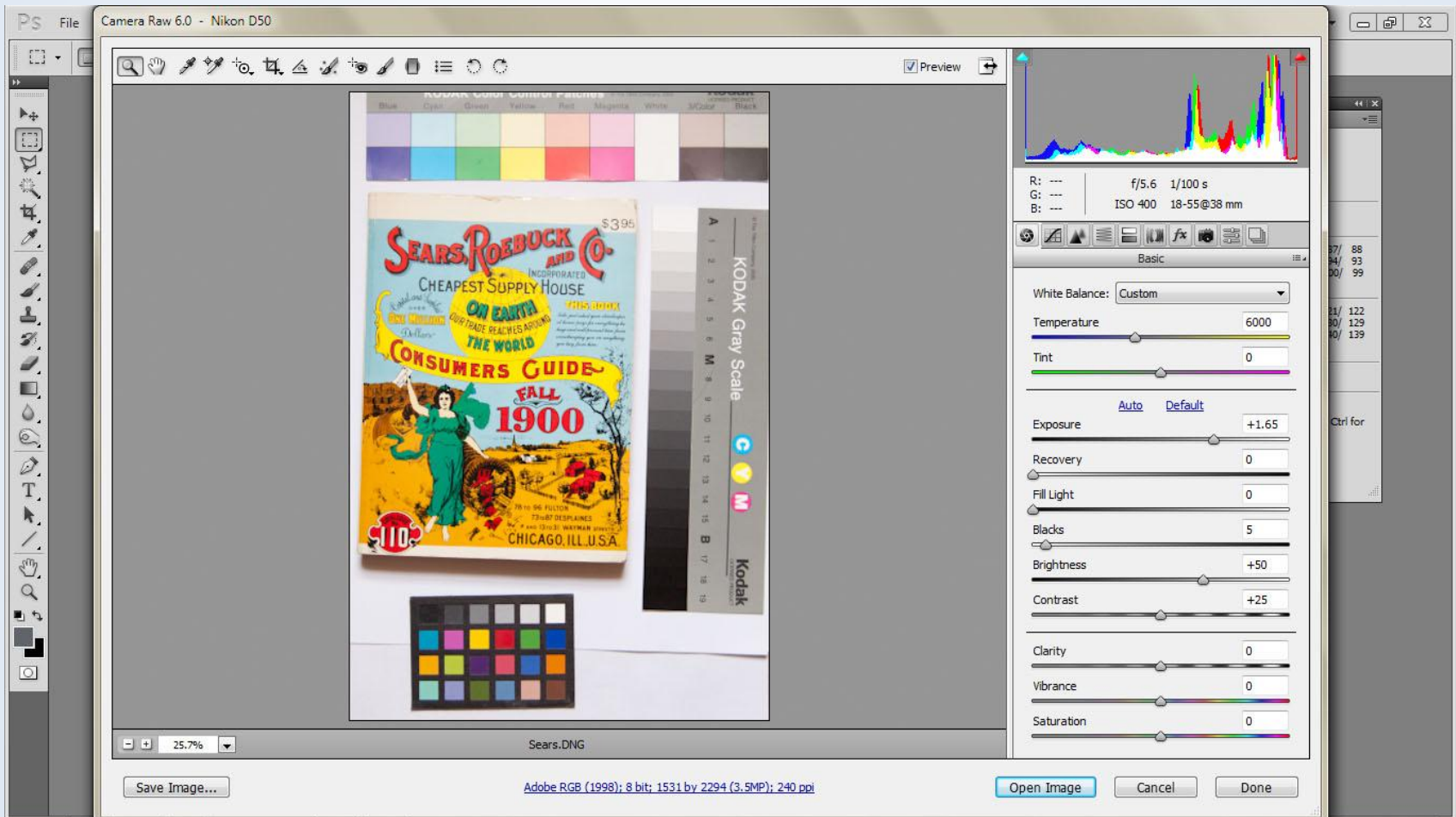
Stop Recording

Save Set
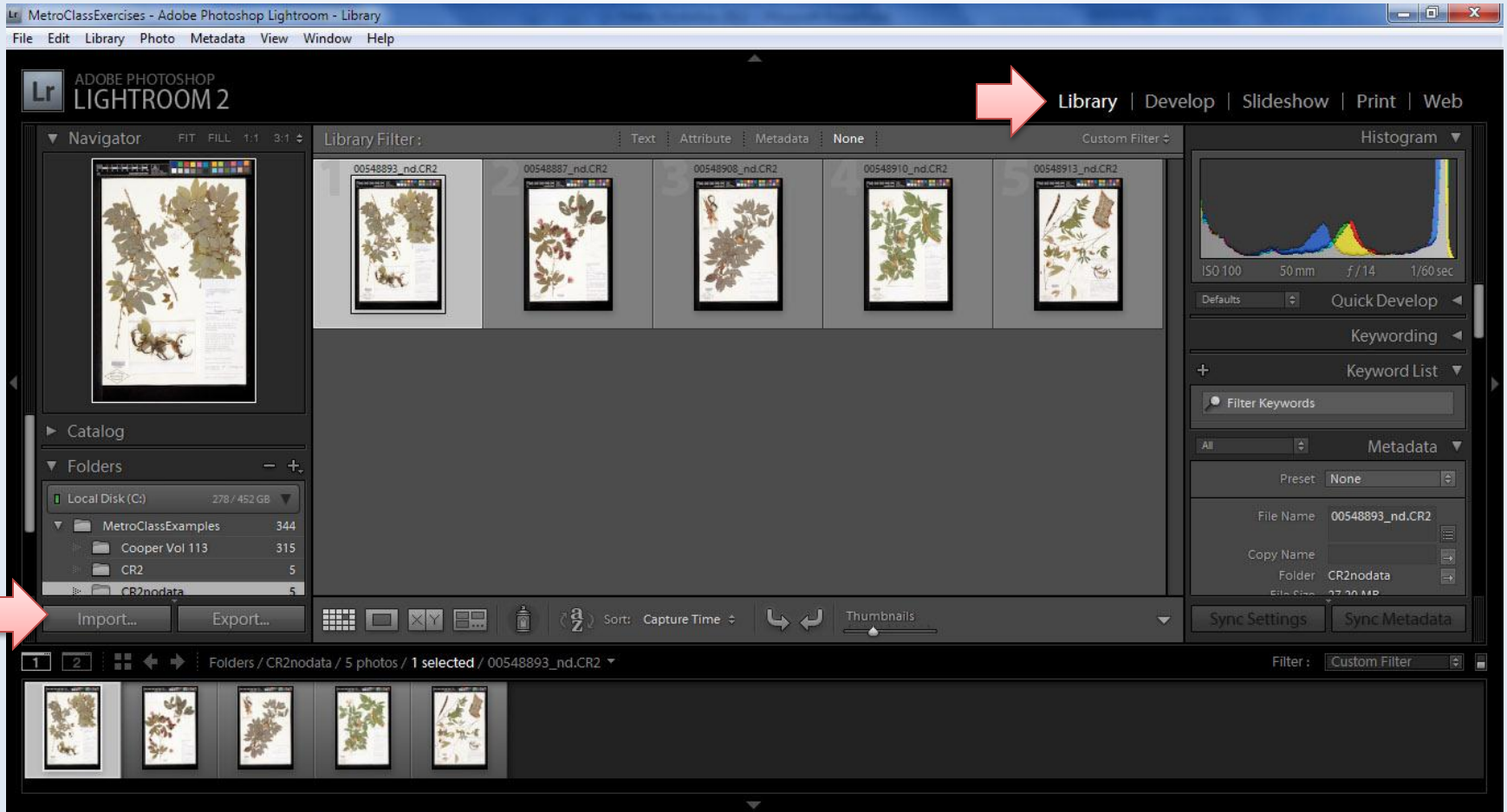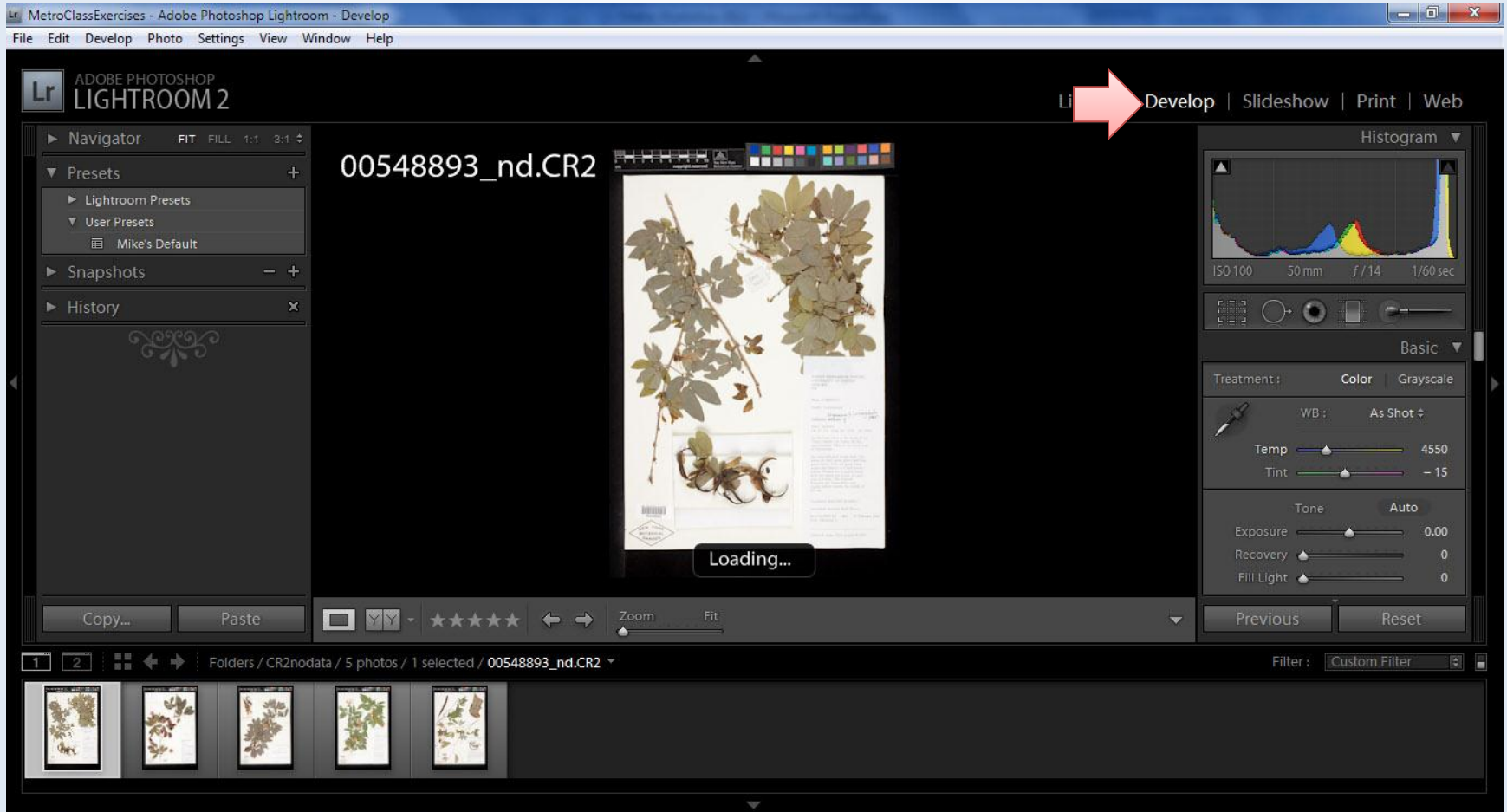
Automate

Batch

Camera Raw

Lightroom

- Lightroom is a parametric image editor
  - "Non-destructive edits"
  - Edits stored as metadata, applied to exported images, not originals
- For in depth tutorial, visit: http://digitalphotorepro.blogspot.com/2012/02/nybg-herbarium-image-editing-workflow.html

Library

Develop

White Balance

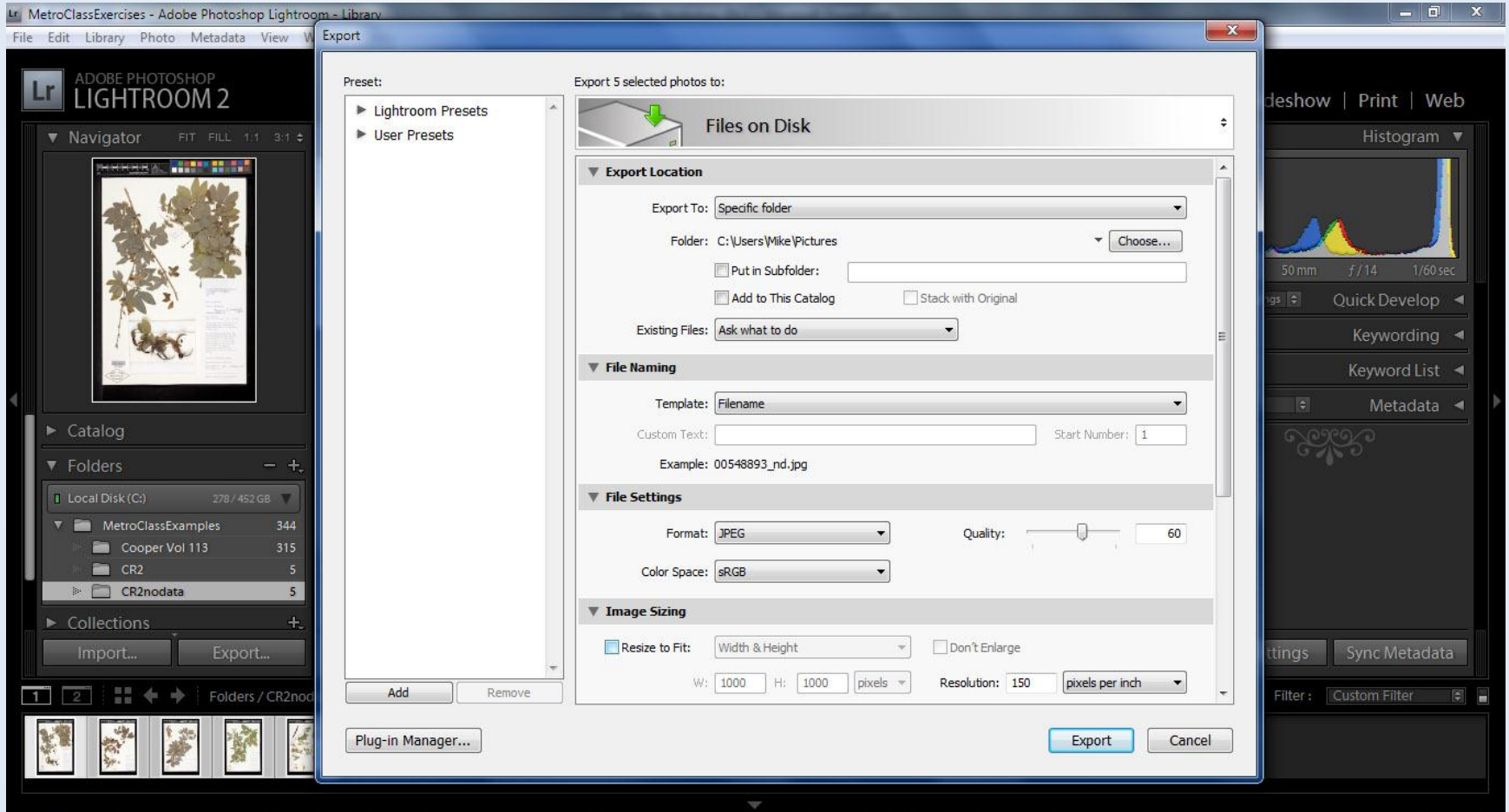# Tone Curve

Exposure Warning

Sync

Super selected

- In Lightroom it is possible to select multiple images at a time

- The image with the lightest border is "super-selected"
  - This is the image whose properties are being synced

Export

Job Seekers

- The New York Metropolitan Library Council
  - http://metro.org/jobs/
- The New York Foundation for the Arts
  - www.nyfa.org
- The American Library Association
  - http://joblist.ala.org
- The Society of American Archivists
  - http://www2.archivists.org/careers