**Image Capture with Canon EOS Utility**

and Image Process with Camera Raw 6.3

for Canon 5D Mark II

**Need:**
1. Sony laptop and camera already setup.
2. Digital grey card (20 x 24 inches)
3. AIC PhD Target, medium size and slip-in labels

**I. Position Object for Overall View**
1. Position the object in the center of the digital grey card with long side of the object parallel to the long side of the card. Place the AIC PhD Target along the bottom side of the arrangement with the neutral squares next to the object. See the illustrations below.
2. Insert printed labels in the slip-in section on the PhD Target. The labels can be typed, printed out, and cut to size in advance. In the database for this project, there is a report form for the label. Print out the label the day you are doing the documentation.

![Landscape style daguerreotype](image1)

![Portrait style daguerreotype](image2)

3. Click the **Live view shoot...** on the EOS panel. “Remote Live View window” will appear. (see the illustration on the right below) Select “Live mode” under “Focus”.

![Remote Live View window](image3)
4. **Rotate the image** to be the same orientation as you see in front of you.

5. **Framing**: fill the frame with the view of the object and the PhD Target by doing the following steps. Avoid shadow on the PhD target.
   a) Center the object in the frame.
   b) Click the “On” button under Focus to bring the object into focused view.
   c) Change the column height to zoom in and out
   d) Repeat all these 3 steps until the object just fills the frame and is centered.
   
   *Tip*: select the grid to assist the alignment.

**II. White Balance**

1. Click “On” under the **Live mode** for quick auto-focus (if this was not done in the previous step). See the illustration below.

2. Click the eye dropper ( ) under WhiteBalance. See illustration below. If the “Personal white balance settings” appears, just click OK.

3. Place the eye dropper to the lightest grey on PhD target to white balance. Make sure the “applying to shot images” box is checked after you do the white balance.
III. **Focusing**

1. Click eye dropper to deselect (it changes from blue to white), so you can move the focus square to the appropriate spot. Select the area with clear details.

2. Double click on the area to be enlarged. Or Click the enlarge icon (🔍) to zoom in to 100%. This icon is the first one on the right under the window.

3. Click the “ON” button after the enlarged image is shown for auto-focus by the camera. If the green square appears, the auto-focus is complete. **Note:** If red square appears, the camera cannot perform auto-focus. Perform the following steps.
   - Find a different spot in the image to do auto-focus
   - Use manual focus (not recommended)
   - Use the <, <<, <<<, >, >>, >>> arrows to find the focus

4. The cover glass can get in the way with the lens’s capacity to find the daguerreotype’s surface to focus. So after auto-focus, it is always a good practice to adjust the focus manually by using the fine adjustment arrows(> and < ) to get the best focus.
IV. **Quickly click shutter button to take the picture**

![Shutter button image](image1.png)

V. **Check Image Quality**

1. Close both the “Remote Live view” window and the “Zoom View” window.
2. Wait until the thumbnail image shown on Bridge. Then rotate it to the correct view of the daguerreotype using the rotation button on the top right.

![Bridge interface](image2.png)

3. Double click the image. It will automatically open in the Adobe Photoshop “Camera RAW” window, which should appear as shown below:

![Camera RAW window](image3.png)

4. Check framing, if the image is not centered or has too much background, adjust the framing and take the picture again.
5. If the framing is perfect, check focus. Enlarge image to 100% using the image size control on the lower left (see illustration below) and use the Hand Tool to move the image from one area to another to check the focus. If not well-focused, focus again and retake the picture.

6. If the focus is fine. Bring the image back to “fit in View.”

VI. Image Processing:
Still at the Camera Raw window, check the following:
1. **Black, Contrast, and Brightness:** Zero out all adjustments. See the illustration on the left.
2. **Tone curve:** Click the tone curve icon (circled in the image on the right). Select Point and then “Linear” curve.

3. **Exposure:** click the eye dropper at every neutral patch. Move the exposure slider until the RGB values of the lightest grey (second from the top) is either 200 or 199. You can also enlarge the neutral patches to place the eye droppers. See the second illustration on this page. To enlarge an area, simply click the enlarge icon and then select the area by holding the left click button on the mouse.
Once the lightest grey has the 200 or 199 RGB value, check the exposure adjustment number. If the exposure adjustment is more than 0.66 (in both + and - directions), increase or decrease the exposure and take the picture again. Use the adjusted number to determine how much more (or less) exposure is needed. Every 0.33 adjustment is a 1/3 stop difference in exposure. It is necessary to focus again if you have to take the picture again.

VII. **Save Image**
1. Once the image is acceptable, click “Save image” on the lower left corner of the Camera Raw window.

2. The “Save Options” window will appear.
   - Select the folder where the image should be saved.
Type the correct name, such as 22474_a_n1

**Note: method of file naming**

- The first 5 digits is the accession number
- “a” is before exhibition; or “b” for during exhibition; and “d” for after exhibition
- “n” is for normal illumination; “s” is for specular illumination.
- within the “n” category, n1 is overall front; n2 is overall back; n3 is plate only correct view; n4 is plate only side view

Choose **Digital Negative** as the new format
Choose “embed Original Raw File”
Click Save

3. A new file with extension .dng will show in Bridge.

**VIII. Save metadata**

1. Record necessary information on the “Metadata fill-in sheet”.
   - Record **Column height** before the column is moved up or down for the next picture!!
   - Record any changes to the exposure time (shutter speed).

2. Copy all the information and paste to the the following location in the metadata column
   - **Description** field under **IPTC Core** category (see circled areas in the illustration above)—See next illustration on the next page.
3. Click the thumbnail in Bridge. The following window will appear. Click Apply to save the added metadata.

4. All the raw files (with .CR2 extension) can be deleted at the end of each photography session.
**Photography Sequence**

For each daguerreotype, 5 pictures will be taken.

1. Overall front normal illumination, n1
2. Overall back normal illumination, n2
3. Plate only normal illumination, correct view, n3
4. Plate only normal illumination, side view, n4
5. Plate only specular illumination, correct view, s

The work flow of taking these 5 pictures can be organized in a way to minimize the up and down of the Keiser column, minimize the handling of the object, and minimize the change for setup between normal illumination and specular illumination.

It is preferable to start with n2, then n1, so there is no column adjustment and the object will be turned to face up only once.

Then, zoom in the column for the plate only. Do side view first and then correct view. The column might have to be adjusted for these two pictures. Fill the frame with the plate as much as possible regardless of which view.

With the plate in correct view orientation, change the lighting to specular illumination. **Remember to tape down the grey card so the n3 and 3 pictures have the same framing.**

For the next daguerreotype, start with specular illumination (s), then plate only correct view (n3), plate only side view (n4), overall front (n1), and overall back (n2) respectively.

For the next daguerretype, reverse the order.

The following is a quick view of the sequence.

\[ n2 \rightarrow n1 \rightarrow n4 \rightarrow n3 \text{ (tape the grey card)} \rightarrow s \rightarrow (\text{next object}) s \text{ (tape the grey card)} \rightarrow n3 \rightarrow n4 \rightarrow n1 \rightarrow n2 \rightarrow (\text{next object}) n2 \rightarrow n1 \rightarrow n4 \rightarrow n3 \text{ (tape the grey card)} \rightarrow s \rightarrow (\text{next object}) s \text{ (tape the grey card)} \rightarrow n3 \rightarrow n4 \rightarrow n1 \rightarrow n2 \rightarrow (\text{next object}) n2 \ldots \ldots \]