

## Section 6—Raking Illumination

### Digital Imaging Workflow for Treatment Documentation

Conservation Division, Preservation Directorate, Library of Congress

#### RAKING ILLUMINATION

## Section 6—Raking Illumination



Figure 6.01



Figure 6.02

## Section 6—Raking Illumination

### Capture

#### Preliminary

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Image capture under raking light illumination is similar to normal illumination. Follow the instructions for normal illumination capture (Section 2) with the modifications below.

#### Set Up

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1. Illuminate with only one light.
2. Lower the light: turn the crank on the stand until the bottom of the collar is at 22”.

NOTE: The lamp should be positioned higher for objects with pronounced planar distortions to reduce deep shadows that obscure detail. Make a note of the height of the light to replicate the setup for during and after treatment capture.

NOTE: Never change the angle of the lights!

3. Use the black handles on the stand to move the light to the 78” mark on the floor (fig. 6.01).
4. According to AIC Guidelines, **the light must come from the top or left of the image as it is normally viewed**, so position your object on the copy stand accordingly.
5. Position the color target adjacent to the object with the gray patches positioned closest to the object. The light direction indicator (gnomon) on the target should be placed midway in the image frame (fig. 6.02).

## Section 6—Raking Illumination

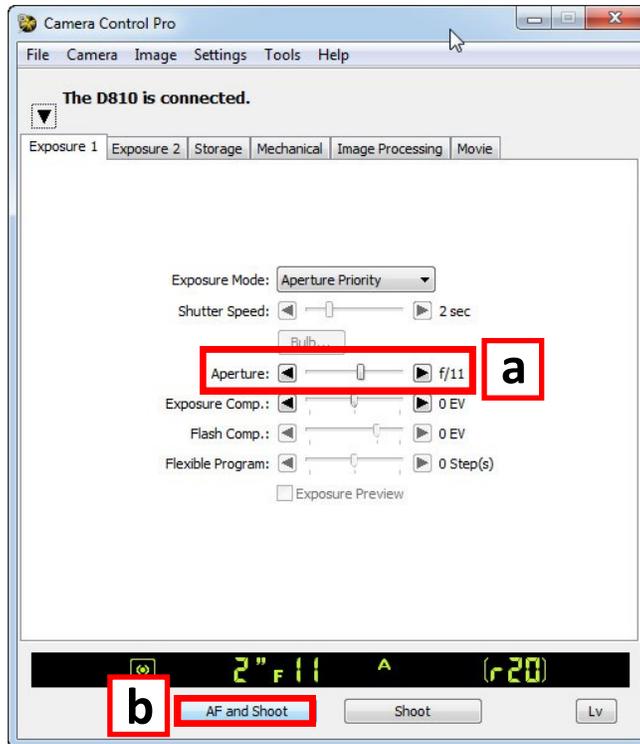


Figure 6.03

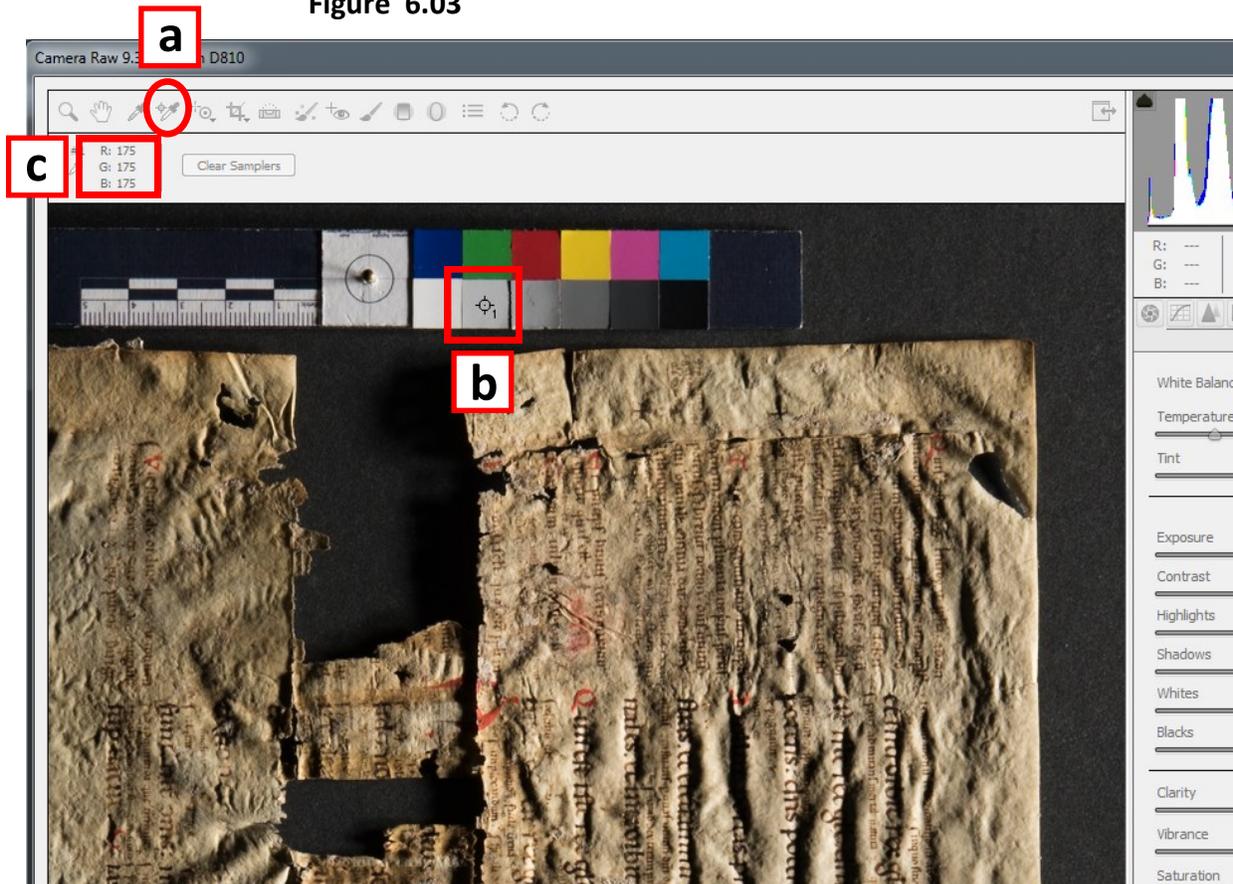


Figure 6.04

## Section 6—Raking Illumination

### Image Capture

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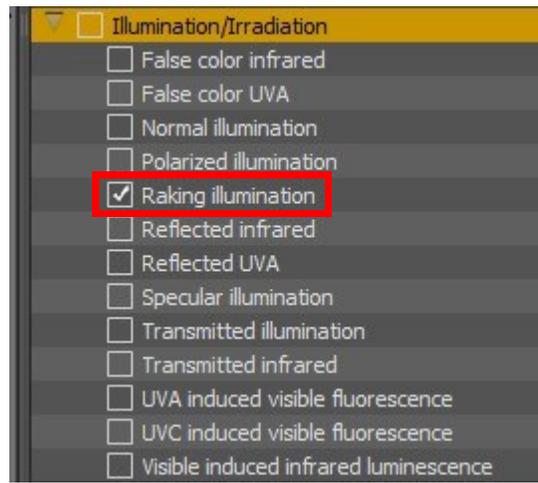
1. In **Camera Control Pro** under the *Exposure 1* tab, select the following (fig. 6.03):
  - Exposure Mode: Aperture Priority
  - Aperture: f/11
  - Exposure Comp.: 0
2. If the object contains significant planar distortion, select a higher f-stop to increase depth of field (fig. 6.03a).
3. Settings under the *Exposure 2* (including auto white balance), *Storage*, and *Image Processing* tabs are the same as with normal illumination (page 2.13).
4. Press *AF and Shoot* (fig. 6.03b).

### Preview Images

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1. In **Bridge**, open the image in **Camera Raw**.
2. Select the *Color Sampler Tool* (fig. 6.04a) and click on the lightest gray patch on the color target (fig. 6.04b).
3. Exposure level is based on what best illustrates the feature(s) you wish to highlight in raking illumination. Make note of the RGB values (fig. 6.04c) of the lightest gray patch of the color target to replicate for during and after treatment capture. If necessary, adjust *Exposure Comp.* in the *Exposure 1* tab of **Camera Control Pro** and reshoot. Reevaluate in **Camera Raw**.
4. Click *Done* in **Camera Raw** to accept changes.

## Section 6—Raking Illumination



**Figure 6.05**

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### Finish

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Finish the photography session as done with normal illumination (Section 2). In addition, reposition the light at the 66” mark on the floor, with the top of collar at 52”.

### Metadata

Add metadata as you would for normal illumination except when applying *Keywords* (Section 3). Select *Raking illumination* under Illumination/Irradiation (fig. 6.05).

### Image Processing

#### Adjust Image Files

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1. In **Bridge**, open the image in **Camera Raw**.
2. White balance, sharpening, straightening, cropping and confirming workflow procedures are the same as with normal illumination images (Section 4).
3. Click *Done* to save your adjustments.

#### Rename and Save

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Follow the instructions in Section 4 for renaming and to create .dng archive files and .tiff derivative files.