

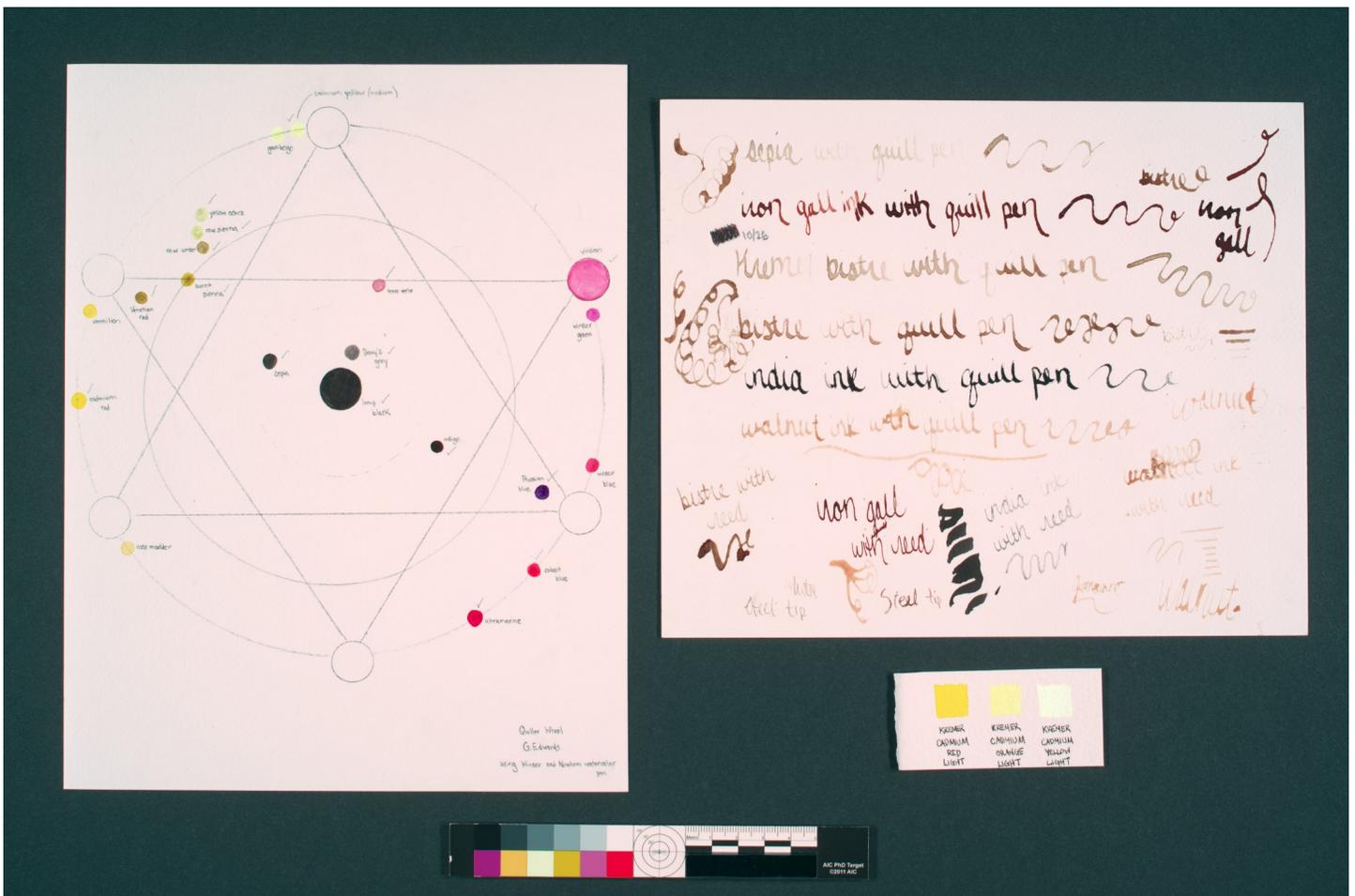
Section 19—False Color Infrared

Digital Imaging Workflow for Treatment Documentation

Conservation Division, Preservation Directorate, Library of Congress

FALSE COLOR INFRARED (MODIFIED CAMERA)

FCIR is a processing technique that combines channels from two images captured with the modified camera: visible and reflected infrared, resulting in one false color image.



False color infrared photograph

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Figure 19.01

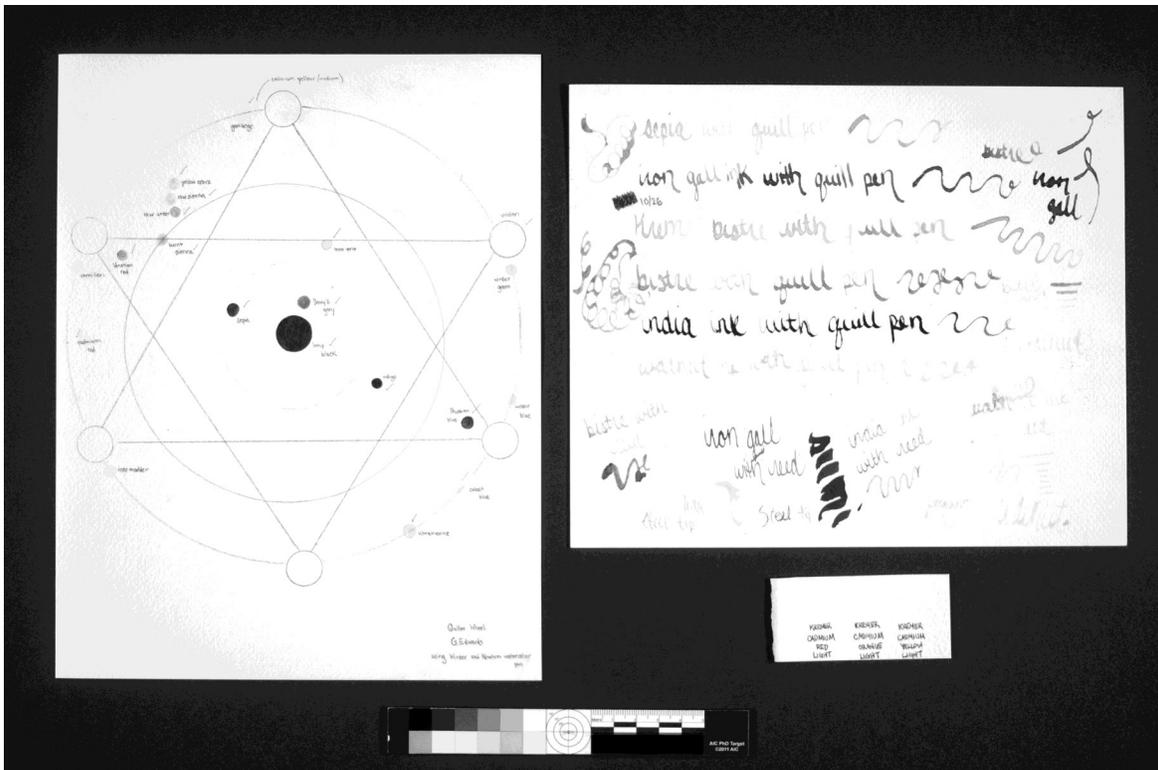


Figure 19.02

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Capture

Image Capture

If not already done:

1. Using the modified camera with the CostalOpt lens, capture and process a visible illumination image (fig. 19.01) following instructions in Section 14. Do not crop or straighten the image.
2. **Without moving the camera position or object position**, capture and process a reflected infrared image (fig. 19.02) following instructions in Section 15. Do not crop or straighten the image.

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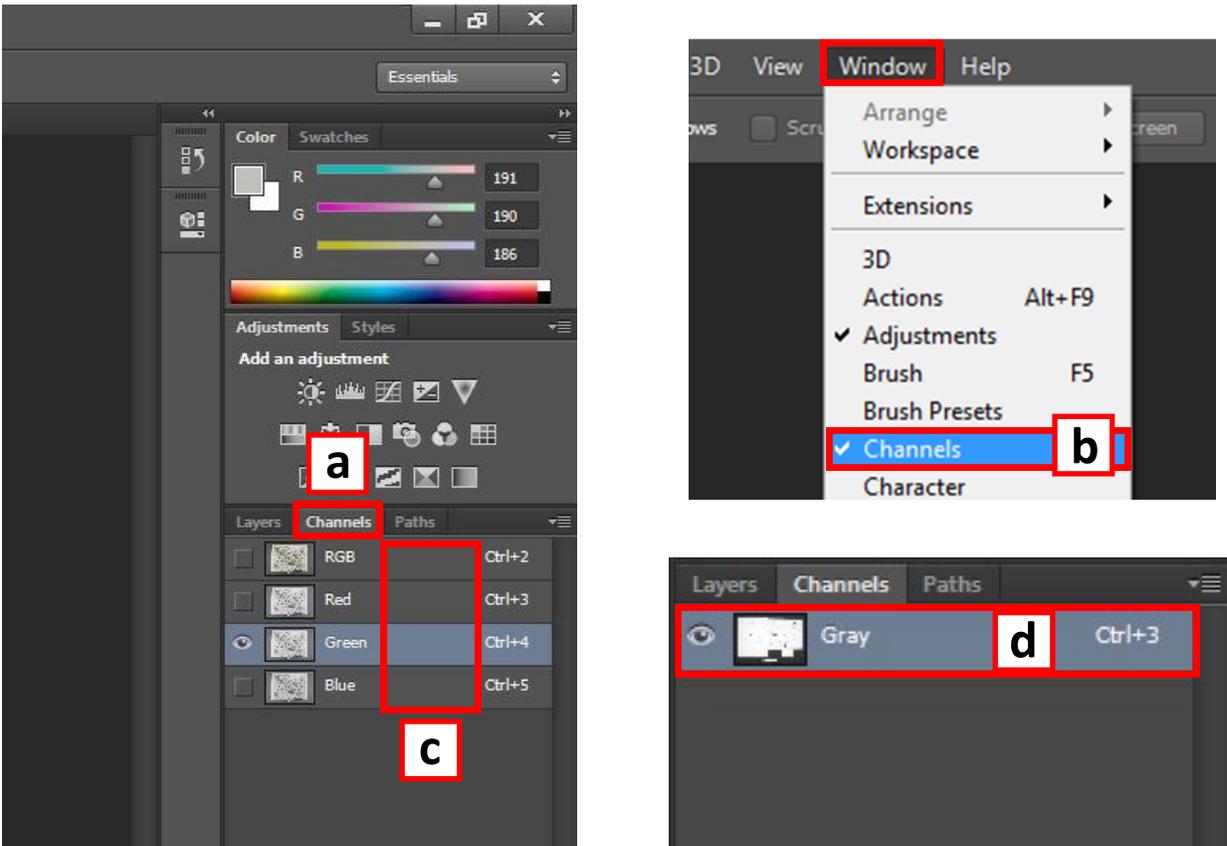


Figure 19.03

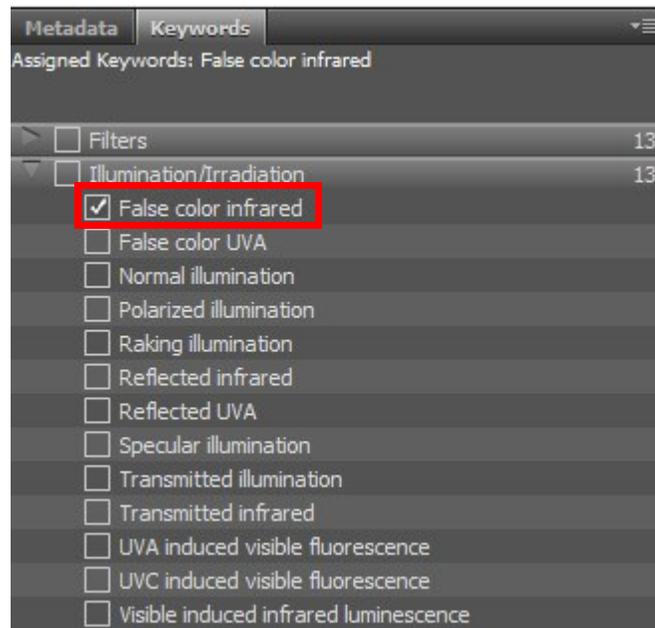


Figure 19.04

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Image Processing

Create the FCIR Image File

1. Open both the reflected infrared and visible illumination .tif files in **Photoshop**. If the *Channels* tab is not already displayed in a right panel (fig. 19.03a), select *Window > Channels* (fig. 19.03b).
2. Select the visible illumination image file. When selecting a channel, make sure to click in the middle of the channel bar (fig. 19.03c). In the *Channels* window:
 - i. Click on the *Green* channel. Click *Ctrl A* then *Ctrl C*.
 - ii. Click on the *Blue* channel. Click *Ctrl V*.
 - iii. Click on the *Red* channel. Click *Ctrl A* then *Ctrl C*.
 - iv. Click on the *Green* channel. Click *Ctrl V*.
3. Select the reflected infrared image file. In the *Channels* window:
 - i. Click on the *Gray* channel (fig. 19.03d). Click *Ctrl A* then *Ctrl C*.
4. Return to the visible illumination image. In the *Channels* window:
 - i. Click on the *Red* channel. Click *Ctrl V*.
4. Click on *RGB* in the *Channels* window to see the final FCIR image.
5. Save the final FCIR image as a new .tif file, following the naming protocol in Section 4.
6. Close the other images without saving the changes that were made to create the FCIR file.

Metadata

Add metadata as you would for normal illumination except when applying *Keywords* (Section 3). Choose *False color infrared* under *Illumination/Irradiation* (fig.19.04). No filters should be selected.