PAUL**MESSIER**
Conservation of Photographs & Works on Paper
www.paulmessier.com

UVA and UVC induced-visible fluorescence Photography

The space for UV photography has to be dark and very little light leak after the overhead light turns off.

Suggested Work flow

1. Wear protection gear!!!

2. **Log in Photographic Record sheet**

    1) Date

    2) Conservator

    3) Object number

    4) Code letter—(to develop your own method)

        i. a—before treatment

        ii. b—during treatment (after plate package is removed from housing)

        iii. c—during treatment (after plate package is assembled)

        iv. d—after treatment

        v. uva—uva-induced visible fluorescence

        vi. uvc—uvc-induced visible fluorescence

    5) Subject matter—a description of the picture, such as front and back

3. **Setup UV lamps, camera, and a non-fluorescent work space**

    1) Position the lams and camera (see setup diagram).

        i. Record distance and angle, or make a diagram on Photographic Record sheet. (Can be done at the end of each illumination mode.)

    2) Add filter(s) and lens hood.

    3) Remove or cover materials that will fluoresce/glow

    4) Setting background

i. Completely non-fluorescent: such as black cloth

ii. Slightly fluorescent: to show contrast against the low fluorescence objects—such as non-fluorescent mat board, preferably matte surface

4. (Not available yet) White balance with UV grey card—turn on UV lamps and turn off overhead light, save white balance setting, turn on overhead light, turn off UV.

5. **Turn the UV lamps on**

   1) Give the UV lamps time to stabilize the output

   2) Cover the lamps or move away from object and people

6. **Setup camera/computer control**

   1) Turn on camera

   2) Open camera control software on the computer

   3) When the lamps is stabilizing, set camera capture setting (steps can vary from one camera to another)

      i. Download option

      ii. File naming

      iii. File type

      iv. Image process—color space, dynamic range

   4) Exposure setting (steps can vary from one camera to another)

      i. Focus mode

      ii. ISO: 200

      iii. White balance: shade (if no UV grey card)

      iv. Choose f-stop: recommend f8 to start

      v. Use Aperture-priority

      vi. Choose f-stop: recommend f8 to start

7. Focus

1) Position the daguerreotype and the UV reference card
2) Turn on camera live view with overhead light on
3) Fill the frame as much possible
4) Auto-focus
5) Switch the focus to M (switch is on the lens) to lock the focus
6) Turn off the overhead light. Remove the UV lamp cover or position UV lamps to face object

8. Capturing the Image

1) Position the mouse to "shot"
2) Cover the monitor
3) Click the mouse to take the picture

9. Evaluate the image

1) Remove the monitor cover
2) Open the Image in PhotoShop
3) Check framing
4) Check focus—get to 100% view
5) Check exposure—check the image on the monitor and the fluorescence you see

10. Take the picture again if need more or less exposure

11. If the exposure and focus are good

1) Adjust the "color temperature" and "tint" to match the fluorescence color as much as you can
2) Record the adjustment on Photographic Record.
3) Save the image as RAW, TIFF, or DNG

12. Cover the UV lamps or remove the object.

13. Name the image file (can be done at the end of the photography session)

1) For instance, 11011a uva1 = object number 11011, before treatment, uva visible fluorescence example 1

14. Record all necessary data on Photographic Record before moving for next illumination/lighting mode