

Litho-Sphere 2015

SGCI Knoxville, TN

Hand Drawn Four Color Separation Lithography Using Century Plates or Packard Ball Grained Plates

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This is a simple method of producing hand drawn four-color separation lithographs using Century Plates and/or the new Packard Metal Products 'Paragon' ball grained plates. Other than the fact that Century Plates are thicker and may be used hundreds of times, the only difference between the two plates is that Century Plates require a stronger etch than do PMP 'Paragon' ball grained plates. For information about using just one Century Plate to draw and print all four prints, refer to the handout "Bio-Based Lithography on the Century Plate".

<http://cspoguegraphics.com>

<http://www.PackardMetalProducts.com>



Step 1: Separate the color channels in Photoshop CS6

- Begin with a color image, which may be a photograph, watercolor, ink drawing, colored pencil drawing, etc. Scan the image and save it to your hard drive.
- Open your source image in Photoshop and convert it to CMYK color using *Image > Mode > CMYK Color*.
- Crop your image using the Crop tool. Next, resize the image to its final print size by selecting *Image > Image Size...* (or Alt+Ctrl+I). Make sure that "Constrain Proportions" and "Resample Image" are checked, then set your Document Size in inches.
- Select the Channels panel (if you don't see it go to *Window > Channels*). All the channels will be selected. Click on the Cyan layer to isolate it. The image will become greyscale. Darker areas indicate a greater concentration of cyan in those areas.
- Select the entire image using *Select > All* (or Ctrl+A), then copy it using *Edit > Copy* (or Ctrl+C). This will copy only the Cyan layer to the clipboard.
- Create a new image using *File > New...* (or Ctrl+N). The new image will be the same size as the original, and will be in Grayscale mode by default. Name it something like yourImageNameCyan and click OK.

-Paste the Cyan layer to this new image using *Edit > Paste* (or ctrl+V), then save it as a .PSD using *File > Save* (or ctrl+S).

-Repeat this process, creating separate files for the Magenta, Yellow and Black channels.

Step 2: Print reference images on regular printer paper

-Using a laser or inkjet printer, print the first black and white file to scale on a sheet of regular printer paper using *File > Print* (or ctrl+P). In the Print dialog box, make sure that the "Scaled Print Size" is set to 100% and that Emulsion Down is checked under "Functions". This will ensure that your image is the right size and also mirror the image so your final print will be oriented properly.

-If you prefer, you can follow this same procedure to print the three other layers to scale. Alternately, you can print just the first file to size and then create another document combining the other three at a smaller size. These three may be printed on the same sheet of paper. This will work since only one printout is needed to register the image to the plate while the other three will be used solely for reference while drawing.

Step 3: Register and trace, then draw on the lithographic plate

-Register a properly scaled printout to your first plate. We prefer to use a pin registration system. Put a piece of red iron oxide paper under the printout and use a ballpoint pen to trace the main features of the image to the plate. Use the same printout to register the image to each of the other three plates. If using a single Century Plate you will trace each successive plate after printing and re-graining.

- We suggest drawing your red plate first. Use the Magenta printout as a reference, matching the values of your drawing to the values in the printout. You can use any traditional lithographic drawing material, including lithographic crayon, tusche, toner washes or Sharpie marker.

Step 4: Process and print

-Follow normal procedures for processing and printing your first plate. Repeat the drawing, processing and printing steps for each of the other plates. Make adjustments to your drawings as necessary based on the previous layers that have been printed.

-You have the option of using the traditional process colors of cyan, magenta, yellow and black, though we prefer using other varieties of blue, red, yellow and black. Feel free to experiment.



CYAN



MAGENTA



YELLOW



BLACK