

## **Waterless lithography**

### **Dan Hughes interviews Annie Day**

Annie Day and her sister Robin Ezra conduct safer printmaking workshops in Australia and overseas

*'With a little experience and thought you can make waterless lithography quite low toxic and get amazing results: tonal range, mark, immediacy, good predictability. And it holds the alchemic magic of stone litho. It is a wonderful process. Plus, this is an area about to see some real progress towards even less toxicity.'* Don Messec, Making Art Safely

### **How did you become interested in waterless lithography?**

At Warringah Printmakers Studio we began practising safer printmaking in 1997. Our committee at WPS explored Waterless Lithography a few years back and it struck a chord with me. Since then I have spent much time experimenting and sharing this knowledge in workshops.

### **Can you describe the waterless lithography method to a novice?**

Instead of the water used in traditional lithography, a fine silicone coating rejects the ink from non-image areas making it very easy to ink the plate. A waterless lithograph can be indistinguishable from a traditional lithograph and is safer and faster for the printmaker to produce.

Recycled aluminium offset plate from the printing industry is the substrate. The unused side of the plate is scoured with a cream cleanser which degreases and gives the plate 'tooth'. The image is applied with a variety of media such as Omnichrom pencil, permanent pens and gouache.

When the image is complete and the silicone mixture has been worked over the entire plate and buffed to a very fine coating, the plate is cured slowly by leaving it overnight or heated for a faster cure.

The next step is to remove the image from the plate to expose the bare metal, then roll up using a brayer (hard roller) with Gans or Van Son Rubber Base ink. Ink will adhere to the metal while the silicone keeps the ink off the non-image areas. An etching press is used for printing. The cured plate is very stable and capable of producing hundreds of prints.

### **Can you discuss the safety of the technique?**

Compared to traditional stone lithography which employs many potentially dangerous substances, including asphaltum, rosin and nitric acid. Waterless lithography using none of these materials is safer. However, during the waterless process two solvents are used sparingly: acetone for removing the image from the plate before inking and odourless solvent to dilute the silicone and render it spreadable. Although not the most toxic solvents, they both contain volatile organic compounds (VOCs) and should be used with care in a fume cupboard or with a respirator mask or outside, where the VOCs dissipate quickly. Rags and tissues are disposed of in an outside bin and hands protected with nitrile gloves. Once cured the waterless plate is free of VOCs. The Material Safety Data Sheets for printmaking products provide valuable safety advice. I also recommend looking at the Non Toxic Printmaking website for further information.

Acetone is required as a solvent if you have used a permanent pen or toner to make your image. It will not dissolve the silicone. The method works because the two solvents do not interfere with each other's processes.

Clean-up of rollers and surfaces is easily managed with cooking oil and finished with soapy water, cream cleanser or baby wipes.

### How do you go about teaching waterless lithography?

Robin and I work as a team, our classes are small and well supervised. Safer printmaking is the focus and the lesson plan reflects the number of days we have with the group. We start by making small plates with water soluble media to get the feel of the materials while learning how to apply the silicone successfully — too thick and it will clog the image, too thin and the ink will scum and be unprintable. Later we progress to larger plates, other media and multiple colour prints.

### Who invented it?

Nik Semenoff from Saskatchewan is the pioneer. He set out to create: *'A process that would eliminate some or all of the toxic materials now used by printmakers, with materials that are easily available and not too expensive. Anything that would simplify the processing of plates and produce long running clean images from direct hand drawn plates could become an important addition to the artist's lithographic process.'*

[www.annieday.com.au](http://www.annieday.com.au)

[www.abc.net.au/local/videos/2011/07/15/3270666.htm](http://www.abc.net.au/local/videos/2011/07/15/3270666.htm)

### For technical information and safety evaluations see:

Nontoxic Printmaking Website [www.nontoxicprint.com/stonelithography](http://www.nontoxicprint.com/stonelithography)

Nik Semenoff - New Directions in printmaking [www.ndiprintmaking.ca](http://www.ndiprintmaking.ca)

Not dying for their art [www.research.uky.edu/odyssey/fall00/printmaking.html](http://www.research.uky.edu/odyssey/fall00/printmaking.html)

Don Messec, Safer printmaking workshops [www.makingartsafely.com](http://www.makingartsafely.com)



Left to Right:

**Annie Day**, *In the Water Garden*, 6-plate waterless lithograph, 29.5 x 22.5 cm, for Warringah Printmakers / Newcastle Printmakers exchange exhibition *Marked by Water*.

**Annie Day**, *Proteas and Persimmons*, 2012, 8-plate waterless lithograph, 42 x 33 cm.

**Robin Ezra**, *The Great Horned Owl*, 2012, waterless lithograph, 30 x 20 cm.