



Introduction

Printmaking is undergoing significant changes. Printmakers are growing more aware of safety and environmental issues. It is no longer satisfactory to use hazardous materials to make prints, no matter how splendid the results. This has led to a search for safer, better methods and materials. Polyester plate lithography weds old and new technologies, and is one of the safer and more environmentally friendly printmaking techniques.

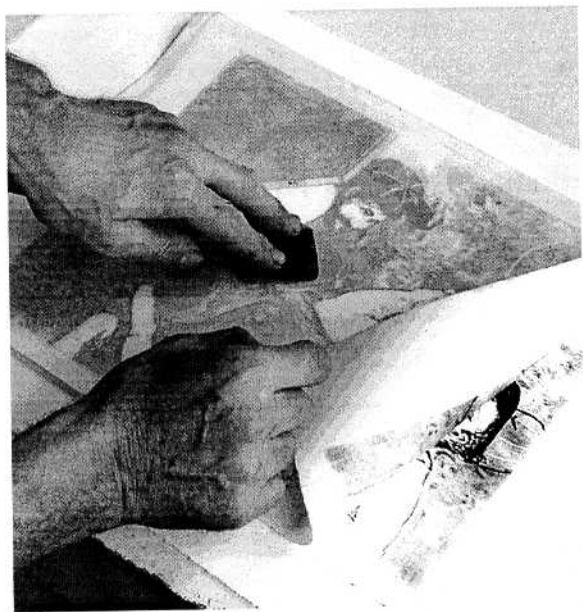
The author discovered polyester plates in 1997 while engaged in an Idaho State Board of Education Grant. He learned from the distributors that polyester plates were developed in India as inexpensive offset lithographs. They were designed for a copier which creates images by depositing and fusing toner to its surface. The plates are nearly paper thin with a textured surface much like a metal lithographic plate. They are nonporous and water-loving, printing any imaging material that is waterproof and will fill the pores of the plate. The plates are composed entirely of polyester with no other coating, making their shelf life almost

infinite. As offset lithographs, they can print from a thousand to two thousand prints. This is more than adequate for fine art runs.



Random Toy Chaos by George Roberts,
courtesy of the artist.

Polyester lithographic plates are easy to use and yield excellent, sophisticated prints. Making a polyester plate lithograph involves only a few simple steps. The artist first draws on a polyester plate using a black ball point pen or any of the



Hand printing a plate.

many methods outlined in this text. Once the drawing is finished, the plate is ready to print. With a sponge and water, dampen the plate and, using lithographic ink and a brayer, ink the plate. When the plate has been sufficiently inked, place it on top of a piece of paper. Using a wooden spoon, rub the back thoroughly. The pressure of the spoon will cause the ink to be printed on to the paper. A lithographic or intaglio press can also be used to print the plate. That is how simple and direct the process is. No etch, no chemicals, no rub up, no rosin or talc; just straight forward printing directly

from the imaged plate. Modifying the print is also easy. The artist can dry the wet plate and draw additional marks using the ball point pen or erase portions using a pencil eraser. When modifications are finished, wet and ink the plate to start printing again. No counter etch is necessary. The modifications will print as well as the original drawing. The uncomplicated sophistication of polyester plate lithography is one of the reasons the author is so enthusiastic about the process.

The author believes that polyester plate lithography has five characteristics that make it an excellent choice for artists. First, polyester plates are safe to use. They require no elaborate or expensive safety features in the studio or classroom. The only equipment artists need to protect themselves are Nitrile gloves, an apron, and occasionally a dust mask and an exhaust fan when using an air brush. The materials are also not harmful to the environment. No harsh chemicals are necessary for etching or clean up. Vegetable oil, diluted ammonia in water, liquid detergent and rubbing alcohol are all that is necessary.

Second, polyester plates are more convenient to use and require less technical knowledge than the old lithographic methods. A beginner can make and print a polyester plate lithograph in 20 to 30 minutes and have a clear understanding of the process. The new materials free artists from the technical complication of the old methods. This allows them to

concentrate on content, creativity and aesthetics.

Third, most everything used in association with a polyester lithograph are common materials that are readily accessible, yet technically excellent. Most of the materials can be purchased in a grocery, hardware or art supply store. They yield prints of the highest quality with minute detail and great artistic control.

Fourth, polyester plate lithography is more direct. The plate is imaged as simply as one would a drawing and then printed. The old methods required imaging, etching, rubbing up, washing out, rolling up, counter etching, reworking, etching again and so forth. Each step had to be done just right or the print could fail. Polyester plates can be imaged, proofed, reworked and printed with no steps in between.

Fifth, the plates can be printed by hand. This means ownership or accessibility to a press is not necessary. It also means that polyester plates can be printed on surfaces that cannot be run through a press, even three dimensional surfaces.

Equally important to printmaking in general is the fact that the new, safer methods and materials will allow printmaking to be taught in the secondary schools. Children begin to learn music in their earliest years. Many become accomplished musicians by the time they reach college. Most students do not have the opportunity to study printmaking prior to college, because its time-consuming, complicated nature and toxicity make it

difficult to teach at the secondary level. With the advent of the newer, safer methods and materials, it can become a part of the curriculum. All of the new techniques can be taught within the 30 to 40 minute time-frame of a secondary school class period, and the students can achieve excellent results. If printmaking can be taught in junior and senior high schools, our future printmakers will be much more advanced when they reach college and there will be more of them.

We are in the midst of a printmaking renaissance. The research into ImagOn and the safer intaglio materials and techniques, polyester plate lithography, water-based screen printing and water-based inks in general are among the significant and enlightened fine art media developments in the late twentieth century. Within the next few years they will become the norm in printmaking studios and classrooms. We will look back on this time of change in printmaking as an era dedicated to improving the methods and materials while making them safer and more environment friendly.



Photolithography

Polyester plates have directly linked printmaking to the computer. Now any image generated on a computer, photographic or otherwise, can be printed directly onto polyester plates. The equip-

ment required to make a photolithograph are a computer, appropriate software, (Adobe Photoshop is recommended), a scanner, a laser jet printer, and an ink jet printer or a copier. Making a photolithograph is quite simple. Scan a photograph, manipulate it in Adobe PhotoShop similar to the way one would in a dark room, and then print it directly to a polyester plate using a laser jet printer. The polyester plate with the photo imaged on it is now ready to print with no further steps required. The following are more detailed instructions for producing a photolithograph.

It should be noted that this text is not meant to be an instructional guide for using a computer. Therefore, there will not be detailed instructions as to how to use computers. There are plenty of classes one can take and texts to read to become computer literate. These instructions are being provided for those who already possess basic computing skills and who want to use the computer to create images for their prints.



Last Chance by Sue Wilson, Courtesy of the artist.

