A Requiem for Traditional Printmaking

By Murray Zimiles

Although printmakers are not likely to go smashing computers and printers, as the Luddites attacked the early spinning and weaving machinery at the beginning of the Industrial Revolution, like it or not there is a revolution taking place in the world of fine art printmaking.

The Luddites (1811-1816) predicted that machinery would replace the skills and traditions they held in their minds and bodies as skilled artisans. So too now, many techniques requiring training and precision skills are being superseded by the Digital Revolution.

Canon 8300, 12 color digital printer

In writing this "requiem" for printmaking I find myself straddling the shift from the old to the new. I was classically trained in stone lithography in France in the early 60s, and subsequently studied silkscreen, woodcut, and intaglio (metal plate etching and engraving). Seeing the necessity for a good teaching manual, I co-coauthored *The Technique of Fine Art Lithography* (1970), and a survey of the state of the art, *Lithographic Workshops Around the World* (1974).

I began teaching printmaking in the 60s and was invited to set up the printmaking facility at the new arts campus of Purchase College, State University of New York, just north of New York City. As head of the printmaking department for many years I kept up with the advent and development of the innovations of the Digital Revolution. Therefore, I know at close hand how the new technologies of printmaking have changed that world and rendered some artisanal practices truly unnecessary.

Of course there are those who resist seeing the innovations as anything but inauthentic inroads into the sacred realm of "high art." Although they are beginning to change, organizations such as SAGA, the Society of American Graphic Artists, remain largely wedded to the hand pulled print.

Even though prints with digital elements are gaining ground with collectors, galleries and museums, there still remains resistance to computers in art making. Why is this?

I maintain that what counts in printmaking (and art in general) is the quality of the artistic statement, not the kind of materials or devices used to create it. This is not the place to engage in a discussion of aesthetics. What is needed is to understand the technical elements of printmaking to see what has been replaced or improved.

For example, in viewing a black and white print image we need to consider not only the artist's vision but the different physical elements that create that image: texture, pattern, line quality, density of the blacks and their temperature (warm or cool blacks), and the quality of the paper and the penetration of the paper by the ink.

Traditionally, printmaking techniques have been divided between planographic and intaglio methods. Intaglio involves penetrating the surface to be printed from by engraving with a tool or by etching with an acid, so that the ink enters the plate and is transferred to paper under pressure. The resulting characteristic surface texture of lines and solids made this way cannot be replicated in digital printmaking, which remains on the surface. However, later I will show how digital processes have changed the way even intaglio prints are made.

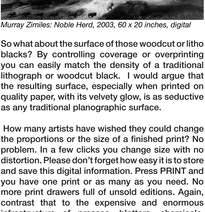
My "requiem" is for the planographic forms of printmaking: lithography, screen printing, and woodcut. Sadly for traditionalists and Luddites, digital printmaking cannot only replicate but can also improve upon these techniques.

Let us briefly consider how a multi-colored print is traditionally made. A complex print can have any number of colors. Each needs to be separated, that is, given its own vehicle: a block, a screen, a plate or a stone. Each must be prepared and registered, that is, precisely aligned, with the next or previous color. Trials, known as "proofs" have to be printed to test how one color layer works with the previous one, and adjustments made to the ink and registration. Once the colors are finalized, sufficient ink of each color must be mixed to assure getting to the end of the edition consistently. A lot of expensive paper is used and expensive ink wasted.

Compare this to making a digital color print. A finished drawing is scanned or directly created on the computer. If the monitor and printer are calibrated properly you should get a nearly perfect reproduction of the image and all the colors you have chosen and perfectly registered. You can then print on demand: no storage of plates or screens, no mess of inks and solvents, no wasted ink or paper, and vast savings of money. The entire print and all the information to create it can be stored on a disc or thumb drive.

Murray Zimiles: Goats Before a Quilted Landscape, 2013, 6 x 4 inches.

In considering black and white images, I would argue that the grey scale achieved with digital printing is the greatest ever known in the history of all forms of printing, especially when the printer has 8-10 gray inks or is a color printer with 12 different colored inks. Subtleties that were unimaginable in traditional printmaking are there for the taking. Scanning allows for the creation of any texture: wood grain, the delicacy of the litho crayon, a beautiful wash, the flatness of a solid block of color and so on. In addition, any of these effects can be collaged together with ease.



Murray Zimiles: Noble Herd, 2003, 60 x 20 inches, digital

So what about the surface of those woodcut or litho blacks? By controlling coverage or overprinting you can easily match the density of a traditional lithograph or woodcut black. I would argue that the resulting surface, especially when printed on quality paper, with its velvety glow, is as seductive as any traditional planographic surface.

How many artists have wished they could change the proportions or the size of a finished print? No problem. In a few clicks you change size with no distortion. Please don't forget how easy it is to store and save this digital information. Press PRINT and you have one print or as many as you need. No more print drawers full of unsold editions. Again, contrast that to the expensive and enormous infrastructure of presses, blotters, chemicals, ink cans, graining sinks, ink mixing surfaces and storage for stones, plates or screens needed in traditional printmaking.

So what's all the resistance about? Unlike printmakers, most photographers have embraced the technology that has removed them from the dark room environment containing the putrid chemicals they needed to develop their films. Is it guilt at how easy it is to hit the PRINT button? Perhaps it is sadness at not being able to exercise the skills you struggled so hard to acquire; perhaps you miss the smell of all those acids and toxic chemicals you've loved, perhaps it's simple nostalgia for a bygone era when a certain kind of craft did count.

The good news is, if you wish to preserve the hand pulled print, there are digital technologies that still leave you with the experience of hand printing. A CNC (computer numerical control) router and/ or a laser cutter and engraver can, in a very short period of time, be directed to carve any digital image into wood, plastic or metal for you. For intaglio prints, engraving machines that use metal or plastic plates transfer the drawn image with great accuracy of detail. The resultant plate can then be printed in the traditional way.

What I hoped to convey is that a new way of making prints has arrived. It in no way discourages combining the traditional with the digital. I've taught my students to print the color part of their prints digitally and then overlay them with a traditional final color created on plate, stone, screen, or block. The resultant images were very beautiful and few can tell the difference between the digital and the traditional components. One important improvement of the Digital Revolution, from the teaching point of view is the amount of work students can produce in a semester. Instead or one or two color prints they can now produce around ten.

Finally, it is important to acknowledge that a new and different type of knowledge is necessary today. One must master programs like Photoshop. It is necessary to be gentle with delicately calibrated digital machines, as opposed to the muscle power needed to turn presses. Yes, it's a new world, but we must always remember that "garbage in usually results in garbage out." ■