

Friedhard Kiekeben, the Safe Printmaker

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Friedhard Kiekeben, a native German from Bad Nauheim, Germany, is a printmaker that is currently living in Chicago, Illinois (Kiekeben "A project...", 1). According to his website, NontoxicPrint.com, he studied the art of printmaking in Germany and at the Royal College of Art in London, England. In addition to printmaking he is also a digital artist and illustrator. Kiekeben wrote an article called "Perfect Chemistry". He talks about how there is a safer way to do printmaking (Kiekeben "Perfect Chemistry", 1-2). He also invented a way to transparent a picture from a digital picture to a foam board. The materials that he uses for this type of print are a printed picture, a transparent paper, and a foam board. He puts the transparent paper against the foam board and then shines a light on it. While the light is shining on the transparent paper, he puts the two objects together and presses hard against the foam and the transparent paper onto the printed digital paper. Doing this process, Kiekeben created a couple works of art; one that is negative and one that is positive (Kulakowski, 4).

Kiekeben was mentioned in Ken Howard's book, *The Contemporary Printmaker*, which was published in 2003. He writes a forward in Howard's book talking about the invention of a healthy fusion of art in printmaking. He says, "Printmaking involves technology and where there is technology there is always room for improvement. The history of printmaking is a history of aesthetics, invention, and perfection; not only in the technical terms but also conceptually. Whereas a canvas and the actual practice of painting has changed very little over the centuries, the practice of printmaking has been accompanied by the continuous development, and more recently been accompanied by the continuous development, and more recently by major re-invention" (Howard, 1). He clarifies that the art of printmaking is always changing and evolving. New techniques manifest every day. It's an exciting time period to be a printmaker.

Kiekeben and Howard have developed a new way of etching. They invented a technique that uses salt to bite into the plates. This process is called Metal Salt Etching. This name has become the main name for this type of etching. There is a science behind this kind of technique.

The acid that you use with the metal that bites into the plates is dangerous. Instead of using acid, salt can be used and is much safer than acid. The salts that can be used are called, ferric chloride and copper sulfate. Kiekeben also wrote in his article "The New Etching Chemistry". He wrote, "But metal salts do not corrode metal through the destructive and harmful process that typify acid etching; by contrast they owe their etching properties to electrical attraction in which atoms of the metal plate are elegantly removed by other metal compounds that are dissolved in a salt solution." What he means by this is that these salts are safer to use and will not have the harmful affect that the acid has. Using these salts has the same finish as the acid does. Metal Salt Etching is safer is because it avoid the dangers of acid. When Kiekeben talks about Nitric acid in his article, he says that Nitric acid is highly toxic (Kiekeben "The New...", 3).

According to *The Journal of Occupational and Environmental Medicine*, "...illness and death have resulted from acute exposure to nitrous fumes...Nitric oxide and nitrogen dioxide with its polymer, nitrogen tetroxide [all of which are produced during etching] are highly toxic." According to Merle Spandorfer, he wrote in *Making Art Safe*, "Nitrogen dioxide, the gas that evaporates from the nitric acid used in etching and lithography, is highly toxic if inhaled in large quantities." So using the Metal Salt Etching that Kiekeben invented is much safer for health and life. Cedric Green wrote, "A recent developed which alleviates a little of the unpleasantness of ferric chloride is Edinburgh developed by Friedhard Kiekeben, which involves adding citric acid which speeds up the bites, and dissolves some of the sediment. But the mixes is still a strong acid, and my personal preference is to avoid the use of all acids" (Green, 1). Green is clear that staying away from all acids is probably a good idea, which is why Kiekeben invented a safer technique to be used in print making.

Works Cited

- Green, Cedric. "Etching Zinc Plates Safely." [Http://www.cartage.org.lb](http://www.cartage.org.lb). Web. 6 May 2011.
<<http://www.cartage.org.lb/en/themes/Arts/Graphicartists/Printmakingmethods/Theintagliomethods/historyofelectrolytic/EtchingWithoutAcid/ZincPlates/ZincPlates.htm>>.
- Howard, Keith, and Friedhard Kiekeben. *The Contemporary Printmaker Intaglio-type & Acrylic Resist Etching*. New York: Write-Cross, 2003. Print.
- Kiekeben, Friedhard. "A Project of the Hyde Park Artcenter." Interview by Francesca Wilmott.*A:List* 2006. Print.
- Kiekeben, Friedhard. "Perfect Chemistry." *Printmaking Today* 13.1 (2004): 1-4. *Applied Science & Technology Index*. Web. 6 May 2011.
- Kiekeben, Friedhard. "The New Etching Chemistry." *NontoxicPrint.com*. Nontoxic Printmaking & Printing, 2011. Web. 6 May 2011.
<<http://www.freewebs.com/fkiekeben/thenewetchingchemistry.htm>>.
- Kulakowski, Brandi. "Un-Doing Lumetype." *Uturn.org*. Sept. 2007. Web. 6 May 2011.
<<http://www.uturn.org/Lumetype/lumetype.pdf>>.