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No Poisons Used in These Prints

Zea Mays Printmaking Studio

By: Carand Burnet

Sounds break the silence of the whitewashed Arts and Industry building in Florence, Massachusetts. They come from the third floor, where busy hands wipe copper plates, incise relief blocks, dab wet paper, and crank printing presses. It's forward motion at Zea Mays Printmaking Studio, one of less than a dozen nontoxic printmaking studios in the country. Named after the sweet corn plant that withdraws toxins from soil, the studio offers 2,500 square feet of sunlit space for workshops and printmaking. Using health-preserving, solvent-free procedures is this studio's mission.

Liz Chalfin, who founded the studio a decade ago, is as diligent as ever, mentoring interns researching new methods, guiding workshop participants, and supporting Zea Mays's members as they use the facilities. Chalfin's affable and attentive nature attracts devoted volunteers and interns, many of whom contribute to the studio's mission by amending and updating conventional printmaking practices. Also important, end results confirm that these safer, updated techniques visually match traditional printing processes when compared side by side.

The idea for Zea Mays started during the 1980s when Chalfin needed to build a printmaking studio at Whittier College, near Los Angeles, but in a nonventilated basement. While mineral spirits, turpentine, and other common solvents are needed to clean ink from relief blocks and remove the resist grounds of intaglio plates, exposure can cause central nervous system disorders, soft tissue damage, and cancer. Even so, most printmakers continue using these chemicals.

Chalfin didn't want to expose her students to this. Still, green printing was a relatively new idea. Fortunately, Chalfin met up with printmakers Nik Semenoff, current artist-in-residence in the art department at the University of Saskatchewan, and Keith Howard, now head of printmaking and research at the Rochester Institute of Technology School of Art, who taught her how to set up a solvent-free studio.

"The result of teaching without solvents allowed for unpredictable outcomes," says Chalfin. "Students became very involved and excited even with the small progress we made." Students experimented, testing unconventional items like acrylic floor wax as an etching hard ground. Experiments with household products not only increased students' interest in printmaking, but allowed them to contribute to a greater cause. Not all experiments proved positive, yet once in a while items like soy sauce proved extremely useful. It's now a degreaser for copper plates.

Chalfin continues to encourage an open, experimental environment. "You learn not only from the instructor, but also from others alongside you," says Joyce Silverstone, a five-year member, who along with a number of printmakers, pays a fee and gains access to the facilities. Silverstone says, "Everyone feels like they can contribute to a new way of working."



Joyce Silverstone, *Inward Garden-Threshold*, monotype, 9 1/2" x 26".

Within such an accepting atmosphere, Silverstone can focus on making intuitive marks on her plates. In her viscosity monotype, *Inward Garden—Pond*, wild splashes of loose ink wander like a water strider throughout a pond of warm and cool divisions. Etched lines undulate and ripple, almost as if a stone has been cast into the tangerine hue. Silverstone uses water-based inks, which clean up with soap and water. Zea Mays Printmaking uses a wide array of both oil- and water-based printmaking inks and removes oil-based inks exclusively with vegetable oil, an environmentally friendly degreasing product.

While some members enjoy the communal, educational setting, others join Zea Mays to protect their health. Several members are still healing from previous reactions to solvents such as asthma, prolonged breathing difficulties, and severe rashes. Nine-year member Anita S. Hunt, who has a chemical sensitivity to solvents, says, "At first there was a learning curve; however, it was definitely worth it. I would not have been able to continue printmaking otherwise." A wide range of dense to soft blacks complement Hunt's intaglio print, *Black Flowers*, as dark circular botanicals sway over the washed, speckled layers. The sharp, incised marks of stems and drawn leaves slowly twist. As the wind pulls each shape higher up the image, flowers dissolve further into simplified



Anita S. Hunt, *Black Flowers*, 2010, drypoint and carborundum aquatint, 6" x 6", edition of 7.

forms and rounded reflections.

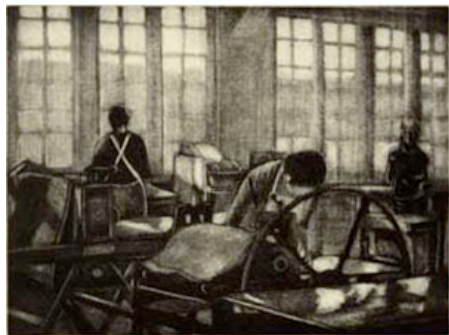
Zea Mays uses an acrylic resist for intaglio and a ferric chloride salt for etching each copper plate, which is dramatically different from older methods. Traditional oil-based intaglio hard grounds, which can be absorbed through the skin, are composed of lead, mercury, and arsenic. Dangerously corrosive acids such as nitric and Dutch mordant, used to etch copper plates, release components of mustard gas. Photopolymer intaglio, a process that Zea Mays practices, uses a water bath to etch the plate and involves exposing photographic negatives to a light-sensitive surface. After development, the artist is able to ink and print the plate like a traditional copper plate.

Innovative printmaking comes both from at home and abroad. Chalfin corresponds with directors of international studios that promote nontoxic printmaking. Because of this, the studio recently began using a new European intaglio ground that is a promising substitute for acrylic ground. It has all the characteristics of traditional hard and soft grounds without any harmful petroleum-based derivatives.

Not only are Zea Mays's alternative products safe and effective, but materials cost one-third less than solvents. What's more, nontoxic household products, such as vegetable oil and baking soda, are quick and easy to obtain—just a run to the grocery store. Solvent dependent studios not only have to invest in a high cost infrastructure that varies with studio size and ventilation, but they also have to ensure secure storage and disposal of used solvents. Costly fines may be imposed for improper disposal. Because ventilation is not required in nontoxic studios, printmakers can set up virtually anywhere.

Chalfin says, "Not only can these processes be used in college printmaking programs, but anyone is able to set up this type of studio inside his or her home." In all, Zea Mays Printmaking and other green studios could save many struggling printmaking programs and encourage more studios to go green.

Each November, in an effort to spread awareness of nontoxic printmaking, Zea Mays hosts Print Fair North, an open studio and print sale that features works of more than thirty studio members. Every print showcased in Print Fair North is created using nontoxic practices that anyone can use. Raffle items raise money for the Innovative Printmaking Scholarship, which provides financial aid to both beginner and advanced printmakers who wish to take a workshop and expand their understanding of nontoxic printmaking.



Liz Chalfin, *In the Studio*, 2010, etching.

Every month, Zea Mays's gallery space features member exhibits and invites community artists involved in nontoxic printmaking to showcase their work. From January 10 to February 11, 2011, Zea Mays Printmaking's gallery is showcasing a juried exhibit, Members Relief Show. Relief is one of the oldest yet diverse forms of printmaking and this show includes work ranging from multicolored wood block prints to simplistic black-and-white linoleum carvings.

In Chalfin's intaglio *In The Studio*, one perceives the artist's vision for Zea Mays Printmaking—a sunlit, tranquil, prospering studio. The long row of windows gently frame and backlight three dedicated members contemplatively printing. As Zea Mays Printmaking Studio progresses with transforming tradition to innovations of the future, experienced artists continue to encourage and educate younger artists. With over twenty years of experience, Chalfin and other green studios have demonstrated that refined nontoxic processes do not affect the final impression of the print. "We have evolved through research and are able to match the same

aesthetic qualities as solvent-included procedures," says Chalfin. "Now we will develop processes that surpass traditional methods and continue to educate anyone who wishes to learn."

Carand Burnet, a poet and construction artist, received her BFA from the New Hampshire Institute of Art. Her website is www.carand-burnet.com.

