Eva Figueras. Revisat 2006-01-19

DISSOLVENTS

Els dissolvents més utilitzats en gravat són el petroli, benzina, aiguarràs, alcohol, acetona i dissolvent universal. La majoría d'aquests productes són tòxics i poc respectuosos amb el medi ambient.

Existeixen alternatives més ecològiques i saludables per a netejar les tintes, els vernissos, i altres elements que desitgem eliminar en el procés de gravat. És important distingir entre els productes grassos dels acrílics o polímers, o d'altres.

Eliminació de productes grassos

- Per dissoldre la tinta calcogràfica es pot fer servir oli vegetal, i després d'una primera neteja, es desgreixa la planxa amb aigua i sabó.
- Per dissoldre la tinta i els vernissos calcogràfics es pot fer servir un dissolvent basat en oli anomenat VCA (*Vegetal Cleaning Agent*) o ALV, que és el mateix producte distribuït a Espanya.

Eliminació de tinta en base aquosa

Per dissoldre la tinta aquosa i netejar les planxes, rodets, espàtules, etc. s'utilitza aigua i sabó.

Eliminació de productes acrílics (poplímers)

Els vernissos acrílics, mentre són tendres, es netegen amb aigua. Un cop eixuts, es netegen submergint la planxa envernissada amb una cubeta que contingui aigua dissolta amb un 10% de carbonat de sodi. Si el vernís ofereix ressistència es pot utilitzar aigua i 50% d'amoníac.

El film de fotopolímer es dissolt, també, amb aigua i carbonat de sodi (10%).

The Kamakura Print Collection ~ Printmaking Health and Safety

"Organic Solvents. Organic solvents, used in cleaning up inks and etching grounds, are among the most common and insidious poisons found in the printmaking workshop. The effects of breathing the fumes of organic solvents such as benzene, toluene, xylene, turpentine, mineral spirits, methyl alcohol, gasoline, and others may be spread over years. Each bit of harmless-seeming exposure adds up to more likely illness. It is delusory to assume that if one has survived so far, all danger is past. Far from it! The odds of sickness and death increase with each whiff, which kills more cells. Cells die and are replaced all the time, of course, but the more often this happens, the more likely one of them will go awry and figure out how to evade the normal cell death routine. Having a survival advantage over normal cells, that cell will replicate more successfully and rapidly proliferate. That's cancer.

According to the CSA: "High concentrations of most solvents can cause narcosis (dizziness, nausea, fatigue, loss of coordination, coma, etc.). Chronic occupational exposure to many solvents can cause permanent brain damage, with symptoms including loss of memory, behavioral changes, fatigue, spasticity, decreased intelligence, slower reflexes, poor hand-eye coordination, etc. Solvents can also attack other organ systems besides the nervous system. In particular, turpentine can damage the kidneys, toluene and chlorinated hydrocarbons can affect the liver, and methylene chloride can affect the heart. Lithotine, kerosene, and mineral spirits are skin and eye irritants and inhalation can cause intoxication and respiratory irritation." Also: "Repeated or prolonged skin contact with solvents can cause defatting of the skin and resultant dermatitis (rashes, drying and cracking of skin, itching, etc.)."

For ink cleanup, Ad Stijnman recommends a European product called Vegetal Cleaning Agent, VCA, a compound of a vegetable oil and an alcohol. See Cleaning printing plates and brushes with VCA , by Sytze Folkertsma, Peter Sincovitz and Ad Stijnman, Printmaking Today, Vol. 5-1 (spring 1996). I have tried Vegetal Cleaning Agent (VCA) for etching ink cleanup on copperplates, and can report that it works better than anything else I have used. It removes all the ink from plates, rollers, and inking slabs in a completely non-toxic way. I

have even used it to remove stopout varnish applied to a copperplate seven years previously -- no problem. VCA is non-volatile, with none of the toxic fumes that come from organic solvents. There is no reason to use organic solvents (such as benzene or turpentine) anymore. Suppliers are listed on the Links page.

Another approach, pursued by the tireless innovator Nik Semenoff, is to change the composition of the ink so that it is easy to clean off the plate with water, while retaining the wiping characteristics of oil-based inks, and insolubility after drying. One formulation uses Lascaux clear screen printing base mixed with liquid or dry pigments and an acrylic emulsion retarder. I have not yet tried this myself. He reports that this ink also lasts longer than oil-based inks. For more information on this, on his waterless lithography technique, and on non-toxic etching grounds, see his website at http://www.duke.usask.ca/~semenoff

If organic solvents are used, it is best to wear rubber or neoprene gloves and to have adequate ventilation. A good guide with installation examples is: Industrial Ventilation: A Manual of Recommended Practice (American Conference of Governmental Industrial Hygenists) 6500 Glenway Ave., Bldg D-7, Cinncinnati, Ohio 45211 USA)". (info:The Kamakura Print Collection)"

A Espanya el VCA s'anomena **Agente Limpiador Vegetal (ALV)** i es pot adquirir a Arteina s.c.p. (telf. 938584070 o a l'adreça arteina@ctv.es)