The Sandragraph: Between Printing and Painting
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1. The Sandragraph

1. Definition. The "sandragraph" is my term for a low-relief collagraphic printmaking procedure in which I make prints directly off surfaces that have been covered by cloth and acrylic polymer gel medium, mounted type-high and locked up on the flat bed of a printing press, and printed in a traditional letterpress or relief manner. I named this process in 1984 after my wife and partner, Sandra Liddell Reese, who continues to work with me on many experiments in making plates, prints, and books. The term refers both to the plate made in this process and to the print as well.

2. Sandragraph plates. There are many variations of making the "sandragraph" plate and the "sandragraph" print. In general, this is the basic approach.

a. I use a flat plywood board for my base, or block. Though I have used many different bases, I prefer a combination of smooth 3/4" birch veneer plywood attached to a 1/8" plywood sheet.

b. I cut a piece of 100% cotton (fine weave muslin) slightly larger than the block, staple it to a working surface (another piece of plywood), and brush a thin coat of acrylic gel medium on it. After I put another thin coat of acrylic gel medium on the block, I remove the cloth from the working surface and place it on the block, with the gel side down. I add another coat of gel medium to the cloth as I paste it down onto the block. Smooth out the air bubbles and brush marks. Brush marks and divots on the plate surface will be printable. Let the plate dry completely. How long does it take to dry? How thick is the gel? What is the temperature? Thin coats dry faster than thick ones. After the plate is dry, you may sand the surface, or add additional coats of gel medium. The ultimate goal is to build up the block, along with the cloth and gel, to type high (.918 of an inch). It is always better to be lower, not higher, than the height of type.

c. There are many variations of cloth, blocks, and amount of gel.

d. This method works best as a low-level relief print. Large clumps of cloth or gel will prevent smaller areas from inking or printing. The printing surface can be textured in great detail, or sanded smooth as glass. Keep in mind that it is a "low relief" process.

e. You may collage (apply with glue) cloth, paper, or materials of any kind to the plate. This method is more commonly known as a "collagraph."

f. Can you put the acrylic gel directly on wood? Of course you can. It has been my experience that the cloth and acrylic gel in combination hold ink and paint much better than bare wood. They deliver the ink/paint much better too.

g. The "sandragraph" prints well as a relief, but may be adapted for intaglio printing. You should be careful with the relief depth of your plate. Acrylic gel medium can dry into sharp points that may cut your printing paper or create other difficulties.

h. Paper: Normally, I do not dampen papers for most of my own relief printing – I prefer Magnani Italia, Arches Cover, BFK Rives, Arches 88, Kitakata, and other soft, "half-sized," or waterleaf surfaces – but for intaglio printing or deeper impressions, and for letterpress printing from metal types and polymer plates on mouldmade and handmade papers, it is advisable to
dampen the paper slightly. Smooth cover and text papers – such as Mohawk Superfine, Monadnock Dulcet, French Smart White, Domestic Etching, Vickburg Vellum – reproduce very well the character and variety of this imagery without the need to dampen the paper.

i. Stable, flat boards give reliable bases for the construction of these plates. Your adventures in printing are compounded when your plates rock, bow, bend or otherwise move during printing.

j. I use the best oil paints I can afford for my "ink". Specifically, I have had good success with the Schmincke "Mussini" resin-based oil paints. They are expensive, but the pigment is very good. To the oil paint I will sometimes add transparent base printer's ink (a.k.a. tint base or transparent white) that gives both vehicle and drier to the oil paint without changing the pigmentation substantially. Specifically, for years I used Kramer Ink, No. 1942a. This way I have been able to print certain thin opaque colors which most printmakers who use traditional inks achieve only by using transparent overlays. Oil paints have better pigment than printer's ink for all colors, especially earth pigments. There is much investigation left to do in the area of color mixing and printing with color. Remember to keep the ink or paint very thin.

k. As a general rule, I do not like to add solvents or painting mediums to the paint or ink. When I add solvents or paint medium, I have frequently coated my papers first with various mixtures to prevent the paper from absorbing excess oil.

l. As an investigation of both printing and painting, the "sandragraph" allows for the same ways of exploring that are commonly practiced in relief printing as well as painting. For example, there are certain approaches to putting on the gel medium that give painterly effects, just as there are methods of coloring the plate which result in painted appearances. There are as many printing variations as a printer can imagine, involving the basics of relief printing: surface quality, ink, paper, pressure, and repeatability. A complete investigation of these possibilities awaits the curious artist.

3. Clean up and storage. Acrylic gel medium is water based. Clean up brushes quickly. Clean off the sandragraph plates after printing or the paint will dry as a thin bonded film on the plate surface. Slip sheet (i.e. place between sheets of paper) the finished prints if you cannot put them in a drying rack or a more sophisticated drying box.

4. Materials and Supplies. For acrylic polymer gel medium, I have used Nova Gel (#207), which I buy in one gallon containers, and which costs (when last purchased) $29 per gallon from Nova Color, 5894 Blackwelder Street, Culver City, CA 90232-7304, (310) 204-6900. For more information about their artists' paints and acrylic media, see their web site: http://www.novacolorpaint.com. For ordering, they will ship to you if you give a valid credit card number over the telephone. When using all acrylic polymer mediums, make sure the room is well ventilated. And clean your brushes before and after working.

Certain tools are assumed available, and if not substitutes for them should be planned. I have around scissors, a flat 2" brush, sandpaper (of various grits), and some kind of saw (circular saw, table saw, band saw) for cutting the wood, if needed. There are many kinds of cloth, all of some value depending upon the ultimate purpose, and more ways to apply or pattern the gel than we can think of. And then the papers to print on are as numerous as there are papers. The primary
point to keep in mind is that this process is a low-level relief printing technique with great subtlety and variety.

5. List of Supplies
   a. cloth: tightly woven cloth such as 100% cotton (muslin), unbleached,
   b. board: flat surfaces to build up to type high. I recommend 3/4" birch veneer plywood
      or MDF and 1/8" plywood or masonite, in combination with the cloth; as an option, type-high
      linoleum blocks or type-high photoengravings can be utilized as supports for each individual
      plate one wishes to make.
   c. acrylic gel medium: see number 4, above: one gallon goes a long way.
   d. paper for printing: see number 2h, above.
   e. tools for applying gel: palette knives or spatulas; flat artists' brushes of varying sizes;
      gloved fingers and hands.

II. Vinyl as a Surface for Monotypes
1. The Material. I use 10 mil clear vinyl for my monotype prints, including the ones that I used
   series, from 2000 on. The vinyl can be purchased in rolls from the Orchard Hardware Supply
   Company (known in California and Ohio as OSH, and owned by Sears). Kittrich Corporation –
   4500 District, Los Angeles, CA 90058 – manufactures the vinyl and wholesales it to hardware
   stores and other outlets. This particular vinyl is available in 54-inch wide rolls that come up to 45
   feet long. The vinyl at the Goleta store was $1.99 per foot the last time I bought it – 54 inches
   wide – and it costs even less per foot if you buy a roll. For larger orders, or desperate searches,
   you can seek out more information about Kittrich Corporation (re: their Yard Goods Division,
   Series 54).

2. The Print. I like to put the vinyl on a plexiglass surface for better adhesion, although it can be
   placed on any flat surface. A drawing or template can be placed below the plexi to suggest the
   tracings, image, text, or form. Remember that your plate plus the vinyl should not exceed type
   high (.918 of an inch). I re-use the vinyl over and over again as a monotype print surface, but we
   (including students, collaborators, and workshop participants) have easily cut shapes from the
   material or made finely cut lines and subtle patterns into the thin, pliable surface.

For more information, see HYPERLINK "http://arts.ucsb.edu/faculty/reese"
http://arts.ucsb.edu/faculty/reese and http://www.turkeypress.net

* The Kramer Ink Co, in Santa Fe Springs, California, went out of business on November 30,
  2010. Since then we have been scrambling around in an attempt to find a suitable replacement
  transparent base (aka tint base or transparent white) with drier. We now recommend Graphic Tint
  Base Extender (#1911) from Graphic Chemical & Ink Co (www.graphicchemical.com). We
  expect an option for drier will appear in their catalogue at sometime in the future, but if it is not
  listed you should ask for a one-pound can with drier already added. We are pleased with this new
development, and with Graphic Chemical’s willingness to help us; we plan to spread the word as soon as we have tested this ink. The Kramer ink was very valuable to us over the years, since I’ve also mixed Schmincke’s Mussini resin-based oil paints with it to create our own “ink” colors for book covers, multiple relief print runs, and unique monotypes and monoprints. Drier is essential to those of us who make limited edition books, or to anyone who prints multiple-inked runs for monotypes or editions.