ABC No Rio PrintShop
Tricks 'n Tips

ABC No Rio PrintShop Volunteers
Hi! So you want to silkscreen some shirts, patches, or posters? At the ABC No Rio PrintShop we're happy to show you how. Here are some easy to follow steps and tips for making the best damn shirt, patch, poster, etc. ever!

If you've never used the ABC No Rio PrintShop before we HIGHLY RECOMMEND you stop by first to discuss your project with an ABC No Rio PrintShop volunteer.

Here's a basic list of items used in silkscreening:

**SHOOTING SCREENS**
- an acetate of the image to be printed
- a screen stretched on a frame
- emulsion
- an emulsion tray
- a lightsource
- a dark room
- running water

**PRINTING**
- ink
- a squeegee
- tape
- paper, fabric, or T-shirts

We rarely have frames and mesh available for stretching screens. We urge you to purchase your own frames and mesh or pre-stretched screens either at Pearl Paint (308 Canal Street), Standard Screen (121 Varick Street), or at any art or screen printing supply store. The Victory Factory in Queens is also an excellent source for supplies.

If you do purchase one of ours we charge $5 for small frames and $10 for the larger ones. We also charge $3 for each screen you burn and $2 per hour for time spent printing.

**What is an acetate?**
Your acetate is the image of the art to be printed photocopied onto a clear sheet of plastic (acetate). You need your artwork transferred to an acetate to accomplish the first step: shooting your screen. It can be done at Kinko's or any other copy shop. Just ask them to photocopy your image onto an acetate. The darker the toner on the acetate the better your image will reproduce when printing. If there are tiny pinholes you should ink them in with a felt tipped marker. Sometimes jobs get botched; get two acetates done. That way you can put one on top of the other and your image will be very dense.

You will need one acetate per color you plan to print, as one screen must be shot for each color. If it's your first project though, we recommend starting simple and going with one color.

**I'm confused: what, on the acetate, actually gets printed?**
Whatever is black on your acetate will get printed.

**What if I have gradations of one color?**
**How will this affect the screen?**
That depends a lot on the image itself; you might want to tweak photographs or other gray-scale images on a computer, get it really sharp, erase any little doodads or artifacts which will show up on the screen. Generally, gradations or gray-scale images come out just fine, but if there is a lot of subtlety involved, make sure you get the right kind of mesh for your screen. You can discuss this with a PrintShop volunteer.
**What kind of ink should I use?**  
We recommend using water-based ink. We have a variety of basic colors on hand, but if your project requires a special color you should bring your own.

We do not recommend using oil-based inks (plastisol). Oil-based inks are slightly more toxic. Oil-based inks also have a tendency to get on your clothes and all over our shop. Oil-based inks cannot be cleaned with water but require cleaning with distilled (not gum) turpentine. Both inks have good longevity on fabric: oil tends to break and crack after years of being tossed in the dryer, and water-based gently fades. The longevity of a printed shirt has more to do with the QUALITY of the cloth and ink, and how much care you put into printing rather than the TYPE of ink.

**What about shirts?**  
You can get the cheap stuff around Orchard Street. We recommend Eisner Brothers on Essex, just south of Delancey; if you buy in bulk it gets cheaper. If you want eco-friendly shirts (vegetable dyes and organic cotton) you can contact Ecosport (http://www.ecosport.net). They are a touch expensive, but you can get "seconds," that is, shirts they can't sell because they have minor flaws. These can sometimes be up to 50% cheaper, but they look good and last a long time, and they FEEL nice on your skin. Plus organic colors are totally cool-looking.

You might think about the KIND of shirts you get: anything with ribs or texturing might cause your image to ripple. The more you pay per shirt, generally, the more longevity and quality it will have. We also recommend you bring in a couple of test t-shirts to try out before you start in on the real thing. Know in advance you'll probably mess up a few of your shirts, so you should purchase extras.

**What kind of silkscreen frames should I buy?**  
Opinions differ. According to some, the sturdiest kind are the tongue and groove ones. You can get these at the Victory Factory. We urge you not to buy the frames that come in four pieces; they have a tendency to splinter when you're putting them together. Most art supplies stores sell pre-made screens already stretched, or you can buy a frame and some silk and then stretch it at No Rio. You may want to discuss with a PrintShop volunteer how fine a mesh your project requires.

**How do I stretch a screen?**  
It's easy, but it's easier to show than to describe. It usually takes about 20 minutes. An ABC No Rio PrintShop volunteer will show you how.

**How do I prepare a screen for shooting?**  
Again, it's easier to show than to describe. In brief: Mix the photo emulsion according to directions. Pour the mix in the emulsion tray you'll find near the sink, making sure first it's clean. Hold it at an angle to the screen and scrape it across in one easy motion on both sides, in a diffused, but not necessarily darkly lit room. Any drops or drizzles on the screen should be scraped off. If you can't cover the edges w/ emulsion don't worryyou can tape these up later. Dry your screen in a dark room with a fan for half an hour to an hour; it should feel 100% bone dry to the touch. If it is not absolutely dry it could all wash off after you have burned the screen. Take the extra time and wait it out: bring a magazine or chat with a friend.

**How long can a screen covered with emulsion last before I shoot it?**  
We recommend you do not leave a screen in this condition at No Rio. Too many chances of it getting knocked about or covered in ink. Better to shoot it right away.
How do I shoot a screen?
Again, this is something much easier to explain in person. We'll help you. Take notes.

A few pointers though:
--- it's helpful to have a wristwatch
--- clean the glass surface on the light table
--- tape the acetate to the glass and place the screen flat to the acetate
--- place cardboard on the screen and add some weight for sure contact
--- turn on the light and expose your screen for approximately four minutes
--- after exposure quickly rinse off the emulsion completely on both sides of the screen with cold water
--- let the screen dry, then tape up the edges

How do I print the image?
Again, come watch us and take notes. We're here to show you how. A very good piece of advice is to have someone with you when you are printing, so that one person with clean hands can lift the shirt off the table and place down a new one. The other person will be running the squeegee over the screen and spooning the ink onto it, so their hands'll be too messy to touch the shirts or prints. Do a few test runs on paper or bits of cloth first to get the hang of it.

What if I do a test run and there are places where the ink shouldn't come through?
This can happen. If you hold your screen up to the light before doing a test run, you might discover one or two tiny pinholes where light is coming through the screen, and hence, where ink will come through the screen, usually in places where you don't want it to. If the holes are really small, you can daub them with clear nail polish. If the holes are slightly bigger, it's possible to use a touch of duct tape on the side of the screen opposite the one you run the squeegee over.

What if I get a dab of ink on the shirt?
If you're using water-based ink try a dab of water, or wait until it dries and paint over it with a brush. If you're using oil-based ink, you could try a tiny bit of turpentine or paint over it.

Remember, no matter what you do, you'll probably ending up messing up a few t-shirts or prints. It happens. It happens less if you are not chit-chatting with a lot of people, listening to heavy metal and drinking beer! Calm, quiet focus helps, and an ability to forgive yourself for messing up. (Again, having a few crappy test-shirts helps!)

What the flip is a squeegee?
Look in the tub or near the sink and you will see a piece of wood w/ a rubber insert; that's what you use to push your ink through the screen in strong, even strokes.

How long does the whole process take?
Well, it depends. If you're screening one-color, one-sided t-shirts and you have the ink you want, a pre-stretched screen, serenity, patience, humor and determination, you can print your (say) 25 shirts and have them dry and walk out in an hour and a half. I would add on another 2 hours for putting together and shooting the screen. But, I have also seen many people mess up and take weeks to finish their projects, which is OK: you have to learn, and sometimes you have to make mistakes to learn.

It is most enjoyable to silkscreen when you have plenty of time. That way, you could stretch you screen one day, shoot it the next, and print the next! I see people making the most mistakes when they try to get it all done AT ONCE; they get very stressed and tired and wear themselves out. Plan ahead and pace yourself. We cannot stress this enough. In fact,
PLEASE, re-read that last sentence! Take your time and do the job right. Don’t wait until the last minute. The PrintShop can be a very busy place, and volunteers have limited time!

**How do I clean up?**
For us, this is the MOST IMPORTANT part of the whole thing. If you don’t clean up your mess, we hear about it from everyone else and WE GET BLAMED.

When washing water-based ink from your screens use high-pressure water on both sides of the screen until all the ink is thoroughly washed out. If you don’t get all the ink out it will dry in the holes in your screen and new ink won’t pass through. It is important to rinse water-based screens as soon as you are done with them.

Again, we do not recommend using oil-based inks. If you do use oil based inks YOU MUST make sure you ABSOLUTELY POSITIVELY clean up ALL the ink from EVERY place you got it; it has a tendency to lurk in nooks and crannies and then rubs off later onto someone’s clothes. Wash off your oil-based screens with DISTILLED (not gum) turpentine and then use mild soap and water to get the turpentine off. This applies to your hands and arms as well.

Don’t throw moist turpentiney rags into the garbage; spread them out flat to dry. If crumpled-up and compressed into garbage, moist turpentiney rags can SPONTANEOUSLY COMBUST, or someone could drop a lit cigarette on it. IF YOU BURN DOWN OUR FACILITY WE WILL HAUNT YOU FOREVER!!!

Recap the inks you used as well as any solvents, and generally tidy the place. Wash out your squeegees. You will find that water-based ink vanishes quickly under water, and is therefore easier to clean up. If the place reeks of turpentine please leave the fan blowing to air the place out.

**DO NOT LEAVE YOUR SCREEN HERE. TAKE IT HOME WITH YOU.** Screens left at ABC No Rio may be damaged, destroyed, thrown-out, or used for another project.

We hope these **Tricks 'n Tips** have been helpful. We look forward to helping you with your project, and then, in turn, seeing you help others.

**ABC No Rio PrintShop Volunteers**