

Ceramic Arts Daily Lesson Plan

Ink Transfers on Clay

by Doug Gray

Goals

- Learn to roll out slabs of clay to create tiles.
- Draw or create simple line drawings using water soluble ink or using Adobe Photoshop to alter existing images to make self portraits.
- Learn to transfer designs to soft clay tiles using inkjet printouts of line drawings or simple images. Trace these lines to create a relief outline. Put multiple tiles together for larger images.
- Add color to the bisqued tile using underglazes.

Background

Years ago, in an attempt to incorporate digital photography into my clay work, I began experimenting with image transfer processes. I began working with Xerox transfers and decals with some degree of success. But one day I accidentally stumbled across a water-based process so simple and direct that it's become the single-most-used method for most of my current transfer work. Unlike other processes involving a laser printer, Xerox machine, and/or chemical solvents, this water-based process can be done with an inkjet printer or any water-based media. Consequently it's nose, skin, and, yes, even kid friendly.

The process used here works best on soft clay and can be applied to any hand-built or thrown clay surface provided the clay is reasonably soft. In the wet state, there's enough water present in the clay for the transfer to readily occur. No water or solvents are needed. The same process can be used to apply imagery to leather hard and even bisqueware. However, with the diminished water content of drier clay, you'll need to add additional water to make the transfer work successfully. We will only discuss transfers on soft clay here.

You can create computer-generated imagery with a digital camera and software such as Adobe Photoshop. The key is to print your images with a water-based ink, such as that used in most inexpensive inkjet printers. When developing images for ink transfers on clay, the cheaper the better. You don't need an expensive printer and you definitely don't want archival ink and paper. I use regular ink cartridges, all-purpose or copier paper, and an inex-

pensive inkjet printer. If you prefer to work without a computer, see sidebar (page 4).

The two main advantages to using this process are that the image is water based and can be easily removed with a damp sponge and repositioned, or you can just burn it off in the bisque fire if you don't like it. Second, any surface design technique works in combination with this transfer process—carving, slip trailing, water etching, underglazes, terra sig, glazes, etc.

One significant pitfall is that the ink can't withstand the heat of firing, so this technique is basically just a design transfer. This is where the other surface design processes come into play. In this example, I used a carving process. Try the surface design process you currently use and enjoy. Each tool and medium lends its own characteristics.

I like the way the image integrates itself so well into the surface of the clay. It's part of the glaze and doesn't float on top of the glaze like a decal. Plus, when you develop imagery while the clay is wet, at the leather hard stage, and at the bisque stage, the result is a very rich and deeply layered surface indeed.

Preparation

Begin with a freshly rolled slab and a print from an inkjet printer. The digital photograph used here has been altered in Photoshop, reducing the image to basic black and white line and shape. Use non-archival ink and multipurpose paper in your printer to assure that the ink will bleed when wet (*figure 1*). Lay the image face down so that the ink comes in contact with the moist slab (*figure 2*). Soft slabs have a very high moisture content so no additional water is needed, but too much water can be a problem. Experiment to find the optimum water to clay ratio.

Transfer

Rub the paper into the surface of the slab (*figure 3*) to eliminate any air pockets that might prevent the moist clay from coming in contact with the printed image. Allow the print to remain in contact with the slab for 30–60 seconds until the ink bleeds onto the clay surface. Peel back a corner to see if the ink has transferred (*figure 4*). If so, peel the paper up

entirely from the slab of clay. If not, let it sit a few seconds more. Note: If you can't get the ink to transfer onto the wet clay, check the type of ink and paper. High-end, archival products that are designed not to fade or bleed and laser prints and photocopies don't work for this process.

Setting Up

Manipulate the clay while it is still soft and pliable. If making tiles, trim it to size (*figure 5*). Tip: Place the straight edge over your image as you cut, so if your hand slips, you won't cut into your image. Place a thin sheet of plastic over the slab and rub the edges gently with your finger to produce a consistent rolled edge without marring the image (*figure 6*). If you prefer to allow the slab to dry slightly, place it on a piece of drywall and cover with plastic (*figure 7*). Moisture will condense on the plastic and blur your image so prop the plastic on stilts to keep it from touching the surface.

Finishing

You can easily carve the surface at the leather-hard stage. I use a triangular shaped tool from a mini ribbon set for most marks and a tungsten carbide-tipped sgraffito tool for fine details (*figure 8*). Varying the depth of the cut with the small pointed tip produces thicker and thinner lines (*figure 9*). The sgraffito tool works well for detail work. After carving, use a damp sponge to wipe the surface (*figure 10*). This softens the edges and removes the ink so you can get a good view of your image.

Applying Color

I prefer to apply commercial underglazes after bisque firing because at this stage, the image is essentially a contour drawing similar to a coloring book. (Make sure you test any glazes or underglazes you use.) Apply underglazes one color at a time beginning with the lightest colors (*figure 11*) since you can cover mistakes with darker colors. Bisque fire to fuse colors to the surface. You can fire the tile between each application of color, or in this case, I applied three colors at one time before firing. After bisque firing, apply a black underglaze to the entire surface filling all the lines (*figure 12*) and wipe off excess with a sponge (*figure 13*). ●

Doug Gray is an associate professor at Francis Marion University in Florence, South Carolina, where he teaches ceramics and design. His work has appeared in numerous publications and exhibitions, and he also conducts workshops and demonstrations on image transfer and other processes. For comments or more information, visit his website at <http://web.mac.com/grayclaydesign/>.



1 A freshly rolled slab and a print.



2 Lay the image face down.



3 Rub paper into the surface.



4 Peel the paper back.



5 Manipulate or trim the clay.



6 Finish the edges of the slab.



7 Allow slab to dry.



8 Tools for carving and sgraffito.



9 Carve lines following the design.



10 Damp sponge the form.



11

Begin decorating with light colors.



12

Apply black underglaze.



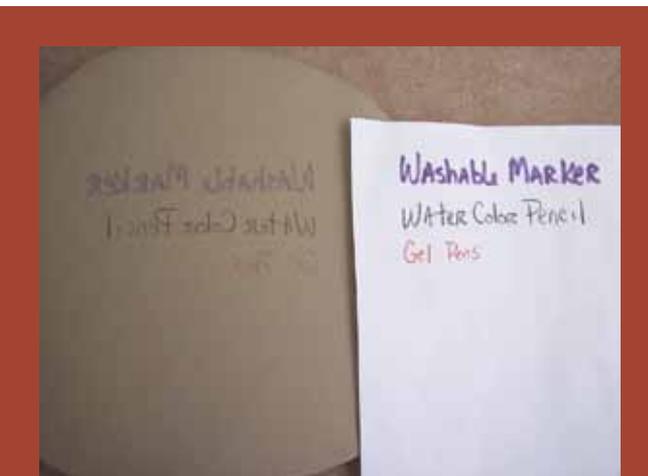
13

Wipe off excess underglaze.



14

Apply wax resist to any areas to remain unglazed. Use a clear crackle raku glaze on the face and all areas previously coated with underglaze. Because I'm using a white stoneware clay body the face fires out relatively white. The final portrait tile maintains the expression of the original photograph.



If you choose not to use digital images, consider using water soluble magic markers, watercolor pencils, or even gel pens as an alternative. Place a sheet of tracing paper over the original image or pattern and trace major contours, lines, and shapes, with any water-based medium of your choice. Lay your tracing face down on the wet slab to transfer the image.



"Dream of the White Koi," 15 inches in length, ink transfer on white stoneware, engraved, wax resist, glazed and raku fired.