

THE CITYSCAPE SERIES

Piercing and painting bring skyline to life

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ANYONE WHO HAS SEEN CHICAGO from the shores of Lake Michigan, with the city's magnificent skyline glowing in front of an exotic sunset knows what inspired me to start my Cityscape Series.

The time required to make inspiration like that come alive on the lathe takes a little longer than the average sunset, though. And, most of the work happens after the turning is finished. After the basic form was turned, the Chicago piece took about 3 full days of masking, painting and piercing to duplicate the effect of lights and shadow shimmering through the cityscape.

This is not to downplay the importance of the turning. Your piece must be perfect, with thin, consistent wall-thicknesses throughout. I always advise students to start with fairly small, open forms, so they can get the turning right and maximize the chances of success. At best, it takes a while to build up the courage to cut into a nice bowl, and to learn how to master the piercing and painting techniques. Starting with a clunky turning, with thick walls, just leads to frustration and a bunch of burnt out tools.

You should also carefully plan out what you want to do. You will be spending a long time working on the pattern and it should be something important to you. The possibilities are endless. I became fascinated with cities – New York and San Francisco, as well as Chicago; now I'm working on an imaginary Arabian Nights city in the Mideast.

Creating the basic form

When creating a new piece, I start with a freshly cut log of a light colored wood, such as Silver Maple, Box Elder or Birch. I turn a natural edge bowl to about a $1/16$ -in. wall thickness, a good thickness for piercing.



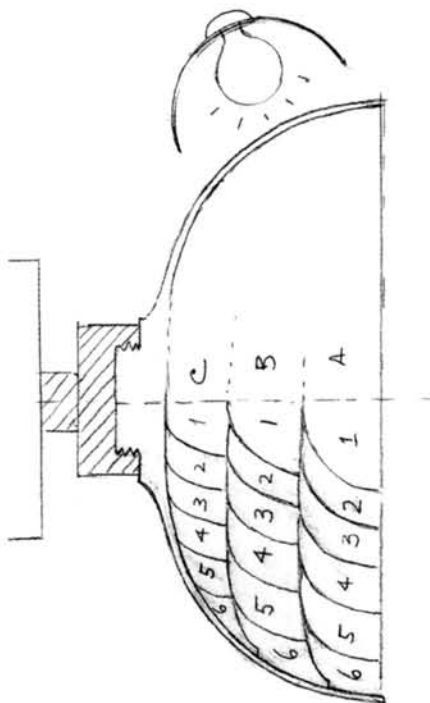
The Chicago skyline inspired the author's intricately pierced and colored vessel.

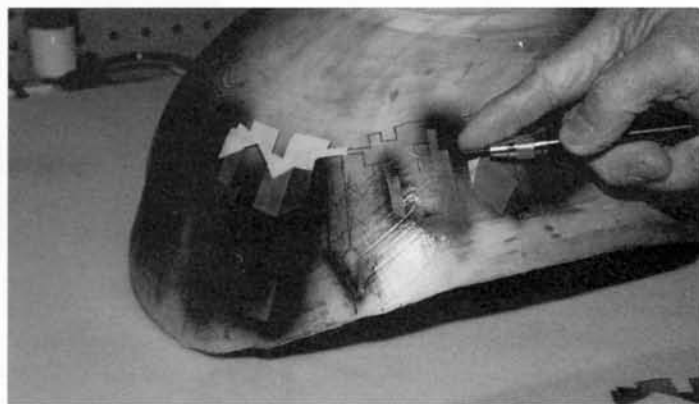
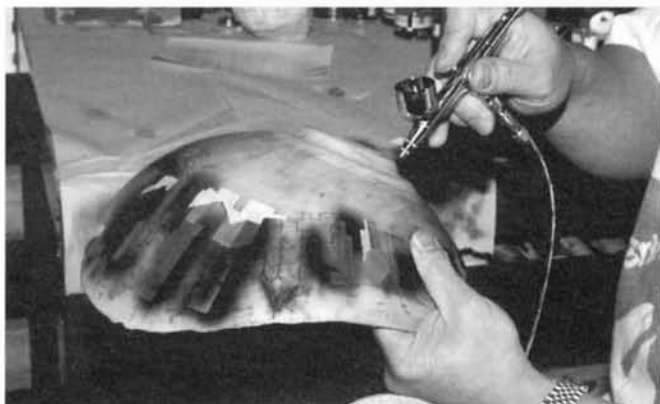
Turning a thin-walled bowl is very similar to turning a normal bowl with the exception of hollowing out the inside. To achieve the desired wall thickness, I hollow the inside, from the rim to the bottom of the bowl, one section at a time, as shown below. I start with A1 to A6, then go to B1 to

B6, and finally C1 to C6. For a deeper bowl, I divide the blank up into more sections. To gauge the wall thickness, I place a light source on the opposite side of the bowl body; the wood becomes more translucent as the walls get thinner.

Since the bowl is still green, I can't do much sanding at this point. I shear scrape as much as I can to minimize the sanding job when the bowl is dry. After the inside of the bowl is done I use the jam chuck to finish the bottom, and then I let the bowl dry. Because the wall is thin, the bowl will dry fairly quickly - between 2 to 4 weeks - depending on the humidity level in the shop. Tip: If you need a bowl to dry faster, you can use your microwave. Do not keep it in longer than a minute at a time, and make sure you let the bowl cool off after each session.

Now that the bowl is dry and has slightly distorted, I sand the inside surface and work my way out and flatten the bottom. I then apply two coats of sealer and brush on two coats of liquid mask or frisket (Spray Mask from Metal Flake Co. 508-388-6670),





Creating the skyscape: clockwise from upper left: The author applies liquid mask to the bowl; then sketches the outline of Chicago skyline on the dried mask, top right; he cuts out and removes the masking as needed to airbrush various colors, bottom right and applies transparent acrylic with an airbrush, above left. Photos and drawing provided by author.

letting it dry between coats. Liquid mask on wood acts like a frisket on a flat board and allows me to cut out the design one section at a time, so I can start airbrushing.

When laying out the outline of the desired city, I use an erasable marker to first sketch the skyscrapers, followed by the neighboring buildings. After the sketch is completed, I use a swivel-head X-acto knife to cut out the mask in the areas to be colored, and then apply color or dye with my double-action Iwata airbrush.

Paint Before piercing

The entire pattern on the outside surface is painted before I do any piercing. The painted areas actually produce the guidelines for piercing out the details of the buildings and other features.

When coloring in the buildings, I use a darker color first and then apply a lighter hue as the next layer, and so on. I do it this way because with transparent colors, the lighter color

will not obliterate the darker color; if you cover a light color with a darker color, you'll most likely lose the effect of the lighter layer.

Let's pause here for a moment to discuss acrylics vs. dyes, and single-action vs. double-action airbrushes.

Acrylics vs. dyes

While just about any paint will work with an airbrush, some are better suited than others. Fortunately there is a tremendous selection of paint available, but here I will only discuss acrylics vs. dyes.

Since dyes are a testimony to the transitory nature of art, these paints are often called fugitive. Although they are terrifically easy to use with an airbrush, they don't have a very long life span. The color choices may be more limited than other types of airbrush paint, but they mix well for designing custom colors and stand up well with masking. Because they are thin, they are easy to use with an airbrush and work best with smooth

surfaces or wood grain. They can be sprayed at a low PSI, making them well suited for hand masking. Use caution, however, exposure to light can cause fading in some dyes.

Acrylics are the airbrushing "Jack of all trades." They are versatile, reliable, and can be used on any number of surfaces, such as fabric, canvas or wood. They dry quickly, and once dry, repel water like a duck's back. They spray evenly through an airbrush and come in a wide selection of vivid colors. They stand up well to masking and can even be used as a transparent paint, if thinned properly. Some brands even offer ready-mixed transparent acrylics. The pigment in acrylics is bound with a plastic-like polymer that, once dried, is nearly impervious to anything except alcohol. This means you don't have as much to fear when removing frisket as you would using watercolors or gouache. Because it dries so fast, you don't have to wait long between coats

Of course, since no paint is ab-

solutely perfect, there is a drawback to acrylics. When dry, some can form a hard finish that can play havoc with an airbrush. Acrylic paint can turn the guts of your airbrush into a mass of plastic-welded junk, if you go to bed without cleaning it.

Types of airbrushes

Airbrushes fall into two basic types: single-or-double-action. The simplest type – a single-action – is much like an adjustable spray paint can. You preset the spray pattern, and depress the trigger. Single-action airbrushes are mainly used for single-color coverage. Double-action models provide greater control. You can alter the air's on/off mechanism while controlling the amount of paint by pulling the trigger. Controlling your paint flow allows you to vary your spray pattern from fine to broad without changing brushes or needles. It



A flurry of butterflies dazzle the author's "Emperor" vessel.



Author uses a rotary carver to pierce Cityscape bowl. Because of the small size of the pierced opening, he uses a magnifier lamp, which also provides a shield from any debris produced by the carver. Despite the small amount of material removed, many carvers still recommend additional eye and dust protection.

helps to dry the paint, and it allows you to layer the paint more efficiently. Because it provides greater control, most airbrush artists, even beginners, select a double-action model. If you're looking for versatility, there are brands that come with changeable tips and needles. You may pay more for the extra parts, but in most cases, the cost is less than purchasing an additional airbrush. (Note: I will have more information regarding color and airbrushing available to you at the symposium in Charlotte.)

Piercing the colored bowl

When all of the artwork has been colored, I remove all of the masks. I start piercing the outline of the buildings with the piercing tool. For this building design, I've chosen to pierce around the buildings with the geometric shapes, such as rectangles and triangles as a compliment.

I primarily use two tools for piercing my pieces. One tool is from Paragrave in Orem, Utah. The hand piercer has a pencil-like tool, which is easy-to-use, but can give you finger

fatigue after about 20 minutes.

The other tool is similar to a dental drill made in Saskatchewan Canada by Terrence DaSilva, which Frank Sudol also uses. This hand piercer is similar to a right-angle cutting tool, which is a little harder to learn, but is easier on your fingers.

Because the cutting is so rapid (up to 400,000 rpm), this air powered drill can make very fine control possible.

Both tools are well made and I like to use them equally, depending on the application. They both require a steady stream - .8 to 1.5 cfm - of compressed air at between 30-45 lbs. psi.

Final touches

Inside the bowl I airbrush a color that imitates the magnificent tones of sunset when viewed from the front. The sunset color then blends into the night sky, so when the back side is viewed, it resembles an evening sky. The final touch is painting the lights in the buildings, as if they were on at night. I use a pearlescent textile paint and dot it in patterns to finalize the piece.

MY PHILOSOPHY IN PIERCING DESIGN

If you have a carving tool in your hand and a thin piece of wood to pierce, the question always is, "What should I cut out?"

Just as with turning, the answer is "you cut away any wood that doesn't belong in the piece you've envisioned." I think Michelangelo said something like that about sculpture.

My philosophy is: "What do I want to express?" Piercing to me is negative space in the design. Negative space, as you probably heard in art class is the "empty" space forming a sort of design halo around the physical components of a piece. I use two types of piercing – negative dominant piercing and positive dominant piercing – to capitalize on the design possibilities of open space.

Negative dominant:

Here, I remove a great deal of material in the piercing area, as shown below in Figure 1. What's left links to

the other remaining components with fine lines that compliment the design.

In the Chicago Cityscape, shown in the first page of this article, I pierced out geometric shapes above and around the buildings to compliment them. In the Emperor, shown on the previous page, the piercing in the butterfly wings compliments the air-brushed butterflies.

Similarly, on one of my other pieces, I pierced out a lot of bamboo leaves to give you the illusion of being in the forest.

The key to successful piercing is the design. It should resemble a lace pattern or fit together like puzzle pieces. Piercing without a sense of interlocking sections, as shown below in Figure 2, looks like a bunch of shapes next to each other. Each section should interact with the next.

Positive dominant

With this approach, more material



Walnut goblet by Steve Sinner of the Chicago Woodturners.

is left; the solids carry most of the design. You should never complete a loop; the negative spaces are created only by the width of the cutter and the line which you pierce. The key to success in this technique is that the turning has to be very thin, so that the fine line of the negative space can show through. Steve Sinner used this technique very effectively in his exquisite walnut goblet design, shown above.

I wish you luck in your next piercing project. Please visit my website at wondersofwood.net to view my online woodturning gallery.

Binh Pho is a turner and teacher in Maple Park, IL. He will be a demonstrator at the 14th AAW Symposium in Charlotte, NC, June 30-July 2.

Note on Supplies

The Paragrave I describe in this article will cost you about \$420 for the hand piece and filter/regulator. Paragrave 800-343-1717.

The dental drill will cost \$390 US for the hand piece, filter and foot pedal. Terrence DaSilva 306-764-6447.

Negative Dominant Designs

Fig. 1: Effective Piercing

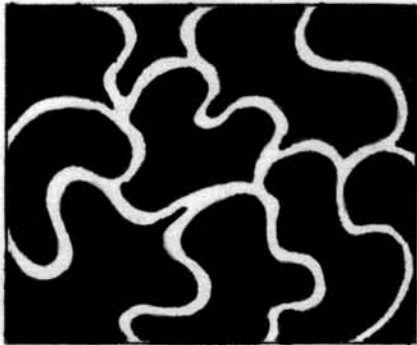
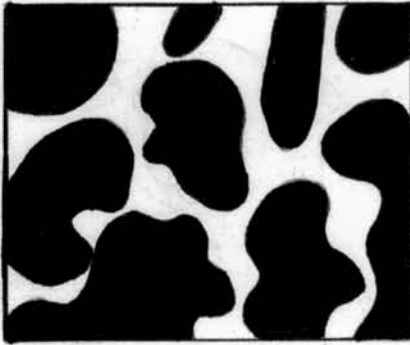


Fig. 2: Badly Designed Piercing



White Areas Represent pattern created by wood left behind. Black areas show the negative space, or pierced out areas.

Positive Dominant Design



Fig. 3: Effective Pierced Pattern