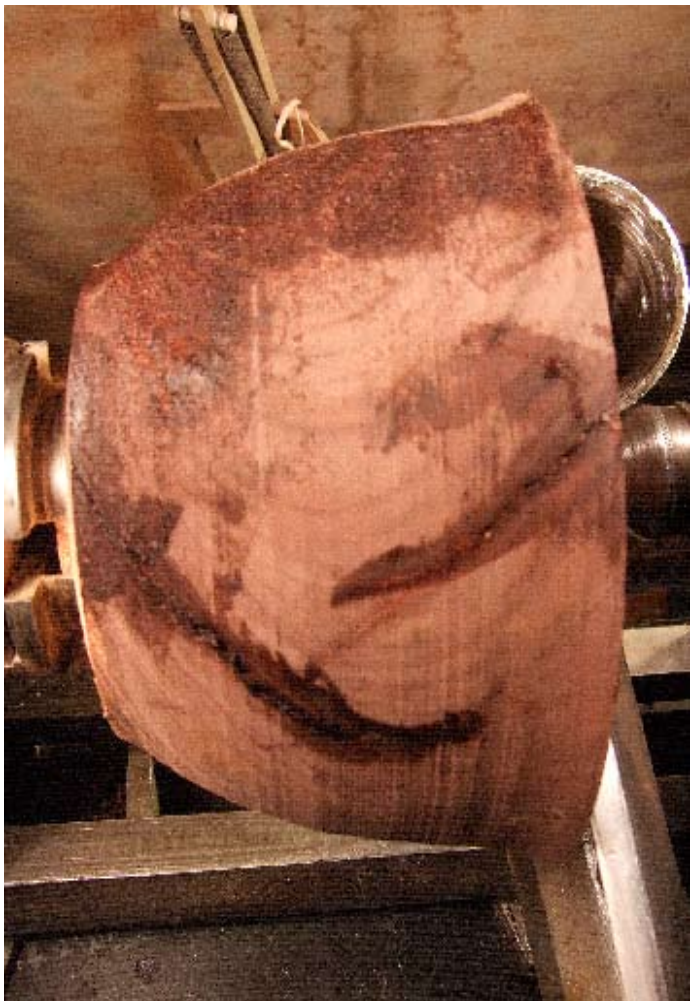
The Story of Judith's Wedding Bowl

by Bob Heltman, CMW, AAW © 10-10

There is a very nice young lady in our church, named Judith. She and her parents, and brothers and sister, are stalwart members. Judith told us she was getting married; a fine young man named Jose. Being invited to the wedding, I felt moved to create a wedding-salad bowl for this special young couple.

So, I searched my supply of turning blanks. Back in 2002 my neighbor, Dan Owen, and I visited the Asheville, NC stump dump. We were so lucky to find and retrieve a walnut tree trunk about 3 feet in diameter and 8 feet long. It was 82 years old. From this rare find I cut many fine bowl blanks. Some I saved, and from those few left I chose the one described in this story. Fig. 1 shows this piece, with its cracks and odd spots initially treated with super-glue, and rough turned. Such wood, with its imperfections, is a lot like us humans, and correcting the flaws seems almost morally significant to me.[1]



One of the obvious and first blemishes to see was a large "V" shaped void in the rim. See Figures 2 &3.

Since there was still a lot of wood to be turned away, and I wanted safety and stability as this vessel spun at 500 RPM, I squirted a copious amouont of supergle in all the voids and cracks. The surface staining would all disappear as the wood was turned. Fig. 3 shows this process and you can surely see the results.

As I slowly refined the bowl's shape, and pondered what to do with some of the cracks, it was a good time to experiment. One of the tricks learned at our turning club (www.carolinamountainwood-turners.org) is to fill such cracks with house key filings (from that key making machine at your local hardware store) soaked in superglue. I had some silver mica powder, ditto gold powder, key filings, and I even wanted to try packing in some gold foil, then soaking the cracks with superglue. Figure 4 shows the foil packing process. The "tool" in the

upper right is an inch of brass strip glued into a split in the end of a 1/4" dowel...a sort of mini-spatula. I was amazed at the amount of the very thin foil that could be packed into just a small length of crack! The brown filler at the left is gold mica powder packed in, superglued, and sanded. I figured this would show the contrast with the foil.

The advantage in doing this sort of experimenting EARLY in the development of the turning is that the results can be turned away. The lessons learned can then apply once the turning is nearly finish turned, just before final sanding. Figure 5 shows adding the gold mica dust, again using the little spatula.

It is OK to smear a little excess onto (and into) wood adjacent to the cracks as later sanding will remove all but what is down inside the crack.

Figure 6 shows a long crack with silver dust, key filings, gold dust, and gold foil, all superglued and sanded.

I was not pleased with anything but the gold foil, which showed reflected highlights. Worst and most disappointing was the gold dust. It simply looked like drab mud. This crack and its contents were turned away as I continued to develop the bowl's profile. In the back of my mind were some other options. One was to fill the cracks with walnut wood dust and superglue; another old trick. Or, I could color some epoxy, perhaps red, and emphasize the cracks that way while adding strength to the overall vessel.

At this point I let the "crack decorating" issue rest and moved to further develop the rim and inside of the bowl. This well dried walnut was tough and hard. Adding difficulty was the cross grain found around embedded knots and other cracks and voids. Figure 7 shows the inside of the bowl and rim. I found some nice quilting pattern disclosed

on the flat rim, one of the main reasons I like such a rim on bowls. (Walnut dust is particularly ornery; notice the 4" flexible drier duct NEAR the mouth of the bowl.)

It is also a good idea to go back and forth, checking and adjusting the outside profile, before turning too thin a vessel wall while doing the hollowing. Figure 8 shows the altered profile which is pretty close to final form. As this will be a functioning salad bowl, I want the rim to be easy to hold, and the bottom foot to be wide enough to avoid the bowl's tipping over when in use. There is a gentle outside curve that should show the fluting well, which I will add later. A "bad" knot shows, and that "V" void in the rim keeps reminding me that I will need to make a decision about it "sooner or later."

As is the reality with a lot of my woodturning, life's real-world tasks interrupt, often for a day or more. Each time I return to the lathe I tighten the chuck,

which has been pressing into the bottom tenon. And when I turn on the lathe I see how much out-of-round has happened as the wood dries further and internal tensions are removed. This usually happens, even in dried wood. It all adds to the fascination and challenge of woodturning.

Next day I tightened the chuck, started to turn the inside of the bowl, my gouge caught, and the tenon broke off! Two factors were involved. First, the chuck was tightened about 5 times over the several days, further pinching and compacting the tenon. And, that wood was part of the more fragile sapwood. The cure was to glue the tenon back on, reverse chuck the bowl, and turn a new foot tenon, this time into firm heartwood. See Figure 9.

The catch was partly due to my gouge being over extended beyond my regular tool rest, so after this calamity I changed to my curved tool rest. See Fig. 10.

The inside walls were uneven, heavily tool marked, showed "jump" places where the gouge caught on knots or cracks, and had end-grain tearouts. For such difficult sanding jobs I turn to an unusual sanding tool, a grill or sanding stone made of glass blown full of air bubbles (http://www.goearth-stone.com/). It quickly sizes itself to the shape of the wood surface and really removes wood! And these glass sanding stones come in Coarse, Me-

dium, and Fine sanding grades. See Fig. 11.

I next determined that the open cracks on the inside of the bowl should be filled with walnut sanding dust. Such dust from further sanding at 220 grit was packed into those cracks by finger tip, and then soaked with thin superglue. Sanding smooth, repacking dust as needed, regluing and again sanding would complete the job. See

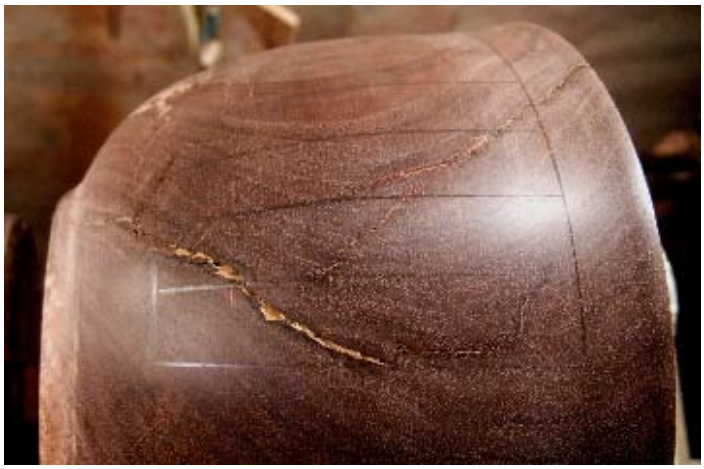
Fig. 12. The dark glue staining will eventually disappear into the interior's finish.

With the bowl's interior completed, sans finish, the next task was to flute a portion of the exterior. To do this I mounted my homemade indexing wheel, pinned tightly behind and by the chuck. Next I removed the standard tool rest and installed a special one I had welded up as a metal "T" onto which I screwed a shaped piece of 3/4" plywood. A block of wood with a pencil taped on top was adjusted to exactly cause the pencil's point to touch the center of the tailstock's center, by raising or lowering the new tool rest. See Fig. 13.

Rotating the bowl by hand I pencil marked a circle around the bowl about an inch down from the top, and another circle about an inch up from the

bottom. Then, using the indexing wheel, I marked horizontal lines between the two circles ringing the

bowl. These were spaced so a shallow flute could be cut, using a 1" diameter router bit. Figure 14 is a close-up. Note that the experimental gold foil filled crack will be essentially wiped out by the fluting. Assuming the crack remains, it will be again filled



with compacted gold foil then soaked with super-glue. By now I decided that the "gold vein" appearance on the vessel's outside looked attractive and would be the ongoing theme.

Figure 15 shows the router bit held in an air grinder. Fluting in this manner is a bit risky, and a VERY firm hold on the air grinder is vital. So is pointing the bit straight into the wood. Otherwise the router bit will want to climb upward into the next flute, ruining things considerably and making for more "design opportunities" than might be desired.

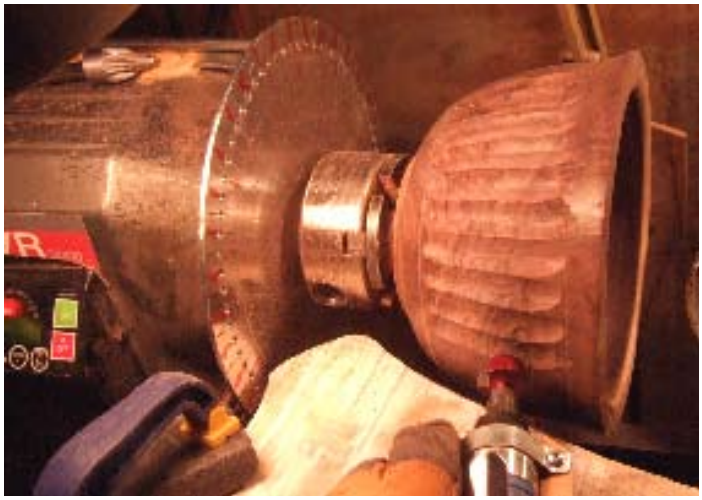
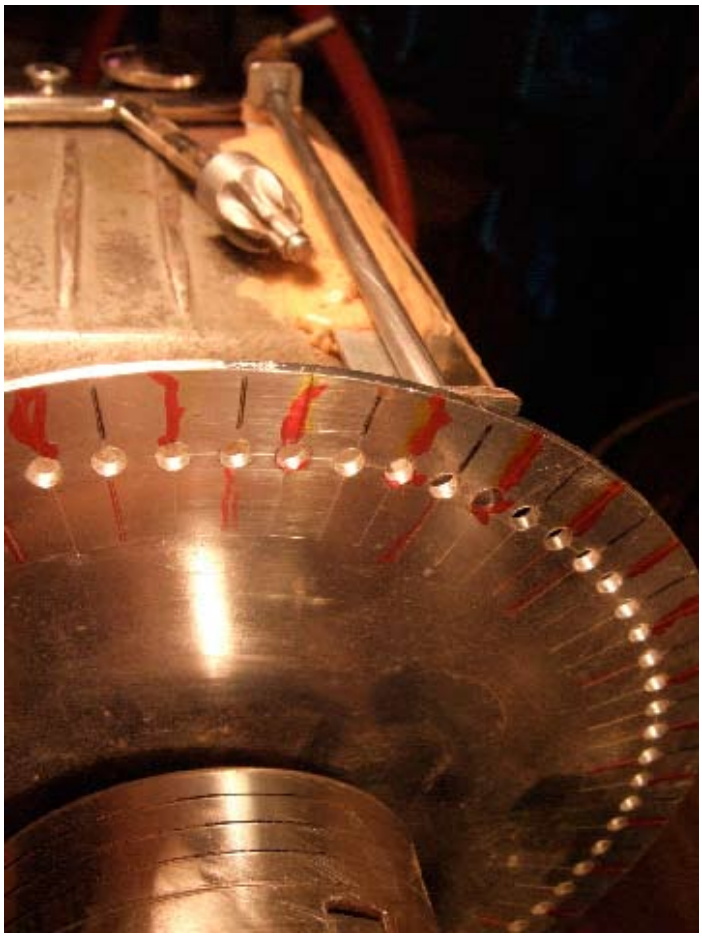


Fig. 16 shows the indexing wheel. The upper red marks indicate each hole where the stop-rod would go so each flute was made in the correct place, between the pencilled lines. Everything has to be kept tight so the router vibrations do NOT allow rotational creeping of the bowl!



After the flutes were routed, a sanding drum was placed in the air grinder and run up and down the flutes to sand out rough spots. See Fig. 17. In the foreground is an often used rubber block style sand-

paper cleaner.

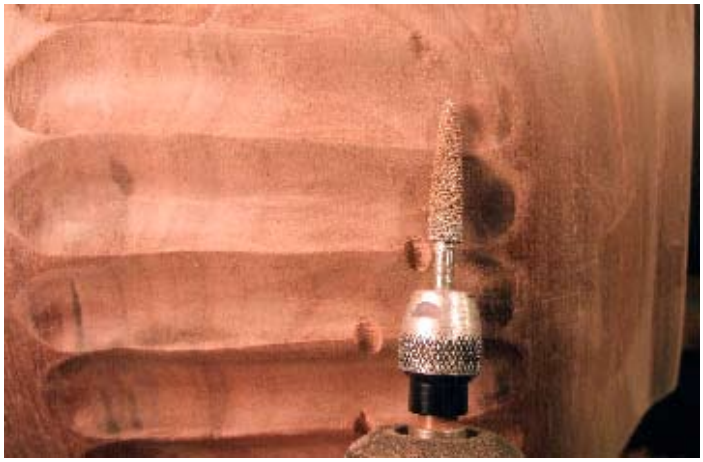
A little hand sanding was still needed here and there, but attention next turned to the deep "V" flaw in the rim. I wondered about embedding some precious stones in clear epoxy, so stopped in my local *Mineral & Lapidary Museum of Henderson County*, and picked up some Citrine crystals still in a substrate. See Fig. 18. By using the sharp nail set and tapping lightly with a hammer I was able to pop a number of citrine crystals loose. Two were selected to temporarily set in the "V" crack in the rim. See Fig 19.

While the color was subtle yet nice, and I puzzled over this approach, ultimately I decided that adding the gemstones on top of gold highlights was just too busy and distracting. So, the citrine crystals were placed in a polybag for storage and use. later on another project. I would fill the "V" with Bondo ™ and gold leaf that area. One learns by letting ideas lead to experiments, and thereby the design evolves.

Bondo covered with gold leaf is what I did. It is wise, for a food vessel, to not have cracks and voids where food particles can get stuck and decay...leading to food borne illnesses.

When reverse chucking the bowl to finish the bottom I noticed a nick about the size of a small garden pea in the peak between two flutes. I puzzled over this. A citrine crystal was ruled out as before, along with the added reason that a sharp crystal could snag something or cut a finger. Filling this type void would be like putting a filler at the top of a pyramid...a little too obvious and perhaps too easy to knock off.

After more pondering I decided to put a small carving burr in my Dremel© MotoTool and simply carve out the rough nick. Then I looked at the result and a playful notion came to mind to put a similar carved nick in each of the peaks between flutes, and do so in a running pattern around the bowl, causing the eye to follow that pattern and discover the various gold leaf highlights, wood patterns, and enjoy the overall visual experience. Figure 20 shows the burr used and some of this running pat-



tern.

With some final touchup hand sanding done, I applied a gel varnish inside and out, let it dry, and then coated with Briwax™ and polished with a

rotating brush in my battery powered hand drill. Figure 21 shows a top view.

Figure 22 shows the bottom. Here I inscribed 4 circles and within woodburned the dedication along with my name, date, and type of wood. The circles help prove lathe turning was done, as they show "the kiss of the lathe." They also nicely set off the woodburned lettering. To signify a marriage I showed two hearts joined with a Cupid's arrow.

Figures 23 and 24 are opposite side views, and illus-

trate the "gold veins" as well as the small burr cuts meandering around the vessel.

Well, there you have it. While I started with the general notion of a salad bowl, I let the overall shape of the turning blank, and the various flaws encountered as I turned all help define the final version - Design by Evolution. It is a tactile rich and fascinating bowl. ☺☺

End Note:
1 - However, the question of perfection brings to mind my attending a Lawn & Garden Trade show in Louisville, about 14 years ago. One of the vendors had a booth showing unusually decorated law mowers. One, for instance, had a large fake football helmut covering the engine; an advertising gimmick.

To further attract attention this vendor had employed several scantily clad female models. One was a very striking blond, whose skin was perfect. Not a mole, freckle, nor any other blemish whatsoever, and we looked hard. Indeed, she was as perfect as a field of freshly fallen Swedish snow. Since the skin is the body's largest organ, and since she was quite shapely, we determined her perfect skin area was 1.7 square meters, which is 17,000 square centimeters. Her teeny-weenie bikini covered no more than about 14 square inches, which is 91 square centimeters.

After numerous casual visitations to this vendor's booth, examining things scientifically from all angles, we were 99.978% certain there were no warts under those 14 inches of cloth, but if there were, they could only account for a maximum of .005352941% of her gorgeous self.

Find wood blanks that perfect and you are very very very very lucky.

Otherwise, let your design evolve around imperfections.