The Lathest News
Golden Triangle Woodturners

August 2007 Volume 5, Issue 8

A Chapter of the
American Association
of Woodturners

Inside this issue:

We meet the first Monday of each month at 7:00 pm

East Craft Room
The Center for Visual Arts
400 East Hickory
Denton, TX

(located at the corner of Bell Avenue and Hickory)

Next meeting – August 6th

Gene Colley
Featured Demonstrator for August

This months Demonstration will be focused on "Tree to a Bowl". The purpose is to illustrate how turners can take advantage of "fog" (found on ground) wood and turn it into lovely bowls and turnings. Please find Gene's bio below

I was 12 years old when I turned my first set of salt and pepper shakers out of dried, soft maple left over from something my Dad had made. They were 4" tall and about 2" in diameter. The lath that I used was an old tabletop lathe that my Dad had from his childhood that needed a motor and had to have the bronze bushings oiled about every 30 minutes and the tail stock only had a cup center, so it had to be oiled all of the time to stop the squeaking! I used an old set of Sears's tools that had not ever been sharpened and I scraped and then sanded until the spindles were smooth. Today I use a Powermatic 4224 and use high speed steel to cut the wood and instead of starting with 60grit sandpaper, I start with 120 or 180.

This month we are going to attempt to show you how easy it is to turn a green log into a finished bowl. If you search on the internet you will see half a dozen ways to cut the logs up to create bowl blanks and they all are great and they each will render a different bowl design, but there are only two types of bowls in a tree. A cross-grain bowl and an end-grain bowl. For simplicity, I usually make my green bowls the same size, or the maximum size that I can get out of a log. Since the trees we have here don't usually lend themselves to giant bowls, this isn't a problem. If you are fortunate enough to get some larger pieces, we can discuss an easy way to make multiple bowl blanks from one piece of wood. The size of the bowls you turn is only limited to the size of your lathe.

What we will demonstrate in this demo is how to chainsaw the log into a manageable size and then rough cut a bowl blank with a chainsaw. We will then rough turn a bowl and then turn a dried bowl and apply a finish that will allow you to use the bowl at your dinner table.

The hand-out you will receive is from 'TURNING GREEN WOOD', by Michael O'Donnell. Many books have been written about woodturning, but none of them have addressed green turning as thoroughly as this one. It has been a very good guide to me and I would recommend that if you are in the market for a good woodturning book, this is a good one to get.

Below demonstrates how you can go from log to bowl in 3 easy steps.

Gene owns and runs Canyon Studios for Artists where they feature hands on instructor led training on woodturning and glass artistry. See details and schedules for classes at his website at http://www.canyonstudios.org/

SWAT update

Remember to register for SWAT. The deadline for early registration and the prices included are September 8th. Please note there is a registration form on the last page of this newsletter.

President's Platter

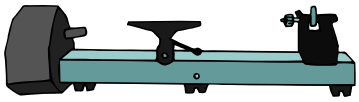
If you were unable to attend the AAW Symposium in Portland, Oregon this year you missed an excellent opportunity to see some of the great turners demonstrate their techniques. Watching any of these demonstrations was a chance to see how they set up and turn their work. It was a was a chance to learn new techniques or reinforce some you may have forgot. For me, the best part of the symposium was the Members Gallery. There was a room set up for the attendees to bring things they have turned for all of us to see. I never cease to be amazed what turners from around the country can do. The creativity put into each piece was impressisve.

A quick comment on future demonstrators for the club. Gene Colly who has set up Canyon Studios in Copper Canyon, is drawing in excellent instructors for his classes from around the world. When these folks are in town at the time of our club meeting we are trying to get them to do a demonstration at our club meeting since they are already in the area. More to follow on this.

Finally, a plea for everyone to please bring in your donations for empty bowls. We have very few and the deadline is fast approching. Don't be bashful, all bowls are needed.

Pete Tkacs (2007 GTW President)

Turning Tips & Info



This month we will focus our turning tips on Sharpening tips to stick with the theme of our last demonstration. Please note that the internet is full of great resources for sharpening tips as well.

Below is an article from the website http://www.Woodturningonline.com

by Lyn J. Mangiameli

This is a longer version of some comments I posted elsewhere. I'm putting it forward on its own and in this expanded version in order to foster some additional thought about the principles that underlie proper sharpening practice, and to call for us to then go on and test those principles in a scientific fashion. How sharp one wants their tools may be a matter of personal preference and technique, and how much one spends for a sharpening system may be determined by economic limitations as well as choice, but the principles underlying what is effective and optimal sharpening of woodturning tools can be (and to a great extent has been) determined objectively.
The questions frequently come up:
How sharp should my turning tools be, and what is the best way to sharpen them?
In a sense, sharp enough is whatever matches one's sensibilities. I've seen people use tools literally as dull as a table knife, and despite the resultant bruising and tearout, those people were happy enough with the edge they were using. 've also read of Japanese workmen who would sharpen a plane blade after each stroke, just because they believed every cut should be made with a tool as sharp as it could be.
So, I think there will never be consensus answers to the above questions, as decisions are made according to personal factors at least as much as science. Nonetheless, I would suggest that there are several issues worthy of consideration, whatever your particular approach to sharpening. consider four things to be important with respect to sharpening:

1. Determining and Obtaining the correct geometry

2. Repeatability of set up to maintain the geometry first established 3. Producing the least heat possible when removing metal 4. Producing the most consistent ("sharpest") edge appropriate to the work the tool will perform.

Determining and Obtaining the Correct Geometry
Determining and obtaining the correct geometry is the starting point for all sharpening. If one does not choose the correct effective cutting angle, included angle, and shape, then one is not going to achieve optimal performance from the tool. Just what the correct geometry is will depend on tool and application, but there will always be some optimal geometry. See the books by Leonard Lee and Mike Darlow to explore the general theory behind this (there are others, but these are some of the more modern and accessible), and Jerry Glaser's article in the March-April issue of Woodworker West for excellent advice specific to sharpening gouges. A jig can be pre-set to achieve a specific precise geometry, and makes it more likely you will actually achieve the geometry desired. Having a stable vibration free grinding platform, and balanced trued wheels (if you are using grinding wheels) are also important to obtaining and retaining proper geometry.

Repeatability of Set Up

Repeatability of set up to maintain the established geometry is highly desirable and will reduce your sharpening time, increase your tool life, and make the tool predictable in use. Renewing a dull edge actually requires removal of very little material, if you are presenting the tool precisely coincident to the existing geometry. Free hand sharpening will never allow for optimal repeatability, while jigs such as those that come with the Tormek, Jerry Glaser's, the Woodcut Tru-Grind, Kelton and Oneway Wolverine, among others, make it much more likely you will repeat the original geometry of the tool. To quote Jerry Glaser, who has probably around more gouges than anyone, "...it's difficult-even with the aide of a tool rest to reposition the bevel against the face of the grinding wheel exactly the same way each time, if you are doing it free hand. The usual result is a bevel composed of many facets, some of which may actually affect the edge. To compound the problem, the shape of the bevel gets altered with each trip to the grinder, so that in a short time, it barely resembles the original shape. And with a multi-faceted bevel, it is difficult, if not impossible, to hone the resulting edge properly. When the tool gets dull, the only recourse is another frustrating session at the grinder, and more expensive tool steel turned into grit on the floor." While with a repeatable set up, "...you now have a bevel that can be easily honed because the edge and heel are clearly defined. You will also have a tool that behaves the same through all its sharpening cycles. And the tool life is extended."

Producing the Least Heat

Producing the least heat possible when removing the metal is well established principal among users of hand tools, but is often ignored or overlooked by turners. Certainly high carbon steel can easily lose its temper when exposed to high heat, but HSS and other "exotic" alloy steels are not immune to ill effects. Serious Lathe, makers of A-2 steel tools, posts this caution from their steel supplier, Latrobe Steel: "Improper grinding techniques can affect the performance of high speed steel tools not only by the formation of grinding cracks and eventually breakage but also by the developmet of a softened surface zone. In many cases the visual appearance of this softened zone is deceptive since the amount of visible burning often appears very slight yet the microscopic effect can be shown to progress a considerable distance below the surface with consequent deleterious results on tool performance. This fact is particularly important to keep in mind when subsequent grinding/polishing operations remove the visible burn color by a very shallow grinding pass."So how does one reduce such heat? Four ways:
A. Remove the least amount of metal necessary, as David Ellsworth likes to say, "Don't Grind the Tool, Dress the Bevel." (If you are going to be removing a lot of metal, use a coarse abrasive. Jerry Glaser actually uses a 46 grit stone, but for most something closer to a 60 grit is preferable.) B. Use an abrasive with sharp edges. (For a grinding wheel make sure it is a friable stone dressed often to reveal sharp edges; for sanding belts or disks make sure you replace them regularly.) C. Apply minimal pressure. D. Remove the tool frequently to allow it to air cool, or better yet, use a wet grinding system. (However, don't dip a dry ground gouge in water. To quote Glaser again, "a water quench cools the thin edges of the tool much more rapidly, causing them to shrink more than the bulk of the tool and the edges may develop small cracks as a result." One can see a picture of this in Leonard Lee's book.)
As can be seen from the above, just reducing the speed of the abrasive moving past the tool (i.e., a slow speed, 1750 rpm grinder or sander) does not guarantee cool grinding-there are many other factors that together are much more significant.

Producing the Most Consistent Edge

Producing the most consistent edge appropriate to the work the tool will perform. What I mean by this is how regular is the edge. An edge formed off a coarse wheel may well have the intersecting angles be sharp, but the edge will be uneven due to the uneven surface of the stone, thus leaving an edge that looks, at best, like this V VVV VV VV V. An edge that is formed on a fine grit wheel will have a surface more like this vvvvvvvvvvvvv. The tips of the V's may be equally pointed, but there is more side support to the more closely and evenly spaced tips. The widely spaced coarser V's are going to heat more quickly, and will break down more quickly. This is in part why a "sharper edge" (which might be better called a finer edge) will actually be longer lasting than a coarser edge. The effect is actually more pronounced than the example implies as the variation is really in three dimensions rather than the two shown. The importance of a refined edge (and indirectly, the other factors listed above) was actually tested by Robbie Farrance several years ago and was presented in Woodturning Magazine, Issue #70. Farrance compared the edge obtained off an 80 grit white wheel followed by honing with an Arkansas slip stone against an edge obtained using the Tormek. Using a sample of 16 pieces of wood, equally divided into hard wood and soft wood, he measured how much wood could be removed by the tools in a measured time, over a measured distance, giving a resultant depth or volume of wood removed. What he found (and displayed through graphs in the original article) was that the Tormek ground tool "was performing better than the dry ground, both in terms of durability of the cutting edge and the finished surface of the wood—the wet-ground tool gave the best results on a consistent basis, and far outlasted the dryground tool in terms of durability." In his conclusions he wrote: It's generally assumed that using a slow-running water-cooled system will be time consuming, but this turns out to be more supposition than fact—the evidence suggests that using a wet-grinding method gives a sharper edge and cleaner cuts with more than double the effective turning time between sharpenings...even after 18 minutes of continuous turning in softwood, the well ground tool was still cutting more than three-and-a-half times faster than the dry ground tool." What I would say here is that it is likely his findings are not representing wet vs. dry grinding so much as it is demonstrating the advantages of preparing your turning tools consistent with the principles I have described above. What this adds up to is that precision and repeatability are major factors (but obviously not the only factors) in achieving the optimal balance of tool life, sharpening time, and performance. For me, this means using a Tormek for almost all my tool edge maintenance, and using a jig like the Woodcut Tru-Grind or Kelton with a coarse wheel for initially establishing any changes in geometry. One obviously doesn't need to duplicate my system to obtain a usable edge, but I would offer that the more your sharpening method adheres to the principles delineated (which the above system does so well), the better will be your cuts, the longer your tools will last, and the less time you will spend sharpening.

Advertising

Cottonwood Logs

I have located some large cottonwood logs that are easily accessed in southern Grayson county. They are 17-20 inches or so in diameter (not including the bark). They are long and no limbs. The county cut them after a storm and dragged them out of the creek. I have green turned some nice bowls ranging from 14-19 inches in diameter. They make nice salad bowls. If anyone is interested in obtaining some cuts let me know and I can give specific directions to locate them. They are in the county road right-of-way. I you want some cuts but don't have the equipment to cut the logs into blanks, I can provide that service for a reasonable fee. I usually cut the log into 24 in sections, remove about 2 in that contains the pith and cut a slab off the back. This gives blocks 24 in long, 17-19 in wide and 6-8 in thick. Of course I can cut them smaller, but these are about as large as I can handle

Thanks
Martin
mhbeauford@cableone.net

July Bring Back Winners

There were lucky members of our club that were winners of "bring backs" at the July meeting. It is now their turn to bring back an item (turning) that will be raffled at the August 6th meeting. Good luck to all !!!
If you were a Bring Back winner at the last meeting, please be sure to bring back an item for the August Meeting.

Calendar

August 6	Monthly Meeting at Greater Denton Arts Council, 7:00pm.
August 21	Monthly Board Meeting, 7:00pm. All members welcome to attend.
September 8	Denton Antiques and Auto's show (Denton Square)
	SWAT – Wichita Falls TX – See Application on back page
October 13	Celbrate Roanoake (Come turn tops and toys for kids)

Officers

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