Woodturners Guild of Ontario

Interactive Online Newsletter

LOCAL AAW CHAPTER

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Woodturner **n. A person who enjoys the art and process of shaping wood into various forms**

"ask not what your guild can do for you; ask what you can do for your guild— you get back what you put in"

September 2005 VOLUME 1 ISSUE 1

AAW SYMPOSIUM REPORT (Kansas City KC) by Steve Mushinski

Once every year the AAW hosts a woodturning Symposium held in a different State within the US. It is a great opportunity to see some of the best turners from around the world demonstrate their talents. A highlight is the "instant gallery" which showcases turnings and wooden art from members and attendees. Its located in a large room where one can spend hours walking up and down the aisles, admiring the outstanding work displayed. This year the attendance was over 1400 people. There were over 40 turners presenting woodturning demonstrations and seminars within fourteen rooms, on 11 scheduling rotations. I left with my mind spinning from all the information and ideas to take home with me.

Canadian demonstrators were; Art Liestman, Andre Martel and Frank Sudal. An auction at the banquet dinner raised money for the AAW education fund. Canadian turners were extremely well represented at this years meeting. Our very own member, Fred Klap donated a lidded box with his unique style of finial, and raised $600 US. Fred has set a new standard for finials "They do not have to be round". Fred's Witches (his entry into the Land of Oz display (Picture)) will be on the cover of the next issue of the American Woodturner. Marilyn Campbell's donated piece at the auction brought in over $1500 US. Marilyn's work is outstanding as an art form and justly, is being recognized on the international and world stage. From Ottawa, Malcolm Zander donated many turnings to the auction which helped bring the total funds raised to $68,000. In total, over 100 turnings were donated. Next years symposium will be held in Louisville Kentucky, on June 22-24 2006; This might interest many of our members as it is within 9 hours driving distance from Toronto. For more information on past and future Symposium's see the AAW's web site : **www.woodturner.org/**

Photos by Kurt Hertzog - NY Woodturners; **www.turtlewoodworks.com/aaw05/aawig05pg01.htm**.

Photos by Mike Schwing: **www.schwingwoodworks.com/oz**

The Green Thumb—Turning Wet Wood
Intermediate Turner Perspective — by Michael Finkelstein

I've been working with wood for over 25 years and woodturning with green (wet) wood since 2002. I first turned with dry wood and paid the price of gold for quilted maple, walnut crotch, etc. Then, two things happened that changed my wood-crafting life; my wife and friends suggested that I get involved with a woodturning club — and I read three books; "**Turning Green Wood**— by Michael O'Donnell" (ISBN 1-86108-089-1), "**The Lathe Book**—A Complete Guide to the Machine & Its Accessories", by Ernie Conover (ISBN 1-56158-416-9), and "**Understanding Wood** –A Craftsman's Guide to Wood Technology", by R. Bruce Hoadley (ISBN 1-56158-358-8). I'm learning new techniques since I became involved with the WGO. Turning wet wood gives me more control in creating the form & shape. I use local hardwoods that I personally get from tree recycling sites or local arborists. My preference is to select wet hardwood logs with unusual shape, design or "**figure**" in the grain, such as unions or Y-junctions of the tree with visible crotch figure. I prefer to use active, summer-felled wood, for ease of cutting and the higher moisture content of the wood. First, I visualize the bowl in the tree (see below), then rough-cut the log with a chain saw. Next I place a circle template over the log and band-saw a radial cut on the bowl blank. I trim the bark off of the bottom of the blank so that I have a flat surface to place my face-plate later. Next, I apply end-sealer paint on the end-grain and knots. I store the blank on a shelf for at least 1 week, to allow the wood to stabilize with room temperature. I mark each blank with the date cut, wood type and wood source/location. (If I know exactly where the tree came from, I will mark the street name on the bowl). When rough-turning the blank into a bowl or hollow-form, I leave enough wall thickness to compensate for possible warping during the drying process. ***Continued on page 7***

If you are planning to start cutting trees, I recommend that you get hands-on training in the safe use and maintenance of chainsaws, from a qualified person such as an arborist or tree yeoman. I also suggest that you read the guide-book titled "**Chain Saw and Crosscut Saw Training Manual Course** — Student's Guidebook" ISBN 1-897030-21-5" - Originally published by the USDA Forest Service, its now available at Lee Valley Tools. To help you identify local hardwoods, purchase a copy of "**National Audubon Society Field Guide to Trees—Eastern Region**" ISBN 0-394-50760-6.

Happy Turning !

Bowl-in-the-Tree

Bowl Blank

Finished Form

Inside This Issue

Message from
Richard Pikul, President

Welcome to the first issue of the new WGO publication !

As you will discover, there is more than the same old print. In this and following issues you will find informative articles on a wide range of subjects, lots of links to interesting sites, suggestions for books to read and news about our Guild members.

We can thank Michael Finkelstein for contributing his time, energy and experience to produce this new way of exchanging ideas between our members, and on line to the world. Michael plans to produce a new issue every two months. This is an ambitious goal and we must all support him with periodic contributions of articles and news.

Do you have a new turning technique, solution to a common problem, a tool review or an interesting project idea? Contact Michael with your ideas, he will be able to make suggestions and help you write an article. If you are not a WGO member and are reading this newsletter from our web site, please send Michael your comments and suggestions by e-mail:

michaelfinkelsteinwoodturner@gmail.com Richard Pikul e-mail: **rpikul@sympatico.ca**

TOOL REVIEWS & TIPS—
Adventures in Buying a Lathe
by Bill Grumbine

Anyone who is a turner will recognize the title of this article as something we all go through. Buying a new lathe, whether it is really new or only new to us, is an adventure full of fun, fear, and figuring. It is fun because of the excitement in moving to a different machine, it can be fearful if we buy without considering some important issues, and there is figuring on all sorts of levels. I thought I would chronicle my latest adventure and make a few observations along the way, hopefully to help you who are about to embark on a similar adventure yourself.

The first thing many of us think of when we go to buy a new lathe is, how much money can I spend? While this is very important, and may be the chief determining factor, it is by no means the only one. There are many other considerations as well. With the large number of lathes on the market today, we need to think about several other things before we really get into money spending mode.

I recently acquired a Vega bowl lathe for my shop. What is very interesting about this is that I had narrowed my search down to two other lathes, and this one was not even in the running! So how did it get there? It did not fall out of the sky, I can tell you that. My search began with the realization that I needed another lathe for my shop. I already had a top-o-the-line full size lathe and a mini, but I needed another lathe to handle the increase in students wanting to come for turning lessons. With all the lathes on the market, from $100 to $6000, I needed to do some narrowing down before I started searching seriously.

I established several parameters the new lathe would have to fulfill. One, it would need to be a quality machine. In the first place, people do not want to come and turn on a lower end entry level lathe when they come for lessons, and in the second, I did not want the headaches associated with trying to get an entry level machine to perform under the rigorous conditions of the classroom. Two, it would need to use at least some of the tooling that I already owned. The current saying goes that whatever the lathe costs, expect to spend twice that in tooling for chucks, turning tools, sharpening equipment, etc. When we move from lathe to lathe, some of those costs can be mitigated by transferring existing tooling to the new machine. This can come by keeping the spindle size the same, or the tool rest post the same, but it is one of the things that needs to be considered, as new tooling can add significantly to the cost of the new machine.

In my case I was looking at machines that had 1 ¼" headstock spindles. My current full sized lathe has a 30mm post, so tool rests aren't going to fit on most of what is out there. My second consideration was the amount of space coupled with the price of the machine itself. I do not have a lot of extra room in my shop, which is only 600 sq ft. A lot of the space does double duty depending on the machine being used, since I also do a lot of flat work. A small footprint was a must, and of course, the cost factor was always looming in the background. Other considerations were quality (of course!) and swing. After having established all these parameters, the lathe that was in first place was the **Nova DVR**. In close second was the **Jet 1642**. ***Continued on page 5***

Woodturners Guild of Ontario Newsletter is managed and published bi-monthly by Michael Finkelstein.
Text in bold type are url-activated or link to a text file. Some graphics contain 'sound clips' that are activated by clicking on the image!
Deadline for articles & ads is the 5th of the prior month.

Articles and suggestions for future editions are welcome, provided they concern woodturning.
We reserve the right to edit, revise, or reject any articles tendered.

WARNING !

Woodturning is an inherently dangerous active activity. Readers should not attempt any process or procedures without seeking proper training and detailed information on the safe use of tools and machines.

Networking for Woodturners
by Fred Klap

My working life in a small business centered on my networking skills. Now happily in retirement, I marvel every day at the array of skills, knowledge, techniques. and helpful hints that are readily available on the net. Membership In the AAW gives you access to all the 12000 members, club websites and suppliers of materials — all in the directory you will receive. This connection will open up flood gates of information that can keep you occupied and interested for many years. I have been on a voyage of discovery in the world of "woodturning imagination" for the last 10 years. Please accept this invitation to participate in our woodturning oddesy.

Our club alone has a tremendous resource storehouse. Most of the senior members have working knowledge of good and bad technologies, properties of materials, finishes, surface treatments, wood drying, wet and dry wood turning,..

From an artistic perspective our club has many trained and talented turners, telling their art stories in many ways. If it' s color classic form, carving, surface treatment, Networking in our club can be wonderful. I would describe our woodturners as the most kind, giving, non secretive. helpful group in the art craft community. If you have any questions please call, If I cannot help, I will direct you to someone who can. Happy Turning ! PS. here are a few helpful websites:

AAW home page; **ww woodturner.org**
Wood Central; . **www.woodcentral.com**
Woodturners Resource; **www. avwa.org**
World of Woodturners ; **the wows.com**

THE PROJECT CORNER - To Turn a Sphere
By Bob Rollings

As those of you that are familiar with my work know, in the last few years I have investigated various turnings that can be based on **polyhedral forms.**

All of the vertices, or the points where the flat planes meet, lie on the surface of a sphere, and so I have turned many spheres .

I first made a pivoting jig as described in **David Springett's Wizardry in Wood**—which produced a 2 ½" sphere very successfully. But as time went by, I wanted to make spheres in various sizes and did not want to continually make new jigs, so I proceeded as follows: let us suppose I want to turn a 6" sphere:

- First I need to find a piece of dry wood from which I can produce a 6 ½ x 6 ½ x 6 ½" cube, which I prepare on the bandsaw.
- I then tip the bed of the bandsaw to 45º and cut off all 12 edges that lie outside of the sphere.
- Mounting this block on the lathe between centers, I turn a 6" cylinder.
- Next, I draw with a compass on a piece of cardboard—a half round template with a 3" radius; I check this on my 6" cylinder, now knowing I have the correct radius and I cut the template to less than ¼" of the circle.
- With the lathe running, I make a line on the cylinder halfway along its length, using my cardboard template as a guide— I start to shape the sphere, first to one side of the center line and then to the other side.
- Remember that the wood was 6 ½" long, set your calipers to 6" using the center line as a reference (check) and create a tenon on each end.
- Carefully shape the sphere, checking continually with your template, if you take off too much wood at any point it will mean you can no longer make a 6" sphere. If you now have it as close as you can get, remove it from the lathe.
- Next, make two (2) concave cups 2 - 2 ½" in diameter; one cup will be held in the headstock chuck, the other cup will be used at the tailstock to hold the sphere between centers.
- In setting the sphere between centers, rotate it so that the tenons are at right angles to the length of the ways (lathe bed) — you can now turn off the tenons using the ghost line to bring them flush with the sphere.
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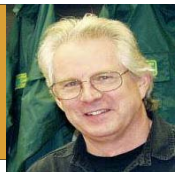
Having turned the tenons down to the surrounding surface, you should now have an accurate sphere !

In a future issue I will discuss how to make a cup chuck to hold a sphere.

The Woodturning Process — by Mark Salusbury



I've been asked to put down some thoughts regarding how to beat the dreaded curse of 'end-grain tear-out'.
To quote Scottish woodturner **Mick O'Donnell**, "you must cut the wood fibers as they prefer to be cut". Please note, 'cut', not 'scraped'; I'll touch on scraping later.
I'll talk generally here, no discussion about whether the piece has an 'end-grain' or 'cross-grain' orientation on the lathe. You will need to learn to 'read' each piece of wood you have on the lathe and identify the grain direction not only for workability but also for design and function of the completed work. There's potential for problem areas in every piece; here's how to approach them.
Firstly, what is tear-out? As the name implies, it's holes left in the turnings surface, the result of fibres which have been compressed, snagged by the turning tool and ripped away rather than cut cleanly. It's likely to occur more readily in the endgrain of a piece of wood or in highly figured wood like fiddleback or birdseye maple; in these cases the fibres are short and relatively unsupported by their surrounding fibres so you have to be deft, deliberate, delicate and keen in your approach.
Keenly sharp tools, an appropriate turning speed and effective presentation of the tool to the revolving workpiece are the cure in most instances.
A sharp tool, ground to an angle steep enough to offer a reasonable life between sharpenings yet acute enough to permit the tool to sever the wood fibres without crushing them is key.
Now don't be shy; confidently set your lathe speed so that the piece of wood is revolving fast enough that the fibres will be cut without compression. Wood will generally cut more cleanly with less effort on your part when revolving at a higher 'finishing' speed than at a slower 'roughing' speed. After you've roughed out and identified the areas of tear-out (DOH!) you're ready to begin refining. Set the lathe at a comfortable speed, present the tool to the piece with a firm yet sensitive grip, a solid stance which allows you to make a full cut without stopping and a tool-to-workpiece presentation angle acute enough that the fibres will be severed cleanly while taking the lightest of cuts. In other words, you should be removing the absolute minimum of material in a controlled manner at the most acute angle of presentation you can achieve without 'grabbing' at the point of contact where the bevel of the tool touches the piece as you transition the entire surface you are working on in one smooth pass. Practice making full length cuts like this over and over following the contour you have chosen while gently removing material until all the evidence of tear-out has been removed if you can.

Still having trouble…don't despair. A couple of tricks will help you out perhaps.
Getting back to your understanding of wood, you know that 'green' wood cuts more cleanly and easily than dry wood of the same species because the fibre is more relaxed and pliable than its hard, brittle, dried out counterpart. Keep a spray bottle of water nearby your lathe and prior to taking your refining and/or final cuts give the workpiece a gentle spritz of water to soften the surface fibres. Don't use too much or you'll risk causing swelling within the piece and movement; warpage may result. Remember, short end-grain absorbs more liquid than long side-grain; it's the end-grain that you want to soften so moisten lightly and often as you refine, avoid saturation.
Another remedy is to hand scrape the immediate area where you are having trouble. In most cases, you'll only be having difficulty in one or two small spots on the entire piece. Grind a burr on a light, hence delicately maneuverable, scraper and with the piece stationary and still mounted to the lathe, gently hand scrape the tear-out away, pulling the fibres 'up-hill' from the shorter fibres toward the longer ones, blending as you go. Again, you'll need to be able to 'read' the work-piece to appreciate how to do this effectively and/or experiment, seeing which way works best in your particular situation which will help you with your 'reading' now and in the future. Sanding, the next step, will blend your handscraped areas in with the surrounding surfaces.
Once you have conquered your end-grain dilemma you can begin sanding, but not until all of the tear-out is removed otherwise it will only become evident once you are applying your finish of choice. Using fresh, sharp paper or discs, begin with 120 grit and proceed to 240 or 320 and no further so you are leaving 'tooth' for your finish of choice.
You'll notice that I've not mentioned the use of scrapers under power. It's very important, in my mind, for a turner to learn to 'read' the workpiece, understand the relationship between the bundle of fibres he/she is dealing with (a.k.a. the work-piece) and the business end of their tool of choice at the moment it contacts the wood, to know how to grind a keen, effective edge on any given tool for any given application and to know how to 'cut' effectively. These skills and a good eye for design and proportion are what makes or breaks a turner and his/her enjoyment of the craft in action. With the exception of end-grain hollowing, I'd like you to consider that scrapers should be reserved for judicious and slight refinement of a surface to remove tool marks and blend contours just prior to sanding rather than a cure for unfortunate cutting technique. Perhaps we'll cover the various forms and applications of 'scraping' in another installment.
I hope this helps you.

continued from page 2— Adventures in Buying a Lathe

But all of a sudden, a friend of mine recommended that I look at a lathe I had never considered, a lathe that was really not even in my sphere of awareness, the **Vega bowl lathe**. Upon initial inspection, it looked like the ideal machine. It was big in terms of power and swing, could handle short spindles, and took up very little room. It would handle all of my chucks, faceplates, and tapers, although tool rests would have to be duplicated since it is a different size from the **Poolewood**. On paper it looked great. All that remained was to give it the most important consideration of all, the personal inspection.

Regardless of what lathe one wants to buy, I think it is very important to spend some time with it first. This consideration becomes even more important as we move up the food chain to the more expensive machines. It is no fun buying a hunk of iron for thousands of dollars and which requires all sorts of special handling because of its weight, only to discover that it has some features we really do not like. Aside from the specs printed by the manufacturer, there are certain things that need to be examined, and these can only be examined by actually getting on the lathe, and if possible, spinning some wood. At the very least, one needs to try and spend time moving controls around, seeing how they move, how they lock and unlock, how they feel in general. One may discover that the lathe he or she has been lusting after for months, and which came highly recommended by others, has little quirks that will rapidly move from annoying to extremely irritating. Levers may not move or lock the way you are used to, or access to the headstock may not be what you would like for your style of turning. This is important stuff to discover before plunking down a lot of money.

One of my concerns when I looked at the Vega was ease of access to the piece being turned. Looking at pictures, it seemed as if I would spend a lot of time leaning over the base of the lathe to reach the work regardless of size. I was relieved to discover that this was nothing more than an optical illusion. But I would have never known for sure if I had not seen the machine in person. Another issue that concerned me looking at pictures was the placement of the locking handle for the tool rest. Again, this concern was dispelled once I actually got to use the machine.

Other important factors that cannot be communicated through pictures or text are things like fit and finish, actual power of the motor and transmission, stability under an unbalanced load, etc. Even something that might sound trivial, like sound, is important. Cast iron lathes make a different noise than steel lathes, and different drive systems make different amounts of noise. I have gotten used to the virtually silent operation of the Poolewood, and to go with a noisy machine would be a trial, not only for me, but for students who need to hear what I am saying. Once I had spent some time putting the machine through its paces, I was comfortable with spending my money, knowing that I was going to get what I paid for, but even more, I was going to get what I expected.

Buying a used lathe is an entirely different thing, especially if you are looking at a machine that is no longer a current production model. One of the first questions you need to ask in this case is, are parts still available should I need them, and for how much? I knew a guy who bought a used J Line lathe a number of years ago. It was missing the tool rest, banjo, and tailstock! The owner assured him that he had them somewhere, and promised to look for them. My friend bought the lathe on the strength of that promise, and you can probably guess the rest. He ended up going to J Line and spending the same amount of money for the missing parts that he spent on the lathe itself. A $600 machine turned into a $1200 machine!

When you are in the used market, there are often many fine machines to be had, but you need to watch out for the bad ones. Spindles that do not align, tapers that are severely galled, ruined bearings, bad motors are all things to look for. Check for hairline cracks in cast iron. They can be welded, but not by just anyone. Welding cast iron is a very complicated chore (you can insert expensive here too) and many welders are not up to the task. Some of these things can become bargaining points if you like the idea of restoring a machine, but sometimes they become real trouble. If you are aware of what you are getting into and don't have stars in your eyes like my buddy with the J Line, you will do okay.

Buying a lathe is fun, and is usually expensive. By taking the time to think a few things through, and then spending time with the potential machine or machines, it can stay fun and maybe not be quite as expensive.

The Woodturners' Wood Business Card — By Michael Finkelstein

Lee Valley Tools sells a package of 50 single-ply maple veneer business cards for $2.95— Product Code 99W89.05.

I bought a package of clear address labels from **Business Depot** (390 labels– Product Code SCND100) for around $16. The label size is 2 5/8" x 1" , the same size as the standard "Avery 8660**"**. *Its simple to set-up:*

(1) using WORD, open-up a blank page and type in your address—up to 6 lines, using New Times Roman (type) in 9pt. You can also make the first 4 lines in bold type. (2) highlight the address, go to TOOLS—ENVELOPES and LABELS — LABELS—OPTIONS—Avery — 8660. (3) put a check-mark in the box beside "full page of the same label". (4) If you want to print in color, make sure you set your printer properties; FILE-PRINT-PROPERTIES-COLOR (box—checked). This will be your address side of the card. **If you want to put a color picture on the other side**; (1) take a digital (JPG) photo & upload it to a download folder on your computer. Record the file name. (2) on the same DOC file, go to FILE-INSERT-PICTURE-FROM FILE. (3) when you locate the picture, click on INSERT. The picture will appear on the DOC file. (4) left-click on the picture — and adjust the size of the frame to same size as your address label; it should be approx Height 2.27CM & Width 5.98CM. (5) highlight the picture and follow steps 3 & 4 as stated above.

Adhesives— Understanding What They Are
by Richard Pikul

The ideal: put a workpiece on the lathe, turn it in one go, apply the finish on the lathe and then remove a piece we are proud of. Unfortunately (or maybe interestingly) there are innumerable ways that Nature, material problems, tool limits, complex designs and sometimes our skill, require that we must assemble or repair two or more pieces before we finish a turning. Over the next few issues of this newsletter, I will try to address some of the problems associated with the choosing of adhesives for particular applications in woodturning. In this issue I will present some general information about adhesives and family characteristics of glues that are of interest to Woodturners.

Definitions:
An adhesive is a compound that adheres or bonds two items together. If you wish to delve deeply into the theory of adhesion and bonding, take out a copy of the reference below from the library - unless you have deep pockets and can afford to purchase a copy.
- Adhesive failure is the failure of the adhesive to stick or bond with the material to be adhered. e.g. in separating an Oreo cookie; both halves remain intact, but the entire filling (adhesive) is on one side.
- Cohesive failure is structural failure of the adhesive. e.g. in separating an Oreo cookie, both halves remain intact with filling (adhesive) remaining on each.

Most adhesives can be divided into five categories:
1. Those which harden by loss of water; includes most of the commonly used woodworking glues such as PVA (Polyvinyl acetate) glues ('white' and 'yellow' glue), Aliphatic resin glues (**Titebond**, **Weldbond**, **Probond** etc) and water based contact cements.
Most of these adhesives are not fully waterproof. Other common problems include poor gap filling capabilities, glue line visibility, glue line protrusions over time and poor sanding characteristics. These are however inexpensive, easy to use and simple to clean up with water.
2. Those which harden by loss of solvent; includes some contact cements and aerosol adhesives. Except for some temporary bonding applications this group of adhesives are not generally used for woodturning applications.
3. Those, which harden by cooling, include hide glue, the oldest continuously used woodworking adhesive and "Hot Melt" glue, which has become the glue of choice for temporary woodworking joints.
4. Those, which harden by chemical reaction, include Epoxy resins, Cyanoacrylate glues, Polyurethane glues and Urea Formaldehyde resin glues. Cyanoacrylate glues are extensively used in woodturning to seal cracks. Epoxy is the ultimate crack filler as it does not lose its strength when filling a wide crack. Note that fast curing epoxies (less than 60 minutes at room temperature) should not be used for joints that will be subjected to mechanical stress.
5. Those, which do not harden, include most pressure sensitive adhesives. Tape with adhesive on both sides (e.g. fabric carpet tape) can be useful for temporarily bonding light pieces to faceplates etc.

Hide glue: Available in powder or pellet form to be used in hot glue pots. The primary use is for furniture joints where the glue joint is hidden (mortise and tenon, etc). The joint can be heated to soften the glue, allowing for easy disassembly when restoring or repairing a piece.
"Hot Melt": These adhesives are heated and applied as a liquid to one (sometimes both) surfaces, then the other surface to be glued is pressed against the first. The glue hardens as it cools. Good for temporary bonding as the joint can be easily separated by heating the glue joint..
Aliphatic: Includes most of the modern, single component woodworking glues. Water, as a solvent is a disadvantage if the glue is to be used over a large surface area as water will be absorbed unevenly by the wood and distortion may occur. Aliphatic glues are inexpensive, spills clean up with water and most types have a very short "tack time".
Reactive Adhesives: These adhesives are cured by a chemical reaction when two components are mixed together. Epoxy resins, polyurethane and Cyanoacrylate glues are the most common types. Epoxy glues are supplied as 'monomer' or 'resin' and 'hardener' or 'catalyst'. Polyurethane and Cyanoacrylate glues are mostly supplied as single component glues whose curing depends on reaction with trace moisture from the pieces being glued. Cyanoacrylate or 'CA' glues can be cured more quickly by using a catalyst, usually applied in aerosol form over the joint.

References: "**Adhesive Bonding**" ISBN 1 85573 741 8, Edited by R D Adams, University of Bristol, UK and various adhesive manufacturer's web sites.

Next article: Temporary Glue Joints For Woodturners
Comments? Please contact me at: rpikul@sympatico.ca

How I Achieve An Effective Varnish Finish
by Mark Salusbury

Produced with permission from the Author and Woodchuckers Supply– www.woodchuckers.com/mark.htm

Varnish (includes urethane) is my choice of finish. It is easy to apply, durable, chemical resistant, may be applied in a variety of ways to suit the user, may be modified with mineral spirits, naptha and or boiled linseed oil to achieve differing working properties and in most cases is non-toxic (food safe) once dried. **Recommendation:** choose a brand of varnish that works well for you, is cost effective and readily available and use it as your 'finish of choice'; experiment with that one finish and modify it to your satisfaction. Avoid working with several kinds of finishes or you'll never get to know how to apply any of them well. For example, I use **General Finishes** 'Salad Bowl Finish' as my primary varnish and base for most of my modified solutions. As a secondary product I use General Finishes 'Arm-R-Seal', a urethane from the same source where I need a thicker product for greater durability. Both can be used interchangeably and modified in the same ways.

Sanding method discussed is power sanding by lathe/drill followed by hand sanding;

-to begin a good finish use keen tools and cut the wood cleanly, smoothly and effectively
-dress your grind stone; make sure it is clean, flat and 'open' to put a keen edge on your tools
-use the correct turning speed to get an effective cut; neither too slow nor too fast
-use a steady, controlled approach, action and follow through when cutting and/or sheer-scraping
-sheer-scrape to refine shapes and remove any imperfect prior tool work
-use fresh, sharp sanding abrasives; worn abrasives are wasteful and destructive
-use an effective sanding speed, generally slower than your turning speed . don't skip grits (80, 120, 180, 240, 320, 400 is my suggestion)
-(optional but suggested) use a lubricant that works with your final finish to soften the wood fibres for a more effective cut during sheer/scraping and sanding and promote longer tool/abrasive life. Experiment with a light application of WD-40, boiled linseed oil thinned with mineral spirits, light mineral oil or water at 80 thru 180 grits.
-Reverse grain rotation between grits to cut the fibres cleanly from both sides
-Reduce lathe speed as you increase grit number (ie. slower rpm for 180 grit than 120 and slower again for 240 grit) for a more ef fective cutting action and to change the swirl pattern.
-Increase lathe speed for the final pass of the final grit to 'buff' or turn lathe off and disengage drive belt and power sand using the drill to drive the process then hand sand over all with finest grit.

Varnish…Really Filling The Holes

Make sure you have good ventilation and/or a carbon filter mask and vinyl gloves.

Varnish and urethane are both durable finishes that build well on the surface of your work piece, do not 'weep' like tung oil finishes and are easy to modify with thinners and/or oils to tailor its working properties to suit your needs. Choose a product whose manufacturers claims and methods of application suit your circumstances and needs. Use the product straight from the can following the manufacturers directions then try modifying to see how the product works altered.

-apply the first coat of varnish uncut (no thinning) liberally with a brush or disposable brush made from folded paper towel (fold into quarters then fold the quarter into thirds)
-let sit to absorb for about 5 minutes then wipe overall with paper towel and put aside to dry. If you wipe it 'dry' you can probably recoat in the same way in two hours. If you leave a visible film on the surface you'll want to let it dry for 4-6 hrs. before recoating.
-Repeat steps 1 and 2. Let dry thoroughly
-Repeat steps 1 and 2. Let dry thoroughly
-Rub piece down with 0000 oil-less steel wool (wash regular steel wool with lacquer thinner to remove manufacturing oils) then blow (compressed air) or vacuum the piece using a clean brush to agitate the surface to remove all traces of steel wool fibres
-Repeat steps 1 and 2 wiping piece 'dry' (no film left visibly anywhere on the surface). Let dry over night.

You should now have a finished piece that is smooth and nub-free. If it still looks 'dry' and/or showing sanding marks etc, repeat steps 5 and 6. Now you can apply wax to further refine and protect if appropriate. Wax may be applied with 0000 steel wool or a paper towel depending on whether you want a 'soft' or 'hard' gloss surface. A carnauba/beeswax blend is my best suggestion or a liquid satin wax is less durable but produces a soft natural sheen 'out of the bottle' (or you can get a satin finish by wiping carnauba/beeswax, once set, with 0000 steel wool).

Recommended finishing products - General 'Salad Bowl Finish', General 'Armour-R-Seal' (**Woodchuckers Supply** (800) 551-0192) - Zinsser 'Quick-15 (for its clarity and rapid setup time) (paint specialty shops) - Oil-free 0000 steel wool (**Lee Valley** (53Z08.05) - 'Bounty' brand paper towels (absorbent, lint free, excellent applicator and wiper, follows contours and gets into details well to remove excess finish effectively) - vinyl gloves (Lee Valley)

Modification suggestions: - Mineral spirits cuts varnish and extends working time. Cut no more than 10-20% - Naptha cuts varnish and shortens drying time. Cut no more than 10% - For an oil type wiping varnish: 1/3rd boiled linseed oil, 1/3rd varnish, 1/3rd mineral spirits or for less oil 4 oz. boiled linseed oil, 8 oz. varnish, 5 oz. mineral spirits. (Fine Woodworking issue 144, pp. 106-108)

Other recommended reading re: suggestions for food safe finishes are discussed in Fine Woodworking issue 129, pp. 66-69.

WGO MENTORS PROGRAM

WGO offers a **mentoring program** for members.

If any WGO member has a woodturning problem or equipment issue which they cannot find help to resolve, please contact a member of the executive. We will put you in contact with the member nearest you who can help.

BOOKS , MAGAZINES, and NEW WEBSITES, ARTICLES FOR WOODTURNERS

Arbortech.Com.Au

"How to achieve better oil Finishes Steven Russel" (Part 1 and Part 2)
Part 1 provides a technical outline of all the different types of oil finishes, drying variables, polymerized oils, etc.
The second part describes how to achieve better oil finishes and offers a rating and test results for many of the known oil finishes used today.
Part 1; **http://www.arbortech.com.au/articles/013.html**
Part 2; **http://www.arbortech.com.au/articles/017.html**

WoodCentral's Tool Grinds Page
The author offers you some options and rationales for alternative grinds and techniques—for bowl gouges, parting tools, etc.
http://www.woodcentral.com/newforum/grinds.shtml

MEMBERS GALLERY
New Works Posted Online

Fred Klap: http://geocities.com/fredkwoodcrafter

The Green Thumb –
continued from page 1

When rough-turning, I apply the same finishing techniques as if I were turning the final form; prepare the final shape, shear-cut and eliminate any grain tear-outs and sand-down to a fine, smooth finish. Then I place the bowl in Kirkland Dish Soap (see article) for between 4 and 8 hours, depending on wall thickness. *The soap helps stabilize the wood and deters cracking.* Next, I use ***my differential drying process which comprises a combination of air drying & microwaving;***
-place bowl/hollow-form in a large thick-ply paper bag such as the type used for garden waste. Fold over any excess paper over the bowl so that you reduce air content in the bag. Store the bag away from moving air (in a cupboard) for a minimum of 2 weeks, or until the moisture content reaches 18%.
-open the bag every week thereafter, and check it for weight/**M**oisture **C**ontent and visible cracks; apply CA glue on any hairline-cracks, bark inclusions, knots, etc.
-keep a log book or woodturning work-sheet for each bowl, noting the wood-type, dimensions, source, date/weight/MC, bowl# etc.
-when the wood reaches 18%MC, take it out of the bag and place on an indoor-shelf, in a room which has a dehumidifier.
-microwave the bowl for 1 minute per 1/4" wall thickness, letting the wood cool-down before cooking for the next minute, etc., — until the wood reaches 10%MC. This could take a day or longer, with cooling intervals !
-place the bowl back on the shelf until the wood MC decreases to 6%MC OR when the weight stabilizes (does not lower)
-final turn and finish the bowl….

References

"Turning Green Wood" (see page 1)
-Microwave Drying Wood; **http://homepages.ihug.co.nz/~rhaslip/Rex/workshop/microwave/microwav.htm.**
-Using the microwave to dry green rough turned wood; **http://members.tripod.com/%7Emgorrow/microwave.html**

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Do you have ideas for us ?

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