

Northwest Woodturners

A Chapter of
The American Association of Woodturners

Volume 10 Issue 5

May 2006

Northwest Woodturners meets on the 1st Thursday of each month at 7:00PM. See website for details and map.

President:
Tom Reiman
503-982-5446

V. President:
Fred Kline
503-257-6405

Sec'y / Treasurer:
Lloyd Johnson
503-678-1689

Board of Directors:
Scott Blackman
Doug Brown
Walt Brown
Jerry Keller
Ed Schneider

Librarian:
Chris Dix

Raffle:
Walt Brown

Supplies:
Jerry Keller

Newsletter & Web:
Owen Lowe
503-538-5325

Next Meeting:
May 4th

May Learn-2-Turn:
May 6th - Hollowing

Turning
Challenge:

**Something "Out of
this World"**

President's Corner

GADGET NIGHT...

It's always a lot of fun to see the creative minds of our club members at work. Please bring to the May meeting all those odd assortments of tools, jigs, and fixtures you use to create your masterpieces. Everything and anything... Even if you got the idea from someone else bring it to share with the gang.

We're getting closer to our Main Attractions for Summer 2006. Escoulen continues to be sold out, but if you are interested put your name on the alternates list. We have had some turn-over on the attendee list and you may have a shot.

Mike Darlow's program has been opened up to the general public now and we continue to receive a few additional attendees for this once in a lifetime opportunity. It's not often that a well respected, international turner and author comes to Portland for a *two-day* seminar. There will be something for everyone at this session; I would encourage all to attend. And, for those of you who work for a living, it will even be held on a Saturday & Sunday. For those of you lucky enough to be retired, this session will keep you out of trouble during the busy weekend when the golf courses are packed with the worker bees.

Please Note: The call has gone out for anyone interested in demonstrating at the 2007 AAW Portland Symposium. I have posted information on the MyFamily site for anyone interested. If you don't have access to this information and are interested please see me during the break.

Happy Turning...
Tom Reiman

May Program

For our May meeting we will have our always popular Gadget Night. The program will be a venue where members are encouraged to bring in any type of gadget, jig, tool or just about anything else that you may have built, invented or discovered. Everybody knows that woodturners are really a bunch of tool junkies and sometimes we may have built a better mouse trap to help along the way. Don't be concerned how your gadget looks; if it is too large to bring along, maybe you can just bring some pictures. Each participant will be given several minutes to talk about their gadget and tell how it works. The key to this being a fun and interesting evening is to make certain that you bring something, and also make certain to bring your cameras. I'm sure that you will see something that you'll want to make yourself.

Thank You,
Fred C. Kline

Library News

Happiness is standing knee-deep in shavings, surrounded by the scent of freshly cut wood, listening to the chorus of the lathe and wood and tool. On the other end of the spectrum; slightly above depressed, is realizing that you bought a duplicate video to add to the library. With the increase in membership I have had numerous requests for information that would be helpful for 'new' woodturners. Alan Lancer's DVD "Woodturning – Getting Started Right" looked like the answer. My quick glance over the club's holdings before ordering this video was indeed too quick. The double check of the holdings before writing this article was too late – the wrapper had already been removed for trial viewing. One should always check the video out before placing it on the shelves. An earlier video bought for the club had NTSC printed on the cover and disk but in fact it was PAL (European video format) and just would not play. It had to be returned.

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ALCOHOL SOAK

By Dave R. Smith — *Reprinted with permission*

Background:

Drying roughed turned bowls has always been a challenge for wood turners. You need to balance the desire to finish a piece as soon as possible with the inherent tendency of wood to warp and split when dried too quickly. Wood turners have employed various methods to maximize the drying speed while minimizing the degradation of the wooden shape being created. Over time, each method has collected its own supporters and detractors with respect to the relative effectiveness of the process.

Criteria for a good drying process include ease of use, cost, and consistency of results. A process that is difficult to use, even though it produces good results, will garner few adherents. Likewise, an expensive protocol may appeal to a commercial turner who can expect to recoup the investment but it may be cost prohibitive for the average wood turner. Consistent results without labor intensive monitoring or manipulations are a major benefit of any method.

The most common method of drying wood bowls is placing them in paper grocery bags. The theory is that the permeable paper produces a micro climate around the bowl. The bowl dries slowly with a small differential moisture gradient across the bowl sides. This method works well but it is slow.

Boiling can improve the stability of the wood by rupturing the cells, allowing moisture to more readily migrate to the surface and evaporate. Boiling is time and labor intensive, requiring considerable space for a large pot and heat source. Since most people don't want to boil bowls in the kitchen, it is necessary to set up some way to boil outdoors which can be a big

drawback in cooler climates during the winter months. Boiling can also be dangerous. A good friend of mine was severely burned when a plate blank wedged in a boiling pot of water, sealed the pot and led to a steam explosion.

Soap soaking has gained popularity in recent years. A bowl soaked in a soap solution is supposed to be easier to turn because of the lubricating action of the soap. Bowls are said to dry faster and crack less after soaking but some people report that there is still a fair amount of distortion of the finished piece.

It was my experience with soap soaking that led me to the alcohol soaking procedure I use today. When I researched soap soaking and read the discussions on wood working forums, the consensus was that it was the surfactant in soap that allowed the wood to dry faster.

Researching the MSDS (material safety data sheets) for several commonly used soaps revealed that the surfactants were listed as alcohols. I reasoned that using alcohol for a soaking solution might be a simpler method. The most readily available alcohol is denatured alcohol found in the paint section of any hardware store. A gallon of denatured alcohol costs from 10 to 12 dollars.

A search on the Internet noted several instances of alcohol-soaking of archeological artifacts to displace water in a complicated protocol for stabilizing and preserving historical wood pieces. Alcohol soaking is used as the first step in a process to replace water in the wood with a stable, inert binder that will maintain the shape of the artifact and prevent further degradation. The fact that alcohol is used to displace water in archeological artifacts

suggests that it might also work to displace water in green wood thus speeding up the drying process.

My testing involved a large variety of wood species. In each case, the results have been consistently good. Types of wood included some traditionally hard-to-dry woods such as apple, plum, cherry and mulberry.

The test consisted of turning two similarly sized bowls from the same type wood. One bowl from each sample was soaked in alcohol, then both were dried in the same manner. Several methods of drying were used from the most conservative, a paper bag, to the most radical of placing the bowls uncovered on a wire rack in my heated, dehumidified shop. I recorded the weight, date and time when the bowl was set aside for drying and then recorded the weight daily when possible. After the bowl stopped losing weight it was considered dry or at equilibrium with the surroundings. The data showed that small, thin (1/2 inch thick wall) bowls would reach equilibrium in 4 to 5 days. Using this data, I developed a process that was quick and consistently yielded usable bowls.

Here is a set of roughed out apple bowls that were cored from the same block. After more than a year they are still in good condition and ready to turn when I get a chance.

The Process:

Bowls are roughed out to 1/2 inch wall thickness for pieces less than 8" in diameter. Over 8" in diameter, I leave a wall thickness of 5/8 to 3/4 inches. Since my lathe is limited to 12 inches, I have not tested bowls larger than that for optimum wall thickness. I often turn utility pieces with a finished wall thickness of a quarter to a half an inch. In these cases the roughed out wall thickness needs to be thick enough to allow for distortion. No drying method will completely prevent movement of the wood when it dries, so plan your roughed out blank accordingly.

Once the bowl is roughed out it is

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submerged in denatured alcohol for at least 2 hours. Larger, thicker bowls need to soak longer to ensure good penetration of the alcohol. Longer



soaking time does not appear to damage the wood.

Remove the blank from the alcohol and let it air dry for about an hour to dry the surface.

Now wrap the outside of the bowl in heavy paper such as a grocery bag. Secure the paper with a couple of wraps of masking tape around the rim. Fold the paper over the rim, trim off the excess, and place the bowl upside down on a rack to dry. If the bowl is set on the foot it may not rest evenly due to the paper and the air may not circulate as well. The inside of the bowl needs to be exposed to air.

The reason for wrapping the outside only is the theory that it will create a compressive stress on the bowl by drying the inside quicker than the outside. As the inside dries it shrinks which pulls on the outside causing it to compress. This compressive force minimizes cracking during the drying process. Thinner walls yield less distortion and fewer cracks by decreasing the maximum stress developed between the inside and the outside.

The alcohol I use for soaking bowls is denatured ethanol alcohol – straight from the can. I do not recommend methanol due to health and safety concerns. Although I did successfully test some bowls in isopropyl alcohol I did not like the smell. Isopropyl is not readily available in concentrations

greater than 70% while denatured ethanol normally is 95%. Alcohol is added to a container as needed to cover pieces. During soaking, some alcohol will be absorbed, so a small amount will be lost when each bowl is removed and must be replaced with fresh alcohol. Because of this I have not worried about the dilution of the solution over time. The results have been consistent for bowls soaked in fresh alcohol and those soaked in solution used many times.

One concern was the possibility that alcohol used to soak dark wood would become a dye and discolor lighter colored wood subsequently soaked in the solution. There has



been no indication of this happening.

The solution does collect wood dust and other debris over a period of time, so I strain the solution when transferring between containers. A kitchen strainer placed across a container with a paper towel filter is sufficient to remove the big hunks.

Containers used for storing soaking alcohol should be non metallic. Alcohol is about 95% alcohol and 5% water when purchased. As bowls are soaked in it, the moisture content of the solution will increase, which, along with other impurities leached from the wood, will attack metal containers.

I use plastic ice cream containers for soaking bowls and storing used alcohol. A one gallon container will accommodate a bowl 8" in diameter by 5" tall. A two gallon ice cream contain-

er will hold a turning 8 1/4" in diameter and nearly 10 inches tall. For larger bowls, a 13 quart stainless steel bowl will accommodate 13" diameter bowls that are less than 6" from the rim to the bottom of the foot.

To cover a large bowl, place a sheet of heavy plastic film over the steel bowl and secure it by wrapping the rim with clear packing tape. If you stretch the tape, the cover can be removed and replaced as needed while providing a reasonably good seal.

Still larger bowls can be placed in a heavy plastic bag and then nested into a pile of shaving to conform to the bottom of the bowl and limit the amount of alcohol needed to cover the bottom. The inside of the bowl can also be filled to reduce the volume of alcohol needed to completely cover the bowl. With a little bit of ingenuity the amount of alcohol required to process large bowls can be held to a reasonable quantity.

Other Trials:

In order to verify the results I had obtained with alcohol soaking, I asked several other tuners to try it. I wanted to get a cross section of turners with different experiences and specialties.



Some of those who provided data included Bill Grumbine, Dominic Greco, Mark Kauder, and Jennifer Shirley.

Mark Kauder has used the method for 3 bowls, two from box elder and one from sycamore. He bought a slab of freshly cut Ambrosia Sycamore, 4" thick and not sealed. He cut three 16"

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diameter blanks from it, roughed them out, then used the alcohol soaking method on one of them while completely covering the other two with Anchorseal®. When he later pulled them out, the alcohol-soaked one seemed dry, and had shrunk only about 1/2" across the grain. When he turned it, it was dry, and has not moved since. The two coated with Anchorseal® had both shrunk 1" across the grain and had "Potato chipped" or cupped about 1/2". After chucking them and getting them round again, they still continued to move. Mark reports he will use the alcohol soaking method when he turns solid wood.

Dominic Greco has completed more than a dozen pieces using the alcohol soaking process. He has used the process on many types of wood including; Box Elder, Norway Maple, Osage Orange, Cherry, Chinese Elm, and Apple. When asked what the worst problem was Dominic responded, "The piece of Osage Orange cracked during drying, but I believe this was a crack that was present in the blank, and not a direct result of drying". Dominic uses a moisture meter to determine when a bowl has completed drying. After 2 weeks he reports that his pieces are at a moisture content of 6%. None of his finished pieces have distorted as of the writing of this article; Dominic reported that it is now the only method he uses for drying bowls.

Bill Grumbine used the alcohol soaking method in late 2003 to fill Christmas orders he received during a Thanksgiving artist show. Bill has been an enthusiastic supporter of the method.

Jennifer Shirley soaked one walnut bowl before reading the fine print, as she calls it, and left it in the alcohol for four days. When she removed it, she simply left it on a shelf exposed to air. Four months later the bowl exhibited no problems other than the normal out of round when she finished turning it.



*Photos:
Two of the outstanding items featured in the April Show'n'Tell.*



Conclusions:

Although I collected data in a consistent manor and attempted to control variables, this is not a strict scientific study. The study did not verify my theory of why the process works. The study does show, however, that soaking green roughed out bowls in alcohol does reduce the time necessary to bring them to equilibrium with their surroundings. Wrapping the outside of a bowl reduces distortion and checking. Testing by other wood tuners has verified that the protocol works consistently. The process is simple and relatively fast. The expense of denatured alcohol is minimal compared to the savings in reduced bowl losses – but the biggest saving is time. Using the alcohol soak method reduces the drying time for roughed out bowls from months to weeks.

© 2003 by Dave Smith. All rights reserved. For more information on this subject and to pose questions and comments to Dave, visit his blog at <<http://alcoholsoaking.blogspot.com/>>.

Christian Burchard



Early April treated Northwest Woodturners to the wonderfully talented Christian Burchard with two and a half days of demonstrating, lecturing and hands-on teaching. Christian is a motivating instructor – stressing the importance of pushing one’s comfort level to further skills and creative development.

One of the important themes running through all of his time spent with NWWT was to ease up on the physical exertion that we sometimes experience while turning. Sharp tools and a well-balanced posture will do much to yield flowing forms and bring a new joy to turning.



Soren Berger hosted by Cascade WT

Soren Berger, from New Zealand, will be here for two days of shop classes June 28th and 29th. Soren has been here twice before, about 4 years ago, and was well received. He puts on a good show and turns lots of items during the day. He uses some tools that are unique for hollowing and finishing. The demonstrations will be at Dale Larson's shop in Gresham. Classes will start about 9:30 and go to about 4:30. The cost is \$30 per day. For more information or to sign up call Dale at 503-661-7793.

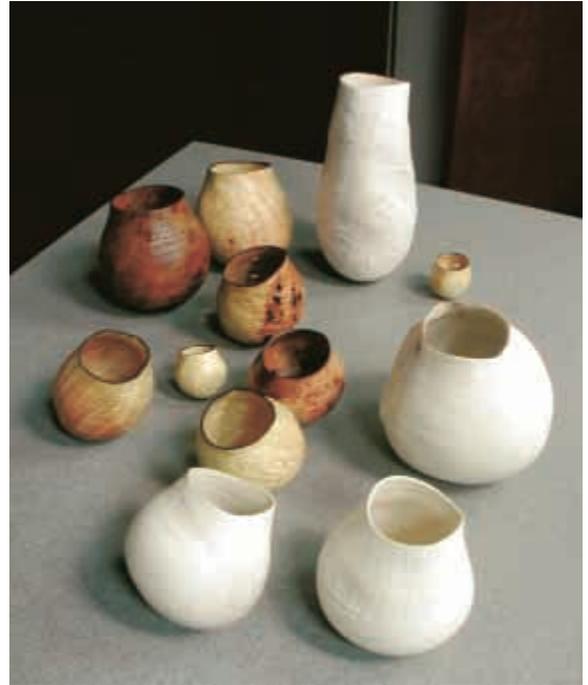
Here is the schedule for each day:

Wednesday June 28th

1. Small handled bowls, a new fun idea
2. Thread chasing parallel threads in softer woods
3. Small hat turning with new easy light chuck
4. Soren's ladle

Thursday June 29th

1. Thread chasing tapered threads in softer woods
2. Larger hats and fun shapes, easy light chuck
3. Ladles in new interesting shapes
4. Larger handled bowls



Top Right – Christian Burchard's "Baskets";
Below – Jim Hall's carved burl bowl.



The Industrial Revolution (1700 - Present)

[Note: World Population in 1700 was about 625 million; in 1980 it was over 4 billion]

Machine Tools

The making of machines to make machines was one of the most important aspects of the Industrial Revolution, but it must not be forgotten that the making of machine tools can be traced back a great many centuries. The lathe, for example, is the oldest known machine tool and dates back to antiquity. However, it was not until the late 17th Century that clockmakers, builders of scientific instruments, and furniture and gun makers began the changeover from wood-working lathes to ones capable of machining tool steel. They had a need for a variety of gear cutting, grinding, precise screw-cutting machines to fabricate their products. The development of precise machine tools for these purposes profoundly affected the art of navigation and paved the way for the industrial machine tools of the late 18th and early 19th Centuries, which made possible the construction of the steam engine and the machines it had to power. This in turn made possible the great advances in standards of living for many people throughout western Europe and North America.

Source:

<http://www.neo-tech.com/businessmen/part6.html>



Photo ©Andy Laird-Johnson

Challenge Schedule for 2006

May - Turnings from outer space: something “out of this world”

June - Segmented turnings

July - Hollow forms

August - No challenge due to wood auction

September - Lidded boxes; slip fit or threaded

October - Jewelry & personal accessories: perfume containers, key fobs, etc.

November - Christmas ornaments

December - No challenge – Christmas party & gift exchange



Above - Wrinkled, distorted Madrone in the April Show'n'Tell; Above left & below - Burchard & students at the workshop.



Library – Continued from page 1

So at this point it is a toss-up as to what should be added to the shelves: the 2nd copy of “Woodturning – Getting Started Right” or “Tablesaw – Methods of Work” by Jim Richey or my personal copy of “Woodturning Methods” by Mike Darlow? Well look at that, we already have Mike Darlow’s book in the library. This is a fine collection of fixtures, both hand made and historical, that one can use for a variety of woodturning projects. This book appealed to my sense of cheapness because I could build a chuck instead of buying one. And build one I did. Then after some level of frustration, buy one I did. The meeting topic for this month is gadgets. So if you see or rather don’t see something you would like to make, this book may provide you with some ideas. As for my personal copy; it is my first woodturning book and thus should stay at home.

I recently picked up The Tablesaw Book at a tool store thinking that most turners also use a tablesaw either in conjunction with turning or for other projects. Since we already have one book about band saws, we should also have at least one tablesaw book. According to the holdings list, we do have room to add a tablesaw reference book. While this book is a col-

lection of excellent tips from ‘Fine Woodworking’ magazine from the past 25 years, many of the tips are probably also covered in segmented or other woodturning project books (hint: June challenge is segmented turning). And after reading through most of the tips, this particular book may not be the best single reference to add. Thus, recommendations or donations along these lines would be appreciated.

That brings us back-around to the Lacer DVD on Getting Started Right (2nd copy). This award winning video is a wonderful production that covers all aspects of starting into woodturning; from a short history on lathes; types of lathes; tools, types and sharpening; examples of things that can be made; chucks; and safety. Alan Lacer has been active in woodturning since 1976. He is a past-president of the American Association of Woodturners (AAW). In 1999 he was named “Honorary Lifetime Member” by the AAW for his contributions to the field of woodturning. The video has won a “Telly Award.” Thus, we are honored to have two copies of this fine DVD available to all our members – both old and new.

Happy turning,
Chris Dix

Classified Ads

Guidelines for Classified Ads: If you sell or find your item please notify the editor. Ads will only run for 3 (three) consecutive months. Please submit your ad to the editor by the 20th of the month. Editor makes no apologies or guarantees for spelling or grammatical errors. All woodworking items, for sale or wanted, are welcome.

Wanted: Electric motor, 115VAC, 1HP, 1725rpm, 5/8 shaft.

Contact John M Lamb, 503-615-8283, <johnlamb@easystreet.com> (3/06)

Pen blanks & wood grab boxes for sale.

Contact Don Woodward, <woodward@spiritone.com> (3/06)

1930s Delta Lathe, 12" swing, 36" between centers, complete with motor and cast iron stand. **Contact Fred Vogele**, 503-254-8258 (3/06)

Garage Sale, moving and must lighten the load: wood rounds, boles and blocks.

Saturday, May 13, 8:00AM. **Contact Mike Studebaker**, 503-648-1417, <sadie551@msn.com> (5/06)

Tonneau Cover from long & wide bed Ford pickup. \$200 or best offer. **Contact Mike Studebaker**, 503-648-1417, <sadie551@msn.com> (5/06)

Estate Items: My wood turning friend, mentor, and past president of Willamette Valley Woodturners, Keith Wood, died last fall. His widow has asked me to liquidate his shop tools. The major ones remaining are listed below. The tools are located in McMinnville, Oregon. I can email pictures on request. **Contact Doug Smith**, <dlsmith@onlinemac.com> 503-472-5616 (3/06)

Tools remaining for sale as of 05-01-06:

1. **Craftsman 6" Joiner**, Model 113.20680, SN 8.129.000.38, with stand - \$175.00
2. **ShopSmith Model 10ER**, SN69570 (elderly) - Best offer
3. **Craftsman 6" Grinder**, Model 115.19500, Mfg #7561 - \$30.00
4. **Bench Dog Router Cabinet and Router** - \$150.00



Photos: Baby Rattles by Craig Taylor; April Show'n'Tell Table

Editor's Note:

Submissions to the newsletter are due by the 20th of the month. Articles, tips, web links, classified ads, or other items pertaining to woodturning are welcome.

Owen Lowe
408 South Howard St.
Newberg, OR 97132
Phone: (503) 538-5325
E-mail : <onl@easystreet.com>

All other business:
Northwest Woodturners
13500 S.W. Pacific Hwy #185
Tigard, OR 97223

