Monthly Newsletter of the Central New England Woodturners

The CNEW Skew

Volume 21 Number 1 January 2008

Next Meeting Details
Topic: Tentatively, Tool Making or Oval Boxes
Speaker: ?
Date: January 3, 2008

Presidents Message. *Charlie Croteau*

A fine time was had by one and all at the clubs Annual Christmas meeting. As usual there was far more food than we could eat. I did my part working on the shrimp, kielbasa, macaroni, bean dip and the sweat sausages. Yum, yum, yum… I didn't do much damage to all the delightful desserts. Thank you to everyone who brought something and everyone who helped out like Al's wife. I guess if we all do a little, we'll all have plenty. That about sums up the spirit of our great club.

A hearty thank you to our out going president Al. As the new guy on the block I hope to follow in Al's footsteps and keep the business meeting short so we can have more time for Show and Tell as well as our demonstrators.

Hopefully this year I will bring a different element to our club. Field trips! Yes, I figure it might be fun to visit some of the shops I sneak into now and again. Here is what I have planed as possible trips so far. The Hardwick Kilns, Shawn Roberts Woodworking Mill, a visit to a CNC Lathe, an old mill towards Boston that makes oval frames on a lathe, maybe even Norton's if security doesn't object.

Time for me to make some shavings so Santa can complete his list.

Looking forward to seeing everyone in the new year.

Editorial. *Rick Angus*

For most of us, the newsletter is the first line of club activity communications (but don't forget our website). My thanks to Graeme for his policy improvements and hard work putting-out the newsletter last year. I invite everyone to contribute an article or a few comments to the newsletter; if everyone contribute one thing this year, the NL will be packed with great information..

Outgoing President Al Faul (left) and Incoming President Charlie Croteau discuss who got the better deal.

Minutes of CNEW meeting 12/06/2007 *Tim Elliott*

As usual, Al asked any guests/visitors to identify themselves. Nobody raised his or her hand. There seemed to be many member spouses in attendance.

The main point of business was to conduct elections.

Nobody stepped forward to be External VP. We would like to fill this position at the next meeting before the Woodworks show in January. Please consider volunteering.

Many thanks to our outgoing 2007 officers, some of whom have served many years.

Lisa Boutotte showed a box of blocks made by a local (general) woodworking club for donation to local kids.

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2008 Club Officers Contact Information		
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Webmaster	Dave Eaton	webmaster@cnew.org
Photography	Mike Stone	photography@cnew.org
Wood Swap	Gene Spadi	
Freedom Pens	Gene Spadi	
Project Goodwill	Charlie Croteau	

They appeared to be unfinished wood scraps with the edges sanded over for safety. Lisa said the kids were thrilled with these simple toys and asked if CNEW members would be willing to make similar sets. Several members volunteered. If you would like to contribute, please bring any blocks you make to a CNEW meeting to be pooled and divided into sets. Lisa will make cloth bags to hold each set.

CNEW will again have a booth at the Woodworks show at "the big E" grounds near Springfield. The dates for this event are January 11-13 2008.

Al Czellecz has a very large lathe available. It has a ten foot bed length, 3 horsepower motor, and 22" capacity over the bed. It weighs in the vicinity of 2500 pounds. He is offering this free to anyone who can arrange to pick it up.

CNEW member John Styspek is in the hospital. Many of us signed a card for him.

Dues for 2008 are payable any time. Cost is $20 for newsletter via e-mail, $25 if you want a paper newsletter via US mail.

Our 2007 president Al Faul passed the gavel to 2008 president Charlie Croteau. Charlie had a surprise wood-identification challenge. He passed out a brown wood sample with an unusual smell that nobody was able to ID. In the end, he had to tell us: it was "roasted maple", a new manufactured product intended to compete with walnut. Very tricky, Charlie.

Tonight's program: Annual pot-luck and gift swap.

Internal VP plans for 2008 *Dave Eaton*

- Continue to develop and maintain the video library while increasing its user friendliness. Let's get our members interested in it. Let's get our loaned items back or the extra dough!
- "Freshen up" the book library. Some titles are not highly useful. Perhaps we'll auction them off.
- Review the store with Ray and determine the members needs. Maybe add additional items like Anchor Seal, drill sanding mandrels, pen kits, etc.
- Have at least one "brand name" turner in for a demo night.
- Get perhaps 3 local area well known turners in for meeting night demo's
- Promote the Open Turning sessions before meetings, perhaps using a theme or club challenge approach
- Promote Project Goodwill with Charlie, perhaps we'll have a member recognition plaque or challenge or webpage dedicated to the members and their donations. Same for Gene Spadi and the Freedom Pen Project.
- Work on getting our TV and Video system in good working order so it is more useful for demo's
- Manage a good Wood Swap program with Gene Spadi's assistance. Aim is at having an ample supply of healthy, appropriate wood each month.
- Help new turners get hooked up successfully with a mentor. Promote the Mentor program to be more active. This may also take form of more informal "Shop Meetings". Such as where one member offers their shop on a date and time and one to four turners visit their place to turn and talk. Sharing our skills helps us learn.
- Get the names and faces page on the website up to date—Hopefully a step to increase inter-member communication and fellowship.
- Perhaps run a fund raiser for the club to beef up the coffers. Maybe in the form of donated items sold to the public or internal raffle? Extra cash is useful for demo's and equipment (lathe, accys, videos, cameras, etc.)
- Recruit new members and motivate other members to do the same.

Show & Tell

Very sparse this month; the gift swap seems to have mostly displaced it.

Large ash bowl by Dominic Leroux

Lighthouse made by Al Faul

Ray Boutotte Cherry bowl with pyrography by Lisa

Turned Gift Grab Bag Pictures:

In keeping with club tradition, club members blindly exchanged small turned items, grab-bag style. Participating members prepared an exquisite turning as a gift, wrapped it in a brown bag affixed with a string and placed it in a large ornate vessel. Numbers were drawn a random and members then grabbed a string and reeled-in their gift. Some pictures of the festivities follow:

Al Faul Displaying Ornament made by Jim Metcalf

Walnut/Maple Bowl made by Steve Resnek; drawn by Tim Elliott

Dave Eaton—excited even before opening his gift…

Mike Peters early in the opening process

Will Hunt's ornament was chosen by Gene Spadi

Joe Harby ready to use his new round skew made by Dave Eaton

... A bowl made by Stan Felton

Ray Boutotte (wearing a wooden hat that he made with Johannes Michelsen) holding oil lamp made by

Tim Elliott received a fine Walnut and Maple bowl by Steve Resnek

Will Hunt holding his grab; a walnut bowl made by Rick Angus

Micky Goodman seemingly amazed by a vase by Tim Elliott

A Mike Peters Bowl—I'd know that rim from a mile away

Charlie Croteau admiring the club kaleidoscope

The CNEW Skew

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Central New England Woodturners
A Chapter of the American Association of Woodturners

Find us on the web @ www.cnew.org

Membership Application

To join or renew membership, please complete this form and a check made payable to CNEW and bring it to a CNEW meeting or mail it to:

Treasurer, Central New England Woodturners
c/o Worchester Center for Crafts
25 Sagamore Rd.
Worchester MA 01650

Annual dues: $20 including e-mail delivery of newsletter; $25 for postal delivery of newsletter.

Name: _____

Street: _____

City: _____

State: _____& Zip: _____

e-Mail: _____

Please check one category below
__ New Member
__ Returning Member

Please let us know of your interests:
How long have you been turning? _____
What programs would you like to see at meetings? _____
Would you like to demonstrate at a meeting? Yes/No If so, what topics do you offer? _____
_____

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 11 November 2007

Guest Editorial

Charlie Croteau

WOW! The demonstration by George Guadiani, on Off Axis Turned Staves (OATS) was a great success. All of you who participated gave Project Goodwill a tremendous shot in the arm. I can't thank you enough. The pieces that you gave were extremely generous. To be succinct, I was "blown away" by your kindness. All of the pieces were so tasteful. To prove this point let me just say the piece weren't even unpacked and I had already sold two pieces for $360.

On Sat. morning a family friend Diane, that cleans for my mom wanted to see the pieces, so I had her get them out of my SUV. As she was unpacking them on my bed my oldest brother Joe walked in. He saw the crabapple vase and wanted to know what was the deal. I told him about Project Goodwill and how you good folks had donated these items. He wanted the crabapple piece so he gave me $60.00 for it. Just then Diane started to take out Will Hunt's closed form. "I'll take that one too." Trying to think on my feet….which is hard for me. "Oh no, that is not a $60.00 piece, it's a $300.00 piece." Said I, wanting to put things into perspective. My brother shrugged and said. "Okay." I had inadvertently set the price at $300.00, should I

President's Message

I thought that we had a great meeting this month. Remember elections are next meeting and we need a editor which is the life line of the club. We have been fortunate to have Graeme to do the magazine for the past three years. We have a candidate for President who I think is very capable. Remember to bring a dish for the pot luck supper, the wife and I will bring plates, silverware, cups, napkins etc. Also bring a piece that you have made, in a bag with a 3ft string on it for the gift swap. At the November meeting we had George Guadiane who did a demo "off axis triangle Stave Segmented Turning", which was very interesting but remember to use plenty of glue. George also donated 2 cherry burls to our auction and did not charge us for the demonstration as everybody donated pieces to Charlie's Goodwill Project. Charlie was flabbergasted by the number of items donated. I also would like to thank the A.R.T. club and The Cape Cod Wood Turners club who joined in with the project. As I write this the WCC Fair will have gone by and I hope we will have helped to make it a success. I would like to wish everybody in the club the best for the coming Holidays and the New Year and I hope everybody gets that white lathe that they wanted. Have fun and keep turning.

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Minutes of November Meeting

Tim Elliott

Guests/visitors: Lots. Too many, too fast for me to catch them all.

Treasurer Norma Hogan reported

beginning balance:	$3127.96
end balance:	$3032.45

Our December meeting will include elections for 2008 officers. We have a candidate for club president, but no one has yet stepped forward to apply for Newsletter Editor. If you are interested, please make yourself known to one of the current officers or speak up at the December meeting.

Also in December, we will have our usual holiday gift swap (bring a turning in a plain brown bag tied shut with a length of string - take home a turning from somebody else) and our usual pot-luck feasting (bring a dish of some kind to pass).

We will again take part in the WCC craft fair the weekend of Thanksgiving. Several members have signed up to participate. If you are participating but not setting up, be sure to get your items for sale to the booth on Friday. Booth costs will be split according to the CNEW fair policy: $10 flat entry fee with remainder of costs assessed as a portion of sales.

We used the Center's Jet lathe for the demo tonight - Reid Gilmore observed that we should really own an adapter that will adapt the Jet's spindle to 1" compatible with the club's chucks. We voted to buy one.

Charlie Croteau gave an update on Project Goodwill (donated turnings sold to purchase wheelchairs for distribution in the third world). Wheelchairs now cost this organization $48 each.

Dues for 2008 are payable any time. Cost is $20 for newsletter via e-mail, $25 if you want a paper newsletter via US mail.

The library has two new videos. Both are by Rex and Kip: Woodturning Projects and Turning Pens. Thanks to Mary Maguire who has been videotaping the meeting programs for the library.

Thanks to Dave Eaton who brought in a load of cherry for the wood swap (with help from several members of the ART chapter, too). Thanks also to George Guadiane who donated 2 cherry burls for auction.

Next month: open-shop at 5:30 prior to the meeting

Editorial (ctd.)

try and get more out of him now? I decided to let it go at that and made sure that he knew he was getting a museum piece at a steal. (Sorry Will if I let it go for too little.)

Later, my sister Jane and her husband Ron who own and run Park Print in Worcester took eleven pieces to their shop to sell for us. People had bought pieces last year and were hoping to sell some again.

On Saturday, Dec. 1st my friends from Boston who got me involved in Free Wheelchair Mission and I will be participating in an alternative gift fair in Boston. I'm sure the Christmas tree ornaments, pens and other pieces will be a great success.

In closing let me say that together we are doing a beautiful thing. I hope that each of you is having as much fun as I am. Together we are changing the world. Thanks so much for helping to get my brothers and sisters with disabilities off the ground.

"Turning Triangles"

("OATS" Off Axis Triangle Stave Segmenting)

George Guadiane

Turning triangles was an accident. While using my bandsaw, I cut the approximate 45-degree angle edges off of two square turning blanks, to save my arms and turning tools a little.

In gathering up the "scraps," I noticed that they might form an open circle, instead of meeting in the middle in the classic pie wedge orientation. The idea worked. The segments were ROUGH, but I could see that the concept could be developed.

One attraction was the possibility to take a quantity of wood and make a larger usable blank than I could have otherwise. Another was the wall thickness of a blank that could result, which would allow for more diverse opportunities in shape and proportion than regular stave segments would. The aspect I found most interesting was the curved segment line that I knew would result.

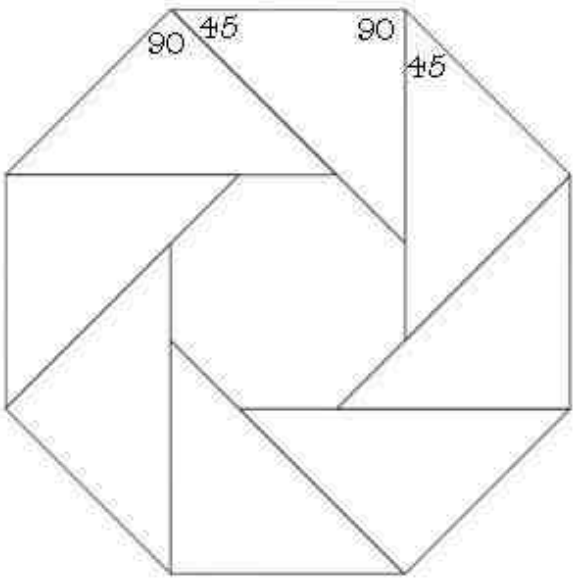
My first two attempts came out much better than I expected.

Because they were cut "freehand" with a fairly dull, tilted saw blade there was considerable sanding involved getting the staves to fit properly.

I made a design choice that wasn't all that attractive on the first one and a construction choice on the second one that lessened the drama a bit.

Editor's note: George's demonstration was in two parts, the first detailing how to build the table saw jig and the second on making an OATS vessel. To fit the available space, I have eliminated the first part. Everything is in the handout and no doubt on the web site by now.

"OATS" Segmented Bowl/Vase Blanks



Materials List:

- 37+ off 14 x 2¼ inches Spalted Maple
- 28+ off 14+ inches walnut veneer

Tools List:

- Table Saw
- Triangle cutting sled
- 3 hose clamp sets large enough to clamp the blank
- Screwdriver/nut driver/drill to tighten hose clamps
- 6+ ounces wood glue (I like Titebond II)
- 3 inch foam brush

1. Make a materials list as above.
2. Make a tools list. Make sure that the hose clamps are of a sufficient diameter to fit the blank you will make.
3. Collect all of your materials.
4. Cut the triangles and veneer to size.
5. Dry fit the triangle pieces, clamping them to insure that the angles are tight with no light between the segments. The veneer, being of uniform thickness will not change the fit, and is somewhat delicate, so the less handling the better.
    - Clamping from the outside uses a cantilever action, applying equal pressure across all adjoining surfaces. For this particular blank assembly, there appears to be no need for a device to push the pieces out from the inside.
6. If there are gaps, you will want to sand, using a flat surface, belt or large disc sander, applying most of your pressure on the edge of each of the short sides away from the gap.
7. Lay out all of the tools and materials.
8. Stand the blank on end and remove all but the bottom hose clamp. Make sure to loosen the clamps enough to allow them to slip easily over the loosely fitted, freshly glued assembly.
9. Loosen the bottom hose clamp a lot; we will need to be able to move the staves around to slip the glue-covered veneers between them. We also want to be able to keep them from wandering too far. The clamp ring at the bottom does this.
10. On a smooth surface, squeeze out a layer of glue, about the size of the veneer you will be saturating. Use a foam brush or squeegee to do this.
11. Lay the veneer into the glue; spread glue evenly (but not TOO thick) on that surface.
12. Flip the veneer over and make sure that side has glue on every spot.
13. Repeat this step till all segments have a glued veneer between them.
14. Put the hose clamps on and begin to tighten (not too tight yet), starting with the middle clamp. Alternate/rotate the position of the tightening nuts to distribute the stress more evenly. MAKE SURE THE VENEER IS PROPERLY SITUATED.
15. Alternate the tightening to insure a snug even fit. The wet surfaces will insure that they slide into place.
16. Allow this glue-up to dry.

17. Make tapered plugs to fit the openings at the ends of the blank. I use one in the chuck, and one on the live center. If you have a cone live center and the flare is bigger than the opening, use that.
18. Place the blank between those centers and turn off the high spots (“corners”), and smooth (what will become) the top, leaving a collar/tenon/spigot.

19. Mount the blank using the chuck, keeping it between centers for now.
20. Turn the outside to the approximate finished dimensions and form.

21. (for a hollow/vase form) Since you are going to have easy access to the bottom, you might want to turn out some of the material you know will be removed from the inside bottom anyway, because the bottom is harder to get down to once the blank is assembled. For vases and hollow forms, I always do.

22. Finish the open end of the blank FLAT and with a small recess, making it ready to receive the foot blank.
23. Between centers, turn the final bottom/foot, including enough materials for a tenon/spigot.
24. Once the tenon is turned, chuck the foot up and fit the foot to the vase.
25. When the bottom is properly fitted, glue it up between centers. I also do this step, using the lathe. This insures good even pressure and a tight fit.
26. Once dry, you can balance and final turn your outside shape. I do a lot of rough contour sanding at this point too (down to 120 grit).
27. Use the larger access to turn the inside more easily, before applying the top (if you are going to apply one.
28. If not already on, glue the top and allow it to dry between centers.
29. Finish the turning to your desired dimensions and apply the finish of your choice.

ANNOUNCEMENT

From Dave Eaton: I was just informed by Ken Dubay that long time CNEW member John Styspeck is in the hospital and "battling for his life".
Please join in wishing John well and if you know him on a personal level may wish to reach out to him or his wife. I don't have any additional details.
John's contact info is available on the CNEW website under the members only area.
We wish you the best John!

Alan Gilburg, cherry

Dave Eaton brought this bowl ffrom A.R.T. for Goodwill

Laminated bowl by Dominic Leroux

Dave Gillette - ambrosia maple “creature” platter

Show and Tell

Photographs by Henry Fairlie

OATS vase by George

Maple bowl by Jerry Sambrook

Stan Felton, spalted maple ornament

Will Hunt, three experiments in one

One of Joe Harbey's cherry burl bowls

Steve Reznek, norwegian birch crotch and cherry

A Ken Brannock carving

Bill LeClerc, crabapple

"Papa Joe"

The CNEW SKEW

CENTRAL NEW ENGLAND WOODTURNERS

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A Chapter of the American Association of Woodturners

On the web: www.cnew.org

To join or renew your membership, print this form and either bring it to the next meeting with cash or check for $20 made payable to CNEW, or mail the form along with a check to:

Treasurer
Central New England Woodturners
c/o Worcester Center For Crafts
25 Sagamore Road
Worcester, MA 01650

Name _____
Address _____
City _____ State ____ Zip _____
Telephone _____
E-mail _____

If you wish, please let us know more about you and your interests.

Old member New member Turning how many years? _____
Selling your work? Yes No Where? _____
_____
What programs would you like to see at our meetings?
_____
Would you be interested in demonstrating at one of our meetings? Yes No

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 10 October 2007

Editorial

I wasn't planning to attend the Albany Symposium this year but when Richard DiPerna came down with flu and offered his ticket to the first taker, well – that's nearly as good as free wood, isn't it? So as well as spending money on some not-so-free wood from Curtis Lumber and Bruce Hoover's Sanding Solution, I came away with a few new ideas. Paul Petrie reiterated a few points about surface decoration, chief among them the fact that you have to be sitting (or standing, or lying) comfortably. Good light and magnification are also essential, otherwise the repetetive motions and the strain will soon convince you there are better ways to spend an evening. And when stippling, no shortcuts! If you don't cover the entire surface, the few remaining flat spots will stick out like a sore thumb once the finish goes on. In any kind of piercing or stippling, it is generally advisable to draw the patterns first so you avoid making all the marks in straight lines or the same size – randomness is usually desirable.

Peter Exton did a very interesting 2-part rotation on his explorations of multi-centred spindle turning, although the second part was slowed down by several people who felt they could skip the first part and then proved they should not have by asking questions that had already been answered. Peter was considerably more patient than I would have been. As part of the rotation, Peter showed a series of slides starting from his work with furniture, where the turning is in a subsidiary role, through to more recent work where the is no sign of anything functional. Of one table, he commented that the proportion of the top diameter to the height was "about" the Golden Proportion!

Finally, I watched Andre Martel use his hook tool to hollow out a natural-edge lampshade from a whole log (with some bits hacked off until it fit on the lathe). As is common with this sort of demo, it took a while to

ctd. on p. 2

President's Message

I just got back from Totally Turning in Albany NY. and I had a great time as I met some new people and touched base with some old friends. There were a lot of wood blanks as well as quite a number of tools to purchase if you had some extra change to part with. They had a place to turn a pen, they also had a egg cup race where you turned against a clock to see who was the fastest. I saw eight demo's and enjoyed them all and learned something at each one. I also met our speaker for November, George Guadiane who will not charge the club if we all bring a turned piece for Charlie's Wheelchair Project. It is time to finish up all those projects that you are going to bring to the Craft Fair which is the weekend immediately following Thanksgiving, also we have to take down our booth which is stored upstairs from where we meet on the Wednesday before about 3 or 4 people are needed for approx. 1 hour. The club is looking for someone to take over the duties of the Editor for the club newsletter for the coming year. I am having fun are you?????

AL

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Minutes of October Meeting

Tim Elliott

Guests/visitors: none. New members: Peter Wilcox

Treasurer Norma Hogan reported that our bank balance is now $3127.96

Our December meeting will include elections for 2008 officers. Al Faul will step down from the office of president. Graeme Young has also announced that he will step down as newsletter editor.

The Woodworks show will again be at the big E fairgrounds in Springfield Jan 11-13. Our booth will be next to the gallery for better security of items on display. Totally Turning will be held in Albany this month. The Woodcarver's show will be October 21 at Middlesex Community College.

The Worcester Center for Crafts is having an open-house event this Saturday aimed at kids. They have asked CNEW if we can provide a demonstrator but no one seemed to be available on short notice.

Thanks to Dave Eaton for taking action on the grinder and sharpening jig that CNEW donated to the Craft Center this month. Dave made sure these items were purchased, delivered, and installed.

Frank White reported that Peters Valley Craft Center in New Jersey has some woodturning-themed Summer workshops. See www.petersvalley.org for details. At the moment the site only lists workshops for the 2007 season, which ended in September.

Frank also reported that longtime CNEW member Ray Hayden died in September. He was 95.

Beth Ireland will be demoing artistic wood turning for the Eastern MA Guild of Woodworkers on October 13 in or near Bolton. Details are available at www.emgw.org.

Dave Eaton has coordinated with Hartville Tool Woodworking to get CNEW discounted pricing on items ordered from their website: www.hartvilletool.com.

November Meeting

George Guadiane (George's website is turnedbygeorge.com) - bring a piece for Project Goodwill

Editorial, ctd.

get through that much wood and you could only get a general idea of how the tool is used – neither live viewing nor video really lets you see exactly where the cutting edge is, what direction it's going, how far below or above centre the tool tip is, etc. And even if you could figure out all those variables, it may not be obvious which ones are important and which are merely incidental.

Graeme

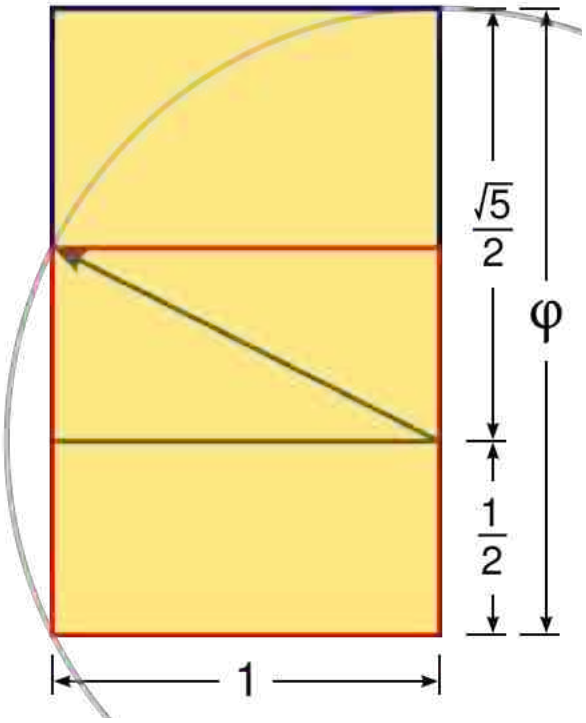
Design Discussion

Graeme Young

This is an expansion on the design discussion that occupied the second half of the October meeting. We covered quite a few points, including some that had little to do with design as such.

First up was a discussion of the Golden Mean, also known as the Golden Proportion or Golden Section. The proportion in question is 1:phi where phi is the Greek letter Phi, representing an irrational number with the value 1.618034.... You can construct such a rectangle with ruler and compass as follows

- Draw a square (red in the diagram) with sides equal to the length of the short side of your desired rectangle
- Find the midpoint of a side and extend the compass from there to one of the non-adjacent corners
- Draw an arc, continuing past the side the compass rests on
- Extend that side to meet the arc. This establishes the length of the long side of your rectangle



The Golden Mean has been used in art and architecture since the ancient Greeks and became especially popular during the Renaissance. Studies have found that if people are shown rectangles of various proportions, the Golden Rectangle is the one most commonly found to be most pleasing.

So how, if at all, do we apply the Golden Mean in turning? None of the panel used the Golden Mean in their design process and none of us thought it a good idea to slavishly produce work adhering closely to this "ideal". Even Mike Darlow, an author whose work I often find excessively technical and finicky, recently published an article arguing against reliance on the Golden Mean. Something I learned a long time ago:

Rules
are for the Obedience of Fools
and the Guidance of Wise Men.

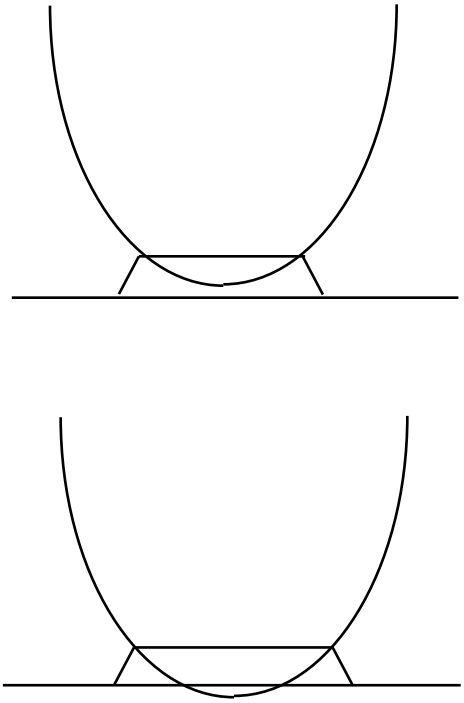
Of course, deliberately avoiding the Golden Proportion will get you a lot of ugly bowls. So will "wasting" the minimum amount of wood by removing just enough to make the outside round and then digging out the inside. That approach tends to produce bowls with straight sides and flat bottoms – boring if not downright ugly. You can keep the same height and diameter but remove less from the inside and more from the outside. This is not only easier, it allows you to make a lot of more interesting shapes. And if you cut away wood to make the most pleasing shape you can instead of the biggest, then measure the results, you'll probably find a proportion not far from the Golden Mean in there somewhere.

Hal Mahon put up one of his pieces for discussion. Nobody took issue with the proportions but we did feel that the overall form could be improved. Near the base, the form narrows gradually then makes a sudden turn towards the foot. It would be greatly improved by smoothing out (fairing) the curve from the largest diameter to the foot. Will showed a flexible plastic rule he uses for playing with curves. French curves are also useful for this.

Not far into the discussion, Will made the point that it was important to keep purpose in mind. The design considerations for a functional salad bowl are quite different from those of a bowl designed to sit on a shelf and look elegant. The salad bowl needs a wide foot, or a wide base and no foot at all, to make it stable. The

elegant bowl will usually have a small foot to lift it off the surface it sits on. The salad bowl should have some heft to it so it doesn't fell like it might break if handled roughly. The elegant bowl should look and feel light and delicate. The rim of the salad bowl should be designed to make it easy to hold; there is no such constraint on the rim of the elegant bowl.

Someone mentioned Richard Raffan's suggestion that the foot and the curve of the bowl should be such that if you removed the foot and extended the curve, the bowl would sit on or just above the table, as in the first diagram. The foot should not be so shallow relative to the curve that the bowl would be buried in the table as in the second diagram. Nobody had any strong opinions on the usefulness of this as a guide although it does prevent a very wide, shallow foot (which is generally a Good Thing).



Somewhere along the way the question of thinness was raised. We concluded that this was largely a fad, often used to show the turner's mastery of the craft without adding anything to the aesthetics of the turning. Some artistic turning does depend on being very thin for its effect, but there are probably just as many artistic turnings that work only because the walls are very thick. Consistent thickness is generally more important than making a turning as thin as possible. From a purely practical viewpoint, inconsistent thickness increases the possibility of cracking. A thin rim leads a viewer to expect that the piece will be light: a thick, heavy base will be an unpleasant surprise when she or he picks up the turning. Even worse is a piece that is mostly quite thin but very thin in one spot: someone will inevitably put a light behind it. To really see how consistent a wall thickness you are achieving, Raffan recommends running the occasional bowl through the bandsaw. I've done this a few times and it really is educational.

Somebody mentioned the work of Binh Pho during the discussion of thinness. We didn't take this up but my own opinion is that if we must have categories, Binh Pho better fits the traditional category of painter or sculptor. Forget the lathe, forget the wood, forget the high level of craftsmanship that enables Binh to produce those very thin, consistent vessels. All that is only preparing the canvas for the painting and piercing that is the whole point of the work. Binh has taken a step forward in using a canvas which is 3-dimensional while most painters still limit themselves to two dimensions. In conjunction with the piercing, this allows the viewer to look through the front surface of the work and see the inside of the back surface, an effect more often found in sculpture. Until very recently, all Binh Pho's work has been on thin turned wood but I think this should be considered equivalent to a painter choosing to work on canvas, or watercolour paper, or rough plywood, or aluminium – it's just a substrate chosen to complement the particular style of painting. In fact, in some recent work Binh has done away with the wood entirely. If anyone had been paying close attention, in the American Crafts magazine that Frank passed around there is an advert for the Function+Art Gallery in Chicago. It shows two forms of the same work by Binh Pho, one in wood and the other in cast glass.

At the end, the discussion went a little off-topic onto the subject of finishes. Will again noted that if you are producing for sale, you should produce what people want to buy. In the Northeast that means dark and shiny. Finishes that can give a high gloss include lacquers, urethane oil and pretty much any finish that builds a finish. Graeme was not keen on the amount of time it took to apply the multiple coats required and was frustrated by spending a lot of time sanding out all the scratches only to have swirls, brush marks and even runs appear in the finishing stage. Graeme's preference was for oils like tung oil and products like Formby's tung oil varnish which penetrate with out leaving swirls or marks and give a much flatter finish. A high gloss can be achieved in most cases by buffing.

Club Poll Results

Here are the results of the club poll, recently conducted on the CNEW website. Even allowing for the fact that not all members have web access, the results were rather disappointing: only 14 members took the time to fill in the survey. Some members did not answer every question and some questions allowed multiple answers, which is why the total for each question is not always 14.

Q. Are there any CNEW members you would like to see do a demo?
A. Yes (2), No (1), Total: 3 votes.

Q. For club-demos this year what would you like to see most.
A. finials for boxes (10), hollow-forms (8), unusual materials (8), specialty tools – hook, coring, etc. (8), tool sharpening (6), segmented turning (6), natural edge bowls (4). Multiple-answer question.

Q. What do you think your skill level is?
A. Very basic (2), novice (3), intermediate (4), advanced (3), Total 12 votes, nobody classed themselves as non-turner or expert.

Q. Do you think you need help - or that a mentor can provide help?
A. I want help in some areas (2), mentors could help (5), mentors do help (3), mentors have not helped (0). Total 10 votes.

Q. How many BUSINESS MEETINGS did you "not like"?
A. Every one was good (2); A couple not good (2); Several left something to be desired (4). No votes for "50% aren't worth it" or worse, but one vote for "I only come for the demo or wood swap". Total 9 votes.

Q. How many of the meeting DEMO's did you "not like"?
A. Every one was good (1); A couple not good (6); Several left something to be desired (1). No votes for "50% aren't worth it" or worse. Total 8 votes.

Q. Would you be interested in having a panel discussion instead of a turning demo? If so, what topic(s)?
A. Yes (10), No (1), Total 11 votes.
Suggested topics: design (8), spalted wood (7), drying methods(7), pricing your work (6), another topic (2). Multiple-answer question.

Q. What type of demonstrations are the most useful for you?
A: design (7), projects (6), standard tool use (6), use of uncommon tools (5), surface decoration (3), segmented turning (2). Multiple-answer question.

Q. Would you bring in something for an "Instant Gallery" if the items were critiqued?
A. Yes (9), No (0), Total 9 votes.

Q. How long should the demonstration section of the meeting be?
A. 90 minutes (6), 60 minutes (4), 30 minutes (2), Total 12 votes.

Q. Would you participate in a "club challenge"?
A. Yes (3), likely (8), very unlikely (3), Total 14 votes.

Q. Would you like to do a club demo this year?
A. Yes (2), maybe (1), maybe with help (1), no (2), Total 6 votes.

Frank White – Mountain Ash

Bill Leger – Padauk and Red Oak Bowl

Hal Mahon – Laminated form

Bill LeClerc – Maple/Walnut
Open Segmented Bowl

Show and Tell

Photographs by Mike Stone

Graeme Young – Trio of
Oak Burl Bowls (Cored)

Rick Angus – Spalted Maple Bowl

Arnie Paye – Maple/Walnut Turned and Scroll Sawn

Paul Charbonneau – Spalted Maple Vessel

Joe Harbey – Red Cedar Bowl

Bill LeClerc – Maple/Cherry Bowl

Frank White – Maple Burl/Walnut/ Ebony/Ivory Urn

Paul Charbonneau explaining his bowl-cutting bandsaw jig

The CNEW SKEW

CENTRAL NEW ENGLAND WOODTURNERS

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A Chapter of the American Association of Woodturners

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To join or renew your membership, print this form and either bring it to the next meeting with cash or check for $20 made payable to CNEW, or mail the form along with a check to:

Treasurer
Central New England Woodturners
c/o Worcester Center For Crafts
25 Sagamore Road
Worcester, MA 01650

Name _____
Address _____
City _____ State ____ Zip _____
Telephone _____
E-mail _____

If you wish, please let us know more about you and your interests.

Old member New member Turning how many years? _____
Selling your work? Yes No Where? _____
_____
What programs would you like to see at our meetings?
_____
Would you be interested in demonstrating at one of our meetings? Yes No

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 9 September 2007

President's Message

Are We Having Fun? We would like to welcome guests and a new member, Bill Ledger. Norm Mancuso was on the Yankee Symposium Committee and reported that the symposium was a great success and returned our $1000 seed money, which was a bonus.

We have our booth reserved for the Worcester Craft Center Fair; I hope the members will participate in setting up and manning of the booth for sales. I hope enough members will respond to the call in January for the Woodworks Show at the Big E in Springfield: it promises to be better than ever. Our booth will be adjacent to the Gallery area, to watch over the items that will be on display. I understand Charlie Croteau's Project Goodwill booth will be there also.

I would like to thank the membership for approving the purchase of a new Grinder and Jig setup that our own Dave Eaton will install for the Craft Center, Yea Dave Thanks. Also remember that we voted to participate in the Spirit of Wood carving show in October, we will need members to man the booth. I would like to thank Steve Reznek for the very informative demonstration on segmented bowls, which I think could be carried over to use on other forms with a little ingenuity.

Keep Turning and Have Fun,

AL

Editorial

The special feature at next month's meeting will be Will Hunt, Frank White and myself leading a discussion on the subject of design. This, we hope, will not just be the three of us droning on and on about design in the abstract until everyone falls asleep. It is intended to be an interactive session in which we discuss the pieces that ***you*** have brought in as examples of good and bad design. Let's keep this separate from Show & Tell – Show & Tell is for work you've done recently, for the design discussion we want to see the good, the bad and the downright ugly, no matter how old or new. Of course, if a particular piece happens to fall into both categories, we won't refuse to talk about it.

Design is the only topic we will be considering, not skill (or lack of) in turning or finishing. So if you have a piece that you abandoned because you didn't know what to do with it bring it in, toolmarks, tearout and all. If you have an outstanding example of good or bad design that dates back to before you discovered the benefits of power sanding, bring it in. If you have a piece that was going really well until you screwed up the finish, or the carving, or the pyrography, bring it in.

Beyond "Design", we really don't have an agenda for this discussion. I hope that the main focus will be on specific examples of good and bad design – the ones ***you*** bring in. But if anyone wants to open up the discussion into general design principles, we can do that too.

Graeme

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Spirit of Wood Show

The Spirit of Wood carving, turning and scrollsawing show will be at Middlesex Community College in Bedford, MA on October 21st. We have had a booth at this show in past years but support has been limited. If we are to participate as a club this year, we need people to commit to manning the booth – and actually show up!

The show also has a competition, if anyone is interested in submitting turned (or, indeed, carved) work for judging.

For details, contact Roger Melanson at (978) 368 5923 or rolmel@comcast.net.

WoodWorks 2008

It's not too early to gear up for a bigger, better, more profitable Project Goodwill at WoodWorks, W. Springfield 2008! Plus, to encourage **lots** of entries into the SawDust Cafe Instant Gallery Competition we have *finally* smartened up and will accept entries for one, two or three days. Details can be found on our web site: http://www.woodworksevents.com/gallery.shtml . The Woodworks show will be at the big E fairgrounds in Springfield Jan 11-13.

Election of New Officers

At the December meeting we will be electing new club officers for 2008. As I noted at the last meeting, I will be standing down as Newsletter Editor next year so consider doing your part for the club by volunteering for this or any other position.

Transforming Vision: The Wood Sculpture of William Hunter, 1970-2005

Wood Turning Center, Philadelphia

Oct. 5 - Dec. 8, 2007. This is the first retrospective exhibition of the work of seminal American artist William Hunter, a native of California. The exhibition documents Hunter's emergence as a sculptor of groundbreaking significance in the early 1970's. Educational programs at the Wood Turning Center include dialogues between William Hunter, curators and collectors about his work, their insights, and how the artist's work inspires and touches their lives. More details at www.woodturningcenter.org

Worcester Center for Crafts

25th annual Festival of Crafts

November 23 – 25, 2007

The Festival of Crafts on Thanksgiving weekend is an exciting and much-anticipated Worcester event. The Festival includes 55 of the finest artists juried from the Northeast, who will be selling their hand-crafted work including: jewelry, pottery, glass, hand-woven textiles, woodturned bowls, furniture & lamps. Visitors to this warm and intimate crafts fair, held in our gallery and studios, will find unique items for everyone on their gift lists.

The event also serves as a fundraiser, providing support for ongoing programs, services and general operations of the Craft Center.

Minutes of April Meeting

Tim Elliott

New/visitors (hope these are right... sorry, didn't get them checked): Jerry Sandlat, Bill Ledger, Katherine Bemis.

Treasurer Norma Hogan reported that there has been no activity in the account for the past month. Our balance stands at $2149.31.

Kathi Parker [kparker001@gmail.com] seeks vendors for a fair at Artspace in Maynard Nov 30 - Dec 2. The booth fee is $75.

The Arrowmont totem pole exhibit contains one section created by CNEW more than 10 years ago. They are expanding the exhibit and we can submit another section if there is sufficient interest.

The Woodworks show will be at the big E fairgrounds in Springfield again Jan 11-13. This year, the gallery will be next to our booth so that there is more opportunity to watch it. Project Goodwill expects to exhibit/sell there as part of our booth.

The Spirit of Wood woodcarver's show will be Oct 21. CNEW plans to have a booth.

JoHannes Michelson will demonstrate making his hats at Middlesex Community College in Bedford, MA on Sep 8. See the CNEW website for more details.

Norm Mancuso reported that income from the Yankee Symposium was sufficient that the committee is returning our $1000 seed money.

Dave Eaton attended a demo last week on Cape Cod by Bill Grumbine. He picked up two of Bill's videos for our library. Dave will also respond to Hartville Tool's offer to give CNEW members a 20% discount on all orders in exchange for a copy of our member list. See the link on the CNEW website.

We will again have a booth at the show run by the Worcester Center for Crafts on the weekend of Thanksgiving.

Lyle Jamieson has offered to demo for CNEW when he travels through the area in February. Several members have already seen his demo. There was not sufficient interest to pursue this.

Reid Gilmore listed upcoming program topics:

October: panel discussion on design (Frank White, Graeme Young, Will Hunt)

November: George Guadiane (George's website is turnedbygeorge.com) - bring a piece for Project Goodwill

December: Holiday potluck, gift swap, and elections

Our photographer Henry Fairlie will not be able to attend the October meeting. We need an alternate for that night. Henry also notes that there is a general woodworking club starting in the Foxborough area. Their organizational meeting was Sep 12.

Belated thanks to Dominic Leroux for donating the meat we ate at our August picnic.

Charlie Croteau reported on Project Goodwill. The national organization held a gala fundraising event in California on July 24, which Charlie attended. Several CNEW donations were sold in the $200 - $300 range, including those by Will Hunt, Steve Reznek, and Mary Maguire. In all, turnings contributed $1105 to the $880K total at this event. Gene is still happy to accept donations to the Freedom Pen project.

The wood swap was especially abundant this month. Special thanks to Dave Eaton and Alan Gilburg. We also had 3 $10 gift certificates from Craft Supplies - many thanks to them for their generous support.

Firmager (ctd. from p. 4)

These tools and their usage is covered in his videos that I believe the CNEW club has in its library (which is where I first saw them). Well worth watching them and learn something new to add to your stable of tools.

Fork Tool

Two Days with Melvyn Firmager

Peter Teubel

The Ocean State Woodturners club hosted a 2-day program with Melvyn Firmager. The first day was a demonstration and the second was a hands-on class in Angelo Iafrate's shop. I attended both days. Melvyn is a wonderful teacher and has a good sense of humor. He kept us laughing all day.

I've seen Melvyn's videos and I was always intrigued with his very odd grinds and outright strange tools he uses to make his hollow forms. Well, I finally got to see ***and*** learn how to not only make them but also use them.

There were only two other students in the class, so we had Melvyn all to ourselves. Given that his basic class is usually 3 days, we concentrated on tool sharpening and technique rather than design given the time constraints.

I purchased a set of pewter "templates" from Melvyn so I could refer to them when re-shaping my tools. Below are photos of them to help show the really alien grinds he uses!

First was his "Nib Gouge". This is a unique grind that defies explanation. You just have to see it. The

nib works great to cut a path for the rest of the gouge to follow. When taking a shallow cut (nib out of the wood), the resulting surface that can be obtained is truly remarkable. THIS is the gouge to use to leave a "start-sanding-at-220-grit" finish. Not only is this grind useful for finish cuts, it can really hog off wood quickly. The only caveat is that it's only functional for convex curves: you can't use it for turning the inside of a bowl. I tried figuring out a way to make a jig for it, but I mastered hand sharpening it in the meantime. It's really quite easy to hand sharpen it *if* you have a smooth running grinder with properly trued/balanced wheels.

The next tool we used was the "Scrapey Gouge". Basically, it's an asymmetrical fingernail grind with what looks like an 89° bevel on the tip. One wing is ground proud of the other depending on the rotation of your lathe (outboard vs inboard). It's basically used as a scraper to create a "shelf" for the next tool.

The "Swept Back Gouge" is a radically asymmetrical gouge. It's used for plunging into the shelf created by

the scrapey gouge to hog out material. It's tricky to use but only in the fact it requires an exact angle to work. But once it does, wow....it really works.

The ⅜″ "Irish Grind Gouge" is a fingernail grind with the wings ground back a bit more than 1″ but not sharpened all that distance. Looking at it will initially give one the feeling that a skew is a far safer tool, but properly used, it's quite tame. Used basically as a long reach spindle gouge for deep but narrow coves.

The "Firmager Parting Tool" *looks* like a really long thin parting tool, but the tip is ground in such a way that it's used in the same manner a gouge is used. This is what Melvyn used to cut those deep recesses between his discs in his Sea Flower series.

The "Fork Tool" (photo on page 3) is the most bizarre, yet makes the most sense when you use it. The bottom part does the cutting while the top part acts as the "bevel" which you rub to guide the cut. It's not catch-proof, but it's as close as you'll ever come to that with a hollowing tool.

ctd. on page 3

Ten Reasons To Make Segmented Bowls

Steve Reznek

10. You think they are cool
9. You like the challenge
8. You are bored with just bowls
7. You like to show off
6. Why use free wood when you can buy kiln dried?
5. You can use more scraps for your wood stove
4. You want to brush up your high school math skills
3. You don't have enough tools already
2. Your spouse thinks you don't spend enough time in the shop
1. You don't have enough frustration in your life

In segmented turning, the two big issues are the time and effort to produce an item and dimensional stability. Often, the time spent cutting, sanding, gluing and assembling the parts far exceeds the time spent turning the assembled blank. When parts are assembled with the grain running in different directions, different rates of expansion and contraction can cause noticeable discontinuities and even result in complete failure of a joint. No matter what – Joinery Counts! You always need a good, sharp saw, good glues, the ability to sand flat, waste blocks, face plates and clamps. Lots of clamps.

Safety:

1. If you use "super" glue, be sure to protect your eyes and the rest of you from spray. Let it dry and wear masks. No matter what!

2. Keep your fingers away from saw blades. Use pushers. Be extra, **extremely careful** if the blade is not perpendicular!!

3. When you cut a ring away from a "waste" board or block, be sure you can catch the pieces. Use something on the tail stock to hold the freed piece and go slowly.

To flatten faces on the lathe for mating, use a flat board with sand paper. Press it across the ring until the face is flat. The outer edge will curve "down", so leave extra width. To flatten a ring that is too thin for "jumbo" jaws, mount a face plate on the board. To assure that ring centers are aligned on mated faces, use face plates. The developing bowl is mounted on a faceplate on the headstock. The next ring is mounted on a board on another faceplate and held over a fat cone center on the tailstock. Now the mating surfaces can be brought together carefully for gluing.

The "standard" approach to segmented turning using rings has a number of advantages. Expansion is less of a problem, but only if the base is segmented. If the base is solid wood, there will be areas where the grain direction does not match up with the first ring. Complex designs are easier, if only because many people have already worked out clever ways of producing them and there are lots of books and tapes on the subject. There is no end grain to turn or finish.

Of course, there are also drawbacks to ring construction. You have to do the "corners" right and there is no way to align the grains completely. Movement is a problem, especially with platters unless the bottom is layered. Jigs, miters, and sleds are essential, as is a good, accurate table saw – that is not buried under a pile of turnings in progress. You have to flatten, which makes it worthwhile to have equipment like a disc sander and a planer. The only sure way to prevent joint problems is to align the grain!

Cutting with the table saw blade tilted away from 90° allows you to get some very nice patterns, relatively easily, and you get two dimensional curves. ***But***... it is far easier to forget what you are doing and cut your fingers off. With non-perpendicular segments you can't cheat and "true-up" two halves and you need "keepers" to keep the parts in alignment for clamping.

Segmented bowls with straight and angled segments

Making An Insert Bowl

1. True up a board and cut the body square.
2. Create two "spacer" guides. The width is the distance between two splines plus the saw kerf.
3. Create a "spline" spacer. The width is two saw kerfs. Adjust by being a little smaller and thickening with layers of masking tape.
4. Cut the first dado. Find the middle of the square. Set the fence so the blade is in the middle with one "spacer" guide. The depth is determined such that the "uncut" portion is the top "rim".
5. Lower the saw blade a bit and cut the outer dados. One with two "spacer" guides and one with none. The shallower depth makes the outer splines shorter.
6. True up a blank and cut the three splines*. Match the grain direction to the dados. Ideally the height of the splines should be just less than the (two) depths of the dados. This is very important if they are cross grain; or if you are cutting in more than one direction.
7. Super glue the splines into the dados. ***Let the glue set!***
8. If you make subsequent crosscuts in a second direction, repeat steps 4, 5, 6 and 7.
9. True up a board and cut a blank for the base.
10. Mount a waste block on a faceplate and flatten the surface using sand paper mounted on a board.
11. Glue the base onto the waste block and flatten its face. Remember that the edge will be turned down a little. Leave extra diameter. You don't need to use super glue, have some patience.
12. Make a second waste block. Mark the center and the edges at 90 degrees. Mount it on a faceplate.
13. Mark the center of the uncut (top) face of the body.
14. Match the center of the waste block to the center of the body square and glue them together. This is a critical step. You want the turning axis to go through the middle of the body.
15. Flatten the bottom face of the body – the face with the splines showing.
16. With the body mounted on the head stock, use a "fat" live center on the tail stock to position the base. Glue the matching faces and use the tail stock to snug up the fit. *Match the grain* on the base and body. When the glue is dry, remove the face plate from the body and reverse mount the assembly.
17. Turn off the waste block from the top of the bowl.
18. Depending on how brave you are, you might want to drill a depth hole to keep from going through the bottom.
19. Turn away. Have a good time.
20. At some point you will see the pattern emerging. This is a good time to superglue up any joint that didn't get it initially. You will probably find that the tops of the dado saw cuts need gluing.
21. Finish it up and proudly show it to one and all.

* I use a spacer and cut "outside" the blade. I do not try to cut the spline between the fence and the blade at ⅛″ thickness. Neither should you!

A bowl similar to the one described

Show and Tell

Photographs by Henry Fairlie

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Page 7: Top: Square (?!) NE maple bowl by **Alan Gilburg**, Cherry burl bowl by **Frank White**.
Middle: Segmented peppermill by **Mike Stone, Graeme Young's** Insanity box, birdhouse ornaments by **Joe Harbey, Frank White's** tiny honeysuckle form, maple winged bowl by **Stan Felton.**
Bottom: giant red maple bowl by **Dave Eaton.**
This page, left: Cherry NE and spalted butternut by **Alan Gilburg.**
Below: Another cut-up by **Steve Reznek.**

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 8 August 2007

President's Message

Are We Having Fun? I hope this finds everybody in good health and enjoying summer, we missed some of you at the picnic on August 4th we had a good time and plenty of food which we had donated by everybody who came and brought a dish, also one of our members, Dominic Leroux who is the owner of Leroux Meats in Holden MA. (a wholesale meat supplier to restaurants etc.). It was a very enjoyable afternoon, with a huge Thanks to Ray & Lisa Boutotte for letting us use their house and yard for the picnic.

A few days later Dominic called me to offer some black walnut to our members for their taking and Dave Eaton kindly sent out an e-mail to notify everybody of the wood. For those without e-mail, contact Dominic at 508-829-9844 for the location of the wood (if it's still there).

I am looking forward to the September meeting for another interesting demonstration.

I would like to thank our members for participating in the Marshfield Fair which happened in mid-August. I would also like to thank each person who has donated to the Freedom Project as I know that each person that receives a wheel chair will be grateful for the convenience it provides in their lives each day.

For Now Have Fun and Enjoy Life,

AL

Editorial

Hope everyone has been having a good summer and doing lots of creative things. My wife Hazel and I got especially creative and produced a collaborative piece for the ConneXtions exhibit being run jointly by the AAW and ISGB. We learned two lessons from this exercise. First, do not leave lots of work till the week before the deadline. Second, if you must teach an old dog new tricks, do not do so an hour before the show goes on. I was up until 3am two days before the piece had to be in Saint Paul trying to glue gold thread to brass pins.

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A.R.T. Demo Day

A.R.T. invite you for the second time to join us for a demo day with JoHannes Michelsen. Our club, Association of Revolutionary Turners has JoHannes (re-)scheduled for a demo day on **Saturday Sept 8,** at Middlesex Community College in Bedford MA, and we would like anyone interested to join us. The fee is a real bargain at $25 per person. We decided to charge non-A.R.T. members the same fee as we're charging ourselves to give everyone the same opportunity to see a great world class turner show his magic and techniques of turning his awesome wooden hats. Also we will be raffling a range rider hat turned that day amongst the group attending, so this is a chance to go home with one of JoHannes's wonderful hats.

I need to get an idea as to how many are interested so if need be I can put a cap on number of attendees. First come, first served. We have a pretty large space so hopefully there will be no need to turn anyone away. Also if you have any questions, or need more info please feel free to write me. More details to come.

Mike Souter (mss2468@aol.com) 978-390-7111
Vice President Association of Revolutionary Turners

WoodWorks 2008

This just in from Judy Frank of WoodWorks:

It was great seeing pictures of your club booth at WoodWorks, Springfield 2007, especially the Project Good will write-up. It's not too early to gear up for a bigger, better, more profitable Project Goodwill at WoodWorks, W. Springfield 2008! Personally, I felt it was a great success at the last show and with more space and more planning and more people pitching in every year it can grow. Let's shoot for exponential growth every year.

Plus, to encourage **lots** of entries into the SawDust Cafe Instant Gallery Competition we have *finally* smartened up and will accept entries for one, two or three days. Details can be found on our web site: http://www.woodworksevents.com/gallery.shtml . Please, please I urge you as a club to start rounding up your Gallery pieces. In fact we may, just maybe, make it a requirement for complimentary booth space and electricity to have a minimum number of pieces submitted to the Instant Gallery. I'd rather not have to keep tabs, okay folks? :-)

Well, as summer comes to a close [I know, not yet -- we still have Labor Day and several good sunshine and beach days left] I hope you begin to think about CNEW's presence at WoodWorks, W. Springfield 2008! It's my favorite show that we do and I look forward to seeing each and every one of you every January. Sorry, if I don't remember your names, but your spirit and camaraderie stay with me during the year.

Arrowmont School Totem Pole Project

Message from Sean Troy (AAW Chapters and Membership Committee):

The following is in regards to a phone conversation I had this morning with Dave Hankey from Arrowmont. If your chapter would be interested in being involved with this, please contact me or Dave. I was involved some years ago with making one of the sections and it was a blast. Your imagination is your only limit. The dimensions are 20″ dia. by 24″ high with a hole that will fit over a 3″ pipe – the hole could be 3½″or 3¼″. We need two more to complete our second pole. Any help you can give us will be great. We also need to have all of the totems refinished that might be a good project for some club members to come to Arrowmont for a couple of days or a weekend and work with us.

So should CNEW contribute to the Arrowmont totem poles again? It is my understanding that the club produced a totem for the original poles, which went up during the 1990 AAW Symposium. Here's Alan Lacer's write-up on the event (from the AAW website).

The Unity Totem project turned out far better than anyone's wildest dreams. In the end, 24 local chapters participated with some of the most innovative and exciting turning I have ever encountered. The pieces ranged from forms [turned] from a single block, to pieces which had as many as 40 to 50 separate turnings attached to a central component.

Several weeks before the Symposium, two pipe bases were set into two four-foot deep holes with a concrete slab to support the totems. On a cold and rainy first day of the Symposium, the segments were slipped over the pipe that passed through all segments. It went up effortlessly with the help of the Arrowmont staff, as well as several AAW members. Thanks to everyone who had a part in planning, making, and assembling the project. The finished totems had the appearance of growing directly from the woods surrounding Arrowmont. The real excitement will be watching the weathering process take effect over the next few years.

Spirit of Wood Show

The Spirit of Wood carving, turning and scrollsawing show will be at Middlesex Community College in Bedford, MA on October 21st. We have had a booth at this show in past years but support has been limited. If we are to participate as a club this year, we need people to commit to manning the booth – and actually show up!

The show also has a competition, if anyone is interested in submitting turned (or, indeed, carved) work for judging.

For details, contact Roger Melanson at (978) 368 5923 or rolmel@comcast.net.

The Arrowmont Totem Poles, 1990

A Vacuum System for Holding Work on the Lathe (Part 3)

© Hal Mahon

Testing and Trouble Shooting

In testing with the intake vacuum line shut off by its quick disconnect, the AC pump shown below would run for less than a minute and then shut down. This did not happen with any of the other pumps I tried. The cause for automatic shutdown is not firmly explained. As soon as I connected the pump to the Vacuum System Manifold the problem went away. Apparently the extremely high vacuum with no external connection (and presumably no incoming air from a minute leak) caused an overload of the 11,600 BTUh pump. In actual operation with a vacuum chuck on my lathe, over time and under a variety of conditions, there has never been a subsequent shut down.

There is a difference between the Gast and the AC refrigerator pump when power is shut off. The Gast pump does not hold its vacuum with its power shut off. The vacuum inside the vacuum chuck and bowl returns to zero within a few moments. The AC pump holds its vacuum when power is shut off. Because I included a quick disconnect valve in my vacuum manifold design I can admit air into the vacuum chuck and quickly remove my bowl. Thus this difference between these two pumps is insignificant for my use. Others might find this difference important.

I compared the time to evacuate the ten gallon portable air tank to 25″ of mercury for the Gast and the AC pump mounted as shown here. My Gast vacuum pump pulled the air down to 25″ Hg in about 3 seconds, but could go to no higher vacuum. The AC pump in Figure 7 required 10 seconds to evacuate the ten gallon tank to 25″ Hg and then continued to a vacuum of 28.5″ Hg.

Conclusion

There is little difference in performance between the two pumps. The Gast vacuum pump and AC pump both work well. The Gast is faster in pump down, but the difference in time is not important at all. My biggest disappointment with the Gast pump is that it is not tightly enclosed against dust. My AC vacuum pump is totally sealed, and pulls a better vacuum, a slightly important factor when using a 2″ diameter chuck for small work. My time, the cost of a copper pipe fitting and an On/Off switch with enclosure consisted of my costs over my Gast pump. (The parts shown in the manifold section of the Schematic are needed for both pumps.) I cannot say how long will either pump last. Having already done it once, I can swap in a free new AC pump from the recycling center in an hour should I suffer a failure. In conclusion my preference favors the 11,600 BTUh air conditioner vacuum pump over my commercial Gast pump primarily because of its lack of total enclosure against dust.

The Picnic

Mickey Goodman

Charlie Croteau with friend Ann, Hazel Young

Richard Vose

Mary & Joe Harbey with Phil Bowman

Gene Spadi, Mike Stone and someone I don't know

Richard Vose turning a top

Dave Eaton turning a goblet

Charlie Croteau unwrapping a Goodwill item made by Mike Stone
and the item – a segmented vase

Mike Stone turning with a gouge about as big as the lathe

Ray Boutotte shows two pieces made by ... his father?
Sorry Ray, I forgot some of the details

Al Faul

A better picture of Mike's segmented vase, if not of Mike

Dave Eaton preparing to fire up the lathe

Mike Stone and Mary Maguire

The CNEW SKEW

CENTRAL NEW ENGLAND WOODTURNERS

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Central New England Woodturners
A Chapter of the American Association of Woodturners

On the web: www.cnew.org

To join or renew your membership, print this form and either bring it to the next meeting with cash or check for $20 made payable to CNEW, or mail the form along with a check to:

Treasurer
Central New England Woodturners
c/o Worcester Center For Crafts
25 Sagamore Road
Worcester, MA 01650

Name _____
Address _____
City _____ State ____ Zip _____
Telephone _____
E-mail _____

If you wish, please let us know more about you and your interests.

Old member New member Turning how many years? _____
Selling your work? Yes No Where? _____
_____
What programs would you like to see at our meetings?
_____
Would you be interested in demonstrating at one of our meetings? Yes No

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 7 July 2007

Editorial

As I was not at the last meeting, I'll take this opportunity to talk about the tools I intended to bring in. These are the Rolly Monro hollower and the BCT VersaTool. Both tools use the increasingly popular circular "cup" style of cutter and are primarily used for hollowing the inside of bowls and hollow forms.

The Monro tool, on the left in the photo (on page 2), has a shield over the cutter which limits the depth of cut and prevents the worst catches. The shield can also cover different areas of the cutter, for example if you want to cut only with the front area and not the side. The articulated mount allows the cutter to be presented at different angles to the wood while keeping it in line with the shaft. The tool also comes with a longer curved mount which gives more flexibility in the angle of presentation, useful for undercutting but with the disadvantage of taking the cutter out of line with the shaft and making catches a lot more vicious.

The VersaTool is a variation of the BCT SuperCut tool sold in the U.S. by Packard Woodworks. As far as I know, the VersaTool is only available in the U.K. – I got mine from the ToolPost (toolpost.co.uk). This tool has a square shaft with the cutter set at an angle, giving more of a shear cut and making the tool a little less aggressive than if the cutter were pointed straight up. The single pivot point on the shaft allows the cutter to swing out to 90°, which takes it out of line with the shaft and makes for some really nasty catches. The tool does come with a stabilizer bar that bolts into the shaft to counteract torque but I find even this doesn't help much if you get a bad catch.

To use the Monro tool, start with the cutter pointed down and rotate the handle clockwise to bring the cutter up until it starts cutting. You can cut in either direction, from the top towards the bottom or the other way. This is a distinct advantage on end-grain bowls where working from the bottom towards the rim gives

ctd. on P. 3

President's Message

Are We Having Fun? I hope this finds everybody OK. I had a good time at the meeting and trust that everyone who attended did also, I learned a lot. It is a shame that nobody took advantage of the open turning before the meeting. I would like to thank our own Andy Motter who runs Butternut Tools for his donation to the club. This year the Annual Picnic will be held at Ray & Lisa Boutotte's House in Lancaster. Starting time is 1:00 Sat. August 4th in case of rain it will be held the following week on the 11th. I will supply the hot dogs and hamburgers and soda, plates, napkins and cups etc. You should bring a dish to share. We will try to have the club mini lathes to turn something. Ray said he had some wood to turn and possibly we could get him to donate some of his wood that he struggled to get in Vermont for a wood swap. Please call if you have any questions 978-534-3683 and I will try to answer them. I think the video library will be pretty much under control by the September meeting.

AL

Contents

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Webmaster, Dave Eaton	webmaster@cnew.org
Photography, Henry Fairlie	photography@cnew.org

Minutes of July Meeting

Tim Elliott

New member: Roger Boisvert

Treasurer Norma Hogan was not present, but sent a summary to Al Faul:

Beginning balance: $1941
Ending balance: $2079

Nobody showed up for open turning this month.

Four members attended the wood harvest at Alan Gilburg's land in Vermont. They cut down one cherry tree, and carried the wood too far out to the cars. We may have another opportunity to do this in the Fall, if there is sufficient interest. Thanks to Alan for offering the opportunity.

Phil Bowman gave a report on the AAW national symposium in Portland Oregon. As usual, there were demonstrator rotations, a trade show, and Instant Gallery. Phil found the Instant Gallery a bit overwhelming this year, with over 4000 pieces in total. He passed around a few snapshots of pieces notable for being connected with CNEW, inspirational, or hideous. The Banquet took in over $100K. The highest single sale was for a collaboration between Bin Pho and Frank Sudol. The second highest sale was for a collaboration between Jacques Vesery and Betty Scarpino. Next year's symposium will be in Richmond, VA. The following year will be in Albuquerque, NM.

Dick Vose spoke about the "Spirit of Wood" show organised by the local woodcarving community. CNEW again plans to have a booth. The date is Sun, Oct 21.

Reid Gilmore is still seeking demonstrators for Fall meetings. Steve Reznek signed up for November. There is some interest in having a panel discussion on design or other topics for September or October. Contact Reid if you would like to demo or have some ideas.

CNEW is signed up for a booth at the craft fair held by the Worcester Center for Crafts in November (weekend of Thanksgiving).

Steve Reznek ponted out that the current issue of Fine Woodworking has a very interesting review of glue products. They liked Titebond 3. Gorilla glue was last.

We will hold our annual picnic on August 4 at Ray Boutotte's house in Lancaster. Directions are on the back page. The club will provide meat and drinks. Members should bring a side dish or other complement.

Several members noted that the CNEW library has not been available for a few months - the cabinet has not been accessible during our meeting time. We are looking into it.

Rolly Monro and VersaTool hollowers

Home-made Tools

Reid Gilmore

Notes from Reid Gilmore on the two home-made tools he brought to last month's meeting.

The first tool was a one inch wide, ¼ inch thick square scraper that was sharpened across the front face and also on the left-hand edge for the first ½ inch. The front face and left edge are perpendicular. This tool is particularly good for cutting the flanges of wooden boxes to obtain a good friction-fit between the lid and the base of the box. The scraper was made of M2 high speed steel obtained form MSC Industrial. The steel blank is sold as a metal lathe bit, and is already hardened. The rectangular tool bit (6″ x 1″ x ¼″) had to be ground on both ends using a 60 grit wheel for relatively rapid removal of the steel. The tool was plunged into water to prevent overheating. A 1″ x1/2″ tongue was ground on one end, and this was inserted into a wooden handle made of purpleheart. A 1″ long, 1″ diameter piece of copper pipe was used as a ferrule. The working end of the tool was then carefully ground.

The Vortex tool was my attempt to duplicate a tool that Stewart Batty used in a demonstration at Albany several years ago. The Vortex tool is made form a ⅜″ diameter 6″ long cylinder of M2 steel (also from MSC). The Vortex tool resembles a spindle gouge without a flute. Instead of a flute, the topside of the point is ground at about a 15° angle so that a 1″ long diamond shape is produced. The bottom edge of the tool is ground like a very pointed spindle gouge, with sides swept back roughly ¾″. The tool is useful for making the type of cuts one might make with the pointed edge of the skew chisel. I'm not sure I have been able to duplicate the shape used by Stewart Batty. So far, I have not been able to locate a photo of this tool on the Internet. I haven't made a wooden handle for the Vortex gouge yet, but instead have used Trent Bosch "Super Tool Handle". These handles have a red plastic outside and take a ⅜″ diameter tool, which is held in place with a pair of setscrews.

Editorial, ctd.

a cleaner cut but is impossible with a gouge. I find this tool impossible to use on really wet wood: it clogs almost immediately. On drier wood it works well and with the cutter closed up to take only fine shavings it can produce a good finish cut. Adjusting the shield to get the right amount of cutter exposed can be fiddly and you have to keep adjusting it to work in different areas of the bowl or hollow form. The two main bolts for the head articulation are a particular problem: because they are inserted from opposite sides, tightening one can loosen the other.

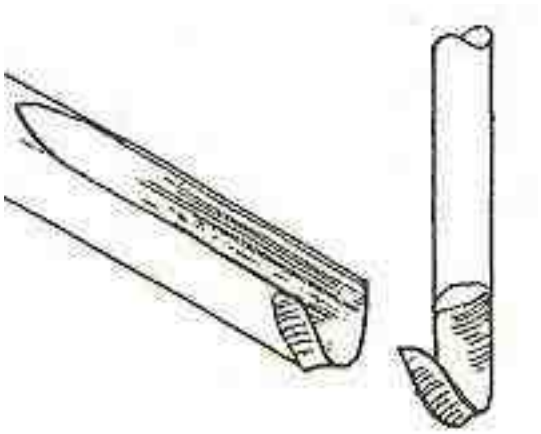
The VersaTool is usually started at the bottom centre of the bowl, not at the rim. Again, a great advantage on end-grain bowls. The tool is always kept horizontal, at centre height. Assuming the bowl is already partly hollowed, push the tool straight in to the centre. Because of the way the cutter is angled, it won't cut. Pull the handle towards you, pivoting the cutter until the low part of the cutting edge makes contact and it begins to cut. Now pull the entire tool towards you and cut across the (fairly flat) bottom of the bowl. This works great until you reach the point where the wood curves up into the side of the bowl. If you just keep going, the curvature of the wood has the same effect as pivoting the cutter further into the wood, resulting in an arm-wrenching catch. This is, in my experience, the big problem with this tool – you have to maintain the angle of presentation between the cutter and the wood or it will become violently aggressive very quickly. For working the sides of a vessel, swiveling the tip will move the cutter angle towards the safe zone. Also, working from top to bottom is safer because the changing angles towards the bottom will disengage the cutter. The VersaTool is a better roughing tool than the Monro because it does not clog, while the Monro is a better finishing tool. One very useful thing you can do with the VersaTool is turn the whole tool 90° clockwise, start it near the centre and cut to the centre, removing that nub that's so difficult to remove otherwise. Even if I never used it for anything else, I'd keep the tool for that purpose.

These are both useful tools but they work in ways that are very different from a gouge. Both take practice and perseverance to use effectively but if you do a lot of end-grain work they are certainly worth considering.

Hook Tool Usage

Dave Eaton

"Hook" tools are a wonderful woodturning tool, or tool bit, intended primarily for use in the removal of end-grain stock. In fact it excels at removing end grain, for boxes, vases, hollow forms or even bowls, though we tend to shy away from larger end grain projects since the issue of retaining a pith in the object can lead to problems. It's unique design provides for easily reaching deep into stock to create an open or hollow form while typically leaving a superior, very smooth finish that other tools such as scrapers cannot do. It can also be an excellent and highly efficient substitute for a traditional bowl gouge when performing side-grain turning especially where a traditional shaped bowl gouge becomes unsafe to use because of depth or other factors. In fact the edge and shape of the hook tool is essentially a gouge's cutting edge on its side.



A major issue for many turners is beginning to understand how to use the hook tool. Since this is a specialized tool, not easily made and sharpened, there seems to be a lack of information on it – but it's been around many years.

Del Stubbs, Mitch Wolok and Alan Lacer are reported to have helped this tool emerge to become more popular as of late. Mitch Wolok and Andre Martel each sell a version of the hook tool bit made of hardened steel while Alan Lacer advocates and teaches how to fabricate one yourself using rudimentary metalworking skills.

Home-made tools don't cost the $30-75 that the hardened commercially manufactured bits cost but do wear fast and needs sharpening often. Another alternative is the Termite tool from Oneway Manufacturing. It's more a "ring" tool as the tip is closed. This may aid in some difficult tool tip placement issues but may also clog up with chips more as it does not allow an easy escape for the freshly cut ribbons.

Before using the hook tool, typically the outside of the object will have already been turned to a final shape, at least in the area you desire to be hollowed. This gives an approximate shape target and wall thickness to hollow to and alleviates stressing the wood beyond it's structural rigidity limits that may cause fractures in thinner walled turnings. To turn the interior, there are a few important things to remember:

1) You'll likely need to raise your tool rest to engage the sharp edge and aid the tool in getting a good "bevel rub".
2) You may need to back the tool rest away from the work a few inches when working right near the "front" allowing the supporting handle or rod to maintain good contact with the tool rest.
3) Though you can start the hook tool cut by swinging the handle well toward the front of the lathe and rotating to about 45 degrees, drilling a depth hole is highly suggested for not only setting your vessel depth, but also greatly aids to the ease in which the hook tool bit can "grab" a new cut. The best size diameter to pre-dill is that about equal to, or greater than, the diameter of the bit curve or outside diameter. For instance ⅝″ dia. is ideal in most work using a Wolok bit.
4) The optimum position for the tool to be placed within the vessel will be from the 6 o'clock to 9 o'clock position. This is the area inside the diameter of the vessel with 6 o'clock being closest to the bed ways and 9 o'clock being closest to the front of the lathe, where you would usually stand for spindle turning.
5) When reaching far into a turning, the tool rest should be brought closer to the work and possibly raised again to aid the cut. Longer reaches or deeper cuts may even require a more robust holder rod. Usually a ⅝″ dia. rod will surface but Mitch Wolok noted that he uses a 1″ or 1½″ rod for hollow works as deep as three feet with a modified, downward bent tip.
6) For smoothing the interior sides pull the rod close to the vessel wall with the tool almost vertical (safe) to perform a shear scrape. Practice and good tool technique here will leave a finished cut without tear-out.

7) When cutting the last material in the bottom of the work, starting a cut may become progressively difficult. A scraper may help to clean up.
8) NEVER allow the tool to be rotated to where the entire sharp edge will engage the work. The cut will be extremely aggressive and potentially uncontrollable, likely winding up in a catch or blown up piece.

Use Caution: The Hook Tool should be presented to the wood surface in a vertical position, like a tire is on a car, with the bit end of handle tilted slightly downward. Slight rotation will then initiate a cut.

Never try to engage the tip fully rotated to a horizontal position, like a basketball hoop! You will lose all possibility of the bevel rubbing and it will present like a knife edge to the spinning wood. This is way too aggressive of a cut and you will find a heart wrenching catch results every time.

Remember also, that although hook tools are extremely efficient for most end-grain work, in some situations, if you expect to encounter hard knots or where you may wish to create tightly undercut or rolled edges on closed forms, with sharp angles of departure from the entrance of the vessel where the shape of the tool may not allow the cutting edge to reach well, to protect your hook tool from damage in extreme conditions and maintaining good control over the cut being produced, it is suggested you switch to use of a machinist tool bit tool like a Two Flute Ball End Mill or a heavier, stouter bent tool like Andre Martel's extra large bit.

If you wish to experiment with vessel shapes you also may choose to try different shapes of hook profiles, which may accommodate your need quite well. The cutting characteristics of one shape might be useful and could offer areas of performance where another shape may fall short.

Generally the tool, when presented to the wood in a proper manner will cut very well, generating long thin ribbons of waste. It will tend to pull itself backwards into the vessel once the cut begins as well. If it seems not to be cutting quite as nice as you hope then it is likely dull.

Sharpening the outside of the bit can usually be done easily and quickly by making a few strokes flat across the outer diameter or bevel edge of the bit using a fine flat honing stone. For more aggressive sharpening needs, a Dremel tool with a sanding drum works great. The sanding drum is not very aggressive and therefore allows the turner a little more leeway in "grinding" than other, way too aggressive methods like a grinding wheel, which would certainly make quick work of sharpening the bit... and reduce its life many fold if any sharpening errors occur. As you may perceive, what we look for in re-sharpening is not removal of material but rather a fine dressing of the cutting edge. As the tool bevel becomes narrower it will become more aggressive.

To sharpen the inside, it is best to use a fine round or cone shaped diamond dressing stone or a "slip-stone" with a round or conical shaped edge. Stroke along the inside edge of the tool maintaining a flat contact at all times. Once a sharp edge is developed, typically the interior of the tool bit will take many light dressings before the outside of the tool will need any touch up as well. If you maintain your edges with a fine hone rather than more aggressive methods, your tool bit will last for a very long time.

The bottom line with this tool is:

Keep it sharp

There are really no rigid rules on tool position except that it is not designed to operate in a horizontal position.

Things to Learn from Trees

- It's important to have roots.
- In today's complex world, it pays to branch out.
- Don't pine away over old flames.
- If you really believe in something, don't be afraid to go out on a limb.
- Be flexible so you don't break when a harsh wind blows.
- Sometimes you have to shed your old bark in order to grow.
- Grow where you're planted.
- It's perfectly OK to be a late bloomer.
- Avoid people who would like to cut you down.
- You can't hide your true colours as you approach the autumn of your life.

Top: **Tim Elliott**, maple bowl with chip-carved rim
Steve Reznek, mahogany and maple bowls in maple stand
Left: **Mike Peters**, vase in mystery wood (elm?)
Right: **Emma Peters**, cherry bowl – her first ever!

Show and Tell

Photographs by Henry Fairlie

Alan Gilburg, footed bowl in ash & walnut
Reid Gilmore, square bowl in ambrosia maple
Mary Maguire, pens and letter opener (made some for her sister, some for Freedom Pen project)

Top: **Al Faul**, segmented bowl in maple & walnut.
Paul Charbonneau, maple bowl with extensive texturing
Centre: **Alan Gilburg**, box with colored top and peppermill in red maple. Segmented bowl by **Will Hunt**.
Bottom: **Dominic Leroux** & **Buzz Hawes**, collaborative bowl with router-modified-segment method.
Steve Reznek, bowl in cherry crotch.

The CNEW SKEW

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Annual Picnic Saturday August 4th

Travel Instructions to Ray Boutotte's
73 Carter St. Lancaster, MA
978-368-0004

From Southern/Eastern MA: Take the Mass Pike west to Exit 11A, the exit for Rte. 495. Proceed north on Rte. 495 to exit 27, the exit for Rte. 117. Take right off the exit ramp and follow Rte. 117 west thru Bolton center until you get to Rte. 110. Take a left onto Rte. 110 south. Go straight thru a 5-way intersection staying on Rte 110, and take your first right onto Mill Steet. Take your second left onto Carter Street. If you reach Rte. 70 you missed it.

From Western MA: Take Rte. 2 east to exit 35 for Rte. 70. Take a right off the exit ramp and then a left onto Rte. 70 south. Follow Rte. 70 thru center of Lancaster. Continue till you drive under a train bridge. Immediately after the bridge take a left onto Carter Street. If you enter Clinton you have gone too far.

From Worcester MA: Take Rte. 290 to Rte. 190 north. At the end of Rte. 190 take Rte. 2 east. Follow directions for 'Western MA'

From Northern MA (North of Rte. 2): Drive south on Rte. 495 until you get to Exit 27. Follow the directions for 'Southern/Eastern MA'.

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 6 June 2007

Editorial

I hope everyone who attended had fun at the Yankee Symposium, I know I did. I went to two demonstrations that I'd seen before, at the AAW Symposium in Providence, and learned something new at both. Graeme Priddle explained again why he has so many holes in has faceplates – so he can use only holes near the edge of the piece for eccentric mounting. That makes it easier to clean up the bottom of the piece by turning away the screw holes. And this time I was listening when Michael Hosaluk explained why you should never touch the joint area of a box after aligning the two parts (if you do, the outside surface will no longer be concentric with the mating surfaces and the box will only fit properly in one orientation).

Of the demonstrators I saw, the best were Mark Sfirri showing how to make a rolling pin for your mother-in-law (it's bent in the middle) and Mark St. Leger making a rock-a-bye box. They were both excellent presenters, explained clearly what they were doing and got through the material on time. Or at least everything seemed clear, until I tried the rock-a-bye box and discovered just how inadequate my notes were. It took me six tries before I got a reasonable reproduction of Mark's shape and knew how I'd done it.

None of the demonstrations I saw were limited to ordinary round turning. They all involved some element of eccentric, off-axis or interrupted cutting. Right up to the last, when Jimmy Clewes drilled a hole in the face of a 10 x 4 x 3 plank of walnut, put it on a screw chuck and proceeded to turn an oriental box – at 2800 rpm! I think most people would classify that as insane rather than merely eccentric! I'm glad I missed the rotation in which Jimmy found a nail in his blank – and kept turning anyway. The organisers will have to come up with something special to top that at the next Symposium. I'm looking forward to it...

Graeme

President's Message

Are we having fun? I hope that everyone who went to the Yankee Symposium enjoyed themselves, as I went and had a ball, a very enjoyable experience. I saw a great many people that I knew and saw many wonderful seminars and learned a lot. There were tools to buy and prizes to be won. There were some awesome demonstrators to see with their varied ways of doing things which they made look easy and the Instant gallery was filled with some very interesting pieces. Last month we had a turning session before the meeting, we also had quite a load of wood for the wood swap, also Charlie brought in a load of wood for the Project Goodwill which will be put to good use by the members completing some more items which will be auctioned off. I would like to personally thank our one and only Dave Eaton who gave a great demo on the hook tool which I finally learned how to use and in doing so conquered the ring tool as it has been a problem tool for me. They are both basically the same, just rub the bevel and keep at approximately six o'clock and it works fine. Remember to bring in a tool or something to tell about at the July meeting it should be interesting . Till then,

AL

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Minutes of April Meeting

Tim Elliott

Visitors/guests: Clay Curry (actually, now a new member)

Norma Hogan gave a treasurer's report

Ending balance: $2046

Norma is collecting large animal bones - not leg bones or horns, but other bones from large animals with interesting shapes. As an example, she showed an elk pelvis that she is making into a mask. If you know of a good source, please contact her.

Charlie Croteau reported that Project Goodwill continues to help raise money towards wheelchairs for people who would otherwise not have them. Last month, sales of our work contributed to a Boston-area event that raised $8000. Charlie also noted that George of "Turnings by George" will demo for us at little or no cost if we unofficially expect each participating CNEW member to donate one item to Project Goodwill at the door.

Open Turning sessions are available prior to most meetings. See the website to confirm that it is "on" for any given month.

Ray Boutotte has the CNEW shirts (denim with embroidered CNEW logo). If you ordered one back in the Fall, please be sure to see Ray and get it. Cost is $25.

Last weekend was the Yankee Woodturning symposium in Connecticut. Dave Eaton reported that all who attended found it very worthwhile.

Alan Gilburg has invited CNEW members to his woodlot in Vermont to cut down some trees and collect wood on 6/23. He passed out maps and contact info.

The Springfield woodworking show will take place again in January 2008 - CNEW is invited to participate.

Will Hunt reports that Woodcraft is again carrying urethane oil at about $16 per quart. He and Steve Reznek have been buying from an alternative supplier by mail, but the minimum order is 1 gallon. Will provided info that will be posted on the CNEW website.

We had an abundant woodswap, thanks to Dave Eaton.

We voted to participate again in the "Festival of Crafts" hosted by the Worcester Center for Crafts on Thanksgiving weekend.

The Spirit of Wood show in Bedford, MA, will also be coming up again. Last year, we had a disappointing turnout. We should confirm that enough members will attend before committing to it.

Upcoming Events

Next month our regular meeting will feature New Toy Time. Bring a new or unusual tool or lathe accessory and explain it to those assembled.

Ocean State Woodturners is hosting Melvin Firmager on Saturday July 7th, 9am-3pm at the North Kingstown Free Library on Booth St. That's in North Kingstown, RI. Cost is $30, lunch included. If interested, please contact George Nazareth at georgeanddolores@cox.net or 401 333 6119.

Green-Wood Lidded Bowl

Rick Angus

Although the challenges of making a cross-grain green-wood bowl and fitted lid may seem daunting, with proper control of drying the lid will fit both when wet and after drying. Preparing the lidded bowl is simply preparing two bowls with complementary rims; if done well, these rims fit together so as to disguise the seam. Since wet wood shrinks during drying, the first consideration is making the rims from as close to the same place in the log as is possible, so that the distortion during drying is as nearly the same in both rims. The second consideration is to minimize the out-of-plane distortion of the rims during drying.

The procedure for making a lidded bowl is based on the detailed general procedure for making an open bowl with the addition of the steps of:

- making the lid,
- fitting the lid to the bowl and
- controlling the drying to preserve the fit.

Placement of the Bowl in the Log Section

I do not want to accept the challenge of incorporating the pith of the log in my piece since it is the least stable portion of the log during air-drying. I prefer to work with nature and by avoiding the pith and using symmetry to my advantage, I can get well-fitting lids.

I like to prepare a cross-grain bowl with bi-lateral symmetry; more discussion of this can be found in the open bowl section.

The horizontal dashed line in Figure 1 represents the symmetry plane *of the bowl*; the log is cut along the two solid lines – from the middle portion, the bowl and lid will be made. The vertical dashed line represents the delineation of the lid from the bowl; either portion can be the lid or bowl: it is your choice.

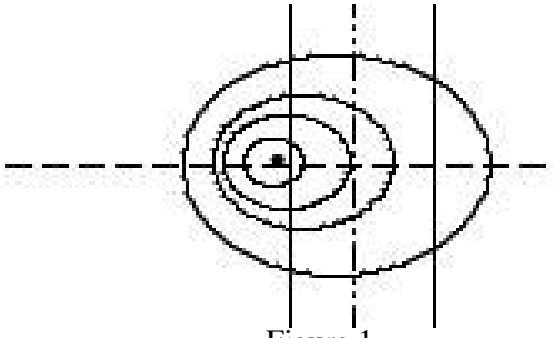

Figure 1

Begin by cutting a suitable log section along the solid lines of Figure 1. The cut separating the lid from the bowl will be made only after the outer shape of the bowl and lid is established. On the center-cut face of the log section (the left side of Figure 1), mark a point on the centerline just under where the pith line was and as close to the center of the face as possible; this will be one center point during turning. Find an opposite center point by best guess and mount the piece between centers on your lathe. Turn the stock into a cylinder about the axis of the lathe. Locate a single grain line near the center of your work piece; choose one that can be traced around the entire circumference of the cylinder; mark this grain line. Bring the tool rest close to the surface of the cylinder. Spin the cylinder until a high point of this grain line is nearest the toolrest and mark the portion on the toolrest. Spin the cylinder exactly one half turn. Measure the distance of the toolrest mark and the marked grain line. Loosen the tailstock and shift the cylinder enough to shift the marked grain ring one half of the measured distance and retighten the tailstock. Turn another cylinder and check the alignment again. This procedure aligns the stock in all three directions. Since trees never grow completely symmetrically, perfect symmetry never will be achieved but this procedure will get you very close.

Remaining Steps for the Lidded Bowl

Using the open bowl procedure below, follow these steps to complete the lidded bowl:

- shape the bowl and lid, allowing a kerf between the two for later separation
- prepare a tenon (spigot) on the bottom of the bowl and the top of the lid
- part the lid from the bowl
- hollow the lid, shaping it with a lip to align the lid with the bowl
- hollow the bowl making sure that the rim of the bowl is a good fit with the lid – chose an aesthetically pleasing intersection between the lid and bowl
- turn a foot on the bowl and a handle on the lid. Alternatively, prepare a mortise or tenon that will accommodate an added handle or finial.

The bowl with a well-fitting lid is nearly complete. At his point the lid will fit in any orientation; it can be rotated after being fit into place. As the wood dries, the

rims will become oval and even distort out of planarity if left unrestrained.

Drying cannot be accomplished without shrinkage. The oval shape of the dried bowl can be quite pleasant; this is our goal. The distortion from planarity however cannot be tolerated if a good fit is to be maintained. During drying, the planarity of the rims can be maintained by clamping the bowl and lid to flat surfaces or by placing them on flat surfaces and applying weight to the top. During the drying, the inside of the bowl and lid must be vented to the atmosphere to allow even drying. This is easily accomplished by using a sheet of MDF large enough to support the rim with a hole in the middle to vent the interior of the bowl and lid.

Green Wood Open Bowl

The steps described below are those that I use for preparing cross-grain (grain running across the cylindrical axis of the bowl) bowls from logs. I apply these techniques when preparing a finished bowl from wet wood (and allowing it to shrink and distort during drying) or when twice-turning a bowl (first turning the wet log blank to a rough bowl with overly thick walls, allowing it to dry, shrink and distort and then remounting it and cutting it to final dimensions). This technique can be applied to bowls with their rims originating either near the center of the log (conventional) or the bark (natural edge).

Many styles of bowl can be produced using this technique. This procedure is a culmination of steps taken from the work of our woodturning predecessors – nothing here is newly invented. I believe that the organization of these steps affords an efficient process wherein no specialized tools are required. The steps are:

- controlling the grain pattern
- turning the outside of the bowl
- shaping the rim
- hollowing the bowl and
- shaping the foot

Controlling the Grain Pattern

It is my desire to control the grain pattern in the finished bowl; in this case the steps required to prepare a bowl with a highly symmetrical (bilateral) grain pattern is discussed – one that looks the same side-to-side when the bowl is viewed from the top or bottom, i.e., the growth ring pattern, viewed from the end grain, show (1) rings of uniform thickness, (2) the pith line running through the center of the rim and (3) about the same number of rings on each end of the bowl.

This process begins with choice of the log (or at least choice of the visualization of the orientation of the blank within the log). For this simple bowl, the three symmetry aspects are controlled with three deliberate steps. Firstly, the end grain of the log is viewed and a longitudinal cut is made through the pith such that the growth ring thickness is uniform throughout this "half-log" segment. This is illustrated in Figure 2 by the vertical cut line (cutting this log along the horizontal line would produce a bowl blank with growth rings of uneven thickness form side-to-side).

The second symmetry feature, keeping the pith line centered is simply a matter of choosing to place the drive center on the pith line of the blank. The third feature is assured by positioning the tail center so the pith

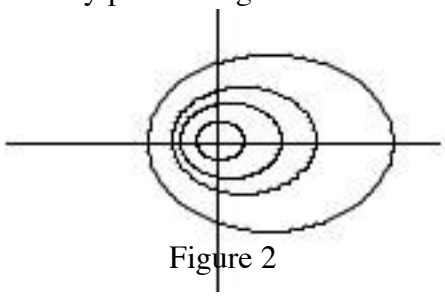

Figure 2

line is perpendicular to the axis. This step is done most easily on a bowl blank that has been cut to a cylinder on the lathe, as the freshly cut grain lines are easy to see.

Overview of the Turning Process

The bowl is made in three steps, each requiring a separate mount on the lathe: turn the outside of the bowl between centers; remount the blank in a scroll chuck and turn the inside and rim; remount the nearly finished bowl in a jam chuck (gripping the rim) and turn the foot.

Turn the Outside of the Bowl

Cut and orient the blank as discussed above – in this example, the highly symmetrical conventional bowl. Bisecting the log to give a blank with uniform grain ring thickness and positioning the drive center on the pith line is critical; the location of the wood contacting the tail center is not, as this can be remounted mid-way through turning for fine adjustment.

Turn a cylinder or the crude outside profile of your bowl. For this example, make the rim the largest diameter portion of your bowl. Examine the growth rings on the end grain and choose an early grain ring that can be

identified on both endgrain portions of the blank. Move the tool rest near to the blank in this region. Rotate the blank so that one such ring is very near the toolrest and mark this location on the toolrest. Rotate the blank one half turn so that the ring of the other side of the bowl is now near the toolrest. Mark the toolrest as before. The difference between these marks (in the direction of the rotational axis) is approximately the amount by which the blank needs to be adjusted to get the two identical grain rings to appear in the same place in the rim.

Loosen the tailstock. While keeping the drive center in it's original position in the blank, move the blank so as to bring the chosen grain ring to the midpoint of the two marks on the toolrest. The motion of the blank should be along a horizontal line. A cup center is useful here as small adjustments can be made without the center point reorienting the blank to the original position.

One additional orientation step may be taken. Rotate the blank a quarter turn and find a late grain ring near the foot that can be clearly identified on both sides of the blank. Bring the toolrest close to it and mark as before. Rotate the blank a half turn and mark again. Adjust the tail center position as before taking care to move the blank along a horizontal line. Note that the two repositioning steps are perpendicular to each other.

Turn the final outside profile and create a tenon at the tailstock end. Be certain that the length of the tenon is slightly less than the depth of the chuck jaws; this assures that the square shoulder can fit tightly against the face of the jaws. The faces of the chuck jaws are the reference surface on the lathe (running perpendicular to the lathe axis) and the shoulder on your developing bowl is the reference that you just cut perpendicular to the axis. Mounting the reference surfaces against each other is your method of assuring coaxial remounting.

Shaping the Rim and Hollowing the Bowl

Mount the tenon in the scroll chuck jaws. Rotate the blank by hand and look for run-out; feel the outside edge as you hand rotate and feel for run-out. Feeling is generally more accurate than looking, as it is not influenced by color variations.

If the amount of run-out is tolerable to you, cut the inside of the bowl and shape the rim. If not, you can try remounting the blank on the reference surface, looking for bits of dust and such that caused you to deviate from running true. If you are not satisfied with the remount, cut a new outside profile. Clamping the tenon too tightly can compress the wood fibers and this compression often is not symmetrical, leading to the blank not running true.

Using a bowl gouge with the appropriate grind angle for the depth of your bowl, begin removing wood from the interior of the bowl to a depth that will allow shaping the rim. Cut the rim to the final shape and then continue hollowing the bowl until you are satisfied with the wall thickness and inside profile.

When the interior is completed, you are ready to remount and turn a foot. Since the rim is now running true to the bowl axis, it can be used as a reference surface.

Turning the Foot of the Bowl

Remove the bowl from the scroll chuck and remove the chuck from the lathe. Mount a faceplate with a medium density fiberboard (MDF) face at least slightly greater than the rim diameter of your current project. Cut a mortise with an ID equal to the OD for the bowl rim. A large inside/outside caliper is useful for transferring the dimension to the jam chuck. A homemade sliding pin gauge similar to a mortise-marking gauge works well too. Lacking either of these, you can cut a mortise a bit too small and incrementally enlarge it until you have a tight fit. Jam the rim of the bowl into the mortise; the friction provided by the tight fit is adequate to drive the rotation of the bowl. For safety, you can wrap saran wrap (about 2-4″ wide, sold as "flat twine" by moving companies and purveyors of fine woodworking tools) around the rim and jam chuck to prevent the bowl from flying out of the mortise. The tenon that served you well during the rim shaping and hollowing is no longer of value and can be converted into a foot. This mount allows clear access without using a tailstock.

Comments on the article of your results? Let me know how it worked.

Richard.angus@rogerscorporation.com

860 564 3660

Leaving the bowl in the car on a hot day is *not* a good alternative to clamping it to a flat surface!

Show and Tell

Photographs by Henry Fairlie

Top row, L to R: Trembleurs and string steady (to stop them from trembling) by **Dave Hopkins**. George of "**Turnings by George**" did the triangular box. **Graeme Young** made the eccentric hollow form – and crushed the lip trying to turn the tenon off.
Centre: Salt & pepper shakers in spalted maple by **Joe Harbey.**
Below: **Hal Mahon** has been making square things recently. **Paul Charbonneau** found some grapefruit wood to turn and texture. And **Mike Green** made a very nice hollow form from a cherry burl and a couple of bottles of CA.

From the top: This form in very hard blackjack oak is **Paul Charbonneau's** current "worst thing I ever turned". **Will Hunt** bleached this maple burl bowl. **Mike Stone** did the segmented vase under the tutelage of **John McAtee**.

T2B: **Ray Boutotte** acquired these segmented vases from his wife's grandmother. The off-axis bowl with feet is another "**Turnings by George**". The last piece is rectangular not square but it's still by **Hal Mahon.**

The CNEW SKEW

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A Day With Ken Dubay
Dave Eaton

On May 26th, about 15 members of CNEW, ART and CCW went to the home and shop of Ken Dubay in Columbia, CT for a day of turning, demos and fun.

We started at 9 am with two CNEW members jumping onto Ken's two Oneway lathes and turning out some natural bark edge bowls. Everyone got a chance to turn and there was plenty of mentoring and advice floating about. As always, Ken was extremely generous and offered tools as needed and supplied all the wood for the day. We even had a selection of wood and burls for a wood swap including a few pieces of wonderfully figured Ambrosia Maple.

At mid-day we ate a scrumptious lunch served up by Ken's wonderful wife Mary. Several banquet tables were ready for us to enjoy the delicious meal of American Chop Suey, salad, bread, veggies, drinks, crackers and cheeses. *It's incredible how Mary makes this work for so many people with absolute perfection.*

After lunch we again returned to turning. Al Czellecz gave an excellent demo on how to create a hollow vase by gluing two blocks together, shaping the outside, breaking them apart and hollowing them. Symmetry is important as well as some key thicknesses. Once completed he added some nice surface embellishments.

Then – alas we had clean-up time. Around 4pm we all chipped in to make easy work of sweeping up and returning Ken's shop to it's original condition. Most people left shortly thereafter with the stragglers staying to jaw with Ken, who invited us all to come back soon.

Thanks again to Ken and Mary for opening up their home and shop to us and for being such excellent hosts. Their hearts, I think, are probably made of "Gold."

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 5 May 2007

Editorial

One weekend at the end of April, I made my way down to the Brookfield Craft Center in western Connecticut for a class in surface decoration with Binh Pho with four other students. Everyone had brought some turned pieces to practice on, with the result that the only time I saw one of Brookfield's big Oneways in use it was as a sander. Binh taught us the two decorative techniques he uses most, airbrushing and piercing.

My primary interest was in airbrushing as I have an airbrush but have never learned to use it in anything other than "house painting" mode. Binh first went through a series of exercises to get everyone familiar with the airbrush – I don't think anyone else in the group had ever used one. For the exercises we used thin plywood, which was considerably easier than painting onto a curved surface. The paints were transparent airbrush paints by Golden. Binh did not pre-mix colours, instead using the paints straight from the bottle and creating different shades by blending colours directly on the work. This was considerably easier and faster than using dyes as I had been doing. Even the liquid Transtint dyes I use have to be diluted for use, which can be wasteful given the very small quantities of material the airbrush uses.

After a bit of practice we all moved on to painting a kimono. This introduced us to masking, which is one of the most important control techniques in airbrushing. With a paintbrush, you use the brush to put paint only where you want it; with an airbrush, you use masks to prevent the airbrush from putting paint where you don't want it. The masking material is a plastic film called frisket, sticky on one side. After transferring a pattern to either the wood or the frisket, the frisket is stuck down to the wood. Then you cut round all the pattern lines with a craft knife and start removing the pieces gradually, painting the exposed areas. Always start with the areas that are to be darkest in colour because overspray from later, lighter colours won't show. (ctd.)

President's Message

Are you having fun? I would like to thank Rick Angus for his demo last month on his oval bowl, it was very fasinating to see it all come together as Rick made it look soooo easy but with a few things to watch for. Remember the Yankee Symposium is only a few weeks away as I write this, it is only a short drive away to see some talent from all corners of the globe and hopefully to learn something and add to your turning repertoire. Many thanks go to all who donated to the Freedom project. This month we will have open turning before the meeting at 5:30, hopefully you will come and learn that little trick that has been stumping you or maybe help somebody solve a problem. The wood working teacher for the Worcester Craft Center made it a point to come and thank the club for the donation which will be used in the wood shop. The teacher turned out to be our own Andy Motter who we don't often get to see because of his busy schedule, but he also will be at the symposium. See you at the meeting. Have Fun

AL

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Photography, Henry Fairlie		photography@cnew.org

Minutes of May Meeting

Tim Elliott

Visitors/guests: none

Norma Hogan gave a treasurer's report
Starting balance: $1514.96
Ending balance: $1941.96

This month's Open Turning session drew only two members. We will have another before the June meeting at 5:30 PM.

The Yankee Woodturning symposium is coming up soon (1st weekend in June). There is currently room for additional reservations, but they may fill and have to start turning people away. Volunteers are still needed for the actual event.

AAW is seeking volunteers for the national symposium. If you're planning to attend, please bring a toy to donate to a community charity. Youth ages 10-17 will get free admission and be entered into a drawing for one of 25 lathe/tool packages.

The CNEW website is looking good and appears to be ranked well against sites of other chapters. There is a password protected members-only area, call one of the club officers if you can't remember the ID/password.

Dave Eaton is helping to organize a field trip to Ken Dubay's shop on May 26. Contact him if interested.

Reid Gilmore summarized future meeting programs:

June	Dave Eaton on hook tools and hollow forms
July	New tool month (bring something to show)
Aug	Annual picnic

Editorial, ctd.

After everyone had finished a kimono we compared the effects of different colour schemes and of applying the pattern to the frisket or the wood. Applying the pattern directly to the wood helped to define the painting by leaving the black outlines in place but it meant you had to be extra careful about cutting exactly on the lines and, as I found out later, it was possible to smudge the pattern. *More* sanding – sigh.

Later we moved on to piercing, using a very high speed (about 400,000 rpm) air-driven rotary tool. Luckily the weather was good enough to work outside – with two big air compressors running, the shop got intensely noisy at times. The big bowl I had taken with me was too thick to pierce at ⅛″ but I did have a smaller one to practice on. Binh showed us how to define a butterfly using either negative or positive space, removing either most of the wood inside the pattern or most of the wood around it. Because of the high speed, the burrs cut easily and showed no tendency to follow the grain, as slower cutters sometimes do.

Binh is a very good teacher. After demonstrating a technique, he mostly stayed out of the way, allowing the students to get on and practice without interference. Only when someone had a problem or a question would he step in and explain how to solve it. On Sunday afternoon as the class was winding down, Binh showed slides of some of his work and explained more about how they were done and what some of the design elements represented. The dragonflies certainly took on more significance when Binh explained that they were helicopters – the "dragonfly airplanes" of his youth in wartime Vietnam.

A Weekend With David Ellsworth

Joe McGill

This weekend was a long time coming. I originally tried to enroll in a class with noted turner David Ellsworth for the fall of 2006 but, when I contacted him in May of that year, I found out that his next available opening was April 2007. His present waiting list is about nine months, but it is worth the wait!

Nestled in the lower Lehigh Valley region of Pennsylvania lies Quakertown. David's house and studio are about nine miles east of the Northeast Extension of the Pennsylvania Turnpike, a little over an hour from both Philadelphia and New York. Situated on twenty-acres are his home, studio, his wife's studio, and other buildings necessary for maintaining the property and a rural lifestyle. David's house is a museum, full of original turnings, photographs, paintings, and sculptures of various materials. To see some of his holdings I recommend the AAW Masters Series video of David in which he introduces the viewer to many of the items in his collection. Yet, even within the splendor of the setting and home, David offers a warm and inviting atmosphere. The visitor is greeted by Blue, David's aging Labrador Retriever, who announces your arrival to all. Entering the house finds David preparing breakfast for the students. This pattern is repeated each morning of the three-day session as he also prepares lunch for all three days and dinner for the first two days. Meals feature good food, lots of hot sauce, and limitless fascinating stories by David of other turners, students, and his army days. He continually uses these moments as teaching opportunities as he sketches on napkins and paper plates the proper filing angle of chain saw teeth to perform adequate cross and rip cuts. He then points the parallel between this angle and that of the bowl gouge. However, while good stories and food are great and relaxing fun, turning is the reason for being there and mealtime is limited to one hour.

David's turning studio is a two story A frame a short distance from the house. The business part of the studio is on the first floor where four Poolewood lathes and one Woodfast lathe reside. I worked on a Poolewood and found it a wonderful machine. The computer speed control regulates speeds from .1 RPM to a top speed well beyond my nerve, as I never turned it up beyond 1500 RPM. Day one began at the blackboard with a didactic on the Ellsworth bowl gouge and an overview of chucking. His strong preference is the faceplate as it provides the most secure method of holding the wood, places the wood closest to the motor thus minimizing vibration, and allows for the most usable material. David also spent some time speaking about basic design and then it was off to the woodpile for a demonstration of preparing wood with the chain saw.

The initial turning projects used poplar so wet that it was necessary to stand back as David turned a small piece while demonstrating the five cuts we would use for almost all of the work, all done with the Ellsworth Bowl Gouge. He also showed us how he measures depths and accounts for the screws in the faceplate while shaping the bottom of the vessel. At the grinder he offered a brief tutorial on sharpening and the utility of various jigs. Initially he sharpened tools for some of us and then watched as students tried it on their own. Then it was our turn at the lathes. David made his way around the room offering advice and giving pointers. Usually he demonstrated a hand, body, or gouge position for the student but did not make the cut, allowing the student to immediately apply the technique. He was patient, attentive, and encouraging. He seemed to quickly pick up on the personalities of each of us as turners as evidenced when, while faced with the problem of removing a gouge mark from the inside of a piece less then a eighth of an inch thick, he said to me, "You can go for it or not. If you go for it you will only get one chance." When I said I would go for it he replied, "That is what it is all about. Here is how you do it." When I blew out the bottom of the vessel we both laughed.

Day two began with an overview of hollowing techniques at the blackboard and then to the grinder where he demonstrated sharpening deep hollowing tools. When I was faced with the problem of how to resolve the shoulder of my hollow form a quick drawing at the blackboard was all I needed from him to resolve the issue. When I was timid in approaching the inside bottom of the form he again demonstrated depth measuring. As with the shoulder issue, a quick comment and suggestion helped to resolve the design into a pleasing union of base and vessel.

Day three began with an overview of the vacuum chuck with suggestions and commentary about various vacuum chucking equipment and methods. Then it

Weekend with Ellsworth (ctd.)

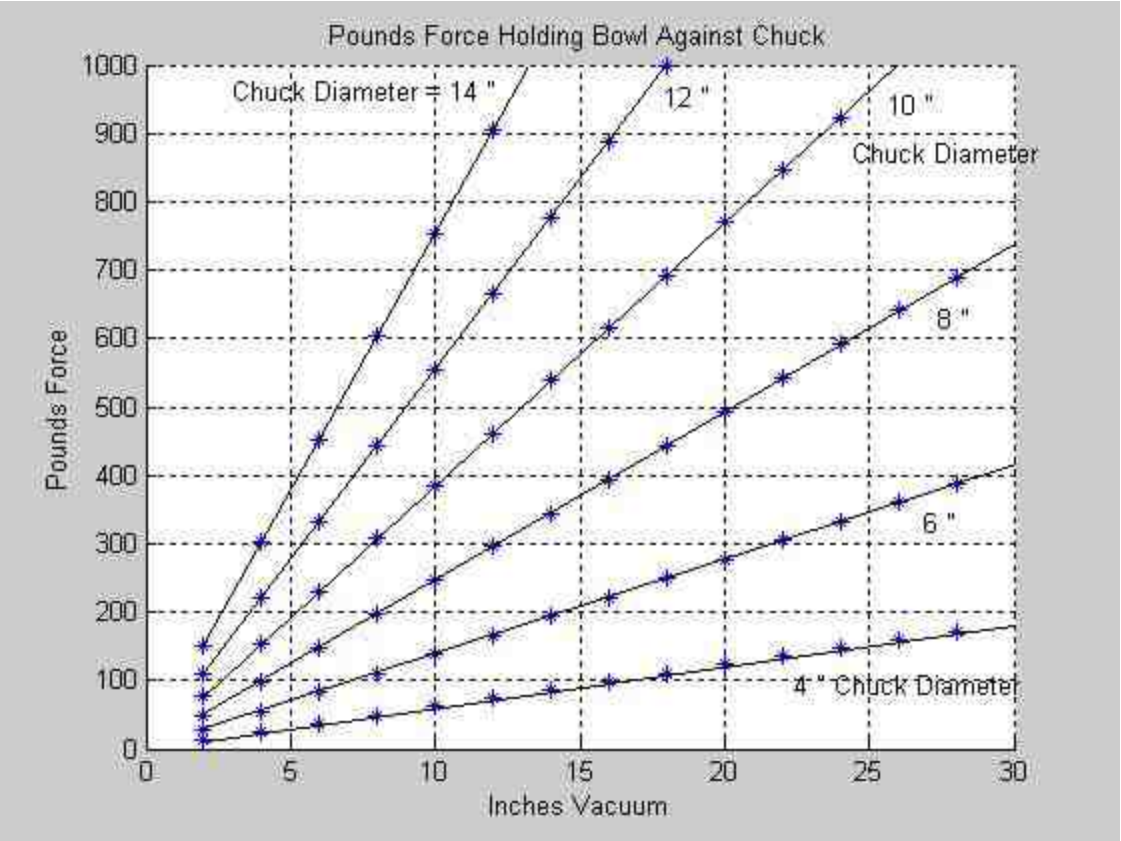
was back to the lathes with either hickory or birch for the Sunday project. As with day two, a quick word or comment was all that was usually needed to resolve an issue or problem. As three of the other turners blew out the sides of their hollow forms the studio took on a much more relaxed attitude as we had all visited momentary failure. As the end of the day approached David stated that he was tired of watching others have all of the fun and positioned himself at a lathe. In a matter of a few minutes he formed the outside of a vessel. He then mounted it on a faceplate, refined the outside, and hollowed out the inside. He removed the faceplate, threaded on a jam chuck, and finished off the object. By far, it took longer to mount and unmount the faceplate then it did to perform all of the turning. The bowl was almost identical to the one an experienced student took all afternoon to turn the day before.

The last part of the workshop was a visit upstairs. There, on glass shelves and stands, was a thirty year retrospective of his work, from objects turned in the 1970's to some recently turned. Quite the highlight to a great three days.

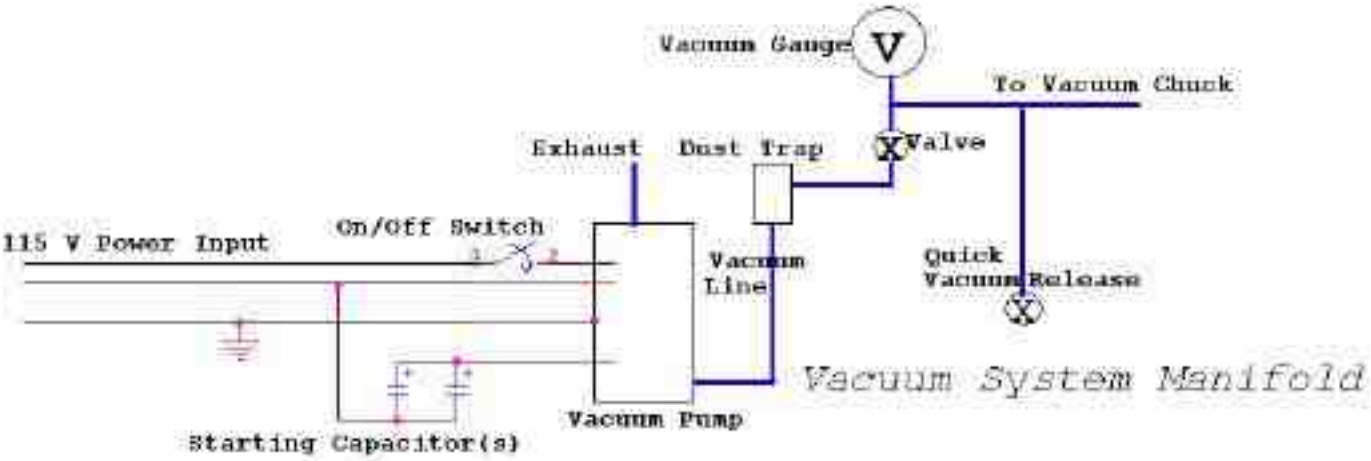
A Vacuum System for Holding Work on the Lathe (Part 2)

© Hal Mahon

A common unit to describe the strength of vacuum is inches of mercury. At sea level a perfect vacuum can support a column of mercury 30 inches high, which corresponds to 14.7 pounds per square inch. This is atmospheric pressure at sea level. The force on a bowl with an area of 50 in^2 (about 8″ diameter) under a vacuum of 25 inches of mercury (abbreviated 25″ Hg) would be 613 pounds (50 x 14.7 x 25/30 = 612.5). This is a considerable force and helps explain the effectiveness of the vacuum chuck. My graph at the bottom of the page shows how force varies with inches of vacuum and chuck diameter. For example at 20 inches vacuum and with an 8″ diameter chuck the graph shows that the force holding the bowl to the chuck is 500 pounds, or 275 pounds force for a 6″ diameter chuck. With 15 inches vacuum a 6″ diameter chuck would provide the holding force of a good size person standing on your work pushing with their weight down against the chuck. As shown in this graph the larger the diameter of the chuck the greater is the holding force for a given vacuum. However without care too much force could be applied to a bowl. Damage could result if the wall of the bowl is too thin or the vacuum applied is too great. The valve shown in the Vacuum System Schematic on the next page can be adjusted to limit the vacuum and hence the force applied to an acceptable level yet sufficient to provide adequate holding force.



This refrigerator pump shown on page 5 was free, runs quietly and pulled a vacuum of 28 inches of mercury on my lathe, which is close to the maximum possible of 30 inches.



Vacuum System Schematic

This was higher than obtained from my Gast vacuum pump. (The vacuum measured is also highly dependent on the quality of the seal to the bowl on the lathe.) I

returned this pump to recycling after testing because it was bulkier than my other options. Electrical connections are shown in the left side of the Schematic, including the ground wire connected to the metal case of the vacuum pump. There is an on/off switch. Some induction motors will have one or two starting capacitors. The refrigeration unit in figure 5 did not have an external starting capacitor. The manifold is on the right side of the Schematic. There is a trap to capture dust before it enters the mechanical part of the pump. The vacuum line leads from the pump through the dust trap to the valve. This control valve is for adjusting the level of vacuum applied to the chuck. The gauge is located where I can conveniently watch it while I am turning. The gauge gives a measure of the strength of the vacuum, and with reference to the graph above, the force applied. I keep an eye on the gauge while turning to assure that the gasket remains tight. A quick release valve saves time in quickly reducing the vacuum to remove the work held in the chuck.

Initially when I first set up my vacuum system I included a large, 10-gallon size air reservoir. However in tests with and without the reservoir I could detect absolutely no advantage of the reservoir with either vacuum pump. I tried the reservoir with different bowls with different qualities of seals. An air reservoir would be an extra expense you do not need.

To be continued.

Addendum to Minutes
(Free Wood!)

As discussed at the last meeting; Alan Gilburg is offering members an opportunity to harvest any wood they wish from his land per below (Thanks Alan!)

I'd like to schedule Saturday, June 23, to invite CNEW members to my land in Vermont to cut and take out wood. I have 400 acres of woods, though most of it is not very accessible.

I know there is plenty of maple, cherry, beech, and oak on the land. I suggest we gather at 10:30 AM and start determining the trees we want to cut that are close enough to the road so we won't break our backs lugging it out.

Bring trucks, saws, lunches and water. There is a general store in Readsboro on Rte 100 about 5 miles south of my land where people can get supplies.

Left:
Bill LeClerc: Inside-out walnut vase.
Dave Eaton: Large ash vase (you can't see the join).
Mike "Red" Green: 15″ high replica gouge made of pine, with accurate hollow grind, ground on an 8 ft. diameter "grinding wheel".
Below:
Dave Hopkins: Red oak natural-edge bowl.

Show and Tell

Photographs by Henry Fairlie

Above: Lamination of multiple species by **Dom Leroux.**
Below: Mike Stone made the lidded box. The birdhouse ornaments are by **Dick Rinkaus. Frank White** made the hollow form from (unrecorded) burl.

Left:
Dave Hopkins: plywood lidded box with inlayed band
Steve Reznek: Mahogany bowl with key grindings
Frank White: Lidded boxes with finials
Steve Reznek: Spalted apple bowl

Above:
Dave Eaton: Cherry dish
Dom Leroux: Square natural-edge birch bowl
Dave Hopkins: Natural-edge ambrosia maple bowl

The CNEW SKEW

CENTRAL NEW ENGLAND WOODTURNERS

Central New England
Woodturners
c/o Worcester Center for Crafts
25 Sagamore Road
Worcester, MA 01605

Phone: 508-753-8183
Fax: 508-797-5626
Email: treasurer@cnew.org

Central New England Woodturners
A Chapter of the American Association of Woodturners

On the web: www.cnew.org

To join or renew your membership, print this form and either bring it to the next meeting with cash or check for $20 made payable to CNEW, or mail the form along with a check to:

Treasurer
Central New England Woodturners
c/o Worcester Center For Crafts
25 Sagamore Road
Worcester, MA 01650

Name _____
Address _____
City _____ State ____ Zip _____
Telephone _____
E-mail _____

If you wish, please let us know more about you and your interests.

Old member New member Turning how many years? _____
Selling your work? Yes No Where? _____
_____
What programs would you like to see at our meetings?
_____
Would you be interested in demonstrating at one of our meetings? Yes No

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 4 April 2007

Editorial

Finally, it's Springtime in New England! One morning there's nothing but a single little dwarf iris, the next – daffodils everywhere! Now that I can get down to the basement without dressing for an Arctic expedition, it's time to get back to turning again. And a good thing too, because I acquired rather a lot of wood at the last wood swap and there was quite enough waiting to be turned down there already.

This weekend, however, we're off to the Brookfield Craft Center in Connecticut for a weekend with Binh Pho. You can expect a full report in next month's newsletter and if anyone is taking a class or course – remember the poor newsletter editor and write it up for me!

Of course, as soon as we get back from Connecticut the first item on the agenda is finishing the transformation of the back bedroom into a weaving studio for my wife Hazel. We recently bought a new loom which is big enough to do serious work on but small enough to fit in a small room, unlike "the big loom" which has been gathering dust in the basement for years because there is no other space in the house big enough for it. I wouldn't be bothered by bits of yarn getting all over my works in progress but Hazel objects to getting wood dust and shavings all over hers. Maybe once we get the new loom set up and plugged in – yes, even a loom designed for hand weaving has its own on-board computer these days – we can take the big one apart and free up more space in the basement. Which I'll promptly fill with more works in progress, blanks and assorted lumps of wood...

President's Message

Are we having fun? I would like to thank Norm Mancuso for his wonderful demo on boxes as he made it look so easy to make them. You can also see Norm at the Yankee Symposium on the first weekend in June at Wesleyan College in southern Conn. There are about 17 demonstrators from all over the world to show you how to do some amazing things with wood. I looked at the program and noticed that there were six people from CNEW on the program that were giving demonstrations, just think of the talent that we have amongst us hopefully to call upon for our monthly demos. Last month we had a huge amount of wood for the wood swap, try to remember to call Gene Spadi to coordinate for the wood swap so we do not have a over abundance. I would like to thank all who donated to Project Goodwill with the many items, and also to the people who brought in items for show and tell. This month we will have Rick Angus as our demonstrator, we also will have open turning once again in May. See You There, Keep Turning and Have Fun.

AL

Contents

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Minutes of April Meeting

Tim Elliott

Visitors: Bill LeClerk, Dick and Jane Gardner.

Charlie Croteau brought in more wood for "Project Goodwill" and reported that our donations have so far amounted to 112 donated wheelchairs. The next auction is in May.

Joe Harbey has arranged for the Open Turning session before our regularly-scheduled meeting to resume. Please check the website before each meeting to confirm if it is on in any given month.

Reid Gilmore has the following demos scheduled

April: Norm Mancuso on endgrain boxes

May: Rick Angus on oval bowls

Reid is still looking for demonstrators for June and July - contact him if you are interested.

Gene Spadi continues to collect pens for the Freedom Pen project, and will send in another batch when he has collected a reasonable number. Gene thanked Dave Eaton for providing a large amount of wood for this month's wood swap.

Frank White gave a quick summary of the upcoming Yankee Woodturning symposium to be held this June. Registration fees escalate with time, so register early for the best price. Volunteers are still needed. Follow the link on the CNEW website for more info.

Norma Hogan gave a treasurer's report.

Starting balance: $1372

Ending balance: $1514

Dave Eaton says our website has been revamped and is now database driven, which should simplify future updates and improvements. He is also selling hook tools at $35 each.

Upcoming Events

Demo for **CNEW May 3rd** meeting will be Rick Angus showing how to turn an oval bowl.

The **Yankee Woodturning Symposium** to be held June 1-3 at Wesleyan College in Middletown, CT, is coming up fast and plans are being finalized. As previously announced we have lined up ten featured demonstrators with national and international reputations as well as some very good local talent. The featured demonstrators include Jimmy Clewes from England, Graeme Priddle from New Zealand, Jean-Francois Escoulen from France, and from the U.S., Johannes Michelsen, Mark St. Leger, Michael Hosaluk, Mark Sfirri, Angelo Iafrate, Beth Ireland, and Bob Rosand. ***Register early as the fee increases from $135 to $150 on May 1st and will be $165 at the door.*** For details see our website www.yankeewoodturningsymposium.org; email garybashian@hotmail.com or call 401-829-8293. Hope to see many of you there!

Coming of Age: Emerging and Established Wood Artists, at the Woodturning Center in Philadelphia until May 19th. Exhibition marking the Center's 21st year promoting and serving the wood art community. More details at www.woodturningcenter.org or 215-923-8000.

And if you're in Philadephia anyway, drop in at the Wexler Gallery for *"Man Made: In the Natural World"*, an exhibition of paintings and works on paper by Bosnian artist **Tanja Softic** juxtaposed withsculptural and turned wood objects by **Ron Fleming, George Peterson, Thierry Martenon, Louise Hibbert** and **Michael Shuler.** Till May 31st.

Turning an End-grain Box

Norm Mancuso

Start with a piece of relatively straight-grained hardwood about 1½-3″ on a side and 4-6″ long. Using a roughing gouge, reduce the piece to a spindle between centers. With a skew chisel, turn a chuck footing on each end, allowing slightly more wood than is necessary, say about ⅜″ as shown in Figure 1.

Place the blank in a chuck and take a facing cut (at about 1000 rpm) on the free end using either a small skew or ½″ spindle gouge. You may find that the spindle gouge is easier to control. As you cut in "from air", make certain that the bevel of the tool is perpendicular to the long axis of the blank. Reverse the blank and do the same from the other end, so that both ends are square to the blank.

Decide which end you want to be the top of the box and draw a line around the blank at a position about 25 to 40% of the blank's length from the chosen end. Part the blank into two pieces, marking the end of the top which is to mate with the end of the bottom. Mount the top end of the top in the chuck with the squared end in the jaws and face the exposed end as above. With a skew, make a small vee-cut in the center to serve as a center spot for the hollowing operation.

With a ⅜″ center drill, drill a pilot hole to an appropriate depth in the top of the box. As a starter, make the hole less than about ¼ of the length of the top piece. Place the rest across the front of the piece at a height which will permit the center of the selected spindle gouge to be at center height when placed on the rest. You will want to think about the next steps before you actually try them. See Figures 2-4 for some thoughts about the mating diameters of the openings. These instructions are for an over-fitting lid and therefore some considerations up front relative to the mating surfaces are in order.

The hollowing the top (or bottom) can be done in a number of ways. My choice is to back-hollow with a gouge followed by cleanup with a scraper. Another method is to use a Forstner bit of the appropriate size to drill the center hole. Be advised, however, that drilling end-grain in hardwood is neither fast nor fun. (If you choose to use this approach, make sure that the speed of the blank is less than about 500 rpm with a HSS drill and about 250 rpm with a carbon steel bit.) It is also possible to use a spindle gouge without back hollowing, as if you were turning a small bowl. Other possibilities include a hook tool or the Termite-style ring tool. Back-hollowing is a useful technique to learn and once learned is probably the fastest way to hollow a box or any other end-grain piece. Use a round or square scraper to finish inside the top. Properly sharpened and presented to the piece, the scraper will take tissue-thin shavings (not dust) from the end-grain.

While the top is still in the chuck, shape the outside as desired. You will finish this later but do as much as possible while the top is strongly held in the chuck, rather than held in the less secure jam chuck later. Make the opening as square as possible for about ⅜″. Use a side-relieved square scraper for this operation. When making this cut, the tool rest should be placed above the center line. A skew cannot be used for this operation. Use an inside caliper to make certain that the recess is the same diameter from the innermost position to the outside edge. You will need this in order to jam-fit the top on the bottom for finishing up the top. Sand and finish the interior of the top, especially the mating surfaces, as desired. French polish is a good alternative, especially if you want to finish the box in one operation. Remove the top of the box from the chuck.

Place the bottom piece in the chuck. Take approximate measurements in order to make a jam chuck to hold the top for final finishing. See Figures 3 and 4 for a guide to the operations required for the jam-fitting of the top to the bottom. Turn a ⅜″ bevel on the bottom piece as shown in Fig. 3. With the blank spinning at around 1000 rpm, ***gently*** hold the opening of the top against the bevel. If the top does not fit over the bevel, re-cut the bevel flat (Fig. 4) and then cut a new bevel as shown and retry the fitting of the top to the bottom. Once the burnish mark has been obtained, flatten the bevel until you have obtained a jam-fit of the top onto the bottom. With a couple of healthy taps, drive the top and bottom together. Once completed, finish the top with appropriate cuts to obtain the profile desired. Sand and finish the outside of the top. With a few gentle taps, remove the top from the bottom.

Now proceed to make the two pieces fit together smoothly by relieving the excess wood between the two parts in SMALL increments until the top just barely slides over the bottom. You are aiming to have a very slight suction fit so that when the top is pulled off, a very slight vacuum is felt.

Now hollow the opening of the bottom to the depth desired. Don't do this step until after the top/bottom fit has been accomplished. If this sequence is not followed, it is relatively easy to make the bottom opening too large and you will end up with two pencil pots, one for very short pencils and one for stubs! Sand and finish the inside of the bottom.

With a narrow parting tool, cut off the bottom leaving about ½˝ of the original blank in the chuck. You will use this to make a jam chuck to hold the bottom. This will be done as previously described for the top. Drive the bottom onto the jam chuck so that it is held tightly enough to enable completing the bottom piece. When shaping has been completed, sand and finish the bottom and tap gently to remove it from the jam chuck. More detailed instructions, including photographs, are available in Richard Raffan's books on woodturning. Good Luck.

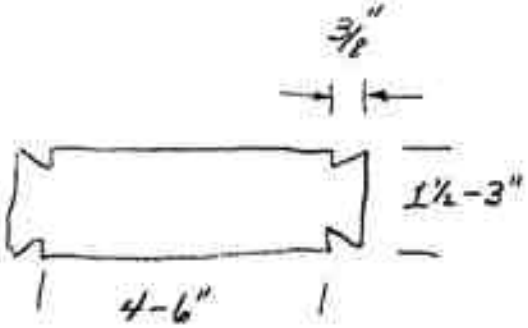
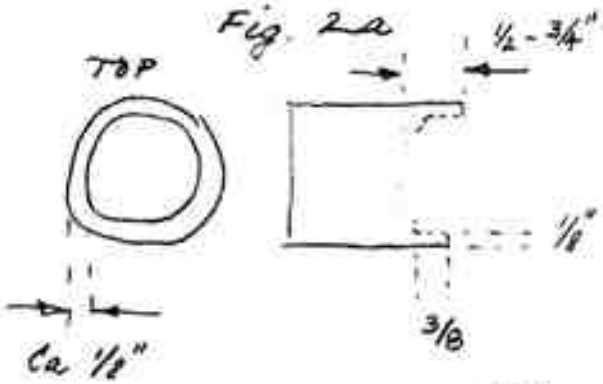
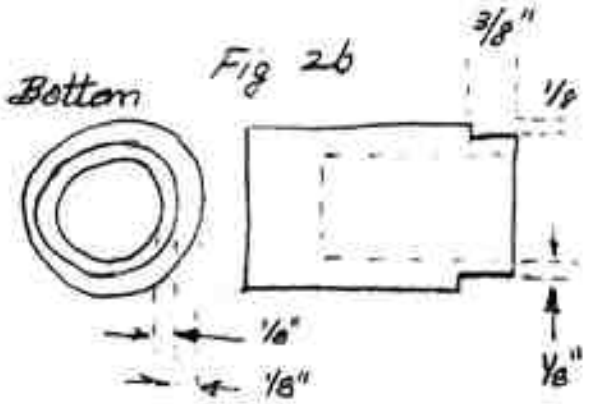
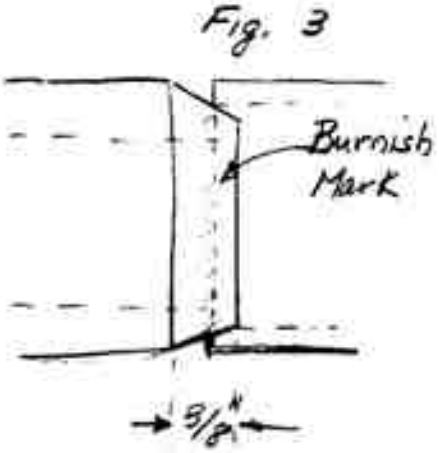
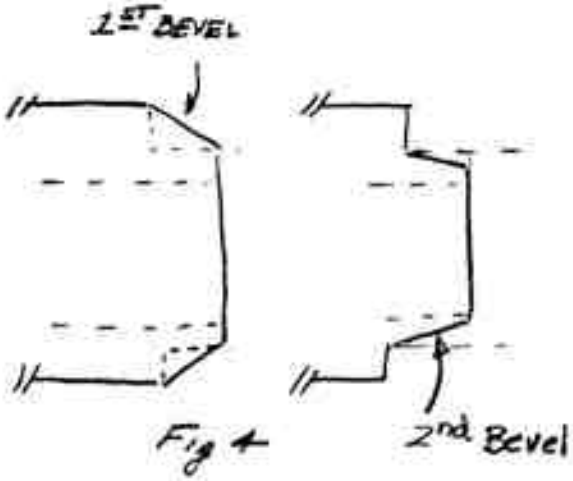


Fig 1.









Back-hollowing with a spindle gouge

A Vacuum System for Holding Work on the Lathe

© Hal Mahon

Vacuum chucking has many advantages for holding work on the lathe. Neither mortise nor tenon is required and there are no screws to leave marks on your work. Any turner on most lathes may use the system described here. The only restriction is that your work is not so porous or has so many worm holes as to preclude forming a vacuum, and even then there are tricks that may enable you to overcome some of these difficulties. Of course the surface of your work must be sufficiently smooth to allow a good seal to the vacuum chuck.

Vacuum chucking is for any wood turner who wants to improve the quality of their work by improving access to the inside and outside of their turning. It is frequently used near the end of a project in which the work has been held with a conventional 4-jaw chuck or faceplate and the next step is to reverse your work for access to its bottom to remove the mortise or tenon, or blemishes from screws. The vacuum chuck is a delightful tool for this part of your work.

Mickey Goodman has written about vacuum chucking. See his extensive and helpful article at [http://cnew.org/tips_techniques/vacuum_chucking.htm]. Google can bring up more information. Our purpose here is to provide practical information aimed at turners who want to make some part, or all, of a vacuum chucking system, including making your own vacuum pump. Off the shelf commercial systems may be purchased at 4-figure prices. The information here enables you to make a fine system that may exceed the performance of the most expensive systems because it can be tailored to your needs and to your lathe. Depending on your choices you may build a fine system at a cost two orders of magnitude less than that of commercial systems.

Holding a bowl will be explained in more detail later. Basically a gasket makes an airtight seal between the bowl's bottom (or side) and the vacuum chuck to allow work inside the bowl. An airtight seal between the inside of the bowl and the chuck allows you to work on the outside and bottom of the bowl. By evacuating air inside this seal the greater atmospheric pressure outside forces the bowl against the chuck. This force can be considerable and can resist significant force from a gouge or sanding. Admitting air into the sealed space releases the bowl from the vacuum chuck. Mounting and unmounting the bowl can be done quickly and conveniently so your vacuum chuck system should be designed with efficacy and convenience in mind as well as economy.

A vacuum chucking system has four components:

1. Vacuum pump
2. Control manifold connecting pump to the lathe spindle adapter
3. Spindle adapter allowing lathe to spin while the manifold connection remains stationary
4. The vacuum chuck itself

The first part of this series is about the vacuum pump, later part deal with the rest of the system.

Vacuum Pumps: where can you find a pump?

Very good pumps are made by Gast and Rietschle Thomas and are included in high end systems. Check eBay for vacuum pumps (and Google for additional information and addresses not included in this article). Clinton Electric Motor Service (978-365-7652) had 4 pumps ranging in price from $85 to$350. You would not be unhappy with the service and guarantee offered by CEMS. (In addition CEMS can replace worn lathe bearings and rewind lathe motors. It is also a source for DC motors and helpful information to convert your belt driven lathe or drill press to variable speed.)

Sources of used vacuum pumps include dairies, dentists, hospitals, industry, veneer presses, boat building, type setting, and in HVAC control systems. Vacuum pumps may be hiding in barns, and salvage areas of medical and industrial facilities. Low priced pumps or even freebies may be lurking close by as was the Gast vacuum pump that I acquired a few years before I started wood turning.

Of course vacuum is available at the intake opening of a regular air compressor. The air intakes of a smaller air pump (a a Gast air compressor) is shown here. To connect

such a pump to your vacuum system a fixture from e.g. maple with a pipe fitting would need to be configured for the opening and epoxied in place. If a vacuum reservoir, such as a ten gallon size portable air tank, is included the pump can operate intermittently. For intermittent operation a constant vacuum regulator should be provided [see http://www.joewoodworker.com/veneering/welcome.htm]. This site is a source of such a regulator and also a source for most of the parts discussed in this article if they cannot be obtained locally.

Some turners have suggested using the handy Shop Vac that most of us have for cleaning up. The availability is an advantage but even with a clean filter a good shop vacuum can only pull a vacuum of up to 6 inches of mercury (see below for definition), significantly less than the pumps discussed below. Some vacuums use air through the motor for cooling. The low airflow when used for vacuum chucking endangers overheating the motor. Finally, a major reason for my disfavor is that they tend to be quite noisy.

A venturi type vacuum source is shown here together with a collection of fittings the purpose of which will

be explained later. The venturi produces a vacuum from the side port by forcing 4 to 6 cubic feet per minute of compressed air through from the larger end. A silencer should be attached to the output. This can make a reliable and simple vacuum pump that will be noisy in operation and may be expensive to operate continuously, depending on the air compressor. Grizzly (800-523-4777) sells complete venturi systems for which they recommend a 2 to 4 hp compressor delivering air at 85 psi. My preference is for a quieter system and one with which I would have less concern about the cost of operation.

Although I already have a good Gast vacuum pump and do not need another, my purpose here is to show how to make a fine, reliable vacuum pump that can be essentially free except for the cost of a few fittings. A pump you can make will have multiple uses such as pumping automotive tires, vacuum veneering and for a vacuum hold down table for routing and sanding, in addition to use with your lathe. The several recycling centers I visit have refrigerators, freezers, dehumidifiers and air conditioners that have been disposed of, usually because they have lost their refrigerant.

When removing the refrigeration pump a pair of large diagonal cutters may be used to cut and crimp the pipes. Or use a tubing cutter and put tape over the ends to keep out dirt. Do not use a hacksaw to avoid metal particles getting into the pump. Leave 8 to 18 inches of pipe connected to the pump, longer is better. The pipe may be cut to a convenient length later with tubing cutters. Be careful bending pipe to avoid kinking and avoid breakage at welded joints. Use care when removing the pump as it may be filled with oil. In operation the oil may mist from the output of the pump and a longer length of tubing coiled vertically will lead it to drain back into the pump. A length of spring with an ID matching the OD of the pipe is useful for bending without kinking. One woodturner has reported more than ten years of trouble free operation with a pump from an apartment size, below counter refrigerator.

Show and Tell

Photographs by Henry Fairlie

Clockwise from top left:
a bevy of boxes by Norm Mancuso; bowl in black ash burl by Frank White; ash bowl with piercing by Mickey Goodman; a small bowl by Mary Maguire; cherry burl hat bowl by Charlie Croteau; two goblets with captive rings by Al Faul; covered vase by Mike Stone; and a cherry bowl by Joe Harbey.

The CNEW SKEW

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Left to right: redwood burl vase by Frank White;
pepper mills by Alan Gilsburg;
table leg (one of four!) by Reid Gilmore.

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 3 March 2007

Guest Editorial
Steve Reznek

How many times have you lost a great piece of wood because it split as it dried? Or how many times have you made a segmented bowl and had the joint move? This last is bad enough when you can only feel the lack of alignment. It is disastrous when the joint actually comes apart.

We live in New England. It can get pretty hot and muggy in the summer; and it gets cold in the winter – or at least it used to. When we heat up the air in the house the relative humidity drops to zilch. This of course is bad for the turnings. If their diameter is small, not much happens. However if they are large, two things can happen and neither is all that great. They may distort and worse luck, they check. (I wonder why wood turners call it checking when what it is doing is splitting!!)

Of course we all know the reason. But this article will first try to put a few numbers on what is going on and then suggest some things that you can do that might help. Of course if you haven't had problems or already have a preferred cure, you can skip the rest.

Let's start by talking about cells, drying and shrinkage. (I don't mean in the Seinfeld sense.) Think of a log from the trunk. The cells in wood are generally very elongated cylinders. For most cells, the long axis is up and down. However, a minority of the cell point from the center out. These are in the "medullary rays". These rays can give rise to some of the more interesting patterns in turned objects. I am not sure if they are the cause of the tiger stripes in maple, but I am sure they are the light "cross grain" streaks you often see in oak. When the cells dry they shrink, of course. But for all practical purposes, they don't shrink in the long direction. The cylinders get skinnier, not shorter.

Call the direction along the trunk "longitudinal". Call

ctd. on p. 5

President's Message

Hello members,

Are you having fun, I would like to thank Reid for the wonderful demo last month. I thought it was very informative as I had seen Cindy's demo at Totally Turning, but when Reid showed us it made more sense. I would like to thank Charlie Crouteau for the thank you card that he sent me for the little I did for his Project Goodwill, and we should remember that this is an ongoing project, as our Freedom Pen Project is. We are very fortunate to have such talented people in our club that we can call upon to give us enjoyable demonstrations at our meetings. I hope this news letter gets to Graeme as the last two have gone to email never-never land. If anybody has anything that they want brought up then send me an email or speak to me at the meeting. Remember this is your club and you have a right to voice your opinions. Life should be enjoyable and have fun turning.

AL

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Minutes of March Meeting

Tim Elliott

Visitors: Zoltan Bardossy, Russ Ellis

Reid Gilmore reported that our April program will be presented by Norm Mancuso. If you would like to do a meeting demo, please contact Reid; the schedule is currently empty from June onwards. Sometime this Fall, he may organize a panel discussion on issues of design.

Norma Hogan gave a treasurer's report for the past month

Starting balance: $1226

Ending balance: $1372

Ray Boutotte is planning to clean up the book library inventory and get it posted on our website.

Gene Spadi has a number of pens for the Freedom Pen project, but he will wait a month or two before sending them in - if you would like to contribute, please see Gene.

Charlie Croteau gave an update on Project Goodwill. Sales were strong at Springfield, and our club total now stands at around 112 chairs donated. Charlie collected several items from show & tell for future sale, and distributed a large pile of wood to members wishing to make future contributions.

Frank White had promotional flyers for the Yankee Woodturning Symposium to be held this June. Details are firming up. The CNEW website provides a link with more details.

Visitors and hosts of the Open Shop visits last month all had a good time. Some details were printed in the last newsletter.

Joe Harbey will work with the center to schedule another open shop prior to our April meeting. Look for details in the newsletter or website.

Russ Ellis showed some tools from his collection - these few items are distinctive in that the original owners have left behind their "fingerprints" on the handles.

Program: Reid Gilmore on multi-axis spindle turning

Upcoming Events

Demo for **CNEW April 5th** meeting will be turning a Green wood bowl, by Norm Mancuso.

The **Yankee Woodturning Symposium** to be held June 1-3 at Wesleyan College in Middletown, CT, is coming up fast and plans are being finalized. As previously announced we have lined up ten featured demonstrators with national and international reputations as well as some very good local talent. The featured demonstrators include Jimmy Clewes from England, Graeme Priddle from New Zealand, Jean-Francois Escoulen from France, and from the U.S., Johannes Michelsen, Mark St. Leger, Michael Hosaluk, Mark Sfirri, Angelo Iafrate, Beth Ireland, and Bob Rosand. Register early as the fee increases from $135 to $150 on May 1st and will be $165 at the door. For details see our website www.yankeewoodturningsymposium.org; email garybashian@hotmail.com or call 401-829-8293. Hope to see many of you there!

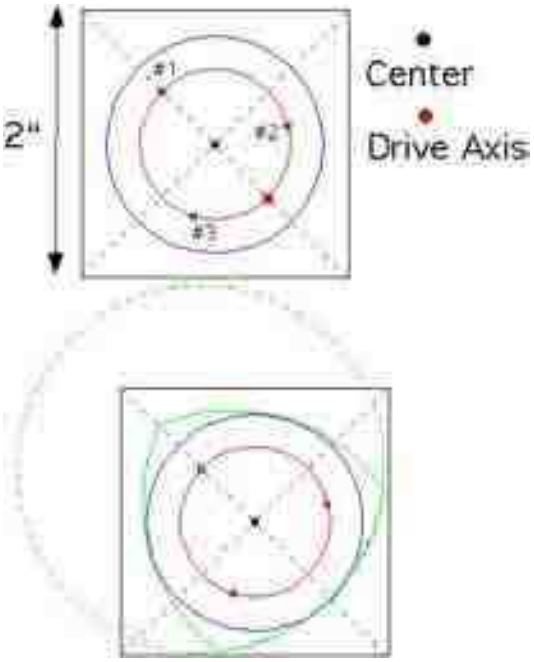
Coming of Age: Emerging and Established Wood Artists, at the Woodturning Center in Philadelphia until May 19th. Exhibition marking the Center's 21st year promoting and serving the wood art community. More details at www.woodturningcenter.org or 215-923-8000.

Multi-Axis Spindle Turning

Reid Gilmore

Applications: ornaments, bottle stoppers, boxes, pepper mills, etc. (woodgrain aligned with lathe axis.)

Equipment: ⅞″ diameter Revolving Stebcenter and ⅞″ diameter Stebcenter drive center. Stebcenters are available from several different wordturning vendors. Check around for best price.



Laying out a 3-axis turning

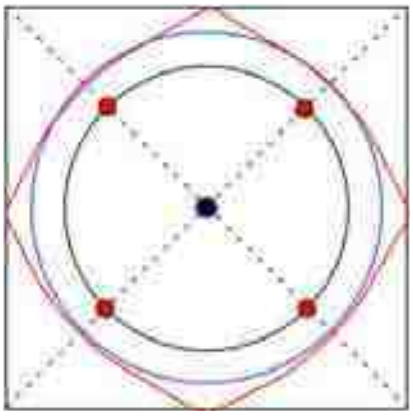
1. Measure the stock (example is 2″ x 2″). Carefully locate the center (black dot) by drawing diagonals from the corners.
3. Using the 3-axis turning chart (see below) look up the stock size to find the drive circle radius (for 2″ stock this is 9/16″).
4. Draw the drive circle (red line) using a compass.
5. Mark the drive axis (red dots) with an awl. Drive axis #1 is the intersection of the diagonal and the drive circle. Place the compass on the opposite diagonal (square red dot) and mark drive axis #2 and #3. (the radius is 1/6th of the circumference, near enough).
6. Using the chart look up the solid circle radius (13⁄16 for 2″ stock), and draw the blue circle using the compass. Solid circle radius = drive circle radius + ¼″.
7. Repeat the layout on the opposite. Use the same measurements if you don't want tapered sides.
8. Number the 3 drive axes. For straight sides, #1 is on the diagonal on both ends. The numbers rotate clockwise on one end and counter-clockwise on the other. For swirled sides, axis #1 on the other end is rotated by 120°.
9. The bottom diagram shows the final shape in green. When the piece is turned using axis #1 (green dot), the green dashed line shows the turned circle radius, which cuts the stock at the solid green line.

Three axis Chart

Stock (in.) Diam. (in.)	**Drive radius** (in.)	**Solid radius** (in.)
1	3⁄16	7⁄16
1 3⁄16	¼	½
1 3⁄8	5⁄16	9⁄16
1 ½	3⁄8	5⁄8
1 11⁄16	7⁄16	11⁄16
1 27/32	½	¾
2	9⁄16	13⁄16
2 ⅛	5⁄8	⅞
2 5⁄16	11⁄16	15⁄16
2 ½	¾	1
2 5⁄8	13⁄16	1 1⁄16
2 13⁄16	⅞	1 ⅛
3	15⁄16	1 3⁄16
3 ¼	1 1⁄16	1 5⁄16
3 ½	1 ⅛	1 3⁄8
3 ¾	1 ¼	1 ½

Four axis chart

Stock **(in.)** diameter (in.)	**Drive radius**	**Solid radius**
1	¼	½
1 ¼	5⁄16	9⁄16
1 3⁄8	3⁄8	5⁄8
1 ½	7⁄16	11⁄16
1 11⁄16	½	¾
1 27/32	9⁄16	13⁄16
2	5⁄8	⅞



Multi-Axis Ornaments

Reid Gilmore

Multi-axis ornaments are variations on the standard "globe and icicle" Christmas ornament that was pioneered by Bob Rosand. Instead of a round or oval-shaped globe that is turned using a single axis, the multi-axis ornaments are turned with three or four axes (not something you chop wood with, the plural of axis). The multi-axis turning method used on these ornaments was demonstrated by Cindy Drozda at Totally Turning in her 3-sided box demonstration. Step-by-step descriptions for laying out three-sided multi-axis turnings are included as part of this article. I have made three sided and four sided multi-axis ornaments. As you increase the number of sides, the shape of the turned object starts to approximate a circle. For that reason, I have not tried a six-sided turning.

The drive centers for a 3-sided multi-axis turning can be viewed as being at the 4, 8 and 12 o'clock positions on the drive circle. Please note that the three drive centers (#1, #2 and #3) rotate clockwise on one end of the stock, and counter-clockwise on the other end. If the stock is mounted on the lathe so that the Stebcenter drive and the revolving tailcenter are both at the 12 o'clock position, the turned object will have straight sides that are parallel to the lathe bed. If the drive center is in the 12 o'clock position and the revolving tailcenter is at 4 o'clock, the turned surface will "swirl" 120° around the stock. Three and four sided "swirls" are an interesting variation on the standard round globe ornaments. Because the multi-axis ornaments are not round, the hollowing step can open "windows" in the sides of these 3 and 4 sided objects. I haven't tried making windows in the 3-sided or 4-sided swirls yet, because the swirls I have made aren't quite symmetrical, so the windows would vary in size.

As stock for these ornaments I use 2″x2″ turning stock cut to 1.5″ - 1.75″ in length. The grain of the wood needs to be parallel to the lathe bed. After finding the centers on each end, lay out the drive circles and solid circles (see instructions). Mount the stock between centers and use a roughing gouge to remove the corners of the stock. Use a skew chisel to cut a ⅛″ wide rabbet down to the diameter of the solid circle radius on each end of the stock. Mount the stock in a chuck and use a ⅜″ drill mounted in the tailstock to drill a ¼″ deep hole in one end of the blank. This will be used to center the piece on a waste block when the ornament is hollowed.

The stock is now mounted so that the drive center and revolving center are both at drive center #1. A lathe speed of ~1000rpm is good for these "off center" turnings and the roughing gouge is the tool of choice. Since relatively little wood needs to be removed, stop the lathe frequently if you can't see the solid circle rabbet. After the first side is completed, repeat the process using centers #2 and #3. You probably won't get a perfectly smooth surface using a roughing gouge, but with a soft touch, sanding will be minimal. The easiest way to sand the sides of these ornaments is to start with a belt sander (100 grit) before moving on to hand sanding.

The multi-axis ornament is now ready for end shaping and hollowing. With a waste block mounted on a face plate, turn a flat surface that is roughly ⅝″ to ¾″ in diameter. Using a ⅜″ drill, drill a ¼″ deep hole in the waste block. Use thick CA glue and a ½″ long ⅜″ diameter dowel to make a centering post for your ornament. Glue the ornament onto the centering post and flat end of your waste block. Once the glue has set, use a spindle gouge to shape the ends of the ornament, and remove the marks made by the Stebcenters.

To speed up the hollowing process, I use a ¾″ Forstner bit to make the entry hole and remove a lot of the ornament center. Small hollowing tools (¼″ straight and ¼″ curved scrapers) are used to complete the hollowing process. If you don't want to have "windows" in the ornament, stop the lathe frequently and check the wall thickness. The windows are caused by deliberate "overhollowing". The sides of the windows will have wood splinters, so the shape of the window needs to be refined with an Exacto knife and sandpaper. If the multi-axis steps were done carefully (stopping at the solid circle radius) and you use the centering post method described above, the windows should be the same size on each of the three faces. The target weight for the final ornament, including the icicle, is 1 ounce, so I aim for a ⅛″ thick wall on these ornaments.

After sanding the ornament you can apply finish while it is still on the waste block. To remove the ornament from the waste block, start by using a ⅜″ drill mounted to your tailstock to drill out the dowel centering post. The ornament can then be removed from the waste block using a parting tool.

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the direction from the center out, i.e. across the grain, "radial"; and the direction around the trunk, i.e. within one of the grains around the tree, "circumferential". Some typical numbers for shrinkage are 0.1% in the longitudinal direction, 4% in the radial direction, and 8% in the circumferential. Think of a board. The length of the board is longitudinal, or at least mostly so. If the board has an interesting pattern, the width is circumferential, and the thickness is radial. If the board shows a lot of grain, then the width is radial and the thickness circumferential.

Now a little bit about moisture in wood. There are two types of water in wood. The free water is in the capillaries and the bound water is inside the cells. The free water is what sprays all over you when you turn really green wood. Although there is a heck of a lot of it, this stuff is not the bad actor: trees don't shrink in the winter, when the amount of free water is greatly reduced. The bad actor is the bound water, which is in the cells. There are no cells pointing circumferentially, i.e. around the tree. When the cells lose their water they shrink and therefore the 8%. The medullary rays have cells pointing radially and they reinforce the wood and reduce shrinkage in that direction, hence the 4%.

One final note: The moisture (bound water) content of dry wood of course depends on the relative humidity. It also depends on temperature, but only slightly, and the type of wood. At 20% relative humidity the moisture content is in the single figures, say 5%. At 90% relative humidity it is about 25%. The "standard" content for dry wood is 12%, and shrinkage is measured either between 100% relative humidity and 12%, or between 100% and 0%. Listed below are some shrinkage values for different woods. The values are for drying from 100% to 12% moisture.

Type	Radial (%)	Circum (%)	C/R ratio
Cherry	3.5	6.5	1.9
Beech	3.0	6.0	2.0
Walnut	2.5	3.5	1.4
Oak	3.0	5.5	1.9
Maple	2.5	5.0	2.0
Ash	4.5	7.0	1.6

OK, these numbers are typical for the tree type and vary with a lot of things, like how fast the tree grew, etc. etc. More importantly wood moisture in a dry winter home may not be 12% and in a humid summer home it is not 100%. But they are good guides to the relative importance of shrinkage.

Let's first look at the usual non-segmented, non-end-grain turning. In one horizontal direction it doesn't want to shrink at all, and in the other it wants to shrink somewhere between 3.5% and 7.0%. Ah ha, that is why they go oval! In the vertical direction, they want to shrink between 2.5% and 4.5%.

Now of course what happens depends not only on how much it wants to shrink, but how strong the wood is. Strong woods, with small shrinkage, made into small turnings do little. Strong woods with high shrinkage go oval. And weak woods, with some shrinkage, check. "Strength" does not mean how hard it is to bend the wood, i.e. stiffness. That goes into the shrinkage value. It means how much bending it will take before it breaks. Somewhat contradictorily, strong woods bend and weak woods don't and therefore snap.

How do you minimize the problems? There are a couple of things you can do. The most obvious is to reduce the height of the turning so that you are as far away from the pith as you can be. This minimizes the difference between radial and circumferential. Remember this difference is the same size and the difference between longitudinal and radial. Also the wood is far and away much stronger in the longitudinal direction, so it can take the "oval" shrinkage.

Remember thin walls can bend more easily than thick ones. So again somewhat contradictorily, thin bowls are strong, i.e. don't check, while thick bowls do.

The other common thing that is done is to dry very slowly. This lets the cells of the wood "creep" and distributes the stress of shrinkage; but it does not eliminate it. Finally there are a number of tricks that are reported to work, but how they work is usually not explained. The first is to boil the boil the wood. We all have heard of steam bending, well boiling does the same thing. I think what it does is to give the dry cells some ability to slide past each other and relieve the stress of shrinkage. The other thing that is in the literature is to soak the wood in dish detergent before you dry it. I guess it does the same thing, i.e. lubricates the cells and allows them to slip past each other. (Creepy, no?)

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OK, finally segmented bowls. There are two no no's. The worst is to have the circumferential direction glued to the longitudinal. This is a "cross grain" joint. Almost as bad is side grain to end grain, i.e. radial to either circumferential or longitudinal.

If you make the standard multi layered "ring" designs, you can have more or less longitudinal to longitudinal joints and the larger the number of segments, the more closely aligned the grains will be. This is why many people do it – no expansion except through the (thin) wall. There are three problems of course. What do you do with the bottom? Making eight, twelve or sixteen pieces come together at a single point is really tough. Second, the "brick work" structure strikes some people as not too attractive. And third, you cannot make the bottom out of a single piece of really cool wood.

An approach that I use to get around some of these problems is to make all my segments align in the same direction, so I have radial to radial, or longitudinal to longitudinal or circum. to circum. joints. In a simple case I make the bottom piece out of a single (square) piece of wood. I cut strips (cross grain and with grain) and glue up the top so it looks like a tic-tac-toe board. Of course the center square is large. A large number of designs are possible and some quite neat patterns can be made. Of course I still have the problem that the different woods shrink a little differently. But you can't have everything.

Some guiding rules for segmented turnings:

1) Keep your diameters small
2) Use really good glues (super glue is terrible)
3) Choose your woods carefully for small shrinkage and the ability to bend
4) Make the walls thin
5) Don't do the no no's and most importantly
6) Only sell your bowls to people who promise to keep the humidity up in their houses in the winter!

There are many good books on wood drying and shrinkage. One quick one is the introductory chapter of of "Turning Green Wood" by Michael O'Donnell.

Show and Tell

Photographs by Henry Fairlie

From the top: Funeral urn by Dave Hopkins for his not-yet-deceased brother.
Quilted maple box by Mike Stone.
One of Tim Elliott's very tall thin miniature vases.
Hickory saucer, burned and dyed by Graeme Young.

Lots of segmented work this month. Clockwise from top left: ***Joe Harbey*** made the cutting board, then made the bowl from the cutoffs.
Zebrawood and wenge bowl by ***Norm Mancuso.***
A plywood box and maple & bloodwood bowl by ***Phil Bowman. Reid Gilmore*** made the ambrosia maple form.
Frank White did "Tee Time" for a competition but missed the deadline.
A walnut bowl by ***Mike Stone***. Lots of boxes with segmented bits by ***Phil Bowman***. A maple and walnut container by ***John McAtee***.

The CNEW SKEW

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Central New England Woodturners

The CNEW Skew

Volume 20 Issue 2 February 2007

Editorial

What is a Negative Rake Scraper?

The basic design of a Negative Rake Scraper (NRS) is a scraper with an additional bevel on top of the tool where it's normally flat. The blade is ground on the top at an angle and then the lower bevel is ground to produce a burr on the upward edge – it is only the burr that does the work. There is no need for the upper and lower bevels to be symmetrical so the upper bevel is usually much longer: that way only the lower bevel has to be reground to create a new burr. In fact, any tool ground this way can be used as a NRS – a freshly ground skew held flat works just as well, as long as you use it with the burr facing up!

The great advantage of the NRS over a standard scraper is that it is almost impossible to get a catch, even on hard end grain. The question is why the change in geometry is so effective in eliminating catches. Andrew Hilton (www.hiltonhandcraft.com/woodturningarticles.asp) thinks it's because you can actually ride on the lower bevel. My own opinion is it's mostly because the burr extends out in front of the edge instead of curling back over it as in a regular scraper. That, and possibly the fact that a NRS is much thinner at the cutting edge than a regular scraper, means that when a catch does start there is very little metal being "bent out of shape". So when the wood gives way, there is much less energy stored in the deformed metal.

The NRS is an excellent way to refine shape and take out small tool marks – it is very easy to use and a great way to get accurate shapes or thickness. It is not aggressive even on very dense end grain, unlike a regular scraper with a burr. However, it is not a bulk removal technique as the cutting life is very short. It is essential that there is a burr present on the cutting edge – once the burr has been worn off, the scraper will not work well and will usually start tearing the grain.

You can tell with experience when this tool is getting dull, as you will need to add more and more pressure to keep the tool cutting. At this stage if you do not re-sharpen you will be tearing the grain and it will take several re-cuts and re-sharpenings to repair the damage. So sharpen early, sharpen often.

The History of the NRS

The most prominent use for a NRS in the past was for making musical instruments from hard woods with dense grain, particularly ivory and blackwood.

Ivory has a grain like a dense exotic and will grab on any type of scraper that does not have a negative angle. However, because of its extreme density and very high specific gravity (some 50% greater than any wood known to man - SG 1.84) it can be cut without the burr on a scraper with a negative angle. Ivory was used for making Billiard and Snooker balls. These were hand turned and to get extreme accuracy scraping was essential and a negative angle on the scraper was required to avoid the ivory grabbing at the tool.

Blackwood is used for the majority of high quality Bagpipes and one essential part of the bagpipe is the

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chanter. This is the section of the instrument that is actually played to produce the notes. It is approximately 15″ long and tapered along it's length – it has a wall thickness of less than ⅛″ (3mm) along it's full length. This piece of the instrument is by far the hardest part to make and requires scraping to achieve the required accuracy in wall thickness.

It is almost impossible to scrape Blackwood with a regular scraper blade either with or without the burr. Using a regular blade will cause the wood to grab at the tool and shatter the chanter piece. Instead a negative angle is required for the blade to prevent any grabbing. However, due to the high density of Blackwood, it is not always essential to have a burr and remember that the chanter is all side grain turning, so the negative angle without a burr will peel off the wood fibers. The tool must however be kept very sharp. If it is allowed to dull then the turner will start pushing and cause the thin wall of the chanter to chatter, however, it would not grab but instead just leave a poor quality finish.

Subject: Planting season
A true(?) story told by L.A.P.D.

An old Mexican man lived alone in East Los Angeles. He wanted to spade his garden, but it was very hard work. His only son, Jose, who used to help him, was in prison. The old man wrote a letter to his son and described his predicament.

Dear Jose:
I am feeling pretty bad because it looks like I won't be able to plant my garden this year. I'm just too old to be digging up a garden. If you were here, all my troubles would be over. I know you would dig the garden for me.
Tu Padre

A few days later, he received a letter from his son:

Dear Papa:
Por Dios, Papa, don't dig up the garden. That's where I buried all my drugs and money.
Tu hijo,
Jose

At 6 a.m. the next morning, the L.A. Sheriffs showed up and dug up the entire area without finding any drugs or money. They apologized to the old man and left. That same day, the old man received another letter from his son.

Dear Papa:
Go ahead and plant your garden now, papa. It's the best I could do under the circumstances.
Love,
Jose XOXO

Shop Visit: Ken Dubay

Dave Eaton

On Feb. 1st, 2007, I and several members of CNEW and CCW had the pleasure of joining Ken Dubay for a full day shop visit at his home in Columbia, Connecticut. There were about a dozen of us all sharing ideas and having a good time.

To start the day, Ken showed how to core a nested set of bowls, use the vacuum chucking method of turning the foot side of a bowl and a few more tricks. After his demo's we all took turns standing at one of Ken's two Oneway 2436 lathes. Everyone got a chance to turn something with wood supplied by our gracious host. He even had a selection of woods and burls for a wood swap and Dave Eaton brought a trailer load of freshly cut "Big" Cherry with a few pieces of Mulberry, Black Locust and Elm mixed in. Proceeds from the swap went to the CNEW club treasury.

At lunchtime, as is customary at Ken's, his sweet wife Mary set a wonderful table serving up a hot chicken soup, crackers, rolls and an excellent desert. We devoured that all up and headed back to the well heated shop for more chipping away.

That was the day in a nutshell. Quite a good day! Fun, learning and laughter from 9am until around 6pm. It may be a bit of a drive from your house to Ken's but one thing I can guarantee is that you'll be quite pleased you made the effort should you get there one day. Ken is, aside from being a gracious host, quite a gregarious and entertaining fellow with loads of turning skill and talent he is quite willing to share. He teaches classes at all levels and many techniques, beginner to expert.

Ken invited us back anytime to do it all again. I think that it would be great if we could make a pilgrimage every month or two as a group. In the meantime if you wish to visit him just make a phone call and set up a date.

Thanks Ken for such a fun filled day. I can't wait until next year's shop visit, but I'm sure I'll see you well before that – Dave Eaton

Make a tool holder

Dave Eaton

Many useful woodturning tools are only available in the form of a "bit" or "tip" rather than a fully handled tool. A couple that come to mind are the Wolok or Martel Hook Tools and standard Two Flute End Ball Mills which are used for end grain hollowing of open forms like boxes and vases. Additionally for closed form hollowing square carbide tool tips can be used such as David Ellsworth shows. One reason these are sold in bit form is they are made of extremely hard steel which prohibits them from being long in length.

Since these tool tips are usually not supplied with the supporting "holder" needed to use them for turning, one must either purchase a suitable holder for around $25 or craft one themselves.

The latter is the subject of this article. You need only rudimentary metal working skills and equipment to take a round steel rod and adapt it for such use. The cost of making such a tool is considerably lower than a purchased product and is nearly identical when complete.

First, let's start by understanding the problem. The tool bit is typically a piece of metal with a special grind on it which terminates in a short one or two inch straight shaft for mounting such as the Wolok Hook Tool shown here. If the bit were not held firmly by the rod as shown it would be of little use. Once we have a steel rod holding the small bit we are then able to use the tool just as it is or, as is often done, with the other end of the rod inserted into a wooden tool handle such as would be typical of any other woodturning tool.

Even though the rod is simply a length of steel with a hole drilled into the end it can be a little tricky to fabricate for the ordinary woodworker who lacks access to a metal working shop. Let's see how we can easily machine one of these rods using tools most woodworkers have access to.

First of course, you need to obtain a suitable length of useful diameter steel rod. Choose either cold rolled, mild, or galvanized steel rod as it is soft enough to machine easily. This material is readily available at home centers like Home Depot or Lowes, Ace Hardware etc, or can be purchased from MSC Industrial Supply, Grainger, Enco Tools and more.

The diameter of the rod can be critical. It must be large enough to allow a hole in the end big enough to accommodate the bit you will insert and rigid enough to withstand bending or vibration when working at full depth. For hollowing to a depth of less than 18 inches, a ⅝″ diameter is recommended. For deeper hollowing move up to 1+ inch diameter. If I recall correctly, Mitch Wolok, who developed a hook tool, said he can hollow perhaps 3 feet deep with a rod larger than 1 inch (and 6 ft long!) but for our discussion let's stick with ⅝″ diameter rod which is probably all we'll ever need.

Most steel rod at local hardware stores will come in a 3 foot length. This is a bit long for our needs so cut it with a hacksaw to a shorter length. My choice is to cut it right in the middle yielding 2 each 18″ lengths for 2 holders. You could choose 12″ lengths but after burying 3 inches into a wood handle your maximum hollowing depth may not be sufficient.

Next comes the fun stuff. Place the rod vertically into a vise or clamp, mark the center with a marker or better yet scribe a couple intersecting lines with a nail, awl or X-acto knife. Use a center punch and punch the center for ease of starting the drilling.

Since there are rotational forces that will be working on the bit when in use, it is also a good idea to add a set screw or two to the side of the rod to prevent the bit from twisting. Some turners use superglue for this which seems to work fine, although it makes bit replacement more difficult.

An easy way to mark the side of the rod for the set screws is to simply run a file across the side with one pass while keeping the file held in a consistently "flat" angle. This will mark the steel with a small shiny flat which can then be used as a reference. Making sure the

reference line is at the top, scribe marks for your screw hole locations. The marks shown are at ¼″ and ⅞″ from the rod end, but the locations are not critical as long as you assure that the screws will in fact make contact with the bit when inserted. Punch these locations for drilling as well.

Place the rod into a drill press, up through the center hole in the table and clamp it in place. If your rod won't fit or drill press table has no hole then you might alternatively tilt the table 90 degrees and clamp accordingly. I use a wood screw clamp with a "hole" in the jaws to grip the rod. Drill a pilot hole in the rod with a spotting drill or other, preferably small and short drill that will not wander such as a ⅛″ bit. A spotting drill is made specifically for this, to be strong and not wander from the center punched dimple. Be sure to apply sufficient cooling oil during drilling or smoke is all you will get. The 3-in-1 oil brand is suitable, even motor oil if you're desperate.

Once a pilot is drilled switch to the larger diameter drill bit which will accommodate your tool bit shaft and re-drill the same hole to desired depth. For the hook tool, since the bit shaft is ¼″ dia. I use a 5⁄16″ drill bit which allows for shaft imperfections but is small enough for good support. The hole depth is about 1 inch. Don't worry if the hole isn't straight or exactly centered either. Do your best, but when you're using the tool to cut the wood "will never know". This process can be done with a hand drill if due care is taken. The results will perhaps not be as precise but the end result will work fine.

Remove the rod and re-clamp it horizontally for drilling the set screw holes. Again use a spot drill to prepare and then re-drill to a size appropriate for the set screw. A #29 drill bit is needed for 8-32 x 3⁄16″ set screws. There's a useful drill size conversion chart at http://www.csgnetwork.com/drillsizeconvert.html. A #29 is actually 0.1360″, a tad under 9⁄64″.

Once drilled, tap the holes with a hand tap using oil again, and you're almost done. In fact the only tasks left are cleaning up and assembly.

To ensure that the rod will fit into a hole drilled into wood for a handle if desired, grind the back end of the rod slightly easing the sharp edge and removing any burrs. Additionally, it's usually a good idea to round the working end of the rod a bit to prevent a sharp edge from causing injury or scratching your work. It's as easy as rotating the end of the rod against the grinding wheel, raising and lowering the far end until satisfied. If a nice shine is desired you may buff the steel or use sandpaper or Emory cloth to bring out the finish desired. Lastly, insert the tool bit and tighten the rear set screw ensuring it grabs the bit. Then install any other set screws. You may need to file the heads of the set screws slightly to bring them down to the surface of the rod, but be sure to leave enough hex socket to remove them later. If they are too long, remove them and grind down the other end. Congratulations — You're a machinist!

You can use this rod to hold many styles of bits like these below:

- Hook Tools for open form end grain hollowing
- Ball End Mills for open form end grain hollowing
- High Strength Cobalt steel tool bits for closed form hollowing (i.e. Ellsworth)

Sources:

M2 Hardened Wolok Hook tool bits ~$30. Mitch Wolok is in the AAW directory under Florida.

Andre Martel Hook tool bits: $40 to $90 depending on size at martel.public.netc.net//MHT.html

Ball End Mills are about $15 from Enco (www.use-enco.com) or MSC (www.mscdirect.com). The same sources carry Hard Tool Steel bits ($3) and ⅛″ Spotting Drills ($3)

These are normal hardware store items:

⅝″ Steel Rod - 36″ lengths $11 at Lowes
8-32 x 3⁄16″ Set Screws - 0.20c
8-32 Tap - $3
#29 High Speed Twist Drill bit - $3
5⁄16″ High Speed Twist Drill bit - $5
3-in-1 oil or cutting & tapping fluids - $3

Make your own hook tool by Alan Lacer at www.alanlacer.com/Articles.html

Info on Hook Tool by Mitch Wolok, on CNEW website

Other Open Shops

Nobody showed up at Hank Cahill's.

Phil Bowman hosted Steve Reznek and Will Hunt, who demonstrated the pointed inlays described in last November's newsletter.

Reid Gilmore's only guest was Jon Berke. They worked on a small hollow form in ambrosia maple, which may be finished by the March meeting.

Joe Harbey had a successful evening but I don't have a write-up or photographs.

Open Shop at Mike Peters

Mary Maguire

Here are the photos from the open turning at Mike Peters. I took photos of the table he made for his midi lathe so I could copy it for my lathe.

Mike gave me some great pointers I enjoyed it very much.

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The CNEW SKEW

CENTRAL NEW ENGLAND WOODTURNERS

Central New England
Woodturners
c/o Worcester Center for Crafts
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Worcester, MA 01605

Phone: 508-753-8183
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Central New England Woodturners
A Chapter of the American Association of Woodturners

On the web: www.cnew.org

To join or renew your membership, print this form and either bring it to the next meeting with cash or check for $20 made payable to CNEW, or mail the form along with a check to:

Treasurer
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25 Sagamore Road
Worcester, MA 01650

Name _____
Address _____
City _____ State ____ Zip _____
Telephone _____
E-mail _____

If you wish, please let us know more about you and your interests.

Old member New member Turning how many years? _____
Selling your work? Yes No Where? _____
_____
What programs would you like to see at our meetings?
_____
Would you be interested in demonstrating at one of our meetings? Yes No

Central New England Woodturners

The CNEW Skew

Volume 20 Issue 1 January 2007

Editorial

For a complete change this month, here's a story from the Free Wheelchair Mission about someone they helped in the Indian state of Kerala. Kerala is along the coast at the southwestern tip of India.

"Today is national polio immunization day. I will take my child to the nearest polio vaccine booth. The ignorance or negligence of my parents made me a polio victim. That shall not happen to my child. Thanks to Free Wheelchair Mission for giving me this wheelchair."

Saritha (age 23) became a polio victim at the age of 3. Her life was miserable due to her disability. Added to that, her parents took no interest in her life. Saritha fell in love with her neighbor and of her own will they got married. Only arranged marriages are welcomed in Kerala society. So her plans, a marriage based on love, were totally unacceptable to both parents. Saritha and her husband were sent out of the family.

Saritha continued, *"When my son Anil was born, I felt so sad. I could not take him him around in my hand. Taking children in the arms is the desire of any mother. My disability prevented me from that. It was my long dream. Now, the impossible is possible. Today your mission (Free Wheelchair Mission) made that dream come true.*

"When both families sent us out, we felt alone in this world. The wheelchair helps me to perform duties as a mother. Your mission helps the destitute like us. Tell the world that what we physically challenged need is not sympathy. We need support. Thank you Free Wheelchair Mission for that support! May God bless you all."

Containers of wheelchairs have recently gone to Kyrgyzstan, Costa Rica, Kenya, India, China, Ethiopia, Pakistan, Vietnam, the Philippines, Peru, Congo and El Salvador. What we do can make a real difference in people's lives. Here's Charlie at the Woodworks Show.

Contents

Club Officers and Contact Info for 2007

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Webmaster, Dave Eaton	508-653-6364	webmaster@cnew.org
Photography, Henry Fairlie		photography@cnew.org

More Photos from the Woodworks Show

Joe Harbey, Al Faul and Norm Mancuso manning the CNEW booth

Dave Eaton demonstrating

February Open Shops

Several members will be opening their shops to the rest of us in February. Open shop night will be on or around Thursday February 1st in place of our regular meeting. The members who have kindly offered to open their shops are

Phil Bowman (Newton Highlands, MA) 617-244-5379

Ken Dubay (Columbia, CT) 860-228-2695

Reid Gilmore (Upton, MA) 508-234-3188

Joe Harbey (Westfield, MA) 413-562-6705

Mike Peters (Sutton, MA) 508-865-0392

Hank Cahill (Abington, MA) 781-878-0234

Everyone has limited space and can only accommodate a limited number of visitors so if you want to visit, call the host as early as possible. The host will provide directions and other details, such as the date and time of the open shop, when you call. Maps are also available on the CNEW website.

Attendees at the various locations are asked to take (digital) photos at the shop. Please forward photo files to the Editor (preferred e-mail address graemey@verizon.net). It would be most helpful if someone could take notes and forward these to me also.

Mulberry bowl by Martin Ring

Minutes of April Meeting

Tim Elliott

Ex-president Dave Eaton introduced new president Al Faul. We had one guest: Josh, guest of Joe Harbey. Al introduced other new officers:

Mary Maguire - External VP
Reid Gilmore - Internal VP
Norma Hogan - Treasurer
Graeme Young - Newsletter
Tim Elliott - Secretary
Henry Fairlie - Photographer
Dave Eaton - Webmaster
Chris Bonczek - Video librarian
Ray Boutotte - Book librarian
Gene Spadi - Woodswap, Freedom Pen project
Charlie Croteau - Project Goodwill

Ex-treasurer Mickey Goodman gave a summary of our finances: In December the club took in dues for two members and was reimbursed for the cost of the booth at the Thanksgiving Craft Fair.

start: $667
end: $1404

Summary of all of 2006:
start: $1200
income: $5783
spent: $5568
end: $1404

Charlie Croteau reported on Project Goodwill. We have raised another $540, due in large part to a number of matted photographs donated by Conrad Berthold. This month, there will be an auction in conjunction with the wood show at the Big E fairgrounds. Several members brought items in for this event.

Charlie also noted that his wood donor has offered to provide materials suitable for larger projects if any members would be interested in making, say, furniture to donate to this cause.

Joe Harbey again organized an open turning session before our January meeting. There will not be an open turning session before the February meeting, as we will have our annual "open shop" visits - not at the Worcester Center for Crafts.

Norm Mancuso and Frank White gave an update on the regional symposium begin organized for Connecticut in June. The website is up (see link on CNEW website) and registration will open in February or March. Volunteers will be needed, and the organizers are hoping to draw from the rosters of contributing local chapters (us included). Please notify Al Faul if you would like your name excluded from the list of possible volunteers. CNEW's application asking the AAW for educational funds to help support this symposium has been completed and will be sent to AAW bundled with similar applications from six other chapters.

February will be an Open Shop meeting - your opportunity to visit the home of some other CNEW member for shop talk and inspiration. Six volunteers have agreed to open their shops for the night, but space will be limited and you are expected to contact the shop host prior to the meeting night to confirm your attendance and get directions. Our volunteer hosts are:

Hank Cahill Abington MA
Ken Dubay Columbia CT
Joe Harbey Westfield, MA
Mike Peters Sutton, MA
Reid Gilmore Upton, MA
Phil Bowman Newton Highlands, MA

We intended to purchase a Talon chuck for the Worcester Center for Crafts at the end of 2006 in appreciation for our meeting space. Bobbi Tornheim may have bought this, but she was not present at this meeting. Phil Bowman will follow up and buy the chuck if she did not already do it.

Richard Vose has been contacted by the organizers of the woodcarver's show next October. Since only 2 CNEW members attended in 2006, he asked for a show of hands to get a sense of likely level of support in 2007. Several members showed an interest and we voted to participate again.

Reid Gilmore collected names of members planning to demonstrate at the Big E.

Dave Eaton had hook tools available for purchase.... also, he is working on thin-kerf parting tools and sharpening jigs. See him at a meeting if interested.

Will Hunt donated two books to the CNEW library.

Simplified Tool Making

Jim Kephart

The first thing I must do, like Norm Abrams in New Yankee Workshop series on PBS, is to warn you about shop safety. An active wood turning shop has more than normal amounts of very combustible materials. Wood dust and shavings are not a fire marshal's dream environment for using open flame torches. I recommend you either clean your shop, or take your tool making outside or to a more fire safe area. This does not necessarily mean that your garage with its gasoline cans and lawn mowers is a safer area. Use some common sense and examine the area before proceeding. It is also a good idea to keep a bucket of water available and/or a large fire extinguisher. Oh, and like Norm says, remember the safety glasses. Other items like leather gloves etc. may be advisable if you plan on doing a lot of this sort of thing. One additional rule from an old chemistry teacher, "**Hot things look like cool things**."

The principle is relatively simple, you heat a good piece of steel until it becomes non-magnetic (i.e. a magnet will not stick to it), then quench it in the right material. It will harden. The problem is that it is usually too hard for practical use. It is too brittle for our use; any shock and it will shatter leaving a broken grainy surface between the two or more pieces. So to make the steel handle shock and stresses better, we have to temper or remove some of the hardness in hopefully a controlled manner.

What you need to make a couple tools:

- pliers
- fire proof backdrop preferable, firebricks (avoid regular bricks, they may explode if damp)
- magnet
- torch propane or better still MAPP gas torch
- safety glasses, fire safe area to work
- quenching bucket with either oil or water as appropriate
- steel: prefer high carbon or high speed steels
- a fine file to test hardness
- grinding wheel

Set up a fireproof backdrop in a safe area. I used to use a MAPP gas torch to heat metal being held in a pair of pliers, but most of the heat just blows by the tool and is wasted. I now use 3 fire bricks set up to form an "L". This helps to hold and reflect the heat back to the metal being heated (see photo).

Set up a bucket with the correct quenching material. You may ask what is the difference. Some steels call explicitly for either oil or water hardening. Some oil hardening steels may develop fine cracks in sections thinner than the main piece of metal (like knife edges) if quenched too quickly, so oil may be preferred. During oil quenching, the oil may catch fire on the surface, which is easily blown out. In any case, hot metal in cool oil will smoke profusely and smell up the house for hours. So **now**, I usually use water or quench outside. Unless you are making edge tools with the edges forged verses ground, water should work fine for most materials.

Using the MAPP gas or propane torch, heat the tool evenly until it glows red. At this point any bending should be done with pliers and bench vise. If the tool must be drilled or otherwise rough machined the steel should be allowed to cool very slowly, this is called annealing. It will leave the material soft enough to drill or file. If it seemed to get harder from annealing you may have found a weird material called air hardening steel. I found some the hard way.

After the shape has been formed, the tool must be hardened. Reheat the tool to red heat then start checking to see if it sticks to a magnet. If it has become non magnetic, quench the tool in the bucket of oil or water by swirling the tool continuously until the tool stops sputtering. Once the tool is cool enough for handling, it should be tested with a fine file to determine if it is hard enough. If the steel is a good high carbon steel and was heated/quenched appropriately, the file should just skate over the surface of the newly hardened tool. If the file bites into the tool and removes material, the steel is either not hardenable or was hardened incorrectly.

At this point the tool is too hard to be used as is for most applications and should be tempered or softened slightly. The principle calls for a reheat of the tool to about 300 to 400 degrees Fahrenheit. This can be done by baking the tool in you home oven for an hour or more depending on the thickness of the metal, or reheating with a torch. Someone at the 1993 Symposium suggested using a "Fry-Daddy" deep fat fryer with vegetable oil. Until I find one at a tag sale, I dip the tool in water, then heat it until the water boils off, then guess. If it is a thick tool, I'll wait 10 to 15 seconds more, if it is a thin ⅛″ inch or so, I'll remove it sooner. Quench the tool as before.

Now all that is left is to grind whatever cutting or scraping surfaces are required to finish the tool and glue it

into a handle. Handles, well now maybe that's another article. The only way to determine if the above worked is to use the tool: if it holds an edge without shattering, you did good.

Found steel is always hard to determine what it is and if it will harden. High carbon steels can be identified by the spark pattern formed in the air by test grinding. Other steels which are special alloys may work well but may require methods different from above. If the steel is purchased from a supply house, the material hardening temperatures etc. will be known. Unfortunately, unless you get someone like Al Bugby with his metal working furnaces it is tough to measure or heat to exact temperatures. Other books exist on the topic and describe how to judge temperature by the color of the steel in a darkened room.

Anyway the above process will work with a lot of materials with fair success if you are willing to experiment and that is just what most hobbies are an excuse for.

Sources of materials:

drill rod can be oil or water hardening

allen wrenches, (prefer long arm) may be used as bent scrapers without hardening or tempering

old high speed steel drills long shanks (if bending is not required, may be used as is)

old screw drivers steel test with file (useless extra screwdrivers in Sears sets.)

flea market stuff (test with file)

do **not** use hardware store steel rod (low carbon steel will not harden well)

Wholesale tool supply (in Mass.), 800-343-1008

Production Tool Supply 800-362-0142

McMaster Carr

MSC

ENCO

Woodworks Show 2007

Dave Eaton

The 2007 running of the Woodworks Show show was a great success! We received inquiries from over a dozen people about joining the club, sold a few things and took in $1,800 in donations – enough for about 40 wheelchairs – with Charlie's tireless work at the adjacent Project Goodwill display.

We had both club lathes running almost all the time and a constant crowd of onlookers as Joe Harbey, Norm Mancuso, Dave Eaton, Al Faul, Charlie Croteau and Alan Gilbert manned the tools.

Close by were the Central Connecticut Woodturners and the CT School of Woodworking so many turners we knew were out and about. Ken Dubay, Rick Angus and Al Czelleczs were working and many other folks from CNEW or ART popped in from time to time.

Thanks to everyone who worked hard to make this event a success. You each deserve a big round of thanks. With many new prospective members resulting from our time at the show we'll hopefully get some new blood into the club in 2007.

Next year I believe we'll do this event again thanks to the support of our members like Reid Gilmore, Charlie Croteau, Joe Harbey and Dave Eaton as well as others I'm surely missing. We should also thank the Woodworks staff, Judy Franks, and the management without whom we would not be able to partake in such a wonderful event.

If you missed this year be sure to join in next year. The CNEW booth is fun and the show overall is great! So many woodworking vendors under one roof. Wow!

THINGS WITH HOLES

Clockwise from top left:
Lilac root vessel by Joe Harbey and ants
Hollow form of oak burl with bloodwood collar by Frank White
Cherry burl by Dave Hopkins
Inside-out ornament, maker unrecorded
Another oak burl piece by Frank White
Pierced walnut vase by Mickey Goodman

THINGS WITH LINES

Left to right: Baltic birch plywood bowl by Phil Bowman, teak and maple platter by Steve Reznek, perfume sprayer by Rick Gonzales.

SHOW AND TELL

Photos by Henry Fairlie
Apologies for any incorrect captions ☹

Joshua Fuller, first bowl (cherry)

Graeme Young, large maple bowl

Rick Gonzales, large catalpa bowl

Joe Harbey, very large lumpy bowl

Rick Angus, curly maple bowl w/natural edge

Dave Hopkins, cherry burl bowl

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Name _____
Address _____
City _____ State ____ Zip _____
Telephone _____
E-mail _____

If you wish, please let us know more about you and your interests.

Old member New member Turning how many years? _____
Selling your work? Yes No Where? _____
_____
What programs would you like to see at our meetings?
_____
Would you be interested in demonstrating at one of our meetings? Yes No