

The CNEW Skew

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President's Message

Hello all, it was great to see an awesome turnout for the last meeting, especially considering the circumstances we had with postponing the meeting. I hope everyone gained some insightful knowledge watching Jim Kephart perform his demo on duplicating spindles. I could have used his advice years ago when I first started turning, as I got into turning because I wanted to make 4 turned legs for a dining room table I was making. The hardest part for me was going from square to round, and hopefully Jim's techniques will help me out the next time I need to make some table legs. Hopefully you all will join us again for our next regular meeting where Frank White will demo hollowing the old fashioned way.

Right after the next meeting I am taking a trip up to see Johannes Michelsen's shop and to partake in a weekend workshop where I will turn my own hat. It's been one of the things I have wanted to do for a long time, and decided it's time to do it. I am hopeful I will have the time to do a full write up when I get back for the next newsletter. Wish me luck that I don't mess up too much, it would be a shame to not come back with a well turned hat.

I hope everyone is finally enjoying the warm spring weather and are all back out in the shop. It won't be too long before the heat starts to set in, so get in your turning while you can. While I can finally get back out into the shop myself, turning has taken a back seat till I am finished with spring clean up.

Finally, from myself and all the members of our club, we all would like to wish Ken Dubay well and hope he has a speedy recovery from his accident.

Editorial

Turning Functional Lace Bobbins

In case anyone feels like putting into practice some of what Jim Kephart talked about in this month's demo, I offer a simple project which will allow you to make several of the same item without using a lot of wood. See if you can get two of *these* darn things to match! The project is a lace bobbin, specifically a bobbin in the Bruges (Belgian) style. First, a little background from my wife and resident lacemaker on the functional requirements for lace bobbins and why it is important that they match.

The basic shape of the lace bobbin has undergone few modifications in its long history, simply because it works. There are in fact different shapes, but primarily because they are used for laces that are created using different techniques, often a cultural distinction.

To my mind, the British Midlands bobbin is the most beautiful, or it was until I saw the work of a Dutch wood turner who created the most incredible Belgian style bobbins, sometimes embellishing them with sil-

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Club Officers for 2005

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Minutes of April Meeting

Tim Elliott

The meeting was delayed one week from our normal time due to a scheduling conflict at the Worcester Center for Crafts.

Visitors: Mike Zayack, Ernie Morse, Joan Jensen and Fran Tessicini. Frank Movitz claimed to be attending his first ever CNEW meeting, though he has been a member for 7 years!

CNEW member Ken Dubay has been recovering from an injury - he cut a finger on his tablesaw. We voted to send a get-well basket.

President Ray Boutotte has permission from the Craft Center to install a locked cabinet for on-site storage of CNEW materials. We're looking for a cabinet, but if nobody volunteers one Ray will purchase one. We voted on a budget of \$100.

Please remember to pay your dues if you have not already done so. Payment may now be made via the web using PayPal (to treasurer@cnew.org).

Jack Grube is still seeking demonstrators for a teacher's conference in Worcester on October 14. He will attend a CNEW meeting this Spring to give a more detailed explanation of what he needs and sign up volunteers.

CNEW has signed up for a 10x10 booth in a craft fair in Lowell August 26-28. Members are invited to participate; terms will be comparable to what we normally do for the Worcester Center for Crafts shows. Booth cost of \$450 will be divided among the participants based on a flat entry fee per person with the balance made up

of a percentage from total sales. Contact Reid Gilmore if interested.

The Cape Cod AAW chapter will host demonstrator David Ellsworth on June 11/12 in Hyannis, MA. Contact them for details.

The Totally Turning symposium in Albany NY is scheduled for October 15/16 2005.

The business meeting was kept short this month in order to accommodate a longer demo (Jim Kephart on spindle turning and duplication). There was no show and tell.

Bobbi Tornheim is looking for someone to do a little experimenting on Multi Access Turning for a demo in June or July. Also, she would love if someone would create a demo on making art out of mishaps. Maybe we can have an open forum, rather than a demo.

May Program

The next meeting will be on Thursday May 5th beginning at 6:30pm, at the usual place. For the May meeting we will have Frank White doing a demonstration on "Hollowing the Old Fashioned Way". This will be designed for the wood turner who has not invested in the latest laser equipment as we have seen so much of that, and will be good for beginners or low tech turners. Show & Tell will be back after the regular business meeting so bring some of your recent work. There will also be a Wood Swap, always assuming that at least a few of us have accumulated some quantity of swappable wood.

Duplicating, or how do I make two or more of these darn things?

Jim Kephart

Graeme is a very good newsletter editor. He strong armed me, twice, to write-up some notes on my presentation. So here are some after the demo ramblings about what I thought I covered.

There are 3 main problems with duplicating: **accurate placement** of each turned element on every spindle, how to **accurately size** each element, and how to consistently **reproduce the shape** of each element.

Accurate placement is accomplished by the use of a story board. This is a piece of wood scrap with a profile of the turning drawn on it. It also has layout lines drawn to delineate the start and end of each bead, cove, flat, etc. that makes up the turning. The storyboard is used to mark the lines on the spinning turning. The lines on the turning can then be used as a map or layout of where each element starts and ends. The map can be confusing with a complex turning, so like a map, it is handy to develop a key or legend to help remind you what is a bead or cove. I use a simple line to define boundaries. A heavy wide scribble is used to denote the high point or curve change on a bead or urn. I use a very light double line for the center (bottom) of coves or urn necks. The double lines need to be very close to each other (smaller than your narrowest parting tool).

Accurate sizing is accomplished by using calipers and parting tools to part down to a finish diameter. I prefer vernier calipers for 3" diameters or smaller. Use outside (spring) calipers for larger diameters or any very deep sizing next to higher shoulders. Vernier calipers tend not to flex and can more accurately size an element quickly. A vernier caliper can also be used to backup a turning and steady it. An outside caliper can spring over the turning early leaving the element over sized.

I usually set calipers oversize by a 32nd of an inch to allow for the final cleanup or shaping cut. The result is a little like a connect the dots drawing. Remember when parting to leave room next to a bead or other element to make the cleanup cut otherwise your beads

will be consistently narrow. I usually leave a 32nd inch for cleanup.

The next step is to connect the dots.

Accurate shape reproduction is helped by suspending the original item behind the lathe in line with the new turning. I can then look up at the original to refresh my mind exactly what the subtle shape is before turning the new one. Remember, if the original is ugly, muddy or misshapen then so must the new one. You are "duplicating". If all the turnings in a set are being replaced, I will ask if the customer wants to have it cleaned up.



On most turnings I can just start from left to right, but some thin turnings work better to turn the center first and work outward a little to each side at a time. This keeps more material to the outside for stability.

The following is a **generalized step by step**, some turnings may vary due to specifics of their shape.

Most spindle turning is related to furniture making or construction. These types of products rely on kiln dried material for stability. A hunk of green tree limb will not work (unless traditional Windsor chairs) for furniture. Furniture makers expect straight dry square stock.

If a turning requires square shoulders:

- Rough cut materials to 1" over length and ¼" oversize (adjust if wood is not very straight) also remove any end checks
- Flatten one side on a jointer
- Flatten a second side square to the first side
- Count fingers
- Use a planer to make the two remaining sides parallel to the first two reference sides.
- Use a table saw to trim one end then cut to final length (it is easier on a saw than a lathe).
- Mark square shoulder transitions with a square and pencil (one side is enough)
- Optionally use a table saw to pre-cut shoulders for tenons.

If the turning is round:

- Rough cut materials to 1" over length and 1/8" to ¼" oversize (adjust if wood is not very straight).
- Use a table saw to trim one end then cut to final length (it is easier on a saw than a lathe).
- Mark centers.

Center the turning on the lathe. Check the spinning wood for center by watching the ghost. If the outside edge of the turning square is not very crisp (multiple ghost edges) then the wood is not centered well. Use the long point of a skew to lightly nick the turning wood (on a surface to be turned round!). Stop the lathe, the wood will now have a nick on 1 to 3 sides. Shift the center to adjust. The heavier the nick the farther out of center it is.

Rough cut shoulders for square to round transitions with a skew (or skew and thin parting tool combo as

demonstrated) and rough turn the round section to the size of the largest element with a roughing gouge.

Use storyboard to mark the element positions.

Cut the pommels or square transitions. These are usually straight 90 degree, curved, or lambs tongue. A square shoulder must be cut with a skew. A curved



shoulder may be cut with a skew or spindle gouge, and a lambs tongue must be cut with a spindle gouge. Remember, with the skew use the long point and rub only the leading edge of the bevel. Swing the handle to align the bevel and use it to sight the cut

Use calipers to size the individual elements.

Connect the dots using the original (placed behind the turning) to verify shape.

As you turn, remember the tool is not a harpoon and the wood is not a whale. Control is important. Follow the following steps:

- Place the tool on the toolrest
- Contact bevel with the wood in a high non-cutting position.
- Transition to cutting by sliding the tool down on the rest until a crumb of shaving starts to form on the tool. Stop sliding. You now have a bevel rubbing cut. I call this picking up the edge.
- To make a light cut push with light pressure, to

make a heavier cut press harder but do not change the tool angle

- Sweep tool to make cut

Repeat this for each element until done. Remember, a complex turning can be simplified down to turning one element at time.

Before sanding, I usually stop the lathe and hold the original next to the new piece so they only have one profile. I compare the profiles to verify the shapes

more crisp the turning will remain. For beads hold the paper curved over the surface not flat to it. For coves fold the paper into a “U” shape to fit the shape, do not cross over the edge of the cove or you will round it over.

Paint grade is usually sanded to 120 grit, furniture grade is 150. Also for furniture grade stop the lathe and sand long flats and tapers with the grain direction to minimize sanding scratches.



match. If I am happy with the effect this close nobody will notice any differences at 12 inches apart or more.

Sand carefully, continually changing spots on the sandpaper to prevent burnishing with overloaded paper. Remember to clean the sandpaper periodically with slapping against something or better yet with compressed air.

The tool finish may have some light ridges but should not have torn out grain. Sanding should refine not sculpt.

With a good tool finish you can start sanding at 120 grit. Avoid 80 or 100 grit, they tend to leave excessively deep sanding scratches and you will spend too much time sanding them out. The less sanding you do the

I also talked about different ways to hold problem turnings and still stay alive.

I also talked a little about honing spindle tools. These tools must be sharp enough to shave hair or they will misbehave. I use the concave surface of the bevel as a guide to hone. I only hone on the down stroke to prevent drawing out a wire burr. Two to three strokes per side is usually enough to revive an edge.

It is now about 3 hours after I started this, so I will use this as an excuse to wrap it up. With the above methods and practice, you should be able to have some fun and actually make something that matches.

Jim Kephart

ver, sometimes just making them so irresistible to the touch and to the ear (the clacking of one bobbin against another as you work) that it made me see the potential of this style of bobbin as a work of art.

The difference between these bobbins is that the first, the Midlands, cannot be used without a “spangle”, a weight, usually made of a loop of beads, though I actually have one with a miniature inverted Space Needle as its weight! This is because the bobbin is skinny, with little weight of its own to assist the lacemaker in tensioning. The other, very valuable, function of the loop of beads is to prevent the bobbin rolling on the pillow and either twisting or untwisting the work thread. An interesting bobbin design, together with a beautiful bead spangle is, to my mind, a stunning work of art.

The Belgian bobbin had always seemed much more utilitarian in comparison, but it is the one I work with most frequently. This is a bobbin with a narrow neck and a more bulbous base for weight. There is nothing to prevent it rolling on the pillow, but the base is slightly pointed so that it can be used for “sewing”. That is, one makes a loop of thread in the work, and the base of the bobbin can pass through easily, which is not the case with a spangled bobbin. This pointed end is actually at its most extreme in another British bobbin, the Honiton Bobbin, which is used in a technique that involves a great deal of sewing. This bobbin is as thin as the Midlands with a fairly sharp point at its end.

The purists among us would not consider working with plastic bobbins. They are not pleasing to the touch, they are too light.....they are simply not wood! However, I also find I cannot work with some of my beautiful antique bobbins. Sometimes it is because of wear, sometimes it is because the neck that holds the thread was obviously intended for a very fine thread and will not hold sufficient of a heavier gauge.

Which brings us to the topic of what the woodturner needs to know to create a functional bobbin. Believe me, I love designs like the “mother and babe” to look at, but they do not feel good to work with. The fingers need to work fast in lacemaking and the inconsistencies of surface are a problem. Smooth inlaid patterns make the bobbin much easier to handle. A heavy bobbin amongst a handful of light ones can also be a problem.

There should be plenty of space for winding thread on the Midlands bobbins as well as the Belgian ones, which traditionally have considerable space for this.

Most lace bobbins are paired on the pillow, which means that if the lacemaker wants one bobbin, they generally want two the same.

Feel, weight, consistency and finally length. It is very hard to work with one bobbin that is 4” and another that is 4½”. It helps to keep the threads you work with at the same length and in order to work the bobbins, it is hard to have some falling below the rest.

Functionality means a lot, but my collection of bobbins is so large that a new one really has to interest me before I make another purchase!

Hazel Young



The photograph above shows several Midlands bobbins, with a 6” ruler for reference. The body of the bobbin is generally about ¼” in diameter, the neck about half that. There are a great many ways to turn the body of the Midlands bobbin, some of which show the bobbinmaker’s skill better than they serve the lacemaker’s purpose. The “mother and babe” Hazel mentions is one such (a fat body with lengthwise slots and a tiny bobbin inside). Spiral work is another, also heavy V-grooves or a lot of tall beads. The Bruges style of bobbin is much simpler, being a straight stick with two discs at the top to define where the thread is held and a bulb at the bottom to provide weight. At the base of the bulb is a small bead that is used to pick up the

loop of thread when “sewing”. Mostly lace is made by laying out the pattern with pins and passing the bobbins back and forwards so the threads criss-cross one another much like a fishing net. It is not at all unusual to find a hundred bobbins in use on a piece of lace.

The full-size template for the Bruges bobbin is on p. 8. Cut it out and split it lengthwise down the centre. Mount half on a piece of card or thin plywood and you have a storyboard. Or mount both halves on opposite edges of the card, facing in the same direction. I usually turn these with the bulb towards the tailstock but if there is a particularly nice piece of figure at one end I will sometimes reverse the layout. In that case it is useful to have a second storyboard oriented the other way.

Any piece of wood 5” long and at least ½” square is enough to make one of these bobbins although at this scale a dense, close-grained hardwood is best. Turning is straightforward and is a good exercise for a (small) skew chisel. After sanding to 600 grit, just a little finer than furniture grade, I apply Shellawax cream which is a friction polish. The Shellawax does not give the same high gloss as some friction polishes but I think it looks more natural and feels better for an item like this that will be handled a lot. I part off at the tailstock end first then use a wooden cone centre to hold that end while I part off at the headstock.

Book Review **Dennis Daudelin**

Segmented Turning - A Complete Guide
Ron Hampton

Ron Hampton, a professional dentist and woodturning hobbyist has recently written a new book on segmented turning. Ron is well qualified to write this book, as he’s already the author of over 70 articles on woodturning. Ron is also the creator of the Woodturning Plus website. As a segmented turning fan, I was anxious to get the book and learn some new techniques. Ron’s book was no disappointment. The book has wonderful, large color pictures of both finished turnings (his and others) and of all the techniques that he explains in the book.

Ron starts the book with basics for turners new to segmented work. A Health and Safety chapter starts the book. It is a good refresher and well worth a quick read no matter how long you’ve turned. Ron then quickly gets into the meat of the topic with techniques for drawing segmented vessels and planning segmented rings.

He then shows how to deal with segments including all the details of determining angles and lengths. He even shows how to create a bill of materials for the project.

Ron then goes through several different ways to cut accurately the angles of the segments. He covers a couple of store bought tools and then provides detailed instructions to enable you to build a copy of his table saw sled. In my experience a table saw sled is a wonderful way to make accurate segments. The only other reliable way is to use a high quality chop saw.

Once Ron finishes with the basics, he jumps right into making projects. He goes through the process of making 9 different segmented vessels. In each of the projects, he briefly covers all the steps and any specialized techniques necessary for completing the segmented turning. The projects include bowls, a platter, hollow vessels and even a segmented birdhouse.

One of the best parts of the book is located in the back and is called A Gallery of Segmented Turnings. This section contains large color photos of segmented turnings from a wide range of excellent segmented turners. Most of the names will be familiar to anyone who has studied segmented turning. The pieces in this section are absolutely stunning and very inspiring!

I find that Ron only briefly covers many of the details required to turn segmented pieces. I wish there were more descriptions of the individual steps in making and gluing up the segmented pieces. One detailed project would have been a bonus to this otherwise good book. I also wish that he would better describe how he turns the inside of the vessels, as that would help me. In general, I feel that more detail would make it easier for beginners.

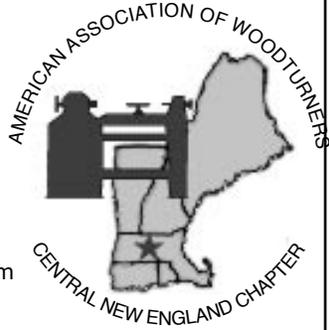
Since I’ve already turned many segmented pieces and have learned many advanced processes and shortcuts from Will Hunt, I’ve learned to do many things differently than Ron recommends. However, like everything in woodturning, it’s not an issue of being right or wrong just different. One example is that Ron cuts all of his lumber to a 40” length. I seldom need this much wood to make my rings so I find this technique wasteful.

In addition, I design all of my segmented turnings using a software package called Woodturner Pro made by Lloyd Johnson at www.woodturnerpro.com. Besides giving me all of the segment dimensions, this software provides the length of each board needed to make the

**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: graemey@mindspring.com



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



On the web: www.cnew.org

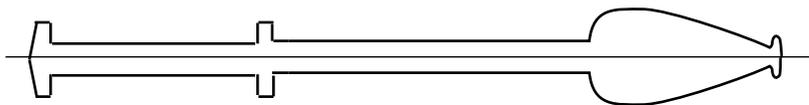
segmented rings. Using this automated bill of materials helps me build segmented turnings more quickly and to use my stock more efficiently.

I think beginners and most experienced turners will learn valuable lessons from reading this book. I recommend buying the book. It is available from Ron's website as well as the usual vendors.

For turners new to segmented turning, I would also recommend getting Bill Kandler's new segmented turning book, *Segmented Turning - A Good Start*. I think that this is another good book for beginners. It does cover areas of segmented turning not covered in Ron's book. It is available from Bill's website, www.verifiedsoftware.com/goodturns/index.html. It's a little pricey but will fill out all the issues related to segmented turning.

For experienced segmented turners, I highly recommend the book from Tahoe-based turner Malcolm Tibbetts called *The Art Of Segmented Wood Turning: A Step-by-step Guide*. I saw Malcolm at the AAW Symposium last July, and was very impressed with all the techniques that he demonstrated. Putting this knowledge into a book will substantially advance the field of segmented turning.

Malcolm has documented many techniques including several different lamination styles, portholes and an incredibly challenging project of making a segmented icosahedron. His website (www.tahoeturner.com) is well worth visiting to see his wide range of exotic segmented turnings.



Diameters for the bobbin parts:
Shaft: 4.5mm
Both discs: 10mm
Bulb: 11mm