

# The CNEW Skew

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## Editorial

Several things came together to inspire an editorial this month: Dan's comments on how fast a bowl could be turned, Dennis's observations on the Legacy mill, and a thread on the WoodCentral turning forum about creativity. That, and the need to fill up this space!

Keith Tompkins started the Creativity thread by asking how people came up with ideas. The responses fell mostly into two camps: those like Keith, who develop a design and a plan to achieve it before they turn on the lathe, and those who start with a piece of spinning wood and make decisions as they go along. I myself fall into the latter category. Most of my bowls start with no clear plan, I just get the blank down to round then start looking for the nearest attractive shape. While this approach works most of the time, it has limitations....

One piece I started recently looked like it could become something like Ray Key's pagoda boxes. I cracked one box but finished the piece anyway, which taught me something: this particular style of stacked box requires careful measurement. Either all the boxes have to be the same or they have to gradually reduce towards the top. My stack very obviously does neither.

Many wonderful pieces can be made without ever measuring or planning. You don't need to lay out curves according to mathematical equations in order to produce a well-proportioned bowl or hollow form, you just need to be able to see when you have it right. Adding a deco-

orative band, changing the shape of a rim or foot, none of this requires anything much in the way of planning (so long as you still have enough wood). Even a lidded box with a well-fitting lid can be done without measuring.

There are, however, some types of turning that cannot be done without planning. The most obvious is segmented work: you have to have a design before you start cutting. Other pieces, like Keith Tompkins Rose, start with a detailed design and a planned sequence of steps to turn the design into reality. Then there are the sculptures of Robyn Horn and Stoney Lamar that hardly seem to have been turned at all, but must have taken a great deal of time to set up on the lathe.

I think what distinguishes those who regularly produce extraordinary turnings is not technical skill or artistic genius. Rather, it is having the imagination to come up with an idea, the patience to work through all the steps and most importantly the desire to turn the idea into reality. For myself, the Rose or perhaps Michael Hosaluk's playful objects might one day inspire me to do something vaguely similar, while Malcolm Tibbett's complex segmented pieces or David Nittman's Baskets of Illusion will always strike me as too much work and not enough fun. I think any of us can produce extraordinary turnings – but first you have to really want to. And if you don't ever want to do that, there are still plenty of great turnings you can have fun making.

## March Program

Thursday, March 4th

Paul Charbonneau will talk about the use and care of bandsaws. Hopefully Paul will be able to demonstrate some of his points using the machines in the wood-working shop. Show & Tell will follow 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 bring some wood to swap.

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## Club Officers and Contact Info for 2005

President, Ray Boutotte  
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### Shop Visit Joe Harbey

CNEW members and guests began arriving at 6:30 pm: Dan Jones, Frank White and Ken Ertel of CNEW, Mark Lisowski (guest and woodturner), Russ Ellis (antique tool collector), Jerry Cain and Jim Adams (guests) and Carl Fisher (guest and photographer).

After introductions we began with Russ, who displayed a variety of 18th century tools and discussed their history. We were impressed at their condition since Russ had them all clean and buffed.

We continued with a mini show and tell. Ken showed some very unusual turnings he made for Smith College from rare woods supplied by the college from their greenhouse and arboretum. Next Frank showed an outstanding turned and carved platter and vase. I also had the opportunity to show.

Mary in the meantime had been bringing in food and goodies so we took a break and socialized.

Mark (not a member yet) gave a demo on turning spheres with jigs he made to fit his Jet mini that can be made to fit any lathe.

Guests were impressed by the work we do and after more discussion began to leave. I think the evening went well from comments heard.



Turned and carved piece by Mark Lisowski



A selection of turnings by Ken Ertel for Smith College

## John McAtee Open Shop Visit

### Dennis Daudelin

This year I chose to visit John McAtee's home in Shrewsbury. I chose John's shop because I know that in addition to the very nice turnings that John makes, he has a secret weapon. This is the tool that allows him to make the wonderful hollow spirals, fancy inlays and other special details that you've seen on his "show and tell" pieces at the club meetings and which makes John's turnings stand out of the crowd.

So, on a dark, snowy, Thursday night a small group of CNEW members visited John's shop. John's lovely wife made some great treats for the group and provided some cold refreshments. But after looking at some of John's completed turnings, we were anxious to get a tour of his shop. John's incredibly clean shop was a treat to visit. He has a full shop of flat woodworking tools including a table saw, drill press, band saw, jointer and planer. The only difference with John's tools is that they are all professional grade, no Home Depot specials here. John has also cleverly hidden his dust collection system in a closet to keep it super quiet. In the front corner, John has his Oneway 2048.

But after seeing the "normal" tools, I wanted to see John's secret weapon. John proudly displays this secret weapon on one end of his shop. With much eagerness on our part, John introduced us to his Legacy Ornamental Mill.

The Legacy Ornamental Mill is a woodworking tool that allows you to turn wood without a lathe. Yes, without a lathe! Is it heresy for a woodturner to say turning without a lathe? I think not as its claim to fame is the ability to cut reeds & flutes, tapers, spirals, turned beads & coves, mortises, rosettes, contoured profiles, and more. And I know that I can't do all of this on my Oneway lathe!

The Legacy works much like a true milling machine meaning that it has the ability to do controlled cutting in all three dimensions; x, y and z. To do that, there is a large metal frame that has not only your four standard corner legs but also 2 middle ones which combined hold up a x/y/z chassis.

John has mounted his Legacy to a beautiful, drawer laden, shop built cabinet which raises it to a comfortable working height. To start with, all the cutting is done with a router. A larger router, preferably 3 HP with a 1/2"

shaft is used. This is not your normal home router, this is a heavy duty router. John has one of the new Porter Cable routers with the plunge base.

The router is mounted to the top of this x/y/z chassis. This main chassis acts much like a compound slide on a machinist lathe having feed screws enabling you to precisely control the cuts with crank controls or if you choose to make free-hand cuts. The cranks give you the x/y control. The coarse "z" control comes from moving the chassis up and down within the frame using double Allen screws at each one of the six uprights. The fine "z" control comes from the plunge base of the router.

In addition, there is a complete index plate setup on the end of the Legacy which controls the spiraling, both left and right hand spirals. The index plate can also help you control the cutting action in defined divisions around your turning. John has equipped his Legacy with a horizontal table which is also indexed enabling him to mill flat stock too!

John's Legacy has a MT#2 headstock for standard drive spur use and the headstock is also threaded so that he can use standard chucks. Just think, you can turn something round on your lathe, unthread the chuck and then mount the piece onto the Legacy to create spirals.

John had encouraged me to bring some lumber to test the Legacy so I brought a piece of very straight grained mahogany. I was anxious to see a spiral cut on the Legacy. So, I first ripped my board of Mahogany to a square and then turned it round on his Oneway lathe. Then John helped to set up the Legacy. Setup is the key to this machine. Come to think of it, it's the key to all woodworking machines. I typically spend more time doing setup than the actual cutting operation. I guess it's one reason that I seldom make one of anything. Just doesn't seem efficient to me!

The first step on the Legacy is to adjust your "z" axis. To do this, the table had to be raised (or lowered) which required an adjustment at the 6 uprights. Then with John's guidance, we mounted the blank between centers using a drive spur and the standard live center in the tailstock. John showed us that it's easy to leave the tailstock somewhat loose which could be disastrous.

Now, we could focus on the router and the cutting we wanted it to do. First John changed the router bit to one that we would use for spiraling. John has a "eliminator chuck" mounted on his router which allows him to

use Allen screws to perform a quickly change bits. It's much easier than the standard router mounting setup. John also buys special bits for use on the Legacy. Most of them are plunge bits, although John did show us one with ball bearings. He explained that this bit followed the outside of a piece and cut grooves into it.

Then John set up the "y" axis so that the bit started inside the piece on the right (headstock) and moved to the left stopping before the tailstock. He set stop blocks for each side, once again using an Allen screw setup.

Next the "x" axis was setup so that we had stops on either side of the work piece, front to back. And the plunge depth was set so that the shoulder of the router bit just rested on the work piece. John also engaged half-nuts to tie the x/y controls down to the feed screws. This would enable us to use the cranks to automatically feed the router across the piece and then down the piece.

Lastly, John selected the correct index plate to match the size of work piece that I had brought. Once installed, we were ready to "go for it"! We cut a relief cove at the top and bottom of the work piece by starting the router, and cutting through the "x" axis using the cranks to feed the router across the work. This would be our entry and exit points for our spirals.

Finally, John engaged the indexing system and we moved the router into the center of the work piece within the cove at the headstock end to start our first spiral. Then the crank for the "y" axis was turned as the work piece was rotated. During this operation, the router moves from the headstock to the tailstock stop blocks, and the work piece is rotated to enable the spiral cut. Two operations occur at one time.

Once the first spiral was done and inspected by all of us, John spun the work piece to the next point on the master index plate to line up the second spiral. The second spiral was cut the same way as the first. And our third and final spiral duplicated the previous two cuts.

We took the finished spiral

piece off the Legacy and passed it around so that everyone could see it. It had clean cuts, little chip-out and a smooth finish. A little light hand sanding would clean up the normal mahogany surface and it would be ready for finish.

Just to make sure that everyone has all the facts. I know that making this spiral was easy because John is fully trained on his machine and was able to run through all the steps quickly and without turning to the manual. This is not a machine to buy and expect instant results. There is a lot of learning necessary to run this machine. In addition to knowing how to use the machine, there is quite a bit of setup required before any cutting operation is performed. You have to be prepared for a slow, careful approach to using this machine. Not everyone works this way so I only raise the issue for those that want it done now. This tool is capable of great things but it's all a matter of setup, experimentation and patience. It's not for everyone!

I appreciate John's openness and help in showing us this tool. Now we can better understand the hours of planning, setup, testing and then final cutting that is displayed in all his wonderful woodturnings. I'm pleased that John's a member of our club so that we can regularly see the cutting techniques that he's figured out on his Legacy and applied to his turnings. It makes me ready for the next "show and tell" to see John's next creation!!



## Shop Visit At Dave Durrant's Dan Rau

Well, although we go to church together and our wives are friends my wife will forever hold Donnie Jackson liable for introducing me to the dark side of hobbies. Yes, I have taken up the skew, gouge and parting tools of woodturning. So much so that I am now in possession of a 1970's era Rockwell 12" lathe, two sets of tools, sharpening grinders and jigs and I've even started looking at scraps of wood as potential fodder for the lathe rather than kindling for the fireplace.

My first surprise came last month when Richard DiPerna called to welcome me as a new member to the Central New England Woodturners. Although I claimed mock knowledge of the action I had no idea of what was going on. However I suspected Donnie Jackson and my suspicions were well founded. Sure enough Donnie had signed me up.

Since I missed my inaugural meeting I thought it would be good form to feign interest and go to the next meeting, which turned out to be shop visits. Well, actually I didn't have to feign interest. Anything involving power tools grabs my interest to the extent that I would actually miss a meal.

I decided that Dave Durrant's shop made the most sense to travel to. After all he lives in Harvard and I live in Shirley. This should be easy because they are adjoining towns. Easy it wasn't. I have actually seen pretzels that had fewer twists, turns and loops than the byways of Harvard. I picked up my mentor, Donnie Jackson and we headed to Dave's house armed with a DeLorme printed map. Well guess what! Even Mr. DeLorme couldn't figure out where 159 Bare Hill Rd is. Tim Elliot, Graeme Young and Chris Ehrenfels also managed to find the way to Dave's place.

Not only does Dave live in a quaint New England town, he has a quaint New England barn of which I was instantly covetous except for the sheep living in the bottom floor. Dave has both his and his wife's office in the larger part of the barn and the shop is relegated to the smaller part. It may be small but it is very efficient. He has all the required power tools to initiate the making of shavings...and thusly the making of turned objects.

For a novice turner the visit was very informative. We discussed everything from safety to setup. Although setup is only 5 letters up in the alphabetical scale from

safety the discussion covered a lot of topics.

The first thing everyone noted was the way the shop was laid out for maximum use of the tools. The band saw is in the garage side of the barn but everything else is within a few steps. Dave also has very high ceilings in the shop and he has a lot of shelves on which to store that most valued treasure of the wood turner...*WOOD!*

One very nice feature is the dust collection system. Dave has installed his in the lower floor of the barn along with the sheep. A remote control allows him to turn it on and off from anywhere in the shop. There are also baffles that allow the air to be drawn from only specific tools thereby not wasting the suction on open hoses.

As far as the lathe is concerned it is a fairly straightforward Delta with a rotating head. But there is one feature that I'm definitely going to copy. Dave decided that the power switch on the head assembly might put him in the position of being on the wrong side of the lathe when things start to go horribly wrong. He bought a rubber encased foot switch and wired it into the power. This allows him to 'tap on - tap off' the lathe with his foot rather than reaching around the work. Someone said that the switch is a fairly common one that can be bought from many of the better tool houses.

Another nice feature is the rig for the washing machine motor that runs the flex shaft sander. The whole apparatus is built right on to the back of the stand for the lathe and it moves front to back and swings. I'm already seeing that woodturners are men after my own heart. Ready to cobble up something to make their life easier AND save a \$\$ or two.

Next came the discussion of personal safety equipment. Masks and eye protection are de rigeur for the wood turner. The discussion centered around dust masks, face shields and space helmets. Well it looked like a space helmet to me! Anyway Dave has a battery powered combination active dust filter/face shield. This seems to be the protection of choice for several of the guys. One nice feature of the mask/shield is the light weight mylar overlay that sticks to the clear shield. It is an inexpensive sacrificial protector for the main part of the shield. Dave said that the single battery pack has enough capacity to run for a good evening's worth of turning.

We also discussed the need for a couple of kinds of chucks. While the names of the various products

slipped by me I know that my next investment will be a chuck of some sort. Graeme noted that he has two makes of chuck each with some interchangeable jaws that allow him to adapt to virtually any kind of stock that he is working on.

Vacuum faceplates also came up for discussion. While some of the guys have and use them others were a bit leery of trying to suck a bowl blank onto the head assembly. I'll reserve my judgment until I see one in action. On to the tools! Dave has about a dozen tools, everything from parting tools, skewers, and various sizes of gouges.

Dave set up an 8" mahogany blank and roughed out a bowl. As a complete novice I was amazed that it only took 15 minutes or so to do the rough out. But virtually everyone said that Dave had just done the easy part. What *easy* part? He had just removed over 80% wood to get to the bowl shape. By my calculations he should have been able to finish the bowl in another 5 minutes or so. But everyone said that the longest and hardest part of finishing a piece is in the final finishing. I believe one of the guys said that it is the perfect application of the 80/20 rule. The rough out



takes 20% of the time and the finish takes the remaining 80%. That means Dave would spend at least another hour on the bowl to finish it. Well, so much for instant gratification!

On the tool side I was amazed that of the dozen or so tools that Dave had behind him he used just one to rough the bowl blank and get it down to a relatively smooth finish. His tool of choice is a 5/8" Ellsworth Signature bowl gouge. Not only was Dave able to round the blank and rough out the basic shape of the bowl but then with just a quick dress up on the grinder he was able to put a great smooth finish on it. Amazing, however he wasn't willing to let me have the other 11 orphan tools that just sat forlornly on his tool rack.

After a bit more discussion of life in general and partaking of some delightful snacks (mutton anyone?) we all bid adieu and went our merry ways. All in all a very satisfying experience for my first official Central New England Woodturner meeting.

*Thank you Dan for a great write-up on the shop visit. Sometime during the evening Dan commented on the complexity of some projects he had seen, including Chinese balls. I picked that up and said I had recently read of turning a cube. So of course I had to explain how it was done. The original explanation is on the next page, with thanks to Keith Tompkins – Ed.*



## Turning the Rose

### Keith Tompkins

I will start with the cube, which is completely formed on the lathe, starting between centers. Imagine turning a cylinder, then truing up the ends. Now, draw a line as though the cylinder will be cut right down the center. Mount the piece back on the lathe using the lines as a reference. The piece now looks like a tin can spinning, with the top and bottom of the can alternately facing you. True up the ends, and measure the dimensions to ensure they are the same as the first cuts. Rotate one more time, and true up the last remaining ends. The result is a cube.

Now, I make a jam chuck, and refine the cube, removing the material left over from the drive centers. I leave one tenon in place, to mount the stem of the rose onto. To finish the cube, it is hollowed and a threaded ebony insert is glued in place.

The stem is formed by first turning the “rose hip”. A hole is drilled which will match a tenon that is turned on the base of the rose blossom. I temporarily plug this hole, so I can mount it back between centers. I want the rose to appear fairly realistic, so I want the blossom to tilt a bit, rather than being perpendicular. To accomplish this, I move the base off center, forming a new axis point. This will give the blossom the appearance I want. Once between centers, I true up the base, forming a tenon, then back in the chuck to finish up. The stem is formed with a “bulge” in the center, which allows me to remove the

excess with the bandsaw, which gives the appearance of a twisted stem. I carve away the excess to form the root system and thorns from the garden are applied and dyed black to complete the stem. I also carve away where the blossom sits to form a five-pointed star shape.

Now, the rose. I turn a tiny goblet form between centers, leaving a tenon on the base. I use the tenon to hold the piece while it is hollowed. I use a detail gouge for this. A light is used for determining wall thickness, which is below 1/16”. I now sand the piece and cut it in half, right down the center. I make a smaller goblet, with the same shape and thickness, and cut it in half also. Now, an even smaller goblet form, same process except I remove only a small section, not half. I true up each piece on a glass plate with 400 grit wet or dry paper on it. I glue the pieces together to form a decreasing-radius spiral. The pieces must fit exactly. I am able to do these by eye, no measuring. That part I cannot explain. I sand the rose petal where it curves down to meet the stem – it is far too fragile to cut.



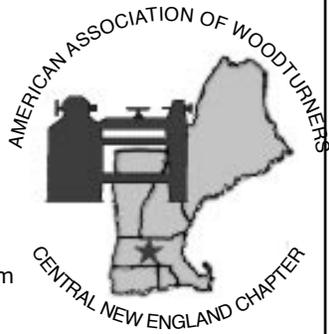
This piece was made as part of the “Small Treasures” exhibition at del Mano Gallery.

*And just to bring it full circle (!), Keith informed me that turning the cube is a simplified variation on David Springett’s cube inside a sphere, which itself is a variation on the Chinese ball theme – Ed.*

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Dave Durrant turns a bowl while Dan Rau and Donnie Jackson look on.