

# The CNEW Skew

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## 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 Transint 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 over-spray 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 fascinating to see it all come together as Rick made it look sooooo 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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## 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 1/8" 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 than an 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.

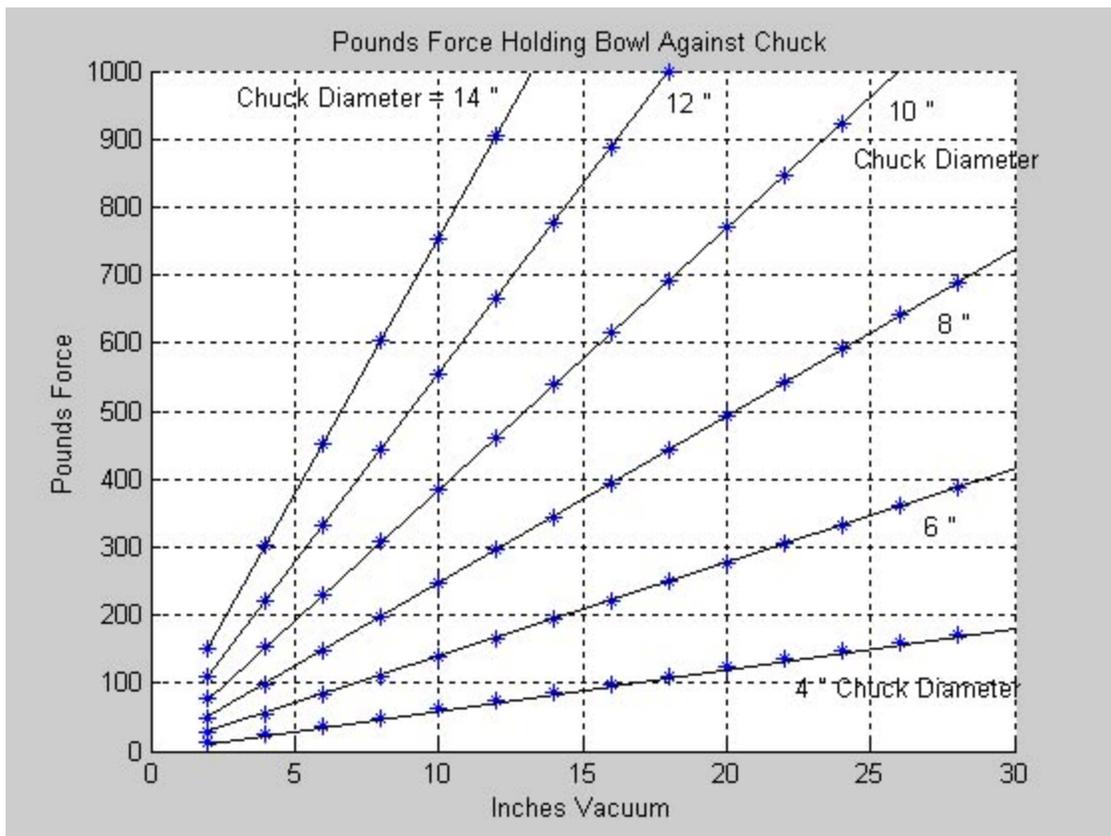
# A Vacuum System for Holding Work on the Lathe (Part 2)

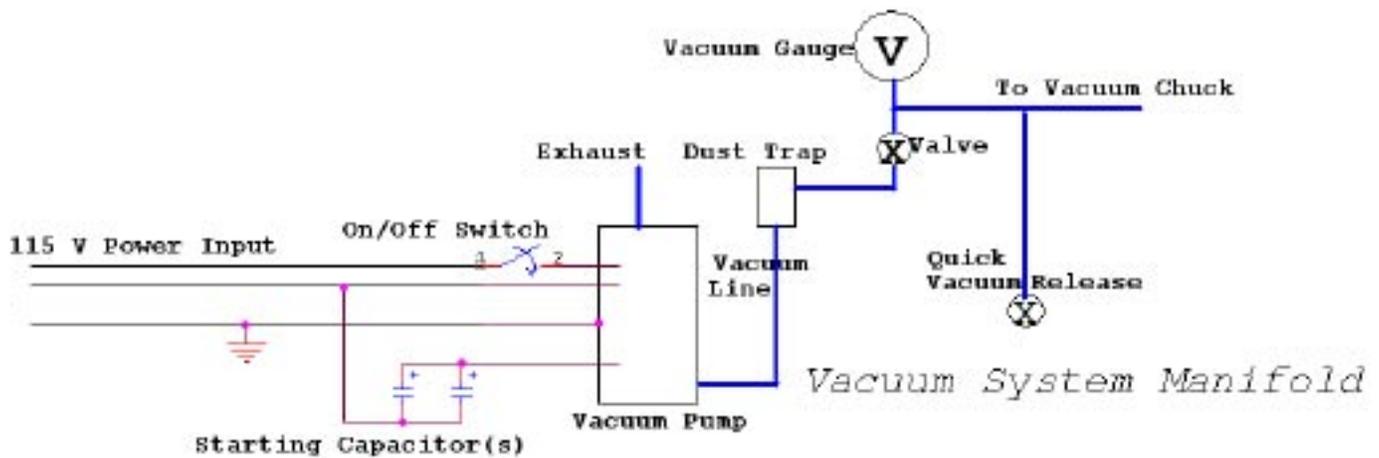
© Hal Mahon

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<sup>2</sup> (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 inlaid band

**Steve Reznek:** Mahogany bowl with key grindings

**Frank White:** Lidded boxes with finials

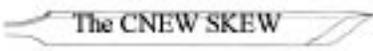
**Steve Reznek:** Spalted apple bowl

**Above:**

**Dave Eaton:** Cherry dish

**Dom Leroux:** Square natural-edge birch bowl

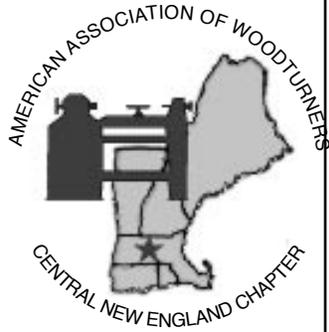
**Dave Hopkins:** Natural-edge ambrosia maple bowl



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



*On the web: [www.cnew.org](http://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:

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**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