



President's Column

Harvey Kliem

July is here.

Time has come to once again think about the election of officers for the next year. Have you given any thought to being on board of directors or running for an office? You can join the team and make a difference. Nominations are going to be held in August and September.

I would also like to remind you of the picnic once again, send in your reservation soon. If you have never been to one of these picnics let me give you a brief overview. There will be a turning competition between the clubs, eggcup races, door prizes, food, and a large show and tell. It is a good time for all, meeting and visiting with other turners and old friends. Do you think you would like to be on our turning team? Each team member of the 5-6-person team turns for ten minutes and at the end of the time period our project is hopefully complete. We will not know what we will be turning till the time of competition. It is a lot of fun and a good experience. I hope you can all make it.

Next years AAW symposium will be held in Pasadena, I would like to see the club enter the collaborative challenge. Now the question is would you like to see the club enter?

Harvey

Editor's note. The following article and the monthly series are courtesy of the NZ Woodturner

A Test of Microwaving

Dick Veitch

Recently I took three small bowls along to our club meeting. I had microwave dried these from fresh-cut wood in the previous couple of weeks. Comments on microwave drying in this manner were readily forthcoming: "You will kill your microwave"; "You can't dry wood without a fire brick in the oven"; "I did a bit recently and it took far less time" and, from Faceplate of September 1994, "air dry to 22% moisture before microwaving". As I had done none of these things in the course of producing perfectly good bowls I decided a little research and experimentation was in order to gain a bit more definitive information on the subject.

As drying wood from fresh to dry can take from 40 to 90 'cooks' per bowl there could have been some truth in the "You will kill your microwave" comment. I therefore checked out the operation of microwave ovens with two electronics experts, one of whom has a doctorate in microwave technology. The answer: "Cooking wood like this is exactly what a microwave oven is designed to do." But if you turn your microwave on without using the timer and leave it for too long then the wood may catch fire and thus burn the microwave and possibly your house!

While talking to these experts I asked about the fire brick theory. A microwave works on meat, vegetables, cold coffee, wet wood, and all other things, by agitating the water molecules and this produces heat. If the brick in the oven contains no water molecules to agitate then it is just a 'nothing' as far as the microwave is concerned. So a dry fire brick will have no effect on the drying of wood but if the brick is wet then it will absorb some microwave energy and hence slow the drying of the wood.

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The Bay Area Woodturner's Association is a local chapter of the American Association of Woodturners. Our purpose is to provide a meeting place for local turners to share ideas and techniques and to educate the general public regarding the art of turning. The Association meets the second Saturday of each month at the Senior Center in San Ramon. The Association periodically sponsors exhibitions and demonstration by local and internationally known turners.

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Board of Director's Meeting Notice

BAWA Board of directors meetings are held at Denica's Cafe (in the same center as WoodCraft) 8AM to 9:30AM. Board meetings are open to all members. Contact Harvey Klein if you would like to be on the agenda.

Presidents Challenge 2002

January: *Plate or platter*

February: *Gavel*

March: *Inlay, color and texture
some type of surface treatment*

April: *Trembleur, hollow form*

May: *Members competition*

June: *Kaleidoscope, sphere or
ball box*

July: *Letter opener*

August: *Club picnic in Rose-
ville*

September: *Segmented turning*

October: *Goblets*

November: *Members competi-
tion*

December: *Ornaments*

The President's Challenge is organized to prepare members for our club competitions. The challenges prior to the member competition are the same as the categories in that competition. The demonstration/workshop will correspond to the subject of the next month's challenge. This schedule offers you an opportunity to see one, make one, and compete.

Club Meeting Dates & Topics 2002

January 12: Surface treatment.
Jan Blumer

February 9: Miniatures.
Robert Whitworth

March 9: Hollow forms. *Don
White*

April 13: Feet. *Bill Small*

May 11: Kaleidoscopes, history,
design and turning. *Jerry
Decker*

June 8: The art of the finish
cut. *Bill Small and Wayne Ship-
man*

July 13: Segmented turnings.
*Wayne Cowden and Fred
Deadrick*

August 10: Club picnic—
Roseville

September 22 (Sunday): Gob-
lets

October 5: Router Carving.
Dale Anderson

November 9: Christmas Orna-
ments. *Dean Andrus*

December 14: Christmas party

Microwaving continued

With those two comments set aside I began my experiments. My microwave oven has a full power of 700 watts and a defrost power of 245 watts. My series of test bowls were 100 to 130mm diameter and all turned to about 15mm thick. I weighed each bowl to start with and then after each five 'cooks' and recorded the weight. When ten cooks passed with no weight change the bowl was declared dry. For greatest efficiency in weighing I suggest you use scales which will consistently detect a 1% change in the weight of the wood.

The first obvious difference was the number of cooks needed to dry and the rate of weight loss of different woods and different cuts from the same tree containing more or less heart.

My starting thickness of 15mm was generous for some woods, notably puriri, but not so for others like pohutukawa and casuarina. The swamp kauri barely moved but note that it never leveled out in weight. Indeed, towards the end of the experiment its weight loss increased and I think it was beginning to break down (burn) internally.

The time that each piece of wood is cooked is determined by the temperature of the wood at the end of each 'cook'. All previous reports recommended use of the defrost setting on the microwave, cooking the wood until it is 'comfortably warm' and then allowing it to cool com-

pletely. I saw no reason to change this and found that a good starting point is 1/2 a minute on defrost for each 100 grams of wood. As the bowl dries it may get hotter so keep checking. If the wood gets too hot it can crack but if it does not get hot enough it will not dry. To test this I reduced the 'cook' time for some bowls to half that of others. When taken from the oven the half-time bowls could be described as "comfortably warm" (this may be likened to the cat on your knee or the cup when the soup is nearly gone) and the full-time bowls as "toasty warm" (which really warms the hands but can continue to be held). When the half-time bowls were apparently dry I began to cook them at the full-time (toasty warm) rate. They lost a further four to six percent in weight.

I then returned to question the person who said "I did a bit recently and it took far less time" and the outcome was that his one bowl may have started dryer and really taken a similar number of cooks. All the bowls I cooked were from fresh green wood and now look just as good as air-dried wood. Air drying to 22% (Faceplate September 1994) would reduce the microwaving time but I have seen nothing to suggest a better bowl would result. Some microwave ovens operate on the lower power settings by reducing the total power while others use pulses of the full power. These differences may cause differing times and results. Turning the bowl upside

down for every second cook (which I did not do) is reported to reduce the number of cooks needed.

I rough turned my bowls to 15mm thick which, if the 25mm per year air drying time is true, would equate to seven months of air drying. In all my microwave oven did 845 'cooks' during this experiment and still mulls wine perfectly well. I did more than 56 hours of microwaving and mulled over the thought of doing more. Even my Great Aunt Liz can surely wait seven months for a bowl.

Two Drying Methods for Green Timber Turning

Simon Waters

There are few things as frustrating as having timber you have worked hard to collect, end-seal and store, crack and split. Either you have to rethink your use for the timber by making a smaller project or, as is often the case, the cracking is so severe the timber is rendered useless and suitable only for firewood.

There are many theories about how best to go about drying timber but for various reasons these do not always suit a lot of hobbyist turners. For example, purpose built drying sheds or ones with fans at one end are a good idea and can yield a good success rate of uncracked timber. But they are expensive to build, take up room on your section and worst of all the timber takes years to dry.

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Two Methods continued

It has been suggested that when drying timber a rule of thumb is allow one year for every inch of thickness. That means to make a six inch deep fruit bowl a turner needs to wait six years - and that's if the wood doesn't crack. This is hardly suitable for a lot of turners.

Many woodturners, hobbyists especially, have resisted the move towards green timber turning. As their time in the workshop is often limited they prefer the immediacy of being able to finish a piece in one session which dry timber allows. Green timber on the other hand needs roughing out, putting away for a while, then finishing another day and invariably the shape they first had in mind has vanished out the window when they return to their dry roughed out blank.

But there are also advantages. Green timber turning can revolutionise a person's approach to woodturning. Any preferences for making items in one session does not have to be compromised simply by sacrificing a day turning green blanks to build up what will in a very short time become a good bank of dry rough turned items to choose from. The quantum leap many may experience in chisel techniques by turning timber wet can also be very satisfying. The ribbons of shavings fly off the chisel with ease and the speed you can achieve is electrifying.

Once a blank has been roughed out green there are a variety of techniques to go about drying it,

all of which take a fraction of the time it takes to dry thick solid blanks of timber. While cracking may still occur from time to time it is a rare event, especially after a turner becomes familiar with a particular drying technique. In any event cracks on roughed out pieces can often be turned into a feature or perhaps hidden with the right blend of glue and saw dust. Some of the drying techniques include soaking blanks in a solution of PEG - a wax based agent which forces moisture from the timber and replaces it with wax. Others include burying blanks in shavings, or putting them in plastic bags or ventilated light-bulb lit cupboards to dry, while some turners have found success with variations of drying projects in the microwave.

Two other methods, one using boiling water and the other fire, are used daily by two of New Zealand's leading woodturners Gael Montgomerie of Motueka and Rick Taylor from Orewa. Rick's fire drying technique suits artistic turning particularly as after taking the walls down to the finished thickness it can warp and buckle the work in a very effective way whilst drawing the moisture from the timber. Gael's method of boiling the roughed out blank on the other hand is useful for drying the blank when movement of the timber is not required. Both methods take very little effort or expense, are very effective and best of all achieve quick results.

Boil Drying

Gael says she first learned of this

boil drying method from Jim Wilson in Dunedin in about 1989. She says it is very useful for speeding up the processing time of Sycamore which discolours rapidly. The process works just as well for other species.

METHOD:

1. Rough out blanks to about 25mm thickness.
2. Immerse in boiling water for at least 30 minutes. It doesn't matter whether you put the blank in cold water and heat it up or immerse it straight into ready boiling water.
3. For thicker blanks allow more time in boiling water - say 45 minutes.
4. Once boiled you can either cool blanks in cold water or take out directly (tongs are a good idea) and place in a shady place til cool. Once cool stack on edge in racks in timber shed.

NB: Gael says Jim found at 20 degrees (in his kitchen) blanks dried in about 10 days. She, however, leaves blanks for two or three weeks in her timber shed then a week to 10 days in her warmer workshop before finishing. Again weighing timber is a useful way of determining whether or not is has dried sufficiently.

GADGETRY: Gael uses an electrically heated wash boiler which takes pieces up to 450mm in diameter. She fills it with water, turns it on and starts rough turning.

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Two Methods continued

She stacks each piece in as it is done and as each batch is cooking she turns the next batch. Gael covers the boiler with a lid and puts bricks on top to keep it from popping off while the water is boiling.

Fire Drying

Rick's fire drying technique works by literally setting alight the turned piece and drawing out the moisture from within the wood.

Method:

1. Rub methalayed spirits onto the outside of the work with a cloth or brush. Ignite with a match and allow flames to burn out of their own accord (stop if the wood starts to burn though). Lathe is stationery.
2. When you are certain the fire is well and truly out rub meths onto the inside of your work. If a hollow form with a narrow opening keep hands well out of the way when igniting meths as the flames will shoot out like a flame thrower. Again allow to go out of own accord unless wood catches on fire.
3. Repeat steps one and two at least four times. The thinner the walls of the work the less times this fire drying technique will be required. Note the technique will not draw moisture from work if the walls are too thick.
4. After most of the moisture is drawn out repeat steps one and two again only this time sanding between each fire with 60, 80,

100, 120 grades. Stop if cracks appear.

5. From 120 grade onwards there should be no need to fire between grades. Continue sanding process through to your preferred grade.

6. Finally store piece away out of direct sunlight and leave it to dry thoroughly for a few weeks. You can try weighing it each day and when it ceases to lose weight it is about as dry as it is going to get. It is then ready for finishing.

WARNING: Fire drying is a safe technique if you apply common sense. Keep the meths bottle well out of the way when igniting your work and it is a good idea to keep a fire extinguisher nearby for any unforeseen mishaps. Watch for sparks left on the wood, on bark or on your faceplate / chuck and especially on the inside of hollow forms. Be sure that the work is completely safe before applying next coat of meths.

Show and Tell

Leo Lichtman; Stephan
Grinder

David Burton; Urn and Mag-
nolia Vase

Brad Adams; Camphor bowl
and vases, Ring keeper

E. Lund; Camphor Vases

Everett Eiselen; Handwheel &
MT clamp, centering device

Fred Deadrick; Segmented
Bowl, Junior Judy Jig

Dale Anderson; Bowl w/Ebony
Legs; Spalted Chestnut w/
Bloodwood Ring

Wayne Cowden; Segmented
Bowl

Jack Brophy; Plates; box

Hal Bain; Small Bowl

John Bocks; Ash and Cedar
Birdhouses

President's Challenge

Leo Lichtman; Valley Oak Pa-
perweight

Wayne Cowden; Sphere Box

Bob Rhodes; 2 Kaleidoscopes

Jerry Decker; 7 Kaleidoscopes

Wood Raffle

Brad Adams; Tulip Poplar

Jan Blumer; Olive

Harvey Klein; Cherry &
Fruitwood

Ruth Niles; CLTL Cap and
Mug

Robert Whitworth; Ebony
and Misc.

Ads

Ad Space is free to BAWA members. Please contact Jerry Decker, @ jnjdkr@aol.com not later than the 20th of the month to have your ad in the next issue of the newsletter.

For Sale

JET 12x36 variable speed lathe, swivel headstock, 3/4 hp motor, 1 in x 8 tpi spindle.

Call: Jerry Decker at 925-833-7689
e-mail: jnjdkr@aol.com

Shop Moving Sale

Saturday July 27, 9:00 to noon. Come early for the best selection; come late for the best deals.

Items:

1 HP dust collector; Join Tech IPM; Vacuum Pumps; Panel Clamps; lots of Hardware; Wire; Shop Aprons; Sheet Rock Tools; Sanding Stuff; Epoxies; Finishes; Hand Tools; some Turning Tools and free Wood.

Contact: Del Morissette 925-803-5940
8774 Augusta Ct. Dublin CA