# TURNING TALK Newsletter of the South Auckland Woodturners Guild 

## Number 119 : December 2003

## Coming Events

Papakura Christmas Sale, 8 to 24 December 2003
Whangamata Arts 2004, 9 to 11 January 2004
Waihi Summer Festival Woodcraft Competition, 9 to 15 January 2004
Teknatool Open Day, 21 February 2004
Thames Society of Arts Summer Exhibition, 26 February to 14 March 2004

Timber and Working with Wood Show, 11 to 13 March 2004
Turangi Jamboree, 19 to 21 March 2004
Royal Easter Show entries close 28 March 2004
Full Day Demo by JR at our Clubrooms, 3 April 2004
Royal Easter Show, 7 to 12 April 2004
Harihari Learn to Turn Jamboree, 4 to 6 June 2004
Franklin Arts Festival, 13 to 20 June 2004
Participation 2004, 7 and 8 August 2004
National Woodskills Festival 2004. Kawerau. 10 to 12 September 2004


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## Programme for the First Term 2004

We will meet at our clubrooms at 7:00 pm. Enter from Tavern Lane, Papatoetoe, to the north door of the upper floor above the Allan Brewster Recreation Centre. For those who wish to make use of the machinery, do some shopping, or get a little extra advice, the doors open at 6:00.

This term sees the continuation of a Table Prize for each term - so keep your good work and lessons learned flowing to the show-and-tell table each meeting night.
4 February Embellishments on a Bowl is the project for this term. Teresa with a Sorby tool, Mac with a chatter tool, Terry with a dremel and more, Dick with some sand, will demonstrate some embellishments you can add to a bowl. There will also be many more ideas we can discuss. There will be a hands-on embellishment evening mid-term when all these tools will be available for you to try.
11 February Timber ID with pieces of raw and turned wood for members to identify and discuss.

18 February Prunings are put to good use by Brian Petterson.
25 February Spinning tops designed and built by Dave Harmes. Bring your own top for a mini-competition at the end of this evening.
3 March Hands-on embellishing a bowl. The tools will be available and there will be experts available to advise you on their use.

10 March Organoil stains and polishes. Ernie Williams from Australia will demonstrate the Organoil product range.
17 March Wood gathering, cutting and storage is demonstrated and discussed by Ian Fish.

24 March Bottle stoppers made and decorated by Terry Scott.
31 March Subject to be announced for a demonstration by Mac Gray
7 April Carving.
This is also the show and tell night for the embellished bowls that you have made.

Term two for 2004 starts 28 April.

## Club Night 12 November 2003. Bias Turning

## from Mike Lewis

Usually in woodturning, the wood is either spindle turned, ie. with the grain running parallel with the lathe bed, or face plate (cross grain) when the grain lies across the lathe bed. Bias turned items have their grain lying at approximately $45^{\circ}$ to the lathe bed. This angle does affect the cutting of the wood, but as long as the chisels are sharp, and good chisel work is observed, there are no problems. Care should be exercised, especially in the final cuts, when "torn grain" can happen, particularly with less dense woods such as kauri.

Pre-shaping the bowl blank, and the way that it is mounted in the lathe, can result in some interesting shapes. Some shapes, however, can be quite frightening whilst being turned - not a project for the beginner. By pre-shaping the blank, definite planned "bowls" can be achieved, with no subsequent sawing or shaping required.

The easiest shape is the three cornered bowl which is achieved when the blank is first sawn and planed to an exact cube. The more exact that the cube is, and the more accurately it is mounted into the lathe, the more uniform wall thickness and points will be achieved. Mounting a cube in the bias position onto the lathe is very easy. Remove any chuck or faceplate so that the spindle is exposed. Any point of the cube is inserted into the Morse tapered hollow spindle. A cup centre of a live tail stock centre holds the opposite point of the cube. If you do not have a cup type centre, then a wooden receiver can be made which will fit over the more normal fixed live centre. Before tightening up the tailstock too far, bring up the tool rest to check the alignment of the three points of the cube, these are the points nearest to the tailstock end. Packing slivers or card into the cup centre can make slight adjustments to the alignment.

Tighten up the tailstock firmly and lock the quill. There will be sufficient friction to rotate the wood, so that the initial cuts can be made to form a chuck spigot at the headstock

end. Should the wood slip, then re-tighten the tailstock further. Form a spigot as in the drawings; measurements will depend upon the details of your own lathe. For the Nova scroll chuck, a gripping point measurement of 43 mm for hardwood, or up to 45 mm for less dense wood will provide a perfect grip without leaving jaw marks, though usually I cut off the spigot when the turning is all complete.

Run the lathe at approximately 1500 rpm , remember that the wood is already balanced, so this speed is quite safe. At this speed you will be able to see the ghosting of the two
sets of cube points. The set of points nearest the tailstock will be left to form the three points of the finished bowl. Cut from the headstock set of points down to the spindle. Remember that initially you will be running a "floating" bevel. Near the points you will have a floating bevel all the time. Once a spigot has been formed, part off the un-required point at the headstock end, and install your chuck onto the lathe. Mount the wood between chuck and tailstock; once again check the points with the tool rest to ensure correct alignment.

Final trimming can now be done of the outside. Sanding is also recommended, especially in the point area, as when the bowl is hollowed out there will some movement to these points.

Now start hollowing out the inside. Usually I leave the tailstock in place until I have reduced the projecting points down to their finished thickness. I have found that by painting the rim with a black acrylic paint, apart from enhancing the final product, this does make seeing the wall thickness a bit easier.


Hollow out as for a normal bowl, leaving the base a little bit thicker than the walls to provide a bit more stability when your masterpiece is on display. Sand through all the grades, the points have to be done by hand, whilst power sanding can be done below the gap areas. Finish off with your favourite polish.

## Alternative shapes are:

Cylinder, with variations in the ratio between width and height, this will give a two-point bowl of varying shapes depending on the ratio. Obviously there are no points to fit into the drive spindle, two parallel flats need to be cut at opposite sides so that a standard drive spur and tail centre can be used. A word of caution. With the cylinder version, the blank will start out well balanced, but as stock is removed, the blank will become progressively unbalanced. A change of speed is recommended.

Rectangular, not really recommended, but worth a try if you have a few spare fingers no longer required. Mount as you would a cube.


## Club Night 19 November 2003. Segments

from Bryan Peryer

Following Dave Harmes demo at Ellerslie Club
We had a fascinating description of how our resident master turner produces his award winning segmented vase. These vessels can be made up in a number of ways but we will define a segmented article being made up of a number of pieces of wood arranged with radial symmetry about the longitudinal axis. It is possible but more difficult to align them with radial symmetry about a skewed longitudinal axis although this is uncommon.

Dave started making segmented vessels when he found that he was short of suitable wood but realised he could make a larger vessel if he glued small pieces together. From these relatively simple beginnings he moved on to his prize winning pieces containing several hundred segments. His demonstration detailed the construction of one of these.

The steps are as follows;

1. Draw object shape including intended wall thickness.
2. Decide on the number of layers and thickness $C$ and add them to your drawing as above.
3. Determine the horizontal thickness B for each layer. This determines how wide each segment of a particular layer needs to be before gluing.
4. Determine the diameter of each layer.


Next the angle of the sector and the minimum radial length has to be worked out to enable cutting of each segment to proceed. To do this draw each layer with a plan view as below, using the diameter A .


Decide on the number of pieces for each layer. Dave typically used 24 , which would mean that the angle of the sector is $360 / 24=15$ degrees.

D is the minimum radial length of the piece of wood
to be cut but of course if D is too small it can become difficult to handle on the sawbench.

Now you have enough information to produce all the rings.
Cutting small pieces accurately and safely is not easy so Dave has constructed a special jig which in itself is a work of art.

This jig is a sliding table with small clamps and adjustments to get the correct angle ( $15^{0}$ in this case).


When all the segments for one layer are cut they are checked for fit and appearance using a tensioned strap to pull them into a circular shape. (See diagram below). If all is OK, the segments can now be glued together with aliphatic PVA, firstly in pairs, then glue two pairs and so on until you have 2 halves. Leave these halves overnight to set firmly before sanding the two ends of the halves square to get a good fit when glued to form the final circle.

These glued rings will not have perfectly flat faces so they need to be hot melt glued onto a face plate, trued up and turned to the same thickness C for all rings. Now remove the rings from the face plate, turn over and scrape the underside clean and level (Dave uses a broad bandsaw blade).

Now you are ready for assembly. Dave uses a block with a threaded rod to aid in this process. With this device, Dave turns a blank of the right diameter and glues onto the block to assist in centring of the first ring.

Glue the first layer to hold it temporarily and stagger the subsequent layers. Run a pencil line up the side to aid alignment. The last layer is a spigot for turning. When set, remove and glue onto a faceplate to turn the spigot.

Fitting the spigot for the base is a little more complicated. Before the base spigot can be fitted the inside of the last ring needs to be turned out to enable a good plug type fit for what is to become the permanent base of the finished article. Unless the shape of the base is correct, splitting can occur with time. Now mount on spigot and turn both inside and outside.

Next glue the two halves together.
Finally turn the top spigot off and, using the bolt and plate method, turn off and clean up the base.

## Club Night 26 November 2003. Spinning a Thread

For some time now I have wanted to put a thread on a small wooden "travelmate" sewing kit I make. That dream remains but I have made some progress on thread making.

Fred Holder's visit last year was a real boost. When Fred said thread chasing would be one of his demonstrations I set out to get him suitable native timbers. My initial inquiries revealed that few people were trying any form of thread cutting and all who knew a little referred me to the greater knowledge of Fred Irvine.

His advice was clear - black maire is the only New Zealand timber that will consistently take a chased thread but maybe sometimes you can have success with puriri or pohutukawa. So Fred Holder put these timbers to the test and proved that Fred Irvine was right - use black maire only.

Fred Holder went off around NZ demonstrating thread chasing on black maire and left me to study my stack of "unthreadable" kauri, puriri and pohutukawa.

But all was not lost. I had seen that the Teknatool ornamental turner could be used for threads and I had seen a jig in the Craft Supplies catalogue. And Fred had given me a copy of his book on threading. I would just have to try a jig as spinning a cutter is hugely different to hand chasing.

My first jig was a cross between a wooden construction I had seen, ideas from Fred's book, and the all-enclosed Craft Supplies steel model. In simple terms, I obtained some threaded rod the same diameter and thread as my lathe spindle, two nuts to fit and some bits of steel to mount it on the banjo. My chuck, with the work in it, could then be moved from the headstock to the threaded rod and a fourtoothed ornamental cutter from Teknatool mounted on the spindle.

With the cutter spinning at 3000 revs the wood was advanced towards it and rotated by turning the threaded rod.

Wonderful, but........I had already worked out that I would need two or three fine cuts to thread swamp kauri........there was no way that I could adjust the banjo by the fractions of a millimetre needed. Mounting the jig on the banjo was a waste of time.

I was pleasantly surprised to find that double cross slides are very cheap and the one I got had a vice on top so is also useful on the drill press.

The common movement sought from the cross slide is across the lathe bed so that thread cut depth can be adjusted. Having a second slide to move longitudinally adds an ability to move the work well away from the cutter for test fits and it should make multiple threading possible.

With the mechanical bits in place, further improvements were necessary to ensure a good thread and a good finished job every time.

The first, and possibly most important, is to work so that the cutter does its cutting as it goes into the wood, not as it comes out. So the male thread is cut as you would expect -
from the edge of the work towards the body of the work. The thread in the female part needs to be cut from the inside to the outside.

As always, sharp tools are important. A cutter spinning a 3000 revs may appear to be doing a good job but a little touch with a diamond hone will make a huge difference. The shape of the cutter is also important. There may now be no woodturning cutters manufactured so you may have to put up with a metal turning cutter or modify one for improved wood cutting. A typical cutter has one to a dozen pointed teeth which have a scraper action on the wood. For the best cutting of wood these teeth should have a slight backward lean.


For a finished job that looks good make sure that the two faces that screw up to one another are flat and clean. The two parts of the thread also need to be the same length and position in the work and there needs to be a "run off" space so that there is no sideways push to the tail of the thread. The points of the thread need to be a little flat to reduce later damage. Note that the cutter will not go fully to the bottom. Nor will it later cut all the length of the male part. So the lead-in flats are important to ensure that the parts fit together. They also make it easier for the threads to meet when putting the parts together.

When working soft woods it does pay to give it a generous coat of the thinnest superglue before making the first cut. Plan on two or three cuts with superglue applications between to achieve the required depth without breaking bits out.

The easiest way to consistently get the second part of the threaded joint to fit the first is by careful measurement and calculation. Calculate the height (h) of the ridges in the thread by taking the
 thread pitch (distance between threads) in mm and multiplying by 0.866 . The width of a male second part will have to be $+2 \times \mathrm{h}$, and a female second part is $-2 \times \mathrm{h}$. But remember to add or subtract a little to allow for the little flat that should be on the top of the ridges, and to allow a little space between the threads.


## Our New Place

News is that the Police will shift out by 8 December. We have a draft lease to consider and then Manukau City Council and South Auckland Woodturners Guild have to agree on the details of the lease. So I am sure we will be in our new premises for the first meeting of 2004. If I am wrong, then I will contact you to advise the change of plans.

Thanks to Mac and the Building Committee for their efforts to date.


## New Member

Welcome to Michael Bernard of 14 Malabar Drive, Ellerslie. Home phone 579 5681. Mike is new to woodturning and loves every moment of it - as demonstrated by the number of items he has brought to the table already. I hope we see more of him and his work but he has sold his Howick business in an effort to shift to Snells Beach.


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Ooooops! "While helping him make up the remainder of the stands yesterday I saw he was sharpening the disposable snap-off blades with a slip stone" Ancestry, ignorance, or luddism?

## Get Your Friends to the Sale

Our woodturning sale is on from 8 to 24 December at Accent Point Shopping Centre in Papakura. Bring your friends, and friends of your friends. There will be at least 1700 items on display at the start of the sale - that will be reduced as the days pass. There is plenty of parking and easy access - see the map to the right.


## The Art of Turned Wood

The judges were impressed. The workers were impressed. Visitors are impressed. The array of work is enormously varied and, as one judge said, a great improvement on the last Art of Turned Wood in 1999. It is also good to see a number of new turners exhibiting some very worthwhile entries and some of the more experienced hands trying new ideas.

From the 98 items put on display by 42 turners the judges were unable to pick a clear first place and awarded two pieces first equal.

First equal place: Steve Marshall. "Ready for Take-off". Maple and bubinga.
First equal place: Graeme Priddle. "Reflection". Kauri.
Third place: Hugh Parsons. Recycled jarrah and foil bowl.

## Highly commended:

Arbortec award. Graeme McIntyre. Matai burr hollow vessel with paua.
Ian Fish award. John Ecuyer. "Oceanic Apothecary Vessel \# 3". Pohutukawa, pearl.
Ian Fish award. Alby Hall. "Pacific - Sun and Sea". Ancient Kauri 50,000 yrs old.
Rolly Munro award. John MacKinven. "Nikau Bowl". Black Maire.
Wildwood Studio, Graeme Priddle award. René Baxalle. "Plenitude". Rimu, oak, copper wire.
Woodcut award. Tom Capey. "Sky Walker \#2 - Alternative Worlds Series".
Woodturning Shop award. Steve Marshall. "The Rough with the Smooth". Maple and ash.
Youth award from Treeworkx. Jeffery Hill. Ancient pohutukawa bowl with paua.

## Christmas Sale Dates and Times

Distribute advertising papers Thursday and Friday, 4 and 5 December.
Setup tables 0800 Saturday 6 December. Then spread papers to shops and a guillotine party.
Wood may arrive 0900 Sunday 7 December.
Wine \& Cheese 6:00 to 9:00 pm Sunday.
8 to 24 December are sale days. Check the roster for your turn to help.
Pack the remaining wood and clean up 0900, 26 December.
The final add-up of sales will not take place until early in the New Year.


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In English pubs, ale is ordered by pints and quarts.. So in old England, when customers got unruly, the bartender would yell at them mind their own pints and quarts, and settle down. It's where we get the phrase "mind your P's and Q's"

To renew your membership, tear off the form below and get it, with your payment, to the Treasurer

## MEMBERSHIP CONTINUATION FOR 2004. ANNUAL SUBSCRIPTION $\$ 35.00$

First Name (Known As): $\qquad$ Initials: $\qquad$
Surname: $\qquad$
Address: $\qquad$

Telephone Home: $\qquad$ Business: $\qquad$
Email: $\qquad$
Name of spouse/partner (so we can be polite when calling): $\qquad$
Occupation (Required by Incorporated Societies Act): $\qquad$
Woodturning Experience (Tick one): Beginner $\square$ Hobbyist $\square$ Part-time Professional $\square$ Full-time Professional $\square$ Years of Woodturning Experience: $\qquad$
Member of the National Association of Woodturners? (Y or N) $\square$
Signature: $\qquad$ Date: $\qquad$

Get this form, with your $\$ 35.00$ payment, by cheque, Visa/Mastercard, or in cash, to:
Colin Mitchell, Treasurer, South Auckland Woodturners Guild
17a Parkview Place, Pakuranga Heights, South Auckland 1706
If a receipt is required, please enclose a stamped self-addressed envelope.

Club Break-up. On the 6th of December the South Auckland Woodturners Guild is having their Christmas party at Scott's place, 320 Hunua Road, Papakura. 6.30 pm . Bring a plate (with something on it ), your drink, a plate and cutlery, and the guild will supply the barbecue. The theme is "An Island Night", so wear your island gear. Children welcome, bring their togs for a swim.
Please reply before the 4th if you can come so as the club can cater for the meat. Phone (09) 2977051 or 021998493


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