

HORNSBY DISTRICT WOODTURNERS INC.

Established 1983.

eNEWSLETTER NOVEMBER/DECEMBER 2021.

Hello members, and good to see you all in person now that the lockdown has ended. Please stay cautious as Covid remains a great worry and remember to call another member if needs be.....RUOK?

While it's good to see all the members it's great to see Rusty back, and now in retirement, after his health problems. Lindsay continues with health problems and shortness of breath, Russell with a number of cracked ribs and Elwyn with back problems both after falls: we trust that these members all recover during our Christmas/New Year break.



Committee member (treasurer) John Edwards was granted Shed Life Membership which was bestowed by the Shed president David Tarran during the Christmas Luncheon....congratulations John.

Ex-member Simon Begg was the featured turner in Woodturner Magazine number 363 received recently. Titled *New World Inspiration* and spreading over 5 pages the article is a good and interesting expose of Simon's talents and life. Interview style, the article was

written by Australian turner Andrew Potocnik who was Guest Editor of that month's magazine.



The scheduled November Saturday meeting became the first after the lockdown ended and included the postponed HDWT AGM as well as the Spring Raffle. All the previous committee was re-nominated as the only members to fill the vacancies and there was no other business other than to thank all members who worked on turning projects, (eg honey dippers yet again), as well as the president and the committee, particularly Ian McKay during his 'maiden' Shed committee year. The turnout for this demonstration day was low meaning that the Raffle was quick and well organised but contributing only a small amount to the treasury.

Regarding The Shed, its AGM was held in late November with Ian McKay and also member John Dear both being nominated (woodturner representative and secretary respectively) and returned to the committee.

The Shed also celebrated its 20th Anniversary with an off-site dinner attended by about 60 members and spouses/partners which was a great success. Jane Buehmkorff won the Christmas Hamper. Refer to the Cutting Edge December 2021 for details and photos.

All of us were delighted to see our new kitchen installed by Ian McKay assisted by a small team of members: very nice. Ian has also led a couple of members with the repositioning of the lathes which is all but finished.



Plans are afoot to similarly improve the Shed entrance during 2022 and possibly add another larger mezzanine level.

Following the successful sale of the ~50 turned map navigational beacons, some of the Double Impact Bank Grant will be expended on a variety of smaller turning equipment for the 7 lathes now in operation.



The Shed closed for the year on Saturday 19 December and will reopen on Monday 10 January 2022.

Following the Raffle and AGM a well represented Show & Tell was run by Greg.

While Bill's latest bagpipes has been mentioned and shown earlier here is a close-up of the grain and fine turning work on these pieces of Olivewood.



Rusty showed a couple of bowls plus this nice cross turned from branch wood; note the bark retained at the base.

Elwyn had been busy turning a variety of various bowls and platters. Some items had been saved



following significant cracking resulting from turning before the blank was 'completely dry.' This reworking shows just what can result from turnings which (may) after initial cracking have been considered losses. It also shows just how important considering the blank's moisture content is to prevent cracking. The woods used for his turnings were mainly eucalyptus and camphor laurel. It was noted but not photographed that one turned and finished eucalyptus bowl had changed from



round to almost oval between turning when almost dry to when fully dry!

Lloyd showed a couple of smaller bowls made from lancewood which finished well using his standard semi-gloss lacquer technique. Also shown were 2 twin huon pine lidded boxes about 100 mm high, with lids crowned with finials of unknown wood.

Colin showed a winged bowl from Australian Red Cedar with its typical warm glow and a couple of dark centre pith areas.



Information Exchange.

Only the one item describing the addition to the True Grind System to enable it to be used on the majority of 8 or 10 inch wet grinding wheels. The fitting costs about \$A100, see photo ex Woodturning magazine #255.

The demonstrator for the day was Greg Croker on the topic *Selecting and Drying Turning Woods*. This demonstration actually took the form of a discussion, introduction and workshop on these subjects. Due to the small number of participants input and questions were frequent and encouraged.



Regarding the selection of wood for turning there is mostly no choice as the tree to be felled is selected for a non-turning requirement or has blown over during a storm etc.

Which are the better species of trees to select? In our area eucalyptus trees are predominant with the acacias next? Native hardwoods and other harder wood trees are to be avoided unless needed for a specific reason so that leaves just a few native softer woods ideal for selection: Australian red cedar, silky oak and native frangipani are examples to be discussed here while soft wood exotic street or garden trees offer quite a wide range with jacaranda, camphor laurel, maples, liquid ambers, plane trees, oaks and African olive being possibly the most popular.

As many eucalyptus woods finish beautifully, and as their (turning) hardness (when dry) can be overcome by turning when wet (and softer), consideration should be given to this species particularly if wet rough turning is proposed.

Where we are able to view the tree standing, plans can be made as to the 'handling' of the straight trunk, cutting close to the ground/roots, the availability of crotches, the possibilities of the larger branch wood and even the use of the root ball for turning with associated carving and/or nowadays coloured epoxy to fill the voids. The separation of burls from the trunk if present, is as we know, most rewarding.

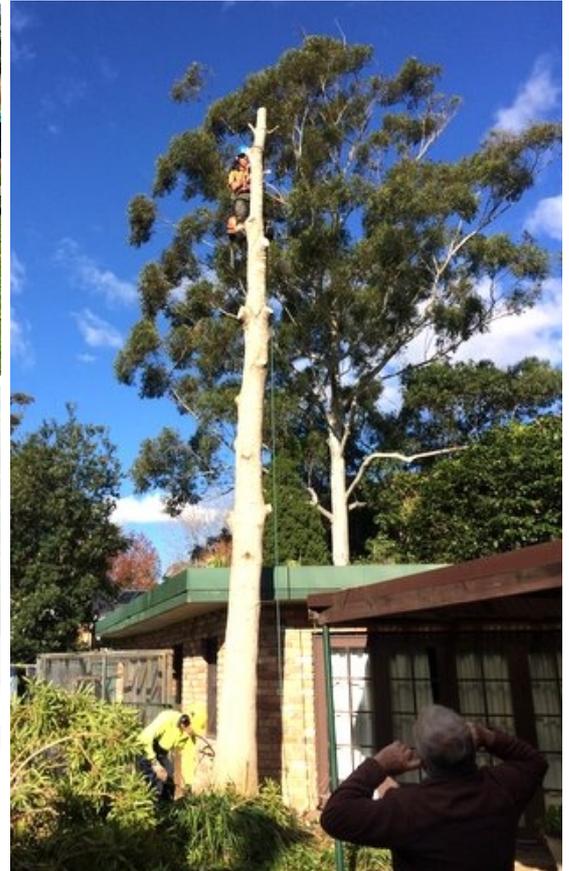


Northern hemisphere literature states that 'where possible fell trees in the winter months when the sap is not rising' but for more temperate climates like Sydney's this may not apply even with deciduous species.

Large standing trees will most likely be felled in lengths from about say 200 mm to one or two meter lengths

dependent on the trunk diameter and weight and should be suitable for most turners. Decide what you want and have a couple of friends help

with the lifting. 200 mm lengths can be split on site and carried easily while the longer lengths may need to be sawn longitudinally down the centre/pith to be carried



and transported.

If sawing 'along' the trunk try to cut each side of the central pith thus producing a slice of quarter sawn heartwood each side of the pith and useful for platter turning particularly if the diameter is over 400 mm. Thinner branches less than 130 mm are generally not suitable once dry other than for small turnings such as tweek and small items with retained bark etc.

Trees already felled need to be handled similarly, noting that a one meter length of trunk can be slipped with help into most car boots. The selection of other sections of the tree may be more difficult to handle without extra manpower present. In this case one meter lengths can be conveniently taken from site and sawn into billets or slabs etc at the Shed or other workshops prior to turning or drying.



Cut or split wood available on nature strips in short lengths for fireplaces (see photo) may be suitable if collected very soon after cutting before major cracks develop. Check for grain direction too.



Once the wood has been obtained either as 'shorts,' 100 mm thick slabs, one meter logs or half logs etc it is most important to end seal ASAP. Wet wood splits quickly often 15 minutes or less after cutting. Handling in the car boot or trailer should also be quick and the cut wood kept cool and out of the sun until suitably sealed and stored. Whole logs do not store well and can crack its entire one meter length so it is best to saw into halves, planks or billets. In each case allow about 10% extra in length and width for cracking wastage.

If the wood is to be held for some time paint with another layer of end sealer, and store in a cool, dry and low draft area mounted clear of the ground. Allow air to circulate between the wood and mount on bricks or metal under the house floor? until wet-turned or fully dried.

Woods left to dry naturally in this situation will generally crack somewhat and take about 2 years per 25 mm thickness to dry, so this is where accelerated drying can be very useful.



There are a number of procedures proposed for quick drying not all of which are ideal for a perfectly turned item. For today the discussion will be on two methods suitable for all turners to easily adopt.

Method 1 is the use wet turning of the blank by ruffing out a bowl on the lathe soon after collection. Prior to turning, trim the wet blank on the bandsaw to make it approximately circular and slightly greater than the finished bowl in diameter. For orthodox bowl turning mount the blank with a Glasser screw (or if needed a faceplate) and turn the bark and the wood away to the approximate outside shape proposed including a strong spigot.

Generally a continuous spray of liquid is spun from the bowl and a face mask is necessary particularly turning the outside and a waterproof cover is advisable to protect the rails from rusting; don't use a towel as this can get caught in the spinning turning and cause operator harm.



Remove the screw or the faceplate and reverse the blank securing it carefully in the chuck jaws and commence turning the inside of the bowl. Complete the inside turning following the outside shape as uniformly as possible, and about 10% thicker than the proposed final wall thickness to allow for oval warping. Ensure that the base of the bowl is not excessively thick as this will slow base-drying and may cause cracking.

Should the bowl be looking dry at this stage of turning, or if there is a delay in turning anticipated (ie lunch) wet the bowl with a fine water spray and/or cover it with a damp cloth to re-establish the

moisture level thus preventing cracking.

Clean up the rim of the bowl and end seal inside and out, remove from the chuck and seal around the spigot. As most of the bowl is endgrain? complete sealing will approximately equalise and slow the rate of drying from all the surface.

You should at this stage weigh the bowl on sensitive kitchen scales (say +/- 2 gm) and record the weight and date.

Immediately or as soon as possible, prepare a 30 - 40 litre plastic garbage bag by placing a generous 3 or 4 handfuls of wet shavings from the bowl plus a wet but not dripping newspaper (say ~50 sheets of tabloid, the SMH is suitable) into the bag followed by the bowl (kept clear of the paper but not necessarily the shavings) and tie the bag all but closed, say a 25mm diameter opening. Store the bag in a cool part of the house. This will allow the bowl(s) to commence drying evenly and generally without cracks or gross warping in an atmosphere of virtually 100% humidity. Up to 3 bowls can be dried in each bag, dependent on size.

Every fortnight or month check on the bag's contents and look for cracking, mould or spalting and correct where possible. Weigh the bowls and record as above. If the paper and shavings are somewhat dry dampen with water and replace with the bowl(s) and again all but seal the bag and allow to continue drying.

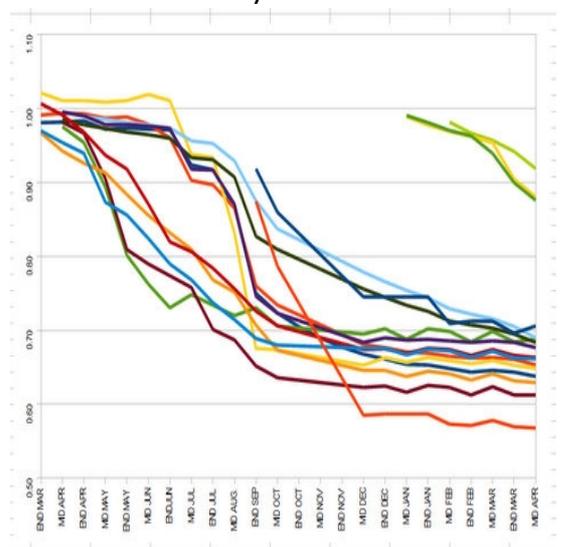


Each month after checking the bag should be 'reset' and as the bowls' dry, the bag's opening can be increased say by 10% allowing slightly more moist air to escape so that the rate of bowl weight loss does not cease or drop down to near zero between times.

As the bowls become closer to fully dry the rate of drying reduces considerably such that after 6 or 8 months each bowls' monthly weight reduction approaches only 10 or 15g (for a bowl about 700 g initially). A few months' later the bowls' weights become all but stable altering only as the percent relative humidity of the air rises or falls. During this drying phase the paper and shavings can be allowed to dry somewhat too.

Now, (about one year after rough wet-turning and bagging) the bowls are all but dry and stable and can be removed from the bag and allowed to condition in same area for another month prior to their final turning and normal finishing.

The graphs of bowls' weight reduction vary considerably. Bowls with thicker walls than one inch will take longer to dry and presumably drying time will vary by wood species



and the humidity inside the plastic bag. The use of a moisture meter can be of help giving a guide to the water content.

For heavier and larger wet-turned bowls the use of lidded tote bins can be more practical. The same principles apply and the lid can be progressively opened as the wood dries.

Method 2. The Solar Method again consists of a 50 L non-woven plastic bag with the wet-turned roughed-out bowl or two inside and sealed at the top. But in this case the bag is placed in the sun to evaporate moisture from the turning(s) which condenses on the cooler parts of the bag's inside and the condensate then drains down the bag and exits via a small hole in the base of the bag. Practicably the bag is best hung on the clothes line.

As expected the humidity inside the bag during sunlight hours will be close to 100% which will reduce the rate of moisture exit from the turning and preventing parts of the turning drying faster or slower thus reducing cracking and/or gross deformation potential.

This can be a quick procedure dependant on the sun but is fast at removing the initial high percentage of the wood's water content which may be removed in a month or so.

An idea of the weight loss at any time can be estimated by weighing the bag and contents prior to commencing and at any time during the solar treatment. Electronic scales with a hook are ideal (ie hand held suitcase scales) for checking the in-process weight losses without disturbing the contents. These can be found with a sensitivity of +/- 10g and are ideal.

Once the condensate flowing from the bag reduces to almost nil the bowls can be removed and further dried using Method 1 above.

Other Common Accelerated Drying Methods.

Method 3. Microwaving. Many turners have tried or use this method. I have experimented with this procedure following all the 'rules' but without satisfaction.

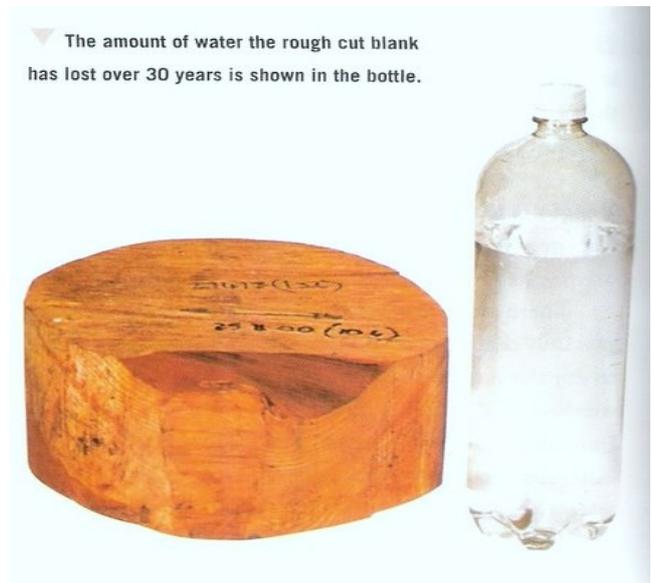
Method 4. Boiling With Soapy Water. Used by a few turners, deformation in shape and wood texture needs to be allowed for. Quick and dry after about 2 months then ready for turning. Boiling time varies as it is necessary to breakdown and remove sap and other structures in the wood.

Method 5. Soaking in Alcohol (Methylated Spirits, 98% ethanol + 2% methanol). Reputed to give good results. The alcohol penetrates into the wood and dissolves the sap etc while the alcohol displaces the water as well as subsequently drying faster. Takes a week or two to get a dry product. Needs some instructions. Alcohol is a fire hazard.

Method 6. Poly Ethylene Glycol Soaking. No experience but the literature details difficulty with turning and slippery finishes. PEG replaces the water in the wood and stabilises its shape.

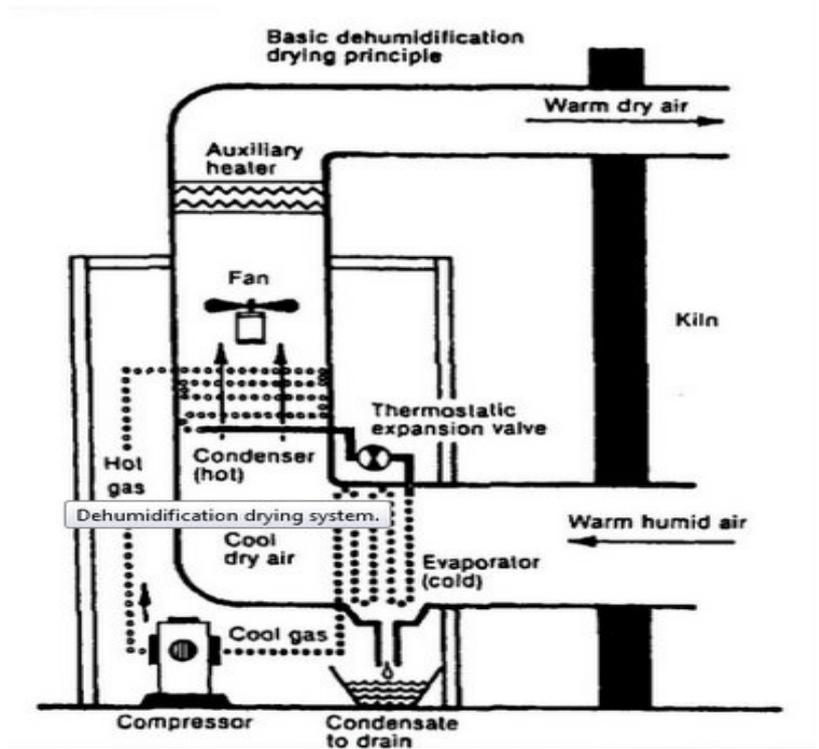
Method 7. Silica Gel Drying. This is a granular solid that can absorb water from substances quickly. 1 Kg will absorb up to 400 g of water from a wet atmosphere in about 24 hours, and is reusable after heat regeneration. Some simple detail re bowl drying on You tube but needs more detail and technical advice. Worth following-up.

Method 8. Kiln Drying. Requires lots of wood knowledge and a fair amount of capital. Some craft interest with simple kilns using incandescent 60 watt light globes for heating.



Method 9. Refrigerated Drying. Closed circuit air is blown over the wet wood evaporating some moisture. This air is then cycled over the 'frig' cooling coils condensing some of the vapour to water which is drained away. This cold air is then circulated over the 'hot frig' coils and warmed, thus lowering its Relative Humidity, before being recycled over the wet wood again. The process is repeated until the wood is dried.

This could be an interesting technique particularly if you can find a small spare refrigeration system to adapt.



This was where time run out on 'selection and drying.' It was planned to turn some of the dry wet-turned bowls but interest and discussion in the above means that this section of the topic together with answers to some of the questions will have to wait until 2022.

There is plenty of advice for woodturners on Google and You tube on these topics. For details on kiln drying on a larger scale checkout Google on 'Fundamental Aspects of Kiln Drying of Lumber.'

Our next Saturday meeting will be on February 12 from 10 am.
 Meanwhile The Shed will open for 2022 on Monday 10 January.

Trusting you all had a Merry Christmas and will have a Happy and Safe 2022.

For further interest or to join-in woodturning go to www.hornsbymensshed.org.au