



# IWG News

The Newsletter of the Island Woodturners Guild

October 2021



## About the IWG:

The [Island Woodturners Guild](#) meets from 1:00 - 4:00 PM on the 4th Saturday of each month (except for July/Aug) at the Central Saanich Senior Citizens' Centre, [1229 Clarke Road](#), Brentwood Bay, BC.

**Visitors are welcome.**

## Executive Committee

**President:**  
**Tim Karpiak**

**Vice President:**  
**Vik Peck**

**Secretary:**  
**Michael McEwan**

**Treasurer:**  
**Peter Pardee**

**Member at Large:**  
**John Kilcoyne**

**Member at Large:**  
**Virginia Lee**

**Member at Large:**  
**Marlene Speckert**

**Past President:**  
**Steve Werner**

**Newsletter Editor:**  
**John Kilcoyne**

The IWG gratefully acknowledges the support of the following companies:

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## THE PRESIDENT'S TURN

This month will be the first in-person meeting we've had since February of 2020. And although I think we adapted well, I'm looking forward to seeing people in the guild hall once again.

One of the significant developments of the last year and a half was our use of Zoom meetings. While the Executive had had some discussions about using it, the pandemic forced us to jump on the bandwagon whether we were ready or not. And to use one of the best buzzwords in use today, it was an effective "pivot". We plan on continuing to offer our meetings on the Zoom platform. I'm not one hundred percent sure what that will look like, but we will try. It'll be nice for our members to participate in our meetings when they might otherwise, not be able to. Invites will be sent out Thursday or Friday.

For those who attend the meeting in person we'll have to follow the guidelines set out for group meetings. You must be "double-vaxed" (we'll have a code reader to check when you arrive) and masks will be mandatory while indoors. Our capacity will be 60 people, but I don't anticipate more than that coming out.

Other than that, it will be just like our regular meetings. We'll have a demo from Gil Heise on jigs and their operations. I think that will be interesting. And a coffee break, and a Show and Tell at the end. We'll even have our usual raffle! If you can't attend but have pictures for the Show and Tell, please send them to Vik at [vikpeck@gmail.com](mailto:vikpeck@gmail.com). Don't forget, it's Vik with a K.

As you all know, a very significant member of our Guild, Phil Cottell, passed away on October 5th. He was a founding member of the Guild and will be sorely missed.

That's all for this month, I look forward to seeing everyone who comes to the meeting and the rest of you on Zoom

Cheers!  
Tim Karpiak

## IN MEMORIAM: PHIL COTTELL

It is hard to think of a better colleague than Phil. Sharing his skill and knowledge, and supporting others, was at the core of his character.

With an ever-present smile, Phil spent countless hours helping and supporting new (and not so new) turners. He also served to introduce many members to woodturning through his teaching stints at Lee Valley.



A founding member of the Guild, he served as a member of the Executive for many years and delivered countless demonstrations over the years. He was an ardent supporter of the AAW and authored many articles for its journal, the *American Woodturner*, and its educational publications. (He was also a master turner of spinning tops!)

A remarkable legacy which we all continue to enjoy.

(You can read Phil's obituary at:

<https://www.legacy.com/obituaries/timescolonist/obituary.aspx?n=philip-l-cottell&pid=200342962>)

## DONATION TO CANCER SUPPORT AND RESEARCH



The sale of Phil's rough turnings and blanks resulted in over \$3,500 being donated in his name to the Prostate Centre and the B.C. Cancer Foundation. This impressive amount is a fitting testament to the admiration and respect that members had for Phil.

The following note by Phil's partner, Donna, was appended to the donations.

*These donations are offered through the generosity of the members of the Island Woodturners Guild in memory of a founding member, Phil Cottell. On a sunny Saturday just before his death, we held a sale of hundreds of rough turned bowls Phil had prepared for his future work. These were special treasures, particularly for the beginner turners, as he had already defined the potential in each piece of wood. Several close friends volunteered to help organize the bowls in the carport and run the sale. The attendees were thrilled to receive these treasures and really enjoyed the opportunity to meet in person, rather than on Zoom.*

*I was able to photograph many guild members with the bowls they had chosen and share them with Phil in his last days. It was so gratifying for everyone who participated, and we are pleased to make this donation as a result.*



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## **OCTOBER MEETING: JIGS GALORE**

Our next meeting on Saturday October 23<sup>rd</sup> at 1:30 p.m. will feature a presentation by Gil Heise, our local Jig Master.



He will discuss the construction and demonstrate the operation of three of his unique jigs: a Threading Fixture, a “Slot Machine” and a Spoon Hollowing Device. (They are amazing!) If time permits, he will also demonstrate a variety of other smaller devices including an “Elf” decorator, drill guide and reamers.

The demonstration will take place at our meeting hall and members may attend in person or can view the presentation remotely on Zoom.

**Safety:** As noted in the September newsletter, for those who wish to attend in person, the following rules as set out by the Provincial Health Authority will apply:

1. The meeting will be limited to a maximum of 60 members.
  2. Masks must be worn during the demonstration.
  3. Members will be required to show a valid B.C. Vaccine Card and identification. (No other proof of vaccination will be accepted).
  4. Guild representatives will be required to maintain a record of the names of those who attend.
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## **NOVEMBER: KAI MUENZER DEMONSTRATION**

The meeting on Saturday November 27<sup>th</sup> will feature a day long (9 a.m. – 4 p.m.) demonstration by Kai Muenzer which will be available to Guild members in person or remotely by Zoom. This will be followed by day-long workshops on Sunday 28<sup>th</sup> and Monday 29<sup>th</sup> with Kai which will be capped at 6 members on each day.



A turner for over 15 years, Kai has provided demonstrations throughout North America and was a featured demonstrator at the Southwest Association of Turners in 2016 and the 2018 AAW Symposium in Portland, Oregon.

His work features a combination of functional items as well as artistic turnings – all of which reflect superior skill and unique design.

You can learn more about Kai and his work at his website:  
<https://kaimuenzer.com/>



**The fee for the demonstration is \$20 for Guild members and the cost of the workshop, which includes the demonstration, is \$155.**

*FYI: Historically the Guild has sponsored two visits by noted turners every year – one in the fall and one in the spring. For the last 2 visits prior to COVID the fees were \$40 to attend the demonstration and \$175 for the workshops.*

*While we would like to continue offering free demos as we have done over the past year, this was an exceptional practice which we cannot sustain indefinitely.*

*We understand that some members may be reluctant to attend in person. Accordingly, we have decided, on a one-time basis, to reduce the fees for viewing the demonstration – either in person or remotely – from \$40 to \$20. This means that the cost of the all-day, hands-on workshop is reduced to \$155. This is an exceptionally good deal. Turners who offer remote demonstrations to anyone who is interested charge as much as \$25. Moreover, these sessions only last approximately 2- 3 hours whereas Kai's demonstration will last 6 hours.*

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## **MEMBERSHIP RENEWAL DEADLINE: OCTOBER 31, 2021**

The deadline for membership renewal (2021-2022) is fast approaching. If you have not renewed by the end of this month, you will be removed from the membership list which means you will no longer receive Guild emails and the newsletter. You will also not be eligible to attend demonstrations or workshops, in person or remotely.



To renew your membership, go to the Guild website: <https://www.islandwoodturners.ca/>

Click on the heading **THE IWG** and then click **RENEW YOUR MEMBERSHIP**.

(The website is relatively slow, so be patient!)



You will be directed to the **MEMBERSHIP APPLICATION/RENEWAL FORM**. Complete the form and then click **SUBMIT**. You will subsequently receive instructions on how to pay the dues.

**Note: Your renewal will not be effective until payment of membership dues is received.**

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## **FALL CHALLENGE**

In recognition of Bruce Campbell's presentation last meeting, the fall challenge this year is to turn a piece from green wood. Bowl, platter, or lidded box if you are brave enough! The choice is yours. The results will be presented at the January meeting.





## SEPTEMBER RECAP

Bruce Campbell provided a comprehensive discussion of seven topics relating to managing green wood: Identification, Harvesting, Storage, Blank Preparation, Rough Turning, Treatment and Drying and Finish Turning. The following provides the highlights of his presentation as well as some additional information.



### **A. IDENTIFICATION**

Bruce began by discussing major types of figured woods – those woods which have unusual, grain patterns prized by turners. Unlike straight grained wood, the grain in figured wood changes direction, often in a relatively haphazard manner. As a result, the surface of a figured piece has alternating areas of flat and end grain which absorb light differently and produce some spectacular visual patterns.

#### **1. FEATHER/FLAME (CROTCH)**



Found at the juncture of the trunk and main branches, the compression necessary to support the branches, causes the wood fibres to twist and compress. It is typically harder than a straight-grained portion of the same tree and will frequently produce a symmetrical figure on both sides of the branch – akin to book matching.



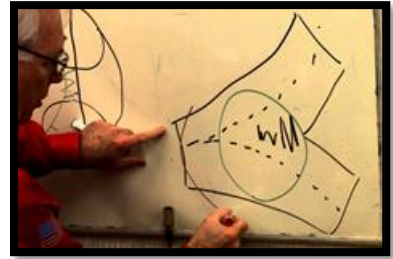
The best crotch wood – and the most stable - will come from a tree that has a U-shaped crotch as opposed to a steeper V or Y shape. Bruce emphasized the need to avoid a “false crotch” which will likely contain a bark inclusion. (right).



To maximize the figure, Bruce recommends that you cut from the top two branch piths to the bottom trunk pith.

For more information on mounting and cutting a crotch blank, see the video by Lyle Jamieson at:

<https://www.youtube.com/watch?v=icliAfj6sdw>



## 2. BURL

Perhaps the most popular form of figured wood for turners, burls are balloon shaped growths composed of swirls of grain laced with eyes. Burl wood offers an unpredictable array of colors, in swirls and curls, flames and other designs depending on the type of wood.



A burl is caused by stress on the tree, whether it be from location, injury, virus, fungus, or bacterial infection. Cambium growth is hyper-stimulated to isolate and “quarantine” the affected area. The presence of burls does not harm the tree, or significantly shorten its lifespan.



While burls on a tree trunk are obvious, most burls grow underground on the root structure. Even a portion at ground level may be difficult to identify since all burls are covered in bark.

While burls can form on any type of tree, certain species are more susceptible to their formation in certain areas. On Vancouver Island, the most common species of burl wood are Big Leaf Maple, Sitka Spruce, Cedar (Western Red and Yellow) and Arbutus.

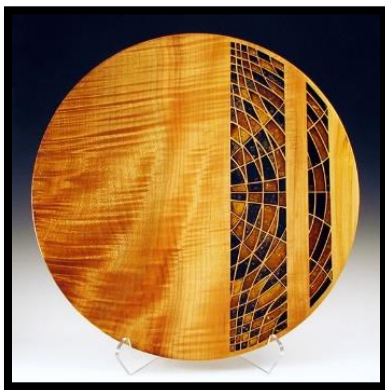
### 3. FIDDLEBACK/TIGER STRIPE



Fiddle Back or Tiger Stripe (F/T) is an undulating or wavy grain pattern. It is a compression grain which runs perpendicular to the face grain and produces alternating stripes of hard and soft fibre. These changes in grain produce “chatoyancy”: an illusion of a three-dimensional surface which changes appearance depending upon the viewpoint.

While this figure can be found in many species, by far the most common one is maple which is why this figure is often referred to as Tiger Maple or Fiddleback Maple.

While bark will typically run vertically, Bruce indicated that if you find horizontal “rippling” in the bark (photo right), it will likely indicate the presence of this grain (or quilted wood).



Bruce alluded to a 1960 study by German forestry scientists which established that 40% of the progeny of a T/F maple tree will also have this figure. Hence, if you find a tree with this figure, there is a high probability that nearby maples will also have it.



#### 4. QUILTED



As the name suggests, this rare figure resembles a wavy “quilted” pattern often compared to ripples on water.

The best source of this figure is Western Big Leaf Maple.

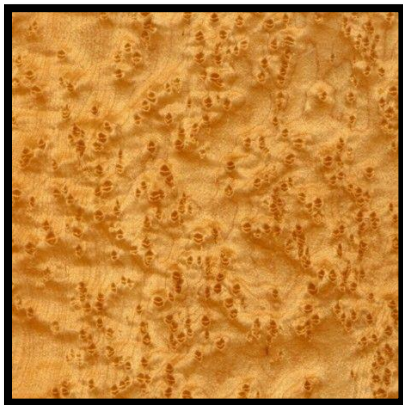
As the photo right illustrates, you can identify this figure by what appears to be bulges or “blisters” and the wood will look three-dimensional.



*Stave Bowl*

As noted above, compression “rippling” in the bark may indicate the presence of quilting.

#### 5. BIRDS EYE



Bird’s Eye figure has a pattern that resembles tiny, swirling eyes. While somewhat like burl figure, it does not have the small knots that are prominent in burl wood.

While it has been found in other woods (white ash, American beech, black walnut, and yellow birch), the most common by far is hard maple.

Unlike burl wood, there is no obvious sign of bird's eye figure in a tree. Having said that, some sources suggest that small "pockets" in the bark of the tree are an indicator that it might have bird's eye figure.



## 6. SPALTED WOOD



Spalting is a form of wood colouration caused by two broad types of fungi: wood-decay fungi and mold fungi.

These fungi produce pigments that can diffuse throughout the wood resulting in some spectacular colour variations. The coloured areas are separated by zone lines which represent the intersection or "battle lines" between competing colonies of fungus.



However, some of these fungi – especially White Rot Fungus – produce enzymes which digest the primary components of wood leading ultimately to its decay.

Hence, the challenge is to find wood where the colourisation is well advanced but before it has become too punky.

In addition to oxygen and warm temperatures (10 – 40°C), spalting requires a high moisture content (20% MC or more). Accordingly, the easiest way to stop the spalting is to dry the wood (12 – 16MC). Other methods include placing the wood in a freezer or submerging it in a container of water (no oxygen).

While any wood can spalt, pale hardwoods produce the most striking colours. Of these, maple, birch, and beech (right) are the most common.

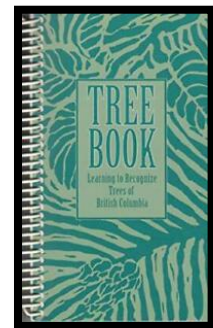


**Note:** For information on how to treat and turn spalted wood, see the note in the October 2018 Newsletter.

## 7. SOURCES OF INFORMATION

a. Parish & Thomson, *Tree Book: Learning to Recognize Trees of British Columbia*, 1995.

You can purchase this field book from the Habitat Conservation Trust Foundation for \$10 (<https://resourceroom.hctfeducation.ca/products/tree-book-learning-to-recognize-trees-of-british-columbia>) or you can download a free pdf version at <https://www.for.gov.bc.ca/hfd/library/documents/treebook/TreeBook.pdf>



b. *The Wood Database* at <https://www.wood-database.com/>

## B. HARVESTING

### 1. TIMING

Bruce noted that trees should be harvested when they are dormant which in B.C. means from roughly October to February. The tree will have substantially less moisture – by a factor of 5 or more – which means that it can be dried much faster. Moreover, there is a greater chance that the bark will stay on if you are turning a natural edge piece.



## 2. SAFETY

The recent death of a young faller in Victoria is a timely reminder of the dangers of felling even for a professional. Please consider using a commercial service!



For an excellent review of chainsaw safety, see the Note by former faller Al Lundgren in the February 2018 Newsletter.



## 3. HARVESTING BURLS

**Caution: Burls will often contain dirt and rocks. Ensure that you are wearing appropriate face protection and exercise caution.**

If the burl is on the side of the tree and covers less than  $\frac{1}{4}$  of its circumference, arborists state that you can cut off the burl without damaging the tree.



If the burl covers 25% or more of the circumference, the tree must be cut down. For small burls, you should cut the trunk approximately 6" above and below the burl. This will prevent the burl from drying too quickly and minimize checking.

If the burl is on one side of the tree only but the blank is too large to handle, cut through the pith to remove the "back half" opposite the burl.

For more information on harvesting and turning burls, check out the notes on the following website: <https://www.loupignoletbowls2.com/>

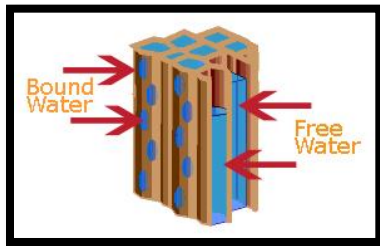
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## WOOD AND MOISTURE

A blank from a freshly fallen tree will contain a very large amount of moisture which Bruce indicated can be up to 50% of the weight of the blank.

Moisture Content is Defined as:

$$MC = \frac{\text{Weight of Water}}{\text{Weight of Wood}} \times 100\%$$



This moisture consists of two types: **free water** which is liquid in the cell cavities and **bound water** which is trapped within cell walls.

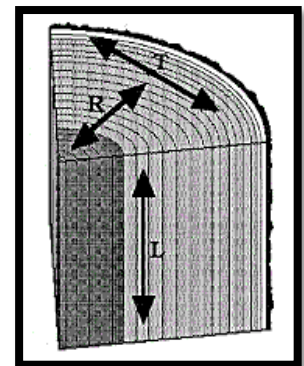
Once a piece of wood is cut and exposed to air, it will begin losing **free water**. The “shower” you experience when turning green wood is principally from this form of moisture. However, the wood does not contract or change dimension since the wood fibres are still saturated with bound water. It is only once all free water is gone – called the fibre saturation point which is typically 30% - that the wood will begin to lose **bound water**. And this is when wood will begin to shrink.

Wood shrinkage takes place in 3 dimensions: longitudinal, radial, and tangential.

The first of these, which refers to shrinkage along the length of a log, is relatively minor – typically only 1/10<sup>th</sup> of 1 percent.

Radial shrinkage refers to shrinkage which is perpendicular to the growth rings. Depending upon the species of wood this can range from 3% for poplar to 7.6% for hickory.

However, the greatest amount of shrinkage is tangential which takes place along the growth rings (circumference). It can range from 6.4% for butternut to a whopping 12.4% for arbutus.





While shrinkage obviously produces stress on a piece of wood, it is not the major cause of cracks. Rather, they are caused by the **differential moisture levels** between the outer and inner areas of a log or blank.

As the outer areas of a piece of wood begin to lose bound water and shrink, they will conflict with the stable saturated interior. As the circumference (tangential) shrinks much more than the radius (radial), it causes the familiar radial cracks.



Hence, the primary goal in storing and drying wood is to attempt to ensure a relatively equal moisture content and thus drying time throughout a blank. For example, in the case of commercial kiln-dried wood, heat and steam are introduced into the drying chamber at scheduled times to maintain a moisture level on the outside of the wood the same as that on the inside.

For most turners, the “solution” is to adopt a “twice-turned” approach. A “green” blank is turned to a rough shape, allowed to dry, and then re-turned to the final form. However, there are many occasions where one is not able to immediately rough turn a blank which means the green wood must be stored.

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## C. STORAGE

Bruce identified five methods of storing wood prior to rough turning starting with the best.

### a. Submerge in Water

While not always feasible, submerging the wood means that it cannot lose any moisture which means no checking or cracking.

Our demonstrator last June, Carl Jacobson uses 55-gallon drums to store his wood before he can get to rough turning them.



To avoid fungi growth, Bruce recommended using running water or, failing that, adding bleach to the container.

## **b. Freezing**

Storing wood in a freezer dramatically slows the drying process and produces a near state of “suspended animation”. Proponents report that they have stored wood for over 3 years with no adverse effects.

However, it will not stop it as the wood will “freeze dry” especially in a frost-free unit. Accordingly, Bruce noted that you should wrap the wood in plastic bags to slow this process even more.



In addition to plastic bags, professional turners Rob Wallace and Al Hockenberry also use log sealer before freezing which is akin to adding another layer of “plastic”.

Bruce also noted that there is no need to thaw the wood before rough turning (although gloves may be a good idea.)

## **c. Split the Log**

Splitting the log lengthwise obviously reduces the width of the piece thereby improving the likelihood that the loss of moisture will be more equal throughout the log. Bruce recommends that the pieces should then be stored upright (providing equal exposure to the air) in a cool, dry place.



## **d. Wrap in Plastic**

While this will obviously slow the rate of moisture loss, it may give rise to mould or spalting so the pieces should be routinely checked.

## **e. End Sealing**

While a variety of products can be used to seal end grain and thereby reduce the rate of moisture loss (paint, PVA glue size, Pentacryl), the most common and most effective is a wax emulsion. It can be applied in freezing conditions and cleans up with water.

While it is relatively expensive (LV: \$45/gal), a gallon will last most hobby turners many, many years.

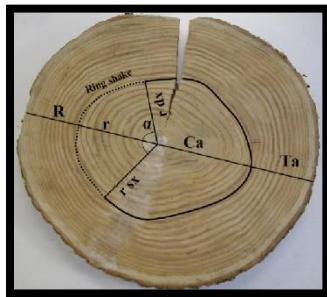


Although manufacturers claim that it will be effective for up to 6 months, Bruce has found that cracking can occur in ½ this time – even for a relatively stable wood such as maple.

## D. BLANK PREPARATION

### Warning: Ring Shake

These are splits that occur in a tree around a growth ring. As one author noted, the tree essentially has a “free floating” cylinder of wood surrounded by a thick ring of wood (right). This condition poses a severe risk of the blank exploding as it is turned.



While the photo above shows an obvious case of shake, the danger is that there are many circumstances where it is nowhere near as visible (left). Examine the log carefully and discard if there is any concern.

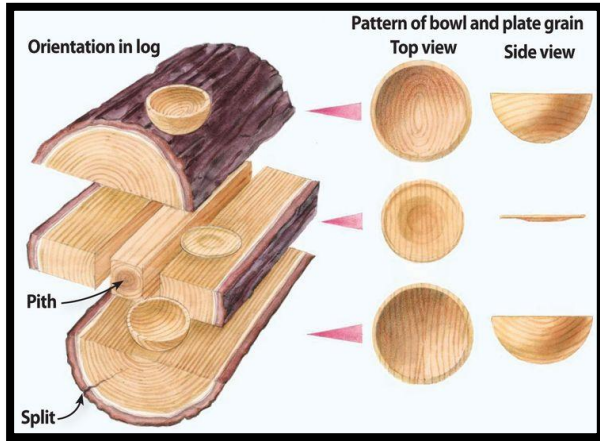
### 1. Remove the Pith

How you cut your blanks obviously depends upon the intended use: spindles, bowls, platters, or vessels? However, regardless of the intended use, in most cases you will need to remove the pith.

Unlike heartwood and softwood, the pith is composed of soft, spongy cells which store and transport nutrients throughout the tree in its infancy. As the tree matures, the pith is no longer needed and begins to decay. Since it remains soft, it dries very quickly and draws water from adjacent wood – which makes it a prime candidate for cracking. Cutting off an inch or so on either side of the pith will suffice.



## 2. Grain Pattern



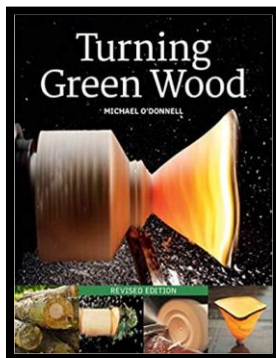
Bruce discussed the various grain patterns that can emerge depending upon the type of turning, the location of the blank in the tree and orientation of the blank when turning.

The diagram at left illustrates some of these in the case of bowl and platter blanks.

For a very good article on the various options, see *Cutting Bowl Blanks from a Tree* in *American Woodturner* June 2018 Vol.33(3).

## E. ROUGH TURNING

**Note:** In some cases, you may choose to turn a green blank to a finished state. This is frequently done to produce a unique distorted shape to the final product (right). You will need to work relatively quickly and must use wet/dry sanding with water or oil to produce a good finish.



For more information, Bruce recommended the book *Turning Green Wood* by Michael O'Donnell.

Otherwise, you will rough turn the blank and wait for it to dry before completing the turning – often referred to as a “twice-turned” item.

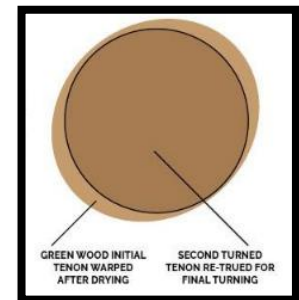
## 1. Wall Thickness

Bruce noted that you should rough turn the walls to a relatively **consistent thickness**. This removes a significant volume of wood and thus reduces the stresses which lead to cracks. It also allows the piece to dry much faster since the walls of the vessel are substantially thinner with greater exposure to the air.

Since the vessel will warp as it dries, the wall thickness must be sufficient to account for this. While this will depend upon several factors including species, moisture content, grain orientation and final shape, the rule of thumb is that the rough wall thickness should be approximately 10% of the diameter and in no case should it be less than  $\frac{3}{4}$ ". If in doubt, err on the high side.

## 2. Tenon

Assuming that you will be mounting the rough turned blank in a 4-jaw chuck once it is dry, extra care should also be taken when sizing the tenon. Since it will warp as well, a significant amount of wood will be lost when re-turning the tenon. Again, err on the high side.



**Note:** A clear centre mark in the rough tenon will assist in re-mounting.

## 3. Safety

Despite the name, never use a roughing gouge – now often called a spindle roughing gouge (SRG) – on a bowl blank.



As the photo shows, most SRGs have a wide and quite heavy working end which narrows considerably at the tang. It is this “weak” point which is susceptible to breaking if there is a catch or simply too much force applied to the tool. (In contrast, a bowl gouge has a smaller working end, and the diameter of the tool remains the same for its entire length.)



## F. TREATMENT AND DRYING

While Bruce discussed a variety of methods for drying a rough turning, the following are the three most popular methods.

### 1. BOILING

He indicated that the most effective method of drying is to boil the blank. The science behind boiling is relatively straightforward. “Flexible” wood cells are surrounded by lignin which provides reinforcement and strength. At the boiling point of water, the lignin will liquify which allows stresses in the wood to be released. (There is some evidence that boiling may also fracture cells walls facilitating the release of bound water.)



While boiling (and steaming) have been used for centuries to bend wood, the current popularity of this technique for woodturners dates from the publication by Steven D. Russell of his experience with this method. Over a period of many years, he boiled more than 4,200 roughed-turned bowls and platters - made from 46 different species of wood. His success rate in terms of avoiding cracking was more than 95% - a rate which far exceeds any other technique. Of equal significance, he found that it cut the subsequent drying time by 50% compared with air-drying.

This method is particularly recommended for species which are prone to cracking such as arbutus, oak, and most fruit trees.

#### a. Equipment

You will need a large pot and a heat source. For maximum use, purchase the largest canning pot you can afford. A less expensive option is to use a cut-off from the bottom of a 55-gallon steel barrel.



As for heat, a propane stove (or barbecue side-burner) set up outside provides a safe and effective source. More expensive options include turkey boilers or crab pot cookers.

### **b. Boiling Time**

Bruce indicated that the roughed form should be boiled for one hour plus one hour for every inch of wall thickness. This should be a “medium” boil – active bubbling - not a simmer. Boiling for longer than this will not harm the vessel.

If you initially place your form in cold water – which is recommended for safety – the clock starts when the water begins to boil. If you need to add water before the time is up, wait until it comes back to boil before “continuing the countdown”.

### **c. Immersion**

The piece must be completely submerged in the boiling water. In most cases, this will require a metal grate which is just slightly smaller than the diameter of the boiling tub with a weight on top. Many turners use heavy duty wire mesh with a cement brick on top.

**Safety:** If you are boiling a large platter or bowl, be careful that it does not jam in the pot. If so, it can act like a steam pot lid and explode. (Yes, there several cases where this has happened resulting in serious burns!)

### **d. Let Cool in Pot**

When the time has expired, leave the wood in the pot until it cools – typically overnight. A slow cooling period will help to relieve stresses.

## **2. MICROWAVING**

For smaller pieces, you can use a microwave. It must be a “shop” microwave as opposed to the kitchen unit given the odours which will permeate the machine.

The effect is similar to boiling in that the heat serves to “liquify” the lignin and the steam ruptures internal cell walls. The precise settings and time will vary depending upon several factors (species, size, initial moisture level, microwave power, turntable), so there will always be an element of experimentation.

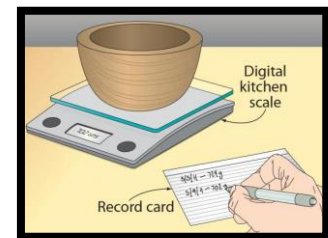


Many turners recommend an initial time of 1 minute at full power while others suggest 2 minutes on a defrost setting. When the cycle ends, leave the piece in the microwave for at least 5 - 10 minutes to cool down in a high humidity environment.

When the blank is removed from the machine, it should be warm – not hot – and have a slight amount of moisture on the outside. Whatever initial time you use, you must allow the piece to return to room temperature before the next heating – which can take up to an hour. Remember that patience is a virtue!

**Caution:** There are numerous cases of aggressive microwaving which overheated the wood and caused it to catch fire. Worse yet, in some of these cases, the inside of the overheated wood ignited some time after the microwaving had finished. Do not rush it and do not leave a piece unattended before it has cooled off!

Repeat these steps until the piece is dry. Most turners use a small kitchen scale to weigh the piece at each step of the process. When there is no longer any drop in weight, you know that the piece is stabilised.



**Note:** Microwaving will release a great deal of moisture which means you should wipe down the inside of the machine between cycles.

### Rest Period: EMC

After microwaving, most turners recommend that you allow the piece to sit for 3 or 4 days in the shop for it to reach EMC (equilibrium moisture content) which simply means that the piece matches the shop environment and is no longer gaining or losing moisture.

For more information and some additional tips see the video at:  
[https://www.google.com/search?q=woodturning+microwaving&source=lmns&bih=739&biw=1536&client=firefox-b-d&hl=en-US&sa=X&ved=2ahUKEwiZ4ryLu8vzAhUHLDQIHUhVBswQ\\_AUoAHoECAEQAA#kpvalbx=xPNoYbaOB7eu0PEPsZST6A027](https://www.google.com/search?q=woodturning+microwaving&source=lmns&bih=739&biw=1536&client=firefox-b-d&hl=en-US&sa=X&ved=2ahUKEwiZ4ryLu8vzAhUHLDQIHUhVBswQ_AUoAHoECAEQAA#kpvalbx=xPNoYbaOB7eu0PEPsZST6A027)

### 3. BAGGING/WRAPPING

While substantially slower than boiling or microwaving, bagging, or wrapping the blank can be used – particularly for woods such as maple which are less prone to cracking.

One of the most popular methods is to coat the end grain portions of the piece with a wax emulsion, place it in a Kraft paper bag and then store it in a cool, dry location with good ventilation.

The bag slows the release of water vapour from the piece as compared with open-air drying. This means a slower rate of shrinkage and more time for stress to be released slowly. As the bag will become saturated with moisture, it must be changed every day or two.



Bruce indicated that you could also use a plastic bag or wrap although he cautioned that the bag should be reversed every day.

This process does require daily monitoring for the first few weeks.

If cracks appear, it is an indication that the piece is drying too quickly. The cracks should be filled with CA glue and steps taken to slow the drying process such as applying more sealer, using a double-bag, or moving the bag to a cooler location.

Alternatively, daily inspection may reveal the onset of fungal growth – mildew or mould. If so, this should be removed with bleach and light brushing to prevent permanent staining. Fungal growth is a sign that the moisture content surrounding the piece is too high and/or the ambient temperature is too high. In response you should consider such steps as more frequent changing of the bag, moving the piece to a cooler location or letting the piece “air-dry” for a day or two before replacing it in a bag.

While similar results can be obtained by wrapping the piece in a towel, keep in mind that the towel will speed up the process since the fabric will “wick” moisture from the wood. It will also produce a higher moisture environment which may produce more fungal growth.

## **NEW TURNERS: ON-LINE INSTRUCTION**

The American Association of Woodturners (AAW) is offering a two-day, on-line course for new turners. It will be offered on Saturday November 6 and Sunday November 7<sup>th</sup> from 1:00 p.m. – 5:00 p.m. Eastern Standard Time.

There will be 3 concurrent tracks each day and the four instructors are all highly regarded professional turners and instructors. Registrants will have access to extended video replay of all sessions for three months.



The cost is US\$29 for AAW members and US\$49 for non-members. For more information and to register go to: <https://www.woodturner.org/Woodturner/2021-Woodturning-Fundamentals-LIVE/2021-Woodturning-Fundamentals-LIVE-Home.aspx>

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## **SHOP TOUR?**

Shop tours are a useful (and entertaining) source of information on how to arrange machinery and tool storage ..... as well as providing ideas for more tool purchases!

And for shop owners, they provide a valuable incentive for cleaning up their shop (and finding that long lost tool)



If you would be willing to have a tour of your shop video-taped for viewing by members, please contact Tim Karpiak.

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## PARTING OFF

Thanks to the members of the Executive for continuing to keep the Guild running.

And a special thanks to **André Robin, Mike Neal, and Tim Soutar** for organizing Phil Cottell's wood sale and to **Harvey Pfluger** for **volunteering** to assist with our audio/visual set up.

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## CONCLUDING THOT

