

IWG News





#### 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, <u>1229 Clarke</u> <u>Road</u>, Brentwood Bay, BC.

Visitors are welcome.

**Executive Committee** 

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# THE PRESIDENT'S TURN

I'm cautiously excited that we can start having in person meetings again. Ironically, the next two meetings will be Zoom demos. But they both promise to be very interesting.

March 2022

I watched the webinar with Janine Wang last week. Although she just briefly talked about what she will be presenting, it did pique my interest. I can't wait to see the demo on Saturday. (See below for more information.)

And in April we'll have Glenn Lucas from Ireland which also promises to be interesting.

As most of you know, in May we have the AGM. During this meeting we elect the Executive for the next year. This year we anticipate that we will need two new members in order to continue our regular activities. If you would like to ensure that the Guild continues its array of programmes, now is the time to speak up. Please contact me for more information.

And finally, it looks like spring has arrived. I've talked to a few people recently who have said that it's been tough getting into the shop. I am one of those. Let's hope that the sun and warmer weather motivates us to get out there. I've got enough projects to keep me busy all summer!

I hope to see everyone on Saturday. I'm sure you will enjoy it.

Tim Karpiak

### NEXT (ZOOM) MEETING: SATURDAY MARCH 26: 1:00 p.m.



Our March meeting will feature a remote demonstration by Janine Wang on incorporating basketry into woodturnings.



This will include information on design features of turnings, types of reeds and tools, and basketry processes of anchoring, twining, stepping up, braiding and sealing. A unique presentation.





Janine is a furniture maker in Philadelphia who holds a MFA from the Rhode Island School of Design and a Bachelor of Architecture from Cooper Union. She also teaches woodturning and basketry at Peter's Valley School of Craft and Snow Farm New England Craft.



You can view more of her work at her website: <u>https://www.janinewang.com/</u>

Note: Janine has agreed to sell kits of individually wrapped coils of rattan reed and raffia cord for those who are interested in trying their hand at this process. To reduce shipping costs, the Executive will organize a bulk order if there is sufficient interest. Soon after her presentation, an email will be sent to all members providing more information on the contents and cost.

## **FEBRUARY RECAP**

Rob Dunlop provided a great demonstration of toy turning featuring a variety of tools, techniques, and jigs. The following are the highlights.

### <u>I. OWL</u>

Rob began with a blank of maple burl that was approximately 3" square and 7" long.

With the blank mounted between centres, a cylinder was turned using a skew. (What a show-off!) He then turned a tenon on one end to fit his 4-jaw chuck.



#### Lathe Speed: Efficiency and Safety

Lathe speed must vary depending upon one's expertise and the type of turning (spindle vs bowl). When engaged in spindle turning, Rob favours a relatively high speed which in this case was 2500 rpm. This reduces the physical stress when rounding a square blank (the familiar "bump, bump, bump"), and, as also noted by Gord Kifiak in his January demonstration, will produce a superior finish.

However, Rob and Gord are both highly experienced turners not only in terms of tool control but also in terms of the safety precautions they take including checking a blank for flaws, ensuring a superior fit in a chuck, always checking tool rest clearance before starting the lathe, sensitivity to changes in sound or vibration, and always wearing a face protector, to name but a few. Until you acquire their level of expertise, protect yourself by reducing your lathe speed accordingly.

### The Head



With the blank mounted in the chuck and the tailstock engaged, he began by turning a sphere for the owl's head. He uses a half-circle template of thin plywood to layout the parameters of the sphere taking care to ensure that the hole made by the tailstock will be removed. He also used the template to identify high spots in order to produce a consistent sphere.



Once satisfied with the form, he sands it and then uses a parting tool to remove it from the blank. The nub is removed with a sharp knife.

### The Body

He then turned the body of the owl from the remainder of the blank. Once again, Rob used a small detail gouge for this task Used primarily in spindle work, a detail gouge has a shallower flute than a spindle gouge which means there is more metal under the flute. The result is less vibration and a smoother cut.



A concave surface is turned in the end to hold the head and then the balance of the body is turned. Once satisfied with the form, he used a skew (both conventionally and as a negative rake scraper) to smooth the surface. After sanding and with the blank still on the lathe, he applied a homemade finish which consists of equal parts boiled linseed oil, shellac, and denatured alcohol. Once dry, he applies a coat of wax.

#### **Head Features**

For the eye "perimeters", he used a compass to draw two circles which slightly overlap. He then mounted the head in a homemade sphere jig.

The inside of a cylinder is hollowed to match the diameter of the head and a shallow recess is turned on the outside to match the width of a hose clamp. A series of flexible "arms" are made by drilling a series of holes and cutting from each hole to the front of the jig.



Using a Jacob's chuck and a Forstner bit, he drilled a 1/2'' hole in each of the centre points of the eyes which will hold the eyeballs.



He used a skew tip to make a small indentation just inside the two "perimeter" marks which leaves the inner portion proud. (Photo left)

The grooves in the "proud" portion are cut using a laminate trimmer sled, banjo table and a homemade index wheel.





The base is removed, and the trimmer is secured to a metal plate. (Rob noted you could also use a Dremel tool.)

Wood blocks and/or metal strapping can be used to secure the tool to a wooden sled.





A router bit emerges from a hole in the triangular wooden "nose" piece which acts as a follower on the surface of the turning.

The sled sits on a table which is mounted in the banjo.

**Note**: You can easily make one using a 3/4" pipe nipple mounted in a 3/4" pipe floor flange although the nipple's OD may be oversized and will need to be filed down to 1".



Since the indexing on the Powermatic is absurdly cumbersome, Rob chose to use a homemade wheel and pin.



**Note**: If your lathe does not have (good) indexing capabilities, there are a number of commercial options. One inexpensive one is from Flute Masters (US\$35) (<u>https://flutemasters.com/index-wheels/</u>) It has four concentric circles with 60, 48, 36 and 14 holes respectively. You will however need to make a simple rig (photo left) to hold the "engagement" pin.



With the platform in the banjo, a V-groove router bit is centred on the turning and the grooves cut.





The eyeballs are turned from a laminated blank of ebony and maple. They are secured in the head with a coat of thin CA glue over the entire eyeball while the beak is made of ebony and Rob uses thick CA glue to secure it.

### II. TOP WITHIN A TOP

The design of this *Top within a Top* is based upon one demonstrated by Bonnie Klein when she was a visitor here some years ago.

### **Main Body**

Rob began with a round blank that was approximately 3.5" x 1.5" which he mounted in one of his eight (!!!!) chucks. With a Jacob's chuck in the tailstock, he used a Forstner bit to cut the hole which will hold the mini-top. He then deepened the centre portion of the hole to accommodate the point of the mini-top.

He then chased threads inside the hole. Chaser tools come in a matched set (female and male) with a common tpi.



Rob noted that in most cases, the wood to be threaded will need to be strengthened by one or more applications of CA glue.

With the lathe speed reduced to 200 rpm and moving slowly, Rob made multiple thin passes (at least 10) until he achieved the full thread depth.

For detailed instruction on how to chase threads, see the demonstration by Mike Mahoney at <u>https://www.youtube.com/watch?v=96x1\_ITjo54</u>





He then embellished the face and edge of the body. Using the tip of a skew he makes two rings on the face and one on the side.

firmly into the groove and quickly burns a black line.

To highlight the rings, he used a piece of plastic laminate. With the lathe at a relatively high speed, the edge of the laminate is pressed

Plastic laminate comes in two thicknesses: 1/16" and 1/32". Ideally, you want to use the thinner laminate to avoid leaving a burn mark outside the groove. While you can obtain free laminate samples at most home building stores, these will be the thick ones. You can thin the edge of these using a file or coarse sandpaper.

He then textured the area between the black lines. With the lathe at 1800 rpm, he used a homemade Elf tool which consists of a Dremel round bit in ball bearings set into a handle.

Spirals can be cut either clockwise with the bit engaged above centre or counterclockwise with the bit engaged below centre. Experimentation on a piece of scrap wood will help you determine the speed of movement as well as how much pressure is required.

After sanding off the "fuzz", he highlights the resulting spiral pattern (and adjacent area) using coloured pens.









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### Handle

The handle is then turned and using a chaser with a male thread, the end is threaded to match those in the body. Once again, a recess is cut to allow the chaser to "exit" and a chamfer is made at the edge. As the top is destined for a child, he frequently checks the fit to ensure that he has a "loose" fit.

He hollowed the inside of the threaded end of the handle to provide clearance for the handle of the mini top which will fit inside.

He screwed the body onto the handle and finished turning the bottom of the body.

Similar to his earlier embellishments, he cut a number of rings with a skew, highlighted them using plastic laminate, created spirals with his Elf tool and then coloured them.

He removed the body and completed turning the handle. He turned three rings on the handle and then textured inside these using a homemade version of a Sorby texturing tool which employs a rotating gear from an old clock.

He then decorated the spiral pattern using coloured pens.







### III. DUCK

Turning the duck is an example of offset turning where the centre of the blank is offset from the spindle centre for portion of the turning.





While there are many ways to hold a blank for offset turning, one of the best involves using an eccentric chuck. Not only does it avoid having to reposition the blank many times, it also allows one to set precise and repeatable offset measurements. However, most of the leading brands cost well in excess of \$500. Accordingly, Rob decided to make his own.



His chuck consists of two aluminum discs. The small one has a centre screw which is used to mount the blank. The other end has a threaded bolt for mounting in the second larger disc.

The larger disc has a series of holes that are drilled and tapped to provide a wide range of offset possibilities.



A very slick rig!

With the chuck in the centre position, Rob mounts a blank which is approximately 2.5" square by 4" long and turns it to a cylinder. He then marks the intersection of the body and the neck.



He unscrews the smaller disc and then screws it into one of the holes in the larger disc for the desired offset.



Careful to ensure clearance with the tool rest, a detail gouge is used to shape the neck and head area.



After sanding, he unscrews the small disc and secures it back in the centre position on the large disc to complete the turning of the body and the stand.

Rob then showed how he would turn the beak if he did not have pin jaws. With a Jacob's chuck in the tailstock, he drilled a hole in scrap wood which is slightly smaller in diameter than a square blank of ebony and then hammered it into the hole.





A hole is drilled in the head for the beak and a pair of "googly" eyes are glued on to complete the project.

# **CA GLUE STORAGE**

If you are an infrequent user of CA glue, you will likely have had at least one instance where the glue has set up or lost adhesive strength well before the container is empty. At approximately \$10 per ounce, this can be an annoying expense. The following are some storage tips that will help to prolong the life of your glue.



#### A. THE CAUSE

The culprit of premature curing is water vapour (and to a lesser extent heat). CA glue is an acrylic resin that rapidly polymerizes in the presence of hydroxide ions forming long, strong chains that join the bonded surfaces together. Hence, the higher the humidity (and temperature), the faster the curing and loss of adhesive strength.

#### **B. UNOPENED CONTAINERS**

Water vapour will eventually penetrate even unopened containers. Most sources suggest that unopened containers will have a shelf life of 8 - 12 months from the date of manufacture. The upper range will be more likely if you store the container in a cool, dark place. As many manufacturers do not provide a date stamp, your best option is to purchase from a store which has a relatively high turnover of stock.

**Tip**: Trying to remove "spent" and thus ineffective CA glue from a bark inclusion is a near impossible task. Mark the purchase date on the container and check that the glue is still effective before applying it to your turning.

#### Refrigeration



Storing unopened containers in a refrigerator will significantly extend the shelf life. For example, *Permabond* claims that if the container is stored between 2 and 7 degrees Celsius, it will have a shelf life of at least 18 months. *BSI* guarantees a shelf-life of 24 months if stored in a refrigerator while *Starbond* offers a guarantee of a shelf-life of 30 months if the container is stored under 4.5 degrees Celsius. However, doing so is somewhat problematic. For some, it may not be feasible (or safe) to store the glue in a home refrigerator. More importantly, if you open a cold container, the warm air in your shop will cause condensation inside which will trigger even faster curing. Hence, virtually all manufacturers state that you must wait until the glue has reached ambient (room) temperature before opening the container. This is not likely to be a practical option for most.

### **C. OPENED CONTAINERS**

Reports of the shelf life of an opened container vary widely from as little as 2 months to 12 months. The following are the most common recommendations to prolong its working life:

1. Cut the smallest opening that will meet your needs to reduce the amount of moisture that can enter the container.

2. Keep the nozzle area clean to ensure a tight fit of the lid. If you are unable to wipe it clean with a cloth, a bit of acetone will dissolve the dried adhesive. Failing these, use a razor knife to scrap the glue off.

3. Before recapping, tap the container a few times on a flat surface to draw any glue out of the spout.

4. Store the container upright in a cool, dark place.

#### **Refrigeration?**

There are conflicting views from manufacturers as to whether an opened container should be refrigerated. Starbond and BSI both recommend doing so while others including Permabond say no, since the warm air that has entered the container in use, will condense when placed in a refrigerator.

### 5. The Best Option

The best option is to store an opened container in an airtight container with a package of silica gel desiccant. The desiccant will absorb atmospheric moisture and hold it. While you can purchase these, they can be easily found in containers of vitamins or electronics. The desiccant can be "renewed" by placing it in a microwave for 30 - 60 seconds and then flip over and do another minute. Use gloves as it will get very hot.



**Tip**: If you cover the gel tab with a clear glass container, any moisture will condense on the container. When none appears, you know that the desiccant has been fully dried.

# **REMOUNTING: A CENTERING DEVICE**

While it may not happen often, there will likely be occasions when you need to remount a turning after it has been removed from the chuck. A good habit to get into is to use a pencil to mark the tenon in the space between the #1 and #2 jaws every time you mount a blank.

While this reference mark will help, there may still be some alignment required to get the blank running true. Using your finger or a pencil to assess the run out will rarely provide much accuracy.

In response, Tom Street of the Seattle Woodturners came up with this simple centering device which fits in his banjo.



Instead of an acorn nut, a small bearing or a dial indicator might provide even better results.

# **MOON PHASE WOOD HARVESTING?**

One of the demonstrators at the recent Woodturners Worldwide Online Symposium was Pascal Oudet who is an internationally renowned turner from France.



He demonstrated his signature turning of a thin (<1/16") plate from a round of freshly cut European white oak which will naturally warp into a shallow bowl as it dries.

He then sandblasts the piece removing the early, soft growth leaving only the harder late growth rings that are held together by the medullary rays.



During his presentation he referred to the concept of moon phase wood harvesting and indicated that following this harvesting technique is crucial to the success of his wafer-thin turnings. While I suspect most of us harvest wood whenever we get the chance, regardless of the time of year, let alone moon phase, I was intrigued by this observation and decided to do a little research.

### What is Moon Phase Harvesting (MPH)?

It is well established that the best time to harvest a tree is during its dormant period - which in B.C. means roughly from October to February. The tree will have substantially less sap – by a factor of 5 or more – which means that it can be dried much more quickly, will be less prone to radial cracking and the likelihood of infections of bacteria and fungi will be substantially reduced.

However, even in the dormant period, there will still be a considerable amount of moisture in a tree and, as is the case with ocean tides, it is argued that the moon will also affect the rise and fall of sap levels – albeit on a much finer level.



While this sounds like an idea from *QAnon*, there is considerable evidence that for more than 2000 years forestry practices by various cultures throughout the world were carried out in observance to moon cycles. These practices reflected the view that for special timber uses certain felling dates in relation to moon cycles would produce more advantageous wood properties.



Hence, for example, the "father of botany", Theophrastus of Eresos (372–287 BC), in his *History of Plants (Vol 1, 3)* stated that wood harvested during a waning moon would be harder and more resistant to rot.

In more contemporary times, there are many boat builders in Newfoundland who abide by this practice today.

"Everything is governed by the moon," says boat builder Sam Feltham, "You wouldn't cut timber when the moon was wasted; you would cut on a new moon. If you cut it after a full moon the wood shrinks faster."

As for woodturners, the contention is that the best time to harvest a tree is during the dormant period on a waxing moon which means the time between a new moon and a full moon. The wood will be more flexible and less likely to crack.

Despite these contentions, I could find very little scientific evidence in support. In fact, the only study I am aware of was conducted by Prof. Zurcher, a forestry engineer with the Bern University of Applied Sciences. In his work entitled *Lunar Rhythms in Forestry Traditions – Lunar-Correlated Phenomena in Tree Biology and Wood Properties*, he concluded that while he found what might be some support for this proposition, confirmation would require much more research to be undertaken.

FYI: For those so inclined, the next new moon in B.C. will appear on March 31 at 11:24 p.m.! Just sayin...

# PARTING OFF

A huge thanks to Rob Dunlop for his demonstration. New members may not be aware but over the years, Rob has proven time and time again, his willingness to help out with demonstrations and Woodturning 101. We are very fortunate to have him as a member.

And thanks once again to the members of the Executive for trying to provide support and encouragement for all members.

# **CONCLUDING THOT**

