IWG News

The Newsletter of the Island Woodturners Guild May 2023

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:
Don Robinson

Treasurer:
Peter Pardee

Secretary:
Michael McEwan

Members at Large:
Hovan Baghdassarian
Virginia Lee
Marlene Speckert

Past President:
Steve Werner

Newsletter Editor:
John Kilcoyne

The IWG gratefully acknowledges the support of the following companies:

Artisan Wood to Works
Chipping Away
Industrial Plastics & Paints
Island Blue Print
KMS Tools
PJ White Hardwoods
Richelieu Hardware
William Wood-Write

THE PRESIDENT'S TURN

As John reminded me, this will be my last newsletter. I'd be lying if I said I wasn't a bit sad. It seems like just yesterday I was at the AAW symposium in Portland as the newly elected president of our Guild. And now five years later I'm preparing to hand over the reins to a new executive. Bittersweet indeed.

Who knew what the future was to hold in 2018. Our Guild was growing in numbers and our meetings were well attended and very social. We brought in great demonstrators and had wonderful workshops.

I'll always remember the executive meeting in March of 2020. We decided to suspend in person meetings. I thought it would be only for a month or two. I couldn't have been more wrong. What followed was a frantic rethinking about how to continue as a Guild. We had been talking about the possibilities of remote demos but were now forced to leap into the new technology. It was a steep learning curve. With support and encouragement from the membership we developed the ability to hold Zoom meetings and broadcast local demonstrations from our members. I fondly remember Vik and I loading up our gear and invading someone's workshop and setting it all up. Every demo had its own challenges. From audio not working to batteries dying to Zoom connections dropped. But it always worked out thanks to everyone's efforts and patience.

And now it's our new reality. Although we still have tech "challenges", hybrid meetings and remote demos are here to stay. I think we are well positioned to deal with any situations that may arise.

In closing, I would like to say that the Guild doesn't run on the back of one person. It takes work and commitment from a large group of people. Without that help our Guild would wither. I would encourage everyone to do what they can to ensure that our Guild continues for years to come. Thank you to everyone who has helped me over the years. I have enjoyed my time as your president and will continue to support the Guild in every way I can. Thank you for the opportunity.

Cheers Tim Karpiak.

NEXT MEETING: MAY 27th 1:00 p.m.

PLEASE NOTE: As neither of our A/V coordinators are available for this meeting, there will be no remote access via Zoom - the session will only be available in person. We expect that remote access will be available for the June meeting.

The meeting will begin with a brief AGM to be followed by a demonstration on turning a natural edge bowl.

1. Annual General Meeting

a. The following members have agreed to be nominated for the noted positions:

President:	Don Costello	Member at Large:	Hovan Baghdassarian
Vice-President:	Don Robinson	Member at Large:	John Kilcoyne
Treasurer:	Bonnie Hallas	Member at Large:	Virginia Lee
Secretary:	Mike McEwan	(Past President:	Tim Karpiak)

This does not prevent any member from standing for any of these positions if they wish.

b. The Executive has unanimously voted in favour of raising the annual dues to $50.

(The last dues increase was over 10 years ago, and rising costs have prompted a significant drop in our bank balance from $16,000 in 2019 to a current figure of approximately $9,800.)

c. The Annual Reports from the President and the Treasurer can be found in the Appendix at the end of this newsletter.

2. Demonstration

Following the AGM, Graeme Evans will demonstrate Turning a Natural Edge Bowl.

APRIL RECAP

Kade Bolger provided an engaging demonstration on turning a Lotus. The following are the highlights.

INTRODUCTION

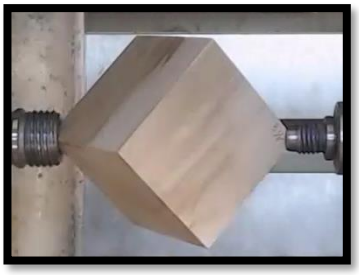
Kade began by showing a number of Lotus Bowls – named for their similarity to an open lotus flower - in a variety of woods including Poplar, Butternut, Crab-apple, and Roasted Ash (see below).

He then spent a few minutes reviewing the safety precautions he takes when turning including removing rings/wrist watches, using a short sleeve turning smock to remove the possibility of the sleeves catching in the turning, safety glasses and face shield and custom ear plugs.

THE BLANK

The bowl is turned from a small cube, typically 3 – 4” in size. Care must be taken to ensure that it is a perfect cube with identical dimensions in all axes. Given the high speed and amount of air turned, it is also crucial to ensure that the blank is sound and free from any cracks.

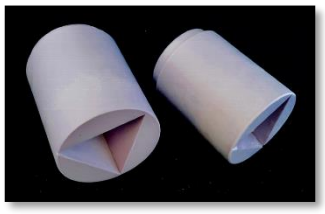
MOUNTING



The blank is mounted in the headstock spindle and the live centre with the pin removed. The bottom of the bowl is on the headstock side with the top at the tailstock.

It is crucial that the two “tips” be centred in these “holes”. He shifted each end until he was sure that the gaps on the three sides were identical (left). This ensures that the blank is centred which will enable consistent wall thicknesses on all six sides.

If you plan on turning a number of cube blanks, you might want to consider purchasing the three-point chucks from Rubber Chucky (US$35-47).
https://www.rubberchucky.com/store/p138/Three_Point_Chucky_SET.html#/



DESIGN

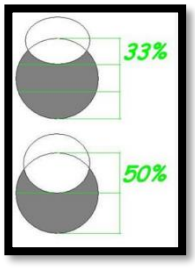
To provide a more dramatic visual impact, the curvature of the top and base of the bowl differ. The curve of the base (red arrow) is much flatter than that of the top (blue arrow).

TOOLS

1. Turning

Kade uses two detail spindle gouges for this project: one with a long fingernail grind and the other with a shorter "bottom feeder" grind.

Spindle Gouge (SG) vs Detail Spindle Gouge (DSG)



The primary difference between these two gouges is the depth of the flute. The flute of a typical DSG is quite shallow (33%) as compared to 50% for a spindle gouge. This means more steel under the flute of a DSG which aids heavy cuts and allows one to work further past the tool rest with less chatter.

2. Lighting

To illuminate the turning he uses a 32 LED rechargeable closet light bar which he mounts on his tool rest. It comes with a magnetic base (which he reinforced with some rare earth magnets) and a remote control. (He also uses this in his light box.)

While the unit that he uses (LUNSY) does not appear to be available, there are a host of similar "under-cabinet" lights available online and from big box stores.

Purchase Considerations

Virtually all of these are motion-sensor activated and not all of them have an "off" button, so you should check this out before purchasing. Also, while there are many models which have a magnet backing, many users report they are very weak which means you will likely have to epoxy some rare earth magnets which can be obtained from Lee Valley. Finally, ensure that the length of the light bar does not exceed your tool rest. While bars are available in 7-8" lengths, they are more expensive, and many have only 10 LED lights.

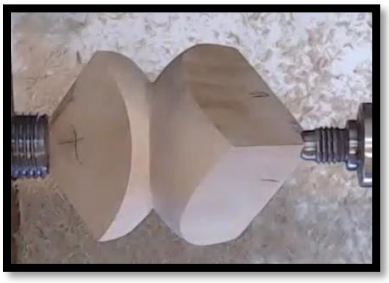
TURNING

Safety Issues

1. With six sharp corners posing a significant risk to your fingers, it is critical that they do not move past the tool rest.

2. This project involves turning a considerable amount of air. As a general rule, the higher the speed, the easier the turning will be as the "time spent turning air" will be reduced. For this reason, Kade sets his lathe speed at 1800 rpm. However, you should NEVER turn at a speed that you are not comfortable with. If you do turn at a lower speed, maintaining a consistent tool location during the "air gaps" will be an important requirement.

He begins by cutting the separation point between the two portions. He is careful to use the point of the tool and ensures that he is always riding the bevel. He then completes the outside.



He power-sands as much of the outside as he can and then uses a folded-over piece of sandpaper to sand the crevasse. He emphasized the importance of keeping the finger on solid wood to avoid the sharp corners.

Using a parting tool, he then turns a tenon sized to fit his spigot jaws on the base portion.

There are 3 high sides on the tenon. To obtain a secure hold, he ensures that at least two of them are centred on a jaw.

With the tailstock engaged for safety, he begins to hollow the top/bowl portion. As the tailstock eventually gets in the way of the tool, he ends up with a pillar which he leaves as long as possible.

He stops when there is approximately 1/4"at the edge. (Left: arrow). This leaves sufficient extra wood to deal with any problems which may arise.

He removes the “pillar” using a series of “down cuts” towards the headstock which “forces” the turning into the chuck.

In a series of step cuts, he then turns the inside to a consistent thickness. As is the case with any thin wall turning, once he has completed a section, he does not return to it given the potential for vibration and tear out.

To sand the inside of the bowl, he begins with power sanding being careful to stay away from the edges as this may produce an uneven thickness. For the remainder, he uses hand sanding as described above.

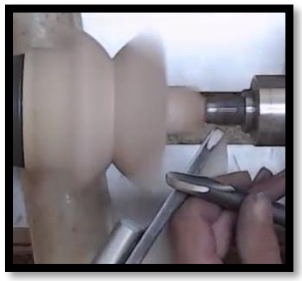
The piece then needs to be reversed in order to finish the bottom portion. While you could use a vacuum chuck, Kade showed how to use a jam chuck.

He mounts a scrap piece of soft SPF wood in the chuck and turns the end to match the inside curvature of the bowl. He also drills through hole which will enable acetone to be used to soften the hot melt glue once the bottom is finished.

He applies a liberal coat of hot melt glue to the face and then brings up the tailstock to centre the turning. He also adds spot glue on the inside of the bowl.

Kade uses a Gorilla hot melt glue gun (Cdn Tire: $20 (Mini)) which he finds heats up much faster than other models and expels glue faster. He uses Gorilla impact tough glue sticks (Cdn Tire: $7/30 pack).

Once he is sure that the glue has set, he turns the underside of the base. Note there is a dome shape on the underside which matches the curvature of the top bowel to provide the illusion of a single piece.



He makes a “hard entry” push cut and begins to hollow out the base.

In tandem with this, he also reduces the size of the “pillar” until it is easily cut off.

When the tailstock starts to interfere with the gouge handle, he removes it and turns the ends of the “legs” to a thickness that matches the bowl. He is careful to avoid cutting into the “dome” area.

He then transitions from the concave legs to the convex dome using a spindle detail gouge with a long grind.

He continues to shape the dome until it will not be visible when the piece is sitting on a flat surface.

The dome is power-sanded while the balance of the underside is sanded by hand.

To remove the piece from the jam chuck, Kade uses acetone to soften the hot melt glue.

Safety

Acetone is highly flammable and can cause eye damage if a splash occurs. Ventilation and eye protection should be used. Alternatively, you could use denatured alcohol to soften the glue although it will take a bit longer.

For the finish, he uses a 50/50 mix of tung oil and mineral spirits.

POST SCRIPT: ROASTED (THERMALLY MODIFIED) WOOD

The following note is prompted by Kade's discussion of roasted wood which as he noted is primarily used by luthiers for the neck, body or top of acoustic guitars.

The term refers to wood which after being slowly heated to produce kiln dried lumber, is then cooked for several more hours at a higher temperature.

The result is wood that is more dimensionally stable with much less movement during the four seasons. In addition, the wood's natural sugars are rendered inedible by insects and the wood is mold resistant.

As Kade showed, the roasting process also darkens the wood throughout with the precise colour depending upon temperature, cooking time and vacuum settings. One manufacturer claims that their roasted maple has a coffee-colour similar to walnut. The photo (right) shows beechwood which was treated, from left to right at: 200 °C, 190 °C and untreated.

On the downside, it renders the wood more brittle (and prone to chip out like ebony), comes in small dimensions and is much more expensive. For example, *Woodchuckers* sells a piece of roasted maple (36" x 4.5" x 1.5") for $20.20.

SAFETY: A CLOSE CALL

The 36 second video (link in the box below) shows a turner using a spindle roughing gouge (SRG) to turn the outside of a staved urn with flat grain wood for the end caps. Akin to a barrel, a staved blank is basically a cylinder formed from vertical pieces of wood called staves (right).

https://youtu.be/PJhI_QweQ0M

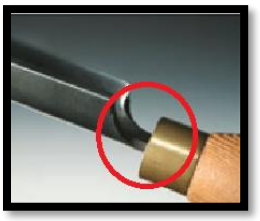
LESSONS TO CONSIDER

To his credit, the turner posted this video to remind viewers of some important safety points.

1. SRGs and End Grain

The staves are simply spindles and thus a SRG could be safely used to turn these. However, the end caps were flat grain wood which meant that when he reached the cap, he was turning end grain.

You should NEVER use a SRG on end grain! The size, shape, and grind of a SRG means that it tends to pull the tool edge into end grain which frequently produces two results.



First, it may snap the tool in half due to the very narrow tang. The photo at right shows this result when one of our new members used a SRG on a bowl.

Secondly, as the video shows, it will commonly produce a massive catch which will often shatter the blank.

2. Slow Down

It is also important to note that this person is a very experienced turner who KNEW that he should never use a SRG on end grain. Nonetheless, he experienced a momentary lapse (in his words a "brain fart") that could have led to very serious consequences. All of us, can relate to this. While there is no easy prescription, slowing down and asking yourself whether your actions are safe, is a habit you should develop.

3. Faceshield

Finally, and most importantly, there is the fact that he was saved from serious injury by his faceshield. To give you some idea of the magnitude of the kinetic force, when the blank hit his faceshield it knocked one of the lenses out of his eyeglasses and bent the phone in his shirt pocket into a banana shape!!! He emerged without a scratch and the only bruise was to his ego.

It is important to note that he was using a faceshield which extends down to the chin area as opposed to simply covering the eyes. Get a proper faceshield (such as the Uvex Bionic) and wear it!

ADVANCED FLUTING JIGS

The April newsletter contained a note on standard fluting jigs. While they work very well, they are restricted to making linear cuts along or across the surface of a turning. Lin Bayford, Rob Dunlop, and Gil Heise showed their "advanced" fluting jigs which enable them to make a variety of flutes including arcs and rosettes.

1. PAUL HOWARD FLUTING JIG

For the basic carriage, Lin uses the Paul Howard Fluting Jig (Black Forest: $330) which is one of the most popular commercial units.

This photo shows the Jig with a conventional flat base which is used for linear fluting. Not pictured is a special platform with pivot points which is secured on the lathe ways.

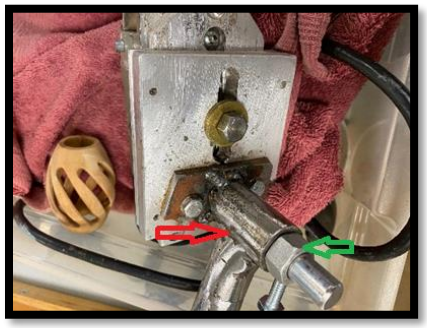
However, to enhance the range of cuts that he can perform, including arcs and off-set rosettes, Lin made a hinged base for the jig which allows him to cut arcs. (right)

2. ROB'S GIMBALLED FLUTING JIG

An article in *American Woodturner* (Dec/22) describes how the author mounted his router carriage on a standard *PanaVise* (left) to create a gimballed fluting jig which can be used to create a variety of cuts.

Inspired by the article, Rob decided to make a slightly different version of this jig.

For the carriage, Rob used a flat aluminum platform which is bolted directly to a threaded hole in his trim router.



A pipe "collar" with a handle was then bolted to the platform (red arrow). To complete the jig, a rod sized to fit his banjo was installed in the "collar" with a locking nut for height adjustment (green arrow).

While the jig can perform a variety of cuts, Rob discussed two types.

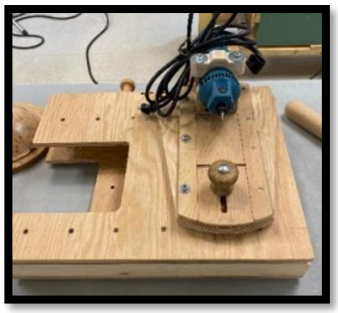
With the jig mounted in the banjo, Rob described how he routed the “through arcs” on this ornament.

The photo at right shows the progression of the turning and routing.

With the jig located in “face turning” position, Rob then explained how he used it to create a series of rosettes similar to those that are created using a Rose Engine.

3. GIL’S PLATFORM-BASED JIG

While Gil’s jig will perform a variety of cuts, it was initially designed to cut slots in lighted ornaments.



The adjustable carriage is secured to an XYZ platform which allows him to adjust the fluting in multiple axes.

He uses a Makita trim router as it can hold bits with shanks ranging from 1/16” to 1/4".

The platform utilises an 18” full-extension drawer slide with cross-feed capability using rails cut at a 45-degree angle.

The following photos show how Gil creates his ornamental lanterns.

After turning and hollowing the form, he mounts his fluting jig and proceeds to cut the through slots.

He uses a 1/16” bit to cut the 32 slots which take less than 5 minutes to complete.

Post Script

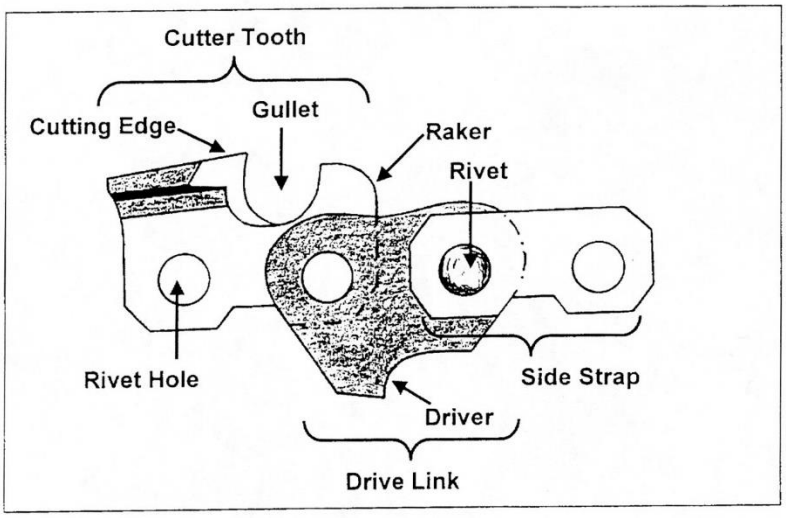
To apply a finish once the ornament is parted off, he created a mini “expansion” chuck.

A through bolt is attached to a wooden and metal washer.

As the bolt is tightened, the slots in the “chuck” expand gripping the piece firmly.

CHAINSAW: BAR AND CHAIN MAINTENANCE

As discussed in the April newsletter, the following are the speaker notes from Al Lundgren’s presentation in 2023 to the Comox Valley Woodturners Society on Chainsaw Bar and Chain maintenance.



#1: Parts of a chain

Cutter Teeth: The key parts of the cutter teeth are the cutting edge, the gullet, that allows for chip removal and the depth gauge or raker, which determines the depth of the cut or thickness of the chip.

Side Strap and Rivets: These components allow the chain to be flexible when rotating around the bar tip and sprocket. The side straps support the load and ride on the rails of the guide bar.

Drive Link: The drive links ride in the groove of the guide bar. While their primary function is to propel the chain, the tang also cleans debris from the bar groove allowing a clean path to transport chain oil to lubricate.

- The pitch of a chain refers to the distance between its drive links. It is determined by measuring the distance between any three consecutive drive links and dividing by two. Example ¾" divided by 2 = 3/8" pitch
- The gauge of a chain refers to the thickness of its drive links. It is determined by measuring the portion of the drive link that fits into the groove of the guide bar.

#2: Maintenance of the Chainsaw Guide Bar

While often overlooked, a sharp chain will not last if you do not take the time to check the guide bar regularly. This will also provide some clues as to any potential issues with your sharpening technique.

- Remove the bar and chain and clean any grit or sludge out of the bar groove. Ensure the oiler hole is clear. This is located near the mounting slots.
- If equipped with a sprocket nose tip, inspect for ease of movement. You may notice a small hole for injecting lubricant (grease) and special mini applier pumps are available. Most pros never bother as the built-in oilers on modern chainsaws provide a steady supply of chain oil to lubricate the sprocket nose.
- Always use proper chain oil in the oil pot. Proper chain oil has special additives that allow it to lubricate and adhere to all the moving parts.
- Standard automotive 30-40 weight and especially any re-claimed oil may seem like a good idea until you realize the bar groove, sprocket nose, chain and the built-in oil pump in the powerhead will dry and wear out quickly. All will need replacing soon after. Pay a little more and save a lot!
- Inspect for any burr on the rails of the bar. This is normal wear and can be removed with a fine-tooth flat file.
- If a noticeable burr is present on one side only, this is an indication of a filing error. The side straps on the chain should also be checked for excessive wear on that side. If badly worn, both the guide bar and chain should be replaced.

- The groove should always be checked for uneven wear, especially if the saw has not been cutting straight and tends to pull to one side. To check the groove, place a straight edge against the bar and touching one of the cutters of the mounted chain. If there is no gap, the bar is beyond repair and should be replaced. The chain is also likely in need of replacing regardless of the length of the cutter teeth.

- As a matter of course, the guide bar should be rotated and cleaned regularly to equalize and maintain even wear on the rails and groove.

#3: Sharpening setup

- In terms of equipment, you should have a pair of gloves, a handled round file of correct size, gauges, and a fine-tooth flat file.

- While not essential, a machinist vice to secure the bar, chain and attached motor will help in developing consistency in filing both in stroke and angle. An alternate method of securing the guide bar when filing the chain is rest it against a secure piece of wood. This could be as simple as a 2x4 clamped to the work bench or a knot on a log if sharpening outdoors.

- Adjust the chain tension so that the drive links are not seen and yet the chain rotates easily by hand.

- If your saw has a star sprocket as opposed to the superior floating sprocket always rotate the chain away from the motor on top of the chain or toward the motor on the bottom. Otherwise, the chain may catch causing you a nasty cut.

#4 Sharpening Technique

- Unless you are well experienced in hand filing, you may want to search out a filing guide. There are many models available to choose from, although the simplest one to set up will be the one used most often.

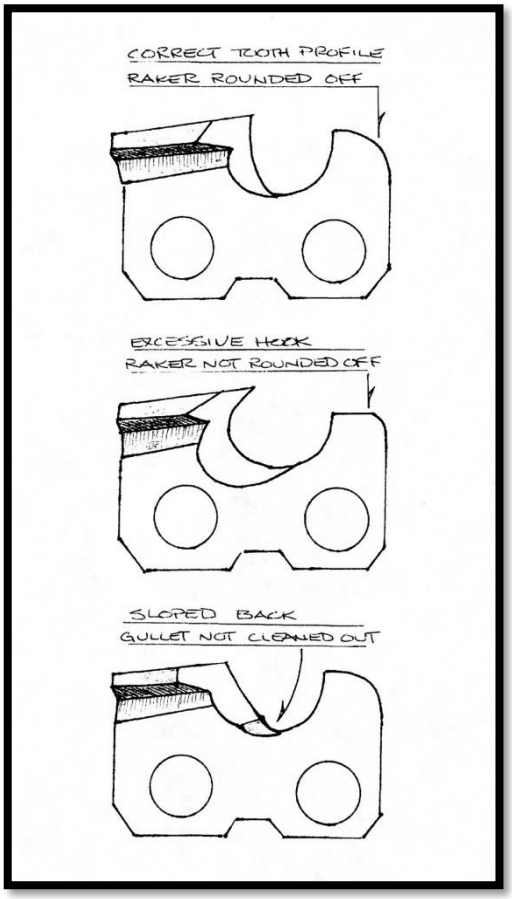
- Always file from the inside of the tooth to the outside and try not drag the file across the face of the tooth as you pull back.

- Count the number of strokes as you sharpen each tooth. If the chain is only timber worn, then file three strokes per tooth. The first stroke orients the file to the tooth. The second stroke files back the cutter edge and the third stroke sharpens the tooth.

- If you continue filing with multiple strokes you will eventually create a burr which will tear off as soon as the saw is used, making the chain less sharp than what was intended.

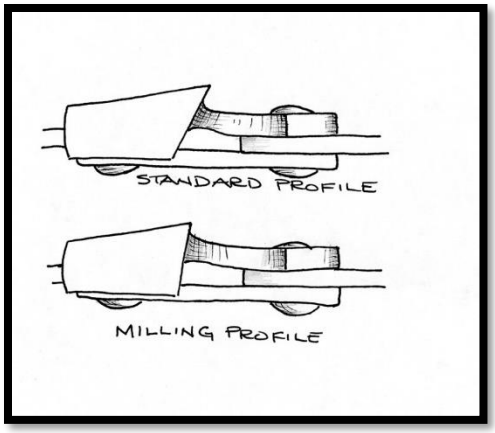
- Try to apply equal pressure on each stroke.

- The objective is to ensure that each tooth is sharpened in the same manner in terms of angle, length of tooth and cleaned out gullet on both sides of the chain.



Note:

The individual teeth on the chain are designed to project out and allow adequate clearance for the guide bar. It is important to keep all the teeth on both sides of the chain equal. Think of it as the amount of set in a circular saw blade. If one side is sharpened more than the other, the saw will pull in the opposite direction and making a straight cut difficult to manage.



- If the chain has been rocked, or poorly sharpened in the past, it would be advisable to search out the worst tooth and keep counting as you file it. That number should be used on all the other teeth to even things out. Make a few cuts and file it again using three strokes per tooth.
- You should inspect the chain from both sides to see if you are filing the teeth on both sides of the chain equally with a consistent angle and shape. Sight from above to ascertain all teeth are the same length and at the same angle.
- Check to see that each gullet is cleared out and looks the same on all the teeth.

#5 Raker/Depth Gauge

- The raker determines the depth of the cut. While this should be approximately 0.020 – 0.025" for most chainsaws, check what the manufacturer suggests. If you tossed the manual that came with the saw, revert to the internet.
- During the life of the chain, the rakers will have to be filed down to specs for best performance as the teeth will develop progressively less height with each filing.
- While you can use a straight edge and a feeler gauge (or a dime in a pinch), it is far easier to purchase a simple depth gauge tool for your chain. Place the slot on the tool over the raker and file it down.
- Once done, it is important to round the front of the raker. This is important as it could lead to a rough chain and is one of the issues that cause potential kickback. Another is filing the raker down more than 0.025" and the third is filing excessive hook in the teeth. Look at the examples on the next page.
- Anyone of the three previously mentioned errors will lead to a condition first discovered by Oregon Chain Company. They filmed each of the three errors and when played back in slow motion, they could see the heal of each tooth lifting off the bar and the tooth driving into the wood being cut.

- Not only did this create a very rough chain to control, but dangerous as a kickback situation was waiting to happen.

#6 Chain Tension

- Most users tend to set their chain tension too tight, which will increase wear on the chain and bar. To adjust, simply hold the bar and chain in one hand as you tighten with the other. The chain should fit into the groove of the bar and yet still rotate freely.

WILLIAM WOOD-WRITE DONATION

William Wood-Write is Canada's leading supplier of pen turning supplies. They have generously donated the following products which will be offered in the raffle draw over the next three meetings.

* Algonquin Rollerball pen kit + bushings
* Cigar Ballpoint pen kit + bushings (2)
* Luxor Click pen kit + bushings
* Single Seam Ripper kit + bushings
* Heirloom Pepper Grinder kit
* Measuring Spoon kit + bushings
* Stabilized Curly Maple pen blank
* Certified Bethlehem Olivewood pen blank
* Handmade Fusion pen blank
* 3 mica powders for epoxy pouring
* Leopardwood bowl blank

You can find more information on their products at their website: https://www.penblanks.ca/

DONATION OF RAFFLE ITEMS

If you have any turning items that you no longer need, please consider donating them for the monthly raffle. In particular if you have one or two pieces of wood that you can spare, a donation would be appreciated.

FOR SALE: HEW LINES SMART BURNER

5.5V unit with digital display. Multiple tips. Only used once. $90.

Designed and constructed by Hew Lines, this burner is primarily intended for branding as opposed to conventional pyrography. You can read more about this unit in the May 2018 Newsletter.

For more information, contact John Kilcoyne jrk@uvic.ca)

PARTING OFF

Thanks to Lin, Rob, and Gil for their help with this edition, to Peter Pardee, Tim Karpiak and Marlene Speckert for their years of service and a special thanks to those who have volunteered to stand for the Executive. And as usual, thanks to the members of the current Executive for hanging in there.

CONCLUDING THOT

See following pages for 2023 AGM Reports.

APPENDIX: 2023 AGM REPORTS

PRESIDENT'S REPORT

This year, as the previous few years have been, was very different than the traditional years before them. The guild continued to evolve as the new reality dictated. We were able to hold in-person meetings at our guild hall. For a lot of us it was nice to be able to talk and discuss the latest projects and tools face to face. (There will forever be new tools!) And the hybrid meetings were also well attended. We will be endeavouring to continue with hybrid meetings in the future.

Our remote demonstrations were all excellent. Torus vases, wave bowls, dry brushing to name a few. Hopefully enough ideas to spark the creativity in us. And our local talent was aptly demonstrated by our guild members as well. Jigs galore and Christmas ornaments! Our membership numbers were about the same as last year. We welcomed quite a few new members throughout the year but sadly lost a few as well.

We are continually in need of more volunteers to help with meeting setup and teardown. Volunteers are the backbone of our guild and will continue to be a requirement.

We will have a new executive after the AGM. There will be some new faces as well as the experienced veterans. Thank you to all that have agreed to lead the guild into the next year. I would ask that you continue to give them your support during the next year. I'm positive the guild is in good hands and I'm excited to see what the future holds for our group. It has been an honour being your president for the last five years and here's to a bright future.

TREASURER'S REPORT

ISLAND WOODTURNERS GUILD
TREASURERS REPORT FOR 2022-2023

SUMMARY REVIEW

An analysis of the Funds Flow for the year April 2022 – March 2023

Revenue

Member Dues (114 members)	$ 3990.00
Meeting and Demo Miscellaneous Revenue	$ 495.40
Total Revenue	**$ 4485.40**

Expenditures

IRD Costs (6)		$ 2136.79
Demo and Meeting Costs (incl. A/V purchase)		$ 343.26
Administration:	Insurance	$ 1301.50
	Other	$ 133.00
Facility Rentals:	Hall	$ 275.00
	Lockup	$ 1663.20
	Total Expenses	**$ 5852.75**

For this fiscal year we ran a deficit of $1367.35**.**

The bank balance on March 31, 2023 (year-end) was $9862.23. Petty cash was $97.25.

Submitted by: Peter Pardee
Treasurer