CHATTER MARKS

The Newsletter for Woodturners of Western Puget Sound

Inside This Issue

Click on the link for the page you want and you will go to that page

To renew your membership go to the Club website, OPCAAW.COM please log in and then click on "*Renew Membership.*"

Show & Tell photos from previous month's meetings are posted on our website at:

http://opcaaw.com/gallery/

APR 2023

This month's meeting is Apr 26th at Kitsap Adventist School, 5088 NW Taylor Road, Bremerton.

In-person meeting.

Masks optional.

Activities Include:

Member on a lathe

Featured demonstration

Show and tell

Wood auction

See our website at

OPCAAW.com

On Facebook

https://www.facebook.com/groups/opcaaw

Monthly Demonstration

Ralph Lindberg and Ellen Winnie

Woodturning - A Three Course Meal

1. The appetizer is a short discussion on good ergonomics at the lathe. How proper movement and posture can lengthen the time you spend turning and actually improve your efforts.
2. The next course will start with brief presentation of wood burning tools. Followed by a discussion on prepping your piece for pyrography, planning your design, executing it and finishing.
3. Lastly, we will explore Beyond Just Round. Discussing devices and jigs for off-center and multi-center turning.

Ralph started woodturning nearly 20 years ago when Ellen asked him what he wanted for Christmas and he said "A small lathe" (that being the only major woodworking tool he didn't have). Ellen started 12 years ago when a club officers' meeting Ralph was held at an Italian restaurant and she decided she wanted Pizza for dinner. Learning the club needed a treasurer she volunteered. Fast forward to today and we own 4 lathes and are active members of the club and the AAW.

If you don't know Ralph and Ellen then at the next meeting you attend look for the fella taking pictures of the "Show & Tell" items. Ellen can be found running the snack bar. And outside the meeting Ralph is part of the Wood Wranglers helping to keep wood on the Wood Auction table. Even though they don't do the club officer thing anymore they still find ways to help. Thanks to both of you.









Ken Conte demonstrating at the March 2023 meeting



President's Corner

The last meeting was quite a blowout, we had to setup a bunch of extra tables for all the wood that was brought. There were some really great deals in wood and equipment.

We now have the 6th Jet lathe, and will be finishing getting it ready for use in classes this month. I do hope everyone will be able to attend or teach at one of our classes in the coming months. We now are able to offer two classes per month (most months). We will start scheduling both the second and forth Sundays of the month. Additionally, over the summer we will have some classes during weekdays as well.

George Kromka has been working hard at getting everything coordinated. We still need folks that want to share their love of turning, both in teaching and assisting the instructor with the classes. For this to be a success we need it to be safe, fun and informative. We are not looking for an expert public speaker or master turner. Just someone that loves the craft and wants help out and participate. George has a few requirements and I'm sure most of you meet them. Hopefully we can free up some of our master turners from being assistants, then we can offer much more advanced classes/topics. Contact classes@opcaaw.com for more information.

Also in April, we are taking a lathe to SkillsUSA meeting near Tacoma. This is a chance to promote woodturning to quite a range of ages, from Middle School to College. If there are other events we should be looking into, please let me know at president@opcaaw.com

Tim Larson, OPCAAW President

The sawdust session for turning tops was held in March. Those that came got donuts from Sly's in Poulsbo.

Tops for the Kitsap County Fair

For anyone who might not know, we take spinning tops to the fair as give away items to attract people to watch our demos and talk to us about the club. It would be great if you would turn tops and drop them off at the meetings. We will store them at the school until time to go to the fair. It is not too early to start building our inventory.

If you have not turned a top let me know and I will get one of the fine top turners in our club to help you.

The April 26th general meeting will in-person at the school and there will be a wood auction, show and tell, and demonstration.

Mask are optional for all attendees

President's Challenge

Thank you to everyone that participated in March's challenge.

April's challenge is to make something with embellishments, texturing or coloring. Those that were inspired by Scott's epoxied rings, or Brad's basket weave illusion, I would love to see your work. I went with something burned… Offset winged bowl, one piece made from flowering cherry. We've had plenty of demo's showing all kinds of technique, it's time to try some of them out if you haven't already.

The challenge for May will be to make some sort of kids toys, yes finger tops count. Yo-yo's, little dolls, or something with turned legs or wheels, and cutout on a band/scroll saw. By the way, has anyone tried a German Ring yet?

Member's Challenge

Win a $50 gift certificate to D-Way Tools.

I would like everyone to try a multiple axis turning to be judged by a non-partisan party. I'm thinking by the September meeting. The sky is the limit. I want to hear the trials and tribulations of your turning and what you learned. I have a spare Joyner setup that can be borrowed if anyone would like to try using it. :)

Scott Overby, OPCAAW Mentor

Enter as many times as you want.








Back to Table of Contents

Hello from your Public Relations

(Dan Holderman publicrelations@opcaaw.com)

AAW Information

AAW has given me permission to reprint one of their articles in our newsletter each month. I will be choosing something that catches my eye. If you are an AAW member and you see something you think would be good to share with our club let me know.

This month's article by Dennis Belcher is "An Introduction to Sharpening" You will find this after the monthly update on the club classes or click here.

Remember we are part of the American Association of Woodturners (AAW). AAW offers its members several benefits that are listed here on their website. And you can sign up as an Affiliate for 3 months free. Click here and give it a test run.

Live Virtual Woodturning Event. AAW Presents: Derek Weidman Sculpting Wildlife with a Wood Lathe. Saturday, April 15, 2023 10 a.m. Pacific Time. It is scheduled for 2 hours. The cost is $10 for AAW members and $15 for non-members. Follow this link for more information.

Growing Awareness

Your Board of Directors is working towards spreading the word that our club is in Bremerton, that we hold classes and monthly meetings and offer mentorship. We are trying several things to get the word out; one way is to offer demonstrations. If you know of an organization that would be open to us bringing a lathe to them and showing off by making a little sawdust please get with one of the board members.

Wand Challenge

Thank you to all the club members who turned wands for the Camp Korey kids. In all we had 38 wands, I am sure it will make the kids happy.

4-H Club

Tim Larson, George Kromka, Larry Lemon, and I visited the 4-H Club in Silverdale. There were 8 children there with a parent each. The guys turned wands and tops. Each kid got one each. Then Tim and George made some honey dippers, two moms and a dad scored a dipper. All in all I think it was a success. Two parents talked seriously about learning woodturning for themselves and maybe their child.

SkillsUSA Conference

On April 14th some Club members will be exhibitors at that SkillsUSA Washington State Leadership & Skills Conference 2023 in Lakewood, WA. We will be offering demonstrations of woodturning to potential future woodturners.

SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. SkillsUSA helps each student excel. They provide educational programs, events and competitions that support career and technical education in the nation's classrooms.

To learn more you can check out their website https://skillsusawashington.org/

Free Wood

Information provided by Ray Ewing, thanks Ray. Kitsap County Road Department has three locations where they offer free wood to the public. It will be at the front gate. First come, first serve.

301 NE Bernt Road
Poulsbo – at the corner of Hwy #305 and Bond Road

2339 Cedar Rd. SE
Port Orchard

1971 NW Seabeck Highway
Bremerton

OPCAAW Summer Picnic

This year the picnic will be on August 12th. It will be at Larry Lemon's house 13007 127th Ave NW Gig Harbor WA. More information will follow so keep an eye on the announcement in the "Save the Date" section below.

Pre-Meeting Demo

If you get to a monthly meeting a little early you will get a chance to see a mini-demo. This meeting George Kromka was showing how to do a compact mirror. A

quick and fun thing to make, they are nice gifts.

Member's Column James Leary – Woodturner

Jim was born in San Francisco a fifth generation Californian. He attended the University of California, Berkeley, and holds advanced degrees in Architecture. He was a Professor of Architecture at U.C. Berkeley and at University College in London for several years. Jim is a licensed architect who retired from his own Architecture and Planning firm in San Diego, California after active practice for 35 years planning and designing hospitals and large commercial structures all over the United States and Mexico.

Jim's long-time passion has been in woodworking, having been a woodcarver and furniture-maker/ designer for many years. He has been a woodturner for over 40 years. He enjoys woodturning because of the inherent beauty of wood and because of the discipline of the lathe. He turns a variety of objects, both faceplate and spindle. Form, proportion and understated decoration are consistent design considerations in his work. Each piece has its own unique history. A concept that has intrigued him is that of creating "transparency" in his turned objects.

His favorite wood is Apricot, but he is constantly exploring the qualities and challenges of working with almost any wood that he can procure. Much of his turning is for cabinet makers, furniture designers, clock makers, weaving companies, kitchen shops and contractors. He tries to balance producing functional pieces and purely decorative pieces. Most of his "show" pieces are of a decorative or sculptural nature incorporating piercing, carving and/or router incising.

Jim is a member of the American Association of Woodturners and the Olympic Peninsula Woodturners Club. Although self-taught, he has attended numerous symposia including AAW national symposiums and the BYU Symposiums in Provo, Utah. He has won many awards and accolades at both the club level and in such shows as the *Design in Wood* show in Del Mar, California. His pieces have been featured on the cover of *Fine Woodworking Magazine* and in *The American Woodturner*.

He has demonstrated at countless club meetings and local symposia in both in Washington and in California. He enjoys teaching and mentoring turners at all levels. One of his memorable times was when he was the "warm-up act" for David Ellsworth at the Olympia Symposium.

When he is not turning, Jim is an active WSU Master Gardener, a member of the City of Poulsbo Tree Board, a very active member of his church and co-caretaker of a large garden with his wife Noel. Papa is grandpa to seven grand-children and dad to five who are all located on the West Coast.

"**Dancing Trees**" by James Leary of Kingston, WA. "I like the environmental take on this piece," Michael said about the pierced vessel. "The artist did a great job of getting into the work through transparency." The AAW and American Woodturner are the source for this article. Thank you for your support.

You Tuber's Corner

This month's contributor is Jake Thompson, here is the link to his YouTube channel https://www.youtube.com/@JakeThompson

Hello everyone. My name is Jake Thompson and I've been on YouTube since September of 2015. Early 2015 I started doing very basic woodworking and crafts and decided to start a YouTube Channel just to document the progress and development of the projects and skills I gain over time. I watched lots of YouTube how to video to learn how to learn more about woodworking techniques and how to operate machinery safely. I had done mechanic work and things of that sort, but was unfamiliar with machines like table saws and lathes. As I was learning about new things, I became a fan of YouTube and decided to start making videos of my own.

Fast forward over 7 years, I have done woodworking, crafts, CNC work, and finally fell in love with

Resin casting and making art from resin and wood. I would see some amazing things made from stabilized burl and resin turned on the lathe. I was fascinated with the things made on the lathe. I then started researching and gaining the equipment to cast resin, stabilize wood and of course a wood lathe which was given to me.

Woodturning and resin casting has been a blessing to me although I don't consider myself an expert at either. I have been to England twice doing woodturning demos at Makers Central. I've been able to meet lots of people that I learned to do what I do by watching their videos. Myself and some friends also put on a live show on my channel every Saturday at 10:00 am Central Time. We love putting on the show and hanging out with the viewers in the chat every week.

What this journey has taught me that anything is possible. Before the age of 40, I had never attached 2 pieces of wood together in my life. I had no idea I would be interested in it or grow to love it like I do. I was a professional mechanic and built and raced old cars for a long time until back surgery made me take a step back from that hobby and profession.

The motto I live by now is "Accept Change"

Thank You,
Jake Thompson

Club Classes

George Kromka

Top turning March 26th

We need helpers for the classes. We now have firm dates for classes until June, these are the 2nd and 4th Sunday of the month. I'll pass a sheet of dates around at the next meeting, sign up please. During the summer we are trying to set up M, W, and F then T, Th with the 2nd and 4th Sunday as well. Right now some of the instructors and Board members are covering as helpers but that can't continue. We have close to 140 members in the club and it looks like we have less than 10% doing all the volunteering, how about more help?

The price of the classes will be minimal so we can cover the cost of renting the school and provide a small fund to purchase, repair or replace equipment as required. The classes will be run like last year except the sign up has changed. The sign up will be explained when the class is open for sign up.

Class fees will be the same as last year:
$30.00 for members + material cost.
$60.00 for nonmembers + material costs
($30.00 class fee + $30.00 membership fee)

Material costs are determined by the instructor or material provided (purchased by the club) or both. Material cost will be included when signing up for class. Material costs can be from $0.00 on up but usually around $10.00. Example of material cost could be: pen kits and blanks, bottle stopper kits, pepper mill kits, bowl blanks, tool making kits etc.

Classes will run from 0900 to 1600 (4pm) with a lunch break at noon.

We will have class assistants to help with instructions during class.

Classes will be limited to 3 students minimum 5 maximum. (We have 5 student lathes and 1 instructor lathe.)

If classes fill up please still sign up then we will know that we need to schedule another class soon.

Some of the classes we have planned but not scheduled yet are:

- Pen turning
- Tool making (point, elf and awl tools)
- Coloring (dyes)
- Goblets
- Sphere making
- Winged bowls
- Natural edge bowls
- Bottle stoppers and mandrel
- Hollow forms
- How to hold items on lathe
- Using the skew
- Box making
- Tool handles
- Platters
- Turning enhancements
- Christmas ornaments
- Bird house ornaments
- Children's toys
- Scoops
- Stools
- Thread chasing

Any Suggestions?????

More to follow. Keep up to date at checking our club website calendar regularly:
http://opcaaw.com/my-calendar/

An Introduction to SHARPENING

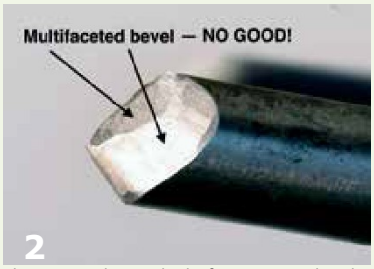
Photos by Denise Freitag.
Dennis Belcher

Dull tools steal the joy out of working with wood. New turners quickly understand that in addition to turning wood, they need to learn how to sharpen their tools. Sharpening turning tools can be broken down into two parts. The first is a potentially overwhelming range of peripheral information about grinding wheels, motor speeds, sharpening systems, grind angles, etc., and the second includes the physical hand and body movements used while sharpening. This article covers the first part, peripheral issues, with a goal of simplifying concepts. A video that accompanies this article helps to illustrate the actual process of sharpening each of the main turning tools. *See the video reference sidebar at the end of this article.*

Sharpening systems improve tool grinds

1

Some of the commercial sharpening jigs available today. They all have subtle differences but can achieve the same result—a consistent and repeatable grind.



2

This gouge has multiple facets on its bevel, which can make it difficult to bring the cutting edge to the wood. This problem is easily avoided by using a sharpening system with appropriate jigs.

Sharpening systems

Back when a turner's primary tool was a scraper, sharpening was done by hand, without any special jigs or fixtures. The turner steadied the tool on a platform while advancing the tool against a grinding wheel. This was okay for a scraper, but as scrapers gave way to the more complex curves of spindle and bowl gouges, sharpening by hand consistently became more difficult. The amount of practice needed to achieve success gave rise to multiple sharpening systems and jigs, which hold the tool for you and limit its movement on the grinder to just what is needed.

There are several sharpening systems available commercially (*Photo 1*), but it is beyond the scope of this article to list and compare them. The purpose here is to convey the underlying concepts. All of the sharpening systems work by removing metal from the tool by way of an abrasive. The abrasive can be mixed with a bonding agent and formed into a wheel (friable wheel),

Back to Table of Contents

it can be a coating adhered to a metal wheel (CBN wheel), or it can be on a flexible belt. Regardless of the configuration, each approach achieves the same end: the removal of metal from a turning tool in a controlled manner, leaving the edge sharper.

When you consider purchasing a sharpening system, here are some factors to weigh:

Safety

Sharpening accidents, or catches, most frequently happen when the tool moves past the edge of the wheel. This can cause the tool edge to dig into the wheel. Catches on a sharpening wheel are much scarier than on wood, but more recent sharpening systems limit the tool's traverse, making it impossible for the tool to go off the edge of the wheel.

Consistency of grind/bevel

The bevel of a tool should be one continuous surface, not have multiple facets. This allows the tool to ride against the wood and the cutting edge to be advanced into the wood in a controlled fashion. Having multiple flats on a tool's bevel (*Photo 2*) makes this difficult.

The goal of sharpening is to remove as little metal as possible to achieve a sharp cutting edge with a single, continuous bevel. When a tool is placed on the wheel, or belt, at exactly the same angle every time, less metal has to be removed and sharpening happens quickly. If you change the angle of approach, even by the smallest amount, more metal has to be removed in order to get that one flat bevel. When you couple this with the fact that the diameter of friable wheels reduces as it wears away, there is a need for jigs, setup gauges, and sharpening systems that ensure consistency and repeatability.

So a key question is, will the sharpening system produce a consistent grind each time? How easily and accurately does each system return to the same angle each time it is used?

Learning curve

New turners might feel impatient to make something. Curls flying and a form taking shape in front of our eyes is what we crave. Learning to sharpen our tools might feel like a distraction. It is necessary, but the faster you can learn how to put an edge on a tool, the better.

As you compare sharpening systems, look closely at the instructions that come with them. Are they clear and understandable? Are there supporting diagrams and videos specific to the turning tools that you normally use? Does the system seem intuitive to you? Talk with members of your turning club and see their sharpening systems in use. It is best to see a range of systems, not just one. Keep in mind that sharpening has changed in recent times and many turners are set in their ways.

Value

Evaluating sharpening systems also involves weighing their cost. The initial cost is not the total cost. Include the add-ons that are sold to support the core system and the longevity of the wheel or belt.

Motor speed

A little background in metalworking helps in understanding which motor speed should be used. Often in a metal shop, the goal is to remove metal rapidly. That is achieved by using a high-speed grinder with a coarse wheel—typically 3450 rpm coupled with a 36- to 80-grit wheel. But the goal with woodturning tools is to *sharpen*, not to grind away a lot of metal fast. This is why many turners opt for a slow-speed grinder, sharpening at 1750 rpm, with a finer-grit wheel. This makes it easier to control the removal of metal, which means you can remove less of the expensive high-speed steel (HSS).

Belt-based sharpening systems also use a moderate speed. The measuring unit for a belt is not revolutions per minute (rpm), but lineal feet per minute (lfm). Typically, the lfm for belt systems is 1440 (440 meters per minute). To put this in context, a typical belt sander for wood at its highest setting runs at 3000 lfm.

At the other end of the spectrum are the ultra-slow, water-cooled sharpening systems, which run at 90 rpm. These systems excel at producing surgically sharp edges, while minimizing heat. They are great for carving tools and bench chisels, but are agonizingly slow when attempting to modify a grind on a turning tool. ▶

Sharpening wheel types

The author uses a double-decker sharpening station, set close to his lathe. The grinder on top is equipped with two grits of CBN wheels, and the grinder on the bottom has two friable wheels. It is highly efficient to have a setup with both coarse and fine wheels.

Grinding wheel type

There are two main categories of grinding wheels—friable and cubic boron nitride (CBN). My sharpening station comprises both types, as shown in *Photo 3*.

Friable wheels

As the name suggests, friable grinding wheels are made of materials (often aluminum oxide) that wear away as tool metal is ground. These wheels have been the standard in metal shops for years. They come in a range of colors, grits, abrasive materials, and binders (*Photo 4*). There is as much to learn in the world of abrasives as there is in the world of woodturning. Grit type, grit size, wheel hardness, grain spacing, and bond type all should be considered when selecting the correct wheels for use on HSS turning tools. It can be a bit overwhelming, but the decision is important. Bill Neddow provides some excellent distinguishing information in his April 2011 *AW* article, "Grinder Wheels." A practical solution is to purchase your grinder and wheels from a retailer that specializes in woodturning equipment.

Friable wheels wear with usage. As you can see in *Photo 4*, this wear reduces the diameter of the wheel. All of the wheels pictured started with an 8" (20cm) diameter; the one on top now measures 7" (18cm). The fact that friable wheels wear away has driven the design of some sharpening systems that need to be flexible enough to continue producing a consistent bevel angle.

As they are used, friable wheels will develop grooves. They can also wobble side to side as they wear from density variations within the wheel. Friable wheels will also glaze over as metal loads the wheel, essentially burying the cutting grit. Supporting tools and gadgets are needed to address these issues (*Photo 5*). The primary advantage of friable wheels is their low initial cost. But when the cost of the needed supporting tools is added, most of the initial cost advantage is lost.

Friable wheels

4

Colors are one indication of a wheel's material and coarseness. All of these friable wheels started at 8" diameter, showing that they wear away with use.

5

Friable wheels require supporting accessories to keep them in good shape. These tools are used to expose fresh grit, remove any unwanted grooves, and to true up the wheel.

Safety Note

Never grind a tool on the side of a friable grinding wheel. Friable wheels are not made to withstand pressure applied from the side and are susceptible to fracturing and becoming a projectile safety hazard. It is especially important that guards be in place when using a friable wheel.

CBN wheels

In recent times, CBN wheels have become common in woodturning (*Photo 6*). CBN is second only to diamonds in hardness and has high abrasion resistance. Abrasive particles are bound to either a steel or aluminum wheel. With their hardness and abrasion resistance, CBN wheels can sharpen HSS easily without wearing away or losing diameter. Plus, the metal wheels retain their factory balancing over their entire life. The constancy of CBN wheels has led to a redesign of sharpening systems; for example, workarounds are no longer needed to account for a diminishing wheel size.

CBN wheels are designed for high-speed steel and the newer metals used in

CBN wheels

6

7

CBN wheels come in a range of grits and configurations. Some have a side flange that allows for sharpening on the side of the wheel—something you should never do with a friable wheel.

turning tools. Soft metals such as carbon steel, used in older turning tools, will clog and glaze the wheel, reducing its cutting action. Do not use CBN wheels with other soft metals such as aluminum, brass, or copper. If a CBN wheel becomes loaded, it can be cleaned by hand, but it is a slow and laborious task.

While the side of a friable wheel should *never* be used for grinding or sharpening a tool, CBN wheels with side grit *can* be used for this purpose (*Photo 7*).

Belt sharpeners

Belt-based sharpening systems are similar to belt sanders used in woodworking—they have a belt that moves across a flat platen. Specially designed jigs hold the turning tools and control tool movement across the belt to sharpen the tool. Belts come in a range of grits and materials suitable for a range of metals.

The flat platen means that the sharpened tool bevel will be flat, rather than having a slight hollow-ground curve that comes from the shape of a grinding wheel. The advantage of a belt sharpener is that grits are easily changed by removing one belt and installing another with a different grit. Belts do wear with usage and will need to be replaced.

Abrasive grits

Turners use grinders or belts to either sharpen a tool or reshape it to a new grind. Abrasive grits above 220 remove less material and leave a sharper edge. Grits in the 60 to 180 range are a better choice when reshaping a grind. Changing the grind of a tool with a fine-grit wheel is agonizingly slow. Use coarser wheels to reshape a tool or to raise a burr on a scraper, and finer wheels to achieve a sharp edge. Having a combination of wheels—a coarse 80- to 180-grit and a fine 350- to 600-grit—is suitable for woodturners.

Which grind for my gouge?

You are likely to come across many names for gouge grinds: traditional grind, fingernail grind, Irish grind, swept-back wings, Ellsworth grind, bottom-bowl grind, and the list goes on. The number of grinds and the opinions about which is best can be overwhelming and confusing. The confusion increases when you survey a group of experienced turners. Ask a dozen turners what grind they use, and you will receive fifteen answers.

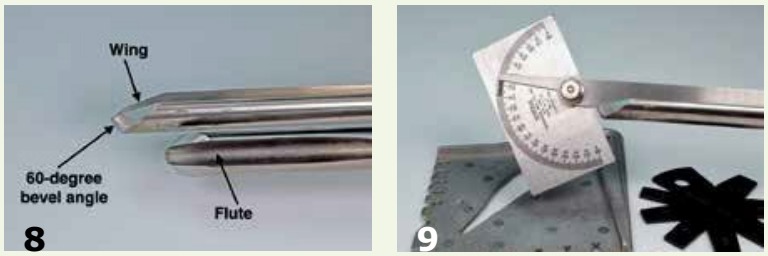
The single most important thing about grinds is consistency (*Photos 8, 9*). Once I found a grind angle that works for me, I took a picture of it for future reference at my grinding station. Your mind and body learn what a tool will accomplish when there is consistency of how the tool is sharpened. It is normal for new turners to try one tool for a given cut, then try another, and yet another until the tool is achieving what is in their minds. The correct grind makes a given cut flow easily from a tool. It takes time, experimentation, and repetition for muscle memory to learn the most efficient tool and grind to achieve a cut that flows and needs little sanding.

Over time, grinds will reflect the type of forms that a turner makes most frequently. The tools of a production turner of large bowls are different than those of someone who specializes in miniature hollow forms.

Your stance at the lathe and the bevel angle on your tool are interrelated. Picture your stance with a bowl blank mounted in a scroll chuck on a tenon. As you ride the bevel of your bowl gouge down the outside of the bowl, your body leans in and to the left further and further. You might even end up straddling the leg of the lathe trying to maintain bevel contact to the end of the cut. A blunt grind angle worsens this issue. One way to resolve it is to switch your grip to your left side and switch hand positions to complete the cut. Turning from your left side also allows you to direct the path of the shavings away from your body. It is helpful to develop some ambidexterity at the lathe. Changing to a low angle grind can also allow the cut to be completed.

While there is no "correct" or "best" bevel angle and grinds vary widely with user preference and application, below ▸

Tool grind consistency



Keep a visual reference of your grinds near the grinder as an aid to avoiding grind drift over time. A protractor or other angle jig are used to confirm the bevel angle.

A Few Rules of Thumb

Here are some general rules of thumb when it comes to tool shapes, or grinds:

- Tools with a steeper grind (above 45 degrees) and a rounded nose are more friendly.
- Tools with a low angle grind (less than 30 degrees) are "grabbier" and more difficult to use.
- Rounded tool tips tool are easier to control than pointy tips.
- Tools with a low angle grind (less than 30 degrees) and a pointy tip may be useful for getting into tight places.

are some generally accepted ranges that will serve as a good starting point:

Tool	Bevel angle
Bowl Gouge	60°-65°
Bottom Bowl Gouge	50°-55°
Spindle-Roughing Gouge	45°
Spindle Gouge	45°-55°
Detail Gouge	30°-35°
Scraper	70°-80°
Parting Tool	35°-40°
Skew	22°

The cutting burr on scrapers of all types are formed with the use of a platform. A grit between 120 and 350 works well. Again, the consistency of the angle when presenting the scraper is critically important. Some platforms have markings that allow the platform to return to a desired position. An angle finder or jig can also be used to return the platform to a specific angle (*Photo 10*).

Sharpening without a grinder

Often it is not necessary to put the tool back on the grinder to refresh the cutting edge. With a little practice, you can quickly bring an edge back to sharp by passing a diamond card or sharpening stone over it.

Skew chisels

Skews can be honed to a razor-sharp edge easily with a diamond card (*Photo 11*). It has been years since my skews have touched a grinding wheel. Diamond cards also eliminate the need for special jigs when sharpening skews on a wheel. A diamond card or sharpening stone can be used wet or dry. Lubrication with water, or a lapping fluid, increases the life of the diamond card but is not necessary.

Scrapers

The cutting burr on a scraper can be refreshed with a bench stone, a diamond card, or a handheld CBN hone (*Photo 12*). Scrapers lose their cutting edge quickly in use. A few upward swipes with a stone or card raises the edge. The burr on a scraper can also be raised with a burnisher (*Photo 13*). The burnisher can be as simple as the shank of a high-speed steel gouge or a hardened drill bit.

High-speed steel teardrop cutters

Teardrop cutters can be sharpened with either a diamond card or on a wheel. With a diamond card, place the cutter flat on the card or stone, and move it across the surface (*Photo 14*). Lapping oil will improve the results and increase the longevity of the cutter. This simple procedure should be done with a light touch and often.

Carbide cutters

Carbide cutters can simply be replaced when they become dull, but you can also sharpen them by hand with a diamond card. Friable wheels are too soft to cut carbide, and CBN wheels will glaze over with the carbide and be ruined. Remove the cutter from its holder and place the top of the cutter face down on a diamond card or diamond hone. With light pressure, make a series of figure eights across the

Angle finders for your grinder

10

When setting platform angles on your grinder, it is helpful to have an angle finder, or jig, to help you return to your desired angle accurately. The newest generation of grinder toolrests features positive stops and angle markings.

Hand-sharpen a skew

11

Skews can be sharpened to a razor-sharp edge by hand with a diamond card. A rod-shaped sharpener can be used inside the flute of a gouge to freshen the edge.

Hand-sharpen a scraper

12

An edge is raised on a scraper when a diamond card is placed on the bevel and then swept upwards and repeated along the entire edge.

13

The burr of a scraper can be refreshed with a burnisher or even the shank of a HSS tool.

Hand-sharpen a HSS cutter

14

HSS teardrop cutters can be sharpened on a diamond card or CBN hone.

Hand-sharpen a carbide cutter

15

16

Carbide cutters are too hard for a CBN wheel or hone. They can only be sharpened by a diamond card. Flat cutters can be moved across the card on a flat surface, while round cutters can be mounted in a jig in your chuck.

diamond surface to refresh the edge (*Photo 15*).

Round carbide cutters can be dressed by mounting them on a jig held in a chuck on your lathe, as shown in *Photo 16*. Use the lowest speed setting on your lathe, align a diamond card with the plane of the cutter's bevel, and lightly touch the diamond card to the cutter as it rotates.

Conclusion

Writing this article has been eye-opening for me. I learned how to sharpen as I learned to turn, but then I focused my attention on other aspects of the craft and never came back to sharpening. Meanwhile, things had changed. The steel in turning tools improved, grinding wheels went through several generations of advances, and manufacturers have evolved sharpening jig designs. I found that I had closed my mind to sharpening and just stuck to what I knew.

I hope this article helps new turners to understand the many aspects of sharpening. But I would also challenge experienced turners to take another look at your sharpening skills. A second motivation for updating your approach is that experienced turners are the teachers of new turners. Today's sharpening systems are safer and more easily learned. You owe it to your students to have evaluated today's choices. ■

Dennis Belcher retired from a career in the investment world to his lifelong passion of working with wood. He is a frequent contributor to American Woodturner *and was a demonstrator at the 2022 Symposium in Chattanooga. Dennis is a member of the Wilmington Area Woodturners Association (North Carolina). You can contact him at dennis.m.belcher@gmail.com or visit his website, dennisbelcher.com.*

You Read the Article - Now See the Video!

Dennis Belcher has created a helpful video as a companion to this article. The video teaches sharpening concepts and *illustrates* in live action what a written article can't—*how* to sharpen each of the primary turning tools. It also includes lots of great sharpening tips to help you stay sharp! View the video at tiny.cc/sharpen or scan the QR code with your mobile device.

MORE SHARPENING RESOURCES

EXPLORE!

Log on at woodturner.org and use the Explore! search tool to find these and other *American Woodturner* articles covering various aspects of tool sharpening. Other resources can be found at tiny.cc/SharpenTools (URL is case sensitive).

- "Sharpening Demystified: A Better Way to Sharpen Gouges," by Kirk DeHeer, Winter 2006 (vol 21, no 4, page 32)
- "Grinder Wheels," by Bill Neddow, April 2011 (vol 26, no 2, page 23)
- "Sharpener Alternatives: The Joy of Sharp Tools," by Jim Echter, October 2012 (vol 27, no 5, page 27)
- "DIY Belt Sharpening System," by Jim Echter, December 2012 (vol 27, no 6, page 20)
- "Tuning Up a Bench Grinder," by Don Geiger, December 2016 (vol 31, no 6, page 24)
- "Modern Tool Steels and Grinders," by Tom Wirsing June 2018 (vol 33, no 3, page 38)
- "Lathe-Mounted Sharpening Station," by John Lucas, August 2021 (vol 36, no 4, page 34)

Save the Dates!

AAW Virtual Events (click here)

Follow this link to the AAW (American Association of Woodturners) webpage for Virtual Events. They have an upcoming events schedule tab and a tab for past virtual events. You must be an AAW member to view the past events.

2023 AAW Symposium in Louisville, KY (click here)

Kentucky Exposition Center
June 1 - 4
2023 Featured Demonstrators: Pat Carroll, Ireland; Lynne Hull, US; Ulf Jansson, Sweden; Mauricio Kolenc, Uruguay; Joss Naigeon, France; Seri Robinson, US; Curt Theobald, US; Jacques Vesery, US; and Derek Weidman, US
Registration is open!

OPCAAW Summer Picnic

This year the picnic will be on August 12th. It will be at Larry Lemon's house 13007 127th Ave NW Gig Harbor WA. More information will follow so keep an eye on this announcement.

The Mentoring Program

CONSIDER A MENTOR

The OPCAAW **Mentors** are a select group of artisans and professionals who we have designated to promote, encourage, and guide novice and intermediate woodturners within our organization. Mentors provide counsel on subjects like shop setup, equipment purchase, safety, wood preparation and specialized skills. These are some friendly folks willing to give you a point in the right direction.

While not actually a formal training program, meetings with mentors often become just that. In some cases, advanced formal instruction is available at an hourly rate.

OPCAAW Mentoring is ***available only to members***. Please bring your current badge with you to the first session.

The current Mentors are:

George Kromka (Bremerton)	360-373-1028
Jim Leary (Kingston)	360-913-8073
Brad Stave (Gig Harbor)	206-910-5459
Scott Overby (Port Orchard)	360-535-3203
Larry Lemon (Gig Harbor)	253-278-9058

What is the Mentor Program?

Mentors are AAW and club members with significant woodturning experience, who volunteer their time to help members learn woodturning techniques. They can generally help with hands-on, one-on-one instruction within their areas of expertise. In addition mentors can provide counsel on subjects like shop setup, equipment purchase, safety, wood preparation and other specialized skills.

I am not a club member. Can I contact club mentors for help?

The mentor program is designed to support club members only. You are encouraged to join our club to access this benefit, and all other benefits we offer.

Do mentors charge for lessons?

No, mentors volunteer their time. The need for extensive woodturning training may lead you to enroll in paid instruction available from individuals, conferences, or schools. See the website's Resources menu, which includes pages for northwest schools, national schools, and studio workshops.

Do mentors come to my shop?

Not necessarily but can be arranged. You and your mentor will arrange a suitable date, time, and location for instruction. Reach out to any of the mentors here by identifying yourself as a club member, and asking for some help! These are some friendly folks willing to give you a point in the right direction.

Mentors must:

1. be a member of OPCAAW in order to be covered by the AAW insurance program
2. must not charge a fee for the insurance to apply
3. instruct students on the proper safety precautions of woodturning
4. present a demonstration at a monthly club meeting at least once every 2 years

Students must:

1. be a member of the OPCAAW
2. set up a date and time to meet with mentor

How can I become a Mentor?

Mentors all have unique skills and are asked to declare what they feel they can offer to the members of the club. By doing a demonstration at a club meeting the members will have an opportunity to get to know the mentor and determine if they are interested in contacting the member.

There is no limit on the number of mentors.

An application to become a mentor needs to be submitted to the board and the application will be accepted or denied. If denied an explanation will be given to the applicant. The applicant may be asked to give a demonstration of their skill set to the general club at a monthly meeting prior to acceptance or denial.

CHATTERMARKS is produced by and for **The Olympic Peninsula Chapter of The American Association of Woodturners - OPCAAW** and is published monthly electronically. All articles are copyrighted by **OPCAAW** unless otherwise noted. *Letters to the Editor* and article submissions are welcome.

Tim Larsen
President

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