



**DEMONSTRATION HANDBOOK**



# TABLE OF CONTENTS

Welcome.....	3
Event Schedule .....	4
2022 SWAT Vendors .....	5
Friday – August 26, 2022 .....	7
Saturday – August 27, 2022.....	9
Sunday – August 28,2022 .....	11
Family Programs .....	13
Women in Turning .....	13
Beads of Courage.....	13
Executive Committee Members .....	14
Supporting Chapters.....	18
List of Demonstrations .....	19
2-Piece Scoops.....	20
Revelations In Hollowing.....	22
Vessels and Surfaces .....	23
Turning Paper .....	24
Manta Ray Bowl .....	27
Zenbellishing .....	34
Inside-out Turning .....	35
Turning an End Grain Bowl with Natural Edge .....	39
Stave Construction .....	45
Evolution by Revolution .....	49
Form and Proportion.....	54
Kitless Pen .....	60
Making A Kitless Pen Using a Jowo Nib .....	60
UV Resin .....	70
Alternative to Pressure Casting .....	70
Finishing and Marketing Your Work.....	71
4-Piece Pawn .....	72
Quartersawn Oak Platter .....	76
Hollow Pepper Mills .....	77
Acorn Box .....	78
Carving and Embellishment.....	80
Small Plate Face and End Grain .....	81
Clear Label Casting .....	86
Fibonacci Bowl.....	87
Mastering Atmospheric Colouring by Hand .....	88
Stacked Laminate Turning.....	89
Segmenting Pen Blanks .....	93
Making an OSB Hollow Form.....	96
Winged Bowl Basics.....	100
Fun With Spheres .....	101
Offset Christmas Tree.....	102
Going Beyond the Surface - Carving in 3D .....	108
Exploring Surface Enhancement .....	109
Fun With Spindles.....	110
About the Artists.....	120
Southwest Association of Turners (SWAT) History .....	130

# WELCOME

to the

## SOUTHWEST ASSOCIATION OF TURNERS SYMPOSIUM

Welcome to the 30<sup>th</sup> anniversary of the SWAT Symposium. We had a successful year in 2021 and this year will be even better! I would like to thank the Board of Directors, Executive Committee, our standing Committees, and the many other volunteers who have worked so hard to make this the best woodturning show in the world. I would also like to thank our member clubs, who make SWAT possible. SWAT is a gathering of friends and fellow woodturners to have fun, meet old friends, make new friends, and learn from some of the best demonstrators in the world.

Our many vendors will have everything you need for your craft, from lathes and accessories to tools, wood, casting, stabilizing and embellishment supplies, along with sanding, sharpening, and safety equipment. You will learn about new products, new processes, and things to make your woodturning experience more fun and productive. Our vendors are always ready to help new and experienced woodturners enhance their capabilities and make woodturning even more enjoyable.

If you are new to woodturning, we have hands on areas where you can learn the basics of pen turning and bowl turning from experienced woodturners. They are located downstairs and are there to help you, so stop by their areas and experience some great hands-on experience.

Our Three-for-One Raffle offers the ability to win at three separate drawings. The tickets from each drawing are returned to the bin after each drawing, so you have a chance to win each time. Our 1st opportunity to win is at the Friday morning Opening Ceremony where we will raffle a Laguna midi-lathe and an Arrowmont scholarship. Our 2nd drawing is after the Saturday evening banquet where beautiful art pieces donated by SWAT attendees (approximately 30) are the prizes. Our 3rd drawing will be after lunch on Sunday where tools, wood and turning accessories, all donated by vendors, another Arrowmont scholarship, 2 more Laguna Midi lathes and the grand prize of a Robust American Beauty lathe will be won.

Our Art Gallery is second to none, and gives you a chance to view (and possibly sell/purchase) beautiful pieces of turned art. Any turner can register to display up to 10 pieces of their work on our website ([swaturners.org](http://swaturners.org)).

Within our Gallery is a section dedicated to Beads of Courage boxes that have been created and donated by our member clubs. Last year we set a record by displaying over 400 Beads of Courage boxes. These boxes are donated to various hospitals within our member club's states. They are given to young patients undergoing treatments for life threatening diseases. Be sure to check out the SWAT website ([swaturners.org](http://swaturners.org)) for more information and a link to the Beads of Courage website.

And mainly, there is the opportunity to learn about woodturning! We will have 24 of the best turners in the world provide you with 63 classes during our 3-day symposium. There will be ample time to meet with demonstrators, vendors, and fellow woodturners to discuss techniques, tools, and other areas of interest.

I want to thank you for making SWAT one of the best Woodturning symposiums in the world and I hope your experience is everything you expected and more!

Tom Beatty  
President, SouthWest Association of Turners



# EVENT SCHEDULE

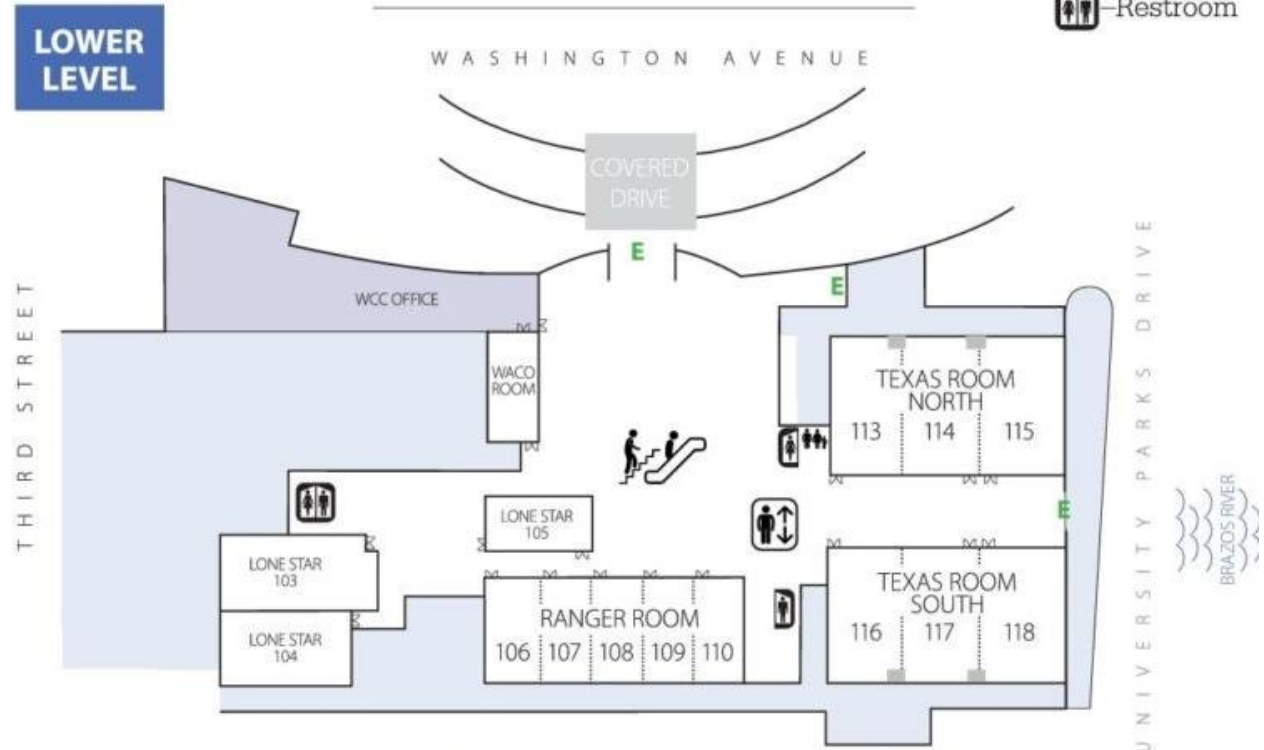
<b>Thursday</b>	7:00 AM	Doors Open for Vendors (Tables Not Available Until Unloading Complete) Registration Set-up (Staff Only)
	11:30 AM	Lunch for Vendors
	12:00 PM	Lunch for Set-up Workers Only with Tickets
	3:00 PM	Registration & Logo Ware Sales Open (Drawing Ticket Sales @ Window #4)
	3:00 – 6:00 PM	Gallery Open for Check-in
	5:30 PM	Vendor Unloading Closes
	6:00 PM	Registration & Logo Ware Sales Close
	<b>Friday</b>	7:30 AM
	8:00 AM	Registration & Sales Open
	9:00 AM	Opening Ceremonies in Chisholm Hall First 3-for-1 Drawing (Laguna Lathe and Arrowmont Scholarship)
	10:30 AM	Demonstration Rotations Begin
	11:30 AM	Lunch for Vendors
	12:00 PM	Lunch
	5:00 PM	Gallery Closes
<b>Saturday</b>	7:00 AM	Registration Opens
	7:30 AM	Gallery Opens
	8:00 AM	Demonstration Rotations Begin
	11:30 AM	Lunch for Vendors
	12:00 PM	Lunch
	5:00 PM	Gallery Closes
	6:00 – 8:00 PM	Cash Bar
	6:30 – 7:30 PM	Banquet Dinner
7:30 – 9:00 PM	Second 3-for-1 Drawing	
<b>Sunday</b>	7:30 AM	Gallery Opens
	8:00 AM	Demonstration Rotations Begin
	11:00 AM	Gallery Closes for Disassembly (Artist Pick-up Turnings)
	12:00 PM	Demonstration Rotations End Lunch Third 3-for-1 Drawing (Tool and Lathe Drawing) Vendors can begin Teardown of Booths

# 2022 SWAT VENDORS

- Abrasive Ideas International, Inc — [robertseke@hotmail.com](mailto:robertseke@hotmail.com)
- Airbrushing Wood — [jtfleming@san.rr.com](mailto:jtfleming@san.rr.com)
- Alan Lacer Woodturning — [alan@alanlacer.com](mailto:alan@alanlacer.com)
- Amalgam-Mutt Blanks — [esoto70431@hotmail.com](mailto:esoto70431@hotmail.com)
- American Association of Woodturners — [Jennifer@woodturner.org](mailto:Jennifer@woodturner.org)
- AZ Carbide — [campbelnye@gmail.com](mailto:campbelnye@gmail.com)
- Beaverbadger68\_ — [beaverbadger68@gmail.com](mailto:beaverbadger68@gmail.com)
- Big Monk Lumber Company — [pete@bigmonklumber.com](mailto:pete@bigmonklumber.com)
- Bullseye Turning Supply — [bullseyeturningsupply@gmail.com](mailto:bullseyeturningsupply@gmail.com)
- Carter and Son Toolworks LLC — [contact@carterandsontoolworks.com](mailto:contact@carterandsontoolworks.com)
- Cindy Drozda Woodturning Tools — [cindy@cindydrozda.com](mailto:cindy@cindydrozda.com)
- Classic Nib / Arizona Silhouette — [theclassicnib@hotmail.com](mailto:theclassicnib@hotmail.com)
- Conestoga Works LLC — [charles@conestogaworks.com](mailto:charles@conestogaworks.com)
- CPH International, dba STARBOND — [jane@starbond.com](mailto:jane@starbond.com)
- Diamond Infused — [estone06@yahoo.com](mailto:estone06@yahoo.com)
- Flower Girl Blanks — [thecraftycooper@yahoo.com](mailto:thecraftycooper@yahoo.com)
- Hill Country Woods — [james@hcwtexas.com](mailto:james@hcwtexas.com)
- Homestead Heritage Wood School — [mark@homesteadheritagefurniture.com](mailto:mark@homesteadheritagefurniture.com)
- Hunter Tool Systems — [HunterToolSystems@gmail.com](mailto:HunterToolSystems@gmail.com)
- John Jordan Woodturning — [john@johnjordanwoodturning.com](mailto:john@johnjordanwoodturning.com)
- Lyle Jamieson Woodturning LLC — [lyle@lylejameson.com](mailto:lyle@lylejameson.com)
- Niles Bottle Stoppers — [jacobson68@yahoo.com](mailto:jacobson68@yahoo.com)
- Odd-Not — Douglas Long
- Peke Safety — [shanna@pekesafety.com](mailto:shanna@pekesafety.com)
- Robust Tools — [brent@turnrobust.com](mailto:brent@turnrobust.com)
- Rockler Woodworking and Hardware — [rwebster@rockler.com](mailto:rwebster@rockler.com)
- Segmenting Sleds and Fixtures — [p\\_marken@bellsouth.net](mailto:p_marken@bellsouth.net)
- Speakeasy Pen Emporium and Supply Co. — [speakeasypenz@gmail.com](mailto:speakeasypenz@gmail.com)
- Specialty Lumber & Logging — [woodchipper2011@hotmail.com](mailto:woodchipper2011@hotmail.com)
- Spiracraft — [accounts@spiracraft.com](mailto:accounts@spiracraft.com)
- Stainless Bottle Stoppers — [sales@stainlessbottlestoppers.com](mailto:sales@stainlessbottlestoppers.com)
- The Clean Breeze Collection — [Beth@thecleanbreeze.com](mailto:Beth@thecleanbreeze.com)
- Thompson Lathe Tools — [dougswoodworking@aol.com](mailto:dougswoodworking@aol.com)
- Tradesman Grinder — [cuttermaster@gmail.com](mailto:cuttermaster@gmail.com)
- Trent Bosch Studios Inc — [trentbosch@yahoo.com](mailto:trentbosch@yahoo.com)
- Turners Warehouse — [chad@turnerswarehouse.com](mailto:chad@turnerswarehouse.com)
- TurnTex, LLC — [Curtis@turntex.com](mailto:Curtis@turntex.com)
- Vince's Wood N' Wonders — [vince@vincewoodnwonders.com](mailto:vince@vincewoodnwonders.com)
- Wood Turners Wonders — [kjrdistributing@gmail.com](mailto:kjrdistributing@gmail.com)
- Wood World of Texas LLC — [woodworldtx@gmail.com](mailto:woodworldtx@gmail.com)
- Woodturning Tool Store — [tod@woodturningtoolstore.com](mailto:tod@woodturningtoolstore.com)
- Woodturning with Tim Yoder — [info@wtwtim.com](mailto:info@wtwtim.com)

## Support SWAT Vendors

Many come from halfway across the country to bring you their products. Show them our Southwest Hospitality



A virtual tour of the Waco Convention Center is available at [WacoCC.com](http://WacoCC.com).

# FRIDAY – AUGUST 26, 2022

ROOM	BRAZOS NORTH	BRAZOS SOUTH	TEXAS NORTH 113-115	TEXAS SOUTH 116/117	RANGER 106-107	RANGER 108-110	BOSQUE THEATRE
	POWERMATIC	ROBUST	POWERMATIC	JET	POWERMATIC	POWERMATIC	LAGUNA
SPONSOR	HUNT COUNTY	WNT	CTWA	GCWA	HILL COUNTRY	NEOWTA	APT
9:00 – 10:00	<b>OPENING CEREMONIES – CHISHOLM HALL</b>						
10:30 – 12:00	<u>Martin Saban-Smith</u> Fibonacci Bowl	<u>Mike Mahoney</u> Quartersawn Oak Platter	<u>Andi Wolfe</u> Going Beyond the Surface - Carving in 3D	<u>Waukeene Vinson</u> Offset Christmas Tree	<u>Ron Engel-Wilson</u> Evolution by Revolution	<u>Craig Timmerman</u> Winged Bowl Basics	<u>Barry Gross</u> Kitless Pen
12:00 – 1:30	<b>LUNCH WOMEN IN TURNING – BRAZOS NORTH</b>						
1:30 – 3:00	<u>Buddy Compton</u> Turning an End Grain Bowl with Natural Edge	<u>Greg Stehle</u> Making an OSB Hollow Form	<u>Kelvin Burton</u> Manta Ray Bowl	<u>Dennis Paullus</u> Acorn Box	<u>Anthony Harris</u> 4-Piece Pawn	<u>Tod Raines</u> Small Plate Face and End Grain	<u>Chad Schimmel</u> Segmenting Pen Blanks
3:00 – 4:00	<b>BREAK</b>						
4:00 – 5:30	<u>Martin Saban-Smith</u> Mastering Atmospheric Colouring by Hand	<u>James Carter</u> Inside-out Turning	<u>Andi Wolfe</u> Exploring Surface Enhancement	<u>Larry Zarra</u> Fun With Spindles	<u>Trent Bosch</u> Revelations In Hollowing	<u>Sally Ault</u> 2-Piece Scoops	<u>Jason Rose</u> Clear Label Casting

Note: Schedule subject to change as needed. Changes will be posted to the website as soon as they are available!



# SATURDAY – AUGUST 27, 2022

ROOM	BRAZOS NORTH	BRAZOS SOUTH	TEXAS NORTH 113-115	TEXAS SOUTH 116/117	RANGER 106-107	RANGER 108-110	BOSQUE THEATRE
	POWERMATIC	ROBUST	POWERMATIC	JET	POWERMATIC	POWERMATIC	LAGUNA
SPONSOR	HUNT COUNTY	WNT	CTWA	GCWA	HILL COUNTRY	NEOWTA	APT
8:00 – 9:30	<u>Gary Sanders</u> Stacked Laminate Turning	<u>Mike Mahoney</u> Hollow Pepper Mills	<u>Dennis Ford</u> Form and Proportion	<u>Dennis Paullus</u> Carving and Embellishment	<u>Trent Bosch</u> Vessels and Surfaces	<u>Craig Timmerman</u> Fun With Spheres	<u>Barry Gross</u> UV Resin
9:30 – 10:30	<b>BREAK</b>						
10:30 – 12:00	<u>Martin Saban-Smith</u> Fibonacci Bowl	<u>Greg Stehle</u> Making an OSB Hollow Form	<u>Delbert Dowdy</u> Stave Construction	<u>Rick Cannon</u> Zenbellishing	<u>Kailee Bosch</u> Turning Paper	<u>Tod Raines</u> Small Plate Face and End Grain	<u>Chad Schimmel</u> Segmenting Pen Blanks
12:00 – 1:30	<b>LUNCH</b>						
1:00 – 1:30	<b>WORLD OF WOODTURNERS (WOW) GATHERING – BRAZOS SOUTH</b>						
1:30 – 3:00	<u>Gary Sanders</u> Stacked Laminate Turning	<u>James Carter</u> Inside-out Turning	<u>Andi Wolfe</u> Exploring Surface Enhancement	<u>Waukeene Vinson</u> Offset Christmas Tree	<u>Ron Engel-Wilson</u> Evolution by Revolution	<u>Craig Timmerman</u> Winged Bowl Basics	<u>Barry Gross</u> Kitless Pen
3:00 – 4:00	<b>BREAK</b> <b>SWAT DIRECTORS BOARD MEETING – WACO ROOM</b>						
4:00 – 5:30	<u>Buddy Compton</u> Turning an End Grain Bowl with Natural Edge	<u>Mike Mahoney</u> Quartersawn Oak Platter	<u>Kelvin Burton</u> Manta Ray Bowl	<u>Dennis Paullus</u> Acorn Box	<u>Trent Bosch</u> Revelations In Hollowing	<u>Anthony Harris</u> 4-Piece Pawn	<u>Jason Rose</u> Clear Label Casting
6:00 – 8:00	<b>CASH BAR</b>						
6:30 – 7:30	<b>BANQUET DINNER</b>						
7:30 – 9:00	<b>3 – FOR – 1 DRAWING</b>						

Note: Schedule subject to change as needed. Changes will be posted to the website as soon as they are available!



# SUNDAY – AUGUST 28, 2022

ROOM	BRAZOS NORTH	BRAZOS SOUTH	TEXAS NORTH 113-115	TEXAS SOUTH 116/117	RANGER 106-107	RANGER 108-110	BOSQUE THEATRE
	POWERMATIC	ROBUST	POWERMATIC	JET	POWERMATIC	POWERMATIC	LAGUNA
SPONSOR	HUNT COUNTY	WNT	CTWA	GCWA	HILL COUNTRY	NEOWTA	APT
8:00 – 9:30	<u>Martin Saban-Smith</u> Mastering Atmospheric Colouring by Hand	<u>Mike Mahoney</u> Hollow Pepper Mills	<u>Andi Wolfe</u> Going Beyond the Surface - Carving in 3D	<u>Larry Zarra</u> Fun With Spindles	<u>Kailee Bosch</u> Turning Paper	<u>Craig Timmerman</u> Fun With Spheres	<u>Barry Gross</u> Finishing and Marketing Your Work
9:30 – 10:30	<b>BREAK</b>						
10:30 – 12:00	<u>Delbert Dowdy</u> Stave Construction	<u>Rick Cannon</u> Zenbellishing	<u>Dennis Ford</u> Form and Proportion	<u>Dennis Paullus</u> Carving and Embellishment	<u>Trent Bosch</u> Vessels and Surfaces	<u>Sally Ault</u> 2-Piece Scoops	<u>Barry Gross</u> UV Resin
12:00 – 1:30	<b>LUNCH AND TOOL DRAWINGS</b>						
Note: Schedule subject to change as needed. Changes will be posted to the website as soon as they are available!							

**TRAVEL SAFE & HAVE A SAFE AND PRODUCTIVE TURNING YEAR...**





## FAMILY PROGRAMS

Whether you are a woodturner or not, there are plenty of things to do aside from watching shavings fly. The list of classes that family members can take grows each year. Some of the classes in past years include crochet (a lovely scarf), fusing glass (for jewelry), and paper crafting (handmade cards).

The content of the classes varies from year to year - and they just keep getting better.

There are multiple classes available throughout the day and some of them include field trips in Waco (quilt shop). Each day provides a myriad of opportunities to learn something new. You are even likely to leave with a few new craft pieces. You will certainly leave with new friends.

Every member of the family is welcome at SWAT. Younger family members can even learn to turn a pen from seasoned woodturners.

## WOMEN IN TURNING

The 2015 Southwest Association of Turners Symposium hosted its first **Women in Turning** gathering. **Women in Turning** is a virtual chapter of the American Association of Woodturners, that had its start at the 2014 AAW Symposium in Phoenix, AZ when Betty Scarpino organized a meeting of women to see if there was interest in forming a group focused on the support of women woodturners.

There was definitely enough interest. If you are attending the SWAT Symposium this year, please plan to join our meeting. The time and place will be posted throughout the Convention Center and on the Rotation Schedule. Check out the group at: [AAW Women in Turning](#)

## BEADS OF COURAGE

The SWAT Symposium began participating in the Beads of Courage program in 2010 at the encouragement of Craig Fyock, owner of Wood World. Each year contributions for the Beads of Courage program have increased and in 2021 SWAT had over 400 Boxes contributed by member clubs to be distributed to participating hospitals.

It is really a heartwarming experience.

If you want specific information regarding participation as a woodturner, or guidelines for making and donating your boxes go here: [Wood Turned Bowl Donations](#).

## EXECUTIVE COMMITTEE MEMBERS

### PRESIDENT, TOM BEATTY

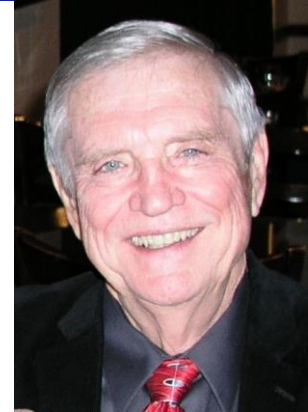
I was born in Virginia where my love of woodworking began. My father and oldest brother were experienced carpenters who owned a cabinet shop in Virginia. At 3 years of age, my dad gave me a tool box and I have been woodworking ever since.

My family, all 9 of us, moved to California when I was 6. My dad and brother had careers building bridges, schools, banks, and houses. I helped them build 2 houses, my mom and dad's and my brother's, before I turned 16. They were so well built that one of my nieces still lives in the house we build for my brother.

My dad had limited workspace in our garage, so he bought one of the first Shopsmiths in the early 1950s. I spent many hours watching him turn bowls, lamps, and table legs out of redwood he reclaimed from old bridges he replaced. I still have some bowls and a lamp that he made along with a couple of his lathe tools that he used. Even though my life was consumed with college, raising a family, and pursuing an engineering career, I always had time for woodworking. I built bookshelves, helped my brother add a room to my first house, and a lot of other flat work.

In 2005, my lovely wife bought me a Jet mini lathe as a birthday present without knowing the future she was creating. I tried learning how to use my new lathe by reading books, watching videos, and making lots of shavings and turning lots of pens. I took classes at the local Rockler and Woodcraft and that helped, but I was still a novice woodturner. In 2008, I met Larry Roberts, who introduced me to Woodturners of North Texas. Thanks to Larry and the club, I learned more in the next 6 months than I had working on my own for almost 3 years. The club offered me the opportunity to take classes from world famous woodturners including Stuart Batty, Mike Mahoney and Jimmy Clewes and attend demonstrations from many other well-known woodturners. I was Secretary of the Woodturners of North Texas for 5 years, where I learned how much work goes into making a club successful.

Club members introduced me to SWAT, and I started attending in 2012 and have attended every year since. I enjoy the learning experience that SWAT offers from world class demonstrators. I like meeting the vendors and learning about capabilities of new tools and equipment. I really like the friendly helpful attitude of attendees and demonstrators who are always ready to share their experience and help you learn. In 2018 I was asked by Stormy Boudreaux if I would like to join the SWAT Executive Committee. I was excited to be asked since I really enjoyed SWAT and was glad when the SWAT Board of Directors elected me to be the 2nd Vice President. Serving on the Executive Committee for the past few years, provided the opportunity to learn how much work goes on behind the scenes to make the SWAT Symposium a success. The Club directors, the Host clubs for demonstration rooms, the organizing and operation Committees, the vendors, and the Waco Convention Center Staff, and all the volunteers who spend countless hours making SWAT one of the premier symposiums in the World. I am honored to be a part of this great organization and will try to do my part in making the 30th SWAT symposium a success in 2022.



## 1<sup>ST</sup> VICE PRESIDENT, PAM THOMPSON

After college and a few years in the workforce, my husband and I moved to Thailand and lived there for many years. How I wish my love of furniture making had developed by then because it would have been a great learning atmosphere. We moved on to 2 other continents before settling back in Texas. While I was overseas, my parents attended nearly every SWAT symposium from the very beginning.

When we returned to the States in 2003, I attended my first symposium with my parents. I had NO idea what turning was but decided to take a little “vacation” with them anyway. Soon after the symposium was over, my dad sent me his old lathe to try my hand at turning. I can’t say that I was hugely successful, but I kept at it. Now, I’ve added a couple more lathes to my shop, and lots more tools.

I will admit that building furniture is my first love. I started turning to add legs and other “parts” to my pieces. I spent several months studying furniture construction at the North Bennet Street School in Boston. Since that time, I have attended many fine woodworking schools all over the country and hope that I will still be able to continue my furniture construction education.

I always look forward to attending SWAT and have only missed one in the last 16 years. Seeing old friends and meeting new ones each year, is a high point in my life. Serving on the SWAT board in 2019 as the chairman of the 3 for 1 raffle, was such fun. I look forward to spending the next several years on the Board and working for you to make SWAT a continued success.



## 2<sup>ND</sup> VICE PRESIDENT, JAMES DESBROW

After serving 4 years in the U.S. Coast Guard, I got married, went back to college and I have a degree in drafting. We then moved to Houston, Texas. When we left Houston, I had advanced to Senior Control System Designer (building Petro/Chemical Plants) but there were too many lay-offs. We came back to San Antonio with two kids, two cars and a cat. Back in San Antonio I was employed with SYSCO Food Service as a salesman and a field trainer. I retired after 30 years.

In 1995 I grew interested in wood working, and like many of us, I attended a workshop at the old ShopSmith store in San Antonio. Several years later at Woodcraft, I learned about wood turning. I received permission (from my wife) to buy a new lathe (Rikon mini) and tools. I learned from classes at Woodcraft and a lot of practice over the years. I have taken classes at Homestead Heritage, Craft Supply and Woodcraft.

A lot that I learned was with the help of Alamo Woodturners, Alamo Pen Turners and at SWAT. I have been a member of both clubs for the past 8 years and President of the Alamo Pen Turners for the last 5 years. I have attended SWAT since 2016 and have thoroughly enjoyed every minute. I look forward to working with the many great clubs, volunteers and vendors of SWAT. Also, I want to see SWAT grow as the premier turning symposium in the country and bring in younger turners.



## SECRETARY, STORMY BOUDREAUX

My father was a self-employed “old-school” carpenter contractor. I used to help him in his shop in the suburbs of New Orleans. There was nothing he couldn’t make with his hands. Hopefully I’ve learned a few things from him. After college, I joined the US Air Force in 1968. Upon retiring after 24 years, went to work for the Lockheed Martin Skunkworks, transferring to Fort Worth in 2002.

The first time I was exposed to wood turning was in 2003. Hanging around the Woodcraft store, I was invited to attend a Saturday session of Woodturners of North Texas where the national turner Barry Gross would be teaching the group how to turn a wooden egg. I had never touched a lathe prior. He was kind enough to set me up in a corner on a mini-lathe and had me turning coves and beads, basic spindle turning skills – I didn’t know enough to be apprehensive of the skew! I enjoyed that session very much.

At the time, living on a shoestring, I purchased a used Jet Mini and a couple of gouges. And off I went! I went to my first SWAT Symposium in 2004. Soon I was President of WNT. Certainly, not because I was the best turner, no way! We had some very skillful and remarkable turner / instructors in that club and I learned a lot. WNT was one of the clubs that helped bring SWAT, as we know it today, into being, initially known as A Texas Turn or Two. Later, it became the South West Association of Turners when clubs from neighboring states wanted to join in on the TTT turning Symposium.

After 4 years as President of WNT, I passed the baton to Dave Marshall. I became very active with SWAT, first as the Vendor Chairman and then the Chairman for securing art donations for the 2-for-1 Raffle. I did this for many years. Eventually, when an elected SWAT VP needed to back out of his duties due to personal reasons, I was the scrape at the bottom of the barrel to replace him mid-year. I was in above my head but Buddy Compton, who was the SWAT President, was a wonderful mentor and friend; he knew just when to throw me a life preserver and when to let me flounder a bit - eventually I became SWAT President in 2017.



## TREASURER, DAVE MARSHALL

Raised in a small cabin on the plains of Kansas, I started my woodworking and woodturning career early in life. After building my first, small lathe, I began my woodturning career by selling hand-turned toothpicks to local farmers and businessmen.

My skill set grew tremendously during this period which culminated in my ability to use a scraper to turn almost any product on the lathe. When I was thirteen, I read with lust about turner David Ellsworth in an old black and white edition of Fine Woodworking. That article vaulted me to turn (scrape) my first box and lid. A beauty of a specimen in black walnut. Form and function – perfect. The bottom lacking just somewhat as not being completely flat and bearing the hallmark of three screw holes that attached the faceplate. Still stunning today.

Thirteen was the age a young student began his first year in Industrial Arts class in junior high school. After sweet-talking my Industrial Arts teacher, Mr. Anderson, he allowed me to come to shop before classes started for the day and turn all I wanted. He showed me the very basics of some of the limited tools we had available for turning. For some reason I don’t ever recall a lesson in sharpening these tools though... that probably explains my expertise with the scraper. I turned my heart out that year; sock darns, miniature baseball bats, candlesticks, miniature baseball bats, boxes, small plates, miniature baseball bats to name a few.

Something happened. I think life, girls, schooling, college, my masterplan to escape Kansas tapered my turning time. Now don’t get me wrong, I tried to design and woodturn as much as possible. I’ve always loved the design and then build and then re-design cycle of creation. Maybe that’s why I became



an Aerospace engineer. After graduation and landing in sunny Burbank, California, I got my first paycheck. I bought my first Shopsmith for my single-car garage/shop. I was on my way!

Years later, and hundreds of projects later, we ending up in panther-sleepy Fort Worth. After starting a family, I began to look for a woodworking club to join, similar to ones I belonged to in California and Georgia. Not finding anything close by in the Metroplex, I ran across a magazine article featuring Devore Burc and its mentioning of a bunch of ragtags called the Woodturners of North Texas. Whoa... they met only three miles from my home! Their next meeting, I snuck in and grabbed a seat and was blown away by the demo. I was hooked again.

I know that this is fascinating as all get-out, but long-story short, I joined that ragtag bunch and haven't looked back. After a while, I was president of the Woodturners of North Texas. The glamour and prestige went to my head and I ruled the Club with an iron fist for four years. That group of ragtags became a lean, mean turning machine, I say.

As a Club member, I became familiar with the South West Association of Turners and attended my first SWAT symposium. Blown away, again! Unbelievable talent...and some of the other turners weren't that bad either. I've been Treasurer of SWAT for a few years now and can almost make the budget numbers add up - between turning projects. The remainder of my free time is spent....wait, I have no free time outside of SWAT. Other activities I do between SWAT projects are spending quality time with my wife, devotion to my new career in the Oil and Gas business, I'm also Treasurer of a professional organization (North Texas Measurement Association), eating, sleeping... well, you get the drift. I am truly honored to be associated with SWAT and every year look forward to the unbelievable talent and skill that you all bring to Waco!

### PAST PRESIDENT, HENRY PENNELL

My first experience with a lathe was at a Woodworking Show in Dallas in 2009. Craft Supplies had a booth and invited me to make a pen. I was hooked. Later, I took a class from John Horn at Woodcraft, and bought a Jet mini lathe. I joined Dallas Area Woodturners (DAW) in November of 2010, and the demonstrator was Michael Hosaluk. Wow, I was mesmerized by his skill and the ease with which he handled his tools. I later became Treasurer of DAW in 2013, and most recently, President in 2017.

I attended my first SWAT Symposium in 2013, and have been here every year since. I love talking to the other turners, seeing the demos and expanding my awareness of the various areas of our craft. I hope to help SWAT prosper and improve in the coming years.



*"The only permanent value of work lies in achievement."*

-- Bill Percell



# SUPPORTING CHAPTERS



Abbr	Chapter	Area
ALT	Ark-La-Tex Woodturners <a href="mailto:traderdon55@hotmail.com">traderdon55@hotmail.com</a>	Texarkana, TX
AW	<a href="#">Acadiana Woodturners</a>	Lafayette, LA
AW	<a href="#">Alamo Woodturners</a>	San Antonio, TX
BLT	Borderline Woodturners <a href="mailto:cwieters@elp.rr.com">cwieters@elp.rr.com</a>	El Paso, TX
BVW	<a href="#">Brazos Valley Woodturners</a>	Waco, TX
CAW	<a href="#">Central Arkansas Woodturners</a>	Hot Springs, AR
CBW	<a href="#">Coastal Bend Woodturners</a>	Corpus Christi, TX
COWA	<a href="#">Central Oklahoma Woodturners Assn</a>	Oklahoma, OK
CTW	<a href="#">Comanche Trail Woodturners</a>	Midland, TX
CTWA	<a href="#">Central Texas Woodturners</a>	Austin, TX
CVW	<a href="#">Concho Valley Woodturners</a>	San Angelo, TX
DAW	<a href="#">Dallas Area Woodturners</a>	Dallas, TX
DSW	<a href="#">Diamond State Woodturners</a>	Jacksonville, AR
ETW	<a href="#">East Texas Woodturners Association</a>	Tyler, TX
GCW	<a href="#">Gulf Coast Woodturners Association</a>	Houston, TX
GTW	<a href="#">Golden Triangle Woodturners</a>	Denton, TX
HCT	<a href="#">Hill Country Turners</a>	Kerrville, TX
HCW	<a href="#">Hunt County Woodturners</a>	Greenville, TX
NEOWTA	<a href="#">Northeastern Oklahoma Woodturners Assn</a>	Tulsa, OK
NWOW	Northwest Oklahoma Woodturners	Enid, OK
PAT	Panhandle Area Turners Society <a href="mailto:celsea@yahoo.com">celsea@yahoo.com</a>	Amarillo, TX
SBW	<a href="#">Southern Bayou Woodturners</a>	Hammond, LA
SEOW	Southeast Oklahoma Woodturners <a href="mailto:engelwilson@fullnet.net">engelwilson@fullnet.net</a>	Idabel-Broken Bow, OK
SPW	<a href="#">South Plains Woodturners</a>	Lubbock, TX
STW	<a href="#">South Texas Woodturners</a>	Victoria, TX
WFW	Wichita Falls Woodturners <a href="mailto:handlebarsturner@aol.com">handlebarsturner@aol.com</a>	Wichita Falls, TX
WNT	<a href="#">Woodturners of North Texas</a>	Ft. Worth, TX

# LIST OF DEMONSTRATIONS

Demonstrator	Project	Page
Sally Ault	2-Piece Scoops	20
Trent Bosch	Revelations In Hollowing	22
	Vessels and Surfaces	23
Kailee Bosch	Turning Paper	24
Kelvin Burton	Manta Ray Bowl	27
Rick Cannon	Zenbellishing	34
James Carter	Inside-out Turning	35
Buddy Compton	Turning an End Grain Bowl with Natural Edge	39
Delbert Dowdy	Stave Construction	45
Ron Engel-Wilson	Evolution by Revolution	49
Dennis Ford	Form and Proportion	54
Barry Gross	Kitless Pen	60
	UV Resin	70
	Finishing and Marketing Your Work	71
Anthony Harris	4-Piece Pawn	72
Mike Mahoney	Quartersawn Oak Platter	76
	Hollow Pepper Mills	77
Dennis Paullus	Acorn Box	78
	Carving and Embellishment	80
Tod Raines	Small Plate Face and End Grain	81
Jason Rose	Clear Label Casting	86
Martin Saban-Smith	Fibonacci Bowl	87
	Mastering Atmospheric Colouring by Hand	88
Gary Sanders	Stacked Laminate Turning	89
Chad Schimmel	Segmenting Pen Blanks	93
Greg Stehle	Making an OSB Hollow Form	96
Craig Timmerman	Winged Bowl Basics	100
	Fun With Spheres	101
Waukeene Vinson	Offset Christmas Tree	102
Andi Wolfe	Going Beyond the Surface - Carving in 3D	108
	Exploring Surface Enhancement	109
Larry Zarra	Fun With Spindles	110



[<Link to List of Demonstrations>](#)

## 2-Piece Scoops



### **Bowl**

The wood for the bowl part of the scoop may be either straight grain turned end grain or burl. The blank should be the width of the desired bowl plus  $\frac{1}{2}$ " +/- and the length should be the width plus 1". The blank must be large enough to turn a tenon that will fit in available chuck jaws.

Put the blank between centers and round the blank. Turn a tenon to fit the available chuck jaws.

Put the tenon in the chuck. Turn the exterior shape about  $\frac{1}{2}$  way down the bowl leaving support wood on the chuck end of the blank and level the face of the bowl.

Sand the outside of the shaped part of the bowl to 320. Put finish on the accessible areas.

Drill a hole for the handle using a  $\frac{1}{4}$ " forstner or brad point drill. Be sure to drill into side grain leaving about  $\frac{1}{8}$ - $\frac{3}{16}$ " between the face of the blank and the hole. Aim the drill at the center mark of the face and angle the drill in the orientation desired for the handle. This is done before hollowing the bowl.

Hollow the bowl to  $\frac{1}{8}$ " (or slightly less wall thickness.). Use a negative rake curved scraper to smooth the interior and get rid of the pimple/dimple in the bottom of the bowl. Sand and finish the inside of the bowl. I use several coats of thin CA to finish the inside.

Complete the shaping of the exterior leaving a very small tenon connected to the waste wood. Sand and finish.

If you are using a jam chuck you can cut off the bowl using a small pull cut saw. If you will use a vacuum chuck, leave the bowl attached to the waste wood.

Create a jam chuck or if you are using a vacuum chuck, line the piece up using the TS mark in the waste wood then cut off the waste wood once the vacuum is on.

Tape the bowl to the jam or vacuum chuck for safety and clean cut the remaining bit on the bottom of the bowl using delicate cuts toward the head stock. Sand and after removing the tape, finish the exterior of the bowl.

### Handle

The blank for the handle should be straight grain hardwood. The blank should be  $\frac{3}{4}$ " x the desired handle length plus 1" if using pin jaws. If no pin jaws are available the blank must be large enough to fit in the available jaws.

Put the blank between centers and round to a cylinder and cut a tenon. Put the tenon in the chuck with the Tail Stock engaged.

Shape the TS end. Start a bead  $\frac{3}{4}$ " from the end and reduce the end close to  $\frac{1}{4}$ ". Using a sharpened  $\frac{1}{4}$ " end wrench or calipers cut the TS end to  $\frac{1}{4}$ ".

Shape the handle leaving support wood at the HS end.

Taper the TS end to less than  $\frac{1}{4}$ " in the area where there TS point damage, leaving  $\frac{1}{4}$ " of wood past the point damage. Slide back the TS and test fit the bowl on the tenon. If it is too tight, replace the TS and very slightly reduce the diameter then test fit the bowl again. Mark the place where the handle will end inside the bowl, remove the bowl and replace the TS.

Cut the TS end of the handle at the mark. After cutting through, support the handle with your fingers and sand the end clean. Support the TS end of the handle in a mandrel saver if available...if a mandrel saver is not available leave unsupported.

Finish shaping the handle leaving a small amount of wood at the HS end, sand and finish as far as possible then make the final cut. Hand sand and finish the end.

### Gluing

Using medium CA or 5-minute epoxy put the glue around the handle tenon and slide the bowl onto the handle. Wipe off any excess glue and make sure the bowl is straight. If using CA, use a very quick squirt of accelerator from at least 10" away. If using 5-minute epoxy either hold it until the glue has hardened or support the bowl so it won't move while the glue is drying.

When the glue is dry put a drop or two of thin CA on the handle end inside the bowl and let it drip down the side of the handle end and fill any gap. Wipe off excess.

Accept Compliments with humble grace.



[<Link to List of Demonstrations>](#)

## Revelations In Hollowing



Over the past 30 years I have been pursuing the art of the hollow form -throughout this time I have used and developed some very unique techniques and equipment. in this demo I will go through all the techniques that in the creation of a hollow form with an emphasis on the latest technologies I have developed for hollowing making this much more than just a hollow form demo.

# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH TRENT BOSCH

[<Link to List of Demonstrations>](#)

### Vessels and Surfaces



In this demo participants will not only learn all the techniques that I go through in the creation of a hollow form but ways to make the surface outstanding! From textures to colors to sandblasting and beyond – making this much more than just a hollow form demo.



# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH KAILEE BOSCH

[<Link to List of Demonstrations>](#)

## Turning Paper



### Basic Supply List:

- 2-part epoxy (30-minute work time (minimum) & 24-hour cure)
- Old/Recycled Books or Paper
- Cheap Paintbrushes ( I prefer 2")
- Gloves
- Scrap cardboard
- Paper plates

### Preparation:

Be sure you know how you want to lay out your material before you get started. Below are some examples, you can use just paper, or a combination of both paper and wood.



### Gluing:

I mix a small amount of epoxy (so it doesn't dry too fast) and use a paintbrush to glue each page. If I don't get glue on every page, there is a chance the pages will separate during the turning process.

**Clamping:**

It is important to have a way to clamp your glued pages together while they dry. There are several different ways to go about this. I use a hydraulic press, but wood clamps also work well. Just like any glue up, timing is important, so be sure to know how you are clamping your work before using any glue.

*Example of clamping set up.  
I find that a combination of  
plywood and parchment paper  
work well.*



**Getting Ready to Turn:**

Once your blank is dry, cut the material closer to your desired shape on the bandsaw. The less material you have to remove on the lathe, the better- it is not the easiest material to turn and dulls your tools quickly.



**Turning:**

Unfortunately, paper is not the easiest or most enjoyable material to turn. However, with a bit of patience and making sure to keep your tools sharp, you will find that it isn't too different from turning wood. You can use all the same tools and techniques you would use for turning wood.

**Finishing:**

Paper sands and cleans up really well. If my final piece is comprised of only paper, I do not apply any finish. If I have a combination of wood and paper, I generally apply a light spray matte finish - you can apply it to both the paper and the wood.

**Questions?**

If you have any questions, please don't hesitate to reach out. I am more than happy to help you troubleshoot or give you some more information about my process.





# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH KELVIN BURTON

[<Link to List of Demonstrations>](#)

### Manta Ray Bowl



*Creator: Terry Scott, NZ, adapted and demonstrated by: Kelvin B Burton*

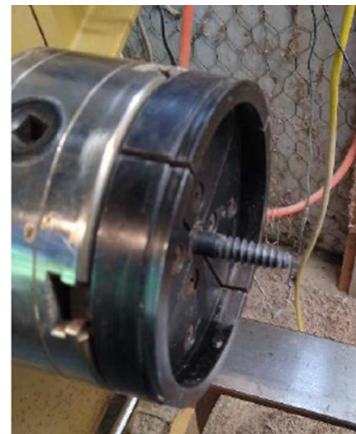


Choose a piece of wood that is clean and free of cracks, bark inclusions, etc. In this demo I am using Soft Maple approx. 6" x 6" x 2-1/2".

It is important that the piece be square, and the sides be of equal length. I used my homemade lathe mounted disc sander to clean up the sides.

Mark the center and drill a hole for the screw chuck. This will be the top of the piece when it is completed.

Make sure the hole is as exactly centered as you can get it!



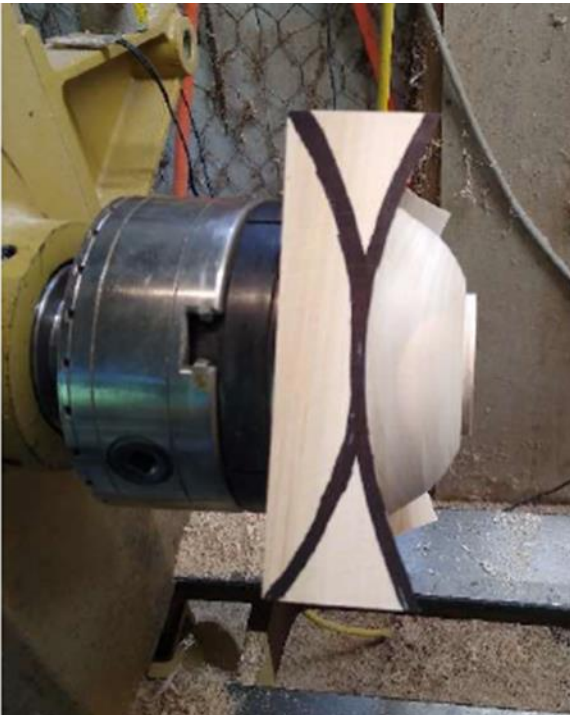




With the blank securely screwed onto the screw-chuck start turning the bottom of the wings and bowl including the tenon. The tenon will become the feet in the final step.

If the wings are not to support the bowl then make sure to remove enough wood at the corners so that they end up above the tenon base.

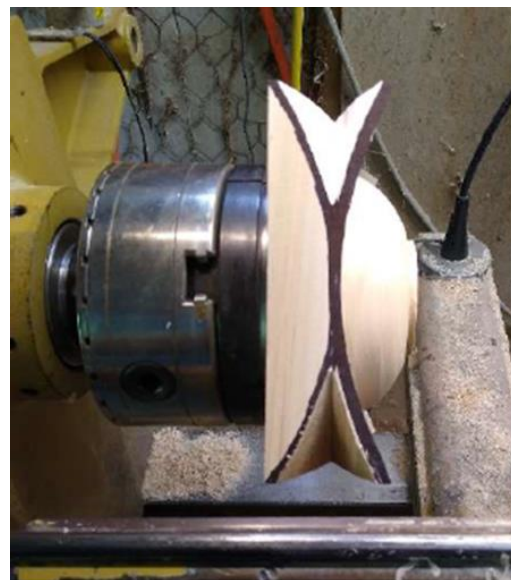
The degree of slope of the underside of the wings determines how much curve you will achieve on the sides. Note: Using the tailstock is possible but it restricts access to the bowl.

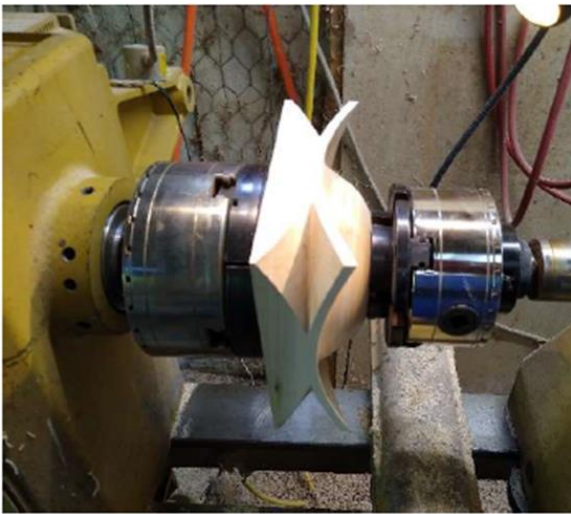


Using a Sharpie mark out the position of both bottom and top wings on one side of the blank. Make sure that they merge together at the center and that the top corners are slightly below the top (left in pic.) of the blank.

These are guidelines only and will be visible when the piece is spinning.

The next step is to remove the wood from the "V". If you're brave you will use the long point of your skew as Terry does. Alternatively, you can follow my example and use a detail spindle gouge. I use the ½" Mike Hosaluk tool by Doug Thompson.





Next we need to reverse the piece by unscrewing it from the screw-chuck and mounting it using the tenon on the bottom of the piece.

To make sure that you achieve perfect alignment you can mount a 2nd chuck on the live center using an  $\frac{3}{4}$ " to 1-1/4" adapter and clamp it to the tenon before removing the screw-chuck.

With the piece reversed you can start turning the top wings and bowl. The tailstock can be in place while you form the top wings but will need to be removed to form the bowl and of course when you hollow the bowl.

The wings and bowl top are formed, let the hollowing begin!







After an initial "V" cut with my ½" Thompson bowl gouge with a 40/40 grind I did the rest of the hollowing with Mike Hunter's straight and swan neck "Baxter" carbide tools.

Final cleanup of some torn end grain was done with a teardrop scraper.

A bead around the opening of the bowl gives it a nice touch!

I used a ¼" D-Way beading tool for this step.



Removing the surplus wings! There's a number of ways to do this but I find a coping saw works great! I used the Indexing feature on my lathe for the first time ever to stop the piece from rotating while I sawed off the wings I didn't want.

I typically like the 3 up, 1 down configuration but it's up to you!

Just don't cut too close to the finished surface, it's easier to remove a little surplus than to put it back!



PS: I'm not left-handed, just can't take photos with my left hand!

Four wings removed, four left! →



Using a rotary tool with a Saburrtooth cylindrical cutter you can quickly remove the excess leftover wing material. Finish the process with sandpaper.

Using a carving vise makes it easier to get to the underside but reversing the piece on the lathe works too.



Almost there! Remount the piece in the lathe on an expanding chuck to clean up the tenon for carving into 3 feet.

Mark 3 equidistant positions for the feet with dividers set to the radius of the tenon. Mark every 2nd touchpoint around the edge of the tenon.

Remove a portion of the tenon with the Saburrtooth burr to make sure the center of the base is aligned with the bowl.



Now, using the Saburrtooth burr in the Dremel (or similar rotary tool) remove the parts of the tenon that don't look like a foot.

Be careful not to take away too much, it's very hard to put it back! Don't ask me how I know that!

Hand sand as soon as you think you are getting close.

The carving vice with the expansion chuck is very helpful for this step.



Sanding done and 3 bumps to support the finished piece – and a small divot where my tailstock point went a little too deep in the tenon. 😞

Project completed!

Well, almost, just need to add some pyro embellishments and some finish.

Hope you made it this far and enjoyed the process!

Any questions? Email me at [kelvin@burtonclan.us](mailto:kelvin@burtonclan.us)



# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH RICK CANNON

[<Link to List of Demonstrations>](#)

## Zenbellishing

My goal with this demo is to touch on my process of taking a simple project and embellishing it to accept the color. Depth is created by making valleys and points. Color is added to show this depth. I don't make the wood look better. I just add my touch to it.



# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH JAMES CARTER

[<Link to List of Demonstrations>](#)

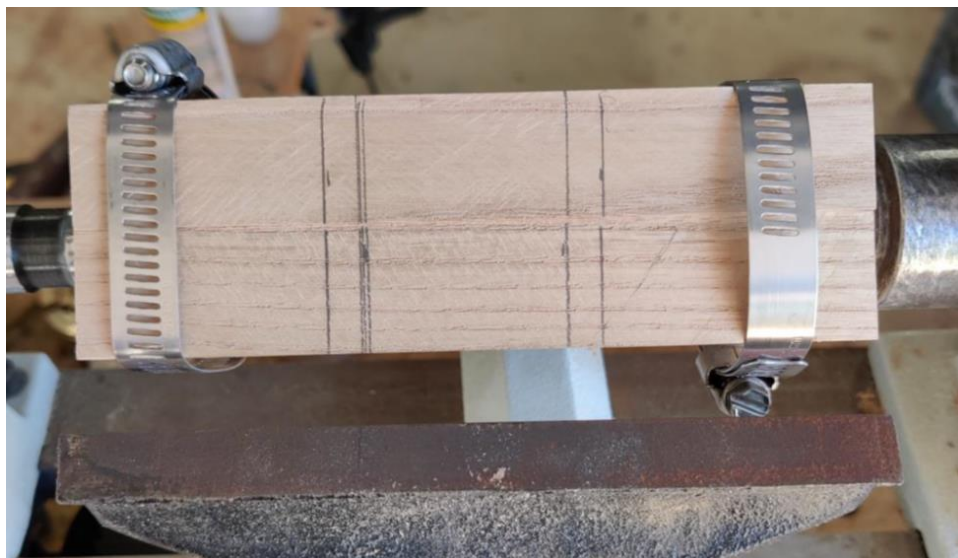
### Inside-out Turning

Inside-side out turning, is a technique mostly used in Ornamental or Artistic turnings, with the vast majority becoming Christmas ornaments. The method of turning that starts with several pieces of wood held together in a removeable manner. You then turn a concave shape in the temporarily bonded blanks. When finished turning you then remove the bond and flip the individual pieces and glue them permanently together. Finally, turning the outside will make a windowed piece without hollowing or drilling into the piece. Typically completed with four pieces, it is really up to the skill of the turner and how many perfect diamond staves can be held together one way and then turned around another.

Wood selection: The first thing to think about is what wood to use. Most domestic hardwoods, (Maple, Cherry, Walnut) will be your best bet for a long-lasting final project. Softer, open grain woods like Pine will be more prone to breaking under the stress of turning. It is necessary to choose wood that is free of any noticeable defects. Burls, knots, and cracks will cause weak points in the piece and could result in breaking during the turning process. Nice effects can be achieved using multiple kinds of wood for a more festive final product.

Grain direction: It will look it's best if the grain of the wood is considered when setting up. Board stock or a whole piece of wood can be used if you make sure that the same side of the board will be outside of the ornament. This will give the piece a more uniform look. If using a solid piece to work from, make sure that the way the wood was before it was cut is the way it is glued up in the final piece.

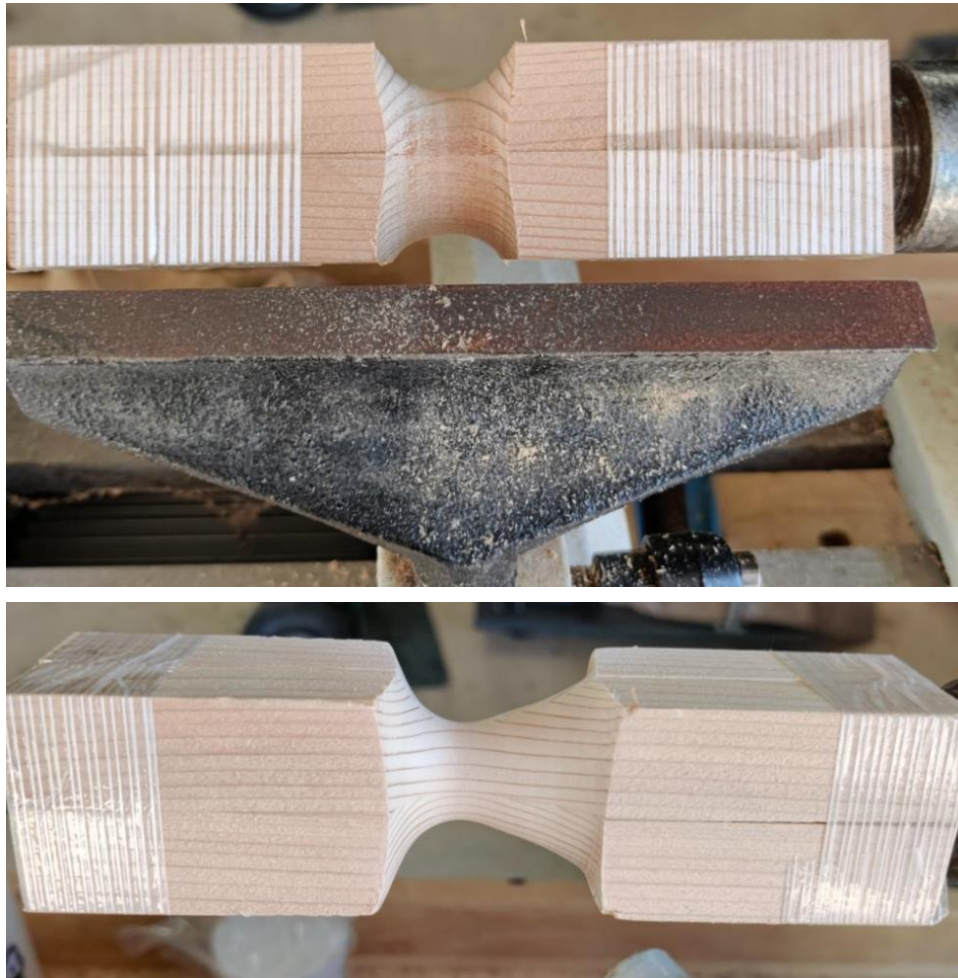
Setting up the blank: It is crucial that all the staves are the same thickness and size. Any variation will show in the final piece. Once the outside orientation is set up, mark one end of the blank to show this orientation. Number each piece to know where it was in the blank and mark the inside corner. This will help to make sure the final piece is set up properly. Once marked, rotate each piece 180 degrees so that the outer corner is now the inside corner. This will be the orientation for turning the inside hollow feature.



Inside technique methods: There are many ways to set up an inside out turning. Traditionally the piece is turned with paper glued between the joints. Newspaper or brown paper bag works best. Once the inside turning is complete, the paper allows the piece to be taken apart by splitting the seam with a



wood chisel. If glue is preferred but you do not want to use paper, gluing the last 1/2 inch of each end of the blank will work. This allows you to cut off the ends once the inside part is turned. The second method uses one inch strapping tape to hold the piece together. Use the fiber reinforced packing tape to create a strong bond. The key to getting this method correct is making sure the blank is secured together and taped very tightly (I will demonstrate this method). The third method uses banded hose clamps to hold the piece together. This is very secure, but it has an increased danger factor from the bar of the band clamps wings around as it turns. Also, the tightening bars need to be on the opposite sides of the blank to balance the piece while turning. The fourth method is to screw the ends of the piece together. This is a strong hold but, it involves a larger loss of wood in the outside turning. The last method I will mention is one where a form is made and attached to a faceplate and live center that can hold the blank without need to bind them to each other. This is a great method if you are doing a run of several ornaments that are all cut the same size. However, it is not practical for a single piece.



Turning the inside: For turning this, it is recommended to use a multi tooth or safety center and a cup live center. A cone center could split the blank. A four prog drive could as well if not set up correctly. DO NOT take the entire blank to round. Only turn the required inside shape. The inside shape is really up to the turner and what the wood can handle. Two-piece inside out turnings are great to do shapes like bells, snowmen, Christmas Trees and Stars, or any number of shapes. Four-piece inside out turnings are really used to make the piece lighter, without drilling or hollowing. Most will be a simple cove or bauble shape for ornaments. Other shapes can be done, and it is a great fun to experiment with how various shapes can work together. The key is to get the shape to the right depth. Looking at the negative image against the flat side of the turning will give you the best look at what the hollow will be when the piece is turned around. Going in at least 50% of the thickness will give the best result. Keep in mind the farther the cut, the smaller the bars will be when the piece is finished. It is possible to have the outer window

bars out further than the turned round would be for the blank as a whole. One key point when turning the inside shape is to make sure the corners and edges are still crisp. All entry cuts need go to waste wood so if any splintering occurs that it does not affect the final piece. Make sure that whatever shape you cut has an even flow to it, any bump or quick change in direction will translate to the outside shape.

Gluing up the final piece: Once the inside is turned, and which ever method used as been removed, turn each of the piece so that the original inside corner is now outside corner. Use a regular wood glue here. CA glue is brittle and could cause a failure in the joint due to stress or heat. Apply glue to both sides of the blank that will be joined making sure to cover all the space that should be glued but not so much that there will be a lot of squeeze-out. Cleaning the glue up on the inside will be difficult depending on the opening. Make sure to align the opening of the turning so that the image is as seamless as possible. Then clamp the whole blank making sure the inside turning is set up correctly. Clamp for at least 60 minutes. After that time the glues working time has passed and the clamps can be removed to work on the next step of the inside out piece. Trimming the end with a table saw or chop saw may be required to true the blank up again.



Turning the outside: Start turning between centers and then use a four-jaw chuck to complete the piece. The outside shape will look it's best if it follows the inside shape. If a cove was cut on the inside, a bauble shape is not the best choice for the outside. The first process is to get what will be the bottom of the ornament in a chuck to hold it. This will provide access to the top of the ornament to be completed. Using a ripple or long nose jaw for chucking will give you the ability to hide the final chucking in the piece. Measure the jaws diameter with them in their fully seated position, with about a 1/8th inch gap between the jaws. This provide a hold where the entire jaw is holding and not just the corners of the jaw that will dig in. Fillets or beads work well as a chucking point provided there is a flat shoulder to seat against. Turn the top half of the ornament while keeping the tailstock in place to provide strength until you have to just cut the tip to size. There is no set design. Go with a pleasing shape that compliments the inside shape. Sand the top before you reverse it, as it will be impossible to power sand afterwards. If you are using a hanger, drill the hole now as it will run true to center drilling on the lathe. Flip the piece over so that the top is now in the chuck, keeping the tailstock in place as long as possible for stability in cutting.

Finishing the ornament: An even wall thickness of the outside shape compared to the inside shape will achieve the best results. Make sure that the surface of the feature section is thick enough to handle the stress of turning. Remove wood evenly as too much at the tail end could cause too much stress on the feature section. From the feature section work to the bottom finial piece. Again, there is no set design. Turn a shape that compliments the overall shape of the piece. Crisp details and a basic finial work well for this, try not to make it too sharp as the glue joint may cause trouble. Always put a feature at the end of the finial to help with piece stability.



# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH BUDDY COMPTON

[<Link to List of Demonstrations>](#)

### Turning an End Grain Bowl with Natural Edge



There are basically two kinds of natural edge bowls—end grain and side grain. I enjoy turning both and each has its distinct appearance when finished. An end grain natural edge bowl is one with the grain running parallel to the lathe. A side grain natural edge bowl is one with the grain running across the lathe.

**Note: Most woods, mesquite usually excluded, may have a tendency to warp while drying. Mesquite is a very stable wood and will usually hold its shape.**

I have chosen a piece of West Texas mesquite to demonstrate the turning of an endgrain natural edge bowl. The blank is 10" in diameter and 6" tall.

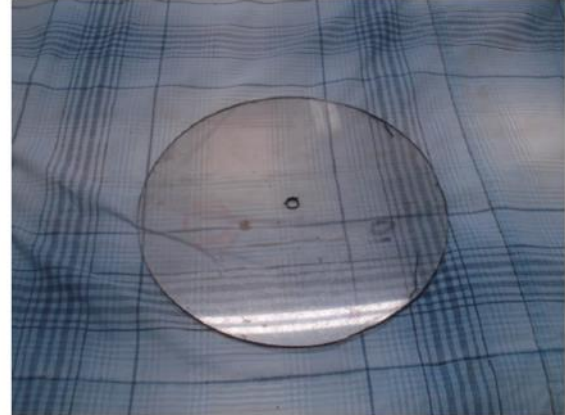
Most all mesquite has natural cracks in or around the center of the log. It has been explained to me that the wind blowing and twisting the limbs as they grow and mature causes the inner portion of the limbs to crack. Most of these cracks originate at the pith of the log. You may have to secure these cracks before, during and after the turning process.





### BLANK PREPARATION

First – Find the center of the blank. I use pieces of plexiglas that I have cut into circles of various sizes, or I use a compass. You can also cut these circles out of wood or cardboard to use for center finding.



Second – I will drill a hole with a 1½” forstner bit to help secure the blank at the head stock. I use the 1½” forstner bit because this is the size of the drive center that I use for most projects. I drill the hole at least 1” deep.



Third – I will place the blank between center, and I will saturate the bark on the top of the blank with CA glue. I will put the glue on the bark for approximately 1” to 1½”.



Fourth – I will then flatten or square the ends of the blank. I leave a small tenon on the tail stock end which will become important later in the process.



### TURNING PROCESS

Step One – In most cases, I will cut the blank thick enough to enable me to establish a double tenon on the bottom of the blank. One tenon will be used for chucking process when turning the blank around to hollow the inside of the bowl. The second tenon can serve as the base of the piece when finished with the turning. I will turn and shape the tenon (base) to the desired size and shape at the end of the process.



Step Two – I will give the bark another helping of CA glue at this point, which will give added security that the bark will stay intact. I will then begin to turn the back of the bowl to the shape that I have in mind. I also keep in the back of my mind that the top of the bowl will be natural edge and that being careful with the bark is of utmost importance. I will use the push and pull techniques when shaping the



outside of the bowl and will also use the bowl gouge as a scraper to smooth out the outside of the bowl before sanding.



Step Three – Sand the back side of the bowl and insert any enhancement that you may want to use. I will in most cases inlay turquoise on the outside of the bowl, putting the turquoise in the natural cracks or making my own to keep the bowl balanced with the turquoise inlays. Using a 3/8" close quarter drill and sanding pads, I will sand from 80 grit to 320 grit. After sanding with 180 grit, I will wet the piece, wipe off the excess water – let it dry and sand with 320 grit. I may repeat this process one or two more times. The additional wetting and sanding will depend on the way the piece feels and looks.



Step Four – I now place the blank in a vicmarc 120 chuck which opens to 3 ½". The chuck jaws will vary according to the size and stability of the blank. The size of the tenon for the chuck can vary, rule of thumb is 1/3 the size of the bowl, but you may want the look to be different and give yourself a design opportunity.

Step Five – The center of the blank has already been established in the preparation process. Be conscious of the cracks, splits or abnormalities of the wood and the bark on the top of the piece.

Step Six – I will begin to turn away the inside of the bowl. I always start at the center of the bowl and work out. I turn the bowl in segments-until I finish at the bottom. Keeping as much bulk as possible in the bowl will keep it stable throughout the process. I will use both a push and pull technique when turning away the material on the inside of the bowl. I will also use a scraper to smooth out the inside bottom of the bowl.



Step Seven - Sand the inside of the bowl and insert any enhancement that you may want to use. I will in most cases inlay turquoise on the inside of the bowl, again filling the natural cracks or making grooves to place the turquoise inlay. Using a 3/8" close quarter drill and sanding pads, I will sand from 80 grit to 320 grit. I will wet the inside of the piece after 180 grit. I may again repeat the process, depending on the feel and look of the piece.

Step Eight – I will reverse the bowl and jam chuck it between centers and finish the base that will help enhance the overall appearance of the bowl. Sign the piece.



## FINISH

I use Deft lacquer as a finish. I spray the piece with Deft Sanding Sealer, rub with 0000 steel wool, spray with Deft Sanding Sealer, rub with 0000 steel wool. My preference for the final finish is Satin Deft Lacquer. I will spray the piece on the inside and outside, letting the piece dry well between each coat. The number of coats will be determined on how the finish feels and looks. After each coat, I will rub the

inside and outside of the piece with 0000 steel wool. I will do this until I get the feel and look that I am after. This will depend on what you prefer and want the piece to look like.



**FINISHED PIECE**





# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH DELBERT DOWDY

[<Link to List of Demonstrations>](#)

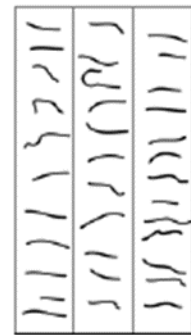
### Stave Construction

#### What are Staves?

Wooden staves have been around for thousands of years. First used in containers, buckets, and musical instruments, staves are simply elongated segments of wood. Staves that are all parallel to each other are called simple staves. Buckets usually use a compound stave that flairs out and produces a larger diameter at one end than the other. I will be using simple staves.

#### Why use staves?

One can sum up the use of segments with design, color, and grain pattern. Woods of different color and grain can be mixed to produce interesting designs. Veneers separating staves can further enhance the design. Many grain patterns are available in lumber but sometimes rare to find in turning stock. This is at a much cheaper price using boards compared to turning blocks. These patterns can be oriented in different ways for best emphasis. I use staves in pieces that call for fairly straight vertical walls where you would like the grain pattern to remain unbroken for the length of the stave.



Staves can save time compared to using segments. Cutting one set of staves can take the place of many segmented rings.

#### Ideas on Cutting Staves

Staves can be cut lengthwise following with the normal grain direction, which is called ripping or one can cut staves perpendicular to the normal grain direction, which is called cross cutting. Which method you use should depend on the pattern of the wood. With a little practice, you can imagine how the wood would look turned either way. The best use of the wood requires that you learn a method of cutting each.

#### Sizing the Staves

The thickness of the wood determines how much diameter variation you can have in the cylinder you are creating. The thicker the wood the greater variation in diameter. This can mimic a compound stave which has smaller and larger diameters. For a piece where the sides will be straight up and down (vertical), the wood can be fairly thin. When referring to the size of the stave, we are talking about the width and length of the stave. The wider the stave, the larger the diameter of the finished cylinder. Calculating the diameter of the cylinder created by a certain width of stave can be rather complicated. I am supplying a few widths for an 8-sided cylinder and a 12-sided cylinder. You can have as many sides as you wish but those are two good numbers of sides. I have included a few diameters in inches. For different number of staves in the cylinder, you can approximate the widths needed. For diameters other than the ones given, approximate the widths needed and then adjust from there. Widths are given in inches and may be rounded a bit to make things easier. You can always make junk wood cylinders and adjust as needed.

Diameter (inches)	8 Staves	12 Staves
4	1 5/8	1
6	2 1/2	1 5/8
8	3 1/4	2 1/8
10	4 1/8	2 5/8

The length of the stave determines the height of the cylinder. The number of staves you will use is somewhat of a personal choice as to what you believe looks best for your project. The angles you cut on your staves determine the number of staves in a ring. Common numbers of staves are 6, 8, 10, and 12 although you can use any number of staves you wish. We determine the angle by takes 180 and dividing by the number of staves: 6 staves is 180 divided by 6 giving 30 degrees.

The angles for the common number of staves are:

- 6 staves - 30°
- 8 staves - 22.5°
- 10 staves - 18°
- 12 staves - 15°

This same angle is cut on opposite sides of the stave.

### Preparing the Wood

In order to cut accurate staves, the wood must be properly dressed so that the board is flat and has square sides. You can use tools such as a jointer, planer, and tablesaw.

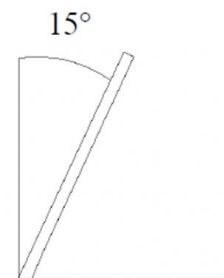
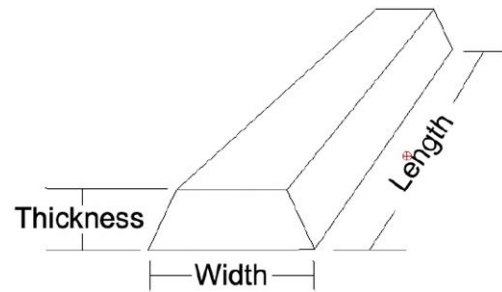
### Cutting the Staves

Although I know people who cut staves on a miter saw and a band saw, I prefer to cut the staves on a tablesaw. Using a table saw requires that the blade angle be set properly to cut accurately fitting joints. You should use cheaper wood to cut test strips until a cylinder without gaps can be cut. The blade needs to be sharp and clean (free of pitch). The best way to set the table saw blade angle is using an electronic angle measuring device available for as little as \$20. The angles are measured from the vertical for the blade. Table saws have blades that lean to the right and left. Either direction will work.

If the test cylinder shows gaps on the inside of the cylinder, reduce the angle of the blade. For gaps on the outside of the cylinder, increase the angle. Be sure to change the angle slowly. Electronic angle measuring devices will get you very close to the correct angle. Softer thin woods will tend to compress in a clamp and may hide an inaccurate cut. Using a thick light-colored hardwood such as hard maple will show any gaps best.

### Ripping Staves

When ripping staves along the length of the board, you must use some type of hold down. If you do not have a commercial version of hold down, then clamp a board to your fence that will not let the wood rise. If the board you are cutting moves around, the angles will not be accurate. You are using your fence to get the correct width of stave.



### Cross Cutting Staves

To cross cut the staves perpendicular to the length of the board, I use a miter gauge set at 90 degrees. Do not use the fence as a stop to get the correct width. Clamp a piece of wood to the fence behind the blade to set a repeatable width of stave.



### Checking Staves

If your staves are not cut properly, glue will not hide your mistakes. I clamp the staves before gluing to check for fit. If they do not fit for some reason, it is not worth wasting the glue. I adjust the angle and cut staves that fit without gaps. Then you are ready for gluing.

### Arranging For Gluing

To make arranging and gluing the staves easier, I use a piece of plywood with Formica top. A long straight piece of wood is fixed to the edge of the board. Take a piece of masking tape and arrange it close to and parallel to the fence with the sticky side up. Place the first stave on the end of the tape with the wide part of the stave on the sticky side. The end of the stave butts against the fence. A second piece of tape is put under the stave toward the other end and parallel to the first piece of tape. The next stave butts against the fence with the edge of the staves meeting. I leave a couple of inches of tape sticking out after the last stave is put down. Roll up the staves and use the tape at the end to secure the whole roll. Check for fit. If it is right, then proceed to apply the glue.

### Use of Glue

I like Titebond I glue because it is fast drying and has a shorter setup time. I use a small flexible glue bottle because it makes applying the glue easier. Keep in mind that tests show that the best glue joint for strength is between .002 and .006 inches in thickness. Not putting enough glue can produce a glue starved joint. Putting a lot of glue and squeezing it out is a waste, messy, and may produce a joint with too much glue. With practice you learn how much glue to apply. I align all the pieces on the tape, apply the glue to one side of each joint and spread the glue. I use an artist's palette knife. The flexibility and small size makes it easy to get into the joints and spread the glue.

### Clamping the Staves

After rolling up the pieces and connecting the loose tape, I set the cylinder upright. I use a quick release hose clamp on each end and if the tube is longer than about 4 inches, I will use another one on the center. I have a nut driver that I use on the clamps. The quick release clamps are very fast and convenient but cannot take tremendous tightening torque. You do not need the clamps to be crazy tight. A nut driver gives me just enough pressure for a good fit without breaking clamps. For those with reduced hand strength you can use a ratchet drive or a drill if it is set on a low torque setting.

### Chucking for Turning

If possible, it is best to true up the two ends of the cylinder before placing in the chuck so that the cylinder will run parallel to the bed. I use a chuck for holding one end of the glued cylinder. The other end is held with a cone center. You will need to turn the outside and inside of the cylinder.

### Turn the Outside

If the inside diameter of the cylinder is large enough you may be able to fit the jaws inside. Be very careful not to expand the jaws too much and break the staves apart. You may need to use a flat plate held by the tailstock to apply pressure to keep the cylinder from slipping. If you are going to use the chuck to hold the outside of the cylinder, it is best to have some extra length to the cylinder to cut off later or use a piece of old belt leather applied to the outside of the cylinder to keep the jaws from marring the surface. Another way to hold the outside of the cylinder, if you have flat plates on your chuck, is to attach pieces of soft wood to the plates to make your own jaws.



### **Turning the Inside**

This can be more difficult than turning the outside. You can use a variety of tools to find the ones that work best for you and your wood. Gouges, scrapers, hollowing tools, and carbide tools can be used to differing success. If the cylinder is short, you may be able to hollow the entire length from one end. A long cylinder may require that you hollow half the length and reverse it to hollow the other half. Better still would be to use a three- or four-point steady rest.

There are several different options that can be used to sand the inside. These include sandpaper wrapped around a pole with the cylinder turning, sanding disks with scalloped edges, or sandpaper cylinders applied with the cylinder turning.

When making a base and top for the cylinder, I prefer to fit the cylinder inside the base and top.

# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH RON ENGEL-WILSON

[<Link to List of Demonstrations>](#)

### Evolution by Revolution

Wood turning is a destructive craft and art. One starts with a large piece of wood and the finished piece is much lighter and smaller with lots of waste chips and dust. Wood turning is much like wood or stone carving with that regards, but the approach is much different. In wood turning the wood revolves and the tools are held stationary to the work piece. In carving the wood is held stationary and the tools are pushed through the wood. Carving is not wood turning.

The following exercise will move one through the evolution of a piece of wood from a rough state through to a finished piece as it revolves on the lathe. It helps to have an idea of what the finished piece is going to look like. One should form an image of what it is they want to make. This helps in selecting a piece of wood to make the project. A measured drawing can be very useful. A drawing form with instructions will be provided to help one accomplish this task. In the following exercises we will work through several pieces starting with a similar piece of wood or blank. The blanks will be 2 to 5 inches square and 6 to 8 inches long. Some of the projects that may be made from blanks of this type are small mallet, foot massager, toothpick holder, tart rolling pin, scoop, egg cup, cookie cutter, lidded box, bud vase, open vase, salt cellar, a hollow Christmas ornament, palm gavel, or even small snowmen. Some are very simple, and others are very complex, all will be possible to make.

To begin select your blank and check for cracks, knots, flaws, grain direction and figure. One should consider how any of these will look or impact the final piece. Here again is why one should have an image of what is going to be made. Our first project will be to make a straight and round tart rolling pin. Then we will convert the rolling pin into a back massager. Next, we will make a small carver's mallet. The mallet will be pleasing to the touch and eye as well a very functional tool in the shop or kitchen.

Most projects will begin either between centers or by using the chuck to drive the piece. Fix the wood between centers, make sure the piece is securely fixed and rotates without touching the tool rest. The lathe should be set at its lowest speed, stand to the side out of the line of fire and turn on the lathe. Increase the speed to an appropriate speed for the size of the blank. Using a spindle roughing gouge begin roughing the blank down to round, beginning at one end working off the end taking about ½ inch at a time. Take the piece down to just round. Using a parting tool cut a tenon on each end of the blank such that the blank can be fixed into the chuck by either end. The shoulders need to be square and perpendicular to the bed of the lathe. If they are not, they will not fit the chuck properly. This is the most important portion of the exercise, as this is the basic set up for making many of the projects listed above. This is a good habit to get into when working blanks because one never knows when the piece will have to be reversed making the top the bottom and vice versa. Next step is to make a parting cut ¼ to 3/8 inch in from each tenon, these need to be ½ to ¾ inch deep. Your project will develop between the two cuts. Next fix the blank in the chuck and bring up the tail stock and add just a little pressure, the piece is really being held by the chuck, but keeping the tail stock on the piece for as long as possible is a good safety habit to develop. Using a spindle gouge make the area between the parting cuts flat and smooth. At this stage we could sand, and finish and we would have the rolling pin. Now we will convert the round stock into a back massager. Lay out the design it should have high beads on each end, higher in the middle and covered in beads from one end to the other.

To make the small mallet affix blank, rough turn, cut tenons and affix in the chuck. The reason we put a tenon on both ends is for insurance. If we make a complete mess of the head, we can turn it around and try the other end and still have enough material for the handle. Using a pencil mark off one third of the

stock as the mallet head on one end (I prefer to turn the head on the tail stock end as it makes it easier to cut the concave top), on the other end mark off about one sixth for the pommel the area between these two marks will be the handle. Now that we have marked out the mallet, begin by shaping the mallet head. (Hint: at the end of the head where it meets the handle use a series of parting cuts. The first shallow and the next deeper and so forth for 3 or 4 cuts. Then one can use a spindle gouge to connect these stairsteps into a flowing curve. The same can be done on the pommel end.) The head should taper slightly from the top to where the handle starts. With a parting tool begin by cutting the top down with a slight concave cut. Do not cut down too far we will finish it off later. With a gouge take the material down between the head and the pommel and shape the handle. The pommel should be round and slightly bigger than the handle. Some individuals may wish not to have a pommel that is ok. Because the end is being held in the chuck, we can waste away almost all of the material. As the handle progresses turn the lathe off from time to time and check the fit. Once the mallet is shaped to your liking, sand, and finish. One may wish to put a series of rings in the bottom. This may be done with a parting tool held at an angle to the face. Now we will part off the piece. With a parting tool cut down the ends until a diameter of less than a pencil is left on both ends. Do not cut it down below the size of the handle to part it off until after we have sanded. Begin sanding with the smallest grit that your tool control and grit of your grinding wheels will allow. If you have good control you might begin to sand at 220, poor control you may have to start at 60 or 80. It pays to develop good tool control. Sandpaper should be in 3-inch squares and folded into thirds. You are sanding with your fingers not your hand. The rule of sanding for moving between grits is to divide the grit you are using by two and add this number to that grit to find the next smaller grit. For example, you are using 80 grit, divide by 2 and get 40 add that to the 80 and your next grit should be 120 and so forth.

### **Review for making a rolling pin**

Step 1. Select your blank and mark the center points.

Step 2. Rough the blank down to round and place tenons on each end and define your blank with parting cuts. Place the blank in the chuck check for grain and figure orientation.

Step 3. Smooth the rough blank down to desired diameter. Some pastry rollers are tapered for a third of their length on each end with the center one third, flat.

Step 4. Sand and apply a finish if desired. A mixture of mineral oil and bees wax in the ratio of 2/3 mineral oil and 1/3 bees wax makes a great food safe finish.

Step 5. Part off the piece starting with the tail stock side, being careful not to tear out the ends.

I am making assumptions about you as turners, some of them are:

- a. You know how to find the centers on the end grain of the blank either by using a center finder, a straight edge, or a compass
- b. You know to punch a dimple in the ends for the drive center and live centers to register in
- c. You are going to start the lathe at a low speed and slowly bring it up to turning speed
- d. You will rotate the piece through 360 degrees before turning on the lathe
- e. You will wear eye and dust protection
- f. You will use sharp tools in good repair

### **Making a foot or back massager**

Steps 1, 2, and 3.

Step 3a. Layout your piece, it should start with a bead and end with a bead with a series of beads and coves between the two end beads. Lay out the beads using dark lines and a single line in the center of the area that will be the cove. With a parting tool make a depth cut in the center of each cove. Next with a spindle gouge roll your beads. The beads may all be the same height, or they may be higher in

the middle and slope to each end. They may be round or sharp and the coves should be smooth. When you are satisfied with your beads and coves do Steps 4 and 5.

### **Making a mallet**

Steps 1, 2 and 3.

Step 3a. Layout your project using a pencil. When you are satisfied with the layout make the lines with a parting tool. Do not cut too deep, especially on the head stock end.

Step 3b. Finish turning the head of the mallet. If you make a complete mess of it you can still reverse the blank and put the head on the other end.

Step 3c. Finish turning the handle and pommel. Then do Steps 4 and 5.

### **Making a bud vase**

Steps 1, 2, and 3.

Step 3a. If you know for sure which end is going to be the base, you can skip the tenon on the top of the vase. If you are not sure make the tenons and definition cuts on each end.

Step 3b. Mark off your design with a pencil using solid areas for sections that will be left and unshaded areas that will be removed, with a single pencil mark in the middle. The shaded areas are beads and the others are coves.

Step 3c. Using a parting tool make your cove center cuts at the pencil marks. Now with a spindle gouge smooth out your beads and coves. Be careful not to make the neck too narrow. It should remain at least one inch in diameter to allow for the drilling of a  $\frac{3}{4}$  inch diameter hole.

Step 3d. When you are ready to sand, it is time to part off the top tenon if present. Shape the top of the vase. Next drill a  $\frac{3}{4}$  inch hole in the top to receive the plastic tube. The hole should be at least deep enough to hide the tube, but not so deep as to go through the bottom of the vase. If by chance or design, you have a short vase the tube may be cut down to fit. If the neck is too narrow to safely drill the large hole a smaller hole may be drilled, and you will have a twig pot instead of a bud vase. Proceed with Steps 4 and 5 as necessary.

### **Making an egg cup**

An egg cup is the jumping off point for scoops, boxes, small end grain vases, cookie cutters and open and closed vessels.

Steps 1, 2, 3, 3a, 3b.

Step 3c. Part off the tail stock end and square the surface. Move your tool rest to face the end of the piece. The tool rest should be positioned close to the surface and high enough that the scraper, when lying parallel to the bed of the lathe, is just above center. The scraper that works best for hollowing end grain is a minaret scraper. One may use a round nose scraper or a bowl gouge or even a square nosed scraper, but a depth hole should be drilled first. With the minaret scraper held firmly on the tool rest lift the back of the handle just enough to bring the nose of the scraper to just below center in the center of the piece. Gently push the scraper forward. If all goes well the scraper will drill a hole into the end grain. For the first cuts one only needs to go in about  $\frac{3}{4}$  of an inch. Remove the scraper and begin cutting to the bottom of the hole with the edge of the scraper held parallel to the bed of the lathe. Once you get the hang of it you will be able to cut by pushing in and by pulling out. Be careful not to make the vessel too thin at this time. Repeat making depth cuts and removing the material from the edge until the opening is about 1 and 2 inches deep and a little wider than a chicken egg. Now with a round nose scraper or a radius scraper smooth out the inside, making sure to remove any nubbin that may be in the bottom of the cup. We do not want to have this punch a hole in our egg. Remember" no nubbins." In the process of hollowing, if one develops a lot of chatter try taking lighter cuts, moving the tool rest higher, changing the speed, sharpening your tools, or supporting the outside of the piece with

your finger. One can try these singly or in concert. If it still chatters one can sand through it or go take a walk and try again later.

Step 3d. Determine the exact depth of the cup and mark this on the outside of the cup. The inside of the cup should be a smooth curve from the center to the edge in the bottom of the cup. With a parting tool make a cut about  $\frac{1}{4}$  inches deep at the exact depth of the cup as marked. Then make 2 additional cuts past the first cut, the width of the parting tool, each about  $\frac{1}{4}$  inches deeper than the last.

Step 3e. Determine the base and make parting cuts to define these. The base should be about  $\frac{1}{6}$  as long as the cup, the stem should be about  $\frac{2}{6}$  and the cup  $\frac{1}{2}$  of the height of the finished piece.

Step 3f. With a spindle gouge smooth the outside of the cup down to where the stem begins. Next, work down the cup to the stem diameter. The outside curve of the cup should match the inside curve. The stem should not be too thin; it has to support the actions of an individual eating an egg out of the cup.

Step 3g. Finish turning the stem and base. Once you start on the stem you cannot go back and do any tool work on the cup. Steps 4 and 5 as necessary. The bottom should be concave. Be careful not to sand a sharp edge on the cup, because this will cut you as you sand.

If one can successfully complete an egg cup, you can now make lidded boxes, scoops, cookie cutters, toothpick holders and end grain bowls and other vessels.





French pastry rolling pin  
Back or foot massager



Small kitchen or carver's mallet  
Shop mallet



Jam chuck for bud vase or pen holder  
Vial for live flowers  
Twig pot



Jacob chuck with modified spade bit  
Scoop, toothpick holder with jam chuck  
Bilboquet and jam chuck



Toy cookie cutter and toy rolling pin and jam chuck  
Biscuit cutter modified live center and business card holder

[<Link to List of Demonstrations>](#)

## Form and Proportion



“Form” is subjective, we each have different opinions on the shapes we like best. Those opinions have a lot in common despite the differences. As wood-turners; form is important to us. We all like pretty wood and a nice finish (but form is more important in my opinion).

Proportions are an important part of form; they are often presented as “rules”. I believe in only one “rule” for woodturning; **“Don't bleed on the wood”**.

The material that follows is a group of suggestions, **NOT** rules:

### Suggestion of thirds

- A commonly repeated idea that a piece's maximum diameter should be located either at 1/3 of the height or at 2/3 of the height.
- Also used to suggest that a finial's height should be 1/3 as tall as the piece or sometimes 1/3 of the total height. *My opinion: a finial's height should be proportional to the piece's diameter instead of its height.*

### “Golden Ratio”

- Suggests that the ratio between features should be 1.618 (rounded to 3 decimal places).
- More info is available at: [https://en.wikipedia.org/wiki/Golden\\_ratio](https://en.wikipedia.org/wiki/Golden_ratio)

Note that “Suggestion of thirds” puts a feature (max diameter?) at 67% of the height while “Golden Ratio” puts the feature at 62% of the height. *My opinion: A tall piece with max diameter at or slightly above two-thirds height looks masculine and works well with strong “shoulders” while a similar piece based on the Golden Ratio looks feminine and works well with softer curves. Again, my opinion: finials should not count as part of the height for the purpose of these ratios.*

**“Continuous curve”**

- A commonly repeated suggestion is our forms should not have straight lines (flat spots).
- Going beyond “no straight lines”, a shape with continuously varying radius is better than blending multiple circular curves. (Blending multiple curves together can be a step on the path to a shape with continuously varying radius.)

The suggestions above are supplements (not replacements) for your design ideas. Use these suggestions but be willing to bend or break them. Breaking the “rules” can be an effective way to find your own path in this hobby. It also involves risk of failure, remember to consider safety. I don’t believe that some actions are “safe”, and others are “not safe” but certainly some actions are less safe than others. Everything we do involves risk, we cannot escape risk, but we can manage it.

Some example pictures:



In the upper left picture, the maximum diameter occurs lower than  $2/3$  the total height and is just about at the Golden Ratio. This piece has soft feminine curves.

The piece on the right stretched the “rules” but is still a nice form in my opinion, its maximum diameter occurs above  $2/3$  the height and significantly above the Golden Ratio. Counting the finial, this piece is closer to the Golden Ratio. This piece is an example of the “strong shoulders” I mentioned earlier.

In the bottom picture the maximum diameter occurs almost exactly at two-thirds the total height. Again, strong “shoulders”.

The height and location of maximum diameter are not the only places we can use proportions. Height, diameter, opening size and diameter of the base are all possibilities. Calculating numerical ratios for all these is too structured for me but they are worth thinking about.

The overall proportions can be planned before turning on the lathe or can be worked out as you turn. My usual procedure is to choose a general shape before I start. On the lathe, I clean up the blank and mark the location of at least one feature before shaping the piece. If you choose to do more detailed planning, that will need to wait until after you know the diameter (and/or length) of your blank when any defects or lumps are removed.

A “Continuous curve” is a feature that is common to all of the above pieces and is something that I always consider **BUT** I don't treat it as a “Rule”. Consider this walnut piece:



The maximum diameter is above 2/3 of the height and the “continuous curve” is deliberately broken by an integral collar. (Note that the curve resumes on top of the collar.) I am proud of this piece, and it was awarded third place in a prestigious art show.

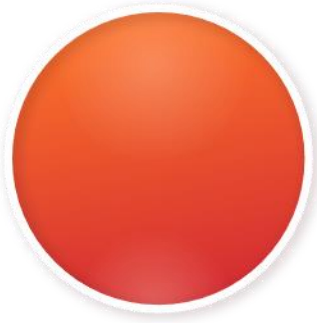
For the “continuous curve” I use an approach that involves looking at how the radius of the curve changes from the bottom of the form up to the top of the form. This involves mathematical concepts but does NOT involve doing math.

**An example of what NOT to do:**

The piece in the next two pictures is pretty wood, it was hollowed through a small opening and the wall thickness is constant. Unfortunately I think it is ugly. Having the maximum diameter below center is not a bad thing but this form is not attractive at all. The shape certainly does not have a “continuously varying radius”. From the maximum diameter upwards, it is close to spherical, below the maximum diameter, the radius decreases suddenly before changing to flat (infinite radius). Hindsight tells me that if this piece was upended (with the opening where the feet are now) and the curve changed a little, it would have been much better.



## Radius



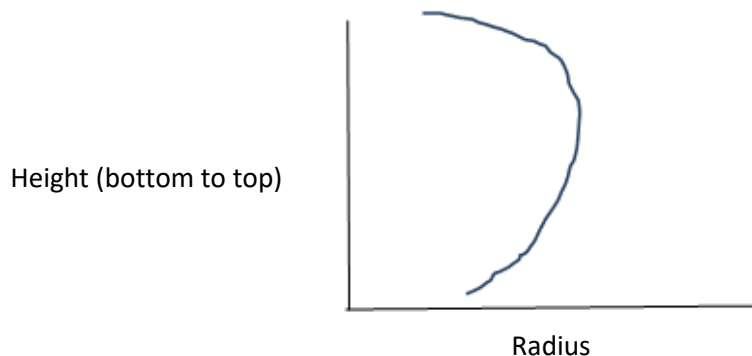
A sphere has a single radius



The “radius” of an egg shape varies from the bottom to the top. This is a much more organic shape than a sphere and would generally be a better choice for inspiration in a turned item.

If we graphed the radius of an egg (large end down in this case), starting at the bottom the radius is medium. Going up the side, the radius increases to a maximum and then decreases to its smallest value near the top.

A (poorly) sketched graph of the radius of an egg



Please note that the graph above is for explanation of a concept. I believe that thinking about how the radius changes is a good thing. Measuring, calculating, or graphing the radius may or may not help you, I do NOT do that for each piece.

Another important feature of wood turned art is the size/shape of the bottom. For functional pieces, it is important that the piece is stable and does not tip or fall when touched / moved. For art pieces, appearance becomes more important than stability. It should not tip or fall when someone walks by or be blown over by a ceiling fan but is not expected to withstand rough handling. A little extra weight in the bottom can make a piece more stable than it appears while a small base improves the form.

So far, we have discussed hollow forms, open bowls fit the “rule of thirds” or “golden ratio” in different ways. Those ratios can still be used if you choose to. My preference is pieces that are inspired by mathematical shapes. Note: I do NOT attempt to make mathematically accurate shapes.



**Sphere:** A shallow salad bowl that approximates one-third or less of a sphere with or without added details. This violates the concept of “continually varying radius” but looks fine to me. Note that the walnut below also violates the concept of “consistent wall thickness”. Both the outside and inside have spherical shapes, those spheres do not share a common center. The rim is much thicker than the bottom.



**Oval:** Several shapes based on ovals are possible and attractive.



**Parabolic:**



**Catenary:** Mathematically different from above and a good inspiration but bowls inspired by catenary curves look like bowls inspired by parabolic curves (at least to me).

**Note:** Do not allow the beauty of a simple form prevent you from adding decorative elements when you want to. Personally, I think “**Less is more**” when adding decorative elements but **less** can be better than **None**.



**Suggestions:**

- Have a plan before you start a piece, be willing to change that plan once you round up the blank.
- Use the concept of “Thirds” or “Golden Mean” but do not obsess with precision of those ratios.
- Use the concept of “continuously varying radius” when refining the shape.
- Be willing to experiment with different forms.
- Avoid letting the mounting (faceplate or chuck) size dictate the size of the bottom.
- Do a self-critique on pieces after they are finished. This is not about beating yourself up, it is about making the next version better.
- Ask someone whose opinion you respect, “How could I make the next version of this better?”



[<Link to List of Demonstrations>](#)

## Kitless Pen

### Making A Kitless Pen Using a Jowo Nib

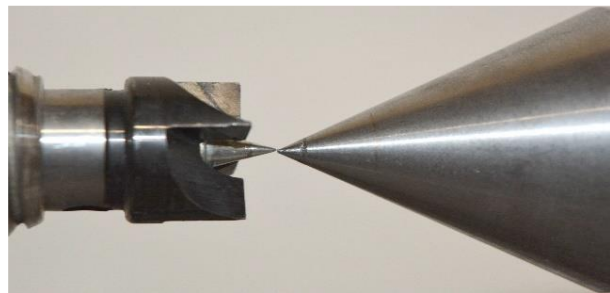


#### Supplies & Materials Needed:

- Some sort of chuck for the head stock, (4 or 3 jawed chuck, drilling chucks)
- Jacob's Chuck for tail stock
- Digital calipers and chamfering tool
- Taps & dies specific to the pen you will be making
- Kitless mandrels for upper, lower and nib sections
- Drill bits specific to the pen you will be making
- Turning tools of choice
- Acrylic stock 8" to 9" in length
- Acrylic Buffing System & sanding pads



Before you start to make your kitless pen make sure that your lathe (head stock and tail stock) is aligned properly. Bring the tailstock and head stock up to each other "point to point." If it is not aligned, make the adjustment to align it properly.





**Step 1** - Cut an 8 ½” to 9” piece of acrylic rod of your choosing into three pieces. One piece for nib section 1 ½”, upper barrel 2 ¾” and lower barrel 3 ½”.



**Step 2** – Place the lower barrel (3 ½” piece) into a chuck of your choosing (4 jaw, 3 jaw, drilling chuck or a collet chuck) to hold the piece steady. Here I am using the large drilling chuck. Face off the end using a parting tool to make sure you absolutely get a square face on the end. The Cap (upper barrel) will rest against it so make sure it is square to the barrel.

**Step 3** – Put the #2 center drill in a Jacob’s Chuck and drill it to a depth of approximately 3/16” of an inch. Speed on the lathe should be approximately 400-500 RPM. All the drilling will be at this speed.



**Tip 1:** Whenever you are drilling a piece with two different diameters, use the largest diameter drill first, then use the smaller drill to drill the second hole!

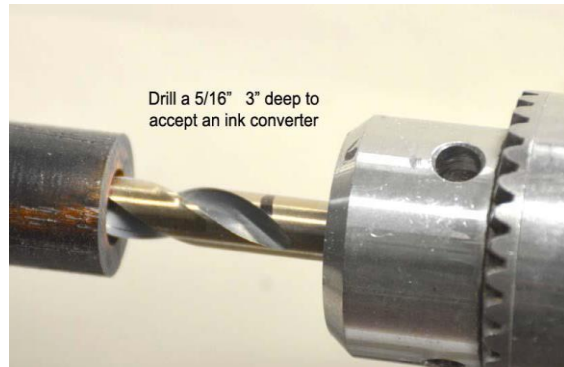
**Tip 2:** When you are drilling an acrylic to “Tap” it you want the smoothest cleanest hole possible – this is accomplished by having the lathe set to about 400 – 500 RPM and spraying the drill bit with the lubricant Bladecote. As you advance the drill bit SLOWLY into the acrylic, relieve it frequently. When finished drilling the hole, run the drill bit back into the hole and just “kiss” the back edge of the hole to “CLEAN” out any debris left. This will assure you that when you tap, the threads will be clean cut!

**Step 4** – Use a marker and place a mark 3/8” from the flute tip (not from the point of the drill bit). This is the depth you will drill to, just to the front of the mark. Drill for the nib section ID (interior diameter) thread using a letter “Y” .404” drill bit. Use Bladecote to lubricate the drill bit. The arrow is showing the 3/8” mark.

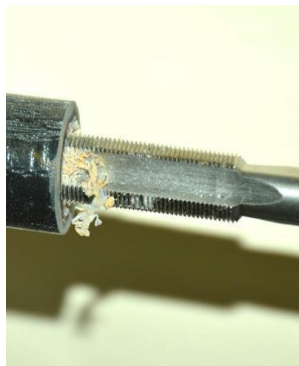


**Step 5** – In order to use a converter or to place two ink cartridges into the lower barrel, drill a 5/16” hole 3” deep into the lower barrel measured from the flute of the drill bit. Spray the 5/16” (.312”) drill bit

with Bladecote and start to advance the drill bit slowly into the lower barrel going in about 3/8" at a time and backing it out so the debris does not "bugger" up the hole. Keep advancing slowly going in and out relieving the debris as you go. Drill up to the 3" line. When finished, back out the drill bit and then go back in one more time to get any debris left inside.



**Step 6** – Thread the lower barrel to accept the nib section using an 11mm x .75 plug tap. Start by using a little renaissance wax and place it on the flutes of the tap and insert it in the Jacob's chuck. Push the tail stock up to lower barrel piece and with LIGHT pressure on the tail stock MANUALLY turn the head stock TOWARDS you. Go about 1/8" then back off to break the chips. Keep moving forward slowly going back and forth about 1/8" at a time. Keep turning until you hit the bottom shoulder and STOP!! (If you continue you may crack the acrylic) Back out the tap and clean off any debris on the tap with a soft nylon brush. Once you have run the tap in all the way and backed it out, manually by hand "Chase" the threads by inserting the tap back into the lower barrel and screw the tap back in until it stops - this will clean out the threads.



**Tip 3:** These taps are right-handed threads and if you want to clean out any debris using a wire brush, brush from the left to the right to clean material from the flutes. Going right to left will eventually dull the threads.

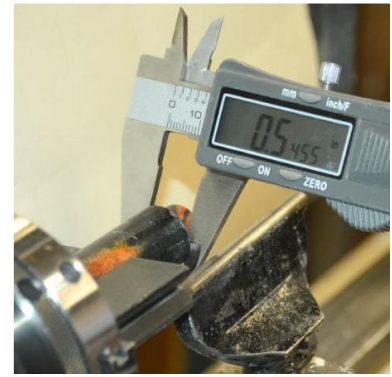
**Step 7** – Use a chamfering tool and chamfer the edge of the lower barrel. This will create clearance on the final thread for the nib section. Then thread the lower barrel mandrel into the lower barrel to test how smooth the threads are you just made.





**Step 8** – With the lower barrel blank still chucked, measure 3/8" from the end of the lower barrel and cut a tenon to a diameter of .545"

Make sure that it has a square shoulder. You will need this so the cap barrel will screw onto the lower barrel and have a snug fit.

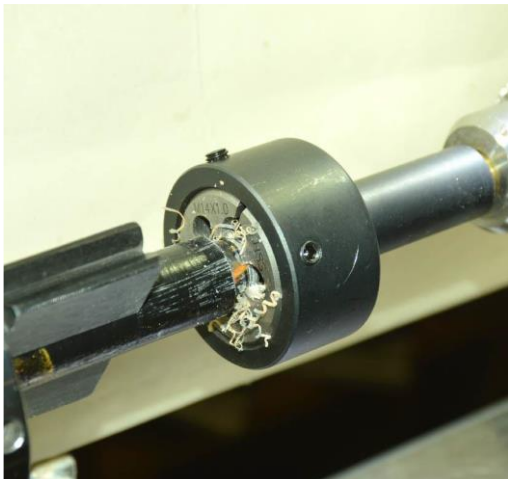


**Step 9** – Insert the 14mm x 1" die into the larger (1 1/2") die holder with the writing facing out. MAKE sure it is fully seated flush in the die holder! Insert the 33/64" drill bit into the Jacob's chuck that is in the tail stock and slide the die holder onto the drill bit leaving it loose so it can easily slide forward and back in order to cut the threads on the lower barrel that will accept the cap barrel of the pen.

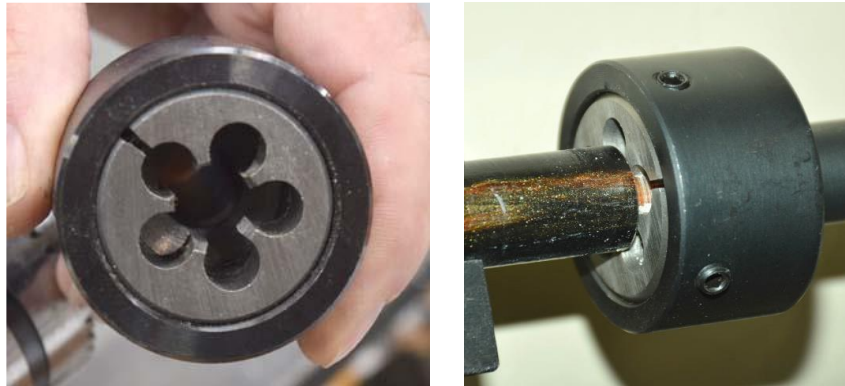


**Side Note:** We are using a 1 pitch die thread so it threads on faster.

**Step 10** – Slide the tail stock with the die in place forward until it is about 1/4" away from the lower barrel and lock the tail stock in that position. Apply a little Renaissance Wax on the tenon you just made in step 8. Firmly grip the die holder as shown and SLOWLY slide the die forward until it engages with the tenon. Now turn the headstock hand brake clockwise about 1 complete turn and then turn it counter clockwise that amount. Continue advancing the die forward and backward until it bottoms out against the shoulder of the lower barrel. Carefully reverse the die until it comes free of the lower barrel. Use a nylon brush and remove any debris from the threads you just cut.



**Step 11** – Take the 14mm x 1 Die out of the holder and reverse it so the flat side is facing out as shown. Insert the die holder with the flat side out back onto the 33/64” drill bit and SLOWLY advance it over the threads you just cut. Take the die all the way to the end in order to get the last thread cut on the shaft so it will fit tightly against the upper barrel.



**Step 12** – Thread the lower barrel mandrel into the lower barrel and insert it into the chuck. Lightly bring the tail stock up for support. Do not put too much pressure from the tail stock on the barrel. Shape the lower barrel to your desired shape with the lathe speed approximately 1,500 -1,800 RPM. Back off the tail stock and use your hand to steady the piece as you finally shape it.



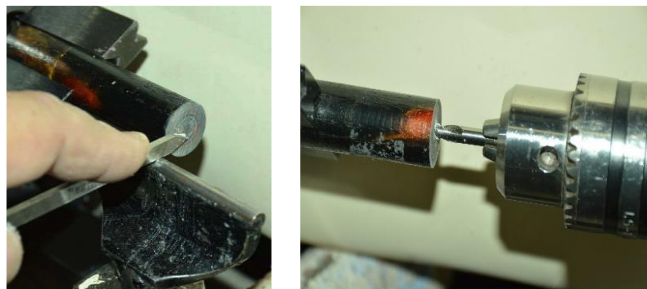
**Step 13** – Wet sand the lower barrel with the acrylic sanding pads and then buff with the acrylic buffing system.



**Cap Section / Upper Barrel - Acrylic piece 2 3/4” in length**

**Step 14** – Square off face of the acrylic cap section and then use the #2 center drill to drill a starter hole going NO deeper than the front taper of the center drill.

**Remember Tip 1** – Always drill the larger hole first then the smaller one!



**Step 15** – Mark a line on a 33/64” drill bit 1.3” from the lip of the drill bit. Drill a hole 1.3” deep up to the line into the starter hole you just drilled.

**NOTE:** You can make this hole just a bit deeper BUT the deeper you go the greater the chance of the nib drying out because the air volume is greater in the cap section. The ideal situation is keep the volume of air in this section small so the nib does not dry out as quickly.

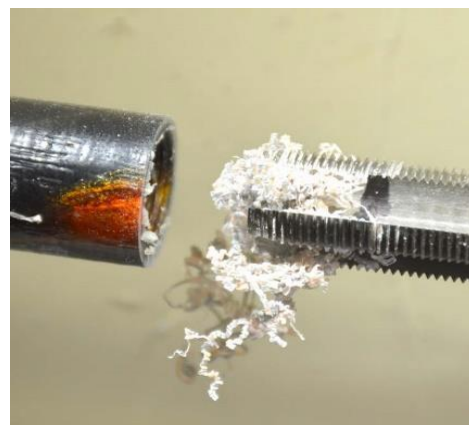


**Step 16** – Spray the drill bit with Bladecote and drill into the cap section with a 3/8” drill bit to a depth of 2.3” from the tip of the hole you just made. This will allow for clearance of the nib when it is screwed onto the lower barrel in the cap section.



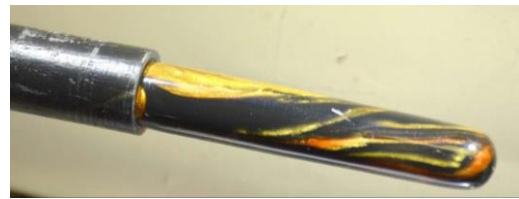
**Step 17** – Next chamfer the edge of the cap section in order to guide the tap into the cap barrel section.

**Step 18** – Draw a line on 14mm x 1 tap 1/2” deep as shown by the arrow and insert the tap in a Jacob’s chuck, apply some renaissance wax on the threads and gently slide the tail stock forward and with slight pressure turn the head stock to engage the tap. Turn the headstock about a 1/2 turn and then back off to break the chips repeating cycle of back and forth until you reach the line. Reverse the tap and get all the chips out of the hole by blowing air into the hole. Then by hand run the tap back into the hole to “chase” the threads in order to get very smooth grooves.





**Step 19** – Test the threads you just made by screwing the lower barrel you made previously into the cap section. This should be very smooth. Remove the lower barrel before moving onto the next step.



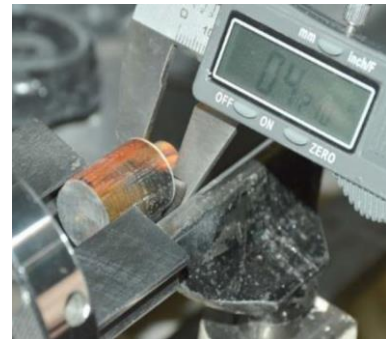
**Step 20** – Screw the cap section into the cap mandrel and place it into your chuck. Bring the tail stock up for LIGHT support and turn the upper barrel to your desired shape.

**Step 21** – Wet sand and buff the cap section as you did with the lower barrel. Here are the cap & lower sections of the kitless pen.

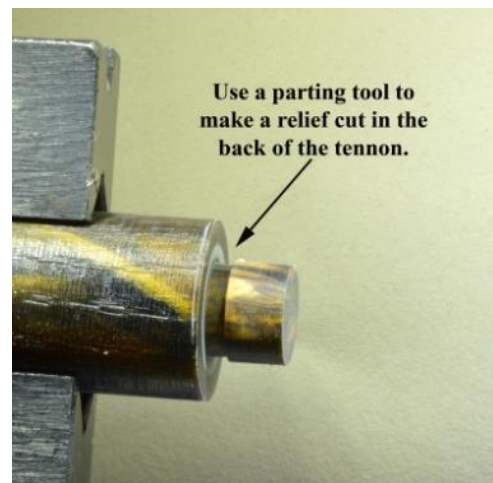


### Nib Section – Using a Jowo Nib

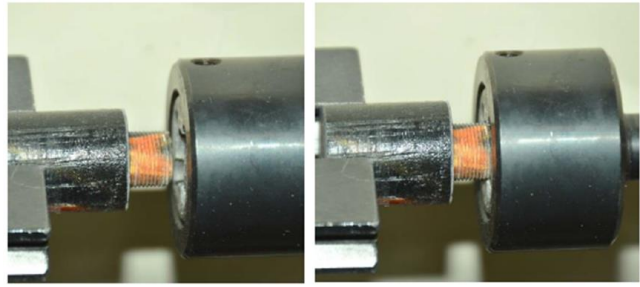
**Step 22** – Place a piece of acrylic 1.25" long into a chuck, square the end and turn a tenon .345" wide to a depth of .425."



**Step 23** – Use a thin parting tool to cut a relief cut into the back of the tenon before you cut the threads.



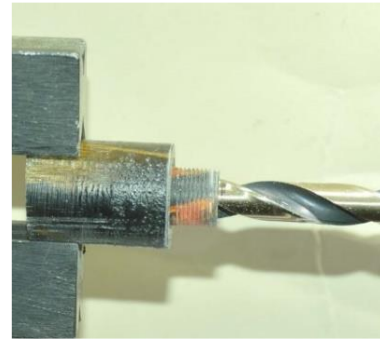
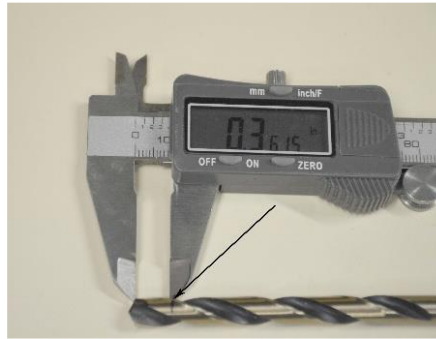
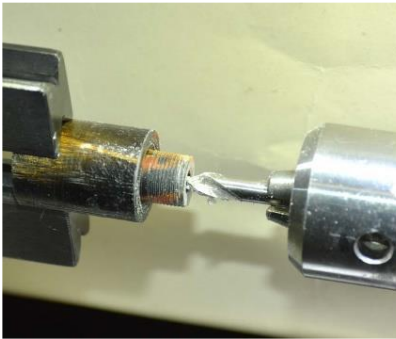
**Step 24** - Place some renaissance wax on the tenon you are about to thread with the 11mm x .75 pitch die. Place the die with the writing facing out into the 1" die holder. Put the 23/64" drill bit into the Jacob's chuck and slide the 1" die holder onto the drill bit. Bring the die holder up with the 11mm x .75 die inside and gently start to thread the die onto the tenon. Turn the head stock about one revolution in a clockwise motion and back it off to clear the chips. Continue this until the die stops against the shoulder. Once you have cut the threads, remove the die from the holder and reverse it so the flat side is facing out and carefully go back over the threads you just cut and thread it all the way against the shoulder to cut the last thread.



**Step 25** – Test the threads you just made by screwing the lower barrel you made in steps 12 & 13 onto the nib section threads.



**Step 26** – Use the #2 center drill and drill a starter hole for the 5/16" drill bit. This is drilled so the ink converter or cartridge will fit into the back of the nib. Place a mark on the 5/16" drill bit .3" from the lip of the drill bit as shown and carefully drill the nib section to the line you just made.



**Step 27** – Reverse the nib section and place it into the mandrel. Use the #2 center drill to make a starter hole for the 23/64" drill bit.



**Step 28** – The 23/64" drill bit will be the correct diameter to fit the top of the Jowo housing. Measure the depth of the collar on the Jowo nib housing and that is how deep you will drill the hole. In this case it is .1235" deep. Carefully drill to the line.





**Step 29** - Next you will drill for the length of the Jowo housing up to the nib threads. Drill in from the edge of the acrylic EXACTLY .5" using the 5/16" drill bit.



**Step 30** - Now use the letter "i" .272" drill bit. Carefully and slowly drill all the way through the nib housing to the other side. This will be where you tap the threads for the Jowo nib.



**Step 31** - Once the letter "i" drill bit has been drilled, put a mark on the 7.5 x .5mm tap .8" as shown. Put some renaissance wax on the tap. This will be for the interior Jowo threads. Advance it into the housing and carefully cut the threads. It will feel like you are not cutting anything because the threads are very fine, but trust me you are cutting threads.



**Step 32** - Screw the Jowo housing into the nib section to test fit the housing in the section. If it does not seat properly, re-tap the hole a little deeper so it does fit as shown.



**Step 33** - Once the Jowo housing fits properly into the nib section, bring up the tail stock for support and shape the nib section to your desired shape.



**Step 34** – Keep reducing the diameter of the nib section. To get the correct diameter for the nib section, use the upper barrel as a guide and slide it over top of the section to make sure that it just fits over top of the nib section.



**Step 35** - Once the desired shape is obtained for the nib section, wet sand, polish and screw the Jowo nib housing into the nib section.



Here is your finished “Kitless Pen”



[<Link to List of Demonstrations>](#)

## UV Resin

### Alternative to Pressure Casting

#### Products made with UV-Resin

- Bowl with larger Abalone pieces
- Bowl with smaller Abalone pieces
- Titanium Ring with Abalone pieces
- Pen blanks made with UV-Resin
  - Abalone blank (pass around partial blank)
  - Circuit board blank (demonstration)
  - Turn and finish Circuit Board Blank

# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH BARRY GROSS

[<Link to List of Demonstrations>](#)

### Finishing and Marketing Your Work

- CA Finish
  - Type of glue to use
  - How many coats
  - How to apply
  - Steps for a scratch free finish
  - Demonstration
  
- Friction Finish
  - When & what to use
  - How to apply
  - Demonstration
  
- Marketing Your work
  - How to find shows where to sell your work
  - Juried vs Non-Juried Shows
  - Image quality of your work
  - Setting up your display
  - Booth size & layout
  - Expectations for profit
  - What makes you different than the other guy?

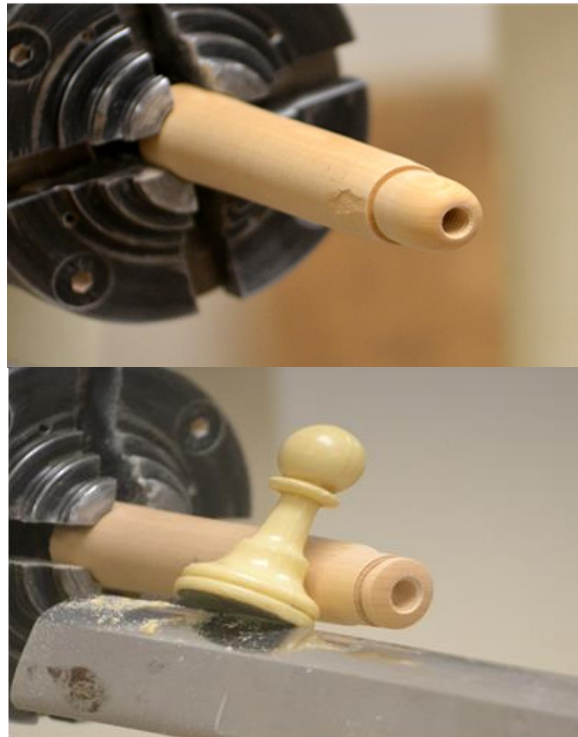
SWAT 30<sup>TH</sup> ANNIVERSARY

WITH ANTHONY HARRIS

[<Link to List of Demonstrations>](#)**4-Piece Pawn**

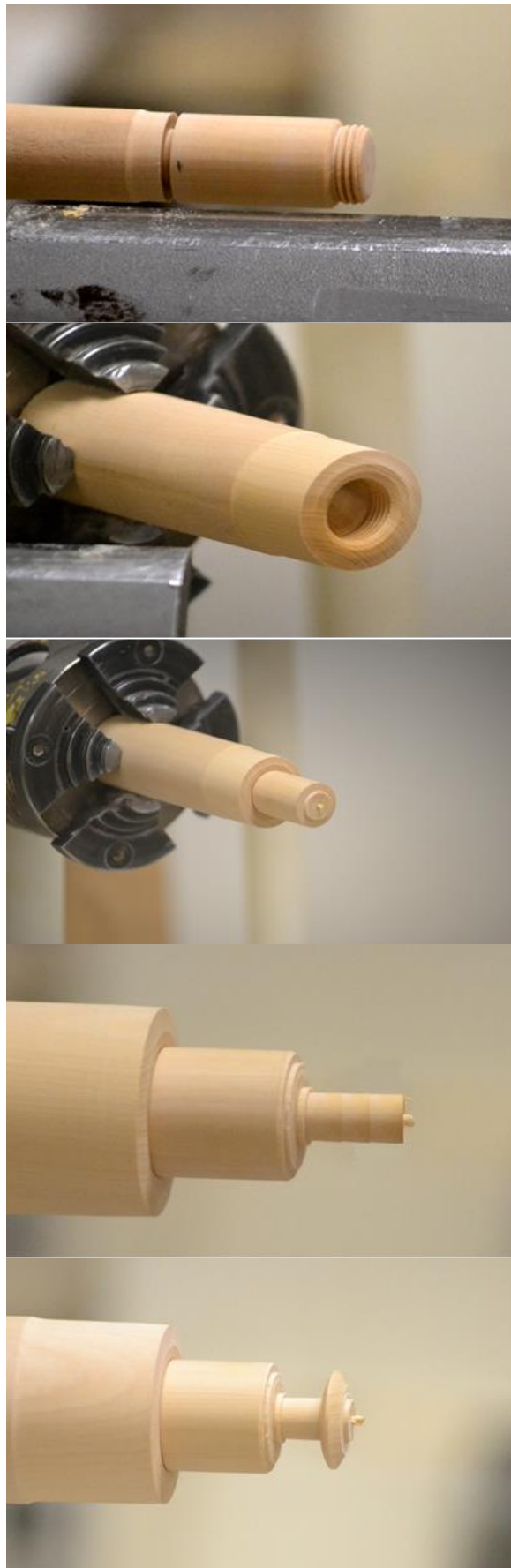
Two pieces of Boxwood are used in demonstration. One is a spindle .75" in diameter and 2.5" long. Piece 2 is 1.25" wide and .75" long.

1. Mount first piece in chuck and rough.
2. Make the bottom of the head. Drill or turn a  $\frac{13}{64}$ " diameter hole about  $\frac{3}{8}$ " deep. Chase it with a 20 tpi chaser. Clean up the surface. This is the bottom of the head of the pawn. Leave a small flat around the hole and turn as much as is practical of a  $\frac{5}{8}$ " diameter sphere. Sand. Part the head off at approximately  $\frac{3}{4}$ " length. Put the head in your pocket.
3. Make the bottom of the collar. Clean up the end of your spindle. Drill or turn a hole between .27" and .28" in diameter and .25 inches deep. The hole can be a little wider, but no narrower. Turn the bottom surface of the collar. Notice that it has a small mortise cut around the hole. Sand Part the collar off at .at about .25". Put it in your pocket.





4. Make the bottom of the body. Clean up the end of the spindle. Reduce the end of the spindle to about  $\frac{5}{8}$ " diameter for the length of one-half inches. Chase a 20 tpi thread. Reduce the length of the threaded area to three threads or less – a little less than  $\frac{1}{4}$ th inches. Modify the shoulder of the thread so that it is a 75 degree bevel. Sand. Part the body off and put it in your pocket.
5. Mount and rough the second piece.
6. Turn the top of the base. Cut a hole  $\frac{9}{16}$ " deep and slightly less than diameter than the thread on the bottom of the body – a little over a half of an inch. Chase a 20 tpi thread to fit the bottom of the body. Chamfer the lip to match the chamfer on the bottom of the body.
7. Screw the body into the base.
8. Cut the tenon for head and collar. Cut a tenon  $\frac{5}{8}$ th inch long on the end of the body. The tenon diameter should be a friction-fit for the hole in the collar. Fit has to be snug enough to hold while you turn the collar, but as the collar is fragile, it can't be forced.
9. Finish the collar. Push the collar onto the tenon. Turn the top of the collar. Shoot for a shade over an eighth of an inch thick. Sand. Reduce the diameter of the tenon so that the collar can be slipped on easily. The slight step at the bottom of the tenon should be turned to fit the small mortise on the bottom of the collar. Put the collar back in your pocket.



10. Mounting the head. Reserving the bottom eighth inch of the tenon, that is where the collar is going to reside, reduce the diameter of the tenon to about 13/64th of an inch. Leaving it a tiny bit thicker is okay. Chase a thread to match the head.



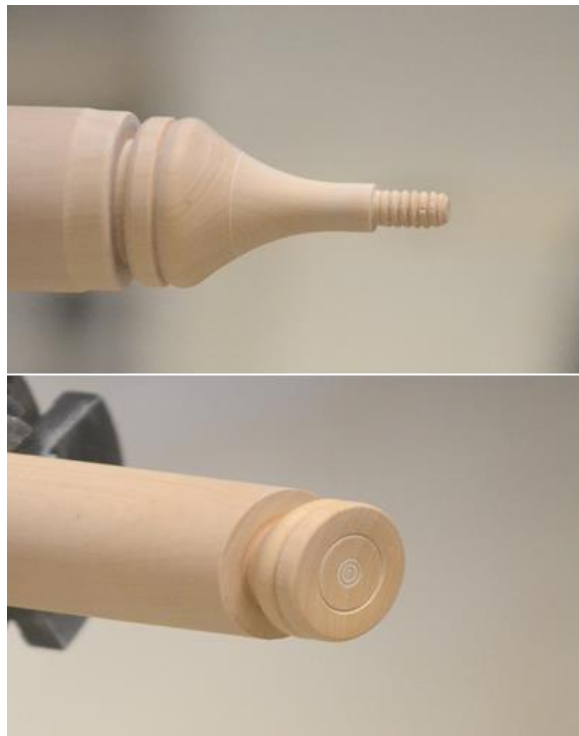
11. Finishing the head. Screw the head on. Turn the head to complete the sphere. Sand. Put the head and the collar back in your pocket.



12. Finish the body and turn the top of the base. Turn the body and base to their final shape. The body is about three/eighths of an inch in diameter at the top and flows into the base as you like. Turn the side of the base; a couple of beads is typical. Cut a small chamfer at the bottom of the last bead to be pretty. Sand. Put the body and the base in your pocket.



13. Finish the base. Turn a waste block to fit the thread on the base. Mount the base and turn the bottom of it. Sand.



14. Done. Put the pieces together. You have fifteen more pawns to make.



# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH MIKE MAHONEY

[<Link to List of Demonstrations>](#)

## Quartersawn Oak Platter



# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH MIKE MAHONEY

[<Link to List of Demonstrations>](#)

## Hollow Pepper Mills





[<Link to List of Demonstrations>](#)

## Acorn Box



My signature Acorn box with a unique friction fit. Fairly simple design that ensures a good fit, no more loose-fitting boxes. this box has turned elements and carved elements too. Simple carving techniques and texturing that give this Acorn box a very organic look. this demo will cover end grain hollowing with simple techniques, carving the top and texturing with basic tools. This is a fun project.

### Tools and materials

- 2 dry end grain blocks of wood (I like contrasting colors) about 3" sq x 4"-5" long
  - spindle roughing gouge 1" - 1 1/2"
  - spindle gouge 1/2" or 3/8"
  - 3/8" drill bit with handle
  - round nose scraper 3/4" wide x 1/4" thick
  - bedan 3/8"
  - parting tool 1/8"
  - calipers, micro carver (electric)
1. Mount block of wood between centers of lathe, rough turn to cylinder with spindle roughing gouge. Turn tenon on one end with Bedan. Do this for both pieces.
  2. Mount piece of wood for bottom of Acorn Box in chuck and true up the end, put small divot in end for drill bit.
  3. Drill depth of inside with drill bit, using spindle gouge hollow inside of Acorn Box bottom to finished size, can use round nose scraper to fine tune inside of box.
  4. Shape outside of bottom to acorn shape with spindle gouge leavening a small portion still attached to lathe on the small end. Sand the inside and outside of box bottom, then part from lathe and set aside.
  5. Mount block of wood for Acorn top in chuck and true up end, mark size of bottom onto wood with calipers.

6. Using a Bedan, hollow top to fit bottom approx 1/2" - 5/8" deep you can use a round nose scraper to detail inside of top. The fit should be slightly tapered for a snug fit.
7. Use box top as jam chuck to mount acorn bottom to finish turning bottom of acorn shape, then finish sand bottom.
8. Use spindle gouge to turn rough shape of outside of Acorn top and stem, part off from lathe.
9. To carve the top, I usually divide the top into 5 sections vertically. Using a round cylinder carving burr with flat end carve into box top at section lines, you will create 5 convex lobes on box top. The finish from the medium grit burr will create a nice texture on the box top. Now you are done.



# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH DENNIS PAULLUS

[<Link to List of Demonstrations>](#)

## Carving and Embellishment



I will show how I do carving and texturing on hollow vessels, boxes, and wall pieces using a variety of carving tools. Discussions on rotary carving techniques, and traditional tools. I will show how using a minimal amount of tools can create surprising intricate patterns and textures.

I like the Saeshin brand of micro carvers strong 202, also the OZ Plus from Saeshin.

I use Foredom brand shaft driven carvers for heavy carving and lots of material removal

I use solid carbide burrs, high speed steel burrs, Saber brand carbide burrs.

1/8" shaft and 1/4" shaft burrs.



# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH TOD RAINES

[<Link to List of Demonstrations>](#)

### Small Plate Face and End Grain

In this demonstration I show the turning of two small plates. One using face grain wood which will require three work-holding positions. The second plate will be turned end grain and may require jam chucking. I will also do a little texturing and discuss further options on embellishment. The two different methods will show the tools and techniques possible with the two orientations of mounting wood on the lathe. The small projects are great for gifts or around the home.



#### Why Turn These Small Plates?

These small plates allow for a quicker demo and the material is easier to obtain. I also like to develop a design in a smaller scale before making a full-size item. I have found though that this small 5-7" size makes a great little appetizer plate. They also can be used with a dome lid as a cloche type box.



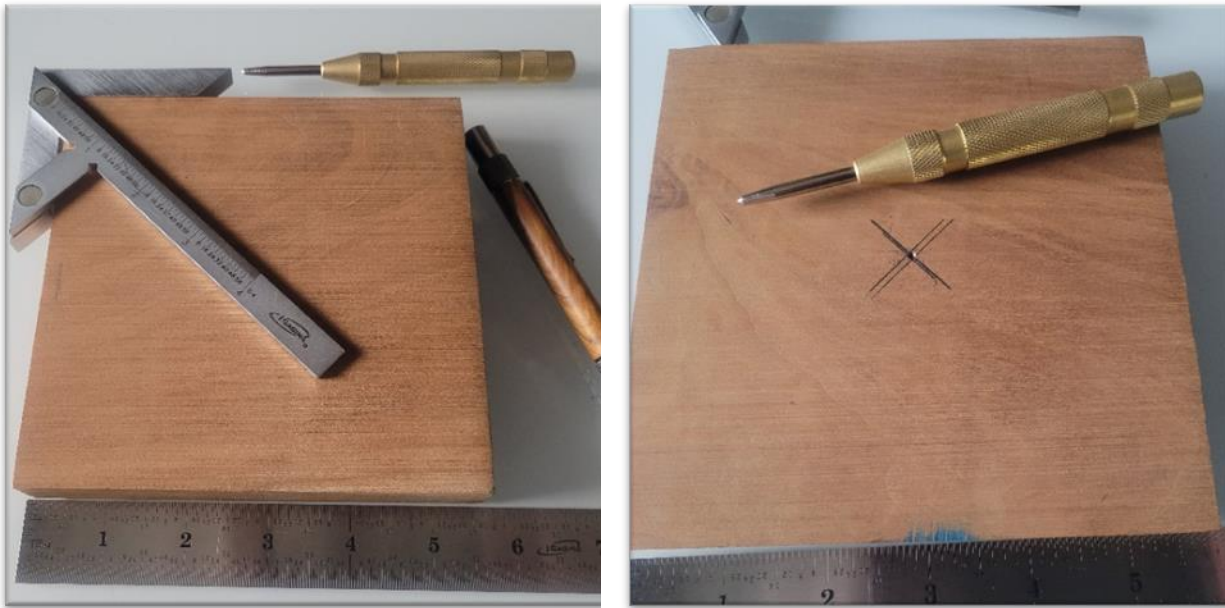
Why would you do a small plate out of face grain wood? The best plate or platter wood to use is quarter sawn wood as it will resist seasonal movement better than other cuts of lumber. However, quarter sawn wood is expensive and not always available. To get the idea of how to make plates and platters why not use the wood you have at hand or is easily available and affordable. Once you are comfortable with the skills and process then get some quarter sawn lumber and tackle the project again with confidence.



Why make a small plate out of end grain wood? For me it simple because I can, and I am really fascinated by the look of some of the grain patterns on end grain. It is also a good way to practice the use of the hook tool. End grain turning can include the pith and, on some woods, I have good luck with doing so. Mesquite is one that I have had luck using. It does have small cracks in the pith then they do not typically change. Experimenting on different wood turning a small plate is an effective way to find out how the pith may react if it is part of the turning. Certainly, end grain without the pith will work as well. In general, though end grain is not good for food items since the wood fibers and pores will soak in any liquids. However, these small end grain plates are great for small servers of dry appetizers.

### Wood Prep

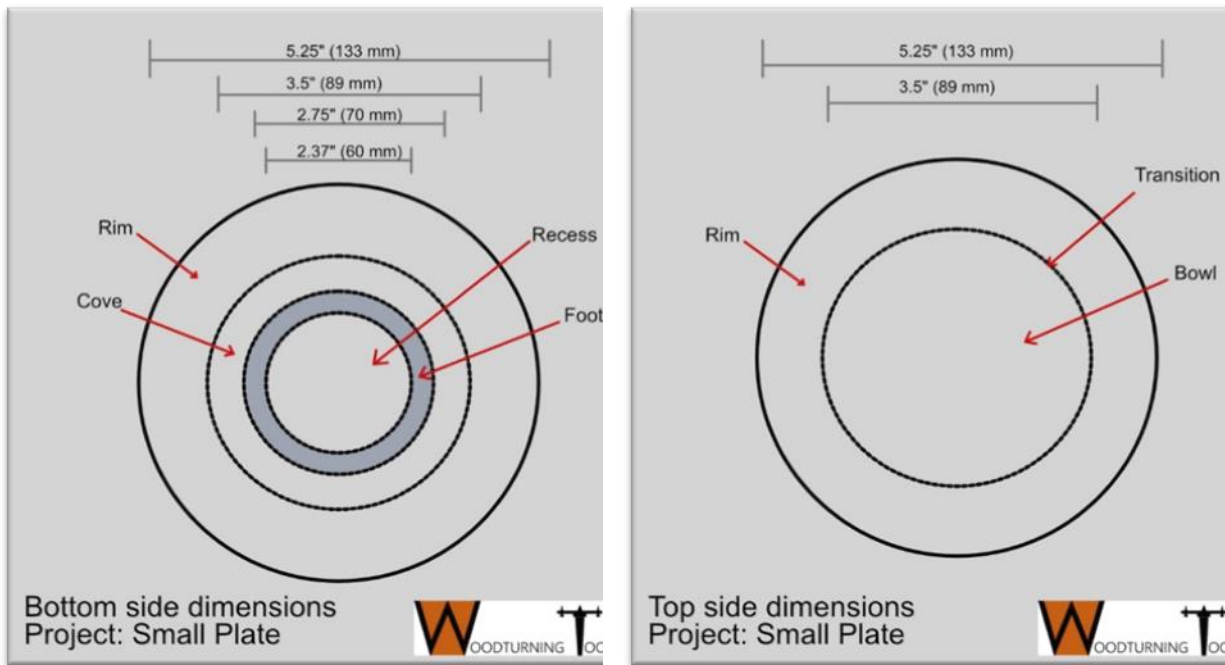
For the face grain small plates, I use kiln dried limber. I had some cherry and maple boards lying around and decided to mill them into square blanks. I used my table saw to rip the board to a consistent width and the crosscut to the same dimension. I ended up with nice square turning blanks that are 5.5" x 5.5" and 3/4" thick. I leave them square so that I have the option to make a square or round plate.



For the end grain, I would typically use a full branch or log section containing the pith. Sometimes I find a section of end grain without the pith. A branch section of mesquite works well for this project because sometimes you can get the sap wood on the rim and heartwood on the platter, and it makes for a great looking project.

### Small Plate plans

The drawings below represent the general layout of the top and bottom of the face grain plate. I try and match these features on the end grain plates but there is typically more variability in the size of the end grain blank than the face grain version. So, adopt the design to suit your blank and feature set. I should also mention that the recess (mortise) is sized to my chuck jaws. Make this feature suit your size of chuck jaws.



### Steps – Face Grain Small Plate

1. Find the center on both side
2. Mount between Steb centers putting the foot at the headstock side.
3. Turn square blank to round using a bowl or spindle gouge.
4. Use a pull cut to flatten the tailstock side of the blank.
5. Set calipers to outside of the chuck jaws to make a close fit recess. In my case, 2.37" (60 mm).
6. Use the recess cutting tool to cut the dovetail recess for the chuck jaws.
7. Remount the blank on a four-jaw chuck using the recess.
8. Use the bowl gouge and pull cuts to level the surface.
9. Use the calipers again to mark out the recess on the bottom of the blank,
10. Use the recess cutting tool to create the dovetail recess on the foot of the plate blank. This is the final foot, so take care and make quality cuts.
11. Use any texturing tools to embellish the inside of the recess.
12. Final sand the recess to completion.
13. Mark the foot diameter at 2.75" (70 mm); also mark out the cove detail at 3.5" (89 mm).
14. Use the bowl gouge to turn off the rim from the cove line to the outside. Make it a nice gentle curve. Leave the rim at 3/8" thick.
15. Now turn from the midpoint of the rim towards the cove line using a spindle gouge. This will leave a nice bead shape to the underside of the rim.
16. Now cut from the foot line to the cove line in a scooping motion to create a nice cove with a fillet between the cove and the rim bead shape.
17. Use the teardrop scraper in the Half Round Bar to scrape the foot, cove and rim to remove any tear out.
18. Sand the bottom of the plate to be ready for finish.
19. Reverse mount the plate in the four-jaw chuck using the recess on the bottom.
20. Use a pencil and mark out the transition point on the front side at 3.5" (89 mm).

21. Use a small bowl gouge to cut the edge of the rim to close to final thickness (~ 3/16" - 1/8") in only up to the transition line (about 1").
22. Make an initial cove cut on the rim with the bowl gouge. Use the spindle gouge as a final cutting tool to create the top rim cove profile follow the rim bed underneath. We want to end up with an even rim thickness about 1/8".
23. Remove most of the middle of the plate down to 1/8" taller than the rim. This will become the transition ridge between the rim and the inside of the plate bowl.
24. Cut the final transition wall using a spindle gouge.
25. Use the teardrop scraper the the half round bar to clean up the rim cove and fillet wall.
26. Level the top to the final height of the transition wall.
27. Measure the thickness of the plate from the top to the recess.
28. Start hollowing the middle of the plate. Leave the middle 1/2" as a depth reference.
29. Using the 1/2" LP spindle gouge is an ideal tool for this.
30. Measure the depth by measuring the height of the middle spigot you left behind. This is how you judge the depth needed in the bowl area of the platter.
31. Once hollowed to depth remove the middle depth gauge hump and flatten the bottom of the plate.
32. Lock the chuck onto the spindle of the lathe. Use the lathe in reverse direction to scrape on the far side and down hill on the grain of the inner plate bowl.
33. Sand the top side of the plate to be ready for finish.

#### **Steps – End Grain Small Plate**

1. Mount the end grain blank on a four-jaw chuck. Turn to round and face off the end.
2. At about 1500 rpm, use a bevel rubbing cut with the hook tool to start hollowing out the flat bottom plate bowl.
3. Hollow out the middle to the depth and size desired.
4. Use a spindle gouge and cut the rim cove leaving a fillet between the rim and the bowl middle.
5. Move to the side of the blank and use a gouge to cut in about 1" to the left of the end to define the platter.
6. Create enough turning room in the gap to cut the backside of the rim into a bead form.
7. Use the spindle gouge, with the heel resting on the backside of the rim, cut the cove while leaving a fillet.
8. Use a parting tool to define the bottom foot of the plate.
9. Do the final sanding.
10. Use a small handsaw and cut the small plate from the blank.
11. Create a jam chuck with on the end of the turning blank. This needs to conform the frontside of the plate.
12. Secure the plate onto the final jam chuck by holding the plate in place with the tailstock quill and wrapping masking tape to hold the plate.
13. Using light cuts with a spindle gouge finalize the foot of the plate.
14. Use the spiral texturing tool to embellish the bottom.

Note: there are several ways to do this end grain plate. I choose this process to emulate the production turning of European and eastern turners using the hook tool and finalizing several pieces off one piece of end grain blank without changing chucked blanks.

**Tools used**

- Pencil
- Center finder
- 6" ruler
- Sorby steb (1/2") live and dead centers
- 5/8" bowl gouge
- Vernier calipers
- Recess cutting tool
- Four jaw chuck with dovetail jaws (60 mm outside diameter)
- Mini spiral texture tool
- Three-point tool
- Bristle disk sanding tool (for texture)
- 3/8" bowl gouge
- 1/2" low profile spindle gouge
- 3/8" spindle gouge
- Modular Woodturning Tool Handle system
- Scraper – Teardrop Scraper with Half Round Bar
- Hosaluk Hook Tool
- Hook Tool Bar
- Diamond hone

**The Recess Cutting Tool**

I used this homemade tool to cut the recess for the chuck jaws. The tool can be used with the tailstock in place which is very handy. This is a standard scraper that has been reshaped. The scraper is 3/4" wide and 1/4" thick. The photo shows the tool profile, and the markings below show how I laid out the shape on the original tool. The bevel I use is 70 degrees.



The original idea I got from Mike Peace's YouTube video. Here is a link to the video.

<https://www.youtube.com/watch?v=7ZKRIMNC5mc>



# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH JASON ROSE

[<Link to List of Demonstrations>](#)

## Clear Label Casting

In this demonstration, you will learn the ins and outs of clear label casting. We will go over some of the different techniques and materials used to make label cast blanks. You will get to watch a blank being cast from start to finish. When the demonstration is over, you will have the knowledge necessary to make a label cast blank from start to finish.

# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH MARTIN SABAN-SMITH

[<Link to List of Demonstrations>](#)

### Fibonacci Bowl



This presentation will challenge you to think about mathematical proportions by turning a bowl purely using mathematics! It generates a lot of discussion and is a very interactive demonstration.

# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH MARTIN SABAN-SMITH

[<Link to List of Demonstrations>](#)

## Mastering Atmospheric Colouring by Hand



This demonstration looks at the application of wood dyes by hand rather than an airbrush. During the presentation, you will learn why figured woods are best for colouring using this technique. You will also learn why no wood is safe from colour in Martin's eye for colour and how just 'a bit' of colour can transform a piece.

# SWAT 30<sup>TH</sup> ANNIVERSARY

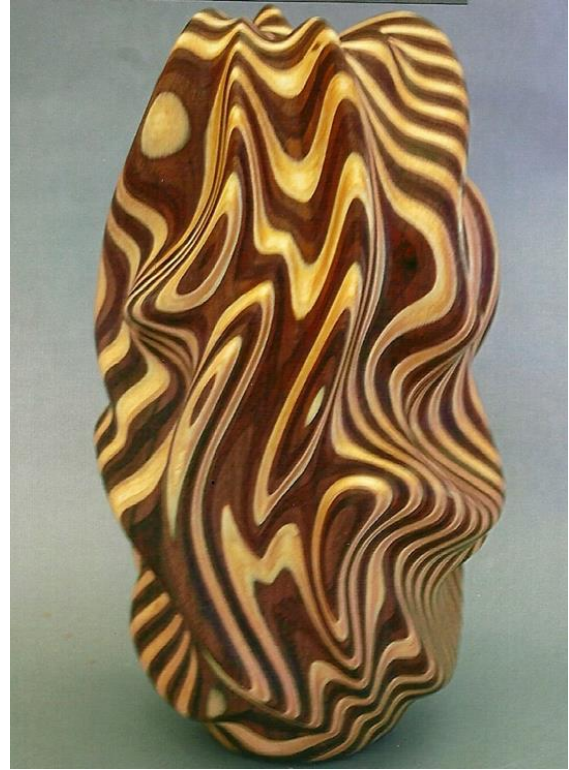
## WITH GARY SANDERS

[<Link to List of Demonstrations>](#)

### Stacked Laminate Turning



*Turned Wall Hanging*



*Turned Vessel*

#### Materials

I like to use 1/8 inch Baltic birch plywood and 1/16 inch veneer. If I need the veneer wider, I will glue two or three layers, side by side. For this, I use regular wood glue. I made a holder that the veneer fits into so I can run it over my jointer to get straight edges.



On all my laminate pieces, I use marine epoxy. The benefits being that it has a long work time, it's thin so it is easy to spread, it's waterproof and it penetrates into the wood. Epoxy is poisonous and can



cause an allergic irritation and chemical burns. You should always wear gloves, especially if you have an open wound on your hands.

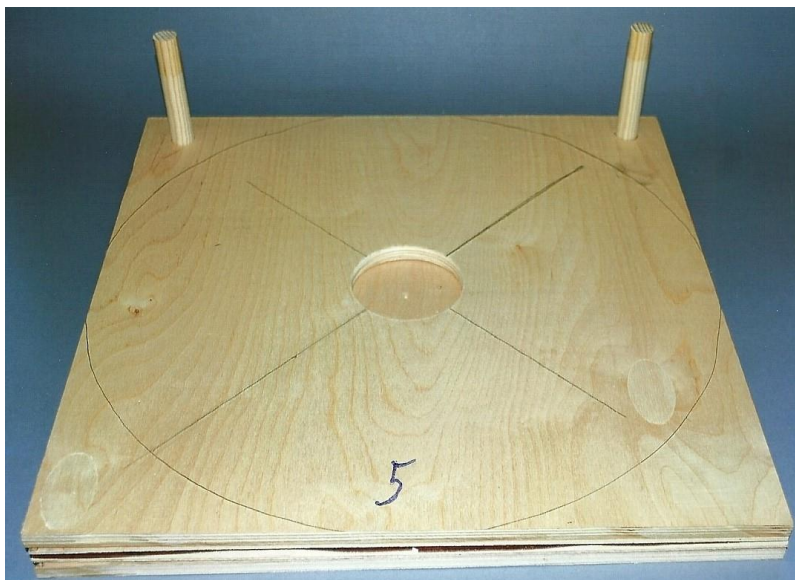
### Spreading the Epoxy

I make epoxy spreaders out of scrap 1/8 or 1/4 inch plywood and cut them into 3-1/2 x 2-1/2 inch rectangles. Grooves are cut into one of the short sides so there are teeth.



### Wall Hangings

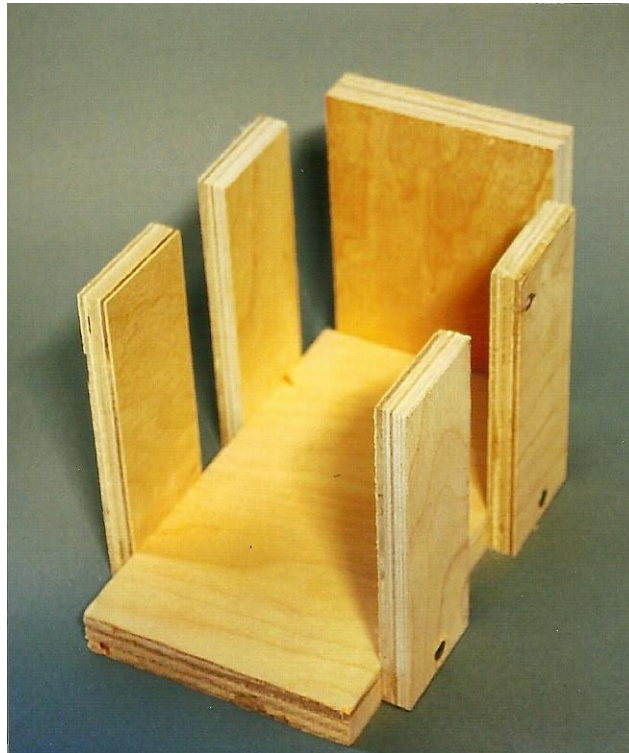
For a wall hanging, I cut the layers of veneer and plywood square and draw the diameter size on each piece, top and bottom. This circle is the reference line for where the epoxy is to be applied. I make a form to keep all the layers aligned so they cannot move when clamped. Two pieces of 1/2 or 3/4 inch plywood are cut the same size as the layers. These two pieces will sandwich the layers of the blank. All these layers re aligned and clamped together. I drill 3/4 inch holes in the corners of one side. I pin 3/4 inch dowels in the bottom layer with nails so that the dowels cannot come out, but the layers are able to slide down them. On the top 1/2 inch plywood piece, I drill a 3 inch hole in the center. This hole will be used to mount the bland on the lathe.



### Vessels

For gluing up a vessel, I make a form/jig. I cut a 3/4 inch piece of plywood a 1/4 inch wider and longer than I want the turning blank to be. I cut strips from 1/2 inch plywood that are approximately 2 inches wide and 1-1/2 inches longer than the blank will be. I screw 2 strips to the long sides and one to one of

the short sides so the layers can only move in one direction. Glue is applied to as many layers as I feel comfortable gluing. Both sides of each layer piece is glued. I always stop gluing with a plywood layer so I don't have to worry about the epoxy penetrating through the last layer. Then I put a piece of tarp, which I've cut to fit the glue up, on top. This prevents the epoxy from seeping to the layers above. I stack the rest of the unglued layers with the  $\frac{3}{4}$  inch plywood on top. Then all of this is clamped together starting at the open end so the layers are pushed to the closed end. I allow 24 hours for curing each section of layers. When all sections are glued, I give the glue up an additional 48 hours before I begin turning. For a vessel, I bandsaw off the form and cut the corners off the square blank.



### Turning

To mount a wall hanging, I use a four-jaw chuck to expand into the 3 inch hole in the top of the blank. I use a cone, large side facing the blank backside in my live center. I turn away the back side of the blank to form a tenon that will fit into my large jawed chuck. I turn the piece around and mount it into the chuck using the tenon. I turn the top to the desired shape with a carbide turning tool. I've found highspeed steel dulls too fast for roughing out the blank. If my piece has fine details, I will use high speed tools. I then sand the blank with 80 grit Abranet sandpaper mounted in a sanding block. This levels the surface and readies it to have the pattern cut into the blank.

When I turn a vessel, I locate the centers, top and bottom, of the blank and mount it between centers on the lathe. I turn the blank round and cut a tenon to mount the blank to a chuck. I use a carbide tool for this. I mount this onto my chuck and turn the outside shape of the vessel and hollow it out using a carbide hollowing tool. I leave the wall thick enough to cut the design in.

### Cutting the Pattern

I draw out my design idea directly on the wood. If it is a repeating pattern, I index it out. I use burrs that are narrower than the pattern to get a rough start and then use a drum sander to get a more accurate cut. I want every step to make the shape flow, so I begin with the drum sander I had used and wrap 80 grit Abranet sandpaper around it to smooth out the design and get rid of the sanding marks left by the drum sander. Hand sanding starts with 120 grit sandpaper and goes up to 1000 grit. I check the

piece for any sanding marks using magnifying glasses and go over the finished design with 3000 grit Trizac.

### **Cleaning the Surface**

The pores of some woods will fill with wood dust which you will be able to see when you apply the finish. I use a stiff, short-bristled paint brush and air from my air compressor to clean out the pores.

### **Finishing**

To finish my work, I am currently using the original Waterlox. I thin the Waterlox about 50-50 with mineral spirits. This gives more work time to apply it to the surface, it flows better and is easier to wipe off. After drying, I rub down the finish with 3000 grit Trizac and apply another coat. I will rub down the finish several times during the day, so I start applying the finish early in the day.

# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH CHAD SCHIMMEL

[<Link to List of Demonstrations>](#)

### Segmenting Pen Blanks



This demo will show how I use a 3 layered material to create segments in pen blanks. The material is Aluminum, plastic, and Aluminum layered.



*Straight Layers*

Straight Layers are very simple and can make a boring pen look really classy. You can do one or more segments in any alignment you wish. I like to do end bands that are even on a one-piece body pen. You can also use different materials for different parts to make the look even more unique. The straight segment blank can be made up and drilled or the parts can be drilled and it can be made on the lathe to fine tune and make adjustments during the glue up.





*Slanted or Angled Segments*

Slanted segments are also very easy and can add a great look to your blank. You can add one or more of these features just let your heart tell you what you want to do and make it happen. I like to cut my angles on the miter saw or table saw. If cutting pen blanks be sure you are safe with smaller pieces. Making a quick jig to hold blanks is a great idea. The angle is also optional, you can set it any angle and the different angles will change the look of the turned piece. Angled blanks are best made and fully glued up before drilling for the tube.

#### **Tips for Glue ups:**

1. Sand cut segmenting materials to remove sharp edges and rough surface.
2. Use a CA and Accelerator for glue up. Put glue on one side and accelerator on the other and press by hand together. Hold for 10 Seconds.
3. Trim and sand blank after each glued part to assure blank is square and lined up for the next part.
4. After glue up is done if needed apply thin CA and accelerator.

#### **Making a multi-layer Celtic Knot**

The quick Celtic knot is just 4 cuts and glue ups although it looks much more complex when done.



Label your blank sides 1-4 in order. Start your cuts with the #1 up, make your 45° cut, glue in segment, trim and sand back to square.

Repeat steps exactly the same with each of the remaining 3 sides. Once complete cut to length and drill for tube.

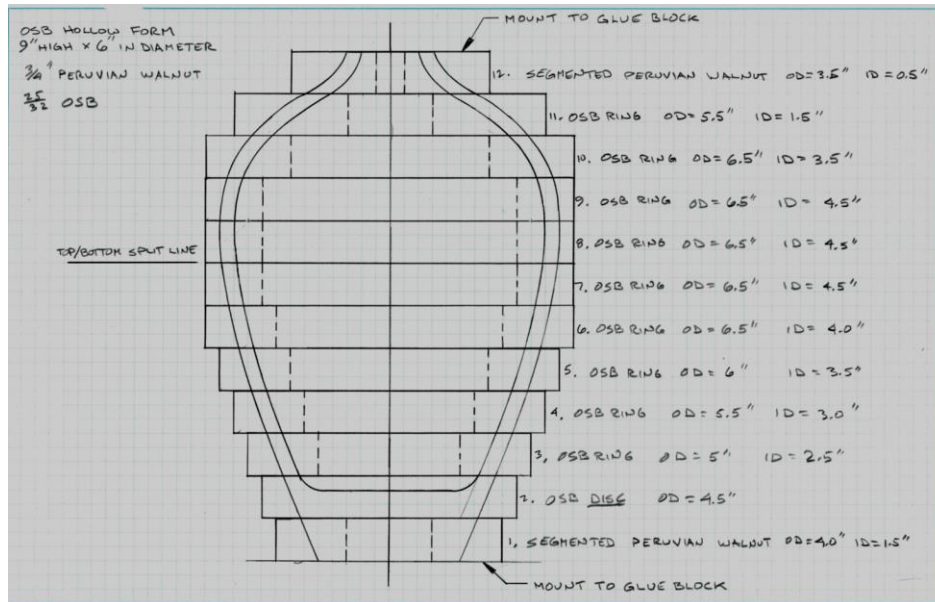


[<Link to List of Demonstrations>](#)

## Making an OSB Hollow Form

Below is a list of the primary materials and PPE needed for making an OSB turning, and a brief description of the process.

1. A scale drawing of the vessel you will be making.



This is a construction and turning project, building the vessel up from both ends and joining them to do the final shaping. The drawing should be to scale, preferably 1:1 to allow setting calipers for measurement as you turn.

The drawing can be made by hand as this one was, using just quad ruled graph paper, a scale, a straight edge and a French Curve. I have found that it works best to draw just one side of the vessel and then mirror it for the other side. Software such as Woodturner Pro will work fine also.

I draw the rings in with 1/4" excess stock on the OD and ID of each ring or disk.

2. OSB and wood Rings, glue blocks on faceplates, Titebond glue, Safety glasses and dust protection.

I cut the OD of the OSB rings on a bandsaw. I cut the ID of the rings on a scroll saw, but the ID can also be done with a power jigsaw. The Peruvian Walnut rings are segmented. I will not demonstrate how to do segmented rings for this demo, but they are actually fairly simple, and there are multiple ways to make them.

WEAR DUST PROTECTION WHEN WORKING WITH OSB! It tends to throw a lot of dust and even a good dust collection system will not be adequate to protect your lungs.

I will not be turning at high speeds, so safety glasses will be adequate. A face shield is preferable!





### 3. "Friction" Finish

I use friction finish in the process for making OSB turnings. My recipe is 3-2-1: 3 parts Zinsser Bulls Eye Seal Coat, 2 parts Boiled Linseed Oil, 1 part Denatured Alcohol.

If you are making pure Friction Polish as a final finish and will not be putting any other finish over it, then you can substitute Zinsser Bulls Eye Shellac. It has natural wax in it, and other finishes may have trouble adhering to it.





4. Live center, cones for ring centering and an  $\frac{3}{4}$ "-10 to 1"-8 or 1  $\frac{1}{4}$ "-8 (depending on your lathe size) adapter to thread faceplates onto a live center.



5. Internal, External and Thickness calipers. Compass for marking OSB stock for ring cutting.



6. Compressed air is useful, but not absolutely necessary. I find it useful for blowing dust out of pores in solid wood, and out of voids in OSB.

I use a chip brush to clean chips and sanding dust off of my lathe before I start using compressed air. I never use compressed air for sweeping the floor! Avoid putting any more dust in the air than absolutely necessary!

## 7. The Process:

We will build the vessel up ring by ring, starting with gluing the bottom and top rings to glue blocks. We will flatten each ring both before gluing onto the vessel, and the exposed side after being glued on. We will turn as we go, using the scale drawing for dimensions. When we have reached the split line shown above, we will join the top and bottom, and then finish the outside of the vessel. The final process will involve using a slurry of sanding dust and friction finish to fill the voids in the OSB. Once this process is completed and the turning is completed on the lathe a membrane finish such as wipe-on poly should be used for final finishing. All of the process except for the poly finish is shown in the video we will show in the club meeting.

When you are finished it should look something like this:



# SWAT 30<sup>TH</sup> ANNIVERSARY

WITH CRAIG TIMMERMAN

[<Link to List of Demonstrations>](#)

## Winged Bowl Basics



Standard, round bowls are great projects, but when you want to take your bowls to another level, try giving them wings! That's what happens when you take a bowl blank and leave the corners—you get a bowl with wings. Non-round bowls are one of my signature pieces. I like to throw in a few differences such as wings with beads and coves or interesting shaped pieces such as a rectangle, rhombus, triangle, or even star shapes. In this demo I will cover some non-round bowl shapes that can be done and will proceed to turn a rhombus-shaped bowl.

# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH CRAIG TIMMERMAN

[<Link to List of Demonstrations>](#)

### Fun With Spheres



There are many different ways to turn spheres. I will demonstrate the technique I think is the easiest and the most flexible in that you can use this technique to make many things other than a solid sphere. There are no special tools or jigs needed. I will show the basics of making a sphere and then cover making sphere boxes. Other projects such as hollow spheres, candle holders, ball in ball designs will also be discussed.



SWAT 30<sup>TH</sup> ANNIVERSARY

WITH WAUKEENE VINSON

[<Link to List of Demonstrations>](#)

## Offset Christmas Tree



My Goal is to teach turners of all skill levels to turn a 5 section offset Christmas Tree. This offset turning will be turned between centers with a tenon and chuck instead of between centers with a 4 prong Drive.

My wife had a small Christmas tree collection she collected over the years. I learned early to turn Christmas trees. This is a picture of her Christmas tree collection from last Christmas. These are trees I have turned for her.

They became very, popular in the family, all the ladies and kids wanted one. At Christmas we have around 50 family and friends over to our house for the Christmas celebration. My wife started putting trees on the tables for the table decoration. It's funny how we always come up short at the end of the day, so the next year she began by putting names in a hat and drawing names for the trees. It's a big event at our house.

I saw an offset turned Christmas tree on Facebook a couple years ago and began working on ways to turn one. I did a lot of trial and error, gathering information, and sharing turning techniques with other Woodturners. We come up with turning this project between centers with a chuck and a tenon between centers.



5 section 3/4" offset tree



7 section 1-1/2" offset tree

Lay out for a 5 Section 3/4" Offset Christmas tree



#1 Bottom view of blank



#2 3-1/2" x 8" cylinder blank



#3 top view of blank

This offset project can be turned from beginning to end between centers with a 4-prong drive.

**Step 1.** If you're not comfortable turning offset projects between centers. My recommendation is to drill a 1" diameter recess 1/4" deep for a 4-prong drive, on the bottom of the blank. See in Illustration #1.

However, as a safety precaution a tenon is safer!! In this demonstration I will use a tenon to turn this project between centers.

I had always used the 4-prong drive to turn offset pieces between centers. In this project, you start the turning at point 1, finishing up at point 5, leaving all your marked points on the of the blank, because you have to come back to point 1 to part off the waste, so the tree will stand leaning. With a tenon and chuck it's not so important if you turn point away point 1. When you're cocking the tenon in the jaws of the chuck, going from point 1 to point 5, when you bring it back to your original tenon cut it will be at point 1.

**Step 2.** On the top end of the blank, find the center and mark it point 3. From the center point 3, mark two points above and two points below the center mark 3/16" apart each and label them 1 through 5. See illustrations #3.





#4 Point 1 Set Up



#5 Turning section 1 (Tenon, Tree Base and Lower Tree Branch's)

**Step 3.** Position blank in lathe with the tailstock in point 1. See Illustration #4.

**Step 4.** With blank set to point 1, start by turning section 1 (tenon, tree base and lowest branch), as seen in Illustration #5.

**Notes:**

- If sanding is needed, do it at the end of each section turned.
- I started out turning these between centers without a tenon. One day, not paying attention, I turned off point #1 and didn't have a point to go back to finish the bottom on the lathe. Cocking the piece in the jaws of the chuck you don't have to have point #1.



#6 Tenon is Beveled on Both Ends to Swivel in Chuck Jaws



#7 Nova 35mm Spigot Jaws





#8 Set Up on Point 2



#9 Set Up on Point 3



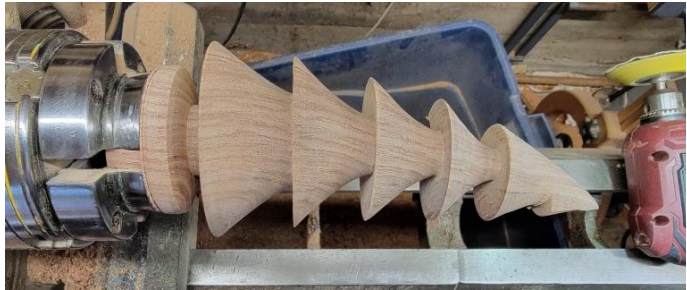
#10 Set Up on Point 4



#11 Set Up on Point 5



#12 Set Up on Point 1  
Saw the tip off with the turned angle



#13 Carve, sand off to form tip



#14 Set Up to power carve tip





#15 Power carving tip



#16 Tree tip completed



#17 Part tree off the tenon



7 & 5 Section offset Christmas tree

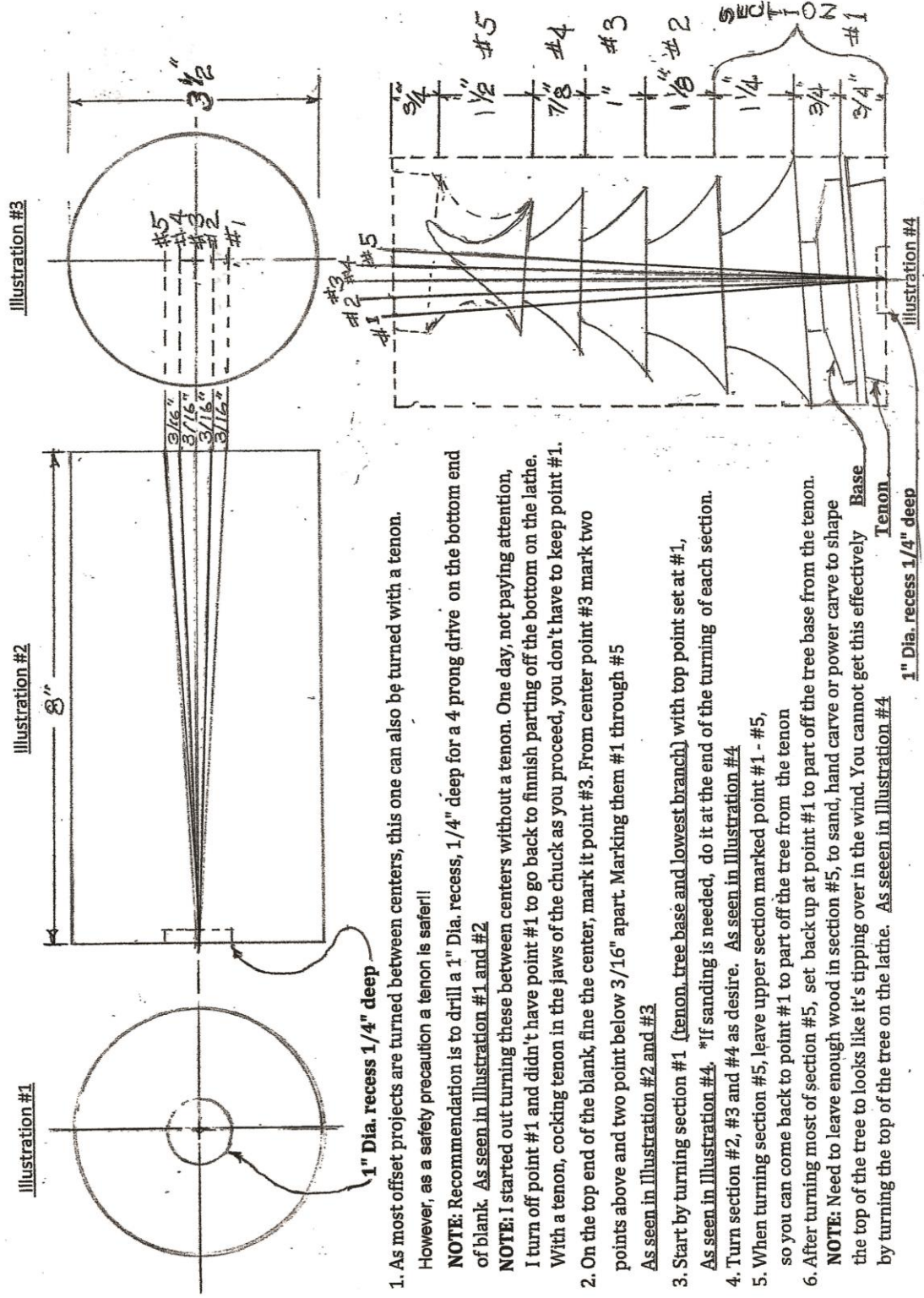


4 Section Tree, Tip Turned on The Lathe



5 Section Tree, Tip Power Carved

5 SECTION OFFSET CHRISTMAS TREE LAY OUT ON A 3-1/2" DIA. X 8" LONG BLANK Waukeene Vinson



1. As most offset projects are turned between centers, this one can also be turned with a tenon. However, as a safety precaution a tenon is safer!  
**NOTE:** Recommendation is to drill a 1" Dia. recess, 1/4" deep for a 4 prong drive on the bottom end of blank. As seen in Illustration #1 and #2  
**NOTE:** I started out turning these between centers without a tenon. One day, not paying attention, I turn off point #1 and didn't have point #1 to go back to finish parting off the bottom on the lathe. With a tenon, cocking tenon in the jaws of the chuck as you proceed, you don't have to keep point #1.  
 2. On the top end of the blank, fine the center, mark it point #3. From center point #3 mark two points above and two point below 3/16" apart. Marking them #1 through #5  
 As seen in Illustration #2 and #3  
 3. Start by turning section #1 (tenon, tree base and lowest branch) with top point set at #1, As seen in Illustration #4. \*If sanding is needed, do it at the end of the turning of each section.  
 4. Turn section #2, #3 and #4 as desire. As seen in Illustration #4  
 5. When turning section #5, leave upper section marked point #1 - #5, so you can come back to point #1 to part off the tree from the tenon  
 6. After turning most of section #5, set back up at point #1 to part off the tree base from the tenon.  
**NOTE:** Need to leave enough wood in section #5, to sand, hand carve or power carve to shape the top of the tree to look like it's tipping over in the wind. You cannot get this effectively Base by turning the top of the tree on the lathe. As seen in Illustration #4  
 Tenon  
 1" Dia. recess 1/4" deep



# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH ANDI WOLFE

[<Link to List of Demonstrations>](#)

### Going Beyond the Surface - Carving in 3D

Carving a turned vessel can be challenging, fun, frustrating, rewarding, and/or puzzling. Things to consider in getting started are:

- Choice of wood (fine-grained woods are easier to carve than coarse and open-grained woods; soft wood is easier to carve than hard and dense wood).
- Shape of vessel and design elements.
- Wall thickness of turned vessel.
- Design layout and inspiration.

Once these considerations are done, there are some logistics considerations. If turning green wood, the time to wait until the piece is sufficiently dried to be able to use rotary power tools for carving. (Green wood can be carved with hand tools and/or non-rotary power carvers).

Laying out the design and removing the negative space, if any. Be sure to use the wood grain to add strength to areas that might be susceptible to breakage.

- Method of carving – roughing out vs. fine tuning.
- Burs to use for roughing out vs detail work.
- Holding the piece while carving.
- Ergonomics and repetitive stress injury potential.
- Dust control and safety.
- Finishing the detail work and applying a finish.

Tools for:	
Negative space removal	Drillsaw burs
Roughing out	Foredom flex shaft carver with saburrtooth and/or kutzall burs
Fine carving	Micromotor carver and burs from <a href="http://www.bursforcarving.com">www.bursforcarving.com</a>
Fine-tuning details	Leather punch, double-stick carpet tape, flat-surface mandrel; sandpaper, microfiles and diamond rasps
Finish	1:1 mineral spirits and varnishing oil



# SWAT 30<sup>TH</sup> ANNIVERSARY

## WITH ANDI WOLFE

[<Link to List of Demonstrations>](#)

### Exploring Surface Enhancement

Surface enhancement involves manipulating the surface of a bowl, platter, vessel, or other turned object. It can be as simple as adding a stain, paint, or reactive solution, or texturing the surface. My primary methods for surface enhancement include pyrography, texturing with rotary carving burs, texturing with carving gouges, scorching, and coloring.

The primary consideration before you decide to do some surface enhancement is to start with a good form. Enhancing a bad form will only draw attention to it in a negative way. With a good form, surface enhancement will add aesthetic value to the turned artwork.

Other considerations and topics covered:

- If using a beautiful and exotic wood, minimize the treatment to allow the wood to be the primary decorative element.
- Use transparent colors with highly figured wood.
- Don't overdo it.
- Make samplers to try out different textures and techniques.
- Study color combinations in nature, textiles, wallpaper, etc. Check out a color theory book or bookmark a website.
- Photograph textures around you and in nature to build a library of ideas and inspirations.
- Pyrography: choice of temperature controller, pen styles, tips.
- Rotary carvers and burs.
- Coloring techniques.





[<Link to List of Demonstrations>](#)

## Fun With Spindles

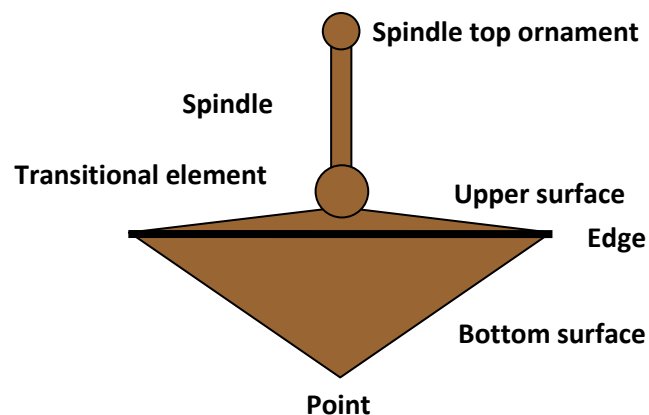
This will be a fast-moving demonstration focused on spindle turning techniques and tools, resulting in a series of small objects. Each turned object will build on techniques demonstrated in preceding segment. Demonstration will see completion of; spin-tops, miniature spin-top, freehand sphere, small hollow vessel, and a multi-axis spice spoon. This is a skill building session for all levels of turners, and will emphasize the importance of practice as a path to perfection.

### Tops

We will start with tops because tops are fun. Tops are also an excellent vehicle for creativity and disciplined repetition of fine detail. Turning techniques include effective use of the ¼" bowl gouge and ¼" detail gouge with a "ladyfinger" grind. Optimal cutting techniques yield a surface requiring little sanding, and as we all know, less sanding means more fun.

Practicing fine detail on spin tops will provide confidence when you step up to turn an extra-thin finial, or a refined bead that compliments a special bowl. The attention to detail and very fine motor skills can open new avenues for turning, such as miniature bowls, hollow vessels, and lidded boxes.

The overall turning process is to turn the top starting at the point and ending with the spindle or optional spindle top ornament. The different parts of the basic top are; the point, lower surface, edge, upper surface, transitional element, spindle, and an optional spindle top ornament.



The demonstration starts with turning a full sized top. These are generally 1 ½" diameter and 1 ½" tall. I turn a couple of these tops every time I go out to my shop, and over the years have turned more than 10,000 of them. I try to make each one different, and am not bored of them yet. I'm mostly working with 1 ½" square stock, 2" – 4" long. I band saw straight grained spindle turning stock from leftover pieces of wood after I'm done chain sawing logs to dimension for turning big bowls and vessels. I pack all the roughly dimensioned stock in big boxes, and note year and month. By the time I need some more top turning stock the blanks are dry.

The first step is to firmly grip the spindle stock in the chuck (Figure 1). There are several good tool choices for roughing the square stock to a round cylinder. These days I use a 1" spindle roughing gouge. A small bowl gouge or a conventional spindle gouge would work nicely too. I like to stop the lathe and inspect the wood before I go ahead and turn the top (Figure 2). One reason to do this is to inspect the grain orientation and look for defects that may be revealed after removing some wood. If the wood has a fatal flaw (cracks, holes, bark, sideways grain, branch buds, heartwood and sapwood, etc.), it goes in the burn bin. No sense wasting time and effort on bad wood. Another reason to inspect the wood is that sometimes I find something that is much better than expected. A nicely spalted blank may be more suitable for a mini hollow vessel.

The first cut is to establish the bottom surface of the top. After taking several cuts with the  $\frac{1}{4}$ " bowl gouge to establish the shape, I take a final pass with the  $\frac{1}{4}$ " spindle detail gouge. Then I take one light cut across the edge of the cylinder to define the edge of the top. At this stage, I slow the lathe (400 RPM?) and sand the bottom surface (220 & 320) for a few seconds each (Figure 3).



Figure 1. 1.5" x 4" billet of Yaupon



Figure 2. Billet rounded, check for defects



Figure 3. Bottom surface and edge defined

With the lathe back to regular speed (1500 RPM?) I start removing wood behind the upper surface. The first cut defines the edge (Figure 4). Three or four roughing cuts with the bowl gouge excavate some bulk from the cylinder and provide some room to work on the form (Figure 5). The next cut or two are to establish the final thickness and profile of the upper surface of the top (Figure 6). I take these cuts with the detail gouge. Gently but firmly present the tool with the edge of point of the tool aligned vertically, and the flute facing the headstock. Initially the aim is to establish a bevel in the wood. Once the bevel is established, it acts as a guide for the shaping cuts. I initially cut a small step at the juncture between the top body and the spindle. This area should be a little thicker than the spindle for structural strength. Options here are many, from a simple step or beveled step to a bead element. This is good practice for those delicate spindles at the top of some lidded boxes and vessels. Time to sand again. Slow the lathe and briefly sand the edge, upper surface, and the transitional element.



Figure 4. define the edge



Figure 5. Remove bulk



Figure 6. Detail upper surface



Figure 7. Stem roughed out surface

Use the bowl gouge to reduce the diameter of the spindle area to  $\frac{1}{4}$ " or so (Figure 7). Now it's time to refine the spindle. This is where the detail gouge works especially well. The objective is to reduce the spindle thickness to approximately  $\frac{1}{8}$ ". The cut is started with the spindle gouge positioned just left of the transitional element, and the flute of the spindle gouge pointing up. The gouge should be resting on top of the spindle and not cutting or pressing. Gently rotate the gouge counterclockwise until it starts to engage the wood and cut slivers. Gently move the tool to the left, cutting just below the point of the tool, cutting a thin even spindle. There should be no downward pressure on the wood; the downward pressure you exert on the tool should be directed onto the tool rest. This will take several light cuts. Then sand the spindle. I use a  $\frac{1}{4}$ " wide long strip of 180 grit cloth backed sandpaper. If your design intent is to apply color using permanent markers, this is the time (Figure 8).

The next step is to cut the top from the remaining spindle billet. I like to take this opportunity to practice turning a small bead at the end of the spindle (Figure 9). This cut is made with the  $\frac{1}{8}$ " detail

gouge. In one continuous motion the point of the detail gouge cuts the “V” groove with a push cut, the right side of the bead is formed with a pull cut using the left edge of the end of the gouge, and the left side of the bead is done with a push cut, still using the left edge of the end of the gouge. This cut takes a lot less time to accomplish than it takes to read about how to do it. Stop short of cutting the top off the billet so that you can sand and color the bead. Now you can part off the top and take it for a test spin. A coat of your favorite finish, and you’re done (Figure 10).



Figure 8. Spindle cut + color



Figure 9. End cut and colored



Figure 10. The finished top



Figure 11. Top and mini-top

If you can turn a 1½” top, you can try turning a much smaller version (Figure 11). My recommendation is to turn a number of full-sized tops to become familiar with the tools, cutting techniques, and design options. The mini top is made the same way as the full-sized top, with a few exceptions. First, you will likely start with a spindle that is ½” in diameter and maybe 1½” long. Second, I mostly use the ¼” detail gouge, as there is not much wood to remove at any stage of this project. Third, the final spindle might be only 1/16” thick. The spindle top bead is still turned with the 1/8” detail gouge. Since the mini top is made from a series of controlled cuts with a very sharp gouge, I just sand with 400 grit sandpaper. There’s really not much wood to sand here. The last point is to practice...a lot. One turner may be turning out mini tops after making a dozen or so full-sized versions, while another turner may need to make lots more before the process is easy and automatic. Oh, one last thing, try to not drop your finished mini top in a pile of shavings.

### Freehand Spheres

There are lots of techniques and jigs out there that enable you to turn a perfect sphere. The point of this segment of the demonstration is not to turn a perfect sphere, the purpose is to learn to turn (and see) something round.

Start with your spindle blank chucked firmly as previously described (Figure 12). Reduce to an even cylinder using a spindle roughing gouge or similar tool. Take a last cut across the end grain on the exposed end of the blank. This ensures smooth grain at that end of the sphere. This cut is easiest with a freshly sharpened ¼” bowl gouge. Just establish a shoulder or step near the end of the blank and use it to support the bevel of the gouge as you cut across the grain. This cut can also be done with the skew or detail gouge, but the bowl gouge is just easier here. Do not use a parting tool as this leaves a very rough surface. With the lathe off, measure the diameter of your cylinder with an outside caliper, and transfer that length to the right end of your spindle (Figure 13). Extend this mark around the spindle, rotating the lathe by hand. Then mark half that length to establish the midpoint of the sphere in the horizontal axis. With lots of practice and confidence may find that you can eyeball this measurement.

Now for the part that may not be as easy as it sounds. Taking successive cuts with the bowl gouge, cut the exposed corner off in a circular arc. Make successively longer cuts, starting closer to the midpoint line, and eventually ending exactly at the end of the spindle (Figure 14). Next, start cutting from the centerline towards the left side of the sphere (Figure 15).



Figure 12. Mulberry blank



Figure 13. Diameter + width

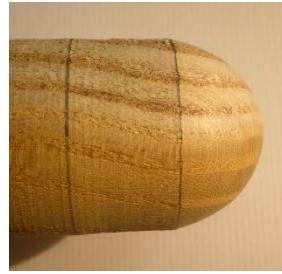


Figure 14. Half of the sphere



Figure 15. More shaping sphere

Using a parting tool, make a perpendicular cut just at the left edge of the pencil line that marks the full diameter (and length) of the sphere (Figure 16). Leave a central part of the spindle to support the half-sphere...maybe around  $\frac{3}{8}$ " to start. Now you have a remaining flange on the inboard side of the cylinder. Turning in a mirror image of the first set of cuts, remove successively longer circular arcs from the flat center of the spindle. Work back to the center line, and cut to just to the right of the parting tool cut on the remaining spindle (Figure 17).

At this point you should have a nearly complete sphere on a thin spindle. There will be some lopsidedness while learning. Fortunately, most spheres can be made a lot more round during sanding. On these small forms it might be appropriate to start sanding with 100 – 150 grit sandpaper, and finishing with 320 grit (Figure 18). Once sanded, I use the detail gouge to cut the remaining sphere off the spindle. I usually leave a small protruding bulge in this area to be hand sanded. If you cut too close to the finished profile there is a high probability that the sphere will break or pull off from the spindle, pulling some long grain fibers out of the end of the sphere that are impossible to sand away without creating a prominent flat on your round form. The finished form should appear really round to the eye, and hopefully really round in the hand, which is generally more discriminating than the eye in this instance (Figure 19).



Figure 16. Parting cut



Figure 17. Shaped sphere



Figure 18. Sanded sphere



Figure 19. Finished sphere



### Miniature Hollow Vessel

Turning very small hollow vessels offers an opportunity to practice fine-scale eye hand skills while designing on a small scale. So, what size qualifies as miniature? Let's just say less than two inches (Figure 20). There is not much invested in time or wood, so you can play...try out different forms, and maybe only complete the ones you like.



Figure 20. Three 1" tall hollow vessels; pecan burl, walnut, and spalted oak

Turning miniature hollow forms may also present a challenge in finding properly scaled tools. While some effective tools are on the market, an inexpensive tool kit can be assembled from scraps of metal and wood on hand. An excellent tool making stock comes in the form of spade drill bits. These are flat bits designed to drill quick holes in rough carpentry (**A**). The flat end of the bit allows great versatility in the types of tools that can be made. The three basic shapes I use are an oval or teardrop shape with a rounded end (**B**); an offset cutter with a 45° angle (**C**), and an offset cutter with an 80° angle (**D**). These tools are not difficult to make, but the process does involve a bit of time at the grinder. Other useful tools include; small calipers, small flashlight, small depth gauge, and a flexible end straw or tube to blow out shavings.

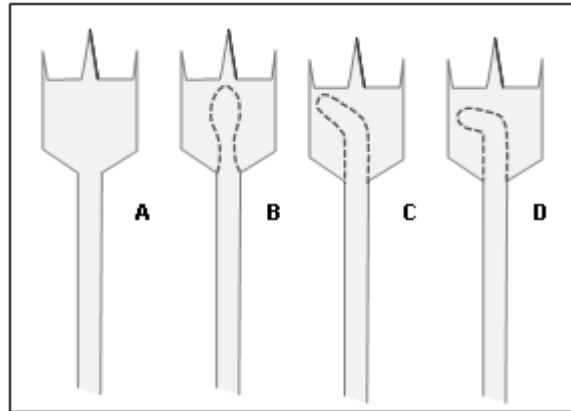


Figure 21. Options for homemade hollowing tools

Turning a miniature hollow vessel can be broken down into six steps. Figure 22 shows steps 1 through 3, Figure 23 shows steps 4 through 6.

1. Start with the spindle blank mounted in the chuck, with long grain parallel to the axis of rotation. Rough out a cylinder and make a clean cut across the grain at the end of the blank to ensure that the rim will have a clean cut across the fragile end grain while it is still well supported. Shaping the outside of the vessel involves cutting rounded shapes as with the freehand sphere. The  $\frac{1}{4}$ " bowl gouge is a good all-purpose tool here, although the  $\frac{1}{4}$ " detail gouge is good for refining the lower portion of the form. The aim is to establish most of the shape, while also leaving a  $\frac{1}{4}$ " –  $\frac{3}{8}$ " stub at the bottom. This should be strong enough to support the form while hollowing and sanding. The vessel should be fully shaped and ready to sand (later).
2. Using the teardrop scraper or similar tool, cut a cylinder down the axis of the vessel. This is primarily to establish the depth and provide access for the offset tools. Cut the cylinder in successively deeper stages, until it is almost at maximum depth. Be sure to measure carefully so that your vessel does not wind up with a hole in the base when you part it off later on.
3. Using the offset scrapers, gradually hollow out more of the vessel, starting below the rim and working both deeper and wider in successive cuts. Take light cuts and measure often. These forms are so small it is all too easy to inadvertently remove too much wood. As shavings accumulate in the vessel, stop and remove the shavings. Use your flexible straw, blowing into the long end.

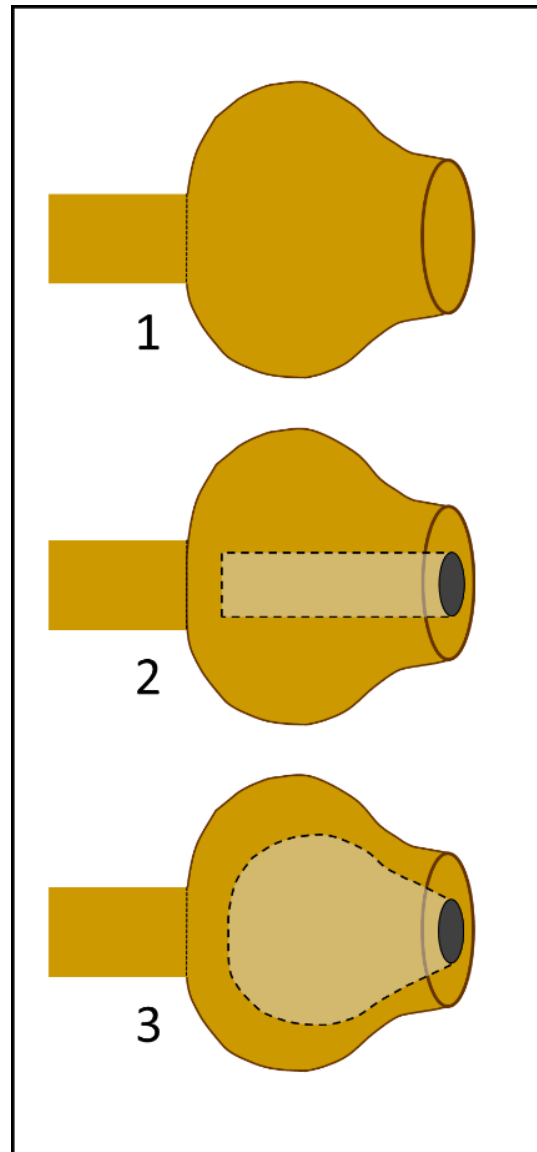


Figure 22. Steps 1 – 3

4. Gently cut the interior to its final thickness, measuring regularly with small calipers. Listen to the wood. You may notice that the pitch of the vibrations of the tool against the wood gets higher as the wall thickness gets thinner. After the wall is at the final thickness, you can smooth out the interior bottom of the vessel. There may be a residual bump, as it is hard to cleanly cut the center of the bottom with an offset scraper. Use the round ended scraper to locate the center of the interior, then lightly push into the wood for a fraction of a millimeter, and then sweep the tool to the left, feathering into the interior wall profile. Be sure to not cut too deep. Once you are done hollowing, take a final cut parallel to the axis of the lathe from the rim to the inside of the vessel. This should leave a straight sided interior profile from the rim to the inside, facilitating reverse chucking later on. Now is the time to sand. You should be able to start with 180 or 220 grit sandpaper.

5. First, make a few shallow cuts with the parting tool, leaving enough wood to support the vessel during some light finish sanding. The idea with parting is to cut a clean surface that requires little if any sanding. At times like this, a super thin super sharp parting tool is called for. Make the first few cuts perpendicular to the axis of the lathe so that the base of the vessel is flat. Sand the lower portion of the vessel wall if needed. Now it is time to part the rest of the way across the stub. Start the cut about  $\frac{3}{16}$ " in from the outer edge of the perpendicular cut just made. Angle the cut about 15° right of perpendicular, cutting a shallow cove in the bottom of the vessel. Do not cut all the way through as there is a substantial risk of pulling out the short end grain at the bottom of the vessel. Instead, stop short of cutting through and make a final through cut one tool width to the left of the angled cut just made. This will leave a small stub at the base of the vessel. This can be hand sanded or carved away with your small carving gouge, or optionally proceed to step 6.

6. The final step is to cut the part of the stub remaining in the chuck to form a mandrel for reverse chucking the vessel. Cut a straight sided mandrel that allows you to firmly fit the aperture of the vessel over the mandrel. The intent is to hold the piece firmly enough to be able to turn and sand the base of the vessel, but without splitting the vessel in two. Sadly, this is all too easy to mess up. Having cut parallel sides on the inside of the aperture in step 4 makes reverse chucking a somewhat lower risk endeavor. If you cut the mandrel too thin, a bit of tissue may take up the extra space. Once chucked, support the spinning vessel with one hand while turning the nub away with the tip of the detail gouge. Sand the base at this point, being careful to preserve the flat base of the vessel. Reverse chucking is the only way to ornament the base of the vessel. Use a small point tool to cut a few shallow grooves in the base of the vessel. Then lightly sand the bottom with 600 grit sandpaper. The miniature vessel is now ready to be finished.

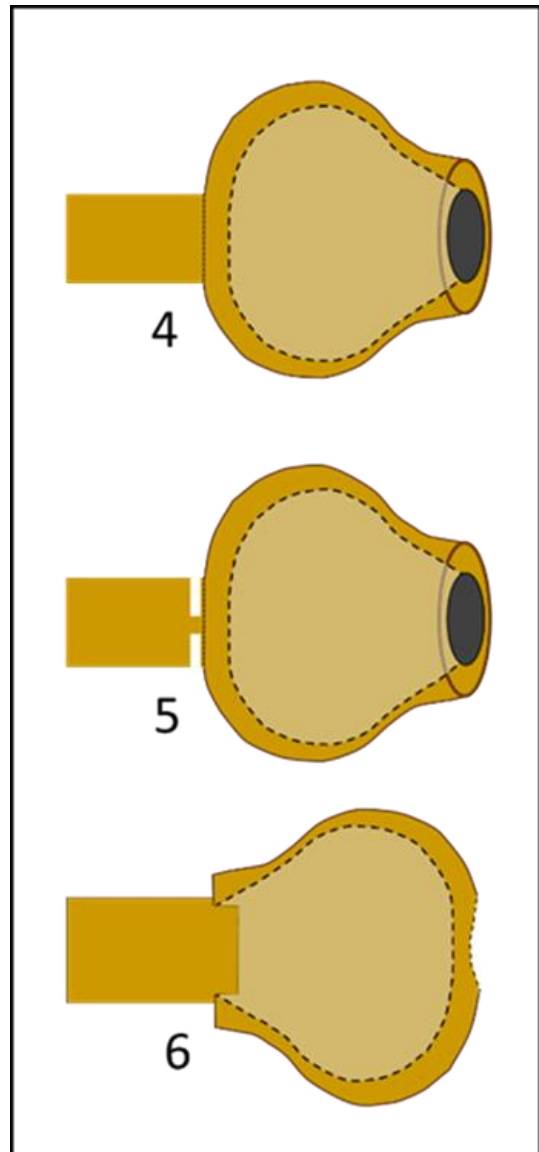


Figure 23. Steps 4 – 6

Some final thoughts. To paraphrase David Ellsworth, ...*You can't turn the inside of a vessel and see what you are doing at the same time.* To be effective, you have to visualize the cutting edge of the tool inside

of the vessel, and think about what it is doing. I focus on cutting an inside profile that closely matches the exterior profile. This can be a bit of a Zen moment, making the essentially un-viewable inside of a vessel the best that it can be, just for the sheer pursuit of perfection. Finally, and I can't say this enough, there is no substitute for time spent at the lathe, working on problems and finding solutions. The only way to get better is to practice, practice, practice!

### Multi-Axis Spice Spoon

The multi-axis spice spoon project brings together some of the manual skills encountered in each of the three previous demonstration segments, including turning thin spindles, turning round, and careful hollowing. This project does require a bit more careful planning. The blank will need to be straight grained without defects, and be short enough to clear the ways when mounted in the jam chuck. The small scale of the spice spoon is great for getting small amounts of spices from the bottom of a spice jar. Aside from being a great skill builder, the spice spoon is sure to find a home in your spice cabinet.

For this demonstration we will assume you're going to be working on a mini lathe. Start with a blank that is no longer than one inch longer than the swing of you lathe. Firmly grasp the blank with the chuck, and also secure the right side with light pressure from the tailstock live center (Figure 24). The purpose of using the live center is to cut down on vibration when turning the skinny shaft of the spoon. Using spindle roughing gouge, remove corners and reduce diameter to the intended outer diameter of the finished spoon. Mark a waste area for parting just outboard of the chuck. Then measure the diameter of the blank and mark that length to the right of the first mark to define the outline of the spoon (sphere). Moving to the right, mark a thin area for a transitional element, the thin shaft of the spoon, and a space for the handle or decorative touch. Remember to leave a waste area at the far end of the blank to avoid having the live center impression being part of your final design. (Figure 25).



Figure 24. Huisache blank, 5" x 1.5 square



Figure 25. Rounded blank with major elements marked

The spindle turning will proceed from tailstock to headstock. Start with parting away the waste area adjacent to the live center. Then work on refining the handle and shaft (Figure 26). I find it useful to do some initial sanding at this point, using 220 and 320 grits. While the initial shapes are established with a  $\frac{1}{4}$ " bowl gouge, they are refined with the  $\frac{1}{4}$ " detail gouge, which leaves a smoother, better-defined surface. Then, use a parting tool to thin the area for the transitional element, and blend the shaft into a thin, smooth handle. The detail gouge planing cut works well here. A  $\frac{1}{2}$ " skew also does an excellent job on this planing cut (Figure 27). Then sand the spindle shaft.



Figure 26. Turned handle (thistle motif) and part of shaft



Figure 27. Handle and spoon shaft completed



The next step is to define the transitional area between the spoon shaft and the spoon. This can be decorative or just a simple step (Figure 28). The detail shown here should be reserved for tough and resilient woods. Less sturdy woods should have a thicker transitional element. Then cut a half sphere to define the right side of the spoon. Before cutting the left side of the sphere, part away a waste area to the left of the sphere defining line (Figure 29). This allows tool access to the left side of the sphere. Leave a stub about the diameter of a pencil for now. Sand the transitional element and sphere while spoon is still on the lathe. Then remove the spoon. It can be parted off or sawed off. Now gently hand sand the handle end and ball end of the spoon (Figure 31).



Figure 28. Transitional element and half sphere



Figure 29. Waste is parted off



Figure 30. Spoon sphere defined



Figure 31. Spoon removed from lathe to sand ends

Wood for the jam chuck should be straight grained, have uniform density (i.e., not pine) and generally less dense than the wood used for the spoon (Figure 32). When fitting the sphere to the jam chuck, you want any resultant dents to be on the chuck, not the work piece. Use the spindle roughing gouge to remove the corners of the jam block, and then reduce the diameter of the cylinder to be  $\frac{1}{2}$ " thicker than the sphere. Move the tool rest to be perpendicular to the ways in order to cut the jam chuck recess. Initially, just cut a recess that is a tight fit for the sphere (Figure 33). One way to cut this recess is using a small teardrop shaped scraper like the one used for initial hollowing in the miniature hollow vessel demonstration. A faster procedure is to use the detail gouge, making a series successively wider peeling cuts from center to edge. This is an easy cut, but takes some practice. Insert the detail gouge into the center of the end of the chuck with the flute pointed up and the tool in line with the axis of rotation. Push the tip of the tool into the wood, cutting a divot (bevel) about  $\frac{1}{8}$  to  $\frac{1}{4}$ " deep, rotate the tool counterclockwise about 30 degrees, and engage the lower edge in a controlled peeling cut. Continue making small cuts until the sphere fits firmly into the end of the chuck.

There are a few more steps to follow. First, carefully drill out a hole through towards the headstock side of the jam chuck. Some will reach for a drill bit. I use the detail gouge to make this cut. As with cutting the initial divot, just push the tip of the tool into the center of the chuck, and drill out a hole. Pull out tool once or twice to remove shavings, and be sure to maintain axial tool alignment. The purpose of this hole is to be able to remove the work piece when it is really jammed into the jam chuck. Next, cut a slot for the spoon handle. I find that a coping saw is handy for this task, perhaps assisted by a small flat carpenter's chisel. Before final fitting, select and mark the side of the sphere to be hollowed out. Cutting into the center of a flat grain side of the sphere is the preferred orientation (see Figure 31).

Now, orient the sphere and fit firmly into the jam chuck recess (Figure 34). Some final adjustments may be necessary. A wood mallet does the job here.



Figure 32. Mahogany  
2x2x2



Figure 33. Jam chuck  
recess cut



Figure 34. Mounted in  
chuck



Figure 35. Spoon  
hollowed

Carefully position the tool rest so that you can access the sphere to hollow out the spoon without snapping off the handle. The first few cuts off the top of the sphere will establish the rim of the spoon. A ¼" bowl gouge works well her, taking few millimeter-thick cuts. I hollow out the spoon with initial cuts from the ¼" detail gouge, followed up with finishing cuts from a freshly sharpened teardrop shaped mini scraper (Figure 35). Careful sanding can be done across the spoon rim. The interior of the spoon could also be sanded with a folded cylinder of sandpaper. Now remove the spoon from the chuck. I've tried lots of ways to do this, some good, some not so good. The best procedure I've found so far is to insert an unsharpened pencil, eraser first, into the back of the previously drilled hole to pop the spoon out. A coat or two of finish, and your good to go (Figure 36).



Figure 36. Full size image (3 1/2") of Huisache spoon shown in preceding images

## ABOUT THE ARTISTS

### SALLY AULT

Email: [Sallyault@cox.net](mailto:Sallyault@cox.net)

Website: [www.Sallyault.com](http://www.Sallyault.com)

Sally Ault was born and raised in San Diego, California and graduated with a BA in Art with a 3-dimensional emphasis from San Diego State. After a break for work and raising a family Sally began woodturning seriously in 2001. Sally loves making lidded containers (including her signature Sea Urchin Boxes), bowls, embellished pieces and wooden jewelry.

Her work has been honored with awards at a number of shows and she has demonstrated woodturning at many woodturning clubs and at a number of regional and national symposia.

She is a member of the San Diego Woodturners Association, American Association of Woodturners, Point Loma Artists Association and Spanish Village Art Center in San Diego. Her work is shown at Studio 38 in Spanish Village.

[<Link to List of Demonstrations>](#)



### TRENT BOSCH

Trent Bosch has been focused on woodturning professionally for more than 30 years. Over the years he has enjoyed many facets of this medium, from production woodturning to sculptural one-of-a-kind pieces to demonstrating and teaching hands on classes. More recently he has devoted more time to developing, designing and manufacturing unique tools for woodturners, as well as fostering the growth of his artistic children. Trent has taught and demonstrated his techniques for turning and sculpting wood throughout the world. To learn more about Trent you can visit his website at [trentbosch.com](http://trentbosch.com) or [trentboschtools.com](http://trentboschtools.com).

[<Link to List of Demonstrations>](#)



### KAILEE BOSCH

Fort Collins, Colorado

Phone: 970-881-3998

Email: [boschkailee@gmail.com](mailto:boschkailee@gmail.com)

Website: [kaileebosch.com](http://kaileebosch.com)

Social Media: @kailee\_bosch\_art on Instagram

Kailee Bosch is from Fort Collins, Colorado. She has a BFA in Sculpture and Pottery from Colorado State University. Her practice stems from a background in woodturning, growing up in her father's shop making small objects on the lathe. She is known for her paper turnings and is currently interested in focusing on blending wood and bronze, making both functional objects and speculative designs.

[<Link to List of Demonstrations>](#)



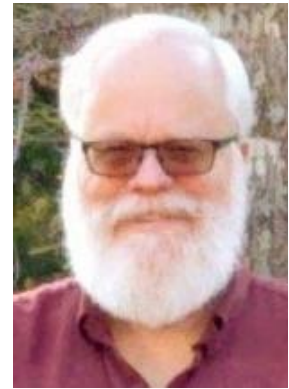
## KELVIN BURTON

Van, Texas

Phone: 903-780-7590

Email: [kelvin@burtonclan.us](mailto:kelvin@burtonclan.us)

I grew up in Napier, New Zealand after moving from KY at 4 years old. My first exposure to turning was in my early teens when I discovered two woodturners working next door to my Dad's Home Building Joinery & Framing workshop. They let me try my hand at a few bowls when I was supposed to be clearing sawdust and offcuts from Dad's workshop.



My second round came about 10 years later when my wife and I were building our first house and wanted some finials for curtain rods we had made from 1-1/2" dowel. Since buying them was outside of our budget I fabricated a very basic spindle lathe with 1" square tube and various parts I either made or found.

Go forward another 35 years to 2009 when we were visiting family and travelling around New Zealand and I stumbled across a woodturner at a craft mall who, when I expressed interest in what he was doing, replied "don't leave it too long". I took his message to heart and on my return to Texas discovered East Texas Woodturners, attended a club meeting as a guest and a few weeks later bought a lathe that a member had for sale. As they say, "the rest is history".

I like to attempt pieces that challenge me but also make a lot of bowls as gifts. I've met many turners during our travels to see family in New Zealand and Australia and carried many pounds of wood in my case! I turn on a Powermatic 3520B (my 3rd lathe). I avoided pens and bottle stoppers for years but eventually relented as they make nice gifts. If I have anything that could be considered a signature style it would be square winged bowls as I have made several variations using a variety of woods. My favorite bowl style involves rolled over rims, doughnut style, that are fully undercut.

[<Link to List of Demonstrations>](#)

## RICK CANNON

Memphis, Tennessee

Phone: 901-428-2040

Social Media: Rick Cannon/RixWoodWurx on Instagram and Facebook

I have worked with wood most of my life. When I was young if something wooden in our home broke, we repaired it, mostly out of necessity. But, I remember using the tools and the process. I found out, in those days, that wood working was taught formally in the schools. Cool! I took every advantage of the opportunity.



I found that knowing how to use the tools and repair things was very useful. I also used the shop and tools to balance my "real job" life. After a long shift in the refinery, it helped me relax. I gained formal training on the lathe through our local club and Arrowmont. This craft/art school in Gatlinburg, Tn. would bring world class wood artists in and we could learn from them.

I've turned most anything on the lathe, from pens to segmented urns. I've "evolved" into a sculptor, of sorts, with the process starting at the lathe. When the work, mostly wood, is removed from the lathe I begin the process of carving and coloring it. I use most any tool that will do the job.

I have found that sometimes the goal is simply to leave only enough material to complete the thought of the piece. I still find a special satisfaction in working with the tools and material. I enjoy the challenge of



taking a thought and then creating something resembling that thought that you can hold in your hand. This puts a smile on my face. And after all, smiling is good.

[<Link to List of Demonstrations>](#)

## JAMES CARTER

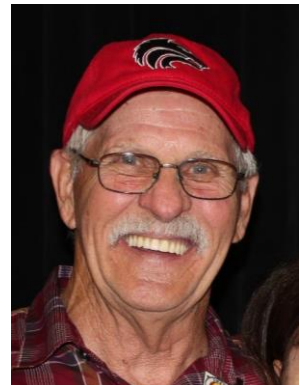
James grew up watching and helping his grandfather in his power carving and lapidary craft business. He took up power carving in 1991 and enjoyed the creative outlet. James did power carving mostly for gifts and commissions until the drills died in 2004. In June 2006... James; received a lathe from wife for his birthday. Fast forward through Seven years of YouTube tutorials, trial and error, and a whole lot of tenacity; when one winter day he visits his first Embroidery Seminar. It was there, he realized his calling. Stitch in Turn was born of the idea that quality, hand-made embroidery tools should be affordable and accessible. Since that fateful day in 2013, Woodturning has become James's only occupation. His passion for the art and skill of woodturning is evident in every piece he creates; his work has been showcased in numerous publications from around the world, and he's actively working to help foster the next generation of craftsmen by building a woodturning school in Floresville, Texas.



[<Link to List of Demonstrations>](#)

## BUDDY COMPTON

I spent 33 years as a teacher, coach, principal and superintendent in the public schools of Texas. Upon retirement in 2002, I was looking for something to keep me busy. That is when I became enamored with the lathe and woodturning. As my interest grew, I joined AAW and became a fan and supporter of SWAT. I served on the Executive Committee of SWAT for 5 years and served as President in 2016.



My mentor in learning this skill has been an old friend, Larry Roberts, who is a master turner.

I work with all woods, but my preference is mesquite. My pieces vary in shape and design which are dictated by the wood type, size and defects such as cracks, knots and bark inclusions. My goal is to turn pieces of high quality that will fit well in any gallery.

None of my turnings are the same, as no two pieces of wood are the same. Designing an ideal piece from a raw piece of wood is the continuing challenge that calls me to my shop each day. My work is available at Wood's Boots in Colorado City, Texas, and on my website, [www.woodturningsbybuddy.com](http://www.woodturningsbybuddy.com).

[<Link to List of Demonstrations>](#)

## DELBERT DOWDY

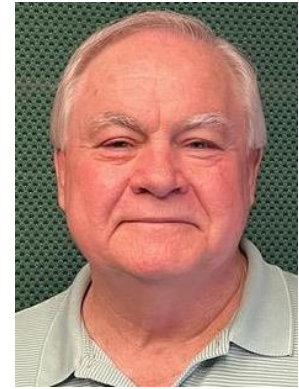
Email: [ddowdy50@gmail.com](mailto:ddowdy50@gmail.com)

Delbert Dowdy taught Physics at Texarkana College for 44 years. He loves to teach woodturning. Delbert has been turning for about 30 years.

Delbert mostly turns segmented work. He loves the ability to combine different colors, shapes, and grain patterns into vessels that can be made any size you want. His desire is to make turning easier and quicker so that it is more fun.

Delbert's work has appeared in three galleries. He has sold items at numerous craft fairs. Delbert demonstrates frequently at home club, has demonstrated at 5 different regional clubs, and has demonstrated at SWAT several times. He was President of SWAT in 2011.

[<Link to List of Demonstrations>](#)



## RON ENGEL-WILSON

I have been working with wood most of my life. I started out making my own wooden toys before I started to school. I cannot remember a time that I did not have a pocketknife in my possession. I turned my first pieces on my boss's lathe when I was in high school, they were a set of tool handles for a set of carving tools I had made from discarded hay rake tines, I still have them and still use them some 60 years later. I bought my first lathe some 25 years ago and as they say the rest is history. I really did not understand the finer aspects of woodturning until I saw a demonstration by Richard Raffin in Phoenix, AZ in the late 80's. He was the most amazing wood turner; I have strived to accomplish some of things he has done on the wood lathe. I keep trying new things, but I keep coming back to the fact that I enjoy turning utilitarian wooden objects. I like simple shapes, with flowing lines and balance. The feel of a piece is important to me, if it does not feel good it probably will not look good. I have turned over 1800 signature pieces and hundreds of non-signed pieces.

I am involved in the community and have been a Forest Heritage Center Museum Board member for 7 years and a member of the Southeast Oklahoma Woodturners since its creation. I have done many woodturning demonstrations for various clubs and events.

[<Link to List of Demonstrations>](#)



## DENNIS FORD

I did a little bit of wood turning in high school shop. Built my first lathe a few years after graduating from college and have been turning and making tools ever since then (I also have several factory-made tools). I am a member of East Texas Woodturners. During SWAT, I am most likely to be found in the Art Gallery.

My woodturning varies across an array of styles from production spindle turning to art pieces. Many of my hollow forms are based on either Southwestern pots or Greek vases. I don't limit myself to those but seem to come back to them. The natural beauty of wood and the shape are my primary focus although I use surface enhancement on some pieces. I like to experiment with shapes and techniques and believe "willing to fail" is a good thing.

[<Link to List of Demonstrations>](#)

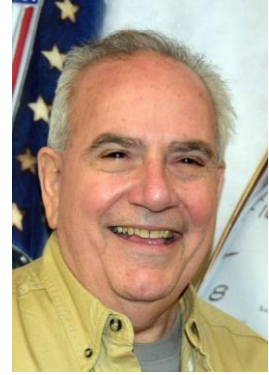


## BARRY GROSS

Barry Gross started creating his fine writing instruments over 20 years ago working with exotic woods. Since then, he has moved to working with resins to create his one-of-a-kind fine writing instruments. He is a published author of six books on turning and pen making and has published over 70 articles for several woodworking magazines including Fine Woodworking.

In 2010 he won a Readers' Choice Award from Pen World Magazine for his Watch Parts Pen. In 2012 he was a double Niche Award finalist and was commissioned by the White House to make pens for foreign dignitaries by former Vice President Dick Cheney. In 2014 -2015 he was accepted as a member of Who's Who for outstanding achievements in the field of woodturning. For the past 15 years he has been a featured demonstrator for The Woodworking Shows and has demonstrated for the National and Regional AAW sponsored events.

[<Link to List of Demonstrations>](#)



## ANTHONY HARRIS

Overland Park, Kansas

Phone: 913-648-2027

Email: [anthony@acmewoodturning.com](mailto:anthony@acmewoodturning.com)

Anthony Harris started turning in 1969 and is self-taught. He started making furniture and turning in commercial shops in the late seventies. He went free-lance in the early nineties and has turned, taught, and demonstrated professionally since.

Born in Kansas City, he lived in Colorado for seven years, but never learned to ski, and is now safely back in Kansas on flat ground. He has traveled extensively in the Far East and lived in Japan for four years.

Repetition is good for learning and earning money, but Anthony revels in turning untried objects or materials. Except for with tobacco pipes, where it is de rigueur, he doesn't carve, embellish, paint, stain or glue if it can be avoided.

Hand-chasing threads caught his attention some twenty years ago after watching Bill Jones and Alan Batty demonstrate in symposia. Anthony now says that you can chase a thread in almost anything from sweet potatoes to soft metals and stone on a wood lathe. Balsa wood won't take a thread no matter how hard you try, but you can chase a thread across a void in the material if you are careful. Complex objects that can be taken apart and reconfigured are good exercises in imagination and don't have to be dusted as much as a lot of turnings.

Anthony doesn't have an artist statement, but does have a woodturning statement. Turn something new. Keep turning it until it works. Then turn it some more until it looks good. Anthony doesn't make a lot of money.

Anthony makes a lot of boxes, loves to turn in multiple axis and eccentrically. He turns a lot of reproduction and architectural work.

Some of his turnings have been displayed in various museums including the Nelson-Atkins Museum of Art, the National Museum of Toys and Miniatures, and The National Craft Gallery in Ireland.

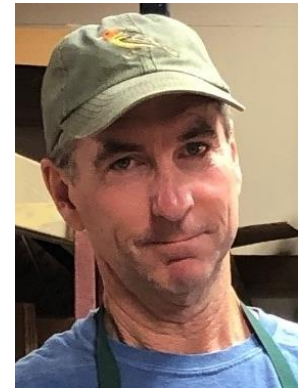
[<Link to List of Demonstrations>](#)



## MIKE MAHONEY

I've been a professional woodturner for thirty-five years. My production work was mainly salad bowls, burial urns, platters, plates, and other utility items. I am passionate about my craft and educating the public about woodturning. My work is designed to last a lifetime. I use wood that I harvest from urban sources that matches its utility.

[<Link to List of Demonstrations>](#)



## DENNIS PAULLUS

I'm a Woodturner and Sculptor. I started this journey in 1996, a slow start but quickly learned the basic and fell in love with the process of producing Art from recycled trees.

I make Functional and sculptural work. It is very powerful to make functional work beautiful. I find invoking emotions with my work is very satisfying.

The simple and even extraordinary embellishments can be made with surprisingly basic tools and techniques.

As a professional Woodturner I have turned many, many bowls and vessels, many hundreds of Boxes. Boxes are the very first projects I turned on a lathe and one of my favorites.

As I continue to share my techniques through demonstrations and teaching students one on one, I find that my passions have not dimmed but burn ever brighter.

[<Link to List of Demonstrations>](#)



## TOD RAINES

Personal Email: [tod@ntrwoodturning.com](mailto:tod@ntrwoodturning.com)

Personal website: <https://ntrwoodturning.com/>

Work email: [tod@woodturningtoolstore.com](mailto:tod@woodturningtoolstore.com)

Work website: <https://woodturningtoolstore.com/>

I started woodworking in the early 1990's making furniture and built-in cabinets for our home. I bought my first lathe in 2002 and was self-taught for the first couple of years. I read a lot of books including many by well-known turners from around the world. Online videos were also a big help – although I caution people today that some of these videos may show unsafe ways of turning. I had my share of failures but I find that the 'process is the journey' of discovery and new ideas, techniques and skills are born from these failures. I got involved with the Dallas Area Woodturners club (an American Association of Woodturners affiliate) which was a big help. Through the club and its many members, I learned and grew a lot as a turner. In 2016, I became the treasurer of our club and will likely move on to other positions within the club. I attended national and regional woodturning symposiums that widened my turning knowledge and well as my community. Woodturners are friendly and helpful people and are all willing to share and collaborate which makes it a close community. In April of 2017, I started Woodturning Tool Store, an eCommerce business selling woodturning tools.

Over the years I have attended turning classes taught by Al Stirt, Don Derry, and Jimmy Clewes and others. These classes and training really helped with my tool and turning skills but just as important I





acquired knowledge about form, function and how the wood grain and texture guides the turning decisions.

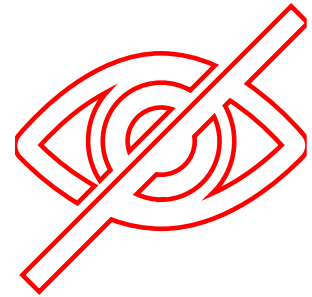
I enjoy the process of turning and I use a mix of planning and serendipity as the creative process evolves. Since woodturning is a subtractive art form there needs to be some planning involved along with knowledge of the natural medium and its tendencies. It is the unknown and spontaneous nature of working wood that intrigues me but also the process of how to get to the final piece. I enjoy showing others this craft and enabling their wonder in what is hidden within the wood.

[<Link to List of Demonstrations>](#)

## JASON ROSE

Jason Rose, from Ohio, has been turning for 14 years and casting for eight. Jason teaches classes at his local Woodcraft store in Parkersburg, WV, and travels to Columbus, OH, to teach and lead turning, casting, and scrollwork demonstrations. He has also taught classes at The Makerspace and other various places in his local area. Jason is also the Mid-Ohio Valley Pen Turners Gathering organizer in Vienna, WV. Jason is best known for his historic embed blanks covering historical military events, sports, movie, and music memorabilia.

[<Link to List of Demonstrations>](#)



## MARTIN SABAN-SMITH

Martin Saban-Smith is a registered professional turner from the United Kingdom. He is well known for his social media presence and as being the developer of the Hampshire Sheen range of finishes and the founder of online turning club Woodturning360. He also runs a woodturning supply shop with Les Thorne. His turning is generally artistic and creative in nature, generally involving the use of colour and texture. For his debut presentations for SWAT, he will be examining a specific set of rules for bowl forms and the application of colours by hand and finishing techniques. He has demonstrated across the UK, Europe and visited the Kansas City AAW seminar a few years ago. Early in the COVID pandemic, Martin embraced and lead professional take-up of remote demonstrations in the country.



[<Link to List of Demonstrations>](#)

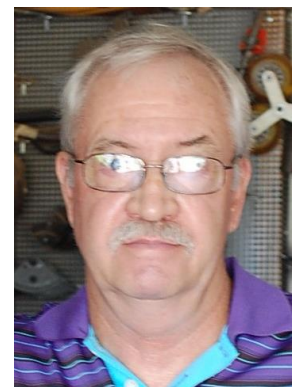
## GARY SANDERS

I am a retired firefighter from Greenville Texas and began turning professionally in 1993.

I have had work in several juried turning exhibitions and have work in museums and private collections I have demonstrated around the United States and Australia and have taught at craft schools and local turning organizations. My work has been in several publications and I have written an article for American Association of Woodturners.

Over the years I have changed my style of work and am currently working with plywood and veneers.

[<Link to List of Demonstrations>](#)



## CHAD SCHIMMEL

Chad has been on the lathe for well over 20 years, first learning to turn in junior high school. In the last 10 years he has specialized in pen turning, resin work, and segmenting, leaving his corporate job in 2013 to sell his art full time, and in 2016 opening Turners Warehouse, a turning supply store in Gilbert, AZ.

Chad has been featured in Pen World magazine for his watch part pens, has had several local print and tv spots, sells his pens in a local artist collective, and for multiple years has participated in the largest art festival in the western united states.

Chad loves to teach about pen making and resin casting and loves to talk shop when he has the time, helping both new and experienced turners while continuing to grow his own skills. He has presented internationally for Record Power teaching about segmenting, and has done lots of local demos and classes.

Chad also has a Youtube channel with over 27K subscribers where he posts instructional and maker videos and is excited to be presenting at SWAT in 2022.

[<Link to List of Demonstrations>](#)



## GREG STEHLE

In 2021 I retired from a career as an Engineer and Lean Six Sigma Master Black Belt in the Aerospace, Automotive and Medical industries. I have been doing some form of woodworking since starting in my late teens in my parent's basement. Today I am blessed to have a good-sized, well-equipped shop thanks to the support of my wife Kathy.

Kathy actually got me started in woodturning in a serendipitous way. She had gone to Woodcraft to sign up for a scroll saw class and saw a flyer for WNT that said members received a 10% discount there. We were spending enough at Woodcraft to have a net benefit from the membership so she sent in the membership form. In the meantime, she signed up for a bowl turning class at Woodcraft, and shortly after we bought our first lathe, a Jet 16-42. Kathy started receiving the club newsletter, and come December 2014 we decided to attend the club Christmas party.

We were amazed at the pieces that were auctioned at the Christmas party, and we really enjoyed the fellowship, so we decided to start attending the meetings, with me as the spouse in tow. In July 2015 I joined the club, and haven't looked back. Since that time, I have taken in-person turning instruction at the Homestead in Elm Mott, from John Horn, Jimmy Clewes, Stuart Batty and Nick Cook. I have also attended numerous demos at SWAT, the annual AAW symposium, and online.

The demos and in-person instruction taught me something about technique, but viewing the galleries at SWAT and the AAW, and art shows and art galleries taught me about form and alternative materials. I saw my first segmented piece at SWAT and was so fascinated that I launched into creating segmented pieces with the help of Malcolm Tibbetts's book and videos. I happened to see a turned OSB piece at the Cottonwood Arts festival a few years ago, and although it was interesting, I thought I could do better. I bought a 4'x8' sheet of OSB from Lowes for around \$20 and started making bowls and hollow forms. Perhaps because of the Engineer in me I liked the idea of planning and building a piece up, as opposed to searching for the almighty big, monolithic, perfect piece of beautifully figured wood that would make my work look great!



Since starting segmenting and OSB projects, I have added urethane casting, and alabaster turning to my project materials. I still enjoy simple bowl turning, and recently have been working on expanding my knowledge and abilities with finishes.

I believe that if you really love doing something it is not a hobby, so when people ask me if I have any hobbies, I prefer to say I really love woodturning!

[<Link to List of Demonstrations>](#)

## CRAIG TIMMERMAN

After many years in the computer and software industry, Craig Timmerman has been a full-time artist and production wood turner since 2008. In addition to demonstrating and teaching at many AAW chapters, he has demonstrated at AAW Symposiums, numerous SWAT symposiums, the Utah Symposium, the North Dakota Symposium, and the Rocky Mountain Symposium. Craig has started the Armadillo Woodworks YouTube channel and is setup to do remote, interactive demos. He has been a member of the Central Texas Woodturners and the AAW since 2008.



He picked up woodturning over twenty years ago when he took a weekend class at a local store. After that weekend the wood working equipment in his shop ceased to be used for anything except woodturning. His specialties include non-round turnings, hollow forms, spheres, lamps, and production gift items. Many of his pieces combine multiple turnings and bent laminations. He works primarily with reclaimed timber accentuating the flaws by making them the focal point of the piece; often filling them with crushed stone.

Craig's work is in several central Texas galleries and can also be found on his website, [armadillowoodworks.com](http://armadillowoodworks.com). He has been married to his wife Tina for over 38 years and they live just outside Austin, TX.

[<Link to List of Demonstrations>](#)

## WAUKEENE VINSON

Cell: 361-815-5017

Email: [waukeenev3@sbcglobal.net](mailto:waukeenev3@sbcglobal.net)

My career consisted of working in refineries and construction; first as a Pipefitter, Welder, later as a Maintenance Planner. My main hobby was fishing. I was an avid fisherman and pursued it regularly anywhere we vacationed. Any wood working I did consisted of repairs and remodeling around the house or for friends and family. At some point I acquired a Shop Smith and began playing around with the lathe. In 2008 preparing for retirement, I joined a woodturning club. (Coastal Bend Woodturners, Corpus Christi, Texas) But when I retired in 2009, my time was spent remodeling the house and traveling with my wife. I still played with the lathe when I had time, in July, 2012 my wife bought me a 1624 Nova lathe. Everyone in the family got a turned pen for Christmas that year. I was hooked!



I began to attend woodturning symposiums and talk to other wood turners. This and trial and error made up the bulk of my early training. Wood turning videos from the club gave way to YouTube. As I gain experience, my woodturning education still relies on other woodturners and woodturning venues and videos.

I am now rewarded with the joy of mentoring, teaching and demonstrating the art of wood turning at other woodturning clubs and woodturning hands-on retreats.

[<Link to List of Demonstrations>](#)

## ANDI WOLFE

My career has been spent as a plant evolutionary biologist, but I have many interests beyond the work I do as a scientist. My science background has led me into an exploration of art - particularly in working with wood. I have also discovered the joys of painting, and the skills I've gained through the photography I use to document the plants I study have led to an exploration of many genres in photography. Two years ago, I began an exploration of glass and have incorporated glass into my woodturning practice.

The natural world offers many inspirations, especially when it is examined at high magnification. I am a botanist by day and a part time woodturner in whatever spare time I can glean from the week. My botanical training has served me well in my art practice.

In woodturning, my work has focused on the use of surface enhancements that employ botanical motifs. Some of the botanical inspirations are obvious. For example, I sometimes use a botanical print motif to illustrate various flowering stages of a particular plant, or I'll cover one of my turnings in maple or oak leaves. Other designs are less obviously botanical unless one is used to seeing plants at the microscopic level. I sometimes enhance a turning by carving a textural motif inspired from cellular structures of plants. For the past 15 years, I have been carving botanical designs into my turnings in 3D.

Experimentation is part of my design process. I view wood as a medium for exploration and not just a material that has a pretty grain pattern. I tend to use woods that are fine grained with subtle figuring so that my botanical designs become part of the whole vessel, complementary to the wood as opposed to a distraction to the eye. My goal is to enhance the surface so that the vessel becomes a three-dimensional canvas that entices the viewer to explore all aspects of the piece.

[<Link to List of Demonstrations>](#)

## LARRY ZARRA

Larry has been an avid woodturner since turning his first bowl in 1995. What started as a hobby quickly morphed into an artistic passion, pursuing perfection in design and excellence in the completed object. Over the past twenty-five years he has participated in a variety of juried art shows and has been selected numerous times as a regional demonstrator at the SWAT symposium. His work is currently represented at DaVinci Artists Gallery and other local venues. Larry is a member of the Houston based Gulf Coast Woodturners Association and The American Association of Woodturners. He has also published articles in the American Woodturner Journal.

While he is primarily self-taught, Larry has also benefited from participation in hands-on workshops with several world-class woodturners. During his woodturning career, he has turned over 1,500 bowls and vessels, and more than 10,000 spin tops. Larry is a recently retired earth scientist who worked in petroleum exploration and applied research.

[<Link to List of Demonstrations>](#)





# SOUTHWEST ASSOCIATION OF TURNERS (SWAT) HISTORY

The large regional woodturning symposium known as SWAT has quite a heritage. It got its start in October 1992, when a modest group of Texas turners decided to get together under some large live oak trees near the Colorado River in Columbus, Texas. They couldn't have imagined what they were starting. That was the beginning of what has turned into the second largest woodturning symposium in the world. That gathering became known as Texas Turn or Two and continued for ten years under that name.

The symposium was conceived and organized by a group of Texas turners who met at the home of Bob Rubel in San Marcos. Among those attending that get-together were Gary Roberts, Clay Foster, James Johnson, Larry Roberts, and Mark Potter. That gathering led to the idea that it would be great to have a regional woodturning symposium that could be attended by those who had neither the time nor the money to go to a national event. The four or five AAW chapters then in Texas got to work. The idea at first seemed likely to founder since no one could come up with a site that wasn't too expensive. A few days later, Mark Potter decided that he could move things around in his cabinet shop near Columbus and host it there on Columbus Day. The demonstrators agreed to demonstrate without a charge and the principals decided that if they could get 50 people, they would break even.

On the appointed day, folks began to wind their way down the dirt road a couple of miles outside of Columbus. Soon there were motor homes, trailers, pop-ups and tents scattered all around the area under the big live oak trees. The event was a success! They more than broke even, with approximately 80 attendees. The event returned to Columbus the next year, with John Jordan as the first invited featured demonstrator. By then it had outgrown Mark Potter's shop!

From 1994 through 2000, the Texas Turn or Two symposium was held at Maricopa Ranch RV Park west of New Braunfels, near Canyon Lake. Eventually, attendance became so large that just accommodating everyone at the demonstrations was a major challenge. Add to that a ferocious rainstorm that very nearly swamped the event in 2000, with cold rain blowing in under the demonstration tents and falling into the dining tent and tent where the vendors had their wares to sell, mainly iron.

It became obvious that larger facilities would have to be found, and the event moved to San Angelo for the 2001 Texas Turn or Two. In 2002, the symposium was reorganized as the Southwest Association of Turners and held its annual symposium in Wichita Falls. Both the name change, and the location were undertaken to make the event more accessible to woodturners from nearby neighboring states. In 2004, the event was moved to Temple in central Texas, to be more accessible to its Texas membership base. The event returned to Wichita Falls in 2005.



The Fifteenth Annual SWAT Symposium, now sponsored by eighteen woodworking clubs in Texas and Oklahoma, was held in Temple in 2006. This was the largest and most successful gathering yet, with some 580 attendees. The large number of attendees and number of demonstration rotations had to be held in two separate buildings. This also pushed the limits that the facility could handle.

The sixteenth annual SWAT Annual Symposium moved back to Wichita Falls, Texas in 2007. Our association now included 22 woodturning clubs in Texas and Oklahoma. The event featured six lead demonstrators and twelve regional demonstrators with a total of 58 demonstrations over the run of the symposium. The symposium was now drawing attendees from Alabama, Arkansas, Arizona, California, Colorado, Florida, Illinois, Kansas, Minnesota, Missouri, Mississippi, Nebraska, Oklahoma, Tennessee, Texas and Washington who came to enjoy the three-day event. That year we ran into space problems in Wichita Falls and need to look into larger facilities.

The Waco Convention Center became the site of the seventeenth symposium in 2008 and has been our home since. The first year in Waco, the attendance was 582 attendees. The symposium offered the largest group of vendors to date, totaling 25. The Instant Gallery was very successful with the added attraction of a Gallery Drawing that was well received. The slate of national leads was the largest number offered in the history of SWAT. The larger convention center allowed growth in attendees and a larger group of vendors. By SWAT's 25th anniversary in 2016, we reached a new record with more than 1,000 attendees and 78 vendors to take care of every woodturner's needs.

Several things make SWAT symposiums attractive. SWAT features world-class demonstrators and an outstanding gallery of art. The registration fee, including lunches, is one of the lowest in the nation. Lunches are included in the registration fee and receive rave reviews from attendees. There is also a Saturday evening banquet. There are classes and activities for the spouses and a large number of quality vendors.

Another popular item is our 3-for-1 Raffle. It is one raffle that has three drawings, with the drawn tickets returned to the bin before subsequent drawings. During the Friday opening ceremony, we will be giving away a Midi lathe and an Arrowmont scholarship, including travel expenses. The second drawing, at the Saturday evening banquet, features about 30 quality pieces of work donated by invited turners. The third drawing, after lunch on Sunday, is for tools, wood and equipment, including over \$5,000 worth of tools and the grand prizes, 3 Variable Speed Midi lathes and a full-size Lathe can be won. In 2022 the full-size lathe will be an American Beauty lathe from Robust Tools. For the price of one raffle ticket, everyone has a chance of winning any prize at any of the three drawings.

In 2021, SWAT was the only major regional woodturning symposium held live in the United States with over 800 attendees.

SWAT also supports the Beads of Courage program and in 2021 our attendees donated 419 Beads of Courage boxes which were all displayed in our Instant Gallery and then subsequently donated to various Hospitals.

2022 will be the 30th SWAT symposium and we are looking forward to having an exciting experience meeting old and new friends.