

Minnesota Wood Turners Association

A LOCAL CHAPTER OF THE AMERICAN ASSOCIATION OF WOODTURNERS
Volume 2016 No 4 Rev 1
April, 2016

AAW | AMERICAN ASSOCIATION
OF WOODTURNERS



Jerry Ritter expounds on small scale turning. The piece in his hand is used in needlework. It is made from the wood in the chuck by the special small tools on the lathe bed. He makes the tools himself.



Minnesota Woodturners Association
Board Members

Officers

President

Rich Auge
rauge2003@gmail.com
(651-332-1566)

Vice-President

Fred Kogler
kogler@comcast.net
651-283-9876

Treasurer

Mark Debe
mkdebe@icloud.com

Secretary/Webmaster

Janese Evans
janese.evans@gmail.com

Members at Large

Program Director

Linda Ferber
linda@garber.org

Librarian

Gar Brown
garfield.brown59@yahoo.com
763-757-0696

Membership Coordinator

Ken Crea
MWA-kencrea@q.com
(651)-633-3271

Member At Large

Ed Mielech
edmielech@gmail.com
651-332-0197

Newsletter

Pete Bryant
kabplb@comcast.net
763-242-3234

Member At Large

Neil Robinette
neilka@embarqmail.com
763-639-1085

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IV. Monthly Meetings

A. April Membership Meeting

The April meeting was packed! Some attendees had to stand in the back!



There was also a lot of wood and some good tools for the raffles.



IV. Monthly Meetings

A. April Membership Meeting

1. DNA Drying (Gar Brown)



In an earlier meeting, DNA (denatured alcohol) drying of green wood was briefly mentioned. This prompted much discussion regarding the positive and negative issues with such drying. Gar Brown has done considerable DNA drying and volunteered to share his experience in a short presentation on the process at the start of the meeting

Gar has found that simple air drying over time is a long process and that microwave drying is something that requires too much attention. Boiling dry hasn't proven the best for him either. However, he has found that DNA drying is the most convenient.

Gar has worked with wood having wall thickness of at least a half inch. In practice, the wood is immersed in DNA in an open container and the DNA soaks into the wood and mixes with the water. The water/DNA mixture is carried out of the wood by evaporation fairly rapidly drying the wood quickly. The time for this varies with the size of the wood, but a small bowl would take at least two hours. Excess immersion time is not an issue. After immersion, the wood is allowed to air dry for a short time and then placed in paper bags without any wood chips. Gar leaves them in the bag for 7-10 days and then finish turns the wood.

Gar stores the DNA in a covered container between uses. He has noticed no performance variation occurs when the same DNA is used repeatedly. From time to time, he adds DNA just to maintain level. He notes that DNA can be purchased for about \$10 per gallon.

Gar was asked if the DNA process reduced cracking and warpage. He commented that he did not have a good answer. He noted that all drying will induce cracks and warpage, and he has



not compared performance to other methods. He selected this method largely for time and convenience.

Gar has found out that a five gallon bucket with a snap on lid works best for both immersion and storage of the DNA. Glen Hambleton is shown with the bucket that Gar uses in the photo below.



IV. Monthly Meetings

A. April Membership Meeting

2. Main Presentation: Scraping and Sanding (Mark Palma)



Mark began his presentation with some turning tips he has found helpful.

1. Use glide coat spray on drill bits to keep them cool.
2. Use a long handled snow brush for getting to hard to reach saw dust.
3. Use a cleaning pad for shotgun barrels to polish.
4. Use your calipers regularly.
5. Use a non abrasive pad from 3M to clean and burnish as a final finishing step



Sanding and scraping are two means of surface refinement that are often treated lightly by woodturners. Mark believes that these two tools can be life savers in certain instances and are well worth learning. He recently wrote an article for the American Association of Woodturners entitled “Sanding and Scraping” that points out uses and tips in these areas. This presentation is an outgrowth of that article.

Mark first addressed scraping noting that scraping can

- 1. Remove wood quickly**
- 2. Refine a shape**
- 3. Clean out a tight corner or shallow line**
- 4. Remove endgrain for endgrain hollowing**
- 5. Clean out the “nub” out of the bottom of a bowl**
- 6. Clean out the bottom of a box, bowl, or vessel**
- 7. Shear-scrape a bowl**
- 8. Hollow out a vessel**

Mark demonstrated the best methods of holding the scraper. He noted that a single edge scraper should be used with the cutting edge below center (handle above center) and the negative rake scraper should be used with the cutting edge on center (handle level).

Most single edge scrapers are sharpened to an angle of 30-40 degrees to provide some relief under the cutting edge with a good amount of steel supporting the cutting edge. It was noted that the edge can be with or without a burr. Mark prefers a single edge scraper with a burr even though the burr does not last very long. When the scraper produces dust, sharpen it.

A negative rake scraper is less aggressive and seems more forgiving and controllable. In many ways, it is similar to a skew.

In general, scrapers can accomplish a cut that is problematic with a gouge. They are also “catch friendly.”

Remember that scrapers can be used for rapid wood removal as well as shape refining.

Scrapers can do some jobs with remarkable efficiency. This includes cutting a dovetail groove for chuck jaws and getting into tight area. Mark encourages thinking of scrapers with special shapes when one encounters difficult turning tasks.



In considering sanding, Mark likes to think of sandpaper as a system consisting of an abrasive bonded to a substrate. Various abrasives, bonding agents, and substrates can be used to create a wide variety of sandpapers each of which is suited to certain conditions. For example, abrasives can be garnet (color code brown), silicon carbide (color code black), aluminum oxide (color code white), ceramic (color code blue), etc. and abrasives can be accompanied by a sterate which is a dry lubricant to prevent clogging. The abrasive may also be applied in various “open coat” configurations which also reduces clogging and increases life. Similarly, wet sanding may assist in flushing out saw dust and reducing clogging. The substrate can be various thicknesses of cloth, foam, or grades of paper (black, gold, etc). Aluminum oxide/paper substrate is a good general starting point. Refer to the options available on the internet when this doesn’t work well.

Mark also notes that there is both an American system and a European system for grit size. The European system contains a “P” notation for the grit. Refer to the internet for tables that reference the comparative grading.

Once a sandpaper has been selected, Mark provides the following tips for the sanding process.

1. Use a dust mask with two rubber bands.
2. Get the tool rest out of the way or even take it off the lathe.
3. Think about sanding as refining scratches. Each scratch is a “hump” and a “groove.” Think of it as an LP album. You are trying to level out the whole surface.
4. When starting to sand, reduce the speed to 50% of the cutting speed. When sanding above 220 cutting grit, reduce the speed even more.
5. If the sandpaper cakes, reduce the speed more yet.
6. If the sandpaper starts to clog, tap/flick it with your finger to clear it. Cleaning with a cleaning stick extends life as well. Keep a cleaning system right next to the lathe for ready use.
7. Look for low intensity areas in the dust cloud when you sand. This might point out a low spot.
8. Frequently stop and inspect your work. Find the worst place and decide how to proceed. Recut if necessary. The worst problems to deal with are deep vees and tear outs.
9. Buy quality sandpaper.
10. If the paper warms up in your finger tips, throw it out.
11. If there is anything that appears questionable with the sandpaper, throw it out.
12. Keep a trash basket at your lathe so that it is easy to throw out the sandpaper.
13. Use 3M scotch brite at the end of the sanding process to clean and burnish in place of steel wool. Steel fibers are bad to have around a lathe, in tapers, etc.
14. When power sanding, use low force.
15. Power sanding speed is limited by how fast the sandpaper can clear dust.
16. Backing pads for disc sanders provide access to inside bowls and tight corners.



17. 6" PSA (pressure sensitive adhesive) discs are Mark's favorite for hand sanding on the lathe. They provide a hard, sharp edge (the fold) and a soft edge (the ½ round). They also provide two sides. Mark uses one side at a time.
18. Write the grit size with magic marker on the back of abrasives to keep them straight. Hold them in order with an office binding clip.
19. Starting with power sanding in the rougher grit sizes does not mean that you have to keep power sanding in the finer grits. Mark often switches to hand sanding over 180 grit.
20. If you want to cut down on dust, you can dip your abrasive in wax and sand with the wax.
21. Don't use foam backed abrasive.
22. Remember that some of the best times in life are spent in your shop. Don't hurry the process. Just enjoy it.

IV. Monthly Meetings

A. April Membership Meeting

3. Beads of Courage



There were some nice submissions to the Beads of Courage program. Please continue to provide bowls and toys in the coming months.



IV. Monthly Meetings

A. April Membership Meeting

4. Instant Gallery



Todd Williams and Ken Hallburg discuss Mark Debe's work.



Close up of Mark's Instant Gallery Submission. Finished with Minwax tung oil. (Done in Rudy Lopez class)



There were some very good pieces in the rest of the instant gallery as well.



IV. Monthly Meetings

A. April Membership Meeting

5. Members Challenge

The April Challenge was a gavel



Dan Larson took first place. Magnets were cleverly placed in the gavel and pad.



Glen Hambleton took second prize.



Rod Nelson took third prize.





Paul Anderson took fourth prize.



Eric Koslowski took fifth prize. Being a Viking fan, he arranged the Packer emblem to take a frequent pounding.





Ken Hallberg took sixth place.

Linda Ferber was seventh



Bill Campbell, Paul Laos, and Steve Mages were 8, 9, and 10 left to right respectively.



IV. Monthly Meetings

B. Area Meeting

The Southwest Area Group met at the Lone Star Grill for a social luncheon instead of the usual meeting in someone's shop. There were 15 happy people in attendance-12 shown below.



V. Chapter Classes

A. Miniature Turning



Jerry Ritter began turning four years ago when his doctor told him that he needed a hobby. His wife's needle work club needed small tools to hold threads in place when embroidering. He started doing miniature turning on such tools for his wife and soon was selling the tools at needlework craft shows. He has expanded into jewelry, doll house furniture, and hair sticks since then. He uses special tools for turning small pieces. This class is was his first in the MWA and was thoroughly enjoyable.



Jerry said that the purpose of this class was to develop techniques for turning small pieces. Some of the tools that he has made are shown below.

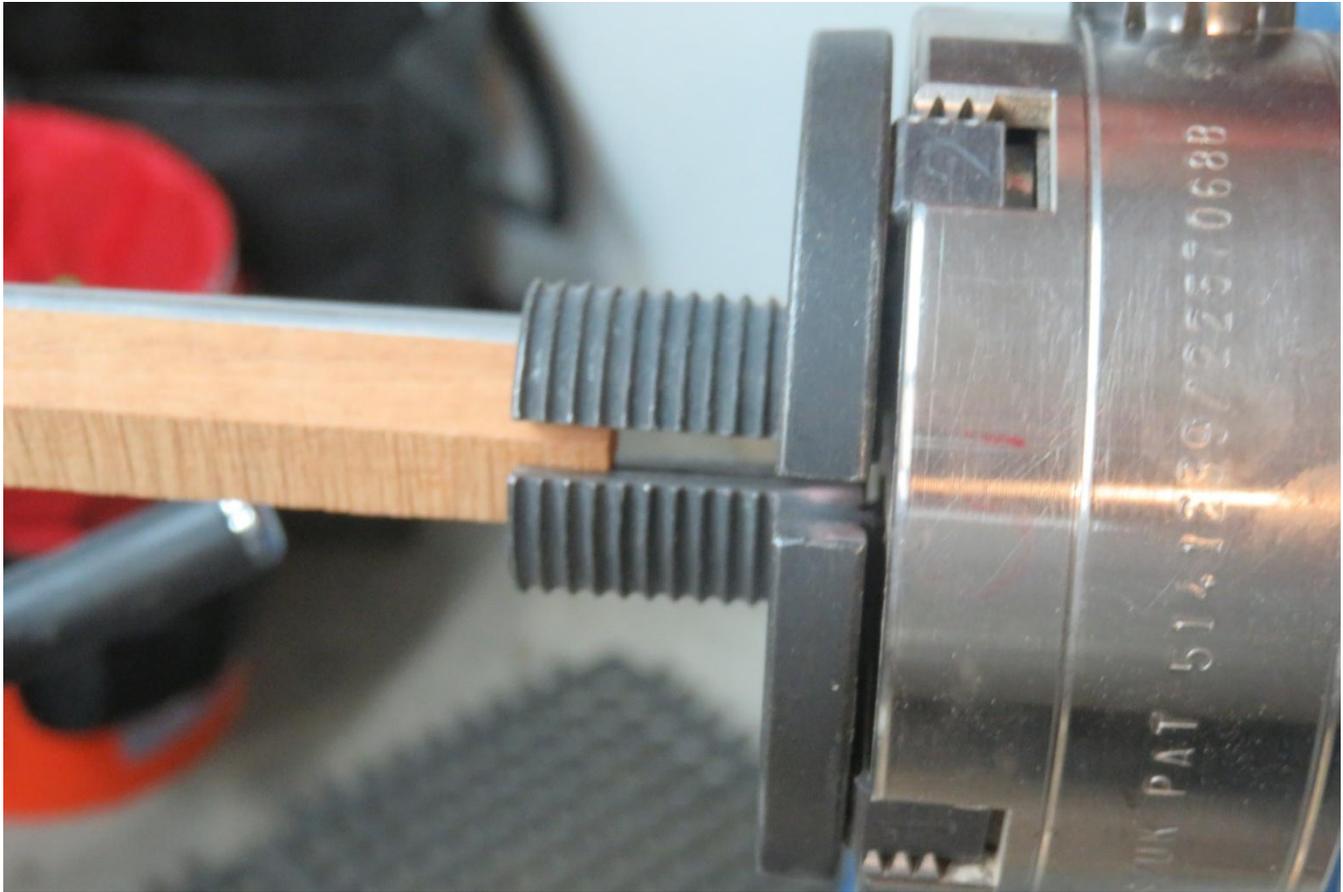


The tools are described below going from left to right

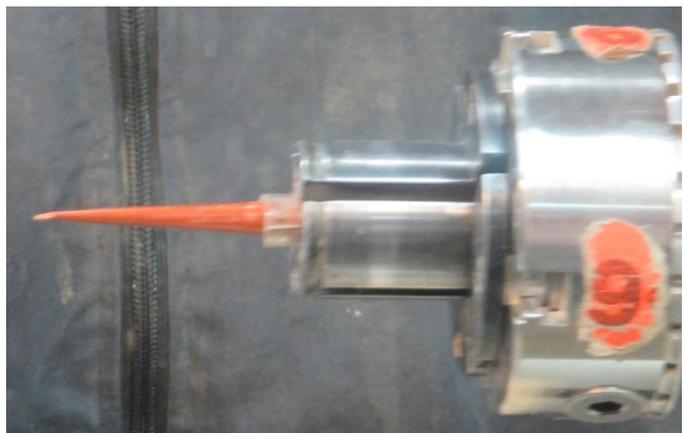
- 1. A skew ground from a chistle**
- 2. A hollowing tool make from an allen wrench.**
- 3. A carbide tool make from an EZ tool replacement bit and a screwdriver handle. The tool is glued onto the handle. Jerry sharpens this on a diamond plate.**
- 4. A gouge made from a drill bit.**
- 5. A cut off tool made from a sawsall blade.**
- 6. Another gouge made from a drill bit.**
- 7. A bedan made from square stock of tool steel.**

Jerry has developed special techniques to hold small pieces as well. For example, he finds that he gets less breakage when parts are held in the chuck as shown below.





He also finds that he can hold small spindles in chucks on center in plastic tubing and without marking them as shown below. The id of the tubing is the same as the od of the piece.



For cut off operations, Jerry has found the following air driven saw from Home Depot most effective-even better than a Japanese saw.



**Jerry loved to share each trick.
Class Left to right: Jon
Kuenstling, Duane Hang, Steve
Miller, Jerry, Colleen
Schneider, Dick Hicks**



**And the class loved to learn.
Left to right: Jerry, Kerry
Anderson, John Kuenstling,
Steve Miller, and Duane
Hang.**

Then the class got around to doing their own miniature turnings.





Jon Kuenstling, Duane Hang, Steve Miller, and Colleen Schneider (Left to Right above) start a laying tool and Kerry Anderson inspects her work, Steve Miller roughs out a slender spindle, and Dick Hicks shows you can turn miniature with large tools (Left to right below) .



They got some pretty nice results.



V. Chapter Classes

B. Turning Spindles

Tom Gulcher is a full time architectural spindle turner with a great set of skills. He started class by showing how to duplicate spindles such as those found in stair railings. It consists of turning to the maximum diameter and length of turning and then using calipers to establish diameters along the turned length. It is very helpful to have a finished piece in front of you as you turn.



Tom Gulcher demonstrates spindle duplication to (Left to Right): George Martin, Tom Gulcher, Jon Kuenstling, Dick Hicks, and Roseanne Gold

Richard Hicks brought in a picture of the cap for a newel post. Tom demonstrated how to turn it.



Then the class did some nice spindle turning of their own.



