

Minnesota WoodTurners Association

A LOCAL CHAPTER OF THE AMERICAN ASSOCIATION OF WOODTURNERS

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Al Stirt Explains How To Mount Blank for a Balanced Grain



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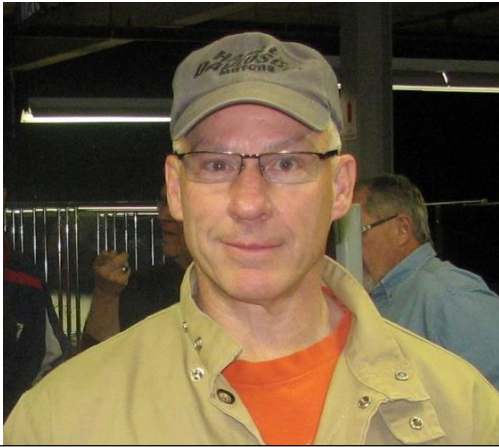
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Editors Note: The Board intends to place all schedule items on the new website calendar and nowhere else. As such, some schedule items have been removed from this newsletter. Please go to the website for all schedules.



III. President's Message



UPCOMING CHANGES

BOB MEYER has taken over the role of being shop class coordinator. Bob is asking members to share their skills with other members. Often when a member is asked to teach a class, the response is, "I really don't have anything special to offer." The reason we ask is that we recognize the person's talents and know they have something to offer. Teaching is a wonderful way to learn for both student and teacher. If you are willing to try teaching in our shop class program please contact Bob at jmbobco@comcast.net

Presidents Challenge is now the Members Challenge. **STEVE MAGES** is taking this over in its entirety. Members submit your challenge ideas to Steve at smages@juno.com Steve will draw those ideas and set up the challenge schedule.

WEBSITE: The main page of our website has a calendar drop down menu. Items are listed by oldest first. So if you use the drop down menu, be sure to scroll down to see the nearest upcoming events.

CLASS REGISTRATION THROUGH THE WEBSITE

If registration is open and you are able to register that means there is room in a class and you are in. Otherwise the class is full. Specifically, if you cannot register and the pay pal icon is not showing, it means the class has filled. We will also try to be prompt in adding a notation that the class has filled.

NEW FREE CLASS.

Fred Kogler suggested that since tool sharpening is the start of turning and that our goal is in developing the talents of our members, we should give each new member a free sharpening class. Accordingly, the board discussed, agreed and approved that there be one free sharpening class for every member.

MISCELLANEOUS

Al Stirt was a big success, we had two new turners who mentioned that they were apprehensive about it being over their head. Both were pleasantly surprised, mentioning they learned a lot and were very happy they had decided to take the class. I also learned from Al to season my cast iron pans with Canola Oil. It works great. You never know what you are going to learn.

Due to Al being here I met **Ruth and David Waterbury**. The Waterburys have put together a publication titled "Conversations With Wood." This is truly an inspirational collection giving you the ability to study the form and style of some of the most popular Woodturners over the past 40 years.

Mike Hunter has set up two professional turners for next year. They are scheduled for March and September. Registration is not open for either class at this time.



IV. Monthly Meetings

A. November Membership Meeting

1. Pre-meeting Activities

a. Instant Gallery



**Some very fine bowls
were presented**



**Also presented were some
beautiful goblet shapes**



IV. Monthly Meetings

A. November Membership Meeting

1. Pre-meeting Activities

b. Beads of Courage Bowls



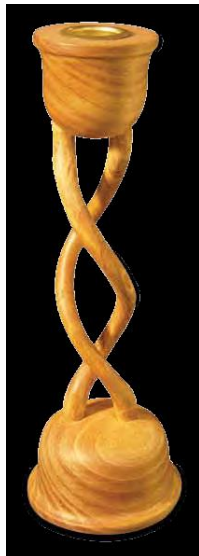
Remember no further Beads of Courage bowls until March. The pipe line is full.

IV. Monthly Meetings

A. November Membership Meeting

2. Main Presentation:

“Put A Twist in Your Work” (Todd Williams)



Todd demonstrated six different techniques for making twists and spirals into or on woodturnings. Two such spirals made by off center turning are incorporated into the candle holder in the picture at the right.



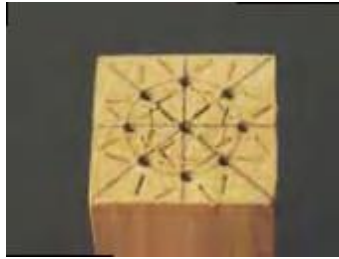
Method 1

The first method was the subject of Todd's article in "American Woodturner", Vol 26, No. 6 (December, 2011). A summary follows. Some pictures from that article have been incorporated for clarity. This method makes a helix or spiral by offcenter turning.

1. Use square stock and make a ring of eight evenly spaced marks on each end.
2. Mount the stock between centers and make round. Make nine evenly spaced bands along the length and number the end marks 1-8. **NOTE:** mark the head end clockwise around and the tail end counterclockwise around, so that each number at the head lines up with the same number at the tail. Also, leave a "no cut" band on each end of about half an inch.



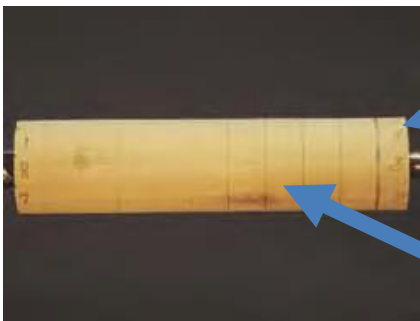
Mark both ends with a ring of eight evenly spaced marks.



At headstock end make eight evenly spaced marks for spur center



At tailstock end, make small holes to register a live center



No Cut Zone on each end with numbers corresponding to mounting positions

Nine evenly spaced bands between no cut zones

3. Mount the stock at mark #2 on each end, using a spur drive center and live center. Mind the tool rest, since the stock is now off center.



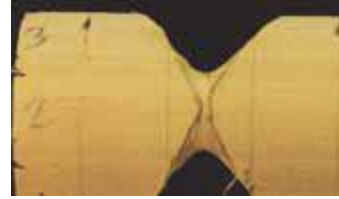
4. Use a bowl gouge and nibble away at band #2, cutting into the adjacent bands about half way. Stop cutting when remaining thickness is a bit larger than your final target thickness for the spiral.



A typical tool position for cutting zone #2 on the off-center piece. Note that the right side of the cut starts at the mark separating zones #3 and #4. Keep the cuts light and move slowly.



The back side of zone #2, close to the final cutting depth.



Take care not to cut too deep, or your final spiral diameter will be too small, making the wood subject to breaking. This depth is the maximum that should be taken.

5. Repeat the mounting and cutting for each band, cutting the end bands last so you don't remove the "no cut" band too soon.



All zones, except #1 at each end, have been cut.

6. Finally, turn down the "no cut" bands to final thickness.



7. Mount a drum sander in a Jacobs chuck in the head stock with tail stock support to keep the chuck from working loose. Sand the rough turned spiral until it looks smooth and uniform. This takes a lot of sanding.
8. Make a second helix and end caps to make a double helix candle holder, as shown in the picture.



Method 2

The second method gives a cylinder with a one-third rotational twist. This cylinder can be made into a lidded box as shown below.



The detailed steps of Method 2 are below

1. Mount stock between centers and make round. Make a ring of three evenly spaced marks on each end. Use the lathe's indexing system to make the three marks.
2. Mount stock using mark #1 on the head and #2 on the tail. Cut with a bowl gouge until there is a continuous cut zone along the length and the ends are cut 1/3 the circumference.
3. Repeat, mounting the stock at positions #2-#3 and #3-#1.
4. Make final adjustments in the end cuts, so they are each exactly 1/3 the circumference.
5. While the piece is still on the lathe, use a small disc sander to blend the cuts and make smooth, uniform ridges along the length.

Method 3

The third method combines the marks of the first method and the cutting of the second method. This results in a cylinder with four full twists around. See below for finished four full twist work.





The detailed steps to produce the four full twist cylinder are as follows:

- 1. Make a cylinder with 8 marks on each end and 9 bands along the length. Number all. If desired, leave a “no cut” zone on each end for making tenons later.**
- 2. Mount at positions #1 at head and #2 at tail. Cut bands #1, 3, 5, 7, 9 and only a shallow depth, such as 1/8”.**
- 3. Repeat, mounting at #2 at head and #3 at tail. Cut bands #2, 4, 6, 8.**
- 4. Repeat, mounting at #3, 5, 7 at head, cutting bands #1, 3, 5, 7, 9 and mounting at #4, 6, 8 and cutting bands #2, 4, 6, 8.**
- 5. The result is four parallel twists along the piece, with each twist being a full turn plus 1/8 of a turn. This can come in handy if you are making a box, since you have to cut out some of the length for the base-top joint. The extra 1/8 turn allows you to adjust so that there is exactly one full turn when you are done.**
- 6. At this time, make tenons on the ends, if you want, for making a box.**
- 7. Sand to make spirals smooth and uniform.**
- 8. Note an interesting variation is to mount at the same numbered marks both head and tail, but still cut alternating bands. This gives exactly one full turn for each twist.**
- 9. If you want more than a single, full spiral, make more bands along the length, but keep the numbering from 1-8, repeating as needed.**



Method 4

The fourth method uses the “Router Crafter” from Sears, or an equivalent machine. Search “router crafter” on the internet and you will find many references, with pictures, videos, etc. Some pictures from the internet are shown below showing the operation and capability. Sears no longer sells it, but many are available on eBay. You start with a round spindle or make a round spindle on the router crafter. The same router can be fed axially at a precise linear motion for every rotation of the wood. This forms very nice spirals on the spindle. However, the disadvantage is that the pitch of the spirals is fixed by the drum driving the drive cable. Regardless of your piece length or diameter, you get the same pitch. There is a book with plans to make your own router crafter: “Router magic” by Bill Hylton.

Here is a picture of a Sears Router Crafter



Here is a picture of a Sears Router Crafter turning wood.



To round a piece, the crank is turned and the work rotates. After each rotation the router is advanced and this continues until the piece is fully rounded and to the dimension desired. At this point one can do any number of things. One of those things is to cut the spirals shown below





By attaching the router platform to a cable and using the hand crank, one is able to manually turn the workpiece and at the same time draw the router from left to right at a fixed rate compared to the rotation. With the gearing that is built into the machine, one gets a spiral. The spiral can be made left or right but the pitch is fixed by the machine.

The photo to the left shows spirals made with a router crafter.

Method 5

The fifth method is to carve the spirals or twists, in a cylindrical work piece. This can be done with a simple drum sander of appropriate diameter or with rasps and hand sanding. If you want only a shallow spiral on a short length of spindle, the “direct sanding” alternative can be attractive. If you want something more unusual or larger, this method can be quite tedious. If you want a small width groove, a rotary tool, like a Dremel, with a long cylindrical bit, does a nice job and is relatively quick. Again, this is most useful with small pieces.

In any case, you start with a round spindle and mark off a grid along the length to guide your carving or sanding. For example, make 8 bands along the length. Using the indexing system of your lathe, make parallel longitudinal lines at, say, 8 positions around the circumference. These two operations give you the grid. Then connect diagonal corners of the grid boxes with lines that form the spirals down the length of the cylinder. Use these diagonal lines to make your cuts or sandings for the spirals.

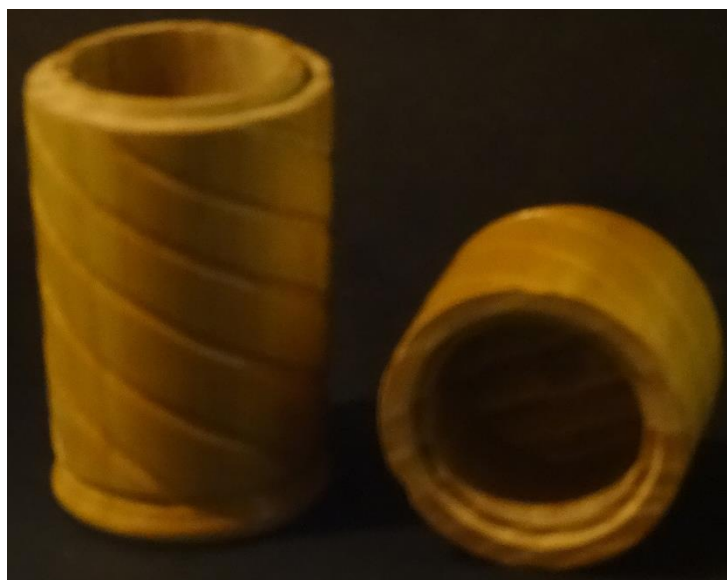
Search online for Stuart Mortimer for videos of his carving spirals. He is an expert and shows you can do it relatively quickly. One picture from the web of his carving



is shown below. Note the spiral layout on the wood that he has made to guide his carving.



Here is a picture of a carved shallow spiral on a box.



Method 6

The final method for making twisted items is to use compressed wood. This material is regular wood which has been compressed along the grain by special high pressure machines and molds. The result is wood which can be machined relatively normally and then bent to amazing shapes with relatively little force. Once the new shape has been achieved and the wood dried, it is stable in the new shape. Todd got a “sampler” pack from “Pure Timber, LLC” (puretimber.com). It is pricey but amazing stuff.

Todd has used compressed wood to make helices, such as made by the first method above. Make a cylinder of appropriate diameter, like ½”. Then bend it around a mandrel and hold until it dries overnight. The helices made by this technique are indistinguishable from those made by Method 1 above. Much shorter time is involved, but at much more cost. Your choice. He has also made twisted strips (1/8 x ¾”), including Moebius strips, and spirals with very small diameter wood, like 1/8”, but large diameter helix, like 1.5”, and multiple turns. He is not sure what to do with these shapes yet, but they are nearly impossible to make quickly any other way.

A sample of a candlestick and a Moebius strip made from twisted compressed wood is shown below.



Summary

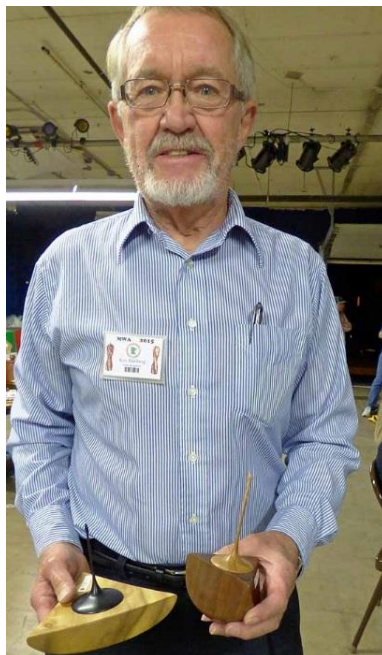
Todd's demo was well-received and his many “part-way” samples and demo pieces were useful in allowing the audience to envision the methods without enduring long cutting sessions. He concluded by challenging the audience to try some of these methods and come up with their own creative way to “Put a Twist in Your Work”.

IV. Monthly Meetings

A. November Membership Meeting

3. President's Challenge

The President's challenge for November was a rocker block or something square. There were two submitters. These are shown below with their work.



Ken Hallburg





Jerry Ritter



IV. Monthly Meetings

B. Local Gatherings and Turners Groups

1. October SE Metro Turners Group

The SE metro small group oct meeting was hosted by new member Steve Miller at his shop in River Falls. Steve showed us how he turns natural edge bowls, lidded boxes, and hollow christmas ornaments. After a great lunch prepared by his wife Sue, it was back to the shop. It's always fun to see other shops and what other members have been working on. These small groups are also a great way to have questions answered and any member is always welcome to attend.



**Steve Miller turns finial
for ornament**





**Dale Jansen and
Steve admire the
finished product**

IV. Monthly Meetings

B. Local Gatherings and Turners Groups

2. November SE Metro Turners Group

Dave Olsen hosted the November SE metro small group at his shop in Inver Grove Heights. We had 8 members which worked out nicely. Dave had 2 lathes set up for us to use. Turning conversations were flowing everywhere as shown below!



One of the things we tried at our small group meeting was making a beading tool from a worn out spindle gouge. This was from an article in the June 2015 AAW journal.





It works great! Simply grind a large flat bevel on the bottom side. Present the tool UPSIDE DOWN and horizontally. Rock from left to right staying horizontal. When you see the bead fully formed, you're done! There are beading tools on the market (D WAY) but these home made ones work nicely and they're affordable.

Our group will take a break in Dec and resume in Jan. Watch your e-mail.

V. Pro Demonstration Al Stirt

Al describes himself on his website as follows.

"I consider myself a "bowl maker" more than a wood turner because, although the turning process fascinates me, it is the resulting bowl that commands my interest..."

There was a good sized group in attendance



Al's demonstration covered three areas. In each he showed a process rather than a finished piece.

- 1. open bowl turning (balancing the grain, chucking methods, tool use and sharpening, and the drying process)**



Al spent quite a bit of time explaining how to balance the grain in his bowls. The bowl shown below has unbalanced grain in Al's terminology.

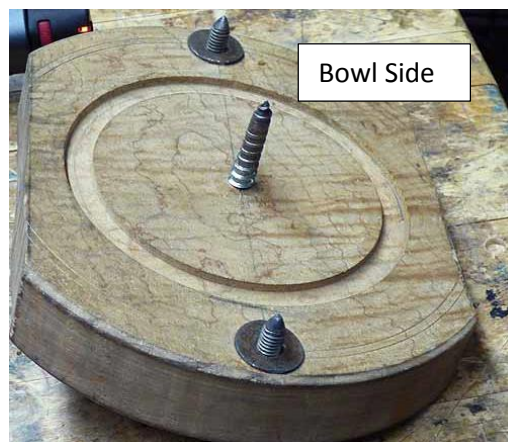
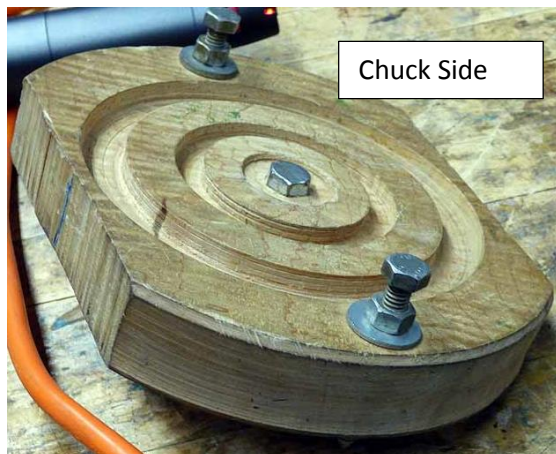


Note that the grain pattern at the right hand side of the bowl ends at the junction of the base and side. The same grain edge on the right extends up the left hand side of the bowl. On the left hand side, the grain edge is up the side of the bowl. By shifting the bowl mounting, a balanced grain will be achieved extending the right hand side of the grain edge up the side of the bowl and moving the left hand side of the grain edge down the left hand side of the bowl until both sides are the same height above the base. This is described as a balanced grain edge. Note further that the same balance is found on the inside of the bowl before and after grain balancing externally.



The grain balance is not known until some cutting is done. At this point, the piece is repositioned to achieve a state of grain balance and the cutting is resumed.

When he turns bowls, Al often uses the plate shown below.

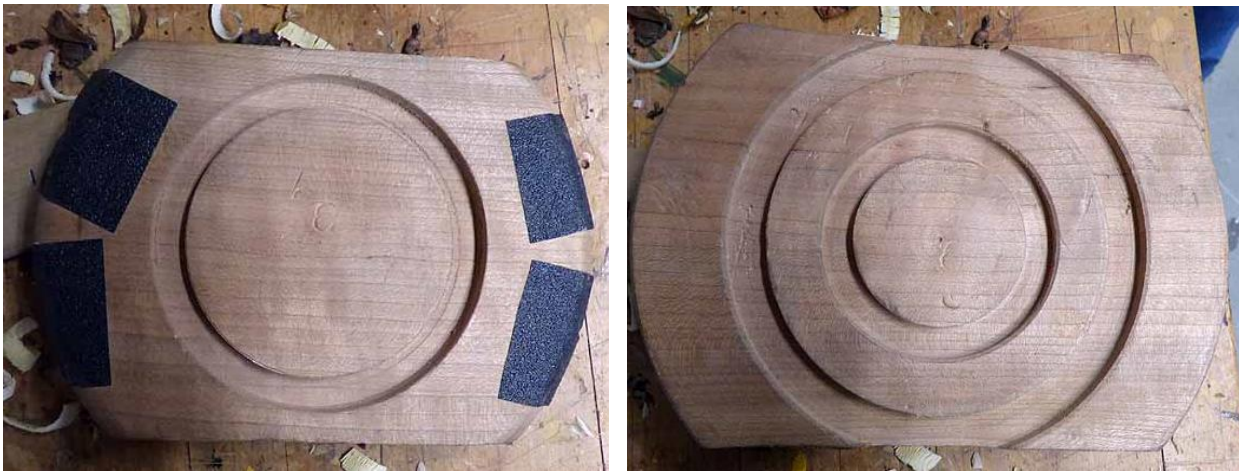


Al holds the plate in the chuck side using a regular chuck. He then repositions the bowl so that the grain is the way he wants it. Next, he fastens the two outer screws to the bowl base. Finally, he takes the plate and bowl out of the chuck and fastens the center screw for added security. This is a similar process to mounting a blank for natural edge bowls. Note that similar to natural edge bowls, the blank can be quite unbalanced when initially cut.

2. Sgraffito platter (turning a platter with a wide rim which is then painted and carved to create a pattern plus turning beads and coves on faceplate work)



Al turned beads on the bottom of the platter with spindle gouge (previous page). As he approached the outer rim with the beads he was able to progressively modify the bead width to make an even number of beads on the bottom. Al did this by eye.



The above shows jam chucks Al uses when necessary. He used this on the platter. He prefers vacuum chuck for almost all his work



Al applies gesso paint to the bowl and turns an inner circle for contrast..





Al uses an electric reciprocating tool to form patterns. At home, he holds the work in position with a vacuum chuck.

3. Square and textured platter (how to create some carved patterns)



Al uses the same reciprocating tool to form his basic pattern. Then he uses a rotary bristle brush impregnated with abrasive to clean up. Finally, he uses a small sander on rotary tool to complete sanding the carved area.

