

Minnesota Wood Turners Association

A LOCAL CHAPTER OF THE AMERICAN ASSOCIATION OF WOODTURNERS

Volume 2016 No 1 Rev 1

January, 2016

AAW | AMERICAN ASSOCIATION
OF WOODTURNERS



**Neil Robinette
demonstrates free
hand sharpening
of the skew.**



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III. Noteworthy News

A. Annual Financial Report

Mark Debe, Treasurer



Greetings to all you new and returning members of the Minnesota Woodturners Association. Last year at this time I gave a first Annual Update on the state of the MWA financial status in the February, 2015 Newsletter. It was quite long as it summarized the transparent financial *system* we now have in place to track, document, report and archive every single financial transaction that occurs within the club's activities. I don't need to go into that again, but will indicate that in addition to our checking and cash accounts we now have a third, PayPal account, also to monitor as we move increasingly towards full on-line event registration and dues payment. Below I will just give you a snapshot of the MWA financial status for the year just passed and what we may look forward to in the coming year.

The MWA is a financially sound organization. I report to the MWA board on a monthly basis and the reports are available for any member to read on the MWA website (they are all archived under "Treasurer Reports," as seen on the right side of the Member Portal page). We had a substantial one-of-a-kind expenditure of over \$9,600 last year for the successful launch of our new website. Despite that, our 2015 year-over-year income of \$30,011 nearly balanced the \$31,563 annual expenditures for the same period. We certainly benefited also from a gracious donation from the Joe Ugro Jr. family that went towards the purchase of four new lathes. Income from membership dues generates the largest *net* income for our club since there is essentially no cost incurred, approaching \$9,000 annually. Our class hands-on-workshops and classes, taught by our membership experts and usually held at the shop of our president, Rick Auge, all at no cost to MWA, is our second largest source of *net* income of nearly \$3,000. The tool raffle, wood raffle, wood sealer sales and library rentals fill out the remaining sources of net income in that order. Professional demonstration visits generate the largest gross income, almost \$9,000, but also have a nearly balanced rate of expenditures.

For 2016, the budget we adopted at the most recent January board meeting implies a net gain for 2016 in our overall financial balance of nearly \$8,000, with \$25,200 of income versus \$17,400 of expenses. This could change of course, but such a substantial balance gives us financial security to address unanticipated needs and flexibility to consider new opportunities and services to provide to our members. Hopefully, those of you who are using the new website for on-line registration and dues payment are finding it convenient without too many hang-ups using the PayPal system to pay. The number of transactions on the PayPal account has been increasing steadily, from 12 in September when we launched it, to 23 in October, 33 in November and 70 in December, 2015. This is a good sign and realizes a critical need I described at the end of last year's annual update of taking hand-transferred cash transactions out of the process for our largest categories of income generation. Thank you for your patience and participation in using this new system.



III. Noteworthy News

B. President's Message and Event Schedules

Effective January 2016, the President's message and event schedules will be posted on the chapter website (www.mnwoodturners.com under mwa chapter/blog and the calendar respectively). This will allow realtime posting of important messages and provide the most current schedule in a single location.

III. Noteworthy News

C. Open shops

At this time, there are not enough mentors to meet demand. In response, several open shops are being held by some advanced turners. Any one needing help in any area is invited to attend the open shop, bring the type of turning causing problems, and get assistance while they turn. Group size is limited. There is no cost. Watch the website for future open shops schedule.

IV. Monthly Meetings

A. January Membership Meeting

1. Pre Meeting

Member Glen Hambleton (left below) brought his neighbor, visitor Terry Fish.



IV. Monthly Meetings

A. January Membership Meeting

2. Tool Talk (Steve McLoon)

Below Steve describes the tool, Rick Auge provides an extra hand, and Dan Larson captures the action on camera.



Steve presented two different products for consideration. Each has a web site that describes the products well. Information from the websites is presented below.

1. Tooling for holding and turning a sphere (www.rubberchucky.com). The set is called “The Anything Chucky Set.” The company says “The Anything Chucky Set can be used for just about any workholding solution-Spheres, Bowls, Alabaster, Vessels-let your imagination be your guide.”

Steve commented that wood holds the product somewhat better, but mars the product. He also noted that there are many other things that can be held with rubber tooling. This is a good site to know about.



2. A closed end pen mandrel (www.pennstateind.com)

For those that don't know, this is a closed end cigar pen.



In this style, both ends are closed. However, either end alone may be closed and the term “closed end cigar pen” is still applicable.



The product is called The Grabber and literature from the website follows:



“The patent pending design is advanced it's actually simple. Simply twist the mandrel nut; and the silicone rubber on the mandrel expands and "grabs" the project tube internally. The rubber locks and support the tube as you turn the end.”

The product is also available from www.arizonasilhouette.com.

IV. Monthly Meetings

A. January Membership Meeting

3. Main presentation “Sharpening” Neil Robinette

Neil gave an overview of sharpening turning tools as well as demonstrating sharpening of the common types. He noted that our library has a DVD called “Sharpening Demystified” by Kirk Deheer which is the basis of the MWA sharpening approach.

Sharpening is divided into the following two classes.

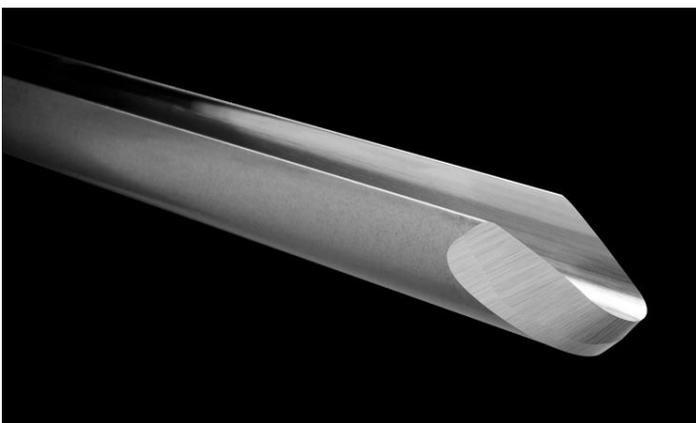


1. **Free hand sharpening:** This is done by placing the tool on a platform set to a proper angle and moving the tool accross the outer diameter of the grinding wheel. This is referred to as “Free Hand” sharpening and is demonstrated below.



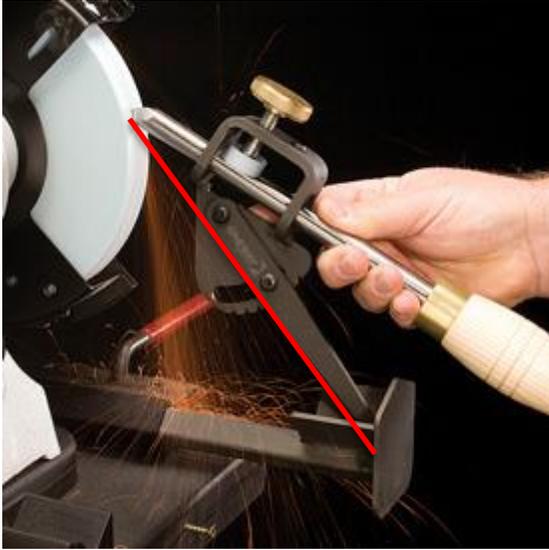
Scrapers, skews, and parting tools are generally done this way. Roughing gouges may be sharpened this way as well or they may be done using the One Way Vee Arm basic system.

2. **Wolverine Vari Grind Sharpening System:** This type of grinding produces a fingernail grind as shown below.



This shape has been found excellent for bowl gouges and spindle gouges. It is found to provide long lasting edges in these applications. The bowl gouges are also known as Ellsworth, Liam O’Neill, or Irish grinds.





This is the system used to achieve the fingernail grind. After proper set up, the tool is rotated from one side to the other along a line from the tip of the tool to the base of the clamp holding the tool. The clamp is called a vari grind. An important feature in the system is that it consistently produces the same tip from grind to grind.

In addition to actually doing the grinding described, Neil made the following comments applicable to both methods.

- 1. Be sure the wheel is properly mounted, without cracks (should ring when struck with a pencil), balanced and dressed before starting up. They should run without vibration.**
- 2. There are 6” and 8” wheels and 1725 and 3500 RPM motor speeds. None of these are anywhere as critical to a well sharpened tool as the skill of the operator.**
- 3. Always wear a dust mask and face shield when dressing the wheel and sharpening the tool.**



- 4. Generally, grinding should continue until sparks can be seen coming over the tip of the tool.**
- 5. Neil uses a black magic marker to cover the ground surfaces of the tool before sharpening. After the first grinding passes, he inspects the tip for removal of the black marker. This tells him what adjustments (if any) need to be made to maintain the same angles.**
- 6. All tool manufacturers have recommended tool angles for their tools. These are generally in the catalog.**
- 7. Most tools are sold without being sharpened.**

The following specific observations were also made.

- 1. Sanding with a belt sander is also done.**
- 2. The scraper can be modified to have a sharp burr at the tip using a burnishing tool. This gives a very good edge for finish cutting.**
- 3. The edge of the skew is often honed to improve the edge.**



**There are many excellent internet presentations on sharpening
The following internet (and You tube) searches can be good for
learning and improving sharpening.**

- 1. D way tools**
- 2. Reed Gray (robo Hippy)**
- 3. Carter and Sons Tool works**
- 4. Kirk DeHeer Sharpening Demystified**

IV. Monthly Meetings

A. January Membership Meeting

4. Instant Gallery

Here are some close ups of pieces submitted.



Lee Tourtelotte

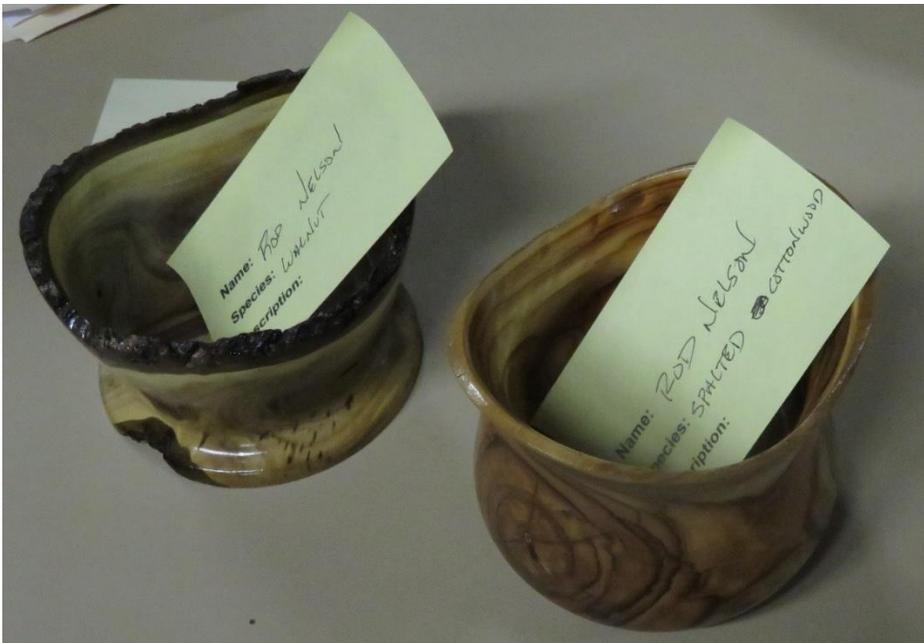


Rick Auge, Black Ash





Joe Gerber, Pecked Pecan



Rod Nelson, Walnut and Spalted Cottonwood

IV. Monthly Meetings

A. January Membership Meeting

5. Members Challenge.



The challenge for January was a Natural Edge Bowl with a lid.



**Rod Nelson took first place
with an all walnut bowl.**





Dan Larson took second place with an all ash bowl





3rd Place Mark Debe



Other Submissions



Paul Anderson



Joe Gerber





Ken Hallberg



Greg Just

February Members Challenge: Candle Holder

March Members Challenge: Gavel

V. Demonstration

A. Segmented Turnings, Tom Lohman

Tom Lohman lives in Duluth and has been working with wood for over 20 years. For the last 5 years, he has been making segmented turnings. He admits that he is good at and loves cutting and gluing more than turning. Tom also enjoys making his own design and tries to come up with unusual patterns. Tom is shown below demonstrating one of his early segmented gluing and assembling fixtures.





Tom demonstrated several basic types of segmented turning. Samples of his work in various categories are shown below:



Segmented Turnings



Examples of segmented and open segmented design is shown at left. The segmented plug in the center is made separately.





**Examples of twist design
segmented turning**



Details of his technique in segmented, open segmented, and twisted segments as well as videos of his process are available at his web site www.segmentedturning.org and on YouTube



An overview of his technique is provided here. Please go to the internet for more detailed explanation of his work.



In all types, the same basic process is as outlined below:

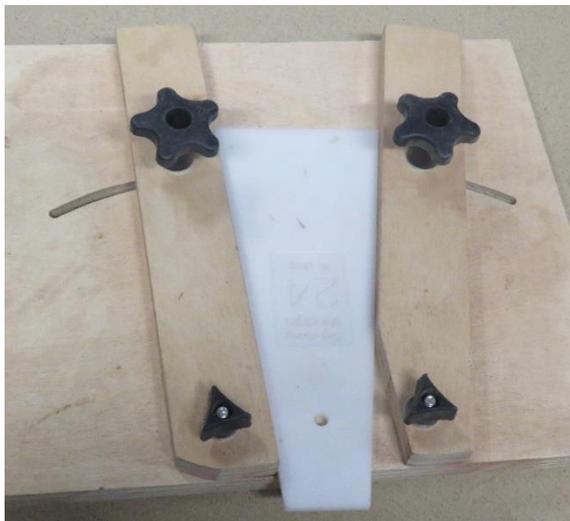
1. Design the pattern (There are commercial patterns available. Advanced segmenters like Tom often make their own using software packages such as paint.)
2. Prepare a chart that tells the size and color of each piece that is in each row (There are also commercial software packages available for this). A typical chart that Tom works from is shown below:

% Open = 10.00

0.272
0.250
0.022 = 0.042

Row #	Off	CD	Board	Width	Height	Total	CF	Angle	Segment	Radius	Check	Board	Black	Cherry	Yellow	Red	SUM	
1	0.00	0.00	1.12	1.63	0.00	0.00	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
2	0.01	0.00	1.12	1.63	0.01	0.01	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
3	0.02	0.00	1.12	1.63	0.02	0.02	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
4	0.03	0.00	1.12	1.63	0.03	0.03	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
5	0.04	0.00	1.12	1.63	0.04	0.04	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
6	0.05	0.00	1.12	1.63	0.05	0.05	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
7	0.06	0.00	1.12	1.63	0.06	0.06	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
8	0.07	0.00	1.12	1.63	0.07	0.07	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
9	0.08	0.00	1.12	1.63	0.08	0.08	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
10	0.09	0.00	1.12	1.63	0.09	0.09	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
11	0.10	0.00	1.12	1.63	0.10	0.10	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
12	0.11	0.00	1.12	1.63	0.11	0.11	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
13	0.12	0.00	1.12	1.63	0.12	0.12	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
14	0.13	0.00	1.12	1.63	0.13	0.13	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
15	0.14	0.00	1.12	1.63	0.14	0.14	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
16	0.15	0.00	1.12	1.63	0.15	0.15	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
17	0.16	0.00	1.12	1.63	0.16	0.16	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
18	0.17	0.00	1.12	1.63	0.17	0.17	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
19	0.18	0.00	1.12	1.63	0.18	0.18	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
20	0.19	0.00	1.12	1.63	0.19	0.19	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
21	0.20	0.00	1.12	1.63	0.20	0.20	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
22	0.21	0.00	1.12	1.63	0.21	0.21	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
23	0.22	0.00	1.12	1.63	0.22	0.22	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
24	0.23	0.00	1.12	1.63	0.23	0.23	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
25	0.24	0.00	1.12	1.63	0.24	0.24	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
26	0.25	0.00	1.12	1.63	0.25	0.25	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
27	0.26	0.00	1.12	1.63	0.26	0.26	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
28	0.27	0.00	1.12	1.63	0.27	0.27	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
29	0.28	0.00	1.12	1.63	0.28	0.28	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
30	0.29	0.00	1.12	1.63	0.29	0.29	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
31	0.30	0.00	1.12	1.63	0.30	0.30	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
32	0.31	0.00	1.12	1.63	0.31	0.31	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
33	0.32	0.00	1.12	1.63	0.32	0.32	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
34	0.33	0.00	1.12	1.63	0.33	0.33	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
35	0.34	0.00	1.12	1.63	0.34	0.34	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
36	0.35	0.00	1.12	1.63	0.35	0.35	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
37	0.36	0.00	1.12	1.63	0.36	0.36	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
38	0.37	0.00	1.12	1.63	0.37	0.37	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
39	0.38	0.00	1.12	1.63	0.38	0.38	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15
40	0.39	0.00	1.12	1.63	0.39	0.39	7.50	0.001	0	0	0	24	35	0.00	0.00	0.00	15.18	15

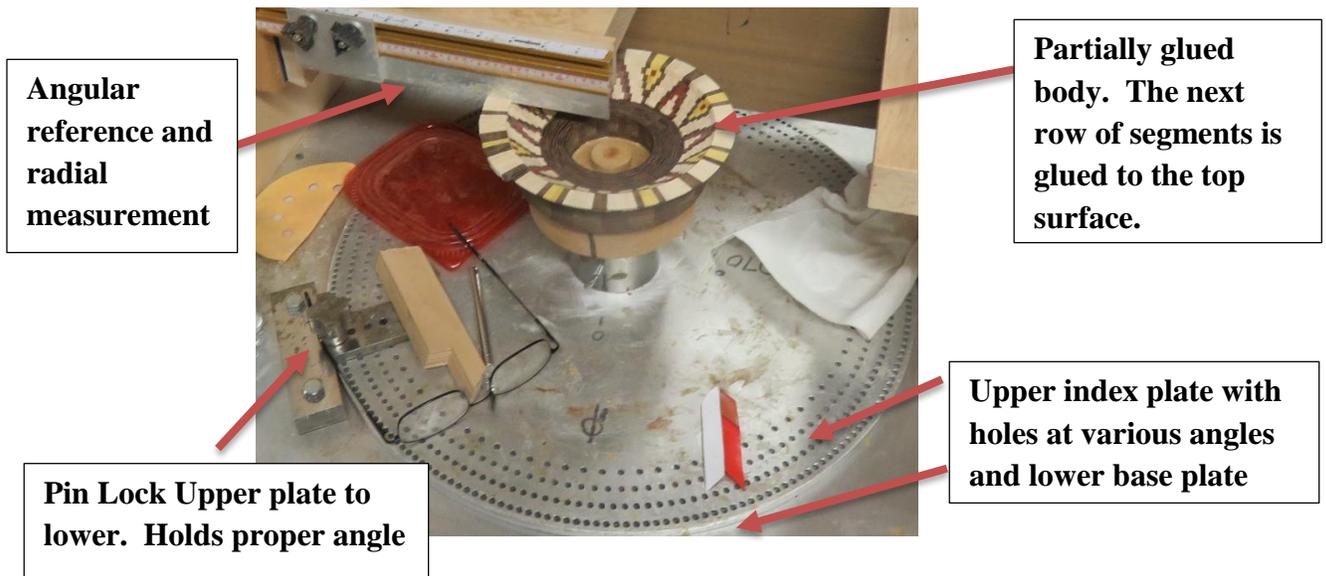
3. Build cutting jigs. These are generally required for accuracy. A typical jig is shown below.



This jig is made to cut angles on pie shaped segments. Accurate angle cutting is one key to good segmenting. Accurate measurement is the second.



4. Once the pieces are cut they are assembled into the bowl layer by layer. This is accomplished using a special indexing jig. The key elements of this jig are the 3/8" thick aluminum plates. One plate is drilled with sets of holes at particular degree intervals and the second has one hole and a locking pin which holds the plates at the desired angle. The motion sequence is index to a new position, glue a new piece, index to the next new piece, and glue the next new piece, etc. That assembly jig is shown in the following pictures.





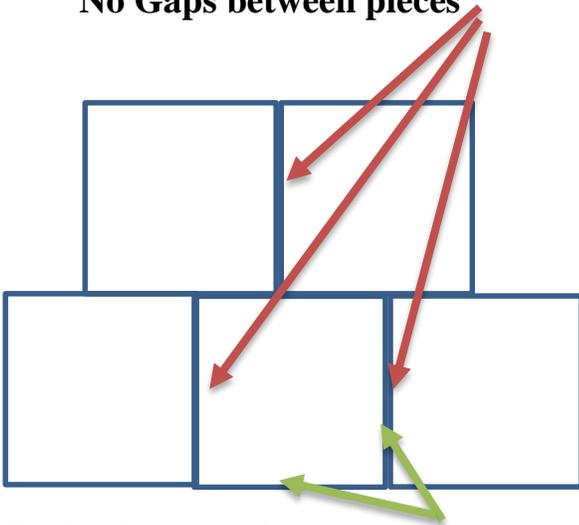
Assembly jig in use. Note the clear plastic tray with segments to be assembled. When compressed, glue can be squeezed out of joint if too much is applied. This must be watched closely. Tom generally sands the top of each layer before adding to that layer.

5. **When all the rows are complete, the bowl is then turned on a lathe.** Tom has found that it is best to sand outside and inside first. This prevents chipping and pull out of the segments. His next step is to support the outside with a set of wheels when turning the inside and to support the inside with a foam covered cone when turning the outside. Tom uses Easy Tools exclusively in his turning. When the final turning is complete, a final sanding is done.
6. **Finish the bowl.** Tom uses minwax wipe on poly for all his work.

Two types of his turning, segmented and open segmented, consist of gluing layer upon layer of wood pieces to form a bowl. In the segmented type the pieces form a completely closed structure. In the open segmented design, there are tangential gaps between adjacent pieces. This design is defined by the percent of open area on the outer surface. These conditions seen from the outside of the bowl are demonstrated in the sketches below:

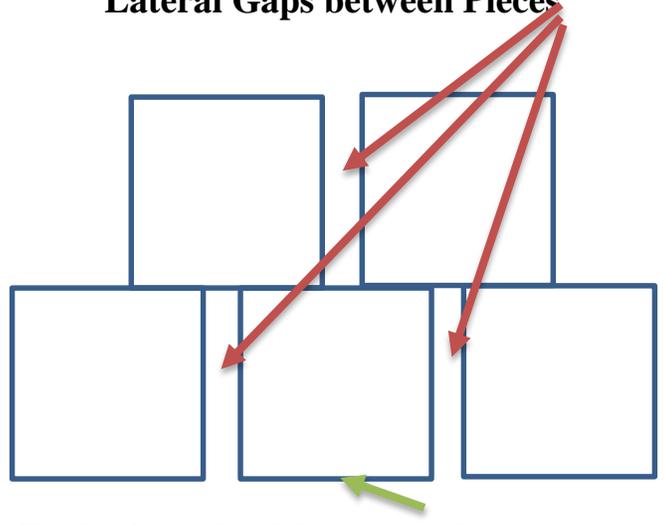


Segmented Design
No Gaps between pieces



Each piece glued top and side

Open Segmented Design
Lateral Gaps between Pieces



Each piece glued bottom only

Here are some segment pieces that Tom has made to make the final bowl shown.



On the following picture Tom demonstrates a “bowl from a board” design:



The bowl consists of rings that are cut from a single flat board.



Tom has taken this approach to another level. In place of the solid board, he has prepared a laminated board to cut out the rings. When the rings are glued together in stacks, he can offset each one by a certain degree to create a twist effect. By varying ring thickness, lamination, and degree of offset he can generate a large number of designs with different appearance. Refer to his website for details in the process.

