

# OREGON WOOD WORKS

## YOU SHOULD HAVE BEEN THERE

GIG LEWIS, PRESIDENT

You really should have been at the Open House. We had over 300 visitors of whom about half were affiliated with the Guild. The other half were checking us out, and we had 25 new members sign up. We will have lots of information in other parts of this Newsletter to share with you.



be proactively anal about SAFETY. We care about you and we hate cleaning machines after an event. The Shop Attendants are there to keep everyone safe and organized with what they are doing in the shop. Many of them are very knowledgeable woodworkers and they will be glad to coach or assist you. Just ask them.

We will take the next 60 days as our shake-down time. We know that there will be lots of questions and suggestions for the shop, and we welcome making the shop and the Guild better. We'll figure out a way to pass on new guidelines when we have them.

When you are scheduled to be at the shop and find out that you are going to be late, please call the shop phone to let the Shop Attendant know, phone # is 503-246-4552, if no one shows within 1/2 hour of the start time the attendant can lock up and leave. The phone call will make sure that the attendant stays around for you.

*(Continued on page 6)*



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Some comments for you about our shop. All of our Shop Attendants have taken a First Aid class from Brian Riverman, a retired Paramedic with the Portland Fire Dept., and we have had an interesting discussion on when to call 911 if we have an incident in the shop. There is no cost to have the responders show up and to do a quick check to see if a member is OK. The decision to call 911 will be up to the Shop Attendant, not the Guild member. We will not be calling them for a Band-Aid situation. The Guild has not had an accident since we were started almost 40 years ago and we want to keep it that way. We are going to

### NEXT PROGRAM — OCTOBER 10, 2013 7:00PM

## PANEL OF CARVERS (*NOTE THE DATE*)

The Guild Shop, 7634 SW 34th Avenue Portland, OR

This evening, it's about carving, with a panel of members who will share their knowledge of this art form. There are several forms of carving, such as incise, relief and power tool carving. And sharpening carving tools is a different technique than used for other tools.

The format for this meeting is similar to what we have done for jigs ... each member will spend about 5 minutes briefly describing the particular style or technique they use. Then each will break away to a bench for members to visit and explore.

Remember, Mary May, a professional wood and stone carver, is coming to present and teach wood carving in November. If you have or think you have an interest in carving, October's Program Meeting is one you need to attend. Social time starts at 6:30. Board Meeting at 5:30.

From the west, Allen becomes Garden home and then becomes Multnomah Blvd.

From the East, off I5/Barbur Blvd, head west on Multnomah Blvd. Then:

To locate the shop, turn uphill, North, on 35th avenue. At the stop sight turn right, go one block, turn left. Go over the crest of the hill and as you start down, the shop is in the little center on the right. Return to the Multnomah Art Center to park and walk back. Park in both front and back of the Art Center depending on construction.

# THE GUILD AT THE OREGON STATE FAIR

JIM MADARAS

The Guild was very busy in August with the Oregon State Fair. The Fair lasted eleven days and the Guild was represented at the fair every day in a 20' by 20' space. Each day there were demonstrations being performed by various Guild members. Ariel Enriquez cut many dovetails and cabriole legs. Ray Curtis performed chip carving and Jeff Zens demonstrated double beveled marquetry. David Dunning worked on his bandsaw box and Gig Lewis demonstrated his skills on the bandsaw and made spoons out of wood. Bob O'Connor demonstrated his bent lamination process.

In addition, various Guild volunteers (Bill Bolstad, Bob Oswald, Bob Vaughn, Dale Price, Dennis Dolph, Earl Swigert, Jr., Everett Gardner, Gary Weeber, Jim Madaras, Jim Spitzer, Joe Sanders, Ken Julkowski, Ken Vetterich, Larry Wade, Leonard Worth, Marcus Flanders, Mike Unger, Norm Michaud, Pete Borho, Phil Scott, Rick Miselis and Tim Walker) attended each day to answer questions from the attendees at the fair and also gave out over 400 Guild Education pamphlets and over 1,500



invitations to the shop open house along with selling almost 400 raffle tickets for daily prizes and the grand prizes.

Marcus also enjoyed spending

part of his time assisting kids in putting together the Guild supplied tool box kits.

The Guild offered raffle tickets for \$5 each which allowed participants to enter into the daily raffle the day they purchased the ticket and also enter into the grand draw-



ing on the last day of the fair. The winners of the grand drawing were Bev Rosenfeld who chose the black walnut table, Steve Simmons who chose the Adirondack chair, J Delahunt who chose the spalted birch table and Colleen Curtis won the cribbage score keeper. Congratulations to all the winners.

Thanks to all who helped out with this very successful Guild event!

I would like to thank the following Guild members who gave their time to build the raffle prizes; Bob Oswald and his team, Julie Gredvig, Norm Baird and Sean Ben-Safed. They produced 2 ta-

bles (Grand Prizes), several salad tossers, boxes and picture frames. Also thanks to Gig and his team, Glen Seim & Paul Snowden for producing the



cutting boards which were part of the daily prizes and also sold for \$40 each going to the Guild building fund. Thanks also goes to Pete Borho for his

contribution of a cribbage scoreboard used as a Grand prize. The final Grand Prize was an Adirondack chair which I contributed.



# THE MAGIC OF VOLUNTEERING

MARCUS FLANDERS

One of the things that drew me into becoming a Guild Member four years ago was the fact that everyone in the Guild had a spirit of giving – to each other and to the community. Whether they were helping out on various service projects or volunteering their time to build, train, or mentor others in the craft of woodworking, the Guild was more than a bunch of “old guys” getting together for a “guy’s night out,” – it was men and women with a passion for woodworking and a desire to share their ideas with others.

For four years, I’ve had the opportunity to attend around 20 classes and volunteer for several Guild events. During that time, I’ve had a chance to get to know dozens of people that I can call friends: Gig, Ariel, Jenny, Ed, and Bill Bolstad, to name a few.

Stepping up and volunteering for an event is a privilege and an obligation that we should all take seriously. It gives us a chance to share our knowledge of this wonderful craft to others. Volunteering gives us an opportunity to show children that all toys are not made of plastic in China but can be hand-crafted and made with love. Volunteering can also show adults that furniture can be created from solid wood, which will last many lifetimes, as opposed to the throw-away items found in many stores today.

Each event that I have had the opportunity to help with has brought me joy that cannot be measured with money. Dozens of Guild volunteers worked countless hours on projects for this year’s Oregon State Fair. It was a huge success. One of the projects that many of us worked on was a tool

box, where all the pieces were pre-cut and ready to assemble with about 20 nails (Kudos to Larry Wade for opening up his shop and allowing this to take place). Kids lined up just to get the chance to assemble one of these treasures and to use a hammer for possibly the first time in their lives. The smiles on their faces were priceless after completing the construction on their own tool box. The two smiles that I will remember forever came from a boy and a girl that were both in wheelchairs. To say these kids were “special” does not begin to tell the story. Their laughter, kindness, and warmth absolutely made my day. These two kids, and a dozen more who were eager to build their own hand-crafted tool boxes, are one of the main reasons I joined the Guild. And it is for this reason that I encourage every Guild member to “step up” whenever possible, and help out with an event. It should be our privilege to share this craft with everyone. Even if you are a beginner and don’t feel that you have much to share,



jump in and get your feet wet. There are dozens of experts that are willing to help and guide you along.



# GEORGE WALKER IS COMING TO OREGON

JEFF ZENS



The Education Committee is pleased to announce that well-known author George Walker will present a two-day workshop for Guild members in March 2014. Mr. Walker authors the monthly column “Design Matters” in *Popular Woodworking* magazine, and is the co-author (with Jim Tolpin) of *By Hand & Eye*, published earlier this year by Lost Art Press. Mr. Walker will address the March Guild meeting

on the subject of furniture design. Respondents to the recent Guild survey showed 36% of our members had an interest in the fundamentals of furniture design now.

His two-day workshop will focus students’ attention on how to visualize form, and will connect the dots in the relationship between design and craft. His workshop objectives are to familiarize students with a design vocabulary and then use time-tested principles in drawing and design exercises. He will help participants learn how to use their eyes and dividers as their primary tools to develop designs that are pleasing. Small furniture designs will be one of several products of the workshop.

This is an exciting opportunity for the Guild. More details will follow as soon as the specifics of Mr. Walker’s presentation and workshop are finalized.

# One-on-one Demilune Table Class with Don DeDobbeleer

VINCE CORBIN

I first met Don during the first “Best of the Northwest” show that the Guild was involved in, about 2006. He had a booth with some exceedingly lovely furniture; lots of curves, veneer work and inlays. I fell in love with his style. At that show Don had a small Demilune table (a half ellipse) which won “Best of Show”. Since then he has offered classes on building a similar table, which involves a host of advanced woodworking techniques, and classes on building other furniture. I met Don again this past Spring at the Gathering of the Guilds show, and started a dialog which led to visiting his ranch in Etna, CA at the end of July for seven days of one-on-one instruction. For a class that short, we did not have time to do the scallops or the drawer, but we did complete a simpler table and I learned how I could do scallops in the future.

I supplied the wood and paid Don for his time, to learn how to make the table and get to keep it. The veneer to be sliced as a fan, came from a block of 16/4 cherry, hoping that the color would work well with a mahogany rocking chair I had built. A large piece of 8/4 Wenge with luscious dark brown grain made the rim and legs. Don supplied some redwood burl, aspen and Wenge commercial veneer.

## Main Parts of the Table, Patterns and Jigs

The top of the table is in the shape of a half ellipse containing a core with a fan pattern of shop-sawn cherry veneer with .022” aspen stringing between each segment. Around that is another band of stringing, and then a 1.5” rim of solid Wenge. The curved rim is in three pieces, matched to the elliptical curve of the core.

The legs are Wenge, sawn to a six-sided taper, with two layers of veneer applied to the taper to get the stringing effect: first a layer of commercial aspen veneer, and then a layer of Wenge veneer directly on top of the aspen. As the necks and flutes are cut, the lower level of aspen shows through as stringing, a very nice effect.

The apron is curved: the apron core is a bent lamination of mahogany, with a sawn layer of redwood veneer attached, and a 1/8” thick bead of Wenge applied to the bottom.

Fortunately, Don had all the patterns and jigs made ahead of time. You need a large ellipse cutting jig; you need to make a pattern for the core of the top, and then make an exact complement of the curved part in order to trim the rim pieces, typically in three segments. (Don has a couple of techniques for making the complement of a pattern). You also may require a pattern for trimming the outside of the rim, although Don has a special trick. Next, you need a jig to hold the sawn fan segments in order to trim them precisely on the router table. You also need a form for gluing up the bent laminations for the apron. The curve should exactly match the curve for the outside of the core. The most complex jig you need is the leg box. And you need a jig for tilting a trim router 30 degrees for trimming the veneers applied to the legs, and an especially clever jig for trimming the level of the rim down to the level of the core. Don provides information for making all of these jigs.

Essential tools for this project are primarily a good bandsaw with a carbide-tipped blade and an adequate fence for resawing veneer, a drum sander, a router with edge guide and a disk sander; plus the usual table saw, jointer, chop saw, router table and drill press. Don raves about a special fence for cutting consistent veneers: it has a wheel that moves the fence precisely – one notch is .004” of movement. Two turns gives you a veneer thickness of about .080”, which is what we used. (I immediately ordered one

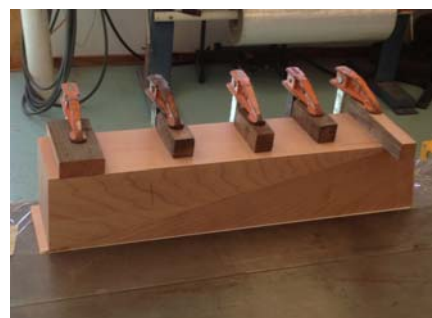
along with a Laguna 18” bandsaw, and now I can cut consistent veneers about as thin as commercial veneers, smooth off the saw.)

## Making the Top

We start with the block of 16/4 of cherry and selected two triangular regions with good grain for the fan veneer; you need two to glue veneer to both sides of the 5/8” MDF substrate to keep the substrate from warping due to veneer “grab”. We chose a rectangular region that was cut diagonally into two equal triangular pieces. The size is determined by the largest fan segment. We flatten the freshly-cut diagonal sides very carefully by hand with a large sanding block to not damage the feather-thin tip (photo 1).



Next a piece of aspen veneer is glued on one side of the block



that will be used for the top fan, and the other block is used without veneer as a wedge to hold the triangular block with clamps (photo 2).

After that dried, you slice off triangular slices of veneer on the bandsaw, first from the block without the

aspen, and then from the block with the aspen. Discard the first couple of slices and then number the slices as they came off the saw. We cut about 20 slices from each block, using up over 3” of thickness from each 16/4 thick block. All the pieces get cleaned up on a drum sander.

Trim the fan segment edges to exactly 12.5 degrees on the router table using a pattern bit on the router table with a special jig to hold the segments. So at this time you have more slices than needed. Pick out the best sequence of 15 pieces from each group for keepers and arranged them as a fan (photo 3).



Next is some final adjustment on the fan segment edges with sandpaper (but not on the edges with the aspen), and tape up the fans (photo 4).

Tape the show face, thoroughly covering all the joints to prevent glue from seeping through. Now you have two semi-circular (not elliptical) taped-up sets of fan veneer, one with aspen stringing for the top side of the table and one without the aspen stringing for the bottom.



Next, cut an oversized piece of 5/8" MDF to match these veneer sets, and glue each veneer set to the MDF. It takes two separate glue ups, one for each set of veneer, extra effort to make sure that the bottom and top fans line up exactly. Bandsaw the MDF close to the final

dimensions and then use the pattern for the core to trim the core on the router table to the precise finished elliptical dimensions.

The Wenge rim, was made to 13/16" thickness, 1/16" thicker than the glued up core. Using the three patterns for the curved portion of the rim, we pattern-routed the three curved rim pieces to match the core curvature, and cut a straight rim piece for the back side, glued a piece of aspen veneer to the insides of the rim pieces and then fit the rim in a special process that Don calls "chasing the miter". That is a fantastic and very sophisticated technique. Biscuit slots are cut on top and bottom surfaces of the rim about 1/32" proud of the core. The curved rim pieces had been cut with some bumps and notches to assist in clamping the curved pieces. Then we glued and clamped the rim to the core (photo 5).



We now have a core with an oversized and over-thick rim with various bumps on it, so you bandsaw close to final dimensions. To bring the thickness of the rim down exactly to the level of the veneer in the core, Don used a special flush leveling jig: it is really effective, and I've never seen a jig like that. After sanding both sides, Don used a table-edge fingernail profile router bit to thin the under side of the rim to give a more delicate look to the rim.

**Making the Legs**

The leg blanks are Wenge, 1 3/4" square with a six sided taper on the lower part of the legs. The key to cutting a six-sided taper and other operations on the legs is the "leg box" jig (photo 6).

Each leg is inserted into the leg box as far as required for the taper, and cut on the bandsaw, 24 tapers (photo 7).

With all the tapers cut, two levels of veneer are glued to each of the 24 tapered sides, in pairs, opposite sides at a time. The veneers are trimmed with a special tilted base (photo 8).



Gluing and trimming all the



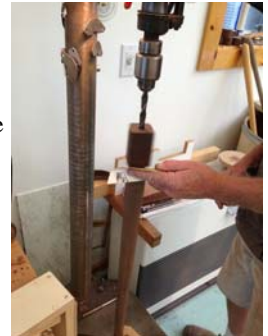
taper veneers took most of two days. The legs go back into the leg box to cut the necks, using a router clamped to the top of the leg box while turning the leg by hand. The necks are flared downward a bit to show the star-shaped stringing, which we did using the drill press (photo 9).

The legs go

back into the leg box to cut the flutes with a core box bit. Wow, those legs sure were a lot of work!

**Making the curved apron and attaching the legs**

First was a bent lamination for the curved apron. 14 mahogany strips, about 1/16" thick, and sanded both sides, glued and clamped them against the elliptical form for the apron. Don uses a special glue that provides nearly zero spring back. The curved rim is cut into three pieces, one for each segment, adding a redwood burl veneer to the front of each curved piece, and the straight piece for the back. A 1/8" thick Wenge piece makes the bottom.



Assembling the rim and legs is a two-step process to get more precise placement than could be done by cutting mortises into the curved apron. The apron is glued to the legs using temporary butt joints. Mortises are cut into the top of the legs and aprons for loose tenons (photo 10).



**Final sanding and finishing**

At the end of seven 6-hour days, take the table home for final finishing.

I'm very happy with the table. This one-on-one tutoring from Don was an extremely enriching experience. I learned things that will improve almost all aspects of my woodworking, saving years of trial-by-error. It's a great class for a serious but relatively experienced woodworker.



## PRESIDENT (CONTINUED) GIG LEWIS

(Continued from page 1)

For a while, until everyone is comfortable in the shop we would like the Attendant to be changing the blades on the saws and the brakes on the SawStop's.

Remember to bring your own personal hand tools, measuring sticks, hearing and eye protection.

Many of our Guild members have contributed hundreds of volunteer hours to get the shop set up and functional. There are more things necessary to complete the job. If you want to participate, talk with a Shop Attendant or someone on the Board of Directors. We really do want your help and ideas.

Thanks go out to Marcus Flanders who will be leading the Toy Drive this year. Check the Guild Roster and find other woodworkers in your zip code. Do a neighborhood meeting and make some toys. Contact Marcus at [marcus.flanders@oregonchain.com](mailto:marcus.flanders@oregonchain.com).

Our Guild is working because we have so many members making it happen. Thank you all.

-Warehouse Sale and Open House October 19-20, Sat 9-5, Sun 11-5. Deals and specials! Refreshments, turning demos, wine and chocolate tasting.

56752 SW Sain Creek Rd, Gaston OR 97119 503-357-9952

"Work for Wood" program at our warehouse is open, Susan at 503-357-9953 for more info.

U-CUT seasoned Maple firewood for sale, \$80 per cord!

## WANDERING THE WEBSITE

In case you had not noticed, the address for the Guild shop is in the header of the web page. It's easy to overlook the stuff you see every day. It was added recently so that no matter what page you are viewing, you see the address.

The results of the Guild survey done a few months ago were posted as a link under "Classes" last month. Without thinking, I posted it as a PowerPoint file. Not the best choice for the world at large. It's been updated as a PDF. Take a look. Some of the results are interesting. Menu item "Classes"

## TOOL MAKING CLASS

BOB O'CONNOR

On August 28th and 29th, we christened our new shop with its first class. How appropriate that John Economaki, of *Bridge City Tool Works* was the one to do it. John has been a friend and supporter of the Guild for a few decades. His *Bridge City Tool Works*, home based here in Portland has the reputation of making the most beautiful, accurate and expensive measuring tools in the woodworking business.

John's first product in 1983 was a rosewood and brass try square. That is the one that ten of us were able to craft in the two-day class. As an added benefit, we also made a 45 degree angle miter square.

We learned to work with brass and wood. The sides of the squares were grooved to accept brass strips that would serve as rivet seats. The sides were flattened on one of John's belt sanders, industrial equipment with heavy and dead flat platens. They are both 220 volt three phase machines.



Brass sides were glued on, flattened and screwed to the wood. The handles were kerfed for the blades (with John and his assistant, Michael Berg's help). The blades then were set with accurate 90 and 45 degree references. The blades and brass strips get riveted and the rivets are ground flat. When everything is polished, it looks fantastic!

The result was two measuring gauges that were dead accurate and almost too pretty to use. I was forced to clean out one of my tool drawers to house them and a few other special tools. Thanks John and Michael for a fun and informative two days, as well as a couple of beautiful tools to brag about.

## BOARD MEETING MINUTES

The board of directors of the Guild of Oregon Woodworkers meets monthly before the general meeting. Minutes of this meeting are available on the Guild website at [www.GuildOfOregonWoodworkers.com](http://www.GuildOfOregonWoodworkers.com). Click the "Board Minutes" entry under Members Only.

## LAST MEETING: OPEN HOUSE

BOB OSWALD

I want to thank everyone who helped out at the Guild Open House on September 21, 2013. Also, thanks to all who attended. We had 160 new visitors and approximately 150 current members with friends or spouses visit the Guild shop. As a result of the visits we obtained 25 new members, and 22 new shop member/users. In addition, several members signed up for some of the classes that are currently being offered including seven for the Next Level classes. Five tables were offered as part of a silent auction and four of those table were sold. Finally, we had a successful raffle and the following individuals were the winners; Ronald Grossmann the first winner choose the table, the second winner Marco Arandia choose the Adirondack chair and the final winner Gary Weeber received a Bolstad box.

I want to thank Bill Bolstad who contributed all the wood and his time to



*Selling memberships and shop time*

guide the build and finish of the tables that were used both in the silent auction and the



*Selling raffle tickets ..... and classes*

raffle!! Those that assisted in the build and finishing of the tables included Chris Frazier, Gary Weeber, Greg Kaufman, Marcus Flanders, Michael Rothman and Phil Scott. All contributed their time. I also want to thank Bob O'Connor who contributed his time to build the Adirondack Chair in the raffle and thanks to Rockler Woodworking and Hardware who contributed the material for the chair.

And finally, the Guild store is out of product, so if you would like to lead a group to make some more fine wood products for the store, please let me know, thanks.



*Silent Auction—Bolstad Tables*

## GUILD CLASSES UPCOMING

### Drawer Design & Construction

October 15 5pm \$250

**Instructor:** Jeff Zens

### Introduction to the Vacuum Press

October 16 5-9pm \$50

**Instructor:** Bob O'Connor

### Build a Vertical Necklace Storage Box

October 19 & 20 9-4 \$220

Bill Bolstad's Shop

**Instructor:** Bill Bolstad

### Build a Tool Box or Jewelry Box

November 2 & 3 9-4 \$360

Bill Bolstad's Shop

**Instructor:** Bill Bolstad

### Purchasing Hardwoods for your Project

November 2 9am-5pm \$80

**Instructor:** Jeff Zens

### Make Wooden Full-Extension Drawer Slides

November 9 9-4 \$115

Bill Bolstad's Shop

**Instructor:** Bill Bolstad

### Wood Carving Problem Solving with Mary May

November 15 1-5pm \$200

**Instructor:** Mary May

### Wood Carving Basics Workshop with Mary May

November 16 9-5pm \$80

**Instructor:** Mary May

All classes are held at the Guild Shop unless otherwise specified. 7634 SW 34th St, Portland. 97219

See the Guild website for registration and details. Contact the class coordinator with questions. Please do not email the web administrator.

## HAPPY ANNIVERSARY...

to me. It seems that I've been writing this newsletter for quite a long time. I joined the Guild at the State Fair Labor Day, 2003. I was going to, for once, join a club and *sit on my hands*. I wanted to learn, not get so involved like I always do. But it's not my newsletter anniversary. I wrote my first article about mid 2004 and became the newsletter editor, in the fall of 2004. I'll save that story until next fall.

But the message to all you new folks is that you learn, not by sitting on your hands, but by doing, by teaching, by helping with projects. By serving on the board or committees.. I've done all of them. The Christmas toy project is coming soon. Here's your chance. And if you don't know how to get started, call me and we'll talk about it. You won't regret it.

## ANATOMY OF A LOG

BOB OSWALD

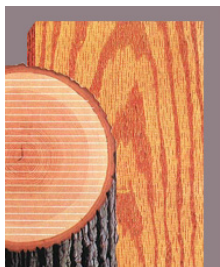
Playing amateur sawyer recently, I had some small Cherry log pieces that I was converting to Smoker fuel. It's best to remove the bark to keep from inducing a bitter flavor into the thing being smoked. Perfect time to use the 16" bandsaw.

What surprised me, and got me to thinking about sawmills, etc., was how small a slab had to be removed to get quickly into the core of the wood.

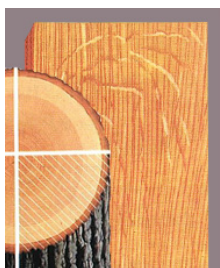
This log was about 7" in diameter. Taking a 1/2" slice off (you simulate this in SketchUp), the face width becomes 3 1/2", half the diameter of the log. A second 1/2" slice exposed a 5" face. So a lot happens quickly. 1" in from the edge, on each side, leaves 5/7 of the log available as core lumber. I was impressed.

And it got me to wondering about the industrial milling process, and terminology. There are three primary cuts in producing lumber.

**Flat or Plain Sawn** lumber is the most common and widely used method of sawing. Flat sawn lumber is produced by making the first cut on a tangent to the log. Each additional cut is made parallel to one before. This method produces the widest possible boards with the least amount of waste. Flat sawn lumber usually displays distinct cathedral effects. Because of the varying angles of cuts across the board, many boards are subject to warping as the wood dries.



**Quarter Sawn** lumber is produced by first quartering the log followed by sawing each quarter perpendicular to the growth rings. This method of sawing produces a very straight grain appearance on the face of the board. This cut is often used to make the medullary rays visible on the face of the board in the form of "flake".



Quarter sawn lumber creates more waste and results in narrower boards compared to flat sawn.

**Riff Sawn** is very similar to quarter sawing producing similar limitations and advantages. During rift sawing, the quartered log portion is turned slightly off perpendicular before cutting to not expose the medullary ray. Riff sawing produces a virtually straight grain appearance on the face of the board with little to no visible "flake". The technique produces a measurable amount of waste like quarter sawn.

When cutting a log, it is most typical to use the same cut throughout. The diagram illustrates the different cuts as if cut from the same tree.

There are many ways to extract lumber from a log in the flat sawn configuration. A couple of 'slice and dice' photos here illustrate. It's the job of the Head Sawyer in the mill to determine the optimum yield of a log. Dealing with factors like straightness of the trunk, limbs and symmetry make that job a well paying position.



### How much wood is there?

Researching on the Internet leads you down many interesting paths. For example, estimating the lumber in a log. There's a standard measurement method and a couple of tables that have been refined over time.

The process of estimating lumber content in a tree is called scaling. There are a number of basic rules that keep the process somewhat consistent. Rounding to the next full inch, average diameter of the log taken from measuring the large and small end inside the bark.

When the tree(s) is still standing, it's the diameter at breast height, 4 1/2 feet above the ground, to get above the base swell. Diameter is measured with a 'cruising' stick which is really a tape to measure the circumference, where each tic-mark is Pi inches apart, converting the measurement easily into diameter. Total volume requires knowing how many 16-foot logs will come out of the tree, to look up the answers in the tables. To measure the height of the tree in 16-foot logs, you pace out 50 feet from the base of the tree, preferably on level ground. Decide where the highest cut can be made for marketable timber. Hold the magic 'cruising stick' at arms length (25 inches). It's graduated in 16-foot marks calibrated for 50 feet from the tree and held at 25 inches. Pretty slick.

An amateur's way to do it, if you have enough room to back away from the tree, is to pace out from the tree the distance you think matches the height. A Douglass Fir is typically around 100 feet. Then use a compass that has an inclinometer needle. Point the edge of the compass high up on



## 2013 MASTERY SHOWCASE

the tree but adjust its angle so that the inclinometer needle shows 45 degrees. If you're 100 feet from the tree, you're looking at a point 100 feet up the tree. Usually you can roughly estimate the height by observing the proportion of tree remaining.

Next time you're hiking in the woods, take a compass along and play with it.

Once you have the dimensions, it usually boils down to looking up the answer in one of three tables.

### Doyle Log Rule

Developed around 1825, it is based on a mathematical formula. It allows for a 5/16" saw kerf and a slabbing allowance of 4 inches, which is about twice the normal amount. Because of this, the Doyle Rule is somewhat inconsistent; it underestimates small logs and overestimates large logs.

### Scribner Log Rule

Developed around 1846, was created by drawing the cross-sections of 1-inch boards within circles representing the end view of logs. 1/4 inch is used between the boards for saw kerf. The Scribner Rule does not have an allowance for log taper and typically underestimates long logs

### International 1/4-Inch Log Rule

This rule was developed in 1906 and is based on a reasonably accurate mathematical formula. It uses a 1/4-inch saw kerf and a taper allowance of 1/2 inch per 4 feet. Deductions are also allowed for shrinkage of boards and a slab thickness that varies with the log diameter. Overall, the International 1/4-Inch Log Rule is the most consistent and is often used as a basis of comparison for log rules.

**Doyle Log Scale** (volume of board feet per log)

		Log Length (feet)									
		6'	7'	8'	9'	10'	11'	12'	13'	14'	15'
Log, inside the bark)	10"	13	16	18	20	23	25	27	29	31	33
	11"	18	21	24	28	31	34	37	40	43	46
	12"	24	28	32	36	40	44	48	52	56	60
	13"	30	35	40	45	50	55	61	66	71	76
	14"	38	44	50	56	62	69	75	81	88	95
	15"	45	53	60	68	75	83	91	98	106	114
	16"	54	63	72	81	90	99	108	117	127	137
	17"	63	74	84	95	106	116	127	137	147	159
	18"	73	85	98	110	122	135	147	159	171	183
	19"	84	98	112	127	141	155	169	183	197	211

So there you have it. From a simple 'get the smoker ready for an evening pork roast' to processing the lumber that we all take so for granted.

Next time you're at the lumber yard, take a look at the end of the board. Decide where in the tree it came from. Does "Quarter Sawn White Oak" justify its name? (The answer is yes.)

The Northwest Woodworking Studio will present select furniture pieces from the school's mentoring students in an exhibition on Thursday, October 3 from 6p.m. to 8p.m. The event is free and open to the public.

The Mastery Showcase will feature select works from some of this year's Mentoring Program's most skilled graduates. Craftsmen, artists, and the general public are encouraged to tour the studio and see the great furniture that will be on display. During the show there will be opportunity to discuss design, building, and theory with Gary Rogowski and the Studio's featured graduate builders.

For further information about the show or the Northwest Woodworking Studio call 503-284-1644, e-mail to (studio@NorthwestWoodworking.com) or on the web at (http://www.NorthwestWoodworking.com).



## WELCOME NEW MEMBERS

BOB OSWALD

September—Todd Patterson, Roger Green, Don Cline, John Bennett, Steve Roberts, Brett Stringer, Daniel Fernhoff, John Foster, Morey Marks, Michael Hiscox, Bob Obrinsky, Christopher Mason, Frank Mason, Dan Kilduff, Tom McNabb, Bryan Kellim, Kieran Downes and James Karavias.

Welcome to all of you. We're happy to have you with us. Say hello to an officer at the next meeting so we can get to know you.

*The Guild of Oregon Woodworkers is a group of professional and amateur woodworkers like you, committed to developing our craftsmanship and woodworking business skills. The Guild offers many benefits for members, including:*

- *monthly educational programs*
- *monthly newsletter*
- *An education program to help members develop woodworking skills*
- *Sponsor discounts*
- *woodworking shows*
- *network of business partners (the key to our development as members and as a Guild, providing additional learning opportunities)*
- *and a network of support.*

## GUILD OF OREGON WOODWORKERS

10190 SW Washington St., Portland, OR 97225

### CLASSES, SEMINARS, DEMOS, AND SUCH

**Northwest Woodworking Studio** 503-284-1644, [www.northwestwoodworking.com](http://www.northwestwoodworking.com)

**Rockler Woodworking** 503-672-7266, [www.rockler.com](http://www.rockler.com)

**Oregon College of Art and Craft** 503-297-5544, [www.ocac.edu](http://www.ocac.edu)

**Woodcraft** 503-684-1428, [www.woodcraft.com](http://www.woodcraft.com)

**Woodcrafters** 503-231-0226, 212 NE 6th Avenue, Portland, [www.woodcrafters.us](http://www.woodcrafters.us)

### THE GUILD IS PROUD TO BE SPONSORED BY:

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Northwest Woodworking Studio  
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### Guild of Oregon Woodworkers

c/o Bob Oswald  
40639 SW Vandehey Road  
Gaston, OR 97119



**We're on the Web!**

[www.GuildOfOregonWoodworkers.org](http://www.GuildOfOregonWoodworkers.org)