

NEWSLETTER FOR THE

**GUILD OF  
OREGON  
WOODWORKERS**

OREGON  
WOOD  
WORKS

Vol. #37, Issue 9

September 2020

Portland Oregon

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**NEXT GENERAL MEETING: ONLINE WITH ZOOM**

*The online invitation will be sent out 24 hours before the event.*

**RON HOCK: TOOL MAKER**

**Tuesday, October 20, 2020**

Social Time begins at 6:30pm, Meeting begins 7:00pm



Our 'celebrity guest' for the October meeting will be well-known toolmaker Ron Hock. He will focus on sharpening as a topic and this should be a great interactive opportunity for us on the subject with a true expert.

Anyone who takes hand planes seriously has heard of Hock Tools and its founder, Ron Hock. Since 1982, he has made what many consider the best plane blades on the planet. His Stanley replacement blades are 3/32" thick, considerably beefier than the originals. His Krenov blades are 3/16" thick, on a par with the blades in Japanese planes. A Hock chip-breaker is twice as thick as a Stanley original. The thickness significantly reduces chatter and makes for much smoother cuts. Hock originally used only high-carbon O1 steel, which can be honed to a very keen edge. He now also uses A2 steel, which is a bit more difficult to hone, but offers better edge-holding qualities. Based in the gritty Northern California town of Fort Bragg, Hock Tools is inextricably linked with James Krenov and the woodworking school he founded not far from Hock's shop. In addition to the blade business, Hock is on the board of the Krenov Foundation, which supports the art and craft of fine woodworking through scholarships, exhibitions, publications, and an online archive of Krenov's work (*Content credit to Dave Heim, Woodcraft Magazine*).

Ron has provided the outline to his presentation in advance (see below). Now you can prepare for this presentation and be ready to maximize your learning experience. This should be a great meeting and we hope you can join us!!

**SHARPENING BASICS**

Ron Hock — [www.hocktools.com](http://www.hocktools.com)

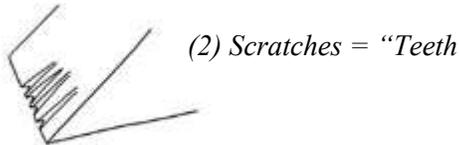
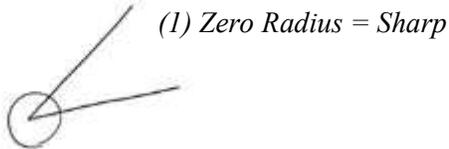
**Why Bother?**

- Because most *woodworking* is wood *cutting*.
- Quality woodworking requires sharp tools.
  - A sharp edge leaves a smooth, satiny surface.
    - For a precise fit;
    - Best gluing surface;
    - Simply irresistible.
- Sharp tools are safer, too.
  - Require less pressure.
  - Allow greater control.
  - Fewer sutures (maybe).

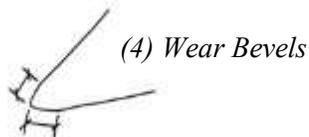
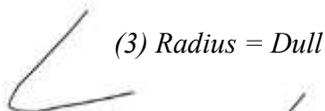
*continued on page 2*

**SHARPENING BASICS... continued from page 1****What is Sharp? (1)**

- Empirically: sharp enough to do the job.
- Technically: the intersection of two planar surfaces.  
Zero radius = The Goal.
- Finer grits = smaller "teeth"(2).  
Smoother surface.  
Longer edge life.

**What is Dull? (3)**

- *Not* sharp enough to do the job.
- How does it happen?  
Hint: abrasive wear.
- Wear bevels (4) (no, not *were*bevels).  
Larger on the "wood" side.  
Smaller on the "shaving" side.

**How to Sharpen:**

- Remove the wear bevels (5).  
Use the coarsest grit necessary (finest grit possible).  
Form a burr.
- Polish new bevels.  
Use finer grits.  
Form a burr with each.
- To strop or not to strop?  
Yes.  
No.  
But remove the last burr somehow (6).



Sharpening is a fundamental woodworking skill.

- It requires practice just like the other skills.
- It's easier than you think. Honest.
- It will help you be a better woodworker.

**Any Questions?**

- "What should I sharpen with?"  
An abrasive that is harder than the steel.  
*And* sharp enough to scratch it.  
That would include aluminum oxide, diamond and a few others.
- But... but..."  
Waterstones, diamond plates, loose diamond, oilstones, honing film.  
All work.  
All have supporters and detractors.  
All have plusses and minuses.  
So they each must work well enough to satisfy *someone*.
- Therefore, start with what you have.  
Or whatever is easy to obtain.  
Use whatever that is to refine your technique.
- Technique is more important than tools!  
Yes, good tools are better.  
But good technique is more better.  
Practice.  
Practice.  
Practice.



**WATCH FOR IT!**  
**GENERAL MEETINGS**

**November - Darrell Peart**  
**December - Dennis Loveland**

## NOTES FROM THE GUILD PRESIDENT



**Steven Poland**

Thankfully we have mostly weathered the summer firestorms with minor inconvenience of a week of the most, unhealthy, air quality on earth. Unfortunately, thousands of people have had to evacuate from their homes in Oregon, Washington, and California, and worse yet many of those

families now have no home or community to go back to having been burnt out by those wild fires.

We've seen articles of other woodworkers who are building simple student desks for families who have lost their homes, and several of the Project Build and Toy Team members are discussing the potential to do the same. Toy Team has also just agreed to provide hundreds of the toys they've made over the spring and summer to organizations such as the Red Cross for distribution to families who have lost everything in this horrendous summer.

As a stellar example of our Community Projects program, the Project Build team is building 300 lap desks for Neighborhood House to distribute to families whose children are relegated to online school attendance from home.

Shop Certification classes are gearing up again, and Open Shop sessions have been operating smoothly since July 1. The Guild is up and running, and importantly, the Education team has established a leadership sharing plan that will ensure long term continuity, and make it less burdensome to future Education Directors.

Ed Swakon and the Planning Committee led by Ed Ferguson were grateful that over 300 of our 1000+ members responded to the recent survey, which is a relatively high

return for surveys. We, of course, learned that the availability of Education Classes and the Open Shop facility are your highest priority reasons for Guild membership, with significant support for the Community Projects. It is very encouraging to find that there are a large number of you who will be willing under the right circumstances to step up as instructors and shop attendants. Since the survey was anonymous, I encourage those folks to contact Doug Drake for Education and Paul Ehrlich for Shop Attendant training opportunities. One of the most eye-opening findings from the survey is that the 1/3 of you who responded, are investing around \$500,000 collectively with our commercial sponsors! We hope in the next few months to go out to those sponsors to discuss options for them to provide supports to the Guild that may go beyond the typical 10% discounts you all enjoy.

The Board of Directors is obligated by our bylaws to put forward a slate of nominees for the 2021 Board at our upcoming October 20 General Meeting. A nominating committee has been working on this for a couple months now and have nearly assembled a complete slate. Of the 12 board positions, the only one we are still looking for is Financial Director, which is primarily the Treasurer task, and which will be supported by a couple others who are interested in participating as a Financial Committee. Over this year, our current Financial Director, Bill Hamilton, has done all the hard work to bring our affairs into standard accounting practice and converted to Quickbooks for record keeping and reporting, and has developed a great "Dashboard" set of graphs to keep the rest of the Board clearly informed of our current and projected financial conditions. We just need a member with bookkeeping or accounting experience to step up and help Bill get back to more of a focus on teaching classes and his own projects.



### **The Guild of Oregon Woodworkers is...**

..., a group of amateur and professional woodworkers committed to developing our craftsmanship.  
*Our Mission: To promote the craft of woodworking to the woodworkers of today and tomorrow.*

*Our Vision: A community of woodworkers that provide significant opportunities to develop, practice, enhance, and share skills.*

*The Guild offers many benefits for members, including:*

- ◆ Monthly programs
- ◆ Monthly newsletter
- ◆ Weekly Volunteer Special Interest Groups (SIGs)
- ◆ An education program to help members develop woodworking skills through a variety of hands-on and lecture classes
- ◆ Sponsor discounts
- ◆ Woodworking shows (such as Gathering of the Guilds)
- ◆ Network of business partners.
- ◆ A woodworking shop
- ◆ A network of friends and opportunities to volunteer and make a difference in our community

*What you can do for the Guild*

- ◆ Volunteer your time to contribute, assist, organize, lead, teach
- ◆ Take a class
- ◆ Contribute your knowledge

*For more information see the Guild website or visit the shop.*

*Guild Shop - 7634 SW 34th St, Portland, OR 97219*

[Guildoforegonwoodworkers.org](http://Guildoforegonwoodworkers.org)



Many Guild members recognize that woodworking can be a lonely avocation. It's fun to get together with other woodworker's to swap stories, share successes and failures, and to ask questions. Come join the fun at the next MEET-UP ...

**NOW ON-LINE**  
**MONDAY, OCTOBER 5 - 11:30 AM**  
**On-Line - ZOOM**

In an effort to allow members to keep the comradery of our monthly lunch meetings going, we will be hosting a Zoom get together.

Since it's going to be difficult to eat lunch together in a restaurant, we thought we could go around the gathered group and briefly discuss what we may or may not have been doing in your shop. If you have any pictures of items you'd like to share, have them available on your PC or Phone (depending on what you're connecting to the meeting with), and we'll be able to share your screen.

For security reasons we do not publish the meeting information on the website. We will send out the invite by email the day before—watch for it.

For information on using Zoom, click [HERE](#)

Remember to have your favorite beverage and eats too.



## **WELCOME NEW MEMBERS**

Welcome to our newest **33** members. We're happy to have you with us and hope you'll make a regular appearance at the monthly program (online at present), contribute articles to the newsletter, and volunteer in other ways.

Anna Bennison, Cassidy Bibo, Don Bray, Tom Carson, Joe Cochell, Sophie Collins, Steve Comella, Ben Ediger, Collin English, Keiran Haggerty, Steven Hall, Todd Huyghe, Hannah Jenkins, Gary Joaquin, Patrick LaValley, Russ Little, Jafar Mehdipour, John Meyer, John Middleton, Patrick Murphy, Edina Na-Songkhla, Paetra Orueta, Michele Palmer, Andrew Persoon, Brycen Peterson, Colton Rosman, David Sneeringer, Marlin Snyder, Jeffery Theisen, Paige Torbergson, Jeremy Townley, Heather Vines, Michael Vukas

## GUILD DUES INCREASE ADOPTED BY THE BOARD

### Ed Swakon, VP Membership



On Tuesday, September 15, the Board of the Guild adopted a dues increase for all member renewals and new members to take effect on November 1, 2020. The decision came after a four-month evaluation of membership revenue and fixed costs. In March, as the COVID pandemic forced the Guild to curtail all of its education and shop operations, it became apparent that

the long-term financial outlook for the Guild was not good unless we considered making changes in our revenue stream. The Guild's fixed reoccurring costs (Shop rent, utilities, insurance, IT costs, etc.) are currently approximately \$65,000/year. The Guild's membership in March was just over 1,100. Using the current dues rate of \$45/year, you can quickly see that the math doesn't work. The Guild was losing \$3,000/month or around \$15,000/year.

To make matters worse, we do not see the number of renewals and new members we had before the COVID pandemic and currently have just under 1,000 members. This reluctance to renew and/or join is understandable – no shop – no classes – health concerns – etc. However, this is a topic for further discussion as we are beginning to get our education classes started and have scheduled open-shop time for our members.

The Guild has not had a dues increase since 2005, well BEFORE the Guild had its current shop. All of our fixed costs have increased significantly since 2005, especially with the addition of the Guild's Shop. During its entire existence, the Guild has never run a deficit and historically is a fiscally conservative organization. As mentioned above, the Guild was losing \$3,000/month. Many of the Guild's activities are subsidized to some extent by member dues, classes such as Basic Skill development and Introduction to Woodworking classes are some. Also, many program activities, such as Toy Team, Community Projects, Project Build, and the Special Interests Groups, are

subsidized by member dues. Finally, compared to other organizations in Greater Portland, the current Guild dues are lower than most.

For all of the above-stated reasons, the new dues for a General Member will be increased to \$75/year (or the equivalent of \$6.25/month) on a member's next renewal and new members on November 1, 2020. To be clear, there is no monthly payment option.

The following changes to the other membership categories will be as follows:

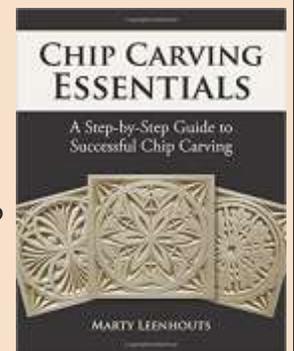
- ♦ The annual dues for a General member shall be \$75.00 per year.
- ♦ The annual dues for a General Family Membership shall be \$100.00
- ♦ The annual dues for a Professional Member shall be \$100.00, plus \$75.00 for each additional firm member.
- ♦ The annual dues for a full-time Student member shall be \$25.00 per year.
- ♦ The annual dues for a verified Wood Shop Educator shall be free.
- ♦ These changes become effective on November 1, 2020, for renewals and new members.

This decision was not made hastily, and we realize some will find it objectionable, but it was done in the best interest of the Guild. The Guild will be a stronger organization when we all emerge from the current COVID situation, and the dues increase will help ensure that we remain fiscally sound. Thanks to you all for your continuing support and contributions.

## CARVING SIG

### Oct 13th Introduction to Chip Carving

Chip carving is one of the three fundamental styles of carving, the others being relief and in-the-round. This 7:00 PM Zoom program features Marty Leenhouts who has combined his chip carving hobby and his passion for teaching in a successful career as owner/operator of a web site called My Chip Carving. He will discuss and demonstrate the art of chip carving. [Click here](#) to register.



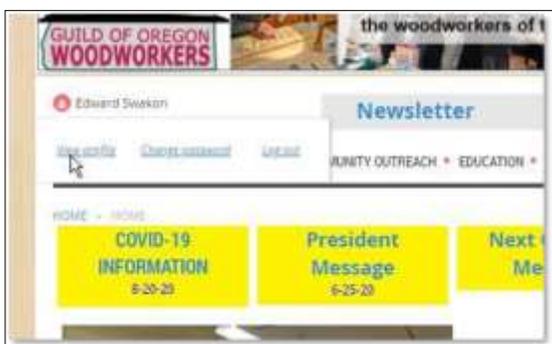
## MEMBERSHIP CARDS AVAILABLE ONLINE AND ON YOUR SMARTPHONE

### Ed Swakon, VP Membership

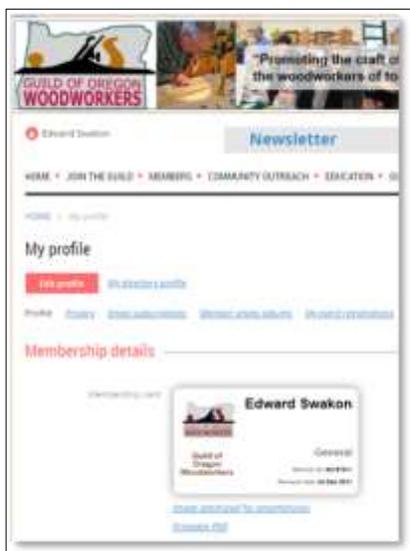
We are always looking for ways to make the Guild's operations easier for our volunteers to administer and for our members to use. We are pleased to announce that your membership card is now available online from the Guild's website and on your smartphone.

### From the Guild's Website

To access your card from the **Guild's Website**, log in, then click on your name in the upper left and click view profile.



You should now see your Membership Card and you can print it out.



### App on your Smartphone

The Guild uses membership software by Wild Apricot. One of the features is a mobile app (Wild Apricot for Members), which allows users to access Guild features, including the directory, events listing, and your Membership Card. To access your membership card and other Guild information **from your smartphone**, please follow these steps.

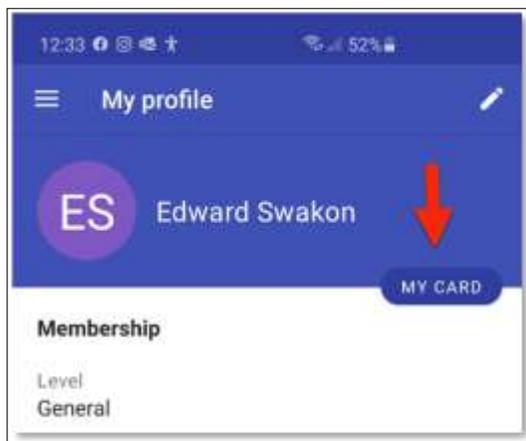
Download and install the app from either the Apple Store or Google Play using the links below.

Apple Store Link

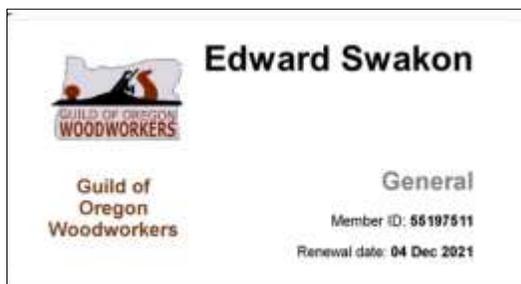
<https://apps.apple.com/app/wild-apricot/id1220348450>

Google Play Store Link <https://play.google.com/store/apps/details?id=com.wildapricot.appformembers>

Log in to the app using the same credentials you use on the Guild's website. You should see the following screen (I have an Android device), with "My Card" at the top.



Click on "My Card," and you should see your Membership Card.



### What else can you do with the App?

With the app you can:

- ♦ View the Guild's Calendar and view and register for an event.
- ♦ View your existing event registrations.
- ♦ View the Guild's member directory, view member profiles and email and call fellow members
- ♦ View your personal profile, including your membership card and renewal date

We hope this helps.

## GUILD UPCOMING CLASSES

### GETTING STARTED—HANDS-ON WITH PORTABLE POWER TOOLS

(Shop Safety for Beginners)

**Jeff Hilber and Ginny Benware**

Oct. 4, 9am-12:30pm or Nov 1, 9am-12:30pm

Class Fee: \$85

Class Coordinator: Doug Drake

This is the class that extends the new Intro to the Guild Shop Safety class (or the old Safety & Orientation) for beginning woodworkers. It is a prerequisite for shop certification for those not already experienced in safe operation of power tools. The class is hands-on, and you will leave with a cutting board that you have made.

### INTRODUCTION TO GUILD SAFETY

**Jeff Hilber and Ginny Benware**

Oct 18, 9:30am - 12:30pm or Nov. 15, 9:30am to 12:30

Class Fee: \$20 (see also class sections on Nov 15 and Dec 20)

Class Coordinator: Doug Drake

This is the first Guild Shop Safety class and is required for every Guild member, regardless of skill level, who wishes to take other shop classes or participate in the Community Projects groups. It will also set you up to take the follow-up classes to obtain your Shop card. It replaces the old Safety & Orientation class— if you have completed S & O you have already satisfied this requirement.

### BUILD THIS A. LEWIS INSPIRED SHOP STOOL

**Taeho Kwon**

Oct 19-20, 9am-5pm

Class Fee: \$575

Class Coordinator: Chip Webster

This class is filled. If you are interested, please check the Wait List.

### TIMBER FRAME JOINERY TECHNIQUES FOR FURNITURE MAKERS

**Taeho Kwon**

Oct 21-26, 9am-5pm

Class Fee: \$995

Class Coordinator: Chip Webster

This class is for those who want to acquire a deeper understanding of Eastern joinery. It will cover much of the joinery that is used in Eastern timber framed buildings, such as the Buddhist temple and the King's palace. At press time, there was just one spot remaining for this class.

See the Guild website for registration and details. Contact the Class Coordinator with questions. Classes are held at the Guild Shop unless otherwise specified. 7634 SW 34th Avenue, Portland, OR 97219. Be sure to bring your usual shop PPE and also to follow COVID safety measures.

### AFFILIATE UPCOMING CLASSES

As always, the affiliates' websites are the best sources of their class offerings, details and opportunity to register.

#### MARTIN MODEL

##### WOOD WORKING 101 BASICS- PART 1

Tuesdays for 10 weeks, starting on Oct 6, 2023

Instructor: Gary Martin

#### NORTHWEST WOODWORKING STUDIO

##### MAKING BENCH TOOLS

Mondays, Oct 12-Dec 14

Instructor: Jeff Miller

**EDUCATION** is up and running. Classes for the remainder of this year are now being selected and scheduled. **WATCH CLOSELY** on our website and check the Education Calendar for specifics!!



### MONTHLY SPECIAL INTEREST GROUPS (SIGs) AND GUILD LUNCHESES—ONLINE

[Hand Tool SIG](#) 9/23 7pm Online (fourth Wed.)

[Project Build](#) Guest: Chip Webster on Surface Preparation 9/24 1pm (30min) Online

[Women's SIG](#) 10/1 6:30pm Online (first Thursdays)

[Guild Luncheon Meet Up](#) 10/5 11:30am Online (first Mondays)

[CNC SIG](#) 10/8 7pm Online (second Thursdays)

[Carving SIG](#): Chip Carving with Marty Leenhouts 10/13 7pm Online (second Tues.)

[Professionals SIG](#) 10/14 7pm Online (second Wed.)

## LaRoque on the Loose

### Tips & Techniques



**Frank LaRoque**

### WHITE VINEGAR

White vinegar is my choice to remove excess glue. It removes the squeeze-out and works on almost all glues. Two exceptions are instant glue and silicones. If you use water, it just thins out the glue and leaves a thin layer of glue behind whereas vinegar actually removes all traces of the glue so when you stain or finish that area, you will not have a lighter than the surrounding piece.

One of the nice side benefits of using vinegar is that it will remove all traces of glue that you get on your fingers. I buy the white vinegar in plastic containers then drill a one eighth hole in the cap. This allows me to squirt a little (or a lot), onto a paper towel or a rag or my hands to cleanup. It also can be used to wipe down dirty hand grease on furniture. Leaves it nice and squeaky clean.



### FINISHING

#### FINISHING – BRUSHES ETC.

Brushes, there are all kinds of specialty bristles. Some for varnishing, some for latex house paint, some for acrylic paint, some for oil paint, some for lacquering, and on, and on. Please buy a brush that will suit your needs. I have real bristle brushes that I use for very fine varnish. Brushes that have nylon bristles for polyurethanes.

Choose brushes as best you can afford. I have brushes that are over 40 years old and with proper care you can have the same results. Cleaning properly as soon as you are finished with a project is an absolute must. Always use the solvent recommended on the can. Use a very clean container for cleaning. First lay the brush on a clean absorbent cloth or paper towels and press as much finish as you can into the towel. Then press the bristles into a clean solvent, pick up the brush, and press it into your palm,

squeezing the solvent into the top of the bristles (the Hock). Do this until the finish comes out to your satisfaction. Lay the brush aside and dispose of the dirtied solvent, wipe the container clean. Pour in fresh solvent and repeat the process squeezing the solvent in to the hock.

Very important side note: Handles on all good brushes are rounded for a very good reason. Between washes and just before storing them spin them dry between your palms to force all the solvent out of the hock and into a clean container. The benefit of this will show you how clean your brush is and whether it needs to be rinsed again in solvent.

Before you start finishing, I recommend that you rinse your brush in the correct solvent and spin dry. Water for waterborne finishes, mineral spirits for varnishes and polyurethane, lacquer thinner for lacquer, and alcohol for shellac.

One more very important fact... ALWAYS clean a new brush as they are loaded with stuff to hold their shape. Use appropriate solvents. I like to wash then in very hot water and liquid dish soap first. Dry and then wash in a solvent for the finish you are going to use. Years ago I did not do this and ruined a gallon of finish with the crud that was in my new brush. The finish came out with hundreds of tiny plumes. My boss was not happy...grin....



Additional information to add to the last.....

It is important to always pour a small amount of your finish into a clean container. This prevents you from contaminating the entire can of finish if your brush is not clean. The amount of finish should be about one third the length of the bristles. Then gently press the bristles onto the inside of the container to remove a small amount of finish, this loads the brush with the maximum amount of finish. Gently apply the finish with the tip of the brush and spread out the finish in the brush, and then spread it out in sweeping motion, going the same direction as the grain.

## MAKING LARGE-RADIUS CIRCULAR ARCS

### Barry O'Mahony

Whenever I need to fabricate a furniture that includes something other than straight edges, I tend to use MDF templates: it's easy to work with and inexpensive. If I mess up, I just make another. Once I have a satisfactory template, I just use a router with a template bit or flush trim bit to fashion as many pieces as needed.

One project I did was to design and build a stand for my new 90-gallon aquarium. The bottom edge of the bottom rails on each side was to be a circular arc. A common way of doing this is with a trammel: a pivot point is put at the center of the circle, and a board the length of the radius is used to connect the center pivot to the router.

This technique would work fine with the side rails for this project, as the radius was relatively short. But for the front rail, it would be a problem. As the rail was designed, the radius was over 20 feet. A trammel that long would have been very unwieldy and would have been problematic to set up in my shop.

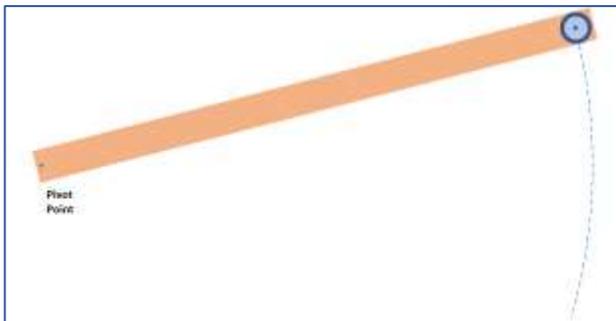


Figure 1. For a gentle arc, the trammel length gets unwieldy

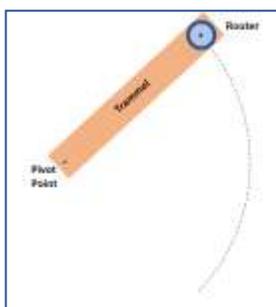


Figure 2. Routing a short-radius arc with router and trammel

Some people, for gentle arcs, use the bendy-stick method. I've never had much luck with that. Often-times, the stick doesn't bend evenly (tends to bend more in the middle). If you're looking for a circular arc, that's an issue. Then after transferring the stick's shape to the MDF with a pencil and rough cutting with a saw, you are then left with the laborious and time-consuming task of smoothing the rough cut to the line. No thanks.

What I needed was a way to do a gentle arc that didn't reference the center of the circle. Geometry to the rescue. Rather than putting the pivot at the center of the circle, two pivots at either end of the arc are used. The router is connected to two trammels, each one only a little longer than the arc itself. Grooves in the trammels slide over the pivot points. I'll spare the math, but if the angle between the trammels is fixed, the router will

trace out a circle as it is moved from side to side. The more shallow the angle, the gentler the arc.

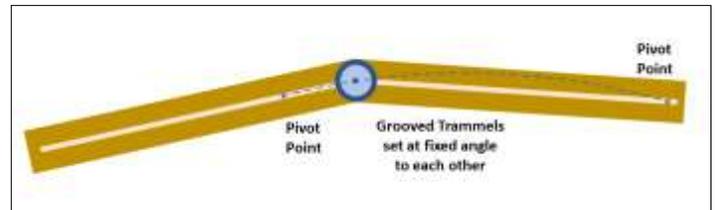


Figure 3. Gentle arc using two short trammels

With this technique, the router and the trammels can be kept fixed by using a router table and just moving the template material instead, which is what I did for this project. Two dowels at either end of the template material ride in the grooves in the trammels.



Figure 4. Trammel boards for steeper arc on router table



Figure 5. Trammel boards for gentle arc on router table

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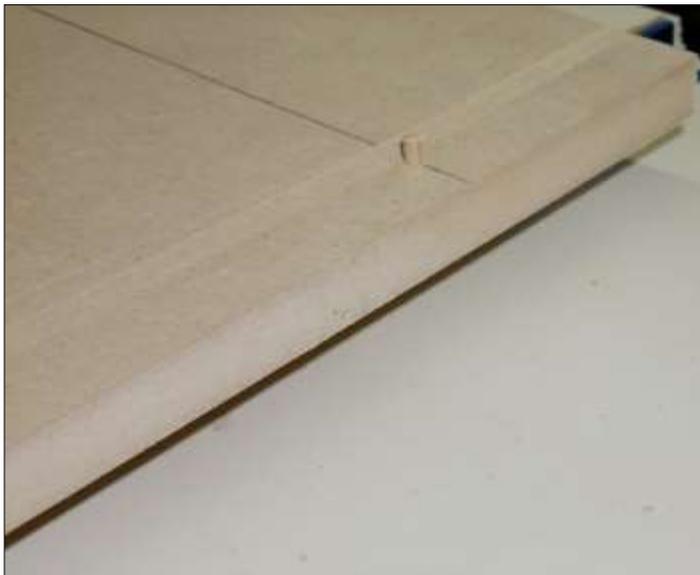
**CIRCULAR ARCS...** *continued from page 9*

I set the bit height so that the template material would be cut about halfway through, so it would stay in one piece during the operation. Then I rough cut through the arc groove on the bandsaw and cleaned it up with a flush trim bit.

The aquarium stand is built from white oak with bloodwood pegs and inlay. Baltic birch plywood was used for the back, top, and bottom, and a steel reinforcing bar runs behind the top front rail in order to accommodate the ~900 lbs. of the tank. I think the bottom rails look quite pleasing.



*Figure 6. Spiral bit pokes up to route the arc. A guide bushing mounted in the route table plate (not visible) helps locate the grooved trammels*



*Figure 7. 1/4" dowels on the template material ride in grooves in the trammels*

## BROKEN CHAIRS

### Bill Hamilton

Over the last couple of years, I have taken a number of jobs from the Hire-a-Woodworker forum that involve repairing broken chairs. The typical scenario is someone's son/uncle/nephew was over for dinner and leaned back in a dining room chair and broke off a leg (of the chair). Often, they have taken it to a furniture store where they were told that it could not be repaired. Another scenario is that the movers broke it.

At any rate I have found that repairing broken chairs is both interesting and challenging. There are two, often conflicting goals in furniture repair, one structural and the other cosmetic. Often the cosmetic piece of it is harder because matching aged finishes is very difficult.



Recently a request came through to repair a broken director chair where the round, turned tenon on the top of the leg broke where it meets the seat side rail. (Photo 1) The owner thought a new leg would have to be made because she didn't think this one could be repaired. Although making the new leg wouldn't be that

difficult, some of the metal hardware was riveted to the leg and availability of replacements was unknown.

I took a different approach. I cut the broken end off of the chair leg flush where it meets the seat rail and removed the pieces of the tenon that were still in the round mortise in the seat rail. I then drilled a hole into the top of the leg about 3" deep. (Photo 2) Next, I turned a round peg that would become the new tenon and epoxied it into the leg. (Photo 3) (Photo 4) Once the epoxy set, I inserted the repaired leg back into the seat rail and fastened it. No finishing or hardware was required, and the repair is invisible. (Photo 5).



## TAEHO KWON – TIMBER FRAME JOINERY TECHNIQUES FOR FURNITURE MAKERS

*Steve Poland*



*Taeho flying through explanation of twisting forces.*

Many of you were able to see Taeho’s presentation on Sept. 7 on **Theory & Application of Eastern Joinery** where we heard a lot about traditional strategies to create strong and long-lasting structures. We learned about keeping large members in the same orientation as their growth – root end down, thicker sapwood to exterior. This is thought to allow the wood to better withstand and recover from weather exposure.

We heard about the need to allow for expansion and contraction within assemblies, and to provide relief for movement based on the idea that expansion can move to find available space. A discussion about drying and shrinkage leading to twisting of members, drives some of the multiple member assembly stacks between column and roof members in traditional architecture. These complex assemblies help distribute and relieve stresses from this twisting and also from earthquake movement.

how to execute these joints using primarily the table saw, with a sled for both 90 and 45 degree cuts, a tenoning jig, and a “16 siding” fixture for creating cylindrical members. He also demonstrated how he constructs these fixtures.



*Completed 45 and 90 degree sled.*



*Tenon jig right side.*



Building from those concepts, the **Timber Frame** class is meant to create an understanding of the traditional architectural components, and how they are jointed together. For practicality, Taeho showed us

*Sled fastened first to left base. Then clamped to straightedge and fastened to right base.*



*Tenon jig left side, with clamp blocks for diagonal slot cuts.*

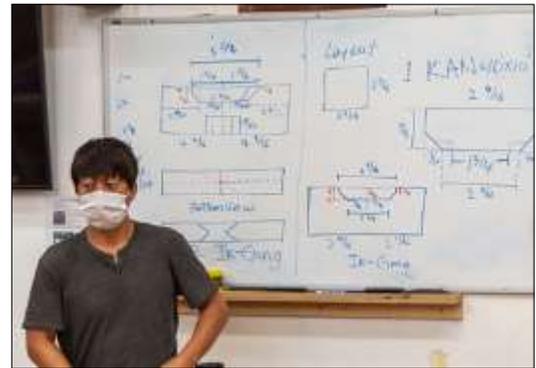
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**TIMBER FRAME JOINERY TECHNIQUES...continued**  
*from page 12*

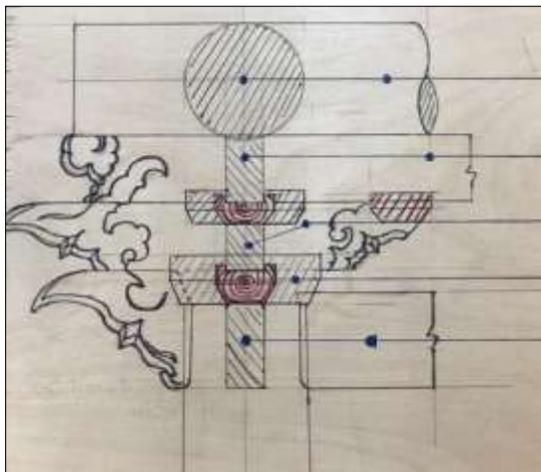


*16 siding jig. Sector lines marked each 22.5 degrees on work piece and rotated to rip at each position.*

The class started out with an assignment to reproduce a base drawing representing a plan view or horizontal section through the top of columns and first layer of beams that would support the hip roof of a traditional pavilion. The first day we did layout lines on these first layer members, which was complicated enough but exacerbated by having to understand the individual names of each part: main beams = Chang-Bang, secondary beams = Jang-Yo, Third level beams = Dori, intermediate tie pieces = Ik-Gong, upper ties = Yi-ik-Gong, square joining members between each layer – Joo-Doo. There are several more member names, but I would have failed that part of the final exam.



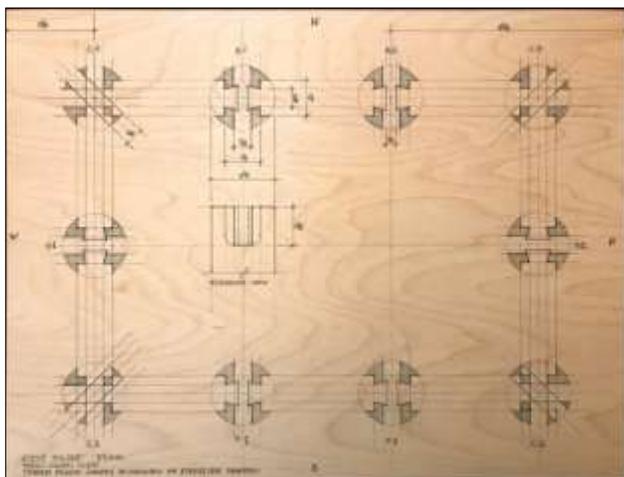
*Taeho drew Ik-gong layout from memory!*



*Taeho's sketch at column assembly.*



*Layout & 1<sup>st</sup> cuts*



*Plan drawing assignment.*

The density of layout lines for each part was intimidating when we realized we would need to execute multiple cuts each using a different subset of these lines at each joint. But Taeho coached us through these by setting up most cuts in a particular sequence that avoided obliteration of lines that would be needed for subsequent operations.

This framing requires basing almost all of the layout on symmetrical offsets from centerlines. Working at this scale, that meant dividing member sizes by 2, or 3 to meas-

*continued on page 14*

**TIMBER FRAME JOINERY TECHNIQUES...continued**  
*from page 13*

ure these offsets, which quickly had us using 32nds of an inch, and even 64ths. This would have been nearly impossible for my aging eyes, but was very doable using the Inkra T-marking gages with .5mm pencil holes.

As we began to do the first half lap and combinations with additional members lapping through at 45 degrees it became perfectly clear that extreme accuracy in both layout marking and setting up stops and saw cuts would be required. This may be what is most applicable to anything we do that we took away from the class.



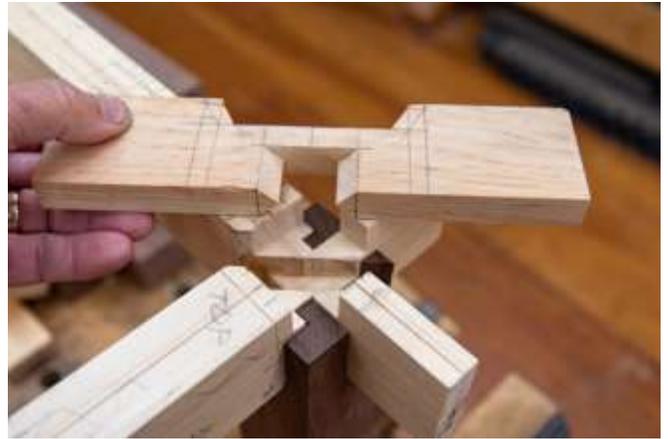
*Three-way lap joint preparation.*



*1 – Front chong bong to column*



*2 – Side chong bong*



*3 – Diagonal Chong Bong*

As the days progressed and Taeho could see that we understood the need for accuracy and planning of how to safely execute each cut, he would ask each of us to do a set up so all students could cut their parts with the same set up. We became well practiced in his method of adjusting blade height by shifting the work piece forward and back against the side of the blade to see where the tip of teeth rose closest to layout line, and judging blade alignment with left, center or right edge of the <.5mm layout lines!

And then he walked us through layout and sequential cutting for FIVE MORE LAYERS of this structure. We learned how to cut notches and slots in the small anti-rotation blocks, “fist tenon” dovetail joints integrating horizontal members with column, round mortises to receive the round beams that included haunch tenons and matching mortise notches.



*JooDoo block notches.*

*continued on page 15*

## TIMBER FRAME JOINERY TECHNIQUES...continued from page 14



*Fist Tenons*



*Ik-Gongs & Ki-Ik-Gongs added, with Walnut Bo roof bottom chord before rounding.*

*The right column is a model of typical intermediate column assembly.*



*Julie Niemeyer assembling fist tenons*



*Corner Column assembly final.*

*Luckily we did not get to the traditional carving stage that Taeho showed in his initial sketch.*



*Ik-Gongs & Joo-Doo blocks*



I think all of us gained a lot of confidence in ability to work methodically through complex sequential layout and machining steps, realized we could work with surprising accuracy, and regardless of how we self-judged our final project, really enjoyed the challenge.

*continued on page 16*

**TIMBER FRAME JOINERY TECHNIQUES...continued**  
*from page 15*



*Thanks to Taeho Kwon for dedicating yourself to learning and passing on these amazing techniques!*



**VOLUNTEER OF THE MONTH: SEPTEMBER 2020**  
**VINCE CORBIN**



The Hire a Woodworker is a well-received and popular service the Guild offers the community. We get, on average, about 5 requests a week. Unfortunately, while we ask, we seldom get feedback from the customer or the member that picks these jobs up. However when we do get feedback, it is always very positive. Sometimes I

have been asked to remove the request because they were getting too many calls and had already picked a woodworker.

This summer, when I was not able to send these out, Vince Corbin picked up the task. There are two ways to do this; send requests out one at a time as they come in or consolidate them into once a week emails. The former is quick and easy for the sender but lots of emails to members. The latter takes significant time and effort for the sender but much more friendly to members. Vince took the consolidation route and caught up about 8 weeks of requests in 2-3 weeks, and more importantly, has picked up this task going forward.

Thanks Vince!

Roger Crooks

## TRASH TO TABLE

### *Dave Youmans*

You've probably heard this story before: "Honey, it would sure be nice if I had a . . ." In this case, a small table my wife could put out on the deck so she would have a place for a glass of iced tea.

"On the deck? Hmmm. It's a long shot, but worth a try."

I built the deck out of Meranti about 12 years ago. As I worked, I built up a small scrap pile of cut-offs. I did 'stick' them but did not cover the stack or do anything else to protect the wood.

Every now and then I'd notice the pile and think: "I should clean that up. What am I keeping that for anyway?"



12 years of Oregon weather can take a toll. But I thought what the heck, I'll pick through the pile, clean some of it up, and see what I've got.

So here's the result: from trash, to table, to "well whatdaya know?!"



## A NEW KITCHEN

### *John Sheridan*

This is a kitchen in Maple that I gutted and remodeled. The work table is my design with the iron work done by Farrell Ruppert. The stool is our original 1975 design, before it went worldwide. We put in an industrial exhaust fan and skylight over the stove. The floor is Marmoleum, the 19th Century flooring idea.



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