



WOOD FORUM

Newsletter of the Sonoma County Woodworkers Association

Volume 38, Issue 8

August 2018

SCWA Summer Barbecue

This month we will gather once again at the lovely Santa Rosa home of our Program Chair, Don Jereb.

Saturday, August 11: 4:00 - 7:00PM

3110 Montecito Meadow Drive, Santa Rosa



The SCWA will provide meat, drinks (soda and mineral water), and utensils. Please bring a salad or dessert to share. Members are welcome to bring a favorite six-pack of beer or bottle of wine if desired.

An email with RSVP information and dish/dessert sign-up will be sent out a week before the BBQ.

Looking forward to seeing everyone.



SCWA Monthly Meeting

July 10, 2018

by Joe Scannell

As promised, the trip to Nereo Woodworking in Windsor made for a great evening. The meeting started out in the usual fashion, with announcements made by board members. Don Jereb said that the Call for Entries has been posted to the website. Drop-off day is Thursday, November 8. The roster of judges has been filled: Ross Day, who is coming from Seattle; Julian Shaw from Sebastopol; and Paul Reiber from Mendocino. This will be the 30th Annual *Artistry in Wood*. Be there or be square!

Program Chair Chuck Root introduced our host for the evening, Philip Nereo. Phil, John Keller (also present), and a few other young termites started this organization forty years ago, and the SCWA and Philip Nereo are still going strong! Philip began with a tour of his extensive shop, fielding questions as we proceeded. As you would expect, most of the machinery is big, rock solid, and built to last. All the usual things: bandsaws, tablesaw, jointer, planer, shapers with power feeders. There's also a 36" wide-belt sander that gets a lot of use, and a metal lathe which is kept around for those oddball jobs. There's a pin router, a duplicator

lathe, and another long-bed lathe that was being used for end-boring a large number of 6x6 posts. These had to be bored from each end to a depth of 27 inches with a 3-5/8" cutter.

used at the hardware store for duplicating keys. Blank knives are mounted in the shaper cutter head, which is mounted on an arbor. The desired pattern, between 1/16 and 1/8" thick, is mounted alongside,



and the whole assembly is moved across the face of a narrow grinding wheel while a follower traces the pattern. Sounds simple, right?

They use shapers for a lot of the work, and because many of the stair rails are curved, the jigs must be designed around this need. One clever trick he showed us was this: when building the jig, he makes it big enough to add two lag bolt handles to it, then stacks four 5 lb. barbell weights on the bolts to add mass to the jig, which helps keep the workpiece from being grabbed away from you.

In addition to the aforementioned, Philip has a few unexpected pieces of machinery. Would you believe a wood welder? How about two?? A wood welder is sort of a spot welder. Ordinary glue - Titebond II - is applied and the work is arranged and clamped. Then the "wand" or whatever you want to call it is set on the wood in selected spots for about ten seconds. It emits RF energy which heats the glue molecules and accelerates the drying process in those selected places. When done, you can remove the clamps, move the work, etc. The tack welds will hold things together while the rest of the glue dries normally. This can be especially advantageous in winter, in the unheated areas of the shop.

Another cool tool is a water-cooled profile grinder used for making custom shaper cutter patterns. It is essentially an oversized version of the machine



Photos by Jose Cuervo



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Philip does a lot of bent lamination to produce the graceful curved forms that are his specialty. He employs a vacuum bag whenever he can, most often with the form on the outside of the bag (photo below). In this way his form can be lighter in construction. For the occasional odd job where he needs to have the form inside the bag, it must be built to withstand the huge pressures involved.



He has one big bandsaw dedicated to making the veneer, with a power feeder to help with the labor and make the results consistent (photo right). The veneer is usually sawn and sanded to 1/10th of an inch, and a piece may require 12 layers. He uses a two-part glue, and has no trouble with springback. Philip mentioned an interesting point: because the vacuum bag creates a sealed system, evaporation of moisture is somewhat inhibited. And when gluing hardwoods, moisture absorption is also reduced. For this reason he avoids using water based glues, which cure by shedding moisture, for vacuum veneering.



During the evening Philip also discussed his business model. He has two full-time employees, himself and his son-in-law. Plus, his grandson works in the shop half-time. When things get real busy he has another fellow he calls in to work as well. They only do fabrication of components, whatever they may be. In the case of stairs, they may assemble these components into a larger assembly, for example a stair rail and balusters. The work goes out the door sanded, but they do not do installation, nor do they do finishing. Thus two of the biggest headaches are avoided from the start, allowing them to focus on the part of the job they enjoy.

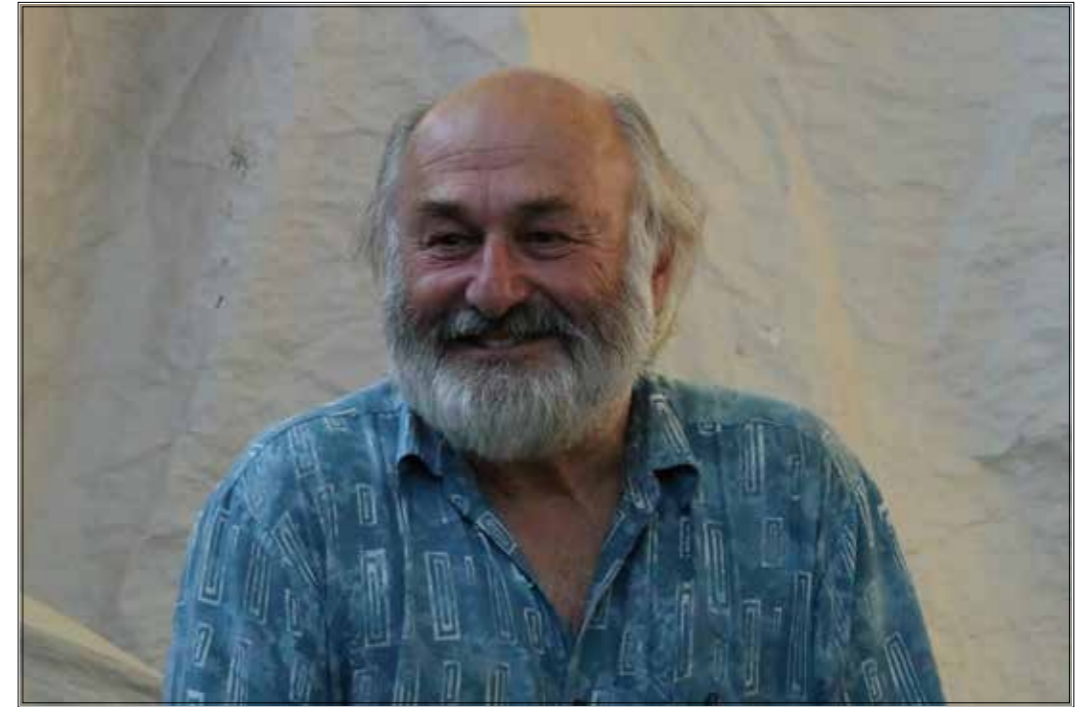
He uses a variety of woods according to the needs of the job. The current job is in redwood, but he also uses alder, walnut, cypress, white oak, maple, poplar, or whatever the customer wants. In the duplicator lathe he likes the harder woods because they hold a shoulder nicely, but also sometimes uses cypress, which has a somewhat waxy feel to it and cuts

cleanly, without tearout. He gets it from Mount Storm.

Another “wood” he has been playing with in the copy lathe is accoya, which is radiata pine cooked in ammonia in a pressurized chamber. The process changes the structure of the wood, stabilizing it so it doesn’t expand, contract, and crack, and making it impervious to insects, rot, and weathering. At \$7 per board foot it’s comparable to redwood or western red cedar.



The copy lathe is automated and uses a double-edged V tool (shown above) to do the cutting. To make a baluster, it starts at the tailstock and cuts the pattern as it progresses towards the headstock. At the same time, the operator follows along with sandpaper, and by the time the cutting is completed, another minute of sanding and the baluster is done. Occasionally, some additional work must be done on special pieces where, for example, an architect specifies a sharp shoulder that is beyond the reach of the V tool.



Philip Nereo

Philip draws the templates for the duplicator lathe using TurboCAD, and prints them out full size on a three foot wide roll plotter. The same method is used to make full-sized templates for curved stair rails, etc. He does the glue-up right on the paper template, a huge time saver.



The final and perhaps most unusual machine was revealed at the end of the tour. Called a Maslow, it's a light-duty CNC machine accurate to 1/64". Philip built his from a kit; in fact, that's the only way you

can get one. The kit is currently priced at \$410, and includes the chain, three motors, an Arduino board, and directions. You supply some lumber and plywood. The machine was the product of a Kickstarter campaign, and is gaining a lot of interest in the maker movement.

Basically, the router lays on a sloped sheet of plywood and is suspended from two chains that together make the X-Y axes. Another motor is installed into the plunge router to implement the Z axis. The motors connect to an Arduino microcontroller board, which is attached to an ordinary computer running the open-source software available on their website.

This machine cannot take a heavy cut. The recommended cutter is a single flute spiral bit, with a 3/16" maximum depth of cut. Philip uses his Maslow for making templates, which he then uses to produce the customer's parts. Other users seem to lean towards artistic projects. For more information, check out the website:

<https://www.maslowcnc.com/>

The evening drew to a close with a very appreciative audience delivering a nice round of applause.

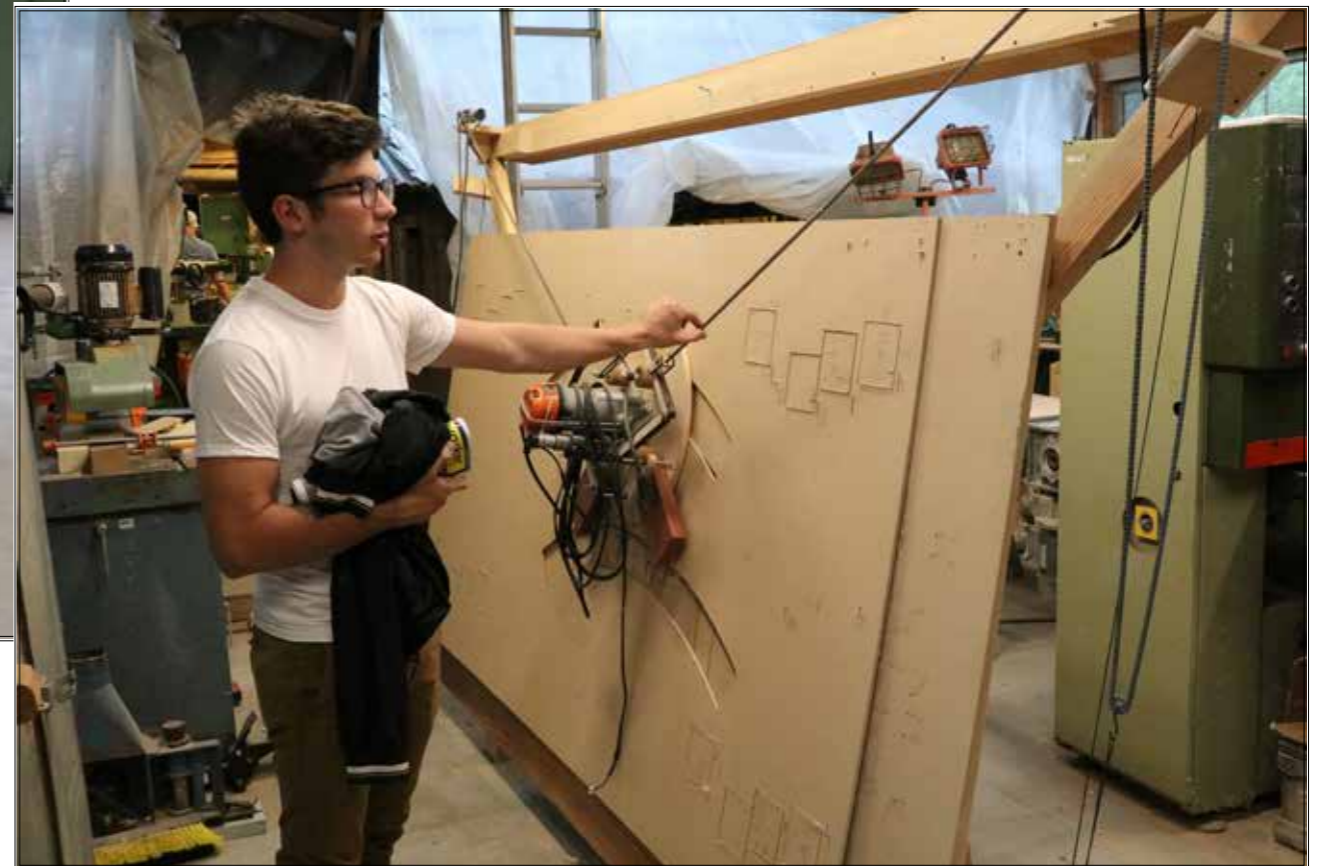
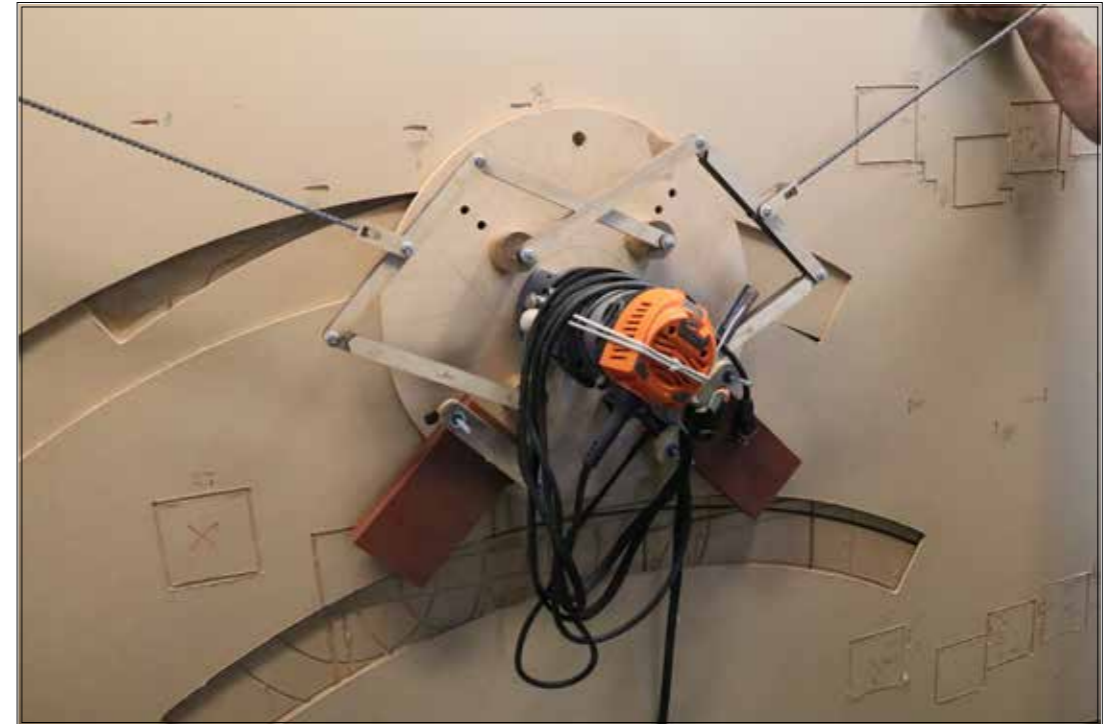




Photo by Jose Cuervo

Bill Hartman

Note from Michael Wallace

Just heard from Bill Hartman. As some of you may know, Bill was taking a course of study that he hoped would lead to an administrator's job somewhere, hopefully within the county. With that in mind, he tendered his resignation to Rancho Cotate High School at the end of the school year this past May.

Bill's search for a new job didn't quite pan out and in the end, he has decided to take a teaching job in Southern California. I can't recall where. While his new teaching job won't be totally dedicated to woodworking, he will be doing some with his new classes as well as other skills (metal work, etc). He'll be leaving on August 1st.

Rancho Cotate has hired a new teacher to replace Bill. He comes from one of the middle schools and has some woodworking background, but has been teaching computer technology. I have met him and he seems like a nice guy.

Some of you may know that I've been one of several volunteers in Bill's classes over the last two years. For now, I don't expect I will be going back. Later on, perhaps.

For a number of years, we have met at Bill's classroom for group meetings. That has tapered off as Bill's schedule with his studies wasn't allowing him to be available. Perhaps later, when the new teacher gets settled, we might be able to return, but given that **180 Studios** seems to be an optimum meeting site, I'd doubt we will need to be there.

For the record, Bill had six periods daily and each was filled. His students kept coming back for more, and many of them have created some nice pieces. Bill just didn't do "make work" (bird houses, etc), his students built armoires, desks, night stands, etc., really good things and all of his students, as far as I know, never had a serious accident and they used table saws, jointers, planers, etc.



Treasure Box by Robin Wilson

Artistry in Wood 2017



Low Trestle Table or Altar by Jeffrey Dale

A reminder, the class still has a few openings:

PRACTICAL FURNITURE MAKING

by Garrett Hack

September 15 & 16, 9AM-4:30PM

180 Studios, Todd Road, Santa Rosa

Why are some pieces of furniture so appealing, elegant, and well made? Design is a factor, but so are the many choices the maker makes, which techniques, joints, woods, and details. We will explore this building process, looking at design, hand tools, strong joinery, wonderful details, and how to work efficiently and accurately — practical stuff and very useful.

This program is relevant to machine woodworkers and hand tool purists, and whether you make traditional or contemporary work.

We begin with a discussion of DESIGN illustrated by many images of a range of styles, from historic to contemporary. Why are some pieces of furniture so appealing, others less so? How does the maker draw your eye to certain elements, resolve design issues, and actually build the piece efficiently? By using images of his work and some demos Garrett will explain about how to get started on a design, choosing appropriate materials, using contrast, (and how the wood will age), and choosing effective building techniques and details.

How you actually build your design, whether working with HAND TOOLS and/or machines is up next. How do you design and cut strong joinery, polished surfaces and

appealing curves, while working efficiently and accurately? He will demonstrate typical techniques that he does almost daily — smoothing surfaces to a polish, edge jointing two boards, molding edges, bevels, chamfers and curves. He will also talk about tuning your tools and sharpening, from the common hand tools to the more unusual.

Two essential joints are next on the program, mortise and tenons and tapered or straight sliding dovetails. These, along with half-blind dovetails are the most used joints, so it is worth investigating how to both cut them accurately and design them to be as strong as possible. We use mortise and tenons for everything from door construction to chairs, with almost unlimited variations. The sliding dovetail is an incredibly useful and strong joint for case construction and can be cut accurately with a router and some hand tools.

The last area that Garrett will cover is DETAILS. He will discuss many decorative techniques that are practical, attractive, and useful — inlays, beads, cockbeads, chamfers, fans, dot/dash lines, bandings, and using materials such as shells or metals. He will also demonstrate how to make scratchstocks and the cutters that make this such a useful tool for more than just details.



Wall Cabinet by Don Jereb, AIW 2016

A product of a Garrett Hack class.

This is essentially a demonstration/discussion class that is relevant to all woodworking skill levels. I can foresee some time during breaks to be devoted to attendees trying out presented techniques and processes.

Members should feel free to call Don Jereb with any questions:
(707-695-5252) or donjereb@gmail.com.

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Wood Forum is the monthly newsletter of the Sonoma County Woodworkers Association. Please feel free to submit articles and photographs for inclusion in the publication. You can send your submissions to the Wood Forum Editor at SCWAEditor@gmail.com. Advertisements are also accepted with a nominal cost for paid members.

Membership Application

I would like to join the SCWA to meet other people interested in the craft, the art and the business of fine wood-working. Enclosed is my check in the amount of \$35 for the annual dues. I understand that this fee entitles me to attend monthly meetings and to receive the Wood Forum newsletter by email or via the SCWA's website.

Name _____ Email _____

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Cell Phone _____ Work Phone _____

What can you do to help further the organizational goals of our volunteer-run association? Please tell us how you would like to help:

Please send check and completed application to:

Sonoma County Woodworkers Association, PO Box 4176, Santa Rosa, CA 95402