



WOOD FORUM

Newsletter of the Sonoma County Woodworkers Association

Volume 38, Issue 2

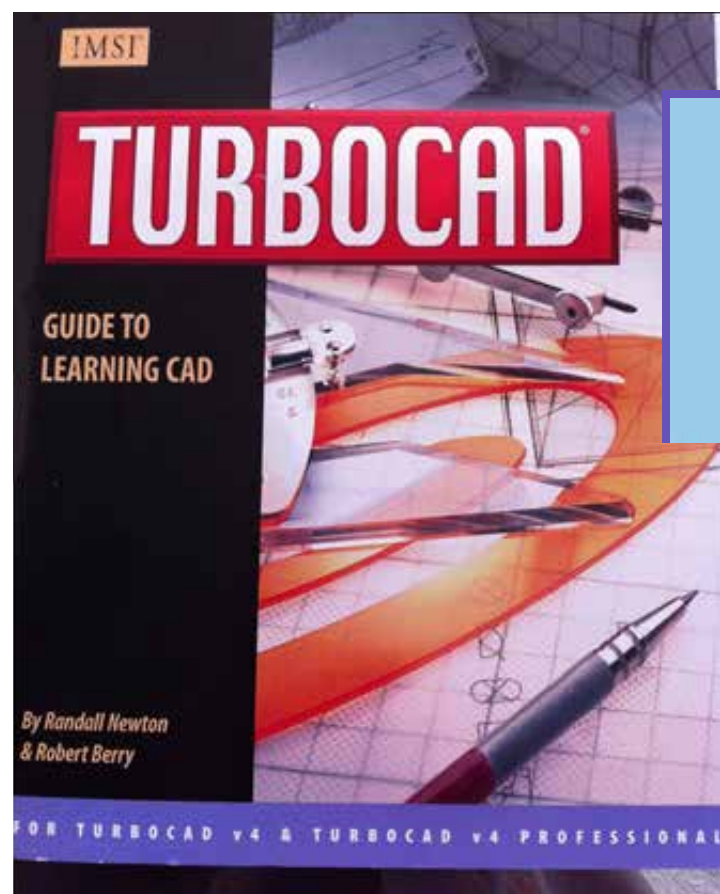
February 2018

Are You Up To Speed?

Leading TurboCAD expert Robert Berry will be giving a presentation on Feb 6, 2018 to SCWA on using TurboCAD to design your woodworking projects.

Originally from South Africa, Berry immigrated to the USA over 20 years ago when TurboCAD was purchased by the Marin County-based company IMSI. He has been the TurboCAD Product Manager and Director, in addition to owning his own CAD training business. He has given presentations on TurboCAD all over the world at trade shows, press tours, and corporate demonstrations. He has trained personnel at HUD, the U.S. Air Force, the Board of Elections, Boeing, Blue Man Group, and the Jamaica Business Development Corporation.

During his presentation, Robert Berry will show examples of work created by woodworkers using TurboCAD, and the ways in which the software has been used by Shopbot and Legacy woodworking CNC machines.



He will also demonstrate both the 2D and 3D features of the software, and explain how to prepare the drawing for export to CNC cutting machines. How to create dovetails and sockets will be discussed, as will realistic rendering with woodgrains.

Berry will demonstrate TurboCAD Furniture Maker (which is a professional kitchen cabinet making software built on top of TurboCAD). He will point out the differences between the Professional and Deluxe versions of the

software. Discounted versions of the software will be available to attendees of the presentation.



This month's meeting will be held at **180 Studios**, 150 Todd Road, Santa Rosa. The February 6 meeting begins at 7pm.

180 Studios is located just off Highway 101 at the southwest corner of the Todd Road exit off 101.

Artistry in Wood 2017

Show Director's Report

I'm happy to report that the 2017 *Artistry in Wood* Show had a very successful seven-week run, closing on Sunday, January 7. Attendance for the show was impressive. In excess of 160 people were present for opening night, and in the final week of the show 320 individuals visited. The total attendance was in excess of 1,450. There were also five well-attended lecture and demonstration presentations, including the children's project building day, show tours by Larry Stroud and myself, a mid-century modern lecture by Michael Wallace, and a bowl turning demonstration by Hugh Buttrum.

Show entries were notable for a wide variety of art sculpture pieces, turned vessels, boxes, and furniture. Entries came mainly from local artisans, but there were also entries from the greater Bay Area, Sacramento, the Sierra foothills, and notably two current students from the College of the Redwoods woodworking program. With the show's ending, the People's Choice Award ballots were counted, and "Roar" by Paul Marini garnered the most votes. Congratulations Paul!

Financially, the show did very well, in that we originally had projected an approximate \$750 deficit in the total budget. In the end, we had a \$150 deficit. This improvement was due to an increase in the number of expected entries as well as our share of the profits from member-made items that were sold in the museum gift shop. A special thank you to those who made the small but beautiful wood items for us to sell.

As it stands right now, there are at least four sales of show pieces or commissions for duplicates. I would like to track sales or further commissions

Artistry in Wood 2017

Roar by Paul Marini



People's Choice Award

that are a direct result of the show, and request that exhibitors notify me if they have a resulting sale.

I have been pleased by the response and support for the show by the History Museum Curator, Eric Stanley, and the Museum Executive Director, Jeff Nathanson. Both were not only helpful and available for the overall planning, but also instrumental in the setup and daily management of the show.

I am currently in the process of meeting with them to start the planning for *Artistry in Wood* 2018: the 30th annual show! My goal is to have the same time slot for the show. I will immediately update the Association membership once I have a firm commitment by the museum for show dates.

And finally, I sincerely appreciate all of the volunteer help and support from Association members who contributed countless hours to all facets of the show.

This is truly a member-run show, and is only possible because of our collective efforts. Set-up volunteers included Bill Taft, Bob Roudman, Walt Doll, Chuck Root, Steve Hart, Paul Marini, Bill Gunter, Harvey Newman, Rod Fraser, and Joe Scannell. Individuals who produced items for the Museum Gift Shop include Tom Vogel, Bob Roudman, Walt Doll, Mike Center, Mike Wallace, Bill Gunter, and Rod Fraser. My apologies if I have inadvertently left anyone's name off this list.

I want to encourage everyone to start dreaming up ideas of creations for the *Artistry in Wood* 2018 Show. I look forward to the exciting and beautiful pieces that our members create and exhibit.

Don Jereb

SCWA Monthly Meeting

January 9, 2018

by Joe Scannell

The January meeting began as it always does with guest introductions, and this evening there was only one, Rich, a guitarmaker from the area, who confessed to a desire to slightly alter his career path from making guitars to making violins, thereby “making a lot more money.” Good luck with that.

Show Chair Don Jereb gave a rundown on the recently concluded *Artistry in Wood* Show (see full report on page 2). He said the award certificates and entry photos would be going out as soon as he could manage. With a drumroll in the background, Don announced the winner of the People’s Choice Award, *Roar* by Paul Marini. Paul was stunned by the news, but declined the \$150 prize, instead donating it back to the Association.

Treasurer Judi Garland mentioned to the group that she was looking for gainful employment in a woodworking situation with someone who could use a hand with the grunt work, whatever needs to be done to make them more productive. If anyone is aware of such a position, please let her know directly.

The evening’s presentation began with an introduction of Andrew (“Andy”) Carruthers, a local luthier who has been in the trade for 25 years, 20 of those in Santa Rosa. After his first instrument, a redwood top guitar, Andy decided he wanted to be a violin maker, and

that’s what he did for a few years, until a growing family made reliable income more important, pushing him into the restoration field. But a few years ago he realized he was spending only half his time on restorations, and with less pressure to make money he decided to return full-time to his first love, making new instruments. His production is now roughly half violins and half cellos, with an occasional viola.

With apologies in

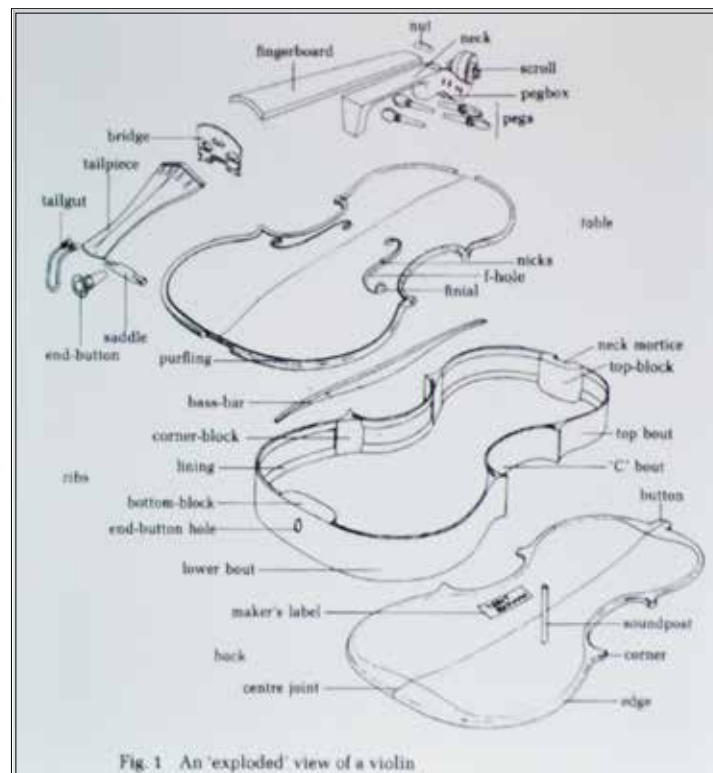


Fig. 1 An 'exploded' view of a violin



advance, this writer being unversed in the ways of instrument making (or playing, for that matter), this is what I think Andy told us.

A violin or cello comprises six sides, a.k.a. ribs or “bouts,” joined with wood blocks. These bouts are approximately 1mm thick (1.5mm on a cello) and are bent into their required curved shapes on a hot iron. The luthiers of Cremona, Italy, which included Stradivari and Guarneri, used a mold board shaped like the interior of the violin body, to which these wooden blocks were temporarily attached. This Cremoni mold is still in common usage today, and determines the perimeter shape of the instrument.

After attaching the blocks to the mold, the sides are bent to the needed shapes and glued to the blocks, then the assembly is dismantled from the mold and set aside.

The next step is to prepare the back and top. The back is often maple, and the top is spruce. Spruce is the wood of choice because it is stiff and relatively lightweight. The violin top is an amplifier that vibrates with the strings. Spruce, being light, has very low inertia and thus produces more volume. The best spruce comes from trees grown slowly, and the best place to find them is in the Italian alps, which is where Andy obtains his. He wants air-dried only, and well-aged.

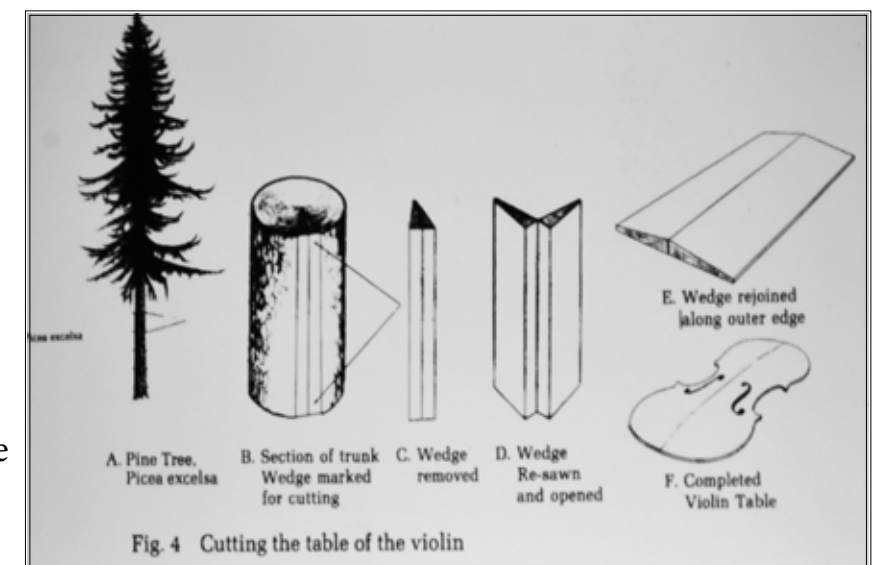


Fig. 4 Cutting the table of the violin

The most common method is to join two pieces of quartersawn material down the centerline, with the new growth in the center. However, because many trees grow with a twist in the trunk, the best pieces are produced not by sawing but by splitting the log, so the surface follows the grain in all three dimensions. Grain runout produces undesirable flashy, harlequin effects, and lowers tonal quality. Long, straight grain is the stuff you want.

Once joined, the bout assembly is laid on the back and top pieces and its outline traced to produce a slight overhang. The overhang permits easy top removal for maintenance. The pieces are then cut to this outline.



Using gouges and very small planes, the whole is carved into what can best be described as a dome, starting from the inside. When the inside is done, the outside is pared away to give the desired thickness, which varies over the terrain of the piece (the edges are thinner). The shape of this dome is a voluminous subject, but thickness maps have been made from all the great instruments in history, and these are the roadmaps. Various methods are employed to measure the thickness. Strad used a pin punch in a frame.

After that there are f holes to be cut, a mortise for the neck, a bass bar attached to the inside of the top, linings to be installed, etc., then the whole thing is glued together with hide glue. A groove is cut in the top, parallel with the edge, and purfling is added for decoration. It also protects the edge from damage, and may contribute to tonal quality in older instruments as shrinkage occurs over time. Andy likes to use aspen, alder and maple for his purfling, and dyes the darker pieces.



In further DIY mode, he makes his own varnish from rosin, which I learned is pine sap with the turpentine driven off. He cooks the rosin to darken it, then mixes in linseed oil to make it spreadable, cooks it some more, then adds turpentine to make it more volatile. His objective is a hard, durable varnish that is still scratchable to enable antiquing.

Andy discussed violin shape, which he points out is determined by the human body. Since there are no frets, there are no ready reference points for the musician. Instead, she measures with her hand from

where the neck joins the body. If the strings were 2~3mm longer than standard, she would be playing out of tune.



The body shape evolved over several hundred years, but Stradivari nailed it 300 years ago. His design produces the maximum volume and best tonal richness for a given string length. The body width must be a standard because the bow would hit the body if it were too wide. The body volume must be standard to get the same tone as other instruments.

Still, there is a lot of variation between makers. Comparing Stradivari and Guarneri, Stradivari's work was more controlled and precise. He liked symmetry. Guarneri, whose violins are more sought after, produced a more human, hand-tooled look. The f holes were looser, less symmetrical.

With the Industrial Revolution, people's ideas about symmetry changed. In the 19th century, to facilitate mass production, makers started using an outside mold instead. This produced an instrument indistinguishable from another made on the same mold.

Handwork is not necessarily a lack of precision. It is a shift in aesthetics, a shift in awareness, where precise symmetry is not necessary. When mass production changed this, something was lost.

Andy tries to build variation into each piece by using a skeleton mold. A big advantage is that you only need one mold for all your violins. A paper or mylar sketch of the outline is superimposed on the mold, and the work is done more “by eye.” A detailed account of this method can be found on Andy’s website:

<http://www.andrewcarruthers.com/wp-content/uploads/2016/02/Skeleton-mold-article.pdf>



Carruthers likes the handmade look, so he leaves chisel marks and such, but then there is the question of “antiquing.” Dealers say, “Antique your instrument, it will sell better.” The other side of the argument is, if it doesn’t fool anyone, what’s the point? Well, no musician wants to be the one in the orchestra with the shiny red violin. So Andy has come to terms with it by telling himself it’s basically a decorative finish that makes it more interesting to look at, more for the eye to see.

Some makers prefer to forego antiquing. “I would do that if my work was better. Probably, if I did that more, my work *would* be better. I let myself get away with a lot of stuff because I antique the instrument. It’s the state of our trade that the majority of makers produce antiqued instruments these days.”

Carruthers spends roughly 200 hours over 1~2 months producing one violin. He does not do commissioned work, spec only. He sells mostly through dealers. To date, he has made about 120 violins and 80 cellos, plus a few violas. For \$20,000 you can own a Carruthers violin. A cello will cost you double that.

The evening concluded with a warm applause from the members.



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Christmas Presents



by Bill Taft

I have been making Christmas presents for our children and grandchildren for many years, since we moved here, I guess. Some years it is difficult for me to come up with a good idea for the gifts. This year it was easy. Two things happened: our son Mike and his family vacationed in Europe, spending five days in Paris; and I read the book “**All the Light You Cannot See**” by Anthony Doerr. In this book, the father of a young girl who becomes blind at the age of six, makes model houses for her to examine with her hands. He also makes a model of their Paris neighborhood that allows her to learn enough to be able to walk locally. As a treat for her birthdays he makes special house puzzle boxes, for her to solve the puzzles and find treats. This story was the inspiration for making the Paris Street Houses as family gifts this year. I believe that the architecture of the buildings in Paris make it the most beautiful city in the world. It is my favorite city.

I made 16 puzzle houses, four each of four different designs. The interior shelves, drawers and treasure boxes were the same for all of the houses. The exteriors of each of the four designs are unique. The houses are modeled after clay Paris house figurines that I collected on some of our visits to Paris. The puzzle features are something that I just came up with. Each set of four houses contains one house each of the four different house designs. Two



house designs were made with soft maple and the other two house designs were made with poplar. All of the houses were finished with one coat of Watco Butcher Block oil based finish.

The houses are grouped together and connected to a stand for each family. There are three groups of four houses, one of two houses and two individual houses. Each house is a puzzle box that contains two “treasures.” To get to the treasures you have to

solve the puzzles, first by removing the houses from the stand, and then figuring out how to open the boxes. I intended the treasure hunt to be a family activity, and

then the boxes were to be reassembled and returned to the stand to be displayed.

The structure of all of the house boxes is the same. Each house has a front, two sides, and a removable

back connected together using two shelves, a lower base, and an upper base. They are all 2¼ inches wide by 2¼ inches deep by about 9 inches tall. All of the pieces are 3/16 inches thick and all were cut to size using my tablesaw. All are glued together using white glue. Each house has two drawers, and each drawer holds one treasure chest, a



small box. One must discover how to open the house box, how to remove the drawers from the house, how to remove the treasure chest from the drawer, and how to open it. It took me many hours to come up with the “tricks” and less than five minutes for each family to solve the puzzles and find the “treasures.”



The design of the front and the visible sides of each of the four house types is different. Also, there are four different roof top designs. The features, windows, doors and balconies are cut into the front or side panels using a double-bevel marquetry technique on a scroll saw. Many of the features required extensive pre-assembly work before being cut into the panels. All of this preliminary work was done before assembling the houses. The trim pieces were fit and glued to the houses after the houses were assembled. I started this project by designing the basic house, a house with a curved roof. I made a “test house” that was then used to refine the design. This evolved into the four houses, each with a unique look and each with a relationship to the other three houses in the group. On a typical Paris street the street level is a business and the other floors are living spaces. The fronts of three of the houses depict businesses: the one with the side house is a boulangerie (bakery), one is a pharmacie and one is a fourreur (furrier).

There were a couple of challenges in making the houses. One of them was forming the curved roofs. Initially I thought that it would be best to laminate two thin veneer pieces using a forming tool. I tried

using some oak veneer bonded with white glue, and when it dried the outside surface was all wavy due to shrinkage. Next I just bent some thicker veneer (about 3/64ths to 1/16th thick) and had some success, depending on the wood used. Hickory worked great, but I could not get the padauk pieces to hold the curve, too much spring-back. Eventually, after forming each piece four or five times, they were close enough that I could glue them to the roof structure.



There were complications. The roof tops had to slide toward the front of the houses about 1/4” to allow the back of the house to slide upward providing access to the treasures inside of the house. Yet, the roof tops had to remain attached to the house and be prevented from moving until a key holding them in position was discovered and released. I ended up using a sliding guide plate that fit into grooves in the sides of the house, which had to be glued to the top as the final assembly operation. I was very nervous about gluing the first one, because if it didn’t work right the house would be ruined. Fortunately, this approach worked very well and there were no problems at all.

I enjoyed almost every minute of working on these puzzle houses. Looking back, I started working on the design in July and completed the last houses in early January. There were some very long days just before Christmas, struggling to complete enough houses to take to our families in San Diego. I am pleased with the results and proud of having created something unique that others can enjoy.

Photos courtesy Bill Taft



Artistry in Wood 2017



Cowboy Hat by Dan Neff



Connections by Alan Brickman



A Burden On Our Mother by Michael Palace



Photos by Debbie Wilson

Elizabethan Style Settee by Gerry Wall

Meditation Rocking Chair by Jeffrey Dale



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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 _____

Address _____

City, Zip _____ Home Phone _____

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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