



Encouraging all woodworkers in self-expression, craftsmanship and knowledge

Colorado Woodworkers Guild

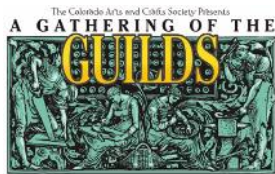
April 2017

Upcoming Events

April 18, 2017 - At the February meeting, Frank Livingston entered what he calls "Scroll Saw Bowls" in the Show & Tell. The bowls were well received and Frank was the S&T winner. Frank has agreed to give us a presentation on how these are made. For those of you who were not present at the February meeting here is a pic of Frank's work:



April 30, 2017 - The Colorado Arts & Crafts Society will have its annual "Gathering Of The Guilds" at [The Boettcher Mansion](#). The guild will have a table there. This is a great way to explore the work of many other guilds in the area.



May 16, 2017 - In the September 2016 Show & Tell, Mike Farrington presented boxes topped with the Japanese art of "Kumiko" which is a symmetrical lattice-work. Mike has agreed to present the construction of a Kumiko lattice. Here are pictures of Mike's work.



June 20, 2017 - CWG President Jim McNamee and long-time member Lindy Baer will give us a presentation on Personal Respirators.

July 18, 2017 - There is currently nothing planned for this meeting. If you have any suggestions, please drop an email to programs@coloradowoodworkersguild.org

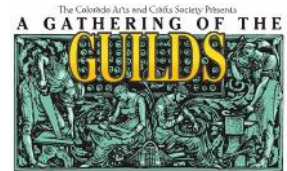
President's Message



Many of you have renewed your membership, but some have yet to do so. We count on membership dues to fund most of the Guild's activities throughout the year. We thank those who have already renewed for 2017. For those of you who haven't, you may do so at April's meeting or by renewing [online](#).

The next interment of unclaimed veterans' remains was held on Friday, March 24 at Ft. Logan National Cemetery. Wooden funeral urns made by Guild members were an integral part of this touching ceremony. To all Guild members who made funeral urns and to those who attended the Final Roll Call Final Committal service, the [Vietnam Veterans of America Chapter 1071](#) deeply thank you.

The [Colorado Arts & Crafts Society](#) will hold its annual "Gathering of the Guilds" at The Boettcher Mansion on Sunday April 30, 2017, 10 AM to 4 PM.



The Colorado Woodworkers Guild will have a table there showcasing examples of woodworking done by our members. Admission, normally \$5, is free to CWG members. This is an opportunity to see and become inspired by the work of a wide variety of craftspeople in our area.

By Jim McNamee

What's On My Mind

Woodworker or Wood Programmer?



Computer numerical control (CNC) machines have been a mainstay of machine shops for decades. Similar technology has made substantial inroads into commercial cabinet manufacturing and custom woodworking shops. Woodworking versions slide a router and its bit across a board, removing small amounts of wood with each pass. Computer software commands control the router's path to create the desired pattern. Thanks to falling prices and easy-to-use controls, CNC woodworking machines are making inroads into hobby woodworking.

A second style of CNC machine employs a powerful laser that vaporizes surface material and "engraves" a desired pattern on wood. A 40-watt laser can engrave deeply enough to cut through wood up to 1/2" thick. Lower prices and better software mean these machines, too, are creeping into our workshops. If you'd like to put a CNC machine in your shop, there are plenty to choose from. You can find DIY versions for a little over \$100 all the way up to commercial versions costing tens of thousands of dollars.

All CNC machines are ideally suited for making many identical copies of a part. They'll follow intricate patterns and make cuts with great precision. Most will also cut and carve materials other than wood. They can be real time savers. These machines can perform routine cutting and shaping tasks while you do something else.

People may ask whether using a CNC machine while woodworking is really doing woodworking. "Yes, it is." Any time you work with wood you are doing woodworking. Most of us use some power tools in our shops. CNC machines are just another power tool – a very sophisticated one – but still a power tool. Think of them as self-guided routers or wood burning tools.

OK. But are people who shape wood with a CNC machine really craftsmen and craftswomen? Where are the skill, expression, and satisfaction in CNC woodworking?

Imagination, style, and artistic flair aren't built into a CNC machine. A CNC woodworker engages in the creative process when he or she makes something using it. In this regard, anyone who programs the path of a CNC machine shares something in common with a woodworker who pushes traditional hand tools. The physical dexterity needed to guide a gouge smoothly into a piece of wood is different from the mental gymnastics needed to command a CNC machine to create the same graceful curve. The result of each process can be just as beautiful.

Will woodworkers be replaced by robots? What does the future hold for us? No matter how inex-

pensive or simple to use, CNC machines won't appeal to every woodworker. They won't make traditional hand tools or power tools disappear from our workshops. But when we see a place for them in our work, they'll become yet another tool for us to use. Looking farther into the future, I can imagine 3-D printers that mix sawdust from an assortment of woods, add glue and binders to them and print an entire piece of furniture all at once. You could "print" a mahogany highboy in your own shop. Apply brass hardware and you're done! Perhaps the days are numbered for American Furniture Warehouse.

By Jim McNamee

Community Service

SUMMER IN THE CITY (Formerly Known as KidSpree) Call for Volunteers

The City of Aurora will hold its Summer in the City event this year on **June 2**. The City will not do KidSpree this year, but the Summer in the City event will be essentially the same kind of thing. The Guild has participated in past years by building birdhouse kits and helping kids nail the bird-houses together at the event. The kits are ready to go at this point, but the Community Service Committee is looking for volunteers to help staff the Guild booth at the event. The key to a successful event is to have enough volunteers at the event itself to spread the work out over as many sets of hands as possible. The event runs from 11:00 AM to 2:00 PM, which is a welcome change from the longer sessions in the past. We'd like to have a minimum of 8 to 10 people to staff the booth this year. A sign-up sheet will be available at the next Guild meeting for members to indicate their availability and willingness to help. Or, you can contact Charlie Kuechenmeister at charlesk13@gmail.com or Jeff Roth at jef-froth@myawai.com, or let one of us know at a Guild meeting. It's a fun time. All are welcome

Charlie Kuechenmeister

March Presentation

A Pinball Wizard

William Manke was our featured speaker in March. Bill told us that, while working as a finish carpenter, he discovered his true passion: Art. He went to art school. There Bill learned how to make objects and materials convey meaning to others. Bill was personally attracted to sculpture because in it he could meld his woodworking skills with his love for kinetic art.

In his spare time, Bill developed a fascination for that rolling steel ball. He and his friends played pinball endlessly. One day, a friend challenged him to combine all his passions and build his own pinball machine. That way they could all play... for free!

Bill took up the challenge, went to his backyard workshop, and cobbled one together. It was crude, didn't work well, and wasn't much fun to play. He kept thinking and tinkering until he built something that worked well and played well, and was also beautiful to look at.

Bill likens his custom pinball machine construction to last century's Arts and Crafts furniture makers. There's more work involved in building something that's not only functional but also has artistic appeal.

Manke discovered that a wood's properties were an important consideration when designing each component of a pinball machine. MDF and soft plywood, for instance, absorb a great deal of energy from a rolling steel ball and they slow the pace of a game. Maple, on the other hand, adds spring and speed to a game. Hardwoods also make excellent flippers because they better withstand the constant pounding of ball and player.

Bill's games don't rely on electricity. There are none of the flashing lights, bells, or automatic score-keeping devices seen in conventional pinball machines. He designs his games to be uniquely interesting to compensate for that. Manke introduces a bit of randomness to level the playing field between inexperienced and skilled players. He places permanent magnets at strategic spots to alter the path of a steel ball. If a magnet happens to capture a ball that might result in an addition to or subtraction from the player's score.

At its core, a pinball game is little more than an inclined box. A slope of 6 to 7 degrees turns out to be ideal. To this box, Manke adds a mechanism to launch balls up the incline with a variable speed. He fits the box with obstacles, barriers, and chutes to add challenges. Then he lets gravity and momentum work their magic to see what results. Bill calls the box's bottom the "play field." It determines the



character of the game. He's learned that something "interesting" must happen to a ball's trajectory in the first few seconds after its launch or the game becomes predictable and boring. In fact, it's better for something bad to happen to the ball than for it to simply roll to the bottom.

But where do you place those "interesting" features? That's where Bill's imagination, art, and experimentation come into play. Manke wants each game to be fun. Each pinball machine should be different but still be fun to play and feel comfortable to touch. Bill values the tactile feedback so important that he makes a player reset every game by hand. You won't find a sheet of glass separating the balls from the player on Manke's pinball machines.

Pinball is not Bill's only game. He showed us how he uses fixtures to make the beautiful "genius dice" for playing assorted of games of chance. Manke sells his custom handmade pinball, bagatelle, and dice products through his website, <https://www.boxwoodpinball.com>.

By Jim McNamee

[Click here to view Presentation video](#)



Show and Tell

While the March meeting was well attended, there were only a few submissions in the Show and Tell, but the demonstration of diversity of member interests was still present.

First off was **Doug Pinney** with a section of a small tree trunk section into which he carved an owl. Doug only used three bits from start to finish on the carving, but when the dust had settled the appearance was as he'd hoped. To finish the piece, Doug used a torch to darken and color of the owl. While we as a group make a lot of fuel for the fire this was a nice change to use fire as a tool.

Next was **David Farris** with a collapsible table of his own design to be used for a train set. This was David's first project since junior high shop class, but that didn't stop him from adding some technical challenges in the joinery. David is a fan of traditional Japanese joinery and his tables' joinery is inspired by such so that it can be broken down and reassembled to facilitate transporting his trains.

The winner of the night was **Arnold Silverman** followed with his miniature Tiffany-inspired wooden hat box. Arnold has a small silver Tiffany box that he has always admired and decided that he would have a go at a turned wooden box. The difficult part was holding a small lid and trying to carve the ribbon and bow that go across the top. The solution was to hold the piece in the lathe and do the carving before getting it down to the final dimension. He drilled some starter holes for the bow and finished the carving while it was still mounted in the chuck with great success. The color to paint the bow was confirmed by his granddaughter when she suggested Tiffany's Robin's Egg blue.

Thank you to everyone who brought their work to be seen by the rest of the group. Remember that each month the show and tell is one of the staples of the meeting, so please continue to bring your pieces and tell the rest of us what you've been doing.

Kevin Loyd Shows & Exhibits



Membership

Membership Problems? Send an email to programs@coloradowoodworkersguild.org

Happy April!

The membership status as of this writing:

118 Members paid through the end of 2016

173 Members paid through the end of 2017

291 Active memberships total

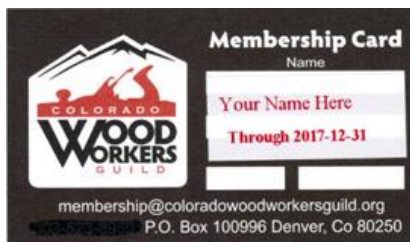
Total 291 **active** memberships. About 59percent of our members are current through the end of 2017.

What is an active membership? A membership is valid through the end of the calendar year. If you have not renewed for 2017, your membership was still considered active until April 1st, 2017.

I have begun to disable memberships that have not been renewed for 2017. If your membership becomes disabled and you have renewed for 2017, please let me know.

Now is a great time to renew your membership!

The 2017 member cards look like this (member name/expiration in Red text on a White background). If your member card does not look like this it has expired.



If you believe that you have renewed for 2017 but do not have a current membership card, please let me know. Send an email to programs@coloradowoodworkersguild.org and I'll address the problem.

Thanks

Cary Goltermann – Assistant to the membership chair for CWG.

How can you renew? For me, the best way you can renew is on-line. When you fill in one of our on-line forms

I do not have to decipher your handwriting (no offense),

The data is machine-readable, meaning I do not have to enter it manually!

You can renew on-line using PayPal or you can renew on-line, print out the form, and mail it with a check or bring the form/check to a meeting.

To renew on-line using PayPal (you do not need a PayPal account), go to

<http://coloradowoodworkersguild.org/index.php/about/sign-up-for-membership>

To renew on-line and mail the form with a check, go to

<http://coloradowoodworkersguild.org/index.php/pay-by-check-member-application>

If you log in first, your name, address, etc. will automatically be filled in. If you don't know how to log in or are unable to log in, drop me an email at programs@coloradowoodworkersguild.org and I'll help you out.

Cary Goltermann - Assistant to the Membership Chair

About Wood

In this month, January 2017, we consider **Black Cherry**. **Black Cherry** (*Prunus serotina*), is a medium to large size tree from the family Rosacea, the rose family. **Black Cherry** is also known as cabinet cherry, rum cherry, wild cherry, cherry, and American cherry.

Recall that in previous columns, we have defined the Modulus of Rupture (MOR), the Modulus of Elasticity (MOE), Crush Strength, and Janka Hardness. We will continue to use those terms. Most of the other terms are generally well understood and will not be defined further. If you have questions about other terms or questions about a specific wood, contact wood@coloradowoodworkersguild.org.

Black Cherry



Here is a summary of the characteristics of **Black Cherry**:

Distribution: Eastern North America, including portions of eastern Canada and some in Mexico and Guatemala; also, some produced from Northwestern US, specifically, Washington, Oregon, N. California, Utah, and Idaho

Tree size: 50-100 ft. (15-30 m) tall; 3-5 ft. (1.0-1.5 m) trunk diameter

Average Dried Weight: 35 lbs/ft³ (560 kg/m³)

Specific Gravity: (Basic, 12% MC): .47, .56

Modulus of Rupture (MOR): 12,300 lb_f/in² (84.8 MPa)

Modulus of Elasticity (MOE): 1,490,000 lb_f/in² (10.30 GPa)

Crush Strength: 7,110 lb_f/in² (49.0 MPa)

Janka Hardness: 950 lb_f (4,230 N)

Shrinkage: Radial, 3.7%; Tangential, 7.1%; Volumetric, 11.5%; T/R Ratio, 1.9

Heartwood Appearance: light pinkish brown when freshly cut; darkening to medium reddish brown with time and upon exposure to light

Sapwood Appearance: pale yellowish

Grain/Texture: typically straight grain; fine, even texture; moderate natural luster

Stability: dimensionally stable after drying; easy to dry

Relative strength: excellent; superior to some woods classed as structural timbers

Decay Resistance: durable and resistant to decay; some beetle damage may be found; not resistant to fungal attack

Workability: one of the best all-around woods for workability; machines well; will burn at high machine speeds; glues and holds screws well; finishes well, though results can be blotchy (use sealer first)

Odor: mild, distinctive scent when worked

Toxicity: dust can cause respiratory symptoms such as wheezing

Potency: low

Toxicity Source: wood dust

Reaction: wheezing

Sustainability: not as plentiful as it once was, but is still available and will remain so, 3.9% of U.S. hardwoods

Uses: furniture, interior trim, mill work, carving, paneling, flooring, veneer, cabinetry, boat interiors, musical instruments, turnings

Typical Cost: mid-range domestic hardwood; slightly more expensive than oak

Comments: large enough to harvest in 35 to 40 years; full height in 100 years; compared in strength to yellow birch

If you have questions about a specific wood, don't hesitate to send a note to wood@coloradowoodworkersguild.org.

Sponsors Corner

New Sponsor:

Sears Trostel Lumber and Millwork

At the urging of Guild member Terry Chaplin of Fort Collins, the Guild contacted Sears Trostel of Fort Collins to assess their interest in becoming a sponsor of the Guild. Following some electronic communication, Sears Trostel Lumber and Millwork has become a Guild sponsor. Curt Viehmeyer provided the following information about his company.

Locally-owned Sears Trostel Lumber and Millwork has served hobbyists, homeowners, designers, and builders throughout Northern Colorado for more than eight decades. A diverse lumber inventory – including hardwoods, exotic, live-edge slabs, and reclaimed products – as well as custom services and top tool brands, provided woodworkers with all the resources to bring great ideas to life.

The company's 20,000-square-foot retail location in Fort Collins houses 40,000 board feet of lumber and has a knowledgeable sales and warehouse staff to offer advice or help you find exactly what you need for projects. Its Custom Shop services include cutting and planing, CNC routing, and custom mouldings.

Sears Trostel carries some of the best woodworking brands in the industry, including Festool, Kreg, Amana Saw Blades, and Whiteside Router Bits, as well as being a SawStop dealer. The company hosts spring and fall Demo Day events and seasonal Saturday tool and woodworking demonstrations.

Committed to involvement and inspiring creativity, Sears Trostel hosts its Woodworking Show, sales & Competition each February. Woodworkers, from novice to professional, are invited to display their work. The Sears Trostel annual Bread N Boards fundraiser is held the first Saturday of December to benefit the Food Bank for Larimer County through the sale of cutting boards made by Sears Trostel employees and Signature Boards created by local artisans. The event raised more than \$250,000 in the last 11 years.

Sears Trostel offers active Guild members preferred pricing when they visit the store and are setup in Sears Trostel's computer system.

Sears Trostel
1500 Riverside Ave.
Ft Collins, CO 80524

Telephone: 970 482-1928

Fax: 970 484-9895

Website: www.sears-trostel

Contact: Inside Sales Tom Veilleux (Vay-u)
timv@sears-trostel.com

Guild Liaison Terry Chaplin.
liaison-searstrostel@coloradowoodworkersguild.org

Sponsor Offer: Reclaimed Boxcar Flooring

Tom Kirk of Reclaim Boxcar Flooring has notified the Guild that they have recently acquired the bowling lane flooring from the "Space City Bowling Center" in Alamogordo, NM. They have 1390 linear feet (4,865 square feet of maple and southern tallow pine. The lanes are 16 and 23 feet long and 42 inches wide. Some shorter lengths are available. Wood can be seen by appointment at a location between Alameda and Mississippi on South Jason by contacting Tom at www.reclaimedboxcarflooring.com or by calling at 303 913-6373.

Frank Paxton Lumber Wood of the Month

The featured Wood of the Month for April from Frank Paxton Lumber is four-quarter (4Q), S3S Natural Hard Maple in random widths and lengths. Paxton is also continuing the March special on four-quarter (4Q), S3S Walnut FAS or better in random widths and lengths 6 to 7 feet for as long as supplies last.

As always, call 303-399-6047 for pricing.

Jack Brock—Publicity and Public Relations

Gathering of the Guilds - 2017

Just a reminder this year's Gathering of the Guilds is on Sunday April 30th. The location as always will be at the Boettcher Mansion on Lookout Mountain. The event runs from 10:00 to 4:00 and for those interested in the Arts and Crafts movement it is the best event of the year. The event hosts a wide variety of participants, which like our group is made up of people deeply interested in their craft. In the past they have included bookbinders, printers, various metal workers, potters, calligraphers, weavers, leatherworkers, distillers, carvers, marquetry groups, period print dealers, and more. Held in the historic Arts & Crafts style Boettcher mansion it makes for a wonderful event.

The Guild is going to have a table at the Gathering again this year. If you have something that we could borrow to display that is of Craftsman or Greene and Greene style we would appreciate the opportunity to display it. While this is, an event put on by the Arts and Crafts Society the pieces do not need to strictly be in the Arts and Crafts style. If you want to and are willing to display your work please contact me directly and thank you.

Kevin Loyd Shows & Exhibits

2017 Guild Officers



Jim McNamee— President
president@coloradowoodworkersguild.org



Clifford Whitehouse—Vice President
vice-president@coloradowoodworkersguild.org



Laura Peterson – Treasurer
treasurer@coloradowoodworkersguild.org



Gary Glatthar – Secretary
secretary@coloradowoodworkersguild.org



Bob Kleinfeldt – Board Member at Large
email address pending

Guild Committee Chairs



William Knoll—Audio – Video – Committee
video@coloradowoodworkersguild.org



Stan Wolpert—Classes Chair
classes@coloradowoodworkersguild.org



Charles Kuechenmeister—Community Service
community-service@coloradowoodworkersguild.org



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Jack Brock—Publicity and Public Relations
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Kevin Loyd—Shows and Exhibits
shows@coloradowoodworkersguild.org



Chuck Hix—Librarian
library@coloradowoodworkersguild.org



Dick Daily—Refreshments
hospitality@coloradowoodworkersguild.org



Dennis Machlica—Membership
membership@coloradowoodworkersguild.org



Michael Cunningham—Classified Ads
classifiedads@coloradowoodworkersguild.org



Wilbur Goltermann—Webmaster –
webmaster@coloradowoodworkersguild.org

CWG Sponsors

The Colorado Woodworkers Guild is fortunate to have several companies as Sponsors. Our Sponsors help the Guild with programs, materials, supplies, facilities, display space, financial, and other means. In many cases, Guild members are able to obtain discounts from our Sponsors (except for power tools and sale items). Please note: the Guild discounts only apply to in-person purchases in the store (except where noted) and are not available at any sponsor's online store. You must show a current membership card to obtain the discount

Sponsor Update: Mountain View Window and Door

The Newsletter was going to include a profile on Mountain View Window and Door but in the process of discussing the profile with Mountain View they informed the Guild that they were withdrawing their sponsorship of the Guild for the time being because they did not see sufficient benefit from the sponsorship.

The Guild appreciates their participation with us and will welcome them back if and when it fits their business prospects.

Guild Liaison for Mountain View Window and Door had been Fred Schmidt

Jack Brock—Publicity and Public Relations

A Cut Above 16512 Arminta Street Van Nuys, CA 91406 Phone: 800-444-2999

Website: www.acutabove.com

Austin Hardwoods of Denver, Inc. 975 W. Mississippi Denver, CO 80223 Phone: 303-733-1292

Website: www.austinhardwoods.com

B & B Rare Woods 871 Brickyard Circle, Unit C4, Golden, CO 80403 Phone: 303-986-2585

Website: www.wood-veneers.com

Charlie's 2nd Hand Store, Inc. 2227 Larimer Street Denver, CO 80205 Phone: 303-295-1781

Website: www.usedtoolsplus.com

Collector's Specialty Woods 4355 Monaco Street, Unit A, Denver, CO 80216 (this is their Denver showroom and warehouse) and 8055 County Road 570 Gardner, CO 81040 (this is their southern Colorado wood yard, kiln drying facility, woodshop, and another show-room) Phone: 800-746-2413

Denver Woodworking Company 2062 S. Bannock Street Denver, CO 80223 Phone: 303-733-3130 Website: www.denverwoodworking.com

Mile High Tree Care, Inc. 6010 W. 56th Avenue, Arvada, CO 80002 Phone: 303-292-9393

Website: www.milehightreecare.com

Frank Paxton Lumber Company 4837 Jackson Street Denver, CO 80216 Phone: 303-399-6047

Website: www.paxtonwood.com/denver.aspx

Reclaimed Boxcar Flooring Phone: 303-913-6373

Website: www.reclaimedboxcarflooring.com

Rockler Woodworking and Hardware 2553 S. Colorado Blvd Denver, CO 80222 Phone: 303-782-0588

Website: www.rockler.com/retail/denver-colorado-hardware-store.cfm

Sears Trostel 1500 Riverside Ave. Ft Collins, CO 80524 Phone: 970 482-1928 Fax: 970 484-9895

Website: www.sears-trostel.com

Signature Medallions 4218 Ponce De Leon Drive La Mesa, CA 91941 Phone: 619-303-2876

Website: www.signaturesmedallions.com

TC Woods 5406 County Road 23 Ft. Lupton, CO 80621 Phone: 3-666-8989

Website: www.tcwoods.com

Tool Zone, Inc. 8651 Grant Street, Unit 1A Thornton, CO 80229 Phone: 303-252-8500

Website: www.toolzone.com

Woodcraft of Denver 6770 S. Peoria Street Centennial, CO 80112 Phone: 303-290-0007

Website: <http://www.woodcraft.com/stores/store.aspx?id=305>

4/8/2017