

Northwest Woodworkers Association

THE SAWDUST NEWS



March 2017

An association for woodworkers of all skill levels to share their common interest

The Next Meeting

Date: **Thursday, April 27, 2017** at 6:30 PM

Location: **Rockler Woodworking - Northgate**
832 NE Northgate Way
Seattle, WA 98125

Program Highlight: **Woods Around the World**

April's program will be a narrated slide show presented by member Jan Erickson showing photos she has taken of woods and uses of wood around the world. Her photos range from folk art in Norway, to Chile's Auracaria trees, to cork trees in Portugal, to Asian uses of bamboo, to Washington's 'patriarch' cedars, and much more. This is definitely a **Don't Miss** program!

March 2017 Meeting Highlights ***Newsletter Photos by Scott Wilson***



We want to thank **Ron and Michelle Hall** and the **Woodcraft Staff** for rearranging some of the store displays to accommodate a mixup in our meeting scheduling. We appreciate your long-time support of the **Association**.

Eight members and two guests present for the meeting.

Show 'N' Tell



Guest **Alex Burner** brought along a fascinating collection of antique woodworking tools he had recently acquired. Among the treasures were several wooden planes of various configurations from shoulder and chamfer planes to narrow planes for cutting grooves and moldings, and even some Japanese draw planes. In addition, there were a variety of specially shaped plane irons for unique applications. The wooden planes were especially interesting in that the plane irons were held in place with wooden wedges. The collection also included some pipe wrenches of various sizes, and several chisels of differing widths, thicknesses, and cutting edge configurations. And last but not least, the collection also included several boring bits of various configurations having square tapered tangs for use with a hand brace.

The tools appeared to be well used and cared for – no doubt the tools of the trade for some former craftsman or tradesman. Thanks for sharing those unique antique tools, **Alex**. It was great to see some of the quality tools that were common long ago and have stood the test of time, but are no longer manufactured today. No doubt many of the old homes in this area were constructed using similar tools.



Tony Grosinger, our **Association Webmaster**, gave us a very entertaining description of acquiring a reconditioned power tool he found on Craigslist. He said this industrial flavor **Crescent 12” Jointer** was reported to tip the scales at some 1,200 lbs.! In addition, the 5 HP three phase motor added another couple of hundred pounds, plus the 10 HP phase converter accessory. Altogether, he had quite a boatload of iron! **Tony** noted that he had rented a truck with the largest capacity lift gate he could find, rated at some 1500 lbs. But after adding in the weight of the pallet jack, he was pretty sure he had exceeded that limit just a wee (??) bit.....! :-)



After they had loaded the jointer on the pallet onto the truck lift gate along with the pallet jack, they found that they could only raise the load about half way to the truck bed before the lift gate circuit breaker blew! Finally, after a few jerks and starts and breaker resets, they finally managed to get the jointer loaded in the truck! Apparently unloading all that iron went much more smoothly and they managed to get it into his shop.

Tony noted that the jointer is built like a tank! It has a two-bladed cutter head which runs on solid metal Babbitt bearings – a very common design feature of old industrial equipment. He also noted that the jointer has a 7 ft. long bed. I’m sure **Tony** expects this tool to be a **permanent** fixture in his shop. Maybe an industrial flavor fork lift might be a good idea for the next move.....!



bench top.

In keeping with the theme of the meeting, **Cory Cross** showed us some pictures of the functional workbench he recently constructed for his shop. Of special interest, was the use of a **Jorgensen-type pipe clamp** to supply the working parts of the workbench vise. That is really an innovative and practical shop-made tool, **Cory!** Good job! Note the rear clamp jaw solidly embedded in the lower surface of the



Program Highlight – ***Design and Fabrication of a Roubo Workbench***



Our program presenter for the meeting was **Tony Grosinger**, who narrated a superbly-created graphical slide show providing an in-depth description of his **Roubo** workbench build that he previewed at the **January 2017** meeting.

He said that this particular workbench design is named for a French cabinet maker and author, **Andre Jacob Roubo** (1739 – 1791). **Tony** also noted that he applied many of the design principles contained in the book, “**The Workbench Design Book**”, by **Christopher Schwarz**, Editor of “Popular Woodworking” magazine and Contributing Editor to “The Fine Tool Journal”.

Tony began his presentation by noting many of the deficiencies that are common in the workbenches that many of us have in our shops, such as flimsy and light weight construction, thin workbench tops, wide stiffening aprons under the edges of the tops that prevent clamping workpieces to the bench top, and pull out drawers that cannot be opened when parts are clamped to the bench top.

In contrast, **Tony** presented a list of design principles from **Chris Schwarz's** book, engineered to eliminate those common workbench problems and the ways he incorporated them into his build. The following is a condensed list of those recommended design features.

- **Overbuild & Make the Workbench Heavy** – but not so heavy that you can't move it.
- **Use the Most Affordable Wood Available** – Softwood is less expensive and easier to maintain. **Tony** used construction grade 4 x 6 Douglas Fir planks for the laminated top & 2 x 6's and 4 x 6's to make the 6 x 6 laminated legs.
- **Lower Bench Height is Better** – workbench top should be somewhere near the center of your hand when standing next to the bench, but make to suit **you**. If necessary, temporary work risers can be used to raise the workpiece for detail or precision work.
- **Locate Your Workbench Away from a Wall** – you should have free access to all sides and ends of the workbench.
- **Consider your Workbench to be a 3D Clamping Surface** – you should be able to clamp your workpiece to the top, sides, and ends of your workbench, requiring access underneath the top to install clamps without interference from aprons, drawers, etc..
- **Install the Legs and Inner Vise Faces Flush with the Edges of the Top** – this allows a flat panel to be clamped securely to the workbench on edge in a vertical position.
- **Design an Overhang into at least One End of the Top** – this allows a hollow form, such as a cabinet to be installed over the overhang and clamped to the top for performing certain operations.
- **Include a Removable Shelf to Eliminate Top Mounted Tool Trays**
- **Apply a Drying Oil Finish** – this helps keep the workbench clean and is easily renewed. **Tony** used natural **Watco Danish Oil** for his bench. A suitable shop-made substitute can be made from equal parts by volume of varnish, boiled linseed oil, and paint thinner.
- **Install a Suitable Vise** – **Tony** installed a **Leg Vise** with a **Sliding Deadman** for additional support of vertical panels, but also noted alternatives such as **End/Tail Vises** and **Wagon Wheel** vises, which work well with bench dogs. He noted that he had purchased a wood threading tap and die set to make the threaded parts of the **Leg Vise**!



Tony then described a series of operations he performed in the actual making of his Roubo workbench.

Glue Up

1. Joint and plane the lumber to an S4S condition
2. Glue boards upside down to provide the flattest top surface
3. Apply generous amounts of low cost PVA glue
4. Remove glue squeeze out and rough flatten top surface

Leg Construction

1. Glue laminate 6 x 6 legs from (1) 2 x 6 & (1) 4 x 6
2. Cut dovetail and straight tenons before cutting matching mortises in bench top

Leg Mortise Layout

1. Locate the legs on the bench top and mark along actual leg tenon surfaces for mortise on bench top. Identify each leg and mortise as a matched pair.
2. Since a cordless drill can become overheated drilling such large mortises, an alternate drilling method is recommended: i.e. hand brace and bit, or corded heavy duty portable drill.

Fitting the Mortises

1. After drilling out the bulk of the mortise, use a sharp paring chisel to carefully clean up the mortises. The sliding dovetail can be cut with a handsaw or circular saw and cleaned up by chiseling out the material between the saw kerfs.
2. Work slowly and methodically – tight fitting joints between the legs and the mortises are a requirement.
3. Test fit each leg, but do not fully insert in the mortises. Refine the fit as required.

Building and Fitting the Stretchers

1. The stretchers were formed by laminating (2) 2 x 6's.
2. The tenon on each end is formed by allowing the inner piece to extend beyond the outer piece.
3. With the legs partially inserted and square to the top, support the outer piece and mark to match the actual space between the legs.
4. Remove the legs and prepare the mortises for the side and end stretchers so that the outside face of the outer stretcher is flush with the leg.
5. Note that the ends of the stretcher tenons are mitered allowing the side and end stretcher tenons to meet at the center of the leg.

Base Assembly

1. Assemble and glue the stretchers and legs to form the Base Assembly.

Final Assembly

1. Invert the top and locate the Base Assembly with each of the legs partially inserted into its respective mortises.
2. Working from leg to leg, drive the legs successively into the mortises with a large mallet.
3. **Tony** noted that he was unable to fully seat the legs into their mortises with the mallet, so he stood the workbench upright and by alternately lifting each end and dropping the bench on the floor, the weight of the top accomplished the task for him! Good thinking and good exercise, too!!
4. In a subsequent operation, **Tony** installed his Leg Vise and Sliding Deadman.
5. If desired, a removable shelf can also be installed.
6. A couple of coats of natural **Watco Danish Oil** finished off the project.



Tony's Completed Roubo Workbench -- A Finely Crafted Thing of Beauty for Sure!

[**Editor's Note:** The photos from **Tony's** slide presentation were intentionally omitted due to space considerations. To view them, **contact Tony** directly via email: tony@grosinger.net]

Note from the Editor



Those of you who didn't come to this month's meeting really missed a great one. **Tony Grosinger's** narrated slide show presentation was very professionally done – a fitting icing on the cake of a fantastic woodworking project!

We were also pleased to see one of our guests, **Alex Burner**, bring along a great collection of antique hand tools for our **Show 'N' Tell**. C'mon, **Tony**, we need to get this guy signed on as a member of the **NWWA**.....!

And thanks to **Cory Cross**, for bringing along photos of his workbench build, which incorporated a pipe clamp into the vise – an innovative and cost effective idea, **Cory**!

Great to see some of our newer members actively participate in this month's meeting. Thanks, guys for being proactive members of the **NWWA** and bringing your contributions.

Happy and Safe Woodworking,

Paul

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Northwest Woodworkers Association Contacts

Membership—Allen McCall
Treasurer—Chris Green
Secretary—Jan Erickson
Raffle—Herb Stoops
Webmaster--- Tony Grosinger tony@grosinger.net
Newsletter Editor--- Paul Stoops pmstoops@comcast.net
Photographer— Scott Wilson

Steering Committee

Bill Bond williamcbond@comcast.net
Mark Martinez mark76wa@comcast.net
Alex Smithing Alex.Smithing@gmail.com
Herb Stoops hcstoops@comcast.net
Scott Wilson

We encourage our members to contact any of the above individuals with questions, comments, or items that may be of interest to the membership.

In addition, please visit our website: <http://www.nwwoodworkers.org>