

May 2017 Edition
<http://www.abqawa.org>

**Preview of the
May 13, 2017
AWA Workshop starting at 9:00 AM**

For May's workshop, we have:

Bill Zerby presenting:

“SHARPENING TECHNIQUES AND STEEL SECRETS”.

Bill plans on:

- Introducing the practical steps to get a keen edge for all types of hand tools; chisels, planes, carving tools, knives etc.
- Why some steels work better than others for specific applications.
- How to make tools and where to get steel of different types.

Bio:

Bill is originally from Michigan and is a graduate of Michigan Poly Tech. He worked as a test engineer for Philips Lab until 2002 and then for Woodcraft until they closed in 2009. He is presently retired. He has been involved in woodworking for over 40 years and specifically woodturning since 1986 but also furniture maker, carver and instructor.

May's Workshop Specials

Catalog: BB17

Sharpening Pg 419-428

On the day of each monthly AWA meeting, in addition to the day's specials chosen to sync with the workshop topic, each of our members will be allowed to pick any one safety-related item, and buy it with the same discount terms, "our usual price, less 10%, unless it goes under WWS's cost". This would include feather boards, push sticks, hearing protection, eye protection, breathing protection, and other safety items from the big catalog. As an example, a member could buy a feather board OR a push stick OR any one of several other safety items at the same special discount. This "safety special" will be an ongoing offer from WWS to our members, every month on the day of the meeting.

From Ron Danner:

Saturday, May 6th was the WWS parking lot clearance sale. Ron has been in contact with WWS, and they have consented to open their warehouse just for AWA members on Saturday, May 13 (the day of our meeting) and continue their clearance sale! Thank you WWS and Ron!

Upcoming Workshops

06/10/17

Cutting Dovetails by Hand and Jig
Presented by Michael Mocho

09/09/17

The Ultimate Router Table
Presented by Ros Barnes and Jerry Trujillo

07/08/17

Designing and Building a Table
Presented by Glen Sellers

10/14/17

TOY PARTY AT VALLEY HIGH SCHOOL

08/12/17

Table Saw Jigs and Fixtures
Presented by Jack Henning

11/11/17

TBA
Presented by Christophe Neander

12/09/17

Steam Bending
Presented by Mike Sherard

The Education Committee is looking for individuals who would be interested in doing a presentation to our club. If you have a topic in mind and/or are interested in being a presenter, please contact Derek Roff at derek@unm.edu

April's Workshop Statistics

Attendance: 58 members & 1 guest.

\$10 Cash: Kevin Konetzni

\$10 Cash: Steve Schroeder

\$25 TJ Hardware Gift Certificate: Van Barta

\$50 Woodworkers Supply Gift Certificate: Sid Evans

Box of screws (each): John Henderson, Cindy Boyd, & Tracy Murray

Jig Saw Blades: Norb Siska

David Charlesworth's "Furniture-Making Techniques" (donated by Steve Schroeder): Ros Barnes

8.3 board feet of Cherry (donated by Exotic Hardwoods): Rex Borders

Silent auction (Router): Larry Pirkl

May 13, 2017 SILENT AUCTION

No specific tools are being sold this month, but you never know what might show up, so come to the meeting and see what you may not be able to live without.

“Everything You Wanted to Know about Routers...and More”

Presented by: Ros Barnes, Gale Greenwood, and Derek Roff

Biographies:



Ros Barnes was born and raised in central Illinois. He received a BA teaching degree from Adams State College (Alamosa CO) followed by a Masters in Industrial Education from UNM. He taught junior high shop for 10 years, worked for 12 years as a self-employed contractor, and the last 11 years worked for Los Alamos National Lab, as an instructor, building manager, and in developing emergency evacuation procedures for over 30 buildings. After retirement, Ros and his wife, Barbara, built their dream home south of Belen, along with a 1500 square foot workshop.



Gale Greenwood's parents gave him a Montgomery Ward Power-Craft Scroll Saw in 1950 (age 11), a Christmas gift that exposed his talent for and enjoyment of woodworking. He expanded his skills beyond woodworking with metal working, and welding in an Industrial Arts class as a sophomore in high school. Gale continued to grow his talents with courses in welding, auto shop, machine shop, drafting, and business working for a BS in Industrial Technology from Western New Mexico State University in Silver City. While continuing to work for the Santa Fe Railroad, in 1967, he moved to Albuquerque where his custom woodworking jobs

include: kitchen cabinets, vanities, a gun cabinet, flight tables and map storage cabinets for Kirtland Air Force Base and trestle tables for Sandia Development Corporation and the Sandia Ski Run. Along the way, Gale furnished his shop with tools and equipment from job profits. He built the kitchen cabinets, bookcases and the desk for his present home and he plans to build another desk, table and chairs after his remodel is finished. Then he can enjoy having his own office.



Derek Roff was born in Juneau, Alaska and moved to Albuquerque as a child. He has been working with wood most of his life, but got serious about it and began to improve his skills when he joined AWA in 1990. Most of his woodworking knowledge has been from books, magazines, AWA workshops, much trial and error, and extensive discussions with other woodworkers. Whenever he sees something new, he tries it out, then tries to figure out what went wrong and why.

Introduction:

This presentation is primarily in response to the recent AWA member survey which highlighted the desire for more information on routers. It was given in a “tag team” back and forth format with lots of audience participation—contributions, questions and ‘side trips’.

Ros Barnes

History:

In 1877, John Barnes, a New York model maker moved out ‘West’ to Rockford IL. With no electrical power available, his pedal powered tools got more attention than his models. The company became the W. F. and John Barnes Company whose tools included a 1200 rpm “former and mortiser” (router). In 1906 the Kelley Company designed and built a router at 6500 rpm to fit the treads and risers into stair stringers. Modern routers run up to 30,000 rpm.

Uses:

Basic router uses:

- Roundover - cuts rounded edges where you want a smoother edge
- Partial bead - cuts a step down before rounding
- Bevel – takes a 90⁰ corner to 2 – 45s
- Groove – cuts a precision trench into work with the grain
- Dado – cuts a groove cross grain
- Rabbet – cuts a groove or “L” shaped recess into the edge of a piece.
- Keyhole – a “T” shaped bit that is plunged into the wood then moved straight out to create a hanger and bring the piece flush to the wall.



Advanced uses:

- Dovetails
- Blind dovetails
- Finger joint
- Precision template duplication
- Grooved signs with templates
- Circles/shapes
- Mortices
- Many others limited only by ones imagination for making and adapting jigs.



Essentials:

From this point in the presentation to the end, audience participation and questions became a major player.



Routers come in all sizes and shapes, unique to specific purposes—fixed base and plunge routers; table mounted and free cutting. Fixed base routers produce more stable, dependable cuts especially for work outside the vertical because accumulated tolerances from all the moving parts working in a plunge router make the base to router interface less rigid. However, plunge routers are perfect for mortise cuts and working in the middle of the field. Also a plunge router can more easily nibble down into the work where multiple passes at increasing depths are needed. Speed, both rpm

and operator movement into the work depends on the job, the size of the bit, and the material. In general working too slow will cause wood to burn. For you who are looking to buy your first router(s), there are router kits with fixed and plunge bases as well as other guides and you can find them wherever you would shop for tools, including Woodworker Supply, tool specialty stores, eBay, and DIY stores, etc. They come with soft start, variable speed, quick bit changers, dust/chip collection, and various switch arrangements.



Router table lifts raise the bit and collet for easier bit change out and quick and precise depth of cut.

Sizes:



You will find small, hand-held trim routers less than 1 horsepower (hp) and heavy-duty 3+ hp, sized to the job and the material. However, Derek confides that the International Standards for router horsepower abound with officially sanctioned “lies” and it is hard to pin



down just how much power you are buying and the criteria used to calculate the maximum working hp.

Size matters though for example when using the larger bits and heavier woods or when needing to trim veneer or Formica tops where small and more maneuverable is better.

Side discussion: Two places to see pedal-power woodworking tools Blue Ox Millworks, Eureka, CA <http://www.blueoxmill.com/antique-woodworking-tools.htm> and the Living History Farms, Urbandale, IA <http://www.lhf.org/>.

Safety:

Respect it. Don't fear it. Ros contends that if you fear a tool, you are in more danger than if you respect the tool's potential.

- Short sleeves and short hair in the shop—don't get caught and injured by your tool.
- Ear protection: Routers and planers operate at high rpm and high decibel levels that will damage your hearing permanently is not attenuated.
 - Question of listening to the tool work to know what is going on cannot deter you from wearing protection. Derek uses 33dB rated ear protectors and can hear tool feedback with them.
 - If your ears ring afterward, you have given yourself permanent hearing loss. Too many times, and you will “only have to take out your ‘hearing aids’ to not hear the whine”. Wear protection.
- Dust protection: Some wood species' dust is toxic and regardless of allergies or personal sensitivities, wear breathing protection.
- Switches: Some routers, especially older ones, are poorly engineered for safety with toggle on/off switches that require you to release the router to turn on and off; toggle switches that are not marked or are hard to find, and any switch that doesn't move to “off“ if power were to fail while engaged can become a hazard when power is restored and the equipment comes alive. If you have a tool with a toggle switch, a foot switch in the line is a good idea.
- Most routers are made for right handed operation. Basically they run counter-clockwise and for most purposes, one should work against the rotation (power cut) verses ‘running’ with the rotation (climb cut) which at 30,000 rpm, can contribute to losing control of the tool or of the piece.
- Safe handling techniques:
 - Drape the cord over the shoulder while cutting to keep it out of the way.
 - Ease into the cut with the router at full speed.
 - When finished cutting, wait and let the tool spin down in the cut before lifting.
 - After and in between cuts, set the router on its side, on its flat top out of the reach area or...
 - Have an open box or frame nearby that is wide and deep enough to support the base while the bit is suspended in open space inside (Jim Templeton).
 - Density of the wood, species, and size of the bit determine bit speed and feed rate.
 - Feeding too slow will burn the wood.
 - Inspect the wood for obvious problems, knots, splits and grain direction that can cause problems or become projectiles.
 - Another rule of thumb is to nibble into the work, working successively deeper into the final cut to minimize chip-out and assure smooth, clean final results.

- Keep your fingers clear with jigs and push blocks on the router table.
- Maintenance: Check router base and bits for damage before use.
 - Using a Sharp Router Bit is much safer, cuts better, and requires less power than a dull router bit.
 - Maintain a good balance. Reducing the vibration is very important not only to safety, but to the quality of the cut. Make sure the Router Bit you are using has a good spin.

Gale Greenwood

Bits:

Which bit to buy? Steel, Carbide tip, or solid carbide. After his first set, Gale has only used carbide and carbide tipped bits which hold the edge much longer, burn less and cut cleaner.

- High Speed Steel Router Bits are generally the least expensive and are fine for softwood and light plastics, but tend to dull much faster than carbide.
- Carbide Tipped Router Bits are usually more expensive than the high speed steel router bits, but they stay sharper longer and work better in hardwoods and other hard materials, so they may save you money in the long run.
- Solid Carbide Router Bits are the most expensive, but are typically meant for specific applications where other router bits may not perform as well. You may want to choose a Solid Carbide Router Bit for Mortising, Laminate Trimming, and Pattern Cutting.
- Buying 1/2" shank bits versus 1/4" bits can be more beneficial because the 1/2" shank bits are sturdier and less likely to break.
- When mounting a bit into the router collet, never seat the bit all the way to the bottom. The collet design is basically a large cone overlapping a smaller cone with slots to allow it to clamp onto the bit shank when compressed by the larger one. The shank, when being clamped is forced down some and if already at the bottom of the collet, it restricts the clamping and is less secure.



- Sharpening router bits: Brush the bit with a toothbrush or brass stove brush to clean it. Remove the pilot bearing if it has one. Only sharpen the flat cutting edges. Using fine (600 grit) or extra-fine (1200 grit) diamond abrasives, work on the flat radial face of each flute. (You don't want to work on the outside edge of the flute because that would alter its diameter or profile quite quickly.) It's fairly important to sharpen uniformly so the bit will remain balanced and cut smoothly. Gale counts strokes on each flute, giving each flute the same number of strokes.
- A drop of fine grade oil will penetrate the pilot bearing and extend its life. Replace the bearing before it fails because as it fails, it cuts deeper.
- Replace bearings at Woodworker Supply, CMT, Freud and at shops downtown.
- Precision Sharpening does a good job when the edge is too far gone for a few strokes.

- When using shaping bits (with router table) run at a lower speed as recommended by the manufacturer.
- Bit manufacturers: Whiteside, CMT, Freud, and now, according to Derek, Woodtek bits quality is much improved.

Advanced:

When making jigs or guides of polycarbonate, cut the poly with the band saw then sand smooth to the final dimension. Cutting poly on a table saw gums up the blade.

Routers are essentially a motor mounted directly over the bit so when working edges, the operator has to focus on keeping the base flat against the work while cutting to keep the tool from tipping over the edge. You can make an extension baseplate that gives you more surface to hold against the work and minimize tipping potential.



Gale showed an inventive circle cutting jig with 3/32” holes (sized to 6p nail) every 1/2” and a sliding baseplate adjustment that gives him unlimited circle diameter cutting capability within the minimum and maximum parameters of the jig.

Derek Roff

The cheapest and simplest way to get a great final cut is to put a layer of blue tape down to raise the base then remove the tape for the last run. You won’t see much dust from the pass, but it will remove perhaps 1/1000” and leave a great surface.

Pilot bearings are nice, but edge guides give you more surface to work against and better assurance that the cut will follow the template perfectly.

Larger shaping bits, for cabinet doors and moldings should only be cut on a router table.

Saturate MDF template edges with superglue to harden the edge.

Spiral bits are always in contact with the work and therefore work smoother. They can cut down on veneer or when cutting through a piece. If working veneer on both sides of the job, use a compression spiral bit.



When working with changes in grain and a template, rather than risk chipping the work after the grain change, a bit with bearings top and bottom will allow you to rout to the change then flip the router over and finish routing from under the template.

DeWalt has the best model router for good dust collection—much better than a duct taped vacuum hose to the router.

Conclusion:

This presentation was open to the audience and presenters encouraged enthusiastic participation. It is clear that we all have questions on routing and routers regardless of experience. Derek's formal presentation was compressed because of the enthusiasm but he got to his major points before closing. More router wisdom in September when Ros and Jerry Trujillo present "The Ultimate Router Table."

Member's Work



Ros Barnes showed two unique clocks he has made. The first has two separate sets of hands (one for minutes, and the other for the hour). The second balances on a very small base.



Safety Tips, Woodworking Tips, Experiences
(If you have a tip that you would like to share, send it to the editor, Ros Barnes,
RNBBNZ@MSN.COM)

Submitted by Ros Barnes (reprinted from April's newsletter):

I was cutting short wood pieces on my 10" sliding compound miter saw (3/4" squares, about 2" long). I know I'm not supposed to raise the blade after the cut until the blade stops turning. But...I had several to cut, and was impatient. After cutting a couple, one of the small pieces was caught by the still turning blade, and **WHAM!!!** the piece went flying (found it about 20 feet away), and, additionally, the 2" wide plastic throat plate was now in three pieces. No damage to me, but I now had a good reason and excuse to make a zero-clearance throat plate for my miter saw. While I was at it, I made three. Note to self... "Wait for the blade to stop!!!"

Submitted by Tracy Murray:

Tracy has an excellent suggestion to help prevent "kick-out" of small pieces from his miter saw. When setting up a stop block for making repeated cuts of the same length, he inserts a scrap of wood between the piece to be cut and the stop block (increasing the distance from the saw blade to the stopblock by the thickness of the scrap block). Once he is satisfied with the setup, and has secured the piece to be cut (use of a small push stick will help), he removes the scrap and proceeds with making the cut. By using this "scrap insert" trick, Tracy eliminates the potential for trapping the workpiece between the blade and the stopblock, and greatly reduces the chance that the blade can bind on the workpiece and shoot the piece out of the saw. Great idea, Tracy!

AWA “Mentor List”

(from Ros Barnes, newsletter editor, RNBBNZ@MSN.COM)

AWA is still looking for any members who are interested in being a Mentor for others in our organization. If you are at all interested, please e-mail me. You do not need any formal training to be a Mentor - just the desire to share your woodworking knowledge with others.

NAME	DISCIPLINE	CONTACT INFO
Ros Barnes	Cabinet (casework) design and construction, toy design and construction, equipment adjustment and tuneup, jigs.	505-864-8857 RNBBNZ@MSN.COM
Gale Greenwood	Cabinet making, case goods (eg: chest of drawers).	505-256-1379
Frank Warren	Toy design and building, and scroll saw and scroll saw projects	505-962-9212
Alan Voda Steve Wagner	Plastic casts and molds	Alan: 268-7096 or amv6775@gmail.com Steve: mailto:bigjawbone@mac.com

2017 Community Service Project (Formerly known as the “Toy Project”)

AWA has already begun generating toys for this next holiday season. Watch and listen for how you can help with this project.

Jim Templeton has scheduled several parties at his woodshop. If you are interested, contact him at 505-898-1934 to be sure there’s still room.

July 15, 12 workers can be accommodated; and
Sept 16, 16 workers can be accommodated.

NM State Fair

AWA discontinuing State Fair Woodworking exhibit

(From Mike Murray)

The Albuquerque Woodworkers Association Board voted at its January 11, 2017 meeting to discontinue the AWA Woodworking Exhibit at the New Mexico State Fair. Fair officials have been notified. This decision resulted in part from the recent member survey in which the Fair came up last. Only 30% of respondents had ever visited or participated in the Exhibit. Each year we have struggled to get enough members to show their work. Only 17% responded that they would be likely to enter in the future. Many suggested that we needed to have people doing things as do the Wood Turners. However, AWA insurance would not cover the use of power tools at the exhibit. Richard Parker brought in his workbench last year to encourage exhibit “hosts” to be doing handwork, but only a few members did so. Finally, The exhibit consumes from 100-150 person hours for check-in, set up, judging, teardown, and hosting. Kudos to all those who have participated in the past.

New Members

(No new members for this edition.)

AWA Name Badges



Steve Schroeder is the volunteer that makes badges for those members that need them. When Steve is not in attendance, please give your name to **Norb Siska** and he will forward your request to Steve.

AWA Shirts, Smocks, & Hats

Ivan A. Blomgren is taking orders for club caps, shirts, etc. Due to the lack of volume and associated shipping costs our embroidery shop experiences on small orders, it has been decided we need to switch to placing orders on a quarterly basis in hopes of boosting the volume for each order so the per item shipping costs can come down.

The way this procedure will work is that members can place orders with Ivan up until the **third meeting** of each quarter. The collected orders will then be submitted to the embroidery shop and should then be available for distribution at the first meeting of the **following** quarter. **Full payment for an order will**

need to be submitted with each order form before it can be processed! Order placement cut off dates for each quarter will be as follows:



1st Qtr:	Jan - Mar	Order cutoff:
	March meeting	
2nd Qtr:	Apr - Jun	Order cutoff:
	June meeting	
3rd Qtr:	Jul - Sep	Order cutoff:
	September meeting	
4th Qtr:	Oct - Dec	Order cutoff:
	December meeting	

Order forms can be downloaded and filled out from our web site as well as from Ivan at our meetings

AWA Classifieds

Tools for Sale

(None for this issue.)

Tools Wanted

Erin O'Donnell (AWA member and CEO & Founder of Dovetail Community Workshop) is looking for a good deal on a used bandsaw. If you have one, you can contact her at <mailto:dovetailabq@gmail.com> . You can also visit the website at <http://dovetailworkshop.com/> as well.

AWA website

Steve Scott is our WebMaster. The Web Site has a fresh new look and some neat photos! There you can find a list of the Board of Directors, a Calendar of events, and an Application Form. Check it out at: <http://www.abqawa.org/>

Workshop CDs and DVDs

The AWA Library is currently unavailable as we move the collection to a new home, but we hope to make materials available for checkout again soon. If you haven't used the library before, we encourage you to take advantage of this resource. A list of books is currently posted on the AWA website.

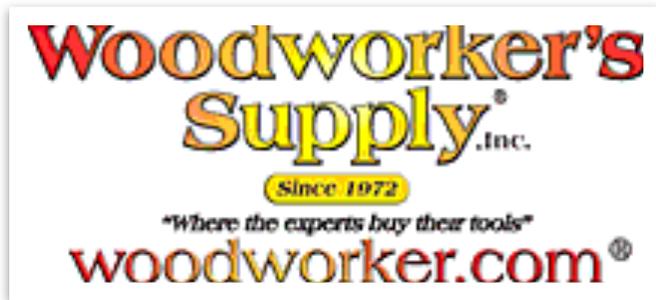
We also hope to launch a new online system soon that will make it very easy to find and check out books, and we hope to make it easy for members to pick up and return books when they check them out.

Sawdust On The Brain (humor via Ros Barnes)



Just another project in the making.

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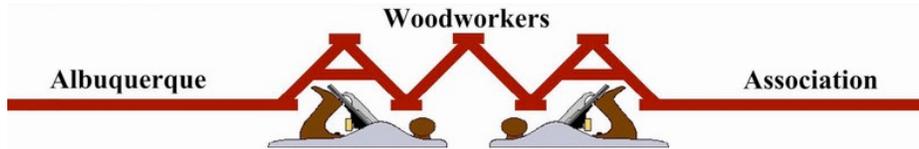
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Membership Application

Mail to: P. O. Box 36133 Albuquerque, NM 87176-6133

DUES:

Dues are assessed on a calendar year basis. **Please pay a pro-rated amount of \$3 per month to the end of the current year** plus any additional years to extend your membership. Please check appropriate boxes.

- One Year - **\$36** Two Years - **\$68** (a 5% discount) Three Years - **\$97** (a 10% discount).
 Lifetime Membership - **\$360** (10 times annual dues).
 Full-time students (under 22) in an accredited educational program receive a **50%** discount.

Amount Paid: \$ _____ (Prorated current year + additional years)

Name: _____

Spouse: _____

Address: _____

City/State/Zip: _____

Telephone: Home: _____ Work: _____ Cell: _____

E-mail (please use all capital letters): _____

I agree that Albuquerque Woodworkers Association, including the officers, will not be liable for any injuries or bodily harm resulting from the operation and activities of the Association.

Signature: _____ Date: _____

Print Name: _____

Please sign, date, and send this form (with payment by check) to the above address or bring payment (check or cash) to the next AWA Meeting/Workshop. If you got this membership application off the website the form is fillable on your computer so download, complete, and print.

* We would appreciate your answering a few questions so we can make your membership in Albuquerque Woodworkers Association as satisfying as possible:

• How did you hear about AWA? _____

• What special skills do you have that might be useful to AWA?

• Are you retired or semi-retired? Yes No Comments: _____

(Revised 5/17/2016)