The Newsletter of the Guild of New Hampshire Woodworkers

The Old Saw

Working Efficiently
unconventional tools

beginner’s corner • studying with david lamb
furniture movements • buying used hand tools
building a guitar 2 • roughing time • a beginner’s journey

Calendar

Apr 5    BIG
Apr 19   Finishing Symposium
May 10   Period Furniture
May 18   Luthiers
May 21   Steering Committee
May 24   GSWT
Jun 7    BIG
Jun 14   Summer Trip
Jul 26   GSWT
Aug 2-10 NH Craftsmen’s Fair
Aug 20   Steering Committee

Solution to Workshop Storage

Caleb Dietrich – simple shop drawers
The Guild Experience

You've heard me say and pen this refrain before. It is an article of faith among woodworkers that each of us has something to learn from others and something to teach to others. This spring, Peter Breu has lined up a great opportunity for us to learn about that area where almost all of us have questions and problems – finishing our work. Over the years I've spoken with magazine editors, woodworking teachers and others, and without exception they all say that finishing raises more questions than any other area of woodworking.

I won't spill the beans about the programs or the presenters, you'll have to read the Finishing Symposium article on page 3 to learn that, but I will say that you will be horribly disappointed if you miss this event on April 19th. Come and learn some new techniques, get your questions answered by experts, and you can even get to meet some folks from some of the other New England guilds who have been invited to attend. Tell your spouse that the yard work is just going to have to wait.

I was musing the other day (read that as daydreaming while I was supposed to be working) about my time in the guild over the years. When I joined our then 125 member guild during Jon Siegel's term as president some 11 years ago, I was typical of many of our members. I was isolated from other woodworkers, had never had any formal instruction other than from my Dad, needed serious skill improvement, and had nowhere to turn when I had questions or problems that needed solving. I believed that everything could and should be done with power tools when possible, polyurethane was the only viable finish for wood, wood came from the home center, and Craftsman was a great tool brand. Needless to say guild membership has changed many things for me.

Over the intervening years of being a guildmember, my orientation and attitude have changed immeasurably. I have had the opportunity to serve in a number of Steering Committee positions, have met and become friends with a number of talented woodworkers, and finally a year and a half ago was elected Guild President. In my wildest imagination I would never have seen these things coming when I handed over my membership fee of $25 to Wayne Marcoux at Sunapee one August day as my wife looked on. My woodworking skills, style, and habits have changed beyond what I could ever envision. Most of my joinery and surface finishes are now prepared with hand tools, I started a side business making hand tools from exotic and figured woods, and I can even sometimes answer questions put to me about technique when asked by others. My shop has "most" of the tools I need or desire and my skills continue to improve. Life is good and keeps getting better.

The point I want to make about my development as a woodworker is simple. I owe it all to the guild. They provided the training, advice, opportunities, and most importantly the encouragement. Our $30 annual membership fee would have been cheap at ten times the price. No matter what your skill level, no matter how long or short a time you've been a member, and regardless of your age, there are things for you to do or

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Finishing Symposium

Here is your chance to learn from the pros! The Guild is having an all day, hands-on, up-close finishing symposium with eight outstanding pros showing you how to create the perfect finish. Whether you prefer french polishing with shellac or spraying conversion lacquer, this is your opportunity to learn more. There will be sixteen sessions in four time slots (starting at 9:00 am) so you can pick and choose the sessions you are most interested in. Many will be videotaped for later viewing as well.

We have brought Teri Masachi back from New Mexico. Teri was an early member of the guild. We have Andy Charron coming from Vermont. This is amazing talent for your benefit!

There is a trade show as well with many important vendors coming to sell. The doors open at 8:00 am and the event is free – bring your friends who aren’t guild members to learn too! More details are up on our website – www.gnhw.org.

We do still need volunteers for set up on Friday afternoon at 3:30 pm – please contact Peter Breu if you can help.

Directions to Pinkerton can be found at www.pinkertonacademy.net. This is not an event to miss! See you there!

Peter Breu:
peterbreu@comcast.net or 603-647-2327

The Jack Grube Fund

Over the last ten plus years, Jack Grube has been a major force in the Guild in a variety of positions including Program Coordinator and President. His contributions as a member of the scholarship committee and as host for both numerous guild meetings and symposia have benefited all of us. When he resigned from the Steering Committee last summer to give him time to spend with his family and take on the new challenge of Director of Vocational Education at Pinkerton Academy, the committee felt that his contributions needed to be recognized. We knew he wouldn’t accept some gift for himself since he had refused the traditional gift of a Lie-Nielsen plane when his two year term as Guild president expired 5½ years ago. It was suggested that his vocation as a teacher and his interest in secondary school education offered us a way to honor him.

The Steering Committee voted to establish a named scholarship fund restricted solely to further middle and secondary school woodworking education. As a measure of our confidence in his judgment, the exact terms of the Jack Grube Fund would be set by Jack himself in conjunction with the Scholarship Committee. This fund can be used for a number of purposes such as student scholarship, teacher training, or the purchase of needed equipment. Our support in developing the next generation of woodworkers is an important part of our educational mission as a non-profit organization.

I was proud to be able to make the presentation of a wonderful lathe turned and laser engraved burl wall plaque made by Graham Oakes to commemorate Jack’s years of service. It is our hope that it will have a place of honor on his office wall at Pinkerton. – Dave Anderson

President’s Message – continued

announcements
HVLP SPRAYING – Any thoughts on HVLP spraying. Conversion gun or turbine. Water based or lacquer. Steve Colello

Marty Milkovitz replies: The turbine driven systems will not atomize as well as a compressor. For spraying thin stains and finishes either system works fine but you will need a compressor driver gun if you will be using any of the catalyzed or epoxy finishes.

TWISTED LUMBER – When I buy lumber that is surfaced two sides, why is it warped or twisted? Anon

DJ Delorie replies: Wood moves because of stress and strain within the wood. Changes in humidity cause the types of movement we’re used to, but also the tree is pre-stressed when it grows – that keeps it from falling over. Until all this stress is relieved, wood has the potential to move.

When a piece of wood is milled and dried, the drying process changes the stresses in the wood, causing movement. Even after kiln drying, there is still some moisture in the wood, plus the moisture content is not consistent throughout the wood – usually there is less moisture near the surfaces than towards the center, since moisture on the surface can more readily escape. These differences are minor, but enough to cause movement.

When the lumberyard surfaces the wood, two things happen. First, some of the stressed wood which is helping hold the board’s shape is removed. Think of this like removing clamps – if uneven clamping pressure was required to hold the board flat, removing the clamps results in uneven spring-back.

Second, fresh surfaces are exposed to the air. Since it’s likely that those surfaces will not release additional moisture at the same rate, again, this may cause wood movement.

When milling wood to final width and thickness, it’s important to keep that in mind. If it’s critical that the surface be as straight or flat as possible, schedule some time to let the wood move. Perform most of the surfacing, taking the same amount off each side to help balance the internal moisture, stopping before you reach final dimension. Then, let the wood rest and acclimate for at least a day, but as much as a week or two, to let it move as much as it can. Then do the final surfacing, which hopefully will result in only a minimum amount of additional movement.

Marty Milkovitz replies: Warped lumber is most often the result of a change in the moisture content of the wood. Even if the wood was surfaced at 7% moisture and then subjected to high humidity for even a short period of time, it is going to move. How much it moves depends of the grain orientation, compression or tension in the board, and if the board was allowed to free float during this moisture change.

Dave Emerson replies: The fact that the lumber is S2S has nothing to do with it’s warping or twisting. There is no sure prevention for warping or twisting other than quarter sawing. However, grain irregularities, runout, etc. will indicate a propensity to warp or twist. Lumber that is flat will sometimes change when subject to humidity change or milling which releases stress from poor drying.

To insure stability in my cherry, I dry it myself. Maple – I buy from dealers I trust. The cherry I buy right off the saw in early spring and sticker it every two feet in a barn with good air movement. Stickers must be dry. It will dry slowly at first in early spring – very important. I like two seasons for general use, pull during low humidity. For furniture one winter per inch in dry heated conditions is needed.

Guy Senneville replies: Because it’s junk! All kidding aside, it was flat and square when it left the planer. This problem could have occurred for a few reasons. It may have not been stored properly, it may have not been completely dry when it was milled, or humidity changes occurred before you obtained it. It is always best to bring lumber into your shop to acclimate a while before you use it. If you do not have the ability to mill lumber to size, I would suggest purchasing enough extra thickness to square it up by hand before use.

RUST – What is the best way to keep your machine tops from rusting while in use or in storage? John Faro

Dave Emerson replies: I wax all machine tops since they need it anyway for ease of feeding material. The planer needs it often. They don’t rust.

Guy Senneville replies: Though I can not speak to storage specifically, I think it would be pretty much the same as in use. I like to use butchers wax. I apply a few coats buffing between. If I was to store, I would apply a thicker coat and not buff. I never use WD40 on any of my tools that expect to come in contact with wood for fear of contamination and problems in the finishing stage of the project.

Marty Milkovitz replies: If your tools will only be in storage for a short time, a coating of “butchers wax” works well. However use “RIG” if you are looking at long term. Its a rust inhibiting grease formulated for metal stored in humid conditions. Its available through some of the larger gun

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late nineteenth & early twentieth century

Furniture Movements

The Arts and Crafts Movement – In the 1880s, Mr. Mackintosh working in Glasgow, Scotland began the Arts and Crafts movement as a reaction against poorly made mass production furniture that was streaming out of factories. This mass produced, slipshod furniture lacked style, grace, and a sense of uniqueness that can only be produced by a master craftsman. Furniture made in the Arts and Crafts style is understated, elegant, and a joy to experience. Mr. Mackintosh developed a clean style that stripped away the exuberance of the Victorian Age at a time when people were beginning to appreciate an uncluttered look.

Within 20 years of Stickley making furniture in New England, furniture makers in California adapted the Arts and Crafts style. At first, they combined it with the very boxy style of furniture made for the California Missions. These furniture makers lightened the proportions and added a bit more grace to create the Mission Style. However, a new style quickly developed when the Pan Pacific Exposition opened in California. This was the first time that Asian art was seen on a massive scale in California. The furniture makers, architects, interior decorators, and craftspeople breathed in this influence and produced what came to be called California Arts and Crafts. In this style, every aspect of the home was designed to be a united symphony of color, texture, and form. Graceful yet simply flowing lines of Asia quickly were translated into buildings, furniture, metalwork, textiles, glass, ceramics, and much more. Most notable in the development of this style were the brothers Greene and Greene who designed some of the finest California Arts and Crafts homes. They even developed the bungalow design that is found throughout the U.S. Their desire to create a unified look in the home was another reaction against Victorian clutter, and possibly also against the often uncomfortable designs of Frank Lloyd Wright. California craftspeople also combined elements of the French Art Nouveau movement and other movements. Another characteristic of the California Style is that it can be mixed with many styles to create a modern sophisticated look. Sadly this movement was quickly replaced by the Art Deco and Art Modern movements. Fortunately, for the discerning customer, the

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Unconventional Tools

Do they work as claimed, and are they actually new?

In the last ten years many new types of turning chisels have come on the market which are not like the traditional gouges, skews, and scrapers of earlier times. These range from miniature tools for turning pens, to large deep fluted bowl gouges and countless devices for hollowing. But here I will look at three new types of chisels that are used for spindle turning – the pyramid tool, the wedge tool and the skewji gouge. Because I have not used these tools before, I am giving you my first impressions based on 45 years of woodturning experience while recognizing that there is a learning curve with every new tool.

Since I didn’t already own these tools, and I am not getting a grant to do this research, I decided to make my own chisels. The cost of the tool steel for each chisel was about $1. The steel is W-1 quenched from 1440°F in water to a hardness of Rc 63. If you are interested in learning how to do this yourself, read my article, Woodturning Chisels You Can Make, in the April, 2007 issue of The Old Saw. If you choose to purchase these tools from a catalog, they cost about $35 each.

Before making the chisels, I studied the pictures in several catalogs in great detail: Packard Woodworks, Craft Supplies, Woodworker’s Supply, Hartville Tools, and The Cutting Edge. I tested the chisels primarily for their application as cutting tools (not scrapers) on spindle turnings.

The Three Point (or Pyramid) Tool

The Hartville catalog attributes the invention of this tool to Bill Jones, a sixth generation English turner who famously wrote, “The lathe is man’s best friend, and without it I am nothing.”

It has three bevels that come together to form a single point exactly in the center of its cylindrical shaft. This idea makes perfect sense to me since I sharpen my skew chisels to a high angle (about 45°), and use the acute point of the toe for countless operations of slicing end grain.

My first impression of the three point chisel was that obviously it does not have three points, and Craft Supplies got it right by calling it the pyramid point tool. I realized, after using it that in addition to the central point, it does in fact have three points: the central point plus the heel of each edge which works like the heel of a skew.
Test Results – Results were disappointing when I tried to slice straight down with the point like I do with the point of a skew chisel. The finish obtained was not as good as with a skew. Because it has three planes instead of two, the dihedral angle cannot be less than 60°, and the “knife edge” quality is lost. The end grain fibers of the wood are cut away at such a severe angle that they tear instead of being sliced cleanly.

However, more experimenting with the pyramid tool revealed the unexpected. Convex ball forms could be cut with the heel of each edge, and a perfect finish resulted. Serious pressure was required to make the cut (because of the 60° edge angle), and as a result control was difficult. Plus my view of the cutting point was obstructed by the tool.

When used with one of the flat sides facing up, the pyramid tool also functions as a spear point scraper.

Conclusion – The pyramid tool is very easy to control (except as noted above), easy to sharpen, and is not prone to catches, but it cannot replace the skew because it lacks an acute edge and therefore does not produce a fine finish.

The Wedge Tool

I was intrigued by this tool because of its simplicity. Surely no tool is easier to make, or sharpen.

Test Results – The wedge tool was at first disappointing, and it took a while to figure out what it could do. It has uses either as a cutting tool or a shear scraper. With the bevel rubbing in cutting position, the only thing it seemed to do well was planing horizontal surfaces. It was difficult to control, and prone to catches because it is has a very small “sweet spot” just to either side of the point.

In bevel rubbing position (bevel down), I was unable to use the nose of the tool without getting a catch. Then I turned the tool over and put the bevel up. Now I had a shear scraper that I could use to make a cove. Of course this did not produce as good a finish as a gouge, but control was excellent. To my amazement, I was able to make straight in cuts with the nose of the tool.

Conclusion – As a cutting tool, the wedge is very limited, and it is a somewhat cumbersome tool and prone to catches. One thing in its favor is that it is certainly an easy tool to sharpen.

I suspect that many people who use the wedge tool are using it like a round nose scraper, and this is a poor approach to spindle turning. Yet the ability to rotate the wedge tool and use different parts of its elliptical edge may provide advantages in shear scraping.
The Skewji Gouge

The Packard Woodworks catalog attributes the invention of this tool to Allan Beecham, and they spell it skewchi gouge. I prefer the more sensible spelling of Woodworker’s Supply, simply skewji gouge. The implication is clearly that this half-skew, half-gouge will do the work of both.

A skewji gouge is simply a fluteless gouge, and as such its cutting edge lies in one plane and resembles that of a curved skew. But it is beveled only on the bottom and is not ground symmetrically (equally on top and bottom) like a skew.

In order to create a flat surface at the tip, a considerable amount of material must be ground away from the top side. I have observed two ways of doing this, either ground to a long flat angle on top, or ground with a concave sweep. I chose the second method because I wanted the top surface to be parallel to the axis of the tool. In any case, the sharpening of this chisel is complicated by the fact that it is necessary to periodically grind back the top of the tool.

Test Results — I loved the skewji gouge from the first moment the chisel hit the wood. It felt familiar, like an ordinary spindle gouge. It performed both convex ball shapes, and coves, sliding and piercing entries, just like a gouge.

But what about being a skew? Clearly, because it does not have a point like the toe of a skew, it will not perform those operations such as cutting in from the square as well as a pointed skew. What it does have is left and right heel points. The heel point of a regular gouge is not useful, because it’s shape is blunted by the rounding over of the top of the flute. However, I was able to use the heel point of the skewji gouge to clean up inside corners of shoulders, something that can’t be done as well with a regular gouge.

The nose of a skewji gouge will cut to the bottom of a sharp vee better than a regular gouge because the cutting edge lies in one plane. While the results were not as good as those obtained by the point of a skew, I was able to round over adjacent beads to the bottom of the vee, and achieve good results.

Conclusion — The skewji gouge does, to a large degree, live up to the claim of doing the job of both the gouge and the skew.

I think in the old days, thin bars of tool steel were hammered into fluted gouge shapes to make them more rigid. That was then. Now nearly all gouges are made by milling and/or grinding a flute in a round bar, and more skew chisels are being made from round stock. This is because a round bar is strong, comfortable to hold, and slides and rotates smoothly on the tool rest. Although the fluteless gouge is nothing new, the complete evolution of the turning chisel made from a round bar has now achieved a perfect marriage with the fluteless gouge.

Skewji — The top of the tool is flat and parallel to the shaft, while the bevel is ground in the conventional way for a gouge.

Skewji Example — This sample turning was made entirely with the amazingly versatile skewji gouge.

More photos on Page 9
**ASK THIS OLD SAW! – continued**

**Q** **GLUING BENCHTOP** – I want to glue two pieces of rock maple, 1½” x 24” x 72” to form a 3½” bench top. Would I be better off using epoxy than titebond? Bill Newbold

**Dave Emerson replies:** My bench top that used to go to Sunapee is glued with titebond, but it is also rodded. It’s fine, though it did open up a little when I left it out on a porch all summer.

**Al Breed replies:** I don’t think that there’s any particular advantage to using epoxy in general, let alone in a bench glue-up. I’ve put all my benches together with titebond. I would reconsider the configuration of your wood for the top however, as gluing two wide boards together as you have described is far less stable, in my opinion, than ripping them into 3½” strips and gluing them up butcher-block style. Maple isn’t as stable as you might think, so there’s really no advantage to leaving those boards that width, as wonderful as they may be.

**Marty Milkovitz replies:** I would use Titebond 3. It has more creep than the other titebonds as well as being water resistant. I would only use an epoxy if the mating surfaces are not well fitted or will be subject to severe outdoor use.

**Q** **SHARPENING RASPS & FILES** – Is there a method to sharpen a wood rasp or file? Any comments on caring for and cleaning files? Jeff Neil

**Al Breed replies:** There are places that will refinish rasps and files, and they really do give them a new life. Other than that, always treat your files and rasps as you would any edge tool. Keep them from banging into each other, clean them with a wire brush or file card, and don’t spill your coffee on them – they will rust immediately and become useless.

I use a lot of files when I’m shaping legs, especially end grain and for fairing knee blocks to the legs. A good coarse fast-cutting file will make short work of the hardest mahogany and need only scraping to clean the surface up.

**Q** **GLUE ON JOINT SURFACES** – If you stain the pieces of your project prior to glue up, do you have to protect the joint surfaces to allow glue to stick? I know protection is needed for varnish, shellac, etc. David Frechette

**Guy Senneville replies:** I would guess that if you were using an oil base stain there could potentially be a problem. If you were using a dye there is no problem. The safest bet is to protect before stain if you are not sure. Something as simple as masking tape should do the trick.

**Marty Milkovitz replies:** If you are using an oil based stain, definitely protect the edges. And even with a water based stain you will be comprising the integrity of the joint although nowhere near as much as with a oil stain.

**Q** **SHELLAC SHELF LIFE** – Mixed shellac has a shelf life. Do shellac flakes have a shelf life? Roger Myers

**Marty Milkovitz replies:** Shellac flakes if kept in a sealed air tight container will keep indefinitely although I would be leary of using them if they were five plus years old.

**Q** **FISH GLUE** – Can fish glue be used in furnituremaking? Its long set time makes clamping easy, but will it hold up under high humidity? John Whiteside

**Marty Milkovitz replies:** Fish glue like hide glue will break down with moisture. ■
We all make mistakes, wasting materials and time. Often it's just a stupid mistake, rushing probably – cutting on the wrong side of a line or sending a part through the saw backwards. To work quickly and reduce mistakes, I'm always thinking about consistent and efficient ways of working that become good habits.

**Drawings, cut lists, and a planned out construction sequence** go far to make the building process run smoothly. If you can't draw it, you can't build it. Right from the beginning, I try to make good design decisions, avoiding techniques or details that are unnecessarily complex with little to no aesthetic advantage. This can be as simple as designing inlays or carving with the grain rather than across it. Difficult aspects or details I mockup to gain insight in how to do them more easily before committing to the real thing. These mockups are always interesting to my client, or as a useful reminder if I try this technique again.

**Full scale plans take time**, but it's the surest way to size the joinery, create pleasing curves, or really see the angle of one part to another. This drawing then becomes a very accurate way to dimension parts or lay out the joinery — right from it. Working from this reality is less prone to errors than using a rule.

Or I make a pattern (again from the drawing, and a further way to refine its shape or proportions) that becomes a story stick with all of the joinery, top of the leg, bottom and position of details noted. A caliper that gauges inside, outside, and depth is a useful tool for sizing a tenon to its mortise, a tongue to groove, or the thickness of parts as I am planing them – again with fewer measuring errors. Once I have a partially assembled carcase or a dry fit frame, I dimension drawers or the panel directly from the work.

**Devise and use a simple and consistent marking system** that becomes second nature. Use a bold red crayon liberally, marking faces (or backs, but be consistent), reference edges, grain direction, up, R or L. When I am working at the saw I want to have my marks shout at me. Since many tables have 4 legs, I have a system of marking each 1, 2, 3 or 4 as well as the outside faces. I then know the exact position of a leg around the table, where the mortises go, and eventually each mating tenon marked with a corresponding number. When I am cutting parts from rough stock I note what the part is on an edge or end that will survive the milling. It saves time resorting everything out later. Marking reference edges with a bold red dash such as the bottom of drawer sides and face makes for fewer errors cutting the dovetails and later gluing up.

**Use a jointer sparingly** milling parts. I find the bandsaw a safer and quicker way to straighten an edge, trim waste wood before machining, or rough cut parts to size. With a wide or twisted board, it's too easy to joint it into a piece distinctly tapered or too thin to be usable. I don't joint parts much wider or longer than I need, and try to balance out the cutting by pressure on the thick side, or turning it end for end every so often. I joint the edges of multiple boards at once by stacking them together and passing them through as one handful. And any time I am milling parts I do as many as I can, especially everything the same thickness. Small parts are most efficiently milled as larger pieces and cut up afterwards.
At the tablesaw a quick and very accurate way to cut tenons is to gang two saws together with a spacer between them. Each router bit used for cutting the mortises has a specific spacer for the saws, no test cuts needed. I cut all of the same size tenons at the same time if I can, all of the same dados or grooves. Before I cut anything on any machine I carefully stack the parts in the right orientation just out of my way. Remember those bold red marks. Well this is where I check for the same edge or face mark along the entire stack. I can then focus my attention on working safely, not flipping parts.

Hand tools are some of the most efficient tools I use. For fitting joints, sizing parts, smoothing surfaces to a polish, jointing edges before gluing, and on and on. There are so many tasks done better and more quickly by hand than machine. Plus they’re quiet and so enjoyable to use. Learn to sharpen, for truly sharp tools work with little effort, and a lot more accurately. Have your sharpening needs close at hand, so they are easy to use. Every time I sharpen it’s a chance to also refine the tuning of a tool, for example honing out the slight skew of a plane blade edge so the blade now projects above the sole consistently across its width.

Planing is far more efficient than scraping or sanding. It cuts a surface with deep clarity (making finishing faster too), in about the time it takes to get out a sander. And I am not just smoothing it, but flattening, and cutting nice crisp edges. Invest in a dedicated smoothing plane. Good tools, good techniques, and good habits can do multiple tasks for you at the same time. You’ll work more efficiently – and maybe avoid those annoying mistakes.

A pattern for shaping a leg becomes a story stick for laying out the joinery, top and bottom of the leg, and cuff banding. These calipers are useful for comparing dimensions such as the size of a tenon against its mortise.

Furniture Movements – continued

California Arts and Crafts movement was revived in the early 1960s by Sam Maloff and others.

Art Nouveau – Art Nouveau was a movement that began in the late 1880s and was replaced by the Art Deco movement. Artists sought to incorporate elements from nature such as flowers, vines, leaves, and even insects. Artists sought designs that evoked a mythical reality. To this end, they stretched their techniques abilities.

Wood furniture was so heavily sculpted as to suggest vines or dripping wax. Surface carving was a critical element. In the decorative arts such as glass and jewelry, iridescent glass or stones that suggested insect wings were highly prized.

Art Deco – Art Deco refers to a period dating from about 1920 to at least the 1940s. It strongly influenced the artistic style of the 1950s, but had lost much of its edginess. Artists sought to suggest motion by taking streamlined elements from trains, planes, and submarines. The major features of Art Deco style are a concentration of geometric shapes especially mechanical influences rather than features from nature. In Southern California, Florida, and some other areas art deco designs also took on rounded corners and even port holes suggestive of a submarine.

Art Modern – Art Modern shows a strong relationship with Art Deco. It began after the end of World War II. In furniture, it is identified by bent metal tubes, vinyl, concentration on bright colors and simple shapes. Natural materials such as wood lost out to man made materials, especially plastic. Cars and even eye glasses from this time sprouted gull wings, fins, port holes and anything that suggested airplanes, space ships, or movement in general.
Neck

Let's leave the body, now glued together, for a bit and talk about the neck which I work on in parallel to the body. The neck is a straight piece of wood with a block at one end to fit into the body and an angled headpiece at the other end where the strings are attached. I decide to use a scarf joint for the angled headpiece, instead of carving it from a solid piece, and to build up the block by gluing small pieces together. The alternative is to carve the entire neck from a solid piece which seems wasteful.

Alan says that mahogany has been added to the controlled species list, meaning we must conserve it. On a steel string guitar, such as mine, the headpiece is considerably wider than the neck itself. To save wood, I rough cut my raw material to just over the neck width, planning to glue “wings” onto the headpiece later. Starting with a length of mahogany, I cut off a piece at a 15 degree angle on the table saw. Then I thin the cutoff to that dimension which accommodates my tuning machines, taking into consideration that the headpiece is later surfaced with a piece of ebony.

Photo 12 shows the arrangement for gluing the scarf joint. Notice that the pieces are prevented from slipping during the gluing by an arrangement of stops and clamps. The block at the other end I make simply by gluing a stack of four rectangular pieces as can be seen in photo 13. Next I glue wings onto the headpiece as shown in photo 14.

Notice at this point that the sides of the neck assembly are straight. This allows the neck to be placed in a tenoning jig. The resulting fit into the neck mortise is shown in photo 13.

Now here there exists a complexity. The guitar body is curved. It is necessary to cut the tenon shoulders at an angle to accommodate this curve, as the photo shows. What is going to happen is that only the knife edges at the ends of the tenon shoulders will bear upon the body when the barrel bolts are tightened up. The critical neck angle that I spoke of earlier will be fine tuned by minute planing or sanding of these knife edges.
Since this is a steel string guitar, the neck must have an adjustable steel truss rod embedded in it before the fingerboard is glued on. Unfortunately I neglected to take a picture of this step. However, in photo 13 you can see the channel in the neck block where the end of the truss rod comes out, as shown in photo 10.

Next I glue down the ebony fingerboard using many clamps. The fingerboard tapers from the body to the headpiece. It is best to cut this taper into the ebony fingerboard first, then glue it, and only then saw and plane the mahogany to match. Here, by the way, is a chance to customize the guitar to your own needs. My commercial guitar has a fingerboard width at the nut of 44 mm. Over the years I have found that in playing certain chords, my fat fingers just touch the adjacent strings, damping those strings. On this guitar, I increase the fingerboard width by 0.5 mm, which sounds small but, I am delighted to report, completely solves my problem!

Photo 15 shows the frets being pressed into the slots in the fretboard. Many luthiers pound these in with a fret hammer, but that is reported to take a lot of skill. So I am using a radiused arbor, since the fretboard surface is curved to a radius of 16 inches. Much later, when I string the guitar up, I find the frets are almost perfectly level due to using the arbor instead of hammering the frets in, and this saves a great deal of time filing down what would have otherwise been errant frets.

Next the neck is carved into shape. This sounds difficult but I have had the good fortune some years ago of taking a class on carving Queen Anne legs given by Geoff Ames. His advice is to go at it with whatever works: bandsaw, rasps, carving tools, scrapers, whatever.

Photo 16 shows how the carved heel comes out. Notice it has straight sides, making it what is called a jazz heel. I reason that this geometry makes it easier to do the neck angle fine tuning (by fiddling with the tenon knife edges) than would be the case with a tapered heel. Someday I’ll try a tapered heel on another guitar. Incidentally, it is Alan’s observation that people never build just one guitar. There is something about it that gets into your system; you can’t not do it. Luthiers reading this will understand.

**Back to the Body**

We left the body glued together but its corners without decoration. It is customary to put a strip of material all around the perimeter where both the top and the back meet the sides. This is called binding. Inside and/or underneath the binding it is possible to add a narrow decorative strip called purfling. To attach binding and purfling, it is necessary to cut out a ledge. If purfling is to be added, this ledge needs to be stepped, requiring two ledge-cutting operations.

Cutting this ledge is really tricky. Its width has to be absolutely uniform all around the perimeter, else the binding, when scraped down to the level of the sides, will be of varying width and look terrible. The procedure can be done with hand tools, which is tedious and requires great expertise, or with a hand-held laminate trimmer which is a recipe for disaster. The slightest tilting of the trimmer ruins the job. In addition, recall that the top and back of a guitar are not flat and thus provide no flat reference surface against which to guide the trimmer base.
My solution is to purchase an ingenious device from Stewart Macdonald (www.stewmac.com), one of the lutherie supply houses I use (the other is Luthiers Mercantile International (www.lmii.com). Both are excellent.

This device, shown in photo 17 about to cut ledges into Franz’s guitar body, consists of a movable carriage that holds and levels the guitar. A modified laminate trimmer rides up and down on a column. You set up the trimmer with the right-sized collar for your ledge and then move the guitar body around underneath it. It cuts a very clean, accurate shoulder.

Attaching the binding is a hoot. My binding is holly. Using the side bending jig mentioned above, I bend holly strips.

Photo 18 shows these ready to be glued into the ledges. On the top, inside the holly binding, I put a 0.65 mm thick ebony purfling. The accuracy of the purfling width is crucial and must match its ledge exactly, plus a few thousandths allowance for glue. I first recalibrate my Dewalt hybrid table saw, make a new zero-clearance throat, and set the fence making test cuts and adjusting the cut width using feeler gauges. Using this procedure I find I can cut strips to within 0.05 mm accuracy, a testimony to the Dewalt saw, which I highly recommend.

The extremely thin ebony purfling is so flexible, there is no need to prebend it. I glue in the purfling and binding in one gluing operation.

Photo 19 shows how the bonding is clamped! In the process of procuring this “clamp” I have the following conversation at Chapelle Tractor Company in Brentwood.

“Hi, I’d like a tractor tire inner tube” — “What size?” — “Doesn’t matter”

“Oh, goin’ raftin’?” — “Nope, buildin’ a guitar” — ...silence...

Securing this clamp takes quite a while. Alan can do it within the working time of yellow or hide glue, but I cannot. So I use fish glue with its 40 minutes working time. The resulting purfling and binding scheme, once scraped flush, is shown in photo 20.

Finishing

Naturally all parts of the guitar have to be scraped and sanded to a fair-the-well; no need to dwell on this for Guild readers except for one point. My guitar has holly right next to ebony or rosewood. When I sand, the dark dust gets into the holly and makes a mess. For the rosette, I handle this by never sanding it – it is scraped only. For the body, I handle this on guitar #2 by scraping, sanding and lacquering the body before applying the binding. Indeed, I do this before even cutting the binding channels since lacquer would get into them and make gluing difficult.

Alan is dead set against lacquer. He prefers shellac applied by French polishing. Terry Moore, on the other hand, uses lacquer on all his guitars, as do virtually all manufacturers. Varnish with a low oil content is a possibility (oil is said to dampen the sound) but then one has to deal with the problem of long drying times and the difficulty of repairing the finish.

For these first guitars I chose spray lacquer, mainly because I am comfortable and familiar with it. Not having a spray booth, I use spray cans and an organic vapor mask. Cumpiano recommends brushing lacquer, but I have never gotten the hang of it.

In the course of getting enthusiastic about lutherie, I start a new Guild subgroup. Already 25 people have signed up. Our members include guitar makers and also violin and cello makers. It is extremely interesting to compare notes. Violin maker Jim Robinson says something very interesting — it is hard to sell new looking violins or old looking guitars! It would be quite possible
to give a violin an absolutely smooth surface and a mirror glaze finish, but no one would want it. Taste dictates that violins have finishes that look a hundred years old. By contrast, many (but not all) guitars have mirror finishes, presumably to reflect the stage lights shining on the rock stars’ guitars. But the high gloss finish on commercial guitars looks plasticky to me. Besides, it is hard to imagine a bluegrass picker in a mountain hollow in the last century with a mirror finish guitar. Besides, my metal suspender clips will soon enough scratch the back. Though I know how to do a super high gloss using lacquer, I opt for an ever so slightly satin finish.

A complexity arises because I am using rosewood – the problem of pores and how to fill them. Even multiple applications of grain filler do not fill all pores completely. I resort to filling left-over pores, as well as gaps in the rosette by applying drops of lacquer into them with a syringe. This leaves little bumps which must be sanded off. Dave Anderson tips me off to using a felt sanding block (available at Woodcraft) with high grit papers, lubricated with turpentine. I stop moving up grits when the finish pleases me (somewhere between 600 and 1200 grit). Then comes steel wool lubricated with a non-silicone wax.

The top is easier to finish before the bridge is placed on it, so I mask the bridge area off with tape. The tape to use is an issue. Be sure not to use the kind that leaves a gummy residue. An even easier method might be to finish the entire top and then remove the lacquer from where the bridge goes using paint striper and razor blades (carefully).

Attaching the bridge (photo 21) requires great precision. The slightest error and the guitar will be out of tune. Special deep throated clamps are needed to reach through the sound hole to clamp the bridge in place for gluing.

**Setting Up**

I drill holes in the head for the tuning machines. The strings are held in place at the head end by a nut and on the bridge by a saddle that fits into a slot in the bridge. Notice that the saddle is embedded in the bridge at an angle. This is because when the strings are pressed (fretted) their length changes a minute amount, and the fat bass strings by a different amount than the thin treble strings. The angled saddle compensates for this.

My new violin-making friends tell me that violins generally have ebony nuts, even though bone nuts are said by many to look and sound better and indisputably last longer. So why do violin makers use ebony nuts? Because that’s what Stradivarius did! Guitar making, especially steel string guitar making, is much more in a state of flux and ongoing evolution. Makers experiment with all kinds of shapes and materials.

My nut and saddle are bone. The nut (photo 22) has notches in it to accommodate the strings. I discover that the width, depth, and down-angle of these grooves has a pronounced effect on the tone produced by an open string. Too loose and the string makes a twangy sound like a sitar. Too tight and the string buzzes or even breaks. But in between those extremes there is the opportunity to experiment with a sound quality that pleases me. Just a whisper of twang give a country-bluegrass type of sound that I find very pleasing. Indeed, I am thinking of making various nuts to achieve different effects.

The final photo (23) shows me playing my guitar for the first time. To be honest, I am astonished at its tone, which far surpasses that of my commercially-made guitar. I hear clarity and complex, pleasing resonances. The sustain (how long the strings play after being plucked) is remarkable. And I can feel both the body and the neck vibrating in sympathy with the notes. At first, a few of the strings buzz when fretted up high and the action is difficult. A few minute shavings on the knife-edge neck-tenon shoulders, a few file strokes on the nut and saddle, and it plays like a dream.

**Conclusions**

All woodworking projects can be fun. This one has been transformational. Wood as a structural material is stretched to its limits and a whole new dimension is introduced, that of the sound quality imparted by the wood. One’s skills are also stretched to their limits, to say nothing of one’s mind in thinking everything through. In fact, the project has used
almost every tool and technique in my shop, except for biscuit joining.

It is possible to go nuts reading about all the acoustical experiments and theories about how to get the best sound. Alan seems to have the best handle of anyone on this, but his methods are hard for students to duplicate without an instinct for it, a lot of experience, knowledge of calculus, and specialized sound equipment.

Part of the problem is that the physics of guitars is not well modeled nor understood, in contrast to what is the case in the violin world. Also in contrast to the violin world, where the absolute standard is the sound and appearance of a Stradivarius, guitars come in all sorts of shapes and sizes and are supposed to sound different from one another.

At one point in the project, I am in despair over how to proceed in the face of many conflicting sources and advice about how to build good sound into the guitar. I call luthier and New Hampshire Furniture Master Terry Moore who gives me simple advice worth its weight in gold, which allows me to proceed, and for which I thank him deeply. If you like math and physics, by all means explore the theories and methods available. If you just want to work with wood by touch, sight and sound, do that, which is what I end up doing and it seems to work just fine.

Indian rosewood is beautiful and has great sound properties. It is tricky to finish, though, because it has deep pores which must be filled with grain filler. Also, I turn out to be allergic to its dust, a real problem especially when using the rotary planer. Fortunately, at the 2007 annual Guild meeting, one of the items auctioned off is a 3-M power-operated dust mask, which I buy and which solves the problem. Even so, I think the next guitar will be made of figured cherry, my favorite wood, and one that is used from time to time in guitars. I’d like to build a guitar entirely from North American woods. Cherry will serve well for the body, spruce for the top, and maple for the neck. The problem will be finding something dark, hard, and North American for the fingerboard. Walnut is too soft. Stained persimmon…?

I would encourage any serious woodworker who has an interest in stringed instruments to try building one. Alan Carruth (www.alcarruthluthier.com) is an excellent teacher and you work with him at your own pace. Indeed, several Guild members have started with him since I did, including Steve Marcq and Phil Gamache. Jim Robinson (www.renstrings.com) offers individual instruction in violin, viola and cello making. If my experience is any indication, you will have the time of your life should you take up lutherie.

POSTSCRIPT – It is now a couple of months since the accompanying article was written. During that time I have completed guitar number two. It sounds quite similar to number one, except that it has a slightly stronger bass. This is intentional since number two was designed with an additional $3/8$ body depth, to give a little more resonance at the lower frequencies.

Naturally, I am biased in evaluating the sound of these guitars but now many other people have played them. Everyone agrees that they sound really good and are easy to play. Indeed, Mike Noel and I compared the sound to his brand new Martin guitar, side by side. Mike says he now wants to trade in his Martin.

We had a very special luthiers’ meeting in January. One of the finest steel string guitarists in the world is Ed Gerhard (www.edgerhard.com) who happens to live in New Hampshire. He travels all over the world but, as luck would have it, agreed to attend our January meeting to play and comment upon our guitars. About twenty of us attended with twelve hand-made guitars, all of which Ed Gerhard played and critiqued. The photo shows him playing my guitar which he had nice things to say about, including that it was sweet, clear and had a long sustain.
Buying Used Hand Tools

In the last few columns I’ve written about hand tools, the subject has been new tools and the various sources for some of the more common types that every woodworker needs in their shop. I’d like to depart from this approach for this discussion and extol the virtues of used hand tools. Personally my set of hand tools is a mixture of both new and old.

My view is that most of the hand tools made by the major manufacturers both in the US and in England suffered a continuous decline in quality between the end of the Second World War and the late 1980s. The introduction of reasonably priced hand held and bench mounted power tools for the contractor and the hobbyist market greatly lowered the demand and the profitability for makers like Stanley, Millers Falls, Disston, Simonds, Sargent, and a host of others. To survive, most companies redirected their efforts into other higher volume and more profitable products, were bought out, or simply went out of business.

The results were a shrinking variety of models, cost cutting at the expense of quality, and a paucity of top end tools for the user. Examples of the results can be found in the offerings of planes and chisels at such places as Home Depot, Lowes, or the corner hardware store. Improperly hardened steel and poorly machined or stamped parts are now the norm while 65 years ago every small town had at least one place with good quality basic tools.

My previous articles gave sources for good or better quality tools made by many of the new smaller makers, but they are available at a price. Quite often it’s a high price though well worth it if your budget allows. Substantial savings are available to those of us willing to buy used and do a little cleanup and rehabilitation. While a Lie-Nielsen #4 smoothing plane will cost you about $300, you can buy a pre-WWII Stanley that needs work for anywhere from $25-$50 depending on condition. That price differential can purchase a new replacement blade from Lie-Nielsen or Hock and leave you with $200 to spend on other tools.

This is just a typical example. Need a good tenon saw? You can buy a L-N, Adria, or Wenzloff for about $150 or get a used Disston, Simonds, Bishop, or Atkins for $30-$45. The difference is that you will probably have to scrape off some surface rust and re-sharpen and reset the teeth. Alternately you can clean it up and then send it to a saw sharpening service for about $20-$25. There’s nice savings there.

The most common question I hear is, “Where can I find these tools?” Often they can be found at yard sales and flea markets though this approach often requires the investment of a good bit of time and the pickings run the gamut from great to non-existent.

Here in New Hampshire we are blessed. Three times per year the Live Center auction offers used and antique tools. The auctions in Rhode Island and a large summer one in western New York at Donelley’s headquarters.

Another good way to get tools is to contact some of the antique tool dealers. Here in NH, we have Phil Whitby’s New Boston Tool Room in Kingston at the corner of Rt. 125 and New Boston Rd. Fine Tool Journal, (www.ftj.com) offers mail and email auctions and has several pages of tools for direct sale in each issue. Clarence Blanchard, the editor, is honest, reliable, and an amazing source for tool knowledge. There are many internet tool dealers out there and a google search can find most of them for you. Almost all of the dealers offer a guarantee policy and have great reputations.

Finally there is eBay. This is the world’s largest internet auction site and has hundreds of tools available each week. If you go this route you can do well or you can have problems. Everything depends on how well you look at the photos, read the descriptions and do your research. Items are sold “as is” and it is up to you to do your due diligence. One of the greatest things about eBay is that you can go back and view histories of the similar items that sold recently and check to see what the going price for a particular tool is running. This can help prevent you from over paying.

As a final word, buying old tools is not for everyone. With the exception of the very top end (priced accordingly),...
One day in mid March I received a phone call from one of my neighbors wondering if I was interested in building an entertainment center for her. Never having built a piece of furniture for anyone but myself, I was a little hesitant to say the least. But then some little voice in my head yelled out and said, go for it! How hard could it be, I said to myself. I can do anything! So I said yes to the challenge, I call it a challenge because I have only been woodworking for just about two years now and only had very basic tools. Most of my past life was working in the electrical trade. Last time I checked one set of tools had nothing to do with the other. My only woodworking experience previous to building my own furniture was helping my dad when I was in my teens build country pine furniture. When I say helping I mean holding the pencil and tape measure and also the best part, sanding the piece of furniture to get it ready to finish.

After agreeing to build the piece, I set up the first of many meetings with the customer. A couple of days later my customer came to my workshop with pictures and some catalogs. After looking at many pictures, my customer had come up with the final design to meet her specifications. Next over a cup of tea we talked about the next step – the finish. Here is where it gets interesting. My customer chose maple as the wood for construction. My last experience finishing maple was not a good one. All I can say is I will now avoid using alcohol to mix up a dye stain. I had too many problems with overlap lines and blotching, water works much better for mixing dyes.

The next step was to find out what other furnishings were in the room where this piece was going. I scheduled a site visit to her house to look at the room and furnishings. To my surprise I found a mix of furniture types and finishes and also a piano. My customer wanted to match the finish of the new piece to a tea table and the piano, both about 50 to 80 years old. The table and the piano were both mahogany. The table had a dark stain and shellac finish. The piano also had a dark stain finish but had some type of lacquer topcoat. After the site visit I sat in my truck and thought to myself that no can of Minwax stain and polyurethane will match up to those pieces. After one more meeting to finalize the dimensions and a few other design elements, I also collected a deposit to get funds to go shopping for lumber. I go to Goose Bay Lumber. I have found many great pieces of lumber there and always at a good price. I headed straight for the maple bins. While digging through the maple bins one of the workers came over and asked me what I was working on, so I told him that I was building an entertainment center and was trying to make it look like mahogany. The worker directed me to a bin of Santos mahogany instead of maple. At the time it was $2.00 a board-foot cheaper. I purchased all the lumber I needed and wow I saved some money! I would pay for this later.

After getting the lumber home, I cut a couple of small pieces for some sample boards. Just for kicks I tried some Minwax brown mahogany stain and satin polyurethane. By doing this I found out that the stain and poly combination blocked out a lot of the grain of the wood providing less than desirable results.

My next step was to do some research on traditional finishes. After some reading I found a finish that I felt could be applied with some ease by someone of my experience level. I chose a water based dye stain and a dewaxed...
garnet shellac. I made up two sample boards, one of Transtint medium brown dye and one of Transtint brown mahogany. Both boards received 5 coats of garnet shellac applied in this order; 1 coat of 2 lb cut, 2 coats of 3 lb cut and the final 2 coats were 1 lb cut. By ending with the 1 lb cut I was able to lay down a flawless top coat with some oxen ear hair brushes I had purchased from Kremer pigments located in New York City. After the shellac cured I applied two coats of paste wax and buffed out to a gloss finish.

Armed with my sample boards I went for another site visit this time I also brought my humidity gauge with me to measure the humidity in the house. My customer does not use air conditioning so the humidity inside the house can exceed 80% quite regularly in the summer. This alone affected the construction of this piece by having to allow for seasonal expansion and contraction not normally found in a climate controlled home.

After a quick reading of the gauge I found the humidity to be at 85% on that particular day. My customer ended up choosing the brown mahogany.

Now on to the construction. After doing some research on Santos mahogany I found that this wood has good to very good machining properties. As far as gluing and screwing, wood should be pre-drilled prior to screwing. Now the gluing is where the money saved ended up being spent. This wood is very resistant to glue of many types including polyurethane glues. A few panels that I made up with biscuits and Titebond III ended up failing with a little pressure to the joint. After some more reading I found that wiping the joints to be glued with some acetone just prior to gluing would remove most of the resin that was blocking the glue from soaking into the grain of the wood. This little problem ended up costing me time and money, but lesson learned cheaper is not better in this case.

After constructing all the panels, I made a decision to finish all surfaces that would face to the inside of the piece complete before final assembly. I applied three coats of shellac to all surfaces on the exterior of the piece. I saved the last two coats until assembly was complete. This proved to be a good decision due to the small spaces not being very brush friendly.

After learning an unfortunate lesson on a project before this one, glue up was approached cautiously. The room I was assembling in ended up being too warm due to an uneven heating source – a pellet stove. This accelerated glue set time to the point that joints started curing before I was done with assembly. With this information in hand, this time assembly went very smoothly.

During the next few weeks I met with the customer at my shop to go over the details of a few small problems that came up during the build. Fast forward a few months after running into some heath problems, I started to work on the final finish of the piece. After five coats of shellac this piece developed a mirror finish – one which I absolutely fell in love with. Now is when I had a difficult time letting go. My customer did choose a satin finish which at this point the piece did not have. I invited the customer down one last time to my shop hoping that she would change her mind and fall in love with that mirror finish. No such luck, the point was to match the pieces already in her home. So after a day or so I got up the will to break out the mineral spirits, steel wool and paste wax and ruin, I mean dull the finish to a nice satin sheen. After all the customers satisfaction is what’s important. After a few weeks to let the piece cure, I delivered the piece to its new home. My customer was so happy I think that she spent the next two days just staring at it!

Throughout this project I learned many new tricks and techniques and to also involve the customer as much as possible. That way there is very little chance of miscommunication leading to errors.

As far as pricing to build this project I had to think of a few things, I am not building furniture yet to make a living. Next was the fact that if I charged by the hour the cost would be out of sight since it took me longer than average to complete. I totaled the material cost and added about 50% to it. After all is said and done I just about broke even, but on the bright side, what I learned ended up being priceless.

Again this was a beginner’s journey.
In previous articles, I have taken you into the shop where I spend my weekdays making custom cabinetry for the homes of the seacoast.

Over the past months I have been hard at work setting up a shop space of my own. It may lack some of the more expensive machinery that I have been spoiled by, and it is not as big as I might like, but I have enjoyed arranging things the way I have been anticipating them for the past several years.

Before my wife and I bought a house, I was a woodworking nomad with no real place to keep the tools I was accumulating. Sick of seeing my prized possessions cluttered on shelves, and knowing I had to make the most of a small work space, storage and organization quickly became among my highest priorities.

My first thoughts on storage were to salvage a run of base cabinets from a kitchen being remodeled. When a month and a half of looking turned up nothing I was interested in, I found my inspiration in the panels from a kitchen we had “re-faced” nearly a year before. I sorted through what was available. With a little modification, I came up with an arrangement that would suit my needs.

At work, almost all of our storage is shelving of some sort. In my workshop I knew I wanted as many drawers as possible. I find they are easier to organize, access, and keep clean.

I arranged the panels on the floor and worked backwards to find the dimensions of the boxes and drawers. Building cabinets to fit the panels was more expensive than finding some reusable cabinets, but ultimately it allowed me to meet my needs and use a sturdy ¾˝ plywood construction that will hold up over the years. I am also satisfied with my decision to invest in full extension ball bearing drawer slides that glide smoothly even when the drawer is fully loaded.

Once the cabinets were constructed, I immediately began to fill the drawers. I gave the priority to my hand tools that had long awaited a home. I then continued through the other drawers, designating areas for the parts of each machine – router bits, saw blades, drill bits. After a few nights of organizing, things from all corners of the shop found their own space – like all the animals boarding Noah’s Ark.

Making Drawers – The drawer construction technique I used is not fancy. But I have found it to be a good option for workshop storage. They go together quickly and are solid enough to hold a pretty good load.

The method also allows the use of relatively inexpensive materials. The drawer sides are ¾˝ thick shop grade birch plywood. The sides must be ply, so screws will hold, but the bottoms can be made of just about any ¼˝ material.

I made my drawers 22” inches deep, and used full extension ball bearing slides. The slides generally require the drawer be 1” narrower than the cabinet opening, allowing ½” clearance on either side.

As you can see in the pictures, the ¼˝ panel is dadoed into the sides and screwed into the bottom of the front and back pieces. To accomplish this, the front and back pieces must be ripped ½” narrower than the sides. I ripped the side to 4” and thus the front and back were 3½”.

Once the stock is ripped, I cut the lengths I need. The side pieces run from front to back – in this case 22”. The front
and back pieces are sandwiched between, so I subtract 1 1/2" from the width of the drawer to get their length.

With the tablesaw blade raised 1/4" above the table and
the fence set at 3 1/2", I run the first pass of the dado in the 4" wide sides. Easing the fence just strong of 3 3/16", I make a second pass, and test the fit with a piece of scrap 1/4".

If I am edge banding the top edge of the drawer, for a cleaner look, I do so before assembly. To join the drawer sides, I use pocket screws in the ends of the front and back pieces. I glue all the joints for a little added strength. Later, when the drawers are installed and the drawer fronts are applied, the fasteners will be completely hidden.

The 1/4" panel stock can be ripped at 22", to run from front to back. It can then be crosscut 3/16" longer than the front and back, giving a snug fit in the dados. Once slid into place, the drawer can be squared up and the panel can be fastened with 1" screws.

With the drawer assembled, I use a shop made jig to keep the slide flush with the bottom of the drawer side and back from the face of the drawer the width of the stick-on bumpers I plan to use. Flushing up the bottoms allows for easy layout inside the cabinet, and the set back lets the slides fully close when the bumper meets the cabinet. I always fasten the slide to the drawer first, then release the cabinet portion and fasten it afterwards.

When installing the outer portion of the slide in the cabinet, I rely on simple jigs to keep the spacing uniform. Measuring can lead to problems. For error free results, use a scrap of plywood cut to length to hold the slide the exact distance off the deck.
There are at least 64 variables that need to be controlled in turning a piece of wood. There are only four variables in driving an automatic transmission car. These do not include telephones, kids, radios, coffee, donuts, steering in two directions at one time or “off-road” air-borne experiences.

In turning, the gouge can be “handle up, handle down, handle parallel” to the floor (3 variables). It can face flute left, flute right or flute perpendicular to the lathe bed (3 more variables). The grip can be overhand or underhand (2 more). That’s 8 variables and each is adjusted to the other 8 as we turn. This is $8\times8=64$. All 64 require use of the tactile touch sense if we are to succeed.

Go back to the car. How long did it take you to learn how to drive? A day? A week? Three months? No matter how fast you learned, there are still 16 times as many variables in learning to turn wood. Most of us can’t get it out of a book or a video. It requires “hands-on” instruction.

At the Woodturning School we try to teach all about each tool and demonstrate its uses, purposes and attributes. A case in point is the “roughing gouge” or if you prefer, the “spindle roughing gouge”. The following exercises are part of “Day 1 of Intro 1”, our introductory course at the Woodturning School in Damariscotta, ME.

**Roughing-Cut**

In the “Roughing-Cut” we show the students how to take a reasonably square billet of wood and knock the corners off, turning very slowly. That done, we show them how to slowly increase the lathe speed up to about 900 rpm. At this point the turner takes a more aggressive stance and begins to work it down into a cylinder. The tops of the flute are horizontal for this cut and the gouge is held at about a 10° angle in the direction of travel. The speed of the gouge moving across the work piece is called “feed rate”. It gradually increases as the cylinder progresses. Generally an overhand grip is used.

Next, the cylinder is worked down to nearly whatever diameter is called for. In this phase the turner can go in either direction, the tool handle dropped down a bit and the “feed rate” across the work piece as rapid as is comfortable. When the diameter is not quite there yet, the turner may adopt a more upright posture; keeping the gouge at about the 10° angle. We are still using an overhand grip. This results in regular evenly spaced little cornrows remaining on the surface. These we clean up with the “Clean-Up” cut.

**Clean-Up Cut**

The “Clean-Up” cut is made after the surface of the spindle is round in order to clear the surface of the cornrows made by the roughing cut. The “Finish-Cut” is made at a faster speed – about 1500 rpm. The gouge is held perpendicular to the spindle, the flute is vertical, the handle is lowered to 45° to rub the bevel then raised gently to start the cut. After the cylinder is thus cleared of the “corn rows”, we can begin the “Finish-Cut”.

**Finish-Cut**

When the cornrows are gone and, the cylinder diameter equal for its full length, we move on to the “Finish Cut”. With this cut we use an open “underhand” grip. The gouge is held at 45° angle to the work piece, handle slightly dropped, the flute facing toward the left end of the piece. The bevel is then rubbed and the end of the gouge flute gently engaged with the surface...
Slicing-Cut

An additional cut that a lot of us like, especially with green wood, can be used as a finish cut. In this cut the roughing gouge is rolled over on its side, flute 50° – 70° to the lathe bed. A slow “feed rate” is essential. Engage the downside flute an inch or two in from the right end of the work piece gently, cutting about ¼” in from the lower corner of the flute. Work your way steadily and slowly from right to left through the end of the work piece. Go back to the place you started out and use this cut from left to right to even out the area skipped in the original cut. This entire cut, carried out correctly is a slicing cut that will leave a very smooth surface. The trick is to make it with hands steady enough to eliminate minor undulations. Be patient with yourself. Developing this cut takes time, patience and frankly, a little “learned” skill.

When we apply our instructors skills, our 3:1 student:teacher ratio, a little “hands-on” help and a lot of positive reinforcement… most of our students learn these cuts and move on to beads and coves in about three hours of instruction at the Woodturning School in our Intro 1 Course. Thus the student learns the four different cuts the roughing gouge is really good for. The tool becomes more meaningful and more importantly, the “roughing gouge” becomes a friend.

Shavings ¼” inside flute

Evenly spaced little corn rows

Gouge handle is 45° to lathe bed

of the piece by moving your right hand in toward your waist. Tiny shavings should begin coming off the wood from the bottom center of the flute. The cut then proceeds slowly and steadily the length of the work. Do this cut as many times as needed to reach the diameter you seek and to achieve the finish you want.

The Woodturning School in Damariscotta, Maine was founded by a woodturner who knew what he wanted. “Woodturners need to be taught to turn in a way that they can understand; that will enable them to turn a variety of projects; that is fun for them from the "git go".

We are a small woodturning school on the beautiful Maine coast. Our mission is education and the fun of turning. We have small classes, proven instructors and a well thought out program. Our lathes are OneWay 16-40’s. We sell nothing but education and fun.

The student: teacher ratio is usually 3:1. A trained instructor assists the lead Instructor with classes of four or more students.

Turners are “instant gratification” people. So we teach by making projects. Mallets, goblets, bowls in Intro I and candlesticks, tops, bottle stoppers and plates in Intro 2. Each project reveals its specific techniques and tools. As the class unfolds these techniques build cumulatively.

Students achieve reasonable experience with spindle turning, end grain turning, and bowl turning. They work with parting tools, roughing gouges, bowl gouges, spindle gouges, and detail gouges. They mount work between centers, in four-jaw chucks, on faceplates. They learn how to part off using a jam-chuck.

The courses offered at the Woodturning School come in a variety of formats. The 4-week/3-hour a week classes are ideal for our local students. There is also an array of 2-day Intensives offered once to twice a month. These are ideal for people within 3 – 8 hours of driving distance.

You can also create your own class. We are always willing to try to run a class at times that may be different than those posted. If you see a class that you’d like to take, but the posted time does not fit into your schedule, let us know. We need five students to run a weekend class. Gather a group of friends and we will work with you to find a time and weekend that works for everyone. Or just let us know you are interested and we will contact others we know want the same class.

The Woodturning School has collaborated with several local resorts and motels, which are willing to offer food and lodging at reduced rates to our students.

For more information, go to www.woodturningschool.org or call us at 207-563-2345.
Scrap Barrel Project

There are so many things you can do with the off cuts in the ‘scrap’ barrel. Recently, I needed a mallet. So I rummaged around and found enough material to make six of them.

Using the original as a pattern, it was fun and easy to knock them out. Three stages of glue-up made it go slower but this was a no deadline project. A little layout is shown here if you want to ‘hammer’ one out.

All stock is ⅜”. After the head is glued up, bandsaw the rounded top and the angled faces. Tune up the appearance by cutting a little waist on the handle and chamfering all the edges. Note the stopped chamfer on the handle short of the head.

Sawdust

by Bob Oswald

I’ve been struggling with the planer for quite a number of months now, trying to adjust it low enough for thin stock – in this case just a quarter of an inch, which is well within the specifications for this planer. It used to do this and I don’t remember having to fight it like I do now.

I’m thinking it needs lubrication. The crank is a bit stiff, especially at the high and low settings of the planer. So I push a little harder and get close enough. It’s tedious and distasteful to take it apart and try to find the issue. So I don’t. One day it’s no longer an option. The planer just won’t go low enough. So I resignedly put the current project aside and crank the head upwards to see what’s going on in there.

This is a nice story with a nice ending. There is an ungodly amount of sawdust jammed under the head, way over in the sides of the planer. The sawdust isn’t really visible because the planer head is always fairly low, around ⅜”. The good news is that a little sweeping and suction cleans it out. The great news is that it pushed out some beautiful stock at ⅛” thickness. I don’t know that it ever went that low, but it does now. So take a break now and then. Clean house, clean your tools.

Us ed Tools – continued

most tools need some rehabilitation and tuning. It can run from a simple cleaning and sharpening to major work. Don’t let this put you off though. Rehabbing old tools can be very satisfying and more importantly, it can teach you a huge amount about how a tool functions.

Removing rust can be accomplished with a bath in phosphoric acid from the canning supply store, by electrolysis with your battery charger, or with fine sandpaper, steel wool, and elbow grease.

Sharpening you already know how to do, don’t you? I urge you to try buying at least one old tool. You’ll be pleasantly surprised at what’s out there if you choose carefully.
I've got to give credit to Jon for putting up with us for so long. He's been President for a while, and hasn't missed a meeting in... well, a long time. But eventually the odds catch up with you, and this time he just couldn't make it. I hope David and I did a creditable job filling in.

Maybe this is his way of reminding people that we all are responsible for the meetings, not just the president. If you know someone who can give a demo, or a place where we can meet, speak up! If everyone expects someone else to do it, nothing will get done.

This month's demonstrators were Lou Zabohonski and Marcel Durette, who presented two different ways of making lidded boxes. We met at the always popular Homestead Woodworking School. Lou started off the day by turning an end grain lidded box with a typical Raffan-style technique, including the elusive back hollowing step.

As is typical of the Raffan technique, Lou started with a cylinder long enough to make the top, box, and a jam chuck. He turned the tenons on the ends and suggested using a bandsaw to part off the top, to keep the grain matching as closely as possible along the seam. The key tips for turning the inside were to use a contour gauge to see what the shape is, and to make sure you completely finish the inside before removing it from the chuck. Remember to note where the deepest part is, on the outside, before remounting it later. Nobody wants a lidded funnel.

The bottom was next, starting with the shoulder for the top. Lou said to start with this in case you need to cut it off. The fit needs to be precise, and it's easy to overdo it. Lou showed us how to use a slight taper to our advantage in finding the correct diameter, although the final shape should have square shoulders. The inside is then hollowed using Raffan's back hollowing technique, and again, the inside is completely finished before moving on.

At this point, the top is attached to the bottom and the tail stock is brought up, and the outside is turned and finished. After the bottom is parted off, the remaining blank is used to form a jam chuck to mount the box so the bottom can be turned.

After a business meeting and a break, Marcel showed off his side-grain lidded box technique. He talked a bit about wood movement and lid fit, and what works best for the customers. Unlike end grain bowls, side grain bowls are turned from two separate blanks, perhaps of contrasting wood. The bottom is turned as a typical bowl – screw chuck, turn outside and foot, re-chuck onto the foot. The inside is hollowed mostly like a regular bowl, but Marcel focused on the special techniques needed for turning under the lip.

The lid is a different story. Marcel showed off a special “spur” he uses, which consisted of four sharpened bolts in a faceplate. This gives a wide-footprint spur, suitable for turning the lid without leaving screw holes. This is used just long enough to turn a tenon on the “top” of the lid, and the lid is re-chucked so that the “bottom” of the lid can be turned. A dado is turned to receive the box, with a just-loose-enough fit.

The inner rim of the dado happens to form a tenon, which can then be used to hold the lid so that the outside can be turned. Since this is a “finished” surface, Marcel suggested a single layer of masking tape to protect the finish from the chuck jaws.

Marcel also talked about safety and insurance during his demo. Our meetings and demonstrators are insured through a combination of the Guild’s insurance and the AAW’s insurance, since we are both a Guild subgroup and an AAW chapter, so it’s important for members to join one (or both) of those organizations.

For the business portion of the meeting, we reiterated the need for members to participate in the whole meeting process, from demonstrating to helping us find meeting places. We mentioned that the turning symposium is coming up next year, so members need to start thinking about what they can do for that too. ■
The March meeting of the Period Furniture Group was held at the BJ Tanners custom woodworking shop in the old Hermsdorf mill building, in Manchester NH. We had about nineteen members in attendance on that rainy Saturday morning, but rain didn’t dampen anybody’s spirits because we had plenty of interesting topics on hand to talk about.

We began by talking about electrical shop safety and the hazards of using light duty 16 and 14 gauge extension cords to run equipment in the shop. I talked about how these light duty cords can cause damage to the motors on your equipment due to low voltage. This can cause them to overheat and possibly cause a fire with all the sawdust around. Also the cord could overheat and melt and then ignite and cause a fire.

After the safety topic, our speakers Dave Anderson, Sal Mogani and BJ Tanner took over. Dave talked about his trip to Williamsburg, VA to the SAPFM conference. Dave’s main discussion was on the famous Benjamin Seaton tool chest. This chest is a late 18th century cabinet and furniture maker’s tool chest that is on display at the guild hall in London, England. The chest was given to Benjamin by his father. This chest held all of the tools that a master cabinet maker would use at that time. The chest was not on display at the conference but the tools were.

Dave said that the tool chest would roughly weigh around 150 pounds empty. When it was full of tools it would weigh in at about 300 pounds. This was not a portable chest. It was designed to be left in the shop to protect and secure the cabinetmakers tools while working at that shop. It took approximately six months to a year’s wages to be able to purchase and fill the chest with all the tools needed to be a master cabinet maker.

At the conference in the auditorium, they were replicating the building of the chest with only hand tools the way they would have done it back in the 18th century. I don’t know what “Norm” would have done back then – no power and no nail guns. Dave said the chest was built with a typical dovetail carcass made out of pine. The inside tills and sides were made out of mahogany. The demonstration was done in stages to show all the hand tools that were used and how each section of the chest was made.

Roy Underhill talked at the conference about how to make screws for bench vises. Roy was one of the people who started the program at Williamsburg. Dave said that Roy is a very intellectual and smart guy who is very easy to talk to. He has a book out called Woodwrights Workbook.

Sal Morgani was next up to speak on the topic of molding planes. Sal brought a plane in that he himself made and went through the steps on how to make one. He said that most of the older planes were made out of quarter sawn maple that they soaked a rag in linseed oil and stuffed it into the mouth of the plane from the top to protect it and keep it from drying out.

The molding planes of New Hampshire were usually made out of birch but beech seems to be the wood of choice. Sal said to cut a piece of quarter sawn beech to size, then make the profile on the edge for the molding profile that you want. Planemakers make a mother plane so they can copy and make more later from it. Then Sal cuts a 65 degree angle on the side about half way in. Then he drills in from the top to get a hole started and uses a plane float that he made to file out the inside mouth of the plane until he gets it so the plane iron fits.

Sal made his plane float by using a wood file that he softened by heating with a torch cut and ground down the

Continued on Page 27
Beginner & Intermediate Group

meeting at Bob LaCivita’s shop in Nottingham, NH

The BIG meeting was held on February 2, 2008 at Steve Colello’s shop in Sanbornton, NH.

Over the two months between the BIG meetings Steve Colello applied a few coats of oil varnish finish to the cabinet, bringing out the rusty red color giving it an almost tropical wood look. Steve applied Waterlox and then rubbed it “dry”. After it dried 24 hours, he scuffed sanded it with 400 grit sand paper.

Bob LaCivita started at 9:30 am and continued to build the apple wood wall hung cabinet. Bob is making the back of the cabinet out of solid apple. He explained a number of ways to make cabinet backs that compensate for expansion and contraction of the solid material. These include paneled, shiplapped and veneered backs. He has chosen to ship- lap the back due to the limited amount of lumber to choose from.

Bob continues to form the rabbits by hogging out the majority of the material with the table saw and cleaning up the cut with a straight router bit mounted in a router table. He then rabbits the ends of each board to create an even margin on the inside of the cabinet using the same method. With the shiplap complete he hand sands each piece and breaks the edges just so. Then he mounts each board with two brass screws to the rabbit that was made in the carcasse months ago. The boards will be removed for finishing at a later date. The curved doors will be made in the next few BIG meetings.

The last two BIG meetings of the season will be held on April 6 and June 7.

The location of the meetings will be determined and sent out via Guild wide email or you can call me for the location. Hopefully I will have a permanent location for the meeting in October.

Period Furniture – continued

file until it was the way he wanted. Then he hardened the file by heating it back up and quenching it in either peanut or walnut oil. When he dips it in the oil he puts it in vertical and then swirls it so he doesn’t get air bubbles on it. He dries it then puts it in the oven at 500°F to harden so it isn’t brittle.

The plane iron is made out of any old iron that you have around ground down to fit the profile. Sal said these plane irons have a 50° York pitch skewed. Older 18th century irons were middle pitched at 55°.

When he planes molding he starts on the end of the board then works backwards so you are not removing a lot of material at each pass. When Sal does wrap around moldings with 45 degree cuts, he makes the cut out of the middle of the board. That way, each side of the 45 has the same profile. In long boards, the profile can vary in the length of the board. There is a DVD by Larry Williams, of Clark & Williams molding makers that is very good – www.planemaker.com.

BJ Tanner was next to talk about the tools he uses to move heavy woodworking equipment and the tools used to set up and align woodworking tools. When moving or lifting heavy tools, use a chain-fall instead of a come-along. If the chain breaks it will drop. If a come-along breaks, the steel cable will whip around causing injury to anybody standing around.

BJ uses a lot of machinst tools for measuring and set up. BJ uses a snap punch for a center punch costing $5 to $10. A plastic speed square, a T-square and compass are cheap and won’t damage your blades if you hit one. A Brown and Sharp dial caliper is $200 or Starrett is about $125. Combination squares and height gauges are a must to set up your table saw accurately. BJ said a set of machinists squares are a must along with a reference square to be used only to check your other tools. A machinists’ granite plate for sharpening and setup is nice to have in your shop.

Most important are good safety glasses with an ANSI Z89.1 rating. BJ also uses a free standing magnifying glass with a sharp pair of tweezers. A steel band rule is a handy tool for measuring round and curved objects.

BJ prefers air tools over electric especially with orbital sanders. Just make sure that you use a separate air hose for spraying finish with your spray gun than the one that you use with your sander because of the oil in the sander air line.

After the meeting, BJ invited us to stay and watch him apply some polish to a project that he was working on. A few of us stayed and it was well worth it. BJ talked about the type of polisher to use and the different types of polishing compound he uses.

This meeting turned out to be very exciting and informative. Thanks to BJ for hosting the meeting and sharing with us his wood working expertise and thanks to Dave Anderson and Sal Morgani for doing their presentation. Without the three of them and all that attended, it would not have been a success.
The February Guild meeting was held at Homestead Woodworking in Newmarket NH. The topic was “The Workbench” given by Deneb Puchalski of Lie-Nielsen. We had such a large turnout, that there was standing room only.

Deneb brought a Lie-Nielsen workbench and used it to demonstrate various aspects of what a successful workbench design should be.

A slide presentation gave the history and evolution of the woodworker’s bench. Then a detailed explanation of the difference in various bench designs was discussed including the Roubo, the German-Scandinavian design and the English bench. Deneb went on to explain the different bench vises and their advantages and disadvantages. Wood selection was discussed along with the proper grain orientation. The proper height of a bench to afford maximum working leverage without being physically uncomfortable brought much discussion.

For the afternoon session Deneb demonstrated the proper way to flatten the top of a bench. He used a low angle Jack plane with a toothed blade to bring his bench down to rough level. Then he used a #8 jointer plane and then finished with a #4½ smoother. The finished surface looked like a piece of glass. He then put on a coat of sealer, which was half linseed oil and half turpentine. This prevented any glue from sticking to the top and it doesn’t peel or flake off. He suggested that the workbench top should be leveled about once a year.

Instead of the usual small meetings held in different shops, this year’s March meeting was held at the Osram-Sylvania Facility in Danvers, MA., on March 15. The meeting subject was “shop lighting”, and was held in the Lightpoint Education and Display room. Thirty-two guild members were present. Thanks to the efforts of Roger Myers, Osram-Sylvania proved to be the ideal host and location for such a meeting.

The room was set up with various displays to show the effects of different light on various objects including furniture. Rob Cilic of Osram-Sylvania was in charge of the Lightpoint demonstration facility. The presenters, each an expert in their own field were, Bob Nigrello, Jeff Waymouth and Sergio Mazon. The meeting started with Roger giving a brief history of the company.

Bob Nigrello gave the first presentation on the basics of light. Lighting, lamp and electric terms, temperature and light output, how to measure light intensity and various methods of producing light. LCDs, fluorescent bulbs and tubes and incandescent lamps were also discussed.

Jeff Waymouth then gave a presentation on vision. He discussed how the eye works, contrast, luminance and color. He displayed the color temperature scale and with the three display booths, the effects of different light temperature on clothing, furniture and people.

Sergio Mazon gave the final talk on the practical application of lighting. Basically putting everything we previously learned together to help us determine the types of lighting for our workshops.

One suggestion was to choose a light source similar to the light that the finished piece will be in. Furniture in a living room with a mix of sunlight and incandescent will look different when displayed under high intensity lamps in a showroom or museum. Workshop lighting is determined also by the type of space and its location. Is your shop in a basement or in a garage or ground level room that has lots of sunlight. He also discussed task lighting and also how much light we need which is determined by the size of the objects we are working on.

This was a really fantastic meeting. If you were unable to attend Rob Cilic, taped the entire presentation and it will be available soon through the guild DVD Library.
The Guild Luthiers sub-group held its March meeting at Ric Miller’s shop in Eliot, Maine. It was a joint meeting with our sister group, the New England Luthiers. The presenter was Chris Connor of Connor guitars – www.connorguitars.com – maker of exquisite, world-renowned classical guitars. About 20 people attended.

Chris’ presentation was just extraordinary and featured many of the jigs he and his brother have invented and made to insure accuracy and consistency in their instruments. All of these jigs help solve the difficult problem of accurately shaping the various angled and curved surfaces that make up a guitar.

Chris showed his exterior frame for the guitar body. The innovation here is that the form comes apart, rather in the manner of a springform cake pan, making insertion and removal of the curved sides far easier than with a solid form.

He also showed a jig of astonishing ingenuity, built for rounding the underside of the guitar neck. The neck blank is clamped unto the upper piece of wood that you see, with the underside facing down unto the belt of the sander. Notice that the belt sander has been modified by a triangular wooden wedge attached to its platen, in order to elevate the belt. Now look again at the upper (non-attached) wooden piece that the neck attaches to. At its ends are curved guides that match the desired curve for the underside of the neck. The photo shows the jig in use with a neck blank in place. Chris is rocking the assembly back and forth in order to sand down the blank to the correct shape.

Many of Chris’s jigs use a vacuum clamp to hold the work in place, such as the neck-shaping router jig. Evidently vacuum clamps are not that expensive to purchase and make. Group member Paul Miller took extensive notes and has since done some research on supply sources.

Chris showed a guitar that was built for a student of master classical player Eliot Fiske. On maestro Fiske’s advice, the $7,000 “student model” guitar is being modified by removing a millimeter or two of wood from the underside of the neck. A sound hole on the side of the guitar is a Connor signature feature. Guitars project forward through their main sound hole, meaning the player never gets to hear the music as the audience hears it. The side port solves this problem since it is aimed at the players head!

Attending meetings such as this I am stuck that it is a shame that we as a Guild have become so specialized in our interests so as to divide into subgroups. We are missing out on a lot of cross-fertilization of ideas and techniques. Vacuum clamps, rocking guides for modified belt sanders and springform jigs. Such ideas have got to have amazing applications to all sorts of woodworking that has nothing to do with instrument building.
Jon Siegel opened the meeting with the announcement of the passing of a very dear friend and fellow woodturner, Andy Motter. A moment of silence was preceded by the reading of some of the article written by Alan Mitchell and posted on the Homestead Woodworking Schools website – www.woodschoolnh.com. On the other hand, Peter Stephenson informed us that Clyde Daggett is doing well. All of us wish him a complete and speedy recovery.

Dave Belser opened the meeting with the usual business affairs, membership dues, the AAW and our affiliation and then moved along to the chosen topic – What’s on your lathe? Dave invited us to show something recently done that we liked or didn’t like. Advice on design, thoughts on technique, good material selection, correct tooling, and just plain good times were all in abundance.

Paul St. Peter had a very spalted maple bowl blank as well as a completed one and the group went along for some time on end-grain tearout issues and thoughts on how to minimize this all too familiar problem. Rick Jones then showed us a beautiful ash bowl with a ribbed bottom side. He was concerned about its wall-thickness detracting from its beauty. Everyone followed Jon Siegel’s assessment on the worthiness of the skill shown while Rick asked for our comments on the rosewood rim he added to his silver maple bowl. I handled both items and found them to be top notch. Thanks Rick.

Gary raised questions and comments about spirit stains and wood coloring in general when he showed us a bowling pin which he had stripped, dyed and hollowed out to create an orange lidded box in the form of a bowling pin! Al Hansen is beginning the quest for the ultimate design or form with his “Is this IT?” The gleam in his eye reveals a keen appreciation for and a willingness to pursue that harmonic shape.

Rick showed us some end grain boxes in which he had incorporated some machined stainless steel threaded rings. Questions about wood movement in relation to the steel and then the choice of steel over some other metal such as brass went around the room. I particularly liked the smoothness of the threading and the heft of the pieces in my hand.

Steve from Hooksett showed us several examples of segmented turning and commented that one of the finished pieces had lost much of its original color and contrast. Dave Belser passed his “Safe Box” around for all to see. My first glimpse of this piece was from page 1 of the Winter ’07 edition of American Woodturner! Dave reflected on how the inspiration for this piece came while standing in line at the local bank!

It was great to see several newer faces returning such as Al and Karen as well as all of the older guys like Peter and Dustin. It was almost like old times until I saw Ernie Grimes saunter through the doors and then it truly was the old days. Ernie gave us a show and tell from his folding wheelbarrow full of turned items. From sailboats to croquet mallets with pressure-treated handles no less! He then led us down a short path of memories which make up a small part of his 75 years of woodturning. You could have heard a pin drop as we listened. What a trip!! Thanks Ernie.

The next meeting has yet to be planned but some quick mentions were made today regarding a mentoring program and the beginning of some form of hands-on training during or after a meeting. Food for thought for our next discussion session.

Matt Siranian, our host at Franklin High, wrapped things up by painting a familiar scene of interest and excitement in the newly reborn woodturning program at the school. They now boast a half-dozen Jet mini-lathes, a Powermatic 3520B, and most of the power tools associated with woodturning, bandsaws, grinders, etc. Gouges and chisels appeared to be in short supply however and I am sure that they could use more of the consumables like finish and sandpaper. So if you haven’t figured out what to do with the IRS incentive check, wouldn’t this be a great place to deposit it? I’m sure Matt would be happy to speak with you.
Wood Days 2008

Wood Days is back! It’s moved to Dave Emerson’s Old Ways Traditions 1¾ miles north of Canterbury Shaker Village – new location but still the same so-much-to-see-and-do event.

Seventeen years ago Dave Emerson and the Guild of New Hampshire Woodworkers started Wood Days at Canterbury Shaker Village. Now, after a one year hiatus, Dave and the many old and new friends of Wood Days are bringing it back as good as ever. Old Ways Traditions (www.oldwaystraditions.net) is a year-round New England Heritage Destination with a large variety of attractions including farm and forest trails with guide, antique and craft shops, furniture and art gallery, open woodworking shop, and lots of antique machinery and tools to see and try.

On Wood Days, the fourth weekend in June, (and Old Ways days, the third weekend in October) we are joined by a number of fascinating woodworkers, antique machinery buffs, and musicians. A partial list to date of woodworkers includes the following:

- Garrett Hack - decorative furniture details with hand tools
- Ron Raiselis - coopersing
- Tom McLaughlin - sliding dovetails for pedestal tables
- Chuck Mower - spring pole lathe
- Kyle Whitehead - timber-framing
- Bob Coleman, Marcel Durette - woodturning
- Alan Mitchell - Homestead Woodworking School
- Steve Marcq - dovetailing
- Shane Smith, Dave Emerson - steambending
- John Whiteside - guitarmaking

We are proud to have as sponsors Brentwood Machinery and Tools and the Woodworking Club of America.

Hope you can bring what you’re working on to share. If you want covered space, call soon. Mike Cook will be our blacksmith. Antique cars, trucks, tractors and engines will join us.

Time is officially 10:00 am to 4:00 pm, but runs later on Saturday. Various forms of accommodations and camping are available from Friday night. Call first, especially if you’re not familiar with Sunday morning’s race traffic pattern.

Bands booked to date are – Grass Dawgs, Jack Pine Holdouts – old time rural music, and Uncle Steve Band – bluesy, R+B.

Our art show will open Saturday afternoon featuring Pat Desmarais – creatively adapted photographs and striking contemporary floor clothes and Ed Sharron – noted landscape and animal photographer and naturalist. Also in the works – an exhibit of unusual historical objects for projected opening Sunday – Canterbury Day.

Food is available for a donation. You’re welcome to bring and share. Donations are requested for musicians and a $5 minimum admission donation is suggested.

Hope you can bring what you’re working on to share. If you want covered space, call soon. Mike Cook will be our blacksmith. Antique cars, trucks, tractors and engines will join us.

Adirondack Burl Wood Sculpture

I’d like to share this web site with our membership – www.adirondackburlwoodsculpture.com. This is the most interesting wood sculpture and sculptor website I’ve ever come across! – Jerry Burt

Beginner & Intermediate Group

BIG meets the first Saturday of the even numbered months from October to June. The last two BIG meetings of the season will be held April 6 and June 7.

The location of the meetings will be determined and sent out via Guild wide email or you can call me for the location. Hopefully, I will have a permanent location for the meeting in October.

Robert LaCivita: rlacivita@metrocast.net or 603-942-1240 please call before 9:00 pm

Granite State Woodturners

The next meeting of the Granite State Woodturners will be May 24 from 9:00 am to noon. The location and topic is TBA. Contact DJ Delorie to be added to the e-mail notification list.

DJ Delorie: dj@delorie.com

Granite State Woodcarvers

This small group of dedicated woodcarvers meets Thursday nights at Rundlett Middle School in Concord, NH. Meetings are 6-9 pm during the school year. For info or directions contact… Lou Barchey: 603-753-2708 or barchey@comcast.net

Luthiers

The next luthier’s meeting will be on Sunday, May 18 at NH Furniture Master Terry Moore’s shop. Our meetings are open to anyone interested in making stringed instruments, regardless of level of expertise. Besides presentations and discussions, we like to play our instruments at each meeting, so bring them along. To sign up for the meeting and receive directions, contact:

John Whiteside: 603-679-5443 or johninfremont@comcast.net

Period Furniture

The next meeting is May 10. We will meet at Marty Milkovitz’s shop in Mason, NH. Mike Noel and I (John Faro) thank all who filled out the PFG questionnaire. It will be a great help to us for future meetings. To sign up for the next meeting, contact:

John F Faro: 603-968-9800 or Jff960@metrocast.net

Mike Noel: 603-744-3821 or mnlwoods@netzero.net

Brentwood Machinery and Tools and the Woodworking Club of America.

You’re welcome to bring and share. Donations are requested for musicians and a $5 minimum admission donation is suggested.

Dave Emerson: 603-783-4403 or efurnitr@comcast.net
Personal Notes

On the passing of Andy Motter

Our prayers and thoughts go out to the family of Andy Motter, who lost his battle with cancer Feb. 28, 2008. Andy was 64, born in Chicago, and left behind his wife of 38 years, Signe and their two daughters Kaia and her husband, Brett Wilson, and Kelda and her husband, Devon Mazzone.

Most of us knew Andy because of his woodturning. I had the pleasure of meeting him when Dick Batchelor had a scheduling conflict and asked Andy to substitute teach for him. That was my first experience with Andy and the rest is history. We soon got together and planned a class that he would teach every other Thursday night, and then spend the night with my parents in our farmhouse. Andy and my dad would have great conversations after class about woodworking, woodturning, and music, while enjoying a piece of homemade pie. Andy was the only one I knew, that could get my dad to stay up that late!

Andy gave unselfishly to the guild and others by demonstrating at events like Wood Days, guild meetings, woodturning symposiums, etc. He was a member of the Central New England Woodturners group and also gave many presentations and classes for them. He also taught classes at the Worcester Center for Crafts and my Homestead Woodworking School. Andy’s tool business, Butternut Tools, was started for the sole purpose of getting quality tools into the hands of his students at a reasonable price. That business grew as he attended different venues like woodturning symposiums all around New England and New York. However, if you stood back and watched him, you would notice that it wasn’t the sale of the tool that excited him, it was the conversation that went along with each transaction. Whether it be about which tool to use for what, how to sharpen the tool, or perhaps about who’s running for president, it didn’t matter. Andy just enjoyed meeting and talking with people, a quality I really admired.

We will surely miss Andy and the woodturning instruction that has helped us all. So many times I would watch as he stood next to a student, gently touched the handle of their tool, and rotated or guided it in a little different direction. Just then their expression would change from anguish to a smile as their tool started to peel away the shavings. It was that gentle touch and quiet, unassuming way that endeared him to so many. I think if Andy was to give one last word of instruction to us all, it would be ‘practice’!

Andy’s love of woodturning was infectious. Even during his last weeks in the hospital he would remind me of how much his turning and teaching had meant to him. It was what he loved to do and he could never get enough of it! What many of us may not have known is that he had a passion for music. He carried a guitar in the back of his truck, right alongside his turning tools. He never passed up a chance to ‘jam’ with friends. He also played drums and had a small group of musician friends who would get together and play gigs at a wedding, school function, party, etc.

One of his favorite turning exercises for his students was to make spurtles (a long slender stirring stick). I quickly learned never to let him pick up two of these sticks at the same time or he would be drumming on everything in sight for the rest of the night!

I will miss Andy, not only as one of my best and most requested teachers, but more importantly, as a long time friend. — Alan Mitchell

Prayer and good thoughts please for the family and friends of Andy Motter. We lost Andy last week, and the world lost one its best craftsmen and teachers.

When you refurbished a house that George Washington slept in and needed a stair spindle replaced that matched “exactly” the originals; you called for Andy.

I took a turning class from Andy once and left learning more than just how to use a lathe. I had bought a high end gouge – excellent steel – razor sharp and was making chips to be proud of. Andy looks over my shoulder – “Let me go fix that” – He takes my new, expensive tool; walks over to the grinder and starts changing the shape – sparks are flying and I’m thinking ‘there goes the best tool I own’ – and the only gage he is using is his eyeball. Works for three or four minutes and hands it back to me with a “that should work” comment.

Up to that point I had not known how well a really “good tool” could cut – but better yet – left the class with the knowledge that “good” could always be made “better” if you weren’t afraid to experiment and try. Andy Motter was one Class Act. — Don Litchko

I was fortunate to be in Andy’s woodturning class two years ago at the Homestead Woodworking School. Andy was the consummate teacher and woodturner. I shall always remember him at the lathe as he demonstrated various turning techniques. In his quiet and self-assured manner, he made woodturning look so easy. He loved woodturning and enthusiastically shared his experience and knowledge of it with his students. — Erick Berglund Jr.

As mentioned in Allen’s message, “Andy was a great friend and teacher to many of us and will be surely missed.” He was a gentleman and a pleasure to know. My condolences to his family. — Ned Gelines

I was sorry to hear of Andy Motter’s passing. I attended a number of his demonstrations over the years and I remember him with fondness and respect for his encouraging and patient approach to teaching, always encouraging people to try, pointing out there is no loss in making mistakes, just new opportunities to learn and grow. I actually remember him smiling as he turned and spoke. I will never forget him and his contribution to my life – in
We have taken turning classes from a number of different instructors and are always surprised that ALL of them had learned from Andy. We want to thank Andy for his patience and teaching us to become turning enthusiasts, he will always be remembered. — Barb & Estelle

Andy was a kind, gentle guy. He had a world of patience to help an old guy like me learn a few new tricks. My condolences to his family. A great teacher, his simple demonstrations and encouragement will be sorely missed. — Dick Sargeant

I am so sorry to hear about Andy’s passing. I believe it was my asking Andy to fill in on one of my early classes due to a scheduling conflict that got him involved in the woodworking school.

Andy was one of the most patient teachers that I have met. Always with a smile and encouraging words. The earthly woodworkers lose a friend, and heaven gets a master. Andy you will be truly missed. — Dick Batchelder

I did not know Andy was battling cancer. My heart goes out to his family and friends. He was such a kind and gentle man who was always willing to share and help others. As a teacher, he had the unique ability to adapt to the various ways people learn whether by word, demonstration or guiding with his hands. When he taught me how to turn, he adjusted to my left handedness and was the first teacher who helped me actually “get it”. I’ve always been grateful for that wonderful beginning. To this day I have always remembered his teaching whenever I step up to my lathe. I will miss him.

I always had the hope that one day Andy could teach Alex. I’m so sorry Alex won’t have the chance to meet such a good, kind, funny man. Andy was one of a kind. With sympathy and a hug I wish I could give you in person. — Andy Young

Such a loss! “Andy’s enthusiasm for turning and for teaching others his passion opened up a whole new world of woodworking for me. I couldn’t wait for one of his new classes to be announced. I will miss his guiding wisdom” — Bob DeAngelis

Andy was my first turning teacher and a great one. He took the time to make sure you really understood what he presented and had a very calming way about him. The woodworking community will miss him, he gave unselfishly of his time to teach others the world of turning that he loved. — Matt Barrett

Andy has a permanent spot in my heart. I will forever carry the lessons, not just turning technique, but how to teach, motivate, cajole and lead with warmth and brightness that could only come from someone that knows the meaning of “a higher love”.

The world that Andy touched became a better place to be. — Virgil Bagdonas

Very sad to hear about Andy. I remember when taking a turning course at your school, I was having a lot of trouble with catches – just couldn’t get it right. Andy came over and simply put his hands lightly on top of mine and it made all the difference. He was a great teacher and a very kind gentleman. — Tony Immorlica

Well this is sad news indeed. I had no idea that he was ill. The last time I saw him was at the Symposium at Pinkerton last year. I bought a couple of things at his “booth,” including a work apron. I will continue to wear it proudly always as a reminder of this kind, gentle teacher who knew his stuff when it came to wood turning, and as the one who got me started in the craft. Most of what I know came from him. I will miss him. — Allan Knight

Attached you will find the published obituary for our friend and colleague, Mr. Andrew Motter. God, I miss him. I think it’s because he left us high and dry – he just went away. He left me to carry on his mission and I feel unprepared and unable to do it as he would expect. I wanted so much to watch him just one more time – to feel his reach from behind me to assist in guiding my hand through the “bevel-rubbing cut.” And now that can never happen again. I miss him, and because of that loss I will remember him every time I touch steel to wood. I will remember Andy in the same way that I turn wood, I will always marvel at the wonder of it all — Marcel Durette

The first time I saw Andy was at the 2006 symposium at Pinkerton. Andy was demonstrating how to turn a goblet with a captured ring. Andy was so interesting to listen to and watch. He had the entire audience captivated. I was struggling to learn woodturning as I did not have any personal instruction. Marcel Durette introduced me to Al Mitchell at the same symposium and I started taking Andy’s turning class shortly after.

Andy was not only my turning teacher, but he was a great source of inspiration, and a “go to” person for questions. Watching Andy teach in class, I was amazed at the way he could make each turning tool glide through a cut with such ease. Almost like a hot knife going thru butter. He explained each technique, as he was cutting, with a very calm voice, almost as if it were his voice cutting the wood and not the tool in his hand. He described and showed us how to cut a bead with a skew that looked so easy – something I still have not been very successful at. Andy taught me how to respect the tools and let them do the cutting without forcing them.

He taught me how to grind an edge on the tools. Something turners need to know how to do. Andy taught and inspired me so much I could go on Continued on Page 34
Andy Motter – continued
and on. If it wasn’t for Andy’s class at the Homestead School, I would not be enjoying woodturning today. Andy has taught many of us in the area. I was not of the first and even as he is gone will not be of the last. Andy’s teaching will continue in each one of us that knew him. As I attended his funeral service yesterday, I was not at all amazed to see the amount of people who came out to pay their respects to him. He obviously touched many people during his life. It was also very apparent that his love of “wood” was known to them all. Andy Motter will surely be missed. — Rick Arnold

I am greatly saddened by Andy’s passing. I will always remember fondly the hours I spent under his instruction in the six session class at the Homestead School. His instruction gave me the grounding in the basics and without his classes, Chester Toolworks would not exist. — Dave Anderson

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The Guild of New Hampshire Woodworkers
Recently, I've been studying with David Lamb, a talented furnituremaker and carver who lives in Canterbury, New Hampshire. He is a member of the NH Furniture Masters Association (NHFMA), an organization which strives to perpetuate a three-century-old tradition of fine furnituremaking with the next generation of makers. Through customized, studio-based instruction, apprentice furnituremakers have an opportunity to learn the highest levels of craftsmanship as they work side by side with NHFMA members. I am one such lucky apprentice and under David Lamb's tutelage I am learning how to create fine quality furniture.

Each morning as I make my way north along the back roads to David's shop, I mull over the fun I had yesterday and anticipate the challenges and rewards the day ahead offers.

Each day David and I begin by reviewing what I need to do and go over his day's work as well. I have learned using only hand tools – how to perfect hand-cut dovetails from the basic to an integrated molding half-blind dovetail, developed my hand planing skills so I can take a rough piece of stock, flatten, square it up and make true, spring join boards, make a frame and panel door from scratch, and how to create full scale drawings of my pieces. Then using all those skills, I designed a small Shaker style tool chest with various types of dovetails topped off with a frame and panel lid.

One of my most memorable times at David's shop, was a task we all know to be full of surprises – the glue up of my dovetail chest. The two of us talked through a dry run followed by my setting up all the clamps, glue, saw horses and any other paraphernalia I needed to get the job done. Right off the bat my first glued joint grabbed tight before I could get it all the way home. David came over to help and the two of us solved the problem with extra clamping but from then on it was one challenge after another. For such a simple piece it was the most difficult glue up I have ever done. Yet more importantly, David taught me how to handle each problem with confidence, speed and deliberate action. I learned more about gluing up in that one hour than I ever have elsewhere.

There's something to be said about studying with someone in their own shop. It provides an opportunity to really experience firsthand the life of a furniture craftsman. You discover how someone effectively manages their time, skills, materials, methods, and space to create beautiful furniture and make a profit. There is the sharing of information – where do you get your wood from? – what particular tools do you favor? – what methods to use for various situations? Along with your own training, it all comes together into a rich, varied, hands on education.