Today’s Lathes
laminating free-form elements

The Old Saw
The Newsletter of the Guild of New Hampshire Woodworkers

my monitor barn • turned fishing lures • tool review

Calendar

Jun 7   BIG
Jun 14  Summer Trip
Jul 26  GSWT
Aug 2-10 NH Craftsmen’s Fair
Aug 20  Steering Committee
Sept 13 Period Furniture
Sept 20 Annual Meeting
Sept 21 Luthiers
Sept 27 GSWT
Oct 4   BIG
Oct 18  Small Meetings

Rugged Bear Bench

Jeffery Cooper
Rustic carving highlights sturdy children’s furniture
The Guild Experience

Confidence, audacity, or foolishness? When we are young, both as a woodworker and as a human being, we are always of mixed emotions when we try something new. How we perceive what we are doing is always an admixture of excitement, wariness, and often outright fear.

Edward Deming, the quality guru, made a very astute but often glossed over statement about 50 years ago, “You don’t know what you don’t know.” In a simple sense you can take the remark as ignorance is bliss. More accurately it says that a lack of knowledge means you don’t even know enough to ask the right questions.

How many times just after we started working with wood did this happen to us? How many bad tool purchases did we make, and how quickly and poorly did we pick out the wood for our project? Yet how excited and enthusiastic we were back then. By now you are probably asking, “Where’s he going with this?” Read on.

Think back to the excitement of your first project. Everything you did was new and you had no set expectations other than that the piece you were going to build would be terrific. Along the way you made errors, had to scrap and re-cut pieces, had to look for ways to work around the tools you needed but didn’t have, and finally there was the finishing.

Oh yeah, the finishing! Your end results varied from awful to barely adequate. You were a nervous wreck during the glue-up.

But all the way along, there was an undercurrent of excitement and discovery. No matter what results you got, you learned an immense amount and found a whole new range of possibilities. You vowed that you’d avoid all the errors on your next piece and you filled some of the gaps in the tools you were missing. Already your head was buzzing with thoughts of what to build next.

What I’m trying to get across is the joy of learning and the excitement of newness. I think that it is time for all of us to show some audacity, ratchet up our confidence, and commit to learning some new techniques. It is only foolishness if we stay stuck in the same rut, do the same old type of work, and rely entirely on tried and true techniques. Motivate yourself, get moving. How about taking a class? What about building from scratch with your own hand drawn plans? How about using a new finishing technique? We can all renew ourselves and recapture the excitement of our first days in this hobby or vocation. In taking a chance we have the opportunity to advance our skills. What is there to lose, a little time and some wood.

Let us all commit to the future this summer, have fun, and improve our woodworking.
June 14th, 2008

Summer Field Trip

This year’s Guild field trip will be on June 14. We will have the opportunity to visit a very unique furnituremaker, Charles Shackleton of Bridgewater, Vermont.

Shackleton Furniture has been in business for about twenty-five years. Even though it is a large and successful retail enterprise, the company has a unique philosophy “Our work is our art and our art is an expression of ourselves.” Each piece is made by a single craftsperson from start to finish using hand tools as much as possible and finished with oils and wax.

The morning session will start at 10:00 am. We will be given a tour of the facility and have the opportunity to ask questions about wood selection, tools, techniques, etc. Bring your lunch and a chair. After lunch we will have a demonstration by one of the furnituremakers. This is a rare opportunity to visit a production shop that uses techniques that we would use in our one man shop.

So get your car pools organized and we will see you in Vermont on the 14th of June. See you there! – Sal Morgani

Directions to Shackleton Furniture Workshop and Main Store:
• Take Interstate 89 into Vermont
• From exit 1 (Quechee/Woodstock, Rte 4) go 13 miles West on Rte 4
• Workshops and Main Store are located in the large yellow Mill on the left in Bridgewater between Woodstock and Killington.
• Telephone: 802-672-5177

Annual Craftsmen’s Fair
The Oldest Craft Fair in the U.S.
August 2-10, 2008

The League of NH Craftsmen’s Fair is one of the finest, most prestigious craft events in the country today. This annual nine-day event features both traditional and contemporary fine craft work by juried members of the League of New Hampshire Craftsmen.

See page 25 for more info on Guild participation and how you can still help.

Scholarship Committee Report

A number of scholarships have been approved recently: Ray Dionne received $275 toward attending the Homestead Woodworking School. Graham Oakes received $400 toward attending the AAW Symposium (where he will be demonstrating with David Ellsworth!)

Dave Frechette received $400 toward attending a course with Graeme Priddle at Johannes Michelsen’s shop. – Peter Breu
**Q** Finish for Workbench – What is the best finish for a traditional wood top workbench? Stuart Blanchard

**Joe Barry replies:** You want something that is easily cleaned and won’t allow glue and finish to stick. When you redo the bench top (which you will eventually have to do with use) you want something that is easy on your tools. You don’t want to tear up the blade of your Lie-Nielson plane or gum up the coarse belt on your belt sander.

My choices in the past have been – mineral oil, Watco Danish Oil or bowling alley paste wax. Watco was the most durable and attracted the least dirt of the three.

**Al Breed replies:** I just use oil and thinner and rub it down after it sinks in. What you want is something that resists glue but that can be easily planed when you go to level up the bench from time to time.

**Bruce Hamilton replies:** The best finish for a bench top in my opinion is no finish at all. If you must, it would be an oil-linseed product like Watco so it is totally absorbed into the wood with no surface film. The only purpose is to seal the wood from staining.

Water based finishes are faster drying than oil varnish (which include the urethanes) but they still stay open longer than lacquers and shellac particularly on humid days.

The principles for a clean finish is the same for all finish. You need a clean environment – a clean room with filtration of the incoming air if you are using a fan, vacuum the floor and yourself and wet the floor down with a garden sprayer and wipe your clothing with a damp rag. And don’t forget to strain your finish material when loading your gun (use the finest filters you can get) and use a filter on the pickup tube in the pot on the gun. Dust off the surfaces to be finished with a tack cloth just before you spray.

**Q** Rust – How do I keep tools in an unheated shop from rusting? Dave Hopkins

**Joe Barry replies:** I give everything a good coat of bowling alley paste wax in the fall and put my best tools in drawers with silica gel pads to absorb the moisture.

**Q** Cabriole Legs – Can anyone explain or demonstrate how to cut cabriole legs with a bandsaw? Ned Gelinas

**Al Breed replies:** I cut them as follows. Lay the leg pattern on one face and trace it. Slide it out over the edge of the leg and flip it down onto the other side and trace it again. Some lay the pattern out in bookmatch symmetrical fashion. The order in which you cut the pattern is not really important, but when you cut, leave a small bridge of wood in the long grain portion of your cut so that the piece will not detach. You’ll have to come in from either end in some instances, while on some cuts, like the inside of the leg that heads down towards the ankle, you can leave the connecting bridge at the very end of the cut.

Some people cut the pieces off and tape them back on, but this is slow. The last few cuts can be complete cuts, with no bridge- you’ll work out your own particular order.

The basic thought behind this method is that you are maintaining a square block to make your cuts in, with no unsupported unsafe cutting.

On a pad foot leg, I turn the pad before cutting, although you can do it afterward if you’ve left enough wood at the top of the leg for the center. For ball and claw feet, I leave the cube at the floor intact with no indent or scoop at the rear of the ankle. Whenever I cut that portion on the saw I seem to regret it later. I’d rather lay that out with the carving tools.

**Ted Blachley replies:** We did an early video of David Lamb laying out and making a cabriole leg. It should be in the guild archives.

**Q** Router or Shaper – I have a three HP shaper and plan on making raised panel doors. Would I be better served to use router bits or raised panel cutters that are dedicated for a shaper? At present I do not have any bits or cutters? Roger Bradley

**Joe Barry replies:** A couple of years ago, I left a message on my ex-wife’s answering machine – “I just got my heart’s desire and you know what it is!” She called back the next day and said – “Well you guys either finally got married or you got a shaper, and I know she has better judgement than that!”

Presumably a 3hp shaper has a high and low speed as well as a reversing switch. If so, you have the best tool for the work. Router cutters are not as big as the cutters for a shaper because the motors and bearings of a router are designed for lighter duty use.

Look in the cutter catalogs at the amount of reveal on the raised panel cutters and you will find that the shaper cutters give a larger reveal. With a 6” diameter panel raiser for the shaper compared to about 4” for the router, there is a significant difference in appearance.

If you have never used a shaper for raised panels or to cope and stick, I strongly urge you to spend some time with someone who has. This can be a very dangerous operation if you don’t know what you are doing. I will be glad to spend an afternoon with you to get you started.
We bought our property in 1969 and, in addition to the house, a 24´ x 60´ corrugated metal storage building was on the property. At the time it was about 15 years old but, by 2007 it had reached the age of 53. It had semi-collapsed under the weight of snow twice and had gotten very rusty and leaky—both wind and water. Mother gave me permission to replace it.

I started in April by stripping it of its 38 year collection of “stuff” and, boy did I have “stuff!” I had intended to keep most of it but good judgment got the best of me and my “stuff” disappeared, piece by precious piece, in my roadside “Free” pile.

By May 15, the contractor and his crew were able to pour a 24´ x 60´ slab. The replacement building had to be the same size or smaller than the previous building and set on the same footprint due to non-conforming setbacks. Two weeks later, my wife and I raised the first section of wall.

On the day the trusses went up, I had two friends help me secure them from 8:00 am until 2:00 pm. I employed a roofer to install the galvanized standing seam roof. Other than that, I put up every stick and pounded (Passlode) every nail. I finished work on the building in mid-November with just a few trim boards left to attach.

The building is a storage building for my toys. It is a reproduction of the famous “Monitor Barn” in Richmond, VT and visible from Interstate 89 (www.richmondlandtrust.org/monitor_barn).

I am scheduled to host Period Furniture meeting on Sept. 13 and the meeting will start with coffee and donuts at the barn. See you then.
I admit it. When it comes to lathes, I’m a big complainer. I can’t understand why designers don’t see the mistakes that are obvious to me. By what right, you might ask, does this engineering school drop out (yours truly) judge the decisions of the professional engineers who designed these lathes?

Well, for one thing, I have used hundreds of lathes, both wood and metal, in my life, and spent a great deal of time studying lathe design. Dropping out of engineering school worked out well for me, since the university did not have any machine tools, only microwave labs and nuclear reactors, and I immediately began my real engineering education by working in machine shops, millwork shops, repairing woodworking machinery and automobile engines.

Even earlier, I had plenty of exposure to woodworking machinery, since my father and his brothers ran an architectural millwork shop in Chicago, where they had over 50 pieces of industrial woodworking machinery.

What follows is a review of new lathes, and also a guide for the reader who is shopping for a lathe. I have tried to balance my complaints with constructive comments.

**History of the Modern Wood Lathe**

After 1900, mass production took over, and hand woodturning became obscure. None of the architectural woodwork shops where I was employed in the 60’s (including my father’s) had a wood lathe, and in this period most wood lathes were sold to schools for industrial arts classes.

Suddenly the woodturning renaissance of the 1970’s brought about a new surge in demand for wood lathes, and the old four-speed 12” lathes which were standard for decades were inadequate for the artist woodturner, who over the next two decades became the driving force in lathe design. No longer concerned with porch posts or furniture parts, modern lathes are now designed for bowls, and thus have become taller (greater swing) and shorter (less length capacity).

**Modern Improvements**

In the nearly half century I have watched this evolution of lathe design, one thing stands out as the most significant improvement...
speed control through variable speed motors. In the old days we had four-speed lathes. But really they were two-speed lathes: the lowest speed for bowls, and the second speed for spindles. The other two speeds were too fast to be used for anything.

Then came mechanical variable speed – variable diameter pulleys. This was a great improvement because it was continuous, but almost without exception the lowest speed was not low enough. The great thing about modern variable speed motors (especially Variable Frequency Drive, or VFD) is that they can be adjusted almost to zero, and for heavy or out of balance workpieces, starting out at a very low speed is essential. Many modern lathes, especially smaller ones, have a range of speed that is too fast, and in general most lathes would benefit by having their speed range reduced in half.

Lathe Beds

In the past 300 years, lathes gradually evolved from machines made almost entirely of wood, to ones made from iron and steel. The last component of the lathe, which underwent this conversion, was the bed. Influenced by advances in machine tools, cast iron lathe beds have been considered the gold standard of quality for well over a century.

I am a firm believer in the liberal use of cast iron for the bed or foundation of machines. Cast iron has excellent vibration dampening properties, and pattern designs are uncompromising, providing bosses, ribs and braces which are integral to the one-piece structure. Nearly all large lathes of the twentieth century are made from cast iron, but simultaneously many people have tried to make lathe beds out of steel, to dodge the need for casting and take advantage of cheap rolled steel. All of these attempts failed because they were based on the fundamentally flawed concept of the lathe bed as consisting of two parallel rails. These designs, whether the rails are I-beams, round or square bars, either solid or hollow, are doomed because the rails are not braced to each other (except at the ends) and thus provide no torsion control, and the beds simply do not have sufficient rigidity. Notable current examples of this folly are the lathes made by the otherwise prestigious English firms of Record and Sorby. The worst of all possible lathe beds are the monorail types once made by Sears (and are still copied in China), which resemble a drill press lying on its back.

The new millennium changed all that, when the Canadian firm Oneway invented the first successful steel lathe bed. They discarded the faulty concept of dual rails, and instead based their bed on a large hollow tube, onto which steel plates were attached and supported at intervals along the length. The hollow tube has tremendous torsional strength and rigidity. Combining these beds with modern variable frequency motor drive created a revolutionary wood lathe for the 21st century.

Another revolutionary breakthrough is the Stubby lathe which has a bed on a swivel. This allows the bed to rotate at any angle to the axis of the lathe providing better positioning of the tool rest and eliminating the problem of the bed obstructing the tool. This is a great example of “thinking outside the box!” The Stubby may represent the sprouting of a new branch in lathe evolution. As its name implies, this lathe is strictly for bowls or short spindles, but it deserves to be better known.

Spindle Nose

The spindle nose is your interface with the machine. It’s how you hold the work and access the power of the lathe. You must have basic accessories (chucks, drive centers, etc.) to fit the spindle nose, or your lathe is useless.

The features of the spindle nose are:

1. Taper. Most wood lathes use Morse Tapers, which have been standardized for 140 years. Other taper systems were invented later which were better, but like the qwerty keyboard, the Morse system was too deeply entrenched to be replaced. Of the eight sizes in the series, wood lathes use #1, #2, and #3, with #2 (which is just under 3/4˝ at the big end) by far the most common.
At the risk of sounding like an old school American clinging hopelessly to the archaic inch system, I would argue that there are still too many spindle threads, and we didn’t need the addition of the recently established 33 millimeter size, a German DIN standard.

While there are about a dozen threads that can be considered standard, and accommodated with accessories off the shelf, these five are the most common:

- $\frac{3}{4}”$ - 16: for mini lathes (Carba-Tec) and older Sears with #1 MT.
- 1” - 8: the most common for small (and midi) lathes. This is the smallest thread, which will accommodate (barely) a #2 MT.
- $\frac{1}{4}”$ - 8: Used by Nova, Powermatic, Jet, and Vicmarc and becoming increasingly popular.
- 1½” - 8: Used by Conover and No. 1 Lathe, will accommodate #3 MT.
- 33 x 3.5 metric: Used by Oneway and Vicmarc.

Siegel’s Law

Siegel’s law of lathe design is simply that the footprint of the headstock and the tailstock should be wider (axial measure) than the height of centers. This is an empirical law that dates back 200 years, and has been followed by knowledgeable lathe designers ever since. Unfortunately, as lathes have been stretched vertically to accommodate larger bowls, the width of the headstock and tailstock have not increased proportionally in most cases.

Tool Rests

The tool rest is the part of the machine closest to where the cutting takes place, and is often where vibrations develop. Not enough attention is paid to the tool rest by designers or consumers. Rigidity, positive locking, and smooth operation are essential, because adjustments are made constantly during operation.

Tool rest bases should be two to three inches
below the center height (depending on the size of the lathe), and this allows the tee-rest to vary at least ½” either above or below the center line. This amount of variation is not too much to ask, yet this simple design principle still evades the Taiwanese makers of mid/low priced ($650) lathes such as the ubiquitous Jet 1236 and its relatives.

Decades ago the 1 inch shank size on tool rests was established for 12” lathes, and it is clearly inadequate for today’s lathes of 16, 20 or 24 inch swing. Yet lathe designers stubbornly cling to this size, with a few notable exceptions such as No. 1 Lathe from Woodworker’s Supply and the VB. Powermatic, which had used 1¼” for decades, sadly went down to 1” in the redesign of its large lathes.

**Tailstocks**

The part of the tailstock which feeds toward the headstock is called the ram. It cannot be called a spindle, because it does not spin. It cannot be called a quill, because it does not have an internal rotating spindle like a drill press. The ram should feed forward when the handwheel is turned clockwise. This occurs because the feed screw has a left hand thread, as do all feed screws on machine tools.

The travel of the ram should be 3 or 4 inches minimum – the more the better. The ram should be keyed to the tailstock casting independently of the locking mechanism, and I see an alarming trend in which the only keying of the ram is the locking screw itself.

Usually the ram is threaded internally, and centers self eject when the ram is retracted all the way. This is probably the best arrangement, but some tailstock rams are threaded on the outside, and are fed by rotating a wheel which is essentially a captured nut. This is an outdated system which is inferior because the threads reduce the accuracy of the fit between the ram and the tailstock casting. Carba Tec and Nova use this system.

**Conclusion**

A quick check of catalogs found lathes ranging from $85 (Harbor Freight, no brand) to the fabulous VB from England for $9,000. This is range factor of 100. Somewhere in there is a lathe that is right for you. If you are just getting started, consider a midi lathe at under $400, which will give you something to learn on and you can go bigger later. If you are shopping for a lathe, here is a checklist:

1. Variable speed motor with lowest speed no more than 200 rpm.
2. A solid massive one-piece bed (not short sections bolted together)
3. A massive headstock and tailstock with a large footprint on the bed.
4. Standard spindle threads and Morse taper.
5. A massive and rigid tool rest.
6. A robust spindle lock

Notice that the word “massive” occurs frequently on the checklist. Mass is good. If you cannot find a lathe with all these features, consider restoring an old one by adding a VFD (variable speed motor). You will probably get more mass for your money. And that will be the topic of the next article.
For centuries people have been making their own fishing lures for practical and ornamental use. I have found that making these small projects is fairly simple and very rewarding. In my own life, fishing, hunting and woodturning are my three passions.

So I try to mix them together in any way I can. When I mixed woodturning with fishing I came up with two projects. First is turned fly fishing reels, and the second is fishing lures. Fly reels get very complicated to construct, but fishing lures take very little time, money and energy. There are three main types of lures that can be created from wood and all are fun to make and catch fish. For any of you fishermen/women out there, this is the project for you, as fishing lures are at an all time high price right now.

I make three different types of lures but my favorite is a popper or top water bait. These next steps will go through the construction of this bait.

Wood selection in this project is critical as too dense a wood will result in a bait that has a bad action in the water.

There are a few types of wood that work well for fishing lures. First and most traditional is balsa as it is lightweight, soft, and floats well. Second is bass wood. This wood is a little heavier, but also works well. The third is mahogany. And the fourth is poplar. I prefer poplar as it is easy to come by and different density pieces of poplar can be selected.

The wood for this project should be larger than the planned final size of the lure. These lures can be made any size, but for fresh water, I like a 2”-3” bait. In salt water, I prefer a 5”-9” bait. The diameter for a large bait should be ¾”-1¼” and a smaller bait ½” to 1”. So starting with a piece of wood 1¼” thick and 5” long for a freshwater bait will work great.

Mount the square piece of wood between centers, and round it over until you have no flats on your work piece. This process is very simple, and because of the small size of the work piece, small lathes can be used. Your now round piece should be mounted in a very small chuck or in the center hole of a larger chuck, both methods work fine.

Once your piece is mounted, the next step is to replace your tailstock, and start thinking about a shape for the body of the lure. You can experiment with many different designs, but a gently curved rounded body has a nice action in the water.

You should begin at the tail stock end of the lure, because that will end up being the front of the bait. Keep your shape in mind as you turn. The wood you will be turning is going to be a softer wood so turn slowly to avoid tear out and mistakes. A point to keep in mind is that you do not want to make the tail end of the bait too thin yet as there is still some turning left to do on the head end of your lure.

Once you are satisfied with the shape of the body, attention needs to be turned to the head of the bait. This is the most important part of the lure. If the head is done wrong the bait will not have proper action and you will have a hard time catching fish with it.

The head is a little more difficult as mistakes are common when turning this portion of the lure. You should turn the head in a concave manner so that when the bait is pulled through the water it makes a splash. If one is a little more daring, moving the live center off axis a bit and turning the concave part gives the bait an even better action in the water.

Continued on Page 23
This delightfully playful bench is sure to brighten any family room. The sturdy box construction provides a stable foundation for years of creative play.

The piece is made in two stages – one builds up the structure, and the other removes waste to produce the final form. It’s actually a simple process combining woodworking and carving skills. The end result is a functional piece of furniture that will be handed down for generations to come.

I’m often asked if I make my pieces from one large log, but this would be impossible for two reasons – a large log would check and split, and the legs would be weak since the grain runs perpendicular to the length. The strongest construction design I’ve found is an end-grain plug construction for the core of the body with the legs attached to the core with mortise and tenon joints. “End-grain plug” means making a box with all of the grain going in the same direction. This minimizes the risk of checking as the piece ages.

Block out the general shape of the bears on a band saw. Then begin with the core box upside down and attach the legs. When the glue is dry, turn the assembly over and set the bench on its legs. Glue and clamp the top layer to the core box to complete the basic construction. The bench is now ready for the carving stage.
When creating a project using relatively thick pieces of wood, cracking due to expansion and contraction is always a concern. The time-tested method to prevent cracks is the core-box construction, also called end-grain plug construction.

Carousel builders commonly use core box-construction techniques. Since most carousel horses are exposed to the elements, they have to be able to expand and contract as the moisture content in the wood changes.

The root of core-box construction is to ensure all the grain runs in the same direction. The grain for both level 1 (the top layer) and level 2 (the core box) must run from the tip of one bear’s nose to the tip of the other bear’s nose. When the wood expands or contracts, all of the wood moves at the same rate, so it doesn’t crack. The consistent grain direction also makes the project easier to carve.

**STEP 1: GLUE UP THE TOP LAYER** – This layer will become the back of the bears and the seat of the bench. Cut the pieces to the sizes noted in the materials list. Edge glue the pieces together with wood glue, using the diagram as a guide. Start with part 1 and glue the other pieces to that one. The notches on parts 2, 3 and 4 help you apply uniform pressure when clamping them in place.

**STEP 2: GLUE UP THE CORE BOX** – The box becomes the main part of the bears’ bodies. Plan your layout to allow excess wood for shaping in stage 2. Cut the pieces to the sizes noted in the materials list. Start with piece 5, the long piece common to both bears. Systematically attach the other pieces to piece 5 with wood glue. Note the offsets in the diagram. These offsets reduce the amount of scrap to be removed when you rough out the carving. Avoid letting the pieces slip as you apply the clamps. Remove any glue squeeze out and flatten the top and bottom surfaces. For best results, use a wide belt sander. Check availability at local woodshops if you don’t own a large belt sander.
**Step 3: Cut the Mortises**
Mark the locations of the leg mortises using the diagram as a guide. If you’ve altered the pattern at all, use your best judgement to locate the mortises in the thicker areas of the box. For additional strength, I use two thin mortises instead of one large one. I built a jig to cut the mortises with a router (see the diagram below). It is possible to rough out the holes with a drill. Clean out the holes and square off the edges using a bench chisel that matches the thickness of the tenon. For the strongest possible joint, keep the bottom surface flat and the corners square.

**Step 4: Cut the Tenons**
Set the table saw to cut the thickness of the tenons. I use the two outside parts of a stacked dado blade so I can cut the entire tenon in one pass, but you can also use a traditional blade and make two cuts. Use the diagram and jig to lay out the tenons, matching the mortises cut in the core. Cross cut along the bottom of the tenons to shape the shoulders. Remove the waste from between the tenons and from both ends with a chisel. Test fit the tenons into the mortises and carefully shave them down until they fit tightly. Don’t make them too snug; the tenons should slide into the mortises easily. Since they are double tenons, there is plenty of surface area to make a good glue joint.

Jeffery Cooper is a Guild member as well as a NH Furniture Master. Jeff started carving at a young age, but it wasn’t until the birth of his daughter in 1988 that he incorporated his interest in carving into furniture. Now his work is on display in libraries, hospitals, and galleries around the country.
**Shape the feet and legs.** Refer to the diagrams on page 44. Cut the materials to size, and glue the toes to the legs. Shape the feet with a chain saw disc in an angle grinder, and smooth them with a rasp. Carve a line between the foot and ankle with a V-tool. Use the V-tool to shape the claws, and smooth them with a small gouge. Smooth the legs and feet with a #3 gouge.

**Cut the core box to shape.** Sketch in the shape of the bears and cut outside the lines using a band saw with a large blade. The core can be heavy, so you may need an assistant to help you move it and to help you guide the block around on the band saw. Trace the shape of the core onto the top layer. Cut just outside the lines with the band saw to remove the waste from the top layer.

**Glue the pieces together.** Place the core box upside down and dry fit the legs. Let the corner overhang the bench and glue and clamp the legs in place. Glue and clamp the thigh pieces in place. Spread Unibond 800 on the top of the core box with a toothed trowel. Position the top layer on the core box and clamp it in place. Make sure the glue squeezes out evenly around the joint.

**Remove the sharp corners.** Make a series of cuts across the grain with a saw—I use a chain saw disc. Remove the waste between the cuts with a gouge. Use the same technique to rough out the area under the chin. Use a Surform® rasp plane followed by a coarse sanding disc to remove the gouge marks. Smooth the surface enough to sketch in the major landmarks.

**Rough in the face.** Remove the wood near the ears to make them stand out. Remove wood from beside the nose to create eye sockets. Locate the tip of the nose and carve the mouth. Check the proportions of the face. Line your thumbs up with the centerline and check the symmetry of the eyes with your index fingers. Move your thumbs up the centerline to check the symmetry of the ears.

**Carve the shoulders.** The straight lines denote areas where two planes intersect. Use a #3 gouge or a Surform plane to remove the shaded area between the lines. The ridges at these lines show how the shadows will fall on the carving. The areas where you use the Surform plane will be smoothed later, but the gouged areas shouldn’t need to be smoothed if you use a sharp tool.
Shape the legs. Notice that when I draw a line from the side and from the front, the lines do not match up. Carve the side view line first, and draw back in the front view line. Then carve in the front view line, and redraw the side view. You may need to repeat the process several times until the guidelines merge, creating a form that is pleasing from the front and the side.

Sketch in the main body lines. The surface from the back of the ears connects to the shoulders. The cheeks also attach to the shoulders. The arched eyebrows connect with the jowl area. Taper the jaw to tuck it under the muzzle. The shoulders and hips create slight humps. Leave the backs flat for the seat. The hams merge with the tail, which is raised from the butt.

Shape the areas between the lines. I use a Kunz radius spoke shave, which is rounded in both directions. Keep the tool sharp, and pay attention to the grain direction to prevent tear out. Clean up any remaining rough areas with a 1˝ #3 gouge. Use a V-tool to clean up the area where the bears’ butts meet. Touch up the surface lightly with a Klingspor soft foam sanding pad.

Finish the eyes. Apply black aniline dye to the eyes, inside the ears, and the nose. Seal them with shellac or lacquer to protect them from the white stain applied in a later step. After the sealer is dry, shape the area around the eye and remove any unwanted black dye. I use a skewed palm gouge to remove the black and go back with a knife to remove any fuzz. Do not mar the eye itself.

Sand the muzzle smooth. Since the bear’s fur is short on the muzzle, it looks better if the area is smooth. Use a random orbit sander to smooth the surface and remove any black marks. Leave the black on the tip of the nose and work to create a transition between the sanded surface and the tooled surface.

Finish the carving. Remove any remaining lines. Use a ½” and ¾” #3 gouge to clean up the tail and butt, and smooth the legs and sides with the spoke shave. Apply a white pickling stain to the bear and wipe the stain off the black areas. Apply a durable clear finish after the stain dries. I spray on a Duravar catalyzed lacquer.
Laminating Freeform Elements

Gluing together, or laminating a bunch of non-square sticks to make an odd shape. Quite a mouthful! But it describes the technique used in constructing the main body of the Hobbit Hutch which I displayed at the Guild of Oregon Woodworkers show over a year ago.

There is no science about the shape. I was just sketching some ideas. When I drew what is now the Hobbit Hutch, I knew I wanted to try and make it. After a bit of head scratching, lamination seemed a reasonable approach. It worked, and given a little imagination the process can offer some interesting furniture.

A note of caution here, this process is probably not for the beginning woodworker.A comfortable knowledge of your power tools, and what can happen to you or your equipment if things go wrong cannot be stressed enough. Obsessive caution, patience, persistence, and an experience base of how wood tends to behave certainly will help. Too, if you’re just starting out, I’d guess you might become frustrated if things don’t work out and you wind up scrapping a lot of time, energy, and wood.

Where to Begin – The first step is to come up with the shape you want to construct. Wood is a wonderful material for expressing your ‘artistic’ side. When I start to design something, I’ll make lots of squiggles, sketches, and wadded up paper.

When I finally have a design that is pleasing to my eye, I study it to figure out a way to build it and modify the design if necessary to better suit the tools and abilities available to me. When the initial design work is done, I’ll make a few more detailed drawings to figure out how much of, and what material to use. That’s also where I start thinking in more detail about just how various elements will fit together, how to start fabricating things and how to conserve on material use. More wads of paper will likely result.

I was recently asked to design and build a chair for an upcoming charity auction. After lots of thought about ideas, the design shown in Figures 2 & 3 is the result. Remember at this point, I have a pretty good idea what I want to build but no details!

This design idea has three, maybe four elements that all need to be fabricated...
and eventually work together to achieve the end goal.

In Figure 2 & 3, there is a light brown element. It’s the part of the chair a person will actually make contact with. I will call this the ‘body bucket.’ The ‘body bucket’ is attached to a couple of rails that provide some visual interest, additional strength, and a more elegant way to firmly attach it more easily to a stand. Later on, you’ll see there is a fourth purpose for these rails.

The ‘body bucket’ is fabricated using lamination to achieve the desired form. It is a bit more challenging than other laminations because it is structural, requiring it to take a fair amount of bending force without fracturing.

**Templates Help Refine the Design**

Looking back at Figure 3, the side view of the chair also has curves to contend with. For a chair, this is a bit tricky since we are each different, and what you find comfortable, someone else might not.

I used measurements taken from a lawn chair and drew up a paper mockup of the side profile for my ‘body bucket’ element. Transfer the profile onto a piece of 1/4˝ plywood. Cut it out and using files, sandpaper blocks and patience, smooth the edges to avoid any sudden angle changes, or non-smooth curves. It takes a bit of patience and looking at the edges carefully from various angles to see any discontinuities.

When that one is finished, transfer that form to a second piece of board and make a duplicate. The two pieces were connected together about 12˝ to 14˝ apart. The resulting form looks like Figure 4.

From the forms of the side profile of the body bucket, a total length of 48˝ was measured (see Figure 5).

If the slats used are 3/4˝ thick, the complete form would require at least 64 individual slats. That’s a lot! For this project, it was reasonable to shorten the back a bit without sacrificing comfort or design. The resulting total was down to 42˝. Still, it’s 56 slats.

**Then There are the Curves** – look at Figure 6. On an outside curve, the bottom of each slat is 3/4˝. However, the top of the slat can be as narrow as 1/8˝, depending on the curve. Fifty six slats won’t necessarily result in a length of 42˝ because of losses in slat thickness through machining. So, to account for losses on curves and shaping, adding about 15% to the total number of slats needed seems to work pretty well. So for this chair it’s back up to 65 slats.

Now it’s time to start getting a little more detail into the design. Looking at Figure 2 again, the front profile of the ‘body bucket’ is like a very elongated, really squat ‘U.’ With measurements taken from a few chairs, the inside width of this chair would be about 18˝. Adding an inch to each side to account for the thickness of the material makes the ‘U’ about 20˝ wide. It would really be dramatic to make the sides swoop up 6 to 8˝! Practically though, that’s too much. Four inches was my starting point.

The overall length of each slat is about 20˝ (the width of the bucket). If the slats are each 4˝ high overall, the total 3/4˝ material needed would be around 32½ board feet!

Reducing the overall height to 3˝, the amount drops to about 27 board feet. This gives you an idea of how fluid the design remains at this stage. Dropping the overall height to 3˝ and being careful with layout on the boards managed to get all the slats needed with 20 board feet of material. Scrap material can be pieced together, reducing the overall amount of lumber to 15 to 18 feet, but the cost becomes a lot of labor. In the end, that’s your choice.

I drew up a rectangle 3˝ high and 20˝ wide. Sketching in some curves to get a pleasing cross-sectional area, the final shape is transferred to a piece of 1/4˝ plywood. That then is cut out and smoothed to be symmetrical (Figure 7).

This becomes the template for making the large number of individual slats that will be used to fabricate the ‘body bucket’.

With a template for the slats, and a set of templates for the overall shape of the ‘body bucket’, it’s time to start cutting wood. Lay out the cut lines on the boards using the template for the slats. Cut them with a band-saw, staying just outside the pencil line.

To duplicate the shape of each slat, I quickly discovered that a router tended to rip the cherry material, hurling a few
chunks around the shop. This wasn’t the best approach.

Using a sanding drum duplicator on a drill press solves the problem. It’s just about as quick, and much quieter. The duplicator is simply a free turning wheel on top of the sanding drum (Figure 8). With course paper, it’s quick to duplicate the slats.

Build a box to sit on the drill press table, connected to a vacuum. The box is simply two chunks of ¾˝ melamine with a 3˝ deep skirt around them and a hole for the vacuum. On the melamine, a 2¼˝ hole is drilled in line with the sanding drum. The drum is then lowered into it so the duplicator wheel contacts the template. With the vacuum, there is very little dust and the melamine surface is great for sliding the wood around as you sand.

After shaping 65 slats, you will be ready for a break!

**Laminating the Slats** – With the slats finished, laminating can begin. Look back at Figure 6. On inside and outside curves, the slats will need additional machining to fit the curved chair form. If a few of the slats are laid on a curved area of the form you can see gaps (Figure 9). In the case shown here, the gap is at the bottom of the slat, while the top touches the adjacent slat. These slats will have to be beveled from bottom to top forming a wedge shape.

Relax, you won’t have to do all 65 slats; it isn’t that tedious (unless your design has no straight sections.)

It’s best to bevel both sides of each of the slats going through a curve like this. Measure the gap and divide by two to figure out how much to take off one edge.

To bevel the slats, I built a jig to run the slats through a drum sander to shape them into ‘wedges.’ In Figure 10, the jig is just two pieces of plywood tied together on one edge with a couple of hinges. Under the top sheet, three pan-head screws evenly spaced can be adjusted to raise and lower the free edge of the top sheet.

I added a side stop and end stops. To keep the slats snug in the jig as it goes through the drum sander, fillers were added on the corners so the slats wouldn’t rotate. It could have been a more elegant jig, but I was anxious to see how the rough version worked and just kept using it.

I started out measuring the gaps. After finishing a couple, I simply began to ‘eyeball’ the distances and adjusted the jig. It’s surprising how accurate you can be. If you must however, measuring and dividing by two will always yield the correct results.

Ultimately I think a drum sander in this step is the safest. You can hand-plane the pieces if you like, but it’s difficult to be consistent. Figure 11 shows how this jig works.

Make pencil marks on the faces before running them through the sander. The locations for the marks depend on which type of bevel is being done. When the pencil marks disappear, the wedge is finished. Figure 12 is marked for an inside curve (like that in Figure 9) For an outside curve wedge, one mark in the center of the slat face will let you know when it’s time to stop sanding.

I like to ‘wedge the slats’ a few at a time, then glue those to the element as it progresses. It breaks the tedious nature of the process, but more important it firms up the form so you can more accurately measure and wedge the next few slats. In Figure 9 for example, four or five slats on the most severe corner of the body bucket had been glued up before measuring for the next slats. Your next question might be, how to go about clamping after gluing!

In a recent *Fine Woodworking* article, much emphasis was placed on high pressure throughout the glue plane. It
should be pretty clear at this point that using bar clamps just isn’t feasible without the use of multiple clamping jigs. Even then, I’m not sure it’s a reasonable approach. Alternatively you can rely on the clamping pressure of screws.

After fitting a slat, I pre-drill several holes for screws. For this project, five 1\(\frac{3}{4}\)˝ screws were used per slat. I cannot over-emphasized the importance of pre-drilling here! On the corners of this design, the wood is fairly fragile. There is a sharp curve, little width, and a resulting cross-grain to contend with.

Evenly spread glue on the slat, fit it in place, and screw it down. Be mindful on corners like those in this design, screwing too tight will crack the wood!

As slats are added, the form will begin to take shape (Figure 13). Note that the outside surface of the laminated slats isn’t very smooth. Don’t worry about that at this point. It will all be sanded.

Although it may seem like this will take forever, the structure grows pretty quickly. When done, the completed ‘body bucket’ is ready for final shaping and sanding (Figure 14.)

After the lamination is complete, the piece can be shaped and sanded. On a complex form, this can put your abilities to the test. Sanding inside curves running through an uneven plane takes a bit of patience and care to achieve a smooth finish. It’s time consuming at best, and downright boring at worst, but in the end, the results should give you a good deal of satisfaction. The finished ‘body bucket’ for this project is shown in Figure 15.

The original design called for the ‘body bucket’ to be held by a couple of rails. This part of the design process is where the real fun begins. More importantly however, the rails provide not just interest to the overall look, they add a bit more strength to the structure.

**Another Template** – Using one of the templates from the form used to fabricate the body bucket, make another template the same overall shape, but larger. Figure 16 shows the original form (red) and the one being made now for the rails (orange).

The larger will be the template for the rails that will support the body bucket. That larger form is about 1” larger than the inside edge of the original form. As with the others, make a template to shape with a \(\frac{1}{4}\)˝ plywood scrap, shaping it for pleasing flow.

For each rail, two thicknesses of \(\frac{3}{4}\)˝ walnut stock were glued together to create an overall rail width of \(1\frac{1}{2}\)˝. This added to the strength and provided enough width to allow using a \(\frac{1}{2}\)˝ dowel to attach the rails to the body bucket.

In this part of the design, get creative with the final form of the parts. The overall shape should follow the template of course, but the tips can be formed to resemble anything. For this design, I simply formed what appears to be an emerging blade of grass magnified many times – or, maybe it is the tail of a slug?

Not much time will be spent on this element. It’s simply using the tools and experience you already have to come up with the supporting rails. The finished rail set for this chair is shown in the photo in Figure 17.

The important part of the rail design is the 1” gap that will result between the body bucket and the rails. I mentioned earlier there were four purposes for the rails – visual interest, additional strength, an elegant way to attach it to the stand and a fourth purpose.

That fourth purpose requires the 1” gap. Wood has a tendency to change size in thickness with changes in humidity. Pretty basic. I knew that intellectually, but the loud pop I heard one night when the Hobbit Hutch had finally reached its limit drove home the point. It’s how we learn sometimes.

So, if you multiply the change in thickness by the number of slats used...
What’s New in My Shop?

This past fall, after twenty years of using my Delta 14” bandsaw, I decided to upgrade to a MiniMax 16 which is an amazing machine. I’ll tell you more about that in another article, but this bandsaw prompted two other additions to the shop which you really need to know about. One is free and the other isn’t very expensive.

What can you get for free these days? The Iturra Design Bandsaw Accessory Catalog! It seems strange to recommend a catalog, but this is really amazing and far different from what you are used to finding in your mailbox nowadays. Firstly, it runs to 250 pages and is only written once a year. Secondly, it is really as much a book on bandsaw tuning and a critique of common bandsaws as it is a catalog.

Louis Iturra has created a business of tuning up Delta and Jet 14” bandsaws. He started with an improved spring, but now has an amazing selection of improved aftermarket parts, blades and tools. Even if you only use your bandsaw occasionally, even if you don’t own one of these bandsaws, even if you aren’t technically oriented, and even if you think your bandsaw works just fine, you really ought to order one of his catalogs. He has lengthy articles discussing blade selection, blade tension, blade speed, common misunderstandings, arguments he has with recent articles published in woodworking magazines, differences between machines, etc., etc.

In short, he has dedicated his life to perfecting these machines and you can profit from his work. You don’t need to read it cover to cover – just open it to any page, read a few minutes, and you will be better informed about the tool you have and think about how to make it work better. A better working bandsaw makes any job better. I will bring my copy to the next Guild meeting and share it with you so that you can see what I am raving about – if you haven’t already gotten a copy yourself!

So, what did I order from him you are no doubt asking! I bought a Lenox carbide blade which is like the MM16 I will review later, but initial results are also amazing – and a Moffat work lamp.

This lamp is worth talking about! I had a simple magnetic base lamp which was fine, but this is a Cadillac and solves several problems I was having. The most important is to get the light on the right spot. The old lamp wasn’t long enough and never seemed to be in the right place. The Moffat I was able to mount in exactly the right spot. I got a fixed mount that I could screw on the machine, but several other mounting options are available including a magnetic base far better than my old one. The flexible arm reaches 18” which allows you to put it right where you need it.

And, lastly, the icing on the cake is a high quality magnifier which mounts right on the lamp so that I can now see clearly and exactly where the line is and where the saw is cutting. The lamp and magnifier set me back $64 but it is money well spent – I can now really see what work I am trying to do at the bandsaw.

Once I started needing reading glasses, I have been frustrated by not being able to see where I am cutting and now, I can see again! This lamp would be great on a lathe too and since a quick disconnect mount is available, one lamp could serve both machines! Come see it at my shop if you want to see it in person! Order the catalog at: Iturra Design at 866-883-8064.

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

Screw Loose – continued

in this lamination, you understand the length of the body bucket will change much more than the rails in humidity swings.

The body bucket is attached to the rails using ½” dowels. If the bucket is mounted tight against the rails, there is a pretty good chance that as the humidity changes, the difference in shrinkage would cause the lamination to crack. By ‘floating’ the lamination 1” off the rails (Figure 18), there is sufficient flexing in the dowels to prevent that failure. To be sure, ream out the holes slightly so the dowels pivot a bit. They are then secured in the rails using smaller, ¼” pegs which adds even more intrigue to the design.

Now you have another potential tool to use for that special piece of furniture. It’s full of design changes, tedious, wasteful of wood when the design requires it, hard to sand, but when it turns out – it’s so fun! Good Luck!
The Period Furniture meeting was held on May 10 at Dave Anderson’s shop in Chester, NH. It was a beautiful spring day and we still filled up Dave’s shop with about twenty three members in attendance.

The meeting started off with a safety topic. We talked about splitters, riving knives and guards on our table saws and how important they are, and how they prevent injuries.

Then the meeting started with Dave Anderson talking about doing shellac repairs on tear out and chips in your work. Dave heats up the shellac flakes on a hot plate or he will hold the flakes with a hemostat or tweezers and heat them up with a cigarette lighter and dab the shellac with a toothpick on the spot needing to be repaired until it is built up enough.

Dave uses dewaxed flakes in blond orange and garnett. Dewaxed flakes are more water resistant.

At the break, Joe Barry talked about two books that might be of interest – *The Craftsman* by Richard Sennett and *Squaring the Circle* by Paul Calter.

After the break Mike Cyros started his presentation on oilstone sharpening. First he told us how he got started in woodworking and how his great grandfather was a lighthouse builder in Nova Scotia who had his shop in an old lobster boat that had been converted into a woodworking shop. His tools were passed down to Mike’s grandfather who taught Mike how to sharpen. Then they were passed to Mike. Mike then learned the proper technique of sharpening at North Bennett Street later on in life.

Mike started his demo talking about the different sharpening stones that he uses – Norton Coarse Crystolon Oil Stone, Norton Medium India Oil Stone and Norton Fine India Oil Stone. He also uses a hard translucent Arkansas Oil Stone which is extra fine. With these stones and the use of Norton sharpening oil and a leather strop with honing compound Mike achieves remarkable results.

This meeting was another great one, with lots of valuable information. It was one that shouldn’t have been missed.

We would like to thank Dave Anderson for hosting the meeting and doing his presentation. And we would also like to thank Mike Cyros for his demo and presentation. Hopefully we will see an article from Mike in a future issue of *The Old Saw* on oilstone sharpening.
The May meeting of the Granite State Woodturners was held in Arlington, MA at The Old Schwamb Mill. Dave Belser introduced the group to our host Ed Gordon, Historic Site Administrator.

Ed briefly gave us the history of the site. Starting as a grist mill around 1650; converting to a spice mill in the 1770’s; purchased by Charles and Frederick Schwamb in 1864 for woodworking and making picture frames, and run by five generations of Schwamb descendants until 1969.

At the time the Schwambs purchased the mill, portrait photography was becoming the rage. They did a brisk business supplying frames for portraits of civil war soldiers and westward bound settlers. Walnut lumber from northern New England was transported to the mill by the Lexington & Arlington railroad. A drying barn was added to the complex and was heated by burning coal and wood scraps from the mill. In the 1880s oval and circular frames came into fashion, and the four special lathes for turning the oval frames are the most unique attraction at this historic site.

The mill was saved by members of the Arlington Conservation Commission, particularly Patricia Fitzmaurice who worked to raise funds for The Schwamb Mill Preservation Trust and continued to manage the factory until her death in 2001. Today the Old Schwamb Mill is the longest continuously operating mill site in the Western Hemisphere, and Fitzmaurice is credited with establishing the county’s first grass roots industrial preservation effort.

Upon entering the mill, one is struck by the sights, scents and sounds. Overhead leather belts drive the oval lathes, a bandsaw, a table saw, finger jointers, and more. As the belt seams roll over the pulleys overhead, an irregular rhythm of clicks, groans, shudders and rattles become the heartbeat of the mill. Floorboards creak and show well worn traffic patterns, and bench tops have a polished appearance from 150 years of use.

Ed introduced us to David W. Graf, the resident turner at the mill, who showed us the typical steps in producing an oval frame:

- Selecting the quadrant template for the desired size - (all oval frames are made from four segments)
- Band saw rough-cut the four segments
- On a specially jigged and fixtured cross slide table saw he cuts the segment ends exactly the same size and perpendicular.
- The square finger joints are cut on a table saw with nine blades equally spaced on the arbor.
- The finger jointed segments are glued using steel band clamps and held overnight.
- The back of the assembly is flattened on a large jointer for mounting on the face plate of the lathe.

The actual turning is done using scraping chisels, and the tool rest must remain exactly at the height of the center line. This is the only point at which the workpiece moves past the tool without translation.

David then showed us the details of the oval turning lathes. The factory has four lathes and the job selection is based on the amount of difference between the minor and major axes of the oval to be turned. The range of motion of the cross slides within the headstock limits the amount of offset, and could provide differences of 4”, 8”, 12” and 32” between the major and minor axes. David spent plenty of time with us showing the details of the head construction and how it worked.

For more information on oval lathe mechanisms, see the excellent article by Alan Lacer in American Woodturner, Summer 2004, p. 24-28. Another great site for more information on oval turning is www.volmer---ovaldrehen.de/englisch.htm. This site is very complete with history, modern equipment, lots of pictures and a long reference list.

After the tour of the mill, we were invited to stay for a lecture by Steve O’Shaughnessy, Instructor of Preservation Carpentry at the North Bennet Street School. The school teaches preservation carpentry at a building just a few blocks from the Schwamb Mill. Steve’s talk with slides highlighted recent projects involving restoration of historic properties around Boston and a description of the school’s programs. This fascinating lecture in a small group allowed for many questions and answers.
The April BIG meeting, held in Merrimack at Alan Saffron’s shop, continued work on the apple wall cabinet with Bob LaCivita.

The cabinet, well over a year in progress, has now been worked on in three shops.

As the cabinet was designed with a subtle curve in front, this meeting Bob demonstrated a simple coopering method to make the cabinet doors. He laid out the top view of the curve on a large piece of card stock. From the drawing, Bob measured the actual widths of the doors, and the angles needed to join the stock.

We again examined the boards for the best figure. After some discussion as to whether or not these were in fact the boards chosen for the doors (a year ago), the two boards for each of the two doors were laid out and marked. When the boards were ripped and jointed, using only his hands as a guide, Bob used a #6 bench plane for the 5 degree angle needed on the edges to be joined. He made it look easy.

Bob used a simple method to glue up the doors. He set up pipe clamps as would be normally for flat panels, but to the door width. The curve made the door width slightly narrower than the combined width of two boards. The joints were clamped on the boards’ edges and held tight.

The doors will be completed at the Group’s next meeting on June 7. The cabinet will travel to its fourth shop, Bob’s shared space in a shop convenient to his work near Portsmouth. The group can expect an email from him. Others can contact him at rlacivita@metrocast.net or 603-942-1240 before 9:00 pm.

**Fishing Lures – continued**

Your bait is now roughed out, and this is the time to pay close attention to details and work the lure to its final size. Make sure to leave a ⅛” stem on the tail end of the lure. This must be done as the bait is not complete and we have yet to add the eye rings to the lure. All sanding should be done at this point.

Use a saw to take your work piece off of the lathe. A hack saw works fine for this. Sand the sawn off end and any other areas that were not sanded on the lathe.

Now it’s time to add hardware to your bait. You will need three eye facets, preferably as small as you can get them, but larger baits may require a little bit bigger eye facet. Screw one in slightly below center on the head of your bait. Screw another one in on the back side of the lure, and one more ¼” of the way up the body. Add two “O” rings to the facets. You only need “O” rings on the back and middle facet. To these “O” rings put on the proper size treble hook. Depending on the size of your lure, you may need size 10 for small lures up to size 1/0 for large saltwater baits. I’m using a size 6 for my lure.

Your lure is now complete, but quite dull. You can fish with the lure like this, but it is better to give it some color. For this job, I like to use a few different color oil based paints. Painting your lure is the best way to make it a fish catching machine! Simple designs work best. A green body with yellow polka dots and black eyes is my favorite pattern.

One thing I didn’t mention about these lures is they make great novelty items. Use any wood you would like, and make fake hooks out of a black wire and you have a great new item to add to the woodturning arsenal. These model lures can be made very large and used as wall decorations. The possibilities are endless with these fun little projects. Experiment with new designs, and above everything else make sure you have fun with it…Happy Turning.
The Guild Luthiers group finished off an exciting 2007-2008 season of meetings with a gathering and presentation at NH Furniture Master Terry Moore’s shop in Wilmot, NH. Twenty people attended from New Hampshire, Maine, Vermont, and Massachusetts. People have become much more relaxed about having informal interchanges and trying out each other’s instruments.

Terry Moore started off his presentation performing a James Taylor number on which his son Toby harmonized. The guitar Terry is playing was built by Toby under his father’s supervision. Later, Terry played an identically constructed guitar so we could hear the subtle differences in sound quality that even exist between guitars with identical design and materials.

Terry gave thorough, energetic, and fast demonstrations of many aspects of guitar making including heat-bending a side. He followed with a live demonstration of the most fiendishly clever method of making precise curved braces with perfectly fitting lap joints, that it is possible to imagine. People were exclaiming and gasping in amazement.

What a shame it is too difficult to put into words; you had to have been there. The final photograph shows Terry restoring a customer’s guitar finish to a mirror finish, using an impregnated buffing wheel, whilst spectators are hoping he doesn’t burn through the lacquer. It was especially valuable to see all these operations being carried out in actuality, not just described.

The luthiers group has grown in one short year beyond all expectations. We had 20 in attendance at this meeting and there are over 50 people on the interest list. As explained above, members come from a wide geographical area, so we try to move the meetings around the state.

Also, thanks to the efforts of member Bud Wilkes, we will have a presence in the Guild tent at Sunapee this year; not on all of the ten days of the fair, but on the majority of them.
Sunapee Fair

It’s that time of year again! The annual League of NH Craftsmen’s fair will be held this year Aug 2 – 10. This is the 75th year of the fair.

Mike Noel and John Faro would like to thank all of the volunteers that have jumped at the chance to volunteer for this event so early. As of May 9 our schedule is almost full. We are still looking for a few volunteers to help out. We have been issued a cut off date of June 20th. After this date we can not submit any new names for the event and will not get passes to get into the fair for names submitted late. So if you would like to help out, just send one of us an email or call us.

The event as a whole is very important to the Guild as all of the money raised in the raffle is used to fund the scholarship program. This year and in the years past, those that received scholarships have volunteered as a way to give back to the Guild. This is their way to thank the Guild for giving the gift of furthering their woodworking skills or craft. If you would like to give a donated item for the Guild raffle that you have made, please contact us so that we may arrange to have the item picked up.

The League provides us with the tent in a great location near the entrance to the fair. We set up tables at one end of the tent showcasing the prizes for the raffle. These raffle items are made by Guild members and donated so that we can raise funds for the scholarship program. Guild representatives sell tickets for the items and answer questions from the public about the Guild, its programs and how to join the Guild.

The middle of the tent will be used for wood carving, furnituremaking and new to this year, members from the luthier subgroup will be displaying instruments they have built and demonstrating techniques used in their craft. The right side of the tent will be the woodturners. Here we will have three to four lathes with demonstrators showcasing their craft.

The tent will be buzzing this year with more activity than ever. If you are as excited as I am, now is the time to step up and volunteer. I think I can speak for past volunteers that you are more than likely to have a great time. We still have time slots open so if you want to spend a day or the full nine days, send John Faro or myself an email or give us a call.

Mike Noel - mnlwoods@netzero.net or 603-744-3821
John Faro – jff960@metrocast.net or 603-968-9800

Wood Days

Wood Days has received a big boost from the strong positive response of loyal sponsors, the folks at Woodcraft, Newington, NH, Brentwood Machine and Tool and Woodworking Club of America, Brentwood, NH, and The Guild of NH Woodworkers.

There will be a number of fascinating woodworkers including Garrett Hack, antique machinery buffs and musicians. Demonstrations include blacksmithing, furnituremaking, coopering, timberframing, woodturning, dovetailing, and guitarmaking.

Antique tools will be for sale. There will be antique cars, trucks, tractors and engines.

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 are Grass Dawgs, Jack Pine Holdouts – old time rural music, Uncle Steve Band (bluesy, R+B) and Bow Junction (bluegrass). Open stage both days.

An art show will open Saturday afternoon featuring Pat Desmarais – creatively adapted photographs and striking contemporary floor cloths and Ed Sharron – noted landscape and animal photographer and naturalist.

Local food will be available. Donations are requested for musicians and a $5.00 minimum admission donation is suggested.

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

NH Furniture Masters Association

Preview Exhibition – Jul 30-Aug 28

Interactive preview of the Masters’ 2008 auction pieces! Don’t miss this opportunity to see the Masters’ newest creations and meet the makers in person at the opening reception.

NH Historical Society Library
30 Park St., Concord, NH 03301
Hours: Tue-Sat, 9:30-5:00 p.m.
Admission is free.

Beginner & Intermediate Group

BIG meets the first Saturday of the even numbered months from October to June. The last BIG meeting of the season will be held 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 the annual July Critique Meeting, and as last year, will be held at Proctor Academy in Andover, NH, on July 26. 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

Period Furniture

The next meeting is Sept 13 at George Edson’s shop in Cornish, NH. 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

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Supplier Discounts – Each supplier offers a minimum 10% discount to current GNHW members – some restrictions may apply. This is a direct benefit to your Guild membership. Please support these advertisers when you can.

Luthiers
Our luthiers meetings take place five times a year, on the third Sunday of Sept, Nov, Jan, Mar, and Jun. People of all levels of expertise are welcome. To receive meeting notifications contact:
John Whiteside: 603-679-5443 or johninfremont@comcast.net

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On Saturday, April 19th the Guild held its finishing symposium at Pinkerton Academy. In the style of previous symposia, there were multiple simultaneous presentations so that over the day, sixteen different topics were covered. Twelve of the presentations were filmed so that they may be viewed later.

Approximately 140 people attended with many New England states represented. About two-thirds of the attendees were guild members. All the presenters were very talented finishers including Teri Masachi, Bruce Hamilton, Andy Charon, Mark Adams, Terry Moore, Brooks Tanner, Gary Wood and Bill Bush.

Topics ranged from traditional uses of shellac, spraying water based finishes, rubbing out finishes, an overview of the history of finishing, choosing and using spray gear, and spraying traditional lacquer.

While it is impossible to cover every finishing topic in one day, the range of topics and the presenters answering questions left most people happy that they had learned something new and answered questions they had. A trade show allowed people to buy at a good discount some of the supplies described, and a raffle provided some lucky folks with some very nice prizes as well as covering most of the day’s expenses.

It is worth noting that all the presenters volunteered their time for the day for which we are all very grateful! In the spirit of the guild’s mission, this was a day where great information was presented, many non-guild members joined us, and people went home ready to do better woodworking!

Many thanks again to the presenters and the many volunteers who made the day a great success! — Peter Breu