Membership renewal time is here!  
find out how — page 2

The Old Saw

Sampling of booth demonstrations — Ernie Grimes, Dave Emerson, Bob Schwinger, Bob LaCivita, Bob Coleman & Brad Vietje.

Photos by Jim Seroskie

Calendar

Sept 10  Period Furniture
Sept 17  Annual Meeting
          at Mike Dunbar’s Windsor Institute
Sept 24  GSWT
Oct 1    BIG
Oct 15   Small Meetings
Nov 12   Period Furniture
Nov 19   Guild Meeting
Nov 26   GSWT
Dec 3    BIG
Jan 14   Period Furniture
Jan 28   GSWT
Feb 4    BIG
Feb 18   Guild Meeting
Mar 11   Period Furniture
Mar 18   Small Meetings
Mar 25   GSWT
Apr 1    BIG
Apr 22   Guild Meeting
May 6    Period Furniture
May 12-13 Turning
                  Symposium
May 27   GSWT
June 3   BIG
June 17  Summer Trip
June 24-25 Canterbury
July 22   GSWT
Aug 5-13  Sunapee Fair

Sunapee Fair
Welcome Back!

It is hard to believe that it is the middle of August as I’m writing this, and another GNHW “year” is coming to a close. It’s been a great time for me as I’ve been fortunate to be president of this great organization. In this role I get to see the terrific work done by so many over the last twelve months. It has been a very busy year for all of us with numerous ways for every member to participate in a Guild event.

I was at Sunapee last weekend for the opening of the Craftsman’s Fair, and the Guild demonstration tent was filled with woodworkers and visitors alike. The raffle table was loaded with prizes donated by members (I think it was a record number of donations) and ticket sales were brisk. The funds raised during the raffle will continue to help us fulfill the educational component of our mission and we are looking to do so in ways that will reach even further into the community.

I also know the year is coming to a close because preparations are well underway for the annual meeting which will be September 17th this year. As in the past, this will be well attended. We will have an auction preceding the business meeting plus two workshops – one in the morning (9 am) and another after lunch (1 pm). Be sure to check out the details for this meeting – you won’t want to miss it!

The end of the year also means it is renewal time for your membership dues. In fact, in order to be eligible to vote at the September meeting, your dues must be paid in advance of the elections. You can send in your membership dues now, or pay at the beginning of the meeting. Of course, paying now gets them out of the way, and saves our membership chairman a lot of work at the meeting. Those of you with current e-mail addresses will receive reminders from the Guild web-site.

Speaking of the guild web-site (www.gnhw.org), check it out. We now have a “members only” section. You obtain your password by e-mail and can access all current issues of the Old Saw. We do not post the Old Saw to the public section of the site for at least six months – after all, you are dues paying members, and the Old Saw is a member benefit.

Membership dues have not changed this year, although we feel that you are getting more than ever for your dues…more sponsors and discounts, a video library (now on DVD), great programs and lots of them, and an expanded Old Saw. So help us out and get your dues mailed in soon!

OK, I’ll turn the sales pitch off, and just wish you all good woodworking and see you at the September meeting!

Renew Your Membership Now!

The Guild membership year runs from Sept. 1 to Aug. 31. Dues are still $30 for the upcoming year. To renew, go the member’s site at members.gnhw.org, verify your information, and print the pre-filled renewal page. Generic membership forms are also available at www.gnhw.org. New membership cards will be mailed out shortly after receiving your application. Do it today before you forget! You can also renew at the annual meeting. Voting at the meeting is restricted to those who have renewed.

Send to:
GNHW - DJ Delorie
334 North Road
Deerfield NH 03037-1110
Annual Guild Meeting at Mike Dunbar’s “Windsor Institute”

The Windsor Institute • 44 Timber Swamp Rd, Hampton, NH
- 9:00 am Sue Dunbar talk — Going Pro: A Common Dream but a Difficult Reality
- 10:00 am Auction
- 11:15 am Business Meeting
- 12:00 pm Lunch Break
- 1:00 pm Mike Dunbar talk — Hand Tools vs Machine Tools

Notes

- **TENT** – We will be under a tent, so come RAIN or SHINE.
- **SEATING** – We have no seating, so bring your own chair or be prepared to stand.
- **FOOD** – Out in the wilds of Hampton so bring your own lunch and drinks.
- **PARKING** – We will be parking in the NH Park and Ride area at the intersection of Rt. 27 and Timber Swamp Rd. If you have items for the auction, drive to the Windsor Institute, unload and park back at Park & Ride. If you cannot walk the ¾ mile from the Park & Ride to the Institute, there is limited parking at the Institute.
- **AUCTION** – Woodworkers of the Guild – now is the big opportunity for you to make room in your workshop for your next purchase that you just cannot do without. Simply donate to the annual auction. Get out in the shop and take a good deep look around and ask yourself why have I kept that all these years? BINGO! More space – which you need for your auction purchases. This event is a big boost to the scholarship fund. In addition it is a fun event that makes everybody happy. Thanks in advance. Please try to arrive early with auction material so we can be completely set up before 10:00 am.
- **PRESENTATIONS** – There will be two presentations during the day.
  - Sue Dunbar – Going Pro: A Common Dream but a Difficult Reality. at 9:00 am. Sue has requested that you come with pencil and paper and that you also bring questions and feedback for exchange of ideas. This will be held indoors apart from the setup activities in the tent.
  - Mike Dunbar – Hand Tools vs Machine Tools at 1:00 pm. Mike plans a talk on hand tools and the many avenues that takes him down – sharpening, types, parts, the list goes on – sounds very informative. Mike stated that he is not trying to convert the machine worker to hand tools – just give a great insight to hand tools. – Syd Lorandeau

Our Hosts

**Mike Dunbar** – Say the words “Windsor Chair” and most people immediately think of Mike Dunbar – and for a good reason. Mike is the pioneer who started the Windsor revival by resurrecting handmade chairmaking, a craft that had been dead for 150 years. Mike is also a contributing editor to *Fine Woodworking* with many articles and several covers to his credit.

**Sue Dunbar** – Before marrying Mike, Sue was a marketing consultant and a one time political consultant participating in a number of successful campaigns. And she has had her own television show. She recently shared her marketing and business advice with woodworkers in a *Fine Woodworking* article titled *Going Pro: A Common Dream but a Difficult Reality*.

Directions

I-95 from the North or South – Take I-95 to Exit 2 (Rt. 101). Stay to the right up a ramp to the smaller toll booth ($0.50) Look for NH PARK & RIDE signs. Leaving the toll booth you will face a fork in the road – Go left toward Hampton. This leads you on to Rt 101 East. Follow below.

Rt. 101 from the West – Take NH Rt 101 East to Exit 13 to Rt. 27 (Exeter Rd). Go west under I-95 to the NH PARK & RIDE at the corner of Timber Swamp Rd. and Exeter Rd. – PARK HERE and WALK ¾ mile up Timber Swamp Rd. Second building on the right.

TidBits by Roy Noyes

I recently purchased an old, raised panel, interior door from Vermont Salvage. Aside from many coats of paint and having been shortened a bit, it was in exceptionally good shape. The stiles were still tight to the rails and the panels were still centered.

After getting the paint stripped, I realized why it had held together so well for so many years. The secret was that all of the wood parts, panels, stiles and rails, were quarter sawn, tight grained wood which reduces the expansion and contraction with humidity changes to a minimum.

In my experience with old houses, this is an unusual and far superior construction. Whoever made this door, knew what he was doing!
OIL FINISHES — My oil finishes are less than satisfactory. I tried several oils and really like Tried and True. What is the difference in these oils and the application techniques to improve my finish?  – Jack Grube

Bob LaCivita replies: Many woodworkers choose oil finishes because they are easy to apply, any shop dust that lands on them will get wiped away and they are not plastic looking. I find a good oil finish is not easily achieved. Most directions on the cans read – apply one coat, wipe off and apply a second if desired and wipe off. Meaning two coats is a complete finish. I have never reached the sheen or luster I want with this method.

Most commercial oil finishes have a high concentration of VOC's (solvents and driers) that evaporate while drying. Most of the product goes into the air.

Oils like Tried and True have either low or no VOC's. Hence, more oil stays on the wood and requires a long dry time. Other oils such as, Waterlux and Formby's are mixtures of oils, varnish, and driers) that evaporate while drying. Most of the product goes into the air.

Interestingly, the Tried & True oil was rated as the worst performer of all the finishes tested. Minick states, “Tried & True Varnish Oil is hard to apply, hardly penetrates the wood, has no sheen, is expensive and – worst of all – doesn't dry.”

FRAME & PANEL — Why are frame and panels used on a majority of doors rather than solid slab construction? – RL

DJ Delorie replies: Since wood expands and contracts mostly across its grain, a rail and stile frame produces a door with a more consistent size, so you don’t have large variations in gaps (or doors sticking) due to changes in humidity. The panels still expand and contract, but there’s usually some space inside the grooves to allow expansion without damaging the door. Look for a product called “spaceballs” that you can put in this extra space to gently hold the panel in place.

Note that it is possible to build a solid panel door. You must use the same care that you’d use for a solid table top, and account for the expansion and contraction in your design. For example, solid panels are probably best when the door is in front of the face frame, with a large space between it and the next door, so that changes in width will be far less noticeable.

In any case, keep track of the ambient humidity when you build these doors, so you know whether the door, as built, is near its largest or smallest size so you can plan accordingly.

Roy Noyes replies: There are a number of good reasons for using frame and panel construction instead of solid. First and most important is it’s relatively small change in width due to changes in humidity. A 24” wide solid eastern white pine door will expand and contract about 3/16” as the equilibrium moisture content goes from 6% to 12%.

The same door in frame and panel construction with 3” stiles will expand and contract only about 3/4” — one fourth as much! This is especially important for doors in places like New England where our houses are very hot and dry in the winter and hot and humid in the summer. Note that doors with quarter-sawn stiles will shrink and swell only about half as much as doors with flat sawn stiles, or about 1/2” for the above door.

For more on the dimensional change in wood with moisture content see Understanding Wood — R. Bruce Hoadley, The Taunton Press.

Also, consider aesthetics. A frame and panel door has a light and friendly feeling, while a solid wood door feels massive and forbidding. Frame and panel can also be made more decorative with raised and/or arched panels with numerous shapes on the edges, while solid wood doors can be enhanced only by carving, decorative hinges or selection of striking wood grain patterns.

Solid wood doors are easier and quicker to construct, however they also tend to warp and twist as the wood expands and contracts.

Obviously, there are places that are suitable for both kinds of doors, but which one you choose should be selected after careful consideration of all these factors.
Treasurer's Report

As I finish up my first year as your treasurer, I would like to bring the membership up to date on our financial status.

The attached spreadsheet shows that we are in fact doing fine. We have made several one-time purchases including enough membership cards to last for several years and the supplies to convert the videotape library into DVDs. These expenses will benefit us for several years to come. There was a major purchase of equipment to do the DVD production utilizing funds from the Capital Equipment Fund. This fund has been used in the past to purchase printers for The Old Saw, but with newsletter printing being done commercially now, the funds can be used for upgrading our video production equipment.

The scholarship fund is in good shape. We have a balance of $10,013.46, which will be boosted by the raffle ticket sales from the Sunapee Craft Fair. This past year the Scholarship committee did something a little different and funded a crafts person to work with the students at Pinkerton Academy. This is part of our commitment to help not only our members, but also, the woodworking community in general. I expect that we may see more things like this in the future and as long as the Scholarship Fund is healthy, we should continue these endeavors.

The Enterprise activities (book sales, clothing sales, and video sales) are meant to be self-sustaining and as you can see, they do just about break even. The goal for these activities is to bring goods and services to the members, with savings to the membership. It is not the intent to make large profits here.

Our largest expense is The Old Saw. It is also the prime means of communicating with a large part of our membership. It has grown in size and in content and along with this growth has come increased cost. In the year to come, we expect to see an increase in both printing and distribution cost. These increases have been the subject of much discussion by the steering committee and I have spent a significant amount of time studying the impact on our budget. It appears that we will be able to absorb these increases without any change in the dues structure.

by Peter James

Cash Flow Report
Sept 1, 2004 – Aug 11, 2005

General Operating Fund

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<th>Beginning Balance</th>
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Scholarship Fund

| Beginning Balance | 13,507.96 |
| Raffle Ticket Sales ('04) | 3,222.00 |
| Scholarships & Grants     | (6,716.50) |
| Ending Balance            | 10,013.46 |

Equipment Capital Reserve Fund

| Beginning Balance | 3,059.67 |
| Transfers In From Dues | 1,000.00 |
| Equipment Purchases   | (2,035.93) |
| Ending Balance        | 2,023.74 |

Total Cash Assets

| Total Cash Assets | 24,973.85 |
A friend asked me the other day, what woodworking tool was the hardest for me to learn? Without question it was one class in particular – power tools. Now don't get me wrong, I could wield a power drill and jig saw since I was a teenager. But the stand alone power tools made me step back a pace. Although, I have to say, I didn't cross paths with these noisy, intense, wood devouring demons very often.

I love working with my hands; I want to keep all my fingers. So when I started out woodworking, I was determined to be a purist, everything was to be done by hand — even though I didn't really know what that meant. But somehow I'd get there. Besides people in the 17th, 18th and 19th centuries didn't have electricity and look at what they produced. I'm sure you can see where this is going.

I merrily starting learning how to use my hand tools and quickly came up with problems. How do I prepare stock? Hand sawing a straight line takes lots of practice, let alone learning how to properly plane a board flat. As much as I love using my hands, my 20th century mind, supposedly practical, tells me time has a different meaning now. I'm not a 15 year old apprentice learning my craft while someone else cooks my dinner. Inevitably, power tools must be tackled.

Well, Al Mitchell, of the Homestead School in Newmarket, NH, came to my rescue with his Comprehensive Ten-week Course in Woodworking. He opened my eyes to the usefulness of power tools and how to safely operate them. Having an experienced woodworker guide you through how a machine works, whether it's a table saw, a planer, or a jointer, helps take the mystery away. Once you develop an understanding of the mechanics, then you can understand how to keep yourself safe, and begin to explore the machine's uses. Then, like the others who have gone before me, you decide how to balance your work between hand tools and machine.

Woodworking is but one of the disciplines I'm currently studying. I also practice martial arts which includes learning to use the Chinese straight sword. When you move with a two edged sword around your body, you have to focus on where the blade is at all times. Otherwise you could cut yourself. One of the greatest benefits of this discipline is concentration. An attribute which applies to working with power tools, you learn how to concentrate because of the relative danger at hand — one of many benefits I have gained by learning to use power tools.

The video library has been completely converted to DVD format. A total of 95 titles has been re-mastered onto DVD. Some 600+ DVDs have been created from these masters. This project makes the video library consistent with current technology and, with the creation of the masters, duplication of all of the videos in the existing library, and to permit duplication of all of the videos in the existing library, and to permit duplication in the future, the Guild's steering committee approved the necessary funds from our budget to acquire duplication equipment and blank DVDs and cases. All of the labor to create the masters and to duplicate the DVDs was donated by Peter Bloch with Jim Seroskie creating the labels for the video titles is available on the guild website — www.gnhw.org/library.html.

DVDs can be purchased from the Guild for $10 — $15 for non-members. Based upon sales thus far, the new format is very popular with members. Many of the older videos appear in higher quality after the conversion and all new videos will enjoy better quality.

To enable the conversion and duplication of all of the videos in the existing library, and to permit duplication in the future, the Guild's steering committee approved the necessary funds from our budget to acquire duplication equipment and blank DVDs and cases. All of the labor to create the masters and to duplicate the DVDs was donated by Peter Bloch with Jim Seroskie creating the labels for the DVD cases. In addition, the steering committee has approved funding to acquire improved microphones for recording our meetings and symposiums.

The old format video tapes were made available for sale at the recent joinery symposium and have served to offset some of the cost of the new equipment. Remaining VHS tapes will be available for sale at coming meetings.

In keeping with our commitment to support the arts and education, a full set of the DVD's have been set aside for the League of NH Craftsmen Library. Look for the new DVDs at all Guild meetings and check out a few for your viewing pleasure. I think you'll enjoy the new format and may just decide to buy several for your personal library.

Thanks again to the hard work of all those that made this project possible.

— Roger Myers
Dealing with Discolored Maple

I was recently building a Sofa-Hall Table on speculation and trying to use whatever material I had available that would work together. The top and shelf needed to be veneered on both sides – 17” by 60”. I had one piece of ¾ figured maple stock 9” by 60”. I could see I was going to run into some greenish discoloration on one edge.

My Ugly Green Streak – I began by re-sawing the plank into ¼” thick veneers. To get the best look, I glued up two pieces to get a book match with the discoloration at the center. My plan was to dye the maple a light golden brown, but I knew I would not be happy with an ugly blotch in the top and shelf. I like to use the cleanest white maple I can find.

Even when I use a fairly dark dye over an ugly green streak, I can still see it. The only thing that will hide it is paint, and paint is not an option.

Test First – My plan was to try to bleach out the blotch and streak. I have had varying degrees of success depending on how bad the discoloration. I always do a test first.

The wood bleach I use is by Kleen Strip. You can get it through Woodworkers Supply (1-800-321-9841 – Item # 953-096) for $12.99.

I edge glued the veneers together then rough sanded with 80 grit. Next, I bleached the discolored area. I mixed bleach in small amounts (¼ oz. each part) to do the blotch. I try not to go past it by much if I can. I use a foam brush to apply the bleach.

When the bleach has been absorbed into the wood but is still a little wet, I use the unloaded brush sweeping back and forth across the wet line to try and feather out the wet area. This leaves less of a ring around the bleached area. I let the bleach dry for one to two hours.

Finally, a full wet coat of bleach (1 oz. each part) over the entire panel minimizes the ring effect around the first area that was bleached. What I’m trying to do is bleach the discolored areas twice and the rest of the panel once.

The Real Deal – When I was satisfied with the results, I went ahead and built the tabletop and shelf. By the time I’ve sanded 80-120-150-180-220, the blotch is back again just like it was before the test. You can only bleach the wood after all finished sanding is done!

I wet the wood with water to raise the grains after I finish sanding. Let it dry. Light sand with 220 grit. Bleach the discolored area. Let this dry. Light sand again with 220 grit. Now bleach the entire panel. Let dry at least 2 hours. Neutralize the bleached panel with one part white vinegar and two parts water. Let dry. Light sand a final time with 220 grit. Neutralizing twice coated areas is critically important on any area that will be glued later like a mortise or tenon. If you don’t, the glue will just snot-up and roll around.

I'm now ready for the finish. In this case, I dyed the wood. But if I was going to leave it natural, I would go right for the oil.


Sticker Stains – I’ve also had luck with this on sticker stains on hard white maple. About seven years ago, I was doing a ten foot long side board cabinet out of highly figured white maple. I only had two boards that were long enough, wide enough, and defect free. I put these aside for the top and went ahead and built the cabinet.

This stock was fantastic and consistent in figure board-to-board. They all had some sticker stain on the rough sawn surface but this planed or sanded off with no problems. When I got to the top after planing and wide belt sanding, the sticker stains were still there. No other stock would match the cabinet. I experimented with the bleach on the underside and finally found the method I just described. Saved my butt! Hope some day it will save yours.
Sharpening Woodturning Chisels

Woodturning chisels are subjected to more wear and tear than any other kind of hand held chisels used in woodworking. Because the wood is passing the chisel at 20 miles per hour for prolonged periods of time, a turning chisel will traverse more wood in a few minutes than any carving chisel could in years. Just look at the pile of chips that accumulate around a wood lathe and you will be convinced of this fact. For this reason, sharpening is a more important issue for turning than any other branch of woodworking.

Sharpening is not handled well in most of the turning books I have read, because the authors try to cover too much at once. I will divide the subject into two distinct parts: **Tool Point Geometry**, which will be covered here, and **Sharpening**, which will be in the next issue.

**Tool Point Geometry** describes the shape of the tool. To understand this topic thoroughly, we need to explore why the tool is shaped the way it is, and how the shape affects the way it behaves.

**Sharpening** is the routine maintenance of the perfect edge. This operation assumes the correct geometry has previously been achieved, and we aim to keep it that way as we sharpen the chisel hundreds or even thousands of times.

**Basics of Tool Point Geometry**

An edge is formed at the intersection of two planes — these planes may be flat, curved or a complex conical surface. The angle of intersection is called the **Dihedral Angle**, usually referred to as the **Edge Angle**. It is measured as the angle between two lines which are perpendicular to the edge at their point of intersection and lie on the respective planes.

Looking at the chart (Fig. 1), you see two main groups of woodturning chisels — cutting tools and scrapers. Cutting tools are divided into two main groups — gouges and chisels. As we discuss these types, we will examine two aspects of tool point geometry — the edge angle and the shape of the line which forms the edge.

The best edge angle for woodturning chisels is 35 to 40 degrees (Fig. 2) although turners differ greatly in working practices. I have seen angles between 25 and 55 degrees used. Many people think that since their cabinet chisels and carving chisels are ground at 25 to 30 degrees, that this must be good for turning chisels also. However, turning chisels are subjected to much more brutal conditions than hand chisels. For this reason, a more blunt angle is preferred because it produces an edge which is more robust, stays sharp longer, and is less likely to overheat.

Also, unlike carving tools, turning chisels are usually used at a shear angle. This means that the edge is not perpendicular to the direction of travel. This produces an **Effective Cutting Angle** which is much less than the measured edge angle. To understand this concept, think about a switch-back road which ascends up a mountain. The effective angle of climb is reduced because the road does not go straight up the mountain, but angles across the face of the slope. So when we use a turning chisel at a shear angle, the actual cutting angle of the edge is much less than the angle at which we ground the bevel on the chisel. For these reasons, I do not think it is necessary to grind turning chisels to a more acute angle than 35 to 40 degrees.

But decisions of tool point geometry should be based on how they affect the behavior of the chisel in actual use. I have found that chisels which are too acute are harder to control than those ground at about 40 degrees. Some top woodturners, teachers and writers, such as Mike Darlow disagree with this and use more acute angles.

**Flat Grind Versus Hollow Grind**

I am absolutely convinced that woodturning chisels should **not** be hollow ground — this does not apply to scrapers which can be either flat or hollow. I learned this from trial and error, and decades of experimentation. When I switched to flat grinding, woodturning suddenly became much easier. The reason is because the flat grind defines...
kinds. For example, the smaller nose radius allows for easier piercing of the surface for initiating cuts (coves) at very high vertical angles, while the wider nose chisels generally make it easier to produce a smooth cut on flat surfaces or the bottom of coves.

During sharpening it is important to maintain the nose radius to the shape you prefer. Note that there are two distinct types of gouges — those forged from a flat piece of steel which has been bent into the “U” shape common to all gouges, and those created by milling a groove into a piece of round steel (Fig. 4). The milled gouge is the modern convention. Gouges made from round steel present a cross section which is thicker in the middle than at the edges. Because there is more material in the middle, this part resists the grinding process more. As a result there is a tendency for these chisels to become more pointed (toward a smaller nose radius) as they are sharpened. You must be conscious of this, and dwell on the grinder longer in the middle to counteract this tendency, and thus maintain the correct nose radius.

No factor of tool point geometry affects the behavior of a gouge more than nose radius because a smaller radius produces a narrower chip and results in a smaller cutting force. Figure 3 shows five different shapes possible from the same chisel profile (or cross section). These differ only in their nose radius. The first example is a “straight across” grind (radius = infinity). This is the way we grind a roughing gouge for spindle work; it has no nose and has sharp outside corners. Until recently this is the way most English turners ground their bowl gouges too. (See Frank Paine – The Practical Woodturner, or Peter Child, – The Craftsman Woodturner) The remaining four examples in the illustration show a decreasing nose radius from about one inch down to ¼ inch.

Besides the straight across gouge already mentioned for roughing and working into corners, each of these variations has certain strengths and weakness for applications of various kinds. For example, the smaller nose radius allows for easier piercing of the surface for initiating cuts (coves) at very high vertical angles, while the wider nose chisels generally make it easier to produce a smooth cut on flat surfaces or the bottom of coves.

Scrapers
Scrapers are used in bowl turning, chuck, and faceplate work, where the grain of the wood is perpendicular to the axis. In this kind of work, the grain is constantly changing from end grain, to cross grain, to long grain, and a scraper is well suited to the task. Scrapers are almost never used in spindle turning.

A scraper does not stay sharp very long even under the best conditions, but this disadvantage is outweighed by its ability to handle variable grain direction without lifting or tearing-out the grain. A gouge (cutting tool) is the best choice for roughing because it has positive rake, which removes wood more quickly with less friction, and the tool stays sharp longer (Fig 5). However there are many situations where scrapers are necessary — smoothing and blending curves, fine details, and awkward situations where a gouge or...

Photos & drawings by Jon Siegel
other cutting tool cannot be presented at the correct angle.

A scraper is used in a very different manner than a cutting tool, because the bevel of a scraper does not rub the work. Instead a scraper is controlled by pressure only, and the handle is held higher than the edge, giving the tool a negative rake. It is this negative rake and the ability of the scraper to take microscopically fine shavings that reduces tear-out and makes it the best finishing tool for difficult varying grain situations.

Because the bevel of a scraper does not rub, the exact angle or shape of the grind (flat or hollow) does not make much difference. Usually, scrapers are ground at a very blunt angle, corresponding to an included angle of 70 to 80 degrees. When the tool is used with a negative rake angle of 10 degrees, then the resulting clearance angle is 20 to 30 degrees (Figure 6).

**Gouges — Axial vs. Oblique Grind**

There has been a revolution in the way most turners sharpen their bowl gouges in the last 15 years. To some degree this has changed for spindle gouges too. The new geometry is usually referred to as **SIDE GRIND**, and is achieved by swinging the handle from side to side during grinding, instead of simply rotating it. What this produces is a conical bevel (SIDE GRIND), and is achieved by swinging 70 to 80 degrees. When the tool is used with a negative rake angle of 10 degrees, then the resulting clearance angle is 20 to 30 degrees (Figure 6).

These long side edges are useful in many bowl turning situations, especially reaching into end grain boxes or goblets where the cut must be made in a pulling motion (working toward the mouth).

The disadvantage of side grind is that the angle of the bevel changes whenever you rotate the tool. This means that if you rotate the gouge during the cut (to alter the shear angle), the gouge reacts by changing its direction. On a conventionally ground gouge, the angle of the bevel is constant with respect to the handle, and you can rotate the gouge any way you like during the cut (to alter the shear angle) without changing its direction of cut. Also, it is much easier to start a cut when you know that its angle is not dependent on the rotation of the tool.

**Skew Chisels**

Skew chisels are part of a whole class of spindle turning chisels which are ground on both sides. Most skews are made from rectangular stock, and the corners are extremely sharp (Fig 8-A). The chisel cannot successfully be used in this condition, because the corners dig into the tool rest (not to mention your fingers). This will prevent the tool from sliding along the tool rest smoothly, and eventually will damage the surface of the tool rest.

Such a skew chisel can be put right by rounding over the corners (Fig 8-B). A new type of skew is now available which has its short sides completely rounded over; so the cross section takes the shape of a race track (Fig 8-C). These are called the “rolled edge” skews, and I highly recommend them. Also, some of the new skew chisels are made from round stock (Fig 8-D), and these are excellent in the small sizes. Avoid the “oval skew” (Fig 8-E) with the long sides rounded.

The shape of the edge of the chisel can vary. It may be a straight line which is square across (Fig 9-P) or slightly rounded (Fig 9-Q). The standard skew (Fig 9-R) has a straight edge which is ground to an angle — usually 20 to 40 degrees. This is an extremely versatile tool which offers the choice of using the heel or the toe in different situations.

The edge may be a curve (Fig 9-S) which creates a narrower chip and behaves more like a gouge since it has a nose radius. Note however that a skew which is shaped to a curve does not have a distinct sharp point (the toe of the skew) and this is a limitation.

**The Myth of the Original Grind**

Many beginners think that they should maintain the geometry that the tool had when they bought it. While this may be true of the Ellsworth signature gouge and a few others, in general this is a dangerous assumption. The person who ground the tool at the factory probably never turned a piece of wood in his life. He is just grinding it the quickest possible way so it looks like it has been sharpened; and this is OK because it gives you a head start in regrinding the tool the way you want it.

With all the chisels available and all the possible ways to grind them, there are too many variations for anyone to master in one lifetime. So I will leave you with this final thought — *Take time to experiment*. If you do, you will soon realize that this article has barely scratched the surface of this subject.
A New Golden Age of Hand Tools

It is, or actually has been, an article of faith among woodworkers that “they don’t make them like they used to”. Hand tools users have decried the demise of the Stanley planes, the shutdown of their competitors, and the general unavailability of a broad range of products to meet their needs. Much of what was left was of suspect quality. This is no longer true, and in fact hasn’t been for the last 3-5 years. We all know about the wonderful Stanley derivatives made by Lie-Nielsen and the products from folks like Clifton available from some of the larger woodworking supply stores and catalogs. Few however, seem to know of the broad range of tools made by many of the less publicized makers.

We now have available to us a wider range of quality products than has been made in almost 50 years. After WWII, the major manufacturers cut back their offerings and it seemed that each year choices became fewer. The pendulum began to swing the other way about 10-15 years ago. The rise of a variety of woodworking shows on both public television and the cable channels, the increase in the number of retail outlets and catalogs, and finally the pervasive influence of the internet, have combined to make our avocation very popular.

The hand plane, one of the most popular and useful tools, heads the list in the variety of types, styles, and the number of vastly different offerings available. There are high quality makers producing products in China and Japan for folks interested in the eastern style of woodworking. Makers in Germany offer wooden planes in the traditional Northern European style. The British are producing both infill planes and the Bailey style planes. And finally both here and in Canada, there are a wide variety of makers. There are a lot of people competing for our dollars and there is no reason you can’t find something which is both in your price range and meets your needs.

The internet is where you will find the widest variety of choices and at times it can become almost bewildering. For those who are not comfortable placing orders online, most makers take orders by both mail and phone though you will often need to do your searching on the net. The smaller makers and sellers of tools, myself included, keep costs down by not publishing catalogs or flyers. Many of these folks offer customization of their planes with choices of wood for the knob and tote or even the plane body, A2 vs high carbon steel for the blades, completed vs kit planes, and even bronze or brass vs ductile iron for the body. To go even further, a few makers like Sauer and Steiner ask you to send a tracing of your hand and will personalize the tote to your hand size.

I have listed below a selection of annotated internet links of the web sites for many makers and major sellers of hand planes. Most are reasonably priced, but some of these folks do fully custom work to the highest standards, and they have multi-month backlogs with prices as high as $5000-$7000. It is worth checking out these web sites both to enjoy the beauty and function of their products and to learn from some of the fine tutorials that some makers offer. The internet has a huge pool of resources on almost any woodworking topic that could possibly interest you- use it to your advantage.

Sources on the Web

- www.andersonplanes.com – Wayne Anderson’s site for his innovatively styled infill planes, his work is definitely tool porn
- www.adriatools.com – ECE German wooden planes and wonderful backsaws
- www.bridgcitvtools.com – Mostly marking tools and a couple of hand planes – expensive
- www.planemaker.com – Clark & Williams, all types of 18th-19th century style wooden planes of very fine performance and great classic beauty
- www.davidfinck.com – A2 irons and info on making your own Krenov style hand plane
- www.finetoolj.com – Fine Tool Journal, a source for antique tools and Lie-Nielsen at a 10% discount with free shipping
- www.japanesetools.com – Hiraide America, Harrelson Stanleys company selling fine Japanese tools of all types, importer of Shapton sharpening stones
- www.hocktools.com – Ron Hock replacement blades for Stanley planes, custom blades and a source for a Krenov style plane kit
- www.holteyplanes.com – Extremely expensive high end British style infill planes of fantastic quality, long lead times are the norm, Carl Holtey is an artist.
- www.knight-toolworks.com – Modern design wooden planes of all types, great performance at a bargain price and made in the woods of your choice
- www.leevalley.com – Now a major competitor of Lie-Nielsen with a growing line of top performing planes of innovative design at quite reasonable prices
- www.lie-nielsen.com – The folks who jump started the revival of top quality hand tools, you already know them, so ‘nuf said
- www.classicplanes.com – Darryl Hutchinson, another British maker of infill planes on a par with Carl Holtey’s work
- www.sauerandsteiner.com – Canadian custom maker of infill planes, another expensive top of the line source
- www.stanleyworks.com – Stanley still has replacement parts for many of their older and discontinued products and the prices are reasonable
- www.japanwoodworker.com – Another source for Japanese planes and other tools
- www.shepherdtool.com – Canadian maker of both infill plane kits and finished planes, I’ve built two of their kits and the planes are both pretty and work well
- www.thebestthings.com – Internet retailer of Clifton, ECE, Entwistle, Holtey, and Lie-Nielsen planes and other fine hand tools
- www.toolsforworkingwood.com – Internet, catalog, and showroom retailer of a vast variety of hand tools of all types including planes, great sharpening tutorial and lots of other great info from a retailer who is a woodworker and a general tool expert

Tools of the Trade by Dave Anderson

Northern European style. The British which is both in your price range and in Canada, there are a wide variety of tools available. There are high quality makers producing products in China and Japan, for folks interested in the eastern style of woodworking. Makers in Germany offer wooden planes in the traditional Northern European style. The British are producing both infill planes and the Bailey style planes. And finally both here and in Canada, there are a wide variety of makers. There are a lot of people competing for our dollars and there is no reason you can’t find something which is both in your price range and meets your needs.

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The high humidity this summer has me thinking about its constant effect on my furniture. I wouldn’t be concerned if it stayed humid, but I know that in six months the air in my shop is going to be as dry as it is wet today. Despite modern glues, well engineered joinery, and sealing finishes, I can easily trace most of my woodworking problems — and lessons — to dealing with moisture and wood.

Some of you might say, well I work with kiln dried wood, I don’t have to worry about wood moisture content (MC). Not so. Kiln dried, air dried, even 1000 year old wood changes dimension with the weather. Wood cells are like tiny sponges, sometimes sucking up moisture and swelling, and other times drying out and shrinking. They change dimension in proportion to moisture loss or gain, but not uniformly across the width and thickness of a typical board. A general rule of thumb is wood shrinks 8% tangentially (essentially along the growth rings) and 4% radially or perpendicularly to them. The difference is due to radial rays within the wood structure that constrain movement along them.

Things would be fine if a board just got wider or narrower through the year, but there is more to it. The grain is usually far from even, but curves and has all kinds of variations due to the shape of the trunk, defects, figure, and growth patterns. These internal stresses only increase the likelihood for any board to move in unexpected ways — not just in dimension but to warp as well.

All of these changes happen year in and year out, all due to our unique climate. The best you can do is choose your materials wisely, acclimate them to your shop for as long as possible, and mill or size them in stages to give the wood time to readjust.

Careful wood choices can make the challenge of working with wood movement far easier. Some woods such as mahogany, teak, and white cedar are extremely stable under all conditions. Working with less stable woods, I design in more structure, use narrower panels or give them more space to move, or buy quarter sawn stock, the most stable configuration with the least dimensional change. Quarter sawn is always best for doors or table leaves where I have little control over warping.

When cutting up my boards, I reserve the best sections — the flattest with the most consistent grain — for parts where movement is a concern. Boards that warped at all badly as they dried from the green state are not going to suddenly decide to stay flat once milled. With the wood MC constantly changing, it’s important that your wood be in equilibrium throughout its thickness and with the conditions within your shop, and ideally with where it is going. The only way to accomplish this is to bring the wood for a project into your shop for long enough for it to acclimate, or as I think of it, a final seasoning. The more closely your shop mimics the heating and humidity of a house the closer the wood will acclimate to a MC that your furniture will finally see and the less stressful the transition.

So what about that kiln dried wood? It might have come out of the kiln at 8% MC, but was then stored in an open shed for a month. It will suck up moisture, although not as much as air dried, simply because during the kiln process some of the cells are super shrunk and they no longer function as flexible little sponges. There could also be a big MC difference between the center of a thick plank and the outside, kiln dried or not.

In winter, softwoods can acclimate in a week, dense hardwoods in a few weeks. If I need to speed the process I rough cut parts and stack them in the gentle warmth above my heater. Even in the summer, the wood dries further due to the limited moisture within my shop and lots of other objects that absorb some. I stack vertically or horizontally with lots of air spaces between the pieces.

With a moisture meter, you can tell exactly when your materials are ready to work, when their MC matches the MC of other wood in the shop. I often rely on a more seat of the pants method of feeling the wood — “dry” wood feels warm not cool — and the shavings should be crumbly, not clump together. For thick stock I drill into a waste section and see if the borings seem dry. The MC averages about 9% for my shop, but I prefer working wood a little drier if possible.

Even if I have taken plenty of time to acclimate my materials, even cut them to rough dimension to expose more surface area (and to see which ones warp), there still might be a moisture differential within the lumber. A few days of rain or high humidity might cause this. I mill them slowly, plane equal amounts of wood off of each face, and let the parts acclimate for a day or two before milling to final dimension.

When it comes to fitting drawers, doors, or panels, my most useful moisture gauge is an off cut from a table end that every month or so for about a decade I have measured and recorded its width. It tells me the extremes of the moisture cycle within my shop, when they are, and most importantly where acclimated lumber in my shop is at any time of the year. It’s a small advantage in the constant challenge of working with moisture and wood.
Quarter columns are found in American furniture from about the mid-eighteenth century onward. The use of columns in furniture is often found in the neoclassical period toward the end of the eighteenth into the early nineteenth century.

Quarter columns are set into a large rabbet formed at the corner of cases in chests and clocks and are usually made in two parts to economize on the use of stock and to make installation easier; the caps and bases are set in and the column itself is trimmed to fit between the two. Columns can be parallel sided or tapered, smooth, reeded or fluted. Sometimes the caps and bases are cast brass or in a few instances, gilded wood. On rare occasions the columns will be carved, as in some Philadelphia Rococo and high style New England neoclassical examples.

In making the quarter columns, the first step is to mill stock that is the same dimension as the rabbet to receive the column. For a 1¼ inch column rabbet, four pieces 1¼ inch square and at least the length of the column need to be made. These four pieces then need to be glued up with paper in the joints to make a 2½ inch turning square.

I first glue two of the pieces together with a weak solution of hide glue and brown paper (photo 1). Put the glue on diluted about four parts of water to one part liquid glue. Before you clamp them up let the paper expand and then peel it off and reset it to eliminate the ripples. Make sure the pieces are flush to each other and clamp until dry (photo 2). Repeat with the other two pieces.

The next day, plane one of the sides smooth after trimming the paper off on each of the glued up pairs (photo 3) and glue them together making sure that the glue lines all converge at the center of the blanks (photo 4).

This blank needs to be centered in the lathe once it is dry. I usually use a square awl to bore a hole at the center of the joints so that the lathe centers don’t split the blank apart. Set the spurs of the headstock away from the glue lines so that they don’t split it either (photo 5).

The blank can now be turned (photo 6). In this example, the capitals and column are being made all in one piece since this is a very small column for a dwarf tall clock. Ordinarily, I will make two glue-ups, one for the caps and bases and one for the columns themselves.

Once the columns and bases are turned and fluted or reeded, take them off the lathe, set them on the bench and split them apart. Start the split with a thin bladed paring chisel and then continue prying the halves apart with a palette knife or putty knife — something that will not cut into the columns as you work it down the split. If the columns are not coming apart easily, wet the leading edge of the split with water to soften the glue and paper. Using hide glue for the glue-up will make it easier to get the pieces apart with water.

Once the blank is split in half, split the halves again to get the quarters. Soak the paper off with cold water applied with a rag and scrape any extra glue off.

The columns are then ready to be fit into the rabbet. With separate bases and caps, glue these in first and then trim the columns to fit between them. I usually hold them in place with tape or spring clamps until dry.

Remember, when fluting columns that the flat space between the flutes needs to be doubled up at each side of the glue joints. Otherwise, there will be a very thin and delicate fin of wood at the edge of the column and the spacing will not be the same between the rabbet and the first flute as it is between the other flutes. In addition, note that there is often a small square base slightly larger than the rabbet that acts as a platform for the turned column base.
Currently at the Currier Museum of Art in Manchester is the New Hampshire Furniture Masters Retrospective 10th Anniversary Exhibition. This show takes a look back at notable examples of the members work from the previous ten years of major published exhibitions. In addition to the ‘historical’ work, each participating member produced a new piece of furniture that will later be auctioned by Leigh Keno at the Wentworth by the Sea Hotel in New Castle this October 23rd.

This is a very exciting show in that all pieces represent high levels of design and techniques, and a broad array of styles that is typical of the Furniture Masters shows. The icing on the cake is that this show is being enthusiastically produced by the Currier Museum, the preeminent museum in the state. To be recognized by this institution, in such a fashion, is an honor.

My entry for new work is a rather compact piece I call a “Collections Chest”. I wanted this piece to be basically simple and elegant, but have intriguing details and elements. The inspiration for this work comes from the geometric and linear directness of Shaker design, the subtle curves and delicate detailing from neoclassical design, and organic/naturalistic carved details reminiscent of makers such as the Herter Bros. and others of the ‘aesthetic movement’ of the late 19th century.

One of the hallmarks of the Furniture Masters work is the direct involvement of our patrons in design development. I actually conceived of this design 1½ years ago just drawing in my sketch book. Many of these designs come fully developed in my thoughts when I take a coffee break.

The general form of turned legs with bracing, and a vertically shaped box on stand incorporating a stack of shallow drawers was prominent. In addition to these concepts were two details that greatly affect the feel of the design.

The first is that no drawer pulls were to be used. This sets the tone for both surface decoration and visual orientation and for function. I wanted this refined form to not only be precious, but to contain precious things (whatever they may be). The idea of ‘key only’ access solidified it for me, with the surface decoration taking the form of an inlaid escutcheon plate of contrasting walnut.

The second detail is the carving flanking the drawers. I enjoy carving and enjoy what reserved (spare) carving can do for a design. The carved work naturally creates texture and shadows. This effect frames the serpentine drawers and also helps direct the eye from the legs up through the stepped waist and up to the main casework.

It was this carved element that involved the patrons’ influence. I had originally chosen a blue flag (wild iris) as the plant I wanted to carve because of its vertical orientation and its relative simplicity. The flowers themselves are complex forms but very interesting. The blue flag did not have any significant meaning for my clients, but the red pine and low bush blueberry did because of where they reside. My challenge was to design a carved element using these diverse plants and integrate them on a 2” wide by 24” tall pilaster.

My first thought was, “How am I going to do that? Neither one would fit into the space!” The value of sketching and doing mock-ups became very valuable in exploring variations in design. Upon completion, the client was very pleased.

The technical aspects were also challenging. Almost none of the joinery is evident; blind dovetailing, blind frame work and hardware-less attachment of the legs to the case. A lot of pattern shaping and forming was required.
I am grateful to the guild for the scholarship they granted this past fall. I was able to study under Dimitrios Klitsas, a woodcarver in late September through early October. Dimitrios' home and studio is in the countryside near Hampden, MA. Dimitrios was born near Ioannia, Greece. After graduating from a four year carving program in classical design and techniques, he then apprenticed in Athens for five years.

I had the privilege of taking my room and board in Dimitrios' home for the two week class period. I ate breakfast and supper with his family which gave me a great opportunity to get to know Dimitrios better. The conversations that we had at these meal times enabled me to see into the mind of how this master thinks and his perspective on many different aspects of carving and training. In one of these conversations, he told me that one of the most important things in carving is to remain humble. If one begins to think of himself as a master woodcarver that can do anything, this person has stopped learning and is already "six foot under" psychologically.

As I began the class, I vividly saw how much I needed to learn. My expectation for this class was to be able to learn to use my carving tools more efficiently. Dimitrios took me back one step further, and from the very beginning, he taught the importance of learning to see. I was able to learn as I watched him carve part of the piece that I was working on, then I attempted to carve the mirrored image on the same board. As I would labor on my project, he would go and check on the other students. When he would come back to me, he offered encouragement and would point out where a line had a crook in it and needed to be smoothed out. When I expressed my frustration that the carving was not looking as good as I was wanting, he would turn to me and say with a smile "this is good" because I was seeing what was wrong and the next time that I did it, I would remember how to do it better.

We worked on three different pieces during this time, with each piece ascending in difficulty. The first piece had our initials and some simple flowers. The next piece had foliage flowing around a concave shell. The last piece, and the piece I am still working on, is a vase with vines flowing out of the vase.

Dimitrios showed us how to sharpen and maintain the carving gouges while working on these projects. He taught us to use a very simple and straightforward sharpening method that makes sharpening much easier to grasp.

I learned so much from him during this time, just by watching him carve. I learned that carving is not just making shapes in wood with gouges. Carving starts with laying out and sketching your design. Then you learn how to use the tools proficiently and gain control of their use. All of these skills are used to develop a keener sense of sight which is of the utmost importance.

As I reflect on these two weeks, I can see that I was able to grow a lot in this small amount of time. After taking the two week course I have been able to take in some of the weekly carving sessions which Dimitrios offers. These have been a great opportunity to keep learning and motivates me to keep on struggling through the tough times.

Dimitrios is not only a master carver but also a master teacher. He knew when I needed encouragement and he also knew when I needed to be pushed a little bit more. I want to thank the guild for contributing to this life changing experience!

If you would like to know more about Dimitrios, you can go to his web site at www.klitsas.com.
Thinking Like a Chairmaker

“One look at the chairs was enough to show me that he had stumbled into one of the sneakiest little pieces of chair design I had ever seen.”

I remember about twenty years ago getting a panicked call from someone I know in the antique restoration business. He had a set of four Sheraton chairs and he needed my advice on how to fix one of them. He brought them by my shop to show me and told me that he could not figure out how to proceed. One look at the chairs was enough to show me that he had stumbled into one of the sneakiest little pieces of chair design I had ever seen. The backs were a real tour-de-force.

Each chair back featured two serpentine crosses. The four pieces were half lapped in the middle and tenoned into the rails above and below. They joined together in the middle, and to top it off, they were curved in plan to follow the curve of the chair back. The restoration guy had simply cut out the “S” shaped pieces first and then tried to figure out how to half lap them together — never mind how to cut the tenons or make them curved. He could only see the finished pieces and couldn’t visualize the steps involved to achieve the results he needed.

Thinking Like a Chairmaker — To replace the missing crosses in the chair, I had to think like a chairmaker and re-create the steps the original maker had taken. That involved making a drawing of the back so I could determine how wide and thick each piece needed to be. I needed to figure out the plan view of the curve so that I could determine where in the thickness the angled half laps would be, and what the angle had to be in the middle where the two crosses met. Then, after cutting out rectangular pieces of the correct outside dimensions, I half lapped them together. Next, while I still had straight sides to reference from, I cut the angled tenons to joint the crosses into the chair back rails. Fortunately, the whole business was just flexible enough to be able to spring the crosses into place without disassembling the chair further.

Solving the Jointery Puzzle — At this point I had the jointery complete, but the pieces were just blocks. To continue, I felt that it would be best to work the crosses as a unit, so I glued them together. The problem then was that I had an assembly that wouldn’t sit flat on any surface and would get more delicate with each succeeding step. To support it, I planed a big block of wood to a shallow pointed vee shape that matched the front concave side of the crosses. This block gave me the support I needed to plane the back surface of the crosses to the correct curve.

I then used a compass plane to make a concave block that matched that back curved surface. With the assembly clamped to this block, I was able to plane the front surface concentric to the back.

Then finally, I cut the crosses to their serpentine profile. I had to remember that although the cross section of the pieces at any point was rectangular, the pieces twist as they curve, so shaping them was basically a carving job. After shaping, the front edges were rounded over and then the whole thing was glued into the chair — all told it took me a week — for one chair.

This was just an extreme example of what chairmakers face all the time. To solve the complex issues in building chairs, a cabinetmaker needs to have quite a different mind set than when he is doing casework. The pieces are small and odd shaped, a large percentage of the jointery involves angles, and the steps to get finished results are often hidden once pieces are cut to their final shapes. As if that was not enough, chairs have to look light and graceful while being strong enough to carry the weight — and suffer the abuses — of large human beings.

Today’s Project — My current project is typical. I am working on a commission to build four chairs in a Sheraton style but with a contemporary flair. The contemporary flair involves building them out of cherry and inlaying seashell motifs into the crest rails. As far as their proportions and construction, however, they are most definitely Sheraton.

Without giving a blow-by-blow description of their construction, I will point out some of the ways a chairmaker goes about building chairs like these.

The most obvious example here is the shape of the seat frame. It is trapezoidal, which means the tenons on the ends of the side rails are set at an angle to the line of the rails, and the shoulders are angled to match. In this case, both the side and front rails will have a curved profile. So the stock they are made from has to be thick enough to accommodate the curve, but as the photograph shows, they are left square until the jointery...
is done. In this way, there are straight edges to reference the angles from.

**Chair Back** – The back of a chair is where things get really interesting. A chair back cannot actually be drawn out, because it never lies on a flat plane. Some basic measurements and shapes can be determined, but jointing a chair back always involves a certain amount of cutting to fit.

In this instance, the chairs have a wide crest rail with three arrow shaped splats that are set vertically between an intermediate rail and the crest. The chair posts curve back, and the splats curve to match them. The intermediate rail and crest rail are also curved in plan.

The posts are joined to the crest rails with sliding dovetails. Since the crest rails are curved, these dovetails are at an angle to the front face of the post. The crest rails were sawn from thick stock, but the jointery had to be completed first.

To lay the dovetail recesses out on the back of the crest rails, I started with rectangular stock of the correct thickness, and then cut a wedge off each end at the angle of the dovetail shoulder. This gave me flat surfaces to work from as I laid out and then routed the dovetail recesses. The post dovetails were cut on the router table using a special jig that held the post at the correct angle. The mortises for the splats were done in a similar manner, except I used a separate wedge to lay them out and hold them in the mortiser at the correct angle.

The three splats in each chair back presented their own problems. They were sawn from straight stock as well. The angled tenons on either end were laid out and cut, but because of the horizontal curve of the back, their actual length could not be determined ahead of time. Once the tenons were cut, the back was assembled dry and the crest rail was put on as far as possible. By careful measurement the crest rail was set square, and then the fun began.

**Final Fitting** – The procedure for finally fitting a chair back with vertical splats varies in detail from one chair design to another, but it basically goes like this …

With the crest rail in place, it is possible to see what gaps there are. Sometimes the tenon shoulder angles are slightly wrong. Often certain elements will be too long or too short. Normally I will start by fitting all the bottom shoulders first. In the case of these chairs, the outer splats are at an angle to the middle one, which means their tenon shoulders are not square across the face. By setting a bevel square against their sides and the top of the intermediate rail, the correct angle can be determined.

Once the bottom shoulders are pared, the top end can be fit. Hopefully the gaps are small, but the biggest gap needs to be determined. I use a uniform piece of steel such as a ruler as a thickness gauge. Using a gauge as thick or thicker than the biggest gap, I scribe the shoulders around the splats, and posts if necessary, using the bottom of the crest rail stock as the reference surface. Once everything is marked, I pare the shoulders around the splats, and posts if necessary, using the bottom of the crest rail stock as the reference surface. The chair back is reassembled, and all the joints should be tight.

**Are We There Yet?** – This is a quick synopsis of how to build a chair. Obviously, there is more detail involved than can be covered in one short article. The main point is to realize that there are many steps involved that are not easily seen in the final piece. The jointery must be done first. A newly joined chair is a bulky, ungainly looking thing of little grace. Once the jointery is completed, the parts can be cut to their final profiles, unlocking the chair from its blocks. But without those intermediate steps, there would be no way to determine the angles and lengths needed to achieve the graceful results.

My next step in this current project is making the side stretchers. Since the rear posts curve back, and the front legs are tapered, the angled shoulders are going to be fun!
I first met Bob LaCivita five years ago in a course at the Homestead Woodworking School where he is an instructor and was immediately intrigued by him. He is quiet and talks very little about himself. Over the years I have had the good fortune to see him regularly, both during courses at Homestead and also, more recently, at Guild activities. He is very sparing with advice, indeed, usually you have to ask him a direct question. Several years ago I asked him about the Guild. He simply said it would be a good idea to join. Characteristically, he never mentioned that he was a member of the board.

In this communication age, we have lost sight of the value of being judicious and sparing with words. Most of us talk at large by John Whiteside construction or restoration, Bob is the person you call.

The first picture shows Bob inside one of the finest historic homes in Exeter. He and his crew will spend about two years in this house, renovating from top to bottom. In the backyard, for example, they will build an Irish pub (similar to one Bob has built before in another home) with an underground wine cellar. Here, though you can see the historic molding in the living room that Bob has recreated. In that same room, he has installed a fireplace. The polished stone contains fossilized remains of prehistoric creatures.

Bob works with two full-time employees and also acts as general contractor in his business. As the fossilized stone shows, he is highly imaginative in design and also well connected with suppliers and craftsmen. He has been able to organize his work such he that handles the design, supervision, and also the high-end woodworking. The next two pictures show the bathroom vanities Bob has designed and built for the house we are touring. Notice the curved drawer fronts, the figured wood, the opulent appearance. Every room of this house will receive that same level of attention over the next two years.

The next stop on our tour is to see a kitchen in Durham that Bob has created. Here the homeowner is home. It is amazing to see the delight and warmth with which he is greeted.

The kitchen, as you can see, is absolutely stunning. Consider what is involved here. Its not just a question of high-end, hand-built cabinets. It’s also the coordination of all the trades that go into building a complete kitchen, including the decorative painting. But...
most important of all, it is the design ability.

Who does the designing? Bob does! It turns out he is a graduate of the Rhode Island School of Design (RISD). Besides being a woodworker and general contractor, Bob is an artist and his medium is homes.

Where did such talent, plus the business acumen to allow it to work, come from? As a young man, Bob decided he didn't want to make a career of building houses with his father. A gift subscription to Fine Woodworking in 1976 opened his eyes to what was possible with wood and inspired his ultimate course. He went through a juried competition for one of fourteen openings against over 400 applicants for a two-year apprenticeship with David Powell of Leeds Design Workshops. David, though extremely gifted, was difficult for some people to communicate with. Bob got on well with him, however, mainly by keeping quiet and watching. After that came RISD and several attempts at making a living by building furniture. In between these efforts, he worked for an architectural woodworking company rising, eventually, to a management position, where he learned business skills. Currently, Bob has been in business for ten years and has a one and a half to three year backlog of work.

Leaving Dover, we drive to Portsmouth, to the Strawbery Banke section of beautiful houses down by the water. As we drive through the narrow streets at about every third house Bob says, “I worked on that one”. When we arrive at our destination, we are once again greeted warmly by the homeowners. In fact, the woman of the house embraces Bob.

This answers a question I have had for some time. Bob has resolutely told me, time and again, that he does no marketing. Yet it is obvious how much his customers admire and respect him and how grateful they are. Turns out Bob is marketing all the time in the only way that really matters, treating his customers well. So now I ask a better question. How much of your business comes through referrals? — “All of it.”

The next picture shows the Portsmouth home. You have to imagine the high wall above the fireplace to be faced with brick (as it used to be) to appreciate both the scope of work in this particular room and also the design sense that Bob has contributed. Now it has a peaceful, uncluttered look befitting a room that overlooks the water.

So there you have it. Another member of our Guild that you can actually meet and learn from. But be sure to listen and not ask too many questions. The answers you need will come in time, when you are ready to hear them. By the way one of the more amazing things Bob says is that amateurs can actually do better work than professionals because they can take the time to do it perfectly, if they choose.
The 72nd Annual Craftsmen’s Fair

Peter Bloch is known for his abstract, contemporary and “organic” shapes but especially his translucent aspen lampshades.

Marty Milkovits produces a variety of fine traditional custom furniture, specializing in one-of-a-kind pieces.

George Saridakis makes pierced lidded bowls, flower vases, and thin delicate ornaments.

Charles Faucher produces vessels with precise and colorful segmented rims.

Dustin Coates turns and sculpts distinctive burl bowls, vases and goblets.

Thomas Dupell makes all types of fine handcrafted shaker oval boxes for the Canterbury Box Shop.

John Long’s unique “wall sculptures” are made entirely from very old weathered boards from barns and found materials.

Christopher Strassner produces eye-catching bowls with an embossed detail around each rim.
Wood Days Celebration 2005

The Wood Days Celebration was hosted by the Shaker Village in Canterbury, NH on the hot sunny weekend of June 25 and 26. This event went off without a hitch thanks to the staff from the Shaker Village, volunteers from the GNHW, and the nonstop effort of Wood Days coordinator guild member Dave Emerson. We were entertained from start to finish with fine music from the Mill City Ramblers, Tom Pirozzoli, Kevin Scanlon, Adam Tags, High Range and Gerry Puttnam.

Under the tent on the green, right next to the music we found master carver and teacher Clive Hamilton featuring his student, guild member Matthew Dworman. Glen Livingston the maker of the fine Wood Joy Tools was set up next to NH Furniture Master Tom McLaughlin. Wood finisher Gary Wood was busy nonstop with questions on finishing. Complementing these woodworkers was artist Judy Palfrey with her beautiful water color paintings. Artists Laurette Carroll, Sean Carroll, and Dave Johnson complete the picture.

Over in the cart house, we took a trip back in time. First stop was the 17th and 18th century. Young blacksmith Miles Amaral was forging decorative leaves, hooks, hinges and latches on an anvil with an antique coke fired forge that is easily four or five times older than he is. On an iron coat rack of his design hung a hand forged dragon with copper wings outstretched. Next over, we find master cooper Ron Raiselis shaving barrel staves on his antique shave horse. Ron has been the cooper for the Strawbery Bank Museum in Portsmouth, NH since 1985. He was crafting a pair of barrels for display in the US Constitution Museum in Boston. Beside him was Mason McBrien with his fantastic collection of antique tools. He is more than a collector. He uses all these tools daily in his work making period furniture and doing restoration carpentry.

In the north shop we found guild member Bob LaCivita smoothing the top for a table to be raffled off at the
About twenty members took part in the Guild annual summer trip on June 17. This involved a visit to the famed Lie-Nielsen Tool Works in Warren ME, followed by a visit to the astonishingly large Center for Furniture Craftsmanship in nearby Rockport.

Your reporter had the opportunity to carpool with Dave Anderson and Bob LaCivita. This was fortunate as they were happy to give advice on which planes should be purchased in which order when one is building one’s tool collection. And indeed one of the main purposes of the trip was to buy Lie-Nielsen tools at a special group discount.

The entire group met for lunch at the Taste of Maine Restaurant where your reporter enjoyed a cup of clam chowder and a generous lobster roll. Following lunch we repaired to the Tool Works.

Tom Lie-Nielsen himself greeted us in the showroom. According to members who have visited before, the facility has greatly expanded. All the tools Lie-Nielsen makes were in the showroom. They were not just on display but available to be used. We were shown, among other things, the new line of chisels, which are truly beautiful tools. Unfortunately, the demand for these is so high that new orders cannot be filled for months. This was disappointing to Dave who had planned to buy a set. Indeed not even the vice-president of

Lie-Nielsen can have a set for himself until the backlog has been satisfied.

Then we toured the factory. Before retiring, your reporter was a labor-management consultant for large manufacturing companies and has toured many factories. What was impressive here was the high morale of the employees; despite the crowded conditions (mostly due to the high density of metal working machines). These people were clearly intent on producing the best possible product.

Dave says that we live in the second golden age of woodworking tools. A good part to this is due to Lie-Nielsen. Business is booming there and in case you are not familiar with their products, they are definitely heirloom quality. Business is so good that they have just completed a new manufacturing building right beside the old one. They intend to manufacture the new chisels there. The shell of the building was complete, having been built by the employees themselves! Full scale production will commence soon. Already the barrels of liquid nitrogen used in the cryogenic treatment have been delivered.

Many members ordered tools to be delivered in one large shipment to Dave Frechette (who organized the trip). We saved sales tax and shipping costs in addition to the discount.

By the way, if you are starting your plane collection, the best advice is to start with a low angle block plane. Your second plane should be a #4½ smoothing plane. Unfortunately the experts (Dave and Bob) are still debating whether this should be ordered with the optional high-angled frog.

The second attraction on the tour was the Center for Furniture Craftsmanship. They offer courses covering everything from basic woodworking to a new nine-month comprehensive course. The scope and size of this school are overwhelming. Evidently started as a for-profit business by Peter Korn, the switch to nonprofit status has resulted in tremendous growth and expansion; for example they have just completed a $2.4 million capital campaign.

Reflecting on both these experiences, it is clear that, especially in our area, the depth of interest in fine woodworking and the support available in terms of tools and courses, is breathtaking. What a time to be alive! What a time to belong to the Guild!
The May meeting of the Granite State Woodturners included three presentations followed by group announcements and an auction to support Guild activities and scholarships.

The topic for the meeting was *Cutting Up Turnings to Make New Objects*. The day’s presenters were GSWT president Jon Siegel, Peter Bloch and Christopher Strassner.

The subject of Jon’s presentation was a table called *Eliptori*. This was the first piece that Jon has named. It was also the first time he cut up a turning to make a piece of furniture. This table was made by turning a large ring which was then cut in half. The two halves were joined together to make the base of the table. Jon told us he does not like to work from drawings. Instead he works through a succession of models. On this table he started with a doll house size model followed by a quarter scale model then the full size table. When asked about problems of scale, Jon observed that each time the piece doubled in size it took about eight times longer and the object weighed about eight times more. This beautiful table has been shown this summer at the Currier exhibit.

Peter spoke about cutting up turnings to get different and interesting shapes for his works. He started with various desk accessories made from pieces of turnings. There was an interesting piece called *Torus Clock* – some book ends and a lidded bowl for all those items that clutter up your desk. Peter described how to use elliptical shaped cuttings from turnings to make door and drawer handles for furniture. He had some excellent examples of these to show us. Peter is very creative with uses for all the cutoffs and left overs from all his projects. All the pieces he showed us were the result of this process. Knowing the extent of New Hampshire winters, I can safely say that Peter does not heat his shop with a wood stove.

The main presentation was given by Christopher Strassner from Biddeford, ME. Chris is a juried member of The New Hampshire League of Craftsmen. He is a successful artist who exhibits nationally and has been turning professionally for the last five years. In addition to his artwork, he has built a successful turning business that supplies bowls to retailers throughout the country. The logical step was to bring turnings into his art forms.

Chris had a slide show that detailed the evolution of this process. In a progression of his works, the bowl shape slowly disappeared and melded into his sculpture. Chris talked about his material selections for his work and where those materials will take the art forms. He is now experimenting with kinetic sculpture. We heard about the difficulties that motion brings to the work.

He showed us the latest of these pieces that he made for an art show in our nations capital. Some questions led to a discussion about wood selection and its effect on the visual presence of an object. When asked about using epoxy instead of welding in works like his, he said that he would be worried about the long term survival of the piece. We heard about the design of a base for a three dimensional art form and how it enhances and controls the environment for the piece. Next he covered the importance of signing and naming each work.

“When you get into high dollar artwork, people need and expect the name. It is the identity for the piece. When someone buys a piece, they are first and foremost buying a piece of you the artist and secondary they are buying the experience. When you name your piece, you don’t want to take away the imagination. Keep the title abstract but interesting.”

Lastly he spoke on concept development, preserving ideas with sketches, and notes for future development. The process of distilling an idea with a customer into a commissioned piece closed his presentation.

Christopher’s session was much more than a turning presentation. It was an insightful journey into the world of a successful artist.
Approximately forty woodturners attended the annual Granite State Woodturners Design Critique (July 23) hosted by Kay and Peter Shumway at Moose Mountain Lodge. We had a Killington and Pico Mountain view and clear, crisp weather that could be included in a NH travel brochure.

GSWT President, Jon Siegel started by explaining the purpose of the critique was to analyze design and not spend time discussing technique although this turned out to be tough not to do. John McAlevey was introduced as moderator for the design discussion and was joined with comments from other attendees.

Although John has been highly visible in furniture design for many years, he has been involved in turning for the past three or four years. John recommends that ceramic design books be used as a resource for the study of vessel forms.

For the next several hours, the attendees introduced their turned objects with a discussion of their intent, the successes and in some cases, the failures. The discussion objects ranged from three foot architectural bell tower balusters to half-inch diameter miniature turnings.

Some of the common discussion issues were:

- How should the inside and the outside of a bowl relate to each other?
- How does the object’s exterior transition into the base?
- Should the base be larger or smaller? Shorter or Higher?
- How can forged iron bases be incorporated into the design? What are the alternatives for attaching metallic bases (epoxy, screws or thru rivets)?
- Should spherical or elliptical shapes be used on spindles?
- What is the optimum design for bowl lids? How to prevent the lids from overpowering the base? How does the lid knob fit into the overall proportions?
- How can texture be incorporated with turned surfaces?

Business related issues were discussed after the critique:

The 5th New England Woodturning Symposium will be held May 13th, 2006 at Pinkerton Academy. Organization efforts have started and volunteers are needed for many tasks. Some tasks will require pre-Symposium work and some will require several hours of work on the day of the symposium. Contact Jack Grube at 603-432-4060 or email him at jackgrube@adelphia.net.

Many of the current symposium volunteers have been involved since the symposium’s inception. So new organizers are now needed to work side-by-side in the run up to the 2006 continued on page 25...
The Period Furniture Group is a special interest sub-group of the Guild and this summer we had our first ever summer outing. Sixteen people attended — half the entire roster. The trip was possible due to the meticulous and conscientious efforts of Sal Morgani (these qualities also characterize his woodworking) and consisted of a day-long expedition to Historic Deerfield in Western Massachusetts. Historic Deerfield is a 1,000 acre site with dozens of restored historic homes containing 25,000 pieces of furniture and other artifacts dating from 1600 to 1900.

As our destination is some 2½ hours from Exeter, and since members come from all over New Hampshire plus some from Massachusetts, we had to organize four separate carpools each with their own car pool captain and pick up point. Even though one person missed the pickup and had to drive himself, everyone ultimately made it.

The first part of our tour was in the acquisitions and restoration part of the facility where the assistant curator was available to answer our questions. Not only that, but here we are able to examine two and three hundred year old pieces, touching them, pulling out drawers, looking inside, and photographing them! The photo on the right shows Moe DuPuis looking inside a 200 year old Connecticut River Valley desk. In the photos above, you can see Guild President Roger Myers examining the rear of a late 1700's Hepplewhite chest plus a close up of the left hand drawer and door. Notice how the crotch veneer has actually pulled apart forming channels along the figured patterns. It’s actually an aesthetic and impressive effect, but probably not one that was planned over 200 years ago.

To our amazement, many of these Connecticut River Valley pieces had internal construction with wide boards joined such that the grain directions of the two boards met at right angles! As one might expect, this resulted in cracking, but not as much as one would predict from consulting modern wood expansion and contraction tables.

Next we saw an astonishing variety of furniture in museum cases. Thanks to Sal’s special arrangements, we could ask to have any case opened! Later, we visited several of the historic homes. I saw an actual Charles-Honore Lannuier American Empire table in all its glory. Heartbreakingly, photography was not permitted on that portion of the tour.

We also visited the nearby Memorial Hall Museum and learned that Deerfield was the site of a gruesome French-instigated Indian invasion and massacre during King Philip’s War in the 1600s. The residents were either slaughtered or kidnapped. Although this sounds like a one-sided outrage, the display materials urged us to view the matter from the Indian’s perspective.

This reporter has never purchased a cell phone, but apparently everyone else has. On the way home, everyone whipped out their cell phones to call their wives to be sure supper would be ready.

Reference Books:
- 88 Turnings by Bob Stocksdale
- Ceramic Form by John Jordan
- American Builders Companion by Asher Benjamin
- Ceramic Forms by Daniel Rhoads
**Annual Meeting – September 17**

The annual meeting will be at Mike Dunbar’s Windsor Institute in Hampton, NH. Mike will speak on *Hand Tools vs Machine Tools*. Mark your calendar for this special event.

**Discounted Woodworking Books and Magazines – Nov. 19 Deadline**

One of the advantages of Guild membership is the opportunity to purchase books at wholesale prices. We have arrangements with Taunton Press and Sterling Publishing (which includes Lark and Guild of Master Craftsman titles) to purchase books once a year at discounts of 40% to 50% depending on quantity ordered.

I will be accepting orders at the fall Guild Meetings starting at the annual meeting in September. The last chance to place an order will be at the November meeting. Books should be available in early December for pick up at my home in Mont Vernon, NH, or at a future guild meeting.

I will have catalogs at the meetings, or you can view titles on the publishers’ web sites ([www.taunton.com](http://www.taunton.com) and [www.sterlingpub.com](http://www.sterlingpub.com)) and email your order to me. If you email your order, you must include the following in addition to your name and telephone number:

- **For Taunton**: The exact title, author, type of item (hard or soft cover book, video or DVD), the list price and the Taunton Product Code (not the ISBN #).
- **For Sterling**: The exact title, author, hard or soft cover, list price and the ISBN #.

I will acknowledge all email orders within one week. So if you do not get a response, please call me – I have vigorous anti-spam software. I’ll email you with the net cost when the books arrive. Payment is due immediately and the books are not returnable. This gives us a premium discount. Happy hunting for some really good woodworking books.

Tony Immorlica – Book Coordinator
603-6763-9629 (evenings) or annette_and_tony@peoplepc.com

**Period Furniture**

The Period Furniture Group meets five times a year, generally from 9:00 am to noon on the second Saturday of September, November, January, March, and May. The May 2006 meeting has been moved May 6 so as not to conflict with the Turning Symposium. Meetings are small, informal, friendly, and open to all at no additional cost to any GNHW with an interest in period furniture regardless of level of expertise.

The next meeting is Sept. 10 at Dave Macrae’s shop. The featured presenter will be Geoffrey Ames, master period furniture builder and founder of the Period Furniture Group. Details including directions are e-mailed to the group approximately ten days before each meeting. To get on the group e-mail list contact...

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

**Beginner & Intermediate Group**

The next BIG meeting will continue the dovetailed drawer construction topic started at the May meeting. The December meeting will cover door building, fitting & hanging. The February meeting will continue with our door topic. April & June topics are TBD for now.

The next meeting is Oct. 1 at Bob LaCivita’s shop at 363 Stage Road (Rt 152) Nottingham, NH from 9:30 am to 12:00 noon. Please email or telephone (before 9 pm) if you plan to attend.

Bob LaCivita
603-942-1240 or rlacivita@comcast.net

**Wood Days – continued**

A little bit further we found turner Ron Pouliot both demonstrating and letting people try bowl turning. Next to him was Ernie Grimes with his ingenious chain driven treadle lathe. I think Ernie said he had been turning for 73 years.

There were many more artists and crafts people demonstrating and showing their work all through the village. This combined with all there to see in Canterbury Shaker Village was much too much to cover in just two days. See you there next year.
Marking Dovetails

Make a plywood jig to increase accuracy

I like to cut dovetail pins first. I mark the pin layout and cut them with a handheld scroll saw as shown in my previous article on “Coping Through Dovetails”. After I have cut all the pins, it is time to mark and cut the tails. To do this it is necessary to hold the pins tightly against the tail blank and mark the portions to be cut out. I find that a simple jig makes this much easier to do accurately.

My jig is made from two pieces of ¾” Baltic Birch plywood at right angles to each other, about 18” wide and braced in the back to assure a right angle between them. However, it could be made any appropriate size. The black walnut guide strips down each side are carefully positioned at right angles so that the work piece can be butted up against them to assure perfect alignment.

The vertical back has a 1/16” rabbet at the bottom so that the tail work piece can extend slightly behind the pin piece. This is so that the tails will project slightly when the joint is assembled.

Carriage bolts project through the bottom and back to hold the clamp boards in place. Also to hold the jig securely in use, I have a narrow strip on the bottom, so that the jig can be fastened in my bench vise. This is especially important when dovetailing long pieces.

In use, the tails piece is clamped horizontally against either the right or left guide and tightly against the back with the Inside Face Up. The pin piece is then clamped vertically, with the Inside Face Out, and the pins to be marked tightly against the tail piece. The pins can now be marked with either a marking knife or a very sharp pencil. Note that the back side of the horizontal clamp board has been cut at a 45 degree angle to allow more room for the marking device.

Note to those who cut the tails first: a similar jig could be made to hang down over the edge of the bench to hold the parts in the same position as the Leigh Dovetail Jig.

The ease of use and the increased accuracy of marking makes the hour or two it takes to make the jig a good investment of your time.

TidBits by Roy Noyes

I recently had to strip the many layers of paint from a 100+ year-old door including the milk paint on the bottom layer. I tried Citristrip and had no luck removing anything but the top two layers. Then I got out the Behlen PDE and it did the trick in no time. It is available from the Real Milk Paint Company for $10.50 per bag, which makes ½ gallon of stripper.

Mix the powder with water to make a thick cream. Brush on with a nylon brush, wait an hour or two, spray the surface to keep it wet and the paint wipes right off! It washes away layers of tough old paints including latex, casein, oil and milk paints. Try it, you'll like it.