

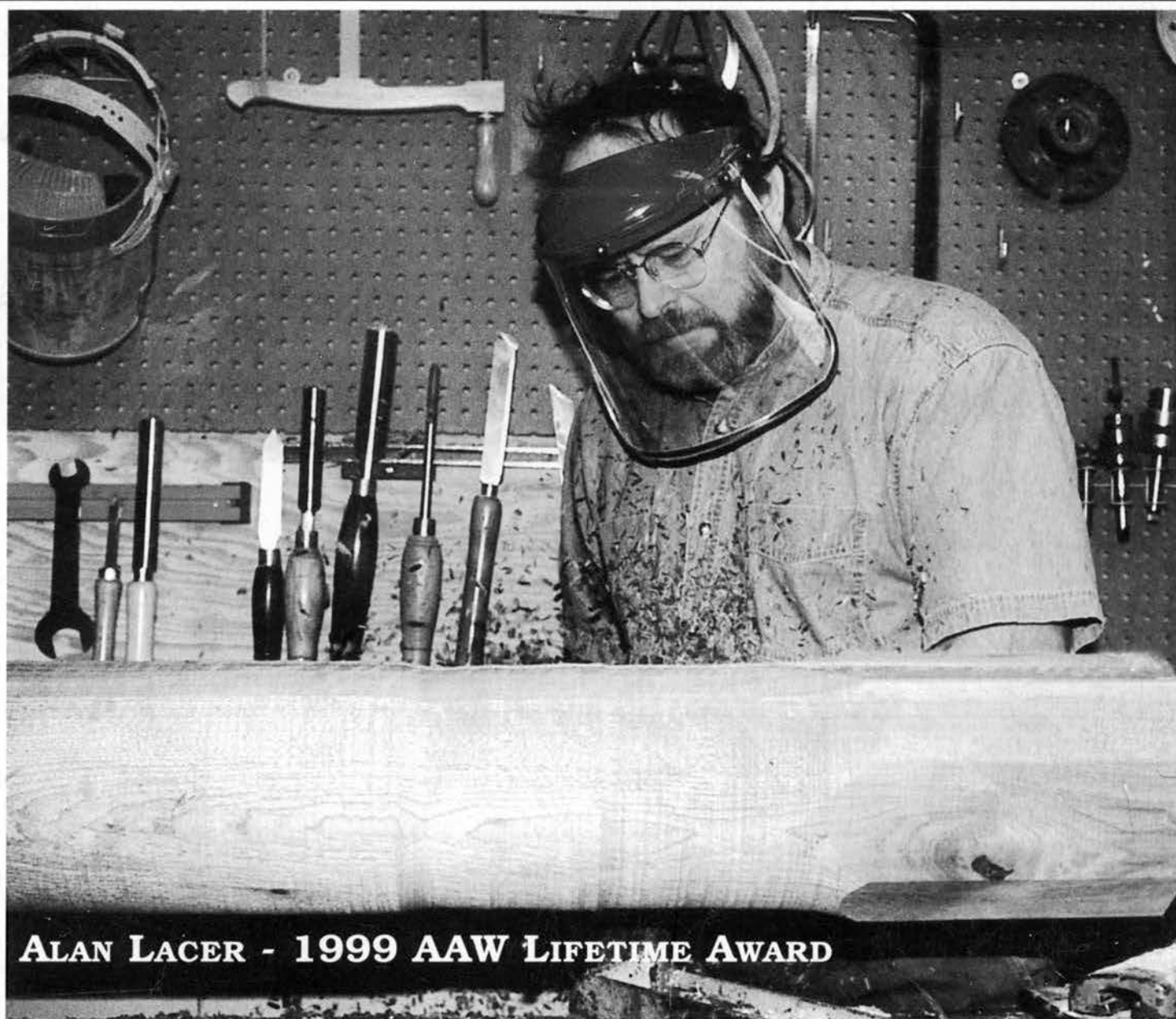
American Woodturner

The Journal of the American Association of Woodturners

Summer 1999

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Vol. 14, No2



ALAN LACER - 1999 AAW LIFETIME AWARD



*Dedicated to Providing Education, Information, and
Organization To Those Interested in Woodturning*

GIVING MORE...GETTING BETTER

MANY THINGS MAKE OUR AAW FAMILY of woodturners special, but our direct sharing, volunteering and giving is really what makes us unique and sets us apart from other groups. We all recognize and appreciate that our professional and studio turners give their time and share their skills, techniques and ideas to inspire us and help us become better turners ... and it has been through their giving and sharing that the AAW has grown. But all of us, including the novice, beginner, intermediate and hobbyist turner, have something to give and to share which will also help our own woodturning community improve their skills and help the public enjoy and appreciate turned objects.

Although many of our beginning and hobbyist turners share their knowledge and enthusiasm, we need more of them to do so. and there are numerous ways to do this.

For example, if you are a beginner or hobbyist who likes to turn something like a small bowl or ornament, and even if you are only fairly good at it, then you are an ideal person to volunteer demonstrating this at your chapter meeting or to another group. To prepare for a demonstration, you need to analyze methodically the steps you almost unthinkingly go through to make your project, and you need to verbally explain to yourself what you are doing so you can explain it later for the group. You need to think about the safest, simplest, easiest, and fastest way to make your project. Through this process and your demonstration, you grow and improve, and more significantly, the group becomes better through the demonstration you give.

There are many opportunities for woodturners at all levels to give by sharing their knowledge and skill, not only to help someone else become a better turner, but to help a non-turner better understand and so appreciate how wonderful wood-turned objects really are. The faces of grade school and high school students light up with

amazement and excitement when they see a hobbyist demonstrate at their school. To these children you are a professional who has given them inspiration and opened their minds to a new and wonderful craft and art. You have given them something that they don't normally or usually get in school. Your giving makes a difference.

You don't have to be a professional turner to demonstrate in shopping malls, public buildings, galleries or craft shows. Showing and informing the general public about the art and craft of woodturning is a gift which even the beginning or intermediate turner can give. If you will show them, then the public will enjoy and appreciate your turned toys, useful objects and finely crafted forms. You are planting the seeds for them to eventually buy and collect all types of turned objects.

When talking about giving, one thing always comes to my mind. Once a year there is a very large group of people who give a lot of their time, energy, goods, services and money for woodturning, and they do it to make a better and better annual AAW National Woodturning Symposium. This group includes not only AAW members and Chapters, but also machinery and tool manufacturers, gallery owners, collectors and many, many volunteers. Not only do the turners who attend the AAW Symposium get better, but many more people benefit when they return home and share their newly gained knowledge and enthusiasm with their chapters and communities. Many of our top AAW turners and emerging top turners will be demonstrating this year at the National Symposium in Tacoma. It is this group of professional and studio turners who have taught and inspired us by giving and sharing their talent and time. But there are still many opportunities for the beginning, intermediate and hobbyist turner to give and share their knowledge and enthusiasm for woodturning. When they do share, everyone gets better.

Welcome: The AAW Board welcomes Gary Dickey as the Assistant Editor of the Journal, and Ken Keoughan as our new Contributing Editor.

Gary Dickey lives in Lexington, SC. Gary started turning wood when he was 13, and it has been a lifelong hobby and avocation. He worked for newspapers in Columbia and Charleston, SC and then received his Bachelor and Master of Arts in Journalism at the University of South Carolina. For nine years before his retirement in 1997, he worked in Columbia, SC, for the IRS as a writer, Assistant Public Affairs Officer, Senior Speech writer and Associate Editor and as Editor of two separate IRS publications. He has been an AAW member for three years and after his retirement two years ago, he purchased a Powermatic and has spent more time turning. He has taken several classes at Arrowmont, has had two solo shows and his work is carried in two local galleries. He is trying to start an AAW Chapter in Columbia, SC. He has written magazine articles about wooden boats, woodcarving, frontier rifle makers and hand made knives. He is interested in crafts and brings more than three decades of experience in writing, editing, photography and publication to our Journal.

Ken Keoughan is a retired businessman and lives in Friendship, ME and Mount Dora, FL. We know Ken through the profiles he has written for the Journal about Dave Lancaster, Arthur Jones and his help on the Todd Hoyer article. His other articles range from his first craft show to how to build a vacuum chuck.

In addition to his writing skills, he offers a high-energy interest in turning and a sense of humor. With homes in Maine and Florida he will help us cover a lot of territory and he will be a real asset to our Journal.

I look forward to seeing everyone in Tacoma.

— David Wahl, President
American Association of Woodturners

American Woodturner



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A Note about your Safety

An accident at the lathe can happen with blinding suddenness; respiratory problems can build over years. Take appropriate precautions when you turn. Safety guidelines are published in the AAW Resource Directory. Following them will help ensure that you can continue to enjoy woodturning.



On the cover: Alan Lacer works on a large spindle in his Minnesota shop. Alan, who served as the second president of the AAW, has been selected by the association's Board of Directors to receive this year's Honorary Lifetime member award. Alan, who is a writer and teacher, as well as a turner, joins the ranks of notables such as David Ellsworth, Alan Stirt, Rude Osolnik, Bob Stocksdaile, Dale Nish and last year's honoree S. Gary Roberts. See article on Page 10. COVER PHOTO: Dick Burrows, Knoxville, TN.

Submissions to *American Woodturner* are encouraged. Please contact the editor with articles or proposals.

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More on Sharpening

I was glancing through the latest issue of *American Woodturner* and stopped to read your article on sharpening. Since you were nice enough to include your email address in the masthead, I decided to add some of my own radical ideas to the sharpening discussion.

I have always wondered what was the big deal with sharpening turning tools. I agree completely with your comment that a sharp tool is very important to pleasant turning, however, I did not appreciate the difficulty many people have with achieving a good edge.

While reading your article, I think I figured out what the cause of most of the problem is -- most folks use the wrong tool to do their sharpening!

My experience with woodturning started only recently. Before I got into this wonderful activity, I tried many different types of "Shop work" to find enjoyment and relaxation. One such activity which I have done on and off for a number of years is knifemaking.

While I never managed to get very good at making knives, I did manage to get a relatively good belt grinder for shaping the blades.

There are a whole bunch of these machines available for less than a thousand dollars. They all use 2 by 72 inch grinding belts and usually have a 1 horsepower motor or larger. The one in my shop is made by Wilton and cost around \$700 when I got it several years ago.

When one of these grinding machines is equipped with a relatively new belt, the task of reshaping a turning tool is trivial. It takes about 4 or 5 seconds to roll the tool in the proper direction while lightly touching the moving belt. I like to use around 120 grit for turning tools, but the grit size doesn't matter all that much.

Fixtures to orient the tool while grinding are not necessary. Since the machine cuts the hardened tool steel so fast, anyone can get a nice smooth tool shape. The best analogy I can make is that this is like shaping a small wood dowel using a normal 1 inch belt grinder.

If you try to accomplish the same thing with a bench grinder it might take minutes to remove the same amount of steel. This is too long for a person to hold the tool at the same angle, so you need all those fancy fixtures. While grinding the tool all that time it can get so hot the temper gets ruined. This is simply the wrong tool for the job.

I reshape my turning tools perhaps once a month. I put the final edge on them with a black surgical stone which sits on my workbench. Just one swipe on the stone will raise a small burr to do some really nice cutting on the wood lathe. Sometimes I remove the burr with a rolled up piece of emery cloth, sometimes I just leave it on the edge. I have never been able to convince myself which way works better. After a while the shape of the edge gets distorted enough that I go back to the belt grinder and reshape it.

The biggest problem with the belt grinder is that it makes a lot of noise. I always wear hearing protection when I use it.

I realize that the expense of this machine is more than most folks want to pay for a sharpening machine. However, some of your readers are willing to pay several thousand dollars for a lathe. Perhaps a few would like to try the easy way to keep their tuning tools sharp.

--Paul Mulwitz, Camas, WA

Game Calls

I am looking for information on how to make mouth-blown Game Calls for birds like ducks and geese. They are usually turned with fancy

woods and are very attractive. There was recently a short article in *Outdoor Illinois* about several folks from Illinois who make these calls, but I could not find any of them in our members guide. Are there any of our Association members who would be willing to share information on how to make these? It could make an interesting article for the *Journal* as well.

--Tom Albrecht, Wilmette, IL

Catalog Bargains

My tendency to be a catalog nut sometimes gets out of hand from time to time. But in the process I find that some rather obscure sources can offer viable alternatives to our better known woodturning suppliers.

A case in point is the full face shield I prefer to use. I bought my first one at Sears years ago. It had a good head piece and a polycarbonate (Lexon) shield. All was fine until, some time later, I needed to replace the shield or window. Sears had discontinued the item.

Other local sources had similar windows but they were costly and required retrofitting (pop rivets, etc.)

Tek Supply 1-800-835-7877 to the rescue! Their catalog is full of stuff - some of which you've never heard of and most of which you'll never need. But get the catalog and look closely for the headpiece called the "T-lock ratchet" at \$8.65 each (cat # DH5020). The window (cat# DH5000) is \$3.19 each or \$2.76 each in packs of ten.

This is good quality merchandise and priced such that you can afford to replace a window when it gets filled with super glue splatters and scratches.

Tek supply catalog also shows a variety of dust masks and filtered air hoods and caps - no minimum required.

Sears is getting further into the

woodturning business. The tool catalog offers both the tube bed lathe and a new 15-in., 2 HP, variable speed, swivel head, #2M,T, cast iron lathe. In addition, the catalog offers #1 and #2 M.T. centers and work arbors at very reasonable costs.

And, finally, the growing demand for low speed (1750 RPM) grinders is frustrated by high cost. This time, it is Trendlines catalog to the rescue (1-800-767-9999), offering a reliant 6-in. bench grinder at \$49.95 regular price.

Turn on!!

—David F. Dunn, Rochester, MN

Woodturning Poetry

Here is a poem I wrote as part of an assignment in a poetry group to which I belong. It was inspired by the many craft show attendees who have this craving inquiry.

How Long Does It Take To Make One Of Those?

Do you mean...

not plant the tree, but find the wood,
just 'see' the piece, (as if I could)?

to find a highly figured burl,
a crotch, an eye, or pearly curl?

And once I spy it, perhaps buy it,
inventory, store, and dry it?

Then saw or cut it, possibly I kiln it'
glue, imbue with fill, or drill it?

You mean that once I'm satisfied
it's stopped the warps, checks, cracks, once dried?

And mounted on the lathe, to turn it,
(which takes much practice, just to learn it);

and then employ a gouge, or two,
or use a skew, which I don't eschew,

to mold it, shape it (what's your pleasure?)

by all means, I'm sure to measure,

then sand it smooth, please wear your mitts,

from coarse to fine, 10,000 grits,

then braze, or burnish, paint, or polish,

(the goal: enhance, and don't demolish)?

Is that your question, start to end,
how long's *that* path, its way to wend?

Or do you merely want to know
how long it turned?

Ten minutes or so.

—John A. Styer, North East, MD

Thanks For Seminar

I want to give a formal thank you to Woodcraft at 1085 Holcomb Bridge Road in Roswell, GA for making available the seminars and presentations they have recently scheduled.

I think this is the kind of extra effort that demonstrates Woodcraft's commitment to customer service.

The seminar I attended was *Advancing Your Turning to the Gallery Level* with Mark Bressler and Cindy O'Rourke on Sunday, Feb.7, 1999.

I have attended many turning seminars and turning presentations and have spent two weeks at Arrowmont School of Arts and Crafts. I believe that these hands on training sessions are very important in mastering the turning art and will continue to be a part of my education. Ultimately, the knowledge is applied on the lathe as you spend hours (days) personally refining your abilities.

The purpose of Mark and Cindy's seminar was not to teach turning but to open the mind to design concepts in turning. It was for those turners who feel they can move into gallery turning to get helpful first-hand knowledge in the How-To department. I enjoyed the seminar and the ideas presented very much and appreciated the work Cindy and Mark put into it.

In the last two years my chip making technique has come a long way. Where I am in my craft now is where I believe many other turners are. I have sold some pieces and given away some very nice gifts. I believe that this type of seminar has been most valuable and could even be expanded.

The plan I have is to, over time, phase out of my life's career as a manufacturing representative for capital equipment and develop my second career in woodturning. At some point in the future you will be able to find me on the web at The Turning Tree.com.

—Norman Lavoie, Marietta, GA

Safety With Tools Is Not Just For Fools

The lathe like the saw
should be respected by all.

Electrical equipment is fine
but don't mix with wine.

A lapse in your mind
can turn fate unkind.

As safety gone unheeded
could result in medical care needed.

So instruction go read
and safety do heed.

Before you conspire
to throw a career in the fire.

—Pat Frain, Sunrise Beach, TX

LOOKING TOWARDS TACOMA

The AAW Symposium XIII is nearly upon us, and it's shaping up to be one of the best ever.

The June 18, 19, and 20 event will be in the spectacular Northwest, and the word is that many are planning to make the symposium part of a vacation, so that they can take full advantage of the rain forests, the Olympic and Cascade Mountains and other bucolic locations, plus Tacoma and Seattle, WA, Portland, OR and Vancouver, Canada for those who favor cities.

(Note: When entering Canada from the U.S., a U.S. passport or proof of U.S. citizenship (ie: birth certificate) and a photo ID are required. To learn more about Canadian travel requirements, you can write to the Embassy of Canada, 501 Pennsylvania Avenue, N.W., Washington, DC, 20001, call 202-682-1740 or contact the nearest Canadian consulate in Atlanta, Boston, Buffalo, Chicago, Dallas, Detroit, Los Angeles, Miami, Minneapolis, New York, San Juan or Seattle.

The Internet address is <http://www.cdneemb-washdc.org>.)

The symposium offers a chance for total immersion in woodturning for a few days. There will be more than 100 demonstrations and panel discussions. Featured demonstrators include Bob Flexner from Oklahoma; Don Weber of California, Ernie Newman of Australia, Michael Peterson of Washington, Bert Marsh of England, and Yoshinobu Kakizawa of Naruko, Japan, above right. The roster of demonstrators on pages 49-56 also includes many other foreign, national, regional and local talents.

The Chapter Collaborative Challenge promises to be a top-flight competition, with many groups trying to match the impact of Chicago's winning bicycle last year.

The symposium trade show is the best single location anywhere to see and purchase the latest tools, lathes,



Yoshinobu Kakizawa, an award-winning turner from Naruko, Japan, who was selected by his peers in Japan to attend the Symposium, relaxes in his shop

supplies, and wood. The Instant Gallery is always fascinating.

If you like exhibitions, this conference offers the most to date.

The East West show, a joint Japanese and Western exhibition, will open Thursday in the Handforth Gallery at the Tacoma Public library, not far from the Symposium. The show will run through the end of July. Also

located near the conference site will be an exhibition of regional turners and wood at the Washington State Historical Museum. The American Art Company – a private Gallery in Tacoma – will also host a show of cutting-edge work from leading contemporary turners.

—Alan Lacer, Shoreview, MN and Dick Burrows, Knoxville, TN.

Don't Forget the Auction - All For Fun And A Good Cause

One highlight of past AAW symposiums has been the annual auction held after the banquet on Saturday night. Just about the time you're ready to relax after a good meal with friends and colleagues, the melodious, and booming, voice of Willard Baxter will rouse you to the business at hand – helping other turners and chapters.

Willard says he's concerned that people don't realize how important the auction is. It's great to bid on and buy such fine work donated by members and chapters, but where the money goes is more important. Every purchase at the AAW auction helps fund our Educational Opportunity Grants. So do the proceeds from the Silent Auction, which includes wood, tools and other non-turned items donated by individuals and companies.

Willard makes a strong case: that educational program is important: ask anyone who's benefited from the program. By the way that voice is just as impressive face-to-face, as it is from the stage. The power is from Willard and his enthusiasm for helping a lot of deserving turners and chapters.

The auction at the Akron Symposium raised \$23,000 for the Educational Opportunity Grants. This year the AAW promptly took care of that money by awarding \$20,000.— Dick Burrows, Knoxville, TN

BUCKS WOODTURNERS PROJECT WORKSHOPS LURE STUDENTS

MOST TURNING CHAPTERS HAVE A core group of serious (and possibly professional) turners, plus a large number of social or casual turners and non-turners. Members of the first group usually do the work to run the club, give the demos, and raise the money, etcetera.

The Bucks Woodturners wanted to get everyone more involved and began offering hands-on instruction to qualify more demonstrators, to bring more casual turners into the serious group, and to get more non-turners to turn. We knew **Hands On Workshops (HOW)** offered the best way to provide instant analysis and correction of problem areas, instant positive reinforcement, and support.

For the first several years we gathered the club's best turners and invited the rest of the members to come learn how to turn. The problem was that we often had a better turnout of instructors than students. Being a well-established club, we have many qualified and eager teachers.



Norris White teaches Workholding on the Lathe as part of the Buck Woodturners' Hands on Workshops program

To say the least, we were perplexed. The workshop was free for the taking and centrally located and still they stayed away. After analyzing the situation, and looking

hard at our methods, we identified some problems.

First, we never advertised who would be teaching what. Why bother? We "knew" what beginning

Canadian Competitions Seek Entries



Bob Rollings of Scarborough, ON, with his winning entry in the specialty class of the Ontario Woodturners 1998 competition.

Turners are invited to enter the 1999 Ontario Open Woodturning Competition and demonstration October 21st, 22nd and 23rd 1999.

The event is sponsored by The **Woodturners Guild of Ontario**, a 160-member-strong organization located near Toronto, in the city of Markham Ontario, and Lee Valley Tools, a manufacturer (Veritas) and retailer of fine tools.

The competition is open to all artists working in woodturning. With the exception of the specialty class, the majority of the turned item must be wood.

All prizes will be in the form of gift certificates for Lee Valley Stores. The Canadian Woodturners' Association trophy "CWA Award of Excellence in Originality" will be awarded to the most applicable

entry. Certificates range in value from \$50.00 Cdn to \$300.00 Cdn.

Further information may be found on the W.G.O. web site at: <http://members.home.net/bobanne/home.html> or by contacting Murray Webber (416) 495-0600, Email sevenoak@interlog.com or Ross Robertson (416) 245-5455, g.ross.robertson@sympatico.ca

And in Vancouver

Entries are also sought for the 3rd Canadian Woodturning Competition in Vancouver, British Columbia, October 22 - 24, 1999. For information and applications: Competition coordinator Steve Hansen 12957 Glengarry Crescent, Surrey B.C., Canada, V3V 1S9; email shansen@bc-alter.net; web: www.bc-alter.net/shansen; phone(eves. PST) 604-585-0638.

BUCKS WOODTURNERS HANDS ON WORKSHOPS

turners needed... tool sharpening, beads & coves, bevel rub, and time to make lots of chips on nice soft (free) green wood. Why teach projects when there are volumes of techniques to teach.

Probably more than any other factor, our assumption that we "knew" what beginners needed, doomed the effort. We were not wrong for teaching these skills; we were just not meeting the needs of the majority of our members. Those who showed up learned a great deal. We genuinely thought that if the teachers came, most members would follow. They unfortunately do not want this kind of instruction.

In the new **HOW** format students usually base their workshop choices on what project is involved, rather than on who's teaching. Folks in our club want to make projects and will tolerate just enough technique to allow it to happen. We offer *Workholding on the Lathe* with **Norris White**, shown in the photo on the previous page, and *Tool Sharpening* with **Doug Hunsberger**. These are always popular. We also offer collection tours. **Harry Silver** and **Joseph Seltzer** and the Wood Turning Center in Philadelphia all have spectacular turning collections. Sadly, these sessions generally do not book well.

Teachers like to start at step one and proceed at student speed, or a bit faster. It is a busy time for the instructor and student alike when a project needs to be finished by the end of the day. Project-based instruction provides an interesting means to teach the nuts and bevels of turning. Some subject areas put new turners in pretty far over their heads, so the day can be pretty stressful. I believe it to be a good stress; teachers and students get very close over the course of the day. Most of our workshops include sharpening, and tool handling. These are the same things we wanted to teach before, the

difference is that we now teach more members, and we can show them how these techniques relate to what they want to turn. We are helping our members make what they want much more quickly than they could do on their own. Our original goals are still intact; we teach technique; we get tools into more members hands; and we have gained new instructors.

Our "new" format is 4 years old now. Though still evolving, the new system is still largely the way it was when designed. Our newly found success with hands-on workshops still revolves around a core group of volunteers. In our system no instructor is paid; students pay \$15 per rotation directly to the club. A rotation is a half-day long, or approximately three hours. Each instructor picks a topic (or project) which he or she is interested in teaching. These different subjects are assembled, written up with a brief description and advertised as a **HOW** Turning Weekend. We send out a special mailing to our membership. All instructors teach out of their own shops and students commute to classes. A student can attend just one or as many as 4 separate workshops in a weekend. Logistically the system is simple and straightforward. I use a computer (word processing program) to track who goes where and when. A

dedicated chalk or grease board would work equally well (If not better). Students are booked on a first-come first-served basis. All registrations must include full payment at the time of booking. This keeps cancellations to a bare minimum. Popular workshops fill quickly and often a second weekend or single day can be arranged. The trend lately has been more all day sessions, which makes coordinating sessions much easier. I believe that having one "Main" weekend for the event, preserves its "Event" status. "Satellite" weekends allow for more involvement of instructors in other more advanced topic weekends, and allow more flexibility.

Our project based approach works for everyone involved. Students and teachers form friendships and everyone learns more about turning and themselves. Members get to see other turners in their shops, see their ways of working. Teachers have a comfortable place to work as students come to them. The club has profited monetarily to the tune of about \$4,000, our last workshop netted about \$1,200. The workshops have attracted new members to join the club and they stay when they see our show-and-tell table and take advantage of our other special events.

—Mark G. Krick, Doylestown., PA

Postage Now charged on AAW Merchandise Orders

Because of increased postage and handling costs, the AAW will begin charging postage on orders for books, videos and other AAW merchandise.

Guidelines for postage charges are listed at right.

For foreign orders or any other questions, please call the administrative office at:
1-651-484-9094.

Postage and Handling rates ^

Up to \$26	\$ 3.00
\$26.01-60.00	\$4.00
\$60.01-100.00	\$6.00
\$100.01-150.00	\$8.00
\$150.01-200.00	\$12.00

NEW ENGLAND WOODTURNERS

Bad weather didn't diminish the pleasure of helping **Randall Hoel** of the Sharon Arts Center, Sharon, New Hampshire with a collaborative exhibition of "New England Woodturners." Nine turning groups from six states chose their best work to be displayed.

The opening was on a cold and snowy night, but the drive was worth it. There were 80-90 turnings on display. There were turnings of all shapes and sizes. I saw enclosed forms, live edge pieces, carved vessels, pierced vases, beautiful paper thin bowls, figured salad bowls that glistened in the light, pieces so small you need a magnifying glass to see them, laminated, segmented, feathered, translucent, and painted. I felt like a kid in a candy shop.

It was a gratifying to see that my group "The Maine Woodturners" reaped some of the awards from the show. Our own **Mac Ray** took the award for "Unique Object" with a feathered vessel. It was difficult deciding whose pieces to send. We have so many good turners like **David Lancaster**, **Jacques Vesery**, **Bob Hackett**, and many others.

The work was judged by **Jim Lorette** owner of "Amazing Worlds of Woods," founder of the Wood Institute, and famous woodworker of Westmoreland, N. H.

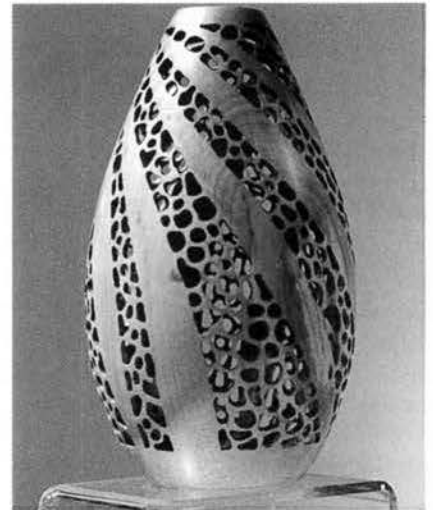


Display set up for the New England Woodturners exhibit.

I'm sure it was a difficult job, but also a joy to handle so many fine turnings.

The award winners are: BEST IN SHOW: **William Haines**, Central New England Woodturners; NATURAL FORM: **Luke Mann**, Woodchuck Turners of Northern Vermont; **Kenneth Dubay**, Central Connecticut Woodturners; UNIQUE OBJECT: **Mac Ray**, Maine Woodturners; **Charles Sheaff**, Granite State Woodturners; FORM AND TECHNIQUES: **Ron Pessolano**, Cape Cod Woodturners; **Henry Cahill**, Massachusetts South Shore Woodturners.

-Text and photos by Jeff Clapp, Maine Woodturners



Ron Pessolano, Cape Cod Woodturners



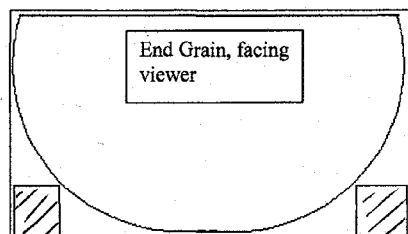
Kenneth Dubay, Central Connecticut Woodturners



William Haines, Central NE Woodturners

One from the Frugal Turner

When turning a bowl from a valuable blank, many turners remove the center cone to produce a smaller bowl. On a suitably square, and suitably large bowl blank one can remove the base corners. As indicated below this can net spindle stock from the long grain for tool handles or other small projects.



Set the tablesaw fence to an appropriate distance, turn the blank on edge and cut both edge grain sides. Lay the blank bottom side down. Reset the fence to the far side, and carefully make cuts. Do not set the saw so that the offcut will be caught between the fence and the blade. An angled cut can be substituted for square, but again do not pinch off the cut between the blade and fence.

In my case a 15-in. square by 6-in.-thick blank netted two 2 x 2 x 15-in. spindles.

-- Ike Behar, Enterprise, AL

Whoops!

How often have I almost knocked a can of sealer or finish off of the ways of my lathe as I was applying it to a turning? To avoid an accident, I made a small table (about 9-in.x12-in.) out of plywood that rests on the ways. I screwed a piece of wood to the bottom of the table that fits between the ways. This piece of wood is a fairly loose fit between the ways but deep enough to prevent the table from tilting off the lathe. I keep this hanging conveniently near the lathe.

--Charles Brownold, Davis, CA

Nose to the Grindstone

When I noticed that my turning tools were not coming off the tool grinder with a great sharp edge, I paused to consider the problem. There was a simple solution - I was not dressing my grinding wheels frequently enough.

The overused wheel surfaces with their glazed and dull particles were not giving me a good tool edge. I now dress more frequently.

--Charles Brownold, Davis, CA

Your references to the need for clean wheels is Very true! While teaching a beginners woodturning class this winter. I had over two dozen new tools which were in unusable condition. Very frequent dressing with a quality diamond was vital to my mental health. Grinding proceeds at a much faster pace, and the tools, even though high-speed steel, look bad in technicolor when overheated by clogged wheels.

MGK

Grinder Safety

Check to see if your new grinding wheel is fit for use prior to installation. Damaged wheels are only noticeable if there is a chunk missing; cracks are not so obvious. A cracked wheel can at any time "blow up" in your face. Check every wheel before mounting by placing a metal rod (screwdriver will do nicely) through the mounting hole and rap on the outer edge with the handle of a screwdriver. A good wheel will "ring", a cracked wheel will "thud".

If the wheel makes a thud, keep your feet back, extend the hand holding the wheel, and rotate your hand until the wheel hits the floor, thus finishing the job.

Actually, don't do that in the case of a new wheel. The purveyor should replace it at no additional cost. They may look at you funny when you come in with your pur-

chase in pieces.

--David N. Hardy, Hilltown, PA

Dusty Solution

When I need wood dust to use with CA glue to fill voids in the surface of my turning, I clean the surface of my dust collector hose intake and tape a piece of paper towel to it. Using a fine grit sandpaper, I sand the turning for a short time with the dust collector running.

I stop when enough dust has collected on the paper.

--Charles Brownold, Davis, CA

Magnetic Gouges

Several of my gouges and scrapers had become magnetized. They stuck to and dragged on the tool rest so that fine movements were difficult to make. My local library lent me a demagnetizer that they use for demagnetizing identification strips in books. A few wipes over the lathe tools cured my problem. A small steel brad was used to test the success of the demagnetization.

--Charles Brownold, Davis, CA

Bob revisits PENS!

I never thought that I'd ever write another tip for turning pens, but believe it or not here it is. I'm indebted to John Perri of Elverson PA for this one.

For years I have used epoxy to glue the brass barrels into the drilled pen blank. I would swab the inside of the hole and then the exterior of the barrel prior to assembly to insure a good bond. Invariably epoxy would get inside the barrel and would be almost impossible to get out.

I wasted all sorts of time either trying to keep the epoxy out or cleaning epoxy out once it got there.

When I asked John what he uses he told me polyurethane glue. Once I got over the fear of the unknown, I tried it and it was good! I now spray a bit of water inside the drilled pen blank, shake out the excess, coat the brass barrel with polyurethane glue and twist during assembly, put it aside to set and to date none have failed! Excess glue (foam) is very easily removed.

--Bob Rosand, Bloomsburg, PA

Collared !

When Melvyn Firmager visited my shop last year, he took note of a device I have been using for several years with good success. It is a collar that fits over the tool (hand) rest support post. It is used to maintain the lowest rest height when repositioning the hand rest. I use it particularly on bowls where rest positions change often but the height rarely varies. The collar allows the tool rest to be raised when the need arises. I find that they save a lot of time otherwise spent fiddling with height.

Collars can be turned from wood and sized to your particular needs or they can be purchased in various sizes from MSC in steel with a set screw.

They are called shaft collars and are available in steel, 303 stainless, 2 piece - you name the size. They have one to fit your lathe. (Yes - I have the catalog in front of me!)

--David N. Hardy, Hilltown, PA

Editors Note-- At the risk of making this look like an internet chat discussion I offer two new views on a tip from our last issue.

Point

Robert Vaughan had a good tip in the spring issue of American Wood-



Self-portrait by Tips Editor Mark Krick.

turner, but I go one step further. When finished with C/A glue, rap the bottom of the container on a hard surface to drive the majority of glue out of the tip. Then I squeeze the bottle gently to force out that small drop that is always in the tip. Wipe the drop off the tip immediately with a paper towel. At this point, you should only hear air escaping when gently squeezing. Since doing this, I have not had a clogged tip.

--Paul Stone, Oswego, NY

Counter - Point

With all respect to our friend and colleague who submitted the idea for clearing the CA adhesive tip by rapping the container on a hard surface, that's a very bad idea. In so doing, especially if you have the container even a bit off center, there's a chance of droplets flying into the air every which way.

You DON'T want to get CA glue into your eyes.

At a workshop sponsored a few years ago by Capitol Area Woodturners, Bonnie Klein provided an adequate answer to the clogging problem: never put the lid on the container.

That way, the liquid will drain back in all by itself. I've been doing this for years with all three thick-

nesses of CA glue and it works fine. Seldom a clog and the glue in the container (to my amazement) doesn't dry and harden even with the lid off for months.

--Dick Wexelblat, Alexandria, VA

Small Tool Stock

I know that many other turners use their chainsaw a lot and I assume that many of you also use the round files to sharpen them. I buy good "professional" files by the dozen and therefore have several used ones laying around. They make great miniature turning tools!

They are made of very high quality steel and their size allows for quick heating and bending to shape. Rehardening and tempering can be easily done in one heating. After grinding the tip to shape while annealed (softened by heating and allowing to cool slowly), heat one inch of tip to cherry red and immediately immerse one half inch in oil (I use old motor oil) and give it a swirl. You have now hardened the tip.

Now let the second half inch re-heat the tip to temper it. As soon as the oil is burned off of the tip I swirl the whole end in the oil till it is cool. The tempering keeps the tip from being too brittle which might break in use. You can easily add a handle to the tang and it is ready to use. It is high carbon, not high speed steel, but it is quite satisfactory for small work.

If you want more information on hardening and tempering steel look in books on blacksmithing.

--Dave Barriger, Apopka, FL

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ALAN LACER

Honors for ex-president, teacher and friend

DICK BURROWS

EVERY ORGANIZATION THRIVES BE-
cause of unassuming people
who are often overlooked. They
quietly share their gifts, but don't de-
mand anything in return.

In the AAW, one of the quiet ones
is Alan Lacer, who was recently cited
by the AAW Board of Directors and
named this year's honorary life mem-
ber.

No one deserves the honor more,
friends and colleagues say. They de-
scribe Alan as bright, unassuming,
gracious, self-effacing. Also, a tal-
ented turner, gifted teacher and orga-
nizational wizard. He needed all
those talents as the AAW's second
president, when the fate of the fledg-
ling organization was in doubt.

And, now that the organization is
healthy and growing, he continues to
share his talents, especially as a
teacher. Many in the AAW credit his
work with helping them find the joy
in turning. That's about the greatest
gift one turner can give another.

Gary Roberts recalls dark days:

S. Gary Roberts, who was named
an honorary life member at last year's
Akron symposium, remembers Alan
from the AAW's early days.

"He took over as President when
the association was having a lot of
problems. He was President longer
and through more difficult times than
hopefully any following President
will ever encounter. Through all of
this he exhibited true leadership with
a smile and diplomacy.

"His leadership has helped to form
the association into the successful,
mature organization that it is today. I
can think of no other more deserving
candidate for this most prestigious
honor."

Alan downplays his role. "A lot of
people did so much that I'm probably
getting credit for. Looking back, there



Ever an ambassador for AAW, Alan demonstrates in Naruko, Japan. His
teaching and writing have taken him throughout the US, and to Japan, Ger-
many and several other countries.

was so much good energy. Sometimes
an organization's time of adversity
provides its best moments. People
stayed and worked and that was ex-
citing."

David Ellsworth remembers:

David Ellsworth, the first president
of the AAW, still credits Alan for
major help in getting the AAW going:

"Starting up an organization such
as the AAW is never easy, and our
first five years proved that point. We
achieved many successes because we
had great people on the board who
were talented, highly motivated and
full of energy. But we also had to
change administrators three times in
the first five years, and these disrup-
tions to our mission were certainly
agonizing. These were the circum-
stances when Alan was selected from
the board to succeed me as president
in 1991, and he proceeded to become
the calm within the storm.

"Among the many qualities Alan

brought to the office, possibly the
most important were his innate abili-
ties to listen, to learn, and to ask. As
such, every person and every per-
son's opinion mattered. As a director,
he would help the board focus on cur-
rent goals as a foundation for reach-
ing future potentials; as a manager, he
would encourage each member of the
board to explore their own experi-
ences and use their own talents as a
resource for getting the job done." Also, David said Alan took on the job
of "conference coordinator," visiting
each site to negotiate the terms for the
conference, plus working with the
many Local Chapter members who
would provide logistical support for
these annual events.

"Under Alan's stewardship, the or-
ganization grew in membership and,
for the first time, went from red to
black. Thus it was through Alan's
leadership that we gained the neces-
sary confidence and stability that
would become the foundation for the

growth we see today. "

Bob Flexner praises friend

Alan's administrative efforts have long been apparent. "Alan and I have been friends and neighbors for 22 years—from the time we started doing woodworking in home shops about three blocks from each other," says Bob Flexner, noted wood finishing authority. "I watched Alan progress from woodcarver to accomplished woodturner and teacher, but most impressive to me was his skill as an administrator, which he used so effectively to build the AAW into the dynamic organization it is today. Alan is too modest to take credit for what he did, but clearly, others in the organization recognize it. The AAW couldn't find a more deserving person to be "man of the year."

High praise for a philosophy major who, embarking on a path to a comfortable college faculty life, took what would become a life-long detour into the rockier landscape of turning.

Philosopher at the lathe

What could a philosophy student find so fascinating about a lathe?

"It's the simplest tool in the shop, but also the most complex in what happens between the two major points: the headstock and tailstock."

"And when the tools sing, it comes very close to poetry."

Alan drifted into woodturning by accident. He learned to carve from an old guy in Oklahoma and that helped mellow out the rigors of academia. The same guy introduced him to turning as he worked on a small baseball bat. "I turned away for a minute and when I looked around it was done. The bat magically appeared and I liked that," Alan says.

Carving was tedious and it didn't fire him up the way the magic of the lathe did. "There was nobody I could learn from, so I just stumbled along. It's tough to learn all by your self.



Alan and his friend Del Stubbs working together years ago, probably in the old shop at Arrowmont School of Crafts in Gatlinburg, TN.

That's why the AAW symposiums are so important today," Alan says.

His excitement grew as he discovered other turners. Among the first were David Ellsworth and Del Stubbs. "It was unbelievable what they could do." They remain inspirations, as does Bob Stocksdales, Todd Hoyer, and Virginia Dotson.

"They were experimenting. That's what I wanted to do. I was never aiming to do high-end stuff."

As a philosopher, he was very concerned with maintaining a balanced life, harmoniously blending every component. "I never wanted to do any one thing all the time. I learned enough from Plato and other great thinkers to know the value of combining study with manual work." The more I talked with Alan, the more I perceived that philosophy, with its emphasis on balance, relationships, development and analysis, is a good way to revitalize turning skills.

"Working on a lathe is just as difficult as working in philosophy. It's incredible the amount of thinking involved. It's not just trade work, idiot work," he says. "The subtleties of beauty; the way that what the English turner and philosopher David Pye called things that sing and things that are forever silent come together

with workmanship is incredibly exciting."

"You need both a sense of design and sense of workmanship. Do you care more if a house is built well or if it is well designed? I want both, but we can get obsessed with one end or the other. We lose if there is no balance."

Plus, he adds, you can never forget you've "got to make money to live. I like to travel and buy good fishing lures, but I never wanted to get so deep into turning or philosophy that I lost the love that fired me up initially."

For a while, Alan taught adult education classes in ethics, interpersonal relations, and conflict resolution. He might teach for a semester, then do nothing but woodturning and craft fairs for months.

"I loved woodturning. Just when things were starting to happen, my hands got so bad from Carpal Tunnel that they looked like they belonged to someone else. The doctor said, 'you're through turning.'"

"If I can't turn so much, I figured I'd like to be a good teacher. I realized how lousy it had been to learn by trial and error," he says.

He put his energy into teaching and eventually into the AAW. He

wasn't even going to join at first, being a little suspicious of groups and accustomed to working in isolation, but Palmer Sharpless asked him to start a Chapter in Oklahoma.

Somehow it all worked out, he says, largely because living in Oklahoma was so cheap – he rented a whole house for \$65 a month.

"My poor dad. I think for years he thought I was doing something illegal because I didn't have a job. Seven years in college, two degrees and nobody could say what I did." A friend described Alan's money-making system as eight half-time jobs. Alan adds he did small engine repair on the side.

Unlike many AAW members, I've not known Alan very long. As I was struggling to capture the man, his old friends Del Stubbs and Rus Hurt nailed it for me-- both the man and his other passions, notably fishing.

Del Stubbs speaks out

Del, himself a bit of a legend in the turning world says that "Long ago I needed to 'disappear' from the woodturning scene and regain my quiet

private life, thank you all. But, when I heard that Alan was being honored, I just had to say something.

"I've had the good fortune of knowing Alan since the 80's. He's mellowing well with age, slightly spalted around the edges. He's a beaut! There are two things that I've found to be absolutely dependable about Alan over the years...his one of a kind Oklahoma sense of humor, and without exception - that his first concern is for other peoples' welfare. Although I've never had the chance to see him teach, I imagine and hope that his depth of sincerity, and his care for people is known and appreciated, as well as his understanding of his craft.

"Humility is a funny word. It's mixed up with things like bashful and self deprecating - that's not Alan. His humility is the strong and rare kind. When he travels, he gives all he's got, and that's a lot, but I think he receives even more - the kind of receiving that is the best gift of all. To him - the insights, the attitudes, the humanity of the individuals and the people he en-

counters are of rare value, to be learned from. That's real humility. When individuals are approached with the kind of sincere respect and genuine interest that is Alan, they give of who they and their culture are. Sincere interest is the greatest way of honoring a person or a people. When Alan travels in the states or abroad, he returns not only with fascinating knowledge of subtleties of craft and artistic expression, but he also returns with a rare depth of insight of individuals and of cultures. It's good stuff! Find a way to ask of it, (something perhaps rarely done here) then listen with your mind and heart.

As much as he's appreciated as a good fellow, there's much much more beneath the surface to be learned from him. He's an ambassador in the most human sense of the word."

Del sums it up with a fishing metaphor: "Alan, you may practice catch and release, but you're a keeper. A tip of the hat to you!"

Rus Hurt Goes Fishing

Another longtime friend, Rus

A Teacher's Magic: Getting Everyone Fired Up About Woodturning

A teacher should be an encourager, someone who gets you fired up about what you're doing, says Alan.

"If you love what you are doing, that's 90% of learning. If you have the love, you develop skills." The next step is to become your harshest critic. Then you'll develop."

He's got the knack of reaching people and teaching them the fundamentals they need to begin their lifelong apprenticeship, says John Hill, Alan's Teaching Assistant at Arrowmont recently. He said he always "truly enjoyed his gentle style and presentation. He was an excellent speaker and AAW ambassador."

At Arrowmont, "I really got a chance to know him and watch him

share with others his wisdom, skills, and passion for woodturning."

Two women students who had worked with Alan before "just loved him. He was so patient with them and would help them with their work and instill the confidence that made their experience at Arrowmont a true pleasure."

Alan tries to show students that opportunities for learning are everywhere. Learn to see. "There is real beauty in the world."

A lifetime of thought and work invigorate his advice: "Start making notes of things that grab you. If you can't draw, describe them." Beauty is "unbelievably difficult to make." Master your tools.

Be aware of details: the difference

between a piece that sings and one that lies silent is sometimes only a 1/16-in. Don't be paralyzed by the word design: think about what it should look like when finished. "Go more into explorations, for things that satisfy and don't satisfy."

Have faith in your own opinions. "Don't be easily satisfied. "Too many turners are hooked on the accomplishment aspect."

Put a finished piece where you can glance at it every time you walk by; the beauty and flaws become apparent after a while. "Don't say good or bad; ask how could it be better or done differently." Persevere. "In a lifetime, you can't exhaust woodturning's possibilities."

– D.B.

Hurt, has fond memories of Alan as they both worked with the AAW, their craft and mastering life.

They first met in the late 1980's. "I recall liking Alan immediately after hearing his voice on the phone...in those days AAW was basically administered and run over the telephone...on the line, he was reserved, listened well, and when he spoke, it was with, thoughtful respect, commitment, and a concern for consensus. I recall our friendship developing as did our shared experiences on the board. At conferences and annual board meetings we often roomed together.

We had much in common. The subject of what makes for a balanced life...of work and play, of fame and fortune, of being in the present while looking to the future, seemed to always end up being the ultimate thread of continuity which made up our conversations.

On the board, Alan, Bonnie Klien and I shared a common vision for what AAW was and should be. We worked very well as team players. Alan was, and still is, one that doesn't necessarily wave around his own flag to attract unnecessary attention to himself. When he does, as we all do, it is done in an unassuming, polite and respectful way; most often via a conduit with an educational premise, like teaching and writing. This does not preclude the fact that occasionally one still needs boots...especially when things get deep...as Alan is known to have a story or experience about most everything, and exceptional command of the "last" word. I know of few people who have given so freely of their time and energy to a club, and to friends. Both are very important to him. He works for them, and they work for him. He has found a formula which seemingly brings that sometimes vaporous "balance" in life, to his own life, his work, his play, and his life in general. This doesn't mean

that his life is any easier or any worse than the rest of us....it just means it is His life. I have always admired his energy, his drive, and his dogged perseverance to bring to fruition, his dreams and visions. We all benefit by his being out there poking around; just read the Journal. Alan is a fisherman. I remember once the old Okie came to the Northland to visit his board buddy. It was in the fall when the col-

ors were at peak, the nights cool and frosty, and the days yet hot from a southerly drifting sun; the time when salmon run from the big lake they call "Gitchi Gummi" into the feeder streams which wander inland. Living a quarter mile from one of these trout streams has been one of the treats of residing in the distant rural Northland. We fished a lot for food in the early years of living up north. Getting outside was beside the point. We spent most of our days outside in the environment, in the woods, under the sky, in the wind. Going fishing for Alan was an adventure. Getting out and tromping along one of our northern streams is like guerrilla fishing. One hacks through banks of brambles and alder brush. The stream is narrow and full of snags. Mostly not suitable for fly casting...but more for drifting and dropping flies here and there...with hopes of a sudden strike. Might I remind you...Alan has rather short legs, rather stocky broad shouldered build...weaving in and out of thickets, dodging this and that while walking and carrying a fly rod can be challenging for the most nimble of us....for Alan it was a challenge. After a while he caught on ... no pun intended...we might have had a strike or two, but it didn't really matter ...



The other passion: depending on the day, it would be difficult to decide which is more important.

we were out there, fishing, thinking, BS-in' about this and that, soaking up the sun, listening to the river; being a small part of a moment in time. Alan and I like some of the same authors, like Robert Service, Wallace Stevens and Jack London, among others, like the big names in philosophy. That subject gets him going....he has a mind for names, theories, jokes, just about everything...he is like a walking encyclopedia. He can make a game out of anything...and loves the challenge of dreaming up stuff. Since the fish weren't hitting, the adventure switched to getting a hornet's nest out of cedar tree and into a garbage can without being stung. I could tell about the Okie, swimming in the big lake in Sept. in 10-12-ft. waves at 10 pm., or smoking cigars and drinking tequila in my shop.

Rus said he enjoyed reminiscing about his friend. "Alan is a bit of an enigma at times, a crisis manager at times, a rock of Gibraltar at times, a pillar of persevering epistle-ism at other times, and simply a man of many talents, and many dreams. May all his dreams come true."

Dick Burrows is Editor of American Woodturner. Alan will receive his award at the Symposium banquet.

BORING BARS

Outriggers for clean and safe cuts

FRANK SUDOL

Editor's Note – Frank Sudol's work is stunning: elegant, thin-walled vessels embellished with pierced patterns that are often accented with airbrushed colors. His students readily tell you, he is a unique character. Here, he talks about the boring bars he uses, then some of his students tell what it's like to put the theory into practice, with the master watching.

If you turn hollow vessels, or are even thinking about doing them, you should investigate boring bars. My boring bar, as you can see in the photo at right, is basically a long shaft fitted with a cutter and some type of mechanical attachment ... I favor an outrigger device ... that prevents it from twisting when side cutting, or catching and wrecking everything. I find these "confined" bars are far safer, much faster and a great deal easier to use than most hand-held tools used today.

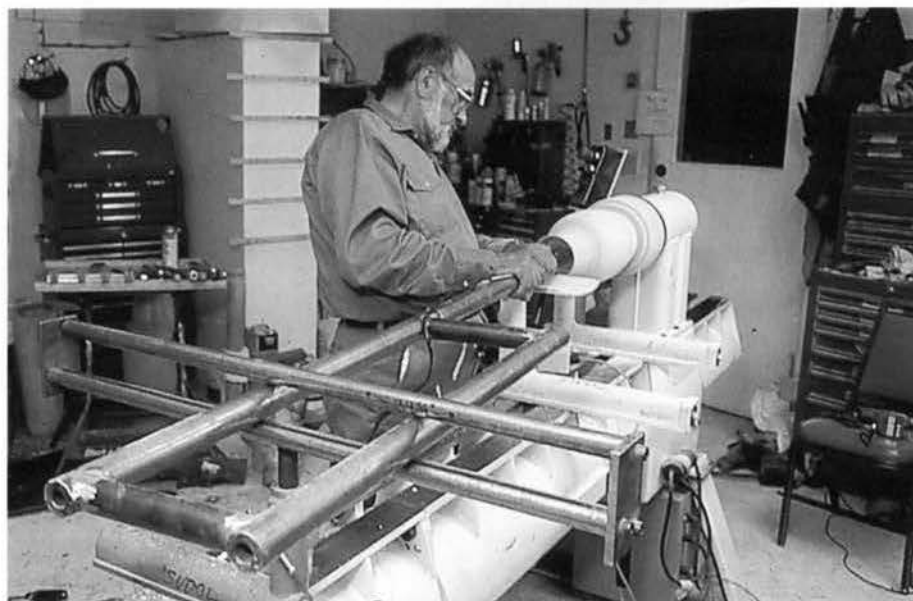
It's true that turners like David Ellsworth, John Jordan and others have pioneered the hollow vessel without using the style of boring bars that I'm talking about. They use a straight hand-held bar with a short side-cutter or front-cutters.

But these are big, strong men who can hold that handle steadily. Physically weak older people like me can't handle these long scrapers.

I turn delicate thin vessels up to 32 in. deep, all with $1/16$ -in. thick walls and fragile necks, without the white knuckled fear of losing any. Well, hardly any! One of my students, Dr. Bob Bahr of Fort Wayne, ID, once watched me blow up four in a row, but I think he was the jinx.

Heavy-duty lathes only

First of all a warning. You will not have any success with these bars if you work on a Sears, small Delta or any similar lathe. The bearings and



Frank Sudol at home, using his boring bar with outrigger and confinement bars, which prevent the cutter from twisting, making it easier to get a smooth, catch free cut.

frames of these models are not made for this work. The sturdier the lathe, the better, when hollowing out vessels with a large boring bar.

The fastest way to learn the tricks of this tool and gain confidence is to spend a day with someone who is experienced with it. Every student I've had produced a successful thin bowl or vase on the first attempt. It's a bit different from conventional tools, but once you start, I doubt you'll go back to hand-held hollowers, especially when doing a deep vessel. I use boring bars for all my hollow turnings from 6-in. deep to as far as I can go, which is presently about 32-in. deep with my 9-ft long, $2 \frac{5}{8}$ -in. thick round shaft.

Boring bars are still evolving: you can make your own, and the ones currently being marketed work well. Mine is very similar to one marketed by Lyle Jamieson, (1125 N. Carriage Hill, Traverse City, MI 49686). Both have a rectangular outrigger, which is confined by a roller system; the cut-

ting end is on the tool rest on the lathe.

John Nichols uses a square bar that fits into the slot on the tool holder (Nichols Ent., PO Box 936, Stanfield, OR 97875). Hugh McKay (95623 Riverway Dr., Golden Beach, OR 97444) uses a round bar that slides on a platform on the lathe bed. This bar has a unique device that allows you to enter a very narrow neck and expand inside to turn a bulbous form through the neck. No other tool that I've seen can do that. James R. Johnson (PO Box 1587, Kerrville, TX 78029) has a successful bar of another design that he continues to refine.

All of these bars have the safety feature I've been calling "confinement," some feature that keeps the bar from turning in your hands or flying around on a catch. Trying to cut too fast will result in a roar, but not in a disaster.

Cutters

Most of the cutters I use are high-

speed steel with a tear-drop shape. The narrow tip is for "hogging" or the rapid removal of material with the round edge for bottom cutting and the wide edge for smoothing. The typical tear-drop cutter is made from $3/32$ to $1/8$ -in. thick dead planer blades or HSS flat stock.

Some of the commercially available cutters are to my mind too small for my bar. There isn't enough material left to use after a few sharpenings. Of course, you can make them too big and you will know that when a lot of noise is produced in attempting the cuts.

Limits of my system

I use green wood for most of my turnings. It is stronger than dry wood, cuts easier and is less dusty. Dry wood generally is harder to handle with these scrapers and you will not be able to go as deep as in green wood before reaching the limit. When you can no longer control a delicate cut at the bottom of the vessel, you have reached the limit of the bar. The limit for a $3/4$ -in. diameter bar (like the Jamieson bar) is about 15-in. in clear, green birch. In dry or knotty wood the limit would be lower. Experience will show you the limit for your wood.

Generally the limit for a $1\frac{1}{2}$ -in. diameter bar is 18-to-19 in., for a 2-in. diameter bar it's 24 in.; a $2\frac{5}{8}$ -in. diameter bar is good for 32 in. Be aware that these limits reflect my experiences in green birch. Regardless of species, a knot at the bottom of the blank or even variations in density can reduce the workable depth rapidly. Reverberation and harmonics can also build up to limit you. Sometimes these vibrations can be stopped by changing speeds; even a few RPMs can make a difference. I turn at slow speeds all the time, usually less than 300 rpms.

The deeper I go, the slower I set the speed.

Don't Peek

Most turners want to peer inside their vessels as they turn. You don't need to do that. For thin turning I use an internal light -- mine is an automotive bulb taped to the end of the boring bar with a wire snaking along the length of a bar to a 12-volt battery. When the walls are thinned to $1/4$ -in. thick, the light will shine through, so I can gauge the thickness from the outside. I also measure the thickness with double-ended calipers. When I have the thickness I want in one section, I thin the rest of the vessel until the entire surface exhibits the same light intensity. The only time I inspect the

inside is to check if the walls are smooth.

For thicker walled vessels I simply visualize where the cutting tip is in relation to the bar and to the outside of the vessel and cut away until I think I am close. I stop and measure and keep going again. I hardly ever watch the inside -- that would break my aging back.

I don't claim to know everything about boring bars and probably never will, and I'm hoping to learn more during the AAW symposium in Tacoma. I will discuss as many bars as I can round up. Please bring any ideas you have, so we can all learn.

Working With The Teacher Watching

By Binh Pho and Steve Sinner

SPENDING A WEEK WORKING with Frank Sudol at Arrowmont in the spring of 1998 only whetted the appetites of Binh Pho and his friends. On the trip home, they came up with a great idea. Why not invite Frank to Chicago next year? Binh has enough room in his shop for a small group. It would also be a great time for Frank to do demos and work with other woodturners in Chicagoland.

So, in February 1999, Frank stopped in Chicago on his way to Arrowmont. He spent three days at two Woodcraft locations in Chicagoland, doing demos and hands-on classes. At the Chicago Woodturners demo on Saturday, the 20th, he didn't make much sawdust or wood chips. Instead, he had everyone

laughing hysterically with his jokes, including his "Uncle Walters's Chickens" story. He's probably the only guy we know who cusses so



Binh Pho discovers what happens when you miscalculate near the base of a tall vessel.



John Buehrer, left to right, Fletcher Hartline and Frank Sudol, try out the new auxiliary handle they designed for his boring bar. Photos by Binh Pho

smoothly, it's almost as if he's singing. No one complained about the fact that Frank did not start the lathe until five hours into the session. He presented his philosophy and biography in a wonderfully inspirational manner. Everyone knew that they were with a very special person.

From Sunday evening to Friday noon, Frank stayed at Binh's home. For the week, Binh also hosted Steve Sinner from Bettendorf, IA, Fletcher Hartline and Randy Glasco from Carbondale, IL and, John Buehrer from St. Louis, MO. Nearly all our waking hours were spent exploring surface decoration and turning. Vi, Binh's wife, prepared our meals, including several special Vietnamese treats. An open agenda prevailed in the shop.

Turning

When hollowing his deep, thin vessels, Frank uses a heavy duty boring bar with roller stand supports. An internal light source helps to determine thickness. Frank explained that after cutting beyond 15 inches,

he often blows out the end of the vessel, because the light cannot be seen clearly from his position at the boring bar. After many hours of work, blowing out the bottom is devastating. John and Fletcher brainstormed and came up with an extension, shown in the photo above, that allows the turner to stand directly opposite the light in the vessel and still control the boring bar. This extension is simply a 2x4 offset from the boring bar body. The offsets are bored to the same diameter as the bar, split, and bolted back together over the bar. With this new invention, Fletcher turned a thin walled, 25-in. deep vessel on Binh's Nichols lathe on his first try. This modification will certainly open new possibilities for Frank's work. We hope it will help with your deep hollowing, too.

We tried Steve's boring bar, to which he had attached an Exocet cutter tip. This really impressed Frank. It removes large amounts of wood quickly, but creates shavings instead of small chips and dust. The shav-

ings clog the vessel quickly and cannot be easily removed with compressed air. It's better to use a hook to pull the shavings out. It's also possible to go deeper with a given thickness of boring bar, since the cutter operates with less force than a scraper. Steve polishes the insides of the Exocet cutter and cover to reduce plugging. We found it best to finish vessels with a scraper, since the Exocet cutter can be too aggressive for very thin walls. Exocet tools are available from Craft Supplies USA and Shopsmith.

Piercing

In order to be pierced fairly easily, a vessel has to be turned quite thin (between $\frac{1}{16}$ -and- $\frac{1}{8}$ in.). We did a lot of piercing, and had two machines running constantly. We really gave these air-powered machines a true endurance test! We used a dental drill that Frank brought, and Binh's Paragrave tool. The Paragrave is more expensive (about \$500 with filter-regulator-oiler assembly), but it is also more powerful. It can pierce hardwood up to $\frac{3}{16}$ in. and softwood up to $\frac{1}{4}$ in. The dental tool bit runs at an angle to the handle, while the Paragrave bit is in line with the body of the tool. After the workshop, Fletcher and Steve ordered Paragraves, and Frank was considering it. Paragrave's number is 1-800-624-7415.

Coloring and Airbrushing

We were so excited about the possibility of using color, we even took a field trip to a Dick Blick art supply store. A few hundred dollars later, we returned to the workshop with a lot of supplies including fabric colors, fabric dyes, and iridescent colors. We explored a few of the endless possibilities and tried many new ideas. We colored a number of vessels, and if we weren't happy with

the results, we sanded them down and colored them again! The one thing we learned for certain is that water-based color does not mix with lacquer-based color. If you apply water-based color over lacquer-based color, it doesn't stick; it runs right off of your piece! By the end of each day, Binh's shop was a disaster with color all over the floor and us. The "adults" were messier than Binh's four-year-old son! Frank did learn from this experience though, and he would experiment with water based-coloring as well as lacquers. Lacquer-based coloring emits toxic fumes, which is hard to take especially in winter, even with exhaust fans like in Binh's shop.

Coloring is an aspect of woodturning in which everyone can develop his or her own creativity. The hardest problem is when to stop! It's very easy to get carried away and put too much color into your vessel, with an unpleasant end result. Experience will help you develop a style and feel for color.

CARVING

Boy! You can spend tons of money on carving tools! So many things to buy, so little money!

Frank brought a number of cutters and cutting machines so we could work with them. We suspect that Sudol is Polish for "He who has all the toys!"

Let's face it: nowadays, woodturning isn't basic wood working anymore. Now we're thinking about how to color, pierce, and carve our vessels. "What do we do after we turn?"

CONCLUSION

All present shared so much information that Frank mused about returning the tuition (but he didn't)! Frank was impressed with his visit to Chicago, which he called "the best



Class Picture: Work by Frank Sudol and students: Binh Pho; Steve Sinner from Bettendorf, IA, Fletcher Hartline and Randy Glasco from Carbondale, IL and, John Buehrer from St. Louis, MO.

city to stop in on the road. The hospitality of this town is far beyond the norm." The session at Binh's house was "Very similar to what I experienced at the Emma Lake Conference, but on a smaller scale."

Frank's stated intent is to make his mark on woodturning. We believe he has done so indelibly and permanently.

On behalf of the Chicago Woodturners and others, we would like to thank Frank for providing guidance, knowledge, and inspiration.

Frank Sudol is a turner and teacher in Paddockwood, SK, Canada. He will be a demonstrator at the AAW symposium in Tacoma, WA, June 18 - 20. Binh Pho is a teacher and turner in Maple Park, IL.

THE CUTTING PROCESS

The tools vary, but not the nature of wood

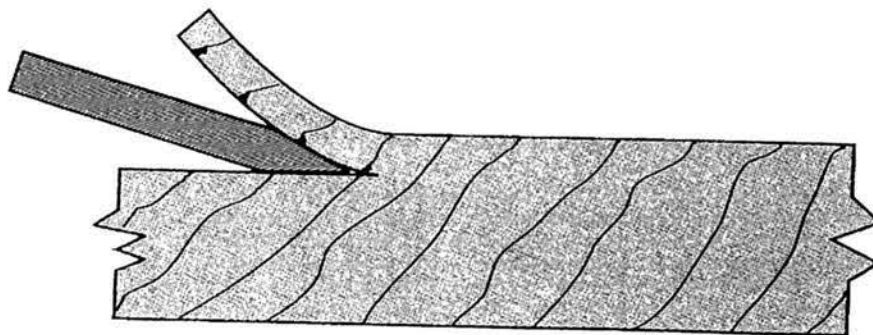
GEORGE HATFIELD

WHEN I SAW JOHN JORDAN turning on his first Australian tour, I was very impressed with the shapes he turned and the quality of the straight-off-the-tool finish he achieved on the wood.

However his turning technique appeared to be totally different from that which I use. John held his tool with a radial to the wood, whereas I hold my tool at a tangent to the wood. On closer examination I found John holds his gouge with a radial approach, with the long side bevel of the gouge (about 25° grinding angle) supported on the wood and the side cutting edge presented to the wood at an angle. I hold my tool (25° grinding angle) tangentially to the wood with the bottom bevel rubbing and the cutting edge at a skew to the wood.

So in fact we are both doing the same thing but with a different approach. Underlying each technique was an understanding of how wood wants to be cut.

In this article I will look at the various cutting actions using woodturning chisels and gouges, how to get the



As the edge cuts the wood, the bevel assists the cutting action by wedging the fibers apart. When cutting with the grain, the finished cut is left smooth and the shaving surface is chipped.

best possible finish off the tool and obtain the longest life of the cutting edge. As you'll see, much of what we discuss can be applied to other cutting tools as well.

To look at the cutting process we must first examine the nature of the material we are cutting. A simple analysis of wood reveals it is made from millions of minute cells of wood tissue which are built up to form a tube like structure with vessels or tracheids growing vertically and medullary rays growing horizontally.

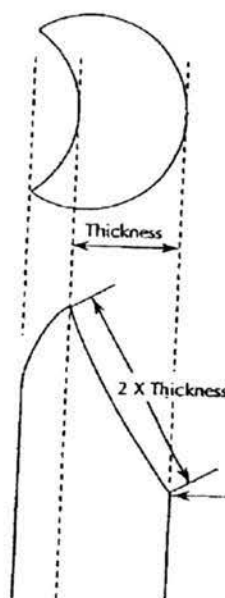
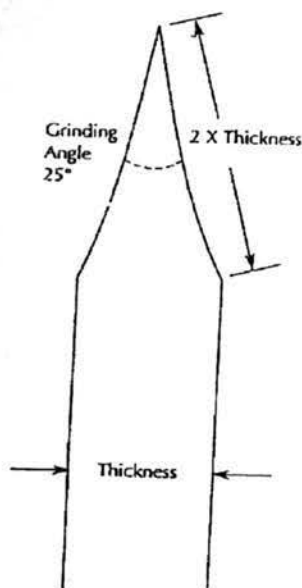
The material these interwoven tubes form is called wood. In woodturning cuts are made across and along the grain as the wood rotates.

Regardless of what type of tool is used for cutting wood, be it a hand saw, hand plane, hand chisel, circular saw, jointer, planer or even sandpaper, the actual process of the cutting edge penetrating the wood and removing a shaving is all the same.

The cutting process starts when the very tip of the cutting edge severs the surface of the wood. As the edge goes deeper into the wood, the bevel (created by the grinding angle) assists in the cutting action by wedging or splitting the fibers apart, thereby reducing the work load on the cutting edge, as shown above. You will notice that when cutting with the grain, the finished cut is left smooth and the shaving surface is chipped.

It's also evident that the smaller the grinding angle, the easier the wood fibers will be wedged or split apart. However, the matter isn't so straightforward. A small angle may well split the fibers more easily, but the rigidity of the cutting edge is substantially reduced to a point where it will break.

The angle which seems to work the best for soft-to-medium-density wood

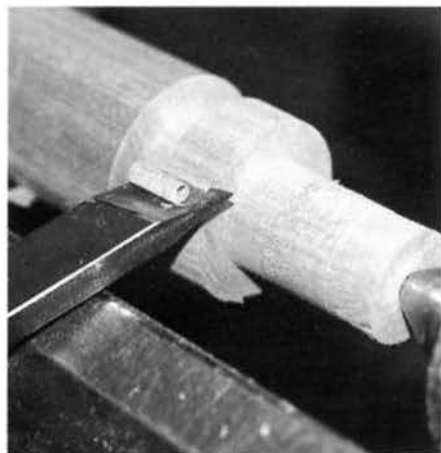


Bevels and edge thickness:

To achieve an efficient 25° grinding angle on a chisel, make the length of the bevel twice the thickness of the tool. On a gouge, make the length of the bevel twice the thickness of the distance from the bottom surface of the tool to the bottom of the concave flute.

is 25°. A rule of thumb for achieving a 25° grinding angle on a chisel is to make the length of the bevel twice the thickness of the tool. On a gouge, make the length of the bevel twice the thickness of the distance from the bottom of the flute to the bottom of the tool, as shown in the drawing on the previous page, bottom left. A stronger cutting edge is required on harder woods such as Ebony, Jarrah, or Rock Maple. For these I recommend increasing the grinding angle up to 30°.

In woodturning the cutting operation can be categorized into two actions: peeling and scraping. A peeling cut is made by placing the bevel of a chisel tangential or flat on the face of the cylinder being turned. The handle of the tool is then lifted slightly to make the cutting edge pivot off the front of the bevel into the wood. This will cause a shaving to be peeled



A Peeling Cut

(wedged) off the cylinder, as shown above. The thickness of the shaving or the amount of wood you take off is determined by how much you lift the handle or tilt the tool.

A scraping cut is made by feeding the tool into the revolving cylinder on a radial line. The cutting edge enters the wood and the shaving is forced off by the top bevel alone causing the shaving to be first compressed, then to be turned around in a tight circle



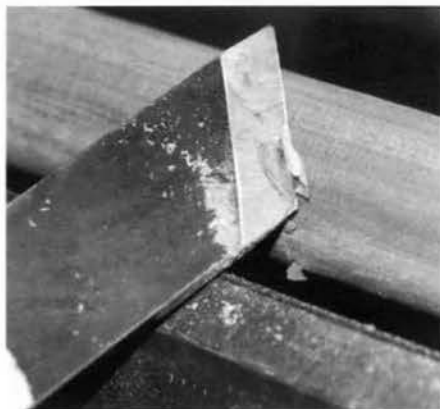
A Scraping Cut

and splintered off, as shown above.

The bottom bevel does not come in contact with the wood. In a scraping cut the cutting edge does all the work, and therefore becomes blunt considerably faster than when using a peeling action. Because of the severity of the cut, the grinding angle for a scraper is increased to about 60° to 70° and only one bevel is recommended.

If a smaller grinding angle is used the cutting edge will chatter. If two bevels are used on a scraper, the top bevel which is used to remove the shaving is at less of an angle to the rotating cylinder, therefore making it harder to roll the shaving around and take it off. It is not recommended to make heavy scraping cuts.

While the peeling action will re-



A Slicing or Skewed Cut

move wood easily, making long shavings and leaving a relatively clean finish, it can be improved considerably by presenting the cutting edge to the wood at a 45° angle to the axis of the wood. This is called a slicing or skewed cut, shown in photo below left.

The slicing action works in two ways. First the skewing action makes the shaving pass across the chisel's bevel rather than come back towards the handle. In effect this action reduces the cutting angle making it better to split the wood without losing any of its strength. It also reduces the impact of the whole length of the cutting edge cutting at the one time and allows the cut to start at the bottom of the cutting edge and run along the cutting edge for the required width of cut, forming a long spiral shaving.

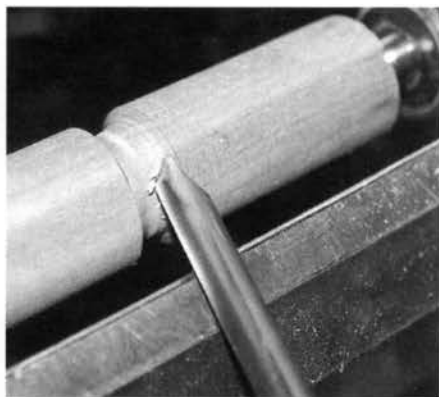
The wider the cut, the harder it is to control. A light cut will give off a very narrow shaving whereas, a heavy cut will make a shaving up to about 1/2-in. wide. It is unusual to see shavings over that width as the wider the shavings get, the harder it is to control the cut. Use of the slicing cut on all cutting tools will give a far su-



A Roughing Gouge, Skewed Cut

perior finish on the wood plus extend the life of the cutting edge and make the tool much easier to control.

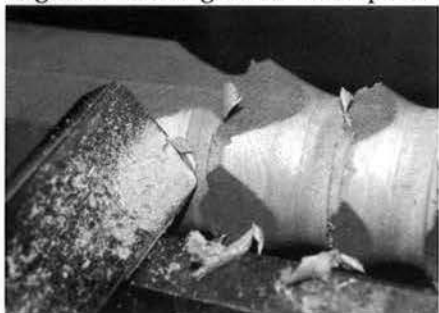
The photo above shows a roughing gouge with its cutting edge skewed to



Detail Gouge, Skewing Action

the wood when shaping a cylinder.

The photo above shows a detail gouge using the side of its cutting edge in a skewing action to shape the



Roughing Out With A Slicing Cut

curve of a hollow.

The photo above shows that even the cut made to rough a piece of square stock down to a cylinder is best accomplished using a slicing cut. However, when turning cranky grain or knotty wood the peeling action

tends to split the wood off in the wrong direction or much further than required. This can sometimes be overcome by sharpening your tool and making very light cuts (narrow shavings). If the wood still splits out badly the only approach is to use a scraping cut which does not rely on the grinding angle wedging the wood apart. A scraped finish will leave a surface with small break outs or splitting but in most cases this can be sandpapered smooth. Another cutting technique which may be used on cranky grain or long concave shapes which are too curved to use a skew chisel, is to make light cuts using the side of a detail gouge in a skewed scraping action, as shown below. The side of the detail gouge is held on its back with a slight tilt towards the turning. A radial approach is used to the rotating wood like a normal scraping action, but with a slight skew. The skewed scrape will soften the cut and the curve of the face of the detail gouge will make a narrow shaving. Using this cut you will find you can cut in both directions and obtain a finish which is not as clean as a slice but better than a flat scrape. Scrapers can also be used to good effect in a skewed action but may only be fed in one direction. Be very careful if trying the skew scrape technique with a wide or flat tool. These tools tend to give wider shavings which puts more

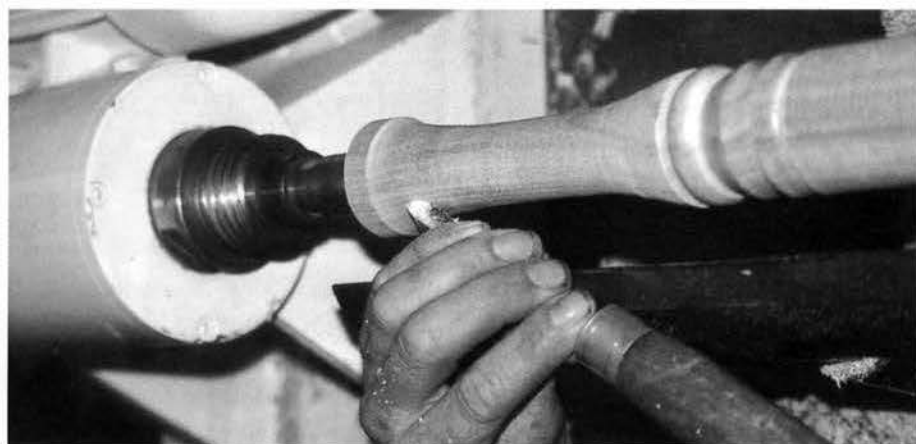
pressure on the tool.

Tool Support

This brings up the final consideration of cutting techniques -- tool support. The contact of the tool on the tool rest is often disregarded by the beginner because it is out of sight when turning but in effect this is where a lot of the demons are bred. If the tool is not supported on the tool rest correctly it will tip over and cause one of those nasty dig-ins. The tool should have vertical support on the tool rest as close as possible to where the cutting edge is taking off the shaving. Another factor is that a wide cut is more stressful on the control of a tool than a thick cut, e.g. it is harder to control a tool with a shaving $\frac{5}{8}$ -in. wide and $\frac{1}{16}$ -in. thick than a shaving $\frac{1}{4}$ -in. wide and $\frac{1}{8}$ -in. thick. A good example of this is when you are working on a long springy turning. You will find using a small detail gouge will be far more controllable than using a large roughing gouge. Tool support is not as significant on narrow tools because the support is always fairly close to vertical in relation to the shaving. If the cut is made on the side opposite to that resting on the tool support when you're using wider tools (especially on scrapers because the cutting action is more severe), the leverage is too great and the tool will be pulled down onto the tool rest, and also dig into the work.

In summary: For peeling or slicing medium density wood use a grinding angle of 25° . Where possible use a slicing cut with all tools. If cutting cranky grain or cutting across the grain use a skewed scraping cut. If none of the above is possible use a scraping cut with a radial approach. Use a grinding angle of 60 -to- 70° with only one bevel on a scraper.

George Hatfield, a professional woodturner in Australia, will be demonstrating his spindle turning technique at the AAW symposium in Tacoma, WA.



Detail gouge is a skewed, scraping action, seen from above,

WOVEN RIMS

A new look for Southwestern Forms

PHIL BRENNION

USING LEATHER WITH WOODEN objects dates back thousands of years, to the time when it fastened spears and arrow points to wooden shafts. Likewise, wooden bowls that took endless hours for Native Americans to carve, were often repaired with leather lacing if they cracked. Today, whether it be functional or ornamental, leather still offers a natural complement to wood.

My Inspiration:

About 12 years ago I visited renowned turner David Ellsworth, and he showed me a bowl whose side he had accidentally sliced through when turning. It would have been a complete disaster for most turners, but Ellsworth saw an opportunity and wove the slice closed with leather lacing. I was impressed with his ability to turn a mistake into something of beauty. Soon after I began experimenting with leather as an ornamental component to my Southwest-style turnings. I soon discovered that lacing rims of turnings with leather created an exciting new design element, complete with a whole set of craftsmanship challenges.

Design Factors:

Most Southwest-style bowls I turn for lacing have no definitive lines or breaks between the base, body, neck or rim. The profiles of these vessels, reveal a smooth, flowing form, and they are usually thin walled, based on traditional Hopi pottery. (The Hopi Indians have created pottery for their own use for more than a thousand years. Much of the pottery they create today is for sale as fine craft but less than 100 years ago, more served as functional wares.)

I prefer the Hopi forms because many of them use constricted necks and small rims, which helped them



A sampling of Brennion's woven-rim bowls, ranging from 6-in.-to-20-in. dia.

carry and store water in their arid environment. The small openings allowed for a minimum of spillage and evaporation. Today, this feature also makes them more adaptable and practical for using with leather lacing as a design element.

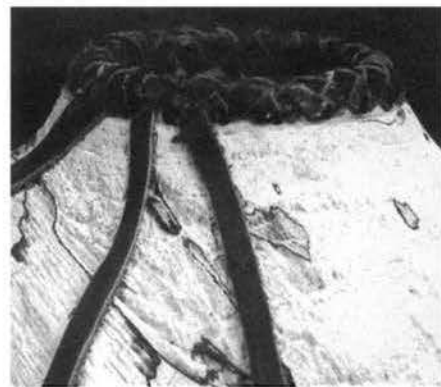
Prepare the turning for holes:

I turn most of my "woven vessels" from alligator juniper. This type of juniper is indigenous to the mountains around my home in central Arizona. It has wonderful red and brown tones, and is complemented especially well by the elk and deer leathers that I use for lace. When I'm hollowing a vessel, I keep the wall about $\frac{1}{4}$ -in.-thicker at the level where I will lace the rim. This gives me extra wood, for cutting a rabbet where I will drill holes and weave the lace. The lace won't protrude from this rabbet. It leaves a smooth profile, as shown in the photo at right.

Having the wall a little thicker at this level is desirable after the rabbet

has been cut and the holes drilled. You need substantial wall strength at the rabbet to withstand the force of pulling the lace through the holes. The rest of the vessel has a wall thickness of $\frac{3}{16}$ -in.

I always cut the rabbet prior to turning my final wall thickness. Even a $\frac{3}{16}$ -in.-thick wall might not withstand the pressure of the slightest catch when cutting the rabbet. I use a $\frac{1}{8}$ -in. parting tool to cut the rabbet as



Rabbet allows the lacing to blend with the form, leaving a smooth profile

shown in the photo at right. Except for the thicker area extending down a 1/2-in. from the top of the vessel where I make the rabbet, I turn the vessel as I would any other.

Reinforcing the rim:

To reinforce the rim, and prevent the wood from chipping out on the inside of the vessel when it's drilled or laced, I apply a band of medium-viscosity cyanoacrylate glue inside the vessel at the level of the rabbet. I try to apply the glue very evenly while I hand rotate the piece on the lathe. Careful: if the glue drips down the vessel interior, the workmanship looks sloppy. Using an accelerator to harden the glue more rapidly can help control possible drips.

Drilling the holes for lace.

While the glue hardens, plan out the number and location of holes. Most of the weaves I use look best with an odd number of holes, spaced about 3/8-in. apart. Sometimes you have to make the space between the first and final holes a bit wider to achieve that odd number. A wider space is of no real concern, because the leather tassels will cover any excess space. Plan the first hole where you want the lace to end. Make it a few inches away from any striking



Use a 1/8-in. parting tool to cut the rabbet where the lacing holes will be drilled.

part of the vessel's surface—such as an interesting void or grain pattern. You don't want the tie or tassels to detract from the turning's natural features.

When the glue has hardened, I'm ready to drill the holes through the vessel within the rabbet. My final hole size will be 3/16-in., but I start with a 1/8-in. bit in a power hand drill. It's easier to comeback and enlarge the holes to 3/16-in. later. Trying to start the holes with the larger bit on a curved surface can be difficult.

Keeping in mind that the final hole size will be 3/16-in., I space the holes about 1/4-in. from the top of the rim. To do this, I stand in a comfortable position where I can control the drill

with both hands. Using the spindle lock on the lathe to secure the turning in place, I angle the drill just slightly, so the holes have an inward slant. Then I begin drilling as shown in the photo, below left.

I don't force the drill. Instead, I use a sharp bit that will produce a hole with minimal tear-out. After drilling a few holes, I unlock the spindle, rotate the turning to maintain that comfortable position, lock the spindle again, and continue drilling. I repeat the process until I'm within what will be the last three or four holes before I'm back to the starting point. Now I mark where I will drill either three or four holes, depending on the spacing I will need to end up with an odd number of holes. With the drilling of the 1/8-in. holes completed, I switch to the larger bit, and re-drill the holes to enlarge them to final size of 3/16-in.

Adding the finish:

To seal and protect my turned vessels, I've used many type of finishes. Lacquer and wax is a favorite of mine, but some pieces may lend themselves to just being sandblasted. What is important to me is a leather lace that will either match the colors of the wood after it is finished or contrast with the wood in a pleasing manner, such as black leather on a light wood.



With the spindle locked and the drill positioned with a slight inward slant, the author begins drilling 1/8-in. diameter holes for the laces.

Selecting and cutting the lace:

To get the look I desire, I cut my own lace. Most commercial laces have a shiny surface and are machine cut. I like the more rustic look of lace that has been hand-cut from brain-tanned deer and elk leathers, usually available at custom leather or saddle shops. The colors and soft appearance of these leathers are wonderful. But, these laces tend to be quite fragile compared to commercial cowhide lace. When selecting the leather I take my finished and drilled turning to the local leather shop, and match the color of the wood to the deer or elk hides.

To determine the amount of leather lacing needed to weave a rim, you have to determine the type of weave you want to use. The weaves I commonly use require $\frac{1}{4}$ -to- $\frac{3}{8}$ -in. wide lace, with a length about eight times the circumference of the rim. I don't like trying to weave with any more than 120 in. of lace at a time. The brained-tanned leathers tend to fray the more times you have to pull them through the holes of a vessel. The advantage of the smaller-rimmed vessels become very evident when you start to weave.

I cut my lace using a razor-wheel cutter, available in most fabric shops for about \$10. I use a self-healing mat, about \$30, also available at fabric shops, for a cutting surface. Cutting the lace on this type of mat keeps the cutter sharp longer and will pay for itself in savings of replacement blades in a short time. For just a vessel or two, a smooth piece of plywood works fine.

To cut the lace for a rim with a 12-in. circumference, I start with a circular piece of leather that is 12-in. in diameter. I cut the lace from this disc of leather rather than from a rectangle. I don't want to move the wheel cutter around any sharp corners, otherwise the edges of the lace tend to

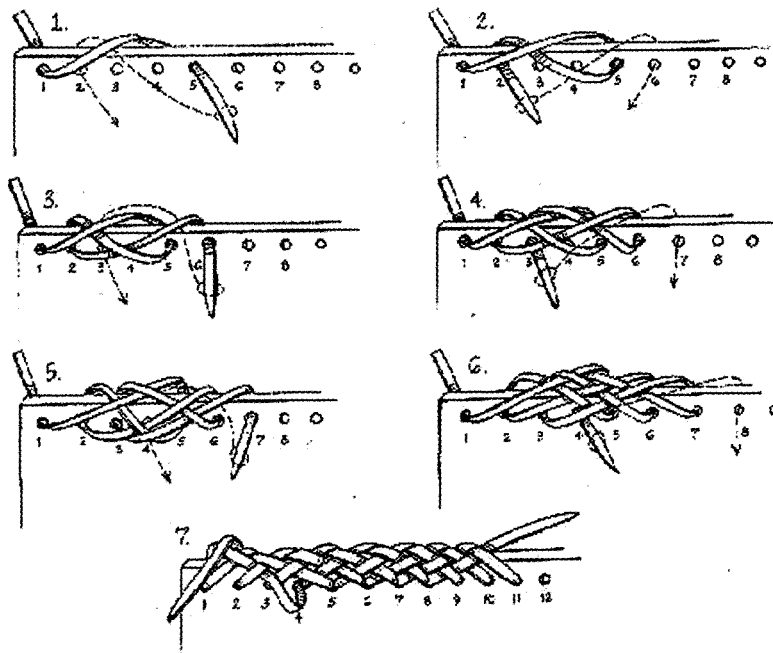


Diagram shows basic lacing pattern for rims. From *Encyclopedia of Rawhide and Leather Braiding* by Bruce Grant. Copyright 1972 by Cornell Maritime Press., Centreville, MD (410-758-1075) Used by Permission.

get ragged. Hides tend to vary in thickness and can give you different fits. You can correct the fit by changing the width of the lace slightly.

Weaving the lace on the rim.

I attach the lace to a 3-in. leather needle, the type that splits open and grips the lace with two small teeth. These too, are readily available at most leather shops. I keep several on hand, as they tend to break quite easily. My favorite type of weave is called an eight string round braid. The sequence for doing this weave is shown above.

There are all sorts of different weaves you can use. Sometime I make up my own, but many can be found in books on leatherwork. I've found some of the ones I like in a book called *Encyclopedia of Leather Lacing and Braiding*.

I keep needle-nose pliers handy when doing the weaving. I can pull

the lace through the holes when the fit is very tight, with more control than using just my hand.

Taking extra care as I handle the vessel while weaving the rim is important. After all, I'm tugging on the rim, pushing or pulling a steel needle and pliers close to a finished surface, and holding the turning in all sorts of precarious angles, making it easy to damage the piece.

I have rarely been disappointed with the results of weaving rims using these methods, and gauging by the sales of this type of vessel, neither have the collectors.

Phil Brennon is a professional woodturner who lives in Chino Valley, AZ. He currently hosts the woodturning discussion group for WOOD Magazine's WOOD ON LINE. He will be demonstrating his Southwest vessels at this year's AAW symposium in Tacoma, WA. Photos by the author.

RUDE OSOLNIK

Retrospective honors Dean of American Turners

DICK BURROWS

EVERYONE IS A MASTER THESE days, or so it seems to me every time I scan the events listing in the local newspaper.

Though many woodturners, including some AAW members, have truly earned the designation, the title is often an advertising gimmick, bestowed as casually as a name tag at a weekend seminar.

What does the term mean? In many countries, it traditionally meant years of work, and required passage of a fairly rigorous exam before a formal document was issued. Mastery, demonstrated skill, is paramount. I've had the opportunity to work with some classically trained woodworkers and their mastery of tool and technique, their organized system of work, as well as refined design sense and attention to detail was inspiring.

Age is often cited as a factor in deciding titles, but that's not necessarily valid. In the world of turners, David Ellsworth and Al Stirt are both masters and gray-beards, but they are relatively young.

While attending a retrospective of Rude Osolnik's work 1940-1970 last Spring at the Connell Gallery in Atlanta, GA, I had an opportunity to muse a bit on what mastery means as I observed both the work and the way people reacted to it.

Cutting edge work?

Was this cutting edge work? Some people seemed to be wondering. Besides the phrase "cutting edge" seems to be bandied about pretty casually these days, too. There wasn't any paint or glittering decoration to slam you in the face. It was quiet, intriguing, inviting. Inviting the viewer to look deeper, below the surface and enjoy the universals – balance, proportion, form, relationships – the things artists for centuries have

wrangled with, each in a uniquely distinct way.

American Woodturner has run several articles in the last few years showing photos of pieces in the Old Sturbridge Collection in Massachusetts. These objects were made generations ago, yet have a contemporary feel and

look to them. Rude's work is not that old, but the pieces in the Connell retrospective were made before most of us started turning, probably before Ellsworth and Stirt stopped shaving, certainly before turning metamorphosed from quirky pastime to popular hobby to trendy art movement, perhaps the most vibrant art movement today. We've come a long way from the craft's salad bowl days.

The AAW itself didn't arrive till the mid-80's. Publications like *Fine Woodworking* and *Woodsmith* were born in the 70's. Teachers were few. Even Rude and Dale Nish, a featured-pair in many of the stories bantered about in turning circles, had just been introduced.

I received my first turning instruction in the early 1970's from a kindly old shop teacher at the adult high school who considered turning a way to keep us chronically broke young marrieds who couldn't afford to buy any more wood from dropping out. He provided firewood to turn and he sharpened the scrapers (the only turning tools in the shop) for us every



Prominent turner Ed Moulthrop of Atlanta, GA, enjoys a chat with Rude at the Osolnik retrospective at the Connell Gallery

time. When's the last time you could con a teacher into doing that at Arrowmont?

And, a couple of years later when I began selling turnings at craft fairs, often I would be the only turner there. Those of you who work the craft circuit probably can't remember the last time that happened.

Teachers were even rarer when Rude started in the 30's, though he does credit a couple of good ones in high school and college with putting him on the right track in his life-long quest for form, production and profit. The rest was up to him.

What he came up with was: natural edge bowls; perhaps the first weed pots marketed anywhere; turnings from stumps and spurs and mill waste; turnings showcasing wood's natural defects; and high-speed-steel tools. His list of innovations goes on and on.

Each piece you make can teach you something, he said, as long as you are willing to listen. Long before people were doing the pop-culture rock to the tune of left-brain, right brain, he

was experimenting, seeing, taking chances, despite the demands of a growing family and the economic reality of his professor's salary at Berea, KY, College, which didn't threaten a Rockefeller's tax bracket.

His wife Daphne encouraged him in his work, did much of the finishing and handled the business aspects of their endeavor. Someone said many of the pieces at the retrospective were ones that she set aside, knowing that someday they would be important.

Gallery owner Martha Connell is one of Rude's most ardent supporters. She has sold and promoted his work for years, as well as adding pieces to her personal collection.

Even though his contributions to turning are acknowledged, she feels his contribution as an ARTIST has been overlooked. Just his creativity and ingenuity is inspiring, she says. Her husband Pat, an architect, stresses that the creativity shows through in his home on Poverty Ridge outside of Berea. Turners who've been there know it as a ramshackle place—home, office and mini-gallery, which "grew like topsy," as Rude says. It was designed by and built by Rude and his family, largely with salvaged materials.

The humanity of a craftsman

People always miss the humanity of the craftsman. There is a temptation to see only the kindly old gentleman of turning, who's been fortunate in a very demanding field. He is more multi-dimensional than that, with all the strengths and weaknesses of any human. His accomplishments didn't come easy.

This is also the guy who worked a full-time job, fell in love, married, went to war, built a home, raised and educated five children, paid his taxes and was active in local groups, such as the Kentucky Guild of Artists and the Southern Highlands Guild. And still, for almost every day for the past



Rude takes a break during his retrospective to enjoy the 8-piece dinner set he turned from Macassar ebony for a fund raiser in the early 70's. In the center of the table are his signature candlesticks.

60 plus years he found time to turn. And perhaps what's more important, he enjoyed it and produced something that was distinctly his, yet universal enough to affect even a casual observer, win awards and sell, year-in and year-out.

Even production pieces were special to him. He never accepted the idea that after the design work and a few pieces were done, there was not much left except going through the motions to pick up the check.

He told me the secret was to put your mind into the task, make it a game, not a rote chore. How many pieces can you make in an hour? Can you break your own record? How perfect a piece can you make without resorting to calipers? Can you do the whole piece with one tool? Let the financially profitable job enhance your mind and your artistic sensibility as well as your pocketbook.

Then, see what your mind starts contributing. What happens when you change proportions? How can you accelerate that curve? How can you blend the straight and the curves? Is there a way to do it better

and faster? Can you transform this defect into something beautiful?

I've tried it. Simple as it sounds-- it works.

Maybe the definition of a master is also simple after all?

Do thousands of pieces, and make each piece better than the previous one. Don't settle for the fashionable--take chances, experiment, try new ideas. Put your heart and personal imprint on everything you do. Have fun. Master technique until it becomes second-nature. Teach everyone who wants to learn. Then after perfecting your craft for years, still have the enthusiasm and interest to stop the lathe in the middle of a job and say "Wow, that's pretty, isn't it?"

For a glimpse of Rude Osolnik's life and work, take a look at the new AAW video, the first in the AAW Masters series. The video can be ordered through the AAW office or can be purchased at the Symposium in Tacoma. If you see Rude himself there, treat yourself to a visit.

Dick Burrows is Editor of American Woodturner.

SEALING THE SYSTEM

O-ring materials improve the vacuum

JOHN HILL

I HAVE BEEN USING A VACUUM CHUCK system for the last six years or so. It allows me to produce work that looks as good on the bottom as the top. When someone sees my work, I want them to say to themselves, "Nice work." When they turn it over, I want them to say "Wow!!" Being able to secure work to the lathe with no apparent holding method really opens the possibilities of form and design.

My vacuum pump is an old Gast Mfg. Corp. Model 0211, 1/4 HP that only pulls 1.3 cfm at zero vacuum. I found it at a flea market for \$15. Since the pump is small, it's especially important to have a good seal on all connections. An important part of this is O-ring seals I'll describe here.

Even though you can often get by with a small vacuum, I feel that the larger the better. A Gast model 1023-101Q-G608X is 3/4 hp and pulls 10 cfm, is oil free and costs \$500. Some very porous woods such as ash leak a lot, through the grain, therefore need higher cfm volume. To protect the



O-ring seals on several PVC chucks and a shallow model, left, of MDF

pump from the wood dust that is being pulled in through the chuck, I placed a simple in-line air filter in the vacuum line. I believe that this is most important. The connector I use through the headstock, is the "E-Z Vacuum Chuck," \$59.95 from Packard Woodworks, 800-683-8876.

I use several various size and shape chucks and each needs to be permanently mounted on a dedicated faceplate. I have found the "Read

Faceplate System" from Craft Supplies USA, 800-551-8876, to be excellent (I drill my own screw holes). The basic hub is \$31.95 and each faceplate is \$8.95.

Over the years, I have used many different materials to make my chucks and have found that Medium Density Fiberboard (MDF), and schedule 40 PVC pipe to both be excellent. They are both non-porous and stable.



Hold the O-ring material against the PVC pipe chuck to cut it to approximate length.

Seals for chucks

For seal material, I have tried neoprene, packing material, closed cell foam, naugahyde, and rubber inner tube, all with variable results. I have in the last year, been exclusively using a 1/4-in. O-ring material called "Bunacord" available in any length, at a cost of about 70 cents per foot. I get mine from Asheville Rubber and Gasket Co., 800-523-4128. Any large gasket and rubber company should handle it.

It has the advantage of not being flat, but is rounded and elevated above the surface upon which it is mounted, therefore handling both convex and concave forms. Being of any length, it allows you to use it for any diameter chuck that you want. It

forms an excellent non-marring seal. I use these as friction jam chucks with the tailstock, for objects with cracks or holes or severely out of round shapes where the vacuum won't hold.

To make a PVC chuck, I start by gluing together 2 pieces of $\frac{3}{4}$ -in. MDF. After drying, I cut them round with the band saw a bit larger than the inside diameter of the PVC pipe. I attach my dedicated faceplate with screws. On the lathe, I turn the MDF to the diameter of the inside of the PVC for a tight fit, then drill a $\frac{1}{4}$ -in. hole through the center. I then cut a piece of PVC pipe on the band saw to the length that I want, keeping in mind that about $1\frac{1}{4}$ -in. will be lost to engulf the MDF. I make some quite long, to go inside deep bowls or vases. For shallow or near flat objects, I keep them short because volume takes time to evacuate. No matter how good you are with your band saw, the cut ends will not be absolutely true. To correct this, I fit the PVC over the MDF cylinder leaving about $\frac{1}{4}$ -in. of MDF showing. I then hand rotate the lathe and tap the pipe



Lots of room and design freedom for refining the bottom of a large bowl secured to a headstock with a vacuum chuck.

to make it run true. When it is true, I run a bead of medium cyanoacrylate (CA) glue around both the outside and inside joint between the PVC and the MDF. Next, use a small scraper to turn a concave groove on the out board end of the PVC. Try to center it as this groove will be the seat for the O ring.

In order to cut the O ring material,

measure the diameter of the center line of the groove of the pipe and multiply this dimension by pi (3.14159) to determine the circumference of your groove. ($C = 3.14 \times \text{diameter}$) It is important that the ends of the O ring material be absolutely square. With the drill press, I drill a hole in a piece of scrap wood that this material will just fit through and then use my belt sander to square the ends. Test fit the Bunacord in the groove in the pipe and adjust the length to a good fit. Place one drop of thin CA glue to one end of the Bunacord and then press both ends together, using the groove to aid in alignment. Hold 10 seconds and it should be perfectly joined. If it has stuck to the groove, carefully remove it. Now place a bead of medium CA glue in the groove and place the Bunacord O ring in the groove. I place a flat object over it to hold it in the groove until the glue sets.

To use the Bunacord with MDF as the chuck, and no PVC, just make a groove at the outside of the MDF chuck and prepare and glue the O ring as previously described.

John Hill is a turner and teacher in Weaverville, NC.



For a tight seal, both ends of the O-ring material must fit tightly together. To square the cut ends, the author fits the material through a hole drilled in a board, then uses that guide to square the material on a belt sander

A STITCH IN TIME

Brand-new old bowls from Hawai'i

JERRY KERMODE

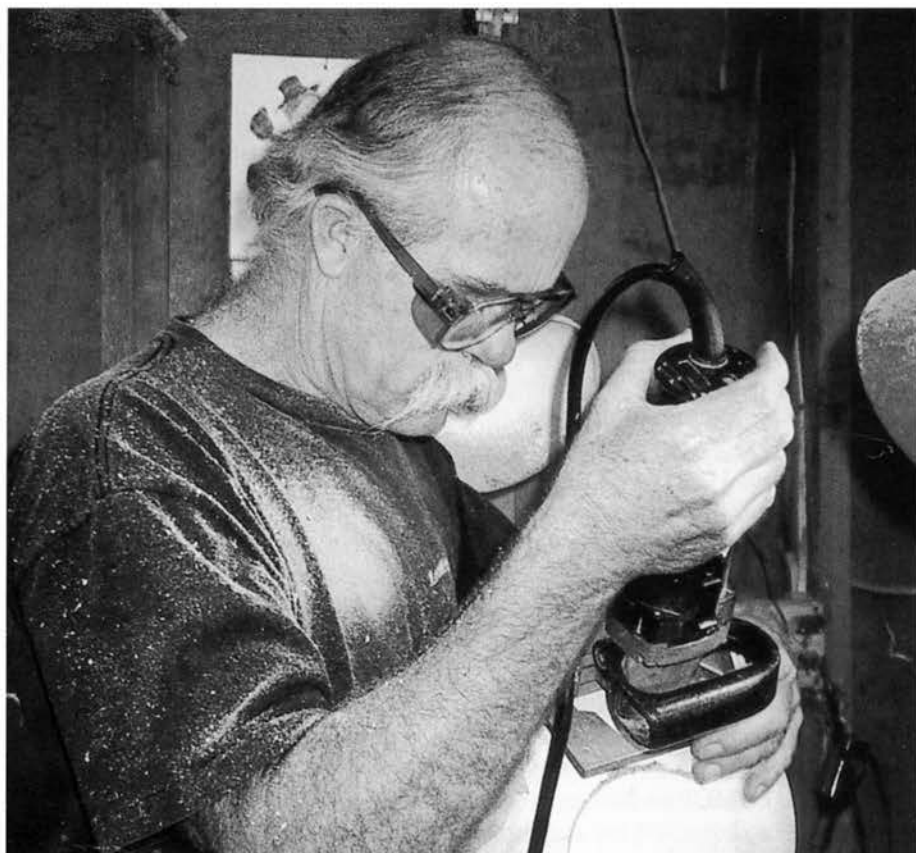
IN HAWAII WHERE I LIVE the bowl is more than a bowl. It is part of the culture of the Hawaiian people. In ancient times bowls were given as important gifts to ali'i, Hawaiian royalty. Today wood bowls are often given as acknowledgement of merit, such as trophies, service awards, and urns.

The term "calabash" is used for the traditional shape of the Hawaiian bowl. The word comes from the calabasa tree, or gourd tree, introduced to the Islands by the Spaniards, though Hawaiians had been using gourds and hand-carved wooden bowls shaped like the bottom section of a gourd long before the Europeans reached their land.

Wooden bowls are passed down through generations, becoming cracked and broken through the years. Different types of patches have been used: the kepa or kepacepa, wedges inserted at alternating angles across a crack; the poho, a large patch held in place with huini, pegs angled through the bowl into the patch; the kiki, or pieces of wood driven into a crack; or the pewa, the butterfly patch, which is the most common patch used on contemporary bowls. The bowls with the most patch work are often the most valuable.

Given these traditions, my "stitched" bowls found an intrigued audience and were readily accepted by local collectors -- brand new "old" bowls, what more can you ask? I might add, though, that because of the tremendous love of the traditional Hawaiian-shaped calabash, contemporary shapes such as natural edged or more western styles, have taken longer to become a part of the bowl scene here. I credit turners like Jack Straka, Michael Dunn and Ron Kent for helping to introduce Hawai'i to modern woodturning as an art form.

I especially enjoy wood with lots of



Jerry cuts slots in a bowl with a plate jointer. His left hand is on the outside of the tool, stabilizing the tool on the curved surface. Caution is a must here.

character: voids, bark inclusions, large cracks, bug damage. Before stitches, I would turn, sand and finish the outside of an especially interesting piece, then wrap it with strapping tape to hold the bowl together while I removed wood from the inside. Sometimes this technique worked, but more often it didn't.

The idea:

I had been using my old Lamello biscuit jointer for years in my cabinet and furniture business; these tools, often called plate jointers, are available through many woodworking supply houses. When appropriate I would add strength and contrasting interest to a work by incising exposed

splines on the outside of joints. I made my own splines from hardwoods, so they were more attractive than the lackluster splines usually sold for hidden joinery, but the principles were pretty much the same.

While making a large, koa Celtic cross for a church, I ran into a difficult gluing problem where the circle met the arms of the cross. I solved my dilemma by "stitching" the circle on with biscuits. Later the same day I was turning a bowl with a large bark inclusion running from the rim nearly to the foot. I looked over at my Lamello sitting on the workbench, and the light went on! I "stitched" the bowl in several places across the inclusion. It worked so well I started

looking for everything I could to stitch. A fellow woodturner commented, "If I knew you liked wood like that, you could have saved me a trip to the dump!"

Since my discovery of this technique in 1988, I have become more selective as to where or when I use a stitch. I still believe it is a useful technique for adding strength and character to an otherwise flawed and possibly unusable piece of wood.

Making the spline

Select hard woods with straight grain and of a color to either match or contrast with bowls to be stitched. My spline of choice is koa, shown below. Using a table saw, cut the wood into strips slightly thicker than needed, then plane down with fine cuts. Check for proper size by making a test cut in the edge of a board with your biscuit jointer, into which you trial fit the strips you have planed. They should fit very tightly. Cut the strips into about 12-in. lengths and stack six or seven pieces, taping them into a bundle. Lay a #20 biscuit (your template) with the grain a little over half way onto the bundle's edge. Draw the arc of the biscuit, continuing the arc past the rounded edges of the biscuit. Cut out the splines on the band saw as accurately as possible.

Designing the bowl:

In her work in drama education, my wife teaches that if you are going to make a mistake, make it big. I carry this into my bowl design: if you have



Koa splines ready to become stitches.



Splines, or stitches, glued and trimmed in a turned milo bowl with bark inclusion.

a flaw in a piece of wood, call attention to it, making it part of the art form. Change trash into treasure! Even a simple end check can be dressed up with a couple of stitches.

I love bark inclusions! These are often found in the crotch of a tree when, as two major limbs grow, they fold their adjacent bark in on each other. The milo tree, a favorite in Hawai'i, does this especially well. When cutting your logs, cut across this inclusion as you cut the crotch down the pith. You will have two bowl blanks facing each other, both with inclusions down one side.

Band saw the blank. Mount it on the lathe with the outside of the tree as the bottom of the bowl facing out. Turn the outside and bottom working with the grain and the inclusion. Remount and turn the inside down to a thickness that leaves enough wood to prevent the blank from flying apart and plenty of wood for truing your bowl after drying. Take it slow. Dry for a few months, then remount and true the outside of your bowl.

Stitch with Caution:

Set your biscuit jointer to the size you want -- I use the #20 setting. Hold the biscuit jointer as shown in the photo. Two words of **CAUTION**: First, if you have never used a biscuit jointer, practice on a normal board first to get the feel of it. Then understand that incising into a log is not proper use of the jointer. The pins will

not be engaged so there is a tendency for the force of the blade to push the machine sideways.

Hold the machine firmly with both hands, keeping clear of the blade. In order to cut a clean slot, try to keep the machine from wandering at all. Now, slot away! Set up patterns, fan out on curved cracks, get creative!

When you have all your slots cut, glue in the biscuits with medium thick cyanoacrylate glue. Tap a biscuit into each slot, taking care not to squirt glue into your eyes. (**USE EYE PROTECTION AT ALL TIMES**). Make sure the spline is fully inserted. Add more glue and sanding dust to fill any gaps. Spritz with accelerator.

When the glue is cured, pare down the excess biscuit with a sharp chisel. Fire up the lathe and take light cuts to clean up the outer surface. Turn down the inside thin enough to expose the biscuits, approximately $1/8$ -to $3/16$ -in. for the best look.

Note that because of the contrasting curves, the spline on the inside of the bowl will be shorter than on the outside.

Sand and finish.

Now you will have turned a piece of junk into a piece of art for which you will have to charge extra.

Jerry Kermode, a professional woodturner, teacher and co-founder of the Hawai'i Woodturners Association, will demonstrate his techniques at the AAW symposium in Tacoma, WA.

JACK VESERY

A craftsman's path for celebrating nature and life **KEN KEOUGHAN**

JACQUES VESERY PRONOUNCES HIS name "Jack." To get to know him you've got to know what to call him. He is an excellent craftsman and exceptional artist in the burgeoning world of "wood art."

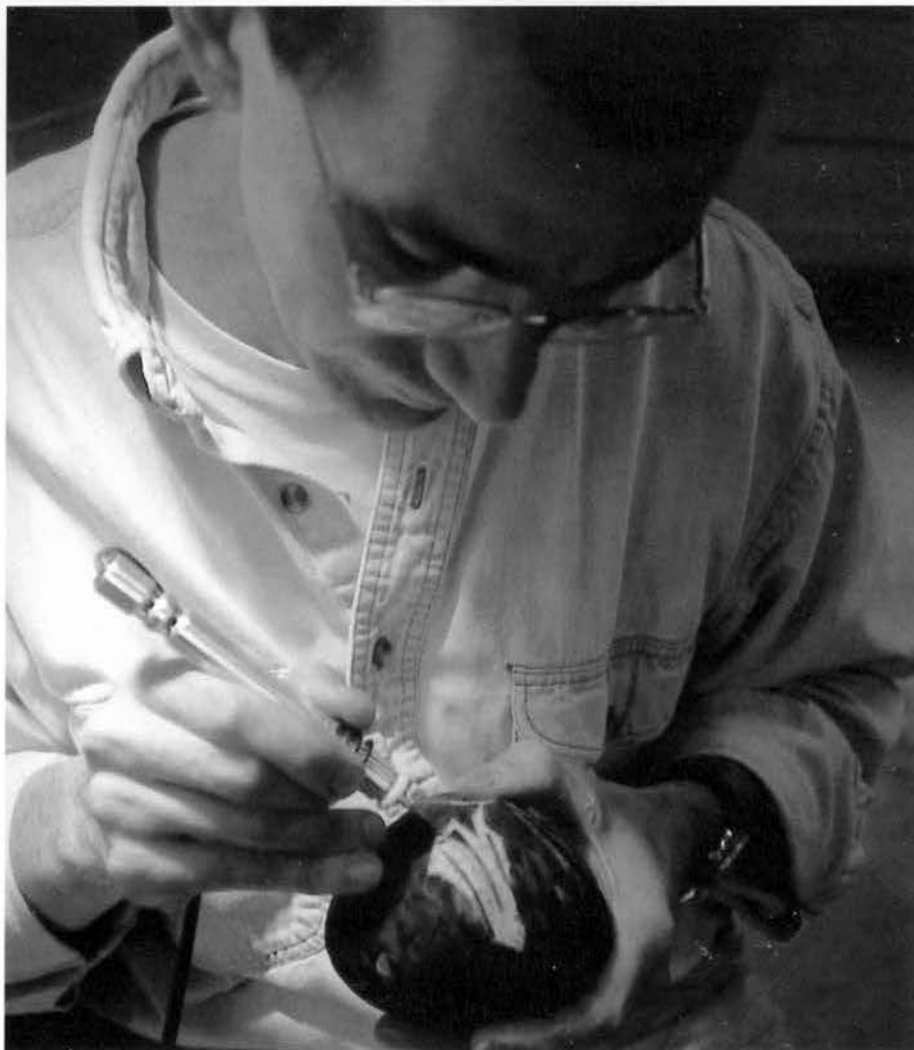
I've known Jack for five years and each year his work improves...dramatically. Whether it is coloration, segmentation, carving or texturing, his work reaches out and touches people. It engages their senses...the Native American motif he loves, the incredibly delicate texturing, a blue-black tone mimicking the actual colors of a crow's feather, the contrasts and complements that bring harmony and peace into a segmented vessel. We feel admiration, joy, envy, awe...and we want to touch. Their message is tactile, visual, nostalgic, classic, American and of Nature. We want it to infuse us.

Make no mistake about it, Jack is gifted. He has taken awards for crafts in Junior High School, High School and ever since. From the "git go" Jack had the eye, the talent and the skills to develop that many of us lack. But the truth is that while these are gifts it is time and hard work, trial and error, perseverance and tenacity that have developed these gifts and that enable him to turn out the art that he creates.

Full-time dad, full-time turner

Vesery is about 90 degrees away from the profile of many AAW members. He turns wood full-time, but not for a living. He is married to a medical doctor, he is 39-years-old, has spent 18 months under water in an antique atomic submarine, does scrimshaw and is an authentic and very competent "at home dad."

An appreciation of Nature is honestly, not politically, in the forefront of much of Jack's thoughts and deeds. This was nurtured in Jack's youth



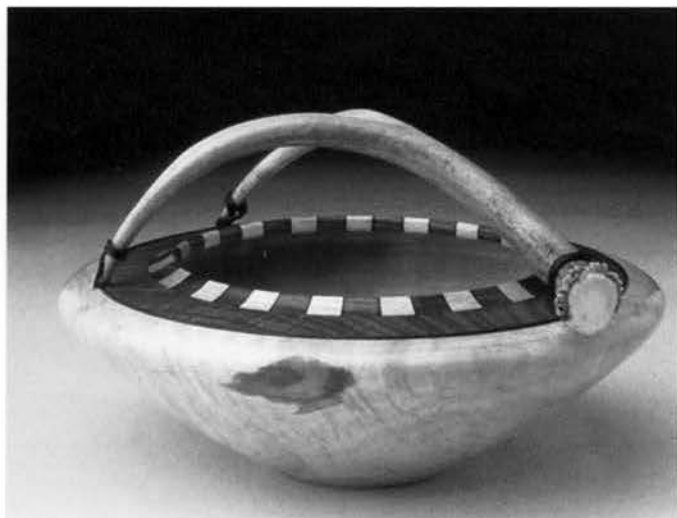
Jacques Vesery burning in feather texturing on one of his turned and carved vessels.

through avid participation in the Boy Scouts of America. His Boy Scout activity also fostered an awareness and thoughtful appreciation of the lore and culture of the American Indian.

He has been a forest ranger managing a 186-acre Boy Scout camp in northern New Jersey near where he was raised. He has been certified for and participated in forest fire search and rescue missions.

He and his wife Minda visited the Wind River Indian Reservation in

Wyoming for a month when she had finished medical school and was seeking an area to begin practicing medicine. Jack quickly felt at ease and a sense of kindredness in the culture of this Native American village. Jack's way is to blend in with, be in harmony with, contribute to the well-being of...his surroundings. Not the "bowl 'em over" hurley burley of much of today's Western culture. He and Minda agreed almost from the time they met that he would be at



Sundance: 11-in. X 13-in., box elder, ebony, breadnut, antler and leather.



Roll Away the Dew: 10-in. X 13-in., maple, cherry burl, with textured leaf carving.

home with the kids; they now have two, Isaac and Jonah, aged seven and three, and that she would pursue the practice of family medicine. But still he gets where he is going because he's smart, follows directions well and thinks for himself.

A flair for business

Here's how smart he is. When Jack gets this magazine, the first thing he does is go to the back to see what shows, competitions, opportunities to display or market his work are available. He notes the ones he thinks might be of interest to him, places the notes in a tickler file, then he follows up on a timely basis with a request for an application and includes a stamped self-addressed envelope.

When he gets the application back he studies it, fills it out, selects appropriate slides and sends the material off.

In short Jack uses this magazine and others as valuable resources. This is in stark contrast to those of us who use it as relaxation and entertainment.

When he is in a show he sometimes sends his own press release and photographs of his work to the various publications that might be interested. He sends the same material to

the people putting together the show. You'd be amazed at how often I've seen photos of Jack's work in the local newspapers in Mid-Coast Maine. This is not in conflict with the promoters, rather it is an opportunity for their show to get news coverage beyond what they might develop on their own. It just enhances and complements their marketing activities.

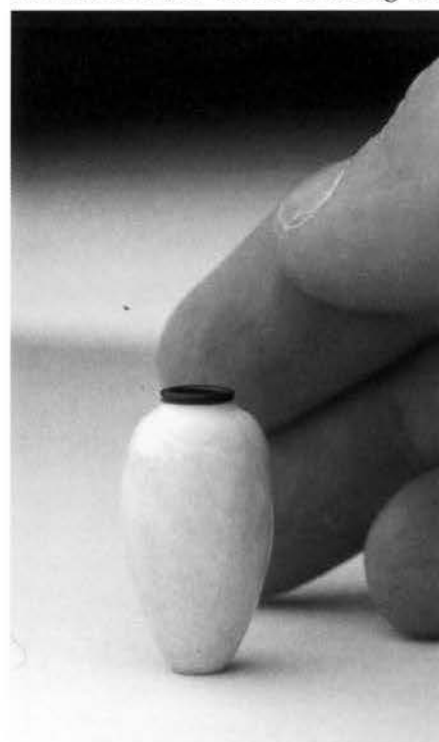
Solving problems and learning.

If Jack has a problem with a piece he's working on he stops and figures out what is going on with the tools and materials he is using. In other words, they are the reason for the problem or failure. For many of us, we wonder how we screwed up. He does not. He is that sure and confident about what he is doing and how he is doing it. Even when demonstrating his attitude is disgustingly wholesome.

"If there is a problem I'll solve it. The audience learns something extra, I learn something new and everybody wins." Embarrassment isn't even part of the equation.

Vesery's work shown in the photos is varied but following a path that opens as he explores it: vessels with segmented sections on top of a turned

base often with artifacts from nature; exquisite big hollow box elder vessels; carved and textured vessels along the lines pioneered by John Jordan. Currently Jack is working with dyed pieces carved with bird feathers and/or leaves covering the



Miniature turning of 5,000-year-old fossilized walrus ivory with ebony rim.

entirety of the exterior. He does some miniatures but these are not to conventional doll house scale..

Jack's shop is as fastidious as his work. His shop is not only neat, a place for everything and everything in its place...it has a place for everything and everything in its place dust free.

He often works in green wood, usually nuked in the microwave, rough-turned, re-nuked, re-turned as many times as needed. His wood must be uniformly dry for all the segmented work he does. Otherwise, there will be shrinkage and/or expansion problems that will break the glue joints and destroy the piece. Many segment turners use uniformly kiln dried wood but Vesery isn't doing the same kinds of pieces that a Ray Allen does.

Asked what he enjoys most about his work Jack becomes a bit reflective. "Teaching and demonstrating are the most fun. Teaching gives me a chance to give something back, to foster



Guardian of Deeper Understanding: 10-in. X 7-in. Dyed feather textured maple, madrone burl rim.



An authentic American Indian tepee, Maine craftsman style 1999. Vesery built the tepee for his kids and their friends. Thirty four people sat around the fire and had dinner inside the tepee in early February, no small feat in any Maine winter.

growth. I usually teach here in my shop, although I am available for "hands-on" teaching away from home. Demonstrating, though, that's the most fun. I love it and the audience always seems to enjoy it."

What's next?

Well, a new shop is coming fairly soon. He'll build it himself. In addition he is generating interest from several prominent galleries that specialize in wood art. He already has had pieces in many national exhibits including the Allentown Museum of Art, the Sansar Gallery, del Mano gallery, the White House, and has had interest expressed within the circles of the Collectors of Wood Art (CWA).

There is more to Jack, much more. For me the most telling moment was when Jack pointed out the window of

his shop on a cold misty day in Maine and said "See those poles out there? That's an authentic American Indian tepee. The covering is coming in a few weeks from Montana. My kids and all their pals are going to have a real honest-to-goodness tepee." The tepee is up and 34 people sat around the fire and had dinner inside the tepee in early February. The kids were absolutely stunned at how warm and light it was.

Not everyone has a dad like that.

Ken Keoughan is a turner and contributing editor to American Woodturner living in Friendship, ME. Jack Vesery will be demonstrating segmented turning and surface treatments at the AAW symposium in Tacoma, WA. Photos provided by Ken Keoughan and Jacques Vesery.

CHASING THREADS

Simple tools and a lot of practice makes perfect

FRED HOLDER

ONE OF THE ANCIENT TURNING techniques that has been gaining interest over the last few years is the art of hand chasing threads. I first became interested in this almost forgotten technique while reading Bill Jones' column in *Woodturning* magazine. I had never heard the term before. Thus, began a search, in fact, almost an obsession to learn how to do it. I've been making threads in metal with tap and die for many many years, but the thought of freehand threads on a lathe intrigued me. The road from hearing about thread chasing to actually chasing a successful thread was not an easy one, but the journey has been interesting.

The first stage of my journey was Jacob Holtzapffel's book, *Hand or Simple Turning*, where he discusses tools and techniques for chasing threads on hardwood and ivory. I made a chaser, but it didn't work. Finally, I found some used chasers for sale from G&M Tools in England. They sold them for \$6.00 each or \$12.00 per pair. I ordered several pairs and wound up with chasers for 11 tpi, 16 tpi, 19 tpi, and 24 tpi. They didn't work either. I decided it must be the speed, my lowest lathe speed was 500 rpm. I even

tried using my Carba-Tec lathe and turning it by hand to get the speed down to a manageable level. Nothing seemed to work. I was almost to the point of giving up.

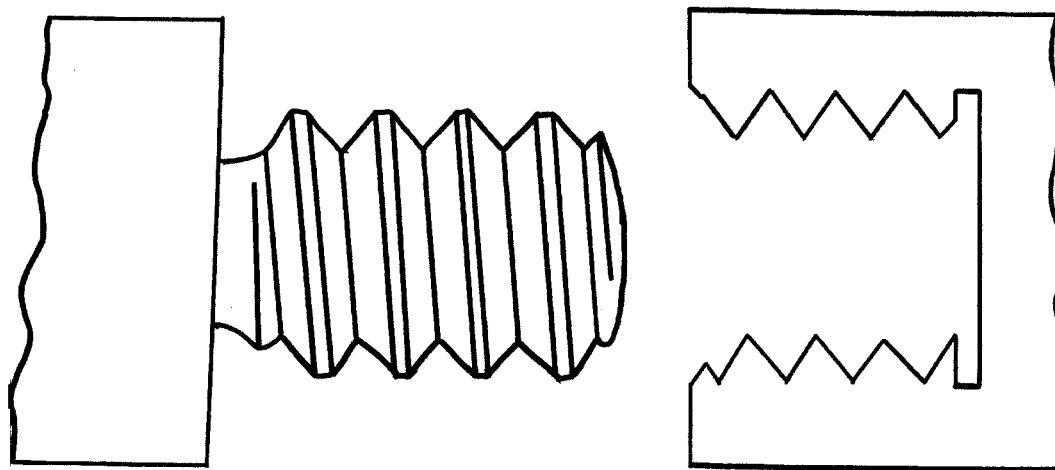
In re-reading Holtzapffel's book, I eventually noticed he described chasers cutting threads in hardwoods and ivory, and said a different technique was required for cutting threads in softwoods. I didn't see this at first, or at least it didn't register. I began to rethink my definition of hardwoods. I had been using maple and apple woods, considering them "hard wood." I had some cocobolo on hand, so I chucked up a piece onto my Carba-tec turning the lathe by hand. I tried the 11 tpi chaser, thinking that the coarser thread would be easier to cut. I was wrong about that, but it worked anyway. I was elated and the journey continued with a search for more answers. I purchased one of Dennis White's videos that included thread chasing and James Lukin's book, *Turning Lathes*, which also has a good section on thread chasing. Anytime I had some spare time to play and a piece of suitable hardwood, I cut a few threads. Incidentally, that chaser I had made in the beginning now worked also. I'm

afraid my main problem was in the definition of what is "hard" wood.

I was chasing threads on a Carba-Tec lathe by turning the lathe with my left hand while I held the chaser with my right hand. It worked very well and I've cut a lot of threads in that manner. Both Holtzapffel and Lukin used treadle lathes.

Before treadle lathes, turners had used springpole lathes. So, I graduated to my foot powered lathe, it is a spring pole type with a lathe spindle and a full three revolutions per downward stroke. Wow, this was even easier than turning the Carba-Tec by hand; I now had both hands to work the tool. I began to feel confident. Enough so that when I agreed to demonstrate my foot powered lathe at the January 1997 meeting of the Seattle AAW Chapter, I included thread chasing. Since then, I often demonstrate this technique at craft shows when people ask how I cut the threads in one of my threaded boxes. I have now progressed to chasing threads at 500 rpm. I will admit, however, that a speed of 100 or 200 rpm would make it a great deal easier.

I share the above with you to explain how I got from hearing about thread chasing to actually doing it



Thread chasing is an ancient technique that can still challenge and delight turners today. All you need are a few simple tools, some very hard wood, a touch of patience and lots and lots of practice.



Fred Holder working on his mini-lathe

successfully. I'm sure it would have been easier if I'd been able to watch Bill Jones or Allan Batty demonstrate the technique, but I didn't until after I had finally learned to chase threads on my own.

First, you have to have a pair of thread chasers, one for the inside and one for the outside, as shown below right. Incidentally, when it comes time to sharpen the chaser, hone or grind on the very top only, never ever on the face. I sometimes grind the top and sometimes use a diamond hone, either works well.

You also need a suitable supply of "hard wood." Wood that is hard enough for thread chasing is generally wood that will cut cleanly with a scraper: lignum vitae, boxwood, Osage Orange, desert Ironwood, red-heart, African Blackwood (the best). I've also cut threads in oak, black locust and mesquite. I've even used a bit of thin hot stuff CA glue to harden apple wood enough to cut threads in it, but I don't recommend the softer woods. The key is a dense hard wood that will take and hold fine detail. This defined, let's get to making threads.

In all of the literature I read there was no definite answer as to which you should make first: the inside (female) thread or the outside (male) thread. Bill Jones didn't seem to think that it mattered, but Allan Batty recommends making the inside thread first, because it is more difficult to make, because you can't see

what's going on inside the hole. I agree with him. A lot of my thread chasing practice has been to take a 16 tpi chaser and make a thread to fit a $\frac{3}{4}$ in.x16 tpi nut. This was always a trial-and-error situation until I watched Batty demonstrate at Provo in June 1997. He said to make your inside thread first and then on the end of the external thread to make a short tenon that just fits into the inside thread. This tenon is then the bottom of the external thread, when your

chaser marks this area, your nut or box top will screw on. Therefore, we'll make the inside thread first.

Prepare your hole for your internal thread like that shown in Fig 1 on the facing page. The only limiting factor for the diameter of the hole is that it must be large enough to enable your chaser to be properly entered into the hole. The sides of the hole must be parallel to the axis of rotation unless you want a tapered thread. Use a straight edge, pencil, or something to lay along the cylinder and compare this to the lathe bed. The entrance to the hole should be beveled or rounded to prevent the chaser teeth from catching on a sharp edge and the recess should be cut at the back of the hole to allow the chaser to cut clean before it hits the bottom of the hole. One nice thing about turning the lathe by hand, you can feel when you've hit the bottom of the hole; at 500 rpm this is not the case. When the chaser cuts into this recess, you must lift the chaser clear and return it to the beginning. Bill Jones refers to this as a sort of figure eight motion; I consider it sort of a loop.

Holtzapffel says to start cutting your thread on the beveled part as shown in his drawing, Figure 1. Your first cuts are along the curve a-b and

Sources for Thread Chasers

Craft Supplies USA; 1287 E. 1120 S.; Provo, UT 84606 USA TEL: (800) 551-8876

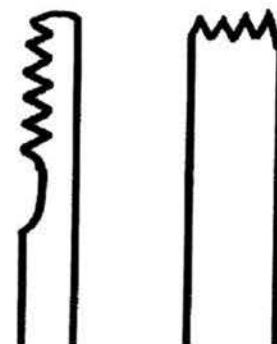
Thread Chasers in sizes 16, 18, 20 TPI.

Woodcraft Supply; PO Box 1686;

Parkersburg, WV 26102 USA TEL:(800) 225-1153 Thread Chasers in 18, 20 TPI.

G&M Tools; The Mill, Mill Lane; Ashington, West Sussex; RH20 3BY United Kingdom Chasers in pairs in 4, 5, 6, 7, 8, 9, 10, 11, 14, 19, 22, 24 TPI. ; Contact: Tim Muddle.

Tracy Tools Limited; 2 Mayors Avenue; Dartmouth; South Devon; TQ6 9NF United Kingdom, Chasers in 5, 6, 8, 9, 10, 11, 14, 16, 19, 20, 26, 27, 32, 34, 40 TPI.



Cutting ends of the male, left, and female, right, tools.

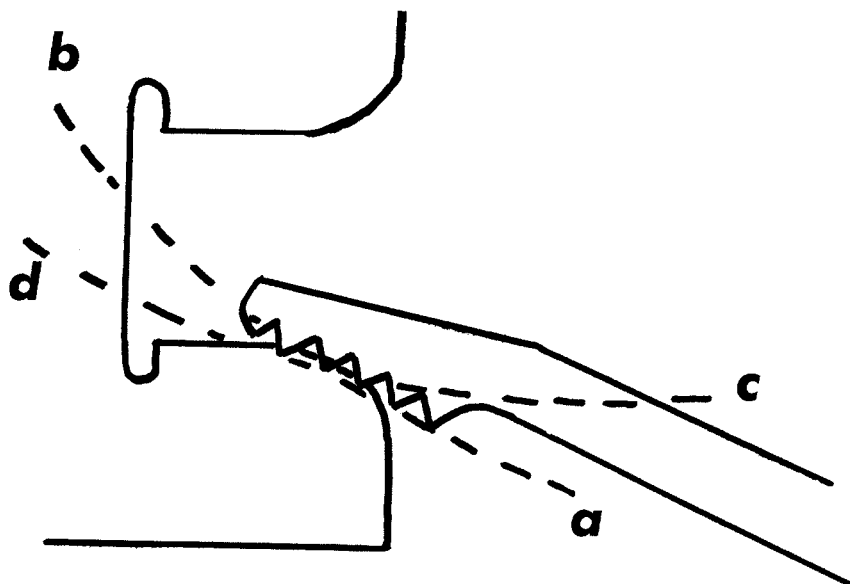


FIGURE 1: Holtzapffell's method of striking the thread. The first pass should be a to b and the next pass should be c to d and then you go down the parallel section. Note the hole for an inside thread must have sides that are parallel with the axis of rotation and a recess at the bottom of the hole to allow the chaser to fully cut the thread before hitting the bottom. A rounded or chamfered opening helps prevent a sharp edge from catching a tooth of the chaser and creating circles, not threads.

then along the curve c-d, until you are cutting along the parallel of the cylinder. Lukin says, "I have found it quite easy to begin at once upon the end of the cylindrical part ...". I agree with Lukin and proceed as shown in Fig. 2, below right.

First, I try to have the heel of the chaser ride on the cylinder. It doesn't cut but tends to move the tool along at the necessary rate of speed. A few practice motions like this allow you to get the feel for the speed. The more teeth to the inch the easier it is to handle the chaser, because you are progressing slower. Once you feel you have the speed down, allow it to cut lightly and move it evenly and smoothly (not faltering) at the desired speed. This is called "striking the thread." Once you have grooves cut deep enough to guide the chaser, you no longer have to move it, but you do have to lift it out of the grooves before it reaches the bottom of the hole. You must exert care to insert the tool into the grooves each time, miss and you may cut a double or triple thread, not good!

Until recently, I turned the "T"

across the face of the area to be threaded, wrapped my fingers around the tool rest and hooked my index finger over the chaser to apply pressure against the cylinder during cutting. I recently acquired an "arm rest", Fig. 3, which considerably aids in cutting inside threads. You place

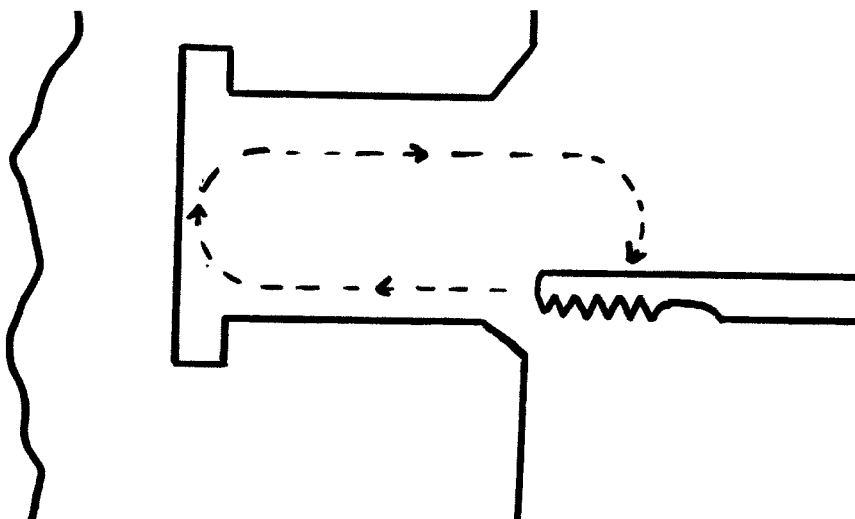


FIGURE 2 :Holder recommends this motion with the inside chaser to cut the threads. The chaser should just cut clean into the recess and must be lifted clear before the chaser end hits the bottom of the hole. This is why it is more difficult to chase threads with fewer teeth per inch. The chaser is moving so much faster it is difficult to lift clear before touching the bottom.

the handle under your left arm, the arm rest on the "T" and the chaser on the arm rest with the hook (turned up part) touching the chaser. The arm rest is then tilted up and down as necessary to position the chaser and is pulled back to exert pressure during the cut. It makes cutting the inside thread much easier. Both Bill Jones and Allan Batty consider the arm rest indispensable for internal thread chasing. I say it is a lot easier; I was making threads without it.

Make additional passes until the thread is deep enough and clean. If you have a specific size that you are trying to achieve, you can measure the inside with calipers and, if necessary, shave off a little bit with a side cutting tool. Make sure the sides remain parallel to the axis of rotation and do not remove all of the thread; leave enough to guide the chaser for additional passes. Then make more passes until you have a good thread again. I do not hesitate to rotate the lathe by hand and make a few passes with the chaser at this very slow speed as final touch up. If you were to

slice the finished piece in half, you should have a thread that appears to be very similar to that shown on the first page of this article.

Now prepare the outside thread area similar to that shown in Fig. 4. The sides of the cylinder must be parallel to the axis of rotation, there must be a recess cut at the end of the threaded area, there must be a bevel or rounded area at the beginning of the threaded area, and there must be a little tenon (shaded area in the figure) that will just fit inside the female threaded area. The outside of the cylinder must be at least twice the depth of the threads larger than this area; i.e. if the thread depth is 0.025" then the diameter must be greater than 0.050" larger than the tenon as a very minimum. I recommend that it be a bit larger to allow for mistakes in getting started. This is especially important when learning this technique.

Before actually starting to move the chaser along the tool rest, it is important that the rest be dressed smooth, any nick or rough spot can stop or cause the chaser to falter and create problems with your thread. Again, with the area below the cutting edge rubbing on the wood get a feel for the rate feed that will be necessary. Make a few trial passes before allowing the tool to start cutting. Then move the tool along evenly at the determined speed allowing the edge to cut lightly as shown in Fig. 4.

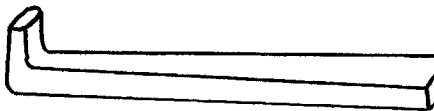


FIGURE 3: The armrest is a smooth steel shaft about 7- to 9-in. long. that can be fit into a handle. The left hand grasps the tool rest and the left thumb presses the tool down onto the armrest and the entire assembly down onto the tool rest. The tool rests against the hook on the armrest so side pressure can be applied as threads are cut.

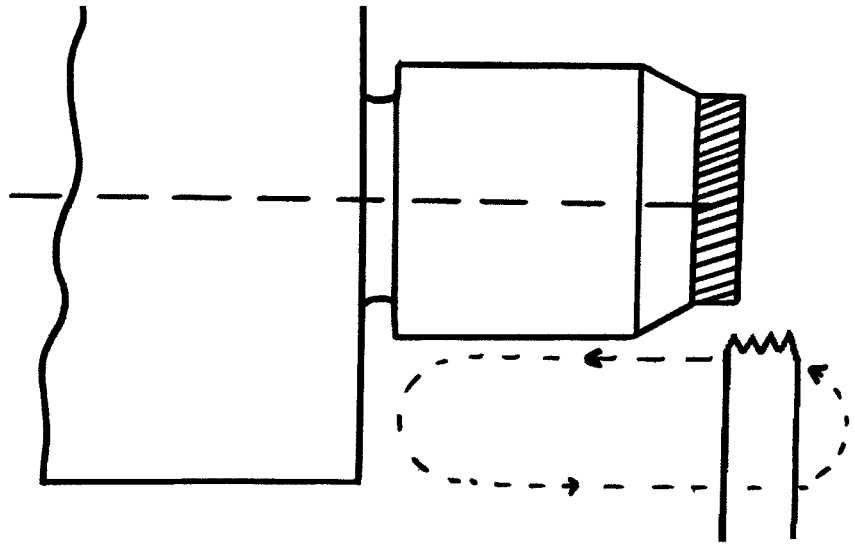


FIGURE 4: This drawing illustrates the movement of the chaser as it cuts the thread. The chaser should just cut into the recess and then be lifted clear of the wood before the chaser comes in contact with the shoulder. When the chaser just marks the shaded tenon, the thread should be ready to receive the inside threaded piece.

As the cutter moves into the recess at the end of the threaded area pull it away from the wood and reapply at the beginning. Your chaser should be moving from right to left. Repeat this operation until the thread is well formed. If the chaser hasn't started to make scratches on the small tenon (shaded area on the illustration), use a square end scraper and take a light cut on top of the threads. Then cut the threads deeper until the chaser just cuts on the small tenon.

If everything was done properly, i.e., the threaded area was parallel to the axis of rotation and the threads are cut to the correct depth, the female thread should screw onto the threads you've just cut.

You may still have to relieve this a bit. I generally turn off the lathe and rotate it by hand while making some final passes with the chaser. Then try your nut or lid again. If it screws on fully, but is a little stiff, apply some soft wax and work it a bit. If that still doesn't free it up, then take another pass with the chaser while rotating by hand. When everything fits, your thread should look something like the thread shown on the first page of this article.

Clean the threads with a soft cloth and apply a light coat of soft wax as a finish. Work the threads a bit to bur-

nish them.

Well that is about all there is to it. As Bill Jones says, "start making little boxes with threaded lids, by the time you've made half a gross, you'll be a thread chaser." Once you have the tools and the inclination and a little bit of know how, all that remains is a lot of practice. Remember, a lathe with a speed of 100 to 200 rpm would be best. Lacking that, try chasing threads while hand turning the lathe. Start with a fine thread (16 to 24 tpi) in the beginning and use a good hard wood. One of the best that I've used is African Blackwood, it is a bit pricey, but it sure makes a nice thread.

One final note, all of the discussion here has been for cutting right hand threads. To cut left hand threads, move the chaser from left to right. Even though most chasers will be right hand chasers, you can still cut left hand threads by tilting the chaser down so that only the very cutting edge is contacting the wood. Move at the same speed, but from left to right. Have fun making threads!

Fred Holder is a turner and writer living in Camano Island, WA. Currently president of the Northwest Washington Woodturners and newsletter editor, he will be a demonstrator at the AAW Symposium in Tacoma, WA.

A TREASURE TROVE OF IDEAS AND INFORMATION

WHEN I BEGAN MY WOODTURNING adventure eight years ago, I quickly found that the thrill of turning was matched by the excitement of figuring out what additional decoration I could add to the turning. As time went on, the process of decoration or ornamentation became the dominant concern of my hobby. In short, the woodturning became nothing more than a palette to decorate. Like many turners I began experimenting with textures, paints, carving, and a dental drill to decorate turnings. With the drill, I thought I had found the perfect tool for my creative outlet (see *American Woodturner* 11.3:50). Then I read about another type of highly decorative turning, called Ornamental turning or OT, for short. I first became aware of OT at the 1994 AAW symposium where a few OT enthusiasts were showing their work and a very fancy contraption called an ornamental lathe. The lathe and the work was very impressive but I wasn't ready to jump into anything new. The idea stuck with me, and I tried to find out more information about OT. A book search turned up a few magazine articles, and only a handful of books - most now out of print. The most notable of these books was the "Principles & Practice of Ornamental or Complex Turning" by John Jacob Holtzapffel. This is the "bible" of OT work, but it is also VERY difficult to read without some mechanical background. Even after you finish reading it, you probably still could not complete an OT project. It doesn't convey information in friendly terms.

My search for information continued, but again very little turned up until I discovered the Ornamental Turners International (OTI) in the US and the Society of Ornamental Turners (SOT) in Britain. In 1997, the OTI held an ornamental turning symposium in Portsmouth, NH where I discovered SOT publications, which contain as much as a hundred pages of useful information and articles supplied by its members. It is very comparable to the

Journal of the AAW - filled with project tips, stories, historical and practical information on the legacy of the Holtzapffel lathes, plus a lot of general and fun information on OT. These bulletins are such a valuable source of information, that a collection of original bulletins can bring in a fairly high price at auction. At the symposium, an idea was hatched to compile the collection of their bulletins onto a CD and to make it available at a reasonable price. And so, the monumental task of gathering all the past issues, scanning them, organizing them, and producing a CD collection was started.

After an almost two year effort, the CD is now available from both the OTI and the SOT. It was produced by Steve Johnson, current president of the OTI, in direct cooperation with the Society of Ornamental Turners and several key members who provided the loan of collected issues of the bulletins. The CD is comprised of the first ninety-eight issues of the SOT bulletins as well as three other important treatises on OT work, and spans the years between 1948 and 1998. Each issue has been completely scanned and indexed and stored onto the CD in the popular Adobe PDF (Portable Document Format), an interchange format which makes it easy to move non-compatible documents between computers. To read a PDF file, a program such as Adobe's Acrobat Reader is required, and a version is included with the SOT CD.

Installation of the CD on PCs is relatively easy; full instructions are provided. From then forward, it is just a matter of using the reader to open the compiled bulletins or the index provided on the CD. Macintosh, UNIX, or other platform owners can obtain free copies of Acrobat Reader from Adobe. Since the PDF format is touted as being platform independent, the data on the CD should still be readable by the other platforms. No system requirements are included with the CD, but my system is a now-obsolete 75 MHz Pentium platform, with only 16 MB of memory,

and I've had no problems

CD users printing the material face one minor irritation. The bulletin format fits European A-4 size paper, which is 12-X-8.5 in. You may have to reduce the print size to 90% of the original.

The CD is organized numerically, with each of the 98 SOT bulletins in its own file. In addition, 3 essays on OT work are also included: "The Rose Engine Lathe", a "Bibliography on the Art of Turning and Lathe and Machine Tool History" and "The Art and Craft of Ornamental Turning".

The CD also has an index which works like a normal book index, but it let's you click any entry to jump immediately to that selection. You can also use Acrobat's search capabilities to look for any word or phrase on the CD.

As to the bulletins themselves, they are comprised of heavily illustrated articles submitted by the worldwide membership of the SOT. The information is invaluable and varies from simple tips and advice, descriptions of OT techniques with modern developments, invention of new apparatus, to complete walk-throughs of OT projects. The projects presented in picture form are exactly what beginners need to take an idea and transform it into turned ornaments. It's probably the only information a beginner may find, because there are so few OT turners around. This CD is like finding a lost gold mine.

The SOT CD is available directly from the Society of Ornamental Turners in England, or from the Ornamental Turners International in the US. Contact Alan Bugbee (860-658-4764) for details. The cost is \$80 for members and \$125 for non-members. Let us also hope that this will start a trend of lost back issues of our favorite journals being compiled onto other CD collections.

- Nick Silva is an amateur ornamental turner in Garland, Texas and Vice-President of the Ornamental Turners International. He will present a beginners OT class at the 1999 symposium in Tacoma, WA.

CRAFTSMAN PROFILE

Gerhard Enns: Award-winning Canadian Turner

WILLIAM DUCE

GERHARD ENNS IS A NAME FAMILIAR to many Canadian woodturners. A regular sight at most of the major Canadian wood shows, his work is easily identified through his unique sense of design, and the awards which often accompany them.

To gain an insight into the man and his work, we have to begin our journey in Germany during the closing years of the war. Like countless others, Gerhard had found himself celebrating his 17th birthday on the front lines, facing the combined brunt of the Allied forces. It was here, that a thumb sized fragment of shrapnel cut into his right forearm, immediately severing the tendons to that hand. By the time he made it back to a makeshift hospital, infection had set in. As the wound healed, the bones in his wrist fused together, leaving his arm solid and inflexible from his elbow down to the knuckles. Little could be done to repair the damaged tendons of his hand, so Gerhard was left permanently with only limited fine motor control in that hand.

After the war, Gerhard left Germany for South America, and from there eventually made his way to North America. When he arrived in Canada in 1957, he brought two children, one pregnant wife and all his worldly possessions packed into two suitcases. But hardships were nothing new to the family, and Gerhard soon found work building and installing kitchen cabinets, a profession he pursued for the rest of his working days.

Eventually, 40 years of cabinet-making with the full use of only one hand became too great of a strain, and his doctor recommended early retirement. This was when he first began to turn, as he puts it, "simply to fill in the time." What started out as a way to stay active, quickly blossomed into a rich and fulfilling second vocation.

After first teaching himself to turn,



Gerhard Enns in his well-organized shop

and then honing his skills for four or five years, he decided to see how his work compared to that of his peers. In his first competition, he found that his turnings were well received on all fronts. In the five or six years since, he has won first place honors more than 25 times, in addition to best of shows, and numerous other ribbons.

For Gerhard, the competitions are simply the most expedient means of judging how well he is doing at his adopted craft. While the ribbons and cash prizes are always appreciated, it is the feedback from judges and competitors that he truly craves. Never one to rest on his laurels, he is consistently struggling to "raise the standards of turning" in both his own work, and that of the novice turner.

I visited Gerhard three weeks after one such event, a generally top-notch competition which I had attended. Gerhard didn't win any awards, but that did not concern him as much as the judge's comments. The judge had criticized one of his entries, a large walnut platter with a parquetry star inserted inside a circle, saying that the woods used did not blend together. As we talked, Gerhard examined the piece, trying to understand

where he supposedly went awry. Gerhard, like many self-taught designer/turners, is extremely introspective of his designs, and feels a need to understand any criticisms.

In viewing his turning, one quickly forgets about any apparent disability or handicap that he has. His work is so technically precise that it is indeed the equal of any 'two-handed turner,' bar none. The diligence and perseverance which he learned at a young age has served him well at the lathe.

Despite his advanced technical skills, Enns, like any turner, has accidents. Rather than becoming discouraged, he rolls with the punches and makes the most of the situation. One day, as he was polishing the stem of a 2-in. ebony goblet with 0000 steel wool, the stem separated cleanly in two. He turned minute tenons on both halves, and then re-joined them with a band of ebony veneer sandwiched between two thin bloodwood pieces. Gerhard liked the results and entered this resurrected goblet into a prestigious Ottawa competition. Deciding the competition could make an enjoyable weekend, he and his wife travelled to the capital to enjoy the usual tourist attractions. But while

sightseeing, his thoughts were on the show. When he finally entered into the hall, there stood his 2-in. goblet framed by the Best of Show award. The gleam in his eye as he relates this story highlights what he considers to be a crowning achievement in his turning career, because of the recognition from his peers of a piece so very close to the scrap pile.

Looking through photographs of the work that he has turned over the years, you find a few recurring themes. One of the most noticeable is his explorations of goblets. He turns goblets in all sizes, from greater than life size down to miniatures, and out of a vast array of woods. Beyond the "plain" goblets turned out of a single blank, he also creates them out of his flawless laminations. Unlike most laminated turnings, Gerhard's are often executed on the vertical axis, which lends itself particularly well to the tall goblets.

One consistent feature of his goblets, regardless of their composition, is that the walls of the top cup are always exceedingly thin. Even when back lighted in the daylight, the transparency is readily apparent. On the larger pieces, the wall thickness on the cups is typically somewhere around one millimeter, considerably less for miniatures.

To achieve such delicate proportions, he turns the walls in a gradual progression, sanding on a slow speed as he goes. Once the top is complete, he proceeds to the stem, and from there, on to the base. After parting off the goblet, he then carefully reverse chucks it to finish the underside of the base. While many of his goblets may initially appear rather simple, a closer examination readily reveals the subtleties of their form.

A second object that he creates in multiples are gavels, not to satisfy any particular consumer demand, but to carry on the tradition of supplying one to each grandson. With three already complete, he only has two more to go to equal the score.

While he revels in the enjoyment of using a skew on his spindle projects, he is equally comfortable when

Shop Visit St. Catharines, Ontario

faceplate turning. In this category of work, he has created several award winning sugar bowls, modifying and further refining the design of each subsequent piece. The sugar bowl that appeared in the Spring 98 edition of this journal was actually one of a pair. The twin won first place in the Master class at the Ottawa show.

The sugar bowl shown on the back cover, is an earlier work in cocobolo and ebony, with dark veneer (could be ebony, but more likely dyed pear) between the laminations. The pear shape of the one previously shown in the journal is a departure from the bulbous form of this one, yet both are wonderful objects in their own right. One has to be careful when turning these small, squat shapes that they do not appear overly cumbersome or awkward. While it is all too easy to be seduced by the enchanting figuring of the cocobolo, it is the subtleties of the form which are ultimately responsible for its appeal. The way that Gerhard has profiled the lid, such that the curve of the base appears to continue on through the flaring rim of the top and on up to an ebony finial, is the major reason for its success. The finial is small and uncomplicated, and works well to blend with the smooth, organic mass of the bowl. The four-legged base which elevates the bowl off the ground, is again simple but totally appropriate to this object.

In contrast to the complicated laminations that he is known for, Gerhard also creates simpler, more "run of the mill" turnings. The pot pourri containers that he creates are a welcome respite from his demanding studio pieces that require a substantial investment of both time and energy. But even here, he lets his passion for wood show in his selection of figured and spalted timbers.

WORKING METHODS

Gerhard has found his 40-years in the furniture trade an invaluable asset to his current passion for turning wood. His vast knowledge and expe-

rience about wood and its behavior are particularly useful in the construction of his laminated turnings. The attention that he pays to the raw material is evident in his practice of insuring that all of the separate varieties of wood that he combines in his laminations have an equal moisture content. It may sound obvious, but it is the cornerstone that all of the work is built upon. For Gerhard, there is no such thing as an acceptable amount of separation between laminations due to shrinkage - anything less than perfection is simply not tolerable.

His shop is simple by anyone's standard, and is really nothing more than a 12-X-9 ft. extension off the back of his garage. The combination of uninsulated walls and cool Canadian winters limits his turning time to the more agreeable summer months.

The equipment that he has selected to outfit his shop, includes a General 160 lathe, an industrial bandsaw, a four inch jointer, a small bench top table saw, a bench grinder and numerous handtools. Other than the lathe and bandsaw, all of the machinery appeared to be quite ordinary and well used.

The General 160 is his second lathe. He has replaced the factory supplied pulley with one half the normal size, resulting in the lathe turning at half the regular speed. Like many fine turners, Gerhard does not feel that speed is a necessity if tools are properly honed.

He also has a home-made lathe in his basement which is infrequently used, but one which he says he will "take with me when they put me in a home." This is really nothing more than a reversing DC motor connected to a threaded rod that is secured in a machined, bench top stand. For now, it is occasionally used for finishing.

There are two chucks which he uses for the majority of his turning. His favorite, which he uses most of the time, is the Oneway 4-jaw scroll chuck. The second, is a three jaw machinists chuck outfitted with left hand threads for outboard turning.

His other turning tools are a mixture of both factory and home-made

instruments. The home-made ones mainly consist of high speed steel tool blanks silver soldered on to plain steel shafts. He finds scrapers to be the logical choice for much of his turning, and has a large selection of the ones described above, as well as several made from old files and concrete nails. One interesting modification that he has adapted is a slight chamfer that he grinds on the top of the cutting edge on his "finishing" scrapers. He finds this reduces any tendency for the tool to catch (which would blow apart his thin walled forms). He uses his scrapers flat on the rest since the interiors on many of his turnings do not conform to shear scraping.

Despite Gerhard's impaired arm, I was a little surprised to find that all of his tools appeared normal in every sense of the word. I did not see any foreign adaptations, braces or strangely shaped handles, just your garden variety every day woodturning tools.

FINISHING

The details in some of Gerhard's turnings can be quite extraordinary, but what you will not find jumping out at you, is the finish. A quality finish has to beautify and protect, but Gerhard believes that it should do so inconspicuously, and let the wood and design speak first. To this end, there are three finishes which he has found work well for him; Waterlox, lacquer and urethane. Waterlox is his choice on what he calls, "ordinary wood," most of the domestics and simpler projects, such as the pot pourri containers. Urethane is his choice whenever he is working with light colored wood. Lacquer is used on his presentation pieces, and when he wants a gloss that will never require touching up.

There are no secrets to applying the finishes, other than the fact that he believes any finish will only be as good as your previous sanding. The sanding stage is definitely not something that Gerhard will ever cut short. With the reversing capabilities on

both of his lathes, he will often reverse sand the piece to get that extra little bit of refinement. He has found that with the urethane finish, he has to sand the final coat to smooth out any application lines. With lacquer, he buffs with 0000 steel wool.

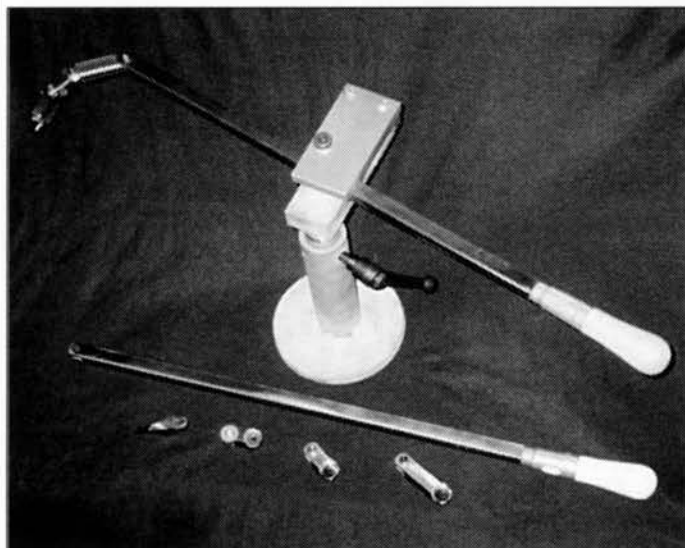
As Gerhard enters into his second decade as a turner, he continues to grow and challenge himself with new and exciting goals. While he ponders a self-imposed retirement from local competitions, he would like to present his work to a larger audience. He is also working on a book that will illustrate his considerable skill and vision as an artisan.

Just listening to the fantastic multitude of projects that exists only in his mind's eye convinced me his journey is still far from over.

William Duce, a turner and writer in Hamilton, Ontario, is the author of "The Fine Art of Small Scale Woodturning," Sterling Publishing Co., New York.

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Toasting the Craftsman's Touch



And his well-designed retirement

The stunning goblets, above, and the sugar bowl at left, are by Canadian turner Gerhard Enns, a retired cabinet-maker who took up turning "to fill in the time" of his retirement.

The three holly goblets, above left, are laminated along the longitudinal axis with contrasting veneers. The tallest is 4-in. The tulipwood goblets above right, are more than 5-in. tall. The 4X4-in. Cocobolo sugar bowl, left, has a band of African blackwood circling the rim, a blackwood finial and dark veneer between laminations. A profile on Gerhard Enns is on page 41.

