

■ Turned Tops ■ Metal and Wood ■ Movie Star Turner ■ Eggshell Textures ■

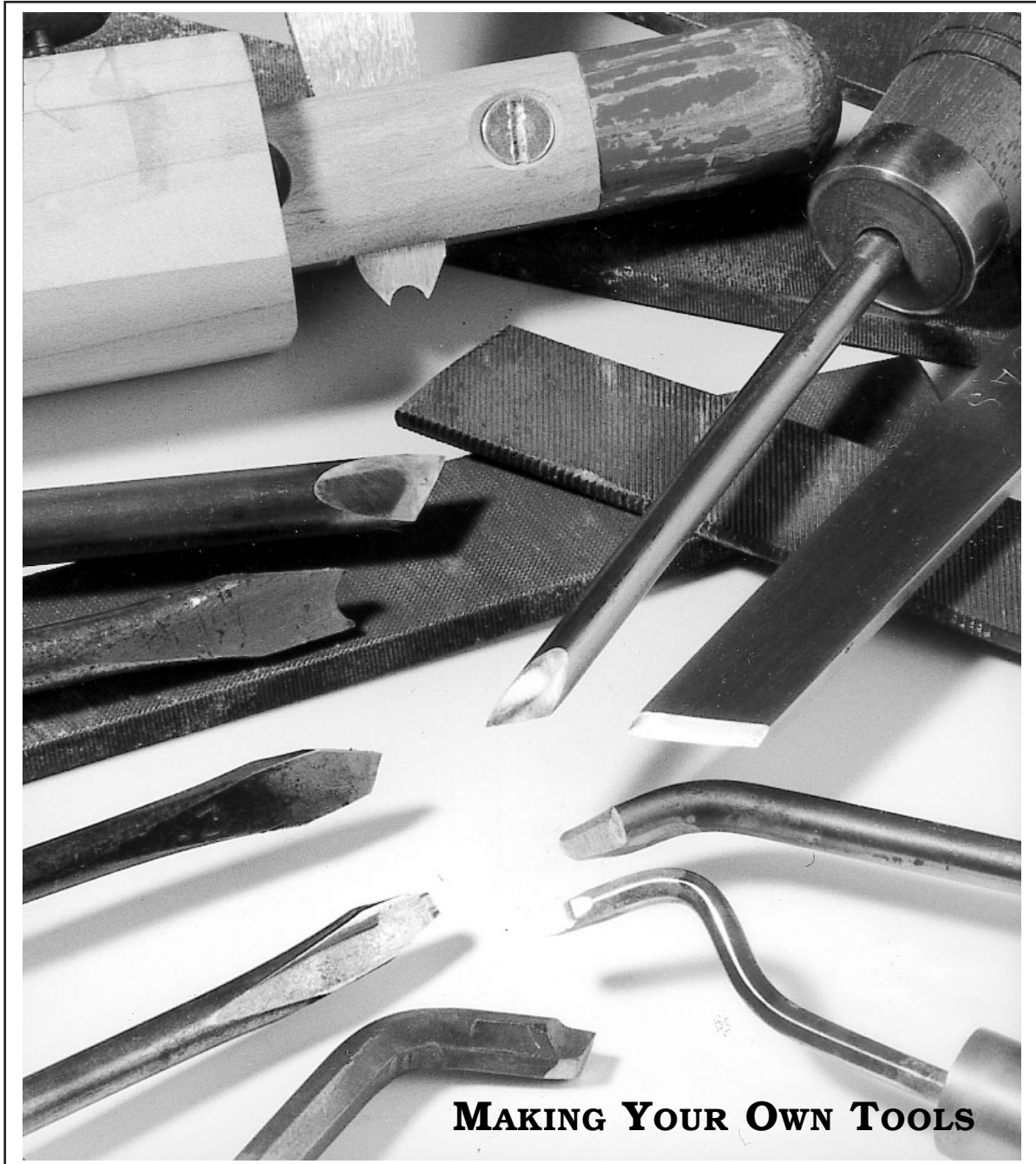
American Woodturner

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MAKING YOUR OWN TOOLS

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



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ART? — CRAFT? — DOES IT MATTER?

IS THE AAW ABOUT ART OR IS IT ABOUT CRAFT? How do we perceive these terms, and do we all have the same perception? Is there a clear delineation between the two? Why is any painting on canvas art, but to some people, anything made of wood is only craft? Does a painting involve craftsmanship? Is a painting on wood only craft? How about a painting on an old saw blade? There may not be any definitive answers on this subject but there is certainly food for thought.

Thank you for all the good responses on the subject and I am sorry I can not include all of them in this column. Here are a few good excerpts. David Reed Smith wrote "My current favorite definition is paraphrased very broadly from *The Mating Mind* by Geoffrey Miller: Art is something that by virtue of its beauty and cost of skill, effort, and materials makes a claim of social and sexual status for the maker and owner".

Joseph Cornell noted: "I aspire to become more artistic but cannot totally resist the temptation to cater to the tastes, wants, and needs of those who might want to purchase my work. You see, that is the distinction I make — an artist makes things that are beautiful or express an idea IN THE EYES OF THE ARTIST. A crafter makes things that the crafter believes will be useful, beautiful or express an idea IN THE EYES OF OTHERS, presumably purchasers." These are good

thoughts.

David Ellsworth, in his presentation to the CWA (printed in AW, Fall 2000) put it aptly, and I quote. "I'm not aware of anyone who's come up with a usable definition of either 'craft' or 'art', but I can describe the intimacy of the relationship between them, which is that 'craft is the foundation from which art can grow'. To me, it is that 'can grow' part that's the most interesting, because it speaks of personal choice, interpretation, and intent."

Rather than attempting to define these terms, think what ideas you conjure up when you think of ART? Creative expression, design, elegance, refinement, symmetry, proportion, composition, and you can add many others. Do any of these rule out woodturning as art, I think not. How about CRAFT? Terms such as skill, dexterity, proficiency, mastery, talent, etc. Do these thoughts all apply to woodturning? Certainly they do. Turned wood might just be the ultimate of the merging of these two performances.

It has been said that a person's turnings are the expression of their lifetime of experiences. Does this only refer to the creative side of their work? I think not. I think one's personality and experiences are also expressed in the level to which they display the skills of turning. If you are duplicating a leg for an antique chair, your propensity for detail and exact-

ness is going to be evident. To some, the challenge and satisfaction can be just as great in turning from a blueprint or copying a model, as the creating of a unique piece might be to someone else.

Ron Vavra's article Promoting Our Art (Winter issue of AW) is excellent. Ron, I agree that when it comes to marketing, definitions are all a matter of perception and it seems to me that a portion of the public have a misconception of not just art and craft but of what woodturning is all about. I think we can all agree that the AAW has had a significant impact on the espousal of all forms of woodturning. There are, of course, other organizations that promote wood art either exclusively or along with other media and we appreciate their efforts. I feel there is still a need to educate diverse segments of society about the attributes of our work. At the present time this is probably being accomplished best through the dissemination of quality work by our membership.

We might consider that the bottom line for a woodturner does not have to be whether he is an artist or a craftsman or some new term we might come up with. I do like David Ellsworth's term, "Crafted Art". Maybe the most important term should be satisfaction. What does it take to make you satisfied with your performance? For some, this is accomplishing a quality piece for yourself. Some of us are looking for the acceptance of others for our work. Some of us need for this acceptance to include an appropriate monetary compensation for our work. So pick a realistic goal for yourself and strive to achieve it to a level that meets your own satisfaction and this might be the only term you need to define.

The AAW is all about teaching and helping those interested in the _____ of wood turning ... You fill in the blank.

— Dave Barriger
President of the AAW

CONTRIBUTING MEMBERS

We often hear about the percentage of any organization which do nothing and expect it all to be done for them. The "Let George do it" attitude. Sure we have those in AAW but I want you to know that we have plenty of "Georges." I am always amazed and appreciative of the positive responses we receive whenever we call for help from the membership. In particular we are using more "At Large" members as consultants in areas appropriate to their expertise. This is in addition to the established Board of Advisors. A recent example is Jack Vessery who has agreed to serve as consultant to the Publications Committee. We have other volunteers that we will be calling into service. If you have an area of expertise that you feel would be of help, just send a brief message to the Administrative Office and we can add you to the file for future use. —D.B.

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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: John Lucas thinks commercially available tools are superior to homemade ones, but he likes making tools and says the process gives him a low-cost way to try different shapes and cutting edges. Read about his low-tec heat treating methods on Page 14-16. Cover photo by John Lucas.

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

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Dangers of Spalted Wood

In the Winter 2000 Journal (vol.15, no. 4), a letter from Mike Wade raises the issue of safety of using spalted wood by asking: "This fungus will infect wood but will it infect humans?" I will attempt to answer these concerns.

Spalted woods are prized for their beauty and with good reason. This attractive figuring has its downside, however. Knowing about the hazard can help you to use it safely.

Fungi are everywhere. We most commonly encounter the "fruiting bodies" of fungi in the form of puffballs, mushrooms or shelf formations on decaying trees, to name just a few. The fruiting bodies produce microscopic spores which are spread by the wind, rain, animals or man. Wherever the spores land they will start to grow, if conditions are suitable, i.e. water, oxygen, food and sufficient heat are all present.

Fungi are important in the natural ecosystem since they are critical to the process of wood decomposition, a recycling of the nutrients and minerals. When a spore attaches itself to a log, under suitable conditions, it will send out fine filaments called hyphae which penetrate deeply into the substance of the wood, pigmentation as it does so. This pigment is usually black but can be almost any color depending on species of fungus and ambient conditions.

The moisture content of the wood is important. It must be between 20 and 28%. Lower than 20% and the fungus will go dormant due to insuf-

ficient water and above the fiber saturation point of wood there is insufficient oxygen. Optimal growing temperature is between 40-and-100° Fahrenheit.

These filaments (hyphae) in the wood are very delicate and are antigenic. This simply means that they are capable of causing allergic reactions in us with repeated exposure to them.

When we machine or sand spalted wood, we cut these hyphae into pieces so small (less than 10 microns) that we can breathe them into the deepest recesses of our lungs. There, our bodies may identify these objects as foreign and begin a concerted, elaborate and powerful effort to destroy the invaders. It is this reaction of our immune system that can cause a very serious disorder called hypersensitivity pneumonitis (pneumonia). Thus, the danger is not that the fungus will cause an infection, but that our body's overreaction to this perceived threat will cause us to become ill. This reaction causes inflammatory cells and fluid to fill the tiny air sacs (alveoli) where gas exchange normally occurs in the lungs.

This condition is not unique to spalted wood, but occurs in many occupations associated with repeated respiratory exposure to fungi. I have selected the ones relevant to woodworkers in Table 1, below.

Hypersensitivity pneumonitis can occur abruptly 6 to 8 hours after exposure to the antigen, getting worse with repeated exposure. It can also

present more insidiously over weeks or months with lower level of antigen exposure. The primary symptoms are shortness of breath with exertion that can become so severe that a previously healthy person could not even walk up a single flight of stairs. Cough, malaise, fever and chills complete the clinical presentation. Most cases resolve spontaneously with avoidance of antigen exposure but some go on to a chronic form and some permanent debility.

Does this mean that you should not use spalted wood? Of course not. It does make it imperative that you take certain precautions, however. These are the same measures you should use to control all wood dust in your shop. They include: vacuum collection at the source of dust production, shop ventilation with outside air (weather permitting), ceiling mounted air filtration and, most importantly, a personal respirator. Which of these should you use? All of them!

Also never leave wet wood shavings on the floor of your shop. They provide an excellent growth medium for fungi.

Once you have done any sanding in your shop, do not remove your respirator the rest of the day. The most harmful dusts or particles (under 10 microns) you can't see and they will remain suspended for many hours.

As soon as most woodworkers hear the word respirator, an image of a heavy, cumbersome, uncomfortable and unsightly apparatus looms large in their minds. The respirator I use is lightweight, comfortable and effective. It is the 3M dust and sanding respirator, model #8560/8710. It is a white fabric, double strapped unit that looks like a dust mask. There are others similar to it, but when you are buying a respirator be certain to check the box verifying

Table 1

Disease	Fungus (Antigen)	Source
Maple bark disease	Cryptostroma corticale	Maple bark
Sequoiosis	Aureobasidium, Graphium	Redwood sawdust
Suberosis	Cork dust mold	Cork dust
Spalted wood	Trametes versicolor et al.	Maple, beech, elm, et al
Wood trimmer's disease	Rhizopus, Mucor	Contaminated wood
Woodman's disease	Penicillium	Oak and Maple trees
Woodworker's lung	Wood dust; Alternaria	Oak, cedar, mahogany dusts; pine, spruce pulp

that it meets MSHA (Mining and Safety Health Administration) and NIOSH (National Institution for Occupational Safety and Health) standards for dust protection.

Wear glasses? A piece of 1" wide masking tape placed across the top edge of the respirator will prevent fogging.

Have a beard? Call Gillette or use a filtered airflow mask.

— *Ted Fink, MD, Shelburne, VT*

Follow-Up Drop-Nose Tool

Here is additional information about the Myron Curtis drop-nose chisel pictured in the Point to Point article (FALL 2000).

"The tool is very efficient for doing spindle work, cutting across end-grain, and is extremely effective as a hollowing tool for small projects (my favorite use). The square shaft provides stability on the tool rest that is very comforting. The tool is fitted with a handle of shape and length to suit the individual user."

First it should be noted that this tool can be made with other than just 1/4-in. square stock. HSS stock in 3/8, 3/16, or 1/8-in. can also be used and you will then have tools to fit any application from miniature to large.

One reason this grind is so useful is because it creates an aggressive cutting edge with a small face that has good strength because the shaft is double the size of the cutting tip, which helps suppress vibration.

The "dropped-nose" grind eliminates the clumsiness of a thick blunt end and makes it very useful as a hollowing tool that performs admirably on end grain, and suitably well on side grain turnings as well.

The angle of the grind on the cutting edge can be anywhere from 55° to 65°. It is not critical; it's a personal choice. I find that a grind of 65° works best for hollowing; something closer to 55° seems more appropriate for spindles.

It is important however that you

use a hand-held stone to "soften" the two bottom corners the entire length of the tool just slightly to form a small radius. This allows for smooth rolling of the shaft on the tool rest.

I also "soften" the top edges so when hollowing through a restricted opening it reduces the chance of catching or damaging the wood around the opening.

An additional way the tool can be used on spindle work is this: roll the tool approximately 45° and angle it so the bevel rubs (just as you would use a gouge), and make a light finishing pass down the spindle. It takes a little getting used to but produces a surprisingly smooth cut on most woods when used in this way.

— *Bruce Hoover, Bloxom, VA*

And a question about beads

I just finished reading the article: Point-to Point by Bruce Hoover (Fall 2000). The most interesting and confusing part about the article is: on page 50, under the picture, turning beads, it reads, When turning beads, remember that "A bead should come to reveal an exact point. A sharp, crisp exact point with no rounding or radius to it. This is for distinction in the work!"

I always thought that a bead was round, and with a radius. Was this meant to be a joke?

— *James Gaydos, Ephrata, PA*

Bruce Hoover replies:

Yes, of course a bead is round with a symmetrical radius. No joke was intended.

I was quoting Myron Curtis there and he is referring to the transition from the bead to the adjacent form. It doesn't matter if it is another bead, or a flat shoulder, or whatever. Much like the idea expressed by some old timers when they said the flats should be flat and the curves should be curves, and you need an obvious and definite transition between the two. It should not look

sloppy. If you do not turn a sharp "V" between beads, or a crisp definition between a bead and an adjacent flat shoulder, it will lack distinction and detract from the overall quality of the workmanship in the piece. We all want the quality in our turnings to stand out, and this is one area where a little extra care can help us do that.

Woodturning as Art

"Bravo" to Ron Vavra for his comments on woodturning as art (American Woodturner, Vol.15 #4).

All serious turners should have this article tacked up on their lathes for repeated reading; it is well written and quite deep in its implications. I hope we can pursue Ron's suggestions for the marketing of our art.

— *Clay G. Crowder, Maryville, TN*

Safety Problem?

Page 17 of the Winter 2000 Journal shows someone creating decorative burns using a wire. It looks like he has the wire wrapped around his index finger at the bottom of the photo.

I get queasy thinking about what might happen if the wire catches on the workpiece.

— *Abe Litman, Hudson, NH*

Larry Hasiak replies:

"The wire used to burn the decorative ring on the ornaments is made of stainless steel fishing wire of about 90-pound test.

Although the photo doesn't show it, each end of the 8-in. wire is wrapped around a 2 inch section of 1/8 in. dowel. I have tried other types of metal such as steel and copper but they burn and break quickly. By all means don't wrap it around your finger! Or, as Abe correctly points out, a catch could result in injury."

REMEMBERING MEL LINDQUIST

Conversations with Mel

"Hey Mel, waddaya mean I get the burl with the chain link fence in it? You're takin' the elder with all the color...."

"Yup ..That's what I'm doing...."

"Hey Giles , if you plow my driveway, I'll give you that nice poplar burl"

"Tell you what Mel.....keep the Poplar.. I want that big hunk of Manzanita over there..."

"Ohh ... OK ... (grumble hidden chuckle)"

"Hey Giles ..what are you doing?...Don't clean this place up.. You'll never get anything done for fear of gettin' it dirty again..... Besides ... Where's the coffee?"

— Giles Gilson

When I first met Mel Lindquist, I was delivering newspapers between 4-and-7 am; the rest of the day, I was a "woodworker" doing local "craft shows."

I went over to his shop, and he came out wearing a mask, and covered with white dust. My first reaction was that he was a lot older than he sounded on the phone. Then he dusted himself off and became about 30 years younger.

From that time on we spent a lot of time together, hanging around the woodstoves in my barn/studio, telling stories, arguing, bragging, thinking up ideas; or we would go out and get wood, or look for tools. Mel saw something in me and spent a lot of energy bringing it out.

He made sure that I got into places that made me and my work visible. His son Mark became interested in helping me, also, and the two of them were important players in getting me started.

Mel guided my focus by encouraging certain types of work, and ignoring what didn't show my potential. We were usually joking around and kidding each other. He



Mel's piece in the East Meets West Show, Tacoma, WA, 1999

always treated me like an equal and through this dialogue his influence was subtle, but effective.

We did the annual craft show at the local museum; he had his "weed pots," and I would turn honey sticks to entertain the people. We offered these fine goods for \$2.98 and had to work to get anyone to buy them. As Mel would say 'Way back in the beginning... "

He'd check out the people. "Watch That one's just a looker; She won't buy anything." " That guy over there ... You watch; he'll come over here and tell his wife that he can make one for her in his work shop" One time a guy said he could make one, and the wife said, "Yeah, but you never will" and she bought one. If you knew Mel, you can picture that little grin and soft chuckle. And you'd know that this man just loved people. Everybody liked Mel. People felt comfortable around him, because he didn't judge others; he let folks be who they were. That's rare and it shows that Mel had real self

esteem. He didn't feel compelled to prove himself. He just was who he was, and did what he did and how others took it was up to them.

Even though he was a college educated engineer, he was very comfortable in a blue collar atmosphere. He spoke the dialect, and had the mannerisms of a very down-to-earth person. He got his hands dirty, and made things happen. He wouldn't hesitate to experiment. If he liked an idea, he would plug away and make it happen – even if everybody else thought it was not worth the effort. A case in point is spalted wood and burls. Before Mel found a piece of old rotten wood at his camp, and noticed the black lines and colors, this wood was rarely used. Mel found ways to make rotten wood into very special objects, and now this material is very desirable. During this time Mel and Mark also worked with burls, and they are the people most responsible for this material being so widely used today.

Mel sent me a package last year, which contained a honey stick and a note. (He calls them honey dippers) I don't think he'd mind me publishing the note, since he knew I was going to post it here in my office.

To the Honey Dipper Kid

While looking through some old boxes, I came across some memories — You guessed it: two honey dippers made by Giles Gilson. Paper route and honey dippers--Those were the days.

I'm giving you back one of your honey dippers, so you will remember your first adventure into the world of woodturning. Do make a three-dimensional box, put this honey dipper in it, then hang it on the wall in your office.

This will show your students that it is possible to progress from a lowly honey dipper to a master woodturner, to a professor teaching the art of making honey dippers on a lathe.

Greetings Giles, Hope this little note

HAPPY TRAILS, MEL

finds you prosperous, well, and happy. And besides ... behave yourself.

— Mel

During those years when I was getting to know Mel, I was doing a lot with laminated and or segmented turning – “polychromatic turning” as it is called now. I wanted to tell stories by assembling contrasting woods into pictures. In 1975 or so when I began to get good results, Mel got very excited about the work. He would chuckle and say something like “You’re crazy, gluin’ up all that wood ... too much time ... he he he”

“This is damn good stuff.”

“I don’t think anyone has ever done it.”

The first story that I wanted to do was about Mel, but I had to find my way to it by doing other stories first. Nearly 20 years later I did that story in a piece called “The Maker.” Interestingly, the story is universal. It encompasses people and their endeavors. Maybe that’s what Melvin did — he touches all of us. And, he’s “damn good at it”

A few days after Thanksgiving, I saw Mel in a dream. The dream seemed so real that waking up was a little disorienting. In the dream he was smiling the most happy smile I had seen. After waking up, I realized that in the dream he was young, and very excited about something, probably the reason for the smile.

I don’t know anything about dreams, but if there’s anything to these kinds of things, then it’s possible that Mel is feeling good now.

I’m gonna miss him.

—Giles Gilson, Schenectady, NY

Turnings good old days

Mel worked during that absolutely wonderful period in the early development of contemporary woodturning when all of our ideas seemed to come from the gut instead of the head He was a major player in this era, and his work had



The card Mel’s son sent after his father died. The note said memorial donations could be made to the Gadsden Arts Center, PO Box 1945, Quincy, FL 32351.

a profound impact on those of us who were just starting out” — David Ellsworth

I first met Mel Lindquist at the Pacific States Craft Show in San Francisco in 1977. He and his son, Mark, had driven from Schenectady, NY, while I had come from Colorado. Like everyone at the show, we wanted to show our best stuff, meet new friends, and try to make enough money to pay for our trips home.

The second time was in 1978, at his home in Schenectady. It was shortly after we had done the Rhinebeck Craft Show in upstate New York. I was staying with Giles Gilson and one afternoon we visited Mel and Helen. Snooping around an old wood shed in the back yard, we caught a brief glimpse of Mel roaring across the yard on his four-wheel ATV, only to disappear back into the woods. Moments later he reappeared out of a thicket behind us and with a quizzical look, said, “You boys lost?”

Mel was one of the first turners

to explore working with burl and spalted woods. What intrigued me most about his pieces was how robust they were, especially compared to my own thinner-walled pieces. Also, how he used the broad natural-edge motif to enhance the drama of each piece. His forms were quite simple and unadorned, which allowed him full exposure of the wood grain, as if laying a glaze onto a ceramic pot. He made mostly hollow bowls and tall vases, in a process he called Blind Boring. Many of the vases were inspired by Chinese vase designs with flat tops, tall narrow necks, a ball-shaped body and a small foot. Characteristic of his direct approach to solving the problem of hollowing through these narrow necks, he simply turned them backwards, hollowed through the base and then plugged the hole. I remember someone once asking him what type of hollowing tool he used and he said, “Anything that’ll fit in there. Hell, I’d use my teeth if they’d fit!” Certainly the most unique piece I ever saw was a vase about 24-in. tall. The neck and the foot were both

FOND MEMORIES AND A LESSON ON "SPALTING"

too narrow to get a tool through, so to hollow it out, he'd sawn diagonally through the body, carved out the middle and then re-glued it. "Worked pretty good, didn't it?", he said.

Mel worked during that absolutely wonderful period in the early development of contemporary woodturning when all of our ideas seemed to come from the gut instead of the head. There were no resources to purchase the tools we needed, so we made our own. He was a major player in this era, and his work had a profound impact on those of us who were just starting out. Looking back, I think what I remember most about Mel was that cherubic little smile. In fact, I can hardly remember a conversation that didn't either start, stop, or sometimes get interrupted, with that wonderful smile. We should all be so lucky!

— David Ellsworth, Quakertown, PA

Mel's legacy

For all of us, the message of Mel's last years is that it IS possible to maintain that sense of discovery that we all initially brought to this endeavor. We can still find within us the simple joy of discovery, the child-like sense of awe and wonder, the challenge of trying something new.

— John Dodge Meyer

I was saddened to hear of the passing of Mel Lindquist. I was fortunate to have met Mel at the beginning of my own career in woodturning and spent a good deal of time with him and Mark and the Lindquist family in Florida.

The second and third generations of turners in this country and around the world owe a great deal to Mel for his pioneering efforts in the field of Studio Woodturning. His legacy of technical invention and innovation is well documented, and his singular realization of the aes-

thetic potential in spalted and burl wood not only led the way for all of us, but will be a timeless reminder of his zen-like artistry with the medium.

But for me personally, Mel's greatest influence was his love of the woodturning process itself. It's something that we all remember; the joy of spending hours at the lathe when it was a new experience, and we were just realizing the possibilities of interacting with and shaping this fascinating material.

So many turners, particularly full-time, have become jaded to that simple joy. Instead they get bogged down in marketing, career, or get

overextended. Most push ahead, but some become cynical, and even a few loose momentum and burn out.

For all of us, the message of Mel's last years is that it IS possible to maintain that sense of discovery that we all initially brought to this endeavor. We can still find within us the simple joy of discovery, the child-like sense of awe and wonder, the challenge of trying something new.

Mel did it. He did it because he kept things in perspective in his head, and that allowed the work and the artistry to flow from his heart and soul.

— John Dodge Meyer, Savannah, GA

Mel defines the word 'Spalted'

Mel gave our Contributing Editor Alan Lacer a short article last year, saying it might be good for the Journal. Somehow it just seemed perfect on this page. Ed.

The word spalted has become common in the woodturners vocabulary, and you may have wondered where it came from.

Back in 1958 when Mark and I first discovered spalted wood, we called the black markings "water marked wood."

In 1967 Mark was accepted into New England College in NH, and we often drove on Route 9, through VT into NH. After you passed Bennington, you started to climb the Appalachian Mountains. Close to the top there was a sign that read "Fabulous Tables." Once I decided to stop and see what Fabulous Tables was all about.

Sitting on the deck of a huge barn, was an old man. He didn't say a word, so I walked into the display room. To my surprise, many tables were beautiful spalted maple. Hoping to strike up

a conversation with the man, I said, "those tables have beautiful watermarks in them." With disdain he replied "those are not watermarks, that's spalting."

The first thing I did when I got home was look up "spalting" in the dictionary. It wasn't there! However, we did start calling our watermarked wood "spalted."

We were accepted at the First Rhinebeck, NY, show and displayed a variety of spalted vases and bowls. They created quite a stir, and, of course, questions about spalting.

It took about five years for other turners to get into the spalted wood, then it exploded.

I became good friends with Roy Shelton, the old man on the mountain, and want to give Roy credit for dumping the word spalted on woodturners.

Spalting is an old German word meaning spoiled and is an old New England colloquialism. For more info, check my son Mark's book "Sculpting Wood."

— Mel Lindquist.

BRANCHING OUT II, 2000

The shavings were flying in the Blue Ridge Mountains, as another successful youth project took place at Craig County High School in New Castle, VA. The students and I planned the two-day event made possible last May through an AAW-EOG/Scholarship, in memory of former AAW board member Charles Alvis, who devoted much time and talent toward youth involvement in woodturning.

In response to students' request Johannes Michelsen participated as our guest woodturner. As the school day began on Friday, students anxiously filed into the shop and were mesmerized by the "hat man" turning his ware. Johannes conducted an informative demonstration, taking time to instruct and answer many questions students had.

Saturday began early as members of the Blue Ridge Woodturners Club set up 18 lathes and project material in preparation for a day of turning. Seventy people attended throughout the day. Parents, grandparents, students and volunteers all worked together in sharing skills and talents alike. The day was well documented



Turner Mel Loftstrom assists a student making a goblet, which was pierced after it was turned. Photos: Courtesy Mark St. Leger

as video cameras were rolling, camera shutters snapping and a local television station featured the event on the evening news.

Hungry turners were treated to a barbeque lunch catered by the high school's food services department. Scurrying back to the lathes, the

young turners produced a variety of projects. They created pens, spin tops, whistles, air brushed sunflowers, oil lamps, weed pots, pierced goblets, mushrooms, mini ball bats, and yes, even a few miniature cowboy hats! Everyone departed with smiles on their faces and several projects in hand.

As several students turned into the night, clean up volunteers were pleased to see the 15 ft. diameter by 2 ft. high pile of shavings produced throughout the day. In awe of the pile of shavings, I let them lie on the shop floor until school began Monday. Students entered the shop in the morning, looked at the pile of shavings created, and with excitement in their eyes asked "WOW, When can we do this again?"

— Mark St. Leger, woodshop teacher, Member of the Blue Ridge Woodturners Club and an AAW Board Member

Need help with an educational project. Consider applying for an AAW grant. The deadline is past this year; call the main office for information about next year.



The two day turning event started off a turned hat demo for students by Johannes Michelsen. The author, standing on a bench to man the video camera, says the students had a choice between English class and making cowboy hats. Looks as many of them made the right decision.

OFF TO A GOOD START-- A FL CHAPTER'S FIRST YEAR

HANDS ON WOODTURNERS has had exceptional growth and success in the first year as an AAW chapter. We have gone from eight members to forty, and we thought others might like to hear what we did to get up and running at this pace.

We had our initial meeting in July of 1999, and quickly decided to join the AAW and incorporate under Florida law. We had no money, no place to hold regular meetings, and no coherent plan of action. A year later, we are solvent, have a scholarship fund for our members, and are outgrowing our meeting place. And we are still having a good time!

We had a good mix of skills in our first set of officers. I was first president, and could get the paperwork for incorporation, etc., done and worked on an overall plan. Ron Browning our vice president and program director, had belonged to the Florida West Coast chapter, and brought experience in setting up demonstrations. My wife Judy, our Secretary/Treasurer and Newsletter Editor, has excellent organizational skills, and planned our meetings so we kept to the subject. We all have the gift of gab, so meetings were entertaining even in our early poverty.

The first tasks were to find a regular meeting place, and to manage the small library of turning literature that had been donated. Nick Dimona volunteered to run the library and to order materials as funds became available. He, Randy Leach and I made up the initial Program Committee, searching for a regular meeting place. In the meantime, we met in members' homes, and had demos in members' shops.

About this time AAW-L, the Internet idea exchange system provided by AAW, had a thread on where various chapters met. Just when you think you have found the answer, nothing works. We tried churches, woodworking businesses, lumber yards, the local Chamber of



Author Ken Jackam at work.

Commerce, and even looked for inexpensive rental property. Finally, the local Moose chapter agreed to let us use their large meeting room, as long as we kept things clean. The price was right, too, — Free!

About the time of our first meeting, the Moose was having a fund raiser. We asked our members to turn some weed pots or other small items that Moose could auction to raise some money. And we encourage our members to consider membership in the Moose. So far, it has been a most productive relationship. They occasionally buy items from our Instant Gallery, and request special items when they are having a contest. They frequently provide us with coffee and small snacks during our meeting, again, for free. Their facility will seat more than 100, with room for an Instant Gallery, demonstrator with a small lathe, and a stack of wood for an auction.

Chapters looking for a place to meet should certainly look into fraternal organizations like the Moose. Many have a mandate from national headquarters to provide some sort of public service, and a home for a desperate set of woodturners could fit that bill very nicely.

Our first four meetings featured turners from within our chapter. We were fortunate to have some turners with solid backgrounds, and our beginners profited greatly. The first

demonstrators set the pattern for our goal of having everyone get "Hands On" experience at the demos. As the chapter grew, we developed other ways to meet this goal.

Both Ron and I had been members of other chapters, and we called on friends from those chapters. Clay Foster was our AAW Board, contact, and we got useful advice from him about finding demonstrators willing to help our starving (broke) club. Elvie Jackson, who had been a mentor of mine, came down from North Carolina and spent 2½ days with us. He demonstrated how he turns his signature piece, a hollow form with a natural edge top. He impressed our folks so much that a hollow form is still referred to here as an "Elvie."

Our success with Elvie went to our heads, so we called everyone on the AAW board who lived anywhere near us. Larry Hasiak showed slides of his work, discussed the AAW and its benefits. Then Norm Rose came up from Tampa to give lessons on the skew chisel and on sharpening tools. Dave Barriger discussed his elevated vessels, then showed us how to tell one tree from another. Our knowledge of local trees was pretty shaky! He wound up demonstrating how to use a chain saw to prepare turning stock. In the Spring we were invited to the Annual Venison Stew cookout at Dave's shop in Apopka, where we learned about using a forge to make tools. And our faith in relaxing and having a good time was reinforced.

Most members didn't have any wood when we started. One member thought all turning stock came from Home Depot, and was astounded that he could use "tree wood." The lack of wood led us to scrounge wood wherever we could. It was not always what you wanted, but everyone had something to turn! In time a core of wood scroungers grew up, primarily around Randy Leach, who became the Vice President and Pro-

ADVENTURES WITH THE WOOD PIRATES

gram Committee Chairman in our January elections. (Ron Browning took over as President, and I moved to the Board of Directors). We call this group the "Wood Pirates," and ask every new member to make an excursion with them.

As the Wood Pirates were developing a reputation, Ron began helping newer turners with their tool problems. Our experienced turners would show how to sharpen tools and explain why, but many new folks were reluctant to lay out money for an expensive sharpening jig. Ron and I went thru two or three revisions of our own version of a sharpening jig, and about that time the AAW Journal published an article on sharpening jigs. We think we took the best of both our experience and that in the Journal, and came up with an inexpensive and versatile jig members could build for themselves. Ron helped members to make their own jigs and find ways to get usable tools at a reasonable cost.

We began calling the core of folks who worked on making tools, etc., The Backyard Mechanics. Ron is the chief engineer. He continues to make tools, and sell them at a very low price, plowing the profits back into our educational fund. On Sunday afternoon or evening, he usually has a couple of folks in his shop putting wheels on their lathes, or heating and bending metal rods to make tools. Not everything works right the first time, but everyone has a good time fooling around with the failures, and bragging about the ones that work. Having a good time has become an unwritten chapter bylaw, and it's easy to enforce!

Sawdust Sessions started because we had so many beginning turners, and wanted to get a fast start for them. The original idea came from a thread in AAW-L, and it took right off. We have three or four experienced turners who welcome other turners into their shops on pre-



Wood Pirate Ron Browning presents reward to Walt Jones, guest demonstrator.

scribed days, for a half-day or more of hands-on training or problem solving. Initially, we planned sessions for beginners, but we have more experienced turners showing up now, to get advice, to master tools built by the Backyard Mechanics or simply to help others. We hope every new member attends at least one Sawdust Session.

Each turner who sponsors a Sawdust Session has a distinct approach. One takes only two students in his shop, and uses an instructional approach. Another works as a problem solver, inviting members to bring problem tools or projects for help, or to share their unique solutions. A third turner takes a "Let's try something new" approach that is a constant source of surprise turnings. Most recently, they have been turning root balls. The dirt and chips just fly! Sometimes the result is a surprisingly beautiful piece. Sometimes not; We love 'em all!

Judy Jackman is our organizational guru, newsletter editor and stage director for our meetings. Her skills serve to prepare the officers for the tasks at a specific meeting. She helps set up an agenda, then sees to it that we stick to it!

We are quite proud of the color newsletter she prepares after each meeting. We e-mail it to the members who are on-line, and reproduce

it in black and white to send snail mail to the remaining members. Reproducing color sheets is too expensive for every copy!

Besides the minutes of the last meeting, the newsletter includes a column by the president, Ron Browning, a profile and photo of a member by Judy, my column on general interest items, like shop safety), classified ads and a schedule of Chapter activities and other events. Judy's newsletter garners applause at almost every meeting.

As the chapter grows, so do our aspirations — we'll try anything that looks like fun. Usually, it turns out to be lots of hard work. We have put on our first show, sponsored by a local country club, and are planning turning demonstrations at businesses, churches and libraries in the area. It's a good way to make friends in the community.

And last, but not least, we have been instrumental in kicking off plans for a Florida-wide woodturners' meeting next November.

Some of our growth has been a matter of good luck. Some was due to experienced officers, some was helped along by AAW and its good offices. We attribute the bulk of it to our rule that meetings and events are to have a good time. Come see us. We guarantee a good time!

— Ken Jackman, Dunnellon, FL

MASTERS OF WOOD ART EXHIBIT 'AShot in The Arm'

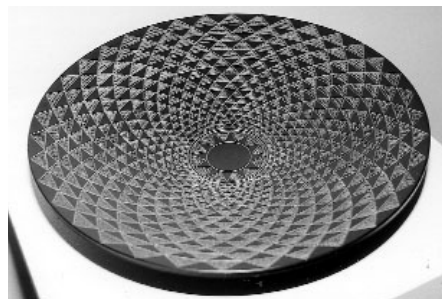
The Finer Things Gallery offered a special treat to Tennessee woodturners by hosting an exhibition, Masters of Wood Art, last January and February. This was the first time that woodturning has been showcased this way in Nashville.

Clay Foster, Robyn Horn, Todd Hoyer, John Jordan, Stoney Lamar, Michael Peterson, and Al Stirt were the artists represented at the show. Turners were very excited to see this level of work. Many people who were unfamiliar with contemporary woodturning were surprised by the variety of shapes and surface textures used to enhance the wood.

Surface texture and suggestions of natural forms created the theme uniting the show. Some pieces initially appeared to be ceramic, but a closer inspection revealed an organic quality that is the essence of a wood piece.

John Jordan and Al Stirt's pieces highlighted that warmth and organic quality. John is a master at using the natural color in the wood. The texture and flowing lines work with the color and contrast in the wood to create a gentle flowing movement around the vessel. Al Stirt's bowls show a mastery of this seemingly simple shape. The carving of the outside or the coloring of the surface pull the bowl away from the purely functional item. This forces the eye to linger longer on the subtlety of the shape and to marvel at the way the artist worked with the natural patterns in the wood.

Stoney Lamar, Robyn Horn and



Work by Al Stirt, Enosburg, VT



Work by Clay Foster, Krum, TX

Michael Peterson captured motion in the flowing lines and textures. Negative spaces and textures force your eye to move through the piece while the subtle lines created by the turning tool lead your eye from detail to detail. This creates a sort of motion or flow as you view the piece. For the turner there is the ever present question of how these pieces were created. They appear sculptural in origin and yet there are clues that they had been on the lathe at some point. Robyn Horn feels that the precise cuts of the lathe work well with the rough cuts of the chainsaw. She and Stoney Lamar have added metal to several pieces. Instead of appearing cold the metal has been chemically rusted to add a warm feeling that works very well with the colors of the wood. They feel this adds a dynamic contrast to the piece. Michael Peterson's pieces had the natural flow of stones that have been etched and shaped by water. Your

eye follows the curves in the same way the water moves across the rock, pausing in the eddies and then swirling out through a gently sloping path polished by nature's own carving tool.

Clay Foster's pieces have the feel of ancient artifacts or civilizations long lost, but offer new discoveries around each corner. The closer the piece is examined the more one learns about the creator of the work, or perhaps there are deeper mysteries to be solved. Several pieces had burned details that remind us of the ancient artisans of the past. This adds to the illusion of age.

Todd Hoyer's work at first resembles Found Art. The aged wood and rusted wire could have been created by the ravages of nature or a fire. The forms, and negative spaces work with these aged materials to force the viewer to accept it in its higher form. They look perfectly natural on a pedestal in a Gallery setting. I found myself enjoying them from across the room as well as up close. From a distance a turned ball in the middle of the piece, wrapped with old wire, tying the two halves together, but this very detail entices the viewer to explore the piece further when viewed up close.

Robyn, John, Clay and Stoney attended the opening and gave slide shows and answered questions. All four stated that natural forms strongly influenced them. This was evident in the slides and discussions on the origins of pieces. When asked why they got into woodturning, Robyn Horn suggested that certain personalities might be drawn toward the subtractive process of wood versus the additive approach in other mediums. John Jordan said he likes harvesting and recycling wood. There was a large crowd in attendance and everyone I talked with loved the show. It gave woodturning in Tennessee a real shot in the arm.

— John Lucas, Crossville, TN

NEW BOARD MEMBER, NEW SCHOOL, NEW TURNING CENTER



Bonnie Klein Joins Board of Directors

Bonnie Klein, a well-known turner and teacher from Renton, WA, has become a member of the AAW's 9-person Board of Directors.

In announcing the appointment, AAW President Dave Barriger said she will fill a one-year vacancy until Dec. 31, 2001. He thanked Bonnie, who previously served on the board, for accepting the job, saying she would contribute greatly to AAW activities in the coming months

New Woodturning Program

Anderson Ranch Arts Center will begin a new woodturning program this summer. Construction of an 800 square foot addition to the Sam Maloof Wood Barn is underway.

Turning courses will be small, with six students to one instructor.

The 2001 program includes Introduction to Turning by Brad Reed Nelson, June 18-22; Designing for Turning, Turning for Design by Stephen Hogbin, July 2-6; Intermediate Turning: finding your voice by Merryll Saylan, July 16-20; Woodturning by David Ellsworth, August 20-24; and Turning Open Forms: bowls & platters by Alan Stirt, August 27-31.

Contact Anderson Ranch Arts Center, P.O. Box 5598, Snowmass Village, CO 81615 (970-923-3181).

Like To Run for the AAW Board?

The AAW depends upon an active, working Board of Directors. Each year, three of the nine positions on the Board come up for election. Each position is for a three-year term. The deadline to announce your interest in running this year is May 15.

To qualify, you:

- Must be a member in good standing for the past three years
- Must be approved by the Nominating Committee. The Nominating Committee this year consists of the following: Bob Rosand (chairman), former board member Larry Hasiak and a general member to be named later.

If you have questions about serving on the Board, you are invited to discuss them with a current or former Board Member. If you are interested in serving on the Board, please send the

following to the Administrator, postmarked no later than May 15.

- A statement of intent, including qualifications and reasons for applying (Please review statements published in last September's AAW journal for style and length.)

- Letters of recommendation from two individuals who can affirm your organizational and leadership abilities.

- A photograph of yourself.

The Nominating Committee will review this application material and schedule interviews in late May and early June.

Candidates will be announced in the Fall issue, ballots will be sent out before the end of September, and election results will be announced in the Winter issue.

—Bob Rosand, *Nomination Committee Chair.*



Congratulations to Wood Turning Center

The AAW Board of Directors congratulates The Wood Turning Center on the opening of its new facility at 501 Vine Street in Philadelphia's gallery district.

The newly renovated site has ample office space, an exhibit gallery, research facility and collection study area, and plenty of parking. "The move is just what the Center has needed! We finally have the gallery space, shown above, we

need to give exhibits of lathe turned objects their due respect," said Albert LeCoff, Executive Director. The Centers' archival library is fast becoming more user-friendly, in a setting that provides ample work space, he said.

The center maintains a collection of more than 500 lathe turned objects, and its archives contain more than 15,000 slides, books, videos, and documents.



Tip of the AAW Hat For the Winning Tip

As promised in the last issue of *American Woodturner*, we turn over a new leaf this spring by rewarding the contributor of the issue's best turning tip with an official AAW ball cap.

And, as I begin my turn as the new Tips Editor, I take pride in congratulating Jim Hilburger of Holden, NY as the first recipient of a cap for his tip in this issue on an innovative way to produce sanding disks.

Here's a couple more to inspire you to send in your entry for next issue:

Segmented Rings

If you are making segmented rings, try to make the number of pieces divisible by 4 or 8. This allows you to glue the pieces together in 45, 90 or 180° sections and check them

for accuracy. Sanding them at this stage removes less wood for a more precise looking ring.

Steady Rest Wheels

Inline skate wheels work pretty well for homemade steady rests. You can find bargains on the skates at Goodwill stores. I've paid as little as \$3 for a pair which gets you eight wheels.

New Tips Address

To qualify for the Best Tip Award, Send your tips to:

**JOHN LUCAS,
PO BOX 1292,
COOKEVILLE,
TN 38503.**

jlucas@tntech.edu



John Lucas, Tips Editor

Beginner's Tips

If I could only give a beginner a few tips or suggestions to get him or her started in wood turning, what would they be? I polled and pestered a number of friends and acquaintances and came up with the following list, not necessarily in order of importance.

1. When you begin turning, use a cup center rather than a four-or-two prong drive center. The cup center allows enough friction to turn the piece between centers, but also allows it to slip if you have a catch with the tool.

2. Modify your tools to suit your needs. The grind that comes from the factory may be dull and incorrect. Don't get hung up on how many degrees the bevel is. It is not as important as you may think. As a general rule, the more acute the bevel, the harder to control the tool.

3. Lighting. Work in a well lighted shop. Most people seem to

prefer and are able to work longer under incandescent light than under florescent lighting.

4. Be sure that the tool rest is secure. Test it before you turn on the lathe. Remember that it is also a hand rest. Use your hand on the tool rest to guide and steady the tool as you cut.

5. In the *Practical Woodturner* F. Pain suggests "when you stand upright and put your hand to your shoulder, the elbow is just a happy height for the center line of the lathe." Most of us probably need to raise the height of our lathe at least a few inches.

6. Learn how to sharpen. A dull tool is far more dangerous than a sharp one. Slow down the speed of the grinder. Get rid of those horrible grey wheels and buy white aluminum oxide wheels (Enco Mfg. is one economical source). Use a 60-grit and 100-grit wheel powered by an old 1725 rpm refrigerator motor. Buy

a good diamond wheel dresser and practice sharpening on old pieces of mild steel.

7. "Always check the lathe speed before starting the machine." Stephen Blenk wrote that line in *Turning Casualties!* (AW June 1992) But the question I am always asked is "What speed should I turn at?" or "What speed are you turning at?" If you have to ask what speed you should turn at, you should probably slow the lathe down. In the second question, the speed I am turning at may not be the speed you should turn at. F. Pain suggested "a speed slower than the usual 1/2 h.p. motors" (1725rpm), which puts you in that 1,500 range. Speed will depend on the object you are turning.

8. Always use eye protection. I have scratched my cornea about half a dozen times over the years and am lucky not to have suffered permanent damage to my eyes. Today, I never turn the lathe on without reaching for my glasses.

9. If you have a new lathe, remove burrs on edges and corners of cast iron with a file, then use paste wax on the ways. Be sure that your tool rest is free of nicks and dings. They will show up on your work. Once smooth, rub paraffin on the top of it to help the tool slide.

10. Keep the tool rest as close to the work as you can. Extending the tool far beyond the rest is asking for trouble. Also, angle the tool rest as appropriate to get close to your work. If your tool rest is very long and you notice some vibration when you turn at its extreme ends, you may want to consider shortening it.

11. Provide a simple, handy, safe place to put your tools as you work. A tray on the ways of the lathe keeps tools from falling on the floor and makes the tool readily accessible to the turner.

*Bob Rosand, with suggestions from
Palmer Sharpless David Ellsworth and
Dave Hardy*

Sanding Discs With Jim Hilburger & Bob Rosand

The best system I have ever found for power sanding was one introduced to me by David Ellsworth some years ago. I should mention that I became interested in power sanding because of a comment that David made. I can't remember his exact words but it centered around his abhorring looking at the interior of a bowl and seeing sanding marks that made the interior look like a record. Little comments like that stick with me and I take them to heart. I don't think that you can find a bowl of mine that I have turned since that time that has sanding marks in it.

The velcro sanding discs and the discs that lock into place are probably the most popular. The problem I have with them is that they cost money, and when they wear out, you have to purchase new ones. I've met far too many of you who take a 150-grit disc and use it until it doesn't cut well and then call it a 180-or-220 grit disc. Another problem with the commercial power sanding systems is that the rubber backing on the discs are too hard.

My preference is a disc that flexes to fit the contour of what I am sanding. The sanding system David showed me was, simplicity itself. It included a foam pad 1/2-in. carpet backing glued to a sanding disc. He held the sanding discs in place with a removable disc adhesive. That was it, simple and effective.

To keep the sandpaper discs in place, I use "Repositionable 75" made by 3M and cut my own sanding discs.

Tearing Cutter

Consider making a jig for tearing sandpaper to appropriate size squares. I generally use 3-in. discs, but use discs as small as 1-in. A simple jig can be made with an old hack saw blade or piece of formica secured to the workbench or a piece of plywood. The sandpaper is placed under the blade or formica and can be torn into nice neat squares. Guide lines can be marked on the plywood to indicate disc size.

The Sanding Disc Cutter

Take an old faceplate and attach a waste block to it. The block when turned and trued must be larger than

the largest sanding disc you want. I also like to make the waste block fairly thick so that you can occasionally face the surface. Next make a series of plywood discs the size of the sanding discs you want.

Once you have the discs sized and centered, place the sandpaper between the faceplate disc and the sizing disc, bring up the tail center and tighten. With the lathe at a medium speed (1,000 rpm) use the long point of the skew, a sharpened screwdriver or a thin parting tool to cut the discs. After making a few batches, of sanding discs, you will need to sharpen your cutting tool and you'll need to true up the base disc.

When you use the Repositionable 75 to adhere the sandpaper discs to the foam pads, make sure that the adhesive has some time to dry; otherwise it will not stick. And when you are done sanding, remove the disc from the foam pad or later, you will remove large chunks of the foam along with your sandpaper.

--Jim Hilburger, Holden, NY; Bob Rosand, Bloomsburg, PA

Storing Discs

Now that you've made Jim Hilburger's sanding disc jig, how do you store all those discs?

I literally have hundreds of discs in various sizes and grits. Initially I stored them in plastic bags, but it was awkward to pull out the bags and keep them in order. The solution was a piece of cardboard, some old three-inch mailing tubes and hot glue.

I cut the tubes to two-inch lengths, glued about eight of them to the cardboard and put the discs in the cutoff mailing tubes.

I made enough of them to accommodate the various size sanding pads and when working with a specific size, just pull it out of my cabinet and go to work.- B.R



Tearing Cutter



Mounting the Paper



Turning to Size



The Finished Product

MAKING SCRAPERS

An easy way to heat-treat your own tools

JOHN LUCAS

When I first started turning wood, I built a lathe using a drill for the drive and a lag screw stuck through a 2x4 as my tail-stock. I didn't even know shear cutting tools existed; I made all of my tools from old screwdrivers. These worked OK, but I needed something bigger. An older woodworker suggested files, and so I ground an edge on an old file and went to work. My tool didn't even have a handle, and, though I didn't know then, it was probably too brittle to be used safely.

After years of turning, I occasionally make special tools from an old screwdriver or a file. But, my methods have improved considerably — I've learned how to properly heat treat those metals to prevent injury and to improve their edge holding abilities.

Let me make two things really clear. First, it is dangerous to use a file straight off the shelf without some sort of tempering or softening. Files are extremely hard and therefore brittle. When they shatter, a piece could easily hit your face with extreme force. Second, good quality, commercially made tools will always be better than homemade, unless you have years of experience in heat treating metals and other aspects of metallurgy.

So why make your own tools? It's fun. You get a feeling of pride and accomplishment that I think the old time toolmakers must have experienced. You also learn about metal and heat treating which can help you in all your woodworking; you'll certainly have a better understanding of why high-speed grinders come with warnings that overheating a tool will remove its temper. And, the process gives you an economical way to experiment with different grinds and cutting angles on your tools.



The author's arsenal of home-made tools, all made from salvaged or readily available materials: above, from left — miniature bowl gouge from a press pin, scrapers from screwdrivers and allen wrenches and parting tool made from a keyhole saw. At right, a flat skew from a file, a round skew from drill rod and a hollowing bit made from a file. Photos by author.



Now that that's out of the way. I will discuss heat treating in general, then show you how to heat-treat a tool in the simplest way I found — using your barbecue grill and the kitchen oven. Who say's men never use an oven for anything?

The simplest tool to make is a scraper or skew from an old file. I look for nice thick files at the flea market. I haven't paid more than a dollar for one yet. As I said, files are too hard and brittle to use as turning tools, but the tempering process I'll discuss reduces the degree of hardness, making the metal much more useful for our purposes.

The heat-treating process can be divided into three main stages: Anneal-

ing, which softens the tool so it can be shaped; hardening which again makes the tool so hard that its cutting edge would be very sharp, but also very fragile; and tempering which helps you reach a compromise between sharpness and toughness.

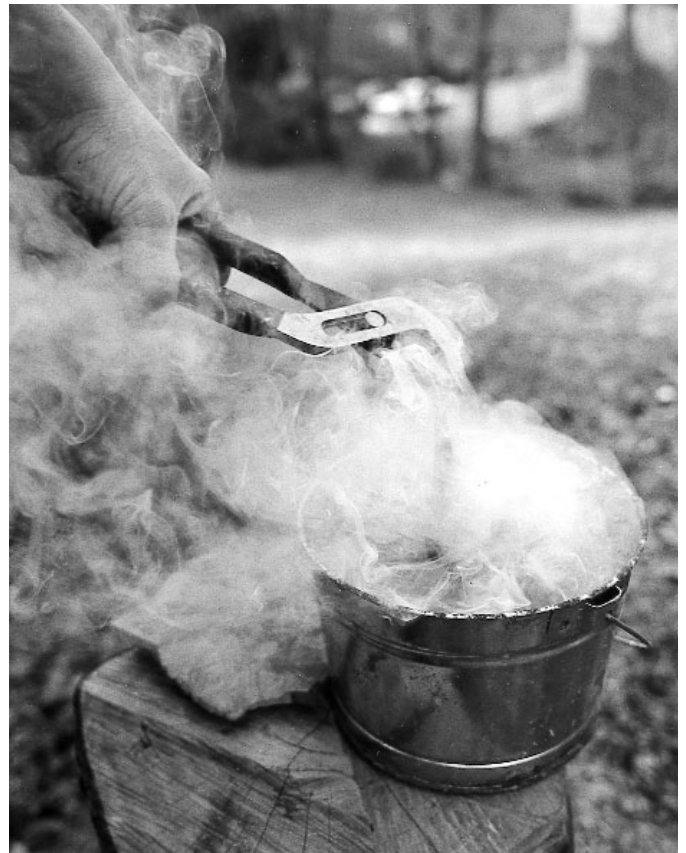
A well-tempered tool will be hard enough to take a good edge, but soft enough to resist chipping and shattering. The level of tempering must be suited for the tool: a surgeon's scalpel must be incredibly sharp, for example, but it doesn't have to be as tough as an ax.

Annealing metal

The first step is to anneal the file, which softens the metal so it can be



An ordinary charcoal grill is used for both softening and hardening the metal. The metal can be softened, a process called annealing by heating it in the grill, then letting it cool overnight. To harden the metal it is heated to cherry red, using plenty of fuel, fanned by air forced in from a high dryer or other source, then plunging it into peanut oil, which you can buy in most grocery stores. Hold the metal and swirl it around in the oil to promote even cooling. Work outside, and have fire extinguisher handy, in case the oil catches fire.



shaped and bent without breaking. Blacksmiths do this in a forge, heating the tool to cherry red, then plunging it into dry sand and leaving it there, so that it cools slowly. Blacksmiths often worked in the shade, so they could judge colors more accurately. When ferrous metals like steel become cherry red, they lose the ability to attract a magnet; some workers like to check the temperature this way, as well.

After the metal is annealed, it is soft enough to be shaped and ground to the profile you desire, either with another file or some type of grinder.

The shaped metal will still be too soft to hold an edge and must be hardened before it will make a good tool. Do this by heating the steel to its critical temperature (cherry red or non-magnetic) and then quenching it in oil or water to cool it rapidly. This will make the metal very hard and again it will be too brittle to use.

Tempering is the next step. The tool is reheated, but this time you don't want the metal to become cherry red. The goal for the metal we are using here is to heat it until it is the color of straw and quench it again. Tempering removes some of the brittleness and makes it easier to sharpen but leaves it hard enough to hold an edge. This process takes a skilled blacksmith to get the temperature just right; it's difficult to judge the color and easy to let the piece get too hot, especially if the edge is thin.

At first I used a propane torch and then a hotter Mapp gas torch to heat the file. This worked on small pieces, but I had difficulty heating large pieces evenly. Then I read an article by toolmaker Ron Hock, recommending using an oven to temper the steel. Then a knifemaker friend recommended using a barbecue grill to anneal the steel. Now I had a simple process that anyone could handle.

My simple process

Here is how my method goes. Start up the charcoal grill and bury the file in the coals. When the coals get red-hot, the file should be also. Ideally the metal should be non-magnetic, but I find this hard to achieve over more than a few inches. The file won't be soft enough for serious work, but will work for what we are doing. The metal must cool slowly, so just let the coals and the file cool down overnight. It is now soft enough to work with common tools. Check it by removing some of the teeth with a good file. I use a grinder to shape the metal and a belt sander set on its back to grind the teeth off the old file. Grind and file the tool into the shape you want.

Now it's time to harden the tool. Fire up the old grill again. Bury the tool in the coals and heat it until it is cherry red and non-magnetic. If you have trouble getting it this hot, blow

on the coals with a hair dryer or other small concentrated fan. You've seen old blacksmiths do this with a bellows. Sometimes it can be difficult with thick metal. Pile on plenty of charcoal and try to get the air under the coals. When it reaches the proper temperature, leave it there for 30 minutes per $\frac{1}{4}$ -in. of thickness. This insures that the tool will be more evenly hardened. When the time is up (or you run out of patience), grab the metal with a pair of tongs or pliers and plunge it into a bucket of peanut oil. Keep the tool moving in the oil, so it is cooled quickly and evenly. Used motor oil will work, but there is a very real hazard of fire and disposal of the used oil is a problem. Peanut oil is cheap and has a higher flash point. Work out doors and keep a steel lid handy to put out the fire if it happens. I've done this about a dozen times and have not had a fire, but the potential is there. It is also wise to keep a fire extinguisher handy.

Now the steel is very hard and brittle. To temper the tool, use an oven. The tool should be heated to 375 degrees Fahrenheit. More heat makes the tool softer and less heat makes it harder. Your oven is probably not accurate. Mine was off 50 degrees. Buy an oven thermometer and let the oven stabilize at 375 for 30 minutes or so. Place the tool in the oven on a brick. This helps heat the tool more evenly. Heat the tool for 30 minutes per $\frac{1}{4}$ -in. of thickness. When it is done plunge it into the oil to stop it from changing. Using my thermometer and oven the tool changes to straw color around 390 degrees so that's the temperature I use.

The tool is now ready to sharpen. I wanted the tang area to be softer for strength, so I wrapped the blade with wet towels and heated the tang with a propane torch until it turned blue. You could heat it red hot and let it cool slowly which would really make it soft, but it's harder to keep the



The metal can be tempered, a process which balances its edge-holding ability with toughness in a home-kitchen oven.

blade at the proper temperature.

That's all there is to it. If you want a tool in a hurry just heat the file to 375 degrees and quench it. It will now be soft enough to use safely. It's a little harder to grind off the teeth and it may not bend without breaking but it won't shatter dangerously. If you want to run a test put the file in a vise and bend it about 90 degrees. A properly annealed tool will bend a pretty good ways before breaking and won't shatter. Do this test with a scrap file. You can still use the broken file to make cutters for hollowing tools. Obviously you should have on all the proper safety gear before trying this.

Using drill rod for tools

I use polished drill rod to make my small hollowing tools and small round skews. Drill rod is fairly hard when you buy it and will cut fairly well without hardening. It is very simple to harden the cutting edge with a propane torch.

I buy AISI-W-1 drill rod. This is a water-hardening metal. That means that water is the correct quenching medium for this metal. You can get a chart from your dealer showing the heat treating temperatures if you really want to know. I use a small

propane torch and heat the tip to cherry red, then quench it in water. Polish the steel so you can watch the color and slowly heat it until you reach a slight straw color then quench it again.

This only hardens the 1st $\frac{1}{2}$ -in. or so but on small tools this will last through quite a few sharpenings. When the tool seems to dull quickly just pull out the torch and reharden the tip. It will only take a minute or so to reharden and you'll have a good usable tool again.

There are obviously more precise ways to heat-treat a tool and the quenching medium you choose will cause a lot of argument among blade smiths. This method is based on the safest and easiest way to heat treat an unknown steel by someone who is not a blacksmith. If you are going to make very many tools a forge or Oxy-Acetylene torch would obviously be easier.

Hope you have as much fun making tools as I have.

When he is not turning in his shop in Cookeville, TN, John Lucas is a professional photographer, as well as newsletter editor for the Tennessee Association of Woodturners. He is also the new TIPS editor for the Journal.

WOOD AND METAL

A pro becomes a beginner again

CHRISTIAN BURCHARD

IT'S BEEN 25 YEARS SINCE I STARTED working in wood. I have been involved in many aspects of the wood-working trade, from building houses and furniture to turning functional and sculptural forms on the lathe. Wood is a wonderful material to work, but it does have its limitations. And, it is just one of the many possible materials for creating three-dimensional objects.

When I was searching for very different forms and colors in my work, metal seemed the obvious choice. Copper and silver especially caught my attention. When I began looking around, I became aware of how many others in the turning field were using metal in various ways.

I have always loved the colors in the patinas of Bill Moore's spun-metal work, like the piece shown below, and also got to know Greg Wilbur, a metalsmith from Portland, OR. Greg practices and teaches the art of "raising," which translates basically into shaping and manipulating sheets of metal like copper, brass and silver through a pattern of repeated hammer blows.



"Pitcher Series" by William Moore; mahogany and bronze; 7-in. tall. Photo: Harold Wood.

I was especially attracted to the many-faceted surfaces of his vessels, which give them a very soft feeling. Soon we were trading work and I was incorporating small parts that he made into some of my vehicles and wall sculptures. I really wanted to learn from him and received an AAW educational grant last year that enabled me to study with Greg for three days last February. Greg, who is an excellent and very patient teacher, led me through the different steps that are needed to transform a flat piece of metal into various shapes, in my case anything from car axles, buckets and flags to silver wings and small bowls.

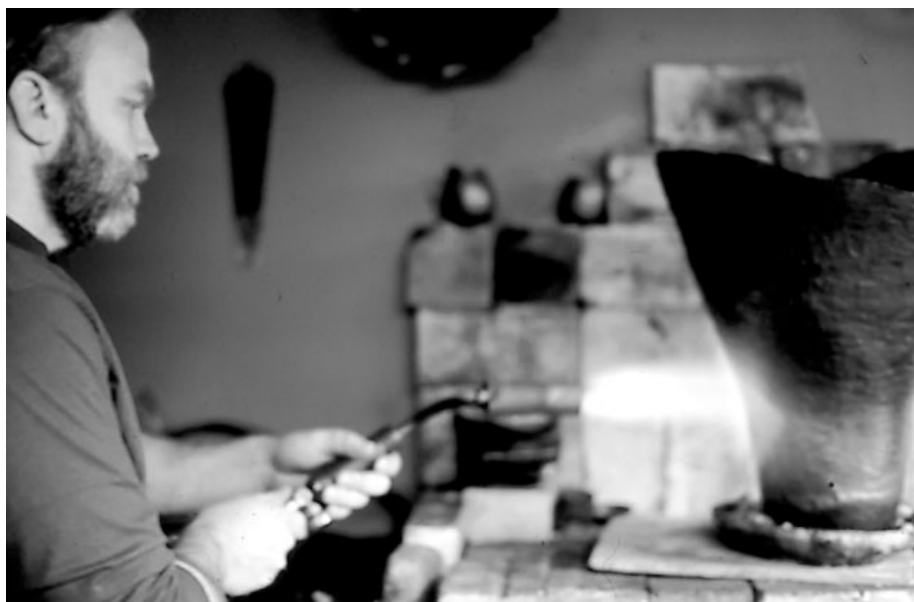
The copper that we used comes in sheet form. It is fairly soft for starters, but when hit with a hammer, it work hardens and becomes brittle. Then it needs to be heated to

"The hardest part for me is opening myself to a totally new craft and going through the whole learning process again. Messing up a lot. But I feel that it is well worth all the frustration if I can gain a new level of creative expression and have fun with it." — Christian Burchard



Dreaming of Cradles in the Sea by Christian Burchard and William Moore. Copper and Madrone Burl. Collection of Fleur Bressler. Photo: Rob Jaffee.

red hot and quenched in cold water, a process called annealing (reorienting the molecular structure) to become soft and malleable again. This process



Greg Wilbur, a metalsmith from Portland, OR, and the author's instructor, heats a copper vessel, as shown at top right. Vessels like this are formed or raised by hammering the metal. Above, left, a detail of Burchard's "Seriously Considering Travel," shown at right. Madrone Burl, copper and silver. Top two photos: Sandy Wilbur. Bottom two photos: Rob Jaffe.

gets repeated over and over again until you achieve the desired shape. (Note: copper is a non-ferrous metal, so the annealing process is different from that used with steel, as described in John Lucas' article on tool making, pp 14-16. — Ed.)

Forming a simple bowl is done by hammering the metal in a rotary

manner, starting in the middle and working outward in a spiraling motion. One basically stretches the metal in some areas and compresses it in others. I enjoy the slowness and deliberateness of the movements. Producing this work involves a very different rhythm than what I am used to when turning. Except for the pol-

ishing and grinding wheel, no power tools are used. Hammers and stakes, which are used like differently shaped anvils, are the main tools used. They have changed little over the ages — copper was the earliest metal used by man. It took me a while to settle into the rhythm of repeated hammer blows. An intensely stiff

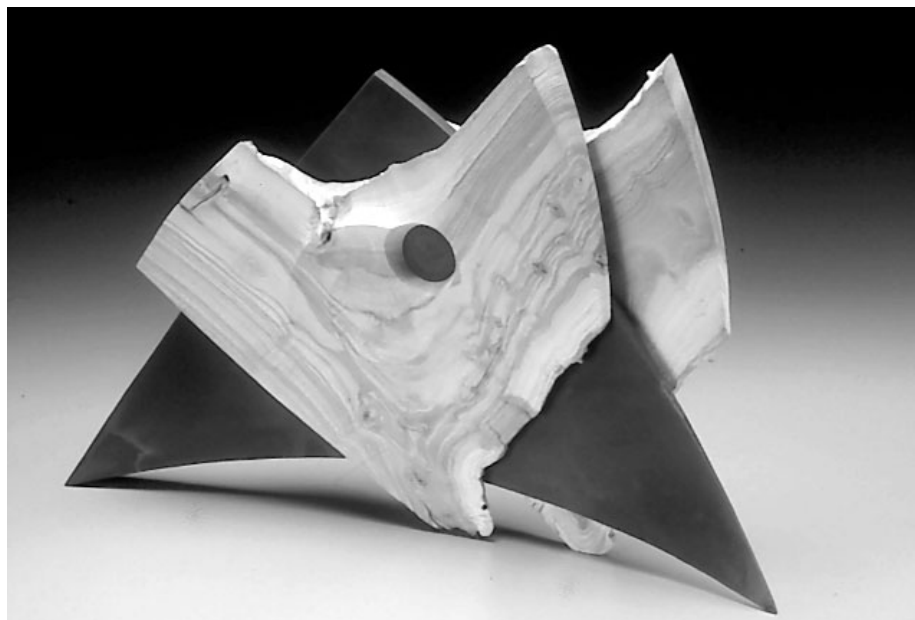
neck and tight shoulders attested to that. It is not easy to stay relaxed.

After shaping, the metal is cleaned in an acid bath. Next the patina is applied. This whole playing with fire bit definitely appealed to me a lot! But ones does get fairly dirty and freshly cut metal draws blood fast!!

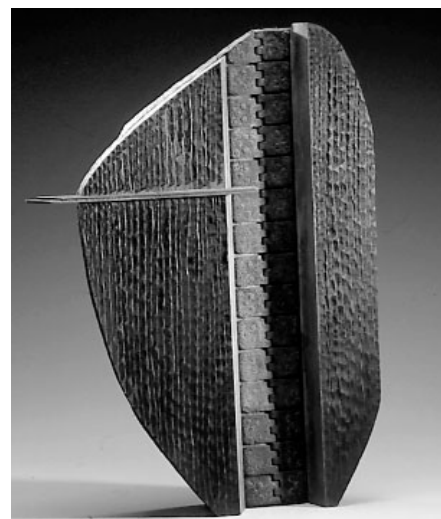
In a well-ventilated forge-like area, the metal first is lightly heated and then sprayed with various chemicals in a water solution. These chemicals, in this case liver of sulphur and copper nitrate, bond with the copper when they come in contact with the heated metal, creating a variety of colors — blacks, browns, blues or greens, probably the most common. These often mottled-looking surfaces can then be polished and waxed and get that wonderful old feeling of having been around for a while. I really like combining the resulting shapes and colors with warped and cracked, polished or sandblasted wood surfaces.

If you look around, you can see that working metal like this is only one small facet of what can be done. Copper and brass can also be spun on the lathe, as can aluminum, and made into parts of vessels and sculptural forms as in Bill Moore's work. Rusted nails and wire can be used very expressively as in Al Stirt's 'War Bowls' or as a powerful element in much of Todd Hoyer's sculptural work. Combined with cracked and weathered wood, here too is the impression of having been around for a while.

Metal like bronze can be cast into a variety of natural forms as Michael Peterson does or combined with wooden vessels as in Ron Gertens pieces. In some of Robyn Horn's work, above right, one sees steel shapes and found steel objects applied to wooden bodies. The patterns in the steel are then reflected in the wood surfaces, connecting all the elements into a whole. Stoney Lamar's steel hollow forms and other work, above right, become crucial reflec-



"Wings," by Stoney Lamar. Carob and steel, 17X26X5. Collection of David and Ruth Waterbury. Photo Tim Barnwell



Two Works by Robyn Horn: Above left, "Lyrical, Cypress and Steel, and right, Heavy Duty Hinge Stone, Cypress and rusted hinge. Photos Matt Bradley

tions of his turned multi-axis sculptural shapes, adding a whole new dimension and color to his work. A thin metal leaf can be applied to wood surfaces as in Gael Montgomerie's and Irene Gaffert's work.

This is just a glimpse into the many possibilities offered by combining these two elements: wood and metal.

The hardest part for me is opening

myself to a totally new craft and going through the whole learning process again. Messing up a lot. But I feel that it is well worth all the frustration if I can gain a new level of creative expression and have fun with it.

Christian Burchard is a professional turner and teacher who operates Cold Mountain Studios in Ashland, OR.

A “PITHY” PROBLEM

Turning Natural-Edged Square Bowls

RUSS FAIRFIELD

We all reach a proficiency as woodturners where we want to develop a trademark style, something that is uniquely our own, whether it be the tools, the wood, the design, or the enhancements that we bring to our work. My quest has been a search for ways to use the center pith of the tree as a design feature.

Conventional wisdom says that log sections must be cut in half to remove the “pith” and avoid the inevitable cracking as a tree’s center section succumbs to the stresses of seasonal movement. Yet, the pith often includes the best of the wood grain, or the only wood grain in some species.

It was only a matter of time before I worked my passion for turning large “square” pieces of wood into the solution. The result was a single bowl that is “square,” has a “natural edge,” and the pith is left in as a design feature. The bowl is larger and deeper than would be possible with either half section by itself from the same log. Along the way, a unique bowl design is created.

Selecting the log

The ideal log has a 10-to-12-in. diameter and is fairly round, with the center pith close to being in its geometric center. There is nothing wrong with using either a smaller or larger diameter; work with the size of stock you have available. The preparation and turning is the same. Species is not a factor because we are turning wet, easy-to-work wood. Here we are most concerned with grain figuration in the heartwood around the “pith” as a design element.

Saw the log about 4-in. longer than its diameter, and put it in a plastic bag until you are ready to mount it on the lathe. Trash compactor bags are stronger than the common trash bags,



Beauty in the Struggle: the unstable pith or center of the log, is a major design element in the author’s Magnolia bowl. Photos by author.

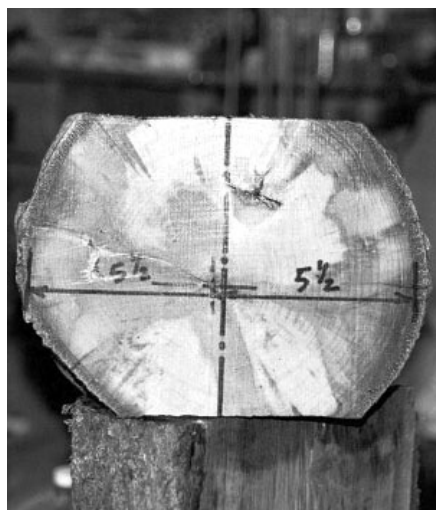
so I prefer them for storing green wood. Depending on how long it is stored, the wood may develop some

spalting, if you don’t seal the ends of the log.

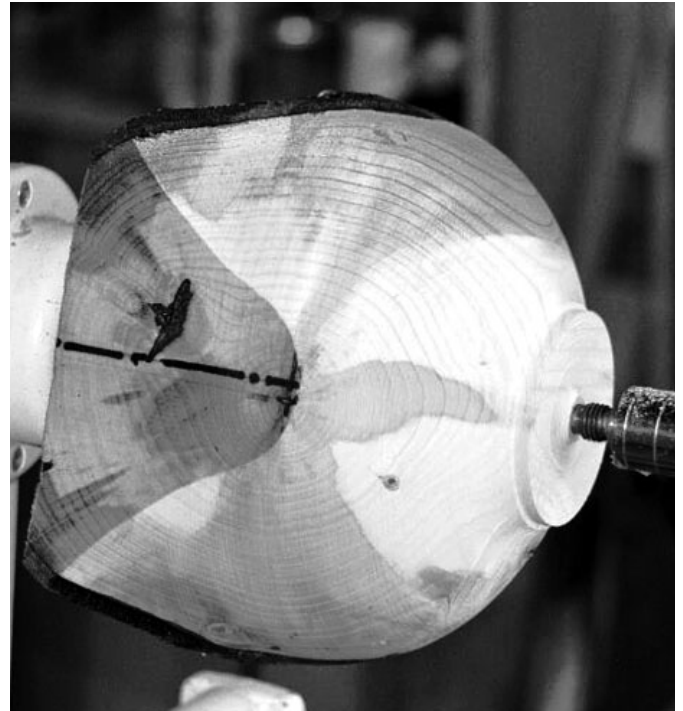
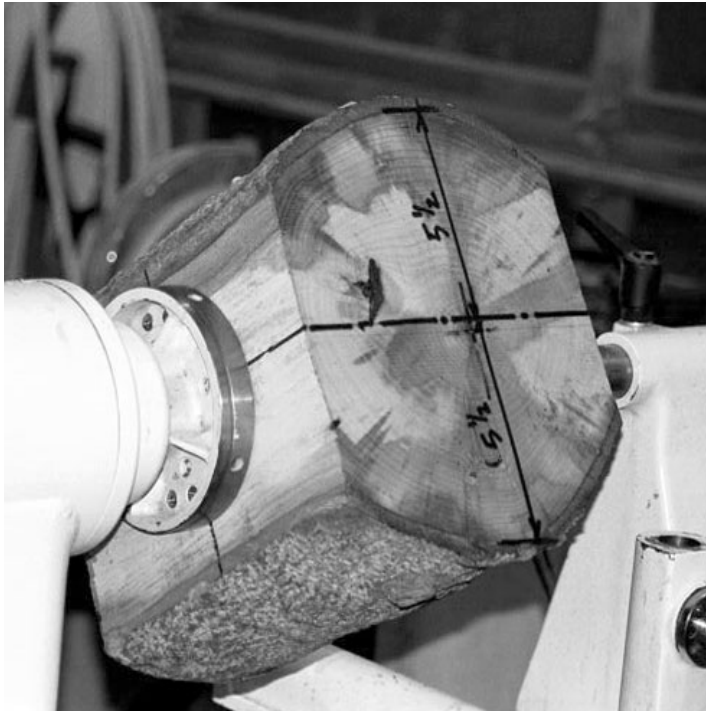
Preparing the log

Think of the bowl as being in two sections. The bottom half a round bowl with its top at the pith and the same diameter as the log-section, and its top half the long “square” ears with the open spaces between them. The log section is sawn to a length that is the same as the diameter through its center inside of the bark. The piece shown at left has an 11-in. diameter inside the bark, and it was cut to an 11-in. length. Chain saw cuts on the ends are OK. Saw the log to length immediately before turning, so that it won’t be necessary to seal the ends. Any wax or other sealer can be difficult to remove later.

Rotate the log to where the horizontal diameter is symmetrical



The author first lays out the blank to preserve its natural edges, the pith and a square form



In mounting the block, locate the faceplate, so that it is centered on the horizontal axis and about the same distance from either end, as shown, above left. Then turn a spigot on the bottom for later chucking and shape the outside of the bowl as shown, above right.

around its center. The piece in the photo has been positioned to where the distance from the center is as close to $5\frac{1}{2}$ -in. from either side as possible. Mark the diameter with a felt-tipped marking pen. Cut a flat area across the top for attaching a faceplate. Removing the bottom gives us a flat area that makes it easier to center the faceplate. Both of these cuts are made with a chainsaw. Save the bark from the pieces that are removed so that we can use it later.

With the marked diameter horizontal on the bench, draw a vertical centerline on both ends, and connect them across the top surface. Locate the center from either end and attach the faceplate. I use a 6-in.-dia. faceplate with 16 mounting holes, and fill every one of them with a #12x1 $\frac{1}{2}$ -in. wood screw.

Turning the Outside

Bring a tailstock center up to the

wood to give some additional stability to the piece. There is a lot of "banging" from the interrupted cut. Turn the spigot for later chucking. Then turn the outside shape of the solid bowl between the bottom spigot and the "pith" centerline. Continue turning to the tip of the four "wings" at the top of the bowl. At this time the outside shape of the bowl should look like the photo, above right.

Turning the inside

Reverse the rough bowl in the lathe, holding it with the chucking spigot at its bottom. Now is a good time to secure the bark with a line of CA glue along the outside of the bowl. Then hollow the inside to its finished thickness in several steps.

The first step is to turn the "wings" from their tips into the solid wood at the center-line. Turning the wings involves an interrupted cut that is nearly invisible at their tips – the

"ghost". This seems a good time to review safety rules and discuss turning the "ghost" on a square bowl.

SAFETY RULES — Again!

Safety Rules are published and promoted by the AAW to make the lathe studio a safer place for all turning activities. These rules are especially important when turning a large "square". From personal experience, the following four are critical:

1. Be alert at all times. Know what you are doing and where you are going with every movement. Know where the "ghost," tool, hands, arms, face, and body are, and their relative locations at all times.

2. Always rotate the work by hand BEFORE running the lathe, and NEVER move the tool rest while the lathe is running. No further explanations are needed.

3. Always wear a full face shield. It is far better to hit the mask than



The square shape of the bowl can be seen after the interior is roughed out. The thicker center section provides rigidity now, but will eventually be thinned out to about a 1/4-in.-thick wall.

your nose when we forget Rule #1. Also, sharp splinters can be broken away from the wood at the corners.

4. Relocate the START /STOP switch so that it can be reached without passing either hand or arm near the “ghost.” The switch on most lathes is not in a safe location. If you don’t want to move it, or install a remote STOP; you have been warned!! I’ve had two encounters with the “ghost,” the first while reaching for the OFF button, the second the ON button. Then I moved the switch.

The tools

The corners of the “square” are flexible and easily deflected by any cutting force that is applied perpendicular to their surfaces. However, they can be turned successfully with a tool that makes a shearing-type cut whose major force component is parallel to the wood surface, and the per-

pendicular component of the cutting force is kept to a minimum. The best tool for this (in my opinion) is a side-ground bowl gouge with a small tip radius and a very sharp cutting edge. There may be other tools that will give similar performance, but I haven’t found one yet. I use the 5/8-in.-dia. Mastercut (bowl gouge from Oneway®, which is available from many turner supply firms). Its “V-shaped” flute allows the cutting tip of the tool to be ground to a

very small radius. For an especially fragile “ghost” on long and thin corners, I use the 3/8-in.-dia. gouge from the same source. The cutting forces are even lighter with the smaller gouge, and I have turned corners that were more than 5-in. long to less than 3/16-in. thick. Both of these tools are made from M-4 tool steel and have a ground and polished flute that permits grinding a sharper cutting edge than tools with rougher flute surfaces.

Vibration and sound will tell you when it is time to sharpen the tool. Lightly honing the inside of the flute with a fine slip-stone will make it even sharper.

Turning square corners will improve the quality of other turning forms because it will teach you to keep your tools sharper.

A shear cutting scraper can be used on stiff corners, but the cuts will have to be extremely light. The

scraper must be held at an angle of 45° or greater to ease its entry into the corners and to prevent any large deflection. A scraper cannot be used flat because the load across the wide cutting area is nearly perpendicular to the wood surface, and it is applied abruptly at the leading edge of the corner. At the least, the vibration can make cutting impossible, but heavy vibration can pull the tool into the open spaces between the corners. If I want to remove large tool ridges, I rotate the corners across the face of a scraper by hand.

The lighting

Visibility is as important as a sharp tool and safe working habits for turning on the “ghost.” A 100-watt clear incandescent bulb with a reflector is ideal. More light than that and the background becomes illuminated through the “ghost.” Many turners have advocated placing sighting boards behind and opposite the turning to enhance the “ghost,” but I have found them to be a poor substitute for a bright light. The sighting board only provides a uniform background, while the bright light accents the surface of the “ghost.” Both the sighting board and light might be necessary in a brightly lit shop (I don’t have that problem).

Back to turning the inside

Now that we know how to work with the “ghost,” we can complete the turning of the wings. Always turn the “ghost” first, leaving as much of the solid area in the center as possible to provide rigidity and vibration damping. Follow the outside curve with the inside cut to develop a uniform thickness. As the wings become thinner, it is usually easier to start the cut in the solid wood at their base, and move into the “ghost” at their tips. If the opposite is true and the cut wants to be started at the tips of the “ghost,” don’t be alarmed — be careful. Some wood

will cut better in the wrong direction. The wings can be very flexible, and I always let their final thickness be determined by their stability. With care, they can usually be turned to less than $\frac{3}{8}$ -in thickness. It will be difficult to get a smooth surface, so concentrate on a uniform thickness. Tool grooves are easily removed when the bowl is sanded.

After the wings are completed, secure the bark edge with a line of CA glue along the inside of the wings. Replace any lost bark with CA glue.

Pick up the inside surface at the bottom of the "ghost," and chase it into the center of the square in two or three steps. Establish the tool bevel on the finished surface, and ride it into the unfinished area to prevent gouging the surface at the transitions. Be aware that it is very easy to cut a shallow band at the transition between the "ghost" and the solid wood.

Before turning the solid area, the outside of the bowl should be wrapped with either several layers of duct tape, or several hose clamps in series as shown in the photograph, at right, or both. This will counter the centrifugal forces on the rotating wings that are trying to pry the bowl apart and aggravate cracking near the pith. After turning many bowls without using this restraint, I lost two of them in a row, one being the bowl in the photographs. Fortunately it came apart in only two pieces and could be glued back together. Now I use this restraint on every bowl.

On lathe speed, it must always be slow enough to prevent fluttering of the wings. For a bowl this size, I would never spin it faster than 500 RPM. Depending on the wood, its flexibility, and the thickness of the wings, 200-300 RPM may be a good speed to start and slowly work up to the higher RPM.

Drying and finishing the bowl

The bowl is dried like any other

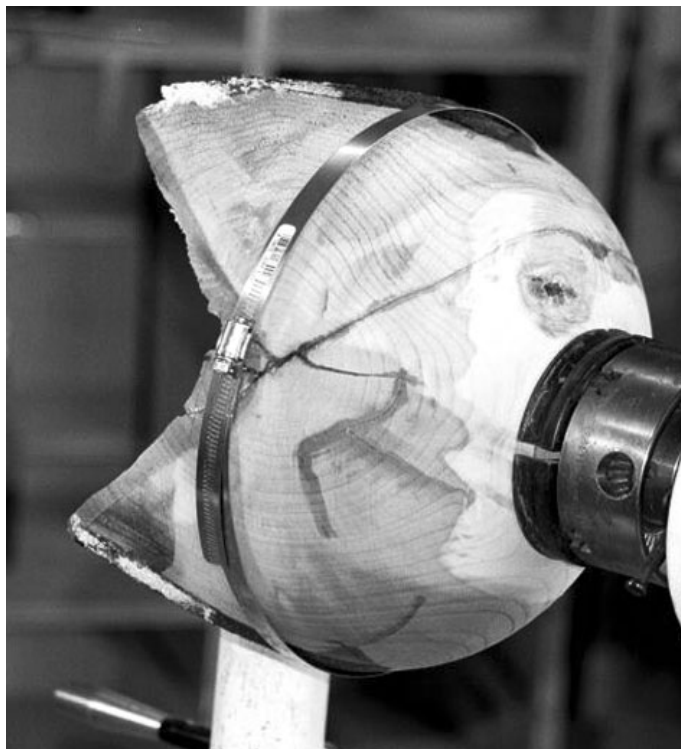
"natural edge." It can be placed inside a large grocery bag and left to air-dry. I use a 100-watt light bulb inside an old dishwasher box.

We have three options for trimming the end-grain edges of the bowl. The rough edge from the chainsaw cut can be left "as is" or accented with additional distressing. It can be trimmed back with a coping saw and sanded to a smooth square edge that follows the line of the outside. Or, it can be covered with bark for a four-sided natural edge appearance, mystifying everyone.

The latter is the reason for saving the bark from the slabs from trimming the block, and not coating the end-grain with a sealer or wax. Sand the end-grain for a better gluing surface. Then remove the bark from the slabs and glue it on the bowl in pieces as large as possible. Cut the joints as accurately as possible so the joints will not be as visible. I use medium-speed CA glue, and attach the bark while it is still wet. The wet bark is still flexible, and its moisture accelerates the cure of the glue.

Sanding and finishing

Power sanding while the work on the lathe is stationary is required on the corners. It will take practice to become proficient, but it is a skill worth learning. Use the free hand to support the thin corners. I sand the piece from



To prevent the centrifugal force from prying the bowl apart, the piece should be wrapped either with several layers of duct tape or hose clamps. Use extreme caution when using hose clamps.

80-grit through 400-grit while using the lathe as a stationary holder.

Apply your favorite finish. Mine is Deft lacquer used as a grain sealer, followed by several coats of tung oil and varnish that has been thinned with turpentine.

(For more info, see my finishing article in the Fall, 1998 issue of the *American Woodturner*.)

Hold the finished bowl against a turning block with the tail center (we did leave a center point in the bottom) and turn the bottom. Take the bowl off the lathe, remove the center nib, and sand the bottom to finish.

Russ Fairfield is a former Florida turner and writer who has relocated to Silverdale, WA. Moving a turner's shop is an awesome job, he says. "Half of what we brought, we don't need, and half of what we left behind, we should have brought. The wood collection is missed!!!"

William H. Macy

Mixing Movies and Bowl Turning

PAUL KACHELMYER

A HECK OF A NICE PERSON, a talented artist, a skilled wood-turner and a famous movie star.

The first three descriptions describe a number of people that I know. However with the last description, the list narrows to just one, William H. Macy.

William, one of Hollywood's most active stars, has appeared in more than 40 movies, 50 stage plays and dozens of TV shows. He was nominated for an Oscar for Best Supporting Actor for his role as Jerry Lundegaard, the overwhelmed car salesman, in Joel and Ethan Coen's film "Fargo." He has also had starring roles in such recent movies as "Pleasantville," "Magnolia," "Boogie Nights," "Mystery Men," "Air Force One," and "State and Main." He has appeared in a dozen movies in the last two years alone. He has also been in a recurring role in the TV show "ER," and also in "Sports Night" with his wife, actress Felicity Huffman.

William let the world know of his love of wood-turning on "Late Night with David Letterman" in 1998. During his appearance on the show, he pulled out of his pocket a beautiful wooden "round box," that he had made on his lathe the day before. He gave it to David as a gift. David was quite moved by the beauty and artistry of the turning. William had turned it out of apple wood from a tree that he had cut from property at his cabin in Vermont.

Later in the show, David held up the box to the camera and said, "Take a look at this. This is no shop project.



Dave Letterman admires a bowl given to him by actor and wood-turner, Bill Macy during a Late Night Show episode.

★★★★

"We are quite a fraternity-- people that turn bowls. People that don't turn bowls can't understand it. But people that do turn bowls, just go nuts."

★★★★

Look at the craftsmanship! And the beauty of the wood there... and the smell of this is just lovely, and he's got my name on it and the date that he made it. That's a very nice thing".

He later joked that more guests should bring him lovely craft items.

During another appearance on the Letterman show in August 1999, William gave David another of his turnings. The talk portion of the show opened with a close up of David holding and rubbing a wooden bowl. He said that William had given him the bowl before the show and he talked about how beautiful it was. While he was talking he kept rubbing and caressing the bowl. He then said "Tactilely, this is very satisfying, can't seem to stop doing this," and he kept

on rubbing the bowl.

During the interview, David told William that he thought that the spalted maple bowl was "just stunningly beautiful." David said, "This is just amazing and I can't thank you enough. That's such a nice surface." David asked William, "how long have you been doing that kind of work?"

He responded "A guy named Paul Kachelmyer in Minnesota, when I was doing Fargo taught me how to turn bowls and I've been doing it ever since."

And so, as Andy Warhol predicted, began my 15 minutes of fame.

I met Bill about six years ago when he called me on the phone and asked me if I might be willing to give him private lessons on woodturning. He had gotten my number from a

local woodworking store where I was scheduled to give a woodturning demonstration. I told him that I had never given private lessons, and suggested that he attend the scheduled demonstration. I am just an amateur woodturner, and I would give one or two turning demonstrations each year at the store, primarily as a way of advertising the local woodturning club that I was active in, the Minnesota Woodturners Association. He said that he was in town on business and would just be here for three to four weeks and that he would be gone by the time of the demonstration. He said that for years he had wanted to learn how to do woodturning and he hoped that this might be his chance to learn. He explained that his job left

him with two to three days at a time free. He sounded so enthusiastic about wanting to learn, that I told him that I would talk about it with my wife and let him know the next day if we could work something out.

At the time, our son was only a year old, and was having a lot of irregular sleep situations that were putting a lot of demands on us. My wife was concerned about my taking on something extra. However, she was all for the idea of me teaching someone, after I explained that I would have to get rid of a bunch of the stuff that had accumulated in the basement workshop, to make room to fit someone else in.

When I called Bill back, he was happy to hear that we had decided that we could get together for some turning lessons. We set up a time for him to come over and as a parting remark I asked him what kind of business had brought him to town. "Oh," he said "I've got a part in a movie that is being shot here. I am an actor in it, and some days I'm not in the scenes being shot. That is why I've got some free days." I asked him what was the name of the movie. "Fargo" he said. I had heard of the producers, Joel and Ethan Coen, because they were from the Twin Cities and had produced some recent hit movies.

Bill did come over to the house and brought with him just one thing, a woodworker's face shield. He explained that he had done a lot of other types of woodworking and was aware of the need for safety. He said that as an actor, that he was concerned about not having some accident that was going to "leave a big scar on my face", since his appearance did affect his prospects for jobs. That evening, Bill practiced making a num-



William H. Macy, movie actor and woodturner.

ber of basic cuts on the lathe doing spindle turning.

We used a "dead center" to drive the wood, to avoid the potential for dangerous effects from accidental "catches" which might occur if a spur center was used. With a dead center driving the wood, if the turning gouge accidentally dug in, the wood would stop turning harmlessly. At the end of the evening, he said that there was one thing that he definitely wanted to learn how to do, turn bowls! "Okay" I said, "That would be on our agenda for the next time.

"By the way," I asked, "What does that symbol ER, on your shirt stand for?" "Oh," he said "That stands for 'Emergency Room.' That is the TV show I was in from time to time before coming here to be in 'Fargo.'"

Because of caring for our new baby, I had watched so little TV that I did not realize that "ER" was the number one rated show on TV at the time. Bill had played the recurring role of Dr. Morgestern, chief surgeon at the hospital.

At our next lesson we did turn bowls, and Bill seemed to be in heaven. He seemed amazed at the beauty of the graining of the wood that was revealed with each cut. We

were using fresh cut boxelder to turn the bowls, and the cutting produced a sweet smell.

We used green wood because it cut easier and cleaner than dried wood, and because it is what I had on hand. That night I asked Bill about his acting experience and about what other TV shows or movies he had been in. With some prompting, he named a number of TV shows and movies. It struck me that this was one humble guy. As an after thought, he added that he thought that he might be in a

TV movie that was on that night. I wanted to see that, so we went upstairs and switched on the TV set. Sure enough, there he was. But he would rather have been in my basement turning wood than watching himself on the prime-time movie.

He took that first bowl with him that evening. The next time we got together, he brought it back to show me. He had sanded it and put a finish on it and it looked beautiful.

"A great looking popcorn bowl" he said. "I've got a friend back in Los Angeles that I am going to give it to." He did later give it to the friend, and that began for him, the habit of giving away his bowls to friends and co-workers. There are now dozens of people he has worked with in the film industry, and people in his private life, who have bowls he has created.

When I saw the finish on the bowl, I asked him where he had finished it. It was the middle of winter and I knew that he couldn't have done it outside. "In my hotel room" he said "I had some free time the last few days".

His hotel happened to be the ritziest hotel in Minneapolis, The Marriott. I didn't imagine that they had many woodworkers there practicing their craft. Bill turned more bowls at

my place that night. He also had another request for something he would like to learn to make, small canisters with lids, "round boxes." The next day I turned my first "round box." The day after, I turned my second one while he watched. I gave it to him as a gift.

The filming of "Fargo" was taking longer than expected because of an unusual warm spell we were having that winter in Minnesota, with a lack of snow. There were a lot of snowy scenes scheduled that had to be filmed outside. The film makers were having to wait for the weather to co-operate. This was giving Bill a longer stay in the area than he had expected.

Bill searched around and found a local tool supplier who sold him a lathe and agreed that if he brought it back in a few weeks, that they would ship it to his house at that time.

Where was he going to set it up? Why at the studio where "Fargo" was being filmed, of course! The studio was big, and Bill figured that there must be some corner where he could set up the lathe. Joel and Ethan Coen gave him the okay with one stipulation: "Quiet on the set" meant no machinery noises in the background.

Bill came to my house and we cut a bunch of logs so he would have plenty of bowl blanks.

He had a lathe, he had tools, and he had the wood. He turned a lot of bowls.

He invited me to the studio one night to watch the filming of some of the interior scenes for the movie. Sure enough, there in the corner was his lathe, with wood shavings around it.

Bill introduced me to Joel and Ethan Coen, and I was struck by how friendly and down to earth they seemed. He also introduced me to the other actors who were in the scenes that night. One of the "kidnappers", Peter Stonnare, told me that he had enjoyed doing a lot of woodturning



Macy in hit movie "Fargo."

when he was in high school.

We watched the filming that night. I came away with an awareness of how complicated it was to make a movie. There must have been 50 workers involved in the filming of the scenes. I also became aware of how much pressure the actors were under. If they didn't get a scene right, 50 workers had to do their jobs again.

We did get some snow in Minnesota, and the filming did eventually end. "Fargo" went on to be a hit movie, and Bill was nominated for an Oscar for his roll in it.

Bill packed up his lathe and had it shipped to his cabin in Vermont.

Bill loves to do woodturning, but his hectic work schedule only leaves him with five or six weeks a year when he can get to his cabin. He bought the cabin when it was quite "rustic" and he was single. He says that he found out "that women tend to like things like indoor plumbing and heat," so he has done a lot of work on it.

Over the years, Bill has done a lot of different types of woodworking, carpentry, and home remodeling. He even built his own workshop at the cabin. He says that he bought a book titled "How to Build Buildings," and with that as a guide, built a shop the size of a four car garage.

"It was quite an adventure," he said "because I had never built a building before. The workshop has a wood-burning stove for heat in the winter, so that is where the projects that don't work out go.

"Since I learned to do woodturning, that is now 90 percent of the

woodworking that I do," he said.

He loves working with wood that is harvested from the local area in Vermont. Some of his favorite woods are wild cherry, birch, maple, butternut and an unusual wood called hop hornbeam. To get wood the size he wants it, he takes logs to "Dave's Sawmill" who saws them into slabs four to eight inches thick. He then coats the ends with a sealant and puts them aside to dry for a couple of years. Bill has worked with wet, dry and "sort of dry" wood. He prefers to work with dry wood so he can complete the turning and finishing processes all in one step.

"I'm way into function," he said. "All of the bowls that I turn, I want to be used, and mostly for food. That is why I am using edible finishes." Though he has created a variety of turnings on his lathe, he says that he enjoys turning bowls the most. "One of the things I love about bowls is the way people handle them when you give someone one. You can just see them. They love passing their hands over it. The shape is so pleasing, and the smoothness so comforting".

Bill is now looking forward to having more opportunity to do woodturning. He and his wife have started building a new home in Los Angeles where Bill says plans include an area for "one big, kick ass shop" for woodworking. What a dream, two big workshops, one on each coast. He says that he is really looking forward to working with woods from the west coast once the new shop is ready.

After an enjoyable time talking about woodturning, Bill said this as a parting comment: "We are quite a fraternity, people that turn bowls. People that don't turn bowls can't understand it. But people that do turn bowls, just go nuts".

Paul Kachelmyer is a woodturner from St. Paul, MN

GET ON THE BALL

An Off-The-Shelf Solution for Bottom Finishing

DAVE ROTHERHAM

HOW DO YOU mount and hold a large open mouth vessel on the lathe while you turn the tenon off the bottom? One way is to use a ball.

The idea of using a tennis ball to help hold a turning is not new. It's been a common practice when turning goblets. However, a tennis ball will limit the size of the opening on the turned object. I find that the opening on my turnings range from 1 1/2 inches up past seven inches. The tennis ball is too small to work with a seven-inch opening.

To overcome this deficiency I have started to use a range of four balls. See Figure 1.

Both the tennis ball and soft ball are made such that you can mount them directly up against the spur drive. However the second two balls are thin skinned rubber. The spur drive would puncture either of these balls. To overcome this I mount a cone center, obtained from one of my two revolving centers, into the headstock. See Figure 2. If you do not have a cone center you can easily make one from scrap wood. Turn a

shallow dish and place a tapered end on the bottom rather than a

foot.

Press the taper into the headstock

spindle and you are all set to go. A series of different sized "dishes" and the balls would not be needed.

I tend to turn a vase or bowl by holding the rough shape in a chuck, then hollowing, before doing final shaping, sanding, and finishing. When this has been accomplished, only the bottom is left to complete. By placing the ball on the drive side of the work you can then easily clean up the bottom of the piece. See Figures 3 and 4. By mounting the turning with a ball against the headstock and the tail stock supporting the tenon, the bottom is exposed and the tenon can be readily turned off and finish sanding completed. Also the ball does not mar the finish.

When you mount a piece with a ball you should begin by putting just

enough pressure on the turning and ball to hold them in place. Revolve the headstock by hand and see if the piece is in alignment. If not, find the high spot, move it to the top, and then slide the mouth of the piece down on the ball. Again revolve the piece and continue to adjust until alignment is obtained. When

a good alignment has been established then

crank in the tailstock a little further. You can

compress the tennis and two rubber

balls somewhat. The softball should just be made snug.

Turn on the lathe at low speed and then bring the speed up to about 500-700 RPM. I usually do not go any faster than this for fear of spinning the piece off the lathe. Complete the required clean up and sanding.

Any sized ball should do the job. If it is soft and flexible, it will both hold and not mar the work. A range of sizes will accommodate most any turning and provide a simple means of getting to the tenon. When not turning, you can always play catch.

Dave Rotherham is a woodturner in Silver City, NM.

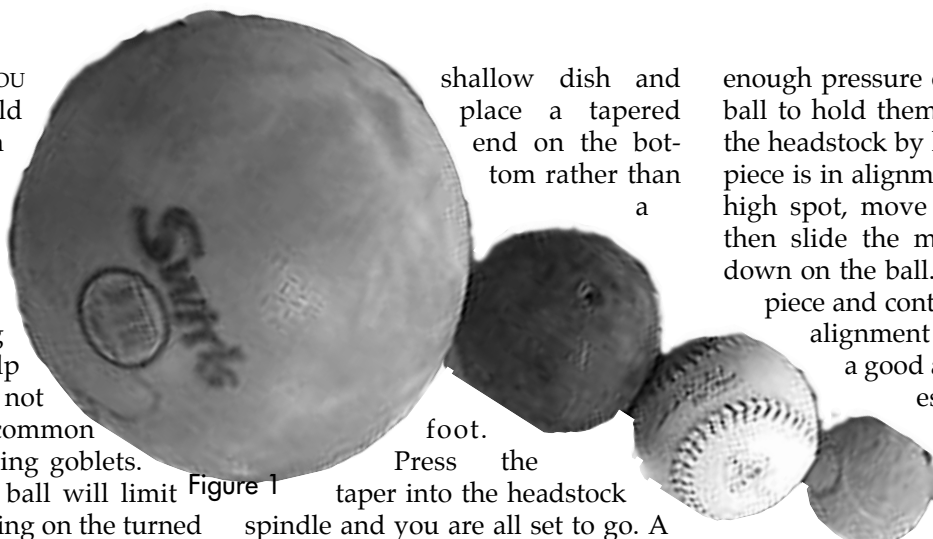


Figure 2

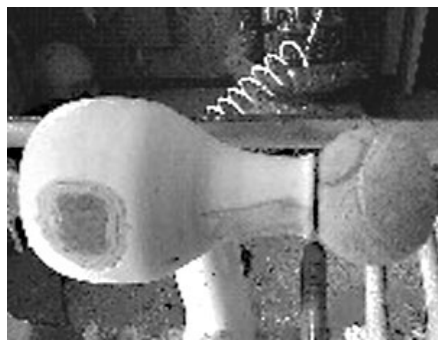


Figure 3

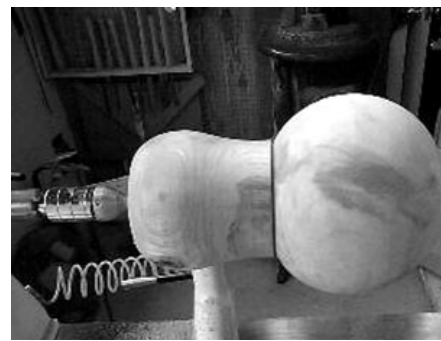


Figure 4

TURNING DISASTER

Even the best at risk without a face shield

KEN KEOUGHAN

IN OCTOBER DAVID LANCASTER, a professional turner of consummate skills, was hit in the face with a bowl. At the time the bowl came off the lathe, he wasn't touching it.

After the ambulance got him to the emergency room it took 28 stitches to pull his nose back together and otherwise repair the damage done to his face. Fortunately his eyes were only blackened. At the time of the accident he was not wearing a face shield or safety glasses. Now the Weeks Mills, ME, turner wears a hockey player's helmet, which is designed to protect players from high speed projectiles and other dangers of the game.

On April 28, 2000 Al Stirt of Enosburg falls, VT, an AAW Lifetime Award Member and a professional turner par excellence, was hit in the face by a salad bowl. At the time he was truing up the back of a 12-in.-dia. salad bowl mounted between centers ... doing final cuts after drying the piece, which had been green-turned. He was not cutting aggressively. There wasn't a "catch". The bowl just split in two. One half of the bowl hit Al in the lip and nostril. He was not wearing a face shield or safety glasses at the time.

The plate broke loose

In August of 1997 I was in my shop in Friendship, ME, taking a last cut on an 8-in.-dia. plate, cleaning up the foot. I was alone at the time; my wife was out running errands. I was reverse turning, using a homemade disc with three toggles to hold the piece in place. The plate broke loose and hit me on the left side of my face. The ambulance dispatcher told me to take my hand away from my eye and put a compress on it to stanch the bleeding. I told him that I couldn't do that. "Why not?" he asked. "Because I'm afraid my eye will be in it and I don't

want to see that."

It took 28 stitches under and across my eyebrow to close up the wound. The orbital bone below the eye and in the cheek area was broken. The nerve bundle which passes through that area was damaged, numbing a portion of the left side of my face. It remains numb today and probably will remain so for the rest of my life. I was not wearing a face shield or safety glasses at the time. However, I was wearing glasses with polycarbonate lenses, the type that bespectacled Little Leaguers are urged to wear. They probably saved my eye. Wal-Mart replaced them free of charge as they were still under warranty.

In the Fall 2000 issue of this magazine, Tom Albrecht of Wilmette, IL, chronicled the



Dave Lancaster, above, following a trip to the emergency room. The stitches and black eyes indicate the force with which he was hit when a bowl came apart. The bowl itself was not that large, as you can see by comparing it to the smashed glasses Dave was wearing at the time of the accident.



explosion of a glued-up red oak cylinder 44-in.-long by 12-in. in diam-

eter. He had completed three of four columns he was making and was in the final “sanding” phase of the fourth. The dangerous work had already been completed

Jagged shards of red oak

“...I decided a little more speed would help get through this tedious sanding process. So I set the speed up to 900 RPM, reversed the motor, grabbed my sanding block and hit the green button. That’s when all hell broke loose ... I’m not sure what I noticed first – the explosion, the sudden darkness, or the void under my sanding block where the column should have been I was amazed nothing BIG hit me. All the lights in a 20-ft. radius were shattered, my tool cabinet and its contents were smashed, and there were 3-ft. jagged shards of torn apart red oak all round me.” Tom was wearing a face shield at the time. He was not hurt.

Bill Wohlfart, President of the Central Florida Woodturners Chapter of AAW, described another adventure with a 22-in.-dia. bowl with a large bark inclusion coming apart. A chunk tore out while he was turning the piece. He knew he was in trouble.

800-lb lathe on the move

“Why is my 800 -lb. Nichols lathe jumping up and down and walking out of my garage? And can I reach the off switch without getting killed.” The chunk that broke loose first hit one of the steel tracks on which the garage door travels, bending it about 3-in. and knocking it out of its bracket. It then hit the track the chain runs in and knocked the cover off the light. Next it dropped on the car and made three dents in the top and a dent in the door. His wife was standing next to the car at the time. Bill was not wearing a face shield. Fortunately he was not hurt.

If we accept as a definition of a “Professional Turner” as one who



After his accident, Dave Lancaster started wearing a hockey player’s helmet when he was turning in his shop. The pile of shavings behind him gives you an idea of how much Dave turns as a full-time professional. Photos: Courtesy of Dave Lancaster

sells most or part of what he turns, all of the above are professional turners. Stirt and Lancaster are at the top of the profession. Yet they both got hurt. I got hurt. The other two did not, although they could have. Any one of these accidents could have been horribly disastrous, if not fatal. We’re talking about seeing, breathing, thinking apparatus ... eyes, noses, heads. Head trauma is not to be taken lightly.

I will admit that deep down I al-

ways knew that the “Big Kids” didn’t really wear face shields. Yeah, sure ... when they were teaching or demonstrating they did, because they had to. Every turner to whom I have put that proposition has agreed with me. Therefore if I am to be one of the “Big Kids,” I don’t always have to observe all the safety rules all the time ... I should observe most of the rules most of the time But gimme a break, a face shield when I am sanding a bowl, a pen, a wine stopper? When I’m just

standing there getting ready to do the next step? C'mon!

That is the undercurrent. Why? I don't know. I just know that we are all human and that is a pretty human kind of feeling.

Last January Lancaster underwent surgery to open the breathing passages damaged in his accident. I'm lucky I did not lose an eye or worse. Stirt could have had those five stitches in an eye. Albrecht could have been killed by something SMALL, say a 5-in. x 1-in. x 1-in. piece of red oak in the throat or forehead. Wohlfart or his wife or both could have been very badly hurt or worse.

It is interesting that these all, except for Wohlfart's, happened under what could be considered rather harmless situations, not during

The plate broke loose and hit me on the left side of my face. The ambulance dispatcher told me to take my hand away from my eye and put a compress on it to stanch the bleeding. I told him that I couldn't do that. "Why not?" he asked. "Because I'm afraid my eye will be in it and I don't want to see that." — Ken Keoughan

roughing, working with a massive-out-of-balance piece or aggressively hogging out wood. Glue joints did not fail, face plate screws didn't pull out. These are cautious, prudent people. It is very rare that Al Stirt does not wear a face mask. David Lancaster wasn't even working on the piece, but the lathe was running. All have analyzed what happened and

have theories as to why the pieces came off the lathe. But these are only theories and there are only four of them out of the thousands of ways in which accidents of these types could happen.

The point here is that many, if not most of us, are not heeding the danger. The rim speed of Albrecht's piece was 47.1 ft. per second. Wohlfart's was 52.8 ft. per second. In the time it takes to say "One thousand one" shards, chunks, pieces of wood have traveled 40-to-50-ft. That isn't "faster than a speeding bullet", but

I could go on, but my purpose here is not to beat a dead horse. It is to prevent a dead turner.

Ken Keoughan is a writer and turner in Friendship, ME., and a contributing editor at American Woodturner.

Help Us Teach Turners To Work Safely

There is very limited data available about accidents involving wood lathes. Perhaps I don't know where to look, but I didn't turn up much information. Governmental agencies that compile these data apparently are not tracking independent woodturners or non-industrial woodturning accidents, so far as we know. Nor apparently are any of the major trade associations. Let us hear from you — Not safety tips, but accident scenarios. If we can gather enough info on accidents, we can warn others, and help other turners avoid what you experienced. And perhaps manufacturers can learn what they need to know to come up with better protective equipment. The face shields we now have may not always be adequate, but they are all most of us have now. Make sure you wear yours until something better is available. The hockey helmet that Dave Lancaster is now using may be a good start. — Ken Keoughan

EGGSHELL TEXTURING

A versatile technique you can crow about

DAN BRANIFF

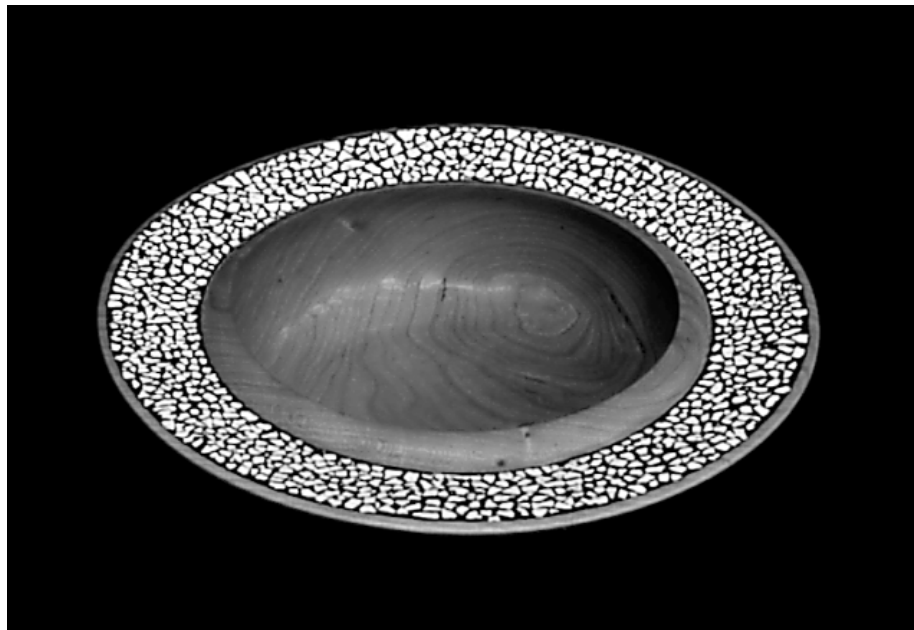
I WAS FIRST EXPOSED TO EGGSHELL techniques by Clay Foster during a woodturning seminar a couple of years ago at Arrowmont School For Arts and Crafts, Gatlinburg, TN. Since then, I have developed and refined an application method suited to my design ideas.

Contrary to its image, eggshell is a very hard calcium-based material. When glued flat to a smooth surface, it provides a base surface that is equal to or tougher than most hardwoods. The texture created can be left rough to resemble grouted mosaic tile or finished to a perfectly smooth, rubbed surface.

Egg preparation

Any fresh eggs will suffice: chicken, ostrich or any other bird. Since the final result will be much the same regardless of shell type, availability is the most important factor. Colored shells, like brown chicken eggs and those from many other birds, will end up white after sanding because the tint is only a thin surface layer.

Remove the thin membrane inside the washed eggs by peeling it away the way you would a peach skin. Start by gently breaking out a chip at the edge, and without tearing the fine membrane tissue, gently pull it out at



The mosaic pattern around the author's bowl is created with eggshells and colored grout. After the egg shell texture is applied, the entire piece is finished with sprayed-on lacquer. Photos by the author.

a right angle to the egg surface. Scrape any scraps of tissue with your thumbnail, rolling the remaining fragments off using slight pressure of the skin of your thumb or finger. Keep the shells wet during the process. Wash eggs with detergent and water, rinse and let them dry.

Attaching shells

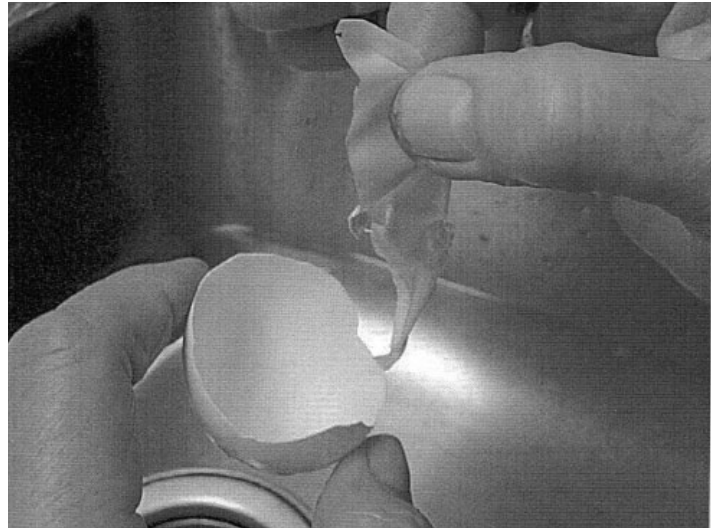
The size of the shell pieces you use will depend on the effect you want to create and the space to be filled. Experiment with a scrap piece of material beforehand. Apply a liberal amount of carpenter's glue to the inside surface of the shells. Immediately place the glued side to the surface of

your turning with enough pressure to flatten the shell against the work. Pressure can be from a thumb or finger. Clay Foster hammered the shell down with a precise blow from his closed hand. The idea is to apply sufficient pressure to create a flattened surface. The force will fracture the shell into small pieces, ranging from about $\frac{1}{8}$ -to- $\frac{1}{4}$ -in. in size, depending on the surface shape and the way you hit the shells.

Before the glue starts to set, arrange the shells into a suitable pattern using the point of a knife. If shells overlap or extend beyond the selected area, trim them with your fingernail or knife. Mop up excess glue by gently covering wet-glue areas with a dry, absorbent paper towel or cloth. With careful pressure from a flat hand, pat the towel so it absorbs the wet glue. Repeat the process until all surface glue is gone. Once the surface is cleaned, rearrange

MATERIALS LIST:

- Eggshells, any kind or shape
- Carpenter's glue
- Acrylic modeling paste (Liquitex by Binney & Smith, Easton PA); Available from art supply outlets. (Make sure it's modeling paste not modeling clay.)
- Water-based acrylic paint (Art and craft type)
- Varnish, shellac or lacquer.
- Abrasives, 80-through-600 grit
- Unfinished project, sanded and ready for final surface treatment.



Before the eggshells can be applied to the turned surface, it's necessary to remove the lining from inside the shell.

Start by breaking out a chip on the side of the shell and peel the membrane from the washed eggshell. Some artists soak the shells in water to make it easier to remove the material.

Then you can gently pull the membrane out at a right angle to the surface of the shell, above right. When you are ready to decorate your turning, take a section of shell and cover the inside surface with a liberal amount of ordinary wood glue, then push the glued surface onto the wood, as shown on the next page.



any shells that have shifted using your fingernail or knife tip.

The glue will set to workable strength almost immediately. Repeat the application process with the next eggshell until the area is completely covered.

Next, carefully examine the treated area to locate any voids. Break off a piece of shell that about matches the size of the void, apply glue and push it down to fill in the area.

After the glue has cured to strength (usually overnight), sand the egg-shelled surface until it is reasonably flat and/or consistent with the final shape of the piece. I use a coarse

80-to-100 grit, cloth-backed abrasive. Blow off any dust and debris and wipe the surface clean.

Grouting

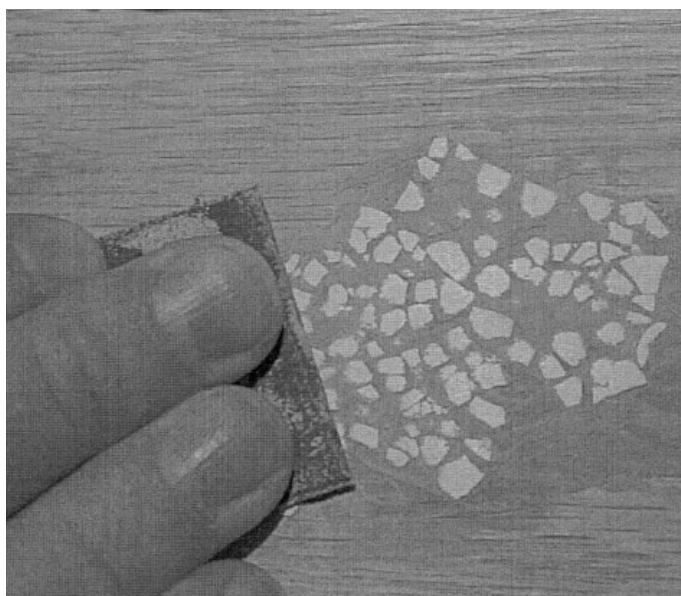
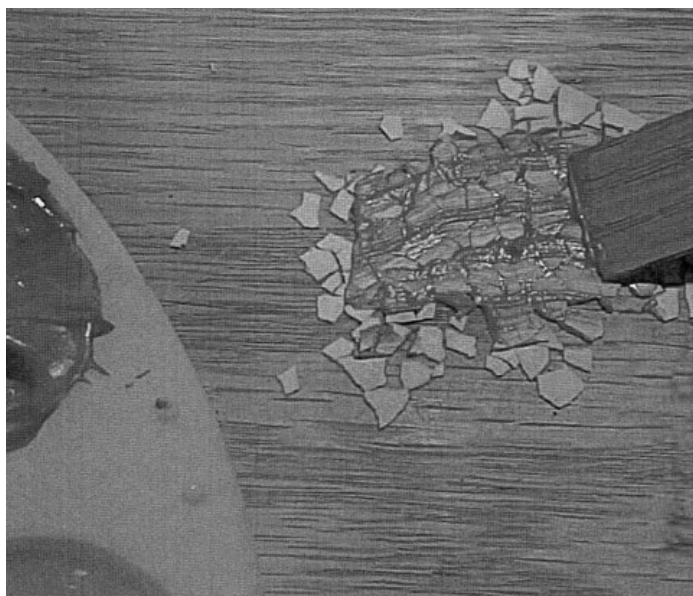
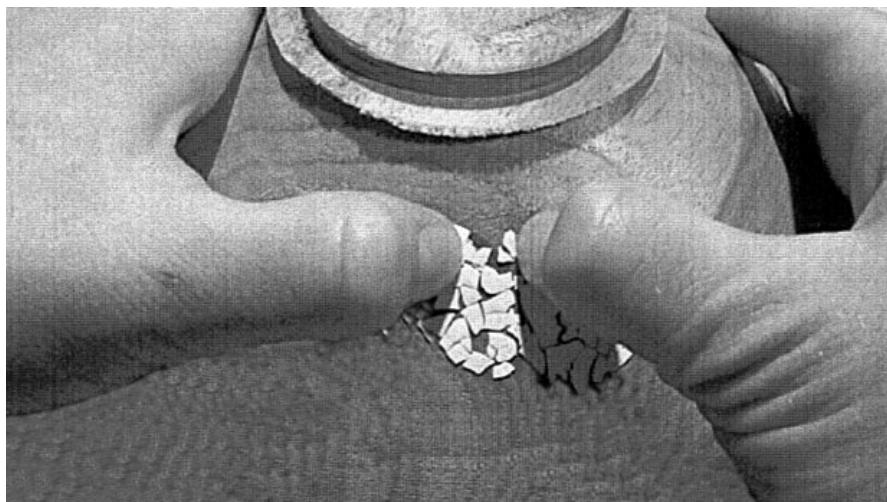
I fill the spaces between the eggshell pieces with grout colored with acrylics. It's difficult to match colors and tints from two different batches of grout, so measure out a sufficient amount of acrylic modeling paste to complete the whole project, then mix in acrylic paint to get the desired tint. It would be better to have more grout than required, because you'll need some for touch-up, as noted below. Store the mixed grout in

a sealed container and put only a small amount on your pallet at one time. My experience is that when properly sealed, the colored grout will stay fluid for several weeks.

Experiment on a scrap piece before determining the appropriate color mix. Avoid using more than 25% acrylic paint in the mix; you don't want to weaken the grout.

Spread grout over the shells with a spatula (a thin wooden scraper works well), allowing for about 10% shrinkage as the mix dries. Cover small areas at a time. You can sand off any excess after the grout dries. Carefully inspect the completed surface, apply-

Push the glue-covered eggshell onto the turned surface, so the shell breaks into mosaic-like sections, left. The segments can be repositioned using a knife or fingers. The voids between the segments are filled with a colored grout. The grout is applied with a spatula-like implement. The author recommends mixing enough grout for the whole job, but taking just a little bit at a time using a water-color palette like the one shown, below left. After the grout has dried, the surface is sanded down to 600-grit. Any remaining voids can be filled with additional grout.



ing more grout as needed to fill voids.

If you are using multiple colors, mask the area for separate applications and let wet areas completely dry before applying a different color to adjacent areas.

Again, remember to store an adequate amount of mixed grout in a sealed container for possible touch-up later.

Smoothing the shell surface

After the acrylic modeling paste has completely dried (overnight is best), sand the surface smooth using progressively finer grits of abrasive. I

use cloth-backed quality abrasive, starting with 80-grit, progressing through about six-to-eight grits to 600-grit. As with a wooden surface, scratches must be completely removed before moving to the next finer grit. If voids appear, fill them with the tinted grout before proceeding.

Again, let grout dry completely, before proceeding with the sanding operation.

Finishing

Apply a finish of choice with the same consideration that you would

for a wooden surface. I use sprayed-on lacquer, because it makes it easy to hide any minute blemishes and it finishes with a professional luster. The surface takes well to buffing and polishing.

Get as creative as possible with the design and the egg-texturing.

The principle of using modeling paste as grout could be used with other tiling media, like veneer, shaved wood, stone chips, sliced nuts, whatever.

Dan Braniff is a woodturner in Elmwood, Ontario, Canada.

LIDDED URNS

Exquisite woods and craftsmanship

MIKE MAHONEY

MORE AND MORE PEOPLE ARE choosing cremation for their interment, as the world's population grows larger and less real estate is available for cemeteries. Some people have their ashes spread over their favorite places — the sea, a park, and recently even outer space. Others elect to be interred in a box or other container, ranging from a shoe box to a gold-trimmed marble vase to a wooden vessel.

Over the years I have turned many ash urns and have been surprised at the interest they have generated. People have purchased them for dogs, cats, even a horse. I once did one large enough to hold two people.

To make each urn unique, I felt I needed special pieces of wood and also a secure, visually distinctive way to fasten the lid to the body. Originally, I made snap-type, friction-fit, and even the o-ring lids. Finally, I settled on a threaded lid.

Why a threaded lid?

Adding a threaded lid increases the difficulty of the piece. I find the threaded pieces of the urn — the lid and the neck — take more time to make than the hollow base. But the added craftsmanship enhances the piece immensely. It is also a nice feature to point out to prospective customers who may appreciate fine craft.

The lids are generally fashioned out of a non-competing timber, one that won't detract visually from the wood selected for the body of the vessel. Most of the lids I make are ebony and blackwood, but I've also used holly, olive and mountain mahogany.

Blackwood is especially good for lids because of its threading ability and its black color contrasts nicely with the base. I've turned bases from redwood burl, black locust, spalted maple, cherry and other hardwoods.



The finial is turned while it is screwed into the boxwood insert, which is threaded before it is fit into the top of the urn. The hard dense boxwood insert makes it possible to use threaded lids with softer woods like redwood burl.

As you can see from the photos, I rely on fairly simple forms for the urn body; the key here is to let mother nature speak for herself through the beauty of the wood.

The capacity of my urns is between 100 and 300 cubic inches; federal regulations specify an urn for humans must have a capacity of at least 760 cc. The smallest urn should hold about 1½-gallon of ashes.

Selecting stock for urns

For my average-size urn, I begin with a 10-x-10-x-7-in. block of wood. Special care should be taken when selecting the timber for the base. It must be first roughed out to the specific shape and then air-or-kiln-dried. I air dry my urns about a year before they are re-turned. This is an essential part

of the process. You don't want a vessel to crack once ashes are in it, nor do you want it to move so much that the threaded lid is locked in place.

After a vessel is stable enough to re-turn, it is re-mounted on the lathe and completely finished. You can hollow out the urn any way you like; I use the Stewart system.

The next step is to turn and fit the lid. Since most of my vessels are turned from wood that isn't dense enough to accept a hand-cut thread, I fit a boxwood insert into the neck of the piece. Boxwood is an excellent wood for threading, but it also must be very carefully cured. The insert is carved to fit the opening of the vessel with a slight flange so it seats evenly on the neck, as shown at the top of the next page.



The author turned the funeral urn from redwood burl, then fitted it with a threaded lid turned from African Blackwood.

After the boxwood insert has been fitted into the neck of the vessel, I cut the threads into the inside diameter with 16-tpi chasers. I like these chasers better than those with finer threads, say 18-or-20-tpi, because the coarser threads make it easier to open the vessel, when needed. Keep in mind that the finer your threads, the harder they will be to chase.

For details on how to chase threads, see Fred Holder's article in *American Woodturner*, PP 33-36, Summer 1999. He also lists companies that sell thread chasers.

I learned to cut threads from Bill Jones and Allan Batty in England. After learning their way and practicing for a while, I found that it was not as difficult as I expected. A good way to learn is to practice with plastic and Corian. Make sure the lathe speed is under 500 rpm for chasing threads.

Also, there are mechanical threading jigs on the market that would be great for this operation. These jigs will put a thread on most any timber, therefore eliminating the need for making the insert for the vessel.

The lid material, African Black-

wood in this case, is also carefully dried. Since blackwood is a true rosewood, it is very important to monitor its drying. Rosewoods are generally very stable timbers, but it is very difficult to know when they are relatively dry. Remember, all these pieces are threaded together and any warping or shrinking will ruin the fit. I buy my blackwood in 3-x-3 in. squares, about 6-to-12 in. long.

Preparing lid material

To prep them for drying I round them into cylinders on the lathe and then part them into their finished length as lids. This step is crucial because if they are left in their square form when you later turn them as lids they will have a tendency to go oval after they are finished. I know this through experience. The rounded blocks should be left in this form for 8-to-12 months or longer in more humid conditions.

To make the lid, I first thread the part to fit the insert. I cut a $\frac{3}{8}$ -in.-long tenon on the blackwood to the exact diameter and put a very small stop at the end. This is a very tricky

threading operation. You must make sure you pull the thread chaser away from the work before you roll into the shoulder with your chaser. If you do not, you'll most likely strip the threads.

Then put the completed boxwood insert into the chuck to re-mount the piece and finish the finial. If I have done everything properly, the lid should screw nicely into the insert and you will be free to design the finial. Once the lid is completed, I glue the insert to the vessel with cyanoacrylate glue, making sure no glue shows. After the glue dries, the insert is ready to accept the lid. I finish the urns with a clear oil finish, then buff on a coat of wax.

You now have an ash urn, which is truly unique and can exemplify fine craft. If you don't have any ashes to put in it, they make nice display items.

Mike Mahoney is a professional woodturner and teacher in Utah. He will be a featured demonstrator at the 15th Annual AAW Symposium, July 6 - 8, in St. Paul, MN.

TOPS TOPS TOPS

Simple Projects For Fun, thanks to Dave Hardy

BOB ROSAND

IDON'T CARE WHOSE SHOP OR STUDIO you visit, you can always learn something new — a new technique, a method of working or just a new idea.

Recently, I visited Dave Hardy's shop in Pennsylvania while assisting on the next "Masters of Woodturning" video and a new sharpening video. We ended up in Dave's display room where I noticed two tops. One was a "CD" top and the other was a Dreidel. One ancient, the other about as modern as you can get. Dave kindly gave me his permission to "steal" his two tops and present them to the AAW membership.

THE "CD" TOP

The CD top is probably one of the simplest projects that you can come up with, but it answers the age old question. "What do you do with all those CD's that Internet companies send you in the mail?" The answer for some creative woodturners is simple — turn them into spinning tops and maybe even make a few bucks in the process. At the very least, this is the type of project that will (may) entertain your family and friends. It would be a very basic project for beginners or perhaps a good demonstration project at your local elementary school.

All you need to get started is a few old CD's. If you don't already have enough from your mailbox, you might try the supermarket or book store. The last time I was there, they had a box full of them. At first I felt a little guilty about grabbing one, but the lady at the cash register told me to help myself. I did; I have enough CD's for awhile.

Next you need a chunk of hardwood. Maple, oak, walnut, cherry will do just fine. The turning stock should be about 1-in. square and about 4-to 4 1/2-in. long. I support the piece in my



Tops made from extra CDs and an ancient Hebrew device give you an opportunity to sharpen your basic skills and to knock out some fun gifts. Photos: Bob Rosand

OneWay Talon chuck with spigot jaws, which is available from many turning supply houses. That way I don't have to worry about using the tail center as I turn. No fancy chuck? Fasten a waste block to a small faceplate, drill a 5/8-in. hole in it. Turn a 5/8-in. tenon on your top stock and glue it into place. Turn and sell enough tops and you can probably afford that fancy chuck.

Use a roughing out gouge to turn your stock to a cylinder and then switch to a spindle gouge to refine the shape. Dave Hardy and I both agreed that the top of the top should be toward the tailstock. This allows you to turn a shoulder and make sure the stem fits the CD opening, without removing the stock from the jaws of the lathe. Once the handle of the top and the shoulder are finished, you can work on the point or the business end of the top. Once I have the shape where I want it, I use the long point of the skew to part the piece from the lathe and create a sharp point for the top to spin on.

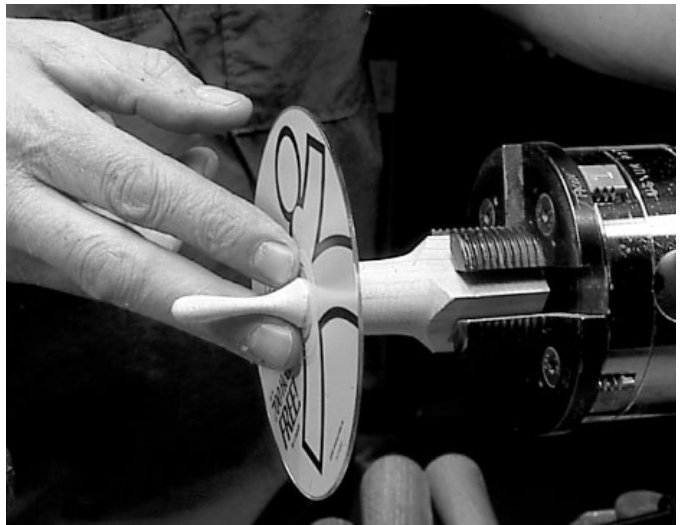
Prior to parting the stem from the

lathe, you might consider adding a little decoration with marking pens. Odd pieces of colorwood also work great for tops. A little 5-min. epoxy fixes the CD to your turning, and you're off and running (Uhhh, spinning).

THE DREIDEL TOP

My first comment upon trying the Dreidel top was that it did not spin for very long. After a little bit of research on the Internet, I discovered that the Dreidel was not supposed to spin very long. The markings of the sides are part of a game of chance; the side that ends up after the piece stops spinning and falls down determines the winner.

The Dreidel is not only a game, but in ancient times the four-sided spinning top was a way for children to defiantly study the Torah in a time when doing so was punishable by death or imprisonment. Using the Dreidel, children could study in public. When enemy patrols were nearby, they would pretend to be playing the game of Dreidel.



Begin the CD top by shaping the stem and the shoulder to support the disc, then test fit before turning the bottom.



Next turn a point on which the top spins and part the piece off. The Dreidel is turned in a similar fashion, except the stock is mounted with the top of the top nearest the headstock.

Today this traditional top is more often part of a spirited Chanukah game. On each side is a Hebrew letter: "Nun," "Gimel," "Hay" and "Shin." These letters collectively stand for the phrase "a great miracle happened here." Players place raisins, nuts or candies into a kitty. Each player takes turns spinning the Dreidel. If "Nun" turns up, you win nothing and lose nothing. "Gimel" means that you win the whole pot. "Shin" means that you must put more into the kitty. And "Hay" means that you win half of what is in the kitty. When a pot is won, a new round begins until a Dreidel champion is crowned.

(If you don't know a Hebrew scholar, use other lettering or a photo on each side. If you'd like the Hebrew letters that Dave uses on Dreidels, send me a stamped self-addressed envelope and I'll mail you a photocopy.)

The Dreidel I received from Dave was about 1¹/₄-in. square, but I understand that they can range from about 5/8-in. square to about 2-in. square and the characters can be carved or hand lettered. If you turn one 1¹/₄-in. square, start with stock that is about 4 1/2-in. long and secure it in your chuck. Actually, you use the same turning procedure used with the CD top, except that the orientation is just

the opposite. The spinning tip is facing the tailstock. And, on the body the goal is to round the long edges-- leave the flats to write on.

I generally use the long point of the skew to make a nice sharp point on the Dreidel, but a spindle gouge will work just fine. Then turn a handle and carefully part it from the lathe. The handle can be as simple or as ornate as you choose.

As always, have fun, and call me if I can help.

Bob Rosand is a writer, teacher and turner in Bloomsburg, Pa, and a member of the AAW Board of Directors.

SHAPING AND SHARPENING

The Whys of Tools and Tool Design

DAVID ELLSWORTH

Every time I pick up a woodturning catalog, the number of “new” tools that are currently available just knocks me out. And this is a good thing. Compared to the simple scrapers and gouges that were available when I started turning, today’s lot is a vast improvement. It is also vastly complicated – especially for beginning turners – trying to figure out what tool will work best for a given task. Will it work on green wood as well as dry? Or with balsa wood as well as rosewood?

Over time, most turners develop a working familiarity with their tools, or at least a certain confidence in knowing what a tool is supposed to do and how to make it work. But when it comes to understanding why a tool works (or doesn’t work), many people begin to scratch their heads. It’s that ‘why’ part that I’d like to address here.

Before I get to tool applications, let me begin with some very basic concepts of tool design that affect all tools. For instance: You get up in the morning and shave. Before lunch, you grab your ax and go cut down a tree to turn. Then, after a nice nap, you buck up the sections with a splitting mall. The razor, the ax, and the mall are all ‘cutters’ in some form. They each have a specific function and are very effective tools, but neither can be used to perform the function of the other ... at least not efficiently.

Now, look at the edges of these tools in cross section and think of the similarities between the razor and a skew, the ax and a gouge, the mall and a scraper. They all have two surfaces or planes that join to form an edge, and each has a certain amount of mass which supports (or doesn’t support) that edge: the mall having the most amount of mass, the razor the least. Obviously, the razor and the

skew have a ‘sharper’ edge, but because they lack mass, these edges just don’t stay sharp for very long ... they lack durability. Specifically, the more mass a tool has to support the edge, the more durable it will be, albeit at the sake of sharpness. Gouges, then, are the compromise between the two. They sacrifice the sharpness of the skew, but they gain durability due to the greater mass supporting the edge.

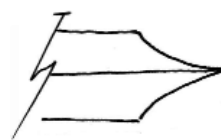
Friction and abrasion, of course, will cause any tool to lose its sharpness. The various grades of ‘high speed’ steel available in today’s tools will extend edge-life. But some woods are so abrasive they’ll quickly whack the edge off any tool – like root burls which usually contain pockets of sand, many species of Eucalyptus which contain silica, or anytime you’re turning areas of bark that have been impacted with dust from the wind. Spalted woods can be a nightmare, because the black ‘zone lines’ are not wood anymore. As far as the tool is concerned, they act more like charcoal, and one good slice with your tool and the edge is gone.

Let’s look at some practical applications of specific tools to see how this relationship between sharpness and mass applies to cutting efficiency.

The Parting Tool:

The illustration #1, below left, shows the side view of a conventional

Illustration #1



Conventional Parting tool

Illustration #2



Modified with convex edge

‘diamond’ shaped parting tool, where the widest part of the tip is in the cen-

ter of the tool.

Contrast that with Illustration #2 next to it, which shows a modification I use for that same tool. The difference is that by grinding a convex shape under the tip, I have introduced a small amount of mass to support the edge. The tip of the modified shape isn’t ‘quite’ as sharp as the original, but it works better because it doesn’t vibrate on the wood or burnish as quickly. The result is that it stays sharp longer. Of course, you can’t flip it upside down. But, in truth, once the original tool is dull on one side, it doesn’t work either way.

The Illustration #3, below, shows the side view of a parting tool I made myself. It’s a $\frac{3}{16}$ -in.-thick by $\frac{5}{8}$ -in.-wide scraper turned on its edge, and then re-sharpened using the convex/concave idea from the ‘diamond’ shaped tool. Notice that I’ve also dropped the tip below the centerline of the tool. This keeps the tool from vibrating when cutting.

Illustration #3



Ellsworth Shop-made tool

The Skew:

Illustration #4



Blunt edge Factory Grind

Illustration #5

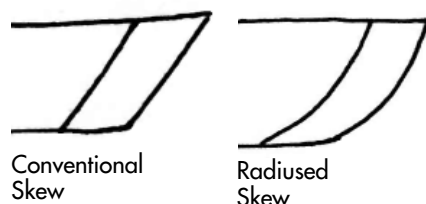


Custom grind: Thinner and sharper

Illustrations #4 and #5 above show the cross section of two skews. The

left one, #4, shows how it usually looks straight from the factory with lots of mass behind the tip, but not very sharp. The right one, #5, is the way most turners grind the tip to make it work properly. Once again, while the custom-ground thinner blade shown on the right, #5, is sharper, it lacks durability so it must be re-honed more frequently to keep a fine edge. The difference between the conventional straight-bladed skew, Illustration #6, below left, and the 'radius', or convex bladed design,

Illustration #6 **Illustration #7**



above right, Illustration #7, is that the 'radius' skew presents slightly less physical contact of the edge to the wood during the cut. With less of the edge touching the wood, and assuming the mass and shape of the two tools is the same, the 'radius' design creates a bit less drag on the wood and, therefore, it gives more energy to the cut.

The Scraper:

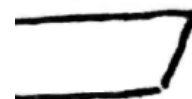
Illustration #8 shows another side-view example of what many of the lesser expensive scrapers look like. Illustration #9 shows the same tool but with a steeper bevel so it can be used to make finishing cuts on the inside of a bowl. Again, the steeper angle of the bevel in Illustration #9 provides more mass for durability, but sacrifices sharpness. To make the tool function, you must add a burr to the edge to do the cutting. [Note: It's worth experimenting with different grit wheels on the grinder to raise this burr. A 60-grit wheel will raise a huge burr that is

Illustration #8



Conventional
scraper bevel

Illustration #9

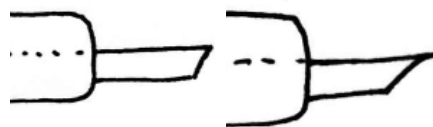


Steeper bevel
For finishing cuts

very aggressive on the wood. But it will also wear away quickly leaving a jagged edge that clogs up with dust from the wood and stalls the cut. Conversely, a 120-grit wheel may not raise enough of a burr to do the work. In my experience, a larger burr works well with softer woods and a finer burr works best with harder woods ... but that's only a personal preference, not a rule].

When using a small-tipped scraper with deep hollowing tools, increased control of the tip will be gained when the bevel angle is steeper, like the one shown in Illustration #10. The bevel angle shown in Illustration #11 gives a sharper edge to the tip, but is so aggressive that it may be too difficult to

Illustration #10 **Illustration #11**

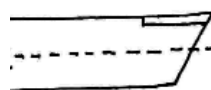


Steep bevel
gives better control

Sharper tip
Too aggressive

control ... it's just one of those odd cases when the tip is too sharp! As well, when using a deep hollowing scraper with a straight tip, I drop the top surface of the cutter to the centerline of the shaft (Illustration #12) to prevent the tool from grabbing or vibrating on the wood. It's the same principle described above regarding the parting tool. If the

Illustration #12



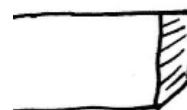
Top surface
on same plane
as top of shaft

top surface of the tip is above the centerline, or on the same plane as the top surface of the shaft (Illustration 12), watch out!

The Gouge:

There are many 'types' of gouges including spindle, **Illustration #13**

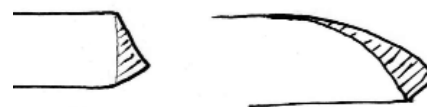
bowl, deep-fluted, roughing, detail, hook and loop. But the principles of what I'm describing here



Side view of
Steep vertical edge
for cutting bottom
of bowl

apply to all. The steep vertical angle of the edge in the gouge shown in Illustration #13 is fine for cutting across the bottom of a deep bowl where you need to keep the bevel in contact with the wood. But it's not as 'sharp' or as 'versatile' as the gouges shown in Illustrations

Illustration 14a **Illustration 14b**



Side view where angles of edges are drawn back to create sharper edges

#14a & #14b, above.

To further illustrate the importance in the relationship of mass to sharpness, we only have to look at what's commonly called the "shearing" cut, or the "shear-scraping" cut. This cut can be done either with a gouge with a drawn back edge (Illustration #14b) or a scraper by placing the edge of the tool approximately 45 degrees diagonally across the surface of the wood. Regardless of which tool is used, it must have a burr on the edge, as a honed edge will simply be burnished away on the first cut. When shear cutting with a tool that has a thin, skew-

Illustration 15



Thin-skew-like edge can cause vibration

Illustration 16



Additional mass behind edge reduces vibration

like cross section, as in Illustration #15, shown above, the lack of mass supporting the edge will cause the tool to vibrate on the wood. To eliminate this vibration, simply use a tool with more mass behind the edge, as in Illustration #16.

Another cause of vibration comes from tools that are thin and very long, like a 1/4-in. gouge that is often 8-in. long, or a long skinny parting tool, or a thin bladed scraper. It seems as if all you have to do is look at these tools and they begin to vibrate, and I wouldn't want to dangle one of them out over the tool rest just to prove my point. With the gouge and the parting tool, I simply cut these tools in half! It may seem like a waste of both steel and money, but at least they work properly. With any of these tools, always keep the tool rest as close as possible to the work piece to reduce the vibration.

Should you hone?

To hone or not to hone? Now, that is a good question! Habits and traditions being what they are, honing a tool really depends on what you want the tool to do. I hone all my skews and gouges for spindle turning, because I want a super edge to do the work ... knowing that the edge will quickly burnish away and need to be re-honed. But my preference is not to hone my bowl gouges, because a burr edge works fine for rough cutting both green and dry woods. As well, I use a shearing cut instead of a con-

If you find yourself over grinding your tools, you're probably learning two basic things: How to raise your level of frustration, and how to waste away a good tool! Consider that when you go to the grinder, you are NOT trying to sharpen the tool! Instead, you simply want to dress the bevel. If the bevel is properly dressed, the tool will be sharp. It's automatic.

— David Ellsworth

ventional bevel cut for my final surface and, as mentioned above, without the burr the shearing cut just won't work.

And I use 100-grit aluminum oxide grinding wheels, because they produce the right size of a burr to do the job and that doesn't wear away as fast as a burr produced by a 60-80 grit wheel.

Learning to sharpen

Now! As a teacher of woodturning, I would be remiss if I didn't offer a few tips on learning how to sharpen these tools. If you find yourself over grinding your tools, you're probably learning two basic things: How to raise your level of frustration, and how to waste away a good tool!

Consider that when you go to the grinder, you are NOT trying to sharpen the tool! Instead, you simply want to dress the bevel. If the bevel is properly dressed, the tool will be sharp. It's automatic.

Try this. Turn the grinder OFF! Bring the tool to the wheel in your usual manner, either with your hands or in a sharpening jig. Make a few slow passes on the non-rotating wheel so that you feel comfortable. Now close your eyes! What you will

now feel is your body, and all the tension that has built up in it, mostly in your neck and your hands. Relax that death grip so that the fingers are simply cradling the tool instead of clamped to it. You will also feel your toes, your knees, and all the other body parts that are keeping you from falling over when you 'grind' the tool. Try to re-position your body by spreading your feet apart and unlocking your knees. This will allow you to move freely as you continue to practice the movement of the tool across the wheel. Open your eyes to see if the tool is still in the center of the wheel. Now close them again.

Release tension

Focus on relieving tension wherever you feel it. What you are learning is the "process" of grinding, without the tension and without wasting away the tool. Practice this for a minimum of five minutes ... five! It will feel eternal, but you will be forever rewarded.

When you do turn on the grinder, the tension will likely return, so continue to focus on relaxing those areas of the body wherever the tension appears. This takes practice, but the less tension in the body, the lighter your touch will be of the tool to the wheel and the more successful you will be in dressing the bevel. Most important, be conscious not to force the tool against the wheel.

You can also practice this method of turning the machine off and closing your eyes on any cut you make on the lathe. It's a wonderful way of learning how to move with the cuts instead of forcing them.

And when you're moving properly, everything just seems to work a whole lot better.

David Ellsworth is a full-time studio woodturner who teaches turning at his home in Pennsylvania. Sketches by the author.

MATROSHKA DOLLS

Well-turned, nesting, lidded boxes from Russia

GARY ROBERTS

I HAVE ALWAYS ADMIRED THE BEAUTIFULLY turned and painted Russian nesting dolls called Matroshka. These well-turned lidded boxes, fitting one inside another, were intriguing to take apart and set out in a descending row.

Whether they are painted with intricate scenes, or just the traditional dressed ladies with their faces painted in delicate detail, those pieces are special.

I just knew that they had to be turned on a machine to fit so well and not be sanded at all. I had looked at the wood grain and felt the weight and was pretty sure it was similar to basswood.

When the Citizens Democracy Corps (C.D.C.) called and wanted us to volunteer for a project in Russia working with the Matroshka turners, my wife and I quickly agreed.

The assignment involved consulting jobs in the Nizhny Novgorod state about 300 miles east-southeast of Moscow. Three craft-related organizations had requested assistance from the volunteer program coordinated by the C.D.C. and funded by the U.S. Agency for International Development (USAID), but I'll only talk about the woodturning project in this article.

The first project was with a Matroshka factory that had previously employed 300 people, but needed to reorganize after some disastrous management changes. My background as retired investment consultant, private entrepreneur, and wood turner, qualified us for the job.

The previous Director had absconded with all records and funds leaving the company without money or direction. The previous employees had gone home to work from their cottages and were anxious to return to the factory.



Matroshka: these traditional Russian dolls, which are often painted, as shown above, are really finely turned lidded boxes. These boxes are made in a variety of sizes and designed to nest one inside the other. You can get an idea of the sizes and how they fit together in the photo at right. The author says the wood is similar to basswood.

Photos: Gary Roberts.

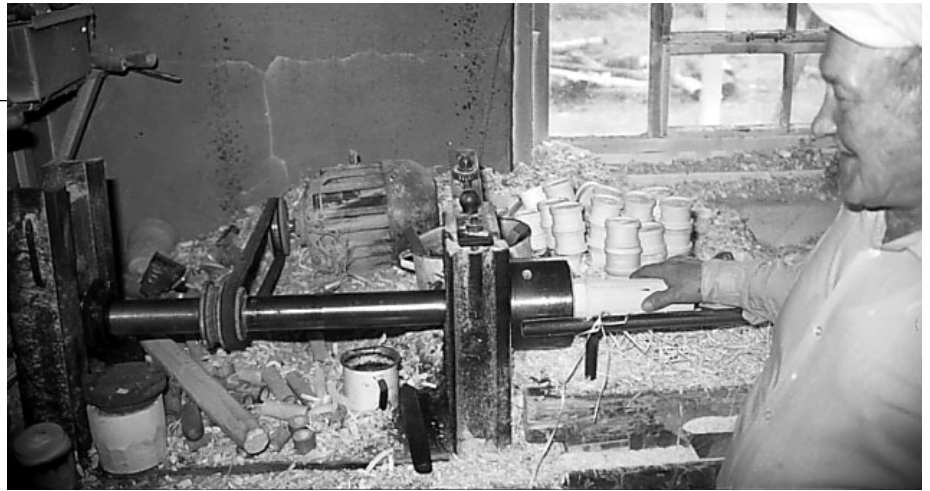


Since Perestroika, times have been really hard in Russia. State supported factories and military plants were closed without notice. Thousands of people were sent home with no means of support. Many people starved to death.

However, the Russians are a proud and tenacious people. Subsistence gardening became a way to survive. Regardless of social position, everyone has a garden in which they grow their own food for the winter. Family

units are closely knit for this effort and even small children work in the gardens.

With this survival effort, people who already had or could acquire craft skills were able to supplement their existence by earning money from cottage industry crafts. Matroshka turning became a specialty in this village because of the linden trees in the local forest. Nearly half of the village population was involved with the Matroshka industry.



An assortment of turning tools used by Russian turners, above left. A typical lathe, above, has a 2- to 3-in. shaft on heavy-duty, double pillow-block bearings and a collet chuck that looks like a 5-in. pipe collar. The tool rest is a long piece of 1-in. round bar stock running parallel with the turning stock.

The Vosnesenskoya settlement of approximately 3000 people were a living example of this real Russian drama. We had been told that the Russian people were reserved until they got to know you, then became friendly. We did not find them reserved at all, after introductions. We have never experienced a people who were more genuinely hospitable than the Russians.

The first day at the factory was an education in woodturning. I was correct about the wood being basswood.

It is very similar to our North

American basswood (*Tilia Americana*) that they call linden or lime (*Tilia Europaea*). It seems to be slightly harder and does not fuzz up so bad. The wood turns really nice!

Turners work like machines

I was also correct about the turnings being made by a machine. The Russian Matroshka turner is as near a turning machine as you will ever see. A doll shaped lidded box takes them about three minutes, lid and base, and the cuts are so smooth that it needs no sanding.

They will literally turn hundreds of boxes in a day. They turn eight hours each day and then go to the garden to work a few hours. Daylight hours are long this far north in June. Sunrise is about 3:30 a.m. and sunset about 11:00 p.m. This makes for a much needed long growing season in the summer. The village was virtually deserted on the weekends when the entire family went to work in the garden.

Their lathes and tools are all blacksmith made and really interesting. The lathe has a 2- to 3-in. diameter shaft on heavy-duty, double pillow-block bearings. They all use only a collet chuck that looks like a 5-in. pipe collar. The tool rest is a long piece of 1-in. round bar stock running parallel with the turning stock. There are no ways on the lathes; it is all built in to a heavy table. The 2-ft.-long turning

blank is tapered on the end with a few strokes of a single-blade hand ax and driven into the collet with the same tool using the hammer side of the ax head. A couple of taps to semi-true the piece and they turn the lathe on. The power comes from a 2-h.p. motor turning about 1800 rpm. The sheave ratio is about one-to-one.

After a few quick passes with a 2-in. wide roughing gouge, the vibration is gone. Each diameter of Matroshka is sized with a ring tool that fits over the blank and has a blade across a gap in the ring. The ring tool handle is supported on the tool rest to absorb the torque and is run down the blank one time to make it all the same size. This tool is then laid aside until the next blank needs sizing.

A 1/2-in. drill bit with a numbered spool type spacer on the shank of the bit is then forced into the rotating blank. The numbered spacer matches the desired depth of the box they are turning and acts as a depth gauge.

With a skew that is about 2 1/2-in. along the sharpened edge, they quickly shape the outside of the box leaving plenty of wood attached to the blank for support. They then create the lip or joining surface where the boxes will fit together with the same skew.

Next, they do the hollowing with a hook tool sharpened on both edges. Using the drilled hole as a guide and



Blanks are sized with a ring tool that fits over the blank and has a blade across a gap in the ring.

the exterior as a wall shape, they take out the inside. The mass is removed with the front edge of the tool on the near side of the piece where the wood is in a downward direction. The sharpened back edge of the hook tool is used to make the last smoothing cut. Since this is done with the tool rest at the side of the blank, they use the back, or underside, of the hook tool on the upcoming far side of the hollowed area where the turner can see the cut without having to bend over to peer inside the cavity.

The first time I watched this procedure, I just knew he was making a mistake with the tool and we were going to have hook tool for breakfast. However, this cut is a light cut and is practiced by all turners very efficiently.

The box is then finished and cut off with that large skew. It falls into the chip pile on the lathe while the turner cuts a slightly concave shape in the end of the blank. The turner then picks up the cutoff piece and holds it against the cavity on the spinning stock. A burn line appears with a whiff of smoke and he has established the diameter of the joint. The next piece is shaped in the same way and hollowed out to the burn line.

Once the top and bottom are finished, the two pieces are put together for the first time and they fit perfectly. Three minutes flat and he starts the next piece.

A perfect fit

All of the pieces that he makes from that stock setup are the same diameter. If he is making fifty doll sets with, say, six to a set, each size is made separately and put together after they are painted.

Their uniformity is amazing. They start with the large end of a linden or basswood tree log that has been stripped of the bark and stacked vertically to dry. They continue up the tree until the tiny pieces are made from



The outside of the box is finished and cut off with a large skew.

the top of the tree. Nothing is wasted.

While the turning process is impressive, it is the women who paint the pieces. Men turn, women paint, usually husband and wife teams, but even the children are involved in some manner. Their artistic skills range from very sophisticated with amazing detailed landscapes made

for collectors of fine art to rather gaudy bright colors to be sold in the tourist markets.

They create a lot of chips, but these are carried to a chip pile and stacked so that they can be tilled into the garden next spring.

We were treated with warm traditional Russian hospitality by everyone. Our effort to reorganize the factory and get them started on a new marketing plan was successful.

Watch for some new sports Matroshkas to start showing up soon. Ahem, the first will be a set for the University of Texas. They are sets of five, with the outside piece being a football player with a helmet (approximately 6" tall), the next, a basketball player, a baseball player, a golfer and the last, of course, the mascot - Bevo, the "Fighting Longhorn"!

Should you want to get your school involved, all they need to make them are some photos or artwork. Contact our great interpreter, Peter Balyasnikov (a.k.a., 'Peter the Great') for information and prices. e-mail < root@adm.vzn.nnov.ru > They can and will make them for you - quickly!



The first sports Matroshkas, for the University of Texas.

S. Gary and "Gene" Roberts, volunteers, Austin, TX, and familiar figures at many AAW events. Gary's new book is reviewed on page 51.

WHAT IS ART?

A teacher and sculptor probes a crucial question

GENE KANGAS

ART? WHAT IS IT? Having taught art for over three decades, I suggest that this is both a simple yet complicated question to answer. For that reason, several issues, both pro and con, are raised for consideration and open debate. Some are challenging and thought provoking. Art reflects ALL of society, its glory and failures. Art is inclusive, sometimes conservative, and sometimes radical. Art readily moves between standard techniques and state-of-the-art technology. Art encourages and accepts change. Some have said, "The only constant in art is change."

THE CONTEMPORARY ART WORLD — Today's major art museums and art galleries are focal points in which to encounter, for the first time and then subsequently discover and revisit, diverse ideas in the arts and crafts by many individuals. One quickly discovers that existing styles of expression are far ranging. For example, crude, primitive sculptures might be seen juxtaposed against classical academic figures. ORIGINALITY has always been and continues to be a critical requirement. So is personal expression. Picasso differentiated himself from Rembrandt, Monet, and other master painters because he was an individual who BOLDLY explored and took RISKS. Interestingly, Picasso's studies of Cubism in the early twentieth century coincided with Einstein's discovery of the Theory of Relativity. With Cubism it became possible for viewers to see more than one view of an object at one time. This contradicted traditional two-dimensional practices and opened the door wider for other new approaches.

If you consider yourself an artist and wish for your creations to be considered art, then a general art educa-

"Can bowls, platters, hollow vessels, and other functional objects be true sculptures? ABSOLUTELY! Can they express ideas other than beauty? HOPEFULLY."

tion is a suggested prerequisite. Why? Because what might be considered innovative in woodturning might have been already expressed a half century or more ago.

All three-dimensional artists should become fully cognizant of their rich aesthetic heritage. Do you know who Brancusi was? Familiarize yourself with your sculptural ancestry: Constantin Brancusi, Alexander Calder, Marcel Duchamp, Alberto Giacometti, Henry Moore, Isamu Noguchi, Claes Oldenburg, Pablo Picasso, David Smith, and a host of others. They've probably already solved problems you might be just thinking about. They've established standards and broken rules. History is a great teacher.

Brancusi simplified and abstracted life forms a century ago. Calder created monumental, colorful sculptures and popularized the use of movement. As a sculptor, Picasso is recognized for his 1912 constructed GUITAR. His technique of "constructing" challenged basic sculptural methodology that had always carved or taken away from a whole. Picasso's 1942 seemingly simple assemblage of a bicycle handlebars and seat metamorphosed those found objects into a BULL'S HEAD. Duchamp's 1917 found art urinal FOUNTAIN challenged or subverted the very essence of "handmade." Giacometti sculpted highly textured and exaggerated figures, which were featured in environments that suggest time and place. Moore, on the other hand, used refer-

ences of bones, humans, animals, and World War II in his multi-sectioned monumental bronzes. Oldenburg evolved out of the Pop Art movement to become recognized for his whimsical public sculptures. Smith's CUBI SERIES introduced severe geometry and new compositional concepts to a field, which had concentrated on the figure for most of its history. "If we don't learn from history as artists, we are destined to repeat it." If we repeat it, we are doing nothing more than copying.

Consider the following. The exhibition of Duchamp's 1917 "urinal" caused quite a heated debate. That was over eighty years ago. The results, however, permitted later artists to work within an evolving definition of art. Using Duchamp's revolutionary example, what would happen today in 2001 if some turner purchased a wooden bowl from K Mart, signed it "M. Turner" (mechanical turner), and entered it in the annual "instant gallery?" Imagine!

From an academic perspective in the context of recent art history, relatively few turners are now being accepted as significant contemporary sculptors. That can change. To do so, turners must prepare for the new challenges.

ART AND CRAFT — Woodturning is a field that envelops itself in craft. It embraces and loves craft. It adores polished wood. The content of almost all turning presentations is "HOW TO." Turners repeatedly ask questions like "What grit sandpaper do you start with?" or "What brand of tools do you use?" In art, the concentration is on "WHY?" In the classroom, students rarely ask visiting artists "What rods do you use when you weld your sculptures together?" Instead, discussions typically focus on

philosophy, ideas, self-expression, and aesthetic evolution.

It is commonly accepted in art that CRAFT is primarily just a vehicle to express an idea. It is a tool or developed facility, but usually not a means to an end. Different ideas require different levels of craft. When the American painter Jackson Pollock dripped and slung paint, he used his medium in a manner that eliminated the "brush," a standard tool for centuries. Pollock didn't need to know how to use it. Did he lack craft? When Morris Louis composed his large color field paintings decades later, he poured them adding water-tension breakers to the pigmented liquids. Louis did not copy Pollock, and their works remain distinct. Neither brushed paint.

One main difference between art and craft approaches is that art usually starts with an idea which directs everything else, while craft tends to rely on practiced techniques and accepted materials.

FUNCTION — A long-standing art axiom states "form follows function." Things look the way they do because they are intended to serve specific purposes. Spoons, for example, are required to deliver liquids from a soup bowl to a person's mouth. Once that function has been fulfilled, design imbues them with their own stylistic identity. Much of craft is based on function. Much of turning is also function oriented. Most bowls, platters, and hollow vessels fit nicely into a category of Decorative Arts. That does not mean they are art. Instead it describes them as functional objects with decorative qualities. Most are pretty. Pretty. PRETTY. The same cannot be said for most art.

One significant aspect of a well-crafted teapot is how well it pours tea. By contrast, a sculpture of a teapot is not tied by those constraints. It doesn't have to work. Instead, what

"Criticism should not be a set of standard rote dictums that reflect only the "expert's" beliefs. Such approaches often result in trends, schools of thought, and ultimate discouragement. None of which are healthy for individual or field growth."

does it say and how does it say it, dictate visual function. Can bowls, platters, hollow vessels, and other functional objects be true sculptures? ABSOLUTELY! Can they express ideas other than beauty? HOPEFULLY.

IDEAS — Art is a visual expression created by an individual. Each of us experiences life in our own unique way. We catalog the things we see, hear, and feel in our brains. We process that accumulative information which becomes part of who we are. Artists express those experiences. This written text, for example, might be described as the multiple combination of just twenty-six letters, A to Z. Their organization forms words that were combined into sentences. Statements were made. Artists, similarly transform life experiences into mental symbols. Each combines those symbols into images that help create visual statements. Who are you? What do you do? What inspires you? What do you love? Hate? What makes you mad? What have you wanted to say and not done so? Those are some of the idea sources for art; AND, their combination is unique to you.

CRITICISM — I realize that this is a touchy subject, but it is an important one. Student artists are subjected to frequent review and criticism of their work. Some commentary is directed to appropriate craft but most is focused on the expression of ideas. It is a verbal communication or exchange regarding the effectiveness of

an artistic statement. Criticism is necessary for growth. Critical offerings are generated by observations of specific objects. Discussions typically identify successes and failures within a vocabulary chosen to represent an idea. Although it is sometimes difficult, it shouldn't be taken personally. Second, criticism should always be directed towards improving the work in question from the maker's perspective. What were they trying to achieve? Criticism should not be a set of standard rote dictums that reflect only the "expert's" beliefs. Such approaches often result in trends, schools of thought, and ultimate discouragement. None of which are healthy for individual or field growth.

Once your work enters a public arena, it becomes subject to criticism. If you knowingly or unknowingly produce sculpture that appears to copy historical icons, you empower judges to readily dismiss you and condemn you with accusations of plagiarism and eclecticism.

SEGREGATION — When immigrant groups first arrived in American, they often settled in segregated cultural ghettos where they could speak and understand a common language. Soon, however, pioneering souls ventured out to make their own way. As they encountered others, a unique "ethnic melting pot" evolved, resulting in a stronger and more successful nation.

Cultural segregation of African-Americans and Native Americans has inhibited their potential successes. Similarly, segregation of turning from other art forms has slowed its aesthetic growth and acceptance as an art form. Art scholars should be encouraged to become actively involved with the field. All wood related organizations should put forth efforts to help promote some of their members to be represented in high-profile "big A" art museums. For example, how

many turners have been included in the New York Whitney Museum of Art Biennial Sculpture Exhibition? None? If none, why not?

Segregation also tends to restrict the dollar value of the better work; after all, "they're only craft objects." Impressionist paintings sell for multiple millions. Sculptures by known artists also realize substantial amounts. Prior to becoming a sculptor who now uses a lathe, I was awarded many public art commissions for my metal sculpture. The largest exceeded \$200,000. The potential monetary rewards in art are generally higher than in craft. Considerably higher prices are not uncommon. Why are architects paid more than the skilled ironworkers and masons who actually erect their building? Ideas!

A continued political effort to INTEGRATE sculptural turnings into prominent and selected venues will help elevate values. Subsequently, this will encourage others to set and attain higher goals.

CRAFT GALLERIES — All commercial galleries have a similar basic bottom line motivation, to make money. To do so, they provide much needed exposure. It is much easier to sell objects if they have recognizable "name branding" from year to year. "This is a so and so; that is a so and

so." It is not in their best interests to represent artists who constantly change and evolve. They would have had a problem with Picasso, for example. "The public won't understand it." Galleries want to sell a product. Sales are an unfortunate necessity, however, because marketability becomes factored into the design. One suggestion is to intellectually separate those works made for sale from those creations that express profound personal feelings or are experimental.

Association might also brand objects shown in such galleries as craft. Conversely, "craft" objects exhibited in recognized art galleries might potentially begin shifting categorization towards the fine arts.

INTROSPECTION — Do you turn in a workshop or create in a studio? What we call the place reflects how we think. Do you have something to say or are you satisfied having fun making things? Are you a leader or a follower? Why do you do what you do? What is your purpose in life? What are your goals? What will be your legacy?

CONCLUSION — As we begin the exciting journey into art, we must quickly realize that it is not simply enough to call ourselves artists. We must prove it by creating art that doesn't rely on adjectives ("turned" sculpture, etc.) which tend to main-

tain segregation. We must demand meaningful criticism. We should encourage experimentation and risk taking. Club projects such as "Turn and Learn" which ask members to make nice bottle stoppers advance the field backwards. Instead, emphasize more critical learning. Invite local art historians versed in modern art to be your next guest speakers. Have artists /teachers help introduce basic art principles. Invite professional artists and/or museum curators to critique the next "instant gallery." It is important to hear new voices, get new perspectives, and look to new directions.

In 1943 Thomas Watson, then Chairman of IBM said, "I think there is a world market for maybe five computers." And in 1977 Ken Olson, President of Digital Equipment Inc. stated, "There is no reason anyone would want a computer in their home." Computers? Turning? "Computers will surely never have any relevance to woodturning." Wrong again! Art is consistently one of the first fields to recognize the importance of new technologies and new information. The growing ease and speed of the Internet now allows worldwide communication to occur in ways not dreamed of a few decades ago. Sophisticated electronics are already a welcomed component of a fast paced twenty-first century artworld. Remember that one constant that can be relied on is change. Art reflects the past and often foreshadows the future ... turners must meet the challenges ahead.

Gene Kangas is a recently retired art professor and practicing sculptor who has been awarded numerous public art commissions. He is also an author, researcher, and lecturer. Gene had a major role in the organization of the woodturning exhibition PATHWAYS '98. Although relatively new to turning, his sculptures have been selected for inclusion in exhibitions from the East Coast to distant Japan.

Teaching Yourself About Art

Gene Kangas might be concerned that I didn't know the David Smith he mentions in his article, but he piqued my interest. After spending a couple of nights with "David Smith by David Smith: Sculpture and Writings (Thames & Hudson, NY, 1968), I wanted to know much more. If you're only willing to accept art talk from a guy with callouses, shake hands with David. One trip to the old public library was all it took. Brancusi, Calder, Giacometti, everyone Gene mentions was there, as well. And, after we got excited about the photos and read more, my wife started checking out these artists on the Internet and discovered another bonanza of images and words. We also started listing museums and sculptural installations, so we can see the pieces themselves. Binh Pho and Steve Sinner in their SOFA article (Page 54) make a strong case for why woodturners should be open to the influences of artists working in other media. They are right. But don't neglect the masters Gene wants you to meet — Dick Burrows

TECHNIQUES FOR CARVING

Spiral layouts and a holding jig

KING HEIPLE

LAYING OUT SEGMENTS ON A BOWL or vase to carve flutes or rope patterns is not as easy as it might first seem.

You can use the index head on your lathe and mark the work using a tool rest close to the edge of the piece as a guide for your pencil, but you are limited to the spacing of your index head, usually 32 segments of a circle. Of course, you can combine segments to mark off 8-to-16 sections or you can divide the 32 into 64.

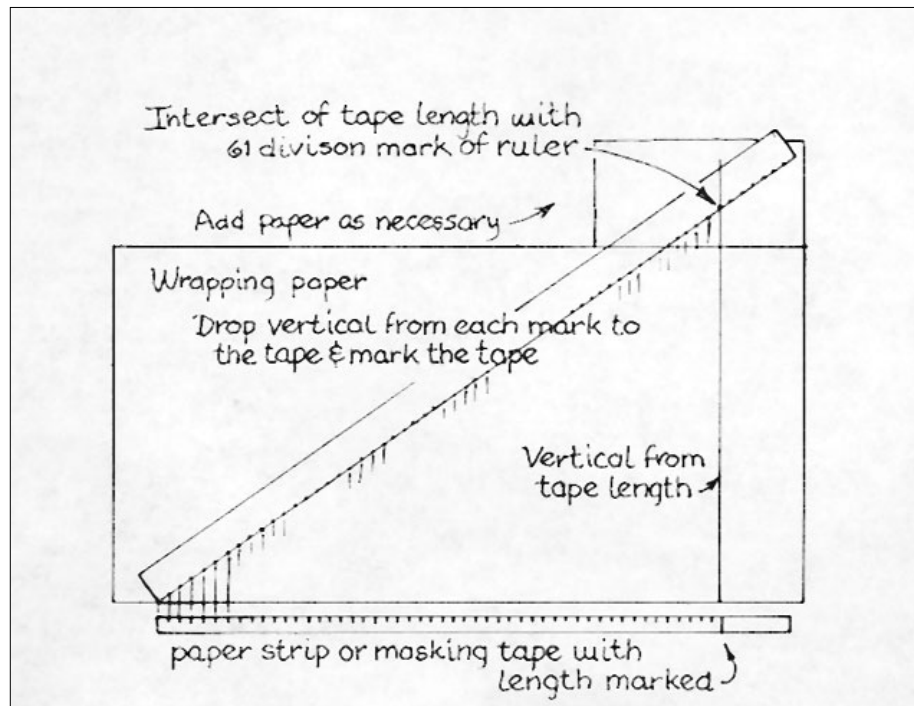
Last year our chapter, the North-coast Woodturners, had Ron Fleming of Tulsa, OK, in for a two-day demonstration. Ron is a great turner, carver, artist and demonstrator. One of the things he showed us was a method of laying out infinitely varied flutes and spirals of any desired number, width and curvature.

Before discussing Ron's method, let's do a layout the old fashioned way. To get the desired visual effect, you usually need to make a large number of small flutes, smaller than can be easily laid out with the typical indexing head.

For example, what happens if you want to make your flutes about $\frac{5}{8}$ -in wide and the bowl has a 12-in. diameter?

For this bowl the circumference will be $\pi \times \text{the diameter}$ or $12 \times 3.14159 = 37.69$ in. If we are going to work with eighths, that means the diameter of 37.69-in. can be expressed as 301.59 eighths. If you want to divide that into $\frac{5}{8}$ -in.-wide segments, you divide 301.59 by 5 to end up with 60.31 segments, each $\frac{5}{8}$ -in. wide, spaced around the edge of your bowl.

In the real world, you have to come out with a whole number of segments, so you set the dividers just a smidgen under $\frac{5}{8}$ -in (about $\frac{5}{1000}$ less!) and try to mark off 60 segments around the edge. Want to bet you end



In the author's example, a straight edge with 61 divisions, each $\frac{3}{4}$ -in. wide, is angled so that its two ends line up with the circumference of his bowl, indicated by the strip at the bottom of the drawing. Lines dropped from the marks on the angled-strip divide the circumference into equal segments. Photos/drawings by the author.

up a third or a half of a segment off. And even if you are so lucky as to come close, you have to achieve the same thing with the smallest circumference the flutes will taper down to. Good luck.

In contrast, Ron's method is simple and totally flexible. After using it several times, I've reached the point where I can easily apply it to most work.

Essentially, you put a strip of paper (or masking tape which is much easier to control) around the largest diameter of the vase or bowl you want to flute. Once you mark the overlap, you have a strip equal to your circumference. Now all you need to layout the $\frac{5}{8}$ -in segments on the bowl discussed above, is to divide the strip into 60 equal segments.

Tape down a large sheet of wrapping paper or graph paper (I find graph paper easier to use) to a table with a straight bottom edge. You could also use a sheet of plywood for a work surface. It's best to keep the paper edge parallel to and close to the table edge. Put your masking tape, the one you marked to match the circumference of the bowl, along the bottom edge, just off the paper. With a T-square, your framing square or a large square of art board put a long vertical line from the right hand length mark up to the top of your paper.

To divide your length in 60, or any other number of equal spaces, you need a ruler that is longer than the circumference-length tape you just put down. Since the 37.69 inch circumfer-

ence in this example is longer than a yard stick, you might have to make yourself a 48-in. ruler out of a strip of straight material. Mark this with increments at least every quarter inch.

You need a straight edge with 61 divisions that will come out a bit longer than the 37+-in. circumference strip at the bottom of Figure 1. For this one, reasonable divisions would be $\frac{3}{4}$ -in., which multiplied by 61 equals $45\frac{3}{4}$ -in. Note that the first and the last of your 61 marks overlap; you will actually end up with 60 flutes on the bowl. But they will all be just under $\frac{5}{8}$ -in.

Put the zero of this long ruler on the left hand or the beginning mark of your tape and lay it out at an upward angle so that the $45\frac{3}{4}$ -in mark just intersects the vertical from the right end of your circumference strip. You probably will have to add another sheet to the top of your paper. The words sound complicated. The picture makes it very simple. It's nothing but simple layout geometry.

Draw this diagonal and then put a mark or dot on every $\frac{3}{4}$ -in. along the entire line. Remove the ruler and drop a vertical from every dot to your circumference tape. (actually all you really have to do is mark the tape at each vertical.) Now pick up your tape, put it snugly back around your work and transfer your marks. Remember in future that for any num-



The author used Ron Fleming's method to layout the exterior of this Sassafras bowl, above left, and also the initial layout and carving of a maple vase at right. The maple vase also shows how to use a cuff made from a file folder as a layout guide.

ber of flutes you select, you need one extra division on the ruler.

To make these divisions into diagonals or curves you need a second set of marks at another point on the work, usually quite close to the small diameter. If the curvature at such a point makes putting a tape around it uniformly difficult, a cuff of cardboard may be wrapped around it and the edge of this marked with the length. A file fold makes good cuff material. Thread this length the same way to obtain 61 smaller divisions and again transfer back to the piece.

Now you can lay out any degree of diagonal or spiral to the flutes you

desire. Using any flexible ruler, just mark from an upper mark to any lower mark you choose, skipping none, one, two or as many divisions as you please to get the amount of diagonal you want.

Even more interesting spirals are created by using a flexible curve rather than a flexible straight ruler to mark your flutes. A simple arc of a circle may do or a portion of a parabola or ellipse or even an s-shaped curve. Cut one from a file folder, it will be long enough to lay-out a bowl.

Try it-- it has endless possibilities.

— King Heiple

A Shop-built Holding Device to Make Your Carving Easier

The interest in adding carved elements to turned work is growing rapidly, as the AAW Instant Gallery at the Charlotte symposium and many other recent events shows.

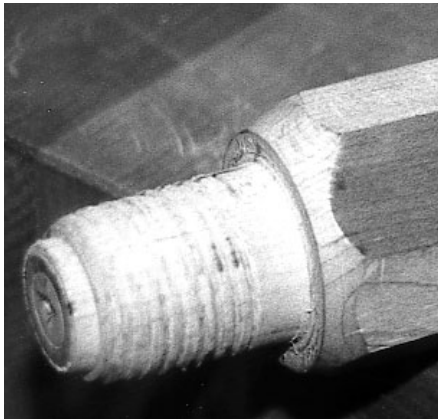
I've used several simple clamping arrangements for holding bowls while I was carving, but none seemed versatile enough to allow really free work for all surfaces and

angles and they were often awkward to adjust. Large carver's mechanical work positioners appear ideal, but they are expensive. In addition, you must glue a scrap block to your work before you can attach it.

Seeing a threaded-device meant to be screwed into a four-jaw lathe chuck and held in the tool rest at a tool show suggested an even more versatile and

homemade jig. I have worked with it on several bowls and it is very versatile and easy to adjust whether you are standing or sitting. Just do your carving while you still have either a tenon or expansion recess on your base; your chuck or faceplate is the attaching device.

The illustrations say almost everything. I start with a 24-in.



Hand-cut threads on a hardwood octagon screw into the author's faceplate. The hardwood strip then can be clamped in a bench vice to secure the bowl being carved.



length of 2X2 maple. Most any wood, preferably hardwood, would do. First square it up and then cut the four corners at 45° on your jointer or table saw to make an octagon. Mount it between centers and turn a tenon with a square shoulder on each end. The size of the tenon will depend on the chucks and faceplates for your lathe. Start with a size that would include about 1/2 the thread depth of your chuck or faceplate and put a gradual taper on the end.

Start trying your chuck/faceplate on the taper and screw it on as far as possible and remove. You will easily see the thread spacing and angle of pitch marks. Mark these in with a pencil and start deepening the lines with a triangular file. Keep retrying the chuck until finally you can seat it on the shoulder with a tight friction fit.

The illustrated jig is threaded for M33 on one end and 1 1/4-in. X 8 on the other end to fit my equipment,

but obviously it can be sized to fit any chuck. The bowl shown with the rim carving is 16-X-5-in. and was easily worked sitting down off the end of my bench. The octagonal shaft allows easy rotational shifts of 45° at any time in your bench vise and allows for uphill/down hill carving at any angle or height. Have Fun.

King Heiple is a retired orthopedic surgeon and turner in Pepper Pike, OH, and member of the North Coast Turners.

Clamping Carvings With Your Lathe's Tool Rest Holder

The Super Mandrel is a well-machined steel screw-and-post arrangement that fits nicely into the tool rest support of your lathe. The threaded parts fits a regular faceplate, so it is a simple matter to just screw on the faceplate, secure the mandrel to the lathe and carve away on a turned object.

It's a very effective way to hold the work. Since it fit the tool post, it held the work at a comfortable work height for me, both when I was carving or painting on a bowl or platter. With the extended tool

rest of my General 260, I could move the piece away from the ways enough to have plenty of working room, and to minimize the chances of getting paint all over the lathe.

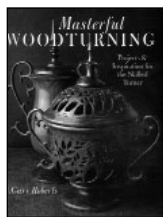
Developed by California turner/sculptor Bruce Mitchell, the mandrel is available with a 1-in.-dia. post and threaded for 1 1/4-in. X 8 and 1-in. X 8 RH threads.

For additional information, contact Mitchell at PO Box 966, Point Reyes Station, CA 94956 (415-663-1819).

— Dick Burrows



INFORMATION AND EDUCATION



Masterful Woodturning: Projects & Inspiration for the Skilled Turner by S. Gary Roberts; ©2000, Sterling Publishing

Co, 387 Park Ave. South, New York, NY 10016. Paperback, 160 pages, \$19.95.

Reading Gary Roberts' book "Masterful Woodturning" is like spending a pleasant Saturday afternoon in a good friend's shop, working on a couple of new projects.

The author describes this as a project book "intended to encourage, challenge and enhance the reader's knowledge of woodturning as a skill," but it's a lot more personal than that. And the list of projects doesn't disappoint – 33 of the author's designs including boxes, bowls and vases, from the fairly simple to objects carved and fitted with delicately sculpted handles; music boxes; a sewing tidy with thimble; and even a humorous figure, Izzy A. Turner, a delightful animated character which AAW members might remember seeing in recent Instant Galleries.

Each project comes with a sharp photo of the finished piece, clear drawings and measurements, and a chatty narrative describing the high points of the author's methods. Since the book is aimed at skilled turners, he doesn't discuss basic cuts, tool anatomy, etc., but does describe a few items common to most of his work, such as a shop-built indexing wheel and his sanding/finishing routine.

Rather than present the methods in cookbook fashion, Gary guides you through them, offering good practical tips from a

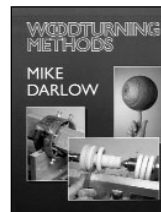
person who has obviously been there, on the good days as well as the not-so-good — reminding you to get rid of the coarse sanding residue before you move onto finer grits, showing how to make a ring tool from a screwdriver, or covering an area to be carved with drafting tape, which is easy to write on and easy to remove, and so on.

Along the way he'll give you a chance to hone your design sense with another look at the Golden Mean, convince you it's not only OK, but often wise to invest time in drawing paper patterns, and create a fairly incessant urge to find a hunk of mesquite to work.

Often, I was as interested in Gary's method of organizing the work, breaking it down into manageable steps for both the designing and the actual turning, as I was in the particular project. There are plenty of ideas to borrow here, such as ways of bending mesquite or shaping a leaf or techniques for aligning and joining components. The selection of music boxes alone would keep most turners busy for a long while, perhaps until they got addicted to developing their own personal models as Gary did. Even if you don't catch the bug, you'll have many good gifts for the next festive occasion.

Gary has fun throughout. Despite his long experience as a turner, he still exudes the glee that convinced most of us to buy that first lathe, and never regret the purchase or the time that it gobbles up. As Gary says in describing a fairly simple spiral grooved vessel: "This is one of those afternoon projects that will usually expand to take up your whole day. As they say. 'Time flies when you are having fun!'" -- Dick Burrows

Woodturning Methods by



Mike Darlow, © 1999 The Melaleuca Press, N.S.W., Australia, 199 pages, distributed in America and Canada by Fox Chapel Publishing

Co. Inc., 1970 Broad Street, East Petersburg, PA 17520, (717) 560 4703 \$24.95.

Some books are meant to be read from cover to cover in one sitting. This is not one of them.

Woodturning Methods is another of Mike's works to be savored and returned to time and again for reference and enjoyment.

It's the second in his series of woodturning books aimed at special methods for turning particular forms. The first is The Fundamentals of Woodturning. The third, to be published in May 2001, is called Woodturning Techniques.

But whether it's fundamentals, methods or techniques, Darlow's classic approach is a valuable addition to any woodturner's library.

Mike points out that "this book is not filled with new methods, still less with methods which I can claim to have originated; instead it seeks to make turning's specialist methods more accessible...."

From chucking methods, through spindles, spheres, eccentric, multi-axis and elliptical turning, Mike provides a solid reference essential to the woodturning shop. --Gary Dickey

Fundamentals of Sharpening: a Four Part Guide for Woodturners. John Jordan, Bonnie Klein, Bill Johnston and Alan Lacer, produced and filmed by Phil Pratt. © 2000. The American Association of Woodturners, 651-484-9094. Color. 90-minutes, \$29.95

One of the nice things about

working for the AAW is you get to hang out with turners who just dazzle you with their enthusiasm, skill and designs. Many are so good that they can almost magically transform what some consider impossible or onerous tasks, like sharpening, into manageable tasks. To see what I mean, watch the AAW's latest video: "Fundamentals of Sharpening." It's a gem.

The four-parts mentioned in the title are actually four turners, each presenting a personal, time-honed system for this indispensable turning technique. The demonstrators — John Jordan, Bonnie Klein, Bill Johnston and Alan Lacer — don't agree about everything. The common denominator here is skill. And the differences in their approaches actually help you understand how to reach the goal-- a sharp, efficient cutting tool; crisp, finely cut wood surfaces that require little, if any sanding.

Most of a turner's sharpening questions are discussed here. What is sharp? What should the tools look like and why? Should you change a factory grind? What speed grinding wheel? What type and grit of wheels? How about wheel dressing? Do you have to hone turning tools? Are jigs a substitute for skill? You can't watch John Jordan long without getting a clear answer on that last one-- the magic is in the turner, not the jig. I wish I'd realized that before trying to let a sharpening jig do my thinking for me.

Bonnie Klein does an excellent job of presenting the basics, through drawings, overside wooden models of tool edges and up close demonstrations on the grinding wheel and lathe. One of the hallmarks of this tape is the close ups — you'll see more than you likely would in a class or demonstration. Videographer,

Phil Pratt, himself a turner, does a great job of letting you see what's important. Bonnie says 95% of sharpening is knowing what shape the tool should have. She makes sure you understand.

John Jordan also stresses knowledge and understanding, rather than a list of abstract rules. His specialty is the sideground gouge, and it's a pleasure to watch him work, again on both the lathe and the grinding wheel. He explains what a side ground gouge should look like and why and gives an organized, systematic method for grinding it, both freehand and with jigs. He excels at both methods, and clearly explains why even people with his skills can benefit from jigs.

Bill Johnston demonstrates wheel balancing, something I'd read about but never seen, then goes on to give a good presentation on scrapers. I especially liked the simple wood holders he makes for sharpening the various tool bits many turners use for hollowing and other jobs. Simple, low cost methods that make getting an edge on these little bits a breeze.

Alan Lacer demystifies the skew, roughing gouge and detail gouge, again stressing understanding and good technique. Lacer also is a honer, and he makes a strong case for hand-stoning the ground edge, both for an improved cut and for reducing trips to the grinder. He also stresses safety, which many of us neglect when sharpening. Those sparks represent particles that can damage eyes; that dust, which Lacer likens to glass particles, doesn't belong in human lungs. Wear eye protection and a respirator or dust mask.

Fundamentals of Sharpening is a good presentation, one that I'll refer to many times. And the next time someone asks for help in

sharpening a gouge or skew, I'll have them watch it before we head for the shop.--- Dick Burrows



The Ellsworth "Signature Gouge" and Sharpening Jig Video Produced by David Ellsworth, \$19.95.

As with many evolutions in woodturning, the David Ellsworth Signature Gouge is a descendant of several gouges developed by various turners such as Ray Key, Richard Raffan and Liam O'Neil. Known as the "side grind" or "Irish grind" the Ellsworth design takes the idea a step further toward versatility and makes it much more useable.

The 'Signature' Gouge video is the most recent of Dave's five videos illustrating various woodturning subjects. It focuses on how a single tool has the efficiency and versatility to perform the four primary cuts needed to turn a bowl, i.e., roughing and finishing cuts for both the outside and the inside of a bowl.

Dave notes, "As with my other four videos, I did all the filming myself (of myself), which, of course, is my style. It also requires learning a whole new craft. The earlier tapes (1994) definitely lack the sophistication in editing and the quality of tape used in this video. But since my ultimate goal is 'content' over 'appearance', I make no apologies."

None needed. It's always informative and a pleasure watching Dave turn. -- Gary Dickey

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SOFA CHICAGO 2000

"Great New Things" from woodturners

BINH PHO & STEVE SINNER

THE CAVERNOUS EXHIBITION HALL at Navy Pier in Chicago hummed with the hushed exclamations of thousands of persons awed at the beauty of art from around the world last November. SOFA (The International Exposition of Sculpture Objects and Functional Art) was in town, and more galleries than ever before exhibited wood art.

Ninety galleries from the United States, Australia, Canada, Czechoslovakia, England, France, Italy, The Netherlands, and Switzerland featured the world's foremost artists in the media of glass, ceramics, wood, metal and fiber.

Showing pieces with at least some lathe-turned components were Blue Spiral 1 of Asheville, del Mano of Los Angeles, Finer Things of Nashville, gallery materia of Scottsdale, Heller of New York, Mariposa of Albuquerque, Narek of Australia, R. Duane Reed of



Elegant displays, like the one by Narek of Australia, above, and enthusiastic viewers, like those in the del Mano exhibit area, below left, characterized SOFA 2000. Photos by the authors.

St. Louis and Chicago, and William Zimmer of Mendocino. Most of the dozens of wood artists they repre-

sented would be familiar names to woodturners everywhere, though sometimes it was necessary to invest more than a glance (always a good idea in a show of this quality) in a piece to appreciate the artist's intent.

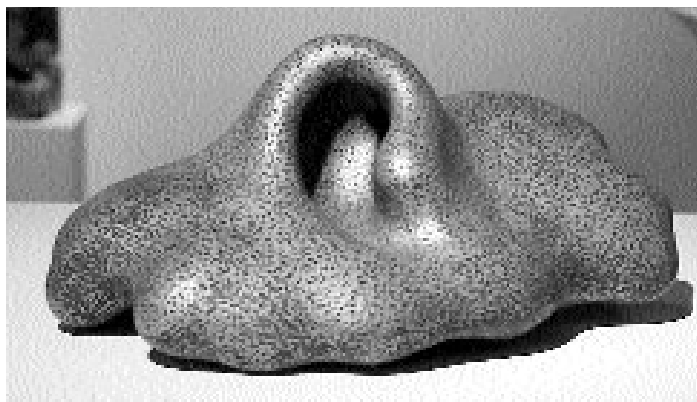
Moving into other materials

Many artists are crossing over into other materials. Baskets used wood and fiber. Prominent metal worker Marilyn Da Silva had carved wooden birds in her works. Even some glass artists are combining the sculptural capabilities of glass and wood, with wood becoming a full partner instead of simply providing a convenient mounting base for the glass.

Of particular note were John Jordan's cast bronze reproductions, Stephen Paulsen's framed science fiction scenes, Robyn Horn's cut, carved, turned and pierced pieces with metal slashes, and Christian Burchard's combinations of madrone and patinated copper. A couple of Michelle Holzapfel's pieces even featured bright primary colors.



The del Mano scene at SOFA, Chicago 2000.



Clay or Wood: The authors, recalling a quote from Hugh McKay: "Whatever the potter can throw, I can turn it too," paid special attention to clay works like the one by Ken Price, above top, which reminded them of the sculptural forms of Michael Peterson, whose wood piece is above, right. The photo, above left, below, shows clay forms by Ruth Duckworth, which they felt were reminiscent of work by Michael Hosaluk.

What attracted the crowds

While plain turned wood can still be found, the crowds seem to be gravitating to pieces that the average person would not recognize as having been turned. In some cases, even experienced woodturners may find it difficult to tell if the lathe was used or not.

Owner Jim Cotter, of J. Cotter Galleries in Vail and Beaver Creek, CO, was heard to comment, "Wood has made a new major comeback." When asked to explain his observation, he noted that wood had been a significant art form in the past, "but it didn't seem to change. Now wood is much more contemporary, and the artists are stepping out of bounds and coming up with great new things!"

Not only did we see mixed media in woodturning, but it was also evident in forms and design that there

were similarities between wood and glass, and clay. Look at the work from Ruth Duckworth in clay and the containers from Michael Hosaluk or Ken Price in clay and Michael Peterson's sculpture forms. I still remember a quote from Hugh McKay: "Whatever the potter can throw, I can turn."

The type of media is no longer a boundary in the art world. The artists walk around the show, compliment each other, admire each other's works, and the next thing they know they create something with a little influence from someone else, then someone else likes it and does it with their own twist there we go; that is where ideas come from. The possibilities are endless. Don't just lock yourself into wood and ideas like everything "has to be turned on the lathe" or "it has to be its natural color; you can't paint it"

Those are restrictions from the past; they don't necessarily rule today. We are all experimenting, growing and absorbing all sorts of ideas and inspirations from other artists, no matter what their specialties might be. Sometime I wonder if the collaborative conference in Emma Lake in Canada and other similar events around the world have some impact on how turners and other artists look at their work. I saw many artists were here, who had also been at Emma Lake.

Let's close this article with a quote from collector Robert Bohlen: "If you don't live on the edge, you just crowd the earth." The successful artists are the ones out on the limb all the time, pushing their limitations to the edge.

Binh Pho is a turner in Maple Park, IL. Steve Sinner turns in Bettendorf, IA.

IRISH WOODTURNERS GUILD

Millennium Candlesticks highlight seminar

FRANCIS MORRIN

The presentation of Millennium Candlestick project, where the Irish Woodturners Guild made more than 3000 candlesticks, one to commemorate each life lost in the strife in Northern Ireland during the last 30 years was one of the highlights of the groups annual seminar.

For the second consecutive year, record numbers attended the event last September in Belfast. The seminar, held on the University of Ulster campus at Jordanstown, was the IWG's first weekend seminar since the early 90's. Delegates came from the USA, Australia, Israel and the UK, as well as IWG members from both north and south of Ireland.

Events started on Friday evening with a buffet meal followed by the customary slide shows where the demonstrators talked about their work. These slide shows were extremely informative, giving a little of the background and turning philosophy of each turner.

One hitch did occur here, however - the sound system did not cope with



Some of the 3000 candlesticks donated by woodturners at the IWG to a Hospice group to commemorate each life lost in the strife in Northern Ireland during the last 30 years. Photos by author.

a Schubert melody chosen by Ciaran Forbes to illustrate the simple flowing curves of his bowls. The fact alone that someone would choose music rather than speech to accompany their work was educational in itself.

Demonstrations kicked off at 9.30 a.m. on Saturday morning, and more than a few looked as if they needed

more sleep, no doubt due to the revelries after the slide show of the night before. Allan Batty's room was packed to capacity each time I passed it — Allan gave demonstrations on twist work, box making and thread chasing.

Two of the great masters of bowl turning, Liam O'Neill and Ciaran Forbes (though oddly

both with different techniques) held full audiences throughout the weekend, with many coming back for second and third sessions. Jules Tattersall gave fine demonstrations on texturing and gave us a chance to see some of the Australian timbers that he is famous for. One of the highlights of the weekend for me was watching Johannes Rieber (whom I had never seen before) turn a drinking flask. Spindle work, faceplate work, off-centre turning and precision jointing all came together in Johannes' demonstration. The last stage of the turning of one of these flasks involves fitting a panel to the front of the flask and when it snapped into place with a loud "click", Johannes received a spontaneous round of applause. He is one of the best turners I have seen at work, and one who is most generous with his time, knowledge, skills and techniques.

My second highlight of the weekend was the chance to see Michael Hosaluk at work. Although Michael took care to explain clearly all the techniques he uses to make his unusual turnings, I gained more from



Michael Hosaluk, who will be a featured demonstrator at this year's, AAW Symposium in St. Paul, was one of the author's favorites at the IWG seminar, especially on his presentations of developing ideas and getting inspiration from other arts.

listening to how he developed his ideas and used techniques from other areas of the arts to gain fresh inspiration. I could have spent the entire weekend following this man and indeed I know a few who did.

Local demonstrators also played a strong part in this year's seminar, and although I didn't see any of them turn myself, I know they had a good attendance judging by the numbers of people heading towards their rooms. Jim Johnston, Tony Rea (himself an international demonstrator), Peter Mulvaney, Emmet Kane (another international demonstrator) and Seamus Quinlan were joined by US turner Nan Bushley from San Diego and kept the crowds entertained with a wide range of techniques and ideas. Indeed, just as Allan Batty remarked during his slide show, the line up of local demonstrators was probably as good as the international ones.

You may know about our Millennium Candlestick project, where the IWG endeavored to make over 3000 candlesticks, one to commemorate each life lost in the strife in Northern Ireland of the last 30 years. This project came to fruition at the seminar banquet on Saturday night when the Chairman of the IWG officially handed over the candlesticks to Marcus Cooper, the representative of the Northern Ireland Childrens' Hospice. Marcus explained how delighted they were to receive the candlesticks and told us how fitting it was that we should give them candlesticks in support of the Hospice as their symbol is a burning candle flame - now to be supported by our candlesticks!

It was late Sunday afternoon before I got to the display area and when I got there I was amazed at the sheer numbers of candlesticks on display - and that was only half of what they received! It was also amazing to see the variation on the theme of the candlestick and how no two candlesticks were alike (other than the pairs



The competition at this year's show featured 145 entries and more than £1000 worth of prizes.

of course!). About £1000 was made by the charity on the weekend of the seminar alone with a final total of £10,000 hoped for.

A welcome addition to any woodturning seminar anywhere in the world are trade shows, and this seminar was no different. Axminster, Meantime Design, McMasters, Goughs, The Woodshed, LRE, and Chris Kelly Sawmills were just some of those in attendance. Judging by the numbers of delegates who swarmed around the stands bargain hunting at coffee breaks, the vendors must have gone home happy.

This year saw the welcome addition of a stand representing the AWGB and showing some of the fine work of its members. At the closing address on Sunday evening, Lionel Pringle (Hon Sec AWGB) announced that as part of the AWGB effort to bring the worlds' woodturning associations closer together, they would be offering attendance at the Loughborough seminar for the same price as an AWGB member would pay.

No national seminar would be complete without a competition and this year there was a staggering 145 pieces entered, each competing for more than £1000 worth of prizes.

Overall best of show went to Roger Bennett for his dyed sycamore bowl

with silver inlay.

Other prize winners were

Mark McDermott: Commended Under 19's

Charlie Watts: Winner Under 19's

Nora O'Bhaill: 3rd prize Beginners Section

Martin Gleeson: 2nd prize Beginners Section

Gerard Hennessy: 1st prize Beginners Section

Anthony Witham: 3rd prize Spindle Turning Section

Peter Parker: 2nd prize Spindle Turning Section

Michael Dickson: 1st prize Spindle Turning

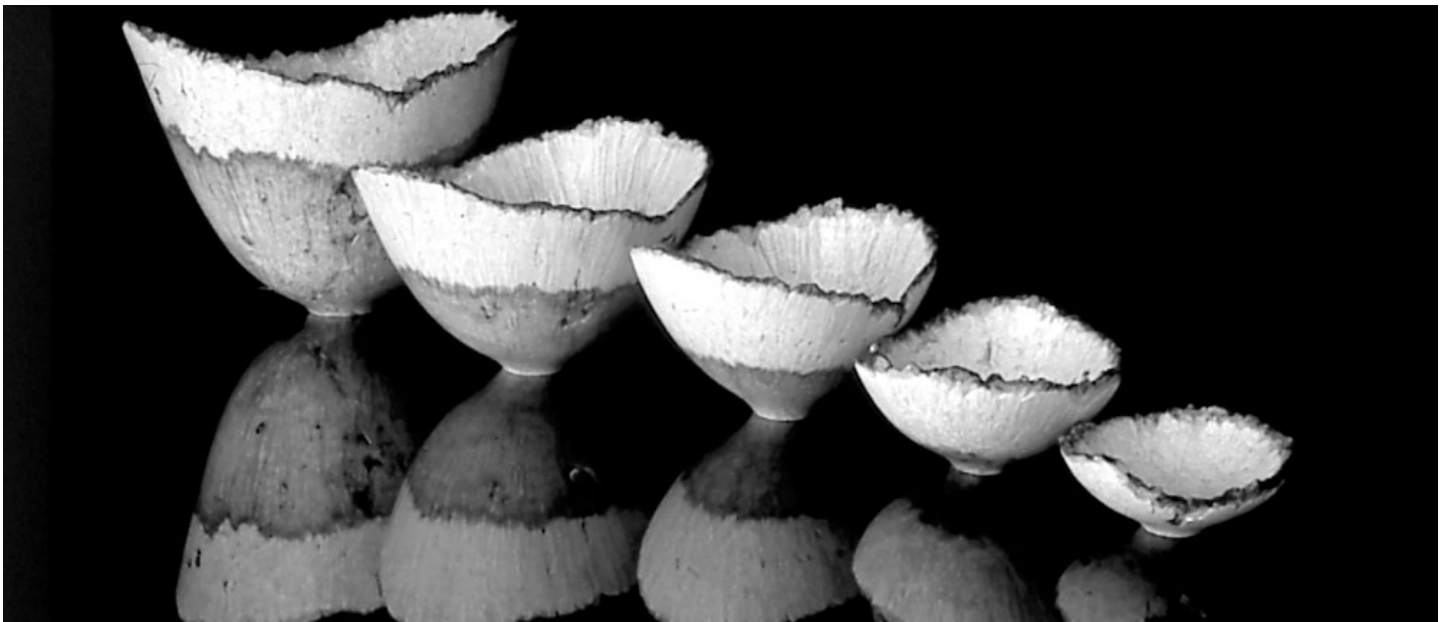
Leonard Ingram: 3rd prize Open Section

Tom McCosh: 2nd prize Open Section

Billy Henry: 1st prize Open Section

Finally, a note to put in your diaries for 2001 - this year's seminar will be held in Gort, Co. Galway on October 5th 6th & 7th with a star studded line up of talent! A final note of thanks should go to the committee of the IWG who organized this annual event and never get to see any demonstrations themselves.

Francis Morrin is newsletter editor for the Irish Woodturners Guild.



Elegant Economy

Nested bowls cut from a single block of wood are signature items for Mike Mahoney of Provo, UT. Working with the McNaughton system, Mahoney turns out a large number of bowls, especially salad bowls, as part of his business. Being able to get six pieces out of a 12X5-in. blank is an economic windfall with immense wood savings, he says. For a look at some of his hollow forms, see Page 34. He has to rely on other tools and techniques there.

"If someone could invent a way to nest wood out of a hollow form vessel, my tool kit would be complete."

