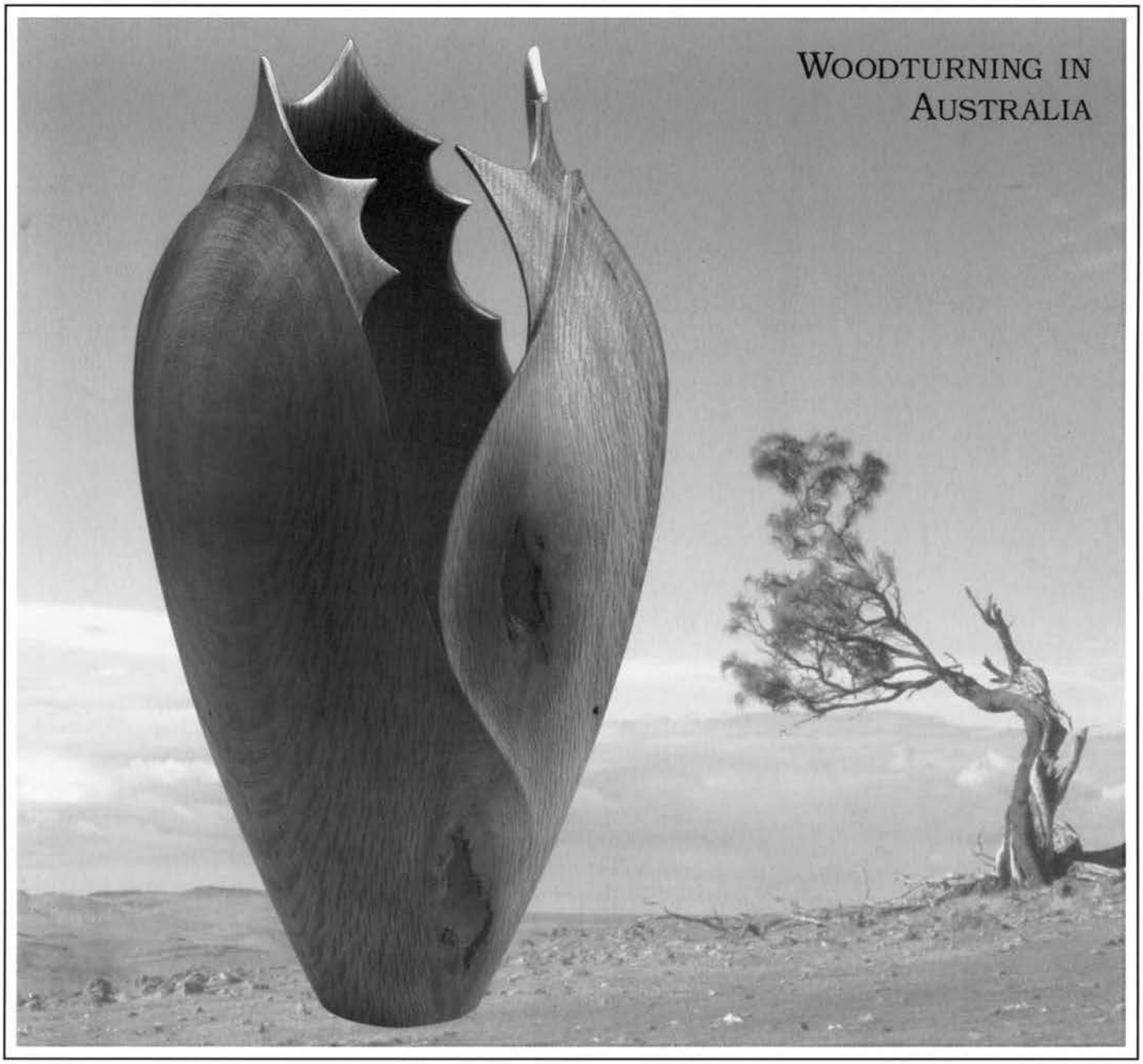
■ Turned Bird Houses ■ Todd Hoyer ■ Pierced Hollow Turnings ■ The Side-Ground Gouge ■

American Woodturner

The Journal of the American Association of Woodturners March 1997 $5.00 Vol. 12, No. 1



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

PRESIDENT'S NOTE

HOMECOMING

THE 1997 HOMECOMING IN SAN ANTONIO, July 18–20, is coming together very well. The Conference Committee gave the board an update on the planning during our January meeting. The Committee is doing a great job in an effort to improve on Greensboro—big task. Some differences are: the demonstration rooms will be larger, the demonstration area will also be quieter, and the trade show area will be larger. See the inside back cover for more details

The general membership meeting will be at 7:00 p.m. Friday, the first day, without any conflicting activities. I hope we have a large turnout at this meeting. The board needs your input and this is the place to communicate with us.

The board has reviewed the symposium finances and elected to reduce the basic registration fee from $225 to $195. The Conference Committee considers this a "thank you" for your past patronage.

I am happy also to announce the location and date of the 1998 symposium: June 12–14 at the John S. Knight Convention Center in Akron, OH. This is another facility tailor-made for our needs.

Regretfully, Susan Schauer resigned from the board, stating that time constraints prevented her from being the kind of board member she wanted to be. Susan had a lot to offer and we will miss her and wish her the very best. We welcome David Wahl to fill the remainder of Susan's term. David was offered the position, as he received the next highest number of votes in the last election.

A complete index to all past articles of *American Woodturner* is included in this issue. You can leave the index in the magazine or you can remove it and use it separately. Because of the size, future indexes will not be comprehensive, but rather biennial updates to this index.

—Charles Alvis, President
American Association of Woodturners

EDITOR'S NOTE

SOMETHING FOR EVERYBODY

THIS IS THE FIRST TIME I AM ADDRESSING you on the subject of the journal since becoming editor three and a half years ago. I figure that an editor works in the wings and that, in as much as this is a reader-contributed journal, it is your show. But recent responses to the journal have been so sharply aimed at the heart of this publication that I feel I should make clear how I see and how I edit *American Woodturner*.

First, I couldn't be prouder of the opportunity that editing this journal represents. After several years editing *Fine Woodworking* magazine and several more creating Taunton's video program, I have no trouble recognizing how special woodturners are for the way they share their achievements and help one another to advance the craft. Being part of this sharing—making this journal clear, attractive, and representative, and helping the AAW expand its presence in books, videos, exhibitions, and advertising—is fundamentally good and very gratifying.

But as things grow, they stretch the framework that holds them together. Mike Darlow has pointed to this in recent letters, warning of the loss of communication between the center and the periphery of woodturning, as the circle grows. Dismissive reactions to his letters and his critics, both, indicate that he is on to something. Alan Lacer lamented something similar in his final President's Page: "I have noticed in the past year or so stronger condemnations of individuals who hold contrary positions, less tolerance for different points of view."

I don't receive a lot of feedback on the journal. Most of it is positive. Some of it asks for more coverage of other things. Lately, a number of readers have called for *less* coverage of things. Some have gone further than that, demeaning and condemning the things they don't like. Even those who begrudgingly accept things they don't like in the journal are disturbed by what they see as an ominous shift toward more of those things.

Here's how I see it:

No trend—There is no trend in the journal toward more "artsy" content. I have reviewed issues going back several years, categorizing material by type: techniques, projects, product reviews, events, commentaries, artistic and philosophical analyses, organizational news. It was a challenge to pigeon-hole a lot of articles that spanned several categories. I noted sometimes large fluctuations from issue to issue, but overall, no trend, except the gradual, constant increase in the size and quality of the journal.

Your show—The balance of topics might be different than it is, but that balance accurately reflects your interests as they are manifested in what you send me for publication. As most of you who do send me material know, I reject very little. If you want the journal to be different, you need to contribute that difference. Needless to say, I'm open to all kinds of material; more than welcome, please feel *encouraged* to send me ideas.

A two-way street—Most of the basic technical material I receive comes from accomplished turners, many of them leaders in the field. I'm sure we all appreciate the way they share their expertise, their discoveries, and their enthusiasm. But I wonder if we all recognize that sharing is a two-way street. Consider, as I do, what leading contributors look for in the journal *as readers*. Check your bylaws and see how diverse a constituency the AAW was founded to benefit.

Steady as she goes—It's interesting that the same people who complained about Steve Loar's "Kansas" article and its follow-up have applauded the "Turned for Use" show, *which was proposed in that article!* It calls for a steady hand at the tiller when the same people who demand "less artsy-phartsy photos," "less verbiage," "less controversy," and "less innovation," remind me not to lose sight of "something for everybody."

—Rick Mastelli, Editor-in-Chief

American Woodturner

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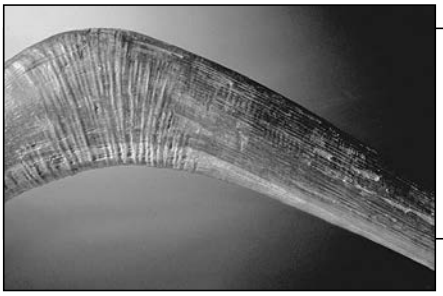
A Note about your Safety
An accident at the lathe can happen with blinding suddenness; respiratory problems can build over years. Take appropriate precautions when you turn. Safety guidelines are published in the AAW Resource Directory. Following them will help ensure that you can continue to enjoy woodturning.



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

On the cover: *Australia is a land of striking developments in woodworking. Peter Lowe's "Evolution Series—Hakea" is of she-oak, $10\frac{1}{4}$" high. At left is a natural boomerang. For more on the peculiar woods and accomplished woodturners of Australia, see the excerpt from Terry Martin's book,* Wood Dreaming, *beginning on page 34. Photos: landscape, Terry Martin; vessel, Victor France; boomerang, Jeff Wright.*

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As bad as FWW?!

I subscribed to *Fine Woodworking* for the first eleven years of its publication but canceled when it became too devoted to the professional woodworker with too many articles of little interest to the average home-shop hobbyist like myself. Emphasis shifted to production of "one-of-a-kind," "never-seen-before," and "probably-never-seen again" largely non-functional furniture. I sincerely hope that *American Woodturner* is not headed in the same direction.

I joined AAW in 1991 and read every issue from cover to cover with much interest. Unfortunately, there seems to be less and less of interest to me in recent issues. Surveying past issues, it is apparent to me that less and less space is devoted to how-to subjects, while more and more space concerns personal opinions on subjects like "innovation," "Art vs. Craft," "Plagiarism," "Collaboration," and non-turning skills, including carving, painting, sculpting, and bleaching. Undoubtedly these are stimulating discussions for a limited group of our professional members who understand the "art" language used. I suspect the curator of our state art museum would understand far more of the ten pages devoted to the ITE in the December issue than I did. There most certainly is interest in and a place for such subjects in our journal, but we must be careful not to let them alienate a very large segment of our membership: rank beginner, novice, and intermediate turners. Many of us are not interested in published arguments among the professionals that seem to further their personal agendas.

The "Turned for Use" exhibition sounds like a much needed project. But don't limit Instant Gallery entries to one per member; the more the better. I'm afraid one per member would result in a collection of largely "innovative," esoteric "art objects" "in orbit" and of little interest to the average turner. Turner's Tips and the Gallery are always of greatest interest to me; I hope they are expanded.

We have a great organization that will surely prosper through a balanced appeal to all members' interests. *—Darrell Rhudy, Raleigh, NC*

One man's meat

The holiday rush over, I finally read the December issue. What a GREAT issue! There is a lot of "meat & potatoes" in there for the legion of us who turn because it's fun and enjoyable. I, and I suspect most of the membership, don't care about ethereal discourse regarding turning being art or craft, form or function. I especially enjoyed the "Firmager Workshop," Skewing a Bead," and the other "how-to" articles, plus the "Big, Brawny & Sophisticated" piece on lathes. More issues like this one, please!

—William G. Kissel, Yankton, SD

None too much

Too many pieces at the Greensboro Instant Gallery (Lyle Jamieson's letter in the December issue)? How could that be? Too many things for me to look at? Too many new ideas? Does one complain that the Smithsonian has too many choices? If one has trouble with the size of the display, just walk a little faster. I go through an exhibit of that size at least twice. The first pass is swift and gives me an overview. I note what pieces and sections I want to spend more time on. On the next pass (and following ones), I take my time and take notes or make sketches. With so many items, I can play juror—selecting this and rejecting that. If a piece doesn't suit me, I don't spend time with it.

Many, many thanks to the folks who set up and ran the Gallery. They did an amazing job. The computer-generated labels on each piece alone were worth the admission!

—Buz Blum, Palmer, AK,

Sharpening cuts several ways

Re Dave Shombert's letter in the December issue: When I retired in 1980, my wife and I decided to take up woodturning seriously as a hobby. We have attended the week-long sessions at Craft Supplies in Provo, Utah, each year since. We have taken classes from Raffan, Jordan, Key, Wood, Ellsworth, Glaser, Osolnik, Firmager, and Martin Oram. *All* of these experts regarded sharpening as essential, but each had a different approach. To grind the bevel, for instance, Oram uses a belt sander; others use grinding wheels of various grits. While the shape of the bevel varies from that of Stocksdale to that of Liam O'Neil, the results are the same: all achieve a perfect edge. My wife, who is an excellent turner, prefers Stocksdale's approach; I lean more toward Vic Wood's.

The essential skill is *touch*—like playing a violin, the finer skills yield to practice. I think it would be difficult to write an article of reasonable length to explain this skill comparatively, as Shombert asks; there are too many variations.

—Robert J. McNeil, MD, Cambria, CA

Give and take

In response to Dave Shombert's letter in the December issue:

1. There is no way that the journal can be all things to all people, but overall, for my money, it is the best thing on the market.

2. What we value in the journal varies with our evolving experience and expertise. Articles that were of no interest to me a year ago are fascinating to me now. When Rodger Jacobs wrote his article on "sneaky bowls," I only glanced at it, but when I considered carving feet in my own turnings, I practically memorized the article. Articles on texturing were of little interest to me until I felt the need to embellish my own work. As our woodturning interests change, so does our reading.

Letters are edited for clarity and length.

3. As Palmer Sharpless once told me, if you ask a hundred woodturners to solve one problem, you will get a hundred different solutions. Personally, I think it's insanity to grind at much over 1725 rpm. David Ellsworth routinely sharpens perfectly well at 3450 rpm. Neither method is right or wrong. You need to gather all the information you can, use what is of value to you, and leave the rest for others.

4. I am not convinced that the journal is a good place to teach sharpening anyway. A one-on-one hands-on approach is probably the best, followed by videos. Still photos can't really convey the subtle dynamics of rolling a gouge while grinding.

5. That said, John Jordan did an excellent job explaining the side-ground gouge in the March 1994 issue, as did Steve Blenk clarifying sharpening in general in the January 1993 issue of *American Woodworker*. The information is out there. We all have the responsibility to seek out what we need. The journal can ill-afford to constantly repeat the same material for beginners.

6. Don't forget that the other side of receiving is giving. The other side of complaining about the journal is contributing to it. We all know something that the sharing of would benefit somebody. This organization has been built on sharing. Like a lot of things, this journal is ours to make what we want it to be.

—Robert Rosand, Bloomsburg, PA

Back again, thank you

Shortly after I sent my letter (published in the December issue) about my disappointment with the journal not including enough material useful to the novice, I received a call from Mike Hymes, telling me about the West Virginia chapter and its activities. Editor Rick Mastelli wrote me with copies of sharpening articles from back issues and further suggestions for more information. Someone else sent me a copy of the West Virginia chapter's latest newsletter. Since then, I have received numerous calls from other turners from all over the map—New Jersey, Colorado, Georgia, Kentucky and elsewhere. Some sent me written materials and others provided valuable suggestions over the phone. Everyone offered encouragement and support. It's clear that this organization responds to input from its members! This letter is really just to thank you all for that. It's helped me a lot.

I still feel that *American Woodturner* would be enhanced by more instructive articles that are oriented toward us newcomers. Most of the people who called me agreed with this. As one of them put it, "There needs to be more about how to do it and less about what it means." The article in the last issue on turning beads with a skew was a good example of what I mean. I see the value of both types of material, and I'm glad I decided to renew.

—Dave Shombert, Elkins, WV

Corkscrew problems

My experience in making corkscrews may be beneficial to anyone motivated to make them by the article, "A Sheathed Corkscrew," in the December issue. I bought corkscrews from one of the suppliers listed in the article (Craft Supplies USA). I found that the tips were not within the circumference of the screw body. This caused the corkscrew to tear the cork it is drilled into, making it difficult to remove the cork. To make it work properly, I ground the tip so that it does not protrude outside the circle of the screw body. I notified the company of the problem; I do not know if they found another supplier or continue to sell the ones like I purchased.

I glued the corkscrew to the head with two part epoxy as author Pratt suggests. I was very embarrassed when customers returned the corkscrews because the metal had broken free of the head under pressure. I tried drilling a small hole perpendicular to the shaft and driving a brad through it to strengthen the bond. Results were mixed. It is very difficult to drill into the hard steel of the shank with a small drill.

Turned corkscrews are a great idea. But there are problems with them, too.

—Norman Rodgers, Madison, MS

Bored to death

My wife and I bring home a wood sample native to the area in which we are vacationing. The resultant turning becomes a fond souvenir. Such was the case with a small cedar log found near Mesa Verde, CO. The wood was quite dry when found and sat inside my shop for three months before I turned it into a small bowl, finished it with oil, and set it upon our dining room table. Upon returning from our next trip (three months later) I picked up the bowl to discover a small pile of sawdust along with a diminutive six-legged creature, toes up on the antique pine table. Below the sawdust was a boring, $1/4$ inch in diameter by $1/8$ inch deep. Also discovered was the exit hole in the bowl bottom. This hearty soul survived travel, cold weather, 2500 rpm, power-sanding, and toxic distilates only to be done in by that "unsightly wax buildup" on our dining room table!

—Barry Hayes, Golden, CO

Call for disability info

There are many turners out there with handicaps who have resolved their problems either by modifications of their lathes or by using assistive devices. There must also be many more who need help. I would like to hear from anyone in either category so we might generate a database and be in a better position to help others.

As an orthopedic surgeon, I have

LETTERS

helped modify work stations in industry, and I'm certain there are others with similar expertise. I would like to hear from you also.

—Robert W. Waddell, MD,
3195 Adam Keeling Rd.,
Virginia Beach, VA 23452

Turning young

I am a sixteen-year-old who has been turning for a year and a half. I was hooked on woodturning when I gave it a try in wood shop my freshman year. There were four old lathes sitting in the corner collecting dust, so I picked up a couple of tools and taught myself how to turn. Little did I know that I would fall in love. An hour a day of turning in school was just not enough. So I bought myself a ten-year-old Harrison Graduate longbed and I was on my way. Now, I find myself in love with it even more.

I have learned more in the last three months than I have in the last year. Last June I went to Provo, UT, to take a week-long class with Richard Raffan and attended the BYU Symposium. Learning to make large myrtle platters, small boxes, and spinning tops with Richard was the best experience of my life.

When I came home, I joined the Glendale Woodturners. Everybody in the club is willing to share their knowledge with me. They are my big family. I have not met a woodturner I have not liked. Older woodturners who wish they had started turning at my age have taken me under their wing, hoping I will continue to turn and to encourage others my age to get into it, which is exactly what I plan on doing. I hope to become a professional woodturner someday and eventually open a woodturning school and demonstrate, so I can repay my knowledge back to young woodturners who will follow, just the way people have generously done for me.

—Jordan Calaway, Santa Clarita, CA

MEMORIALS

Remembering Three Members

Harvey and the ladies

Harvey Helmke stumbled into a niche and made it into a world. He took simple ideas and tools and expanded them, creating items that were both beautiful and useful. He added a unique look to the lace bobbins and needle tools that he made, and he wowed the ladies whose passion for lace and needlework his turnings enabled.

Harvey was introduced to the lace bobbin by Mary Frances Keifer, a member of the Austin Lacemakers who gave a presentation on lacemaking to the Central Texas Woodturners Association in 1992. Harvey was intrigued by the miniature spindles and borrowed a couple of them from Mary Frances to use as models. Within a year, Harvey's lace bobbins had become well known, and he expanded his repertoire to include needle art tools.

In 1994, after making thousands of lace bobbins, Harvey learned to make lace. I spent an afternoon teaching him how to make a simple bookmark. He said he'd never make a true lacer, but learning how really helped him to refine his bobbins.

That same year, Harvey was invited to demonstrate at the AAW Symposium in Ft. Collins, CO. The best way to show off a collection of bobbins would be to have a lace pillow with an actual piece of lace being worked. I offered to spangle a bunch of bobbins (adding a ring of glass beads to the end of the bobbin for weight) and volunteered Mary Frances to make the lace. I spangled seventy-six bobbins, and still Mary Frances had to add a few more to the project. When I delivered the working lace pillow to Harvey, I swear there was a tear in his eye. He had never realized just how beautiful a working lace pillow could be with the beads sparkling at the ends of his intricate lace bobbins. I told him that it was sure pretty but not perfect. He gave me a funny look until I explained he could elevate it to art by rearranging the bobbins to perfection. He and Mae, his wife, spent many hours before making the trip to the symposium, switching bobbins around to make it just right.

Harvey Helmke at the 1996 AAW symposium in Greensboro, NC.

Making lace bobbins and needle art tools was not the only way Harvey endeared himself to the ladies. In 1993 he was persuaded to open his shop to the Austin Lacemakers for a combination turning demonstration and shopping spree. While watching him turn a bobbin on a mini lathe, I remembered the untold hours I had spent watching my grandfather the machinist working at his lathe and realized that I, too, could do this with my hands. Harvey helped me adapt a watchmakers' lathe to turn bobbins, encouraged me in my progress, and convinced me to apply for an AAW grant to share my burgeoning expertise with others. He even got me to demonstrate for the Alamo Woodturners, which he was president of.

Harvey died last November of cancer. Knowing that he would not be able to continue, Harvey trained his nephew, Michael, to carry on the tradition of Helmke lace bobbins and needle tools. Harvey's work has touched many hands and many people. He will be missed.

—Judy Williams, Austin, TX

"Pleasing to hand and eye"

Oliver Hilliard Booth, III, a member of the AAW since 1989 and one of the founders of the Chesapeake Woodturners, died of a heart attack last December while cutting wood for his craft. His bowls have been exhibited and sold at various galleries in the Washington, DC, area, and his work was selected for inclusion in the Smithsonian's permanent craft collection and in the AAW's "Growth through Sharing" exhibition.

Most of his woodturning friends knew him only as Hilliard and will remember his smile and his inquisitiveness. How and why we turn were always on his lips. He was never satisfied with his own work. He consigned many of his pieces to the woodpile, including those that other turners would have treasured. The pieces he placed in galleries, or kept, were perfect, yet Hilliard would find something in them that did not satisfy him completely. In contrast, when viewing the work of others, he saw only the best points and was full of praise and encouragement.

Hilliard started turning after work, while employed in a South Carolina cabinet shop in 1978. In Annapolis since 1980, he lived in an apartment, worked six days a week, and turned mainly on Sundays. For years he would roll his Conover outside, weigh the stand down with cement blocks, and pray for good weather. Several years ago Joe Dickey added a room on next to his workshop and invited Hilliard to move his lathe and tools there. This gave Hilliard a lot more time to turn, good company, and someone to interact with on technique and design.

Hilliard's turning and carving evolved from much thought, attention to selected work of others, and a knowledge of classical Greek and Roman forms. He had done graduate work in ancient and medieval history at the University of North

Hilliard Booth at his Conover lathe.

Carolina. He was very much influenced by Southwest Indian pottery forms. His earlier carvings included a wide band encircling the vessel. He then experimented with geometric patterns at four points on the vessel, representing the compass points or the four points of the universe found in American Indian and Eastern spiritual myth. His interest in vessel forms was not nurtured in art school—it came from his work in ancient history and classical languages.

Hilliard spoke firmly about the importance of a vessel's form and line. "Surface embellishment won't help a vessel with poor form," he said. And "the utility of the finished form is secondary to the artistic motivation of revealing the beauty of the wood in an object pleasing to hand and eye."

—Frank Amigo, Crownsville, MD

Contributions along the continuum

I did not know Alan Hildebrand, who died last November in an automobile accident, except through his contributions to this journal. The first came as a letter to the editor, published in the March 1995 issue. "Questions along the continuum," remains one of the most thoughtful, balanced letters I have received from a reader. Without denigrating, Hildebrand pointed out that some of the philosophical exchanges that had been published in the previous issue were getting a little airy. He was even-handed, like a good referee with a sharp eye on the boundaries of the words we use. He distinguished, rightly, between the sense there is in each one of us asking why we do what we do, and the futility of asking that same question of any group of people. He declared his own personal interests to be rather modest: "the pure joy of mounting wood on a lathe and making it into something it wasn't before, even a pile of shavings," though he allowed that he could not predict what he would aspire to as he progressed "along my craftsmanship/artistry continuum."

It was a surprise to receive from him several months later a poem on the mystery of creating form at the lathe. He had said that he wasn't interested in turning paintings or poems, yet here he was writing one! I couldn't help but be impressed with how the facets of this intriguing contributor were sparkling, and I published "Mind Turning," in the September 1995 Letters column.

My third encounter with Alan Hildebrand was in the context of a report on the 1995 rice bowl contest staged by the Ohio Valley Woodturners Guild. Among the photos for the article was a poised, modest dogwood bowl, Hildebrand's, that had won "Best of Show." Take a look at it on page 8 of the December 1995 issue, and see how a plain and simple piece can express the subtle, complex character of its maker.

I met Hildebrand at the Greensboro symposium last June. Not surprisingly, I found him genial, sincere, and quiet. I asked if he would report on his experiences at this his first symposium. You can see what a good job he did on pages 15–17 of the September 1996 issue. In all, the journal has lost a very special contributor. *—Rick Mastelli, Editor*

VIDEOTAPING YOUR CHAPTER'S DEMOS

WITHOUT A DOUBT, DEMONSTRATIONS are the central activity for most AAW chapters: the sharing of ideas, techniques, stories, and philosophy are the lifeblood for the community of turners. But at the end of a demo, what remains is dependent on the overloaded memories of those who attended. Those who could not be there or who join the chapter later or who wish to re-experience the event years afterwards need some way to access the information.

Videotape is clearly the answer. And from my experience with the Granite State Woodturners and its parent, the Guild of New Hampshire Woodworkers (200 members), it is a solution that can be achieved with minimal expense and time.

If videotaping is to fulfill the educational mission of your chapter, you must understand what you are *not* trying to accomplish. You are not trying to emulate Steven Spielberg or even CBS News. You are not even trying to match the standards set by *Fine Woodworking* in their video series. Your only goal is to make the information from the demonstration available to future viewers. This does not require flashy graphics or technical wizardry—only clear audio and video documentation. This goal is not difficult to attain.

I'm going to describe three different equipment setups, from the cheapest to the most expensive. These setups represent my own experience and knowledge, having produced dozens of titles and hundreds of copies. But I won't challenge your credulity by claiming to be an expert. Alternatives certainly exist, and perhaps I'll get feedback from this article that will improve the setup we use.

1: Borrowed equipment

Our group started five years ago using a consumer-grade camcorder that I already owned. It was a regular-8mm machine, which is the equivalent in quality to the common VHS and VHS-C cameras. Also available for home use are HI-8 and S-VHS units, which record at a significantly higher resolution. In any case, it is likely that someone in your group owns a video camera and is willing to lend it to the group. Also, borrow a pair of headphones from a Walkman so you can monitor the sound during the recording.

Once you have recorded the demonstration (more about that process later), you will want to make copies of the tapes to lend to your members. This requires only a regular VHS VCR. More than 90 percent of American homes have one of these, so it shouldn't be too hard to borrow one for this noble purpose.

There is one purchase that I would recommend making even at this initial level: a tripod. You will want something that is sturdy, and with a head that allows you to pan and tilt the camera smoothly. We chose a Bogen Model #3021/3063, costing around $200. Such a tripod will be suitable if you upgrade the rest of your equipment later.

So for around $200 you can start producing tapes and copies that will be useful and appreciated.

2: Higher quality and easier

After three years of making videos using the first setup, it was obvious that we were testing the endurance of our equipment, and we were becoming more critical of the limitations in quality it imposed. We had made twelve demo tapes and perhaps 300 copies. The Guild had made some money selling tapes, and our dues-paying membership had swelled to 150. The videotaping project was obviously one of the keys to that success. We had the resources and the mandate to acquire better equipment, owned by the Guild and dedicated purely to Guild activities. Over the past two years, we have upgraded in several areas.

Obviously, the camcorder is the heart of the system, and this has been our most significant and expensive upgrade. We wanted a camcorder with the following features:

- high resolution (the highest we could afford) of video images
- a professional-quality, wide-ranging zoom lens, with digital enhancement for extreme close-ups
- fade, audio, and exposure controls, and easy-to-use manual focus
- rear-camera controls (much easier to use when mounted on a tripod)
- a real-time counter (as opposed to the so-called "foot counter")
- a "name-brand" model, recommended by experts

Since we knew that the camcorder would be used only on a tripod and that we would be using a monitor (see below), we were willing to forego features such as small size, image stabilization, color viewfinder, and extra batteries. Many other bells and whistles (character generator, digital effects) are not required, but they happened to come on the unit that was recommended to us by several professional videographers—the Canon A-1 Digital Hi-8 camcorder. I believe this particular camera has been discontinued, but equivalent models should be available. It cost us $1,200 from a New York City discount house, and might have been $2,000 if purchased from a local retailer. With this camera the quality of the master tapes and the subsequent duplicates were greatly improved.

Using setup #1, you will quickly discover how awkward and tiring it is for the camera operator to view the demonstration through the tiny viewfinder on the camera. A great solution is to use a monitor, which can be a regular TV set that you may be able to borrow from a member of your group. But a better solution is a TV/VCR combination. This is a sin-

gle box that will also allow you to show your VHS copies before demonstrations and at other chapter events and promotions. Sam's Club sells a variety of such machines, ranging from $200 for a 13-inch screen up to $500 for a 29-inch.

Once you have a monitor for the cameraman, consider a second one for your audience. Loop the video signal through to provide closed-circuit coverage of the demo. Audience members will appreciate the close-up views and be more tolerant if the camera gets in their way.

A good, Hi-8 camcorder, wireless mike, monitor, headphones and tripod form the core of a moderately priced video setup for recording chapter events.

Many of my earlier efforts at taping were marred by poor audio quality. The microphones that come attached to the cameras are mediocre and usually omnidirectional, that is, designed to pick up sound from all around the camera rendering it all equal in volume. Any cough or whisper in the audience of a demonstration will be amplified by these systems, distracting from the speaker's commentary.

Our solution is a wireless microphone system. The one we use (Azden WMS-PRO) has both a clip-on mike and a regular mike that can be positioned close to the sound source. The clip-on picks up the speaker's voice clearly, but will fail to catch audience questions adequately. For this, as well as for panel discussions, use the regular mike, mounted on a stand or just fixed to something stable. In any case, the signal is sent by radio waves to a receiver that is plugged into the camera. One word of warning: use fresh batteries in the mikes for each recording session. A wireless mike system costs about $150.

As an added convenience, I would suggest getting ear-muff headphones for $20 to $40. You'll be wearing these for two hours, and they will help you to differentiate between ambient sound in the room and the audio signal being recorded.

At this point, you may be making many dozens of copies per year. Having them sent out for commercial duplication is expensive in small runs. I still make the copies myself, but I now use an industrial-grade VCR (Panasonic AG-1300, $300). The quality of the copies has improved, and the machine is designed for heavier use.

Other accessories you should collect include: a head-cleaning cassette; a variety of jacks, adapters, and cables; and label sheets for neat, uniform, computer-printed labels for the copies. Also, we had a member volunteer to make a carry-and-display case for our library. Now we need a second case, and I will try to have it made lighter. Sixty-six tapes in an oak container is almost more than I can lift!

Obviously, there is a big jump in cost from setup #1 to setup #2, which might run around $2,300. But these expenses can be spread over time. And if your chapter cannot afford it, then consider applying for a grant from a local arts organization or foundation. After all, the video library that you will be creating will be invaluable in fulfilling the educational and philanthropic goals that you and the grantors both have.

3: A modest wish list

Naturally, I would like to keep improving upon the system that our group currently uses. I'd like to add a second industrial-grade VCR to make the duplication process more efficient. A second wireless mike and a simple mike mixer would help me balance the various sources of sound. And a Hi-8 deck ($600) would mean that I could reserve the camera for recording the masters. The deck would be for playing back the masters during duplication.

The Hi-8 deck would also make it possible to edit our tapes, maintaining a high level of audio and video signal in the duplicates. But realize that editing is time-consuming and challenging. Unless you have a member of your chapter who really wants to do the editing, I would suggest that you accept the fact that your duplicated tapes will contain all the glitches and real-time durations of your original masters.

Which brings me back to one of my original points: know what it is you are (and are not) trying to accomplish. There is no limit to the amount of time and money you can put into videotaping for your chapter; impose some discipline based on the bare necessities required to reach your goals.

Videotaping tips

I have made plenty of mistakes, and they are invariably memorialized on the hundreds of duplicated tapes. I will undoubtedly find new mistakes to make in the future, but here is a list of tips that I have arrived at through the pitfalls.

• Test everything before the demo —

CHAPTER VIDEOS (CONTINUED)

get there extra early, set up at a leisurely pace, and then shoot a few minutes of simulated action. *Play it back,* preferably through the monitor, to ensure that all is well, including color balance.

- Make sure demonstrators understand in advance that you will be videotaping, and for what purposes.
- Establish your role with the audience. At first I was shy about doing this, but the success of the video depends on your getting the best, unobstructed vantage point for the camera.
- Provide for two introductions. Ask your chapter president to make general announcements before the camera rolls, then begin recording and have the president make formal remarks that include the basic info for the tape: who, what, when, and where.
- Avoid backlighting—having a bright background, such as a window, behind the demonstrator. If a window is unavoidable, cover it with a blanket.
- Pan and zoom slowly. Moving too quickly results in a jerky, disquieting image that will be appreciated only by fans of *NYPD Blue.*
- Utilize close-ups as much as possible. Due to the limitations of a TV screen, these are much more informative than wide-angle shots. The drawback to close-ups is that it can be hard to follow fast-moving targets, but fill the frame with information as best you can.
- Anticipate the demo's development. If you know your demonstrator is about to change chucks, widen out to follow the action. If you know your demonstrator is about to part off, see about repositioning the tripod to get an informative angle. If you work with your demonstrator, you can produce a tape that moves along with the action rather than one that plays catch-up.
- The previous suggestion notwithstanding, don't be intrusive. Discretion and deftness go a long way toward keeping your demonstrator and your audience at ease.
- Keep your eyes fixed on the monitor or viewfinder. I have caught myself engrossed in an interesting topic, failing to notice that the camera was not following the action.
- Get comfortable. I use a high stool with a back, and I position the camera and monitor to minimize discomfort.
- Make the two-hour limit clear to everyone involved. In order to avoid editing, people need to understand in advance that the "official" demonstration ends when the tape does. Discussion often continues past that point, but it is not included in the recording. On two occasions, we have made two-tape sets to accommodate long presentations. Do not compromise your picture quality by running the tape at LP (four-hour) or EP (six-hour) speeds.
- Document your setup. I have had to miss several Guild events, and I have trained another member to do the tapings. I provide him with detailed written instructions.

What to do with your tapes

First of all, you must preserve your master tapes, which are irreplaceable. They should be kept in a cool, dry location away from electromagnetic fields—not next to the TV set or speakers. Label the tapes clearly. I have been told to have a professional make S-VHS copies of the masters, and keep those in another secure location, but so far, I haven't done this.

I make the duplicates on inexpensive, name-brand VHS tapes, which cost less than $2 each, and I enclose the copies in clear plastic cases (50 cents). Tapes and cases are available at Sam's Club.

We have an unusual approach to lending tapes from our library. Many chapters that have a video library charge a minimal rental fee. We lend them for free, making it a valuable perk of membership. We have people sign them in and out, but basically rely on the honor system. In all likelihood, a few tapes have disappeared, and some remain on loan for too long. But the cost of additional copies is so low that it hardly seems worth the hassle of policing the system. At a typical meeting of the Guild, 50 to 100 tapes are borrowed.

We sell our tapes, charging $10 for members, $15 for non-members, and we make special deals with schools to provide them tape sets at the cost of making the copies. All of this produces enough income to subsidize the duplication of tapes. Some of our members have donated commercially produced woodworking tapes. Taunton Press traded us ten of their videos in return for the one-time use of our mailing list. Altogether, our library consists of perhaps 300 copies of our own tapes, and 25 commercial tapes. We'd love to hear from other chapters who'd be interested in trading tapes.

Besides demonstrations, we have also used our camcorder to document various exhibitions put on by the Guild and the League of NH Craftsmen. We shoot the show, then have a master craftsman narrate the video, describing each piece, unusual techniques, and the maker.

Of course, at any one moment only about 50 to 100 tapes are in the library case. The rest are in the appreciative hands of our members, being viewed and re-viewed. And that speaks volumes about the success of our efforts to document the various events put on by the Guild. We have overcome the ephemeral nature of live demonstrations, preserving the information and the experience for the future.

—Peter Bloch, New London, NH

Don't hang up

I sometimes find the tool rest hangs up when I want to move it to a new position—the locking shoe or plate binds on the underside of the lathe bed. I added a small compression spring between the locking shoe/plate and the cam takeup on the bolt that connects these two parts. Presto! The shoe is pushed away from the underside of the ways when the camlock is loosened and moves easily every time. This would also work for the tailstock if it is not moving as freely as it should. I got the spring at my local hardware store for about a buck.

—William G. Kissel, Yankton, SD

A good, cheap skew

I use a 1/4-inch round HSS skew for turning the "icicles" on my Christmas tree ornaments. The skew is particularly nice for detail work and being round in cross section is kind to your tool rest. It can be a bit grabby until you get accustomed to it, but what tool isn't? The best thing about it is the cost. I bought mine for about $2.20 from Enco Mfg. (800/860-3400).

—Robert Rosand, Bloomsburg, PA

Drying on a stick

When I apply finish to a bowl or platter, I do so while it is still attached to the scrap block and faceplate. To keep the work from tipping over while drying, I turn a short wooden dowel that threads snugly into the 1x8 thread of my faceplate and insert the other end into a block.

—Charles Brownold, Davis, CA

Get a grip on it

The 1/16-inch dustpan featured in many catalogs proved to be a valuable addition to my workshop. I quickly discovered, however, that the scaled-up handle is more artistic than ergonomic. It is too big to hold comfortably, even in my big hands. My solution was to cut off the curved end, compress the two "stems" in a vise, then bind them tightly with sash cord. A long-shank threaded eye within the coils allows hanging the dustpan in the usual manner. *—Ron Kent, Honolulu, HI*

Lathe stability

Many turners bolt the lathe to the floor to achieve stability and reduce vibration when using large or off center pieces of wood. Not a good idea, as this can put excessive stress on the bearings and rotational torque on the bed. If you must bolt down the lathe, level the bed using shims; then be sure the points of the tailstock and spur center line up before tightening the bolts.

Better: Expand the width of the lathe stand to approximately 16 inches where it makes contact to the floor, then build a sand box into the lathe stand to add extra weight—much better than adding sand bags to the stand, because sand bags don't strengthen the stand itself.

For lathes that have four bolt tabs welded onto their stands, cut the heads off four 1/2-inch-diameter bolts, leaving a 1/2-inch length of the shanks exposed. Place the heads of the bolts on the floor with the 1/2-inch shank pointing up. Insert these shanks up into the holes of the tabs in the lathe stand. Rock the lathe to determine which bolt head is too high and grind it down until the lathe is stable.

With a long-bed lathe, one with a wooden bed, or with sand, be sure to use bolts at several contact points to prevent the center of the bed from sagging.

—David Ellsworth, Quakertown, PA

Wake up 'n smell the shavings

Ever wonder why wood shavings look small and fine enough when you have a pile in front of you but look like a log jam at a lumber mill when inserted into a crack? Try sneaking your kitchen's small coffee grinder into the garage, put a couple of teaspoons of the shavings on grind for about two minutes, and look again. Most dry shavings will be pulverized to a fine powder. Longer time in the grinder and they can get to almost flour grade.

The powder can be packed into the cracks with a series of nail sets to compact the powder. Followed by a low viscosity CA adhesive, the crack can be set in two layers if wide and deep. Don't accelerate, or else you will get a white residue from the reaction in the CA.

Don't sneak the coffee grinder back into the kitchen, you might have a cup yourself. The flavors are not chickory!

—Oskar Kirsten, President, San Diego Woodturners

Bandsaw table enlargement

Bandsaw tables always seem to be too small when trying to cut up a large bowl blank; most of the wood seems to hang off the table. I added 2 inches on three sides by using 2x2 angle iron (available at any welder). Just cut it to size and use two bolts to attach. Round off the corners so it doesn't injure you or catch on your clothes. You will need to use two pieces on the side where your saw blade is removed. This really adds a lot to the table and makes it easy to handle larger blanks.

—Mike Kornblum, Mtn Home, AR

Magnet cache

Salvage a magnet from a discarded car speaker. Place the magnet in a handy but safe location on your lathe. Stick chuck keys to the magnet so that they don't get lost among the shavings on the lathe or the floor. A magnet from a 5-inch speaker holds even my largest and heaviest keys handy for use.

—Richard Burkholder, Mifflintown, PA

My Work, My Life

A portrait of the artist as a woodturner

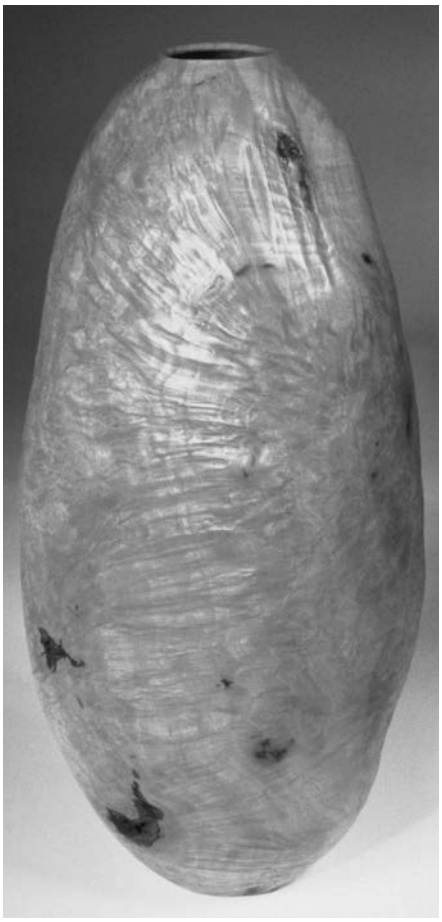
TODD HOYER

Like many men my age (I'm 45), I was introduced to woodturning in junior-high-school shop class. I tried making things square, and when I found out how difficult that was, I decided to make something round. The instructor, not a woodturner, told me there wasn't much to it: "Put the workpiece up there on the lathe and step up to it with one of those gouges." Which I did. BAM! The gouge went flying one way, the wood another. I stood there and shook. Then, being young and having no special regard for my life or limb, I put in bigger screws and went at it again with a scraper this time. And it worked. I managed to scrape out a nice little bowl for my mother. And that's all I did in the seventh and eighth grade. Turned wood.

Then came high school and they wanted me to go back to making square stuff again. They wouldn't let me use the lathe until the second year. So I dropped shop and took mechanical drawing.

In college I studied design technology and drafting. It became apparent that my destiny, if I followed this course of study, would be to sit at a desk and draw little circles and little squares. So I shifted into manufacturing engineering, where you could make things. It was wonderful. We did castings, welding, milling. Big metal lathes. Grinders. It was great fun. I enjoyed all that…until they wanted me to sit at a desk again.

About that time my mother told me she wanted to learn how to weave. So, using the facilities at the school I built her a ten-harness macomber-style loom. Then she had to learn how to weave. So I learned to weave. I got into spinning and dying, weaving, and tapestry. It was a nice balance for me. The warmth and softness of the spinning and weaving versus the hardness and coldness of the metal.



Top: Gourd Series, lilac burl, 12″ tall, 1984. Above: Ancient Vessel Series, cherry burl, 11″ tall, 1985.

In 1976 my uncle gave me a small lathe. I began turning utilitarian objects, things that would sell. These included baby rattles, rolling pins, plates, nut bowls, small boxes. Through the rest of the seventies, this production work allowed me to develop and hone my turning skills, all the while observing how wood behaves. I became more and more interested in the wood, and in vessel forms as a way to make the most of the unique character of individual pieces of wood. Using open, closed, and platter forms, I incorporated more of the wood's natural characteristics, allowing it to warp and distort as it dried, as in my Gourd Series, or including flaws such as rot, insect damage, bark inclusions, and cracking, as in my Ancient Vessel Series. This was a time in my life when I was trying to determine who I was with all my own flaws, and how to bring out their positive aspects. As each piece of wood is unique, so is each person special. This was a time of self discovery and growing understanding.

My vessel forms began to open up, revealing the hidden interiors through the flaws in the wood. I, too, was opening up, becoming more comfortable with myself and expanding the possibilities for future development. My turned vessel forms began to look more like two-dimensional drawings, reduced to the outline of a vessel. I was simplifying things to the minimum. This was the start of my Winged Series, pieces that left the viewer with a sense of flight and wood grain to flow around the form, unencumbered by foot or rim, uninterrupted by carving or other manipulation. I was starting to be recognized in the

Winged Series, emery oak, 11" tall, 1986.

Winged Series, Emerging Pyramid Variation, apricot, burnt, 12" tall, 1988.

Winged Series, Peeling Orb Variation, mesquite, 15" tall, 1988.

Mason Collection

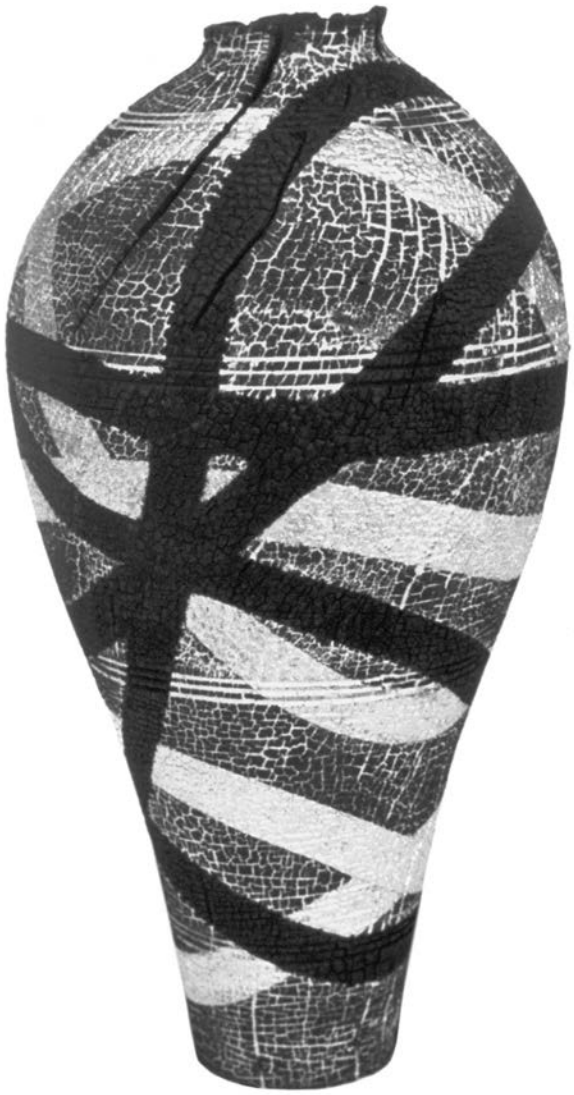
woodturning field at this time. There was growing demand for my work, and I spent a lot of time working and going to openings. I got married and we purchased land with friends to build our homes. My career and life were soaring.

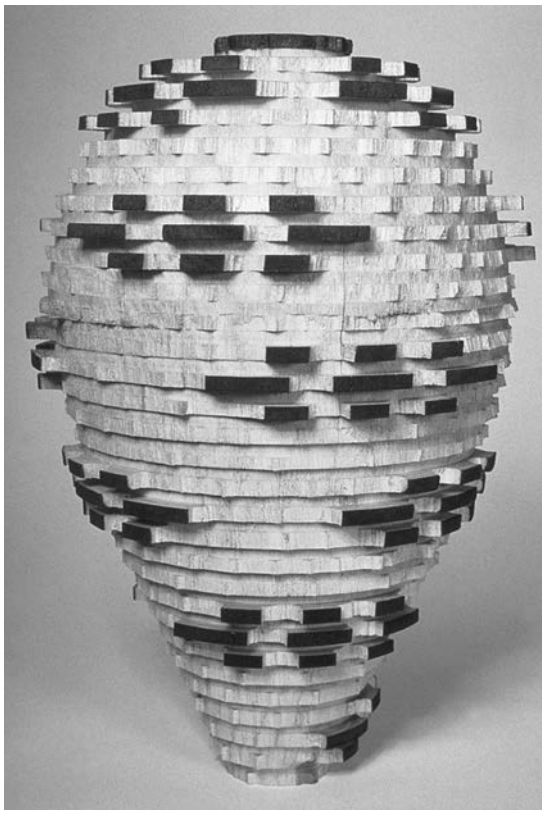
The Winged Series branched. I began incorporating, rather discovering, geometric forms within the wings, grounding their lift and creating balance. I saw these geometric shapes as masculine components complementing the feminine forms of the wings. My Emerging Pyramid and Peeling Orb Variations developed. I found these rich with possibilities. Old layers were peeling away, exposing a new and inner life. I was being asked to teach and had to face my fear of being in front of a crowd. I was emerging from my insecurity. My daughter, Cody, was born at this time. As a seed sprouts, new growth was emerging. My dreams were coming true. I was dancing.

Suddenly, everything changed. Our friends valued our land more than our friendship, and we were forced to sell. My wife left me, and I went through an emotional divorce and loss. Next, she was killed in an automobile accident, and I became a single parent with a six-year-old to raise. It was the end of the eighties, and the bottom dropped out of the woodturning market. As the economy pulled back, so did my income. I took a year off to think and be with my daughter.

Returning to the workshop was hard. I recognized my obsession with woodturning and there were parts of me that blamed this for my separation. I had spent too much time working and not enough time playing. I needed to establish a distance from my work before I could return.

When I did return, I came back angry, sad, and depressed. I wanted to strike back and take control again. I no longer wanted to show the





Top left: X Series, cottonwood, burnt, carved, 14″ tall, 1990. Lower left: Ringed Series, cottonwood, burnt, gilded, 12″ tall, 1991, Mason Collection. Left: Ringed Series, Plum, burnt, grouted, gilded, 12″ tall, 1992. Above: S.O.S., ailanthus, burnt, 14″ tall, 1993, Horn Collection. Below: Passages Series, Mexican blue oak, 20″ tall, 1992.

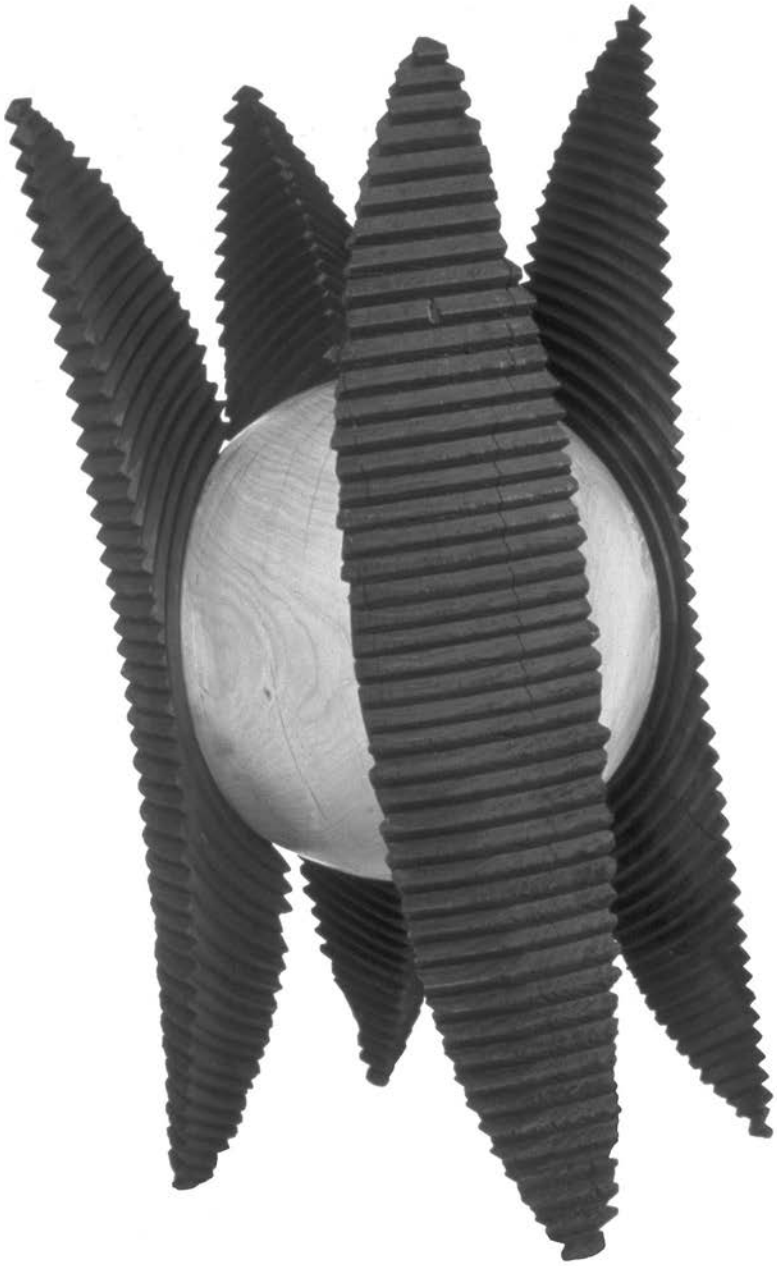
pretty side of wood. I worked my pieces roughly and left the fibers frayed, no sanding. I scalloped the edges, creating peaks and valleys, harsh textures. I burnt the wood, marking it with black rings that tightened around the vessels. Then I used a chainsaw to cut into the surface with a large X and blackened the interior. This was the X Series.

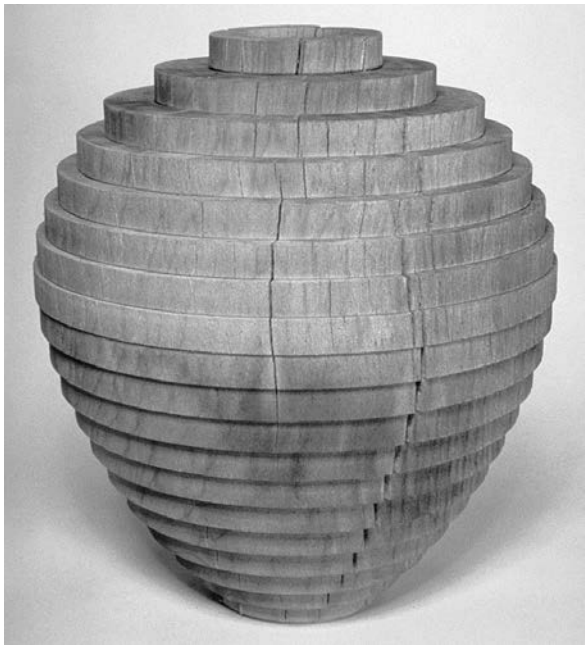
My Ringed Series began at this time, also. Over a burnt and charred surface, I gilded three rings, two intersecting and one loose. These were then also burnt. The intersecting rings represented myself and my daughter, the loose ring my former wife, disconnected but still a presence. A broken link in the chain. A precious loss.

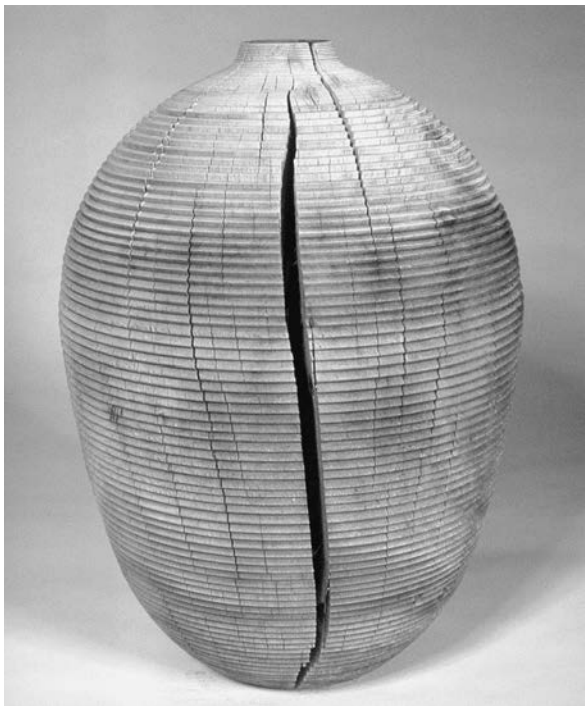
The rings continue to be a major design element in my work, as they represent life's paths and their interaction with other paths. Friends became very important to me, and I added more rings to my turned forms.

My finances were at an all-time low, as these emotional works were too strong for the buying public who were interested in pretty wood. I broadcast a call for help with a piece I called "S.O.S." It consists of the Morse code pattern of three dots, three dashes, three dots, burnt and raised above a broken and shattered background. Fortunately, it sold.

I returned to turning my sculptural forms with a series I called Passages. These consisted of solid turned forms with openings or passages through them. They were







Above: Suspended Sphere Series, 'Moving On,' Arizona cedar, burnt, 12" tall, 1993. Top right: sycamore, weathered, 14" tall, 1995. Lower right: eucalyptus, weathered, 14" tall, 1995.

about encountering and dealing with obstacles in one's path. The openings look large, but the pathway through is dark and the distance appears great. But the end is in sight, beckoning. Unless you pass through, the obstacle remains before you. This series has made me aware of all kinds of doorways and windows in life, which I continue to look into and pass through, even now.

I continued incorporating spheres in my works. These represented the essence and soul in each of us. I created a group entitled Suspended Sphere Series, having the sphere surrounded by other forms, lifting it away from the ground. All of these pieces were turned from one piece of wood, as I wanted to maintain the integrity of the material and the idea. No assembly required! One piece, which I titled, "Moving On," shows the sphere in motion through the tilt of the piece and image of the legs. In this piece the energy of emotional situations, the burnt uprights, carry one further on.

Currently I am working on forms that have been weathered outside in the sun, rain, and wind. The older I have become, the more gray and weathered I am. Wearing my age like an old and ancient vessel, scarred and bruised with use and misuse, but maintaining strength and dignity, I continue to explore the understanding of life and its effect on myself and my work.

Todd Hoyer lives and works in Bisbee, AZ. Thanks to Ken Keoughan for his help with this article. Hoyer will be a demonstrator at the AAW symposium in San Antonio, TX, July 17–19, 1997.

Turned Bird Houses

Shelter from half-inch-thick stock

SUSAN SCHAUER

Author's turned bird houses are attractive, economical, and weatherproof.

Locals call me the "Birdhouse Lady." I take it as a compliment. My turning career began making lathe-turned birdhouses, and I continue to make them today. They are beautiful, functional, and popular. I got my start after reading a wonderful article by Andy Barnum (*American Woodworker,* April 1990), describing his methods for turning staved birdhouses. Although our designs are similar, our methods are not. Since birdhouses are a major source of income for me, I have had to develop an efficient system which does not compromise the design.

The birdhouse I'm going to describe is functional. It is weatherproof and durable. With a little maintenance (a fresh coat of varnish every few years), it can last indefinitely. It is also economical to produce. The entire birdhouse is made with flat lumber, $1/2$ inch thick or less: the body is coopered, the top is ring-segmented, and the pendant base is turned from glued-up scrap. The type of wood can vary, so use what's readily available. My houses are primarily oak, cherry, and cedar.

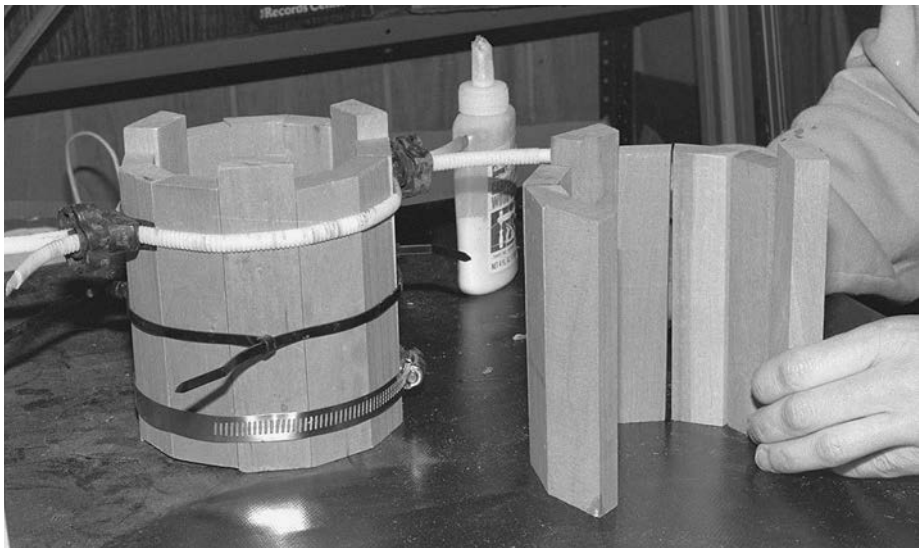
When designing a functional birdhouse, you need to consider the species of bird you wish to attract. Different birds have different needs, and we accommodate those needs by varying two things: entrance hole size and cavity size (see the chart on page 17). My standard birdhouse, described here, is made for the widest variety of species. The inside cavity measures $4\,1/2$ inches in diameter and is 9 inches high, and the entrance hole is $1\,1/2$ inches in diameter. Such a house is suitable for the largest variety of birds in my area.

The body

The body of the birdhouse is turned from a glued-up cylinder made from

twelve individual staves; like wooden containers for hundreds of years, the birdhouse is coopered. Before plastic or cardboard, even while glass, ceramic, and sheet-metal were available, coopering was an important technology for creating containers to hold liquid and dry goods alike. Coopering is the efficient, economical way to turn flat boards into buckets, barrels, flasks, vessels, and, of course, birdhouses. Coopering saves lumber and turning time and makes for a more interesting design if grain is taken into account when gluing up the assembly. By sandwiching veneer in between the staves, even more unique designs can be created.

For a twelve-sided cylinder, the cut angle is 15 degrees per edge (see *Cooperage Math* sidebar, below right) The width of each stave will vary, depending upon the size of the cavity as well as the thickness of the lumber you're using. I have designed a computer printout of all the variables I'll need to know in coming up with a particular design. For example, I may want to know what minimum thickness of lumber I can use for a given size house; how many staves I will need and the angle of cut for each stave in that particular design. These have been so useful to me that I have produced copies for others. (See the note at the end of this article.)

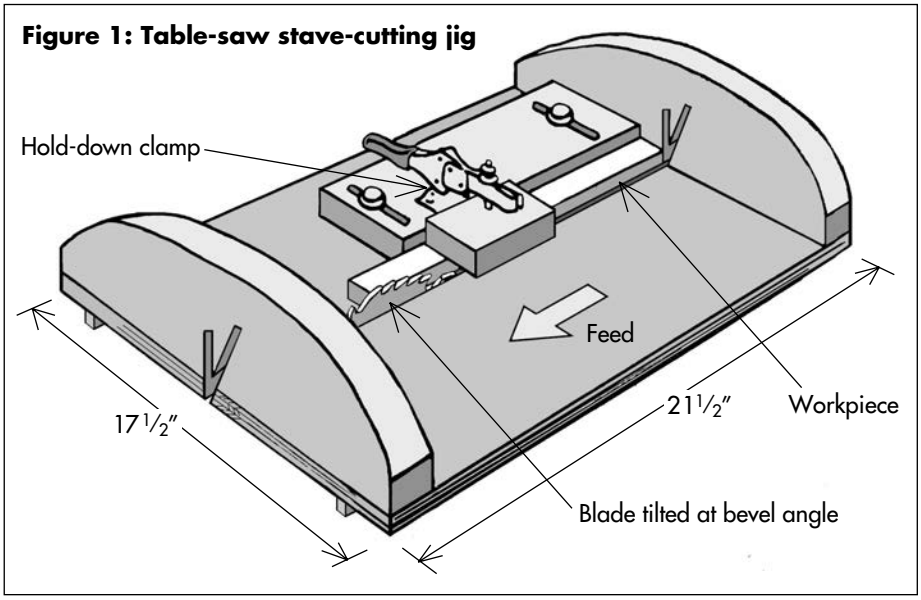


Glue up the staves, then clamp using one of several methods: ducting clamps, utility cable ties, or hose clamps.

Although a small number of staves can be easily cut with a standard table saw or bandsaw and fence, efficiency and safety is much enhanced by using a jig I specially designed for this purpose (see Figure 1, below).

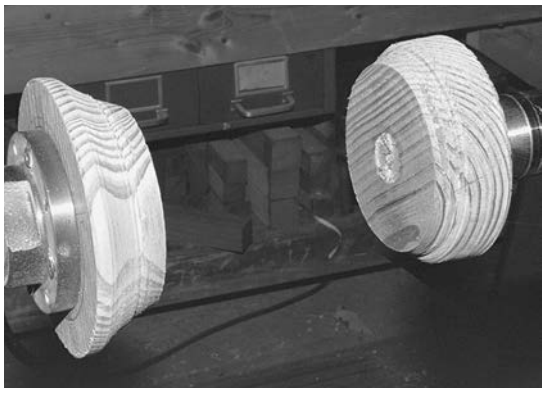
After cutting the staves to width, you need to cut them to length. I cut nine staves that measure $5\frac{1}{4}$ inches long and three staves that are slightly longer, $5\frac{5}{8}$ inches long. I then stagger the placement of the longer staves between the shorter ones (photo above). Later, when I attach the roof, these longer staves will be the attachment points and will keep the roof up off the body of the birdhouse for ventilation The staves are glued together edge to edge and can then be clamped using any of a variety of methods (photo above shows three methods). Standard hose clamps work very well. I also use plastic cable ties used for bundling utility cables. These are very convenient, and the glue will not stick to them. But since they don't have a release mechanism, they tend to be single-use items, unless you are patient with a small probe or scriber to re-

Figure 1: Table-saw stave-cutting jig



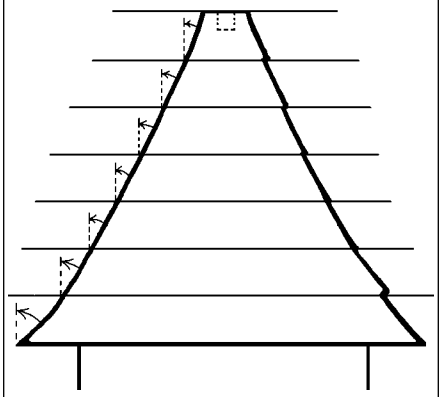
Cooperage Math

The width and number of the staves for a given container and the angle of the bevel joint between them can be determined using a little math. Begin with the diameter of the desired container and determine the circumference by multiplying the diameter by π (3.14). Divide the circumference by the number of staves to determine the width of each, and divide 360 degrees by the number of edges (2 times the number of staves) to determine the bevel angle.

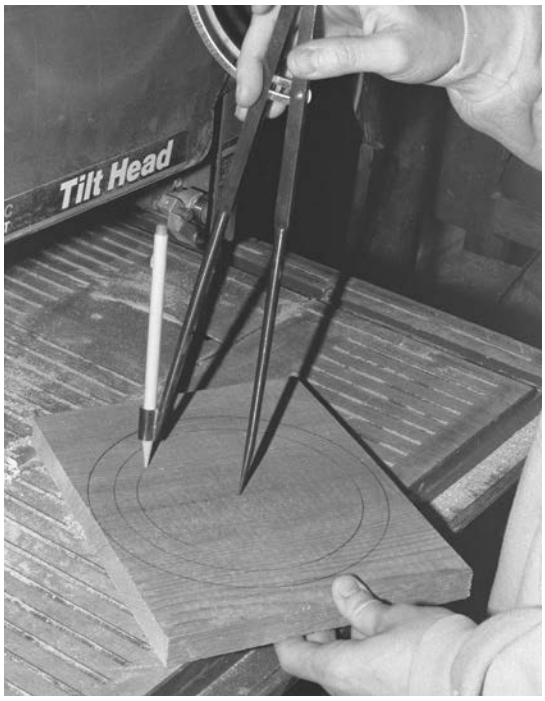


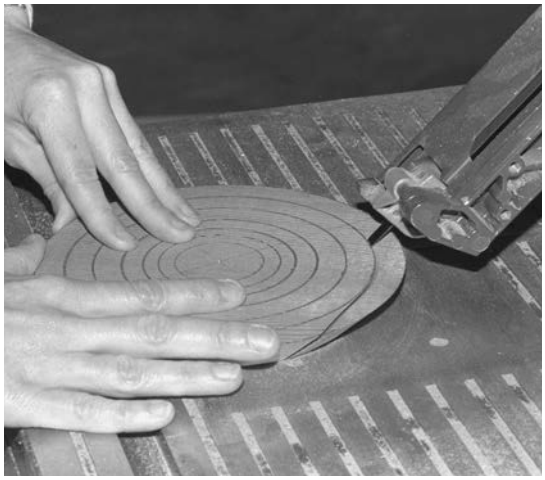
The birdhouse body is turned between centers, using two tapered centers that fit the inside diameter of the body.

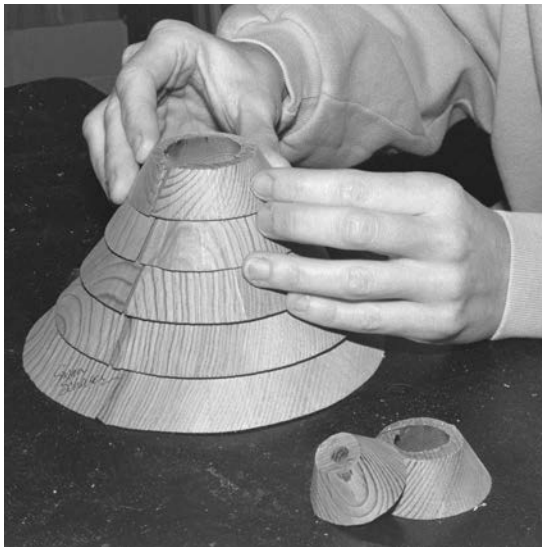
Figure 2: Determining roof segment angles



1. Draw the shape of the roof.
2. Draw lines the thickness of your lumber.
3. Measure angles to cut on bandsaw.







To make the roof, lay out the rings with a compass, top. Set the bandsaw to the angle determined as in Figure 2, and saw out the rings, center. Finally, glue the rings together, above.

lease them. Larger clamps are sold through heating and air conditioning outlets for use with round flexible ducting. The glue I use is unimportant at this stage since I later coat the house with epoxy. Therefore, I use whatever is available, usually PVA yellow wood glue.

When the glue has dried, I turn the outside smooth. There are a number of ways to do this. One simple way is to sand the bottom edge flat and glue the house to a waste block. Easier yet is to turn two tapered centers out of waste wood. Place the glued-up blank between them and turn it between centers (photos above). This allows for slight irregularity in the glued-up cylinder and also ensures a relatively consistent wall thickness. I use a roughing gouge to turn down the outside. If the tool is kept sharp, this is all that is necessary to get a clean cut. Minimal sanding finishes the job. The house should be lightweight, but thick enough for the bottom end-grain edge to accept screws for attaching the base. I usually turn down to a thickness of $^3/_8$ inch. Next, use a parting tool to cut the bottom edge flat to receive the base of the house. Then, at the other end of the cylinder, with a spindle gouge, taper the three longer staves (by cutting the sharp corners off) where the roof will be attached.

Next I coat the body with a two-part epoxy (which will make it waterproof), and after that dries, I sand it smooth and varnish it with a UV-inhibitor varnish. (Keep in mind that epoxy deteriorates quickly in sunlight. The UV-inhibitor, exterior-grade varnish is necessary if the birdhouse to be used outdoors.)

The roof

The roof I've designed for my birdhouses is made up of concentric rings. Little wood is wasted in this process (only the saw kerf), and it keeps the house lightweight. Although I could turn the roof rings on the lathe, I find it both faster and easier to make them on my bandsaw. I begin by drawing the roof shape I want on a piece of paper (Figure 2, above). Next, I determine the thickness of lumber to be used and draw lines across the roof design at that thickness. Then, I simply measure the angle of each edge and write this down. This will be the angle of cut on the bandsaw (photos at right). I draw the rings directly onto the cedar

The base is turned from glued-up scraps of various species.

blank with a compass. At the bandsaw, I make an entrance cut into the ring, cut around the ring, then turn off the saw and slip the blade through the entrance kerf. Next, I drill a 1/4-inch hole in the last (top) ring to receive the decorative finial at the top of the roof. With a small amount of epoxy, I glue the rings on top of each other.

When these dry, I coat the entire roof, inside and out, with two coats of epoxy. This will strengthen and seal the roof. Finally, I sand the roof assembly lightly and paint on one or two coats of the UV-inhibitor varnish. The roof is complete.

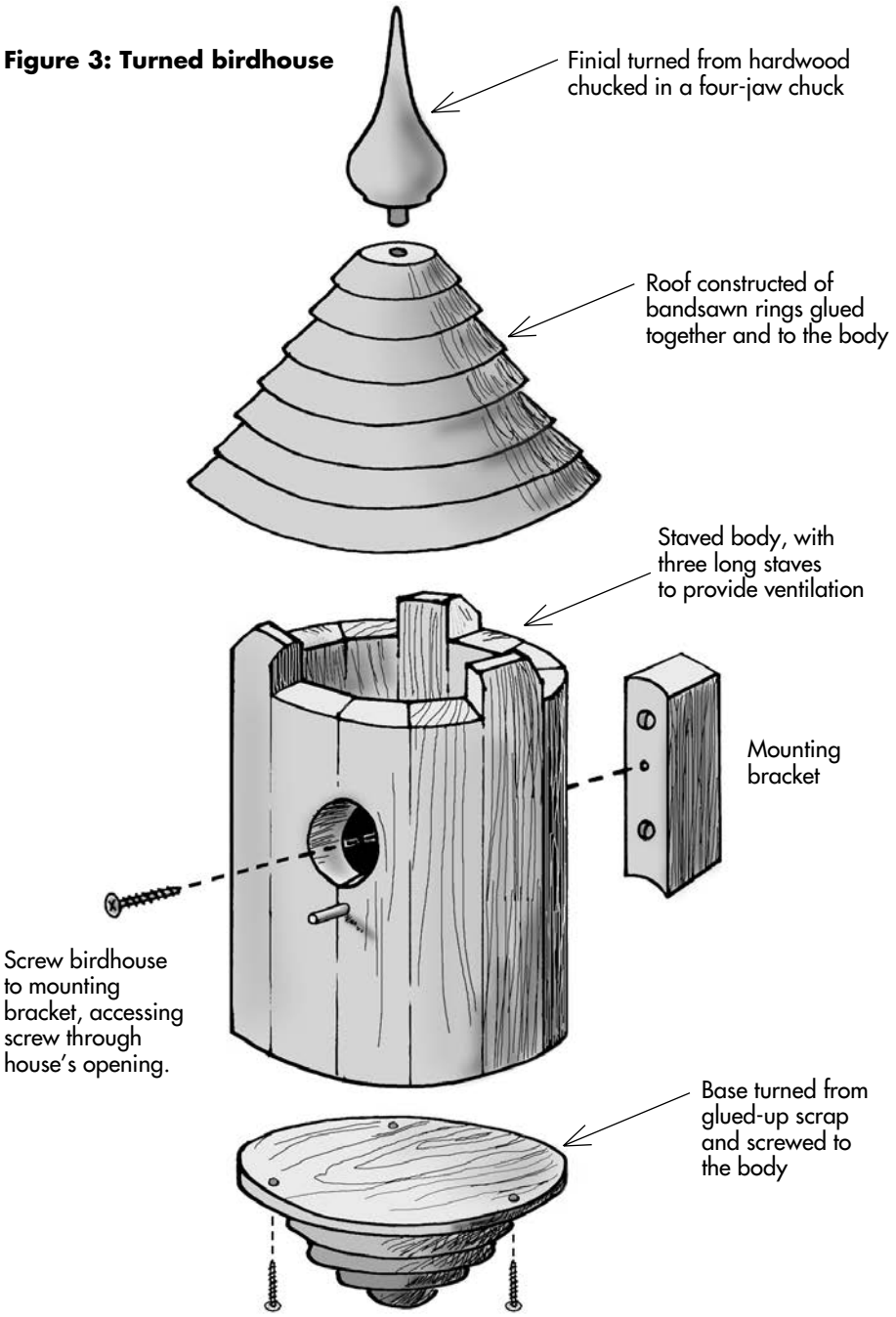
The base

When gluing up wood for the base, as in the rest of the birdhouse, I use scrap lumber (photo above). I glue together a pleasing combination of wood of varying species and thicknesses. It's always different and part of what makes each house unique. I attach this to a waste block with double-sided tape. Then I turn whatever shape comes to mind. I do consider the diameter of the body of the house I turned earlier and match this to the diameter of the base, leaving a relatively thin flat at the perimeter where I will screw the base to the body.

The finial

To turn the decorative finial for the top of the roof, I chuck a piece of hardwood in a four-jaw chuck and turn it down with a roughing gouge, finishing with a small spin-

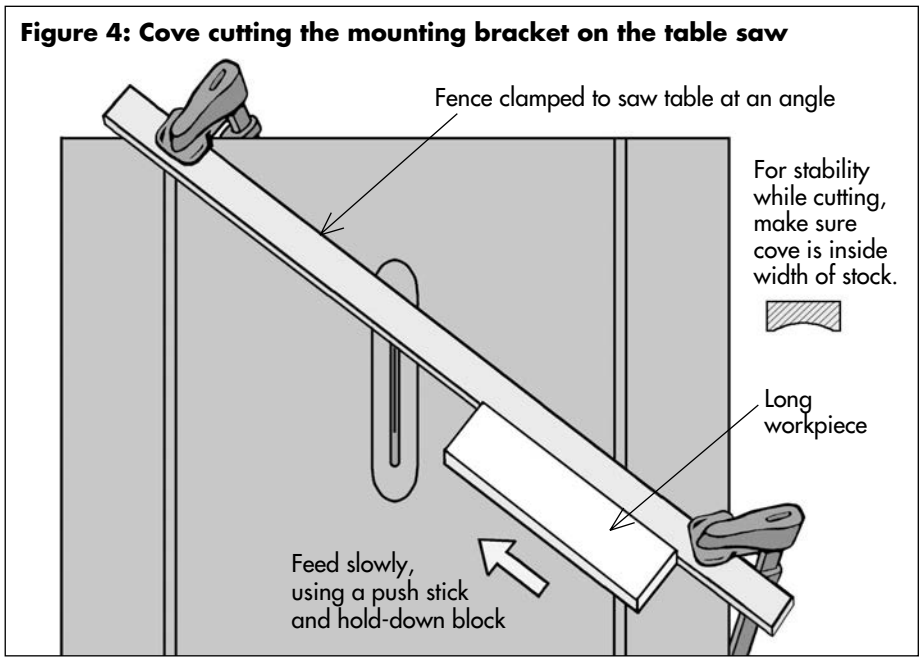
Figure 3: Turned birdhouse

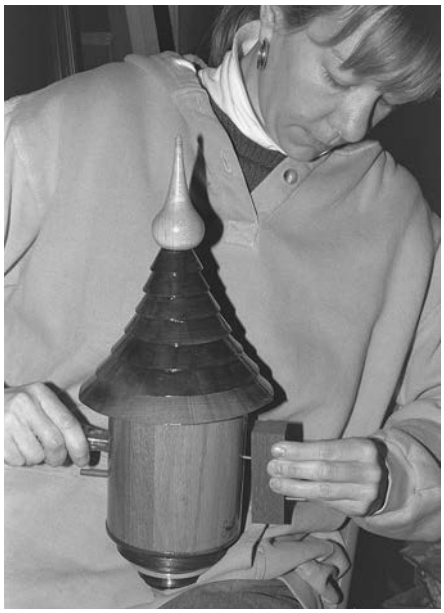


Bird house specifications, by species (measurements given in inches)

Bird	*Entrance diameter*	*Entrance height*	*Floor diameter*	*Chamber height*
Bluebirds	1 1/2	6 – 7	4 – 5 1/2	11 – 12
Chickadees	1 1/8 – 1 1/2	6 – 7	4 – 5	9 – 12
House finch	1 3/8 – 2	5 – 7	4 – 5	9 – 12
Flycatchers	1 1/2 – 2 1/2	6 – 7	5 – 6	9 – 12
Kestrel	3	10 – 12	8 – 9	14 – 16
Purple martin	2 – 2 1/2	1	6	6
Nuthatches	1 1/8 – 1 1/2	6 – 7	4 – 5	9 – 12
Sparrow	1 3/16 – 2	6 – 7	4 – 5	9 – 12
Starling	1 5/8 – 4	6 – 10	5 – 6	13 – 20
Swallows	1 1/4 – 1 1/2	6 – 7	4 –5	9 – 12
Titmice	1 3/8 – 1 1/2	6 – 7	4 – 5	9 – 12
Warbler	1 1/4 – 1 1/2	5 – 7	4 – 5	9 – 12
Woodpeckers	1 1/4 – 3	8 – 14	3 – 8	10 – 16
Wrens	1 – 1 1/2	6 – 7	4 – 5	9 – 12

Figure 4: Cove cutting the mounting bracket on the table saw





Screw the birdhouse to the mounting bracket through the house's opening.

dle gouge. All kinds of shapes can work here, including one that reiterates the shape of the roof. I leave a tenon at the bottom to glue (with epoxy) into the hole drilled for that purpose in the top of the roof.

Mounting

When designing a way to mount these houses, my main concern was simplicity. I wanted to be able to mount the house with one screw that could be easily reached through the entrance hole of the house. The problem is, the house is round. If you use just one screw into a flat mounting bracket, the house will rock from side to side; it won't sit properly. The solution is to make a mounting bracket that is concave, the same curvature as the outside of the house, which can be done quickly and easily on the tablesaw. Find a long, straight piece of lumber that you can lay across your tablesaw top at an angle and clamp at both ends (see Figure 4, above). This will be your fence. The angle of this fence in relation to the tablesaw blade as well as the blade height will determine the shape and depth of the cove. You will want to use waste wood as test pieces to run across the blade and then adjust the height of the blade or angle of the fence to get the result you wish.

Use caution during this operation. The cut should be light, and can be accomplished in one pass, using a push stick and hold-down block.

I make my mounting bracket of cherry or oak. It measures $3\frac{3}{4}$ x $1\frac{1}{4}$ x $\frac{7}{8}$ inches, but I don't cut the piece to length until I have cut the cove on the tablesaw. It is always easier and safer to run a longer piece of lumber over the table saw, and you can cut multiple mounting brackets from it.

Not just for the birds

Birdhouses offer considerable variety in terms of size, shape, and style. But the stave construction method can be used for lots more than birdhouses. Beginning with the traditional bucket and barrel forms, you can turn these basic forms into various gift items, including kitchen containers, jewelry boxes, desk accessories, and planters. I've done some staved vessels, an example of which is shown at right. The idea of turning flat boards into cylindrical objects is full of possibilities.

Susan Schauer (formerly Susan Ellison) is a professional turner in Easton, MD. For a copy of her cutting specifications for different stave configurations, send $10 to 9716 Bantry Road, Easton, MD 21601. Email: sschauer @shore.intercom.net.

Staved construction can also be used to make vessels. Above, "Festival," cherry, holly, mahogany, $8\frac{1}{4}$" high, 1990. Below, "Diamond Bowl," walnut, mahogany, holly, $10\frac{1}{4}$" dia., 1991.

Permanent collection, Hoyt Institute of Fine Art

Pierced Hollow Forms

From soap bubble to coat hanger

RON PESSOLANO

About twenty years ago I was doing a type of pierced work that involved a saber saw and birch plywood. Once the pieces were cut and finished, I'd back them with mirrors, attach hanging wires, and they were ready to go. I made a decent living with them for awhile, but I eventually went on to other things.

In 1987 I purchased an antique lathe (circa 1877) for $75. I had little idea of what to do with the thing, but once I figured it out, I became more comfortable with that machine than with any other with which I'd worked. Six years later I'd pretty well mastered and had my fill of weed pots, candlesticks, boxes, and clocks, and was looking for more of a challenge. I came across an article on David Ellsworth's hollow turning techniques, and I decided not to believe it. I removed my eyeglasses, held a photo of one of his vessels as close to my right eye as I could, and tried to find a glueline at the bottom. I was unsuccessful, impressed, curious, and challenged. Eventually, I got it.

Hollowing

I saw the technique as simple common sense. I had seen a few of the tools that are used, couldn't afford them, and wound up making my first bent tool from a $^5/_8$-inch-diameter $3^1/_2$-foot-long fireplace poker. I bent the end slightly to the left, drilled a $^1/_4$-inch hole to accept a scraper (my first was a 1-inch piece of screwdriver shank), drilled a $^{13}/_{64}$-inch hole on top and tapped it for a $^1/_4$-20 set screw to hold the cutter. I made a straight version, too, and began turning the first of a hundred or so pieces of oak and maple firewood for practice. More recently I've revisited my plywood saber-saw designs, and am incorporating them in my hollow forms.

Pierced oak vessel, 8" high.

A couple of aspects to my approach may work for others: I sit while I turn. I feel strongly that I have more control with the end of the bar tucked under my armpit, and sitting gives me more stability. In order to keep the bent bar from twisting in the cut, I attach a pair of Vise Grips, the end of which rests on a table that sits on the lathe bed in front of the tool rest. This works especially well with the $^1/_2$-inch-wide cutters I use.

I strive for a thickness of $^3/_{16}$ inch; anything under $^1/_8$ inch is too fragile for the design, and more than $^1/_4$ inch can cause the bit and the wood to burn during piercing. You can see through the pierced piece, so wall thickness has to be uniform and the interior sanded smooth.

I've had good luck with oak, ash, and cherry. I look for woods that are strong and attractive, but with sufficiently subdued figure as to not conflict with the designs.

Design

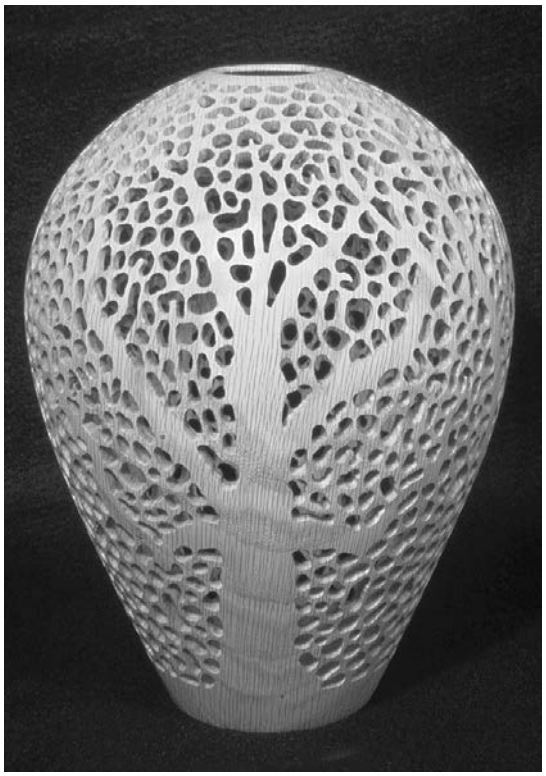
Once the piece is turned and hollowed, I remove it from the lathe and draw a freehand design directly on it, using a black ball-point pen. When the design is on the side of the piece, I put the piece back on the lathe and begin cutting; I had to make a jig for holding the piece vertically when the design is on top.

Like most people, I don't have any art training, so I can attribute my design skill to what I was born with and also to seeing and being fascinated by a dried soap bubble on a bathroom sink twenty years ago. All the designs I do are offshoots of that bubble design. I try for an organic look and have been told that that's what I've achieved. I do recommend finding a dried bubble and experimenting.

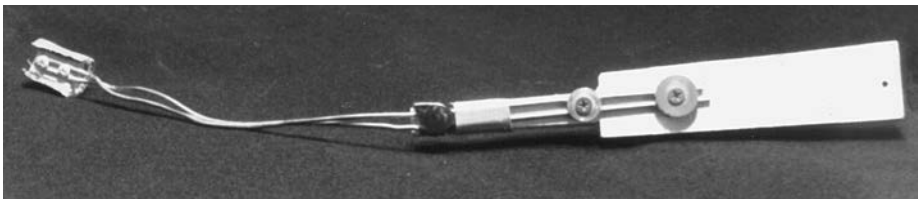
Piercing

I started with a Porter Cable drywall cutter—a very good machine, but the bit is held with a set screw, which works for me only with short router

Vise grips and support table, above, keep curved cutting bar from twisting in the cut. At right, plastic tube taped to Roto-Zip drywall cutter blows dust away during piercing.



Pierced oak vessel, 9 5/8" high.



Sanding tool made from a couple of pieces of scrap wood screwed to a coat hanger, which can be bent to conform to the inside shape of the vessel.

bits. When I switched to a 1 1/2-inch-long cutter (more on that momentarily), and I tried positioning it so that only 1/4 inch extended below the router base, the set screw tightened on the cutting length and pushed it off center. I solved the problem by buying a Roto-Zip drywall cutter that uses a collet rather than a set screw.

I've attached a 1/2-inch-diameter plastic hose to the tool in order to blow dust away from the cut. My Shop Vac exhaust is the blower.

Initially I used 1/8-inch carbide up-cut spiral router bits, about $20 a pop. Not only did they start burning after about two hours of cutting, but being up-cut, they also began leaving a burr on the outside of the piece, which obscured the design. With further use, they left a burr on the inside surface as well.

What to do? When I bought the Roto-Zip, it included an 1/8-inch down-cut spiral. I didn't think it would work, but I tried it and it outperformed the up-cut spiral. At a price of $7 for five, they can't be beat. Furthermore, because they're 1 1/2 inches long, when the first 1/4 inch becomes dull, you can grind the end off, drop the bit down in the collet, and keep cutting. I get five to six hours of cutting time per bit. They do leave a burr on the inside of the vase, however, so I guess you can't have everything.

Cutting begins by drilling a series of 1/8-inch holes with a hand drill (the cutting bit is not piloted) in the appropriate area and then dropping the bit in. The base of the cutter is naturally as close to the body of the cutter as possible so as to keep the bit as short and stable as can be.

Remember that you're working on a convex surface; the cutter has to be held perpendicular to the surface, or the bit will cut through the bottom of the adjacent hole. Like most things, it just requires a lot of practice.

Sanding

This is no fun at all. Once the entire design is cut, the interior has to be sanded to remove the burr left by the cutting bit. When I first began piercing, I removed the burr by using a few small handheld files and strips of 150-grit paper—one hole at a time. This is labor-intensive, to say the least. Eventually I made a hand tool that allows me to sand the interior while the piece is turning. I used a doubled-over wire coat hanger with a wood handle screwed to one end and a 1/2-inch-thick 1x1-inch piece of scrap maple screwed to the other (see photo, above). I staple a piece of whatever grit I need to the maple block, bend the hanger to conform to the interior shape of the vessel, and press the block lightly against the inside while the piece is turning. For a more complete sanding, I reverse the motor rotation.

This process will remove most but not all of the the inside burr. I get at the rest by sanding the interior of the individual cut spaces with a 1-inch length of a 5/32-inch chainsaw file chucked in a 2500-rpm hand drill. Depending on the type of wood and the particular area on which you're working (end grain, side grain, and all the stuff in between), some hand sanding is still necessary.

Finishing

I use two coats of thinned urethane followed by two coats of wax. I use a 2-inch brush on the outside, making sure to slosh enough urethane into every hole, which normally takes care of most of the inside as well. I then pour some urethane into the vessel and move it around to assure myself that the entire interior is coated. Then I stand back and turn on the lathe. This does a very good, very messy job of removing the extra urethane. Then I gently wipe the exterior with a lint-free paper towel.

Once the first coat is dry, I rub the piece gently with 0000 steel wool. I use my fingers and a pair of tweezers to remove the small steel fibers that have been caught in the holes. I then repeat the process.

I apply the wax with a lint-free cloth and buff it out with a lamb's wool pad in the hand drill. Then I go back to fingers and tweezers to remove the wool fibers. Apart from parting off and finishing the bottom, the piece is done.

All in all it's a rather tedious, time-consuming process, but once done, the satisfaction I derive is superceded only by actually selling the piece.

Ron Pessolano, of Putney, VT, has been turning for a living for nine years.

Deep-Hollow System

LYLE JAMIESON

Last June's AAW symposium was rich with ideas and inspirations for me. One result is this new system for deep hollow turning. I probably shouldn't call it new; it's rather a refinement of Hugh McKay's support-table hollowing system and Frank Sudol's boring bar. This exciting advancement takes both the mental and the physical stress out of hollow-form turning. It adds an element of total control I have never achieved with other tools. No more white knuckling when you get 8 to 10 inches dangling off the tool rest to do the bottom inside a vessel. No more need to straddle your lathe. You can stand comfortably using fingertip pressure and control. It greatly improves safety and reduces the chances for a catch.

The system has two components: a handle and a tool rest. The handle is a $1\frac{1}{4}$-inch (o.d.) coupling with a $\frac{3}{4}$-inch (i.d.) hole drilled in it and a set screw tapped in it to hold a $\frac{3}{4}$-inch-diameter tool. The coupling is 2 inches long and welded to a 20-inch straight section of hot-rolled steel. A U-shaped support piece welded to the side of the handle forms a rectangular support 18 inches long and 8 inches wide.

You could have this handle made at any local welding shop, very inexpensively. It doesn't have to be a precise fabrication. (If you want to purchase a handle ready-made, I have some available for $40 plus shipping.) Any $\frac{3}{4}$-inch-diameter tool shaft can be inserted in the handle. You can use a Stewart bent tool or any other boring bar with a $\frac{3}{4}$-inch-shaft. I drilled a $\frac{3}{8}$-inch hole in the end of a piece of $\frac{3}{4}$-inch cold-rolled steel and inserted a Stewart Omni Scraper Shank tool holder because it will hold a variety of tips. Take that another step and bend the cold-rolled steel bar in any configuration you wish for your own bent tool. Use the Stewart Omni Scraper Holder tip in the bent tool and your options are endless. The Stewart tools and tips are available from Packard (800/683-8876) and Craft Supplies (800/551-8876).

The second part of this system is a rear tool rest. It can be made from whatever materials are at hand: plywood, 2x4s, angle iron, pipe. It does not take a lot of stress. The impact of the cutting force is absorbed by the front tool rest. This second tool rest should be positioned approximately at centerline height. The front tool rest will give you the critical height adjustments to put the cutting edge right on center. You'll find that this eliminates the nub or center cone-shaped protrusion in the bottom of your hollow form.

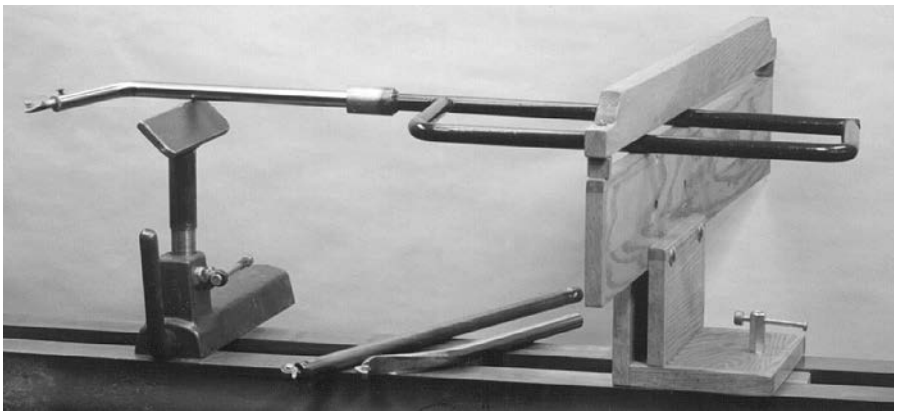
I made my tool rest out of plywood so that I could demonstrate this system on any lathe available. It's about 40 inches long. A simple plywood block with a bolt through it holds it on the lathe bed. Notice in the photo below that I put a safety bar on top of the entire length of the tool rest. If you should get a catch, it prevents the handle from jumping up and pinching your fingers when it comes back down on the tool rest.

The newly designed tool handle now slips into the slot in the tool rest and can move in and out of a hollow form as well as swing sideways to reach around the inside shoulder of a shape. The rectangular support will prevent any twisting.

When your cutting edge is working on the centerline, it assures, in most circumstances, that the cutting edge is scraping at less than 90 degrees from the turning surface inside the hollow form. Anytime your scraping tool approaches the wood surface at more than 90 degrees you flirt with the danger of a catch. The system removes any twisting force common to bent tools not supported in this manner. The fingertip control allows thinner forms and smooth inside surfaces even when doing a piece with voids.

There is one danger area. When using the Omni tool or a bent tool, it is customary to direct the cutting edge sideways to cut the sidewall of hollow forms. When the cutting edge is sideways, the cutting action should be sideways, too. If you force a tool that is facing sideways into the bottom of the hollow form, the angle of the scraping cut will be more than 90 degrees and a catch will result. If your cutting tool is facing the bottom of the form (not the side), then a less-than-90-degree cut is assured.

Here it is: deep hollow turnings with no more stress, no more catches, no more white knuckling, and no more funnels made from going through the side of your piece. It really makes doing hollow forms fun.



Author's deep-hollowing system consists of a handle with outrigger that is sandwiched in a secondary, back tool rest.

Lyle Jamieson turns wood in Traverse City, MI.

FREE WOOD!

Acquiring what you need to learn

RON HAMPTON

ONE THING THAT ALL WOODTURNERS need is wood. Novice woodturners (such as myself) need free wood. It's very discouraging to ruin an expensive piece of wood because your skill level does not match the beauty of the wood. Two ways to increase your skill level are to read as many books and watch as many videos on woodturning as you can. But after you see a skill demonstrated, you must go to the lathe and practice. You must turn wood, lots of wood. That's why it helps if the wood is free.

I have had some fun figuring out ways to get free wood. Experienced woodturners seem to have more wood than they know what to do with. But the poor novice is the one who has trouble finding what he needs. Here are some of the ways that I have been able to obtain more wood than I know what to do with, the first three sources are for dry wood, the rest for green:

•***Cabinet shop cutoffs***—Go by cabinet shops. Meet the owners and ask them if you can go through their waste barrels. Most cabinets are made from plywood. But sometimes the more expensive cabinet shops will work with solid hardwood. I have gotten a lot of dried hardwood this way. The cutoffs may be 4x4 squares, or they may be strips 1 to 2 inches long. They will give you only the wood that is too small for them to use in a future project. Their firewood, however, is your treasure.

One word of warning. Older woodturners know this trick, so you may be up against some tough competition. There are several ways to get around this. One is to introduce yourself with a bowl. Another is to become friends with the fellow who is getting all of the choice cut offs. I did this once. One of the men in our club, Ed Felps, is a twenty-year friend of a very good cabinetmaker. Ed gets all the choice cutoffs. I did a special favor for Ed, which he appreciated, and a few weeks later, he showed up at my house with a pickup tuck full of long, dried hardwood cutoffs. I now have more dried hardwood than I know what to do with.

•***Lift pallets***—Lift pallets are often discarded by many small companies. I get all the free pallets I want from a paint company close to my house. Again, it is a simple procedure. Go in and introduce yourself. Visit for a while and explain that you are a woodturner. Ask the owner or manager if he ever has pallets that you can have. At the paint store that I go to, there are some pallets that he keeps and some that I am welcome to take.

•***Sports equipment***—As I mentioned in a previous article (*AW*, September 1996, pages 22–23), bowling pins are a great source of dried wood. Pool cues are another. Go by all the pool halls in your area. Visit with the owner or manager and ask him for all of his broken pool cues. You will be amazed at how many pool cues you will end up with in a short time. Pool cues can be used to make small objects, including pens, bobbins, and tool handles.

•***Tree-surgeon debris***—Call up all the professional tree cutters in your city. While driving around town, stop and talk to every professional tree cutter you see. Tell them what types of wood you are looking for. You won't hit a home run every time, but you don't have to in order to be successful. I got two large dump-truck loads of black walnut this way. Some of the logs were about 36 inches in diameter. I even got the guy to deliver the wood to my back yard!

•***Down trees***—Cruising for wood after a storm can be very productive. Most of the time the owner will thank *you* for cutting up a down tree and hauling it off.

•***Excess wood trades***—Carry some of your excess wood with you when you travel out of town to a woodturning meeting. There are always people there who want to sell wood. Sometimes you can trade with them. I did that at the Texas Turn or Two. I carried two large pieces of beautiful black walnut and traded them for two of the same size pieces of spalted maple. Both of us were thrilled with the trade.

•***Give-aways***—I know this sounds like an unusual way to get wood. I accidentally stumbled onto it. I had so much walnut that I gave large pieces of it to members of our woodturning club. I expected nothing in return. But, you know, a funny thing happened. I started getting back some really nice species of wood that I had never turned. Boy, was that a nice surprise!

•***Telling people what you're looking for***—For the last four years (ever since I became a woodturner) I have been looking for a large stump that did not have rocks in it. (Rocks are hard on your chain saw and turning tools.) Recently, Corbett Anderson and I cut up some large walnut trees that the owner had pushed over. Corbett kept the 36-inch-diameter trunks to make lumber out of, and we cut the limbs, some of which were 16 inches in diameter, for me to turn. I told Corbett that I had been looking for a stump like the two that he had. We ended up making a trade. He got a sandblaster that I was not using, and I got two very large walnut stumps that I really did want.

Since the trees came from a river bottom area where there is only sand, the stumps were rock-free. Although this acquisition was not free, it was close enough to make me happy.

•***Professional trades***—Randle Woods is a wood supply company that has advertised in this journal for many years. I called Paul Black there and explained that I would like to trade a big beautiful piece of walnut for a beautiful piece of wood that he had. He asked what type of wood I wanted, and I replied, "Anything but walnut!" That got him laughing, which is a good way to start a negotiation. I explained that I had two reasons for wanting to trade: First, it would be nice to have a different type of wood to work with. Second, I wanted to do this article for the journal and I wanted to see if I could trade with a professional. I told him that if this did not work out well for him, I would not mention Randle Woods in the article. But if the trade was good for Randle Woods, then they might get a whole lot more trades in the future.

Paul was laughing, but he told me to go ahead and ship him my walnut. You can probably find a cheaper way to ship wood than I did. I paid UPS $57 (so this trade was not totally free). In return, Paul sent me a beautiful piece of Western figleaf maple the same size I sent him. Wow! This was fun! I got a great laugh and a beautiful piece of wood.

Saying thank you for the wood you acquire is nice. I like to give a bowl to the people who give me free wood. You have to do something with all those bowls that you are turning out. No, I have not figured out where to put all the free wood that I have acquired. That is a separate problem.

Ron Hampton cruises for wood in Texarkana, TX.

Other Sources of Free Wood

THERE'S NO END TO LOCAL SOURCES of free wood, if you keep an eye out:

•***Subdivision construction***—As developers rearrange the landscape to maximize the number of houses to build, trees are usually in the way. I have found that most of the developers are pleased to give you all the wood you can haul, and then some. It keeps them from having to go to the added expense of disposal. They will often push over the trees on a Friday and give you the entire weekend to salvage what you can use.

•***Road construction***—Often, prior to subdivision development, roads are constructed or improved in the area. These folks, too, are quite willing to give you all that you can haul away and will frequently stockpile the trees off to the side for a week or so while you select what you can use.

•***Powerline construction***—Another great source of green wood is from right-of-way clearing for powerlines and other utilities. This type of construction is usually cross-country so it may be difficult to get to the site but well worth the effort. I have found a number of very large and unusual tree species from this kind of construction, including a 35-inch Ohio buckeye with striking grain patterns and coloration, and a 40-inch northern catalpa.

•***Municipal parks***—As improvements, such as baseball and soccer fields, are installed, trees have to go. Many of the trees have been on the park land, well protected or managed, for decades if not centuries: prime turning stock, to say the least. The construction crews are usually happy to set aside a particular tree and give you time to carry out the salvage operation.

•***Recycling centers***—In my area of the Midwest, open burning laws restrict disposal of unwanted timbers by burning, and the landfills no longer take biological degradable materials such as trees. As a result, centers have been established that convert wood waste (read that as unturned bowls) into firewood or mulch. Most of the centers have more material than they can reasonably handle and are more than willing to give you a trunk- or truck-load for woodturning.

In all of these cases, you can help ensure a continued supply of wood by offering the bulldozer operator or the developer or the recycling-center operator a turned salad bowl. They will be delighted by your generosity and will happily call you the next time they happen upon something highly desirable—a 16-inch osage-orange trunk, perhaps, or a 24-inch walnut log destined to be buried, or a 32-inch ambrosia maple headed for the firewood stack.

For these sources of wood, you will need a chain saw. If you have not made the investment, consider renting one. For about $50 in rental fees, you can easily salvage $500 of green wood, which might yield $5,000 in finished product. Also, you can cut the wood into bowl blanks on site, coat them with greenwood sealer (see *AW*, December 1996, page 52), and haul home only what you will use. This approach may be especially important if you have traveled some distance to the woodcutting site.

Don't forget to take along a few friends. You will usually have more wood than one person can handle in a day or even a week.

—Bill Stephenson, Loveland, OH

AN ANCIENT LAMP

Techniques for turning logs into lighting

GEORGE HATFIELD

A COUPLE OF YEARS AGO I WAS FORtunate enough to be given a log of the 9,000-year-old *Angophora* species, which had been dredged from Botany Bay (see *The Australian Woodworker,* March/April 1994).

A lot of the log was split due to its prior exposure, long burial, and then re-exposure to the atmosphere, but part of one branch appeared to have held firm. The big question was, what to do with this valuable piece of history, over twice the age of the Pyramids. After cleaning up with a band saw, the recoverable section of the log was about 8 x 6 x 8 1/2 inches.

The log had a reasonably substantial base area, so I decided to use the timber to make a turned table lamp. Because of its history, I retained part of the natural form and turned the rest—something I have previously done successfully with interesting weathered logs (huon pine and Murray River red gum) and old fence posts (Australian cedar and rosewood).

Natural and turned shapes complement this special piece of wood, an ideal approach to lamp design.

I have found that one formula for deriving pleasing proportions for such work is to leave approximately one third of the blank natural, turning the other two thirds.

Although the tree had died thousands of years ago, it had been submerged under tons of sand and water, and its moisture content was, as anticipated, well above the fiber-saturation point. I therefore left the wood to stand for about three months, and I was pleased to find it had checked only slightly on both ends. I should have weighed it every month until it stopped losing weight, to be sure it was fully seasoned, but I became impatient and decided to give it a go. As you will see, this was a mistake, but the techniques described should allow you to make an attractive and useful lamp from any appropriate log.

The first step in making a lamp is to bore the conduit for the cord. The log is supported on this hole when it is turned, ensuring that the opening is in the center of the lamp.

One way to successfully centerbore logs longer than the capacity of a drill press is to lengthen a standard metal drill bit and use a portable electric drill. Grind or turn a pin on the shank end of the bit, and endbore a mild steel rod to receive the bit pin. Fit the two components together and braze the joint. The rod should be slightly smaller in diameter than the bit to ensure that there is adequate clearance when drilling deep holes.

When boring from both ends toward the middle, the holes have to line up only enough to allow the passage of a three-wire flex cord, but the bit diameter should be as large as possible to give the best chance of the holes meeting, yet small enough to accept the light fitting. I use a modified 3/8-inch bit for this work.

A length of rod about 24 inches is sufficient, since the job can be bored from both ends to give a maximum depth of about 48 inches. Any longer than this and you will find it extremely difficult to have the holes meet in the middle. Center-boring goes best if two people are involved: the drill operator stands over the top of the log and controls the hole centering from side to side, and a second person stands or sits to the side of the drill operator to direct the forward and back positioning.

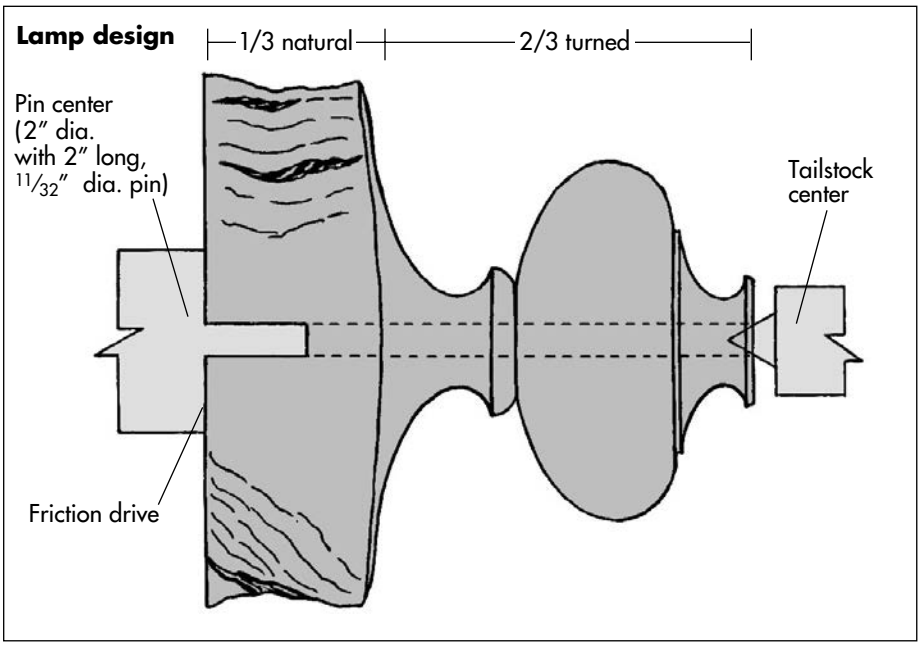
Next, turn a wooden pin-center to fit the lamp-hole diameter. The wood for the pin-center should be of medium density (for strength) and the pin should be about 2 inches long. The shoulder adjacent to the pin should be flat and square to the pin, and no less than 2 inches in diameter, since the pin is used to locate the turning and the friction from the shoulder is used to drive the rotation.

When a wood pin-center is removed from the chuck, it usually cannot be re-fitted in the exact center, so the only way to guarantee true centering is to turn a new pin-center in situ for every job.

Mount the log between the pin-center and the revolving cone tailstock center (the bottom of the lamp toward the tailstock), and square the bottom of the lamp.

For timber that is easy to cut, the long point of a skew chisel can be used to square up the bottom, but on hard timber the hit-miss percussive action of the cut in the out-of-round log will break the point of the chisel. In this case, use the lower portion of

Drilling is best done with an assistant to ensure a straight hole. Note the use of the operator's feet to secure the log.



the point of a 1/2-inch detail gouge on its side. This is much stronger and less likely to break, but it is difficult to control the tool and keep it cutting straight. Fortunately, it is necessary to cut in only about 3/4 inch to ensure that the cut is even and square to the centerhole. Remove the lamp and sand the base flat on a disc-sander.

Now reverse the log so that the flat section of the base is hard up against the flat section of the pin-center in the headstock, and tighten the tailstock to ensure a good friction drive during the rest of the turning process. Decide roughly upon a design for the detail section, but don't finalize it until the log has been turned down to a cylinder and the available diameters are known. My preference is a traditional shape, usually with some kind of bulbous section to dominate the turning. The combination of the natural form and the traditional shape gives an attractive result.

Leaving one third of the log in its natural form, reduce the remainder of the log to the maximum-size cylinder possible with no bark or serious faults (knots, cracks, or grub holes). I don't mind lesser faults, provided they are solid and will not fragment at a later stage. Reduce the speed of the lathe to about 1,000 rpm to compensate for the unbalanced swing and the jarring cutting action as the log is trued to a cylinder.

Take care when turning the small diameter between the natural section and the bulb, as you will find the amount of tool overhang from the tool rest increases dramatically.

While I was turning the *Angophora*, the shavings felt a little damp, which proved to be a mini-disaster when the turning was complete—the wood was not fully seasoned. The shrinkage over the following week caused external splits to occur, the worst of which was 1/4 inch wide. It is amazing that a piece of timber felled 9,000 years ago responds to the seasoning process exactly the same as timber felled last week. My failure to hold off until the log had stopped losing weight (moisture) had come back to haunt me!

"If you can't hide it, feature it," goes the adage. I mixed some two-part epoxy, coloring it with a black pigment stain, and then carefully filled all the cracks, ensuring that there were no lingering air bubbles and the surface of the filler was proud of the surface. The idea was to use the epoxy to hold the remaining wood together and leave the appearance of a gum vein.

I left the lamp alone for another three months in a shaded place out of any major breezes. After this time, following the weighing process, the wood stabilized with only a little distortion to the shape and some more minute splitting. The distortion required very little re-turning to true up on a new pin-center, and since the splitting was hardly noticeable, I decided not to fill the splits with more epoxy, but rather let the finishing lacquer be the seal.

Scrub the natural section with a wire brush to remove any loose material and give everything three coats of clear lacquer, cutting it back with 0000 steel wool between coats. To give the lamp a final luster, rub a soft wax onto the turned section and buff it on the lathe.

Turn a plastic connecting piece to attach the brass tube of the light fitting and five small knobs to support the lamp and give access for the cord.

This particular piece of timber yielded a lamp I will treasure forever, but any log with a bit of character can be recycled into an attractive table lamp.

George Hatfield, of Sydney, Australia, is a veteran turner and teacher and associate editor of Australian Woodworker *magazine, where a version of this article originally appeared. Hatfield will be a demonstrator at the AAW symposium next July in San Antonio.*

SIDE-GROUNDED

Truths and tricks of the side-ground gouge

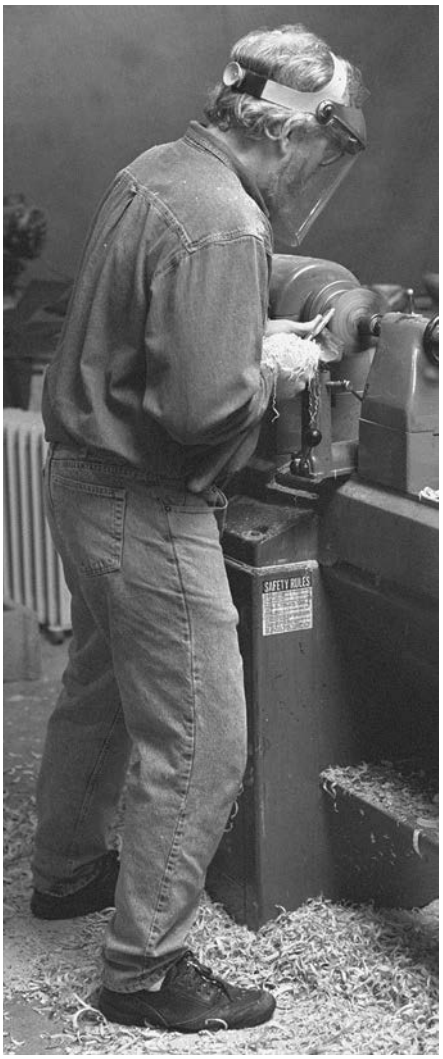
PHIL PRATT

IT'S A QUESTION THAT NOVICE AND INTERMEDIATE woodturners return to again and again as they reach various plateaus in their development. It's fundamental: Where does good technique begin? How does good technique become second nature, so that focus can shift toward form and expression?

Seven years ago I considered myself a better-than-average woodturner. I was beginning to understand why a poorly designed bowl would always be a clunker, even if it was turned from a dazzling piece of cherry or maple burl. It was easy to appreciate the seamless beauty of an Al Stirt platter or a John Jordan vessel. I wanted to share their knack for knowing just the right angle at which to turn the corner on a closed-form. In my own haphazard way, I was beginning to find myself as a woodturner, but I was still lacking the confidence in my technical skills from which I could reach the next level.

I remember vividly the day that David Ellsworth put a properly sharpened side-ground gouge in my hands. As I held the tool, he angled the cutting edge and helped me set those wispy ribbons of wood to flying. It was one of those rare moments of truth that raises the curtain on a whole new area of creative pursuit. Over the next few weeks, I spent many hours at the lathe developing confidence and predictability with this new tool. It took lots of practice to stabilize my technique at the grinder to reproduce the edge I wanted. Gradually, I began to understand how that long side grind was the focal point for proper tool manipulation and support.

Here is what I learned: The feet become the pivot point for those smooth, flowing curves we all want in our work (Photo 1). Shifting your weight from one foot to the other becomes the basis for good tool movement. The whole body must be involved in sweeping the tool through a long cut such as profile shaping or hollowing from rim to foot. Obviously, there are still many subtleties requiring the deft coordination of hand and eye. Some twists and turns can be accomplished only at the tips of your fingers. But when it comes to realizing the side-grind's full potential for slicing, shearing, and shaping, the body must move the tool.



1. Command of the side-ground gouge begins with your feet. The whole body, pivoting on the feet, moves the tool.

In order for this to happen, the gouge must be properly supported, and I have identified four basic points of tool support. The first three are rather obvious: the tool rest, the left hand, and the right hand. But the fourth point of support is every bit as important: except when hollowing, the handle of the gouge must maintain firm contact with your body, especially when the side-ground gouge is angled at 45 degrees for a smooth, slicing cut. I like to set the handle right at the opening of my pants pocket (Photo 2). That usually means my right or left hand (depending on the direction of cut) is gripping the handle right below where the shaft emerges, allowing me to extend my index finger for extra support. The other hand becomes the manipulator, setting and adjusting the angle of cut, but also pushing the tool (often with the thumb) in the desired direction and keeping it firmly planted on the tool rest.

When a heavy gouge is used for initial roughing of a bowl blank, or it is necessary to flatten a spot for a faceplate or chuck fitting, then the tool must be held at a more-or-less horizontal angle. In this case, the handle can be supported under the forearm, and extra support is available (especially when roughing) by locking the handle between the forearm and torso (Photo 3).

I find that even though the intended cut dictates which gouge I reach for, variations of the swept-back, side-grind have found their way onto most of the tools I use (Photo 4). An extra-heavy super mega-flute gouge is my choice for the lumps and bumps of initial roughout. Once the hard angles are

Photos: Dave Hillerby

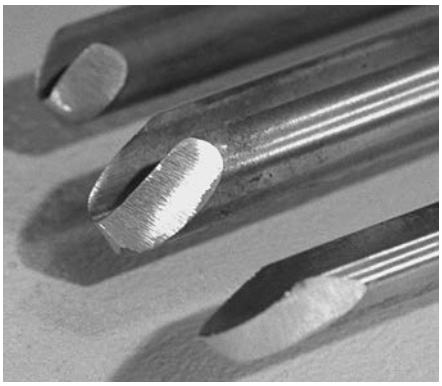
2. For a smooth, slicing cut, the tool handle must maintain firm contact with the body where your pants pocket opens.

3. For initial roughing or flattening, when the tool is held more horizontal, lock the handle between your forearm and body.

smoothed out, I might switch to a $^3/_4$-inch deep-fluted Glaser gouge with a shorter fingernail tip.

But, by far, my favorite tool is the Henry Taylor M-2 gouge with a long (up to $1^1/_4$-inch) side grind. The M-2, with its shallower flute, is clearly the tool of choice for subtle shaping cuts. I'm able to easily shift the gouge to either cutting edge, quickly reversing the direction of cut. I use the last quarter-inch near the tip to sweep away the high spots on a side profile that has warped as the bowl blank dried. I then use the edge further back on the side grind to slice the wood and re-define the bowl profile. Finally, I rotate the bevel off the wood, so that the edge alone is in contact to shear-scrape the surface.

For many turners who are new to the side grind, the biggest challenge is getting consistent results at the grinder. An important thing to remember is that the same methods of supporting the tool and moving the body at the lathe apply to the grinder as well. I like to hold the tool with my thumb on top and my index and middle finger underneath resting on the grinder's tool support (Photo 5). The handle is locked between my forearm and stomach. I present the tip of the gouge (flute up) to the grinding wheel at a 30-degree angle. Then, feet planted, I swing my body to the right, grinding the full length of the right bevel (Photo 6). For the left bevel, I shift hands and swing to the left. Most importantly, I position the bevel on the wheel, from bottom to top (heel to edge), then grind in one, smooth sweep from the tip to the side of the tool. Don't focus on the cutting edge, or you'll end up with a rounded, misshapen bevel that will completely frustrate your ability to utilize the side-grind effectively.



4. Author's three favorite side-ground gouges (from top to bottom): $^3/_4$" Glaser, Super mega-flute, and Henry Taylor M-2 with extra-long side grind.

Most woodturners experience an important breakthrough on the day their mastery of tool manipulation permits them to quit thinking about technique and start thinking about form and line and proportion. The side-grind can get you there faster and give you much greater flexibility in shaping and refining your work.

Phil Pratt is a professional turner in Greensboro, NC. He has just produced an instructional video on the side-ground gouge. For information, call 910/379-1588.

5. Begin grinding the side-grind at the tip of the tool. Keep the handle tucked under your arm.

6. Concentrate on the bevel, not the edge, as you rotate your body and swing the tool to the side.

Slow-Speed Grinder

ROBERT ROSAND

As a woodturner, being able to grind your own tools is an absolute necessity. There are some sharpening services available, but without your tools in hand, you cannot turn. Imagine having received a gouge back from the sharpening service after waiting a week or more, only to hit a bit of grit!

One stumbling block to sharp tools, in my opinion, is the high-speed grinders on the market. High-speed grinding is not comfortable; it results in burned tools. Most grinders run at 3450 rpm. I advocate grinding at around 1725 rpm.

There are a number of slow-speed grinders on the market, but most are relatively expensive: One with 6-inch wheels cost about $225. If you want 7-inch wheels, the price jumps to $320. If you have access to a welding machine and some mechanical ability, you can probably make this grinder with minimal effort. The materials cost about $50 to $75. I'm fortunate to have a friend who is both a machinist and woodturner. He made this grinder for me, in exchange for some of my turned ornaments, perhaps $50 worth.

The grinding wheels I use are white aluminum oxide, 7x1-inch, and I purchase them from Enco Mfg. (800/860-3400). They cost about $9, a sharp contrast to the $40 wheels available elsewhere. Their only drawback is the $1\frac{1}{4}$-inch centerhole, but reducers are easily made on the lathe. The power source is any old 1725-rpm motor you can scrounge

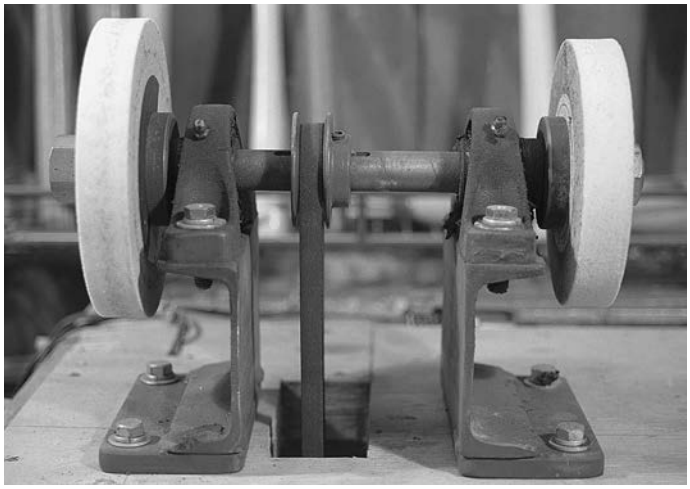
The grinder uses two $\frac{3}{4}$-inch self-aligning pillow block bearings mounted on two pieces of 4-inch channel iron. The channel faces outward to allow a motor to be mounted under the grinder table, or behind the grinder. The channel iron should be welded to two pieces of flat iron with $\frac{3}{8}$-inch holes in them for bolting to the table. Shaft length can be more than the 10 inches indicated; I prefer the wheels at least that far apart. I use a 2-inch-diameter pulley on the motor and the same on the shaft.

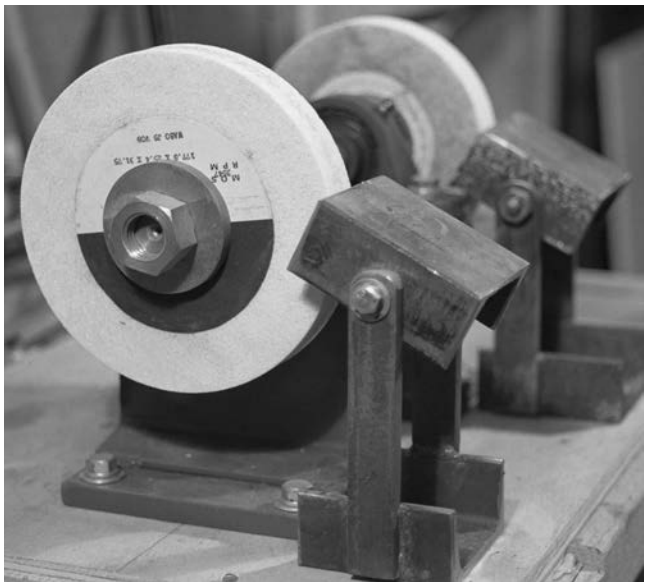
In front of each wheel I have a grinding platform that I discovered years ago in a book by Bruce Bolter. The platforms are easy to adjust, a tap with the heel of the tool will generally do it. They are also large enough to give the shaft of the tool or your hand good support while sharpening. Since many of my tools—bowl gouges, roughing-out gouge, spindle gouge—are sharpened to the same angle, I don't need to constantly adjust the rest.

The grinding platform is constructed of 3-inch channel iron. The side supports, $\frac{3}{16}$x1-inch flat stock, are welded to the base, which is also made of 3-inch channel iron. For bolting to the table, cut a $\frac{3}{8}$-inch slot in the base to allow the platform to be moved closer to the stone as the stone wears. Since the channel iron is rough stock, you might want to consider rounding the edges over. On occasion, I hone the tops of the platforms with my slipstone and then wax the surface. This serves the same function as waxing your tool rest. It allows the tool to move more easily when sharpening.

The safety conscious will notice that I have not mentioned guards for the wheels. I have always felt that guards were an impediment to my sharpening, not critical for slow-speed sharpening. If you feel the need for wheel guards, by all means fabricate them for your grinder. The measurements I have included are based upon what I have become comfortable with over the years; feel free to modify them as you see fit. I have measured drawings, if you're interested.

Robert Rosand is a professional turner in Bloomsburg, PA.





A slow-speed grinder with tool rests can be fabricated from a couple of pillow-block bearings, some channel and flat iron, and a shaft pulleyed to a 1725-rpm motor.

DOING THE TWIST

Layout techniques inspired by Stuart Mortimer

HOWARD FORD

THE MASTER TWISTER, STUART MORTIMER, made "doing the twist" look simple when he presented a class last summer in turning twists at the Glendale Woodturners Guild. I attended, just for enjoyment, thinking I would not be capable of turning a twist. The following day my left brain started "complicating" the process so I could better understand the simplicity of turning a twist.

At best we can see only half of a twist at a time. The other half is hidden on the other side of the piece. I wanted to see the complete surface, all 360 degrees of the twist, before I started carving, so I drew it on paper. Figure 1 is a 1:4 double twist on a 1-inch-diameter cylinder. A ratio of 1:4 means the linear travel of one twist is four times the diameter; in this case, the twist will make one revolution around the turning every 4 inches of its length. To see the circumference on paper, I used the formula, $C=\pi d$ (where C is the circumference and d is the diameter). My 1-inch diameter multiplied by π (3.14) yields a circumference of 3.14 inches. If you plot the linear travel (4 inches) on an x-axis and the circumferential travel (3.14 inches) on a y-axis, you see that the actual twist appears as diagonal lines, the hypotenuses connecting the two axes.

Only the twist portion of the turning shows in the drawing because the complete length of the piece is determined by how the ends are finished and the chucking method. The x-axis on the drawing serves as the centerline or axis of the lathe. The bottom right corner is the starting point because that is where you first attack the wood. (If you are left-handed you may want to draw the lines from the lower left to the upper right corner so you can attack the wood from the left end.) The diagonal lines reflect the angle or pitch of the twist, in this case 38 degrees (measured with a protractor off the drawing). The shaded sections show the width of the space that is to be removed. The unshaded area shows the parts that are not to be cut away, called the *bines*.

Ken Keoughan

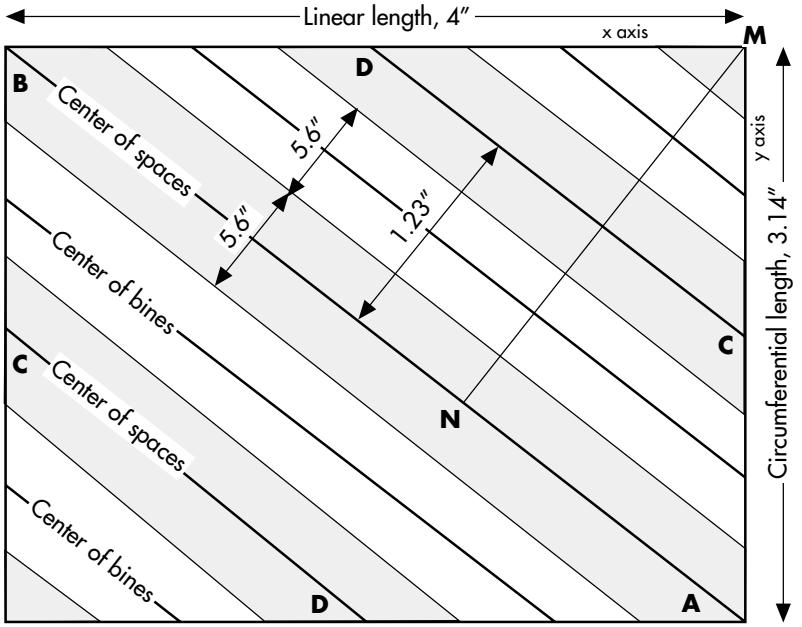
Stuart Mortimer's complex spirals complex yield to simple layout.

The word "bine" relates to the binding action of vines: As the woodbine, wisteria, or grapevine grows, it spirals around and around its support structure. The twisting part of the vine is called a "bine." In a spiral, the "bine" is the wood that twists around the center, whether the center is solid or open.

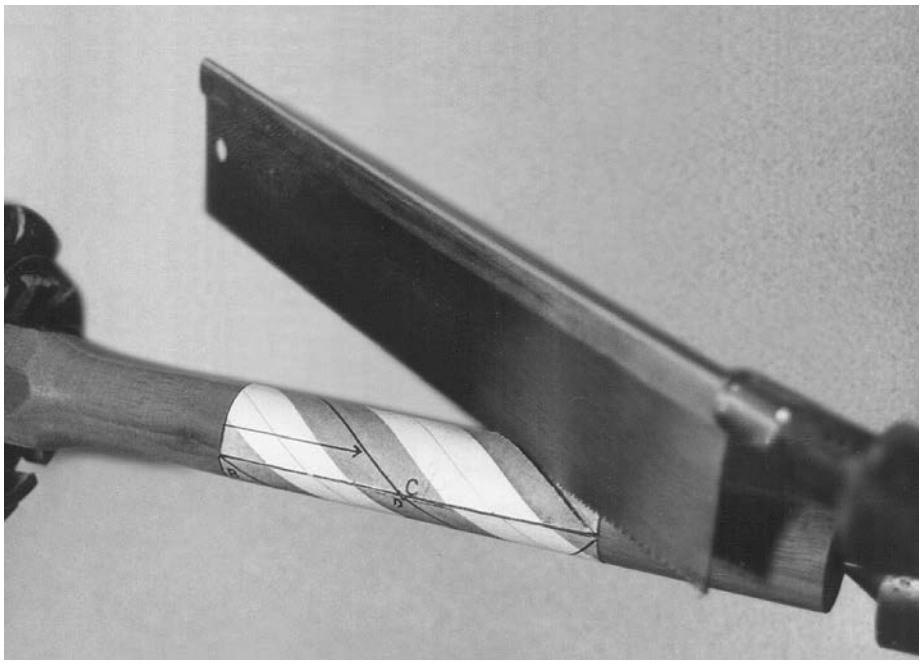
A single twist is described by one diagonal line. A double twist requires two parallel diagonal lines, A-B and C-D. Line A-B is the center of one area of material to be removed and C-D the center of the second area to be removed. Line A-B goes from corner to corner; line C-D, at the same angle, runs off the drawing at the top middle of the linear length and picks up again at the bottom middle and continues to the middle of the left circumference length. Line C-D starts at one half the length of the circumference or 180 degrees from the starting point of line A-B.

The width of each space and bine is calculated on line M-N, which is drawn at 90 degrees to line A-B, intersecting the top of the circumfer-

Figure 1: Double-twist layout



Howard Ford



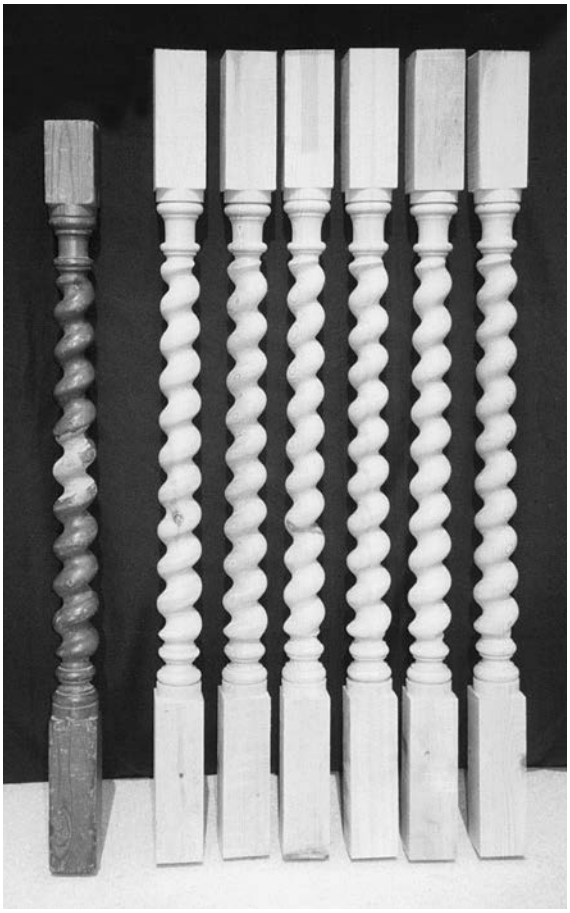
With the layout drawing wrapped around the turning, sawing is straightforward. Use the kerf as the guide for removing material from the twist.

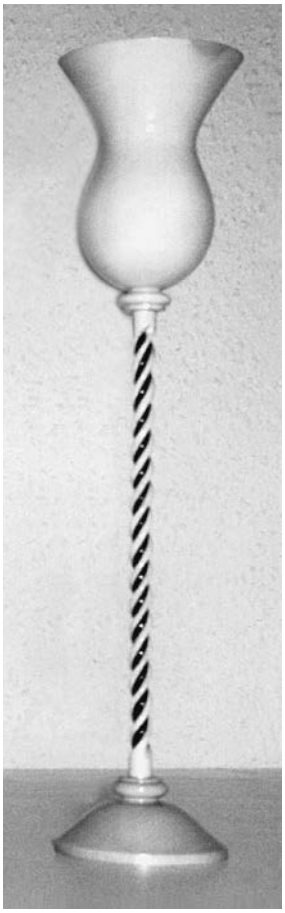
ence line. The number of bines you want determines how many diagonal lines cross the M-N line. If you want three or four or even ten sets of spaces and bines, the sum of their combined width must be exactly equal to the length of line M-N.

A double twist has two sets of spaces and bines; therefore, divide the length of line M-N by two, and the result is the width of each set (1.23 inches, in our example). If the sets are composed of bines and spaces of equal size, divide that number by two, and you have the width of each bine and each space (.615 inches).

Portfolio: Stuart Mortimer

photos: Ken Keoughan





Stuart Mortimer's work ranges from traditional architectural components to artistic and technical tours de forces. He presents his methods in workshops, trade fairs, and his book, *Techniques of Spiral Work*.

But bines and spaces can be different sizes, so long as the sum of their widths equals the width of the set. For example, on the same 1-inch-diameter, 1:4-ratio double twist, you could choose a bine width of 1/2 inch. The space between bines would then be .73 inches (1.23 minus .50). The layout can be drawn and the widths measured on line M-N.

Further variations

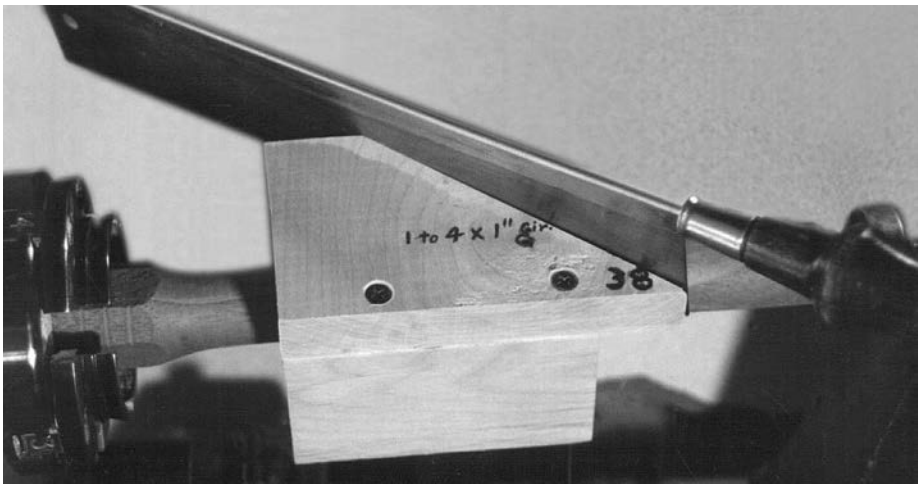
Most small twists will probably range from a 1:1 to a 1:4 ratio. The twist can be as long as you like, but a revolution will occur as often as the ratio determines.

If you know the length of the twist and the diameter of the turning, you can calculate the ratio. Alternatively, you can start with a ratio, decide on a length, and determine the diameter, or vice versa. Whatever your choice, it can be drawn on paper and the angle of your twist measured. That angle will always be the correct angle for that ratio. If you change the ratio (the diameter or the length), you have to go back to the drawing board.

If you are carving an open twist on a large section of a vase, then the circumference must be divided equally. For example, a 6-inch diameter vase has a circumference of 18.85 inches. If you want 10 bines of .35 inches each, then multiply .35 by 10 and you get 3.50 or 3 1/2 inches. Subtract the 3.50 from the 18.85 and you have 15.35 left, the total size of the spaces. Now, divide 15.35 by 10, the number of spaces, and the result is 1.35 inches, the width of each open space.

Layout lines on the stock

The drawing provides a very simple and practical layout system. Make a copy of your drawing, cut it out, spray the back with adhesive, and stick it on your precut straight cylinder. (This will not work if the diameter varies along the length of the twist, unless you have drawn the twist to accommodate the change in diameter). The entire twist—spaces and bines—is printed on your stock. It is obvious where you saw, cut, rasp, or grind the carved area without cutting into the bine. If the total length of your twist is greater than your drawing, make additional copies and stick them end to end on the cylinder, or make the original drawing longer. If you want to turn twists with different diameters, then use the copy machine to enlarge or reduce your drawing.



Howard Ford

Make an angle jig from two pieces of 3/4-inch stock, securing a fence (one edge cut to the angle of your twist) to an upright with screws and glue. To use, hold the upright against the front of the workpiece, with the fence over the top. Using the angled edge of the fence as a guide, saw a kerf in the workpiece. Rotate the stock, moving the angle jig accordingly, and saw the kerf the full length of the twist.

Make the twist fit your tools

If the only tool you have to remove the carved area is a 1/2-inch rasp and you want the spaces to be equal to the bines, then one set (one space plus one bine) should equal 1 inch. If you are drawing a double twist, which has two sets, the length of line M-N must be 2 inches. Adjust the diameter and ratio until the lengths along line M-N fit your rasp.

For an open twist, drill out the center of the stock before turning the cylinder. The size of the drill can be determined by using the drawing. Decide on the width of the bine, which is also the thickness of the bine, multiply it by 2 (one on each side of the cylinder), and subtract it from the diameter of the cylinder. Example: A bine of 1/4-inch thickness multiplied by 2 equals 1/2 inch. Subtract that from a 1-inch-diameter cylinder and you have 1/2 inch to be drilled out of the center of the cylinder—using a 1/2-inch drill.

Building an angle jig

The angle jig is an alternative to using the paper pattern. Once you know the angle of a twist, you can build a simple jig (pictured above). The jig becomes a guide for sawing the angle kerf on the stock. Hold the upright board against the front and the angled board over the top of the workpiece. Place the saw along the edge of the angled board. As you saw, rotate the stock, moving the angled board accordingly and sawing the kerf the full length of the twist. The kerf then serves as the guide for removing material from the twist. Each different diameter or ratio will require a different angle; therefore, make a jig for each angle.

These ideas have helped me to get started in spiral forms. As Stuart Mortimer's work evidences, the appeal of the twist can be formidable, and the variations endless. For more on spirals, I recommend his book, *Techniques of Spiral Work* (Linden Publishing Co., 800/345-4447).

Howard Ford twists and turns in Newbury Park, CA.

WOODEN FINGER RINGS

A promising, almost totally impractical project

DAVID FRANCHINA

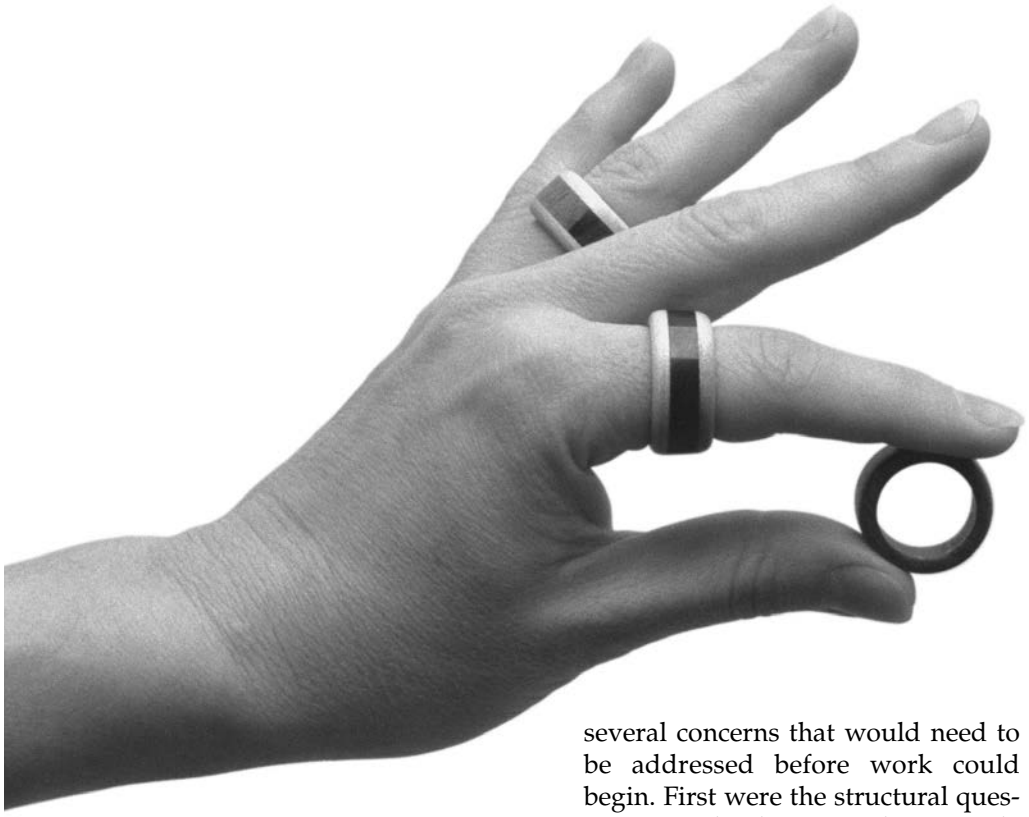


Photo: Rick Mastelli

IT SEEMS NO ONE IS IMMUNE TO THE temptation to experiment, to try something new. Though in woodturning this often leads only to more wood in the scrap box and a session or two in the shop that could have been better spent doing almost anything else, sometimes the results are interesting, or at least hold the possibility for some further advancement. Even if the product I describe in this article is impractical, some may want to replicate it as is. Others may find a process or approach here that will propel them in a new direction, perhaps toward a unique product of their own.

Though there are various ways for using the lathe to make attractive and practical jewelry items, I had not seen wooden finger rings in galleries or shows, or techniques for making them in magazine articles. I was challenged by the prospect of charting new territory.

The project immediately raised several concerns that would need to be addressed before work could begin. First were the structural questions involved in an object made from extremely small and consequently short-grained pieces of wood. Next, also a concern regarding the size and delicacy of the object, was how to chuck the workpiece for turning. Finally, if this project were ever to achieve commercial potential, marketing realities would need to be addressed. A wooden ring, unlike a metal one, cannot be "sized" after it's made (expanded or reduced, within reason) to accommodate an individual's finger. Consequently, an inventory of various sizes would have to be on hand at the point of sale. The quicker and more modular the production, the better.

For the size and durability required of a finger ring, a strong, tight-grained hardwood would be the right choice. Given the small scale, figure did not seem to be an issue. Strength could also be achieved through lamination. As in plywood, gluing up layers of wood, each with the grain oriented in a different direction, would maximize strength and stability. While at it, why not experiment with face grain laminated to end grain?

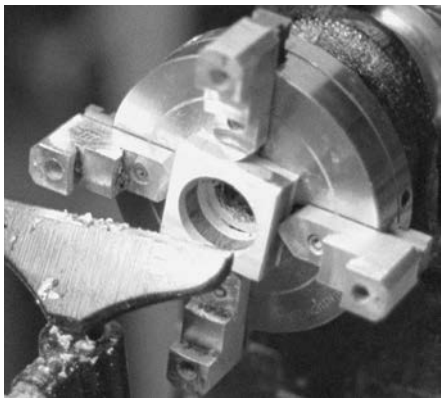
After considerable experimentation, I have found the strongest and most attractive combination to come from a center section of end-grain material approximately $3/16$ inch thick with a slab of face grain material of a contrasting color or pattern approximately $1/8$ inch thick laminated to either side. The overall thickness of the blank (eventually the width of the ring) is $7/16$ inch, quite large for a finger ring, but the outside can be turned away to an attractive diameter. In the meantime, the blank's thickness provides the strength necessary to complete the first few turning steps.

I decided to make the blanks accommodate $1\frac{1}{4}$-inch-diameter rings. That size would allow for turning rings of a large enough diameter to fit all but enormously large fingers and would allow for quick and simple mounting in a four-jaw chuck (photo, top left, on the facing page).

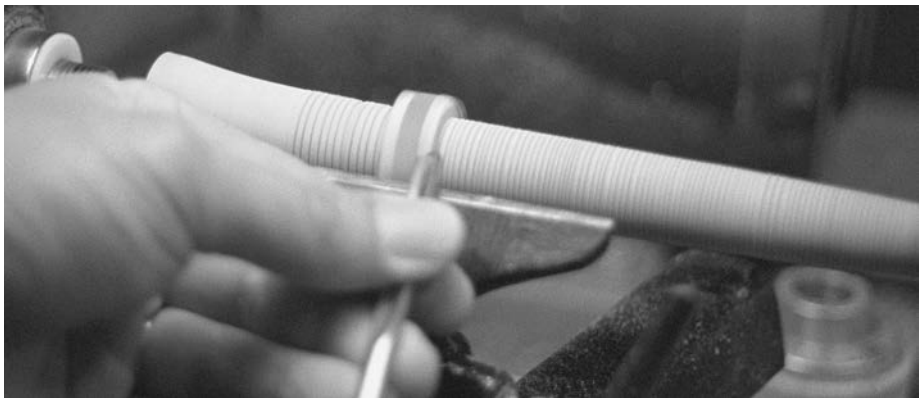
End-grain blanks $3/16$ inch thick by $1\frac{1}{4}$ inch square can be readily made from $1\frac{1}{4}$-inch-square spindle stock on a table saw. A thin-kerf planer blade and a zero-clearance table insert minimize the loss of blanks and also reduce chipping. For the face-grain layers, I rip and crosscut blanks available from many hardwood dealers. Alternatively, you can begin by resawing suitable material.

As the glue contact area in the final product is extremely small, the cut surfaces must be lightly sanded to remove any ridges or burrs. I tried various glues with mixed results; yellow carpenters' glue, left to cure for at least two days, yielded the strongest, most consistent joints.

Mount the laminated blank in a



A four-jaw chuck holds the laminated blank for drilling and sizing.



A tapered mandrel accommodates blanks of various sizes to turn the outside of the ring. Shape it slightly convex across its width.

four-jaw chuck and drill a hole (using whatever method you like) approximately 3/8 inch in diameter. I found that enlarging the hole to the desired diameter (which will vary according to the size fit you want) is best done using a straight-sided scraping tool with a sharp burr. Sand the inside of the ring while the blank is still mounted.

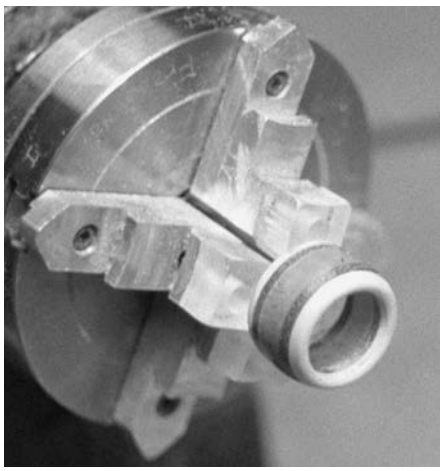
A word of caution: when drilling through the blank and scraping to the desired diameter, take care to ensure that the tool does not contact the jaws or face of the chuck. You're liable not only to ruin the blank and the edge of the tool but to injure yourself as well.

The next step requires first constructing a mandrel from a piece of straight-grained hardwood approximately 9 inches long and at least 1 inch in diameter. In order to facilitate mounting and remounting the ring blanks later, I suggest that instead of using a drive center, you mount the headstock end in a three- or four-jaw chuck. Bring the tailstock up for support and turn a taper from approximately 9/16 inch diameter at the tailstock end to approximately 1 inch at the headstock end. The surface is best left fairly rough to provide greater friction when turning the prepared ring blanks to round. I have also found it useful to mark increments approximately every 1/16 inch on the mandrel, using the long point of the skew chisel.

At this point I take the blanks to either the disk sander or the band saw and remove the corners. This is not necessary, but it does reduce the chances of chipping or breaking during the next operation.

Press the blank onto the mandrel. Use the marks cut into the mandrel to ensure that the blanks are straight. Any wobble at this point will result in a blank that is no longer symmetrical and consequently less than attractive or marketable. Turn the ring, creating a slightly convex shape across its width (photo above right). There are no hard-and-fast rules regarding final thickness, but the blank should be as thin as possible while retaining adequate strength—1/8 to 3/16 inch seems just about right. I do a preliminary sanding at this stage to 220 grit.

For final sanding and shaping, I found it advantageous to rechuck for access to the transition between the inside and outside of the ring. I glued 1/2-inch sections of acrylic plastic to the face of my four-jaw chuck, then filed, sanded, and turned these blocks to create another step in the jaws that allow me, with the chuck closed as far as possible, to slip the band approximately half way onto the plastic jaws. I gently open the jaws until the ring is held tightly enough to finish sanding the half of the ring that is accessible and to soften the transition between the inside and outside (photo below left). Final shaping also is accomplished during this light sanding. Going all the way to 600 grit is worth the effort. Half of the ring is now ready for finish.



Auxiliary acrylic jaws hold the ring blank for final shaping and sanding.

Several finishes are possible, including padding lacquer and wax, or you could just buff the unfinished surface. I prefer a light application of HUT wax, buffed to a mild gloss.

Reverse the ring blank and finish off the opposite side in an identical manner. The only task remaining is to find an infinitesimally fine-tipped pen to sign your impractical object.

One final note: don't feel limited to laminations of wood only. Other materials, such as bone, plastics, various vegetable ivories, and even stone, have definite potential. Experimenting with assorted inlays might also pay some unexpected dividends. Finally, a smooth finish is not the only one possible. Light textures and delicate surface designs both have possibilities, depending on your tools and skills.

Dave Franchina turns wood part time in Sandy, UT.

Photos: Dave Franchina

WOOD DREAMING

An excerpt: Not Needing to Look Backwards

TERRY MARTIN

EDITOR'S NOTE: *These eight pages only hint at the variety and depth of Terry Martin's new book on Australian woodturning,* Wood Dreaming. *There are more than twenty additional turners profiled, not to mention the fascinating connections drawn in other sections of the book to the history, culture, ecology, and rich material resources behind this deep-rooted, blossoming field. Martin shows the lives and work of contemporary turners to be imbued with distinctly Australian, even Aboriginal, attitudes toward making. "The Dreaming," as Europeans named the Aboriginal philosophy of life that Martin takes for the theme of his book, always was and always will be. The book is indeed a dream for those of us who have been asleep to the wonders of woodturning on the other side of the world.*

Don Bridges

Don and I have been friends for years and often spend time together on one of the favorite pastimes of all woodturners—wood hunting. We have driven tens of thousands of kilometres together looking for good supplies of new and interesting timbers. We have travelled similar distances to exhibit at shows together, sharing the driving, loading, unloading, and selling each other's work. So we have a good understanding of each other, both as friends and as turners.

Not surprisingly, I respect Don's work immensely. I have seen him teach well under difficult conditions, turn as fast as anyone I know, and maintain a cheerful determination to succeed at the difficult business of turning for the gallery market. But a lot of my respect for Don is based on his remarkable knowledge of trees.

Don Bridges, Brisbane, Queensland, is an impassioned wood hunter. Above left, conkerberry hollow vessel, 7 7/8" high. Above, redgum hollow form, 3 1/8" high.

Sometimes, as we have driven along distant bush tracks, Don has suddenly stopped.

"Why are you stopping Don?"

"Didn't you see it?" replies Don.

"See what?"

"That *Clarissa lanceolata* over there," replies Don patiently, pointing into the bush.

"Clarissa what?" I reply, pushing through the scrub behind Don as he heads straight for a barely visible bush 200 metres from the road. I still don't know how he does it, but I have seen enough to never doubt his judgement.

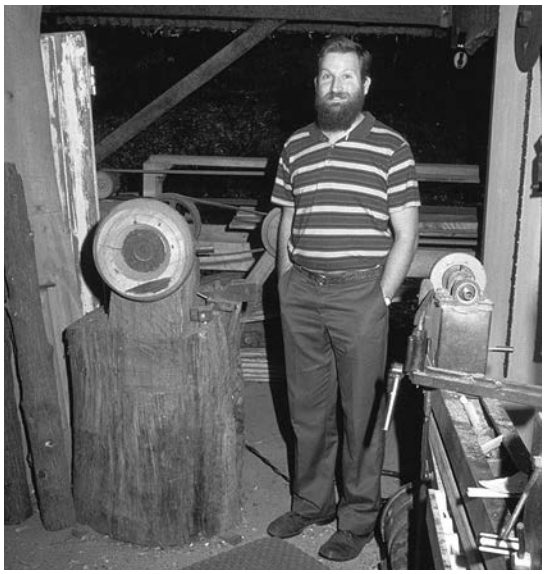
Don migrated with his family from the USA when he was seven years old. His family always liked trees and their home in South Carolina was surrounded by massive Pecans and many fruit trees. After they came to Australia, the family owned a nursery and Don used to help with the care and propagation of the trees. He never planned to be a woodturner.

I became a turner by accident really when I inherited a lathe from my father. I was a refrigeration service mechanic and wasn't enjoying it a lot. I decided to have a long holiday and then look for a job later. During the holiday I started turning and I have never stopped.

Basically I'm self-taught, but after I saw Del Stubbs and David Ellsworth at a seminar in Brisbane in 1986, I realized things could be done differently. I got serious then. Before that I had only done vases and bowls and was selling through craft shows and street markets. It was early days and easy to sell.

I went to the National Wood Conference in Canberra in 1987 and met the handful of people who were top turners then—people such as Mike St Clair, Vic Wood, and Tony Hansen. I took

Portrait: Terry Martin; photos of work: Russell Stokes



Dean Malcolm is an enthusiastic, generous, prolific turner. His home and shop in Albany, Western Australia, are solar powered.

some pieces down for the show, but when I saw how good the other work was I didn't enter mine.

In 1988 there was a Woodturning Conference in Brisbane. I saw Del Stubbs again and other international turners like Todd Hoyer, Mike Hosaluk, Liam O'Niell, Mick O'Donnell, Richard Raffan. That was the last big international conference in Australia.

Nowadays, because of the transfer of ideas about turning all over the world, there is a lot of common ground. But Australian turning has its own identity. In so many ways we are isolated and we have developed our own designs. But it's partly because of the raw materials. We use so many hard timbers. Other countries have hard timbers, but not on the scale we have. In Australia there are literally hundreds of very hard species.

I like to use natural faults. One reason is that it's hard to find perfect timber. Another reason is that timber with faults is often burnt and I don't want to see it wasted. But it's also because I like the challenge of taking wood that is discarded and making something of beauty from it, something someone will treasure.

In a lot of cases our timber resources are not being used well. It's partly geographic and partly economic. You hear reports about trees being cut down, supposedly for milling, and then being chipped. It makes you skeptical about how it's being managed. We should have managed plantations instead of cutting old growth.

Dean Malcolm

If I had to choose the Australian woodturner most liked by those who have met him, it would have to be Dean. He has an energy and charm that infect all around him and has been almost single-handedly responsible for a flowering of turning in the remote south-west region where he lives. When you hear about how much Dean has achieved in the woodturning world, it is hard to imagine that he is only thirty. Under his big, bushy beard is the fresh face of an enthusiastic youngster.

I first found Dean at a night course for turners in the town of Albany. When I arrived he was in the middle of explaining a fine point to his small class of five students. He has an easy style of teaching, tempered with determination to get the best out of everyone. I watched with pleasure for the rest of the evening as he pushed them to the limit with a relaxed, bantering manner. My only regret was that I never had a teacher like him.

The next day I visited him at his home. I thought I must have made a wrong turn, because the road from Albany led me into increasingly run-down paddocks as the vegetation deteriorated into patchy scrub barely holding on to the mean soil. I wondered why anyone would live in such an unattractive place and was about to turn around when I saw a ridge ahead with some trees along its length. The road plunged into the trees and I bounced along a rough track for some time. Then the trees opened out and I dropped down a steep hill. In front of me was an expanse of green around a tidy lagoon completely hidden from the outside world.

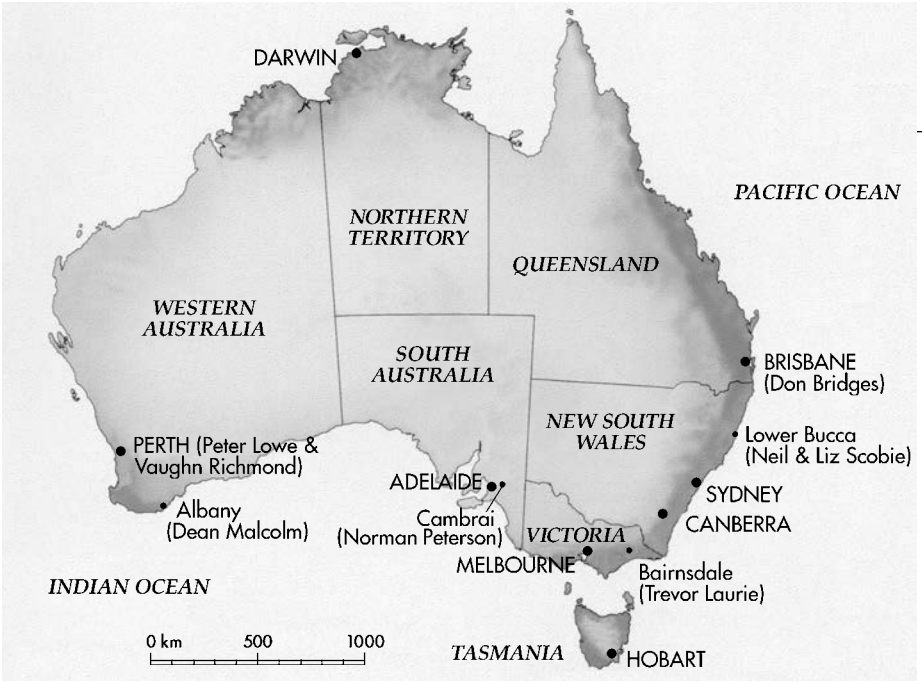
Dean's house, which he built himself, was tucked away at the edge of the lagoon and surrounded by vegetable gardens. He met me at the door and proudly showed me around. Afterwards we sat down to talk and I was able to find out what makes this energetic man tick.

I was born in Perth and did a little turning at school. I had the problem common to a lot of school children—I wasn't very impressed with my teachers. They didn't know very much about turning techniques. I made my first lathe when I was quite young. It was powered by a lawn mower, which turned a generator, which ran a windscreen wiper motor!

I kept wanting to go finer with my work, but the teachers didn't want me to. Because I was determined to do more, when I was fifteen I got my own lathe. It was a real antique with brass blocks and a leather belt drive. The man who sold it to me told me something had been made on it for the Queen, but I was never able to find out what it was.

I was interested in design, so after I left school I studied industrial design at the West Australian Institute of Tech-

Photo left: Terry Martin; photo right: John McKinnon



nology. Turning was already a part of my life and I was selling my work to passing travellers outside my parents' home in the country. Finally I talked my lecturers into letting me adapt parts of the course to my needs as a turner.

When I finished studying in 1986 I moved to the small town of Denmark. I set up as a full-time turner making bowls, platters, vases, needle cases, and so on. Since that time I've been able to develop my skills as a teacher, which is good because I like to share my enthusiasm for the craft.

I turn wood because of the simplicity and its speed. It requires only the most basic equipment. It's what you put into it that counts more than the tools. With furniture you have to be so precise, but with turning you can be free. I mean you have freedom of expression. Don't misunderstand me. I don't believe in getting a chunk of wood and hacking a bowl out. But you can be free within the limits. There is nothing worse than a design brief with no boundaries or constraints. Turning has to be round. That makes it easier. But by combining a turning effect with the quality of the timber and accentuating that quality, you can make something good.

I still love making things.

When I asked to see Dean's workshop I was delighted to see how "countrified" it was. From the wide window behind his lathe there was a view of the bush around the house. I wished I had such a contemplative scene outside my own workshop. Some of Dean's equipment was delightfully basic. I felt that one of his lathes was the ultimate bush lathe. It was a huge tree stump with a headstock bolted on the top and a motor hanging off the back. He explained: "I've always made my own equipment. Early on it was because I had no money. But I still do it because I like the challenge."

Then I noticed the strange wiring around his workshop. When I asked about it, he showed me that everything is powered by solar panels mounted outside. Mainly made from used equipment, the system runs all of the machinery a woodturner needs. When the sun doesn't shine, he has an old diesel farm generator which he bought for $45.

Spending a day with Dean showed me why everyone likes him so much. He is enthusiastic and generous with his time and ideas. As a teacher he inspires many and still has time to do what he likes. Dean is one of the best examples of a self-made man I have ever met. When I asked him how he had achieved so much, he pondered for quite a while before he answered. "My work is a reflection of my upbringing and my life—all that I have come to be."

Trevor Laurie

Trevor Laurie is fortunate to work in the town of Bairnsdale. Sandwiched between the beautiful coastal lakes of south-east Victoria and the mountain ranges behind, it is an easy drive from the ski resorts and the city of Melbourne. It also has a good college which runs courses in woodcraft, and it is this lucky combination which led Trevor to become a woodturner.

I first found out about Trevor when I saw one of his pieces, "The Magic Pudding," at an exhibition in Melbourne. Made out of redgum, the piece is based on a traditional Australian children's story I had grown up with. It was an absolute delight to me because I was used to seeing redgum used to produce massive and heavy pieces. When I picked up "The Magic Pudding," it was so thin and light that I almost dropped it.

On the outskirts of town I visited Trevor at his big workshop which he rents with two friends. They are able to share the cost of machinery, and it means they don't suffer from the isolation many woodworkers experience. Trevor looks more like he'd be at home on a Harley-Davidson than on a lathe, but his imposing looks hide a very friendly nature, and I immediately felt welcome:

I always liked the idea of working in wood. I was a bricklayer, but I used to look at the carpenters and think how lucky they were to work with wood. I wanted to be happy getting out of bed for work, and I knew that becoming a woodworker was the right step.

I enrolled in the woodworking course in Bairnsdale and quite soon realized I wanted to be a woodturner. I like turning because you get results fast. But I like to do other things to the turning, like carving on it. It opens up what you can do with design. Wood is warm, isn't it? It has to be touched. I hate signs that say 'DO NOT TOUCH.' Also, vessels are important. The most



Trevor Laurie, Bairnsdale, Victoria, favors recycled materials. "Road Kill," center, 21¼" dia., is from a redgum railroad sleeper. "Magic Pudding," right, 9" high, is redgum with legs cast from melted-down aluminum cans.

basic necessity of humans is to eat and drink, and vessels contain food and water.

I suppose I put a lot of myself into my work. Everything you do is a result of everything you've seen and all your past experiences. I've got a passionate commitment to recycling. I think it's absolutely clear that it isn't necessary to cut down trees to produce quality work. Our timbers are superb and we should definitely use them, but there is plenty of wood to be recycled. I use old redgum railway sleepers. They are sold as garden wall retainers, but I rescue them. They are well-cured and sometimes they contain incredible surprises. It means I have to design my work to fit within the dimensions of the sleepers. That's OK, but it is a limitation that I plan to solve. They are pulling down a lot of old wooden bridges around here. Some of the wood is huge and I'll be using it soon.

I've got some pretty strong views about old-growth forests and about the use of timber. We are in a great ecosystem and everything we do affects it. If you are going to use a piece of timber, it should employ the maximum number of people for the maximum time possible. It should also be around for a long time to give people pleasure. It should still be giving people pleasure in 200 years time.

Trevor showed me a piece he was working on that he had turned from a sleeper. The grain was beautiful and he had left the original spike holes as a reminder of its history. When I handled it, I could see the pleasure he gained from watching me stroke the surface. It was sad to think of it buried all those years in the ground, but at least he had brought it to life again. How many treasures of wonderful grain and colour had been thrown on the fire over the years? He had carved beautiful legs on the piece and was in the process of texturing the surface by carving it.

I call that "Road Kill." It's about rescuing and caring for the environment. You see animals lying on the road after they've been hit by cars. You can't rescue them any more, but this wood is rescued. And I like to create an organic feel, so that's what the legs are about. The piece is fragile, but you have to take risks.

I suppose if you push it you've got to be prepared to go all the way. I like to do other things and use other materials. The legs on the "Magic Pudding" are cast from melted-down aluminium drink cans. It's such a common material, but it goes well with the red wood. And it's light. I wanted people to be surprised by that.

In the future I think people will be more concerned about conservation, so I'm sure that if we use trees we have to make them go as far as possible. At the same time I think people are sick of mass-production. They want unique things. People want to have beautiful things in their houses as their outside world deteriorates. That's why I think there is an important place for this kind of work.

Norman Peterson

South Australia is a very dry state and has less tree cover than any other state in the country. Limited to the wetter southern parts, the original tree cover was largely removed by the early settlers. Redgums were the predominant large trees and this is reflected in the buildings and furniture of the early artisans. Although redgum is found over much of Australia, it is in South Australia that it was best used. The Aborigines had always used it for shelter, vessels, weapons, and other artifacts. Despite its weight and hardness, the early European craftsmen used it to produce beautiful cabinets, wagons, machinery, and other important pioneer products. Unfortunately most of the redgum was used for firewood, mine props, fenceposts, and railway sleepers.

Norman Peterson has single-mindedly pursued the use of this wood as an art medium and now he holds a special place, both as a deserving inheritor of the redgum tradition and as a contemporary craftsman of rare sensibility. I first met Norman in the early 1980s when I passed his house in the hills near

Photo left: Michael Goodsell; photos center and right: David Staley



Norman Peterson, Cambrai, South Australia, works mainly from old logs, giving them a new life. Center, "Weathered Red Gum Pot," 27½" high. Right, "Redgum Pot," 14" dia.

Adelaide. I saw the sign "Woodturner" on a post and stopped to investigate.

Norman was working at his enormous lathe when I went in to introduce myself. He showed me the small gallery attached to his workshop and I was astounded by what I saw. Norman was trying techniques that I had never seen and producing work of remarkable robustness combined with a wonderful sense of line and form. We became friends and have kept in touch ever since.

I recently revisited Norman in his new home in the little village of Cambrai, nestled in a valley halfway between Adelaide and the Murray River. When the area was first settled, the population was much higher. Business boomed and a small foundry was built to produce ploughs and other machinery for the farms that were being cleared. Unfortunately the land did not prove able to support such intense settlement. The town declined, leaving oversized pubs and other buildings to remind everyone of better days.

But Norman rescued the old foundry and has turned it into a gallery and workshop. He lives with his family in the fine old stone house next door and has become a popular local identity. Seated at the table in the huge old kitchen, Norman told me why he became a woodturner:

My father was a wood sculptor and my grandmother was also a sculptor. As a kid I loved whittling wood. I liked living surrounded by wood because it is a warm material. I began turning in 1982. Before that I had worked as a sheep station hand and a builder's labourer, even as a photographer. One day I saw the work of Richard Raffan and decided that I was going to be a turner. I liked woodturning because it gives immediate results.

Norman always refers to his turnings as "pots" and I wondered if he had been influenced by potters.

Yes and no. I love early African and Japanese forms. But unlike ceramics, where you have to wait while the kiln cooks, with wood it's there straight away. With sawn timber there is nothing to inspire. You just have to control it. But you pick up an old piece of wood in the paddock and straight away it starts talking to you. I stick to redgum. It's the only timber I'll work. It's local and it never gets boring. The grain is gutsy and always different depending on the light. I love the challenge of a big, grumpy piece of wood. You get a big piece of redgum on the lathe and it says to you, "Come on! What are you going to do to me!"

Norman's work frequently reflects the nature of the log. If you see a redgum log lying in the bush exposed to the elements, it is always grey and dull on the outside. When you cut into it, the redness astounds. To reproduce this same quality in his work, Norman will turn the outside of his pieces and then leave them exposed to the elements for up to two years. When they are suitably weathered he will turn the inside and then oil it to preserve the colour. The vessels look like they just grew that way.

It is ironic that much of Norman's timber comes from the logs left as unusable by the early woodworkers. Redgum doesn't rot easily on the ground, so he never has to cut down a healthy tree.

There's no need. I can work for months from an old dead log. I only use discarded timber, or fence posts and stumps left over from last century. I sometimes wrap my pots in barbed wire as a reminder of their second life. From tree, to post, to pot—there's something of each life in the final product.

When Norman stands proudly in the doorway of his gallery he looks just like those proud proprietors of general stores in the old photos. He loves his town and has a strong sense of community. With his wife, who teaches in the local primary school, and his son, who is a pupil in the same school, he has helped bring some of the old pride back to the town.

Photo left: Terry Martin; photos center and right: Norman Peterson

The work of Neil and Liz Scobie reflects their environment in Lower Bucca, New South Wales. Right, "Wings," red cedar and paint, 13" dia.

Neil and Liz Scobie

Neil and Liz Scobie are well-known all over Australia for the stunning and distinctive bowls they create together. They live on eight isolated acres of bushland at Bucca Creek, right next to a state forest not far from the New South Wales coast. In this idyllic environment Neil has built his workshop where he can walk out the door and straight into the bush. Their house has views of the bush all round and features timber in every room.

They have been working together producing quality work for years now, Neil making the bowls and Liz painting them with her distinctively Australian designs. Neil explains how he became interested in wood:

My grandfather was a good amateur woodworker. He used to make boats and furniture and even made gunstocks. When I left school I studied industrial arts and I had a really good lecturer who got me interested in woodturning. I built my first lathe while I was teaching in south-western New South Wales. I grew up on a farm and it makes you pretty resourceful. I started turning the river redgum which grows there, but I like to carve my bowls and it was a bit hard. So when I moved to the coast here I was able to find timbers that suited my style of work more. I organize workshops for woodturners in this area and have met some good turners that way. I learnt a lot from Richard Raffan and I particularly like Del Stubbs.

I think new ideas are important if you want to be viable, so I like to explore the medium. I get bored easily if I do the same thing for too long and the market gets saturated. Like most craftspeople, we hurry through the production work so we can spend more time on the creative pieces. We like to carve the turned work, or do something simple like texturing the surface or adding gold leaf, but it has to reflect the natural grain. I used to carve tree patterns on my bowls, but a visit from Michael Hosaluk influenced us to try painting directly onto the wood. Even then you are influenced by the wood. Sometimes the whole pattern on the piece is decided by a borer hole or a defect.

Their work is proof that painted designs do not have to obscure the wood, but with sensitivity can enhance and amplify its nature. Liz explains why they believe adding colour and texture work for them:

I especially enjoy adding designs that reflect the Australian land- and seascape. I was a textile and design teacher for many years and I am very interested in fibre arts, so I call myself a patternist, not a painter. I think it shows in the designs I use on the rims of Neil's bowls. It sounds easy to say that Neil makes the bowls and I paint them. But it takes understanding and cooperation to get a balanced result.

I've been influenced by bright tropical colours as well as the red tones of the interior. The natural colours of the land are best—reds, blues, greens. Indigenous art is an influence and Aboriginal designs inspire me a lot. But I wanted to create something really Australian without copying Aboriginal designs. Our work should represent Australia because a lot of our customers come from other countries and they want to have something to remind them of here.

Where we live is important. The sea is very Australian and I've always lived near it. Living near the bush is important too. We are on our own here with no distractions and we had the space for Neil to build his workshop. But the main motivation for being out here is to be inspired.

Neil agrees:

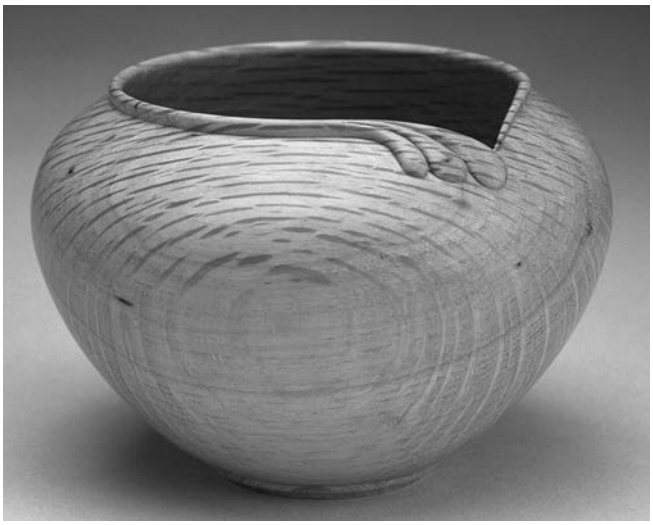
Quite often I walk out the back of the workshop to get a piece of wood and I just get lost in thought looking into the bush. I even forget why I went out there! It's so quiet. We don't like to waste timber. We salvage a lot and I've planted plenty of trees on our land. I think if a woodworker uses wood, they should plant trees to replace it.

Peter Lowe

Peter has not been turning for a long time, so when I first saw his work I was amazed that he could have achieved so much. His sense of form and awareness of wood features have the mark of a natural wood artist. But Peter came from a field that contained no hint of his love of wood. For years he has pursued a successful career as a software engineer and established an electronics company which designs computer-controlled manufacturing systems.

Most people who achieve success in business tend to rush on to the next money-making scheme, but Peter decided it was time to change direction. He let his artistic instincts take over and decided to become a turner. He certainly knew it was not going to be as profitable as the software business, but he has an appreciation of the good things about

Photos this page: Bruce Thomas



Peter Lowe, Perth, Western Australia, is relatively new to woodturning. Left, "Evolution Series—Jarrah," 16½" high. Above, "Fluid Series—She-oak," 4⅜" dia.

working from home—especially being with his young children. It was there that I visited him in a quiet suburban street in the city of Perth.

Peter was playing with his children when I arrived. He proudly told me "I'm a Mister Mum," and when I sat down to a beautiful lunch he prepared for us and his two daughters, I believed him. His house is filled with antique furniture and the floor is deep red jarrah. Standing in one corner is a grand piano and other musical instruments are scattered here and there around the house. The many antiques are complimented by his own woodturning and I could see it is the house of someone who reveres wood.

I was amazed by Peter's work because he has taken large, difficult forms to the limit. Deep hollowing is one of the most challenging types of turning, even with soft woods. By producing such work in a rock-hard timber like jarrah, Peter shows he is not afraid to risk disaster. Clearly, the success he had with his business life is being repeated in his turning. So why did Peter want to be a woodturner?

Since I was a kid I have loved wood. I like creating things and enjoy it when people like what I do, especially if they want to buy it. I suppose I like woodturning because it's very quick. In two hours you can turn out something quite pleasing, but you can't do that with furniture.

Woodturning is a craft where you can use the defects in the wood. The defects are half of the beauty and I like turning junk into something beautiful. I get all of my wood from the forest floor because I don't want to cut down trees. Mostly I use she-oak and jarrah. I can get it because I have a craft license from the government which entitles me to collect a certain amount each year.

I'm lucky to have a small house in the jarrah forests south of Perth. The family retreats there and I gather timber and gain inspiration directly from the trees. I envisage what I want to do and I try to take it the whole way. Stephen Hughes has been the biggest influence. Like him, I draw my ideas first. All of my inspirations come from organic forms and I'm not concerned with practicality. I just want to make beautiful things. Also, I would like to see more appreciation of woodcraft. There are some very talented people out there.

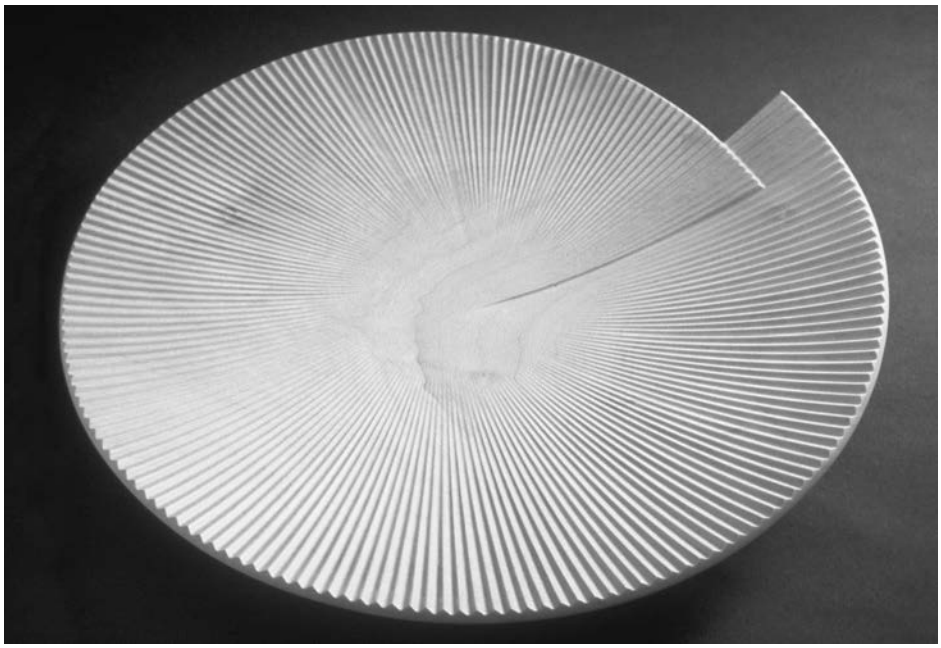
I felt that Peter can be an inspiration to all of those successful people who feel something is lacking in their lives. His quiet voice and gentle manner conceal a strong determination to do the best woodturning he can. Peter has created a lifestyle that would be the envy of many. No one starts woodturning to get a lot of money, but people like Peter become rich in ways that can't be measured. He can be with his children, go to the bush when he wants, and make the things he chooses. I think most people would envy him all that he has worked for and achieved.

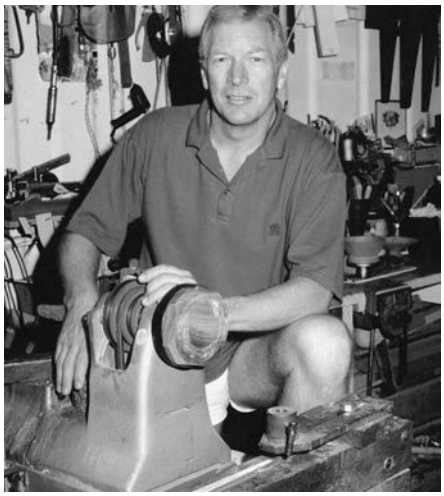
Vaughn Richmond

When you look at woodturning in the west of Australia there are a few names which stand out above the others, and Vaughn Richmond is one. When I met Vaughn, it was not hard to see why. He is a very friendly and happy man who was willing to help me in any way he could. The first time I phoned him to introduce myself and arrange a visit he said, "Let's go out in the bush, I can show you some really good trees!" His enthusiasm was a delight.

When I visited Vaughn it was clear that the pleasure he gains from "woodturner's talk" is immense. I found his beginnings as a woodturner among the most fascinating and perhaps the most Australian of the many turners I have met.

Portraits these two pages: Terry Martin; photos of work these two pages: Victor France





Vaughn Richmond, Perth, Western Australia, is an adventurous craftsman and "the happiest turner I have ever met." Above, carved jacaranda platter, 13 3/4" dia. At right, tall jacaranda vessel, 11" high.

I used to have a gold prospect north of Perth and I often spent time there fossicking for gold. I admit I didn't strike it rich with the gold, but I did meet an old gold prospector who had been a sandalwood cutter. You know they used to cut sandalwood and send it to China for joss sticks. It smells beautiful. They still get it, but you have to have a license to cut it now. Anyway, he gave me a piece of sandalwood. It must have been hard work scouring the bush in the heat and dust. In the early days those cutters used to transport the wood on camels. I was so delighted with the piece of wood that I carved it into a keyholder. I did a lot more and found I could sell them, so I bought a woodlathe to make the keyholders more quickly. That's how I became interested in woodturning.

I suppose I was interested in wood in the first place because my dad was a woodwork teacher for 35 years. Some of it must have rubbed off. I trained as an automotive engineer, but what I really enjoy is producing woodturning with fine finishing touches that make it stand out. I get a kick out of enhancing the work. I like trying the impossible. It's the challenge of something different.

I looked at some of Vaughn's work and was stunned by the quality of his technique and finish. One of his hollow forms in jarrah, "Coriolis," was so finely cut and had such a faultless finish, I felt it was one of the best pieces I had ever handled. I wanted to know how Vaughn designs his work:

The wood tells me where to go. Once the wood gives you the clue, you don't need to impose something that's not meant to be there. The carving and additions are what make my work different. The shapes have all been done before. I must say I've been inspired by the work of Dean Malcolm.

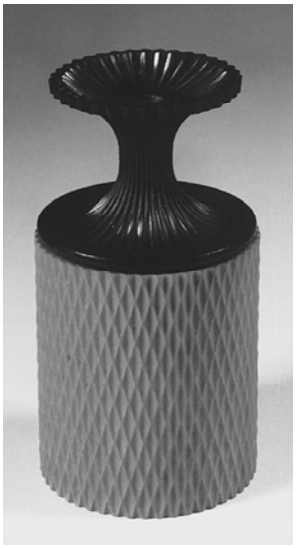
I love to share my ideas with anyone who is interested. I teach woodturning to adults and to apprentice cabinet makers. I also teach women's groups. I think it's important to encourage more women to take up woodturning. It's a craft dominated by men, and we need the input of more women.

Most of all, I'm always looking for a new turning challenge. I look at what's in the future, not what's been done in the past. We have to develop the skills we have into something new. You've got to keep trying.

Vaughn is the happiest turner I have ever met. You can't help feeling uplifted by talking to him because he enjoys himself so much. He is an adventurous craftsman and you can see his mind working on new possibilities the whole time he is in his workshop. When I left him I felt determined to improve my own work, and that is the best compliment I can give another turner.

Terry Martin turns wood and writes in Bardon, QN. Wood Dreaming *(hardcover, 208 pages, $60) is published by Angus&Robertson and is available in this country through HarperCollins (800/242-7737).*

PHOTOS FROM THE MAILBAG



Last December, the Arthur Roger Gallery in New Orleans staged a show of my year's work: sixty pieces, twenty of which sold on opening night! The work ranges from $1^1/_2$" to 3" in diameter and 3" to 5" in height and is ornamented inside and out. Materials include mopane, boxwood, pink ivorywood, African blackwood, Dymondwood, and fake ivory (polycarbonate). My cutter frame is interchangeable for both reciprocating-mandrel and rose-engine work.

—Gorst DuPlessis, New Orleans, LA

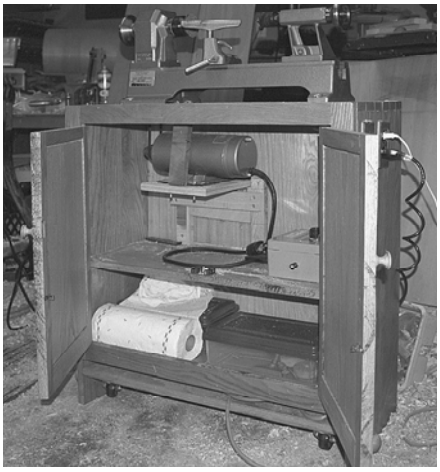
VICMARC VL 100

AS ONE OF THE SO-CALLED MINI-LATHES on the market, the new VICMARC VL100 offers the attraction of portability: Have Lathe, Will Travel. However, since it weighs about 60 pounds, travel with this lathe is somewhat of an exercise. (It reminds me of the first portable computers.) Unlike the small and manageable Carba-Tec or Klein lathes, which are true "minis," the VL100 is better classified as a *small* lathe, and with this understanding, and some creative cabinetry, it is indeed portable. More importantly, it is also an excellent unit, made to high-quality standards.

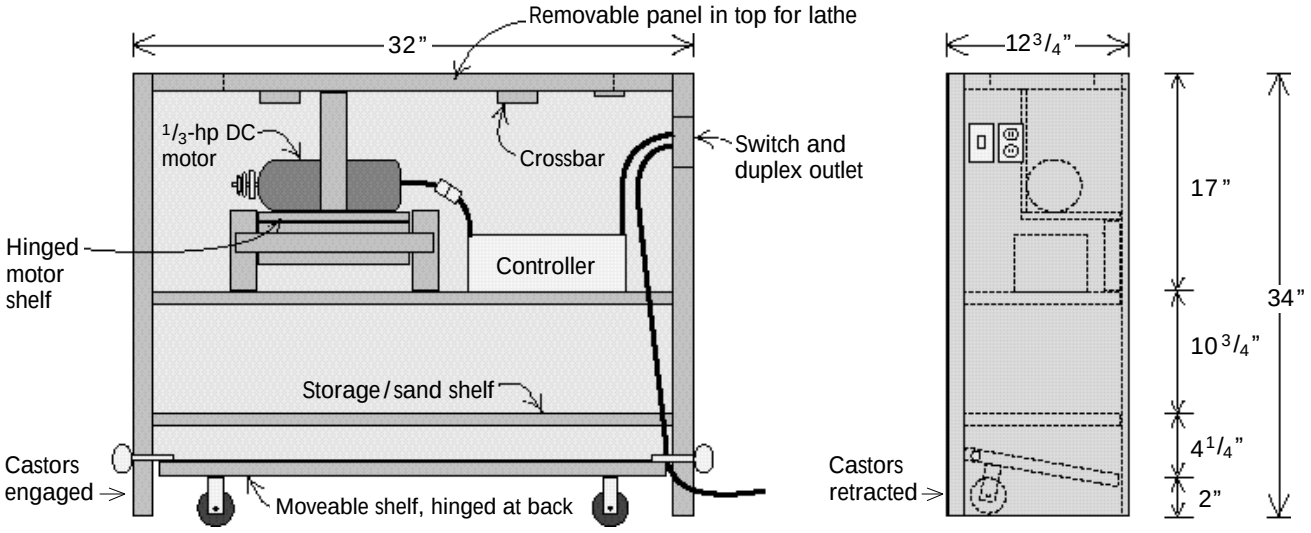
The headstock and tailstock take #2 Morse tapers; the main spindle thread is 8 tpi x 1 inch and so takes standard Delta/Rockwell chucks. Fittings of these sizes are readily available if you don't already have them. Even better, you can use most of your regular turning tools, reserving mini skews and gouges for special work. The center is 5 inches over the ways, allowing for a 9-inch plate to be turned. The distance between centers is nominally 12 inches, but this is reduced to 10 inches with a live-center in place. You can remove the tailstock with one hand, and conveniently have a small bowl lathe. The cam-locks on the tool rest and tailstock work smoothly and tightly. The weight and substance of the lathe make vibration negligible; I have turned centered 8-inch bowls with minimal chatter, although wet, uneven blocks will make the lathe dance until they are true. A 50-pound bag of sand would help here.

Variable-speed motors are generally far preferable on lathes, and once you get used to them, changing belt pulleys on regular motors doesn't cut it. So for this lathe I invested in a $^1/_3$-hp, variable-speed DC motor (from Chuck Woodruff in Seattle, 206/723-8487), which was more than sufficient for most work. I did have to resort to a brace on the motor leaf to keep it in place (photo lower right) and eliminate bounce which allowed the belt to slip. For AC motors there are six speeds available from about 700 to 4300 rpm via the spindle pulleys, and a $^1/_2$-hp motor is recommended.

Standard equipment includes a $2^3/_4$-inch faceplate, a 3- and 6-inch tool rest, a knockout bar, and a four-prong drive center. There are a couple of quibbles with this list: the knock- out bar is a puny 6x $^5/_{16}$-inch rod with little mass, and no tail center is supplied, so a live tail center is one immediate investment which adds another $70 to the price. (The new catalog from Craft Supplies lists the VICMARC at $429 including



The author built this oak cabinet with castors that tip out of the way for stability and modular components (lathe and motor) that detach for portability.



a revolving center.) I also acquired a 12x3/8-inch rod for knock-outs and turned an oak knob for its end. A more serious problem is the lack of a positive lock for the headstock spindle. The indexing pin (24 points) can be used, but since it is spring-loaded, it does not stay in place.

Total cost to me for this superior small lathe was about $1,000: $400 for the lathe, $330 for the DC motor and controller, and another $100 for the live center and a screw chuck. Plus about $150 for the cabinet and fittings. Not cheap, but it is worth it.

So it's off to shows I go, to turn tops, tagua nuts, and small natural-edged bowls and spread the word. But how do you transport 60 pounds of cast iron (beautifully machined, of course) and another 25 pounds of motor without getting a hernia?

I built a cabinet from oak, as detailed in the drawing on the facing page, which, with the lathe's 9-inch center height, gives me a comfortable 43-inch-high working center. Since I'd be taking this to shows, I put some effort into the joinery: dovetailed corners and raised panel doors, for example. A regular light switch (20 amps) on the outside turns the motor on and off, and a two-gang outlet provides power for drills, lights, vacuums. The motor and controller are hidden in the cabinet. You have to reach inside to adjust the motor speed, which is a little inconvenient, but it does keep the clutter down. An accessory table for tools, glues, and fittings is also useful.

The trick is to modularize the construction to allow for disassembly and moving. The lathe itself is attached to an 8x25-inch panel that fits into the top of the cabinet, resting on crossbars and with a lip at one end to keep it in place against the pull of the motor. The motor, on a hinged leaf, can be taken out as required. The bottom shelf of the cabinet is hinged with castors. These tip out of the way when not required to provide a stable base, but when the cabinet is tipped back slightly, and two side pegs are pushed in to keep the shelf in place, the cabinet can be readily moved on the castors (although with not much clearance). So to move the unit I have three somewhat manageable pieces: the lathe on its panel, the motor, and the cabinet, on castors which are available as needed. Oh, I forgot that 50-pound bag of sand!

—Peter M. Smith, Princeton, NJ

Chris Stott Parting Tool
Packard Woodworks, 800/683-8876

Axminster Live Tail Center
Craft Supplies, USA, 800/551-8876

ONE OF THE GREAT THINGS ABOUT going to a symposium is that you discover all sorts of things that you really don't need, but somehow can't live without. I found two such tools last June at Greensboro.

The first item is the Chris Stott parting tool. I discovered this tool at the Packard Woodworks display selling for about $15. They were just kind of lying around on the table, not making much of an impression. Chris asked me if I turned any lidded boxes and showed me how the tool worked, so I dutifully bought one. It wasn't until I got home and used the tool that I began to appreciate it. It's not a magical tool that will transform you into a better turner, just a very nice parting tool that makes a very nice cut.

Overall the tool is about $9\frac{1}{2}$ inches long by $1\frac{1}{4}$ inches wide by $\frac{1}{16}$ inch thick. It has a dipped plastic handle and is made of high-speed steel. I found sharpening this tool incredibly easy. A touch on the grindstone and it's back to the work. In some respects, it's no different than the small parting tools that I use, but the wide blade gives the tool great rigidity, and I can part off the lids to my boxes easily. Will it catch? I suppose so, but to date, I have not done that.

The only thing that I did not like is that while in use, the bottom edge tended to mar the tool rest. That problem is easily rectified by honing the bottom edge of the tool.

The second tool is not really a tool but a live tail center made by Axminster. I found this little gem at the Craft Supplies, USA display. After a little begging and whining, Dale Nish agreed to let me have it at the end of the symposium. Most of the tail centers I have purchased over the years left something to be desired: they all seemed to wobble slightly. This center is very well made and machined, and it runs absolutely true. It comes with three replaceable tips: a large cone center, a small cone center, and a cup center. The tips seat via a tapered shaft and are removed by unscrewing a collar which pulls the tip from the body of the center.

I paid about $73 for the Axminster revolving which is not particularly cheap, but it is an investment which will last for many years. I highly recommend it, as well as the Chris Stott parting tool.

—Robert Rosand, Bloomsburg, PA

Woodturning Jewellery by Hilary Bowen. *Guild of Master Craftsman, 1995; distributed by Sterling, 800/848-1186. Paperback, 151 pages, $14.95.*

Hilary Bowen says she wrote this book because she could find no other source when she wished to learn about turning jewelry. In it, she guides the reader through a variety of projects of her own design. Both the novice and intermediate turner will appreciate this book. Only a basic knowledge of turning and tool use is necessary to fully appreciate all that is offered. The projects are simple enough and the text so thorough that one will have no trouble starting up on any of the projects described. Additionally, the author encourages and entices the reader with numerous suggestions for extending her ideas into unique designs of his or her own.

In Part 1 of *Woodturning Jewellery*, Bowen covers the necessary subjects of health and safety, tools and equipment. In addition she discusses wood selection (being British, she calls it timber, of course) and has included a chapter on design. By introducing the concepts of form, function, proportion, and balance in designing jewelry, she invites the reader to be considerate during the planning stages of any project so that works created will function well as both art and jewelry.

In Part 2, we begin projects: earrings, broaches, bangles, rings, and necklaces. Bowen discusses earring styles as well as turning technique, both end-grain and side-grain styles. For the latter, Bowen turns a pair of earrings simultaneously from a single blank that she has previously sawn in half and reassembled using glue and paper—the advantage being that both earrings will be exact matches. In end-grain earrings she turns each individually, taking care that the two earrings match up fairly well.

Part 3, encompassing the largest portion of the book, was my favorite. In this section we are introduced to all the fun options of stains, dyes, wire inlay, lamination, and numerous other decorative techniques including the use of alternative materials. In discussing the use of stains and dyes in her jewelry, Bowen recommends transparent dyes that do not cover up the grain. As she points out, "The grain is, after all, one of the things which distinguishes wood from other materials, and to cover it up would be a waste of a highly decorative feature." Commercially produced stains are reviewed including water- and oil-based stains, aniline dyes, fabric and silk dyes, inks, and food coloring as well as others. She also included suggestions for the use of natural ingredients such as turmeric and tannin. I experimented with her recipe for onion-skin dye and found the warm, subtle color to be quite beautiful on light colored woods.

Other decorative techniques covered include various laminations, spray paint, gold leaf, carving, beading, inlaying wood banding, scorching, and the use of glass beads, gemstones, and marbles. A brief discussion of finishing techniques and jewelry findings is also included.

For the artist wishing to use alternative materials like bone, cow horn, tagua nut, metal, acrylic, Corian and colored laminates, Bowen shares photographs of her own work in these materials and discusses the pros and cons of each material.

In a well-written, straightforward, and thorough manner, Hilary Bowen has produced an excellent book, which would be a suitable addition to the libraries of both woodturners and jewelry artists alike. —*Susan Schauer*

Susan Schauer (formerly Susan Ellison) is a professional turner in Easton, MD.

EYE INJURIES, AND HOW TO AVOID THEM

EYE INJURIES IN THE SHOP ARE AMONG the potentially most serious that can occur. A person usually needs to be evaluated by a physician after such an injury. Appropriate eye protection should always be worn when power equipment is used.

Eye injuries can take several forms. Abrasions to the cornea (the tough, clear membrane covering the front of the eye) can occur from brushing the front of the opened eye with any material. Wood or metal foreign material may become embedded in the corneal membrane or become lodged under the eyelids, especially the upper one. Blunt injuries to the eye can result from thrown objects or debris, whether from hand tools or machines, especially the lathe. Occasionally chemical burns can occur from solvents, strippers, or finishes.

Corneal abrasion—Painful corneal abrasions are difficult to see without first staining the eye with fluorescein stain and then examining the eye with a blue or cobalt light to highlight the abraded area. These injures often require anesthetic eye drops for comfort, and an antibiotic ointment to prevent infection.

Foreign bodies—Small wooden foreign matter can irritate the membranes of the eye. Often these particles are air floaters that occur during sanding. Smaller particles can be rinsed out at home with tap water or an eye irrigant. Larger material can become embedded on the surface of the cornea, or hidden under the eyelid. A painful sensation results each time the eye is blinked. The lid needs to be everted (turned inside out) to reveal the particle, and the particle removed by irrigation or nudging with a moistened Q-tip. A tougher embedded particle may require instrumentation to remove from the cornea.

Metallic foreign bodies can form a rust ring in the surrounding tissue of the cornea within hours. This ring requires drilling even after the original metal particle is removed. Medical care should be sought before the rust ring forms.

A metallic particle thrown from a drill, router, or saw blade can perforate the cornea and penetrate the globe of the eye, with resultant loss of vision and infection. If power tools have been used and metallic material is involved, alert your physician to these circumstances. X-rays of the orbit will then reveal the presence of the fragment, and early treatment may make all the difference.

Blunt injuries—Blunt injuries may cause blood to form in the interior of the eye. The "hyphema" is potentially serious and vision-threatening. Hospitalization frequently is required. Blunt trauma can also cause lens disruption and other serious complications.

Chemical burns—These might involve very hazardous materials, such as lye or other caustics. These burns continue to cause tissue damage for up to twenty-four hours after the initial insult. Blinding corneal scars can result. Most chemical burns should be irrigated immediately at home with copious amounts of water—five gallons or continuous irrigation under the tap for fifteen minutes. Medical evaluation is required to determine the severity of the burn and the indication of further treatment.

All of these eye injuries can be avoided with safety glasses. When an eye injury occurs, early medical attention is advised.

—Charles A. Rula, M.D., Emergency Room Physician; Thomas S. Meade, Jr., M.D., Orthopedic Surgeon; Robert W. Waddell, M.D., Orthopedic Surgeon, Ret.

ADVOCATING EYE SAFETY IN TURNING parallels a safe sex lecture. The safest course is abstinence. But turning for some is an addiction, so not turning is out. There are always objections and excuses to the next safest course—protection: "it's not natural," "I didn't take the time," "they hinder me," "it's not comfortable," "I wasn't thinking."

Ocular safety is simple and consists of glasses or goggles, and a face shield. Granted, they're a nuisance, but using both, at the same time, is a good idea. Modern plastic lenses are made from shatter-resistant resin. Case-hardened glass lenses are rarely used any longer because of their weight. I recommend polycarbonate lenses, which are four to five times more shatter-resistant than resin lenses (with OSHA-specified center thickness of 3mm), though they cost about $70 more. My optician attended a course where it was stated that a polycarbonate lens blank did not shatter when shot by a .22 caliber bullet from 30 feet.

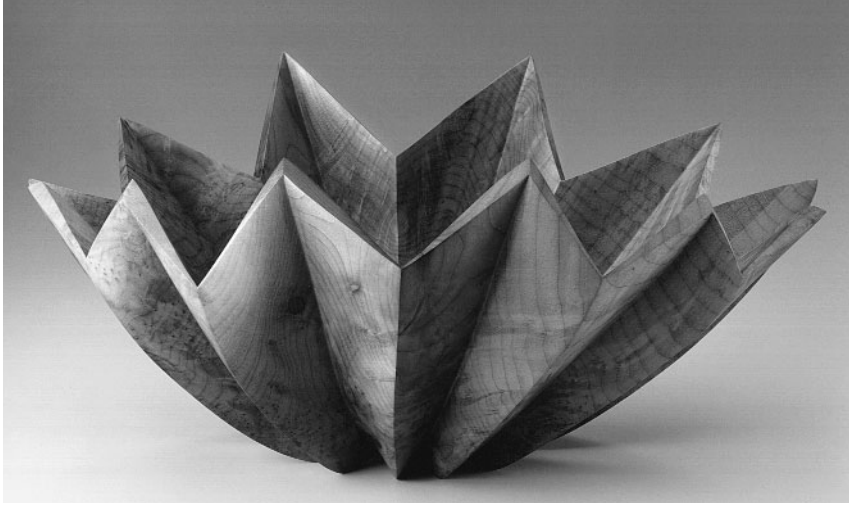
Frames should be rugged too, preferably with side shields. There are some polycarbonate goggles available that can fit over prescription glasses. Ideally, face shields should be polycarbonate—the best product I've seen is the Air Mate 3 system, which has a polycarbonate face shield and an air filter system (down to 5 microns). But even inexpensive glasses, goggles, and shields are better than nothing.

Contact lenses are no protection; the soft ones offer no resistance, and the hard ones can shatter. Either type can entrap dust or particles and act as sandpaper on the eye. Sudden, startling pain plus a chisel in the hand is not a good combination.

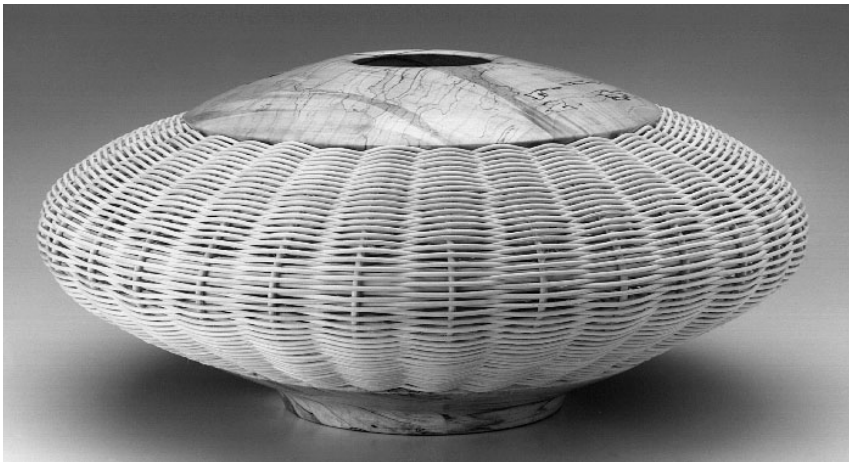
Wiping with anti-static cloth, such as "Bounce," over goggles and shields is said to decrease dust build-up.

Turning actually presents a double whammy: First, the hazard of flying chips, dust, shavings, fragments from disintegrating bowls, missiles from faceplates, hidden foreign bodies within the wood. Second, the grit and metal particles from grinding and sharpening tools. Glasses and/or a face shield should be used during both.

—Lee Elgin, M.D., Ophthalmologist
Thanks to North Florida Woodturners, in whose newsletter this article first appeared.



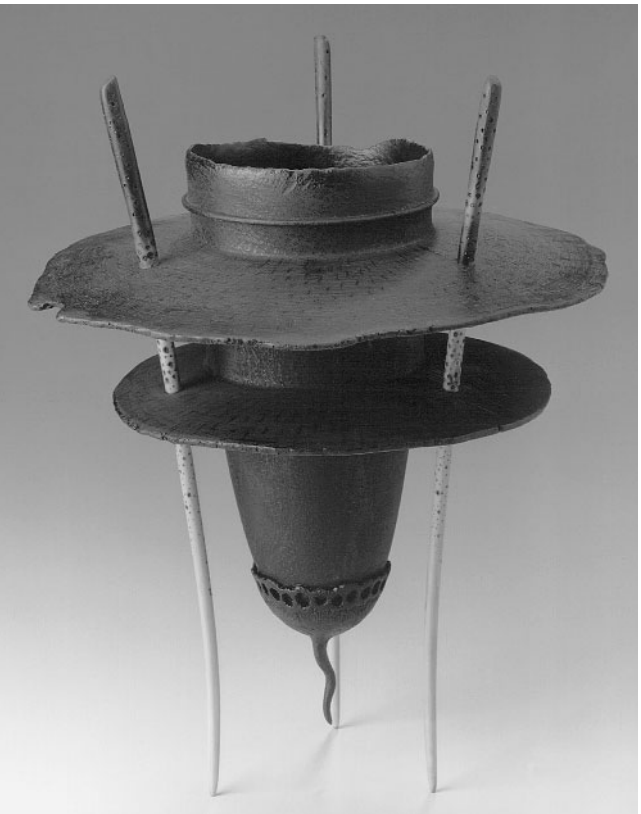
David Groth's "#2," Cock's Comb Oyster series, 1984, above: Carved myrtlewood, 9" high. Ron Wornick's Untitled [basket vessel], 1994, below: Spalted maple and woven reed, 16" dia.



David Ellsworth's "Machel," 1991, above: Turned, cut, and painted ash, 18" high. Stephen Hughes' "Zanthorean Offering Vessel," 1993, below: Turned, carved, burned, and formed W. Australian grass tree and huon pine, 15½" high.

Expressions in Wood

Masterworks from the Wornick Collection



IF ART IS WHATEVER GETS TREATED AS ART, the contemporary wood vessel is well on its way. The Oakland Museum of California, a major regional museum, is exhibiting sixty-one pieces by forty-two makers (most of them woodturners) from the Anita and Ron Wornick Collection through July 20. Says Wornick: "Our collection, and this exhibition in particular, is intended to celebrate unique examples of the recent shift away from lathe-focused technique-obsessed vessels…. We see a burgeoning new field of artists who are creating boundary-breaking works often with complex sculptural possibilities." A full-color, book-length catalog accompanies the exhibition, with critical and historical essays. For more information, call 510/238-2200.