American Woodturner

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CARVED TURNINGS

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

Time to Consider Election Reform

How important is the quality of the board of directors in an organization such as our own? Because it is our governing and administrative body, as well as a team performing a good portion of the work that needs doing, the board's composition is a high priority, crucial to the success and survival of the AAW. Many organizations—national and local—have declined or collapsed under flawed leadership or administration. A competent board begins with the board selection process itself.

When our by-laws were enacted back in 1986, the criteria for board selection needed to be general and open-ended to meet the needs of a new organization. After the first year or so, it became difficult to find individuals willing to run, the election process itself was often fraught with problems, and few members voted in board elections.

Things are different now! In the last election we had ten candidates, the election process has become systematic and smooth-running, and a high percentage of the membership votes. So what could be wrong?

To begin, anybody who wishes to run for a board position in the AAW may do so—a candidate doesn't even have to be a member of the AAW! There is no screening process, not even a review of a candidate's ability and motives. Unless they know a candidate personally or by reputation, members have only the candidate's statement in the journal on which to base a vote. This may sound equitable and democratic, but it poses serious organizational problems. Among them in the recent election were the following:

- The slate of candidates was unnecessarily and confusingly large.
- The honesty and accuracy of some candidate statements were questioned.
- The statements provided insufficient information to make an intelligent choice. (One member said, "They all sounded great"—and therefore decided not to vote!)
- The achievements even of sitting board members seeking re-election were indefinite.
- Campaigning posed a dilemma: how much is appropriate?

The board has been studying these problems and researching possible solutions. As far as we have been able to determine, we are the only craft organization that has such an open policy for filling board positions. In one organization a candidate must have letters of nomination from ten individuals. In another, a candidate must be present at the annual conference, where nomination and seconding must come from people other than the candidate; statements are given and voted upon—but with considerable work beforehand to ensure the qualifications of those nominated. By far the most common method we're aware of involves a nominating committee, who encourages capable individuals to run and screens everyone who seeks a seat on the board.

We are at a critical juncture in our short history, having matured enough as an organization to require a more careful, sophisticated election process. In response to the problems encountered in the last election, the board has agreed on the need for reform. The membership, in phone calls and letters, has signalled support for the idea. The important question is in which direction shall we go?

At our last board meeting, we formed a four-person task force to research the options and make recommendations. We intend to present a referendum to the general membership later this year aimed at amending the bylaws.

Whatever the proposal put out for ratification, a number of concerns must be balanced. We must encourage good candidates without turning away unexpected talent. We must guard against the process becoming too political, allowing only insiders the chance to run. We must ensure that the qualifications of those who run are valid and obvious to the voting membership. We must have a meaningful choice in the election, not an overwhelmingly large one.

All this makes the nominating process critical and a nominating committee essential. Such a committee would represent the best interests of the AAW. Its members would have to be individuals whose integrity and reputation for fairness are sound. Their job would be to seek out promising candidates and to review the credentials and statements of intent from everyone seeking a seat on the board.

I personally believe that such a review should be required of any sitting board member who decides to run for re-election.

All this entails expanding our notion of fairness. Fairness ought to apply to more than those desiring a seat on the board. Certainly it seems fair and democratic for anyone who wants a shot at the board to be able to step up to the line. But there is also the issue of fairness to the organization and the membership—we deserve a good, strong board; we deserve to choose board members from qualified people; and we deserve to base our decisions on reliable information regarding a candidate's credentials and committments.

I would hope—both as a board member and general member—that any candidate would have the time, energy, and talent (as well as a heart in the right place) to benefit our organization—not an unattainable goal!

—Alan Lacer, President of the American Association of Woodturners

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On the cover: *Alan Stirt uses a pneumatic chisel to texture a bowl rim. For more on carving woodturnings, see the articles beginning on page 12. Photo: Rick Mastelli.*

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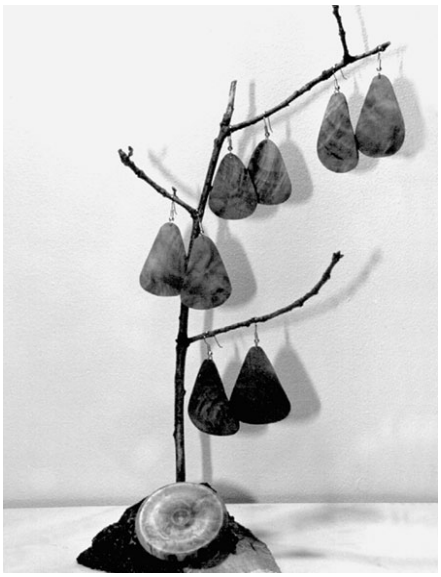
Just one more cut

It's always that last cut that ruins everything. You know what I mean, "just one more cut and it will be...oops! Oh darn!" Another piece for the fireplace—or is it?

Last week I was turning a beautiful cherry burl that I had rescued from a woodpile into a hollow form. I started shaping the outside and really took my time to get it just right. Actually, it was snowing, again, and there was 14 inches of fresh snow on the ground, so there wasn't anywhere I was planning to go. I turned the piece of cherry to about 7 inches in diameter and 5 inches high. I then sanded it, and put a layer of thin Hot Stuff on the exterior (it makes a great sealer for finish sanding) and the piece looked great. I started hollowing it out and was doing rather well. The burl had been cut over two years ago and had been kept inside but was still pretty green so was easy to turn. I had drilled a hole in the center of the piece to make it easier to know when to stop and so I wouldn't have to deal with that troublesome nub. As I hollowed I used the "David Ellsworth" process of using a bent wire to measure the wall thickness, (explained in his article, "Shopmade Turning Tools" *American Woodworker* #36, Jan/Feb 94) and that was working pretty well also. I had turned the top two-thirds of the piece to about a $1/4$-inch wall thickness and moved on to the bottom third. I was having some trouble getting a smooth cut at the transition point where the side meets the bottom of the piece. I took a measurement with my homemade tool and decided it was pretty good except for one spot near the bottom where the wall was just a little thicker. "OK I'll just clean up this one last spot, part it off, clean up the bottom, and I'll be done." Well, you all know the rest of the story! I not only cut through the wall but the piece flew off the lathe, hit the floor, rolled under the lathe, between my legs, bounced off the air hose, and went through the doorway to the next room! I retrieved the piece, looked at it despairingly and placed it on a shelf in the corner. It was a beautiful piece of wood, and I wasn't ready to put it back on the woodpile just yet.

That night, just before falling asleep, a thought hit me that just might allow me to salvage at least some of the wood.The next morning I got up early, went into the shop, picked up my piece of cherry burl and took it to the bandsaw. I cut the piece so I was working with the top third and then cut this into eight roughly equal pie-shaped pieces. I used double-sided tape to hold together my pieces in pairs. With a belt sander I smoothed and rounded the edges of each pair. I then removed the tape and hand-sanded the underside of each piece. I applied a coat of finish and drilled a very small hole in the top of each piece. I now had four pairs of earrings that needed only a trip to the craft store for inserts to be completed. It really made me feel good to know I was able to make something from my mistake. All it took was some creativity and persistence.



Moody's salvage: an earring tree.

Additionally, I was able to make several matching pendants from the wood still on the lathe. Okay, so I turned a rather good-sized burl into a few pieces of jewelry—at least it didn't end up on the woodpile. Besides, now I have birthday presents for my sisters and mother!

—Karen Moody, Kinnelon, NJ

Pens only for friends?

In the March issue there is a tip on page 11 concerning pens that bothers me—a lot. If the pen mechanism has been installed too deeply, the fix isn't to adjust the refill; it's to scrap the pen! The purchaser will need to replace the pen refill eventually. He or she will not know that the refill must be disassembled and FIXED.

—Jerome J. Vaillancourt, Newton, WV

A page here or there

I enjoyed reading the forum on plagiarism and creativity in the March '94 journal. It was interesting to see the different opinions. I believe John Jordan covered it well.

But as I turned further, low and behold on page 13 I saw a piece that was submitted (and I assume accepted) into the AAW's first national show. The piece pictured is almost a direct copy of a piece that I produced for *Fine Woodworking,* March '93. Copying to learn is one thing, but entering a competition…quite another!

As a designer and sculptor for more than forty years, I have found that your career is pretty much over if you copy someone else's work. As an artist, demonstrator, and teacher, I try to convey to students how to achieve design ideas, the technical skills it takes to create these ideas, and how they can apply these ideas

and skills to what they are trying to produce. The bottom line is not to copy but to develop one's own creative ability.

I have worked hard at not copying others and have always believed that by the time someone copied my work I would be further down the road. Copying only serves the person doing it and shows that that person is not ready to attempt his or her own ideas and self expression.

—Ron Fleming, Tulsa, OK

And another view again

Your plagiarism/creativity forum makes me think back to the 1970s and an art professor who proposed that creativity and originality come from the obscurity of your influences. Woodturnings naturally have similarities, by virtue of the process and material used. Yet it seems to me that they fit into one of two categories: traditional work, with roots in functionality, and artistic expressions. Actually, "traditional" work is often so far from being functional that perhaps "decorative" is a better term.

When I read a concern for plagiarism directed at a decorative work, whether it regards its form or surface treatment, I want to pull down some art books on Greek ceramics, Chinese pottery, the American glass movement, or maybe just an archaeology text, and relax. Maybe it's just who does the best job of marketing that makes the difference.

Regarding artistic expression, cutting-edge work sometimes has a disproportionate effect on everything else. During a discussion with a turner getting ready for this year's AAW symposium, he questioned whether he should carve or otherwise modify his pieces; last year nobody noticed his work. But I noticed it. It was what I'd call decorative, well-done technically, with a great deal of turning in it that was not evident on the surface. One piece had reversed threads, for instance, an interesting twist. It made me think of the decorative potters who make objects of great personal commitment, but who are not recognized because they are not on the cutting edge. Traditional, decorative work is our foundation. Without tradition, the avant garde will have no impact. Not everybody has to do cutting-edge work. You need to work from where you are sure.

—James Tracy, Fridley, MN

Lathe looking for new life

I love older basic woodworking tools and giving new life to them, particularly stationary power tools. I recently acquired an older wood lathe that neither I nor anyone I've talked to recognizes.

The machine is all cast iron with no identification plates or casting numbers. The 45-inch bed has two raised, flat ways: the front one is narrow, and the rear one is tapered. The ball-bearing-equipped headstock is $6\frac{1}{2}$ inches long, and the centerline is $6\frac{1}{2}$ inches above the bed. The drive system has a step pulley with a tapered $2\frac{1}{2}$-inch drive collar built into it. Now the hard part: It appears to have a fiber-lined, tapered drive clutch which slides along the headstock shaft to engage the tapered drive pulley and drive the headstock shaft. So far, I'm not able to figure out a system to engage and disengage the drive. That part seems to be missing. Neither have I been able to locate a source for the tapered drive-cone system.

If any readers know what kind of lathe I have, or how this drive system works, or whether parts of this type are available, I would sure appreciate hearing from you.

—Darwin Taylor,
2937 W. 1900 N., Ogden, UT 84404

Turning bibliography

It was nice to find "Woodturning Books and Videos" at the end of this year's *AAW Resource Directory.* Besides turning on my two heavyweight lathes and two Belgian-made oval lathes (like the ones in the Old Schwamb Mill Museum in Arlington, MA), I am also collecting all books, in every language, related to woodturning. These include the turning of ivory, vegetable ivory, bone, stone, and plastics—everything but metals. I hope in a few years to be able to publish, in English, a worldwide bibliography of all these publications.

Therefore, I'd love to hear from fellow AAW members who are collecting or trading woodturning books or who can otherwise add to my bibliography. I find that books from Scandinavia, Spain, Italy, South America, and Eastern Europe are particularly difficult to come by.

—Raymond Geerinckx,
Avenue di la Tendraie 25,
B-1421 Ophain-Bois-Seigneur-Isaac,
Belgium

Double your pleasure

I came to America last November and was able to spend some time as a house guest of Donald Loveless, a past president of the Georgia Association of Woodturners with whom my own group, the Norfolk Society, has twinned. I recommend that your readers look into twinning, as it offers a chance for exchange visits, working much the way sister-cities programs do. We exchange newsletters, photos of members' work, and ideas regarding what succeeds and what doesn't. It turns out that we are all very much alike, yet with different perspectives to share. I hope more of us will get to visit with you, and we extend invitations to our friends in Georgia.

—John G. Holyoak, Norfolk, England

WHY TURNERS SHOULD BE COLLECTORS

IF YOU'RE A PROFESSIONAL WOODTURNER, you should be a collector, and not just of your own unsold work. After all, who is more qualified to spot technical virtuosity and aesthetic merit in a turning than you who strives for these very qualities day in and day out? Using this expertise, every one of you should judge and save your own fine turnings and then barter, trade, or finagle the works of your most admired, innovative, and creative associates. The resulting collection will grow to have historical, artistic, and technical interest, and serve as an inspiration. The work will also acquire investment value.

Understandably, in the short term, you may balk at setting aside especially successful works. I asked one turner who is currently establishing a national reputation if he saves aside some of his best works. His initial reaction was somewhat defensive, as he righteously explained that he sells everything he can in order to support his family and cover shop overhead. Nevertheless, when I suggested that he could not afford not to withhold some choice turnings, he was surprisingly open to the concept. "I'll have to give that idea some thought," he ventured.

No woodturner casually risks the possibility of loosing immediate sales in a business where money generated is so vital to daily operation. Inescapably, this is the gamble you must risk to assemble a collection that documents all the phases of your professional career. But when that invitation for a retrospective exhibit comes along, you'll be ready with your very best, never-beforeseen, turnings. Furthermore, a personal collection of woodturnings has incalculable heirloom value to your family long after the lathe stops spinning. From these points of view, is it worthwhile to keep three or four of your proudest works off the market each year? The prices that those works would have fetched is moot, or, if it is not, you should work late to turn out the deficit. Personal collecting is worth such effort in the long run of your career.

The monetary value of a turner's collection grows in direct proportion to his or her experience and reputation. The statistics gleaned at three galleries, one in Philadelphia, one in Washington, DC, and the third in Atlanta, confirm that the prices commanded by their best-known, most experienced turners have increased by 50 to 300 percent over the past five years. The clearly superior turnings have shown the greatest price gains. The reason for the price increases became evident at a seminar sponsored by the Harvard Business School for New York gallery owners. Without exception, represented galleries admitted that the only way they make money is to buy the work of unknown artists and then strive to increase their visibility and reputation. Once established, these artists command more, much more, in the marketplace.

You need not wait for some high-caliber, aggressive gallery to plug your work and pump up your prices. Craft galleries tend to attract modest attention in our culture, so representation does not guarantee swift renown. But museums have begun to recognize the artistic value of crafts. You would be wise to contact them yourself about acquiring (or accepting) a representative work. Just send slides to the curator in charge of acquisitions and request an appointment. Being in a museum's permanent collection will definitely enhance both your resume and your exposure.

Another means of increasing fame, or at least name recognition, is by having photographs of work published in prestigious magazines. To achieve this result you need to provide editors with a context and irresistible material. Start with a biography, artist's statement, and professional, very professional, photographs. It's unavoidable: in most publications it is the best photos—not necessarily the best work—that are published. Send dynamic work in a terrifically professional photograph. For such premium exposure, getting published in *American Craft*, for instance, is worth considerable effort.

One more suggestion: accept invitations to give both slide lectures and demonstrations. These exercises are helpful to the public and often generate sales and publicity. Once you participate in even one such event, further invitations will follow.

These suggestions call for a level of commercialism that may be uncomfortable for you. Nevertheless, increased exposure will not necessarily result in decadence. Appropriate career management will increase the value of both your current work and your private collection.

Collecting works by fellow turners can be fun rather than work, yet this activity has significant rewards. Some turners change axis with uncanny skill. Some are renowned for their secret, lustrous finishes. Others turn raw, robust forms. Quite a few have focused on small-scale work. Some are involved in decorating the turned surface with cutouts and paints. Owning a variety of such turnings can be a joy, an education, and an inspiration.

Acquisition is usually accomplished by trading special pieces. For the collection's sake, barter for quality and not just souvenirs. Make sure

that the artist has signed and dated the traded piece. If you explain the purpose, scope, and serious intent of the collection, you might just make a better trade. If mere talk fails, try placing an irresistible burl on the negotiating table.

You should be able to assemble a handsome collection of turnings in the course of your everyday work, whether from your own production or by remaining alert to opportunities for exchanges with others in the field. Regard collecting as a valuable long-term interest, a rewarding hobby, not a chore. The ground rules for establishing and enhancing your collection are simple, logical, and flexible:

- Collect representative work from all phases of your career.
- Save your best pieces of all styles at a modest rate of three or four pieces per year.
- Feel free to upgrade any piece with another of the same period.
- Be alert for opportunities to enhance your professional reputation.
- Keep a record of your selling prices so that you can track the worth of you collection over time.
- Examine your collection periodically in order to gauge your technical and aesthetic growth.
- Collect a variety of works by those you most admire in the field. An exhaustive survey is not needed, just enough work of others to expand your view of the field.

"I cannot afford it" is an invalid reason not to collect. "I am not interested" may be honest, but it's counterproductive. "I can't afford not to" is the realistic response of the professional woodturner with an eye to the future. *—Judy Coady*

Judy Coady is a crafts collector in Washington, D.C., and is active in crafts promotion.

Texas Basics Roundup

Hands-on opportunities abounded at the San Antonio Mini Symposium. Here participants practice their tool-grinding skills.

Alan Lacer, Bonnie Klein, Nick Cook, and Clay Foster rode into San Antonio last March 26 with their gouges and skews drawn, intending to get "hands-on" with the locals as well as some not so local. They followed through with two days of action-packed demonstrations organized to elicit the maximum participation from each attendee. Anyone who left the symposium with a dull tool, without a self-made object, or wanting better understanding had only himself or herself to blame.

Fifty-four folks soaked up all the ideas and tips from the prescribed presentations, and on Saturday afternoon provided sufficient feedback so that the demonstration team could put together additional Sunday sessions geared to the participants' specific needs. Each demonstrator had a session in the hands-on area to augment his or her prepared presentation, which also often provided hands-on opportunities. Sessions were structured to ensure that all participants' questions were answered, and discussions were free-ranging.

Pat Titus, Gary Roberts, and his wife, Gene, handled the registration, while several members of the Alamo Woodturners Association acted as support staff to the demonstration team and the participants. The symposium was held in a local high school that allowed each demonstrator his or her own room. Additionally there was a hands-on area equipped with three Powermatic lathes, two Record lathes, four Klein lathes, and all the ancillary equipment needed to cut, turn, or sharpen as the need arose. Special thanks go to Clayton Cochran who helped acquire the lathes and to Chip Taute who handled arrangements at the high school.

Saturday evening found everyone, including spouses, gathered at the "County Line" for all the barbequed beef, chicken, and trimmings we could eat. Unannounced door prizes from the Alamo Woodturners Association and the San Antonio Woodcraft Supply Store were awarded to three surprised participants, one of whom just happened to be a gentleman who had traveled all the way from Laramie, Wyoming, for this event. Each demonstrator was presented a laser-engraved walnut plaque in the shape of Texas as a thank-you momento from the local chapter.

—C. D. Barrington, San Antonio, TX

Directory Leads to Overseas Visit

Every member of the American Association of Woodturners does not live in the United States. I joined in 1992, and I really didn't know the area our organization covered. However, in September of that year, planning a trip to Israel, I decided to see if any members lived there. Yes, as I looked in my new Resource Directory, I found Norman Teman of Pardess Hanna, Israel. Pardess Hanna is a small town about halfway between Tel-Aviv and Haifa, a few kilometers off the Mediterranean Sea and not far from the Carmel mountain range.

Nisan (Norman) Teman, exemplary AAW host in Israel.

I wrote Norman (who I now know by his Hebrew name, Nisan) in December of my impending trip. I received an exuberant reply with an invitation to visit and to stay over if I wished. Nisan wrote that he had taken a General 260 lathe and a mid-sized Delta lathe when he moved from Oregon to Israel in 1986. He also took hundreds of bowl blanks that were green when he left. Some of the blanks were partially turned and still on faceplates. He had yet to unpack them.

Nisan told me that he had made many of his own tools, faceplates, and even a few lathes over the years. He had become adept at metalwork after taking a metalworking course a few years before. Well, now I was very excited about meeting this man.

I left for Israel on February 17. As this was my fifteenth trip, I was anxious to rest, visit friends, and have new experiences. I had arranged with Nisan that I would drive to a train station near to him where he would meet me. I would follow him home. I knew as soon as he came that I liked him, for he was quite punctual.

We sat and visited over coffee at his home for several hours. Later, Nisan, Adi (his son), and I went for falafel. They said it was the best in Israel, and it was.

Later in the afternoon we visited his workshop, or rather the area where he will set one up. It is about 24 feet by 24 feet and on a concrete slab. It contains his vast library and a storage room, which are enclosed and take up about one third of the space. The rest is open to the outdoors. He intends to enclose the workshop someday, but now the lathes are protected only by a corrugated roof. I understand open workshops, as mine is a garage without doors. When it rains, snows, or gets windy or cold, it all comes in and I cannot work.

I asked Nisan what turning is like in Israel. He knows of very few turners. The best, Dannie Agron, died a couple of years ago. People do not buy turned objects as art work; they buy only functional pieces. Most turning is done to support other art forms, to repair furniture, or to make other useful things.

Nisan encouraged me to visit a shop called Catriel in Jerusalem. We live in a small world, you know, and this shop is owned by Casey Sugarman, who was a youth-group leader with Nisan when they both lived in New York. Casey is probably the best turner and craftsman I have ever seen. He works in silver, mother of pearl, ebony, rosewood, pink ivory, and other exotics to make Judaic ceremonial religious objects. He turns on a beautifully restored Holtzapffel lathe, circa 1850.

Woods used for turning in Israel include maple, olive, Israeli oak, eucalyptus, and imported exotics from Africa. I managed to bring a few pieces of olive wood back from an Arab village in the Upper Galilee. They are not large, as I could not get a saw to cut off the sapwood.

Nisan has not turned since moving to Israel. I brought him squares of Osage orange and bocote to whet his appetite. He did say he'd bought a grinder to start cleaning off the 260's rust. By day he is a police detective in Tel-Aviv and works extremely long hours. He took the day off to be with me. That evening we had a wonderful dinner at a restaurant in Hadera with friends. At 5:30 the next morning, Nisan left for work.

Nisan Teman is a special man and turner. Meeting him was what our organization is about. I made a lifelong friend whose openness I admire. I hope we all can be as good to strangers as Nisan Teman was to me.

—Stanley M. Harris, Atlanta, GA

This article was adapted from the newsletter of the Georgia Association of Woodturners.

LAST YEAR, TURNERS' TIPS ANNOUNCED its first annual Turners' Tips Contest. It was disorganized, late, not too well thought out, but to my mind a great success. We had some very nice responses when the contestants received their prize turnings. Now I would like to announce the Second Annual Turners' Tips Contest. It may be late in the year, and I have no idea what the awards will be, but it's not too late to send in your tip!

Regarding questions, John Jordan suggested that we have tips answered by some of the more well-known turners. In the future, if you have a question for a specific person, I will endeavor to contact that person for an answer. Please be specific with your questions.

Send your tips and questions to me at RD1, Box 30, Bloomsburg, PA 17815.

—Robert Rosand, Tips Editor

Reincarnated sanding discs

I use 5-inch pressure-sensitive adhesive sanding discs on homemade backed disc holders for most of my finish sanding. I also have 3-inch disc holders as well as 2-inch and 1-inch holders for small bases.

Most of the wear on a sanding disc is on its edge or outer rim. As my 5-inch disc becomes less effective, I transfer the paper to the 3-inch disc holder, trim off the worn outer edge with scissors, and presto: a new or almost new 3-inch disc. When the edge of this disc wears out, I get another couple of lives out of it using the 2-inch and 1-inch disc holders.

If I cannot transfer to a smaller holder immediately, I just stick them on wax paper to preserve the pressure-sensitive adhesive until a smaller holder is free.

—Rodger Jacobs, Newland, NC

A round skew

I read in a recent issue of *Woodturning* that round skews are becoming increasingly popular. It seemed like an idea worth trying, but I didn't notice any advertisements for this type of skew. My solution was to purchase an Irwin HSS extended drill bit for about $8 or $9. I cut off the drill portion (obtaining an extra drill bit) and epoxied the remainder of the bit in a handle. After a couple minutes of grinding, I had my round shafted skew. Tim Carr tested the steel and found that it was a bit softer than other high-speed steels; tempering took care of that problem. All in all, I am pleased with the tool, definitely worth experimenting with.

—Robert Rosand, Bloomsburg, PA

Picky picky

On natural-edge pieces, how do you remove the bark? Next time you go to the dentist, ask for any old picks and scrapers. They usually have a drawer full. For safety sake, ask that they be sterilized before taking them.

—Clayton Cochran, San Antonio, TX, reprinted from the newsletter of the Alamo Woodturners Association

Faceplates from pipe flanges

For owners of lathes that have spindles with $^3/_4$-16 threads (eg. AMT, Carbatec, Klein, Record, and Sears), faceplates may be made very easily by tapping a $^1/_2$-inch pipe floor flange with a $^3/_4$-16 tap. A $^1/_2$-inch pipe thread ($^1/_2$ npt) has 14 threads per inch and a pitch of .071 inches. A $^3/_4$-16 pitch equals .0625 inches. Tapping the flange from the large end of the existing thread (pipe threads are tapered) will "chase" it and make it fit a $^3/_4$-16 spindle quite nicely. It will be somewhat loose, until it sets against the shoulder of the spindle, but is quite capable of holding anything that anyone would use on machines of this size (usually limited to a 12-inch swing).

Floor flanges cost approximately $2–3. Larger faceplates are made from $^3/_4$-inch floor flanges using a reducer ($^3/_4$-inch pipe to $^1/_2$-inch pipe) and tapping the reducer to $^3/_4$-16. All these are readily available at local plumbing suppliers/hardware stores. The $^3/_4$-16 taps from machinery/hardware suppliers are about $13-$16 (hand tap, $^3/_4$-16, H3, Plug or taper). Use a little oil when tapping and it will be able to chase flanges for at least one lifetime, probably two or three.

—John H. Moore, Ipswich, MA

Magnetic chuck key

I use my Makita angle drill for power sanding. The chuck key was never in a convenient place when I needed it. Placing a powerful magnet on the side of the lathe tailstock solved that problem. The magnet is a high-energy, ceramic item available from Radio Shack. Stock number is 64-1877.

—Charles Brownold, Davis, CA

Dear Herb: On finishing

Editor's note: Founding member Palmer Sharpless has a woodworking son named Herb, whom he periodically advises in fatherly letters. In occasional contributions to the Tips column, Sharpless will share these missives with us, each on a different woodworking topic.

SO YOU WANT TO KNOW HOW I'M putting finish on my bowls now? I taught you to use Waterlox varnish and build a smooth finish by rubbing with steel wool and four or five coats, letting each coat dry at least overnight. That takes a lot of time and also adds an amber cast to lighter woods such as holly, maple, dogwood, and box elder.

With the emphasis in woodworking circles now on the environment and the new materials available, I decided a year ago to experiment with water-based polyurethane, aiming for a good result while decreasing finishing time.

Carver-Tripp has three kinds of

TURNERS' TIPS

water-based polyurethane. First I use the sanding sealer to build four or five coats while the bowl is still mounted on the lathe. This allows sanding with 220-grit garnet paper between coats. Because the piece is warmed by sanding, the coats dry rapidly, and in 15–20 minutes the piece is ready to resand and recoat. After the surface is built with the sanding sealer, I apply one coat of the gloss product, Super-Poly (though sometimes I use the satin finish, instead). When this dries, sand with 220- and then 320-grit and then use Scotch-Brite for the final polish. Paste wax, spread thinly and then polished right on the lathe, brings up a very fine luster, ready for presentation or use.

A couple of hints go with the system. Sand each coat until it is very smooth before recoating. Because the water-based finish dries so rapidly, you must not rebrush or stroke out when applying it. I have found that the best applicator is a $1^1/_2$-inch foam brush. Also, the can this finish comes in presents a problem since the accumulated finish in the rim dries and makes it difficult or impossible to reseal. My solution is to pour a working amount into a plastic peanut butter jar, about 2 inches worth, add an applicator (even if you have to cut a little off its handle), and use the plastic lid to seal all when not in use. I label the jar and reseal the remaining finish in the original can for storage. I use the sanding sealer, the satin finish, and the gloss-exterior grades, each with its own "user container."

The system ties up your lathe for a while as the coats dry but I make use of the time by doing other work around the shop. I glue chairs (always fun), turn on my smaller lathe, chop firewood, pull weeds, sweep the shop, anything to keep me busy while I build coats and sand them down—about an hour.

This finish is water-white clear, has good scratch resistance, and is immune to soap, water, and detergents. With a little practice, it's very easy.

—Palmer Sharpless, Newtown, PA

PRODUCT REVIEW

P/S 500 Thin-Kerf Parting Tool, *Beech Street Toolworks, 440 Beech St., Los Angeles, CA 90065, 213/223-0411; Fax 213/223-1420. $84.50.*

I BEGAN USING THE P/S 500 THIN KERF parting and sizing tool early last year. I have used it primarily on bottle stoppers, perfume bottles, and other small lidded boxes where a close grain match is deemed essential to the overall quality of design. In a nutshell, this is one dynamite parting tool!

With a blade width of .062 inches, this particular model wastes very little wood and ensures as close a grain match as possible. If the design happens to incorporate a bead and or cove at the top-base junction, the match is, for all practical purposes, perfect. Although I have not used it, the model P/S 250, designed for miniature work, is advertised as having an even thinner kerf of .040 inches, which is thinner than a dime. A third model , again not reviewed, the P/S 1000, is a double-bladed parting/sizing tool.

The model supplied for this review, the P/S 500 came with a well-balanced handle, beautifully made of cocobola from a sustained-yield-managed forest. The brass ferule is quite heavy and well lacquered. The shaft that holds the cutter appears to be epoxied into the handle for a unitized fit and feel. The cutter itself is T-shaped in cross section and slides in a pair of channels precision-milled in the shaft. A series of small setscrews holds the cutter firmly in place, allowing the turner to adjust the depth of cut quite easily, the blunt end of the shaft acting as a stop.

One word of caution: Due to the thinness of these cutters, the more cutter that extends beyond the housing shaft, the greater chance there is for the blade to break, especially if aggressive cuts are taken. Due to the inherent sharpness of the M2 steel used, I have had no occasion to use other than the lightest pressure to obtain superior cuts. When used on woods such as apple, cocobola, bocote, and other dense woods, the shavings (not dust!) make small, beautiful piles of ribbons of wood. This has the added bonus of minimizing tearout and subsequent end-grain sanding.

I have used this tool to make literally hundreds of bottle stoppers, perfume bottles, small lidded boxes, and small bowls. Sharpening requires a light touch on a trued, well-maintained grinding wheel. Even though I own two other parting tools, I reserve their use for larger bowl and spindles more than 3 inches in diameter. When turning small production runs, the P/S 500 is an automatic choice. Give it a try; it may become your parting tool of choice, too.

—Dick Gerard, Indianapolis, IN

WD-40 IS FORTY YEARS OLD! IT WAS originally formulated by the Rocket Chemical Company for the aerospace industry. The product developers were searching for a water-displacement (WD) solution and developed it on the fortieth try. The product turned out to be so successful that it was specified for protection of the outer skin of the Atlas missile.

The folklore about WD-40 began soon after the invention. It seems that the engineers working on the Atlas missile would take some home to use around the house. They found that it would protect their tools from rust, lubricate shop machinery, and even cure the sliding glass door from sticking in the tracks. Of course they told their friends about this new magic elixir. By the time WD-40 became available in a can on the store shelf, a consumer demand had been created.

WD-40 today is the same original formulation. In the early 1960s a light scent was added to overcome the smell that was displeasing to some customers. The product was packaged in the now familiar aerosol cans in 1955 and changed to an environmentally protective propellent in 1961. WD-40 became widely known when a truckload was sent to aid in the recovery from hurricane Carla in the early 1960s.

Woodturners have used and experimented with WD-40 probably since they first discovered its existence. Consider the following uses, gleaned from an informal survey:

Bill Owen of Oakley, OH, uses WD-40 for a sharpening oil on his India stones. Since he also wipes it on his tools after use and before storage, he doesn't even need to clean the edge before sharpening. After cutting green wood or wood with a high tannic acid content on the bandsaw, Bill cleans the table with a cloth dipped in WD-40 and sprays the blade to prevent rust. He has found WD-40 to be a magic elixir in cleaning a chain saw, too, as it is a good solvent for caked-on gunk.

Ron Kent of Kailua, HI, sprays WD-40 on drill bits and saw blades before cutting and has found that he gets cleaner cuts. He drowns his turning tools in WD-40, including the lathe bed and all the moving parts. He has also found that it works well on belts and sheaves—are you ready for this?—to *reduce* slippage. Ron, by the way, lives on a beach where rust and corrosion are a constant problem.

David Ellsworth of Quakertown, PA, and probably a lot of others (including myself) use WD-40 to condition the ways of the lathe bed. David gave the following description of his technique: When the surface of the lathe bed is protected with wax, a common practice on other woodworking machinery, the tailstock will creep away from the headstock under pressure and vibration. The tool rest may also slip, even if tightly locked down. First, clean the wax off the ways using a suitable solvent. Then cover the ways with green freshly cut oak or walnut shavings. Both of these woods have a high tannic acid content and are therefore excellent for rusting metal. After a few hours, perhaps overnight, a light, uniform coat of rust will form on the lathe bed. Brush off the shavings and coat the surface with WD-40. Wipe down the ways with a pad of fine steel wool (00 or finer, whatever is handy). The result: A hard, no-rust patina that gives great traction to the tailstock and toolrest when locked down and slides freely when unlocked.

Fletcher Cox of Tougaloo, MS, reports that his uses of WD-40 are rather conventional such as loosening seized parts. He also has a friend that developed a crick in his neck that just would not go away. Several friends suggested that he rub it good with WD-40 to loosen things up…but alas, to no avail.

Rus Hurt of Port Wing, WI, uses WD-40 as a degreaser/lubricant on carburetor butterfly throttles. He has also found WD-40 works well as a quick-starting fluid on his four-wheeler during cold weather. Since learning of the home remedy starting fluid, I've tried it on my stubborn old chainsaw. That baby started right up, even in bitter cold weather.

Speaking of cold weather, Rick Mastelli of Montpelier, VT, sprays his snow shovel with WD-40 before starting to dig out. The snow slides right off, making the job much easier. Since hearing of this use, I've sprayed my wood scoop and shop shovel and found that cleanup goes much faster.

Betty Scarpino of Indianapolis, IN, reports that she uses it in her morning cup of coffee—it "keeps them old joints moving more smoothly." Or so she says.

Rodger Jacobs of Newland, NC, coats all his threaded lathe parts with WD-40 *before* turning green wood. On the larger threads he also scrapes on a bit of wax. This treatment keeps the threads from freezing when the moisture from green wood creeps along the threads. He treats the screws on the tool rest, the tailstock, the headstock, and (don't forget) the set screws on tools the same way.

Lastly, I keep a can of WD-40 in view while working at the lathe as a source of inspiration; WD-40 was developed on the fortieth try and I find it often takes forty tries to get a turning just right.

—William L. Stephenson, Jr., Loveland, OH

From the Basics to the Sublime

Basic Woodturning Techniques by David Register. *Betterway Books, 1507 Dana Ave., Cincinnati, OH 45207. 1993. Paperback, 112 pp., $14.95.*

Woodturning Step-by-Step Techniques by Oliver Plant. *The Crowood Press, distributed by Trafalgar Square, North Pomfret, VT 05053. 1994. Paperback, 128 pp., $24.95.*

Woodturning: A Manual of Techniques by Hugh O'Neill. *The Crowood Press, distributed by Trafalgar Square, North Pomfret, VT 05053. 1992. Paperback, 192 pp, $24.95.*

Rarely does one get to look at a book thoroughly enough to assess whether or not it deserves a permanent place on one's bookshelf before dishing out the cash for it. I am happy to have had the opportunity to review these three recent arrivals from England. The past several years have provided a great number of books on woodworking in general. Woodturning has not been excluded from the barrage. Presently, we seem to be encountering what might be called the third wave of woodturning texts. If the first generation includes such classics as Dale Nish's *Creative Woodturning* and Peter Child's *The Craftsman Woodturner*, and the second generation such essentials as *Turning Wood with Richard Raffan* and Mike Darlow's *The Practice of Woodturning*, then what does this third generation offer that their predecessors didn't?

I looked at the three books from two perspectives: the physical nature of the books (what they look and feel like) and their contents (what they have to say and how they say it).

David Register's *Basic Woodturning Techniques* is a full-scale book. The layout is clean and the graphic balance among the visuals, the text, and the white space is pleasing to the eye. The photographs are crisp, clean, and well composed. They support well what the author is trying to say in print. An occasional line drawing, clean and simple, illustrates what does not lend itself to photography. In this book, there is a complementary balance between how the book appears and feels and the message, which I'll discuss shortly.

Plant's *Woodturning Step-by-Step Techniques* is a small-format book and as such it seems a bit jammed onto the pages. All of the illustrations are cleanly executed two-tone line drawings, not full of character. The book's format is a staggered arrangement of four illustrations to a page with explanatory statements of two or three sentences under each boxed drawing. A boxed title regularly appears at the top of each page signalling the topic under discussion. Plant's book has a generic, mechanical feel, at the opposite end of the spectrum from Register's more flexible, responsive structure.

O'Neill's *Woodturning: A Manual of Techniques* occupies the middle ground between the other two books in terms of look and feel. This book is of comparable size to Plant's and like his, the photos and drawings, which are almost equal in number, tend to seem packed together. The line drawings are cleanly executed and realistically rendered. The photographs, however, are inconsistent in contrast and sharpness, which compromises the author's message.

I see these books coming at the same subject from three distinct directions. Register's book is a text well organized for learning from. He explains things logically and carefully. The book is divided into two parts: Part One, to be read "before you lay out any money on equipment or materials;" and Part Two, on technique, "intended to be practised as a pianist would do scales." In Part One he adequately covers the lathe, the workshop, and other useful equipment. He talks about sharpness (well aimed at the novice) and wood (its structure and related properties). In Part Two Register covers spindle materials and layout methods before attending to spindle techniques. He does likewise for faceplate turning—materials and layout first, then techniques. His style is straightforward and thoughtful. He's always anticipating the next move he is about to make on a spindle or bowl. This is helpful when one is trying to learn from print. Occasionally he interjects what he personally may or may not do in a given situation; he does not force his opinion or legislate action. This book is not loaded with new information. However, it lives up to its title and looks, feels, and works like a book should.

O'Neill's book is loaded with information, too, but much of it is available elsewhere and in better form. This book clearly suffers from lack of organization. In his introduction O'Neill attempts to explain his approach to the subject but wanders into, out of, and around it. He does include many essential woodturning topics, such as getting started, woodturning tools, keeping an edge, holding the wood, working between centers, ornamental spindles, getting inside bowls, finishing and finishes, design, turning wood, choosing a lathe, the workshop, and health and safety. Note the order of that list; it's his. Besides being scattered, his attentions lack depth. This is not a particularly instructive book; it is not a book for the novice. As a compendium of techniques, it is fairly

comprehensive. It's just that they're all available elsewhere and in more accessible form.

Plant's book is the reduction of woodturning to the fewest words possible. It is a bland book and weak in its treatment of lathe history, tools, and the explanation of techniques. Plant offers many turning projects (most of the book) as examples of what one could produce on the lathe. All suffer from the generic design of the book and Plant's undistinguished approach to the subject of woodturning. Most, if not all, of the material in this book is readily available from far more comprehensive sources. Only for the most basic introduction to woodturning might you consider this book.

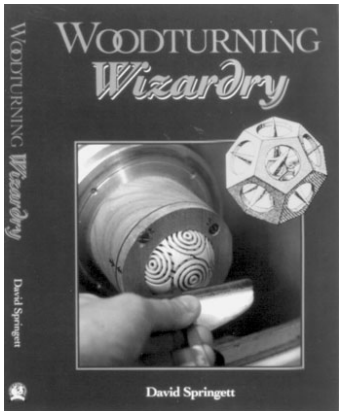
None of these books supplants the work already done by the likes of Nish, Child, Raffan, or Darlow. If you're a newcomer and want a first-rate instructional book, take a look at Register's book. If his future books carry on from where he left off in this one (this being the first of a series of three he plans) his efforts will be worth following and perhaps adding to the pantheon.

—Rus Hurt

Woodturning Wizardry by David Springett. *Guild of Master Craftsman Publications Ltd., distributed by Sterling, 387 Park Ave. South, New York, NY 10016. Paperback, 248 pp., $19.95)*

NON-TURNERS ARE USUALLY ASTONished when they first see a hefty lathe turn out work. At turning exhibitions, onlookers who formerly gauged their might according to the 3-hp rating of their plunge routers suddenly confront a brute world where horses, by gum, are HORSES. I've seen such open-mouthed spectators reverently approach a bowl lathe and pick up pencil-thick shavings to take back home as souvenirs. Shavings! Can you believe it?

For woodturners who buy boxes of lawn-and-leaf bags two or three at a time, *Woodturning Wizardry* will be a definite change of pace. Featuring intricate pierced and hollow work, it doesn't immediately suggest lathe work at all. In contrast to much of the work we're all used to, you could clean up after many of the projects in this book using nothing more than a Dustbuster.



The author, David Springett, makes his living demonstrating and turning out lace bobbins for the British College of Lace. If such heavy production work is his brutish daily toil, just imagine what he turns for fun, practice, and diversion. Not that all these projects are hard. The simplest is the familiar one-piece arrow through a bottle, a trivial trick that most turners already know (you crush the arrowhead, then later boil it back to full size). There's also a spherical jigsaw puzzle that looks like easy fun to make if you have a scroll saw; a whistling top; a Tunbridge yo-yo; a magic-trick prop; a set of stacking cones; and even "Pharaoh's Tomb," a cone pierced by intricate secret passages that a kid can roll marbles through (with luck). But the more advanced stuff, the heart of the book, is mind-boggling: a hollow pomander pierced by intricate ring designs, inside and out; interlocking latticework; a multi-pointed star, rattling around inside a hollow sphere; smaller spheres—or a cube, or even a hollow box—inside a sphere. The *piece-de-resistance* is double-interlocked, hollow, pierced spheres! These things look more like Escher drawings than real woodwork, but the author convinces me that they are possible.

Springett includes shopmade wooden chucks for holding the spheres, squares, and cones that begin the advanced projects. More experienced turners will be familiar with the principles of these, as well as with the techniques Springett outlines for regrinding chisels to reach inside hollow vessels. There's also, a bed-mounted, pivoting jig to turn the spheres themselves. Photos and step-by-step instructions lead the reader through each chapter.

Along with skillful tool handling, a little mathematical legerdemain is necessary. And I'd strongly advise buying an engraved 6-inch rule with a metric scale on the back to accompany this book. Inch equivalents are given, but of course they are rounded off every which way, and for complex projects like these that simply won't do.

My guess is that one turner in 500 will actually try the more ambitious projects in this book—one in 10,000 will take this book as inspiration and go on to surpass them.

—Jim Cummins

Rus Hurt is a professional turner in Port Wing, WI. Jim Cummins is a contributing editor of American Woodworker *magazine and host of two video workshops,* Small Shop Tips *and* Making Boxes, *available from The Taunton Press, 800/283-7252.*

FORM AND TEXTURE

Reflections on embellished turnings

ALAN STIRT

DESIGNING TURNED AND CARVED pieces is not essentially logical or conscious. Thankfully there will always be some mystery involved with the creative process. While acknowledging the non-linear aspects of the subject, I'm always searching for some rational explanations and rules to follow.

This past summer I was privileged to be asked, with Michael Hosaluk of Canada and Warren Hielscher of Australia, to be one of the international demonstrators at "Turnaround 1993" presented by the National Association of Woodturners (of New Zealand). The theme of the series of workshops was "embellishment."

My instant negative reaction to the word embellishment provided me with an opportunity to explore how I think about my work. All of my pieces start as turned bowls and platters. By carving on these "plain" pieces I am indeed embellishing them. This seems to be a fair and accurate description.

My negative reaction stems from my experience of the process of design. Shaping and carving in my work do not exist apart from one another, yet the word embellishment implies separation. For carved turnings to be successful, there must be a sense of the carving growing out of the bowl, not something tacked on at the end. The easiest way to illustrate what I mean is to talk about some of my pieces (pictured on the facing page) that incorporate carving.

The first, a maple burl bowl approximately 9 inches in diameter, was made in 1988. I laid out the carved pattern on the bowl by dividing it into eighty equal segments and then I carved the grooves using a 90° V-parting tool driven by a flexible shaft with a reciprocating end. The carving, although highly regulated, has enough unevenness to give the piece an organic feel. The exterior reminds me of a seed pod. I did not plan to get this effect. The organic feel was a fortuitous development, bringing together the wood, the layout, and the quality of the carving.

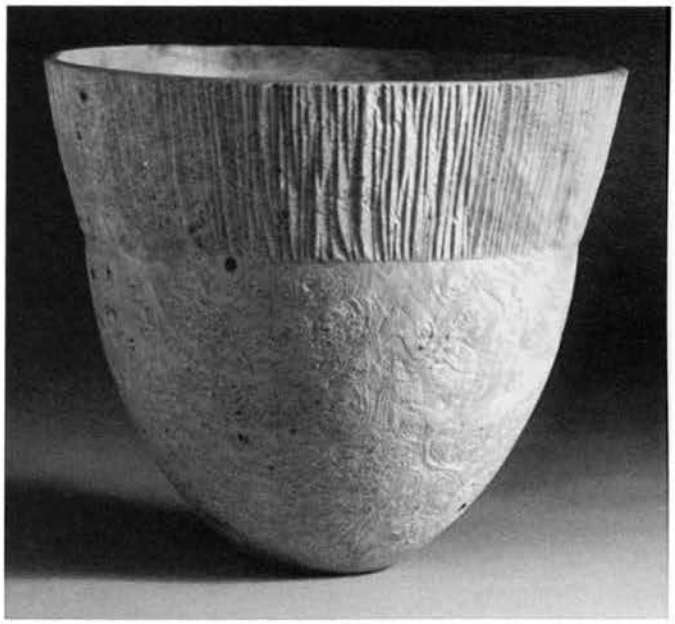
The second piece, done in 1991, is box elder burl and is about $8\frac{1}{2}$ inches in diameter. It was part of a group I call the African series because the shape and carving recalls some of the same feelings I have when viewing African masks and sculpture. I carved the top of the bowl in a loosely regulated way: the lines are vertical but tend to wander a bit and intersect. After carving I sandblasted the entire exterior to soften any harshness and add another layer of texture. The carved area is set off by a change of shape in the bowl. The vertical lines give some lift to the softly rounded curve of the bottom section. The whole piece takes on a feeling of quiet repose with an underlying energy.

The third piece, a cocobolo bowl made in 1993, is a variation on the fluted pieces I've done for many years. Most of the flutes on these bowls are left as from the tool with no sanding. Because of the angle of these flutes and the brittleness of the wood, I roughed these out with a gouge and then drum-sanded using 80- to 320-grit sandpaper. Again, the result seems to be more than the sum of its parts. The spiral flutes combine with the shape of the bowl and the distinct grain pattern of the wood to create a dramatic effect. In each flute the grain seems to be pulled like taffy, creating a certain tension. The pattern of all the flutes taken together create a rhythm as you move around the bowl.

The last piece, of yellow birch about 16 inches in diameter, I turned in the fall of 1993. It was inspired by Mike Hosaluk's use of sgrafito technique, cutting through a colored area to reveal the wood and create a pattern. When we traveled together in New Zealand, Mike kept gently pushing me to try some color with my carved pieces. For the piece shown, I took the basic form I'd been using for my "ceremonial bowls" and colored the rim—black. In-

Author textures a bowl rim using a pneumatic chisel.

Photo: Rick Mastelli



Four bowls illustrate a range of carved textures: Above, an organic balance is struck between the regularity of the V-groove layout and the relaxed manner of its execution (maple burl, 9 inches in diameter). Right, loosely carved and then sandblasted, this piece echoes an African feel (box elder, $8^1/_2$ inches in diameter). Below, the broad, spiral flutes seem to distort the wood's pronounced figure (cocobolo, 6 inches in diameter). And below right, sgrafito—carving through a painted surface—adds energy to the broad rim surrounding a quiet center (yellow birch, 16 inches in diameter).

stead of carving the entire surface of the rim with long spiral lines as I had done before, the color enabled me to spread the lines out and reduce the long lines to a series of dashes. The result resembles one of the sparking toys I used to play with as a child in Brooklyn, where you push a shaft back and forth and get a spiraling pattern of sparks. This pattern gives the rim a lot of energy and motion. It helps to lead the eye to the quiet center with its balanced grain pattern.

These explanations for why these pieces "work" came mostly after the fact. The combinations of shape, carving, texture, and color were largely chosen by hunch. Although I do some rough sketches, I usually need to make a piece before I can tell what will work (and what won't). While experimenting, I do end up with quite a few pieces I don't like. (I do heat with wood, however...) With practice, I find that my hunches lead to a higher percentage of successful pieces.

Alan Stirt is a bowlturner in Enosburg Falls, VT.

Photos: Alan Stirt

BASED IN JAPAN

Relief carving into the third dimension

BRENDA BEHRENS

I BEGAN CARVING WHILE LIVING ON A Naval Air Station in Atsugi, Japan. A Japanese woodcarver, Gingi Ishihara, offered classes at the community center on the base. His style of carving is called *kamakura kibori*—relief carving for plates and lidded boxes that is associated with the city of Kamakura. Gingi is from a long line of carvers and lost favor among his family when he began giving classes. It is not traditional to pass on Japanese crafts by teaching outsiders in weekly classes.

I studied with Gingi for two years. I learned the basics of tool technique—how to position and support the tool with one hand and to drive it with the other. The *kamakura kibori* style does not utilize a mallet to drive the tool but rather a strategic positioning of the fingers on the material and then controlled movements from the wrist and elbow. The approach constitutes an intimate, spiritually deep woodworking experience. It also assumes absolutely sharp tools, and I learned how to sharpen using Japanese water stones, adding grooves to the stone to fit the various sweeps of different size gouges. I learned how important it is for the character and quality of your carving that your tools shear and not tear the wood. You need to see what you're doing throughout the carving process, and sharp tools keep your pattern and the evolving shapes clear. Gingi taught me to let the tool marks and carved textures become part of the subject being carved. Leaf forms, for instance, would look unnatural patterned with crosscuts—better to work the tool along the lines of the leaves' veins, reiterating the structure of their growth.

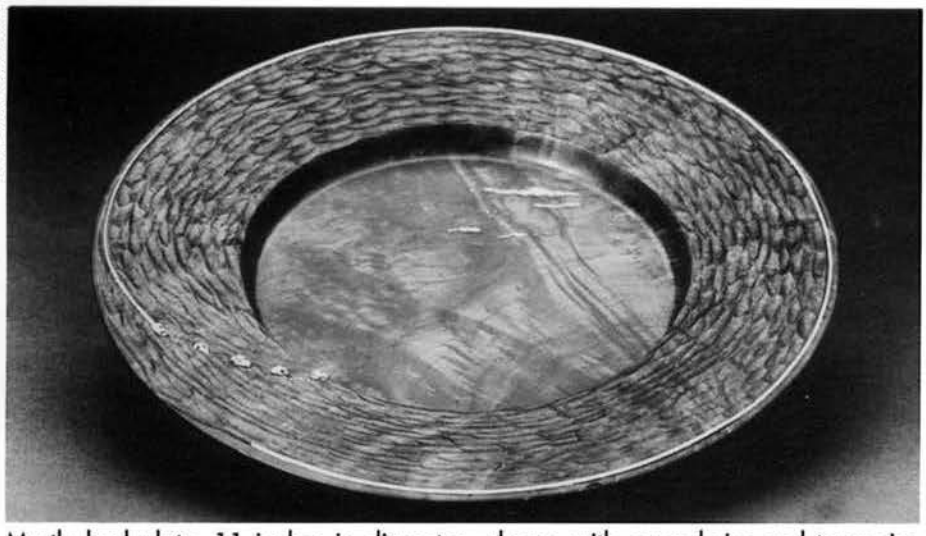
When I returned to the U.S., my family life led me away from woodcarving until 1978, when I met members of the California Carvers Guild at the Los Angeles County Fair. I was so excited to find that a club existed for carvers, I dug out my Japanese woodcarving tools and became a very active member of the CCG.

In 1980 I bought a second-hand Sears Craftsman lathe that dated back to the late 1930s. My first bowl was a rather utilitarian design, and it didn't excite me. The lathe sat in the corner of my garage collecting dust until 1985. That year I attended a woodturning symposium and encountered many outstanding turners, including Clead Christiansen, Todd Hoyer, and Del Stubbs. I saw into a world of artistic woodturning that I hadn't known existed. I began turning at every free moment. My family didn't see me on weekends, unless they sought me in the garage. I designed and printed new business cards. I just knew that I would be carving bowls as soon as I mastered the skill of turning one.

My first carved piece was inspired by an invitation to show at the del Mano Gallery in Los Angeles. I had been doing segmented turnings, and I welcomed the opportunity to try a new direction, combining my familiarity in carving with my new turning skills. The myrtle plate (photo, below left) was the result.

The next challenge was a goblet show at the Northwest Gallery of Fine Woodworking. I had been turn-

Cable Color–Tom Griffin



Myrtle burl plate, 11 inches in diameter, above, with carved rim and turquoise inlay. Right, olive wood goblet, 7 1/4 inches high, incorporates the lotus form.

Photos: Brenda Behrens, except where noted

George Post

One of Behren's first footed pieces, "Dancing Leaves III," left, (of myrtle, 7 inches in diameter) evidences an asymmetry that complements the natural forms. "Lotus," right, (of olive burl with turquoise inlay, $4\frac{5}{8}$ inches in diameter) exemplifies the odd-number symmetry common to Japanese design. Both pieces are enlivened by a pronounced figure and pierced surfaces.

ing and carving bowls of olive wood based on the lotus flower, and so again, I applied what I was familiar with to this new challenge (goblet photo, facing page).

It was around this time that I met Michael Hosaluk, who turned me on to the footed piece. A foot adds lift and stature to a piece. "Dancing Leaves III" (photo, above left) is one of my early pieces, whose irregular feet are the ends of the leaf stems that form the bowl. My bowls have been rising on their feet ever since.

A piece begins as a random block of stock on hand. I've always enjoyed working with domestic wood, salvaged if possible and figured. But I was never much attracted to big lumps of wood until I discovered the lathe. I carve in relief. The lathe opened the door for me into the third dimension. It allowed me to carve in the round.

I develop the exterior form first. I have learned that the egg shape is the most attractive natural form. I therefore find an egg shape that I can develop within the confines of my block, looking for balance and a continuity of line. If you leave one flat spot on your curve, the form is lost. When the form feels good to me, I stop the lathe and sketch in the pattern or design, sometimes with the piece still on the lathe, other times with it in my lap. On occasion I develop the piece on paper before going to the lathe. My work is influenced by Japanese forms and themes, which are rooted in natural forms and the lively symmetries that result from odd-number repetitions. Even numbers tend to feel static.

If the piece is to be pierced, as in

Two pieces more formal in tone still exhibit a natural liveliness: "Empress," above, is of walnut burl, 9 inches in diameter and "Yes," right, is of myrtle burl, 6 inches in diameter.

BEHRENS *(continued)*

several of the pieces pictured, I drill through the pierced areas. These holes will help me judge wall thickness as I turn out the interior. Lately, I do not hollow the whole form but leave an area at the bottom for the foot, which I hollow later by reversing the piece on the lathe. Before leaving the lathe I sand those parts that will not be carved. Typically it's green wood, so I sand at slow turning speed with Watco oil.

I carve the piece in my lap. I do not use mechanical means to hold the work. I need to keep moving it and to stay close to the developing shapes. Carving can take many days. Since the wood is green, I keep it covered whenever I'm not carving it. Through this process the piece begins to dry and become stable.

After carving I buff the piece by hand with nylon scrub pads, beginning with the relatively coarse green pad. Then I flood the surface with Watco, continue rubbing with a pink pad, and towel the piece dry about an hour later. I do this once or twice, depending on the density of the wood. When it's dry, I buff the piece again with the pink and sometimes the white (the finest) nylon pad.

All that is left is naming, numbering, registering, and signing. My numbering system began the day I focused on becoming a professional turner. The system identifies the vessel grouping, the year it was made, and its order within that year. My registration system includes all this and a record of where the piece currently is. Of course it needs a price tag, and that is the most difficult part. Trying to put a value on a piece of yourself is not easy, especially when another party has to agree with it. The price is the figure that will cause the piece to leave my hands, never my heart.

Brenda Behrens carves her turnings in Phillips Ranch, CA.

CARVING...TURNING

A symbolic bridge

MICHAEL F. KEHS

ADDING CARVED IMAGES TO TURNED forms was a natural progression in my personal search for self-expression. I began carving fifteen years ago, before I met the lathe. My first carving was a small horse for my sister. I was very excited about this squarish figure that I had brought to life. It awakened in me a creative being who has insisted upon being heard.

After eight years of carving human forms, flowers, animals, and just about anything else, I was introduced to the wood lathe. It didn't take long to encounter those same insistent feelings. Although I was still creating with chisel and gouge, I now held the tool steady and allowed the wood to move past it. I was so intoxicated by this process of "spin-carving" that my first passion of woodcarving subsided.

For the next few years, I pursued turning with as much fire and enthusiasm as my wife could handle. However, deep inside, the woodcarver was planning a triumphant return. I was building my skill as a turner and enjoying every step of the way, but I was not quite creatively fulfilled. The turned forms were full of instant gratification; I needed more expression. So as not to make the same mistake a second time and leave one passion for another, I decided to carve my turnings. It was an inevitable decision.

Detail of "Myotis Exodis," symbolizing the endangered Indiana bat. A bowl forms the bats' cave environment.

Photos: Linton Frank

My carvings are realistic things that symbolize my thoughts and feelings. "Myotis Exodus" (a detail of which is pictured at left—the whole piece appears in a review of the Challenge V show on pages 14–15 in the March 1994 issue of this journal) is just such a piece. The bats and cave formations are realistic, set in the context of a turned bowl form. The bats, carved in perspective view leaving the cave, are meant to symbolize the dwindling number of endangered *Myotis sodalis* or Indiana bats. In future pieces I plan to deal with the direction man has taken in the name of progress, or perhaps myself—a symbolized self-portrait. Through carved turnings I look forward to working with the ideas of life, love, happiness, or their counterparts. Carving realistic things in the context of turned forms has bridged a crevasse in my ability to express matters of importance to me.

I carve things familiar to me because it is easier—the largest portion of work is already done. Carving is two parts research and design to one part actual tool-to-wood carving. How can you carve something if you are not intimately familiar with it? I would expect failure or at least frustration in going at a project unprepared. Research can be as subtle as

Kehs' latest work includes these "Cave Ornaments" of poplar, basswood, and rosewood. The piece at left is 11 inches high and the one above is $5\frac{1}{2}$ inches high.

an everyday routine or as complex as observing your subject in its natural state, with notes, photos, sketches, clay mock-ups, and prototypes.

To understand procedure, you have to consider effect. The first thing to think about is overall appearance. As you walk up to a piece before you see any carving—does the piece look good? Does it flow? Does it start to say something about the work itself? For instance, gentle curves will establish for the viewer a particular, perhaps contemplative, mood; whereas, a form with sharp edges and abrupt sides will create a different reaction. It is important to set the tone of the piece. Also, the piece should take on certain meaning for you. Hopefully the viewer will find some meaning in your work as well. All this is done in research and design, before you cut any wood.

When carving a turned object, I leave the object on the faceplate. I normally carve holding the piece in my hands on my lap, but sometimes I'll need two hands, and using the lathe spindle to hold the work is a wonderful alternative.

I like working with chisels and gouges. A tooled finish, rather than a sanded one, has a certain appeal to me. Keeping your tools razor sharp is even more important in carving than turning; if you don't, you'll see those annoying little scratches every time. One hint on sharpening: if you hold the edge up to a light and look at it, you should not see a reflection. If you do, it is not sharp where it reflects.

Lately I've been carving thin-walled, pierced spheres, as shown above. Using a gouge or chisel on these requires too much force, and it would crush the ball. Instead, I use a rotary carver with dental-type burrs for the detailed carvings on these spheres. There are many types—flexible shaft, air-powered, DC motor in the handpiece—from expensive to cheap. I prefer having the DC motor in the handpiece with variable speed and reverse. Reverse is important to be able to cut with the grain of the wood at all times.

While research and design before beginning to carve is important, there is also something to be said for spontaneity. Surprise can make a piece. I think there is a time and place for each approach. If you start with a plan and then come up with a different idea, don't be afraid to change plans, or maybe plan a second in a series. Just keep your tools sharp, and let the creative being inside you be heard.

Michael Kehs turns and carves in Quakertown, PA.

WOOD AS CANVAS

Looking for art in woodturning

GARY A. ZEFF

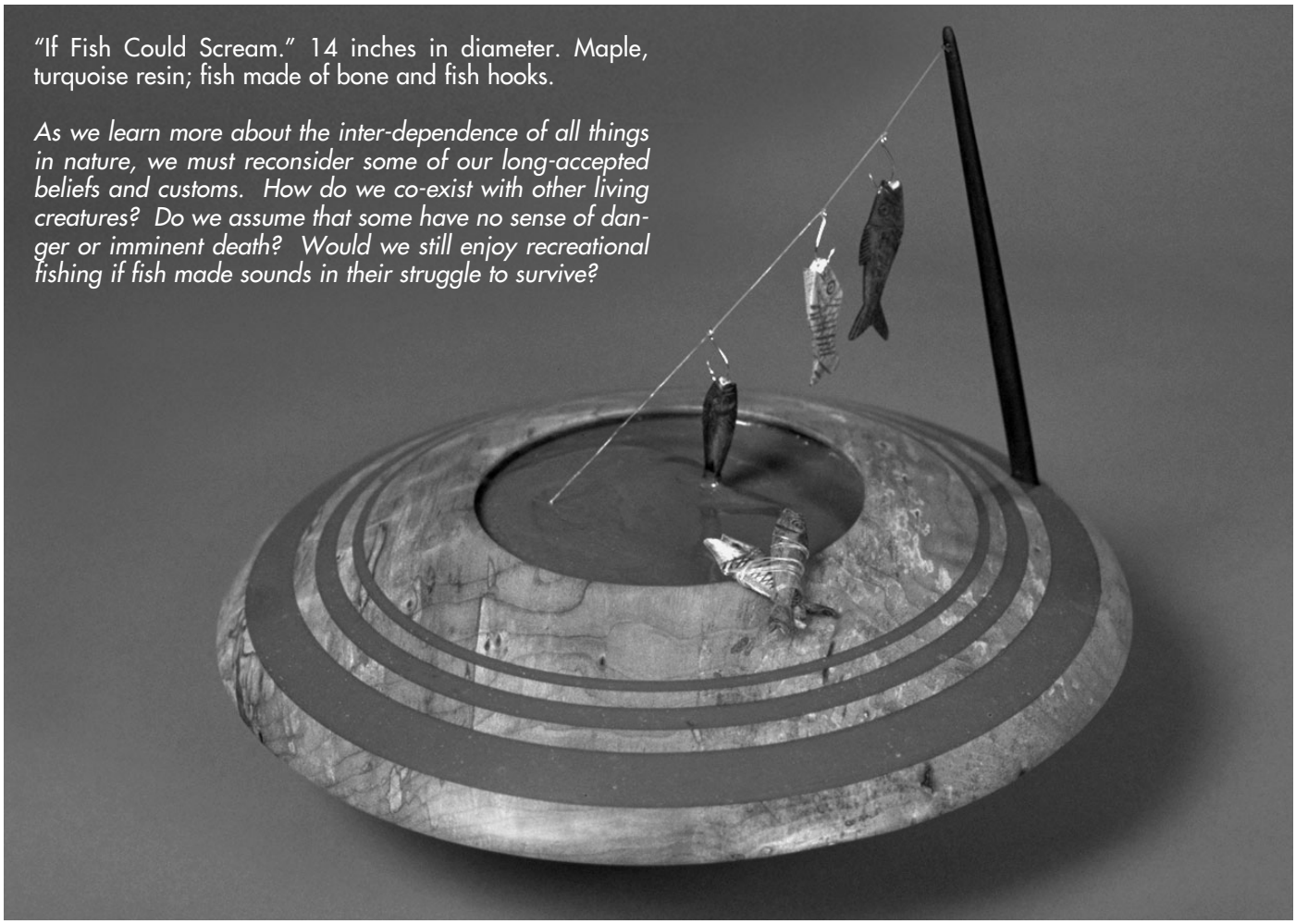
IN THE LAST TWO YEARS I HAVE TAKEN a new direction in my woodturning. Four factors directly influenced this change:

- I realized that much of the turning I was drawn to was made by turners with education in the arts.
- By taking watercolor, pottery, and design classes, combined with visits to galleries and museums, I intensified my study of art.
- I attended lectures of artists in many fields.
- I organized an art show featuring the best local artists, from painters and sculptors to glass blowers.

These experiences helped define for me the differences between craft, sculpture, and art, three creative terms all applicable to woodturning. As I use them, these terms describe areas of a continuum within which specific pieces may be difficult to categorize.

I compiled these ideas to help focus my own direction as a woodturner, realizing that definitions of this sort are controversial and vary for different media. I present them only as a guide that has worked for me, realizing that scholars have debated these distinctions for decades. In the final analysis, probably all that is important is what the viewer or buyer likes.

Craft: A craft piece exhibits technical expertise, including the command of form, line, color, texture, and finish. Viewers (and users) of craft will appreciate it as having intrinsic beauty. Traditionally, craft has a utilitarian purpose, although actually many objects of craft are not used for their intended purpose. Nor are many objects of contemporary craft intended for use at all.



"If Fish Could Scream." 14 inches in diameter. Maple, turquoise resin; fish made of bone and fish hooks.

As we learn more about the inter-dependence of all things in nature, we must reconsider some of our long-accepted beliefs and customs. How do we co-exist with other living creatures? Do we assume that some have no sense of danger or imminent death? Would we still enjoy recreational fishing if fish made sounds in their struggle to survive?

Photos by the author

Sculpture: In addition to the characteristics of craft, a piece of sculpture elicits some type of response from the viewer because it is aesthetically pleasing, though it presents no "message." In sculpture, *form* is most important.

Art: In a work of art, the *idea* is paramount, with the *medium* of secondary importance. A work of art should have "soul." Viewers should respond to it emotionally; they may laugh or cry, be enlightened, be passionately moved, or have their beliefs challenged.

A work of art is a personal reflection of something important to the artist, such as a social, political, or personal issue. But the message may not be obvious. Different viewers will interpret it differently. Some may find it mysterious, while others may not relate to it at all.

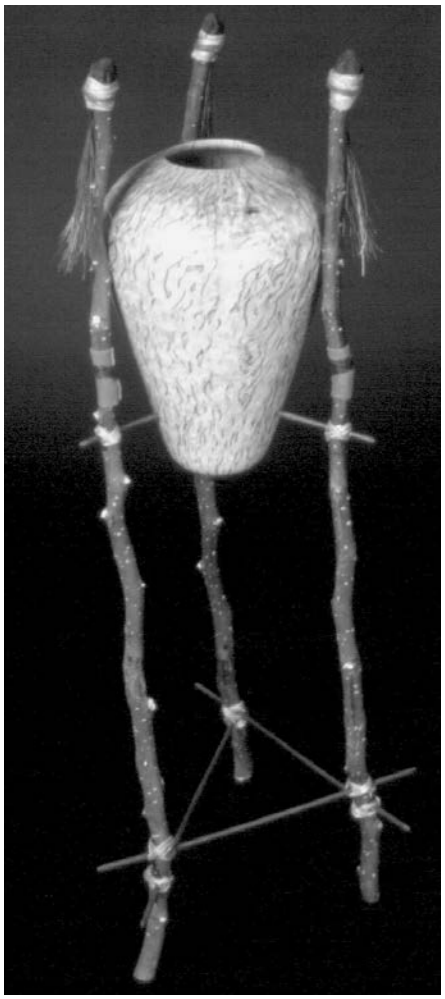
My own work

Clarifying that art was what I wanted to do, after producing craft for a number of years, my woodturning took a new direction. I wanted my pieces to be a stronger form of personal expression, much like the work of artists I have met in other media. The pieces I am currently making are reflective of my thoughts on societal issues. Daily activities and observations suggest potential pieces, and visits to shows featuring pottery and glass inspire new methods of implementation. I also look for inspiration in magazine articles and ads, such as in *American Craft.*

I usually start with a name for the piece and then make some sketches where turned wood is incorporated into the design. I think of the wood as my canvas, the basis for the finished work. Although I want the turning to be well executed, it is secondary to the idea. This concept is quite different from that of bird carving, for example, where "craftsmanship" is of prime importance.

Although I include a statement with each piece, I hope each viewer has some personal experiences which make the message more meaningful.

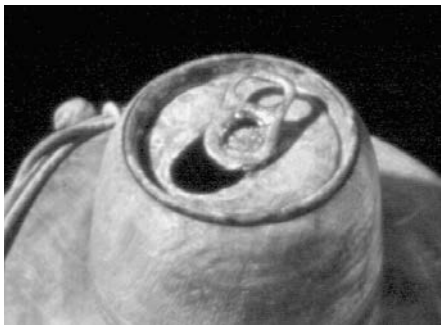
Gary Zeff is a writer, photographer, and woodturner in Boulder, CO.

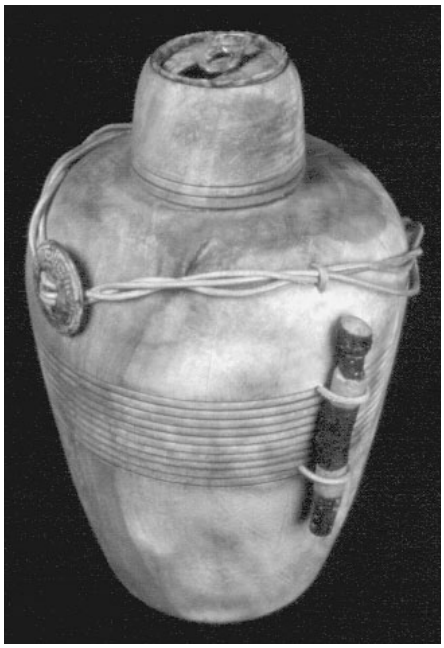


"Pierced Sanctuary." 22 inches high. Masur birch, leather, horsehair (left).

Pierced Sanctuary is symbolic of a current social condition—the continuing loss of spaces where we feel safe and secure. Representing "home," even this last bastion is under increasing attack.

The idea for this piece came when viewing an evening news report of innocent people killed in their home in a random drive-by shooting. The horizontal support pieces pierce the cocoon-like turned vessel.





"Mayan Soft-Drink Container, circa 872." $10\frac{1}{2}$ inches high. Carob, stained and sandblasted; top is from a V-8 can (right).

We believe the Mayans were very advanced for their time. How advanced were they?

Subtle satire is my favorite form of humor. Part of the "joke" was to create a surface color and texture that appears to be aged pottery. This feel was achieved by multiple coats of three colors of stain, sandblasting the surface between coats.

Turning a Wedding Vessel

Two spouts, now married

LINTON FRANK

If you're inclined to ask what a wedding vessel is, don't feel bad. Many people ask me the same question. It is a vessel with two spouts, a pottery form made by Southwest American Indians and used in their wedding ceremony. The bride and the groom each drink sacred water from one of the spouts. I thought turning one of wood would be challenging and have now turned several of them. I have had many people ask, how did you do that? So I thought the next challenge would be to write an article on just that.

Preparation for turning

Most of my designs and shapes are inspired while turning them on the lathe. For a piece as challenging as a wedding vessel, I plan it on graph paper first. I would suggest you do the same and draw it to scale so you can easily gauge from the drawing to the piece. I've found that the most pleasing proportions have the height about twice the width, and the spouts about the same or slightly less than the height of the base.

Turn a blank slightly larger than the final thickness of the vessel and true up both ends. Be sure you leave from $2^1/_2$ to $3^1/_2$ inches excess waste on the bottom (Figure 1). The amount left will determine the pitch of the spouts. Too much on a small vessel will cause the spouts to be more vertical. Too little on a large vessel and you won't have enough material for the multi-axis turning.

A wedding vessel will challenge your experience at turning, as well as layout and carving.

On the spout end of the blank find the centers for the two spouts equidistant from the center of the blank. Using a compass, draw circles the size of the spouts (Figure 2). The size depends on how large a vessel you decide to make. For example, for a vessel 3 inches wide by 6 inches high, 1-inch-diameter spouts are about as large as you can make and still get between them comfortably for turning.

Turning the base

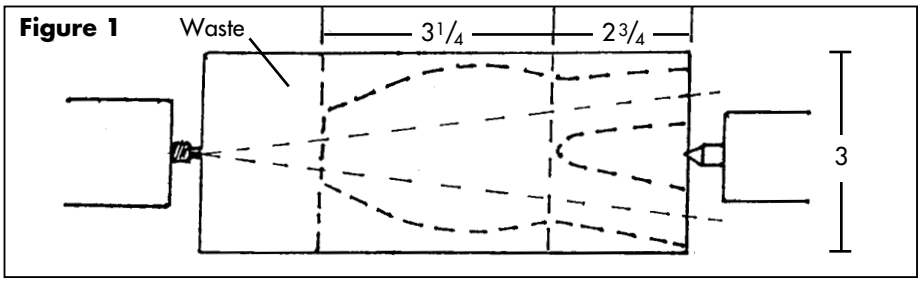
Center and screw a 3-inch faceplate to the spout end, making sure the screw holes do not interfere with the spout walls. Mount it on the lathe with the tailstock in place. Mark the blank where the spouts join the base and where the base joins the excess waste. Now turn the basic shape of the base between these two lines. Do not complete the shape all the way to the juncture lines. You will need this excess for final shaping and remounting support (Figure 3 and photo on facing page, top right).

Turn down the stock where the base meets the excess piece, making a tenon slightly larger than the access hole you plan to make for hollowing. Make sure it is long enough to penetrate through the full opening.

Mark both the excess piece and the base for realignment later, and saw the base away from the tenon and excess piece. Drill a hole through the base and hollow it. I use a bent scraper similar to those of David Ellsworth (Figure 4 and photo right).

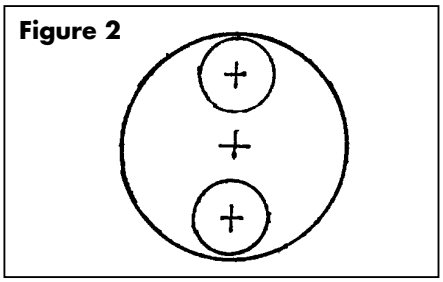
After hollowing, true up the hole until the tenon on the excess piece fits snugly. Use the two marks to align the pieces so the grain will match, and glue them together.

Figure 1

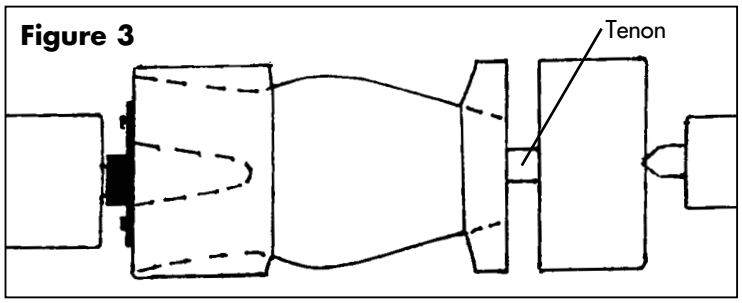


Blank showing relative dimensions (in inches) for a vessel.

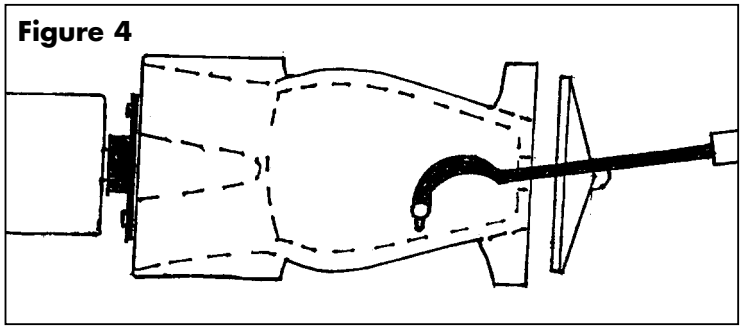
Figure 2



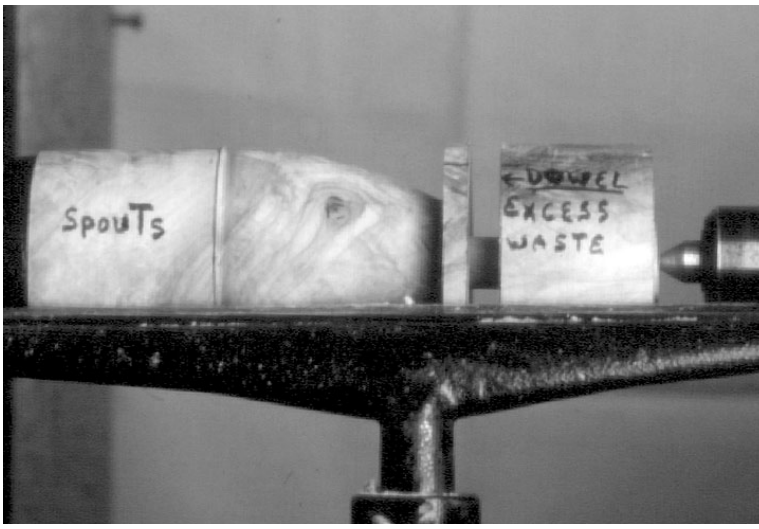
Locating and marking spouts on top.

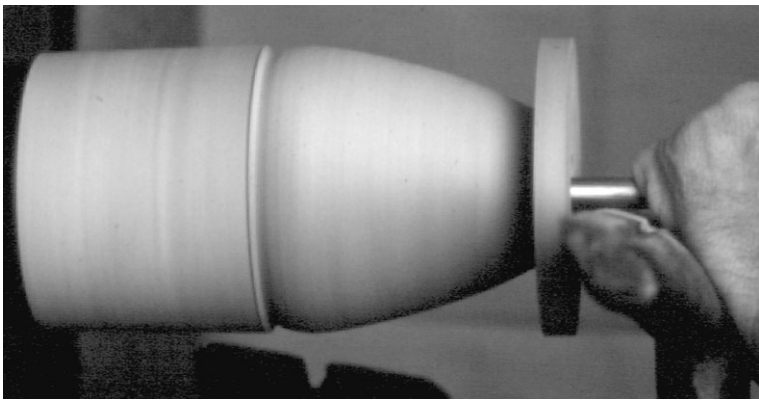


The blank is divided into three sections: the spout area, the base, and an excess piece for later remounting. Turn the base just short of the juncture lines between the sections. In the waste piece turn a tenon for plugging the hole you will bore to hollow the base.



To hollow the base first saw off the excess piece and drill through the base bottom. Then remove material with a bent scraper.





Bandsawing the spouts

The next step is to bandsaw most of the waste material from around the spouts. On the outside surface, using the circles drawn on the end as a guide, sketch approximately where the spouts will be. Do this on all sides of the vessel so you can see how much you can cut from between and around the spouts.

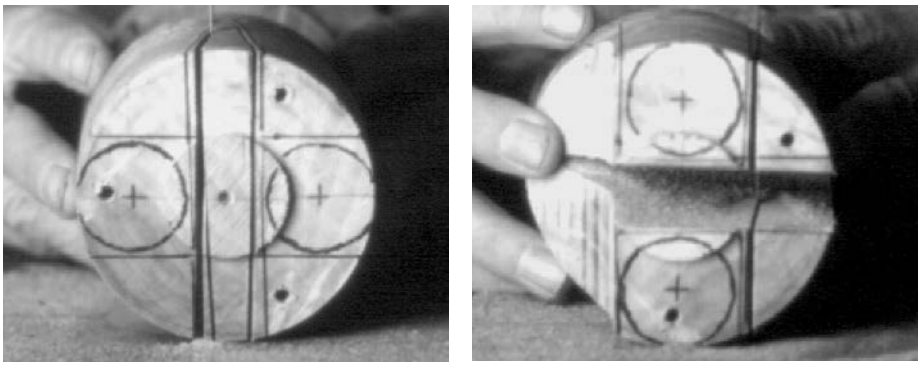
Cut a wedge out from between the spouts. Be sure to stay clear of final dimensions (photo near right). Cut away waste from the sides. Again, don't cut too close to what will be the final dimensions (photo far right).

Turning the spouts

Mount the vessel between centers with the base center point at the headstock and one spout center at the tailstock. I find the two-spur center in the headstock works better than a four-spur center for holding the piece off center .

Because of the other spout circling around the one you are cutting, you will have to do the rough cutting with a plunge cut in from the tailstock. I use either a parting tool or the Stewart system slicer for this and then use the Stewart pistol grip with a scraper blade for clean up. Leave the end of the spouts slightly wider than the shaft by undercutting slightly to maintain somewhat of a funnel shape. Be cautious not to get too close to the finished size of the spouts with the plunge cut. Leave this for the scraper. Repeat the process with the other spout (Figure 5 and the two top photos on the next page).

You will be left with a lot of de-



Rough out the spouts on the bandsaw. Use the circles you have drawn indicating the position of the spouts on the end of the blank to extend lines down the sides showing the spout positions. Saw out a wedge between the spouts, left, then saw the waste on the sides, right. Saw as close as you can without cutting into the stock that willl become the spouts.

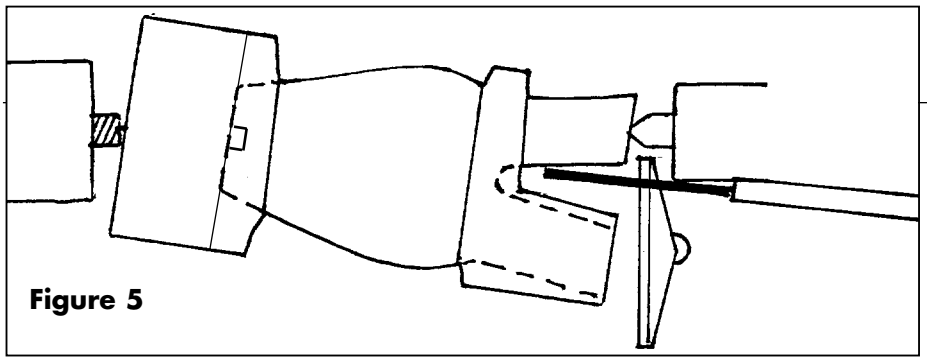
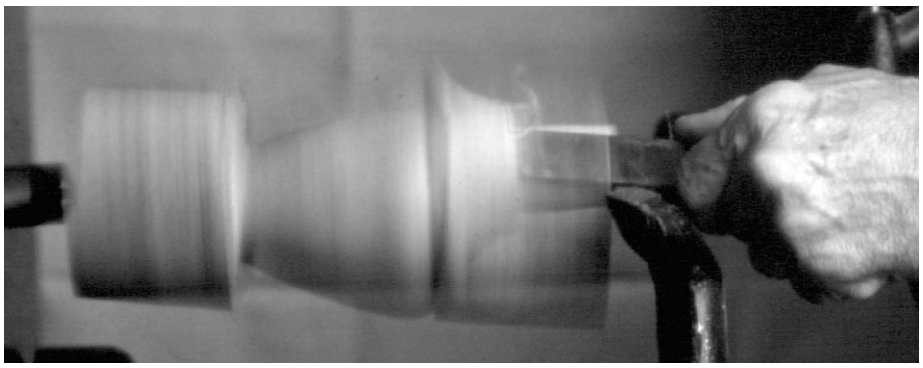


Figure 5



Mount the blank using the tenon in the excess piece to hold the base, positioning the tailstock in the center of one of the spouts (Figure 5). Turn the first spout, plunging in from the tailstock (photo, top). Use a scraper to shape the spout slightly larger at the opening (photo, center). Do the same for the other spout. Remove the waste that's left with a gouge and mallet (photo, bottom).

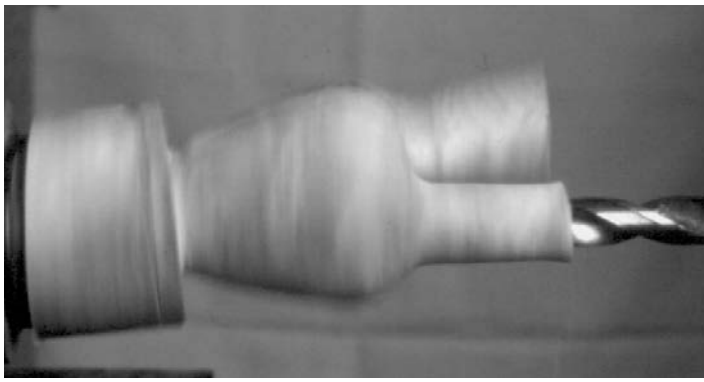
bris at the base of the spouts which is impossible to turn away. You will have to carve it away. I do this while the piece is still on the lathe working for a smooth, graceful transition from base to spouts (photo bottom left). Once the bulk of the material is removed it will require considerable sanding. I use a portable drill with sanding pads and discs on the base around the spouts and hand-sand the spouts. I start with 80 grit and go up to 600 grit.

Hollowing the spouts

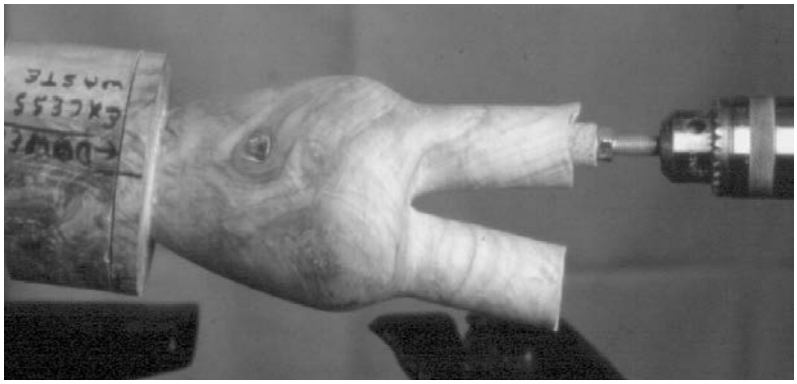
Once the outside is done and you are happy with the shape and finished sanding, you will have to hollow out the spouts. First, turn away some of the inside at the end of the spouts while the tailstock is in place, parallelling the funnel shape on the outside. It is more difficult to do this without the tailstock because of lack of support and vibration.

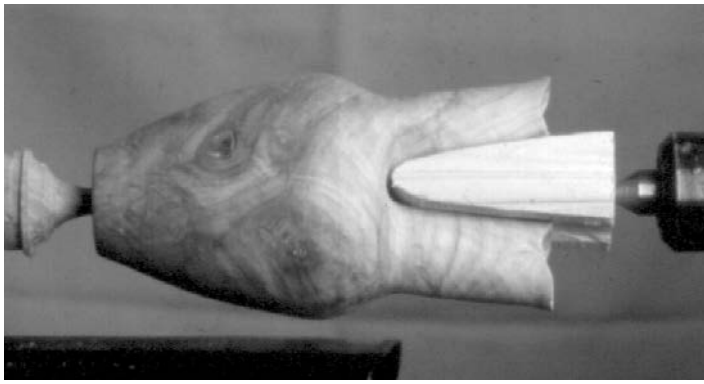
Now the $2^1/_2$ to $3^1/_2$-inch excess piece comes into play. You will need a Nova Chuck or equivalent. While the vessel is centered on one of the spouts, turn a dovetail at the bottom of the excess piece to fit the Nova chuck. This is difficult to do, at first, because the vessel is off center causing much bouncing of the tool, so proceed carefully (photo facing page, upper left). Mount the piece in the Nova Chuck and with a drill bit in the tailstock, bore out the spout center while it is turning slowly (photo facing page, upper right). Start with a small bit to keep from splitting the spout walls.

Before you do the other spout, sand the inside with a small drum sander in your hand drill while the piece is turning slowly (photo facing page lower left). Be sure the drum sander is smaller than the hole, or it will jam inside and maybe damage the vessel and you. Also finish-sand the funneled end and down inside as far as you can go by hand-sanding



Turn a dovetail recess in the excess piece to fit the Nova chuck, left. With the piece mounted in the Nova chuck you can now use the twist drill in the tailstock, right, to bore a hole in each spout.





Use a small drum sander mounted in your hand drill to smoth the spout lip, left. To part the vessel off, you have to return to the original centers. Carve a wedge that will fit between the spouts and receive the tailstock, right.

up to 600 grit. Repeat the process with the other spout.

Parting off the vessel

The next step is to finish shaping the bottom of the base and part the vessel from the lathe. But wait—it's off center! How do that? I had a hard time with that one, too. Here is how I solved it.

Cut a wedge from scrap wood to fit between the spouts. Use a softer wood than the vessel to prevent marring the surface. Make it slightly wider than the opening and pare a cove on each side until the wedge fits snugly and bottoms out between the spouts (photo above, lower right). Mount the vessel between centers, spur center in the base and tailstock center in the wedge piece. You will have to play around with this until you find both centers. Once that is done, do final shaping of the bottom of the base and sand. I like to apply the first coat of finish while the piece is on the lathe. Now you can part the vessel from the excess waste piece.

The finished maple burl vessel.

Making a handle

Measure the distance between the spouts, both inside and outside the walls. On a piece of wood of the same material, use a compass to draw concentric half circles using these dimensions, slightly oversize for the outside circle and undersize for the inside one, and extend the legs to whatever height you want for the handle. Cut out the blank on the bandsaw and shape the bottom of the handle to join tightly to the spouts and glue. Now hand-carve and sand the handle to blend with the shape of the spouts.

Wedding vessels challenge my turning skills, but I love the results.

Linton Frank turns in Perkasie, PA. This article is adapted from one he first published in the Journal of the North Carolina Woodturners' Association. Photos and drawings by the author.

DESIGNING RIMS

Many's the trick twixt the cup and the lip

LUKE MANN

THE MORE I TURN THE MORE I REALIZE that the possibilities for rim design are endless. I enjoy turning as many variations as my imagination, ability, tools, and time allow. But as I think about it, most rims seem to fall into one of three categories: flared, returning, and collared. In describing what characterizes each type and sharing some of the technical concerns peculiar to each, I hope to stimulate you to venture out and expand your own repertoire of forms.

At the risk of sounding philosophical, "lip" may be a better term than "rim." (Ever try describing something without one?) As our lips form the margins between face and mouth, exterior and interior, public and private, the turned lip becomes the boundary between out and in, bound and loose, obvious and mysterious. Our own lips function in forming verbal and non-verbal communications. The slightest movements express volumes. A lip of wood, combined with other bowl elements, express as well, suggesting things heavy or light, hard or soft, inhaling or exhaling, welcoming or rejecting…imagine what you will. Though some of this becomes clearer by thinking and talking about it, perhaps there will always be some mystery to how such subtle changes transform a piece.

Facework tends to be larger in diameter than in height, dictated by dimensions of available wood, lathe capacities, and the practical concerns of bowl design. Consider a bowl of such typical configuration resting on your table. Notice that most of the exposed visible wood lies across the interior of the bowl. When something is placed in the bowl, this surface is obscured, rendering the bowl (your bowl) all but invisible—unless you somehow accentuate the rim, that is. If we don't pay any attention to this feature and simply bring a $1/4$-inch wall up into space and end it, something may be lost—in this case, your bowl from view. Your friends will come for dinner and comment, "Hey, what a nice looking salad! How did you get it to stay so round?" Instead, they could be saying, "Who dropped the rabbit food into this impressive rimmed vessel?"

The rim is a great place to experiment. Present in every bowl, this feature can be manipulated to improve both the visual and the tactile experience of a bowl. The very location of this element makes it a focal point. Some degree of horizontal surface here is a great way to display the wood while exploring form and surface texture. Treatments can include turning grooves, carving, cutting, piercing, tieing, painting, bending, bleaching, and dyeing. The sky is the limit (literally). A rim can give an appearance of mass or weightlessness. An extended rim offers surprise, enticing curious eyes and fingers to investigate hidden surfaces, drawing more attention to the piece.

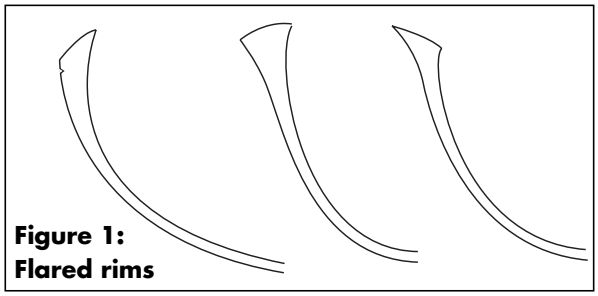


Figure 1: Flared rims

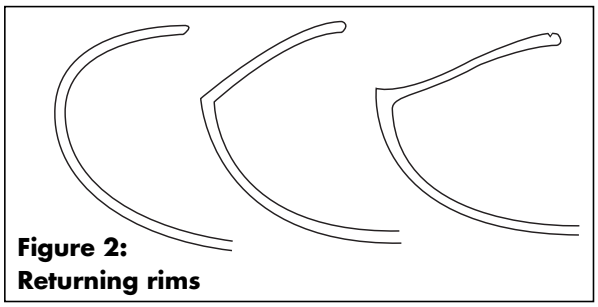


Figure 2: Returning rims

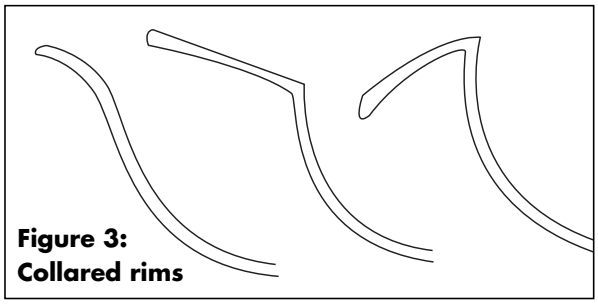


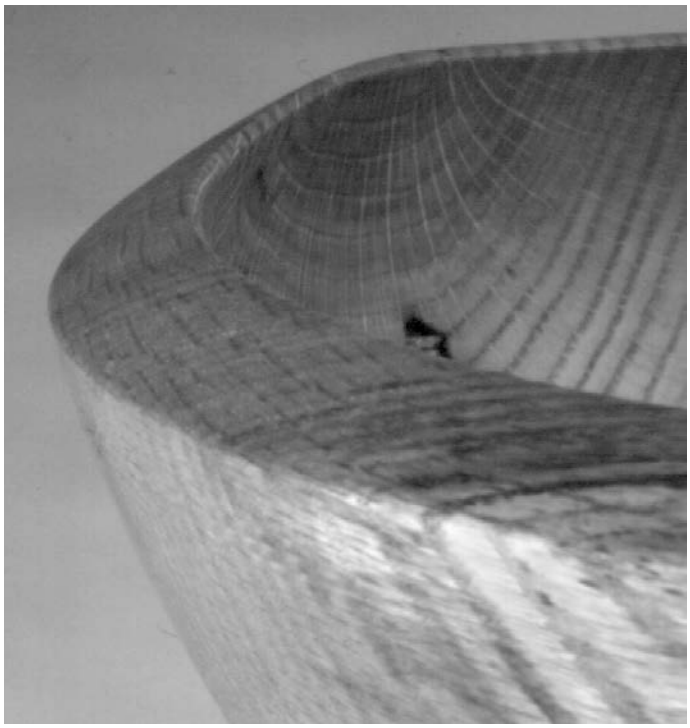
Figure 3: Collared rims

Let's take a look at how the three types of rims shape up:

- In the flared rim (Figure 1) as the bowl wall approaches its terminus it simply flares, increasing thickness to expose more wood at the bowl's edge.
- In the returning rim (Figure 2) the wall rises upward from the foot and then turns in toward the center of the piece before terminating.
- In the collared rim (Figure 3) the wall heads out, away from the center of the turning, ending either above or below the horizontal.

As I begin working a piece of wood, I smooth off what is to be the top opening of the bowl before stopping the lathe to examine the surface. If I find an exceptional display of anything such as color, spalting, insect holes, ray or crotch pattern, or other figure, I will often opt for an extended rim to include some amount of this display. I may even take the piece to a hollow form, maximizing the exterior on display.

Drawings by the author




Flared rims: At left an oak bowl, 15 inches in diameter; at right spalted sugar maple, 13 inches in diameter. Note the maple's cove detail, which was turned on a different center from the rim itself.

Considering various options, I contemplate the implications and limitation of each as they apply to this particular chunk of wood.

The flared style is the one I most often employ when the grain is not begging me for more exposure or I have an order for a salad bowl. It is the easiest to turn and sand, presenting little or no obstacle to the disc sander. Possible in an endless variety of angles and widths, the heavier section of this rim is pleasant to grip and carry and makes for a more durable bowl. I commonly tilt the flare out and place a slight crown on its face (like that of any decent, self-respecting lip). With a slight overhang of the inner wall, such a lip can actually help when tossing a salad or holding ungainly fruit. Liam O'Neil says this rim forms a frame for the contents and gives the bowl the impression of a substantial wall thickness only to surprise the admirer by its lightweight and pleasing contour when handled.

The returning and the collared rim seem to be less practical in their extreme state, yet most of them, interestingly, are derived from pottery shapes with a long history. Either rim may form one flowing line from wall into rim, or be separated or accented by some detail, change of direction, or arris. The simpler flowing contours are the more difficult to pull off, as purer forms often are, without the details to draw the attention and thus fall back on.

With obvious roots in ceramic form, the returning rim suggests a more developed container, creating a more defined interior volume. This variation can include anything from a slight overhung rim to the predominant surface area and small opening of a hollow form. As we all know, the further this rim extends toward the center, the more difficult becomes the tool access, removal of

Photos: Rick Mastelli

Returning rims: Top, spalted curly maple, 15 1/2 inches in diameter; above, black cherry, 11 1/2 inches in diameter. Note the carved and India ink detailing, above.

waste, and sanding. Because there is no way to part out a cone, this design does produce more waste.

My decision to turn a collared rim may be in response to material dimensions. If a blank is shallow or crowded by radial checks from the cambium, I can turn a broad, shallow bowl or go for the smaller volume and broad outward rim of a collared bowl. While providing great space for detailing, this one draws attention to exterior space and, by intrigue, the area under the rim, in the shadows. In a pinch, this design can also be worn as a hat.

When designing your own variations, Steve Loar suggests, "Get some loose paper and just sketch (or scribble) ideas as they come to mind, drawing from the shoulder with large movements and no erasing. Remember the paper is not sacred." I re-use computer paper for this. Draw, scratch, and scribble all sorts of rims on various shaped bowls, platters, and hollow forms. Combine rim variations. Try extending a collar from halfway down a bowl side. Consider a contour or texture to hide under an extended rim for searching fingers. Or a design which when portions are cut from reveal an interesting cross section. Be sure to ignore established, accepted guidelines.

Collared rims: Top, sugar maple, 11 inches in diameter; above, spalted curly maple, 14 inches across.

As you move from sketching to scraping, you will be challenged to determine a plan of action, a process of how to hold the piece and what sequence of cuts to follow to reach the desired result. Hopefully you will come up with some designs that are not possible with your current tools and technique. This will inspire you to adjust your designs or extend the way you work.

Luke Mann, of Waitsfield, VT, began turning bowls professionally after taking a course with David Ellsworth in 1992.

DANGEROUS DUST

What you can't see can hurt you most

JOHN TIMBY

MOST DUST-CONTROL SYSTEMS USED in amateur shops, whether they be bag collectors, ceiling-mounted recirculating air cleaners, or face masks, do not provide the protection you may think. Dangerous dust is microscopic, that is, smaller than the eye can see. Manufacturers' specs indicate that cloth or paper filters do not eliminate all microscopic dust, no matter how clean they make your shop look or feel.

OSHA states that dust below ten microns (a dust particle must be at least 100 microns to be visible) and down to 0.3 microns tends to become lodged in the lungs where it cuts the lining, leading to scar tissue, and permanent loss of lung function.

Professional woodshops have difficulty meeting OSHA dust standards (no more than three teaspoons in an 8000-cubic-feet space), despite the use of professional dust-collection equipment. Many amateurs are probably working in worse conditions. If dust in a professional shop exceeds twice the standard amount, OSHA permits work for only four fifteen-minute periods per day. It's that serious!

As of December 31, 1992 OSHA no longer permits breathing devices to be used to attain permissible dust levels. Dust control is mandatory. But all dust control measures that utilize fabric filtration are dangerous because no such filter eliminates all dust. The best collectors, whether bag or recirculating air units, filter only a *percentage* of dust, and this only to 1 micron. No cloth filter captures dust below that figure and no cloth filter captures 100 percent of microscopic dust, whatever the size.

I know that filters don't work because I am sensitive to wood dust. I develop a severe skin rash when exposed to even the smallest quantity of microscopic dust, and a two-bag dust collector didn't help. I have therefore explored methods for dust control that would make woodworking possible for me.

Timby's prophylactic adaptation of a two-bag collector eliminates all dust: The larger particles settle in the lower (plastic-lined) bag. The smaller particles that pass through the upper filter bag are captured by the the outer plastic bag to be evacuated by ducting.

The first two alternatives I looked into each leave something to be desired, though they do eliminate all dust from your shop:

•You can use a "cyclone" pre-collector, which creates a vortex that deposits the bulk of the dust in a waste container, and then blow the remaining air, along with the smaller, most dangerous particles out of the shop. But cyclone systems can be expensive.

•You can move the bag collector outside the workshop so that no dust can seep back into it, again, making provisions to replenish the air in the shop. But positioning a dust collector outside may not be practical.

I have adapted the popular two-bag system to overcome the limitations of filtration and eliminate all second-stage dust from my shop. (First-stage dust, created at the woodworking machines, requires different attentions). I fit an impervious trash bag inside the bottom bag. And I envelope the top bag with a larger impervious bag, attach ducting to that, and exhaust the air out of the shop. The trash bag inside the bottom bag makes emptying easier; the outer cloth filter bag stays clean, acting only to fortify the plastic bag. The upper cloth bag filters the larger particles, the smaller being contained by the outer impervious bag, to be ducted out.

Admittedly, this method still sends air out of the shop, and in cold climates, this may be a problem. Each woodworker will decide his or her priorities and choose the appropriate compromise. Here in New Mexico, my method has proven effective and inexpensive, and it's made woodworking possible for me.

John Timby, a retired design engineer, is aggressively seeking to engage the machinery and magazine industries in his efforts to reduce dangerous micron dust in the workshop. He has produced two homemade videotapes, one explaining how to improve first-stage dust collection at various woodworking machines, the other continuing that story and detailing the second-stage dust-collection improvements described here. They're available for $34 and $35, respectively, or $60 for the pair, by writing him at PO Box 1904, Deming, NM 88031, or by calling 505/546-0227.

HARD ELMS

Dense, durable, and clean-cutting

WILLIAM L. STEPHENSON, JR.

THERE ARE SIX SPECIES OF NATIVE ELM in the U.S., ranging into southern Canada. Two of the elm species are classified as soft elms, as discussed in *American Woodturner,* March 1994. The remaining four species are classified as hard elms, and rightly so. The hard elms, often marketed as rock elm, are heavy, weighing around 46 pounds per cubic foot, and have a specific gravity of .57. Rock elms are hard, strong, and very high in shock resistance. The hard elms reach commercial size, though the trees are rarely larger than medium size.

Hard elms have a lot of character, largerly the result of the pronounced texture of this ring-porous wood. The grain is interlocking—that is, the wood grows in spirals that alternate from year to year, which creates irregular patterns on plane surfaces. In addition, the summerwood pores are distributed in wavy bands, contributing to the energetic look.

Hard elms can be difficult to work with hand tools. To achieve good results, sharp tools, good techniques, and patience help. The interlocking grain makes splitting unlikely.

The hard elms have been used since colonial days by wheelwrights for wagon parts (wheels, spokes, hubs, and axles), by coopers for strong slack barrels and shipping boxes, and by bodgers and chair makers for spindles and legs. Rock elms are also strong in bending and have been used for quite a number of years as bentwood in chairs. The durability and wear resistance make hard elm a good choice for chair rockers. The most unique use is in the manufacture of high quality hockey sticks.

Hard elms have rather strong regional preferences. Winged elm (*Ulmus alata*) is a southern species generally found around intermittent streams, in old fields, or along fence rows, and may be quite common on drier sandy areas in the upper coastal plains. The range is from Kentucky south to the Gulf, west to central Texas, and east to the Atlantic. Winged elm is usually a small-to-medium-sized tree.

Two other hard elms are southern species. Cedar elm (*U. crassifolia*) is found in eastern Texas, northern Louisiana, and southern Arkansas on dry limestone hills. September elm (*U. serotina*) is a fall-flowering elm that is scattered in small patches (less than a county in size) across the South, west of the Appalachian mountains. This fast-growing elm is usually found in areas with moist clay soils. It reaches heights of 80 feet and diameters of 24 inches.

Rock elm (*U. thomasii*) is the northern species of the hard elms that ranges through the Upper Mississippi Valley and the lower Great Lakes region extending east across Canada into New York and Vermont. Few species of tree have rock elm's ability to recover from prolonged growth suppression by an overstory of larger trees. For this reason, it is difficult to correlate the size of a rock elm with its age. Any tree 1 to 3 inches in diameter can be as old as 49 to 99 years. Once released, rock elm takes off, reaching heights of 90 feet and diameters of 24 inches. In the original forest, these trees reached heights over 100 feet and diameters as large as 5 feet. Rock elms may live to 300 years.

It is easy to identify all of the hard elm trees. The leaves are 2 to 4 inches long and 1 to 2 inches wide, and are referred to as the small-leaf elms (soft elms have leaves 4 to 7 inches long). The leaf shape is elliptical, the margins are coarsely doubly serrated (teeth with teeth), the leaf tip comes to a point, and the surfaces are somewhat lustrous above and slightly hairy below.

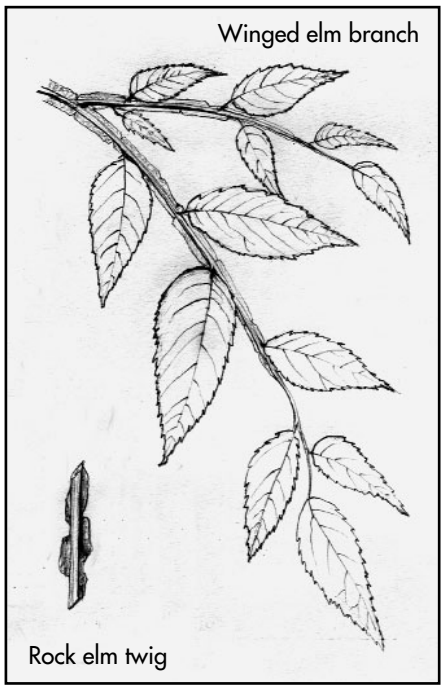
The twigs are the ringer in identifying hard elms as they all have corky appendages growing along the length. Winged elm has two corky wings about $^1/_2$ inch wide, cedar elm has two corky wings about $^1/_4$ inch wide, September elm has three corky ridges, and rock elm has numerous conspicuous corky ridges.

The sapwood of hard elms is tan to brown, as is the heartwood. Frequently the heartwood will develop a reddish tinge and a dark red center. The growth rings are distinct. The springwood pores are variable in size and the larger pores are barely visible to the naked eye. The transition from springwood to summerwood is gradual. The summerwood pores are small, numerous and arranged in continuous wavy concentric bands. The wavy bands are clearly visible in the end-grain as a distinguishing characteristic.

The wood has no characteristic odor or taste, which makes it a good choice for sturdy berry baskets and fruit boxes.

The photo on the facing page of a rock elm bowl illustrates most of the distinguishing characteristics of the hard elms—mostly light-colored sapwood and heartwood with a small area near the rim of reddish colored heartwood, texture caused by the differences in the spring wood and summerwood, and the wavy bands of pores in the summerwood.

The wood of hard elms greatly resembles American elm, without American elm's greyish cast. However, the hardness is a dead giveaway; if you can dent the wood with a fingernail, it is *not* a rock elm. The moisture content of green hard elms



The hard elms are distinguished by smaller leaves than those of the soft elms and corky excresences on the mature twigs, left. The rock elm bowl above has typically light-colored sapwood and heartwood with a small area, at the rim, of dark red heartwood. The texture is variegated, a result of interlocking grain, and the figure includes wavy bands of summerwood pores.

is around 50 percent, versus around 90 percent for the soft elms.

Hard elms are easier to dry than soft elms but take a little longer. The interlocking grain helps to minimize cracking and splitting, should the piece dry too rapidly. During drying, all of the elms have about the same volumetric shrinkage, which ranges from around 14 to 18 percent, with slippery elm on the low end and winged elm on the high end. All of the elms glue well and could well be used in segmented turnings with other hardwoods.

Intricate spindles can be readily turned from the hard elms. The tough wood permits slight or steep curves with little or no chipout in cross grain. When chipouts do occur, they are typically small and usually in the transition area from springwood to summerwood. Hard elms can be turned quite thin without cracking or breaking. The wood withstands the vibration associated with turning long and thin spindles. It makes good bobbins and tree ornaments.

Bowl turning, where the grain runs perpendicular to the lathe bed, is a pleasure with hard elms. Since hard elms are mixed with other elms commercially, most of my bowl turnings are from green logs. First turn the outside to roughly the desired shape, then turn the inside leaving a wall thickness of around 1 to $1^1/_2$ inches. Coat the surfaces with a watered-down solution of wax-based sealant. A thin coating is sufficient to slow the drying and forestall surface cracks. Set the green bowl aside out of direct sunlight to air-dry for about six months per inch of thickness. For more information on techniques for drying dense woods see the article "Turning Domestic: Persimmon" in *American Woodturner,* June 1993.

If you are a woodturner averse to sanding, hard elms are for you. Because of their density, they yield an impressively smooth surface right off the tool. The wood must be cut; it does not respond well to scraping. I begin sanding with 150 grit, and the tool marks quickly vanish. A finish sanding with progressively finer grits to around 300 grit takes even less time, producing a smooth, uniform surface.

Wiping varnishes work well on hard elms. Oil finishes tend to take a bit longer to dry after the first coat (which dries normally), probably due to the small pores and density of the wood.

Hard elms should be readily available throughout the United States, southeastern Canada, and within most cities. Since the demise of the American elm, many of the hard elms have been planted as replacements. All of the elms in North America and Europe are susceptible to Dutch Elm Disease (see *American Woodturner,* March 1994); however, the survival rate of the hard elms is much higher than that of American elm.

If you haven't tried the hard elms yet, you're missing some delightful turning.

Bill Stephenson is a professional forester and woodturner who writes about and teaches woodturning from his studio in Loveland, OH.

SMALL TREASURES

A review of this year's del Mano show

CONNIE MISSISSIPPI

THIS IS NOT A SHOW OF MINIATURES, cute pieces, or quick studies. There is a philosophy involved in small-scale work; it evokes feelings of intimacy and preciousness. "Small Treasures," at the del Mano gallery in Los Angeles last February and March, was the second annual exhibit of lathe-turned objects under six inches. Featuring almost twice as many pieces as last year's, this show extends the message of the inherent value of smallness, the special worth that comes of close thought and painstaking execution. These pieces reach out and connect with the viewer, evidencing power that dwarfs their scale.

The show was conceived by Kevin Wallace when he discovered the "Spirit Forms" of David Ellsworth and the power of a small object. Ellsworth believes that the intensity of a small work and the design challenge that it presents is just as complex as a larger piece and often more captivating. He says (as his own pieces in this show demonstrate), "It is the small object that captures the focus of our personal energy: hence the term 'Spirit Forms,' objects that are perceived more easily with the heart than with the mind."

Upon entering the separate gallery space where the majority of the pieces were displayed, I was struck by the quality of turning techniques and detail to finish throughout. The pieces seemed to express a message of harmony in the state of turning these days. Unity of scale is one of the reasons that the pieces work so well together.

Wallace was looking to demonstrate both the avant garde of the field and the vision of those people who have stuck by their original expression for thirty or forty years. Another important ingredient at play is the creative spark which enlivens almost every piece.

Comprised of 225 pieces by 45 artists and with prices ranging from $100 for a Ray Key spalted capsule box to $2,600 for a pink ivory shell form entitled "Rhamnus Angel Wing" by Bill Hunter, the show offers an opportunity for an overview of many of the world's turners working in a multitude of styles and commanding a variety of prices.

David Sengel's untitled vessels are surreal and beautiful objects which send a mixed message to the viewer. Using ebonized cherry and maple, and adding locust and rose thorns and then spraying the pieces with black lacquer, he creates pieces whose form is impeccable, but once covered with thorns they become both fascinating and foreboding. A top covered with rose thorns does not invite you to open it, yet you want to nonetheless.

At the opposite pole is the work of Helga Winter, whose clean, unadorned forms are made captivating by spalting, checking, and warpage. Sometimes it is the surprise appearance of a knot or hidden color that captures the eye. Anthony Bryant is another who turns his good forms green and then looks for something special to happen through warpage. The small scale gives these natural forces a satisfying sense of control.

The use of experimental surfaces

David Sengal

Work ranged from the surreal to the natural. David Sengel's lidded vessel, left, is of ebonized cherry, rose thorns, and black lacquer ($4\frac{1}{2}$ inches high). Helga Winter's bowls are (left to right) locust, holly, and birch (the largest $3\frac{1}{2}$ inches high.)

Photos: David Peters, except where noted; courtesy of del Mano Gallery

The show included wonderful experiments in mixed materials. Todd Hoyer's, mesquite and elm vessels, left, are scorched, gold-leafed, and grouted. Robert Chatelain's burl vessels, right, are filled with multi-colored epoxies.

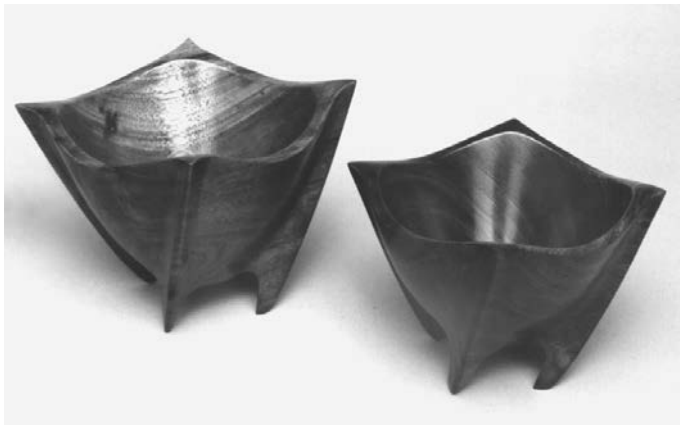
by Todd Hoyer and Robert Chatelain demonstrates a different direction from the natural finishes of many of the pieces. Hoyer first burns the wood's surface, causing crazing. He then adds gold leaf and fills the crazing with white grout. His bowls offer an added dimension, as the inner surface, left natural, is juxtaposed against the manipulated outer surface.

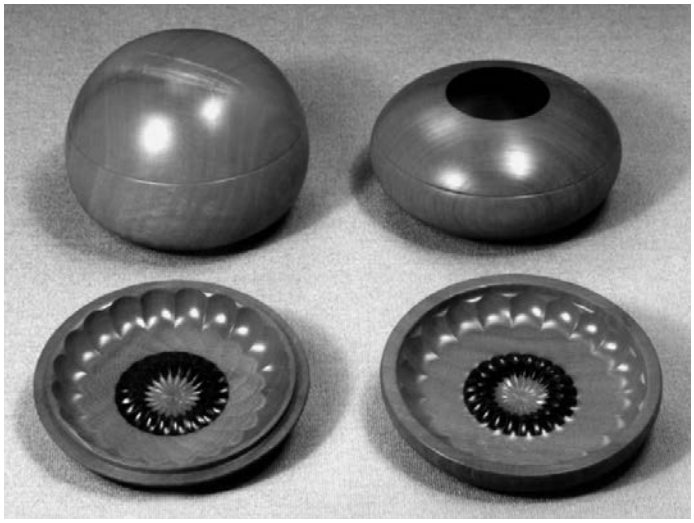
Chatelain's pieces are turned from burls, and the irregularities inherent in the burl are filled with colored epoxy inlay. The illusion created is of an epoxy piece, inlaid with wood—intriguingly disorienting.

Firmly grounded and comfortable in the scale of the show is the work of the ornamental turners, Paul Fletcher, Dale Chase, Bob Krauss, Hans Weissflog, and Jon Sauer. There is a long history of exquisitely precious ornamental work. Jon Sauer's scent bottles and covered boxes are made from exotic materials such as rayskin dymondwood, African blackwood, and pink ivory. He turns on an ornamental lathe made in 1868 by the Holtzapffel family. His scent bottles are miniature towers keeping the vigil, and his woven boxes are masterfully covered with machined basketry motifs.

Han Weisflogg's motto is *klein und fein* (German for "small and fine") and his work certainly lives by these words. His ballbox, cone box, saturn box, and drunken box, are all meticulously detailed designs, impressively diminutive at a few inches. For this show he concentrated the same work into tinier versions, some of them an inch or less. The work is so extraordinary in its precision that one marvels that the human hand played a part in its creation. At the same time, they beg to be touched; you want to pick them up and put them in your pocket. (Fortunately, they were in a locked cabinet.) Weisflogg's work was so popular at the show that the gallery is now taking orders for his pieces.

Bruce Mitchell's "Fin Spin" series came about from an initial larger piece turned and carved from a square block of wood. First turning the inside hollow, he then began to carve the outside giving the piece four legs which coincided with the four triangles created by turning a round hole into a square. As the deadline for the show approached, he began a series of fifteen smaller pieces using the same format. Each piece has a different personality, depending on the angle of a leg, the tilt of a rim. For him the deadline

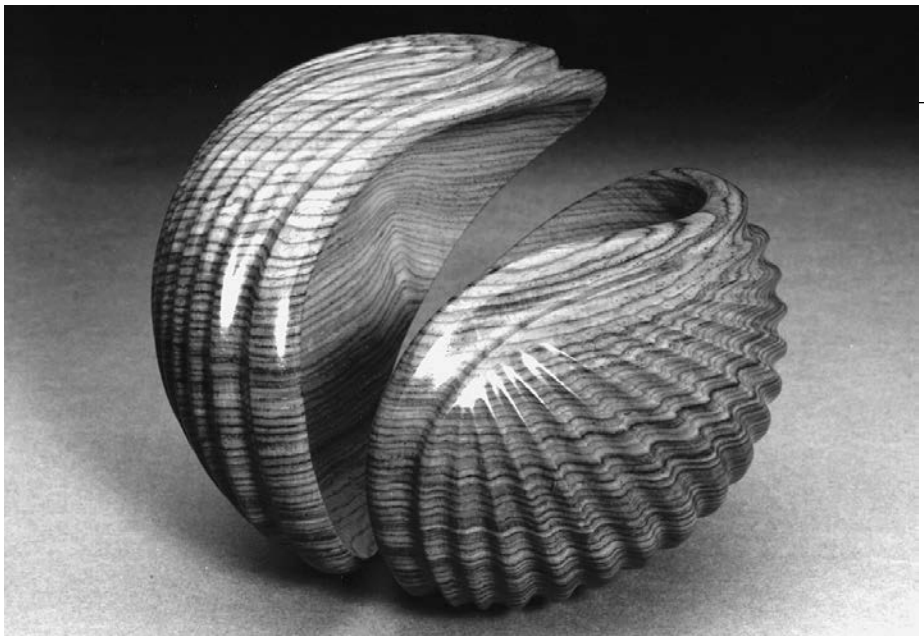




Dale Chase

Bruce Mitchell was inspired by this show to turn his "Fin Spin" series, above in black walnut, faster and smaller. Dale Chase's interior-ornamented boxes, right, were a perfect fit.

George Post



As if come from the sea, Bill Hunter's "Retusa Scallops" of cocobolo, 5 1/2 inches in diameter, is made of waves—of figure, surface texture, and overall form.

A riot of colors, these vessels of Howard Lewin, (4 to 5 inches in diameter) are turned from dyed maple shavings (center) and dyed maple dowels (left and right).

worked magic and pushed him to "the inevitable—only faster."

Dale Chase, with whom I talked at the opening of the show, described how his typically well-wrought pieces took a turn toward feeling. In 1988 during a visit to Frank Cummings' graduate class, Chase showed a variety of pieces. The students recognized the technical prowess, but identified all but one piece as devoid of feeling. That was a small rounded box, smooth to the touch. This one they felt had come from the heart. As a result of this and late-night conversations with Cummings, Chase began to find new satisfaction in his work, experimenting with internal ornamentation in his boxes, and reaching a new level of communication with his audience. He says, "It's not the name you put on it, it's the feeling you put into it."

The boxes are of pink ivory and African blackwood and the top and bottom are so perfectly joined that you cannot see the seam without careful inspection. Inside is a surprise—an ornament turned from the exterior's contrasting wood.

Ray Leier, one of the gallery's owners, pointed out how the scale restriction has given many of the artists an opportunity to experiment in ways they normally would not and in the process discover new things to do. Ed Moulthrop, for instance, related to Leier what a joy it was to be working in the small scale after the large pieces that are normally expected of him. Likewise, Johannes Michelsen, who had never made miniature hats before, loved the process.

Bill Hunter feels less risk working on a small scale. If a modestly sized piece explodes, he hasn't lost two or three days preparing it. Hunter considers his work sculpture, with the lathe being only one aspect of the process. He cuts the pieces up and uses a disc sander attached to the outboard side of his lathe to do the carving and buffing. This process comes from years in his youth of having made briar smoking pipes. The results are remarkable: shell and pod forms of luxurious color and undulating sensuality.

Howard Lewin's dyed and laminated pieces are complex assemblages of color and component forms. Always exploring the outer limits of an idea, Lewin has incorporated these two elements unlike anyone else in the field. His work, according to Wallace, is being accepted more and more by collectors who are looking for the avant garde and the unusual. Small scale makes such commitments easier.

Collectors in general responded well to this show. Small pieces tend to have a smaller price tag, and they are easier to find space for. The show drew many who do not normally collect wood, and there were many multiple purchases. Small treasures, evidently, can be irresistible.

Connie Mississippi is a turner in Topanga, CA.

TURNING LUMBER

Bowls and plates from rough-sawn boards

BETTY J. SCARPINO

WITH ALL THE EXCITEMENT AND INterest focused on turning wood from firewood piles as well as from imported exotic species, you could be overlooking a treasure trove of turning stock. Your local lumber yard may be harboring stacks of 2-inch wood, ideal for creating wonderful turnings. The key to getting a great buy is in knowing how to identify interesting grain patterns hidden under sawmill marks and a weathered surface.

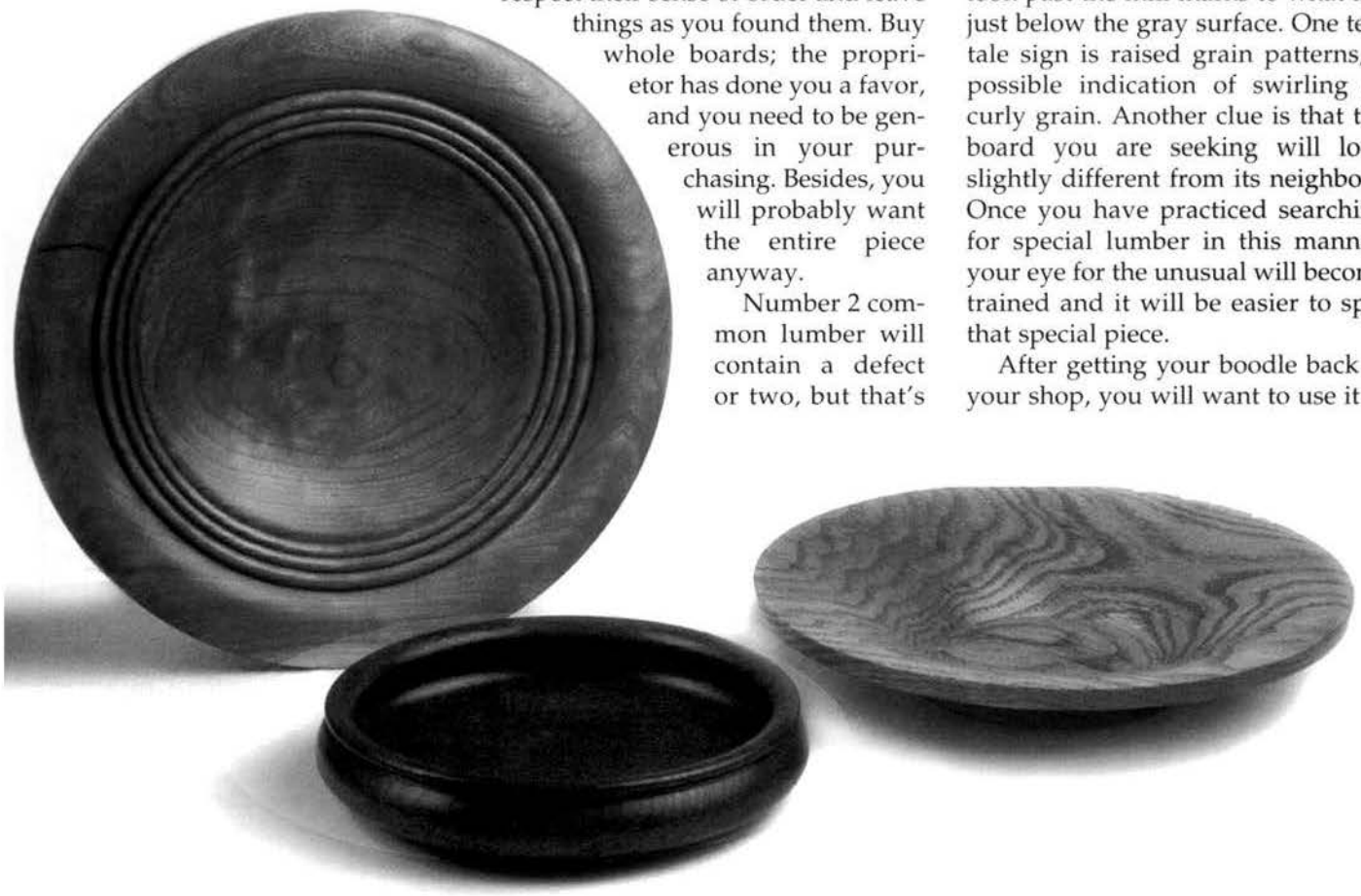
The type of lumber yard best suited for your hunt would be a small, out-of-the way place that stocks primarily native timbers and offers a variety of rough-sawn #2 common, 8/4 and thicker planks. Search through the Yellow Pages under various listings such as sawmills, lumber, and wood. Call or visit a local cabinet shop to chat with the woodworkers there—they might know of a lumber yard in a nearby town that you are unfamiliar with.

Think of your shopping as an exercise in weightlifting. The best buys are often the board on the very bottom of a rather large stack. Ask to be let into the back room in order to see the lumber before it is planed and sorted. Many lumber companies will let you have free reign as long as you respect their sense of order and leave things as you found them. Buy whole boards; the proprietor has done you a favor, and you need to be generous in your purchasing. Besides, you will probably want the entire piece anyway.

Number 2 common lumber will contain a defect or two, but that's no problem for turning purposes. Simply cut your circles around any defect, or include the defect in your finished piece. As you will discover, along with the defects often comes stunning grain patterns, particularly in ash, maple, and oak. Ash has been my favorite over the years; much of it responds well to turning, requiring little sanding. You might even be so fortunate as to find some honey locust, Osage orange, or other not-so-well-known species to select from.

So, how do you determine if a rough-sawn board is concealing lovely grain patterns? First, you must look past the mill marks to what lies just below the gray surface. One telltale sign is raised grain patterns, a possible indication of swirling or curly grain. Another clue is that the board you are seeking will look slightly different from its neighbors. Once you have practiced searching for special lumber in this manner, your eye for the unusual will become trained and it will be easier to spot that special piece.

After getting your boodle back to your shop, you will want to use it to

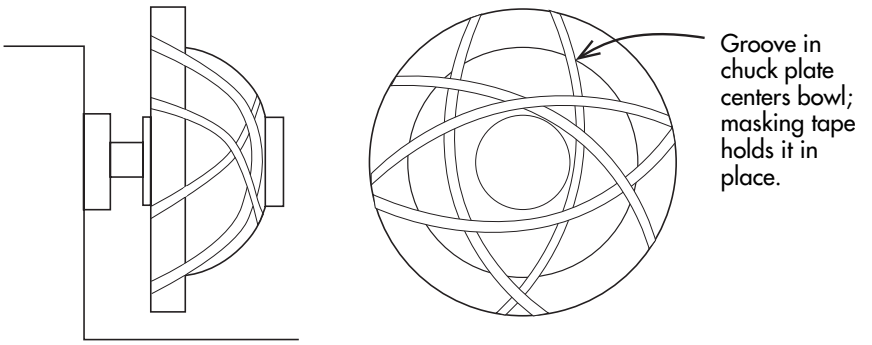


You can turn a variety of bowl and plate shapes within the confines of 8/4 (2-inch) stock. Above, from left to right, turnings from cherry, black walnut, and red oak.

Photos and illustrations: Rick Mastelli

From left to right, bowls of red oak, Osage orange, maple (all from 8/4 stock), and ash (from 12/4 stock).

Figure 1: Tape-chucking a bowl to finish the bottom



best advantage. That means using the whole thickness—not loosing any to methods of attaching to the lathe. Most rough-sawn 8/4 lumber will yield a full two inches rather than the $1\frac{5}{8}$-inch thickness of nominal 2-inch stock. Of course there is a catch—you must prepare one side for attaching to the lathe. For me that means hand-planing, but I will discuss two other methods as well. First, cut out a turning blank, using the bandsaw.

Method One: Hand plane a turning blank so that one surface is flat and smooth. I use red crayon scribbles on an established flat surface such as a bandsaw table. Simply rub the planed turning blank on the crayon marks to highlight the high spots. Plane until a rub reveals a flat surface. Cut an auxiliary block out of pine or fir, and plane one side flat and smooth. Glue the two pieces together using either yellow glue or gap-filling cyanoacrylate (CA) glue. I use three parallel clamps to hold yellow-glued-up pieces together, leaving them clamped for at least an hour and setting them aside for twenty-four hours until the glue cures. For CA glue, a shot of accelerator and hand pressure for a minute does the trick. I generally set this type of glue-up aside for an hour or so. Attach the auxiliary block to a faceplate with appropriate-sized screws.

Method Two: Sand the turning blank flat and smooth with a belt sander. This will leave the pores of the wood full of sawdust, but wiping with a damp cloth will clear them so that the glue will have a chance to work. Glue up as in Method One.

Method Three: Mount a small faceplate to the unsurfaced turning blank, running the screws into what will be the inside of the bowl. Attach to the lathe and turn the bottom flat, if gluing to an auxiliary block, or prepare the blank for accepting a chuck. Remove from the faceplate, then attach to your glue-block or chuck. If you use the chucking method, you may wish to turn the outside of the bowl now, otherwise generally follow the instructions listed below.

With the bowl blank attached to an auxiliary block, a faceplate, and then to the lathe, turn the outside shape of the bowl to the approximate shape you desire. Hollow out the inside following the contours of the outside shape already established. Refine the outside of the bowl a bit more, then return to the inside and finish turning that part. At this point, I sand the inside of the bowl.

With the inside of the bowl finished, I return to the outside shape. It may have warped a little by now, depending on the thickness of the walls of your bowl, the type of wood, and the amount of sanding you had to do. Finish turn the outside of the bowl, then sand as needed.

To part the bowl from the lathe, part through the auxiliary block, either all the way, catching the bowl with one hand, or leave a tenon an inch or two thick and saw through that tenon with a thin hand saw. If your bowl is mounted in a chuck, simply remove it.

Now you should remount the bowl and turn the bottom. This will be worth your efforts, as your finished piece will reflect thoughtfulness and good workmanship. The method that I use (Figure 1) is to mount a piece of stock on a faceplate—a piece that is slightly larger than the diameter of the finished bowl. (Sometimes I even use the next bowl I will be turning for this process.) Turn a groove the diameter of the rim of your bowl. This will become your chuck plate. It is not a jam-fit chuck, it is simply a centering device.

The next step is to use several pieces of tape to hold the bowl in the chuck plate. For bowls under 7 inches in diameter, I use a good-quality masking tape, across the piece from one side to the other. If

you have trouble holding the piece while taping it, bring up the tailstock temporarily to hold the bowl in place.

The taped bowl will stay put without the use of the tailstock, unless of course you get some sort of dig-in. This is where my scraping skills come in handy. I use a sharp round-nose scraper to take off most of the excess wood and a gouge or skew where needed for detail work. The best results are achieved when you follow the curve of the inside of the bowl and perhaps add a decorative bead. Use a straight edge to make sure that the bowl will set flat on a surface. Sand as usual. All traces of how the piece was attached to the lathe will be gone.

If you have built a special chuck (such as an Axminister) or own a set of jumbo jaws for a scroll chuck, of course, use it to remount your bowl for turning the bottom.

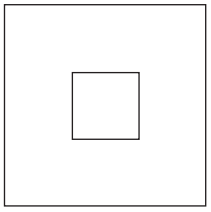
The shapes of the bowls in the photographs are a few of the many variations obtainable from 2-inch stock. There are also a host of spindle-turned objects that can be made from this type of lumber. With a little experimentation you will be able to come up with designs of your own. Turn two!

Betty Scarpino is a woodturner in Indianapolis, IN.

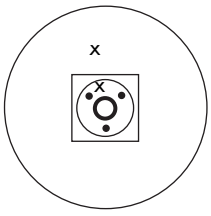
Jigs for finishing bowl bottoms

TOM JESIONOWSKI

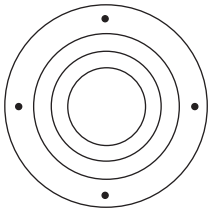
THE JIGS ILLUSTRATED HERE REPRESENT A SHOP-MADE WAY to hold bowls of various shapes in order to finish-turn the bottom after the bowl has been mounted for initial turning either by screws or chuck. Inspiration for the design came from many sources. I read in Dale Nish's *Master Woodturners* about how to cut the bottom of bowls. During one of the annual AAW symposiums, I saw Jack Straka demonstrate with his large machined aluminum faceplates. I did some redesigning and told Jack about my improvements.



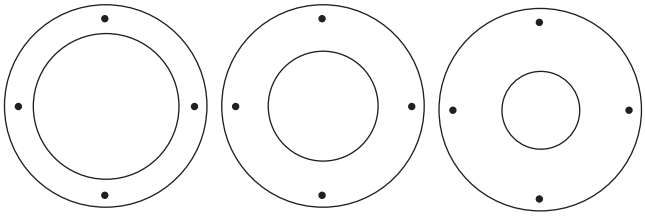
1. Glue a small block of plywood to the center of a larger piece.



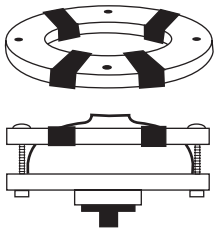
2. Cut a rough circle, mount a faceplate to the smaller board and turn the edge to a true circle. Reference the faceplates, if you are going to remove it from time to time.



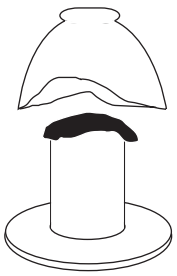
3. Glue a rubber pad to the surface. When dry, mount the base board on the lathe and turn slowly to mark concentric circles on the rubber face. These will help in centering the bowl. Divide the base board into thirds or quarters and drill holes for $^1/_4$-20 bolts.



4. Rough out several different-size plywood rings and place them over the baseplate to transfer the hole positions. Drill the holes, mount each ring on the baseplate, and turn the circles true.



5. Glue or bolt protective rubber bands on the inside hole of the rings. Use the appropriate size ring to secure a bowl for finishing the bottom.



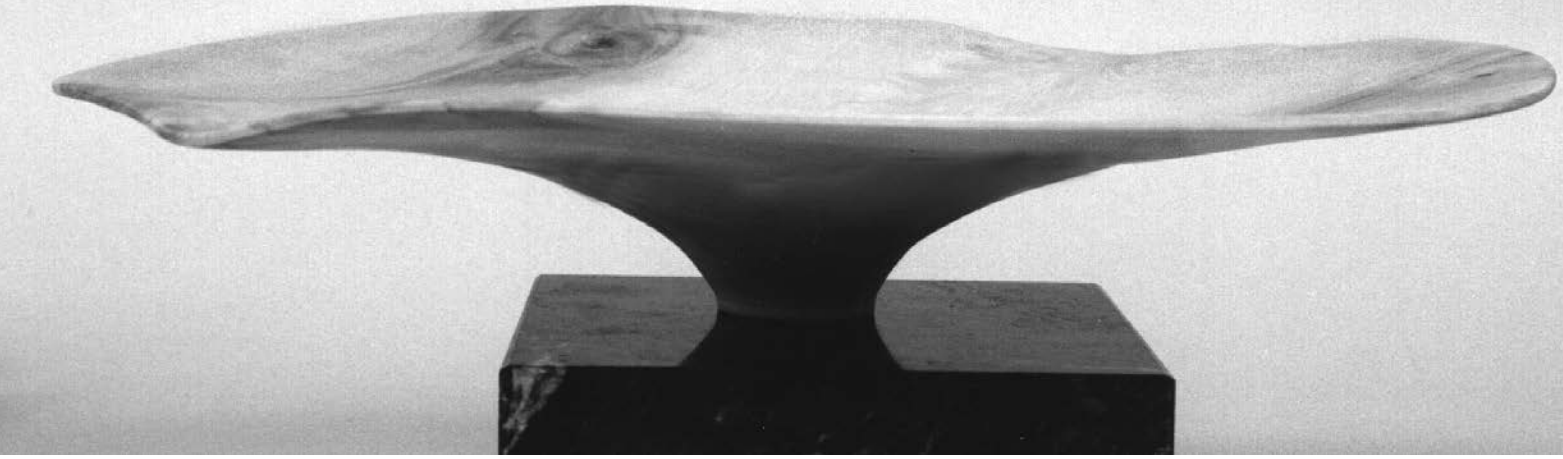
6. For natural-edge bowls, turn a plug of scrap wood to fit inside the bowl and hold the bowl off the base plate. Cover it with a thin sheet of rubber to increase the grip. Use the appropriate-size ring around the bowl's outside.

Tom Jesionowski is a turner in Lisle, IL. This material is adapted from a presentation he made at last January's meeting of the Chicago Woodturners. Chapter presentations make great beginnings for journal articles. When you're sharing ideas and techniques, think national!

Potato Chip Bowls

When warping is wonderful

PETER M. SMITH



The unique shape of this maple bowl, 10 inches in diameter, is the result of turning it thin while green and allowing it to warp as it dries. Note the kink in the rim caused by the tension of crotch grain in the blank.

Wood moves with changes in humidity and moisture content. Cabinetmakers try to control this movement with either strong joints (the dovetail, for example,) or, more advisedly, by allowing for the movement in the design. Bowl turners can reduce this movement by roughing out and drying their bowls as thick stock, and then re-turning the warped bowl true. On natural-edge bowls, an oval-warped shape is not noticeable because the contour is already irregular, but in general, warping distorts the expected circular form and can destroy the aesthetics of the piece.

We can, however, exploit this movement and create dramatic warping effects on thin-walled green bowls. Some of Del Stubbs' paper-thin pieces, for example, curl almost into cylinders.

The potato chip design

The following design, nicknamed "the potato chip," exploits the warping effect to a maximum with generally pleasing results. I would like to say generally *predictable* results but the natural movement of the wood is always unique, and the final result is sometimes more successful than others. The idea is to turn thin, green, wide bowls, and then leave nature to add the waves.

The preferred proportions are shown in Figure 1, below, and the main elements are graceful, sweeping curves on the underside, rising from a narrow foot to the wings, with a shallow depression on the top. Wide, flat wings of consistent thinness will warp nicely. Without the foot, the plate-like disc would not "lift" from the table. Different woods warp at different rates, with the fruit woods, particularly apple, showing the most dramatic effects. Knots, veins, and crotch grain will add tension which provokes further buckling of the edge.

The process

These bowls waste a fair amount of wood and are worth attempting only with 2- to 3-inch-thick blocks of wet wood. The diameter can be 3 to 12 inches.

I usually start by mounting the

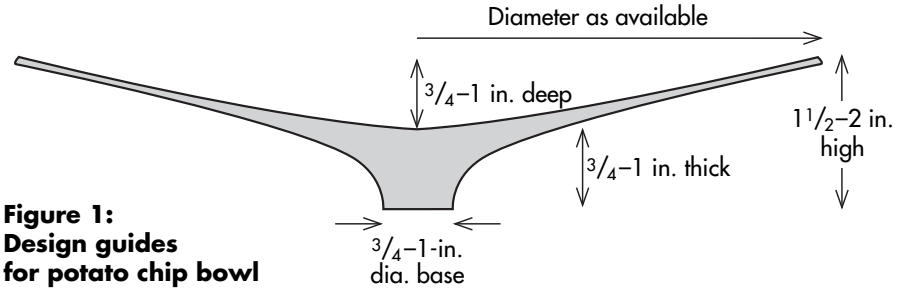


Figure 1: Design guides for potato chip bowl

block on a screw chuck and turning from the base through the sweeping curve that will be the underside. Then I affix a waste block to the base with cyanoacrylate glue and reverse the bowl on the chuck to finish the underside and define the foot (Figure 2). I recommend sanding, sealing, and finishing the underside here because once the bowl is thin, it will warp, and completing the underside will be difficult.

Addressing the topside, and using the first screw hole as a guide, I initially rough-cut to the general shape, with the wings still relatively thick ($^3/_{16}$ inch). A delicate cut is necessary to define the beveled edge. Then with a deep breath and a sharp gouge, I take one continuous cut from the edge to center, to leave the wings close to final thickness ($^1/_{16}$ or less). There is little room for repeat cuts here. Next, a sharp heavy-duty scraper can be used to shape the inside, pressing your left (gloved) hand against the underside to balance the force of the scraper. This risks tearing some grain but does remove the irregularities caused by the gouge. A bright light behind the bowl will indicate uniformity of thinness. Finally, the inside top surface can be sealed and sanded.

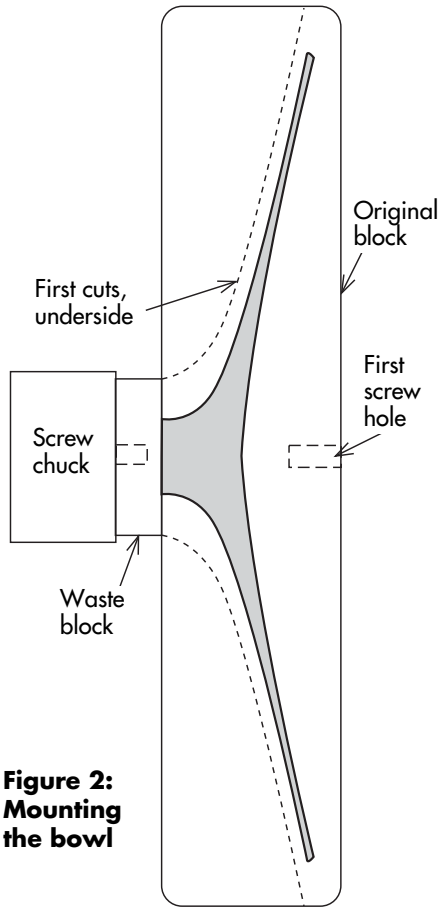


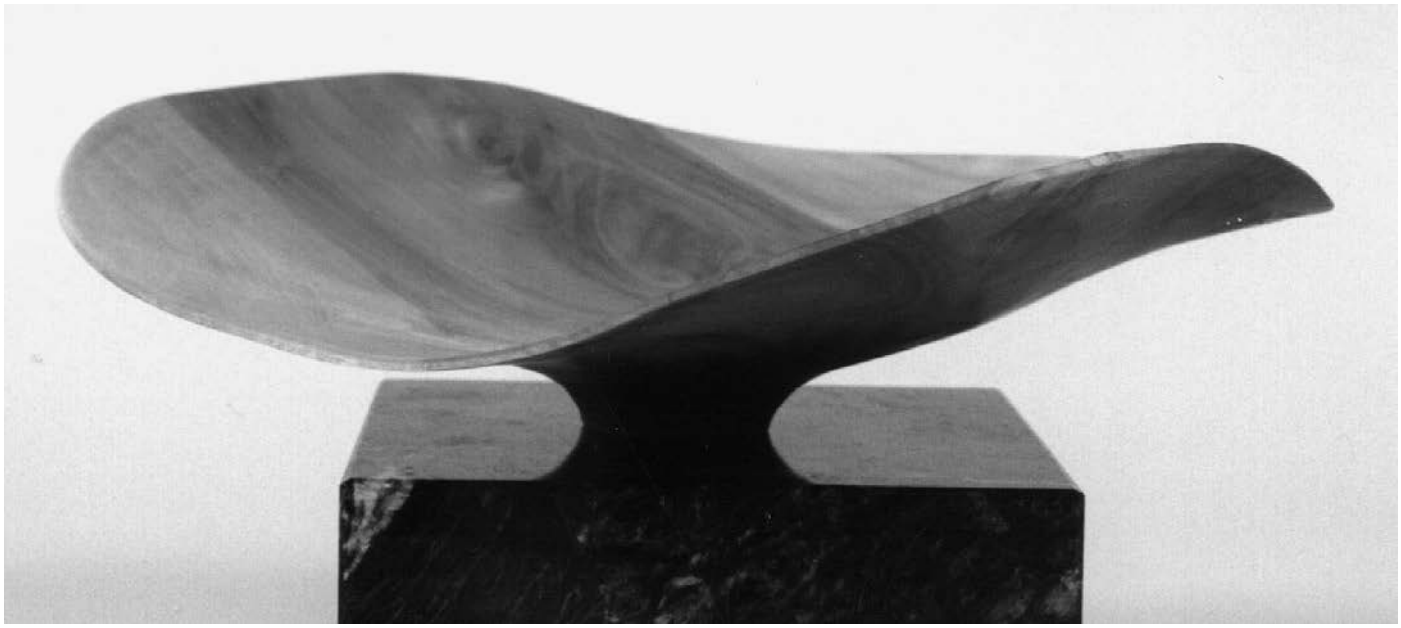
Figure 2: Mounting the bowl

You can now part the bowl from the lathe. Flatten the base on a belt sander; with enough happening on top, the foot requires no detailing.

The waves

While still on the lathe, the rim will begin to buckle. Within hours of parting, the initial wave form will be evident and will develop over the next few days and weeks. This is an exciting phase, and it is almost like watching a flower grow, where the natural adjustments of the wood, as it moves and shapes itself during drying, creates flowing curves. There is no need to microwave the bowl—let nature work its wonders. Final hand sanding, oiling, and polishing complete the piece.

Peter Smith is a turner and photographer in Cincinnati, OH. Photos and drawings by the author.



Apple bowl, 8 inches in diameter, showing strong rim waves.

Sweet Smell of Success

Tri-State Woodturners hold an inspiring contest

RALPH SPRANG

The members of the Tri-State Woodturners, the local AAW chapter in the Cincinnati, OH, area, recently held their annual turning contest. Our chapter has members at every skill level, and we wanted to make the contest fun and interesting for all. We wanted to challenge the experienced turners while still giving the novice turners a fair chance to win a prize. We considered several alternatives before settling on a perfume bottle as the project. A perfume bottle can be turned in less than an hour and does not require a lot of wood or a large, expensive lathe. It incorporates many of the features of a lidded box without requiring precise fitting and multiple mountings. You can turn it into a production item, a special gift, or a practice project for spindle techniques.

None of our members had much experience turning perfume bottles, so we all started on an equal footing. The contest rules were kept simple: spindle-turn the entry to completely enclose the $1/2$-ounce vial supplied and use a single species of domestic hardwood. In response to questions about offset turning, we further defined "spindle-turn" to mean "turned with the grain generally parallel to the bed of the lathe." We originally considered including a size restriction, but concluded the requirement to completely enclose the vial would effectively limit the size.

The entries were judged by the chapter members. To ensure objectivity in the judging, each entry was identified by a randomly assigned number. The entrants were divided into two groups: entrants who were winners of previous contests in one group, and everyone else in the other. Within each group, entrants were judged separately on design and technique. This approach accommodated turners who excel in technical skills, as well as those who prefer the artistic design aspect of our craft. The entries that received the largest numbers of votes in each category and group received major prizes. To encourage turners at all levels, we had four first-prize winners, as well as an entry prize for every participant. Among the group of winners of previous contests, Jim Corum won the design first prize, while Ray Averwater won the technique first prize. In the other group, Chip Moeser won the design first prize, and Alan Hildebrand won the technique first prize.

The prizes awarded included a variety of woodturning tools, materials, and accessories. Craft Supplies USA provided the perfume vials used in the contest, and also donated $50 gift certificates and a bowl gouge. Sal Marino of Full Circle was our major prize donor, providing banksia pods, pen kits, turning tools, and accessories. Other suppliers donated wood, books, adhesives, magazine subscriptions, and T-shirts. Through the generosity of all these contributors, we were able to ensure every entrant a prize with a retail value of $40 or more.

Our contest was a great success and a lot of fun. We all learned from the experience, improved our turning skills, and won some great prizes. Why not try a turning contest in your local chapter?

Member Bill Stephenson peruses the perfume bottle entries before voting.

Ralph Sprang of Milford, OH, is Program Chairman of the Tri-State Woodturners. He invites inquiries regarding setting up your own chapter contest. How is your chapter doing? American Woodturner *welcomes articles that report on chapter events. Let us know what you're up to.*

First-prize winners of the Tri State perfume bottle contest were (their work from left to right) Jim Corum, Ray Averwater, Alan Hildebrand, and Chip Moeser. The two center pieces won for technical merit, the outside pieces for design.

Turning a perfume bottle

THERE ARE SEVERAL APPROACHES TO TURNING A PERFUME bottle. In issue #102 of *Fine Woodworking* magazine Kip Christensen and Mike Sage describe two alternative methods. These work well for perfume bottles that have a distinct groove, lip, or other design feature at the joint between the lid and the base. The approach described here facilitates turning a bottle with little or no visible line or joint between the lid and the base. This method also simplifies keeping the vial centered, which ensures concentricity between lid and base and a consistent wall thickness in the finished product.

1. Because perfume vials from different vendors may vary in size, procure the perfume vial first. (Vials in $1/4$-ounce and $1/2$-ounce sizes are available from Craft Supplies USA, 800/551-8876.)

2. Select a single piece of wood large enough to turn the entire bottle.

3. Mount the wood between centers, and turn both ends of the blank to fit your chuck. (I use a Precision Craft Chuck, so I turn a dovetail tenon on each end. A straight tenon could be used to mount the work in a standard three-jaw chuck.)

4. Mount the base end of the blank in your chuck, and bring the tailstock center up for support.

5. Turn the general shape of the perfume bottle, leaving $1/4$ to $1/2$ inch of wood for final turning. Allow $1/4$ inch between the lid and base to part them.

6. Part off the lid, remove the base blank from the chuck, and mount the lid blank. Using the tailstock, drill the hole for the vial lid $1/16$ inch or so deeper than the vial lid dimension, to allow for facing and sanding the lid joint.

7. Face, sand, and finish the bottom of the lid.

8. Remove the lid from the chuck. Apply gap-filling super glue in the drilled hole, and insert the vial lid. Set aside to dry.

9. Install the base blank in the chuck. Using the tailstock, drill the hold for the perfume vial in the base $1/32$ to $1/16$ larger in diameter than the vial dimension, to allow space for the wood to expand and contract without breaking the vial.

10. When the glue on the lid assembly has set up, screw the glass vial into the lid. Using the long spout on a tube of silicon rubber, deposit about a teaspoon of silicone rubber in the bottom of the hole in the base blank. Carefully insert the vial, rotating it as you push it in. Align the wood grain on the lid with the grain of the base, and bring the tailstock center against the lid to clamp the assembly. Allow to dry.

11. Leaving the tailstock in place, use light cuts to shape the bottle to its final size. Leave a tenon on the lid where the tailstock center is supporting it.

12. Sand and finish the base and lid.

13. Retract the tailstock. Turn off the tenon on the lid, using very light cuts.

14. Sand and finish the top of the lid.

15. Remove the finished lid and set it aside. Using a parting tool and a slow lathe speed, turn a groove between the base and the chuck to allow space to turn the bottom of the base. Leave a $1/4$-inch to $1/2$-inch tenon to hold the base. Using miniature curved tools, sharpened dental tools, sharpened concrete nails, or other small, curved tools, dish out the bottom of the base.

16. Using a curved dental tool or similar small, curved tool, carefully part off the base from the tenon.

17. Sand off any vestige of the base tenon and sand the base bottom smooth. Apply finish to the bottom to complete the project. —*R.S.*

Dressing Table Mirror

This mirror consists of three basic parts: the mirror frame and back, which is turned; the side supports (two of them), which are hand-finished to shape; and the base, which is routed and hand-finished. Begin with a circular mirror so the frame can be sized to suit.

Mirror frame

Take a square piece of wood about $1\frac{1}{2}$ inches larger than the diameter of the mirror. On a screw chuck turn a $\frac{5}{16}$-inch deep recess for the mirror (about $\frac{1}{16}$-inch slack) and turn the frame to the desired profile. Sand in your usual manner. Take the wood off the screw and if you have a three- or four-jaw self-centering chuck large enough for the mirror recess you just turned, reverse the wood onto it. If you have no chuck, put a large enough piece of some cheap wood on a faceplate and turn a disk to fit the recess you have just turned. A reasonable push-fit is needed. Reverse the would-be mirror frame onto the disk. Turn and finish the side that will be the front of the mirror. This requires removing all the wood from the center to finish up with a ring. The diameter of the hole in the ring should be about $\frac{3}{8}$ inch less than the diameter of the mirror.

To make the back, use veneer-core plywood or something better if you like. Cut a disk on your bandsaw slightly larger than the right diameter. Use the live center of your tailstock to keep the disk pressed against the faceplate. If you do not want the centermark to be visible, use a piece of scrap in between. Turn, sand, and finish to make a decent-looking push-fit back.

The pivot holes ($\frac{1}{4}$ inch in diameter) are drilled on a drill press. Make sure that the frame is perpendicular in both directions on the drill table and that you are really drilling the two holes on a diameter. The holes should be blind; don't break through to the other side!

For pivots I use brass, but $\frac{1}{4}$-inch dowels can serve as well.

Side supports

The side supports are made of $\frac{1}{2}$-inch-thick stock. The width should be roughly the thickness of the turned frame. The length is about $1\frac{1}{2}$ inches longer than the radius of the frame. Turn a tenon on the bottom end of each support, $\frac{3}{8}$ inch in diameter, to fit holes you will drill in the base. Hand-finish the rest using a belt and disc sander. At the right height from the base, drill a $\frac{1}{4}$-inch blind hole for the brass rod or dowel in each support.

Base

The base should be a special piece, nicely finished. It needs to be long enough to accommodate the two side supports when attached to the mirror frame. Total length, width, and thickness depend on your aesthetic judgement. I usually finish the top edges by routing.

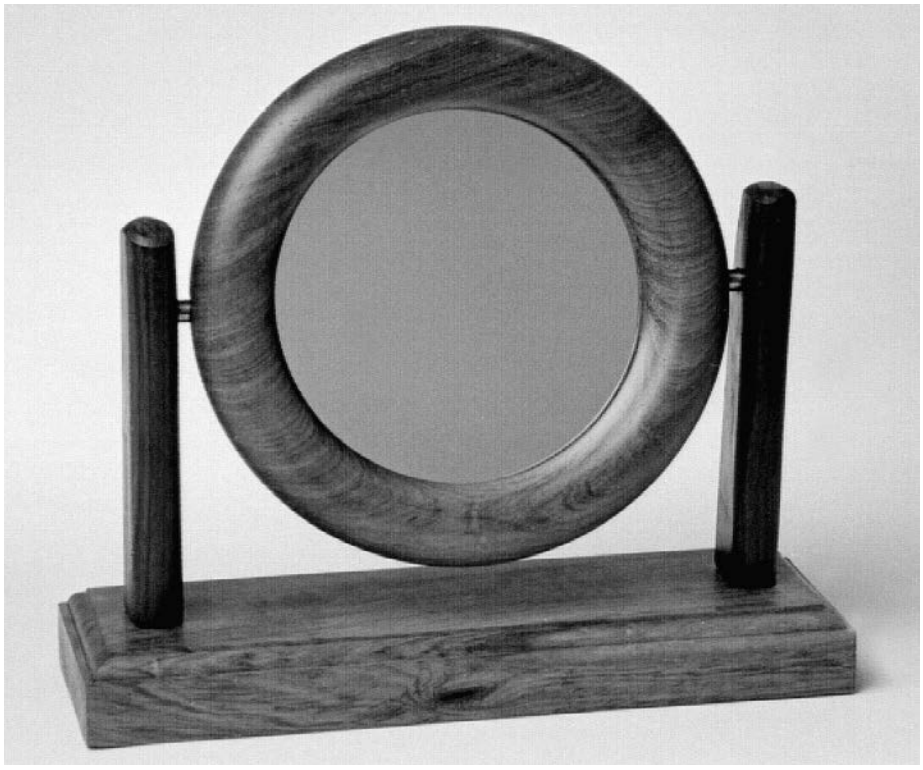
Assembly

Drop the mirror into the recess. Push the backing home and fix it with Hot Stuff or similar adhesive, if desired. Apply glue to the two pivots and push them home into the frame. Push the two side supports onto the pivots, leaving a gap between the supports and the frame of about $\frac{1}{8}$ inch. The pivots should bottom out at this distance.

Use the frame/side-support assembly to locate the holes in the base, and drill them. They should be about $\frac{1}{2}$-inch deep, not through the bottom of the base. To let the air out when the tenons are driven in, drill a $\frac{1}{16}$-inch hole through the base. Glue the tenons, and your mirror is done.

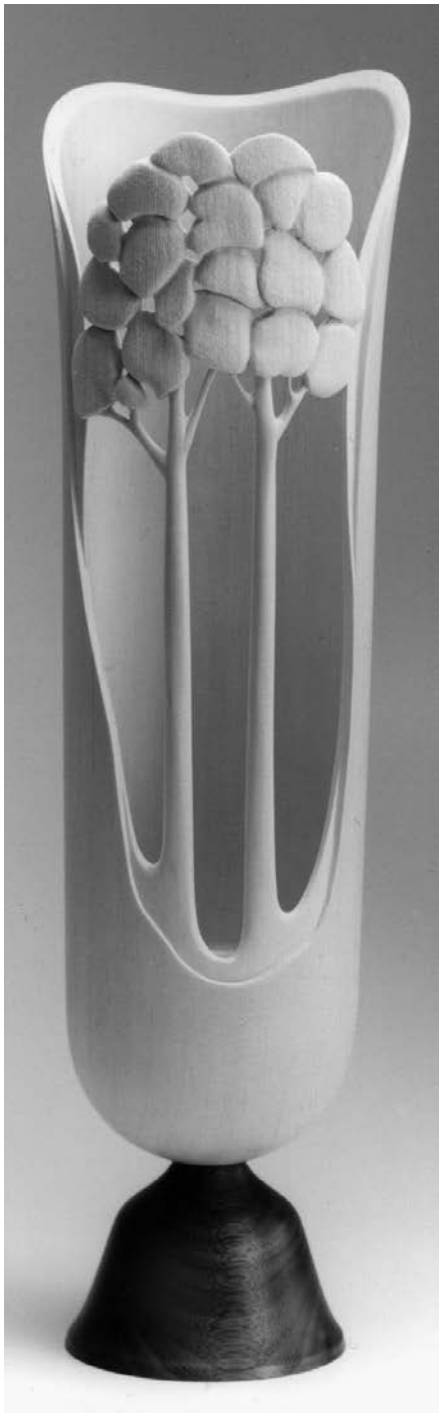
—Gabor Lacko, Chigwell, England

Rick Mastelli



This mirror can be a two-hour project, once you understand its simplicity.

Photos from the Mailbag



"Forest Image II," $13\frac{5}{8}$ inches high, is of yellow cedar, notably uniform in grain and color. Carving clear through the wall gives depth to the design and displays the interior, as finely finished as the exterior. A little sandblasting opens some of the grain in the foliage.
—Berle Miller, Nanoose Bay, BC

I have been selling my woodturning for four years. A couple of months ago I delivered these six turnings to Regency Bank's corporate headquarters. They are buckeye, ranging from 14 to 18 inches in diameter. *—Jeff Otto, Fresno, CA*

I have been turning for 38 years, introduced by a teacher sharing his hobby. I've named this walnut and poplar piece "Poised." It stands $3\frac{3}{4}$ inches high. *—Edward W. Szakonyi, Roselle, IL*

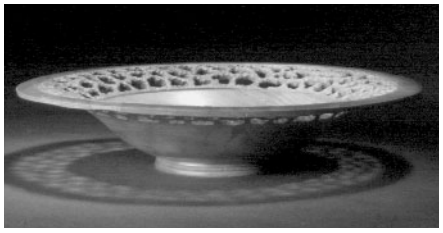
Whether "great minds think alike" or "there's nothing new under the sun," this piece by me and a friend is reminiscent of Frank Sudol's work on the back cover of the December '93 issue.
—Paul F. Heede, Fort Lauderdale, FL

Inspired by the work of Stoney Lamar, this sculpture was turned on eleven axes. It is spalted pecan, 13 inches high. *—Darrell Rhudy, Raleigh, NC*

ORNAMENTAL TURNERS TO DECORATE SYMPOSIUM

Expanded from last year's feature events, the 1994 AAW Symposium in Fort Collins will highlight ornamental turning, including the annual meeting of the OT Chapter of the AAW. Festivities will include the awarding of the "Friendship Cup." The Cup was a gift from Roger Davies of the Society of Ornamental Turners (SOT) in England and is awarded at each annual OTA gathering. The Cup went first to Jon Sauer in 1991. At the last OTA conference, hosted by Kener Bond and the Rochester Institute of Technology in 1992, the team of Dave Hardy, Ken Wurtzel, and Mark Krick received the Friendship Cup for a still unfinished rose-engine-turned goblet executed on the HaWK OT lathe.

FIRST NATIONAL SLIDES



A slide catalog of the AAW's First National Exhibition (cover story of the March journal) is now available to chapters and individuals. Totaling 76 slides and including every piece in the show as well as a comprehensive index, the set costs $75. Individual photographs can also be had: three copies of one image for $10. Place your order with Mary Redig.

CHAPTER MEETING IDEA

"Collaboration fever" is spreading. The members of the Central New England Chapter take home an anonymous piece from one meeting and have until the next meeting to remount and return, carve, paint, cut, burn, or somehow else transform it. Sounds like a challenge! Many chapters identify a special project or challenge to be turned and brought to the next meeting. These have included thimbles, candlesticks, collection containers, lace bobbins, and objects with an Easter theme (as well as the perfume bottle project on page 38). This is a great way to encourage participation at the show-and-tell table. If your chapter has an idea that has worked well, please pass it on to Mary Redig or write up an account for the journal.

STILL GROWING... The New Jersey Woodturners and the Harrison High School Environmental Club plant an 8-foot red maple to kick off the AAW/National Tree Trust program. Because small seedlings are not practical to plant in an urban setting like Harrison, coordinator Tony Cruz (holding the tree) has arranged for seedlings to go first to a nursery. The Trust supplies the growing containers and a soil subsidy for nursery care. To acquire hardwood seedlings for your area, contact board member Gary Roberts.

15 GOING ON 16

The 15th Annual Utah Woodturning Symposium at Brigham Young University the last weekend in April was the second biggest ever (after the one co-hosted with the AAW). Over 250 attended the demonstrations of 19 woodturners. If you missed this one, look forward to number 16: April next.

THE NEXT GENERATION

Last March the Wood Turning Center staged its first workshop devoted to students, teachers, and parents. It brought together sixty people, from age thirteen to well over sixty, and from neophytes and mainstream shop teachers to professional instructors and turners like Mark Sfirri, Dave Hardy, and Palmer Sharpless. The two days allowed attention to hands-on technique as well as design and intellectual matters. Thus the weekend highlighted both motives and means for woodturning to advance into the next generation.

NEW CRAFTS CATALOG

Meredith, publishers of *Better Homes & Gardens* and *Country Home,* is experimenting with a new publication, a "magalog" called *American Woodcrafts Gallery.* Aimed at promoting woodcrafted items to homemakers, the project will provide display space as well as studio photography services to woodworkers. You send your pieces, your promotional copy, and money (around $600 for a $1/4$-page ad), and they photograph your work, compose the presentation, and run it to an audience estimated at 300,000. For more information call (515) 284-3585.

Bulletin Board is for all announcements of interest to AAW members. Contact Bonnie Klein, 206/226-5937.

"…to the Marriage of true minds…"

POTTERY VESSELS WITH TWO SPOUTS are made by Southwest Native Americans for use during wedding ceremonies. The piece at left (8"H) is basswood painted with acrylic, imitating the color and motifs of the original pottery. The maple burl piece below left (10½"H) is another exploration of the form and its symbolism. The ash vessel below right (10"H) came as a challenge from Mark Sfirri to do a collaborative piece with him, beginning with different-shaped spouts. The spout with the round beads represents the female, and the more angular spout represents the male. The handle which forms the shape of a heart, is joined but not completely, suggesting how fragile marriage sometimes is. Indeed, the first thing Mark did when he got the piece was to remove the handle. The rest of his work, right, he entitled "Altered Vows." For how I make a wedding vessel, see page 20.

—Linton Frank, Perkasie, PA