American Woodturner

The Journal of the American Association of Woodturners March 1994 $5.00 Vol. 9, No. 1

FIRST NATIONAL

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

NOT JUST A SUBSCRIPTION...BUT AN ORGANIZATION

IN MY RESPONSE to a gentleman's query in the December '92 President's Page, I emphasized how different we are from a commercial magazine. Since we have so many new members and this topic, developed further, will clarify the nature of the AAW, I'd like to revisit the question of how we are more than a magazine subscription.

Fundamentally, the AAW is a 501(3C) non-profit organization with the stated mission of "providing education, information, and organization to those interested in woodturning." We function under established by-laws and a nine-member board elected by the membership at large. The offices of president, vice-president, secretary, and treasurer are selected by a vote among the nine members. We have only two paid positions, that of administrator (a full-time job) and editor (a half-time contractual relationship). As needed, both the administrator and editor are authorized to hire temporary help.

Our administrator, Mary Redig, reports to the board and works under the general management of the president. Mary is at the hub of the wheel: from an office in her home (our permanent address) she answers the phone; handles the mail; processes applications, renewals, and ballots; fields problems; manages the mailing list; arranges for our ancillary publications; maintains our records; etc. Mary has also handled registration for the national symposia.

Our editor, Rick Mastelli, is chiefly responsible for the journal. This entails soliciting, editing, and sometimes writing and photographing articles and news items; managing the ad accounts; producing mechanicals (now in electronic form); and delivering everything to the printer on time. Rick is also becoming involved in our ancillary publications.

Board members are expected to perform a number of tasks. First and foremost is to be active on various committees. Our standing committees are as follows:

- **Conference:** Researches sites, negotiates terms, coordinates with hosting chapters, engages demonstrators, and oversees the details of national and mini-conferences.
- **Education:** Develops guidelines regarding educational grants, reviews applications, and selects scholarship winners.
- **Local Chapters:** Helps groups to organize, provides information on applying for chapter status, reviews applications, and makes recommendations to the board on granting official status. Until recently, this committee also produced a local chapter newsletter.
- **Promotions:** "Markets" the AAW, handling press releases, advertising, and public relations.
- **Publications:** Works with the administrator and editor to publish the journal, newsletter, directory, special publications, and brochures.
- **Video Production:** Acquires resources, recommends strategies to the board, and is directly involved in shooting, editing, duplicating and distributing videos.

Committees are chaired by a sitting board member and may include other board members, former board members, and individuals from the general membership.

In addition to committee work, board members are assigned approximately seven chapters each that they are to communicate with at least four times each year—by letter, phone, or in person. This interaction between local chapters and the national organization, this multi-level cooperation among volunteers, is one of the special strengths of the AAW. (More about this in a future page.) Board members are also accessible to individual members.

The AAW connects its members to other groups. In recent years we have been communicating with potters, weavers, metalsmiths, blacksmiths, glass artists, furniture makers, and the like. We are relatively new, and some of these craft organizations have valuable experience to share regarding insurance, conferences, publications, fund raising, and problems common to volunteer organizations. We have also been in touch with turning organizations in Canada, Ireland, Belgium, Japan, Australia, New Zealand, and England. Some of our chapters have developed "sister chapter" relationships with local clubs in those countries.

And AAW activities are expanding. Last year we published our first project book from back issues of the journal. The Directory of members, chapters, and demonstrators has been enlarged to include some 325 suppliers, a bibliography covering most woodturning books published in this century, and a lengthy list of videos. We've begun an outreach program to involve young people in turning. And just last January, to provide more frequent and timely communication, we inaugurated an organizational newsletter that goes to all members.

Thus we are more than a magazine subscription. We represent a community of woodturners. Think of us as the net of an enormous network of craftspeople, groups, and businesses.

—Alan Lacer, President of the American Association of Woodturners

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On the cover: *Tom Kamila (left) and Amie LaFosse unpack turnings at the Fitchburg Art Museum for the First National Exhibition of the AAW. For more, see page 12. Photo: Rick Mastelli.*

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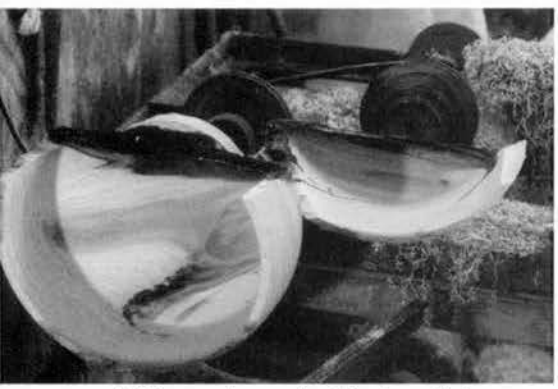
A poplar story

I began turning wood a year and a half ago. My first lathe was made of 2x4s, nails, and threaded rod, and it was mounted on casters. It worked, but I had to tie it down or chase it around the yard while turning. If anything, I made a good cartoon.

My second lathe is of 2-inch angle-iron bolted to concrete. The table is 31 by 31 by 30 inches high with a 1750-rpm motor. I have four operating speeds: 350, 560, 875, and 1400 rpm. I'm using a 1-in. shaft with split bushings for a faceplate. I put two bolts in the bushings, one replacing the set screw and one to pull the split together. My tool rest is a $1/2$-inch steel plate, 12 inches in diameter, with a pipe welded to the center and a 1-inch angle welded to the top forming a T. I have a channel set in the concrete at an angle from the right to the left with a plate inside the channel. I bolt the tool rest to this plate, allowing me to move the tool to most any position.

The tools I've made started with wrought iron and quickly progressed to tool steel. I have an old tire iron that's been used for everything but changing tires, so I put an edge on it and use it quite often.

In *American Woodturner* there is always something on safety. Turning wood can be a serious health hazard!



Whitmore's poplar blank, which was 12 inches in diameter before the blast.

Don't neglect wearing a good helmet. I'm thinking about the yellow poplar that came apart on me. I knew the crotch crack was there, but I failed to put any glue in it. I left the side thick hoping it would hold together. I didn't see the disaster. I had just turned around to get something and heard a shot gun go off.

I am a novice at woodturning and believe that I will be for a very long time. Each block of wood I put on my lathe has it's own story to tell.

—Harold L. Whitmore, Hephzibah, GA

Collaboration reconsidered

Thinking about collaboration, even before the December issue, my automatic response was that it meant work done in partnership with someone else or perhaps more than one person: working as a team. I thought too of Mark Sfirri and Michael Hosaluk just as they presented themselves in the December issue: work made by a person, sent on to someone else to either finish, re-do, color, cut apart, whatever. We did that once with students at Arrowmont. My turning students made pieces and we took them to the fiber department where a friend of mine was teaching dyes and colorants. The other students painted and decorated these pieces.

But there's another kind of collaboration, one that rarely gets any credit as being such. For example, the platter I had in the ITOS show: I made this platter, took it off the lathe, applied dye and found to my extreme displeasure horrible sanding swirls appeared when the dye soaked in. It looked pretty awful. My lathe at that time was pretty awful, too. I saw-no way to remount it to turn or sand these marks out. A neighbor came over to borrow a tool; Gail Fredell is quite an outstanding furniture-maker and teacher. I showed her my mess and of course welcomed this opportunity to complain. She suggested I rough it up more, make grooves, lines. My first response was negative, based only on the fact that I didn't get what I had wanted. Later, I thought why not? I took out the dremel, carved up the surface, and a wonderful piece emerged, as well as a way of working I've continued to use. It wasn't exactly what Gail had suggested, yet her words made me look at the work in a new way.

Another time, making a table, I'd made a rough, full-scale model but something just didn't work. I wasn't sure how to proceed or perhaps wasn't brave enough to push the design further. I telephoned another neighborhood friend, a furniture-maker also. I really wanted him to look at it and say it was great. Instead, he said, "Those legs, make the base smaller, they'll look better." I hesitantly tried one. It worked.

My old neighborhood was comprised of many artists. We frequently called each other for advice or went out for lattes when we did not feel like working or the work was going badly. This is the other kind of collaboration I am thinking of. Whose work is it? My friends hadn't put their hands on the pieces. But surely their approach, thinking, and critique, were an integral part. How often does that happen? How should it be acknowledged?

—Merryll Saylan, San Rafael, CA

Call for election reform

I feel our current policy for establishing nominees for the board of directors of the AAW needs changing. As I understand it, members who have the interest in and who judge themselves to be qualified for a seat on the board can submit a letter of consideration which is published to the membership at large. Based on these statements, we attempt to decide

who will best serve our organization. Unfortunately, this requires that good candidates, and only good candidates, be self-promoters and skilled writers, able to convince us in a few words to vote for them.

An alternative approach would be for members to submit letters of recommendation supporting a candidate, along with a personal resumé from the nominee. This would provide a broader view of a candidate's worth and ensure that candidacy itself is rooted in membership support. Supporters could campaign for their candidate, which would promote the exchange of information and a more knowledgeable vote.

A disadvantage of this approach might be an unwieldy number of statements to publish and review. Therefore, we might institute a nominating committee for the purpose of soliciting and screening qualified candidates. This would provide a focal point for nominating activities and ensure that candidates who come to election have earned the right to do so.

Fundamentally, the requirements for nomination must be reconsidered. Our bylaws (Article V, Paragraph C) stipulate the following as the only qualification for serving on the Board of Directors: "Anyone may serve on the Board of Directors who has stated an interest in lathe-turning." Clearly, we deserve more than that.

I understand the board is currently discussing these issues. All members at large who have opinions or suggestions regarding this subject should contact board members. This way the board can proceed in a representative way.

—Gary Brackett, Cincinnati, OH

Turn green, scrape once

After reading W.L. Stephenson's article on "End-Grain Turning" (December, 1993, pages 34–37), I wish to take exception to his methods:

When I started turning about seven or eight years ago, I didn't know differently, and made many mistakes along the way (which, it seems, we are always doing), but one thing that I did right was in turning green wood: I developed a system of turning about an inch of wood from the end grain at a time (never more), and turning to the desired thickness (I turn green wood to about $1/8$ inch or less, often translucent). But I never bring the scraper back over that surface after I've finished, as the piece is already warping or distorting, and you can easily discover just how out-of-round it is: Reapply the scraper, and you'll lose the work.

My favorite wood is citrus, which is plentiful here in the Valley, and it machines well green. It becomes very hard, as most fruitwoods do, upon drying. The wood has a beautiful yellow color, though I've had some pieces in shades of brown from the same limb, and gives off a popcorn aroma when turning.

I have lost only about three pieces in the years that I've turned, but most have become distorted in drying, which is a characteristic of green wood turning.The practice of turning away only an inch of wood at a time is well followed in dry woods as well, as the stress found in most woods will relieve during turning, causing an out-of-round shape while still on the machine.

Also, when finish-scraping, it is a good idea to have the scraper in a downward angle from the steady rest (similar to a skew), as this makes for a finer finish scrape and less sanding. Be careful to have a good hold on the tools, as they can rise up and rap you along side the head if held too loose.

—Orv Dunlap, Phoenix, AZ

Bill Stephenson replies:
I, too, use the approach outlined above in both end grain and tangential grain. It works well, especially when using dull tools or scrapers.

There can be a problem in taking a single, smooth cut from top to bottom (or bottom to top, depending on grain orientation) in that step-turning will have left bumps or valleys which must be delicately removed or sanded out.

Reflections on Kaleidoscope 101

Thank you for the kaleidoscope plans (*American Woodturner*, December 1993, pages 42–43). The project impressed me so much that I selected it for our club's Challenge for the Month. I've made a few of them now and plan on a few more, as they will make great gifts.

Since I'm far from an expert turner, I devised a simpler way—for me, at least—to turn between centers. I mount and turn to final configuration a log or piece of wood about 3 inches in diameter and about 13 or 14 inches long. I include a tenon for later mounting in the Nova chuck. Next I drill a 2-inch hole in the large end, using a Forstner bit, then I drill the 1-inch hole $7\frac{3}{4}$ inches deep, using a spade bit. After drilling, I part off the kaleidoscope and drill the eyepiece hole on the drill press.

The purpose of the extra-long piece of wood is to provide the necessary $1/2$-inch and $3/16$-inch spacer and retainer ring (I wasn't able to figure out how to get a $1/2$-inch spacer from a piece of $3/8$-inch stock!) I turn a section of the extra stock to a 2-inch diameter, drill a $1\frac{1}{2}$-inch hole in the center of it, and part the pieces off. This way, they are the same wood as the rest of the kaleidoscope, and the wood is already mounted in the chuck.

—Bob Dietz, Arroyo Grande, CA

Second Annual Texas Turn-or-Two a Rouser

Lunch under the oaks at Texas Turn-or-Two No.2.

It was an entertaining, educational, and lively two days last October in the heart of Texas. Internationally renowned John Jordan, along with fifteen state and regional turners, held sway over approximately 135 attendees of the second Texas Turn-or-Two. The hands-on area, staffed with several experienced turners, provided a full range of opportunities to everyone who wanted a go at shaving wood round. A large and varied Instant Gallery drew oohs and aahs, attesting to the skills and creativity of many of the attendees and provided future challenges to all turners. A small trade show was also available for those needing shop goodies.

As last year, Mark Potter dedicated his entire production woodworking shop to the event and he and his family almost singlehandedly met the host of challenges a weekend such as this presents. His shop, located just outside Columbus, is situated among several huge oak trees, and on both days a catered lunch was spread beneath them. He had electrical hookups for RVs, space for tent campers, and ample parking immediately adjacent to the activities. An occasional scream of the chain saw announced another proud owner of an exotic piece of turning stock from Mark's plentiful supply. Spalted woods of all kinds, burls, and varieties too numerous to mention were cut to order.

A raffle was held, and the top prize—a Record lathe donated by Record Tools through Woodworking Unlimited of San Antonio and the Alamo Woodturners Association—was won by Pat Titus of San Antonio. Numerous door prizes were also awarded.

Despite a number of conflicting local and regional events, the attendees judged the weekend a resounding success. At a brief general meeting under the oaks on Sunday, a unanimous vote officially labeled this the Second Annual Texas Turn-or-Two with many more to follow. So mark your calendar for the second weekend in October 1994 for Texas Turn-or-Two No. 3.

—C.D. Barrington, San Antonio, TX

John Jordan demonstrates the shaping of a vase form, left, while Mark Lowery uses a circular steady rest to stabilize one of his ceremonial drums, right.

Photos by the author

On Plagiarism and Creativity

EDITOR'S NOTE: *As promised, Robert Rosand followed up his letter about influence, copying, and plagiarism (page 3 of the December issue) with an essay that he sent to a number of people, inviting them to send their responses to me. I received enough material to fill six journal pages. I have therefore taken some liberties in editing this material (including Bob's, which appears first) so that everyone could have a say. I know there's more to say, and I will leave space in future issues for further thoughts on this topic. Please join in.*

THE FIRST RESPONSE to my call for ideas was a note from Alan Lacer referring me to the President's Page in the September 1992 issue of *American Woodturner*, where he addressed some of the issues we need to discuss. I also received an excellent article from (and by) Mike Darlow, "What Price Originality?" (*Woodworker*, June 1989). Mike has obviously thought about this issue, and I use some of his ideas here (hopefully not to the point of.... Well, you know). I have no illusions of coming to a consensus on the issues at hand. These issues have been with us for some time and will continue to be. I hope to get some insights from those who have been thinking about the problem, as well as from those who can bring a fresh perspective.

For Mike, plagiarism is "the appropriation or imitation of other's ideas or styles and passing them off as one's own." Plagiarism implies the intent to deceive, and also includes "copying which is perceptible and significant, where the plagiarist does not overtly claim to be the originator, and where naming of the original sources is omitted, either intentionally or not."

Mike also points out, correctly I believe, that "woodwork writers and publishers almost universally seek to expunge any hint of academic style by omitting footnotes and references." I believe if we want to be perceived by our peers as having a legitimate publication, then we should include at least a reference section at the end of appropriate articles. Without getting fussy, it will be a courtesy to those who wish to investigate a topic further.

Mike points out that we in the woodworking field are somewhat indifferent to plagiarism. In literature or psychology (my area) to steal anothers' work or ideas is the kiss of death. But it is also relatively easy to identify when that plagiarism has taken place. It is not necessarily so with woodturners or woodworkers. The following reasons are listed almost verbatim from Mike's article:

1. Similar designs occur independently to different designers.
2. A "new" idea may be an unconscious recollection or association by its later (re)creator.
3. New ideas are frequently exaggerations, refinements or reappraisals. In the past, the warping of a green bowl was unavoidable and undesirable. Today many turners use warping to their advantage, as a decorative feature.
4. Many techniques and design features are difficult if not impossible to attribute, particularly when of some antiquity.
5. New design styles are often fresh associations of a number of preexisting design elements. Such compound plagiarism is rarely considered plagiarism at all.
6. After a time knowledge becomes public. This doesn't imply that we shouldn't acknowledge the originator, but perhaps implies that it is less critical to acknowledge because the relevant public should already be familiar with the knowledge and its source.
7. Design elements may be plucked from other media. Mike points out that jewelry and ceramics have tended to be more advanced than woodworking and thus have been a source for ideas. The bowl with a concave bottom has only recently become popular in woodturning, but has long been used in blown glass.
8. The level of design knowledge of those interested in woodwork is generally low, which is a stimulus to covert plagiarism.
9. Many leading woodworkers teach, demonstrate and exhibit—a double-edged sword: it both encourages plagiarism directly and discourages it by making the original material better known.

I believe that if you travel around the country and teach and demonstrate how to flute a bowl or do a certain edge treatment, then you can also expect to see those things show up on the market from time to time. If you don't expect to see turnings similar to yours somewhere in your travels, then don't teach your techniques step by step. And by all means, do not produce a video on how you do what you do!

At this stage of my turning career, my claim to fame has been my Christmas tree ornaments. I demonstrated them at the national symposium this year and at a few local chapters. I also published articles on how to make them in *American Woodturner* as well as *American Woodworker*. I fully expect to see similar ornaments at a competitor's booth sometime in the near future. I would hope that he or she would acknowledge me, but more than that, I would hope that by the time turner X can do them as fast and as nice as I can, I have grown and am looking in new directions.

I believe that when I take money to teach or demonstrate something,

On Plagiarism and Creativity

that also implies permission to make that item. Now that I've said that, I can also see the other side of the issue. The average guy who takes a workshop is probably delighted to go home and do his version of a David Ellsworth or a John Jordan. But you run into a major problem when someone has achieved a skill level that enables him to duplicate work and concepts that took an Alan Stirt or Stoney Lamar years to develop. That in itself may be no real problem, but when that person is directly competing with you in the marketplace, you face some real dilemmas. Those demonstrating could probably avoid a great deal of aggravation if they explained how they feel about exact replication of their work and techniques. It would be much easier to include a few moments of commentary concerning plagiarism in each demonstration or class than to confront the person after the fact. Additionally, the plagiarist would have less of a defense for his or her actions after being lectured to on the subject.

Copying is a necessary step to growth within any field. But I would like to see us distinguish between original works of art and projects. It would seem alright to copy or duplicate a project, but the idea of copying an original art work strikes a dissonant chord.

Just as David Ellsworth reminded me that artists have an obligation to be aware of the work going on within their field, so too do the galleries and publications. Having your work rejected because it looks an awful lot like someone else's may lead you to rethink the kind of work you are attempting to market.

I would also suggest calling the originator of a piece if you think that you may be infringing on his or her territory. I received a call from Christian Burchard asking if I would be offended if he marketed Christmas tree ornaments similar to mine in a catalog. I had no problem, but more important, I made another friend and contact in the turning community.

We would be naive to think that we can eliminate plagiarism within our ranks. When we find that someone has ripped off an idea or a concept, he or she ought to be confronted. As well, we all need to be more careful about crediting those from whom we receive our inspiration. As I reread Alan Stirt's letter in response to seeing my piece on page 43 of the September issue, I think that he was more hurt by the thought that he was being ignored than by the idea that I had turned a platter similar to his. A bit of research on my part could have avoided the problem altogether.

Hopefully, all of us will think a bit more about where we get our ideas from, and about crediting those from whom we have received inspiration.

—Robert Rosand, Bloomsburg, PA

WE ARE ALL INFLUENCED by previous work. Influence can run the gamut from being "inspired by" through being "influenced by" to being "derivative of" to "copying." No doubt we will each have our own opinion of how a given example falls into these categories.

I think copying is a natural part of the learning process. It becomes a problem when the work goes out into the marketplace and/or publications. I appreciate and accept Bob's apology in the December issue, but I disagree with some of his points here. I think he takes a narrow view of how work gets copied. Teaching isn't the only way a person's work can be presented and laid open to imitation.

When I accept money to teach or demonstrate, I do not imply permission for anyone else to duplicate my work. People frequently do ask me if they can copy a piece in class or for their own use at home, to which I generally agree. I don't expect it to appear in the marketplace, however.

Permission to imitate my finished products has never been part of my contract, explicit or implicit. When I teach or demonstrate, I am paid for my time and for sharing my techniques and thoughts on the subject of woodturning. Most of the joy of teaching comes through intangible things such as meeting people with an enthusiasm and love for wood and the process of turning. At its best, teaching can be a sharing of the human spirit. If teaching is reduced to the equation that because you give me money, you can make my designs, I want no part of it. In industry and in some production crafts, people do sell their designs. However this is done with explicit agreements and contracts. I teach my techniques so people can use them to produce their own work and as an aid to developing their own techniques.

A few years ago, I attended a workshop given by a writer I admired. He had written a book that might be called historical fiction or a factual novel. In a two-hour session, he demonstrated his techniques of using original historical sources to weave an account that although fiction was largely factual. It was fascinating and inspiring. I'm sure he would have been pleased if I had used his methods to do my own historical investigation and produce my own piece. I don't think he would have been happy if I came up with a book that was nearly an exact copy of his.

The subject of copying comes up

On Plagiarism and Creativity

during most of my demonstrations. Thoughtful people have said, "I like what you're doing. I want to use your techniques and concepts, but I don't want to copy you. What should I do?" I have no easy answer. I do believe that with time and practice, all of us can make work that is our own.

In the months since my response to Bob's publication of his work, it's been challenging and rewarding to see that as a community we share the concern that we be as thoughtful in the ethical aspects of our work as we are in the technical and aesthetic. I hope that this can be part of an ongoing discussion.

—Alan Stirt, Enosburg Falls, VT

WE NEED TO BE CLEAR on what group of woodturners we are talking about. The majority of turners who attend workshops and buy books and tapes are amateurs, sometimes novice, sometimes very proficient, but still people enjoying a very pleasant pastime in various ways. These turners are not the ones we are talking about. We are talking about the relatively small group who are dealing with major galleries, submitting work to national exhibitions, participating in large craft shows, etc.

WOODTURNERS CAPABLE OF DOING WORK AT THIS LEVEL DO NOT NEED TO ATTEND A WORKSHOP OR WATCH A TAPE TO LEARN HOW TO DO IT IN ORDER TO COPY IT! As far as I'm concerned, workshops and demos do not contribute to the problem.

As for traveling and demonstrating, having a seat at a demonstration does not give anyone the right to copy and sell that demonstrator's work. As a demonstrator/teacher I am trying to do several things: Pass along technical skills and ideas, design concepts, and sources of inspiration, and provide a little entertainment. I do this by demonstrating work that is familiar to me—my own. Who would want to see a demonstrator that did not demonstrate or discuss the work he/she has become known for? The issues at hand are commonly discussed in workshops. I don't know why Robert assumes otherwise. If someone goes home and makes a piece he has seen demonstrated, that is perfectly fine. Emulation is a good learning tool for many. By increasing knowledge through these workshops, the field grows, a few are inspired, the work gets better, we all benefit.

What makes a turner's work unique? It's not the wood, or the form, or the surface decoration. It's all of these things plus that intangible quality that comes from investing one's self into the piece. Steve Loar did a couple of excellent articles on this subject in *American Woodturner* December 1991 (Vol 6, no. 4) and March 1992 (Vol. 7, no. 1).

You can put sideburns on your Grandaddy, but that don't make him Elvis.

—John Jordan

Robert maintains that it is not so easy to recognize when plagiarism has taken place in woodturning. I don't see the difficulty. If it looks like someone else's work, or you have to explain how your work differs, well.... Changing an element or two in a copy of someone else's work is not enough. Don't look to see how another's work can be changed to become your own, rather how it might influence *your* work.

—John Jordan, Antioch, TN

WE TURN TO COPYING the works of others for a variety of reasons: economics (money, greed, sales, survival), appreciation or delight, challenge, education, or a lack of one's own original ideas. I would venture that the last reason is the most common—at least in our field. There has been such an emphasis upon technique (even with "art turners") that far too little is discussed or taught on the generation and development of ideas. This reluctance runs deep among those getting their sea legs at the lathe, among organizers of conferences who fear "non-chip-producing sessions," and among participants who have no interest in talking "art." When an article is run on design questions in our journal we have typically received a small wave of complaints. Consequently, when encountering the eternal question of what to make, many choose only from what they've seen in demos, exhibitions, and publications. Problem is, these ideas are probably someone else's, which in some instances is not okay. And giving credit is not really very practical, as few turned objects look good with footnotes attached!

I see two solutions to the problem of plagiarism: First, we need to be aware of the problem, and that means having discussions like this. We should realize that ill-considered copying could devastate our craft, particularly because its impressive development these last twenty years has been due to openness and sharing. Not until enough turners recognize what kind of problem this is will there be the necessary effort to address it. Second, we need to promote and to teach how to generate and develop turning ideas. Whether

On Plagiarism and Creativity

we're inspired by nature, other crafts, or our neighbor's bowls, we must learn how to be creative. Until we can differentiate between legitimate borrowing of ideas and exploiting someone else, until we can cultivate the capability and motivation to develop our own ideas, plagiarism will be a problem.

So here's what we need: a willingness to explore ideas (even those that are not as straightforward as the boiling point of water), an appreciation for the sources of ideas, and a tolerance for the effort necessary to sort these things out. This is a far better solution than accusations, pulling back, or activating the "turning police" to keep us all in line!

—Alan Lacer, Norman, OK

THE PICASSO QUOTE on this page may seem flip, but there's a good deal of truth to it. All artists copy, and artists learn and become good by copying. But if you want to become really good, you have to steal. You have to take something—from wherever: from nature, from history, from your contemporaries—and make it yours. You have to take it, understand it, assimilate it, and make it so definitely yours that no one, not even the person you took it from, has any conflicting claim.

Look at what Picasso did with Velázquez's *Las Meninas (The Maids of Honor)*, and you will see a work that is as unabashed a derivation as it is a Picasso. You will see that Picasso included in his title of the work the words "after Velázquez." I don't know if Velázquez would have appreciated Picasso's cubist rendition, but it was a compliment, and Picasso did do right by his inspiration, on canvas as well as on the record.

—Rick Mastelli, Montpelier, VT

SO WHAT DOES ALL THIS FUSS about woodturning and plagiarism have to do with you? Especially to those of you who do not intend to sell your work or have photographs of it published in magazines? You're turning because you like to turn—it's a hobby.

Why do you enjoy turning wood? What is it about the process of attaching a chunk of wood to a lathe, turning, sanding, and finishing that appeals to you? I expect that most answers will include something about the satisfaction of creating something or of making things. But these are not identical.

If you intentionally copy someone else's work, you are most definitely making something, much in the way that you would build a rocking horse from a set of plans or make an object just like one you saw in a photograph or at a demonstration. That is certainly rewarding, pleasurable, even educational, and entirely acceptable. After you make these things, you enjoy giving them away or proudly displaying them in your home or even earning a little money to help pay for your habit by selling multiples of them at flea markets and bazaars. You have made wonderful things and you should be pleased with yourself.

Good artists copy, great artists steal.

—Pablo Picasso

On the other hand, are you considering selling the things you make in galleries or craft fairs or sending photographs of them to magazines—places that are looking for original work? Is it your work? Your creations? Have you developed your own style and way of working with wood from past knowledge and experience so that you can call these things yours? If not—if you are merely copying someone else's creations and passing them off as your work—then you are plagiarizing.

—Betty J. Scarpino, Indianapolis, IN

EVERY CRAFTSMAN LEARNS from his or her fellow craftsmen. Growth, development, and change—making modifications to observed craft design, bringing forth new versions based on learned skills and understandings—this is not plagiarism.

However, since woodturners began sharing their love of the craft as well as their techniques, tools, ideas, and experiences with all comers, their products have included a good many look-alikes. No problem—unless the claim of uniqueness or originality is made in presenting the product to the public. In the marketplace, let the buyer beware.

Years ago at an early symposium I was asked to carefully explain how I made my "circus," a rattle with three encompassing rings. I spent about two hours detailing the rather simple process for the visitor. A few months later, the cover of *Fine Woodworking* magazine featured a three-ring rattle, this one with a handle, in an article by my symposium acquaintance. To say the least, I was surprised. However, my circus is still a part of my stock and trade, and I use it effectively to teach a simple technique in my workshops.

Fine workmanship, good wood, sharp tools, and a creative mind will never go out of style. Sharing skill growth and helping other aspiring craftsmen to enjoy and benefit from our chosen craft have been a benchmark of our modern turning movement. May that always be so.

—Palmer Sharpless, Newtown, PA

TURNINGS AROUND THE HOLIDAYS

John Harrison

Some of the results from the East Texas Woodturners' Project '93: ornaments for a local senior citizens' home.

I RECEIVED A NUMBER OF LETTERS, reports, and newspaper clippings last January, detailing the various ways that the holidays were enriched by the contributions of woodturners. All crafts were well represented in the close of what had been dubbed by the American Crafts Council "The Year of American Craft." But woodturners occupied a special place, at least in my in-box. The season's spirit was evident in the trees all over the country that were decked with turned ornaments.

Bob Jarrett of the Central Oklahoma Woodturners reported that his group, along with the Northeast Oklahoma club, added a hundred new ornaments and twenty-five feet of beads to the Kilpatrick Center Christmas Tree Fest (see *American Woodturner*, March '93, page 38).

The East Texas Woodturners, a recent addition to the AAW, donated more than sixty tree ornaments to their Salvation Army senior citizen home. Charles Brooks mailed me a local article on the project which had been picked up by the Associated Press. "We have had calls from Dallas, San Antonio, Waco, Wichita Falls, and Amarillo," he said, "from people complimentary of our desire to share our work."

Members of several groups wrote with pride to tell of the honor bestowed on members among them who had been asked to contribute ornaments for decorating the White House. The project involved some 3,000 artisans in various media who contributed about 7,500 ornaments for twenty-two White House trees.

The most prestigious holiday event was the gala reception in early December to celebrate the inauguration of a permanent collection of crafts at the White House. Seventy craftspeople in various media had each been asked to contribute a piece. Among them were thirteen AAW members:

Virginia Dotson	Ron Kent
David Ellsworth	Melvin Lindquist
Ron Fleming	Ed Moulthrop
Bob Hawks	Philip Moulthrop
Robyn Horn	Peter Petrochko
John Jordan	Lincoln Seitzman
	Alan Stirt

I received several interesting reports on this event. Below is an excerpt from one. *—Editor*

WE'VE BEEN INVITED to the White House! Upon arrival, our invitations were checked. We underwent a photo identification clearance and were sent through a metal detector before entering the White House.

"Take your time, wander about freely, and enjoy the display of fine crafts," we were told. The pieces had been thoughtfully placed throughout the entire White House. It was exciting to see this contemporary work displayed on and among the historic furnishings. There were whispers between artists: "Have you seen what they did with so-and-so's piece?" "Has he seen it, yet?" "I wonder what they've done to my piece?" Oh well, in an attempt at artistic expression, someone had placed glass ornaments in a few of the vessels. Everyone seemed to take it in stride and enjoy the evening without removing the Christmas additions.

We decided to get in line quickly to meet the President and First Lady. Why take the chance of spilling something on your clothes before having your picture taken with the President? We were told to keep our visit short, which turned out to be fine, since neither John nor I would remember what we said. Mrs. Clinton wore a casual sweater outfit, complemented with a fun Christmas lights necklace. The President wore a festive Santa Claus tie. I especially enjoyed the casual way he threw his arm around me for the camera.

It was all pretty incredible, like lying on your back and looking up at the night sky.

—Vicki Jordan, Antioch, TN

Bob Hawks

John S. Cummings

Two of the pieces in the White House permanent collection: Above, "New Beginnings," redwood burl, by Ron Fleming; right, "Black Textured Jar," boxelder and fossil ivory, $13\frac{1}{2}$ inches high, by John Jordan.

AN EMPHASIS ON EDUCATION

The Practice of Woodturning by Mike Darlow. *Mike Darlow Woodturning, PO Box 2284, South Burlington, VT 05407. Three-video set, approximately seven hours, total, $120; individual tapes, $45.*

IF YOU ARE INTERESTED IN THE WHAT, how, and why of purist woodturning, you will like these three tapes. Using the technical language of the lathe with the mastery of a wordsmith, Darlow demonstrates and explains traditional woodturning methods in all their complex depth. These explanations and demonstrations are supplemented by hand-drawn illustrations in an almost classroom-like presentation. They challenge the intellect rather than provide entertainment.

The *what* includes the basic design of facework and centerwork and the use of tools and equipment to carry out those designs. Tape 1 features an extensive visual survey of lathes, chucks, centers, tool rests, gouges, scrapers, skews, safety and sharpening equipment, along with an insightful discussion of comparative designs. Some of this equipment has been around for a long time, but has been used by only a few production turners. Being able to actually see these tools and their variations will help make turning easier for anyone. Those of you who just like tools will enjoy this part.

The *how* includes stance, grips, and the lateral, axial, and rotational movements of the tools and the turner. There's a full visual explanation of the use of the different types of gouges, scrapers, parting tools, measuring tools, and skews for facework and centerwork. From pointing up the lathe through tool sharpening, spindle turning, cup-chuck turning, and bowl turning, Darlow guides the viewer with an extensive number of close-up and over-the-shoulder shots of tool usage. Supporting these are technical illustrations and explanations. Common mistakes are explored and solutions shown. The emphasis is on education.

The *why* includes the theory of woodturning and the significance of tool design. Theory is defined as a basic set of rules and principles, which when applied to woodturning allows us to sort out reasons for success or failure. The forces at work when tools meet wood are discussed and examples shown, again with the use of graphic illustrations. One basic rule I've learned as a teacher is that the whys are important to the full understanding and mastery of a process. Understanding a problem is the first step toward solving it. These tapes are the first I've seen that define the source of woodturning problems, explain them, and provide methods for solving them.

One of my first thoughts after viewing these tapes concerned the immense amount of information and how I was going to find the bits and pieces that I wanted to observe more closely. I thought an accompanying notebook would be appropriate, something loosely outlining the tape format with room for my own notes. Much to my surprise a package arrived in the mail the next week with a notebook and letter from Mike Darlow. The notebook contains worksheet masters and drawing masters which will be available to teachers and educational institutions. Also included was a time reference card with start, finish, and duration of the various topics for each tape, providing a means of locating specific information. This time card will be standard with the tapes.

These tapes were designed to be used as a supplement to Darlow's 1986 book, *The Practice of Woodturning* (out of print now but available in April through Craft Supplies, 800/551-8876). Some of the information on the tapes differs slightly from that in the book, as our technology is constantly evolving, and I understand Darlow will be updating the book. Even as is, the tapes and the book complement each other pretty well. Each could stand alone if need be, but the book provides an invaluable written reference to the enormous amount of visual information on the tapes.

What I liked most about these tapes was the emphasis on education. The more people we can educate about woodturning, including ourselves, the more accepted woodturning will be, and the better it will be for all of us, especially those of us who make a living from turning wood. All the solidly successful woodturners I know have a firm foundation in the basics of woodturning. Understanding the fundamentals in basic design and technique will allow easier transition to more specialized techniques. The no-nonsense, straight-forward, logical progression of information appealed to my sense of seriousness as a teacher, and I liked finding the small nuggets of information throughout these tapes that applied directly to my work. Everyone can find something valuable.

My main problem with the tapes has to do with the way some of the

information is presented in the video format, rather than with the information itself. The flow of verbal information is sometimes out of synch with that of the visual information. During lathe demonstrations, the two work well together, as the narration keeps pace with what is happening on the screen. But during the presentation of illustrations and theory, the dense narration overwhelms the static visuals, making viewing tedious and difficult to stay with. These areas could be improved by the use of more sophisticated graphics and more effective editing. Obviously the large amount of information being presented required the use of a written script. However, the visual image of Darlow reading the script on camera should have been avoided.

A couple of minor points: The outboard turning of facework will appear backwards to those accustomed to turning inboard. While these tapes provide a comprehensive overview of traditional turning methods, they do not address some of the recently developed techniques such as multi-axis sculptural turning, hollow vessels, and modern polychromatic assembly. But as Darlow says, you have to stop somewhere, so maybe these will be addressed in later tapes.

Any woodturner, from novice to expert, should consider adding these tapes to his or her reference sources. The amount of information they contain is immense and valuable, and requires repeated viewing to adequately understand and absorb. Teachers and educational institutions will especially appreciate Darlow's latest contribution to woodturning instruction.

—Rodger Jacobs

Rodger Jacobs is a professional turner and teacher in Newland, NC.

TURNER'S TIPS

You'll notice some familiar names among the contributors of this issue's column, and some repeat offenders even here. How 'bout the rest of you? It usually doesn't take more than a few minutes and the cost of a stamp to send in an idea that can afford the rest of us valuable insight, time, and savings. Send your tips, drawings, and questions to section editor Robert Rosand, Dutch Hill Woodturning, RD1, Box 30, Bloomsburg, PA 17815.

Meanwhile, to acknowledge the outstanding contributions of last year (and provide the incentive for more), we're announcing the winners of the First Annual Turner's Tips Contest: Ken Bachard, George L. Paes, and S. Gary Roberts. Each will receive a turning from Betty Scarpino, Palmer Sharpless, or Robert Rosand. Congratulations, and send in your tips! —Editor

Stopping tailstock creep

When mounting large pieces of wood between centers on the General 260 lathe, the tailstock will creep backwards under the pressure needed to secure the wood. That's because the plate that connects the tailstock to the bed was designed for spindle turning and is only $1\frac{1}{2}$ inches long. Remove this plate and have your machinest make you another that's $4\frac{1}{2}$ inches long. Works great! Costs about $14.

—David Ellsworth, Quakertown, PA

And eliminating tailstock bind

General 260 lathes that come with the riser block attachment (20-inch swing, up from 12 inches) have a problem: the bolt connecting the tailstock to the bed binds up when sliding back and forth. General fits a valve spring over this bolt to keep it in vertical alignment, but it doesn't work. Solution: Cut a $\frac{3}{4}$-inch plywood insert to match the interior of the base of the tailstock. Accurately locate and drill a hole through the plywood so the bolt hangs vertical. Jamb (force-fit) the plywood up into the base of the tailstock. This will keep the bolt from wandering when moving the tailstock back and forth. Cost: nothing.

—David Ellsworth, Quakertown, PA

Divvy tape

Dividing a round piece on the lathe into equal parts can be easy if you have a dividing head. Some of us don't, so here's a way to do it simply: Wrap a strip of masking tape around the piece. Mark where it meets and remove the tape gently so as not to stretch it. Fasten the tape to a metal surface and divide the space into the number of parts you desire by measuring the distance point to point and calculating the divisions. Or use a pair of dividers. Mark the tape, reapply to the turning, and mark off the points on the turning. I use the tool rest as a straightedge.

—Palmer Sharpless, Newtown, PA

High-tech back-up

Computer mouse mats make great sanding disc backer.

—Rus Hurt, Port Wing, WI

Two more pen tips

How do you keep two pieces of a pen indexed so the grain will match after you have turned them? Don't mark the end grain, as ink can penetrate the wood. Instead, mark inside the brass tubes on the ends that match up.

What do you do if you've installed your pen mechanism just a tad too deep and the tip won't retract all the way? Remove the blue plastic top from the refill and sand the refill tube off. Reassemble and voilá, it's fixed.

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

AAW First National

Chapters self-jury a show in Fitchburg, Mass.

RICK MASTELLI

Tripodal urn of myrtle burl, 5 1/2 inches tall, by Brenda Behrens of the Inland Woodturners in Southern California.

Ninety pieces filled a bank of folding tables at the Fitchburg Art Museum days before the opening last January.

"Murphy must be off-duty on this one, because everything continues to go right." Tom Kamila of the Central New England Woodturners was looking over an array of folding tables filled with turnings awaiting installation at the Fitchburg Art Museum in northern Massachusetts. As Exhibition Coordinator for this First National Exhibition of the AAW, Kamila had organized a cadre of volunteers to unpack and organize the pieces with their accompanying data. They were ready to be distributed throughout some 1,000 square feet of gallery space.

The Fitchburg Art Museum is a well-established, progressive, and community-responsive institution in the greater Boston orbit. Director Peter Timms favors devoting space to emerging talent and unusual art forms. Recent shows have included a holiday-season doll exhibition, a prodigious private collection of West African art, and a staging of on-site art activities. Annually, the museum mounts an exhibition open to artists and craftspeople in all media throughout the region.

In 1991 Kamila entered one of his red oak bowls, which uses the pith of the tree for its axis and displays in circumference the rhythmic irregularities of the growth rings. He won first place. Kamila took advantage of the moment to approach Timms with the idea of a show devoted entirely to woodturning, a national show, rooted in the resources of the AAW. Kamila explained what those in the AAW well know: that woodturning is a burgeoning craft, that there's an abundance of talent and accomplishment throughout the country, and that the presentation and promotion of this work lags behind its worth. Timms found the idea of a grassroots woodturning show ideal.

Next, Kamila presented the idea to his local chapter. They were equally enthused. It would allow them to show their own work in a prestigious setting and to see firsthand the best work from other chapters around the country. Museum space would allow for up to 120 pieces, so a survey, facilitated by the national office, went out in March of last year to discover the depth of interest among the chapters. More than twenty chapters responded, representing some 1200 woodturners. The arithmetic was easy: each chapter would be able to send one piece to the show for every ten members. The Central New England chapter decided that jurying methodology would be left to each chapter. A call went out in September, and the work (ninety pieces from nineteen chapters who followed through) was on site by the middle of January.

That represented a pretty painless way for eighty woodturners to participate in a national show. Kamila, a conscientious promoter of his own work, is aware of the difficulties in getting your work out in public. "Look at the hoops," he said. "You've got to learn or pay for photography, you've got to compose and produce a resumé and artist statements, you've got mailings, shipping, follow-up. No wonder so many good woodturners aren't known!" Kamila doesn't feel a show like this is any substitute for taking the necessary initiatives, "...but it's a step. If people get the right kind of feedback, and it it inspires them to go further, all the better."

Feedback is an important item on Kamila's agenda. He's been energetic in securing media coverage for the show, and he helped put together the plan to produce a photographic record of every show piece. He's also

Amie LaFosse, left, and Carol Rader of Central New England Woodturners unpack a trove of turnings from all over the U.S.

arranged for David Ellsworth to critique the show, and plans are to videotape the talk for participating chapters.

"This is a win/win/win/win situation," says Kamila. "Our local chapter gets to host a great event with a lot of community appeal, the museum gets an economical national show in a new medium, the AAW gets another opportunity to educate, inform, and organize, and eighty individual woodturners get their work on display before a distant public." Kamila hopes to sponsor the show for another year and sort out the procedures before passing on the opportunity to another chapter in a different region. "With a start like this, it won't be long before we have everyone involved."

Carving enhanced a number of turnings. At left, foreground, is "Madrone Bowl and Copper Stand" by Robert Bahr of Chislers/Turners of NE Indiana. At right is "Make Mine Perrier" by Frank White of Central New England Woodturners.

Kamila deserves to be enthused by the turnout this year. The show includes work from a number of turners well-known to readers of this journal, among them a killer segmented bowl by Ray Allen and dependably outstanding pieces from Paul Fennell, Dennis Elliot, and Lincoln Seitzman. In addition there are exceptional pieces by less familiar names, some of which are pictured here. The show continues through March 27, and a slide catalog will be available later this year from the AAW office.

Rick Mastelli is editor of American Woodturner. *Photos by the author.*

ARRIVING AT NEW WORLDS

A review of Challenge V

STEVE LOAR

THERE IS A SCENE in the first Star Wars movie, where the ship carrying the heroes and heroine make the "jump to light speed." With the snap of a switch, the ship which is already hurtling along at fantastic speed, moves to a star-smearing velocity. For a turner, the effect is much the same upon viewing Challenge V: International Lathe-Turned Objects. In a scant dozen years, turning has moved from an obsession with material and technique to a genuine exploration of concept and personal expression.

The continuing mission of the Challenge exhibitions is to prompt greater personal expression, with the goal of sophisticating the field in general. In this most recent collection, artistic vision and visual intrigue are the order of the day, built upon typically impeccable execution. Wood is the primary medium, but it is joined by a group of works in metal and an openness to incorporating other materials with wood. The work has a stronger visual hook than earlier work; it invites closer inspection and yields more subtle layers of information and involvement.

The widespread emergence within the crafts of narrative or storytelling is very positive. Also, more turners are beginning to control scale, replacing an earlier macho concern with sheer size. *Crow Pond,* by Neil Donavan and John Vahanian, skillfully wields bigness to create a quiet vista that speaks across culture and time on an emotional level that has been absent from contemporary art. The large platter has been carved and tilted to provide the physical and visual sensation of a drained pond. The sumptuous surface of colored pencil enlivens a scene of manicured trees with the light and shadow of late day. Carved figures of crows peck at the pond bottom, leaving tracks which turn out to be rows and areas of letters imprinted from a typewriter ball. With the collaboration taking place over an entire year, Donavan and Vahanian state that any inferred meaning is brought by the viewer, as deep symbolism is not likely where two individual intentions are at work.

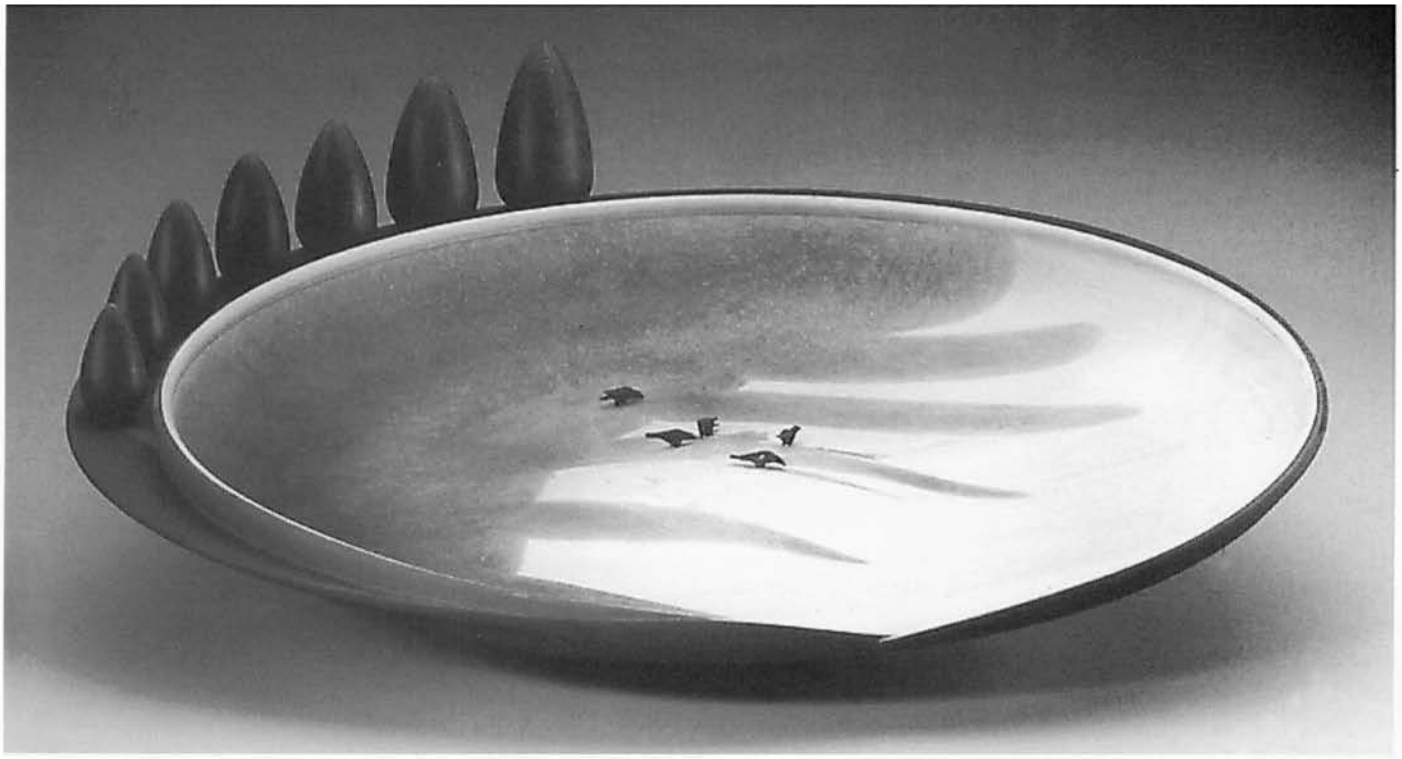
Myotis Exodus carries an ecological message while nicely merging vessel and landscape, much like *Crow Pond.* Michael Kehs' background in carving and the technical aspects of turning allow him to transform a natural-edged bowl into the home of an endangered species of Indiana bat. Being a spelunker, he knows his subject, and the carved effects are fully integrated into the vessel, playing upon characteristics of the grain and the lip. The bats are superbly suspended, singularly and in groups, creating a sense of motion that propels them from their cave home. Like a black-and-white photo, the subtleties found within a narrow tonal range allow us to more readily consider the composition and message.

A potent new theme can be seen in several pieces which explore the body of the vessel as something akin to the flesh of a vegetable or fruit. Rolly Munro's piece is an outstanding example of the difficulties in photographically conveying a sculptural presence. Experiencing this piece is like looking at the embodiment of some esoteric mathematic theorem. Munro's fascination with New Zealand seashells is evident, as well as his desire to contrast mechanistic control and regularity with nature's more quirky use of geometry and repetition. While certainly requiring expertise, the turning of the two mating halves pales against the view of sweeping cuts that interact to move the eye in and around and through the composition. These effects are compounded by the selective application of bead blasting, the control of angled and shaped edges, and the use of color (several deep, dark blues), which strengthen the composition and the interplay of regularity and diversity.

Like cutting open a green pepper or tomato, Gianfranco Angelino has sliced and peeled a lumpish pine form to reveal a series of intriguing surfaces and shapes that affect space in ways that no photo can capture. Virtuoso hand turning and router work create a variety of interacting vistas within the one container. They draw us in to investigate an almost architectural structure without the distraction of applied color or finish.

The lathe is clearly taking its place among the tools that produce objects of expressive consequence. Meanwhile, the fascination with the machine has created a bond among those who use it that seems unique. Bill Daley, one of the jurors and a veteran of the ceramics craft, commented on the incredible liveliness of turning which springs from a "permission" that turners have given themselves to try anything. This all-inclusive and accepting attitude has created a potency that is moving the field rapidly ahead, free of the drag of historical definitions and the ruts of what is trendy or correct.

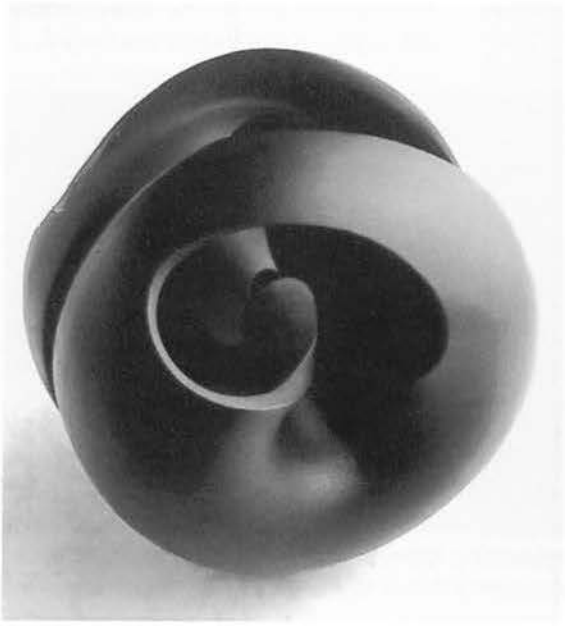
Steve Loar is an author/teacher/turner who is also Interim Director of the School of Art & Design and the School for American Crafts at the Rochester Institute of Technology. *This article is adapted from one he wrote for the magazine,* Australian Wood Review. *Challenge V will continue at the Berman Museum in Collegeville, PA, through April 4 and then begins a national tour. Information and a 76-page catalog are available through The Wood Turning Center (215) 844-2188.*



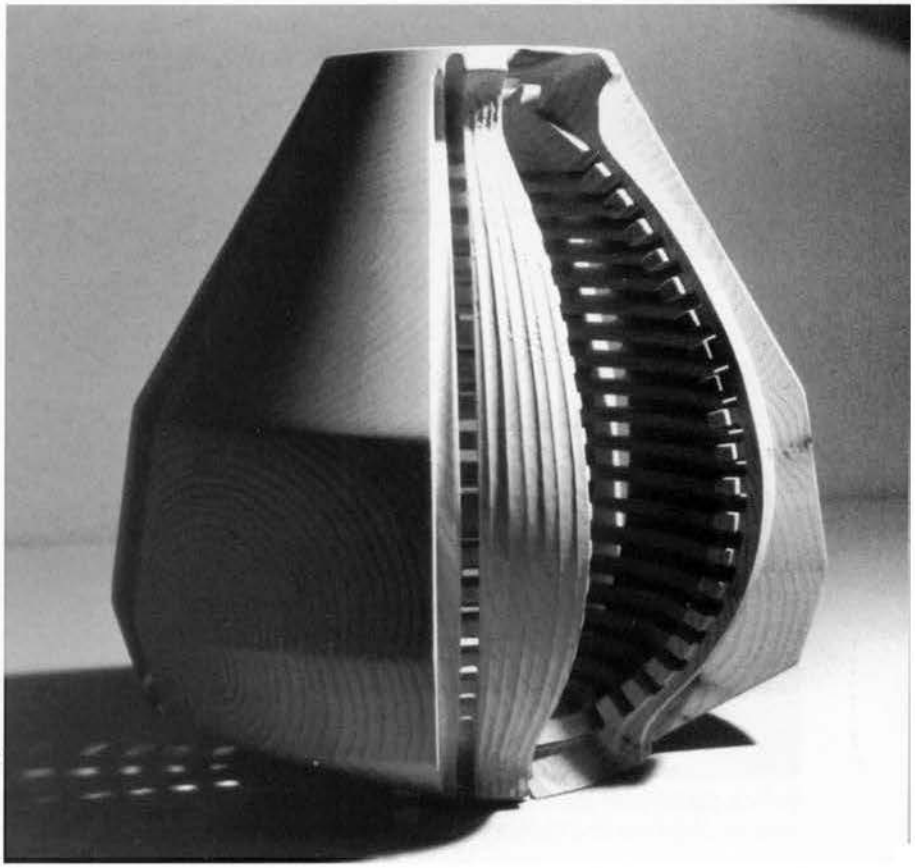
Mark Fainstein

Linton Frank

Narrative, landscape, and structural complexes are among the new worlds explored in Challenge V. "Crow Pond," above, by Neil Donovan and John Vahanian, is 30 inches in diameter, of basswood, cherry, and ebony, decorated with colored pencil and latex paint. "Myotis Exodus," left, by Michael Kehs, is 9 inches in diameter, of applewood burl and rosewood. "Untitled," below left, by Rolly Munro, is 10 inches in diameter, of kauri wood, acrylic paint, and Dulon lacquer. "Ribbed Stone Pine Vase," below, by Gianfranco Angelino, is $10^1/_2$ inches in diameter, of *Pinus cembra*.



Rolly Munro



Gianfranco Angelino

SCREW-TOP BOXES

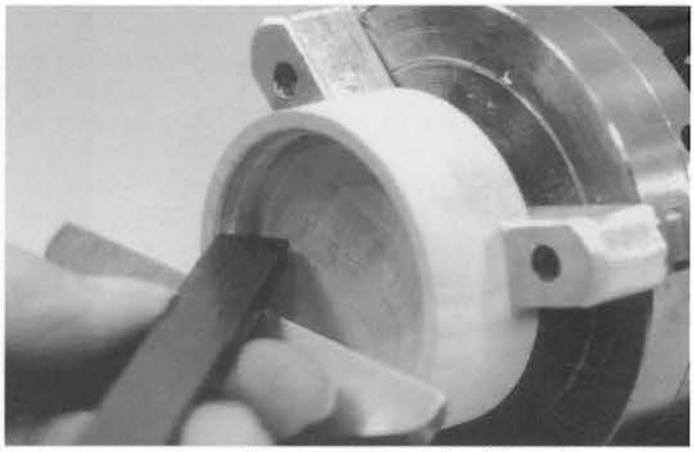
Turning a box with a threaded lid

BONNIE KLEIN

TURNED BOXES have always held a special fascination for me, but it wasn't until I saw a little box in an antique store with a threaded lid that I knew I had to learn to make one. It has been an exciting research adventure during the last several years. Here's how I now go about turning a box with a threaded lid. I have tried to keep these steps generic so they would be applicable to a threading jig you might build yourself or buy.

Preparing the workpiece

For a small box, start with a cylinder of wood about 2 inches in diameter and $2^1/_2$ inches long, with the grain running lengthwise or from top to bottom through the finished piece. Typically, there will be less distortion and the lid will fit more consistently with the grain in this direction. Mount the workpiece on a chuck or faceplate. I prefer to attach a $^3/_4$-inch thick pine waste block to the faceplate with a pressure-sensitive, double-stick tape then use cyanoacrylate glue to fasten the workpiece onto the waste block. This way, you never have to worry about running into the screws with your tools, and the waste block may be used over and over all the way down to the tape. Mount the workpiece with the lid end toward the headstock and true up the end and sides. Determine the proportion of the lid to the base and, allowing for the width of the parting cut, separate the base from the lid. It



Before parting off the base, left, label the bottom of the base for correct remounting later. In shaping the lid, right, cut a recess for the threads, a step for clearance, and a 45° bevel to prevent having a very thin first thread.

is good practice to label the bottom of the base for correct remounting so the grain will be aligned in the finished piece.

Turning the lid

Clean up the parting cut on the lid section, removing a minimum amount of wood where the lid will meet the base. The more wood you remove, the less chance for a good grain match in the finished piece.

In shaping the inside of the lid, you need to create a recess equal in depth to five or six threads. This recess must have straight sides parallel to the lathe axis. In order for the lid to screw all the way on, you need to make a clearance cut in one of two places: either at the beginning of the female threads in the lid or at the end of the male threads on the base. I prefer to make it at the beginning of the female threads because not only is it easier to cut but it will also aid in centering the lid on the base. Simply cut a step on the inside edge of the lid equal to the width and depth of one thread.

To prevent having a very thin thread at the start, cut a bevel (approximately 45°) where the first thread is to begin. Before cutting the threads, I like to flow some of the thin variety of cyanoacrylate glue over the area to be threaded. It soaks into the fibers and adds strength to the tips of the threads. The final sanding and finishing of the inside of the lid is also done before the threads are cut.

Cutting the threads on the lid

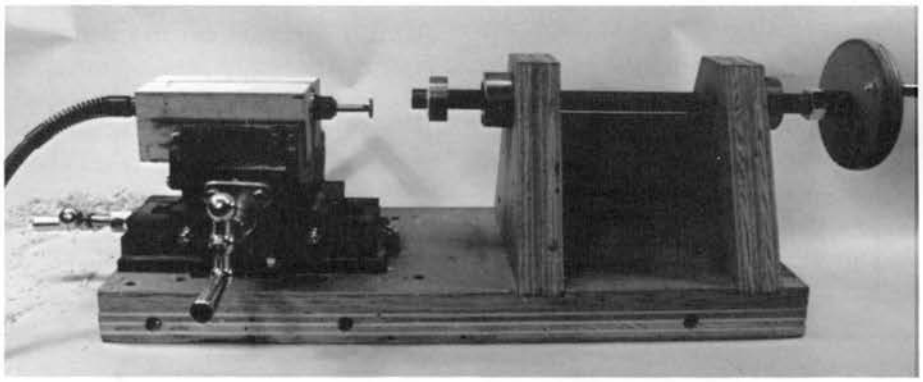
Take the chuck and workpiece from the lathe and screw it onto the threading-jig spindle tight to the flange. Arrange the threading jig and the cutter bit so the teeth on the cutter just brush the area to be threaded. Make the adjustments necessary to cut a depth of thread that will leave very tiny flats on the tips. For 16 teeth per inch the depth is approximately 30 to 35 thousandths of an inch. Depending on the cutter type and speed, the threads may be cut in one pass, although sometimes you need to go back and cut them just a little bit deeper.

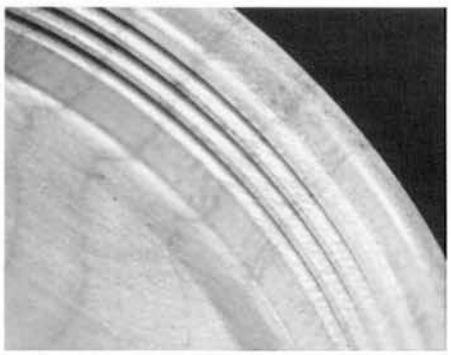
Cut at least four or five threads in the lid. It is better to cut in only one direction, either on the advance of the lead screw or while backing it off. (A "climbing cut" on the male thread will tend to unscrew the chuck or faceplate from the spindle, so it may be better to cut while backing off the lead screw.) The cutter type, cutter rpm, and the hardness of the wood will determine how fast to move the workpiece. On some woods if the piece is moved too slowly, the cutter may leave burn marks.

Return the faceplate with the lid still mounted in it to the lathe and very lightly sand away any little burrs or fuzz from the threaded area. I prefer not to put a finish on the threads because moisture in the finish will tend to expand the fibers, and some finishes may make the threaded area sticky. A little wax is helpful on some woods, but take care not to do anything to interfere with the fit. The lid section may now be set aside. I prefer to leave it attached to the faceplate until the cutting and fitting of both parts is finished.

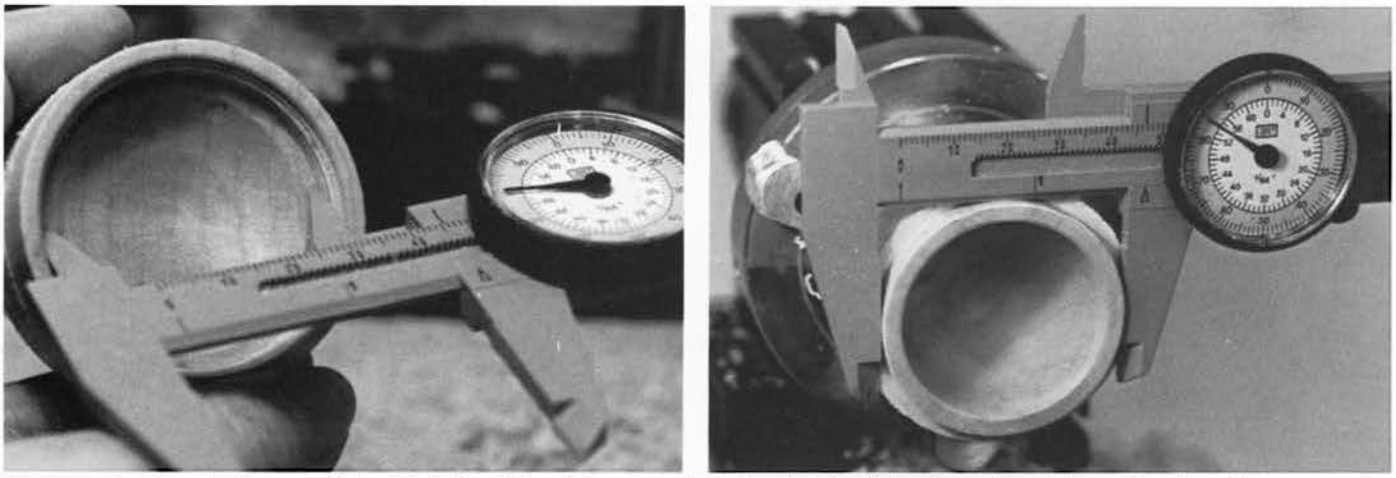
Turning the base of the box

Mount the base on a second faceplate with the bottom toward the headstock. True the sides and face taking care not to remove any more wood than is absolutely necessary from the face. Measure the diameter of the threaded area in the lid and add the amount necessary to allow for the meshing of the threads. (For 16 teeth per inch, this is approximately 35 to 40 thousandths of an inch.) Cut a tenon on the base about $^1/_{16}$ inch long and just a hair larger in diame-





To cut the threads, the author uses her own threading jig, top, which consists of a Foredom tool and a lead-screw assembly. The work (in a three-jaw chuck, left) is mounted on the treading-jig spindle and four or five threads are cut, right.



Measure the threaded area of the lid, left, add a little more than the depth of the threads, and transfer that diameter to the base, right.

ter than needed. This will give an idea of wall thickness and design possibilities. Because the shape will occasionally change as a result of the heat generated from sanding and the moisture from finishes, the actual diameter of the tenon will be determined and the threads cut after the interior of the base is completely sanded and finished.

I like the lid to screw onto the base in about one and a half revolutions. In one of my earlier boxes, because I got a little carried away with making threads, the lid had to be turned too many times before coming off. Leaving a shoulder, cut a tenon equivalent in length to only about three threads and to the diameter determined by adding the 35 to 40 thousandths to the inside lid diameter. Dial calipers are convenient for these measurements. As before, cut a 45° bevel where the threads are to begin, then flow a little of the thin cyanoacrylate glue over the area for added strength.

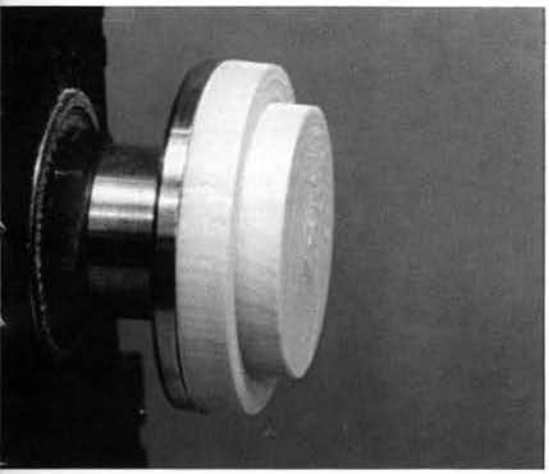
Cutting threads on the base

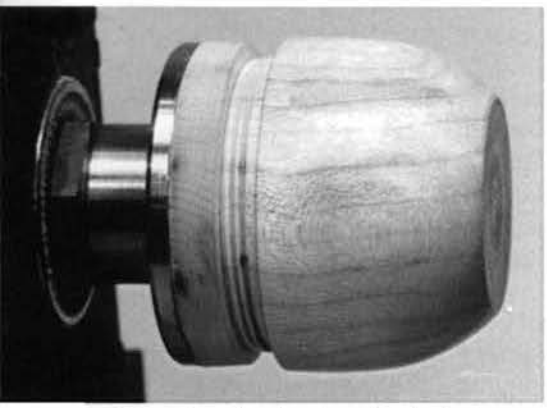
With the faceplate now on the spindle of the threading jig, make the adjustments to produce the desired thread depth. It usually takes about two revolutions of the workpiece before you have to stop in order to avoid cutting into the shoulder. It is good practice to check the fit of the lid before removing the workpiece or shifting the jig longitudinally. Doing such will change the orientation of the thread grooves to the cutter, and it may be tricky (but not impossible) to get things lined up exactly if another pass is necessary. When you achieve the desired fit, return the workpiece to the lathe spindle.

Finishing the box

Lightly sand the threads and screw on the lid for final shaping of the lid and the sides of the box. I make a small pencil mark on the lid and base where the grain pattern lines up. The adjustment that will bring

As with the top, a 45° bevel helps in starting the threads, left. Stop threading before the cutter contacts the workpiece shoulder, center. Adjust the fit of the top by reducing the shoulder just short of grain alignment, as indicated by the pencil marks, right.





Use a jam-fit chuck to finish the base.

the grain into alignment when the lid is tight, is done by ever-so-carefully reducing the shoulder that the lid screws down against. At this time it is best to stop just a little short of perfect alignment (approximately $1/4$ to $1/2$ inch between the pencil marks) because after removing and replacing the lid several times, the threads will wear some and the grain match may change. If after a couple of days the grain hasn't come into alignment, you can remove a small amount of material from the lid by rubbing the edge against some fine sandpaper on a flat surface.

The outside of the lid and most of the sides can now be sanded and finished. The base of the box should be detailed, sanded, and finished by reverse-chucking onto a jam-fit chuck made by turning a $1/4$-inch-long tenon in the waste block material.

Recipe for a Screw-Top Box

1. Start with a block or cylinder of material.
2. Mount the workpiece, true the sides and face.
3. Part off the base, leaving the lid section attached.
4. True the face and shape the inside of the lid.
5. Cut a recess, parallel to the lathe axis, for the inside threads.
6. Cut a step for clearance and then a bevel where the threads are to begin.
7. Flow thin cyanoacrylate glue over the area to be threaded to strengthen the fibers.
8. Sand and finish the inside of the lid.
9. Cut about four or five threads and lightly sand the threaded area.
10. Mount the base with the bottom toward the headstock; true the sides and face.
11. Determine the desired diameter for the threaded area.
12. Turn out the inside, sand and finish.
13. Cut a tenon of the desired diameter and long enough to accommodate three threads.
14. Cut a bevel where the threads are to begin.
15. Flow thin cyanoacrylate glue over the area to be threaded.
16. Cut the threads, test the fit of the lid, and lightly sand the threaded area.
17. Using the base of the box to hold the lid, finish shaping the outside.
18. Adjust the grain alignment by reducing the shoulder of the base.
19. Sand and finish the outside.
20. Reverse-chuck, shape, and finish the bottom.

Closing thoughts

Keep in mind that this is only one style of box with a threaded lid. There are many possible variations in the construction details and design elements of lidded containers. For example, the lid could thread inside instead of over the base, the box exterior doesn't have to be turned, or the material could be something other than wood. Use these ideas to spark your own creativity!

It is possible to build your own threading jig, or you can purchase one of those now on the market. Cutter bits are available to cut threads of 45°, 60°, and 90°.

Bonnie Klein specializes in small turnings and operates Klein Design, a supplier of lathes and threading jigs. For more information contact her at 17910 SE 110th Street, Renton, WA 98059. Photos by the author.

ROSE-ENGINE WORK

Ornamentation from the jeweler's trade

JON SAUER

I HAVE BEEN PRACTICING ornamental turning for about eight years now, mainly index turning, which employs a rotary cutter. But I am always searching for the old ways of ornamentation, and a while back I was fortunate to meet a jeweler who was a specialist in guilloche work.

Guilloche is a type of engraving using a machine that produces wavelike patterns of parallel and intersecting lines—circular, oval, or straight—on the surfaces of all kinds of materials and objects. The machine is called a rose engine lathe or guilloche machine. They were manufactured for the jewelry trade in England, Germany, Switzerland, France, and even the United States. The one I acquired a few years back was manufactured by Plant, a firm in England, and it is one of only twelve I know of in this country.

According to Jochem Wolters (see Further Reading) rose engine work dates back to the 16th century in materials such as ivory, horn, and wood. In the eighteenth and nineteenth centuries, guilloche work found application in architectural detailing and in the decoration of precious metals. The cuts became finer, covering broader surfaces in more intricate patterns. Besides being exquisitely attractive, it had practical value in that the guilloche obscured scratches and tarnish. It became a common decoration for watch cases. Rose engines were also used for designing the patterns on banknotes, securities, and stamps. The first adhesive postage stamp was designed from an engine turning.

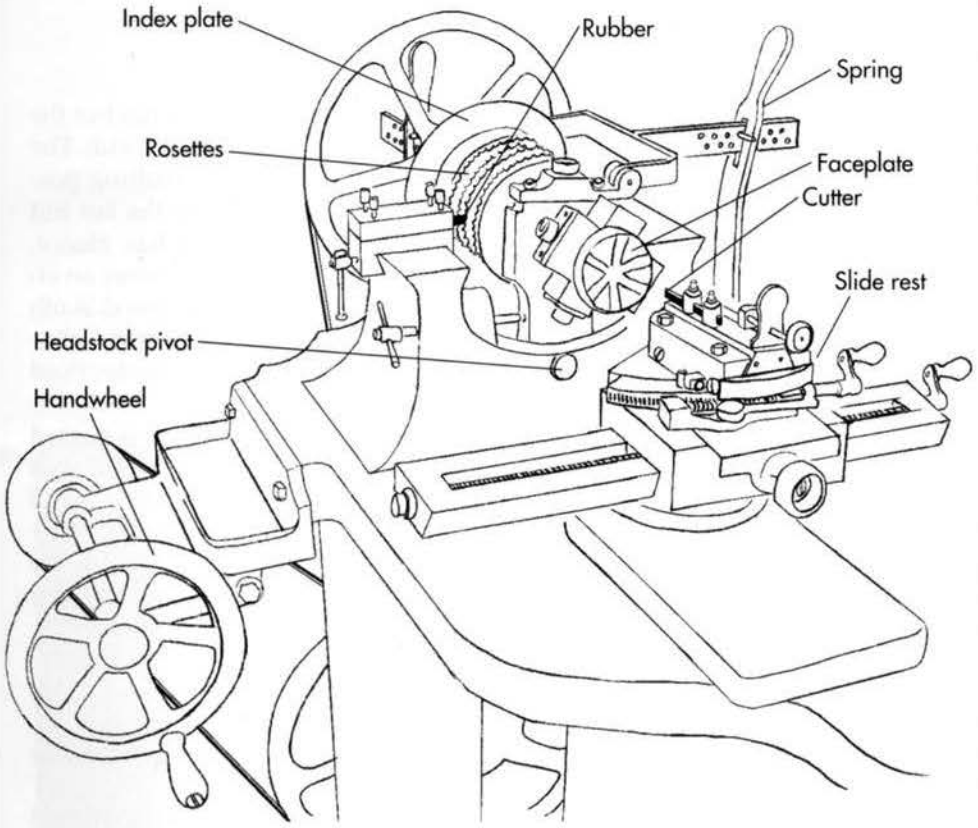
Blackwood and corian box, 3 x $3\frac{1}{2}$ inches, with index-carved sides and engine-turned lid. Completed by Sauer last year, it's in the collection of Hans Weissflog.

Guilloche reached a state of high art under the influence of Carl Fabergé (1846–1920). His techniques combined the use of enamel, and his products included boxes, cigarette cases, compacts, picture and mirror frames, vases, knives, letter openers, and of course the famous, extraordinary Fabergé Easter eggs.

Process

The rose engine lathe differs from a regular lathe in that the headstock mandrel rocks on a pivot. On the mandrel there is a series of disc-shaped patterns or cams called "rosettes," which a spring holds in contact with a fixed point called a "rubber." The rosette pattern may consist of a few bumps or up to two hundred. The work is mounted on the mandrel which is rotated by the left hand through the use of a handwheel. As the mandrel rotates, it rocks back and forth on the rosette. At the same time a slide-rest tool is pressed against the work surface, using the right hand. This tool, a stationary, V-shaped cutter, engraves the work.

Author's rose-engine lathe, manufactured by Plant around 1950.



After completing one revolution, the rosette is reindexed by rotating it on the mandrel, or the rubber is moved to another rosette. The slide-rest tool is also repositioned on the workpiece, and the process is repeated until the center of the workpiece is reached. Beautifully intricate faceplate patterns result.

The rose engine is also capable of decorating three-dimensional objects. In addition to rocking back and forth, the mandrel moves to and fro, sliding along its length. These movements are also controlled by rosettes, patterned on the face as well as the edge.

I am still learning the techniques of this fascinating craft. I have discovered that it involves a captivating degree of design planning as well as the skill of consistent, careful machine manipulation. Each pattern must be practiced prior to working on a final piece. I have engine-turned Corian, blackwood, and silver, and have started using enamel over the silver. I hope to start on some gold in the future.

Jon Sauer specializes in ornamental turning in Pacifica, CA.

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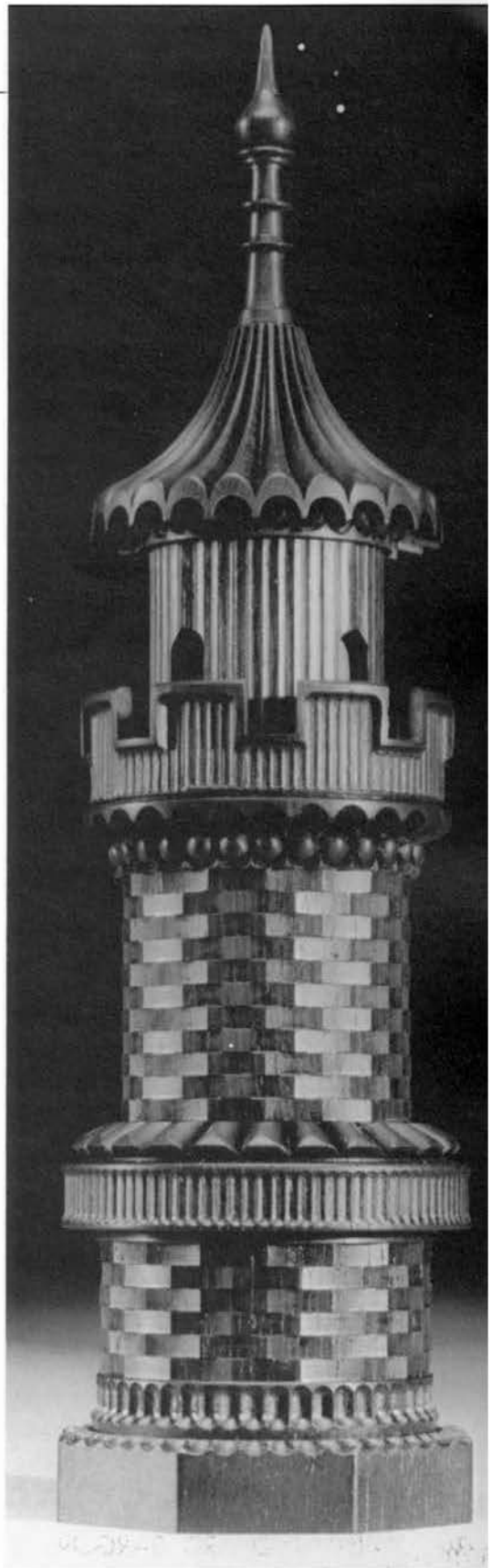


Author's index-turned (not engine-turned) perfume bottle and/or chess castle, 5 inches tall, of blackwood and pink ivory wood.

Photos: Richard Sarjent; Drawing: Deborah Fillion

SIDE-GROUND GOUGES

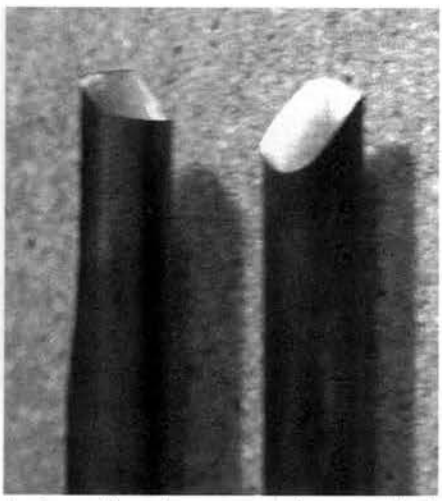
How and why these versatile tools work

JOHN JORDAN

ENGLISH GRIND, Irish grind, Ellsworth grind, O'Neill grind—whatever the term, what we're talking about is the deep-fluted (bowl) gouge with the sides ground back so that the corners are well back of the cutting edge. I won't get into who originated this grind; I know that I didn't. But it has certainly served me well since I learned it from David Ellsworth some years ago.

The advantage of using a grind like this is that there is considerably more cutting edge available, allowing more types of cuts to be made, and with less chance of a catch. The inside and outside of most bowls, and the outside of hollow vessels, can be completed with this one tool alone. Ellsworth routinely does the outside of his oak pots, ending with a tool finish right off the gouge and no sanding. Most of my pieces have a carved or textured surface, but the curves are all faired and smoothed with this tool prior to carving.

The reason for having a deep flute in the first place is that the tip severs the wood at the surface and the wing peels the waste away. The size of the shaving that can be removed is determined by the width of this wing. On a standard-grind $^1/_2$-inch gouge (Photo 1, left) this is around $^3/_8$ to $^1/_2$ inch. On a side-ground gouge (Photo 1, right) the shaving can be as wide as the wing is long, assuming the lathe has the horsepower to cut it. Photo 2 shows a side-ground gouge making a basic, bevel-rubbing cut of moderate size. The surface is cut by the tip and the waste is peeled away by the lower wing.



1. Deep-fluted gouges with a standard grind, left, and a side grind, right.

Photo 3 shows a finishing cut using the vertical wing of the standard-grind gouge. You use this type of cut only if the wood is not cutting cleanly. The shaving goes straight down the edge, which prevents the wood from lifting ahead of the cut—a very efficient cut. The problem is that the trailing corner of the gouge is nearly in contact with the wood. If this contact should occur (Photo 4), the corner will dig in further, resulting in a very nasty catch. In fact most of the catches that novice turners experience are a result of this trailing corner digging in.

Photo 5 shows the same cut using the long wing of the side-ground gouge. The side bevel is rubbing. Note that the corner is now on the bottom and cannot catch. The key to this cut is taking light cuts, since orienting the edge vertically provides no wing to peel away a large shaving.

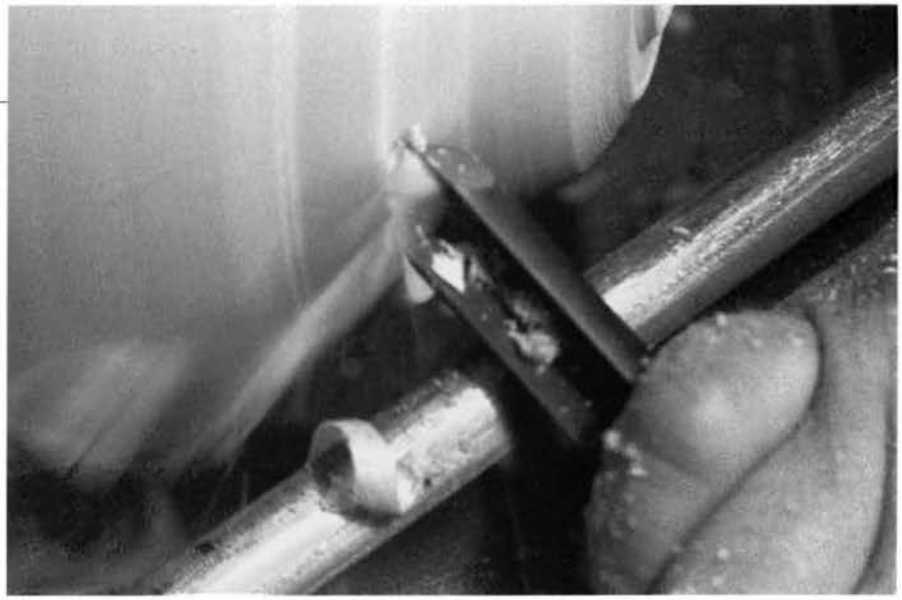
One of the most useful cuts with this grind is the shear-scrape. By using the long edge of the lower wing at around a 45° angle and pulling the tool along, it is possible to remove very small amounts of material wherever needed to refine the shape (Photo 6). Properly done, it will leave a very smooth surface, considerably reducing the amount of sanding necessary. The more horizontal the edge (scraping posture), the more leveling effect it has but the less efficient (rougher) the cut. The more vertical the edge (cutting posture), the more efficient the cut but the less leveling effect it has. Hence, the 45° angle, which represents an effective compromise. The bevel is not rubbing on this cut (or even close) so control is provided by steady, fluid movements.

Since most of my work is turned with the grain parallel to the axis (spindle work), I use the long edge of the wing as a roughing gouge. I present the edge horizontally with the flute pointing up, and pull the tool along. This edge is identical to a shallow roughing gouge, but the flute deflects the shavings up and away. This is the cut that produces the long unbroken shavings several feet in the air that look like so much fun—and are!

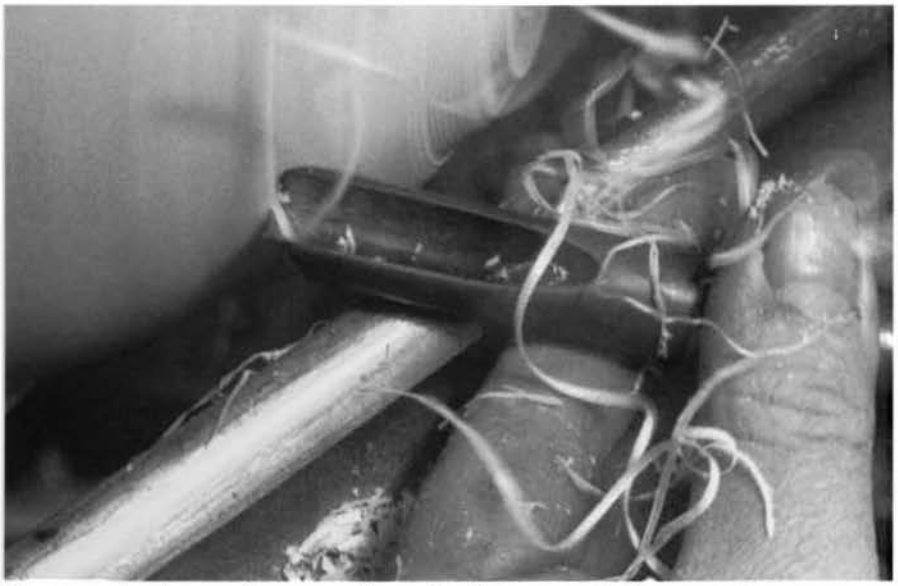
The amount the sides are ground back is a matter of personal preference and use. They must be ground back far enough so a pulling cut such as the shear-scrape is comfortable. The longer the edge, the more leveling effect it has over a larger area and the larger cut it can take. However, most lathes aren't capable of huge cuts, and the longer edge is more work to grind. The gouge pictured in photo 1 is about right for most of my turning.

This is not meant to be a comprehensive look at the deep-fluted gouge and the side grind, but it should give an idea of the possibilities of this versatile shape.

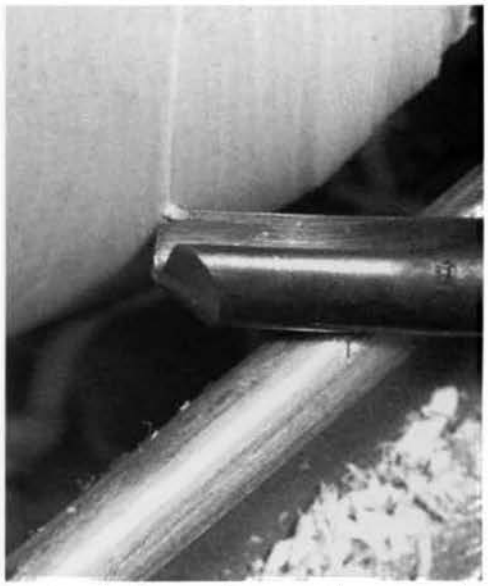
John Jordan is a woodturner/teacher in Antioch, TN. He will be a featured demonstrator at this June's AAW symposium, where he'll be demonstrating methods of sharpening and using the side-ground gouge. These techniques can also be seen in Jordan's videos, Bowl Turning *and* Hollow Turning.



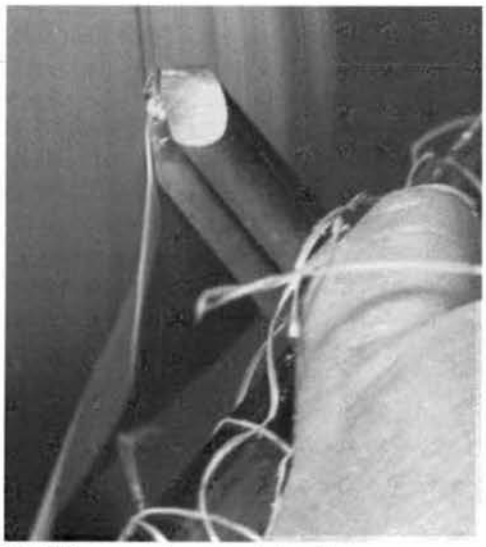
2. A side-ground gouge takes a basic cut, with the bevel rubbing. The tip does the actual cutting, while the lower wing peels away the waste.



3. A standard-ground gouge takes a finishing cut with the vertical wing.



4. Standard-ground gouge about to catch.



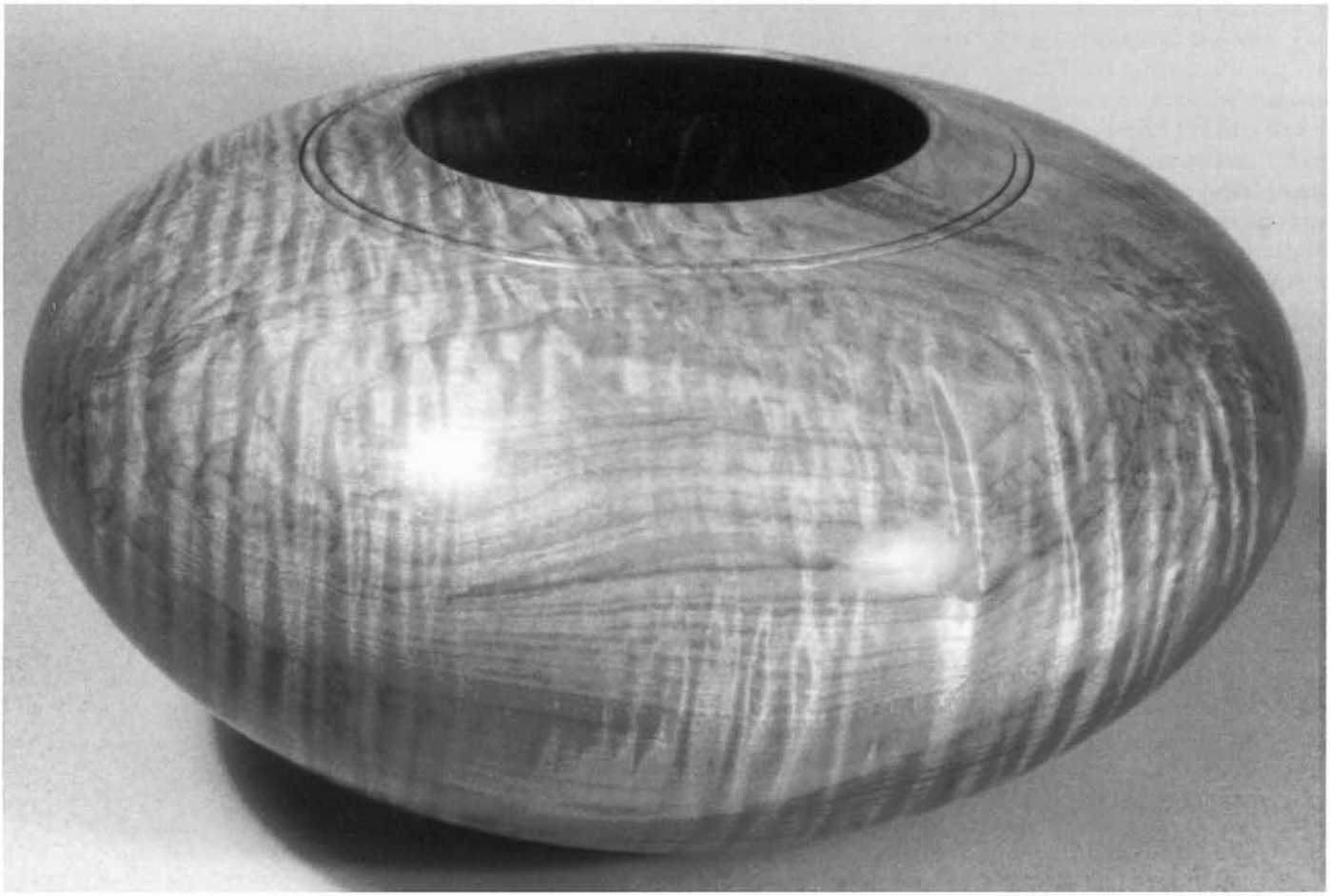
5. Side-ground gouge takes the same cut as in Photo 3, but with no chance of catching.

6. Side-ground gouge takes a shear-scraping cut: the edge at 45° (bevel not rubbing) is a compromise between cutting efficiency and optimal surface leveling.

On Form and Design

Some thoughts (and bowls) along the way

WALLY DICKERMAN



Maple bowl, 14 x 7 1/2 inches, evidences several aspects of good design, including an attractive rim detail and a form that positions the widest diameter above, not directly on, the midpoint.

LEARNING AND UNDERSTANDING woodturning involves the proper use of various tools, and just as importantly the proper attention to form and design. A well-turned bowl should have balance and good proportions. It should be interesting. And it should feel good when it is handled.

To give life to any bowl, curves should flow through the piece, and transitions should be smooth, without flats or interruptions. With few exceptions, a curved surface is more pleasing to the eye than a flat one. To understand and appreciate good design, study forms as used in pottery, glassware, metalware, baskets, and, of course, other woodturnings. See why one form is more pleasing to the eye than another similar form.

When using highly figured and colored wood, too many turners rely on the beauty of the wood itself and forget about form. Certainly beautiful figure and color in wood should play a part in dictating form, but not at the expense of good form itself. Similarly with segmented turnings: segmenting can enhance a form, but the more elaborate the design, the simpler the form should be.

When inspecting a bowl blank to decide what shape to use, several factors should be considered: the height in relation to the diameter, the figure in the wood, any flaws in the wood, and how the wood should be oriented to best display it. The best figure should be in the top for a closed-form bowl, and in the bottom for an open bowl.

Prior to turning a piece, make a sketch of the form you intend. Then as the turned form develops, don't be

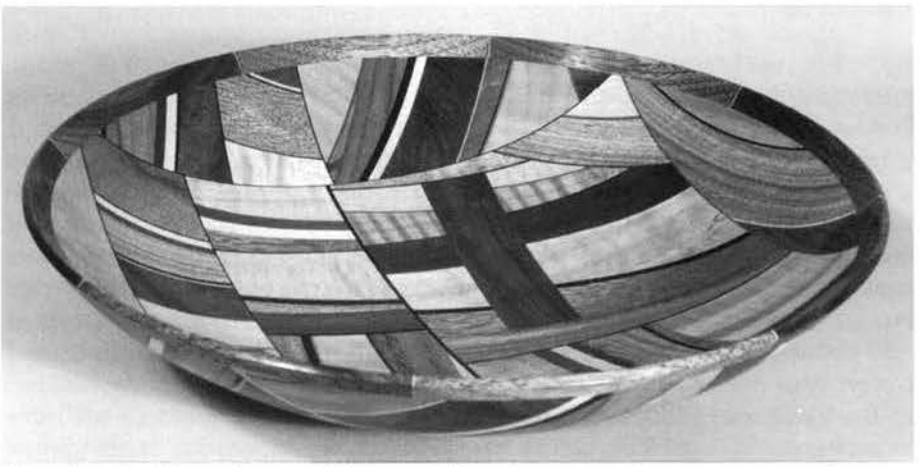
afraid to rethink your design and make changes. Experience helps in developing a form while the blank is oriented sideways, as mounted on the lathe, but in the meantime, periodically remove the blank from the lathe and examine the form upright. Often a small change, easier to see from another perspective, can make a real difference.

When designing an in-curved or closed form, the widest diameter should be above or below center; placing it on-center produces a dull form. Beads, grooves, and textured surfaces, if not overdone, can enhance bland wood. Defects, such as cracks, bark occlusions, knots, holes, and stains can detract from a bowl or even be cause for rejection. However, they can also be accented and made attractive.

The importance of some details, such as the foot or base, tend to be overlooked. The profile of many bowls could be greatly improved with a smaller base. A good rule is that the base should be no more than one third the diameter of the bowl, and in many cases, smaller. A well-formed base adds lift and life to a bowl. The rim of a bowl can greatly increase the appeal of a piece by finishing off the form. A plain flat rim is unattractive. A rim at right angles to the outside is much better. Experiment with other rim treatments, such as rolled-over, rounded, carved, natural-edge, outward- or inward-inclining, or laminated with woods of contrasting color.

Good design and form are the vehicles of personal expression. You'll know this as a special satisfaction when someone recognizes a bowl as yours and compliments you on it.

Wally Dickerman, of Anacortes, WA, acquired his first lathe fifty-six years ago. He's been turning ever since. This article is adapted from a handout he provides at workshops he gives.

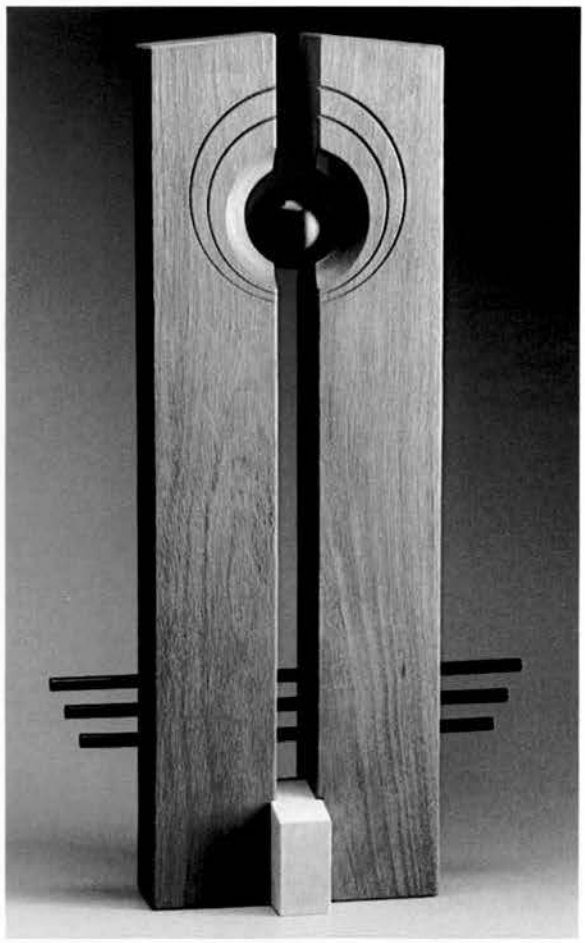


These bowls, from plain to elaborate, all evidence good proportions and attractive detailing. From top: myrtle, 7 x 4 1/2 inches; maple and ebony, 9 1/2 x 3 3/4 inches; and twelve varieties of wood, 10 1/2 x 3 inches.

LEARNING TO SPEAK

One woodworker's way to turning sculpture

CHRISTIAN BURCHARD



Burchard works with turned and chainsawn elements, exploring and relating smooth and textured forms while looking for figurative expression. At left, "Stormking" (maple burl and mahogany, 34 inches tall) projects a tempestuous power. At right, "Between the Two of Us," (mahogany, 32 inches tall) is about relationship, quiet connections, and balance.

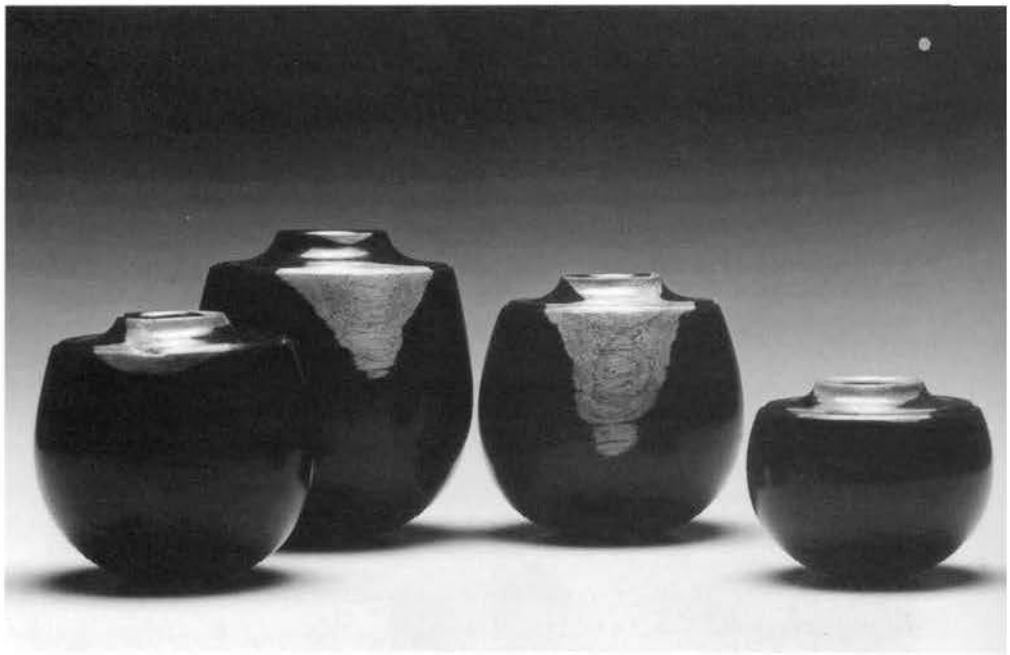
I AM ORIGINALLY FROM GERMANY, where I learned woodworking through a traditional apprenticeship in a large furniture workshop. In the first year all work was done by hand, and did I ever learn how to sweep! I never saw a lathe till much later, though.

In Germany, the way you learn is to copy your master, do as he does—it's the tradition. Individuality is not encouraged; there will be plenty of time to do your own thing later. In art as in craft this creates certain styles associated with a master or school. The result is a high quality of work but not a lot of innovation.

About ten years ago I bought an old lathe and taught myself through books, videos, and a week-long workshop. My first attempts were all focused on mastering this or that aspect of the turning craft. I copied anything that I found exciting and challenging. I was learning another language and regarded myself once again as an apprentice. I don't know whether it was cultural or just my own personal fears, but it was very hard to find my own way. I had to go through all this schooling, technically and personally, to come to a place where I was comfortable with my own ideas. There were many times when I was so excited about a new project, just to find out that somebody else had already done something very similar. I got a lot of flak for putting work out in public that was not really mine. I was naive, at times totally unaware of my influences.

There has been a lot of discussion recently about this (see pages 5–8). At the same time a tremendous amount

"You Have Slept Upon My Heart" (maple burl and manzanita, 30 inches tall) is Burchard's first figurative piece.



Vessels provide the opportunity to explore the subtleties of a single shape. These, from 2x2 to $4^1/_2$x4 inches are of African blackwood.

of sharing is going on in the turning community. We all get influenced by each other's work, and we should not close ourselves off from that. But a lot of other things in our environment influence us, too. My aim is to take it all in and make it my own, reinterpret, explore, and give something back. Of course we should credit our influences. What a compliment! But if we can't freely explore, overlapping sometimes, and learn from each other's experiences, all of turning will suffer. We risk ending up with a lot of originality and no depth.

Why do I do what I do? I concentrated on vessels for a long time, working on shapes, exploring the details, exposing the beauty of the material. I was hungry for more expression, though. After many a tortured sculptural vessel, I split the two endeavors and arrived at a comfortable place for myself. On the one hand I make small vessels and for the time being have limited myself to one shape. This allows me to thoroughly explore and understand this shape, to delve into all the subtle relationships within it, and to experiment with small changes. On the other hand is my sculptural work, with all the freedom that I can handle. Here I can use my imagination to the fullest. And there is so much to learn and understand about myself in the process. I need constantly to push at my boundaries. These objects aren't separate from me but reflect my aliveness back to me.

For most of my work I make drawings and models first and if I can get excited enough, I will go from there. Things always change in the process. You have to stay as open as possible along the way, not remain safe within the original idea. That's the most important part: seeing the work, focusing on your vision, taking chances, always risking it all. It's scary, of course, but it doesn't get any better than when it all comes together. Then there are those days, of course, when I am all off, when there is no magic, and I should rather be splitting firewood. There has to be that balance.

I once wrote that I feel like a little boy playing in a sand box, substituting lathe and wood for shovel and sand. I prefer turning to making furniture these days. The process is so much more immediate. I love to experiment with green woods, with combinations of turned and constructed elements, with textures. I am still learning the language, but I am starting to talk.

Christian Burchard is a professional turner and sculptor in Ashland, OR. He will be a featured demonstrator at this June's symposium.

Photos: Rob Jaffe

THROUGH THE LOOKING BOOK

Gathering and using ideas

CLAY FOSTER

1

Emangungu mask from Zaire, on display at the Neuberger Museum at the site of last June's Symposium.

DURING A PRESENTATION at the AAW symposium last year in New York, I mentioned something about my idea book, or "looking book" as I sometimes call it. Keeping an idea book is a lot like picking your nose; what you get out of it is probably of little interest to anyone else, but sometimes you just have to do it. It's proven very helpful to me (the idea book, that is), so here are a few things to encourage you to start one if you haven't already.

The more experience I acquire in woodturning, the less tools I need. But one tool I will never be without is my looking book. My looking book is just a fat spiral notebook full of assorted things I deem worthy of keeping. Stapled in it are pictures from magazines and newspapers and catalogs, along with my own drawings of ideas I got from these pictures, and drawings of pictures that can't be torn out of the book they were in. It contains quotes, lines from songs, and images from dreams. There are color samples and examples of geometric patterns. Anything that I can get to stay in is in there.

There are no rules about what I put in my looking book except one—there are no pictures of woodturnings. There is a whole world full of ideas out there that haven't been applied to woodturning yet, so those are the ideas I go looking for. The SUNY Purchase campus during the 1993 symposium presented a good opportunity to look beyond woodturning for ideas. In one part of the Neuberger Museum, the Jacobson collection of turned objects was on display. I enjoyed seeing it, but no images from it went into my looking book. In another part of the museum was an exhibit of African art. If you missed the African art exhibit, go ahead and start kicking yourself now. I got enough ideas for turned objects from the masks and sculptures to keep me busy for a long time. Pages from a brochure about the exhibit are now in my looking book (Figure 1).

Making the tool

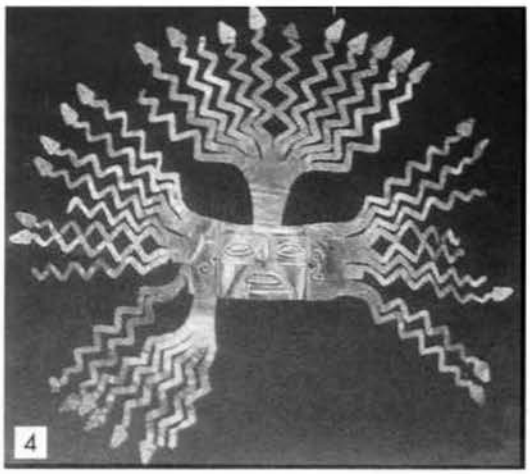
There are a lot of sources that I always check for pictures to put in my looking book. Magazines are my favorite, especially ones that have pictures of nature or things from other cultures. If you are more intrigued by technology and geometry, trade journals and science magazines might be a better source for you. Circuit boards can be as fascinating to look at as bark paintings from Australia. Architectural magazines are a source of good pictures and ideas. I like them not just for the pictures of architecture, but also for all the pictures of things that are used for decoration. When looking through magazines, don't skip over the advertisements. Somebody with a product to sell paid an ad agency a lot of money to create an image that would attract attention. If it grabs yours, take the time to examine the image more closely. Ask yourself "What in this ad caught my eye? What elements in the ad do I like? How can I reinterpret that element to incorporate it in a woodturning? If I cough real loud while simultaneously ripping this page out of the magazine, will the librarian notice?"

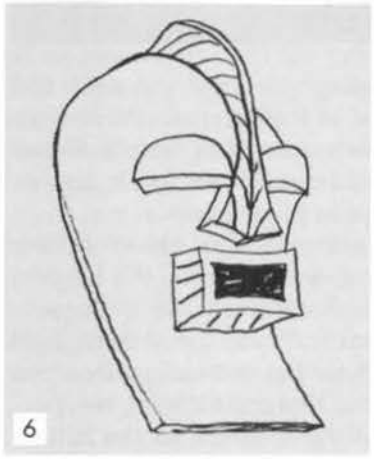
What should you look for when you are looking for things for your looking book? Just be aware of any form, shape, line, texture, or color that appeals to you. Don't try to figure out immediately why you like it. Don't even worry about if it is something that can be adapted to a woodturning. If you don't see potential for it now, maybe someday you will. Just be aware of your emotional, gut-level, no-intellect-involved, straight-from-the-heart response. If you're still looking at it, put it in the book.

Benefits

One good reason for keeping an idea book is so that you won't forget all the good ideas you get. If you don't put the picture in the book or at least make a drawing, all you will remember later is that you had a good idea but you can't remember what it was. I hate it when that happens.

An idea book is almost like a diary or journal in that you can look back through it to see how your ideas develop and evolve. Looking at where you've been can give you ideas about where to go. Comparing items from my looking book with photos of my work, I can see how the book chronicles the evolution of my work. Figure 2 is from a catalog of Indonesian wind chimes made from gourds. Since I had been exploring the relationship between the vessel form and the human form, as soon as I saw this picture, I knew I wanted to try adapting it to woodturning. Figure 3 is one





The author's idea book stores images that later appear in his turnings: Indonesian wind chimes from a catalog (2) turned into one of Foster's first figure turnings (3). Ecuadoran sun mask (4) shows up as a brass head dress (5). And Foster's drawing of an African mask (6), informed details of his crested figure (7).

of the first turnings I did inspired by the picture of the wind chimes.

As I developed the concept of a human figure with a turned head and body, I began to be on the lookout for other images of the human figure. The picture of an Ecuadoran sun mask (Figure 4) is from one of those Sunday newspaper magazine supplements. Figure 5 shows the brass head dress that it inspired for my own work.

My developing interest in artwork depicting the human form led me to look at a lot of so called "primitive" art, especially African art. Figure 6 is a drawing of an African mask that I saw in a book. The drawing is crude and inaccurate, but it was enough to remind me of what I had seen and gave me the idea of how to do the crest, nose, and mouth for the piece in Figure 7. Don't worry if you think you can't draw well. I can't draw well either. Just ask my first drawing teacher in art school. That's why I'm a woodturner, not a painter. All you need to be able to do is capture the idea well enough so that you will be able to recall what it was you saw.

The greatest benefit of keeping an idea book is that it encourages you to look at the world around you. A lot of learning how to design is learning the art of seeing. You have to be in your shop to practice woodturning, but you can practice the art of seeing anywhere at anytime. As Yogi Berra said, "You can observe a lot just by watching." Taking the time to look and see can bring pleasure and enlightenment to all areas of your life, not just woodturning. Get a life. Learn the art of seeing.

Clay Foster is a professional turner in Krum, TX. He will be a featured demonstrator at the Fort Collins symposium.

SOFT ELMS

Two felicitous domestics

WILLIAM L. STEPHENSON, JR.

ELMS ARE WIDELY DISTRIBUTED throughout the temperate regions, with a few species scattered through the tropics. The soft elms, American elm (*Ulmus americana*) and Slippery elm (*U. rubra*), have the broadest natural range among the North American hardwoods. Since westward expansion began over 150 years ago, elm trees have been planted as ornamentals throughout the U.S. and provinces of Canada. Very large elm trees can be found in most cities as the shade tree of choice. Elm, due to its local availability and desirable turning characteristics, should be high on your list of prime turning woods.

No other North American trees are more easily recognized than American elm, sometimes called white elm, and Slippery elm, often referred to as red elm. Elm trees grown in the open have a characteristic vase-shaped crown of great beauty and symmetry. The trunk usually divides into several erect limbs which strongly arch midway in height terminating in many slender, often drooping, branchlets. In the forest, the buttressed trunk, two to six feet in diameter, may rise to a height of 60 feet or more before branching. Slippery elm tends to be smaller than American elm, it has less tendency to branch, and the limbs are more ascending rather than drooping.

Elms do not normally grow in pure stands but are mixed with other hardwood species such as yellow poplar, basswood, white ash, butternut, soft maples, and willows. The preferred sites are wet, often having standing water in the spring. In the western portions of the natural range, elms frequently grow along water courses. Elm is certainly not restricted to such moist places and is quite adaptable to dryer sites and city streets. It is rarely found on very dry, sandy sites. Slippery elm shows a marked preference for limestone outcrops in hilly terrain.

The leaves of elms are alternately arranged on the stems, the borders are doubly serrated, and the base is asymmetrical (see the drawings on page 31 for the distinctions between American elm and Slippery elm).

The bark of American elm is typically divided into grey, flat-topped ridges separated by diamond-shaped fissures, often interspersed with irregular, corky, buff-colored patches. The bark of Slippery elm is a dark reddish-brown with fissures nearly parallel, sometimes scaly, and without patches. The inner bark of Slippery elm is mucilaginous with a somewhat aromatic flavor. American pioneers chewed this inner bark to quench their thirst. A tea made from the inner bark was commonly used as a remedy for throat inflammation and fever, and as a laxative.

Commercially, elm is marketed as either "soft elm," which is usually a mixture of American elm and Slippery elm, or as "rock elm," a mixture of other elms that reach commercial size. The names are appropriate: Soft elms have a green specific gravity of .47 and weigh 36 pounds per cubic foot. Rock elms have a higher specific gravity (.57) and weigh around 46 pounds per cubic foot.

Among hardwoods, soft elms are considered moderately heavy, moderately hard, strong, stiff, tough, difficult to split, difficult to season, and have excellent bending qualities. Soft elms are used for wagon wheel hubs, saddle trees, boat parts, barrel hoops, baskets, and crates. Slippery elm is more durable in contact with the soil, allowing use as fence posts, crossties, and agricultural implements. Both species are highly durable in contact with water and are used for pilings, docks, ship timbers, water pipes, pumps, and buckets. The wood of Slippery elm is considered to be the best of all the elms.

American elm has a thick sapwood that is a greyish white to light brown color. The heartwood, when evident, is a light brown to medium brown. The wood does not have a characteristic odor or taste. The grain is often interlocking, that is, the wood grows in spirals that alternate from year to year. The growth rings are distinct in this ring-porous wood and are fairly wide due to fast growth. The springwood pores are large, distinctly visible to the naked-eye, and are arranged in a singular almost continuous row. Summerwood pores are small and numerous and are arranged in continuous, wavy, concentric bands. These waves create a distinctive zig-zag pattern on plane surfaces.

The sapwood of Slippery elm is narrow and may have a faint characteristic odor similar to the "medicinal" odor of the inner bark. The heartwood is usually odorless and is a pleasing brown to dark-brown color, frequently with shades of red interspersed. The wood does not

have a characteristic taste. The grain is typically interlocking but sometimes straight. Slippery elm is a ring-porous wood with distinct growth rings. The springwood pores are quite large and visible. The pores form a conspicuous band around the growth ring and are two to four pores wide. Summerwood pores are very small and numerous and are arranged in wavy, concentric, sideways steps. The rays are not usually visible to the naked-eye.

To distinguish among the elms, check the ratio of light sapwood to dark heartwood: American elm is mostly light colored sapwood, Slippery elm is mostly dark colored heartwood, and rock elms are about half and half.

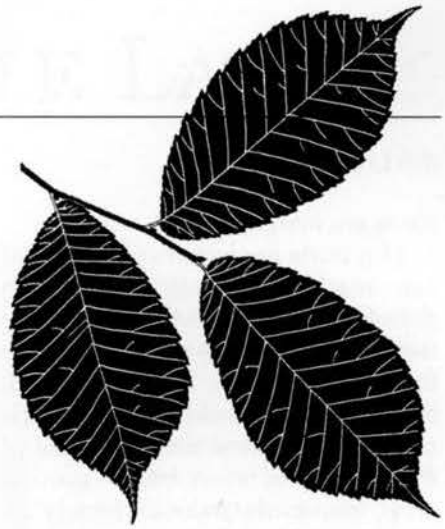
Fresh-cut soft elms have a high moisture content. The volumetric shrinkage of soft elms during drying is in the 15% range, which is moderate for hardwoods. The shrinkage is around 9% in the tangential direction (along the growth rings) and around 4.5% in the radial direction (across the growth rings). This large differential, about twice as much in one direction as the other, coupled with the interlocking grain, tends to cause twisting and warping during drying and sometimes splitting and cracking. It is therefore best to rough-turn green soft elms, then set them aside for a lengthy period of drying, about one year per inch of thickness. (See "Turning Domestic: Persimmon" *American Woodturner*, June 1993, for a discussion of drying techniques.) If the distortions or cracks from drying cannot be highlighted as features in the turned object, the discards can be used for attractive firewood.

American elm leaves are 4–6 inches in length, smooth on top and hairy on the underside, and have parallel ribs.

Soft elms are well suited for spindle turning. The hardness and the interlocking grain accommodates soft curves and all but very fine detailing, while the strong grain patterns will add character to the finished piece. Elms have been used for more than 200 years for chair making, most notably in Windsor chairs. The legs and back spindles can be turned to small, elegant diameters. The strength and resistance to splitting makes for a durable finished product. The excellent bending characteristics means elm is a good choice for bentwood arms and back frames. Elm glues well so that mortise-and-tenon chair joints hold fast over time. Chair seats will be sufficiently strong to accommodate the largest posteriors.

Use sharp tools when turning elm spindles. If your skills permit, long angle grinds, such as the fingernail grind on spindle gouges, will make a finer and smoother cut.

Elms, especially the soft elms, have been used for bowl making since the 1700's (and probably before that by Native Americans) in the form of doughbowls and tureens shaped with hatchet and adze. Having no taste or odor is a desirable characteristic of wood that comes in contact with food. The interlocking grain helps elm bowls hold up well to constant use. However, ring porous woods, such as elms and oaks, have pores that can absorb foods and provide a haven for bacterial growth. It is best to seal the surfaces with a finish that is suitable for contact with food. Ring-porous woods should not be used to store foods and should be cleaned immediately after use.



Slippery elm leaves are 5–7 inches in length, rough on top and underside, and have branching ribs.

Green elm turns easily in faceplate work. The transition from springwood to summerwood within the bowl blank seems to offset the transition from side grain to end grain as the wood turns. The wood therefore cuts uniformly.

Sharp tools yield best results; however, being a bit softer than other hardwoods, elm is more forgiving when turned with dull tools, or you may find that you do not have to sharpen as often. The wood does not become as stringy when turned with dull tools, compared, say, to walnut. Lathe speed can make a difference in the quality of the cut surface, with 1000 rpm being a good average lathe speed for pieces between 3 inches and 10 inches in diameter. The interlocking grain seems to minimize tearout and rarely does a large piece fly apart from splits or cracks such as ring-shake.

Hand carving and other handtool work can be difficult in elm. Elm must be respected with sharp tools. Avoid objects that require stability, such as lidded boxes. Since elm glues well, stave-constructed bowls and containers are good projects in elm. Elm will do well by any object where beautiful figure and pleasing color

Drawings: Deborah Fillion

tones are integral to the design.

Elm burls are rather common and can reach enormous size. When searching woodlands for prime turning stock, look the elms over carefully. Where you find one burl, others will be close by. Elm burls tend to be located near the base of the tree at or even below ground level. Elm burls make extremely attractive bowls and platters.

The soft elms should be sanded to around 300 grit. Elm ranks third (after walnut and cherry) for ease of sanding and finishing and ranks first in scratch resistance. (Though the problem is rare, elm dust can be a skin or eye irritant. See "Toxic Woods" *American Woodturner*, March 1991.) Elms will easily take and hold most finishes. Since the pores are relatively small compared to other ring-porous hardwoods, elm does not require filling. To preserve the lighter cream color tones, a surface finish that does not penetrate (such as wiping lacquers) usually yields better results. Several wash coats of shellac will also seal the surface to minimize oil or varnish penetration.

The soft elms are widely available throughout North America. Even if you live in an area outside the natural ranges, you can likely find it just down the street as an ornamental planting. The decline in elms caused by disease (see "Dutch Elm Disease," below) may mean a supply is readily available for use by the discriminating woodturner.

If you have not created woodturnings from the soft elms, American and Slippery elm, perhaps now is the time to give elm a turn.

Bill Stephenson is a professional forester who has been a serious woodturner since 1988. The author greatly appreciates the elm turning blanks, used in hand's-on research for this article, and the information shared by Betty Scarpino.

Dutch elm disease

DUTCH ELM DISEASE is caused by the fungus *Ceratocystis ulmi* that is spread by two species of elm bark beetle, *Scolytus multistriatus* and *S. scolytus*. Elm bark beetles are capable of flying eighteen miles in search of a host. These long-distance flights have contributed to the rapid spread of the disease.

Dutch elm disease produces a wilting and yellowing of leaves at the ends of branches. The disease then spreads throughout the tree, usually taking several years. In all cases, the disease produces a discoloration of the sapwood in affected branches, trunk, and roots. A diagonal cut through branches with wilted or yellowing leaves will show brown spots or a brown circle in one or more annual rings. Positive identification, however, requires laboratory testing of the affected material.

The fungus will develop in living tissue as a parasite and in dead wood as a saprophyte. In living trees the fungus grows in water-conducting vessels; a toxin is produced and eventually the flow of water is stopped. The fungus then continues to grow on the wood, producing spores that are carried to other trees as the insects seek a new host.

Dutch elm disease was first identified in France in 1918. By 1927 it had spread throughout Europe and to England. In these regions the local elms rarely died from the disease. By 1930, it was identified in the U.S. in Ohio and by 1950 it had spread through Kansas. The elms of North America did die from the disease and it has been especially fatal to American elm. Worse yet, while in America, the fungus developed a new and more potent strain which passed back to Europe in the 1960s creating a second wave of elm dieback. An estimated one hundred million American elm trees have died from Dutch elm disease.

Since the disease was first discovered, most every conceivable means of control has been tested, alas to no avail. The best controls have essentially delayed the inevitable. The most promising effort has been in the development of disease-resistant strains of North American elms. Progress in this approach is, at best, slow.

Several Asian species of elm are resistant to Dutch elm disease, Chinese Elm (*U. parvifolia*), Siberian Elm (*U. pumila*), and Japanese Elm (*U. japonica*). None of these species has the qualities of the native American and European elms. The size is usually small, the growth is slow, and the trees are susceptible to other insects or diseases.

While elms are still available, woodturners should take advantage. Trees that are being removed for urban expansion and even those that have recently died from the disease contain a great deal of usable material. Logs that are stored should be treated with an insecticide to minimize the further spread of the disease. Since the fungus continues to grow in dead wood, transport to other areas will only hasten the spread. Once the wood has been dried and finished, the risk of spreading the disease is minimal to nonexistent. —*W.L.S.*

BUILDING A SPRING-POLE LATHE

Turning leg work into lathe work

FRED HOLDER

WHEN I RETIRED from my regular work last spring, time was finally available to take on some of the craft fairs with my turned wooden bowls. A woodturning demonstration seemed like a good way to attract a crowd to my table and perhaps generate some conversation. Since power is not always available at these affairs, an artist-powered lathe would not only be unusual but appropriate.

The machine I finally designed and built is a modified spring-pole lathe. Its first outing was at last June's Art in the Park craft fair at Omak, WA. The design is simplicity itself, and the cost—under $100. It also worked quite well. It was easy to demonstrate how the tools cut, since the wood was turning slowly. Also, I was able to let people try their hand at woodturning without worrying about injuries.

This spring-pole lathe is lightweight, inexpensive, and fairly portable, providing aerobic exercise as well as faceplate turning capabilities.

Design

In a conventional pole lathe the workpiece is mounted between centers and powered by a cord wrapped around it. The lower end of the cord attaches to a pedal and the upper end is tied to a springy pole or tree branch. As you depress the pedal, the workpiece rotates a few revolutions. When you release the pedal, the workpiece spins in the opposite direction as the tension from the pole returns the pedal to its ready position. You cut only on the pedal's downstroke.

My design uses coiled springs instead of a pole to return the pedal, and the cord wraps around a pulley on the headstock shaft instead of around the workpiece. This allows the lathe to be set up anywhere, independent of springy branches, and to do faceplate work.

When designing this lathe, I set several criteria: It should be small and lightweight, inexpensive, artist-powered, and capable of faceplate turning.

I made the lathe woodwork from on-hand materials: maple for the headstock and tailstock, oak and fir for the toolrest structure; pine, cedar, oak, and plywood for the framework. In other words, whatever was available. Now that I've built this machine and used it, I would recommend using hardwood throughout.

A trip to the Sears, Roebuck and Co. repair center produced a spindle shaft, spindle bearing, and retaining collar for one of their lathes. Thus, the lathe would be equipped with a threaded headstock spindle with a No. 1 Morse taper and a fairly good bearing. The thread size is the popular $^3/_4$-16 tpi, which fits my regular lathe accessories.

Construction

The headstock consists of two pieces of $^3/_4$-inch maple (see the drawing on page 34). I screwed a 4-inch faceplate to one board, centering it on the horizontal dimension, and mounted the faceplate on my regular lathe. With the lathe set to its slowest speed, I drilled a clean, perfectly aligned hole for the headstock shaft using a $^3/_4$-inch Forstner bit. I enlarged the hole on one face to accommodate a press fit of the headstock bearing. The depth of the recess is slightly less than the thickness of the bearing so that the bearing seats slightly proud.

This process required a lathe; however, the same could be accomplished with a brace-and-bit and the skills required to make furniture, perhaps a more satisfying approach.

Before removing the faceplate from the board, I traced a line around it to establish the top contour of the headstock. I screwed the second board to this first one and extended the $^3/_4$-inch hole through the

second board. A scroll saw quickly cut out the top contour of the headstock. A little sanding and it was ready to assemble.

But first, I made my tailstock assembly from three pieces of maple. Two are cut to the same profile as the headstock, except that they have a lower extension, approximately $1\frac{1}{2}$-inch inches wide by $1\frac{3}{8}$ inch long, to go between the rails. The third piece also has this lower extension, but it rises only about $1\frac{1}{2}$ inches above the rails. Drill a hole vertically through the center of this smaller piece. Later, a bolt through the centerhole and through a plate on the bottom side of the rails secures the tailstock assembly to the lathe rails.

To ensure alignment of the tailstock, clamp the two larger pieces to the headstock and use its $\frac{3}{4}$-inch hole to position the bit when drilling through the tailstock.

Now, assemble the metal parts of the headstock: Insert the bearing in its recess, then slip on a $\frac{3}{4}$-inch washer, larger in outside diameter than that of the bearing. Slide the shaft through the bearing (the last little bit is a press fit), and add a retaining collar on the pulley side of the headstock to keep the shaft from working out during operation.

Now drill two holes through the washer and the headstock and add bolts to clamp the bearing firmly into its recess. Apply even pressure when tightening the bolts. Without this washer, the shaft will wobble and rub on the wood, binding on the downstroke.

Complete the assembly by adding a wooden pulley to the rear extension of the shaft and fixing it with a roll pin. The pulley can be roughly rounded with a drawknife or rasp

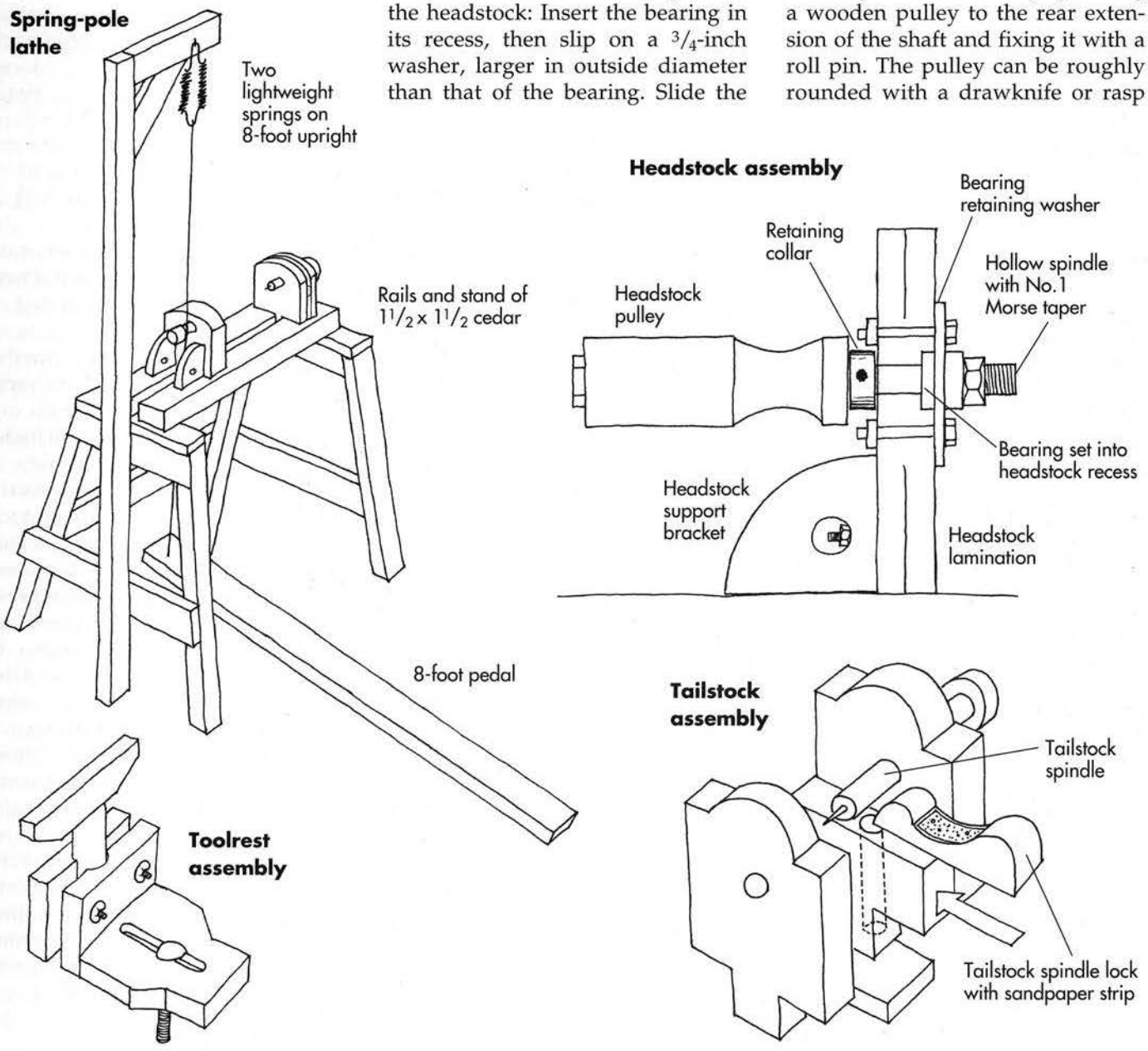


Illustration: Mario Rodriguez

and turned to its final shape on the lathe itself. Just wrap the cord around the part of the pulley you're not turning.

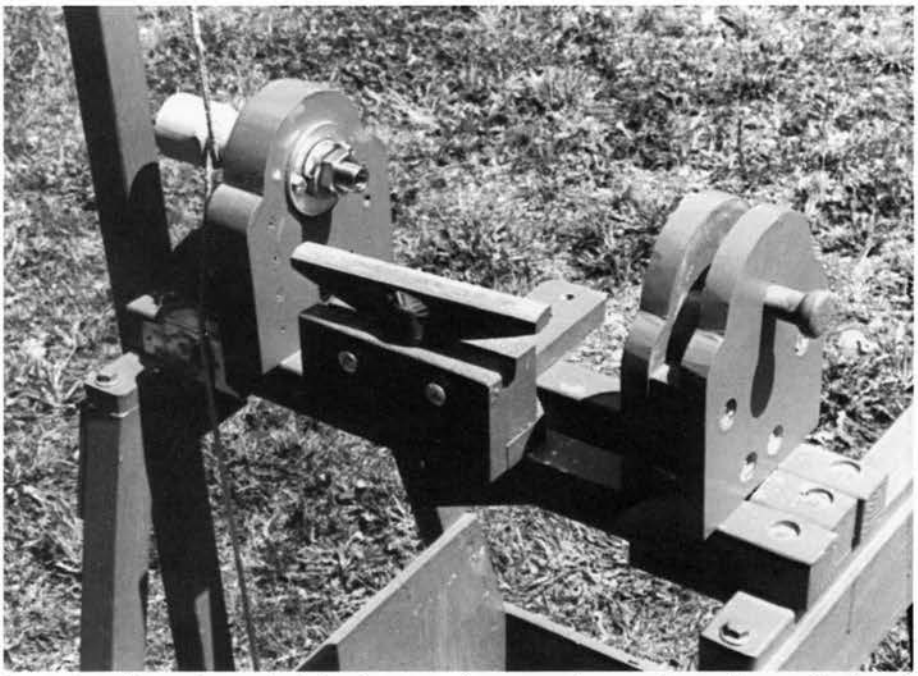
Use the completed headstock to align the tailstock parts for assembly: Sandwich the shorter piece between the two other pieces, passing the headstock shaft through the previously drilled holes, and fasten the tailstock parts together with screws.

I turned a $^3/_4$-inch tailstock spindle from maple and inserted a point into the center of one end. I used the steel center from an armor-piercing .30 bullet that I had on hand. A friend of mine had picked up a bucket of these off the firing range when he was in the Army. They also make good center punches. A tapered slide with abrasive cloth glued to the surface serves as a tailstock spindle lock.

The toolrest assembly is a close copy of the one on my regular lathe. The toolrest itself is a length of oak epoxied to a $^7/_8$-inch maple post. The toolrest baseplate is $^3/_4$-inch oak with a slot, bolt, lower plate, and wing nut for adjusting and securing it on the lathe ways. Screwed to the baseplate is a block of 2x6 fir. I clamped a second block to this, temporarily spacing them with a cardboard shim, and drilled the $^7/_8$-inch hole for the tool post. Two bolts, with wing nuts, through these blocks allow the tool post to be adjusted and secured.

The lathe rails are cedar, $1^1/_2$ inches square, as are the stand legs. The rails are separated by a piece of $1^1/_2$-inch stock at the tailstock and headstock ends. The headstock is bolted to its support bracket and screwed to the rails. Since these screws seem to work loose during sustained operation, it would probably be better to use a center bolt to pull the headstock against the rails.

The power unit consists of an 8-foot upright with a crosspiece attached and braced at the top. The two lightweight springs hooked to the crosspiece have to stretch to over twice their relaxed length. A piece of clothes-line cord attached to the bottom of the springs is wrapped around the headstock pulley and then attached to the foot pedal. I tried several different lengths of foot pedal. An 8-foot pedal seemed to work best. A piece of plywood attached to the inside of the legs on the headstock end keeps the foot pedal from hanging up on any of the supports.



Powering this spring-pole lathe by a cord wrapped around a pulley on the headstock spindle, rather than around the workpiece, makes faceplate turning possible.

Variations and use

A lathe based on this design could serve quite well in a rural area where there is no power. For a more permanent setting you'd use a heavier framework and hardwood throughout. The rails should be at least 2x4, possibly heavier. Also, a springy pole or a bow could be used instead of a spring.

This lathe runs much slower than a conventional lathe, and it revolves in the opposite direction half of the time. You have to develop a rhythm while pedaling, cutting on the downstroke, retracting the tool a bit on the release. The lathe does a reasonably good job of turning a bowl mounted on a screw chuck to turn the outside and then reverse-chucked to turn the inside. It could also be used to turn various other small items that could be sold at crafts fairs. Because of its light weight, it is best to tie it down during operation. I use a stake on each side.

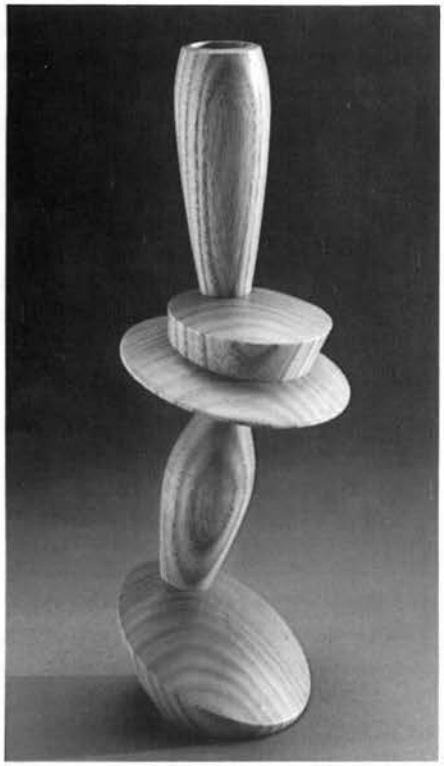
You get an additional benefit from this lathe: it's called physical fitness. Learning to operate a pole lathe for eight hours a day will build strong leg muscles and should help keep your heart stout. At my second outing with this little lathe (a two-day event at the Blackberry Hill Craft Fair last August), I was able to produce two fairly respectable bowls and several small pieces to demonstrate beads, loose rings, etc. I overdid the first day, and that night I experienced severe leg cramps, which gave me a strong appreciation for those bodgers of long ago who did production work on pole lathes.

Fred Holder, of Camano Island, WA, learned the basics of woodturning in his second year in high school. Forty years later he bought a Sears look-alike lathe. Since retiring, he plans on making lots of wood shavings and perhaps a few items of usefulness.

MULTI-AXIS CANDLESTICKS

Making offset spindles that keep candles straight

MARK SFIRRI



Ash candlestick, 9 inches high, was turned on two sets of centers.

IN ORDER TO DESIGN any functional object you have to do some research into the basic requirements for that object. Then you can come up with your own idea. Otherwise you're reinventing the wheel. Requirements in chair design are much more complicated than those for a candlestick, but understanding how an object is supposed to work is essential, no matter how straightforward the function. Research does not have to focus on the fanciest of objects, though it could include them. I went to a department store and took dimensions off of some tall, short, heavy, and delicate candlesticks and that gave me a pretty good range in which to work.

Nuts and bolts

My research showed that there needs to be a hole $^{7}/_{8}$ inch in diameter and about 1 inch deep to hold the candle. That hole needs to be perpendicular to the bottom of the base. The base needs to be $2^{3}/_{4}$ to $3^{1}/_{2}$ inches in diameter. The larger base would accommodate a taller candle; candles typically range 7 to 12 inches in height and need a stable base to keep from tipping over. The base diameter can be reduced somewhat if you weight it. To maximize stability, the bottom of the base should be hollowed slightly so that it rests only on the outer edge.

A common way to make a wood candlestick is in two pieces: You spindle-turn the stem piece, including a candle hole at one end and a tenon at the other, and you faceplate-turn the base piece, drilling a hole to accept the tenon of the spindle-turned piece. It is possible to make a candlestick out of one piece but in order to accomplish making a base of sufficient size, the initial block needs to be at least 3 inches square. This approach allows for a lot more possibilities of form (more variety of thick to thin) but runs the risk of yielding too massive a shape. The base is where the full dimension of stock is required, but if the transition of base to stem happens too quickly, a weak outer edge with short grain can result. It takes some experimentation to determine which shapes are strong enough without sacrificing visual delicacy. I turn one-piece candlesticks with a minimum of $^{5}/_{8}$-inch diameter, which contrasts well with the larger 3-inch dimension.

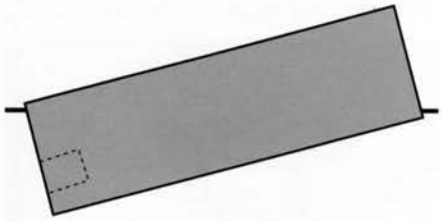
The $^{7}/_{8}$-inch hole can be made at the beginning or end of the process. In the first ones that I turned I drilled the hole on the lathe using a bradpoint bit in a Jacobs chuck in the tailstock. I liked this method because the final axis of the turning could be shifted around until it was where I wanted it to be before I established the hole location. I used a bradpoint bit because it has two lead cutting edges and it generally drills a hole where you want it to be drilled. Multi-spur bits have one leading edge; if you try to drill with one of these on the lathe, your piece jumps and the hole ends up wrong. What I didn't like about the bradpoint is the quality of the bottom of the hole.

I now make the hole before I turn the piece. This limits flexibility in design but improves the craftsmanship of the piece. I make the hole in a slot mortiser with a router bit, but a Forstner bit in the drill press will also do the trick. In setting up to drill, it's important to project the centerline of the hole to the bottom of the base and mark it there. This way, when you mount the piece for turning on its final axis, you can locate this center so the hole ends up square to the bottom of the base. In order to end up with a bottom $2^{3}/_{4}$ to 3 inches in diameter, this mark should be placed close to the center on the block.

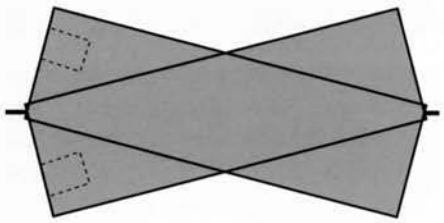
Offsetting the axes

Interesting things occur when one part of a turning is turned on one set of centers and the next part is turned on a different set of centers. You get not only two round shapes but the curious intersection of the forms in the transition between them.

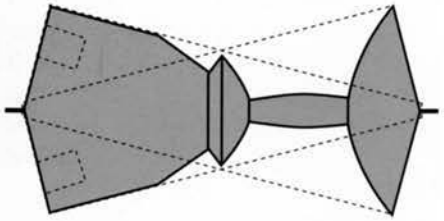
There are three different types of multi-axis turning: *parallel offset axes* (which will necessarily be in the same plane), *non-parallel offset axes in one plane*, and *non-parallel offset axes in different planes*. These three types offer results that are distinctly different from one another. The type that I use for the candlesticks is non-parallel offset axes in one plane. This type offers the precarious angling of one spindle form to another from the



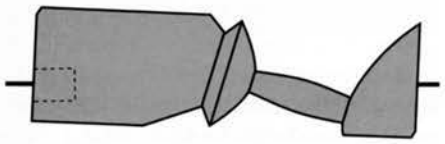
Blank mounted on first axis



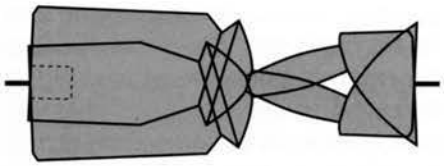
Blank spinning on first axis



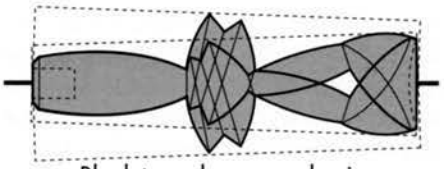
Blank turned on first axis



Blank mounted on second axis



Blank spinning on second axis



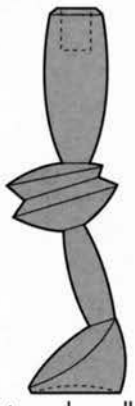
Blank turned on second axis

side view, but is aligned and symmetrical from the front view.

The first part of the turning uses centers that are the most extreme. These may be $1^3/_8$ inch off center at the top and $1^3/_8$ inch off center in the opposite direction at the bottom. While the piece is on these centers, the middle to bottom of the piece is turned (with the exception of the very bottom). The second set of centers is closer to the center of the block, particularly at the bottom. A plug is placed in the hole at the top to receive the drive center (if the hole was made first). On this set of centers the top is finish-turned and the very bottom is squared to the top and slightly hollowed.

You have to be careful not to turn a diameter too small on the first set of centers (no less than $^5/_8$ inch) because the pressure from the second set of centers could bend the piece. You also have to be careful about your knuckles. Much of the sanding has to be done with the lathe stopped. While the machine is running, you can sand only those areas that are fully round, so it is important that final cuts be smooth.

The design of the piece is a two-step process: I design for the first set of centers and then for the second set of centers. The design for the second set has to incorporate that which was done in the first part. After many experiments I have come to some understanding of what will happen when certain shapes are made, but there is a whole lot that I don't know. My design vocabulary involves a few general guidelines: I usually do not turn sections of equal length on each set of centers, preferring to create a more dynamic balance. I don't use a lot of coves, because I like the more disjointed look that convex shapes give. And I aim for a sharp transition between the two sets of shapes; that's where the surprises develop, and I want these to be pronounced.



The turned candlestick

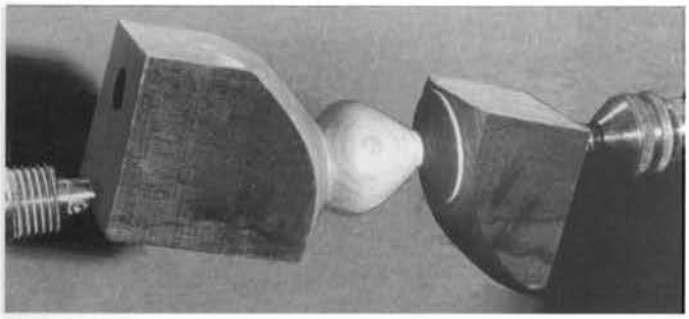
Designing in a context

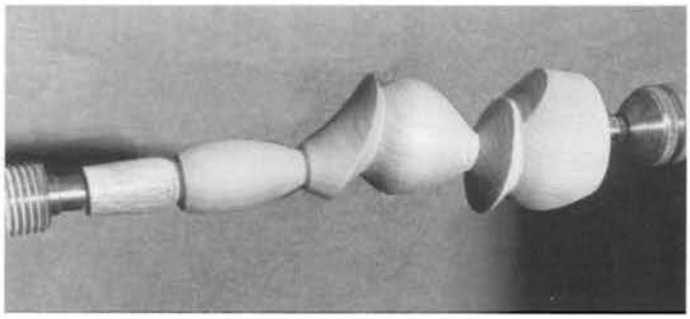
It is important to consider all of the aspects that go into the creation of an object. Certainly there is the research and the nuts-and-bolts stuff, but the design to me is perhaps the most important part. I have for years been making furniture and objects that incorporate turned parts. Most of these pieces involved construction. So the main focus for me was how to turn round things and end up with square surfaces for joinery. By using split turning and carving I have been able to accomplish this. The fact that many of the pieces were turned was often a difficult thing to see.

It was shortly after the Saskatoon Symposium of 1992 that I challenged myself to come up with a totally turned finished piece. I was inspired by Del Stubbs' "Smiling Lips" column (see *American Woodturner*, December 1992, page 20). Although these candlesticks look nothing like Del's piece, that was the source of the idea.

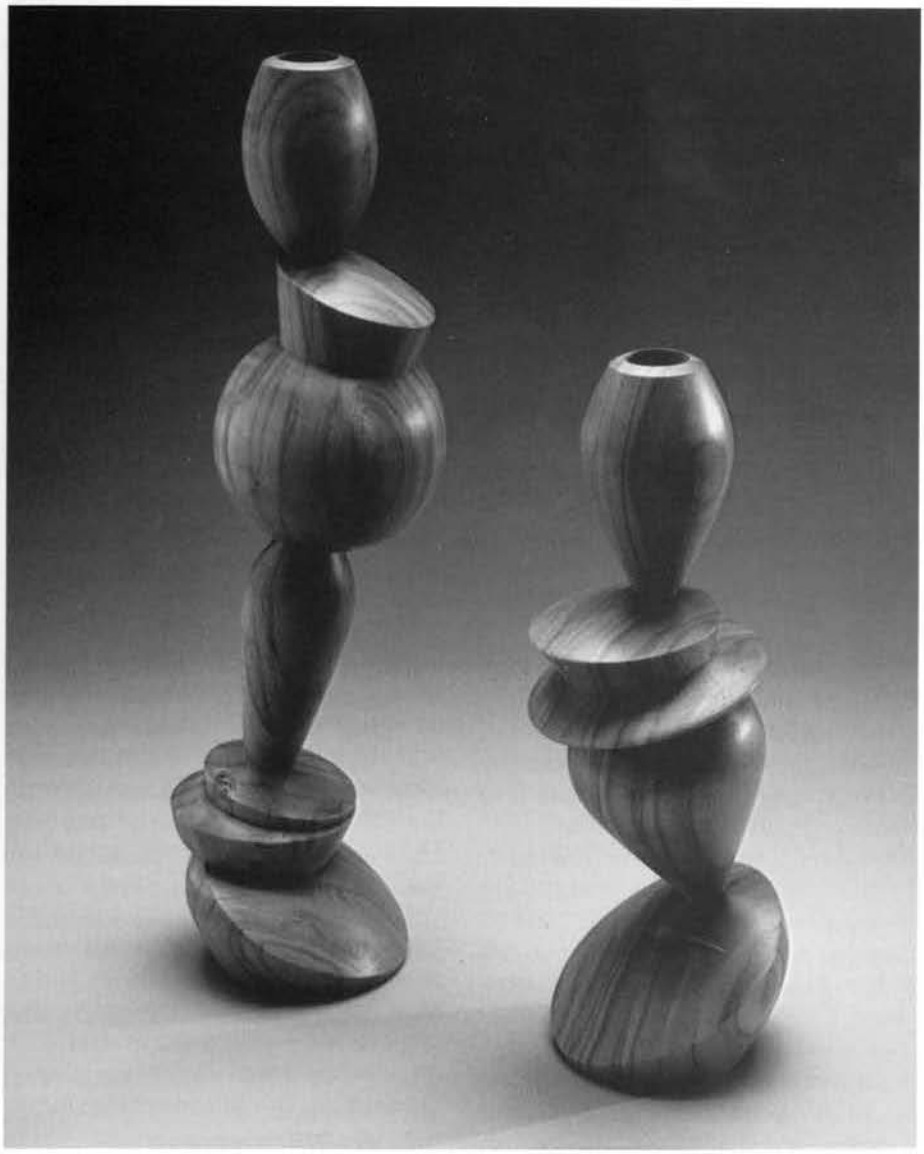
I have also been very intrigued with Stoney Lamar's work, which includes a lot of exploration in multi-axis turning. While I admire and respect his work, I don't feel that these pieces are in any way copies of his work or should restrict him in the way he approaches his work. Offset-

Author's drawings rendered by Deborah Fillion





On the first, more extreme set of centers, above, the middle of the candlestick is turned. The second set of centers, above right, is aligned with the pre-drilled hole (note the plug). The finished candlesticks, right, show two different sets of shapes, the one on the right evidencing a more sophisticated transition between centers. Below is another set of candlesticks, in cherry.



ting centers in my spindle work results in candlesticks that have a precarious, disrupted quality, quite different from the massive, planar character of Stoney's sculptures. For me they are a natural progression from what I was doing and stand as a stepping stone for incorporation into furniture objects.

It is important to look and see and try different ideas, but if you are out to market the work as your own it should be your own.

Mark Sfirri teaches woodworking and turning at Bucks County Community College in Newtown PA and has a studio in New Hope, PA. He will be a featured demonstrator at this June's AAW symposium in Fort Collins.

TREE OF WANDS

Magic sticks conjure the secret of creative freedom

STEPHEN MINES

In March 1992 I was fortunate enough to sell my first piece of "lathe-turned art" called *Luxor Surprise* (see *American Woodturner*, March 1993, page 46). Its distinctly Egyptian look prompted a name evoking mystery and magic: Luxor is the modern town near the site of the ancient necropolis at Thebes. I had hollowed out the vase shape at the top and slyly included a hidden treasure—a magic wand, turned in purpleheart with interrupted spiral detailing which was, of course, the surprise. The collector seemed as much intrigued by the little wand inside as by the wooden sarcophagus that housed it. Six weeks later I received a note from him inquiring whether I had "something new in turning or magic wands of interest."

Indeed I had. Already named even then, the *Tree of Wands* had partially filled a sketchpad with notes and drawings, and there were eighteen magic wands in various stages of work which I, with some trepidation, showed to my client on a sunny day in June 1992. He was enthused from the start, commissioned it that day, and in June 1993 saw its completion. Turning magic wands isn't exactly a passion. Yet, it has all the earmarks of becoming one.

Tree of Wands, finished, is home to sixty magic wands. To date, surviving wands (the ones that make it off the lathe in one piece) number 154 and most have sold or been traded for goods or services. I have less than twenty-five wands for show-n-tell at any given time and they are unfinished (or they'd be gone!).

The reason for the fascination with wands is obvious: they are each unique, attractive, and intriguing, rather mysterious (maybe they work!). Perhaps less obvious is the reason that they are such fun to create: Nowhere, to my knowledge is the length, diameter or preferred material prescribed. Talk about creative freedom! It is a form for expression so vaguely defined that most people have little more than a dim perception of what the animal is supposed to look like, sort of a "Here there be dragons" situation. No longer bound by the constricting drawings of draftsmen and designers, nor to any actual precedent, the imagination can fairly fly through the myriad possibilities, pausing here and there to see what one idea might look like were it executed. Even if you think you've made a mistake, all of a sudden you look at it and say, "Yes! That's what it should look like." Any material can be worked; any embellishment can be employed. Synthetic or genuine, precious or semi-precious gems and stones, and precious or mundane metals can be incorporated freely. And shape and size can be pretty much as your whim might dictate. (Short and stubby might not work, but one of these days I'm going to give it a try; I've got a bowl blank of bloodwood, the crystal for the tip is purchased, and the wand is already sketched.)

The concentrated fire power of the "Tree of Wands" (owned by Irving Lipton of Encino, CA) is enormous.

A vessel is a vessel, be it bowl, urn, dish, tub, platter, compote, tube, (a long tube, as in blood vessel), and is meant to contain, constrain, or hold something; by definition, a vessel is filled with expectations. But a magic wand? No parameters. Moses and Merlin seem to have preferred the tallish variety, but some good old boys (witch doctors and dowsers, for instance) like the little jobs they can easily stow away out of sight until later in the show. See what I mean? It's wide open. If you call it a magic wand and it kind of resembles that remark, it is one.

Being the human animal, never

content with just freedom, I've already added some walls of my own. I have categorized my magic wands by size: micro, mini, med/mini, medium, macro, and O my God, it's huge! Each length category seems to have its advantages and disadvantages. With the micro and mini size, (3 inches and 8 inches) shop scraps take on a whole new meaning and worth. Pink ivory and snakewood costs are shrunk to an affordable size, though you may want to invest in a watchmaker's lathe and put up with turning while looking through a vibrating, illuminated magnifier. Miniature tooling seems to be a lot less expensive though, especially if you take the time to convert an old $^1/_8$-inch chisel into a working gouge or spearpoint scraper. Oddly, the time spent on these little wands doesn't seem to shrink in proportion to size; for me, the smaller wands often take longer to complete and actually seem to cost more in terms of energy expended than some of the larger variety.

A word of caution: you'll be tempted to use genuine precious stones and metals rather than inexpensive synthetic substitutes. That's okay. You'll be able to say, "...and the rubies are real, you know." However, at that size (2–3mm) probably only a jeweller would know for sure, and he'd probably be the first to say that the synthetics are at least as good, if not better, considering the application. Unless you're executing a commission for the Czar or the Pope, stick to man-made or semi-precious materials; used sparingly they simulate the real thing and can always be upgraded if need be.

The med/mini size (between miniature and medium, 14–15 inches) is a lot of fun, my favorite. Small enough to carry around, too large to be mistaken for a key-fob ornament, and just the right size to carve or embellish with detail. They also help use up the small but precious pieces of exotic woods left over from larger projects. A tip: with three or more, grouped by shape or wood type, this size makes an instant tabletop or bookcase collection. As it should be, the average collector (who of course isn't average at all) would presumably prefer to start a collection with more than one of a kind. If the collection is already underway, a multiple addition is a natural progression as well. A multiple addition for a collector is a multiple sale for an artist/craftsperson. Presto! Ah, the magic of being able to pay the bills on time!

The three tiers on the tree hold wands of different lengths.

The medium size (to around 22 inches) starts getting a little tricky because of the slender shafts, but this size is easily manipulated and supportable (by hand as often as with steadyrests) and the more expensive exotic woods can still be worked without refinancing the homestead. Cue-stick blanks (or cue butts) are also available in exotic woods and can be used here to great advantage. Another plus: router bits can be utilized for fluting, twists, and similar operations. This is the most popular size and for the most part is a stay-at-home-on-a-stand wand. If I were still in the army (or near an installation) I think a well-designed short-timer's magic wand of this size could be a runaway seller, baled as: "A keepsake for life. Take it home...soon!"

(For those who don't know, a short-timer's stick is a swagger stick for people with thirty or less days left to serve. Each day of the countdown a small section of the end of the stick is removed, until just before estimated time of separation the guy with the very short stick is an object of envy to everyone not going home. All you woodturners in the military—there must be some—take that idea and run with it.)

When you approach the macro category (40–45 inches), you'll suddenly notice a world of examples, such as walking sticks, canes, walking staffs, shepherds crooks, and the like. You might, like I did, begin wondering about the history of these objects. I think that in the here-to-fore bygones, you didn't have to have an infirmity to need or want something to lean on or fall back on. Everybody carried a stick. It not only helped over rough terrain and tight spots (like parting the Red Sea) but was also a reassurance when confronting wolves and other bad guys, maybe even dragons. Psychologically, who doesn't feel just a tad more in control of his or her own destiny while carrying a stick? Whether a peasant, a peddler, a court magician, or the queen herself, we all feel a wee bit safer when armed with more than wits alone. Which of course leads us into the realm of speculation: if everyone is carrying a stick of one size and shape, wouldn't it be wise to carry a bigger stick? Perhaps even one with magical powers?

And speaking of bigger and better

sticks, we come to the huge categories. Once upon a time there be giants in the land (or so sayeth legend and myth). If there were giants, I sure wouldn't expect one, say twelve feet tall, to shuffle down the street carrying a wand 20 inches long looking like a refugee from a key chain, would you? Heck no. Leave the littler wands to the mini category and the 'little people' from whence they came. Still, finding a reason for a really big wand wasn't really all that difficult. Just as umbrellas have their umbrella stand, my magic wands have their wand "tree," so very cleverly *(not!)* disguised as a really large magic wand, 92 inches tall.

Back here in the more or less real world, I almost always have some difficulty designing a wand. When I finally sketch an idea that seems worth trying, I give it a spin on the lathe, usually with a piece of inexpensive poplar. If I like what comes off the machine, I try it again in a different, maybe more exotic wood. By the time I have several attempts lying around, I begin to wonder what kind of detailing, if any, would enhance and decorate them. The possibilities cause me to make more wands so that I can try the various options without sacrificing any. It is in this way that I wind up with a series of wands, each different from but resembling the original idea. It's like scanning for a feeling of "rightness." Even the not-so-right wands always seem to have a uniqueness, and they all get in line for subsequent work. Besides having an investment of time, energy, and materials in the things, I guess I project something of myself into them. At any rate I am loathe to see any piece deadlined on its way to completion. It happens, but not too often. It's rather like magic.

Stephen Mines is a furnituremaker turned turner in Panorama City, CA.

The "keepers" that hold wands in slots were turned from brass and plated with 24-karat gold, as was the mini wand, second from left on upper platform.

CROQUET CHAMPIONSHIP

And Seattle Woodturners' ice cream social

BOB BROWN

Robert Purdy shows good form as (left to right) Dan Johnson, Bob Sievers, and Jim Hatcher look on.

SMASH!

"Ouch! That hurt!"

Crack!

"Not in the lake!"

Smack! Click!

"Gotcha!

Crack!

"Don't hit me again!"

The cries of the victors and groans of the losers rang out along with the crack of the mallets on the shores of beautiful Lake Margaret during the...the...croquet(?) tournament of the Seattle Chapter.

But I thought croquet was supposed to be a high society, genteel-type of game.

It started off that way, but with this bunch it didn't stay genteel very long. As soon as the idea became clear that hitting another ball was advantageous, the fun began. Cries of anguish rent the air: "Don't hit me! It took hours to make that ball!"

"Not in the lake!"

"I feel like I've been used."

After a long time trying to get through the end wickets one player lamented, "I want to form a support group."

It's surprising how much fun a simple game like croquet can be—when you get in the right spirit.

Just for the fun of it, the Seattle Chapter decided to have a croquet match for their annual social meeting in August. As an entrance requirement, each player had to make his or her own ball and mallet. This brought out the best in many turners (see photo on facing page). By far, the fanciest was Bill Birdsall's who started with a cube of apple and laminated thin layers of holly, myrtle, and mahogany to the faces. Because they were perfectly centered, the end result was a ball decorated with six equal circles of contrasting wood.

Bob Sievert did a nice job with his mallet and ball, turned from blanks of glued-up oak, padauk, and walnut. It almost seemed a shame to hit such fine woodturnings.

But hit we did. The seventeen contestants were divided into three flights of six, six, and five with a final round among the top two from each flight. In a hard-fought battle, Denver Ulery knocked in the championship. At times, the outcome was in doubt. But with a great show of skill and daring, and little bit of cunning, Ulery showed us what the game is all about. He was also the official rulemaker. Now, if a person had a skeptical mind...

The host, Al Rumpf, who finished second (hmm), supplied the lawn. It was a good lawn, not a great lawn, but an accommodating lawn, without many surprises (except for that cranny right next to the middle wicket). The tilt to the south wasn't pronounced. The grass was of regulation length and recently mowed. Beautiful Lake Margaret was separated from the low side by a narrow planting strip. While no one's ball actually wound up in the lake, the tilt did keep us on our toes.

An ice cream social, featuring homemade goods, took place at the conclusion of the tournament. After the heat of battle it tasted delicious. Besides, we wanted to give the others among us a chance to show their skill. Obviously the ice cream makers in the Seattle Chapter are a match for those wielding ball and mallet.

Bob Brown turns and writes in Bellevue, WA. For his directions on making a croquet set, see the facing page.

Making a croquet set

Balls and mallets made by members of the Seattle Chapter and used at last August's Great Croquet Championship.

THREE TURNINGS WILL COMPRISE your personal croquet equipment: ball, mallet head, and handle.

The ball

Regulation size is $3\frac{1}{4}$ to $3\frac{5}{8}$ inches in diameter and weight must be no more than one pound. Few woods weigh that much. Beech, ash, oak, and maple are typical.

Here's one way to make the ball: Chuck a piece of wood and turn a cylinder to diameter. Using a template, turn a ball to approximate size, leaving it a little long along the axis. Put a pencil mark on the maximum diameter. Part the ball off, and turn a cup of about $1\frac{1}{2}$ inches in diameter in the wood still in the chuck. Rotate the ball 90° and remount it between the turned cup and a cup center in the tailstock. Turn the ball until the tool just touches the true diameter. The ball will be a true sphere—or at least true enough for croquet.

The mallet head

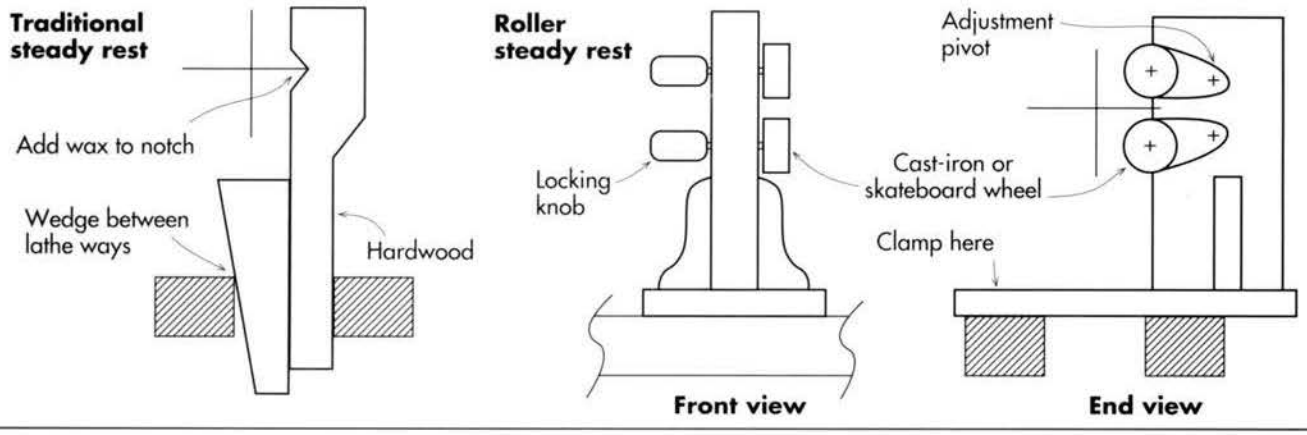
The head of the mallet may be of any length, but must be of wood. The faces may be of any shape, but they must be identical and parallel. Typical dimensions are $2\frac{1}{4}$ inches in diameter by $8\frac{1}{2}$ inches long.

The handle

The handle may be any length but typically is 31 inches. The first foot or so of the handle is a little over one inch in diameter and then the handle tapers to about $\frac{7}{8}$ inch. The tenon into the head is $\frac{7}{8}$ by $1\frac{3}{4}$ inches long.

The biggest problem is the tendency for the long, thin handle to whip. A steadyrest is recommended (see drawing, below), but you can also support the spindle with your left hand, bracing your forearm against the tool rest. —*B.B.*

TWO STEADYREST DESIGNS *by* ***Palmer Sharpless***



WEEKEND WITH MARK & MIKEY

LAST NOVEMBER, Mark Sfirri and Michael Hosaluk teamed up to give Washington, D.C., a full weekend of lathe-centered education, including a workshop demonstration and a slide show of their various collaborations. The James Renwick Alliance and the Sansar gallery sponsored the events, which culminated in the opening of an eighty-piece show of the two's work. There were lots of bowls turned by Hosaluk, then cut, carved, and colorfully decorated by him and Sfirri, who also showed zany baseball bats, tables, sconces, mirrors, and candlesticks (see pages 36–38).

"The Mark & Mikey Show" (at the Sansar November 14 through December 18) was not for the feint of heart. Bold bowls were stood on edge or inverted, with recarved rims and windows cut through. Candlesticks turned on multiple axes were painted with the exuberance of totem poles. Huge bugs served as multipod supports for several pieces. Statues carved as if grinning miniatures from Easter Island held a ritual platter in their teeth.

Clearly, Hosaluk and Sfirri decided to go for it in this show. Their work looks new, fresh, and playful, yet carefully conceived and wrought. There was an easy give and take between the individual work and the collaborations. As collector Jane Mason remarked, "The mellow egos of woodturners allow for trust and therefore successful collaboration. This show stretches the limits of fine woodturning."

The Sansar exhibit fascinated and delighted the public. Collectors sensed historic importance to so much turning and decoration in one show. When one yellow-and-purple-cockroach-supported platter sold, clients applauded spontaneously.

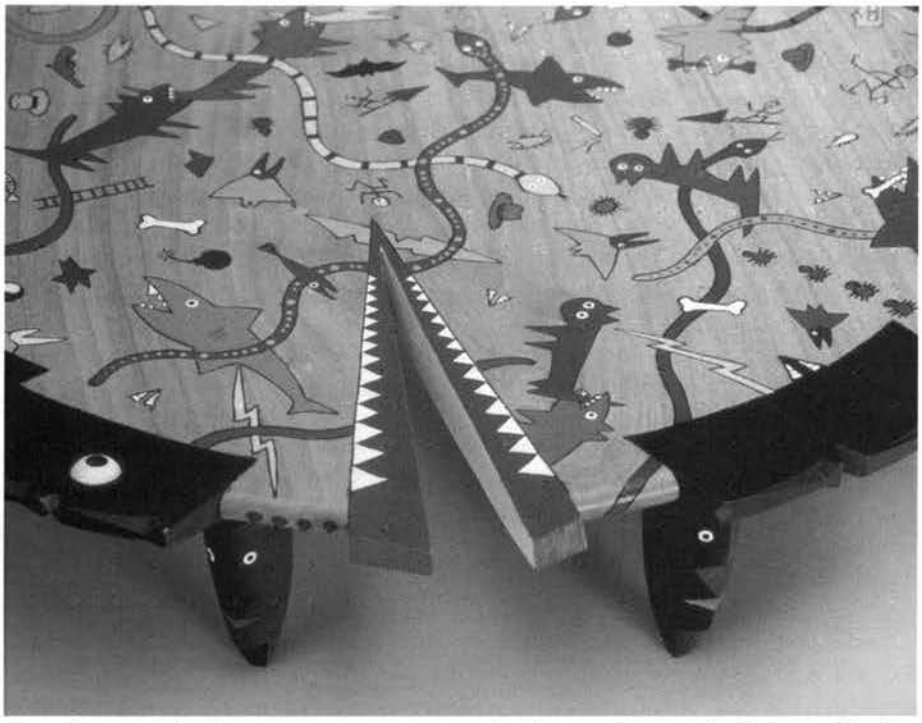
While enjoying the innovation and creativity, I noted that the work displayed a wide range of quality. Successful works shared the space with a good many not so fully developed, luring you nevertheless with their energy and verve. Hosaluk, while championing the notion of collaboration, actually made his best work by himself.

When work "stretches the limits," it's appropriate to consider what refinements might next be called for. Scale is the first concern I had in looking at these artful turnings. A mirror of Sfirri's, for instance, was decorated with split-turned elements that, while beautifully shaped and finished, looked too large for the light wood frame. Painted motifs throughout the show raised this question (as they would in any craft): do they fit the forms to which they are applied? Do cutouts, contourings, and applied fixtures seem natural extensions? Are fine, delicate drawings, or boldly painted areas, in scale with the bowl that is their background? When scale has been considered, the same size dog will not bark from every piece.

Color poses similar questions. These, too, arise in decorating any object, but turnings, which include wood's own hues and figure, present special concerns. The amount of paint in proportion to the amount of wood should strike a happy balance. On bold turnings, primary colors may be just the thing. They suggest playfulness and can extend the reach of a strong form. But primary colors, unless used in small doses, can overwhelm a small or delicate form. On many of the fine, thin shapes in this show, subtler shades and variegated colors would have been more appropriate and more interesting.

These are not arcane notions. When Hosaluk and Sfirri pointed out their favorite work in the show, they chose the pieces that live up to the highest standards of scale, color usage, and decorative shaping.

—Judy Coady



One of Hosaluk's favorite pieces, an 18-inch platter, where embellishment finds a happy relation of scale to the rest of the piece.

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

TREE PROGRAM GROWING

Our partnership with the National Tree Trust, announced to the chapters in December and in the newsletter in January, is now on-going. All are invited to participate. Hardwood seedlings received can be planted on public land soon after arrival, distributed to groups that will plant them, or repotted for future planting. For information contact your chapter president or board member Gary Roberts.

EARTHQUAKE HITS WOODTURNING COLLECTION

A fourth-floor condominium in Northridge, CA, about 3 miles from the epicenter of last January's earthquake, houses probably the world's largest woodturning collection. Since 1972, Dr. Irving Lipton, a pediatrician for 44 years, has collected work from scores of turners. A faithful and generous supporter of the craft and its people, he has collaborated with artists, purchased expensive materials for work to be done, helped with a down payment for one turner's home, and financed the building of another's shop.

The collection occupied tiers of glass cabinets and shelves, well bolted to the walls, but at 4:31 AM on January 17, bolted or not, the cabinets shook, the doors flew open, and the turnings tumbled. There were over 1400 pieces in the collection, the work of 90 artists from 18 different countries. About 25% of the collection was damaged and much of that beyond repair. Dr. Lipton has expressed appreciation for the offers of help he's received from turners all over the world. He plans to pick up the pieces, literally, and go on.

TURNING A NEW LEAF

The Wood Turning Center marked the new year with its fifth successful Challenge exhibition (see the back cover and pages 14–15) and a reorganization that promises to fortify and expand this spirited institution. Founded in 1986 by Albert and Alan LeCoff, organizers (with Palmer Sharpless) of the ten symposia that birthed the modern turning movement in the early 1980s, the Wood Turning Center was in need of a broader base. No longer a shoestring operation, it was time for a board of trustees, one with resources, ideas, and powerful interests in the art and craft world. At a membership meeting a new set of bylaws was adopted, and the board named its President (Bruce Kaiser), First Vice President (Fleur Bresler), Secretary (Alan LeCoff), Treasurer (Lucy Scardino), Executive Director (Albert LeCoff), and Administrator (Maggie Mund). Now policies must be formulated, and committees in publishing, program development, education, and membership are open for members to give early shape to.

The Wood Turning Center with its mandate for education, preservation, and promotion of the craft has complemented the AAW. For more information, write PO Box 25706, Philadelphia, PA 19144 or call 215/844-2188.

CAN YOU READ JAPANESE?

Many woodturners responded to the letter from Japan in the December issue calling for information from American woodturners. Kaichirô Ikeda now writes that answering them would go quicker if he could respond in Japanese. If you can translate Japanese, contact Mary Redig.

LATHE SUPPLIER DIES

Roy Cooper, of LRE Machinery in Britain, died of a heart attack in January. With his son, Lee, Roy supplied many professionals with lathes, rebuilding and designing to spec. LRE generously donated machines to the AWGB symposia and to many of the demonstrators at trade shows. He attended several American conferences and greatly enjoyed his American clients, regarding them, as he did all his customers, as friends. His son plans to continue the company.

ARROWMONT TO BUILD NEW WOODWORKING STUDIO

The Windgate Foundation has awarded the Arrowmont School of Arts and Crafts in Gatlinburg, TN, a matching grant of $352,000 to build a 9,000 square-foot building for woodworking classes. The new studio will include a construction workroom, lathe shop, carving room, and underground dust-collection and ventilation system. The grant will provide about half of the funds needed for construction; the school must raise the matching money by December of this year.

HAT MAN TURNS WORK INTO PHYSICAL THERAPY

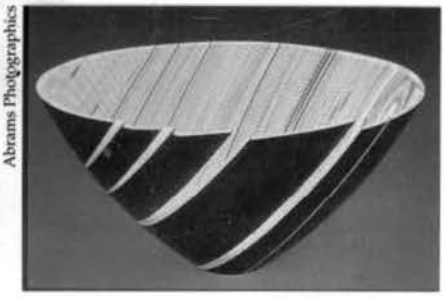
In January, just as *Woodshop News* was hitting newsstands with his picture on the cover, Johannes Michelson, the man who turns wooden hats, suffered a stroke. It was a fearful turn, for he had just dropped his health insurance. But his hospital stay lasted only a few days and he's already back at the lathe, having convinced his physical therapist that his prescribed exercises were identical to what he does when he turns: Stand with feet well planted, bring your hands up to waist height, and shift back and forth sideways. He's moving slower than he did, but the hats are coming. A number of efforts have been discussed to help with Michelsen's hospital expenses and down time. With great appreciation, he suggests the new Emergency Relief Fund established by the Wood Turning Center (address earlier in this column) for turners in distress.

AUCTION RESULTS

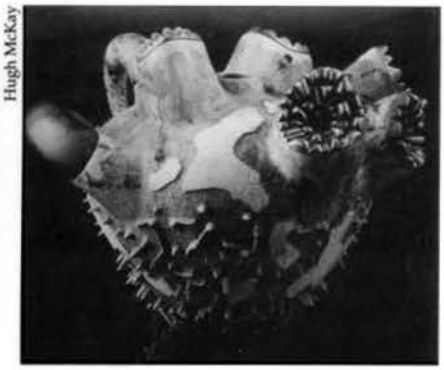
The auctioneer has been described as "the man who proclaims with a hammer that he has picked a pocket with his tongue." The pockets have been picked clean and the tongue is now silent. This year's auction by mail was a reasonable success, raising $1,087 to offset the costs of printing the Directory. Many thanks to those who generously provided the items for auction, as well as to those who offered bids.

Bulletin Board is available for all announcements of interest to AAW members. Contact Bonnie Klein, 17910 SE 110th St., Renton, WA 98059, 206/226-5937. Thanks to Connie Mississippi for information about the Lipton collection.

Abrams Photographics

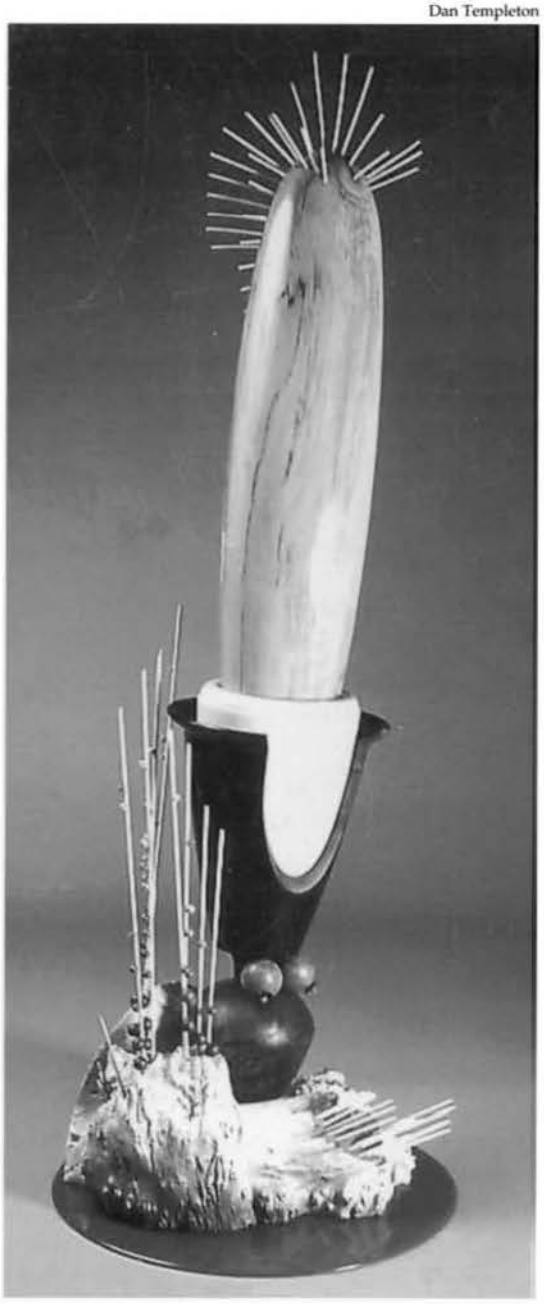


Hugh McKay



Alan Stirt

Dan Templeton



David Staley

Ed Bosley

Hans Weissflog

Top, *Light Show,* Virginia Dotson; center, *Heart,* Hugh McKay; bottom, *Turned and Carved Bowl Broken Wave Pattern,* Alan Stirt; and right, *Young Mozart,* Steve Loar.

Top, *And Tomorrow Weeps in a Blind Cage,* John Wooler; center, *Asteroid,* Ed Bosley; and bottom, *Saturn 'Damaris Cortes,'* Hans Weissflog

CHALLENGE V

Consider this sampling of photos from the current Challenge exhibition alongside these thoughts from members of the Selection Committee: "I was struck,"says Davira S. Taragin, curator of glass at The Toledo Museum of Art, "with overwhelming movement away from a reverence for material and pure form in favor of an emphasis on meaning and content." Michael Monroe, curator of the Renwick Gallery, noted the "unprecedented rate," at which turners are exploring "in an effort to expand beyond the traditional definitions of turned expressions." And ceramic artist and Professor, Emeritus, Bill Daley, recognized in this show "those who give persuasive form to new concepts…[making work that is] more than just 'different.'" For more on this show, see pages 14–15.