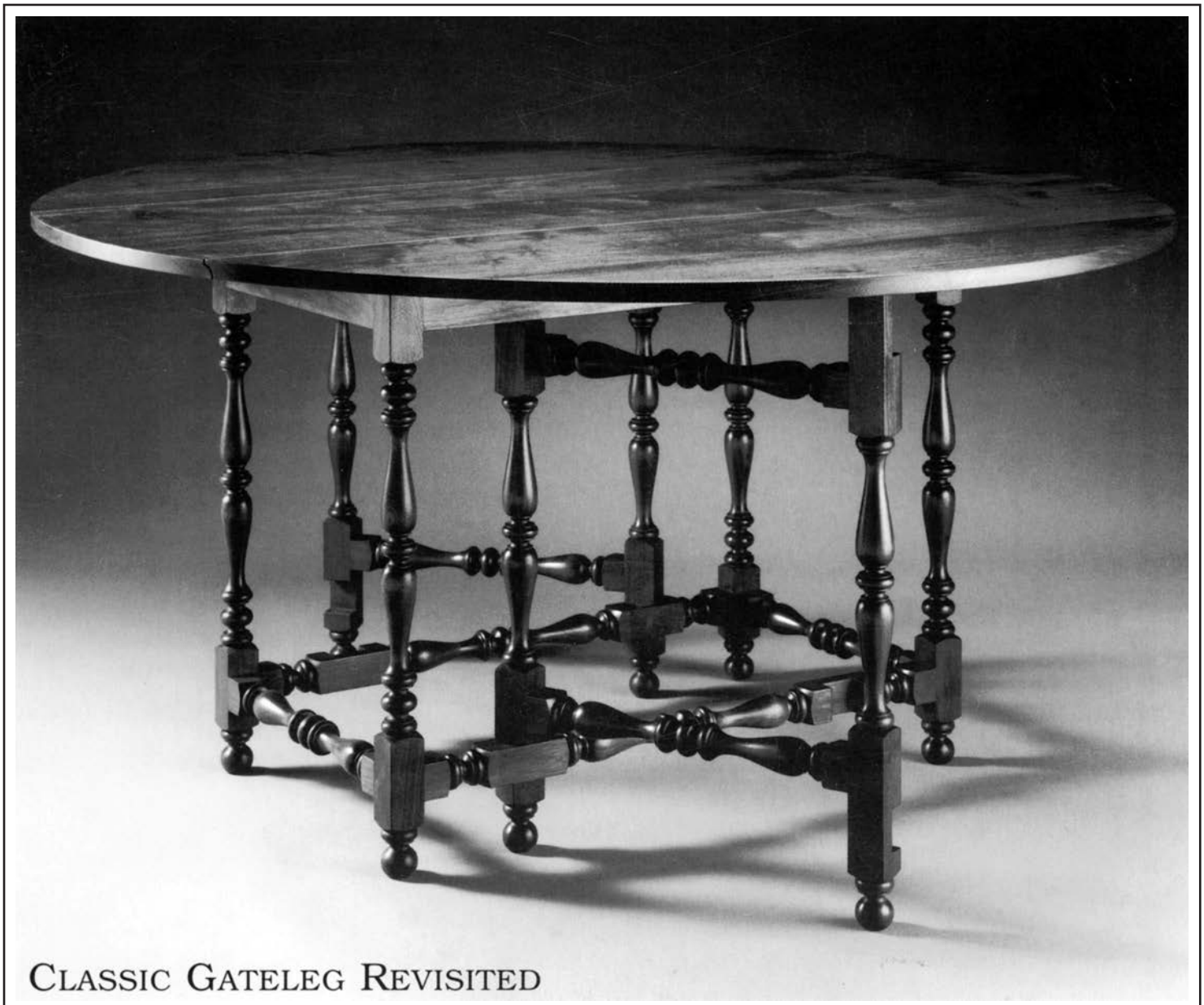
■ Festive Projects ■ Carving Turned Work ■ Mandreled Boxes ■ World Turning Conference ■

American Woodturner

The Journal of the American Association of Woodturners December 1997 $5.00 Vol. 12, No. 4



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

TO EXHIBIT OR NOT TO EXHIBIT

AH, YES, TO EXHIBIT OR NOT TO EXHIBIT… that is the question!

The answer is…we need each of you and we need your work to make our exhibitions worthy and successful. It's our best opportunity to effectively educate the public about the beauty and quality of our craft so they will appreciate, value, and purchase finely turned objects. Letting colleagues critique our work is an important part of our learning curve…and it is not easy, especially when submitting work for a show or exhibition. We're all a little afraid, at first, to put a piece in a show. But the participation, sharing, and critical review of our peers are what make woodturners a special breed.

In St. Louis, our club initiated a policy to get full participation in "show and tell," which is really a monthly chapter exhibition. Originally a few good turners brought their best pieces, leaving others hesitant and too embarrassed to show their work. Then, we changed our policy: everyone who brought something to "show and tell" also had to bring a blow up or disaster. We discussed what went wrong and how to prevent or avoid it.

The meetings became great learning sessions as members offered suggestions and shared solutions to problems of technique, design, and finishing. When the rest saw that the "better" turners also made mistakes and had problems, they overcame their inhibitions and embarrassment and began showing work, looking for tips and information to improve their skills. Now everyone enjoys participating in show and tell, which has become a highlight of the meetings.

Since joining the AAW Board this year, one of my goals has been to find ways to promote and exhibit, both regionally and nationally, all levels of woodturning, from beginner to professional. While we have been successful in planning and implementing many AAW instructional programs for our members, it will take hard work to make the public more aware of our craft and to respond by buying, using, and collecting turned wood objects. We can turn for our own enjoyment, but there is something exciting about selling our work to people who appreciate it. Exciting activities are planned for 1998 that I hope will keep everyone busy at their lathes and will give the public an opportunity to see and experience the results of our creative labors. These exhibition opportunities, thanks to the cooperative efforts now underway by many members, will coincide with the 1998 National Symposium in Akron, Ohio, June 12–14.

The Featured Demonstrators' Exhibition will highlight selected pieces created by some of the symposium demonstrators. It is always inspiring to view works created by some of the finest craftspeople in our field. The Demonstrators' Exhibition will be curated by Clay Foster and will be on display at the Cleveland Art Museum from March through August, 1998. Included will be Todd Hoyer, Michelle Holzapfel, Ron Fleming, Paul Fennell, Johannes Rieber, Sigi Angerer, and Richard Raffan.

"Pathways '98" is the title of this year's juried exhibition of the finest lathe-turned work from around the world at the Cleveland State University Art Gallery, June 10–30, 1998. Gene Kangas is organizing Pathways '98 (an idea originated by Steve Loar), which is being sponsored by the AAW, the Buckeye Woodturners and Carvers, and the Northcoast Woodturners of Ohio. Details and entry forms for this show appear on the insert at the front of this journal.

A third show, known in the past as the Fitchburg Show, the **1998 National AAW Chapters Woodturning Show,** is being sponsored by the Buckeye Woodworkers and Turners and the Akron-Summit County Public Library where the show will be held during the symposium. After that, with your help, it will travel to other venues. (Let us know of any possibilities in your area for exhibiting this or the Pathways '98 show). Tom Kamila, who has coordinated the previous AAW chapters shows, expects that each chapter will send several items that reflect the work of their local members. I encourage each of you to recognize the importance of having your chapter represented and to participate. With each successive year we have enjoyed greater chapter involvement. Our goal this year is 100 percent, which is possible only if *you* work to make that happen! I am counting on your support and personal responsiveness.

The **Instant Gallery** at the AAW symposium is always incredible and it is dependent upon everyone's participation to continue its great success. It is the only exhibition where a piece that represents the best efforts of a beginner can stand proudly next to a piece turned by one of our most experienced professionals. Each represents a fellow turner's proud results. If ever there is a moment that you realize there really is one large family of woodturners who share their knowledge and passion from top to bottom and bottom to top, it is when you see the Instant Gallery at a national symposium. I am always eager to see it and am awed; there is never any duplication, every piece is unique.

I hope as many of you as possible can attend Akron. Because participation is part of the fun, I will submit pieces to the chapter competition and to Pathways '98. Whether those are accepted or not, I'm also bringing my stuff to the Instant Gallery.

Remember how you have learned from others and how your work can inspire another turner. Because there is something for all of us to discover and learn in these exhibitions, I encourage each of you to participate by submitting your work to your chapter competition and to Pathways '98. Your woodturnings are not only a source of enjoyment for you, but they are also a source of wonder and education for the public in Akron and at subsequent venues. Again, please help us search for additional venues and contact our Administrator if you know of a possibility in your area.

The details for submitting your work to the various exhibitions are listed in the insert of this journal. Check them out and take the leap! As Julia Cameron notes in *The Artist's Way*... "Leap and the net shall appear!"

—David Wahl, President
American Association of Woodturners

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Vol. 12, No. 4

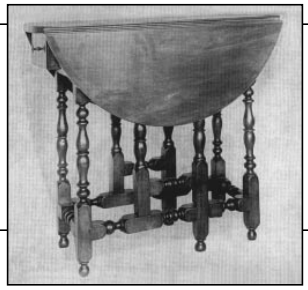
December 1997

AMERICAN WOODTURNER
is published quarterly by the
American Association of Woodturners
3200 Lexington Avenue
Shoreview, MN 55126.
Periodicals postage paid at St. Paul, MN
and additional mailing offices.

POSTMASTER: Send address changes to
AAW, address listed above.

WWW page
http://www.RTPnet.org/~aaw

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



On the cover: *Jon Siegel made this gateleg table for the Exhibition and Auction of the New Hampshire Furniture Masters Association last September in Concord, NH. Reflecting woodturning's "golden age" in the 17th and early 18th centuries, the gateleg is a spindle turner's delight. The source for such a design, as Siegel explains beginning on page 10, can be found in photographs such as the one at left from Wallace Nutting's* Furniture Treasury *(Macmillan). Cover photo: Dean Powell.*

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

American Woodturner is published quarterly, March, June, September, and December, by the American Association of Woodturners. Yearly membership in the American Association of Woodturners is $25 U.S.A., $30 Canada, and $40 overseas and includes a subscription to *American Woodturner*. Send dues to Mary Redig, AAW Administrator, 3200 Lexington Avenue, Shoreview, MN 55126, U.S.A. Send articles and advertising to the Editor. Printed in the U.S.A. by Ovid Bell Press, Inc., Fulton, MO, 65251.

What's the use?

I've read the letters criticizing the journal and AAW for going more and more toward the artistic side, i.e., pushing the state of turning means making it more artistic through doing something else to the piece besides turning. The artistic folks defend the journal and the AAW claiming that isn't so. You even reported (in the March 1997 journal) having reviewed the back issues of the journal and determined that it was not changing in its thrust.

Then came the announcement that to prove that the AAW was not going artistic, the 1997 exhibition in San Antonio would be "Turned for Use." The Call for Entries stated: "It will celebrate utilitarian work reflecting fine craftsmanship, innovation, and personal expression."

I was pleased that the association was looking at "useful" rather than "artistic" items for this exhibition. Now, don't get me wrong, I think beautiful, well executed artistic turning is great, but the name of our association is "The American Association of Woodturners" and woodturning has long been a craft. Some of the turners have exceptional "artistic eyes" so that their work becomes art. I have no problem with this. A beautifully executed David Ellsworth vessel is really a work of art and should be so considered. I felt that many of the pieces selected for "Turned for Use" were pushing the state of the "art" a bit.

Out of almost 7,000 members, there were only 88 entrants. Of those, the work of 24 turners were accepted for the exhibition. My first question was why only 88 entrants. That's barely over one percent of the membership. I can understand only 24 being accepted if that was all of the space available for the exhibition. Nowhere did it ever say that there was only space for the ones selected. The implication was that those not accepted were of such poor quality they could not be allowed to represent AAW in an exhibition.

In the "Turned for Use" catalog, juror Steve Loar states: "This show is made up of "A" work; "C" work, "B" work, and in the final cut, even "B+" work was not acceptable." All I can say is: his statement was written like an Art School Teacher. I would have felt much better about the selection if Steve had said, "We only had space for twenty-four entries, we selected those that we felt best represented the AAW from those entered." The implication was the jurors graded the work and then took only the "A" work, rated perhaps as the most artistic from the lot.

Because there are so many turners in the AAW that are better than I will ever be, I was not too surprised when my submission was rejected. It was, in my opinion, a well executed and quality made piece, turned for use—a night light. However, by the time I had finished reading the rejection letter I was mad, almost mad enough to cancel my plans to attend the conference in San Antonio. The implication of the letter was that I had missed the boat with my submission. When I saw the catalog of the Exhibition, looked at the accepted entries, and read the jurors' statements, I was even more angry. Nowhere did it ever say there was space for only twenty-four entries, it simply stated that all work not accepted was substandard.

Personally, I would like to see the AAW publish the sixty-four entries that were considered not acceptable or substandard for the exhibition in the journal and let the members decide for themselves whether the AAW is being run by artists who are pushing it in the direction of art to serve the needs of a few artists, while severely neglecting the needs of the average woodturner member.

If this letter sounds like sour grapes, I'm sorry, but I finally couldn't resist the urge to make my feelings known. The American Association of Woodturners is for *woodturners,* I thought. If not, perhaps we should consider renaming the organization and restating it's purpose. I realize that "art" brings more money than "craft", so maybe the association should push the "art" side. That would, of course, lose non-artist woodturners like me.

—Fred W. Holder, Camano Island, WA

Juror Richard Raffan replies:

Fed Holder voices many points of on-going concern and frustration to all people all over the world who aspire to have their work represented in juried exhibitions.

In this AAW context, exhibitions are generally of two sorts: they show the best there is, or the broad state of things. In the latter—typically the Instant Gallery format—anyone is free to exhibit anything, and the quality of work varies enormously. In the former, a jury makes up as good a show as possible from the work submitted.

When selecting work for the "Turned for Use" exhibition, I assumed this was to be a prestigious exhibition and *the* showcase for the AAW in 1997. So as a juror I was looking for something special, not something different, arty, or merely well made. I was looking for that little bit extra which makes a piece exhibition quality rather than run-of-the-mill gallery or retail work.

Of course we graded the work! We wanted to display the absolute very best, not the just-misses which can be seen all over the place. It was disappointing that more members didn't bother to submit work, but the fact that all work submitted could have been displayed is neither here not there. Work for prestigious exhibitions must be subject to scrutiny; otherwise how are we to

Letters are edited for length and clarity.

establish a benchmark for quality? Much of the work we viewed was good production stuff, but lacking that extra spark which lifts it to exhibition quality. The fact that these might be included in other exhibitions doesn't mean we had to have them in "Turned for Use." We were not selecting for some local fund-raising craft bazaar, so pieces such as the Flute Keeper, the Shaker-Inspired Chair, and the Marking Gauge set the pace, none of which I regard as artistic: rather functional objects especially well conceived and well executed. We considered bowls which looked good at first glance, but then missed out when compared with those finally included. Such is the way of juried shows, which are, after all, basically competitive. I would hate to incorporate work into a show just because space is available, as Fred Holder suggests.

Part of the benefit of a highly selective show is that it establishes a plateau of excellence to which novice turners, or those further along the track, can aspire. And once you've reached a plateau, chances are there will be another higher still, so off you go again. How dull and unfulfilling life would be without aspirations and how dreary our turnings: today's masterpiece *should* be tomorrow's run-of-the-mill.

It is essential that the AAW has major promotional exhibitions which present the very best of all aspects of woodturning to as broad a public as possible. I hope that in future more members will offer work for selection. But if you don't like the competitive format or juried exhibitions, you can always show what you can do in the un-juried Instant Gallery at the AAW annual symposium.

There's a deal more in all this for on-going discussion, but finally I want to say I find it ironic that Fred attacks me for being too arty, when I've mostly been harangued by the so-called arty brigade for being just the opposite and a mere production turner—too utility focused and blinkered regarding experimental work. I can't win! In fact I am interested in improving the status quo at all levels: we can all do whatever we do better. Always.

Practicing grace

In regard to the subject of critiquing, I've noticed and experienced personally a fear of having work reviewed and how it hurts to be criticized. I would like to express my views on how I've overcome this in hopes it will help others. First, a person should not take it as a personal insult because it is not meant to be that. The reason for critiquing is to help us all pay attention to shape, form, function, finish, wood-grain orientation, and other factors, with the end purpose to weave it all into a complete piece and yet remain true to ourselves. It is a matter of refinement, not needless personal criticism to make another person feel bad. A person's woodturning should reflect the person's true self and personal tastes. If a person does not put up their work to be judged by others they are missing a valuable asset in helping themselves to become a better woodturner. So I encourage everyone to put up their work for evaluation and don't let your enjoyment of woodturning be hampered from a misinterpretation of constructive criticism.

—R.W. Ford, Decatur, GA

For the love of it

After the umpteenth reading of the why, wherefore, and critique of the new, the inventive, the different, and the unbelievable, my mind boggles. There is honestly only one good reason why we turners do what we do—we can't not; we love it.

We are sometimes let off the path of pure joy of turning, down the fuzzy road of ambition, recognition, production, financial gain, being first to do something…. But the bottom line is this: we all of us turn—go to the shop and stay—because we're addicted to the joy and wonder of creation in the present, the making of something tangible.

I contend that whether or not the object made is art, the process of creating it most certainly is. It is the art of living well.

—Abe Harper, Berea, KY

Wanted: top turners

I have taken upon myself the task of providing turned spinning tops for all of the Fisher Houses in the U.S. (there are twenty-eight of them). I cannot turn the required number of tops myself, so I am asking for volunteers.

The Fisher Houses are the military equivalent of the Ronald McDonald Houses. They provide comfort-care homes for military families (mostly children) while family members undergo emergency and long-term treatment that is not available at their home base and does not require hospitalization: chemotherapy, radiation therapy, etc. The Fisher houses are donated by Zachary and Elizabeth Fisher, constructed on U.S. military bases, and furnished and staffed by the government.

The kids are in a strange place, under a lot of stress. It is amazing what a tranquilizer a small spinning top is!

I have been providing tops to the two Fisher Houses at Wright-Patterson Air Force Base, Ohio, for over a year now. It takes forty tops per month for these two houses. The top designs I use follow the principles of KISS (keep it simple, stupid!). It takes about five minutes of time and five cents of materials—a do-good feel-good operation.

The manager of the two Wright-Patterson houses showed a number

of others my tops at a recent national conference of Fisher House managers. They went nuts, wanting to know how they could get some.

If chapters or individuals would adopt a house near them, it would be great. If you want to participate, please contact me and I will send you the manager's name and address of the Fisher House nearest you. Sure would be nice if AAW members could turn five minutes and five cents into a lot of smiles.

—Richard G. Zeller
331 State Route 73, Peebles, OH 45660
937/764-1120

Thanks for the aviaries

I enjoyed reading Susan Schauer's article "Turned Bird Houses" in the March 1997 issue. I had been attempting to do some segmented turning and was having great difficulty getting consistent cuts on my small contractors table saw. I made a modified version of the table-saw stave-cutting jig that cuts both staves and segments with great consistency.

Last May our club, Nor-Cal Woodturners, received entry packets for the California State Fair. As I browsed through the catalog of events I noticed that Chevron and the National Audubon Society were co-sponsoring a contest for functional and creative birdhouses. The Schauer article immediately came to mind, and I set out planning my entry to the state fair. I referred to the article for design guidance and technical support as I prepared my version of a birdhouse. After many more hours of work than I had expected, I completed my birdhouse. Several family members praised it, but I discounted that as only par.

When the envelope came from the California State Fair Entry Office, I wondered if it contained a notice to come pick up my bird house. I was surprised and overjoyed to find a blue ribbon inside!

Thanks to Susan Schauer for the time she spent preparing such a comprehensive article. We the members of AAW are very fortunate to have such a quality journal. Each issue provides me with inspiration, motivation, and instruction.

—Jim Leary, Orangevale, CA

Information to share?

I thoroughly enjoy reading the magazine each time my issue arrives. I am moving to Colorado, having been a member of the Central Indiana Chapter for a number of years. I have enjoyed the group very much.

I would really like to see some information as to what is going on and up-coming event information on the local chapters, if the local chapters would submit the information to you. Many of the chapters are doing very interesting activities or have demonstrators that some of us would be willing to travel to as we chase our ambitions. There is so much positive activity going on and so much to be gained from sharing, there must be a way for the AAW and the chapters to disseminate the information. Chapters could build strong networks with other chapters that are are in their geographical area, could pool resources for special events, and so on.

—Wayne Van Every, Brownsburg, IN

EDITOR'S NOTE: *This journal (see pages 5–7 and 60),* Chapter Chatter *(the quarterly publication mailed to AAW chapter contacts between issues of the journal), and our web site (www.RTPnet.org/~aaw) publish recent and all upcoming event information sent us. Chapters and others are invited to keep us informed. In addition, the new WICS program (see the insert at the front of this issue) can be used for chapters to coordinate events and demonstrations. The AAW is indeed dedicated to providing education, information, and organization to those interested in woodturning.*

I blew it!

The picture that accompanies my article on the French Intercraft symposium (page 6 of the September issue) attributes the work, "Two Figures," to Alain Mailland. Not so. It's the work of George Baudot. Apologies to both. Above is a picture of Mailland and his work taken at the recent World Turning Conference.

—David Ellsworth, Quakerstown, PA

Sanding disk cement

I've been asked where to get the Franklin Sanding disk cement I recommend in my article "Sanding Disk Holders" in the September issue. Try the Klingspor Sanding Catalogue 800/228-0000; $2.96 will buy enough to last several years. In addition, any local hardware store that handles Franklin products (and most do) can order you a bottle from their supplier with their next order.

—King Heiple, Pepper Pike, OH

June addition and errata

The work pictured on the cover of the June 1997 issue is that of Dave Barriger of Apopka, FL, what he calls "Elevated Vessels." Those two are of camphor wood.

The last paragraph of Darrell Rhudy's article, "Bottle Box," omitted the direction to part the box off before signing it.

The air filtration unit provided by Allergy Control Products ("Inexpensive Air Filtration," page 33) is not named "JDS Air-Tech 2000." JDS systems are sold by Highland Hardware and Craft Supplies.

NORTHERN CALIFORNIA CHAPTERS' TEAM TURNING COMPETITION

SATURDAY, AUGUST 16TH, DAWNED cool and overcast at scenic Lake Mendocino but soon warmed into a beautiful day. The Oak Harbor picnic area was abuzz with enthusiasm, camaraderie, and competition as members of six woodturning chapters prepared for their Annual Combined Northern California Chapter Meeting and Team Turning Competition. What better place for a turn-off than in a large grove of oak and pine trees and fresh mountain air.

Where do you plug in the lathe? Thanks go to the hard work and diligence (and reassurance to the Park Rangers that the noise wouldn't be a nuisance) of the hosting Redwood Empire Woodturners who set up a powerful generator. Sacramento Machinery and Powermatic combined forces providing two new Powermatic #3520 lathes for the competition. What a delight it was to turn on them.

Approximately one hundred members and their families from Redwood Empire Woodturners, Nor-Cal Woodturners, Bay Area Woodturners, West Bay Woodturners, as well as representatives of newly formed Silicon Valley Woodturners and Sequoia Woodturners, enjoyed a barbecue picnic lunch. Hands-on turning and an Instant Gallery with "how-to's" by the turners kept the attention of the group through the early afternoon.

Special guests David Wahl, newly installed President of the AAW, and his wife Susan spread their enthusiasm for woodturning as they mingled with group members. David was assigned the heavy task of judging the "friendly" turning competition that has been an annual event for several years between Nor-Cal and Bay Area Woodturners. For the past two years two additional clubs—Redwood Empire and West Bay—have been included in the competition.

President Dave Wahl examines one of the four pieces, before deciding to award the Bay Area Woodturners with the coveted Championship Plaque.

Starting the turn-off, Nor-Cal and Bay Area gathered their six-member teams and discussed rules and strategy for the completion of the project. This year's challenge was to turn a platter from a wood blank prepared specifically for this occasion. The blanks were chosen by each team, then each member would turn for ten minutes, completing as much of the project as possible. Chips began to fly—turning by the team member and coaching from the sidelines! Tension mounted, as platters were completed in the one-hour period and placed on the judging table.

Now the Redwood Empire and West Bay teams gathered and climbed up to the lathes. With hoots and hollers and precision workmanship their platters were (as West Bay's flew off the lathe) completed.

Stepping up to the judging table was not as easy as Mr. Wahl had thought it might be—it was not an easy choice—and there could be only one choice! The platters were all beautiful, the fine workmanship displayed well…Ok, now what?! The grain in the West Bay platter had come through with majesty and beauty; however, the bottom wasn't finished and thereby had to be eliminated. The Redwood Empire platter followed close, but was also not complete. Now it was between the defending champion, Nor-Cal, and the really-want-to-win-it Bay Area Chapter. The platter from Nor-Cal had a small bump in the center; Bay Area's was beautiful and seemed so perfect.

Bay Area Woodturners were awarded first (and only) place. President Bob Morelli smiled broadly as President Mets Lerwill passed the coveted Championship Plaque from its long-standing home with Nor-Cal to the Bay Area Woodturners.

However, all was not lost. Winning tickets belonging to those in attendance were drawn and many valuable door prizes were presented, all of which had been donated by national and Northern California woodturning suppliers.

As the saying goes, "A great time was had by all." And, Nor-Cal team members vowed to return next year to win back the Championship Plaque. The Annual Combined Northern California Chapter Meeting and Team Turning Competition for 1998 will be sponsored by the West Bay Area Woodturners next summer—will you be back Dave?

—Carol Lerwill, Elk Grove, CA

TURNING SOUTHERN STYLE III

Steve Bowles, left, demonstrated metal spinning and Philip Moulthrop, right, showed how he hollows a closed form at last September's "Turning Southern Style III" symposium, organized by the Georgia Association of Woodturners.

ALL IT TAKES, SAID LISSIE OLAND IN A soft voice is "you, a light touch, and a sharp tool." Lissie was demonstrating how she makes a winged vase. I think she was as surprised as we that she was doing a demonstration, having been asked just hours before if she would fill in for the ailing Robert Rosand. It had been a great weekend for me, but things hadn't gone like I had planned. I made the three-hour drive last September to the mountains of Northeast Georgia and Unicoi State Park as a man on a mission. I wanted to see how Robert Rosand made his Christmas tree ornaments. A kidney stone, however, decided to introduce itself to Mr. Rosand, and it looked like I'd have to wait until another time.

But it's in situations like this that the Georgia Association of Woodturners really shines. There is such depth and layer upon layer of excellence in its membership that someone is always close by who can fill in a gap. In this case, it was Willard Baxter, who not only demonstrated how he makes Christmas ornaments, but showed me how Robert Rosand does them also. A two-for-one package, I thought.

When I chatted with other turners at mealtimes, I got this explanation as to why the GAW has such a wide range of expertise in its ranks. "It's because you can't get anywhere without having to go through Atlanta," said Terry Jacobs. "We make it a habit to kidnap all these folks as they go from here to there, and for a small price, we get world-class demonstrations. Sometimes they stay on to do a workshop."

It was evident that this is what was taking place in Clark McMullen's rotation. Upfront, Clark told us he was still early in learning about wood thread. "Hand chasing wooden threads is fast becoming a lost art," Clark told us. He had seen a German turner—someone who had stopped off in Atlanta on his way to someplace else in the world—demonstrate how to hand-chase threads. Clark got just enough insight to start practicing himself.

"Hand-chased threads," said Clark, "take a lot of practice." Clark was upfront and told us that he had a long way to go before he got it right. "You may be able to offer me something," he added. I'm intrigued by the possibility of hand-chased thread and, like Clark, see a lot of potential with Christmas tree ornaments and other small hollow forms. I hope that GAW will ask Clark to demonstrate next year after he's had more time to master the technique.

A bonus for me was the demonstration put on by Steve Bowles. Dr. Bowles showed us how to spin metal. I'd like to incorporate spun metal tops into my birdhouse designs, but just because Steve made metal spinning look easy doesn't mean it doesn't take lots of practice. Some metals, such as copper, work-harden quite fast and can be murder to shape. Wouldn't you know it—the copper top that Steve did was the very thing my wife wants me to make for our garden birdhouses.

Once again, I was intrigued by the attitude of the GAW membership. "Metal spinning is a dying art," Dr. Bowles told us, "it's been replaced by stamp and die technology. We need to learn these skills before it's too late."

I spend a lot of time learning from Rodger Jacobs. One of the best moments of the weekend came when Rodger, before time to start one of his rotations, made a Christmas tree

ornament in the shape of a kidney stone to send to Robert Rosand. Rodger had everyone sign a card to send along with the kidney stone. The fellow sitting next to me expressed my sentiment when he said, "Looks like a fat, mad porcupine to me." Rodger, putting the last touches of red spray paint on the nails driven in the sphere to symbolize the certain attributes of a kidney stone, mused. "I've never made one of these before. Bob will get a kick out this. He'll hang it on his tree."

I've seen Rodger demonstrate the making of "sneaky bowls" before, but his demonstrations are so full of tips that you keep going back again and again. Personally, I think Rodger Jacobs has the best way of explaining the difference between a rough and a finish cut: "It's in the relationship between the cutting edge and the axis of the lathe. The closer to parallel the cutting edge to the axis, the rougher the cut. If you keep the edge just two or three degrees from perpendicular, you'll start getting finishing cuts." In demonstrating how he makes a sneaky bowl, he shed light on one problem we've all had—why it's so hard, when hollowing out, to make the transition from the sides to the bottom. "Going around the bend," said Jacobs, "is hard unless you understand the need to pull the handle around faster. You can be doing everything right, and if that handle isn't going fast enough, you'll still have trouble." Sort of like whistling through the graveyard, I thought.

After spending several rotations with Rodger, I decided I wanted to watch Lissie Oland, who was filling in for another demonstrator who had an emergency. The thing that impressed me most was her efficiency of motion. Lissie has been doing this for a long time and she has the confident, quiet assurance of someone whose life and skills are an interwoven harmony. Lissie showed us how to gently move the tailstock in place when using a faceplate so as not to loosen the screws and create a misalignment. I though she was particularly effective in explaining the relationship of length to diameter when cutting out a piece from the log. "You need to look at how this relationship will affect the final shape," said Lissie as she demonstrated with her hands how making the length longer would change the shape of the edges on her winged vase. When asked the inevitable question "How fast are you going," she simply shrugged her shoulders and said "I don't know. I just find the speed where my tool cuts best."

I also had a chance to observe Philip Moulthrop, but there was so much to do and so little time, that I had to catch him at the end of several rotations. What I did see was a second-generation of turner with the enthusiasm of a kid learning to ride his first bike. The Moulthrops—Ed and Philip—are among the few who have made woodturning into a lucrative business. Once again, I was impressed by the accessibility the least among us have to the very best. I regard this as the driving force of our craft. Philip was attentive, responsive, and obviously interested in helping others learn.

There was also one precious moment for me. Rude Osolnik was there doing a couple of demonstrations. I had brought with me my six-year-old granddaughter. She wanted to have her picture taken with Rude and to tell him about the bear she had seen. So one morning at breakfast we went up to him and I introduced my granddaughter, Sydney. Around Rude, the bear story seemed to take on a life of its own. Rude just smiled at her and said "Never let the facts get in the way of a good story."

—Conner Runyan, Fyffe, AL

MOUNTAIN MEET

Left to right: Delbert McCartney, First Place Open; Jim Morrison, Second Limited; juror Palmer Sharpless (holding Myke Hymes platter, Second Open); and Joe Keeler, First Limited.

MOUNTAINEER WOODTURNERS (WEST Virginia AAW chapter) held their annual challenge competition in September, asking members to produce their finest platters. The idea was germinated by the beautiful platter displayed at the Turning Ten symposium last year at Greensboro, NC.

Bob Fleming (former AAW symposium auctioneer) developed criteria for the competition. It was divided into two classes: Limited and Open. The Limited Class was to be turned from one piece of domestic wood to produce a platter of $10^1/_2$ inches diameter and not more than $1^1/_2$ inches thick. The platter could not be enhanced by any method other than turning on the lathe. The Open Class could be any wood of any size using texturing, carving, staining, or dyeing. The use of multiple woods and anything to stimulate the creative juices was encouraged. Members could enter up to three pieces in each class.

Thirty-two platters were entered in the two classes, and the work was truly outstanding. Palmer Sharpless, nationally known woodturning artist and teacher, selected winners (who, along with runners up, were awarded gift certificates), and also offered comments on each platter if requested by the entrant. This resulted in a learning experience as well as a fine competition.

—Joseph G. Keeper, St. Albans, WV

ON SHARPENING JIGS

EDITOR'S NOTE: *The following internet exchange was initiated by John Hartge in the newsgroup rec.crafts.woodturning and appeared in* The Dust Bowl, *the newsletter of the Chesapeake Woodturners. It is reprinted here with thanks to all involved.*

John Hartge: Does the edge you get from jigs (as in the One-Way Wolverine) or slow-grind wet wheels (Tormek or Delta family) make a real difference in woodturning? Do full-time woodturners do it by hand or use jigs?

John McGaw: In my experience, what the jigs give you (I use the Wolverine) is repeatability. Every time I do an Irish grind on a gouge, the angles are the same so that a minimal amount of material gets removed. I find the jig preferable to hand grinding because it allows me to produce continuous edges with no trace of faceting that seems to plague me otherwise. A jig-ground tool is really no sharper than a hand-ground tool if both are done correctly, but once you get the proper angle established, the jig will give that angle every time with little effort.…

Bill Grumbine: Speaking as a professional turner, I appreciate the repeatability of the jig, too. Yes, it is somewhat slower to set it up than it is to just grind the tool freehand, but it is my observation that with repeatability comes consistency, not just in the bevel but in the resulting manner in which the tool is used. Before, when I ground my edges freehand, I could always get a sharp edge, but it was always just a little bit different than the last time I ground it, and in my work that meant time spent getting used to a slightly different grip, angle, etc. Just about the time I'd get it down well, it'd be time to sharpen again. Also, on a bad day I could remove quite a bit of expensive steel by freehand grinding, which just made the day all that much worse.

Harry LeVine: Not only do I freehand grind my tools, I do it on a wheel with no rest, guide, or other artificial attachment. I use a very rough wheel—fine wheels burn—and I attack the wheel the same way I would turn with the tool. By not supporting the tool on a rest, you tend to use a lighter touch. I use the wheel about once a year just to shape my tools and put a hollow grind on them. Just a quick touch, once in a while, with a slip stone keeps them razor sharp. And NO I don't have faceted grinds. Try it, it really is easy. Remember: light touch/rough stone, finish with slip stone. Works great.

Dick Gerard: The single largest obstacle beginning turners have to overcome is learning what a truly sharp tool is—what it looks like, feels like, sounds like when cutting, and, most important of all, how to recreate that sharp edge so that they can get on with learning to turn! For these reasons, I advocate using sharpening/grinding jigs. Yes, I know, the prevalent attitude is "Learn to do it freehand!"…and I agree that freehand grinding is a very worthwhile talent to master—eventually. But most people want to TURN WOOD NOW!…so, the grinding jigs.

I have used self-made jigs, jigs sold by Garrett Wade, Craft Supplies, Oneway, etc. They all do basically the same thing, and that is position the edge in relation to the wheel for a repeatable edge time after time. Currently, I am using the Oneway Wolverine system, and it does pretty well. Nothing is perfect and often I still revert to hand-held grinding, especially for the extreme side grinds. But for skews, fingernail grinds etc, well, it's a no-brainer! Plus, if the user has not yet converted to aluminum oxide wheels, the jig takes all the pressure off the edge, thus minimizing the chances of drawing the temper in the steel.

John Alexander: After 15 years of sharpening freehand, I bought the Wolverine setup a couple months back, and am now evaluating it. It doesn't make any difference in my turning, but it does help with consistency. My bevels kept getting steeper and steeper sharpening freehand, and then I would have to regrind a whole new profile. With the jig, the bevel stays the same. On the downside, I find it takes more time. I use a variety of gouges and must reset the jig for each one. As a professional turner, time is very important, so I might just chuck the jig in the corner one of these days. It is nice to have a consistent bevel, though. BTW, these jigs are not automatic, like a pencil sharpener. There is still some skill involved; you can't just stick the gouge in the jig and rotate it, or you will end up with a sharp point on the end.

John Jordan: …Once I was fairly strongly opposed to sharpening jigs, especially for sideground gouges, but decided to take a Glaser jig to a class at Arrowmont. The time I have saved over the past several years by not needing to sharpen student tools is unbelievable. I have taught literally hundreds of people to sharpen with the Glaser and the Oneway Wolverine jig, with the vari-grind gouge attachment. The results are consistently good. If one pays attention to the jig, it becomes a teaching aid in learning to sharpen freehand.

The key to using these jigs successfully is absolute repeatability, that is, everything is bolted, clamped, and fixed in relation to everything else. The only thing that has to be adjusted each time is the protrusion of the tool. The jigs are *not supposed to be adjusted each time!* I use one grind for all bowl and vessel turning and rarely make any adjustment. You shouldn't need more than two or three different grinds at most, each with its own marked setup. I'm speaking of gouges here and not skews, etc., which are quite straightforward. Most new turners should stick with one basic gouge shape.…

I have made a point of using the Oneway jig myself on a regular basis. With or without it, it takes less than ten seconds to sharpen a side-ground gouge—put the tool in the jig, adjust the protrusion with a stop block mounted on the table, place end of jig in arm, and make one light pass all the way around—done! It couldn't be simpler. For what it's worth, the Glaser jig is the most natural feeling, and the Oneway Wolverine /Vari-grind is a little quicker to load and is more versatile. I should also point out that I sell the Oneway jig and could be considered biased (me?) (G).

Display pedestals revisited

In the September 1997 Turners' Tips column, Charles Brownold is incorrectly credited as having designed and made the "ideal display pedestals" used in the 1996 Greensboro Instant Gallery. The pedestals were designed and made by Bob Morelli, president of the Bay Area Woodturners for the 1995 Davis symposium—all 300 of them, which the AAW has been enjoying ever since, as can be seen in the pictures of the San Antonio symposium on the covers of this same September issue.

There's always more than one way to make the same thing. Bob has been my mentor for the past year now. Here's how Bob did it:

The base: He constructed special mandrels out of 2x4s and plywood that schedule-40 PVC pipe fits over. Turning between centers, he uses a parting tool to cut the pipe to the desired length. While still on the mandrel, he power-sands the pipe to erase any markings.

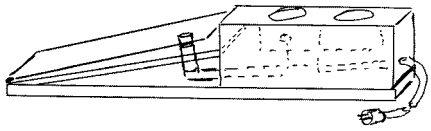
The top: He cuts pine disks on the bandsaw approximately $^1/_4$ to $^1/_2$ inch larger than the base. He drills a hole in the bottom for a screw center. For the given diameter, he uses a plywood spacer that fits on the screw center that is equal to the inside diameter of the base. He trues the face and sides of the top first with a shallow gouge, power-sands, and then cuts the groove with a parting tool that he has bent to 90 degrees 4 inches down the shaft. In this way, he can part from the back and cut a $^3/_{16}$- to $^1/_4$-inch groove where the tool comes in contact with the spacer without ever having to change the position of his tool rest or his stance. He then applies the turner's finish.

—Marion H. Trentman, Danville, CA

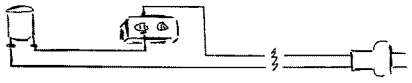
Bandsaw foot switch

There are times when two hands are not enough. When cutting a round log, for instance, and the bandsaw blade binds, a foot switch can be as useful as a third hand.

Foot switch



Wiring diagram



I made my foot switch with a few inexpensive parts: a heavy-duty switch from a tank-type vacuum cleaner (available from any vacuum cleaner store for about $6), an electrical box and outlet, some electrical cord, a plug, a hinge and some scraps. The bandsaw switch stays in the ON position. I attached my foot switch to the base of my bandsaw so that it would stay where my foot is used to finding it.

—Lou Feldman, Clearwater, FL

Living less dangerously

When it is time to part off a finished turning, I think twice about how to do so without damage to the completely finished item. Some turners use a parting tool and catch the turning at the last moment. Too tricky for me. I use a parting tool to cut almost all the way through the glue block or waste portion of the turning. Then I turn off the lathe and use a Japanese ryoba saw to complete the cut. The ryoba saw cuts on the pull stroke making it easier to control the cut. I can prevent the turning from falling with my left hand as I use the saw with my right hand. The piece is ready for reverse-turning.

—Charles Brownold, Davis, CA

Nova chuck refurbishing

Anyone with a Nova chuck that's been used for several years may notice that the holes on the scroll ring become egg shaped from tightening and loosening, and the two levers that you use to tighten will slip out of the holes. I found that grinding the bottom of the levers about $^1/_8$ inch (making them flat instead of rounded at the bottom) provides almost new gripping power.

—Mike Kornblum, Mtn Home, AR

Smoothing spalted woods

Western Washington provides an excellent supply of spalted woods, the two most common being maple and alder. The unique designs that can be revealed with spalted woods, especially the figured maples, has captured me.

Turning spalted wood involves normal techniques up to the sanding step. Then, heavy sanding of the pits and nicks, which are usually accompanied by soft areas, can rapidly take a spalted piece out-of-round.

I sand lightly with 40 grit, then apply a two-part polymer finish called Van Dyke's (800/558-1234). The polymer firms the soft areas, allowing further sanding, and fills the small voids, reducing the amount of sanding otherwise needed. I repeat the process of filling and sanding until I can apply a normal finish over the last thin coat of polymer, which functions as a sealer.

Head stuffer

Vibration in any part of a lathe can have a significant effect on the workpiece. Sandbags placed at the bottom of the lathe help to cut down vibration. In addition, a "head stuffer" helps stop vibration at the headstock

To make a head stuffer, take a mildly tempered No. 2 Morse taper (available as a drill chuck arbor from ENCO: 800/873-3626) and hacksaw it to a length that fits flush with the end of the headstock when you gently tap it in. During faceplate work the head stuffer can eliminate certain types of chatter.

—Robert C. Opdahl, Hurley, NY

A Classic Revisited

Design considerations for gateleg tables

JON SIEGEL

Of the many applications for spindle turning, furniture making is the most interesting to me because of its fascinating history. It gives me the chance to copy old pieces, reinterpret work I have seen, or create entirely new designs. Furniture work is "accessible" to most turners because furniture parts are manageable in size, and we encounter examples frequently in our daily lives.

In this article I will explore the designs of gateleg tables, a type considered a classic of early American decor but having its roots in earlier baroque styles from Europe. Turnings have been used in furniture since King Tut, but in no period was turning more important than the baroque, because turning is a highly efficient process for creating the wide variety of ornamentation and detail characteristic of that style.

The purpose of this article is not to show you how to make a table exactly like the one illustrated on the front cover, but to discuss the variations which I considered, and to share with you some of my procedures to help you in designing and making your own table. The design I offer here is only one example; picture books and museums provide many more.

There are many steps to making a table, requiring a variety of operations, and turning is only part of the work. For example, making the top involves joining boards together, to sum up the necessary width of each leaf, and planing them. Next is shaping the "rule joint," which allows the leaf to fold down without an unsightly gap. Then there's the layout of the ellipse (more on this later) and finally the smoothing of the top.

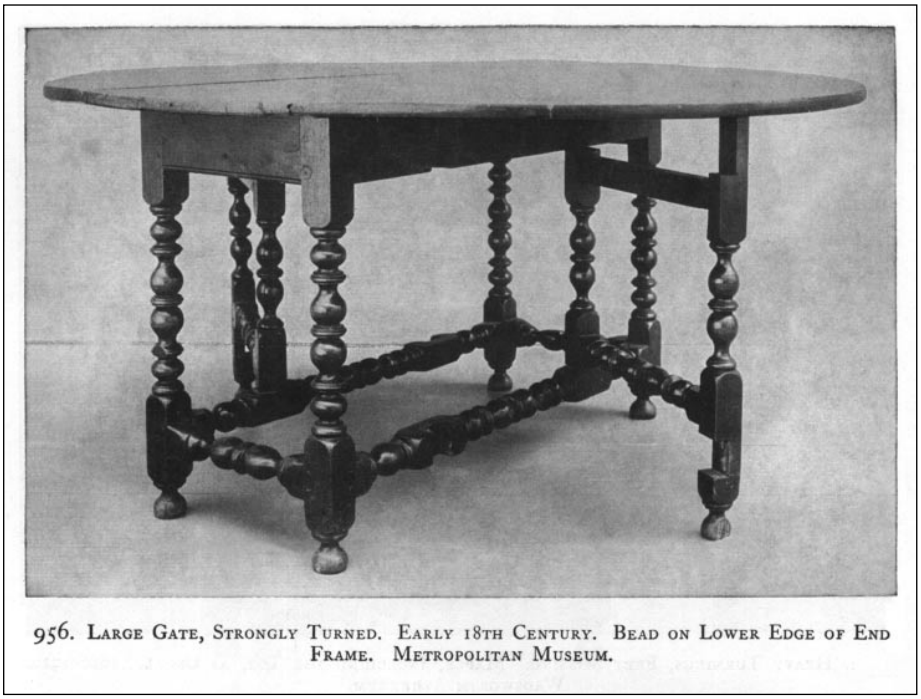
After the parts of the frame are turned, they must be joined by mortises and tenons. The table pictured on the front cover, for example, has twenty-four of these joints.

Design resources

To recreate an old piece, one must have archetypes to work from. Many catalogs of historical styles of furniture have been assembled, and one of the most noteworthy is *Furniture Treasury* by Wallace Nutting. Nutting documented many periods of furniture, but obviously his favorite was the "Pilgrim Century" (1630 to 1730). His book from the 1920s was an early attempt at a large photographic compilation. (Vols. I and II combined by Macmillan has 5,000 photos.) His work awakened a new appreciation for the old styles.

Many interesting things could be said about Wallace Nutting: that he was opinionated, tyrannical, dogmatic; and probably all are true. But Nutting had great knowledge and impeccable taste. He was appalled by the reproductions being made at the time. He couldn't understand why someone would copy a *bad* example of furniture. So he started his own shop in Framingham, Massachusetts, where he manufactured what we would call today "museum-quality" reproductions.

In Nutting's shop, only the best were copied, and only the best techniques were employed. For example, he has this to say about dowel joints: "The dowel is the bane of furniture. It is weak from the first, rickety shortly, a disgrace to the maker, a sorrow and a shame to the owner, the shoddy symbol of a shoddy age" (1930 catalog). The furniture made by Nutting in Framingham was of such high quality that in recent



956. Large Gate, Strongly Turned. Early 18th Century. Bead on Lower Edge of End Frame. Metropolitan Museum.

Photographs like this one from Wallace Nutting's *Furniture Treasury* were the author's introduction to the style Nutting calls "Pilgrim Century." From here, many variations on the gateleg table can be studied and developed.

Figure 1: Plan

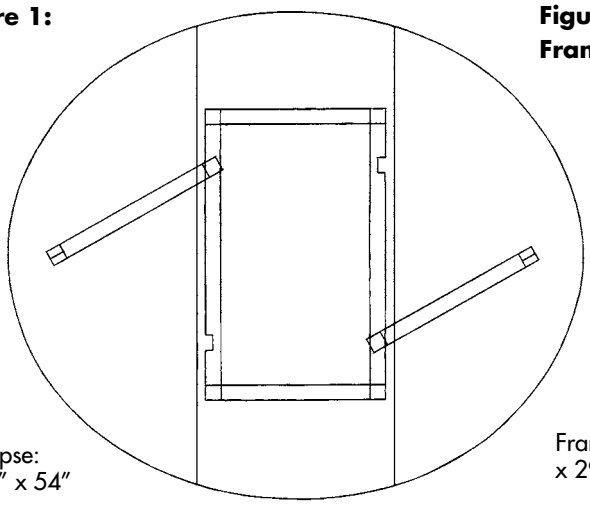
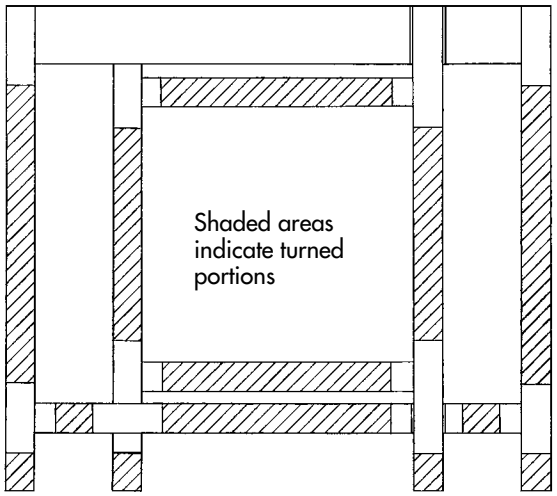


Figure 2: Frame elevation



years, various appraisal houses have reprinted his catalogs in an effort to sort things out.

After studying Nutting's fuzzy photos for decades, I discovered the Wadsworth Atheneum in Hartford, Connecticut. J.P. Morgan purchased the Wallace Nutting collection of original antiques for the museum. I have called this museum "the little gem"—I highly recommend a visit if you are interested in American (especially New England) styles of art and decor. My pilgrimages there have provided boundless inspiration for my spindle turnings.

Interpretation and variations

Often people say "I hate gateleg tables because I always bump my knees!" The short overhang of the top, especially at the ends was a design feature reinforced by the common use of a drawer. To modernize the table, I have skipped the drawer and increased the overhang on the ends to about a foot. This allows a person to sit on the end without hitting the frame.

On some tables, only the legs are turned, but I prefer to turn both the vertical and horizontal members. This includes the upper rail of the gate even though this is not usual. This brings the total number of turnings for this type of table to sixteen. A table with four gates may have eight more.

All gateleg tables have at least one frame structure added to the main frame (half lapped into it) which pivots on one of its legs (from the apron to the bottom rail), and this "gate" is pulled out to support a leaf which is hinged at the top.

There are two main types of gate leg tables: those with one gate on each side, and those with two. There are also "one-leaf" gateleg tables, both rectangular and diamond (intended for a corner). Another type is the trestle frame, where gates pivot from adjacent planes separated only by the width of a narrow board. These trestle types are extremely narrow when folded down.

There is a tendency for a leaf that is supported only at one point to be flexible at the corners. For this reason most gateleg tables have elliptical tops. The grain may or may not run parallel to the major axis, but it always runs parallel to the joint. It is important that the support point of the gate leg be about three-quarters of the way out on the leaf. Those with double gates can be rectangular, especially large versions. On these, the gates usually swing out from the center, but some very large tables have double gates that swing in from the corners (pivot near the center of main rail). Such tables have frames that, when opened, resemble an asterisk.

The first step in designing a gateleg table is to draw the top view (Figure 1). Many of the important measurements are determined here: the dimensions of the frame, the overhang of the top at the ends, the dimensions of the top, and the radius of the gates. The center section of the top is a couple of inches wider than the frame, and from this, the width of the leaves can be determined. Allow 20 to 24 inches of perimeter for each person to be seated.

Of course no drop leaf can be wider than the height of the table, or it would hit the floor. The center part of the top can be any width, however, and this fact has allowed the great variations in gateleg tables.

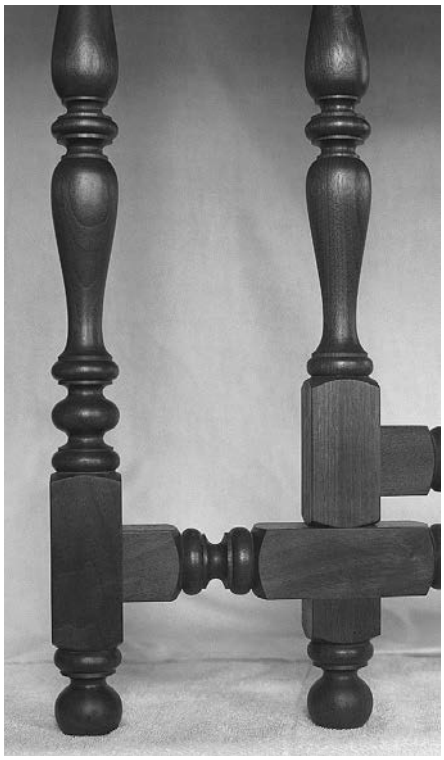
Layout of the main rail

Usually there is enough space between the corner legs and the gate legs to allow a turned portion on the main rail (which is the bottom rail on the long side). This is an important decision, because there are four pommels in that case (Figure 2).

It is best to extend the pommels an inch or two beyond the edge of each intersection, but this is a matter of taste. If the pommels are too long, they could make the frame look heavy in proportion to the turnings. If, however, the stock is light for the size of the frame, this can be used to advantage. Depending on the angle of view, a square can appear up to 1.4 times larger than a round of the same size. These things are difficult to judge from normal projected view drawings. In my experience, 8/4 stock will yield about $1\frac{3}{4}$-inch finished squares which work well for medium-sized tables.

Drawing ellipses

There are many methods of drawing



Detail of the table pictured on the front cover shows how the gateleg turning pattern (right) is abbreviated, compared with the corner leg turning (left), to accommodate the rail.

ellipses, including the so-called "four center method" which I do not recommend because it is only an approximation. For large work such as table tops I use the string method, as follows.

Establish the major and minor axes of the ellipse, then locate the foci of the ellipse using the following construction: using one half of the major axis as radius and one of the end points of the minor axis as the center, strike two arcs on the major axis.

The drawing of the ellipse is made on the reverse (down) side of the table top after the rule joint has been cut. Nails are driven at the foci, and string is tied to each nail in a loop that just reaches one of the outside points. A pencil riding in this loop will describe an ellipse. Non-stretchy string such as nylon twine works well. One other thing necessary to make the process run smoothly is a groove around the pencil, just above the point, for the string to run in.

The corner legs and the gate legs are different. This occurs because the gate must fold flat against the side of the frame and into the pommel half-laps. The corner legs carry the primary motif, and the gate legs have an abbreviated version (see the photo, left). A $2\frac{1}{2}$-inch-long element at the top and bottom of the corner-leg pattern, adjacent to the pommel, does not exist in the gate leg.

Beneath each pivot leg is a dummy foot. Some old tables don't have them. Probably they are lost.

Construction of the frame

Woodturners are always looking for quick ways to do things, and so it is often seen that rails have pins turned on their ends, which are fitted into drilled holes in the legs. This is an inferior method of joinery. To produce a high-quality piece of furniture, mortise-and-tenon joints are the only choice.

When joining $1\frac{3}{4}$-inch square stock, I use the following measurements (in inches) for mortise-and-tenon joints:

- Width of mortise: $\frac{7}{16}$
- Length of tenon: $1\frac{1}{8}$
- Top shoulder: $\frac{1}{8}$
- Bottom shoulder: none

I make a 1-inch top shoulder on a $3\frac{1}{2}$-inch apron.

On the gate legs the mortises are centered, but those on the corner legs are offset to the outside ($\frac{3}{8}$ inch from the edge). Tenons may be pegged, but modern adhesives make this unnecessary. Pegs do add an interesting visual detail.

The appeal of the baroque

Recreating pieces of baroque furniture such as a gateleg table can be a challenge. To take on such a project, one must be motivated. I, for one, love woodturning itself; it's a thrill that does not seem to fade even after thirty-five years. I also feel a powerful attraction to these pieces of furniture. When I see them in books, or especially at museums, they speak to me. They say, "This was made by a woodturner like you, a person who worked hard to develop the same skill you have worked at, and who experienced the same joy you feel at the successful execution of such a piece."

This 21″ high "stool-table" is another piece of furniture typical of the Colonial period. It is a less ambitious project than a gateleg, requiring only eight turnings which are all similar and fairly short. The top is 22″ by 15″ by $\frac{5}{8}$″, while the frame measures 17″ by 14″ at the floor.

Historical analysis tells me that the woodturners of old who produced these masterful works were up against far greater odds than we are today. Without electric motors or precision machinery, they were lucky to have even a waterwheel belted to a crude lathe made almost entirely of wood.

Yet artistically, with baroque decor in style, the turners of the period were in the right place at the right time. Woodturners were free and encouraged to express themselves with all the lavish detail they could muster. Being at the center of furniture design of the period must have made the turner feel indispensible.

Jon Siegel wrote on spindle turning for furniture in the September 1997 issue.

SANTA CLAUS NUTCRACKER

A simple turning project with lots of character

BONNIE KLEIN

MAKING A TURNED NUTCRACKER has been high on my list of things to do for a long time. When the classes at the local Woodcraft Store for last fall were being lined up, I committed to doing one on turning a Santa nutcracker. That meant I needed to get cracking!

I gathered all the pictures, books, and anything I could put my hands on that had anything to do with nutcrackers. I visited the year-round holiday shops and studied the nutcrackers. I soon realized how expensive and how poorly made most of them were. It was a good challenge!

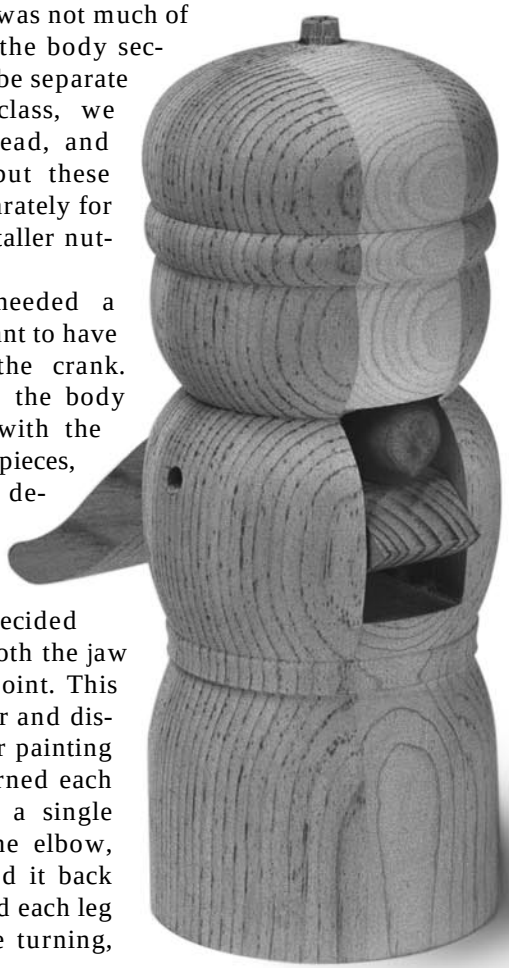
I had several requirements: I wanted my nutcracker to be as large as possible and still be turned on the Klein lathe. The size was not much of a problem, because the body section and legs would be separate turnings. For the class, we turned the body, head, and hat as one piece, but these could be turned separately for different styles or a taller nutcracker.

My nutcracker needed a crank, but I didn't want to have to chisel out for the crank. Instead, I laminated the body together in thirds, with the center section in two pieces, leaving a gap of the desired size and shape.

I wanted all the parts to be easy to put together. So I decided to use one axis for both the jaw crank and the arm joint. This made assembly easier and disassembly possible for painting and decorating. I turned each arm and mitten as a single turning, cut it at the elbow, beveled it, and glued it back together. I also turned each leg and boot as a single turning, cut the toe, beveled it, and glued it back together to shape the boot.

Eight students were in the class, most had minimum or no turning experience, and they all finished all the turnings for the Santa in the one-day class. It was a good test of the project design. They did the painting at home (I hope!).

I am pleased to share this idea with you and hope it inspires you to make some for the holiday season. Make a full-sized working drawing and from that make a template or story stick for each part.



Santa Claus nutcracker, above, is constructed of simple turnings: as with the holidays, the spirit is reflected in the decoration. The body of Mrs. Claus, left, is turned and awaiting paint. Laminating the blank eliminates the need to chisel out the crank area.

Photo: Rick Mastelli

The body is laminated to include the gap for the crank, then turned before the crank is installed. One end of the crank serves as the cracker jaw, the other is a handle at Santa's back, which you squeeze to crack the nut.

Body

I was able to find pine (stair tread material) that was $1\frac{1}{8}$ inch thick to laminate together for the body. The prototype in the photo has a narrow crank area—not good for nuts. The plan on the facing page provides a wider crank area—much better! Make sure the grain of the crank is running lengthwise for strength. While the body section was still square, I found it to be a convenient time to drill $\frac{1}{4}$-inch holes for the leg tenons and a $\frac{1}{4}$-inch hole through the body for the arm and crank axis.

The first thing you will need to decide is where the mouth is to open. On most traditional nutcrackers I looked at, the mouth opening was right at the neck line. I preferred to have the mouth opening a little above the neck in order to have lips and a place for the beard. Don't make the neck line too low because you need to have enough room for a shoulder above the arm axis.

Mount between centers, turn the body section round, use your template to mark off the hat, neck, belt and fur hem locations, and turn these shapes. Turn the bottom of the body flat, so the legs will join well. For unrestricted arm movements, the shoulders should be wider than the rest of the body. After turning the body shape, fit the cracker crank to open and close all the way, and trim it to match the contour of the face profile. A short section of $\frac{1}{4}$-inch dowel holds the crank in place, leaving space for the arm tenons.

Arms

Turn the arms between centers from 1-inch-diameter pieces. Using your template, mark out the locations of the cuff and mitten and turn the desired shape. Cut the arm at the elbow and bevel the cut on a belt or disc sander to create the desired bend to the arm. Glue the arm back together and do the necessary sanding to smooth the joint. Carve the mittens to create a thumb or desired hand shape. I drilled the arm pieces after they were finished in order to better position them, using a $\frac{1}{4}$-inch drill bit and gluing in a short section of $\frac{1}{4}$-inch dowel. These arms are not glued to the body, but rather are a friction fit in order to position them as desired or to remove them for disassembling the nutcracker.

Legs

Turn the legs between centers from $1\frac{1}{2}$-inch-diameter stock. Using your template, mark out the locations of the boot cuff and turn the desired shape. I think the boots need to look like they have a cuff turned over at the top with the pants tucked into the boots. Leave a tenon about $\frac{1}{4}$ inch long and $\frac{1}{4}$ inch in diameter at the top of the leg to position the leg on the body. Cut the turning as the drawing shows, using about two-thirds of the scrap to create the boot toe by beveling, sanding, gluing, and refining. Make sure the Santa will stand upright before gluing the legs to the body.

Pockets, nose, and belt buckle

The pockets are made from one turning, shaped like a tiny bowl, then cut in half and sanded to fit the contour of the coat. The nose is a bell-shaped turning, cut and sanded to fit the contour of the face. The belt buckle is shaped from a small rectangular scrap of wood. Glue these to the body.

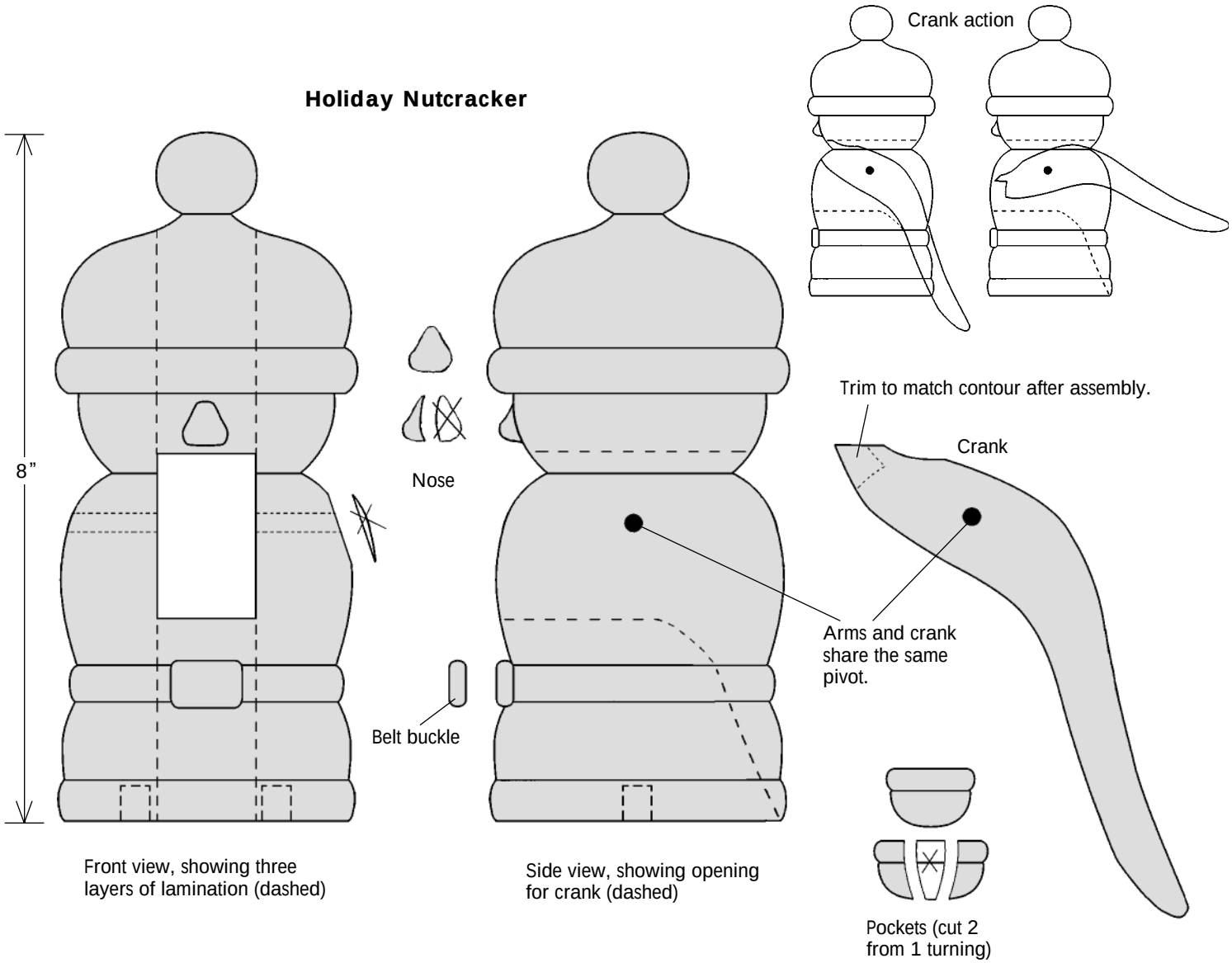
Painting and decorating

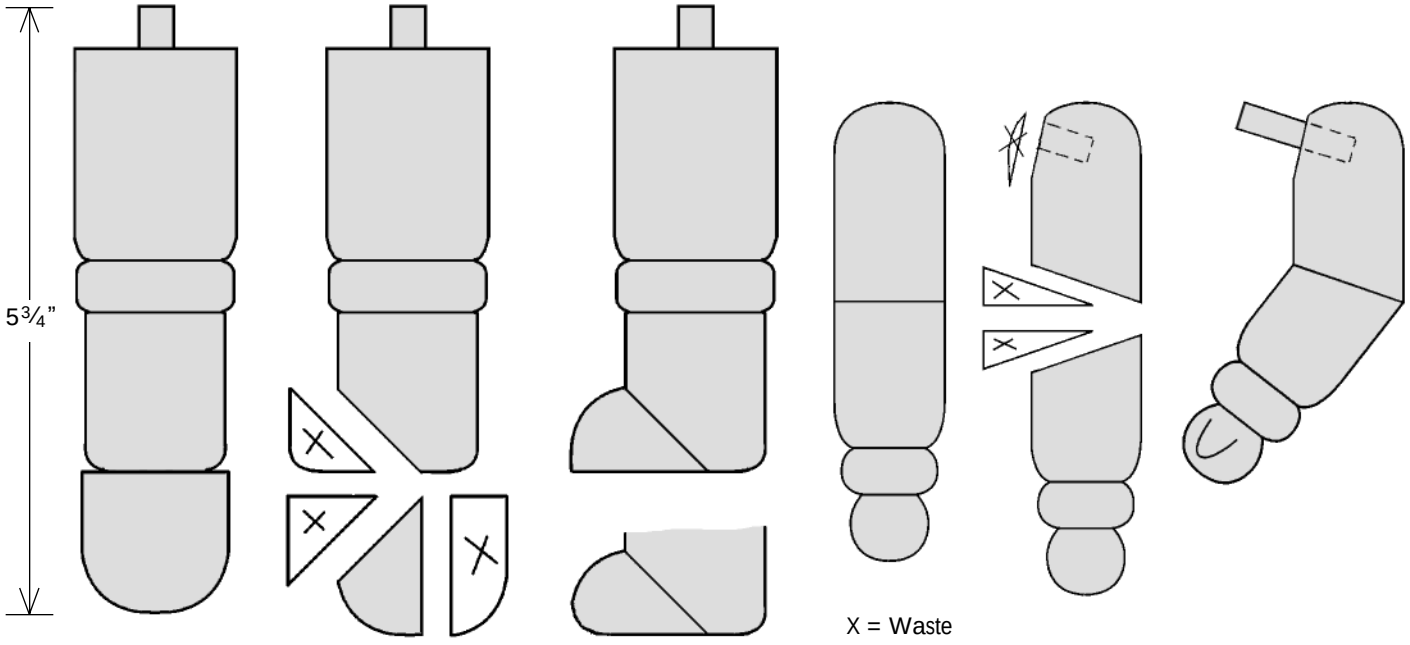
I used acrylic paint from the local art store for most of the Santa. I found a thicker paint (used for decorating fabric), that worked very well for the textured look of the fur ruff on the coat hem, sleeves, hat hem, and tassel. The paint comes in a small bottle with a tiny nozzle that is designed for making dots or lines on fabric. I simply made dots close together creating the texture I was looking for. The beard, mustache, eyebrows, and hair are made from fur fabric found in a fabric store and glued onto the head with Tacky glue. For the beard, I glued a strip on the crank at the top edge, but also glued some on both sides of the chest to create a wider, more Santa-like beard.

I plan to make small toys to fill the pockets and put some tree decorations in his hands. Mrs. Claus (page 13) has been turned and is awaiting paint. The possibilities are endless!

Bonnie Klein, Renton, WA, is a professional turner and popular demonstrator.

Holiday Nutcracker





COMPONENT CANDLESTICKS

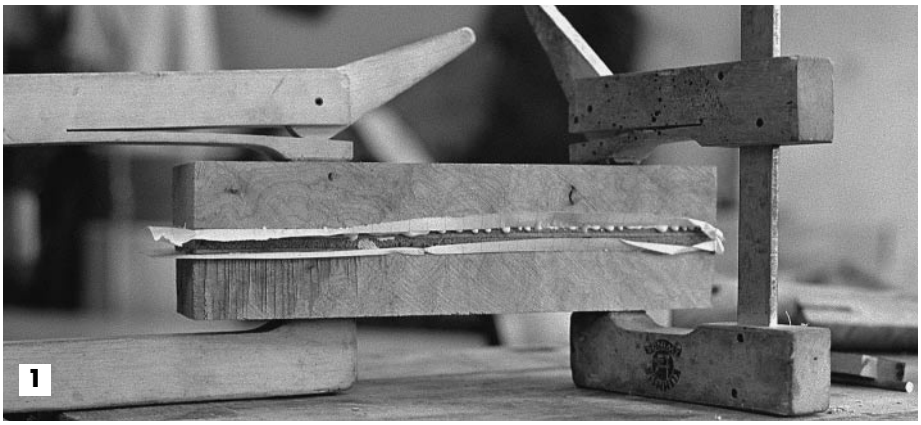
Combining turned and non-turned parts

CHRISTIAN BURCHARD

A FEW YEARS BACK I WAS ASKED TO make a set of candlesticks for a customer. I had great difficulty coming up with a good design. I kept seeing Rude Osolnik's candlesticks (*AW,* December 1994, pages 20–21); to my mind, they are just the simplest and most elegant candlesticks turned from a single piece of wood. There was no way I could improve on that kind of design. So I started playing around with candlesticks made from multiple turned pieces. This article covers the resulting design (which was included in this year's "Turned for Use" show) and how I go about making it. The drawing on the facing page indicates the essential dimensions.

I prefer using a highly figured wood (like maple burl or masur birch) for the body and African blackwood for the other parts, plus brass accent pins. I start with two pieces of wood, each $2^1/_2$ inches wide, 1 inch thick, and 11 inches long. You can get the two pieces by cutting a thicker block in half and thus creating a more coherent figure pattern. I true the inside surfaces and glue them together using a $^3/_8$-inch-thick piece of plywood as a spacer with paper in the glue joints (**Photo 1**) The paper enables you to split the turning apart later on, but the joint is strong enough to hold while working on the blank. Remember to apply glue to all four surfaces!

After letting the glue dry, I trim off the ends on the table saw and true one of the sides (with the edge of the plywood showing) perpendicular to one of the solid sides and the end. This is important; otherwise the slot for the foot won't go through the components straight and square. I cut this slot on a horizontal router table (**Photo 2**). Use a $^3/_8$-inch bit and cut the slot $1^1/_4$ inch deep in two or three passes. You could cut the slot on the table saw, but it would be harder to get accurate. This slot then gets temporarily filled with a tight-fitting piece of waste wood to create a place for the prongs of the drive center and to avoid tearout while turning. It doesn't hurt to add a spot of hot-melt glue to hold the temporary filler piece in place.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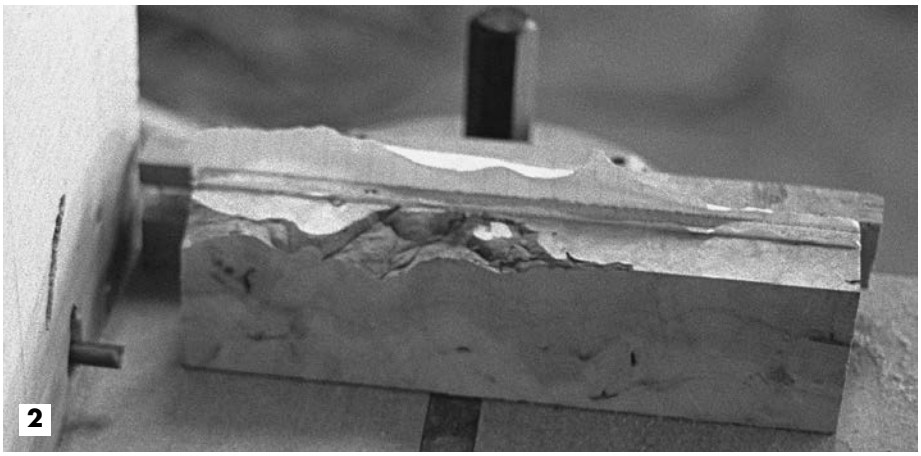
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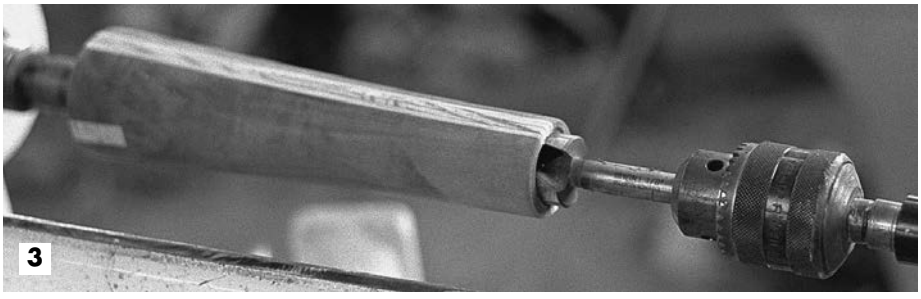
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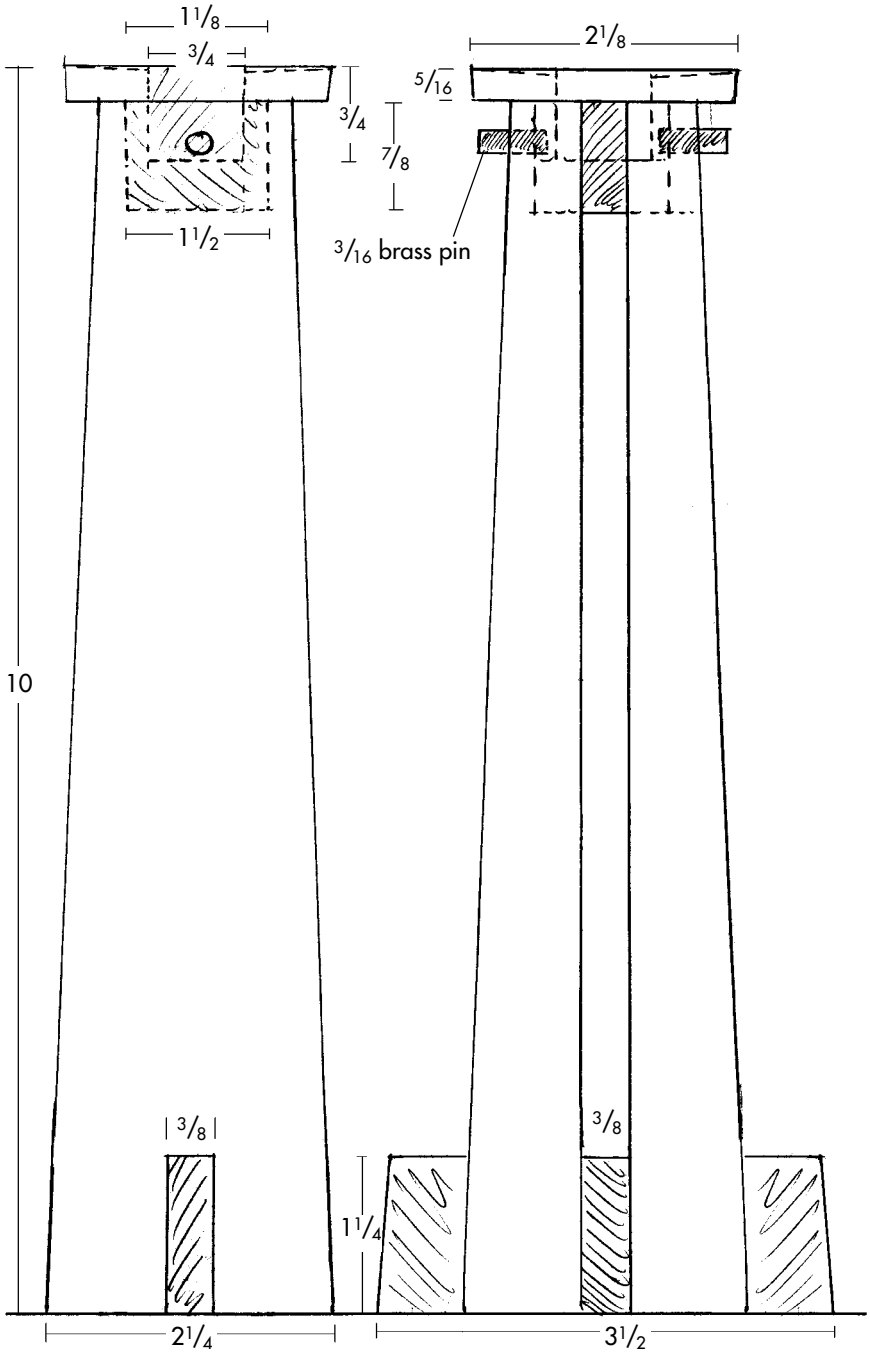
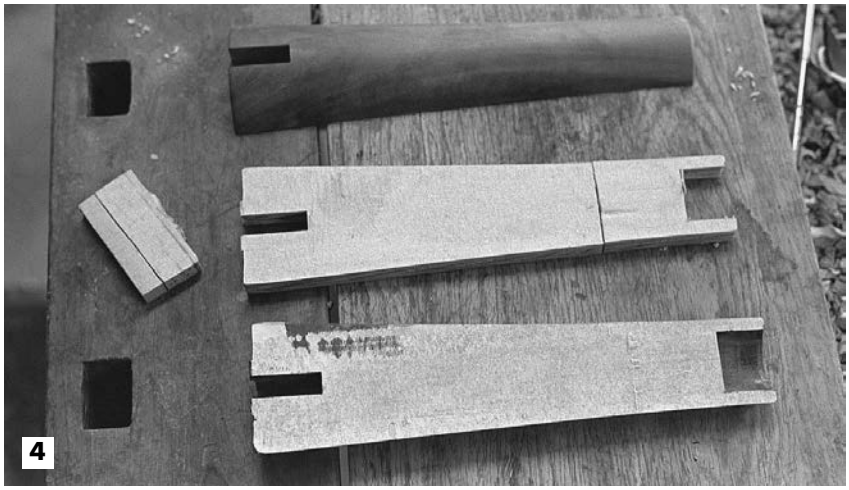
I now turn the prepared blank between centers. I leave a diameter of $2^1/_4$ inches at the bottom and $1^1/_2$ inches at the top. The line between should be slightly curved, with a gentle dip in the upper third. After sanding I cut a slight bevel on the top and bottom. Before I take it off the lathe, I drill a $1^1/_8$-inch hole $^7/_8$ inch deep into the top with a Forstner bit held in a

Photos by the author, except where noted.





key chuck in the tailstock (**Photo 3**). This needs to be done with care, as the drill easily moves off center.

After removing the work from the lathe, I first knock out the small waste block in the bottom and then pry the pieces apart along the paper joint with a wide chisel (**Photo 4**). Take care not to let the chisel dip into the wood itself. The two flat sides can be cleaned up on a

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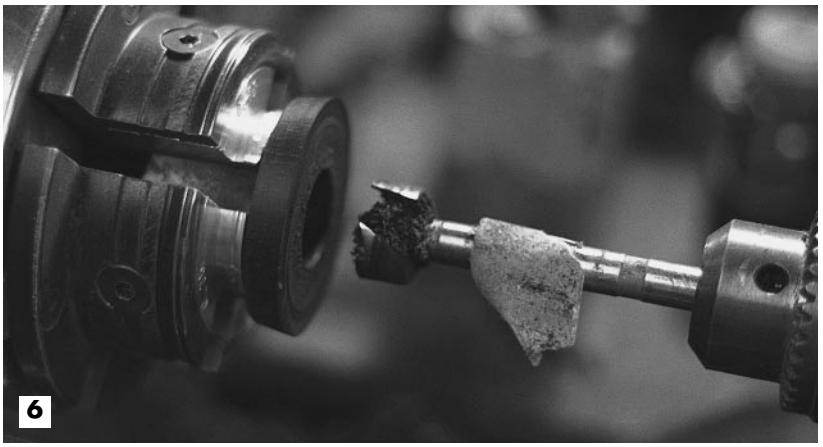

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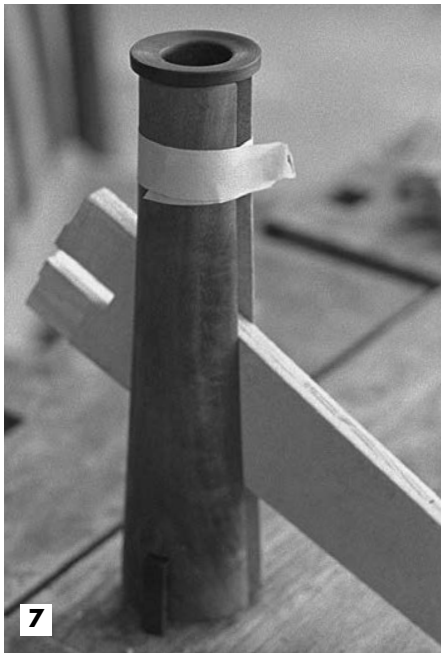

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belt sander. Again, tade care here.

For the African blackwood cup I use scrap pieces from the music industry. The stock can be end grain or side grain. I hold the block in the chuck (**Photo 5**) and first cut the tenon. I use one half of the body to check for a good fit and then sand. I then insert the tenon into the chuck and turn the top of the cup. Because of the small diameter of the cup, different jaws need to be used. With the help of the keychuck and a $^3/_4$-inch Forstner bit I drill a $^3/_4$-inch deep hole into the cup to receive the candle (**Photo 6**). Make sure that the point of the bit does not come through the bottom of the cup! I sand the cup and remove it from the chuck.

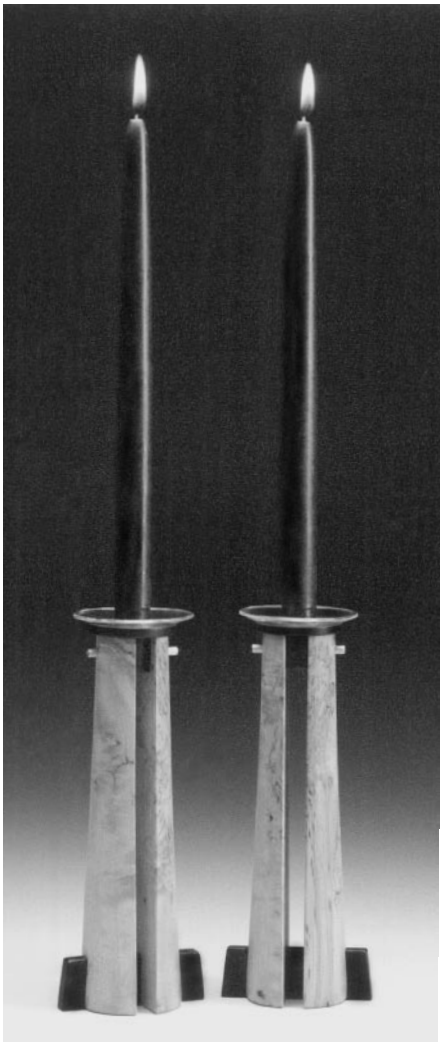
Now I have to prepare the last missing part, the piece of wood that fits into the slot at the bottom and provides stability for the candlestick despite its relatively small diameter. I cut this foot-spacer also from African blackwood and sand it on the belt sander until I get a good fit and then finish-sand it.

To assemble I first glue the cup in place with the help of the plywood spacer and masking tape (**Photo 7**). I fit the foot-spacer at the bottom of the slot as well, but I don't glue it at this time. Medium-viscosity superglue sets up fast on blackwood. I clean up any excess glue and after five minutes I slide the foot-spacer out and glue it back in. Make sure that all joints align.

The last steps are to clean up the bottom, bevel the edges, and drill the $^3/_{16}$-inch-diameter holes for the brass pins. I use a sloped jig to make sure that the holes are perpendicular. The holes should just penetrate the blackwood but not go through to the other side. The pins, which give a little extra strength, are cut from $^3/_{16}$-inch brass rod and sanded and glued (sparingly!) into the holes.

I then touch everything up with 320-grit sandpaper and apply two coats of satin lacquer, making sure that the area inside the open space receives some finish, too. I tried an oil finish, but there are just too many gaps and hard-to-reach spaces for oil to work. For a finishing touch I add a glass bobeche (as pictured at right), to avoid any spilled wax getting on the wood. And voilà.

The open space in this candlestick lightens it visually as well as physically. The several materials and the component structure make for an interesting, elegant effect. I think this approach could be used for various other turned projects; there are so many ways to use turned and nonturned parts together.



Rob Jaffe

Christian Burchard, a woodturner and sculptor, lives and works in Ashland, OR.

ALL IN THE FAMILY

Using a common form for production items

MICHAEL HOSALUK

IN MY TRAVELS, MANY PRODUCTION items made by other woodturners have caught my eye and my imagination. These items are often inspiring in more ways than one. They may be practical, attractive, easy to make, easy to sell, or all of the above. It's not necessary to directly copy such projects; they represent the kind of sound, fundamental ideas that withstand lots of variation. They may also lead to other good ideas.

One way in which one good turning idea can lead to another is to build a vocabulary of forms that are based on and speak to one another. Practicing a familiar form improves your skills, and it trains the eye to understand what makes for appealing proportion, line, and detail. When you become fluent in a form, you can apply it to different objects and more quickly achieve success when you take on new production (or one-of-a-kind) items. Eventually, you can build a body of work that shares a single form and is identifiably yours.

The photo here shows five basic production items of mine, very different in function, but similar in form. Whether it's a bowl, a pair of door stops (the two made from one rectangular blank, bandsawn apart diagonally), a lidded box, a spinning top (either the solid or the container versions), or a bottle stopper, you can see common S-curves, comparable transitions, and familiar details. Even with only minimal surface decoration (the stoppers have chatterwork) and no after-lathe modifications, the variety here keeps me interested through hours of production work.

In future issues of this journal, I will talk about how to produce some of these projects. For now, find a common form in the various items you yourself now make, and see if that form can't be applied to new and different objects. Sometimes the idea comes from something as simple as turning the form upside-down!

Michael Hosaluk is an accomplished one-of-a-kind as well as production turner. He frequently offers workshops, and he lives in Saskatoon, SK.

Author's family of production items include (counterclockwise from upper right) a maple burl bowl, 5″ dia., a pair of red oak door stops, a blackwood box, a cocobolo container spinning top, a solid boxwood spinning top, and two bottle stoppers, one of blackwood, the other of bloodwood, both decorated with chatterwork.

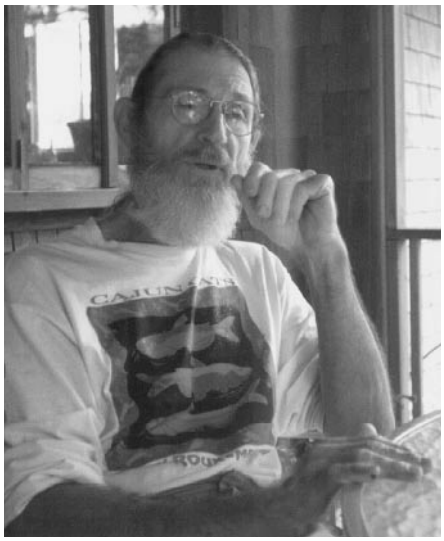
Photo: Rick Mastelli

PROFILE: ARTHUR JONES

Woodturner, carver, sculptor, craftsman, artist?

KEN KEOUGHAN

Ken Keoughan



Arthur Jones.

THE ANSWER IS YES. ARTHUR JONES IS all of these. All of these and more. His drive for perfection is powered by hydraulics, tipped with carbide, yet his voice is as delicate as his latest work: a full-sized maple Louisville Slugger that weighs 0.50 ounces on a certified scale. Yes, half an ounce. The photo at right reveals the filigree technique he used to create a piece so large and yet so light. What it does not reveal is that the dental tool used to cut out the recesses left slightly fuzzy walls on the maple filigree. He removed this fuzz four times with knives and micromesh—every single millimeter of every single filament, four times. The sides of each filament he painted black with acrylic paints. The inside and outside remain natural color. This creates an optical gradient effect.

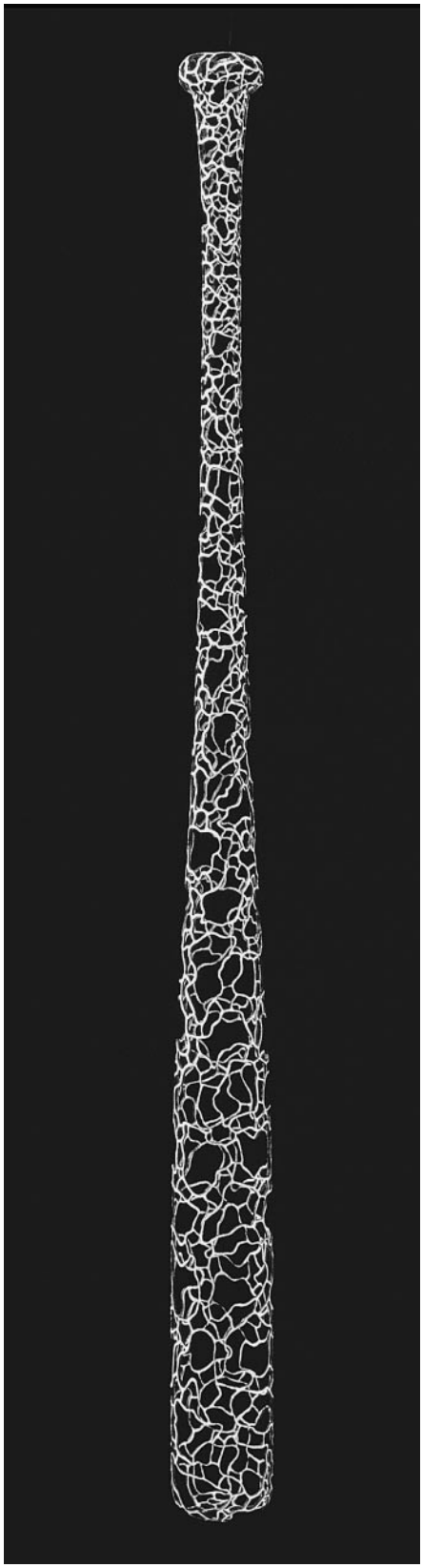
" Soul of the Louisville Slugger" is part of the turning exhibition "Bats and Bowls" presented by the Kentucky Art and Craft Gallery working with the Louisville Slugger Museum (see *AW,* September 1997, page 17). Jones takes his place in this show among such names as John Jordan, Bonnie Klein, Michael Hosaluk, Robyn Horn, Michelle Holzapfel, Giles Gilson, Clay Foster, Virginia Dotson, and David Ellsworth. This, of course, puts Jones' work in the vanguard of nationally recognized woodturning artists.

Arthur got a major break in the Arts Festival of Atlanta in September, 1996. Craig Nutt, one of the judges for the show, pulled up short at Jones' booth, studied his pieces and asked, "Why haven't I seen your work before?" Craig was co-curator of the "Bats and Bowls" exhibition. Now, Jones is a turner/sculptor on the cusp. He is attaining widespread acceptance in museum and collectors circles.

What makes his work unique? Jones says, quite comfortably, "I've trained myself with wood to the point that I can create almost any effect that I want with wood as the medium." This isn't a boast, but rather an explanation of the results.

A reviewer describing Jones' one-man show in the Maitland Art Center in Central Florida says, "a chalice made of sweet gum has the sheen of ancient glass...." Of another piece, "Tut's Vase" (photo, facing page), he says, "This is a vessel that would be at home in a tomb: branches protrude like bones from casings along its neck…most unsettling."

Arthur's work reflects Arthur. There is a lightness, a subtle humor, an intensity, a somberness, a sense of dues paid, a quiet joy and exultation in form and substance released from constraint to stand in elegance. To look at Arthur Jones' work is to be engaged with it hand-to-hand, heart-to-heart. It clutches at our emotions.



"Soul of the Louisville Slugger," is of maple, 35" high, and weighs 1/2 ounce.

Photos: Randall Smith, except where noted

"Tut's Vase," above, is of monkey puzzle wood, 14" high. "Lunascape on Dancing Form," right, is of pecan and walnut, 76" high.

That's not always comfortable, but it's always there.

"Lunascape on Dancing Form" (photo, right) brings a smile. The dancing form is naked, uninhibited, happy, stepping out. Bearing the moon is a joyous burden. The moon is pocked and pitted pecan. It has some age to it, some scars, nicks, bruises. For perspective, this is a major piece, more than six feet tall. In "Garden Still Life" (photo, page 20) we see the snake, a serpentine stand, holding two vessels "one unmistakably phallic, the other full of erotic invitation," according to Philip Bishop reviewing Jones' work. The partially eaten apple on the ground, unseen in the photograph, again makes us smile.

"Petitioner" (photo, page 20) is a work so seductive we have to look, so painful we have to look away. A torso kneeling on a bed of long wooden spikes, the petitioner must bear the pain of the full weight of his body on those needle-sharp spikes for his or her prayer to be heard. Is this Art? Emphatically, yes. A highly skilled craftsman can achieve the results he wants with the tools he uses in the media he selects. He can make, sculpt, paint whatever he wants. The craftsmanship in Arthur Jones' work

"Petitioner," left, is of pecan, 28" high. "Garden Still Life," right, is of walnut and cherry, 52" high.

is superb. But what Jones brings to the work goes well beyond that. His passion breathes life and soul into his pieces just as surely as Geppetto did with Pinocchio.

His interest in wood began with inspiration from an illiterate muskrat trapper who had built the houseboat Arthur's family rented from him and the traditional Cajun bayou boat that he used in his trapping activities along the Louisiana Gulf Coast. "Here was a man who couldn't read or write creating compound curves that fit perfectly," Jones says with admiration.

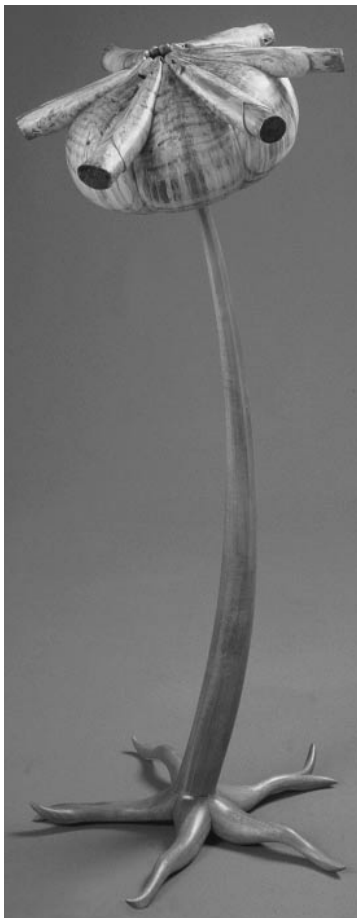
Arthur had summer jobs in construction during his school years. He won a football scholarship at Tulane University, maintained undistinguished academic levels, and won a basketball scholarship to Baylor, where he took his undergraduate degree. Subsequently, he went on to Louisiana State University where he earned a Masters in Sociology and ultimately his Ph.D. He taught sociology and criminology at Rollins College in Winter Park, FL, until his retirement in 1990.

Arthur Jones has knobby knuckles, scars and scratches like all of us. He built his house from the trees up. It took ten years. He can give you a enlightening dissertation about the Alaskan chainsaw mill. He can also tell you how to build a French door, from green log to installing the glass. Jones has studied hard and long. He's learned from experience, much of it difficult, some of it unsuccessful.

In December 1992 Jones had never turned wood. He managed to get himself accepted into a craft show to sell "turned objects." Accordingly, and typical of Jones, he then built himself a lathe. After that he started turning. The results did not meet his standards, so at the eleventh hour he carved 200 spoons—useful, utilitarian, elegant spoons. He sold them all.

Does Jones have any secrets about how to reach his level? "No, No secrets. Techniques, procedures, yes. Secrets, no."

"First," he says, "I think through what I'm going to do." For him the long part of the work is in the planning, the thinking. When he actually built the house he never had to look



"Tray on Stand," left, is of maple and mahogany, 72" high. "Shallow Bowl on Stand,"above, is of mahogany, 36" high. And " Vine Ripened," right, is of monkey puzzle wood and mahogany, 46" high.

at the plans. Every detail was in his head. Every dimension, every fastener. When he starts on a piece, he starts on paper. He sketches over and over and over…until he gets close to what he wants.

Then he gets down to designing and planning in earnest. Before he ever touches the wood, every step is clear in his mind. Every dimension, every shape, every tool, procedure, and type of cut. His approach is just the opposite of David Ellsworth's. Ellsworth says, "I sketch with my gouge." Jones sketches with a pencil, late at night. He has patience. "I have the patience to peck away at it until I get what I want." He looks at the work of museum level turners who are friends and says benignly, "You've got to finish the finish."

Jones also has design concepts that he relies upon. Look at his work closely and you will see curves—clean classic, elegant curves that seem to have emerged from the ancient Egyptian crescent.

He asks himself "What if...?" This sounds simplistic. But if one pursues "What if...?" far enough, one can break out of conventional thinking, customary constraints, taboos, triteness into, say, a 35-inch baseball bat that weighs half an ounce.

His most recent breakthrough in design, and a quantum leap it was, was partially inspired by studying with Wendell Castle in New Smyrna Beach, FL, in 1994. Jones had focused on vessels. "The wood vessel is for me what the human figure is to many sculptors," says Jones. "It is my nude, so to speak. I have found in the wood art vessel a means of expression: a space for fantasy, a shape for interpreting myth and symbol, a vehicle for visual autobiography, an object for contemplation and for pleasure."

But giving the vessel the status of the human figure is another challenge: "It's hard to pour your soul into a piece of wood, breath life into it and then plop it down on a cold Formica box for everyone to see." With Wendell Castle at the Atlantic Center for the Arts, Jones began to come to terms with the problem of the vessel and its resting place.

The results are just now beginning to take shape in Lunascape, Garden, Petitioner, and others. "In my current work," says Jones, "I create a synthesis between a vessel and a carved stand that clasps, cradles, or otherwise presents the vessel in a unique way. The increase in scale is significant, to six-and-one-half feet. In each work, the comprising vessel and stand are independent in that each can be shown alone, freestanding. But together they become interdependent and have a visual impact and a conceptual value far greater than that of each piece separately."

Woodturner? Carver? Sculptor? Craftsman? Artisan? Artist? The answer is Yes. All of these. And more.

Ken Keoughan, a retired advertising consultant, turns wood in Friendship, ME, summers, and in Mt. Dora, FL, winters.

CARVING TURNED WOOD

Part 1: The basics

RON HAMPTON

I DECIDED TO WRITE A SERIES OF ARTICLES on carving turned objects after seeing the March 1997 issue of *American Woodturner.* The cover article featured some fantastic carved turnings from Terry Martin's book *Wood Dreaming*. I had never done any carving, except for a few silver fillings (I'm a dentist, you see), but those pictures really made me want to learn. My wife was already commenting about my work, "That's pretty, but isn't that bowl similar to the last one you made?" I recognized this as a sign that I needed to add some variety to my turnings.

The same issue of the magazine had an updated index, which made it easy to find a number of articles on different turners' approaches to carving, as well as a few how-to articles on carving techniques (see "Further *AW* Reading," below). Throughout the back issues I encountered plenty more pictures of beautiful carved turnings that further encouraged me.

I asked a master carver I know, Corbett Anderson, to teach me. Personal instruction, when you can get it, is one of the best ways to learn a new skill. Corbett was happy to help. Soon I was neck deep in carving. Corbett decided to use the "swim or sink" technique on me. My first carving was quite intricate (not what I will be recommending for you). Since I am also a book junkie, I started buying some books on carving that were a big help. (See "Book and Video Resources," page 27.)

Corbett put carving into perspective for me with one of his typical gems: "Carving is like watching an ant eat a bale of hay." In the twelve weeks I spent on my first carved bowl, I repeated this saying to myself innumerable times. It helped. I was used to working very fast, always trying to get a new bowl done in a hurry. Everything changed with my first carved bowl. Carving requires a lot of time. I finally had to accept that the bowl would be finished when it was finished. In the meantime, I've come to enjoy the change of pace.

Design considerations

Usually it is best to decide on the design you want to carve before you turn the bowl. Otherwise, you'll be surprised by how limited your design possibilities are. A thin completed bowl, for instance, will not allow you to make deep carvings on it. If you want to carve a decorative band, you'll probably want to leave a band of thicker wood to carve.

Flaws and features in the wood will affect the shape and design of your carving. This is an area where the turner/carver has tremendous possibilities. Furniture makers often must discard flawed wood. We, on the other hand, can take a flaw and make it a beautiful focus of our work.

In his piece "Mesa Verde" James Johnson takes advantage of a large defect by carving into it a miniature landscape of the ancient cliff dwellings in southwestern Colorado (photo, facing page, left). Since the opposite side of the bowl did not have a defect, James made one with a chainsaw. Depending on your objectives, a defect can be something to hide or something to accent.

The shape of your bowl will influence the carving you do. You need to achieve a harmony between the carving and the bowl. You would not want to place a very large carving on a very small bowl or vice versa. A large horizontal lip could hide the carving on the side of a bowl. On this shape bowl, it might be better to place your carving on the top of the bowl rather than on the side (photo, facing page, right).

The smallest tool you have will determine how small you can make the detail of your carving. Your smallest carving gouge must be able to fit between the lines of your drawing. It's easy to make the details of your drawing so small that your tools can't make the cuts. It might help if your initial carvings are not too intricate, lest you become frustrated. Later, when you decide to do very intricate detail carving, be sure to use fine-grain wood that has interlocked fibers. This will decrease the likelihood of pieces chipping off during carving.

Selecting a pattern for carving

Choosing what to carve can be intimidating at first. Really, the whole world is open to you. There are many places to look for a pattern to carve. Books with patterns in them might be your first choice. My favorite is *Design Artistry* by F.O. Baird. It is a pattern book made for the leather worker, but it is also

FURTHER *AW* READING

Behrens, Brenda, "Based in Japan," *AW,* June 1994, pp. 14–16.

Fleming, Ron, "Ornamentation," *AW,* June 1990, pp. 2–3.

Jacobs, Rodger, "Sneaky Bowls," *AW,* March 1995, pp. 21–23.

Jordan, John, "Carving Flutes on Hollow Vessels," *AW,* June 1990, p. 4.

Kehs, Michael, "Carving...Turning," *AW,* June 1994, pp. 16–17.

Mitchell, Bruce, "Sculptural Bowls," *AW,* June 1995, pp. 29–31.

Scarpino, Betty, "Enhancing the Grain Pattern," *AW,* June 1990, p. 5.

Stirt, Alan, "Form and Texture," *AW,* June 1994, pp. 12–13.

Natural defects in the wood can inspire a carving. In "Mesa Verde," above, James Johnson has used a void in his bowl blank to locate a miniature cliff-dwelling. A large, flat surface can call for incised decoration, as in the author's bowl at right.

excellent for woodworking. Baird shows you step by step how to make a drawing. My first carving of acanthus leaves and flowers came from his book.

You may want to look to nature for your inspiration. But you don't have to become an artist to capture images for carving. If you see a picture you like in a magazine, take the time to cut it out and put it in a folder. Flowers, birds, trees, or animals may inspire you. Or perhaps some pattern or texture, whether natural or man-made, captures your attention. A collection of pictures that please or intrigue you can prove a valuable resource when it comes to ornamenting your turnings.

Design transfer techniques

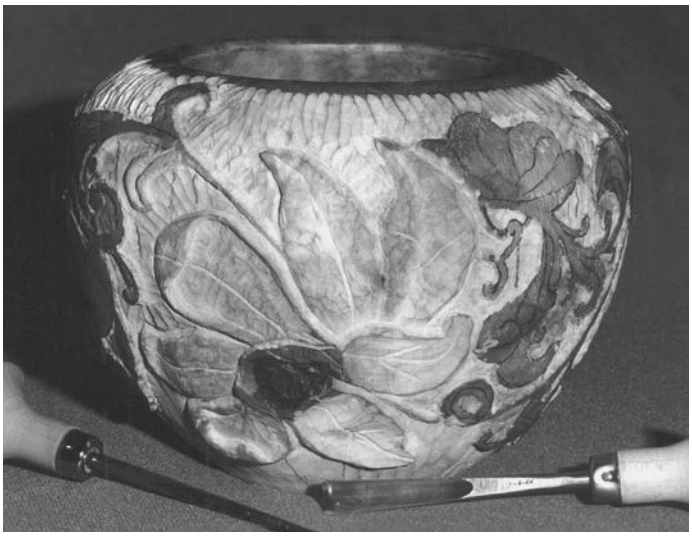
Let's look at four techniques for placing your design on your bowl. You may find one technique preferable to another for certain situations. It is a good idea to understand all four. This way, you have more tools in your tool box when the need arises.

Tracing is a technique we learned in grade school. Find a design that you like. Place some carbon paper under the design and then secure both to the bowl with tape. If you cut the carbon paper just slightly larger than the picture, you can secure both sheets all the way around with the same pieces of tape. You may need to cut your pictures into small sizes that will conform to the curvature of your bowl. Do a test fit before trying to tape the drawing and carbon paper to the bowl. Now trace the pattern with a ballpoint pen. Using a different color ink from the color of the picture will help ensure that you do not skip any area.

The second method, *graphic transfer,* is a really neat technique to use when it fits the job. It requires the use of a copy machine but gives you tremendous freedom. Photocopy the pictures that you want to use onto regular paper or clear acetate. You may want to splice different pictures together using scissors, tape, and white-out ink. When you have the final design, copy it on the copy machine. The copying process involves heating fine carbon particles and depositing them onto the paper or acetate. Place the final copy onto the wood bowl. If you have used clear acetate, you will be able to see the wood underneath and position your drawing for best effect in conjunction with the grain and figure of your piece. When you are satisfied with the placement, secure the photocopy with masking tape. Apply heat to the photocopy with an iron or the flat area of a soldering gun or wood burning tool. The heat will cause the carbon to transfer from the paper or acetate to the wood. The carbon is not fixed to the wood, so retrace the pattern with a fine ink pen before the it smears. The piece pictured above right was done using graphic transfer. I will show this technique in detail in the next article of this series.

Pounce, the third technique, is very versatile and easy. "Pounce" refers to the fine powder that is used to transfer the drawing to the wood by rubbing it through a stenciled pattern. It is especially useful in creating mirror-image patterns. I will describe the technique where you fold a piece of paper in half to make a mirror-image pattern. If you were to fold the paper again, the pattern would be a circular or four-way pattern.

Fold a sheet of paper in the middle. Place this paper underneath your pattern, the folded edge flush with the pattern edge. Secure both together with tape so that they do not slip. Place the assembly on cardboard or foamboard. This must have a little give to it for the next step to be successful. Now trace your pattern with a pounce wheel. The pounce wheel perforates the pattern with small evenly spaced holes. Corbett Anderson's preference is a 21-point pounce wheel. Twenty-one points per inch gives more detail than a 7-point wheel.

The author's first carving project began as a sine-wave pattern around the bowl, which was then embellished with flowers and leaves. The carved forms incorporate the natural markings of the wood.

When you open your underlying paper, it will have both the original image and the mirror image adjacent to each other, delineated by pinholes. Sand the back side of the paper with 220-grit sandpaper. This will open up the little holes to allow your marking dust to come through easily. Place this paper on your bowl with tape and place some chalk in a piece of cotton cloth, securing it with a twist-tie or rubberband. Now tap the chalk-filled wad on your paper pattern. For best results, use a dust that is a contrasting color to the wood. You can get blue and red carpenter's dust. For white, talcum powder works well. For black, charcoal dust from an art supply store works well. The chalk dust will leave the pattern on your bowl. Retrace the pattern with a fine-tip ink pen.

The fourth method, *freehand layout* or drawing, is not as difficult as it seems. It does require some practice, but then all skills require practice. Following are a few suggestions that might help: Mark out reference points on your bowl. This might include a top line and a bottom line. As turners, this is easy to do: just hold a pencil to the bowl and let it spin. Next divide the bowl into the number of segments that you want the pattern to repeat. On my first bowl, we divided it into four sections. Again, this is easy to do on the lathe, especially if you have an indexing plate. Corbett used these lines to draw a sine wave pattern that went around the bowl (see photos above). From this line, he drew the first two flowers and a couple of leaves. Corbett placed the center of the flowers over the two flaws in the bowl. In this way he emphasized the defect of the wood. After this, Corbett gave the bowl to me to complete.

This is the point where we learn that pencils have been designed wrong. The eraser, according to Corbett, should be as long as the drawing part. I found this to be true. If you are not pleased with your drawing, do something to fix the situation. Get help if necessary or erase until you are satisfied. I got a lot of practice erasing. It is almost impossible to do a good carving from a bad drawing. Corbett's advice is, "Draw like a turtle and carve like a rabbit." A good initial drawing is very important.

Equipment

By far the most important equipment for carving is sharp, high quality carving tools. As with all other woodworking equipment, buy the best you can afford. I started off with some inexpensive tools that I had from a prior attempt at carving. I quickly became frustrated. I chose a superior set of Pfeil palm grip carving tools from Woodcraft Supply (800/225-1153). These tools made carving much more of a joy. It really is very difficult to do high quality work with poor tools.

A very good article by Ian Agell in the February 1997 issue of *Fine Woodworking* details an introductory carving tool kit. Agell recommends the first tools to acquire in three groups, in order of priority:

8mm V-parting tool
13mm No. 9
20mm No. 5

4mm No. 11 veiner
18mm No. 11 veiner
25mm No. 5
25mm No. 8.

5mm No. 5
12mm No. 3 fishtail
13mm No. 8
16mm No. 1
16mm No. 8 spoon

Being able to resharpen your tools is critical. Sharpening high-carbon carving tools is quite different from sharpening HSS turning tools. High-speed steel is far more forgiving of grinding heat than high-carbon steel. It is very easy to overheat and ruin your high-carbon carving tools. Sharpen at low speed and with water to keep the tools cool. Your carving tools must be razor sharp at all times

to work. A hard felt buffing wheel (rotating away from the tool edge), charged with buffing compound, is very useful for putting a razor sharp edge on your carving tools.

Safety

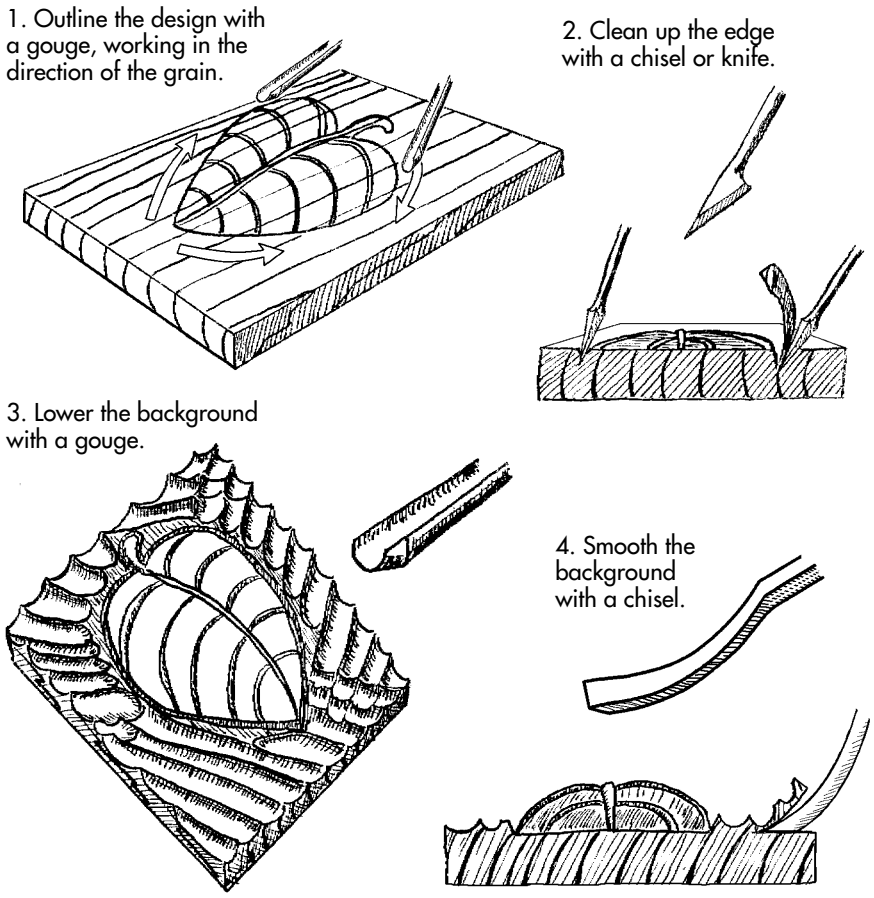
As with all woodworking, it is very easy to injure yourself if you are not careful. Always carve away from yourself. Know where the tool will go when it leaves the wood. No matter that your plan is to control the tool—tools do slip! You do not want to slice or puncture yourself to find out how sharp your tools are. Whatever you do, do not put your opposite hand in front of the blade. Some people are able to work with a chain mail glove. I use a leather glove with open fingers and a $^3/_8$-inch-thick neoprene mat to help grip the work safely in my lap. Knowing how I dive head-first into projects, Corbett suggested I keep a tourniquet close by.

Practice cuts

Make practice cuts on scrap wood to learn how the tools work. This will save you a lot of wasted effort and frustration. Many of us want to jump right into a project and start carving immediately. You will learn much more quickly and make fewer mistakes on your first carving if you take the time to practice on a 2x4. Try all the different tools that you have to see how each cuts. Vary the angle of the tools as you work. You will see different cutting effects that you may want to take advantage of in different situations.

Don't just carve randomly; practice carving to a drawing including straight lines at different angles to the grain, S-curves, and circles. Notice how the grain dictates the direction of cut. Practice relief carving by outlining your design first with a gouge (drawing above). Then come back with your chisel or knife to make a clean vertical cut. Note how referencing the bevel or face of the tool along an already carved surface can help you continue creating a smooth surface—just like turning, only slower. Now lower the background with regular gouge strokes. Finally, smooth the background with a chisel. In some situations a bent chisel will be beneficial.

Practice carving a relief pattern on flat stock



Further considerations

People have "ooohed and aaahed" over my carved objects like they never have with my simple bowls. Carving is fun, but it takes patience. Get into a comfortable position and prepare to slow down. Give yourself time to learn a new skill. If you get tired of carving, quit for a while. Last week I helped a neighbor cut up a 24-inch diameter pine tree just for a change of pace. I was tired of working on small detail and I wanted to fire up my big chainsaw. (Tim Allen would be proud of me.) Be reasonable in your initial expectations. Do not expect a masterpiece with your first carving. Have fun adding a new dimension to your woodturning!

Ron Hampton practices dentistry, turns wood, and now carves in Texarkana, TX.

BOOK RESOURCES

Baird, F.O., *Design Artistry,* The Leathercraftsman, available in leather craft stores.

Irish, Lora S., *Classic Carving Patterns,* Taunton Press, 800/888-8286.

Keilhofer, Georg, *Basic Relief Carving,* Schiffer/Woodcraft, 800/225-1153.

Pye, Chris, *Carving On Turning,* GMC/Sterling, 800/848-1186.

Pye, Chris, *Woodcarving Tools, Material and Equipment,* GMC/Woodcraft, 800/225-1153.

VIDEO RESOURCE

Carving Techniques and Projects with Sam Bush and Mack Headley, Jr., Taunton Press, 800/888-8286.

MANDRELED BOXES

Glue block is fast, efficient, and versatile

KENNETH H. EVANS

THERE ARE AS MANY METHODS OF producing boxes on a lathe as there are woodturners. The method I'll describe in this article meets my needs of being very efficient in time and material. I make and sell small turned boxes at craft shows in upstate New York. Boxes up to about 4 or 5 inches in diameter by 3 inches or so deep can be accommodated with this method. Adjustments can be made to handle larger boxes.

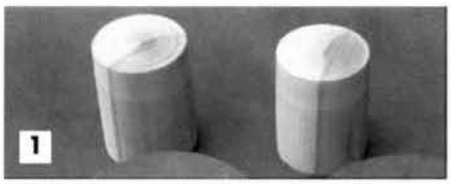
The heart of this method is the use of a set of reusable homemade mandrels to hold the box components in a compression chuck. The compressions chuck's capability to mount and remount components without losing concentricity is essential to this approach. I use a Stronghold chuck, but any good compression chuck will do.

Before beginning to turn boxes, turn two pieces of stock, 2 inches in diameter by 2 to 3 inches long (**Photo 1**). Square off the ends of these pieces. Call one the box bottom mandrel (BBM), and the other the box top mandrel (BTM). The little time invested in making these mandrels is not wasted, because they are reusable.

Bandsaw blanks to rough size to be used as the box bottom and top. Glue the box bottom blank to the BBM with a 1-inch diameter circle of hot-melt glue (this is what I use) or, if you feel you need a stronger bond, substitute cyanoacrylate glue. Glue the blank so that what is to be the *bottom* of the box is fixed to the mandrel. Likewise, glue the *top* of the box top blank to the BTM (**Photo 2**).

The chuck will hold the mandrel, not the box blank. This means that very little of the wood from which the box is made will be lost as the box components are parted from the mandrels. Nor is much mandrel stock lost. You lose only half the dimension of your parting tool from the mandrel and half from the box blank each time you make a box.

Now chuck the BBM, with the box bottom blank attached to it (**Photo 3**). True up the box bottom blank, and turn it inside and outside to whatever shape pleases you. Make provision (I turn a rabbet) on the rim of the box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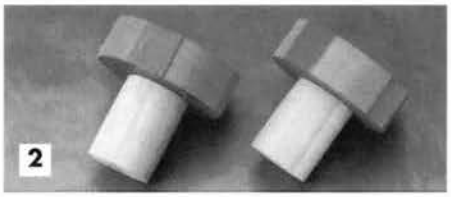
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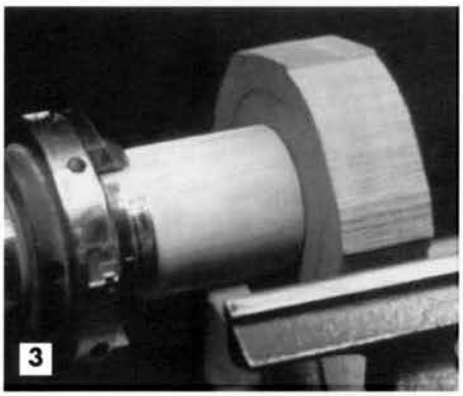
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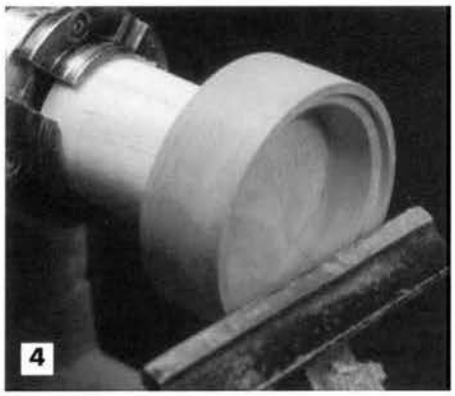
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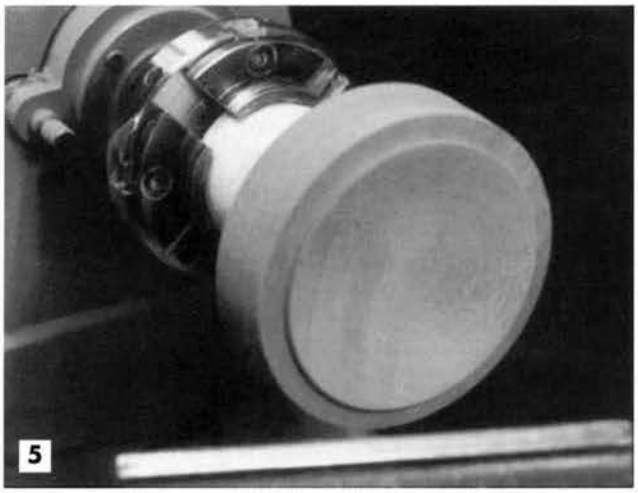
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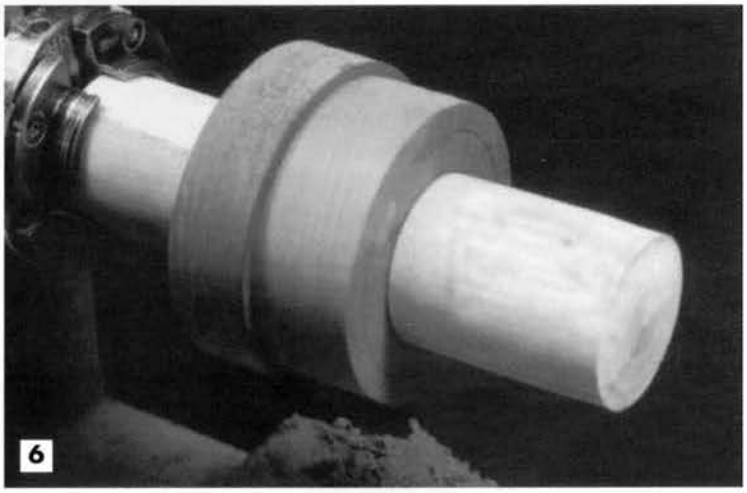
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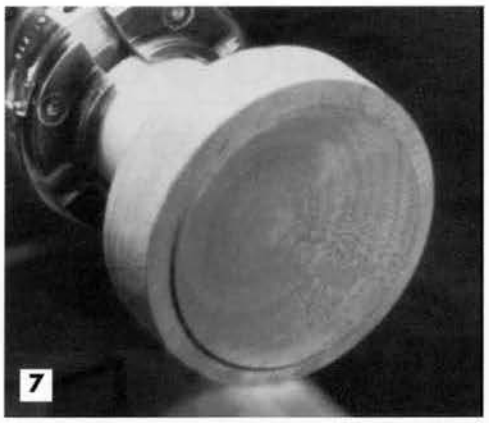
bottom for attaching the lid (**Photo 4**).

Remove the BBM from the lathe and chuck the BTM with the top blank attached. Turn the inside of the top (the exposed face) to mate with whatever means you provided on the bottom blank (**Photo 5**). Since the bottom blank is out of the chuck, though still attached to the BBM, you can easily test-fit it to the top blank (**Photo 6**). I prefer a snug fit, some prefer a snap fit, others prefer a loose fit.

When the top fits the bottom to your satisfaction, sand the inside of the top and finish it however you wish while it is on the lathe (**Photo 7**). Part the partially completed top from the BTM (**Photo 8**). Remove the BTM from the chuck and remount the BBM with its attached bottom blank. Place the top of the box (now free of its mandrel) onto the bottom of the box with a friction fit. If the fit is loose, use a layer of tissue paper to increase the friction. With the bottom and top fitted together snugly, finish-turn the top blank and make any needed adjustments to the bottom (**Photo 9**). The entire box (except the already finished inside of the top) can be sanded and finished on the lathe. The box is essentially complete.

Remove the top from the bottom momentarily while you part the bottom from the BBM (**Photo 10**). Care in this procedure will produce a bottom requiring very little hand sanding. Apply finish to seal the bottom.

There is nothing magic or complicated about this procedure. It requires only a few manipulations of the top and bottom blanks, and the procedure is fast. Since I maintain a large number of mandrels, I often produce five and six such boxes in assembly-line fashion, working on each component of each box one after the other. This increases the efficiency of the method still further. The method allows you to modify the design of each box bottom or top (a rolled edge here, a wire-burned detail there) such that five or six efficiently produced boxes do not have to be clones (**Photo 11**).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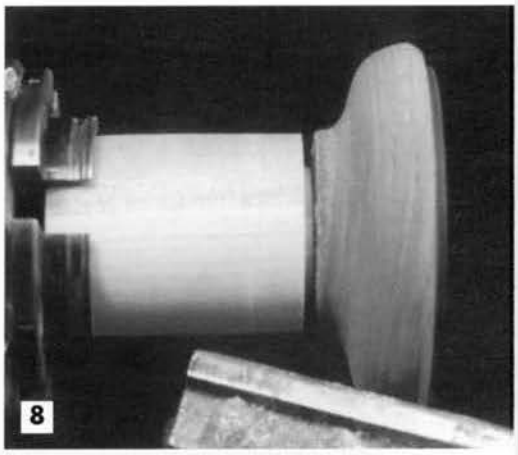
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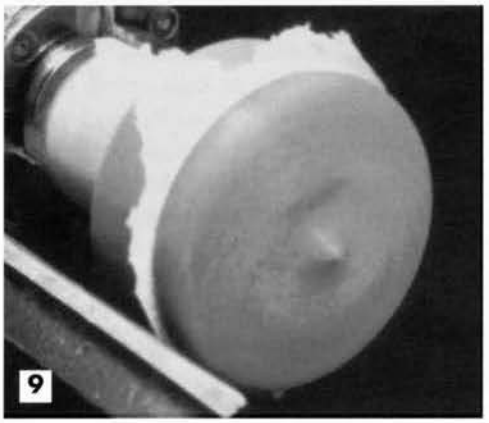
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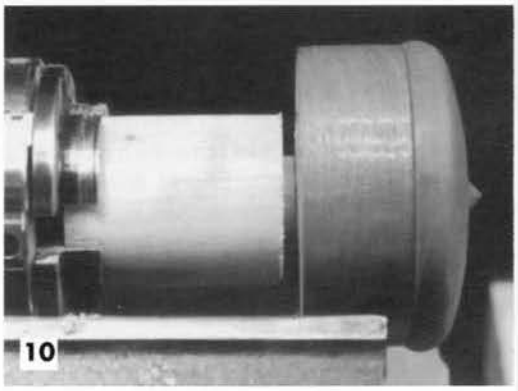
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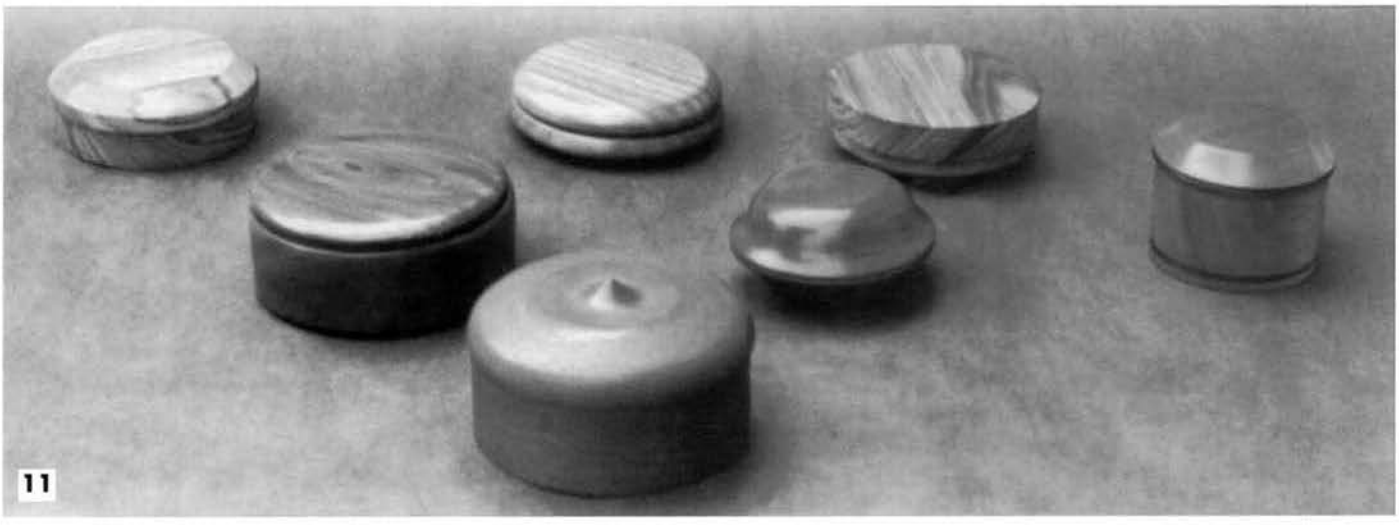
Ken Evans, a member of the Northeast Woodworker Associations, sells turned boxes at fairs in upstate New York.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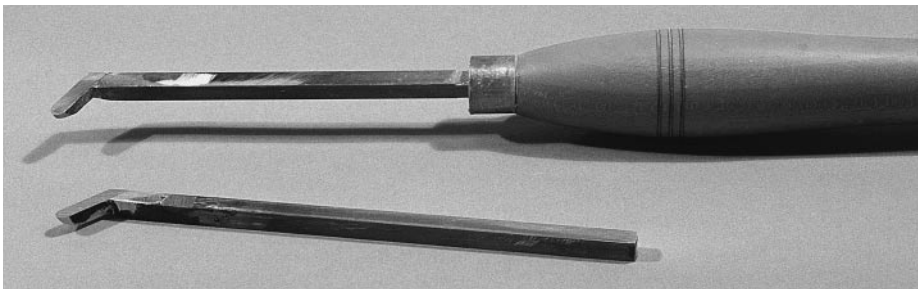
SMALL ANGLED TOOLS

High-speed steel and silver solder do it

ROBERT ROSAND

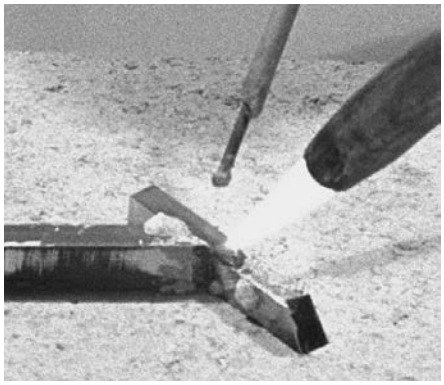


Author's bent-angle tools, made by silver-soldering a HSS tool bit to mild steel.

IN THE SEPTEMBER 1991 ISSUE OF *American Woodturner* and the December 1993 issue of *American Woodworker,* I wrote articles on making hollow-turned ornaments. The editor of *American Woodworker* expressed interest in an article on the angled tools that I used to hollow the interior of my ornaments. Unfortunately, I never got around to writing that article. I wasn't sure that I had much to offer on the subject. After all, the tools were very simple, nothing more than bits of high-speed steel (HSS) silver-soldered to shafts of mild steel and sunk in a handle. Since 1993, I have given numerous demonstrations, and I still get lots of questions about the steel I use, the silver solder, the angles of the tip, etc. So I decided that I'd better get busy and write that article.

A cursory glance at most woodturning catalogs will tell that there are numerous angled tools on the market, but if you have access to some mild steel, HSS tool bits, silver solder, and an acetelyne torch, you can make some very inexpensive, serviceable angled tools.

I cut 6-inch tool shafts out of $^1/_4$-inch mild steel that I get from a local machinist. (Keep in mind that I am talking here about making tools for hollowing Christmas tree ornaments. You can shrink these tools for turning miniatures or enlarge them for larger hollow turnings.) I then grind the shaft at about a 40 to 42-degree angle. To be honest, I usually eyeball the angle. Next, cut pieces of HSS tool bits to the appropriate length. I purchase mine from Enco Mfg. (800/873-3626). Part # 383-5312 costs about $.75 for a $2^1/_2$ x $^3/_{16}$-inch piece. I generally use lengths from about $^1/_2$ to 1 inch. I find it useful to have a few tools with different lengths. The shorter ones are great for getting around the corner when beginning the hollowing process and the longer ones work better when you have a bit of room to work in the interior of the turning.



To silver-solder the HSS bit to the mild steel bar, position the pieces upside down on a fire brick. The extra length of bit will be ground off.

To weld up the tool, I lay the shaft of the tool on a piece of fire brick, upside down to the way it will be used. Then I lay the HSS tool bit in the proper position to be silver-soldered. I follow this procedure so that when the tool is finished and in working position, the top of it will be flat, and I can hone the top of the tool as you would any scraper. Don't forget to ensure that the pieces are clean and fluxed. Generally, I just touch the edges to be silver-soldered on the grinder and apply a bit of flux.

Most silver soldering requires that the pieces be a very tight fit. The silver solder I use (Eutectic model #1630 XFC, telephone: 800/323-4845) requires a slight gap between the pieces to be soldered. This is what makes it easy for the beginner. In the years I have been using this product, I have experienced only one or two failures. With the parts in position, I heat the pieces to be joined until they begin to get red and apply the silver solder, allowing it to flow into the joint.

When cool, I sink the shaft of the tool about 2 inches into a handle. Since the tool shaft is square, I drill a hole that will accept the shaft and use 5-minute epoxy to glue the tool in place. The epoxy fills in the gaps.

Now, I grind off all the extra tool steel and the rough edges, shaping a round-nose profile and a double bevel on the cutting edge of the tool. The double bevel is not absolutely necessary, but it saves me a little time when sharpening the tool. I also hone the top of the tool so I can raise a burr when sharpening. In actual use hollowing ornaments, I rarely hone the tool, only occasionally finding it necessary to do so.

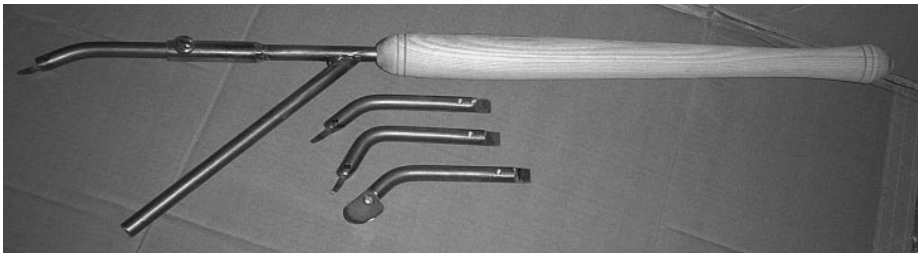
I use the tool after I've excavated as much as I can with the round-nose scraper. At the beginning of a cut (really a scrape), I work on the left-hand side of the tool. As the cut continues, and I sweep around the interior, I begin cutting on the tip, and finally on the right-hand side of the tool.

Bob Rosand, a frequent contributor, is a professional turner in Bloomsburg, PA.

STABLE BENT TOOLS

Welding a fork controls the torque

DARRELL RHUDY



Author's forked tool with interchangeable bent cutters and scraper.

ARTICLES BY LYLE JAMIESON AND Ron Pessolano on deep hollow turning in the March 1997 issue, and by Hugh McKay in the June 1997 issue, have prompted me to share an idea I have been using for seven years. I began making most of my own turning tools after being introduced to the machinist's HSS tool bits by master turner Knud Oland (now deceased) in 1988. I soon found that the bit held at 45 degrees from the tool for hollow turning would not reach the full inside of some shapes I wished to turn. Bending the end of the tool could make it reach, but I couldn't hold it to the cut, even with two hands on the handle!

The answer came to me in 1990 when I welded to the tool shaft a 45-degree fork to rest on the tool rest and resist the torque of the off-center cut. There followed a succession of more than thirty different and special bends of cutting bits and scrapers. Some involved single (and even double) articulated terminals to hold the bit. Some were bent 180 degrees to cut back toward the turner.

I have found three bends of cutters to be most useful: 25, 45, and 65 degrees, and one bend of scraper: 45 degrees. I use all four of these on almost every closed form I turn, down to a 1-inch entry. I even use them to turn up to 70 percent of the inside of any closed form with at least a 3-inch opening; I leave the tailstock in position and retain a post of material down the center of the turning. This allows me to turn the inside as aggressively as I want without concern for ripping the turning off a faceplate or out of my Oneway Stronghold chuck. Believe me, you can really hog out the inside of a bowl this way.

A couple of fellow turners asked me to make for them one tool for all four applications, so that four full-handled tools would not be needed. This system appears pictured above, with the four bent inserts: the three cutting bits, and the scraper. More severe bends can be accommodated. The bent inserts can be changed in 10 to 15 seconds. The $2^1/_2$-inch-long bits are inserted into a deep hole in the insert and held rigid by a set screw. The bit is moved out as it is used down to about $^5/_8$ inch long. It can be repositioned or replaced in 10 seconds. You can even turn the bit over, flip the tool over, and cut under overhangs (photo below right).

The cutting action with the fork on the tool rest is truly amazing. It is so smooth, and you can cut in both directions. Your left hand on the fork and tool rest provides excellent control of the cut. Turning the insides in this way requires less effort and allows me to turn for much longer periods without tiring. All those who have tried this system have been converted. I couldn't turn such a wide variety of forms without this tool.

Darrell Rhudy is a retired executive who turns and teaches turning in Raleigh, NC, and the North Carolina mountains.

The welded fork, resting on the tool rest, stabilizes the bent cutter in hollow turnings, left, and in overhangs, right.

ELECTRONIC OT DEVICE

Ornamental turning on a regular lathe

MARTIN THOMPSON-ORAM

DURING THE PAST TWO YEARS OF demonstrating the RS3000 at shows and woodturning groups, many people have asked "what does it do?" Because it works so fast, it is not possible to see what it does, and in the environment of a show it is not possible to simply and quickly say what it does. In fact there is little chance to do more than point to what has been done with it, and make a few simple cuts. The simplicity of operating the machine belies its complexity and accuracy. It is an instrument, not a toy. I hope that the following will answer some of the questions.

The concept

The concept underlying the operation of the RS3000 is deceptively simple. Instead of having a revolving cutter approaching a stationary workpiece at precise indexed positions, in order to create one concave pattern element at a time, as is generally the case in conventional ornamental turning, the RS3000 uses the combined motions of the rotation of the workpiece with the backwards and forwards motion of its cutter to produce a whole set of concave pattern elements around the work at one setting (see drawing below). Because a microprocessor calculates the index positions, there is no need for an indexing head on the lathe. Because all the pattern elements are being cut to the same depth at the same time, there is no struggle to get them all equal. And because the control equipment needed for the cutting portion of the machine is designed to fit in the place of a conventional tool rest, the machine can be fitted to a conventional lathe These factors in combination put some facets of ornamental turning within the scope of conventional lathe users for the first time ever.

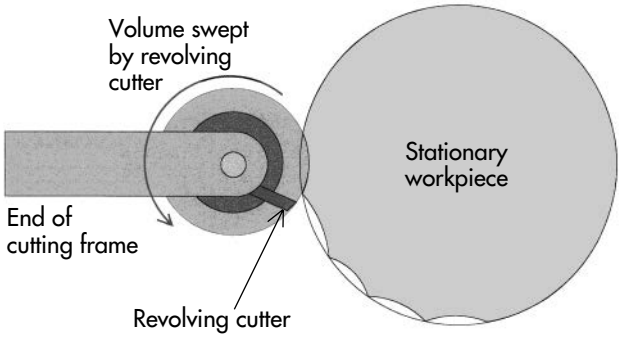
Accuracy, and how

Consider for a moment cutting twelve identical pattern elements spaced exactly around the perimeter of a workpiece, and then consider that that workpiece is spinning at 500 rpm. Each revolution takes 0.12 seconds. A pattern element can represent a maximum of 1/12th of a revolution; therefore, the maximum time available to cut at each position is 10 milliseconds. On a six-inch circumference piece, each element would be $^1/_2$ inch long. As each pattern element cannot be cut with one stroke of the cutter without tearing the timber, any cutter cutting such a pattern element would have to relocate at the start of each cutting point exactly, for every shaving, as the cut position goes past. As the shavings need to be in the region of 0.001 inch thick to give a good surface finish to the cut, the cutter needs to relocate with an accuracy of much better than that, i.e. much less than 0.02 milliseconds. In short, the accuracy is staggering.

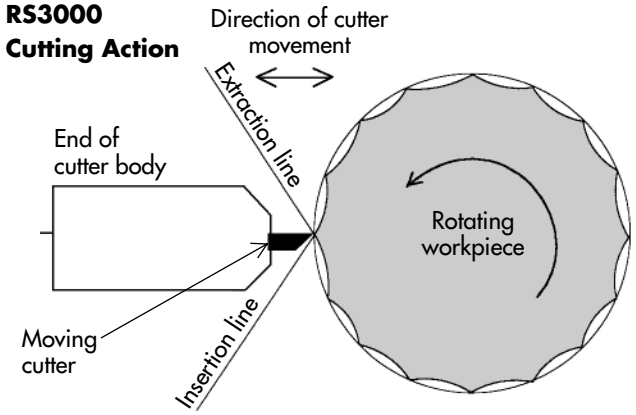
How does it do it? The position of the revolving work is accurately signalled to a microprocessor by a magnet placed on the headstock shaft. As this rotates, it passes a sensor, which in turn gives a signal to the processor in the control box. The processor can then monitor the lathe speed, and check that it is reasonably constant before calculating the index points and starting the cutter.

The cutter motion is powered by a solenoid. However, solenoids that produce enough power to cut are simply not fast enough to operate the cutter directly, and so the solenoid is used to withdraw the cutter from the work, storing energy in a spring, much like winding a clock. When the solenoid is de-energized, the cutter jumps forward under the impulse of the spring and is arrested at the end of its travel by another spring, giving the cutter an exact prescribed path in relation to the moving work. The solenoid is then re-energized, and the

Typical Conventional Ornamental Turning Cutting Action



RS3000 Cutting Action



The RS3000 consists of a microprocessor/sensor and magnet system. Together, they monitor lathe speed and control a solenoid-driven cutter mounted in a conventional tool-rest base. At right is a small sampling of the range of decoration the system is capable of.

cycle begins again, with the processor calculating the next position at which to de-energize the solenoid to cause the cutter to cut at the next position in the cutting sequence. All this happens in as little as 25 milliseconds per cut.

Because the cutter does not cut adjacent cuts one after the other, but skips several positions before making another cut, the apex where two cuts meet is an exact point. The cutter does not cut at all positions in any one revolution of the work; in fact the cutter is in contact with the work intermittently, and out of contact at least 80 percent of the time.

The processor holds programming to index the cutter at 6, 8, 12, 16, 18, and 24 positions, and to rotate those positions in 2.5-degree steps relative to top dead center. Also, the processor adapts to differing lathe speeds. Generally the machine is used at around 500 rpm, but in order to decorate smaller items, below 1 inch in diameter, the lathe speed may be increased to up to 1,500 rpm for lower numbers of index points.

On top of all this, the process is so accurate that it is possible to stop the lathe as many times as may be necessary to examine the progress of the work, and the cutter will relocate exactly into the same set of cuts when the lathe is switched on again.

The "processor controls" control the number of index points, their positions relative to top dead center, and the facility to turn the cutter off without forgetting the chosen settings. These are operated by push switches on the front of the control box. In addition, there are mechanical controls for other aspects of cutting.

How does it make patterns?

It doesn't. The operator does. None of the forms of decoration that can be produced using the machine are programmed, though all are repeatable. The way that decorations are built up using the machine is the same way that decorations are built up in conventional ornamental turning, but in a fraction of the time. The only task done for the operator is the indexing of the concave cuts, which the operator has to choose from the programming. In short, it just goes in and out, and the operator makes the choices as to where, how many, how deep, and what shape the cuts are.

Fitting it to a lathe is a simple matter of positioning a magnet and a sensor, assembling the control gear, and fitting that in place of the normal tool rest. Operating it is a relatively simple matter of pushing some buttons, setting the other controls, and controlling the cutter body manually.

Summed up, the RS3000 is an electro-mechanical self-indexing reciprocating cutter. The only things that are not in the control of the operator are the calculations themselves, and who wants to do sums?

Any design is composed of a series of elements. The shape of these elements is controlled by the operator either directly or indirectly. Other rules of ornamental turning apply, such as using polished cutters, and the types of wood that can be used. The shape of the chosen cutter, if the elements are to be shallow or deep, if they are to meet or not, if they are to be used singly or in combination, if they are to cover the whole surface of the work, or to be assembled into a band or border—all these factors are dependent upon the imagination and skill of the operator both as a designer and craftsman. What the RS3000 does is bring these facilities within reach.

More information about the RS3000 can be found at http://members.aol.com/MTOram *or from Farris Machinery, 800/872-5489. Martin Thompson-Oram, the inventor of the RS3000, is a Registered Professional Turner in Yorkshire, England.*

DUST PROTECTION

Employing complementary systems

JERRY MCKAY

WOODTURNING CERTAINLY CAN BE fun, but what a lot of dust we create! As has been discussed in several articles in this journal (see "FURTHER AW READING," page 35), wood dust is a health hazard; toxic and spalted woods intensify the problem. I am a full-time turner and make and sell hundreds of turnings through wholesaling and art fairs each year. So I'm concerned about these health hazards. Over the past eight years I have built two basement shops (in two different homes), modifying and improving them to address the problems of dust. I certainly don't have all the answers, but I think readers might benefit from my experiences. Even if you produce only a few pieces a year, precautions are worth taking. We may not be able to completely eliminate dust, but the less of it the better!

Confinement of the hazard

In both of my basement shops, I built an enclosed room for my lathes and sealed this room off from the rest of the basement and house. My current lathe room is 12x14 feet and contains two lathes, a dust-collection system, bandsaw, belt sander, and two worktables. Other rooms in the basement contain wood drying and storage areas, a wood finishing area, finished product storage, and normal wood shop facilities. Dust I create in the lathe room is thus kept from spreading through the rest of the shop and the house. The partitions are covered with drywall and painted with semi-gloss paint to facilitate vacuuming. Since I need access to wiring in the ceiling, I screwed $^1/_4$-inch plywood to the ceiling which also provides a smooth surface for cleaning. A drop ceiling could be used instead if you have a high ceiling. You will see why later in this article, but I do need air to circulate into this room, so I installed a 16x20-inch fine furnace filter in the door of the room.

Dust collection at the source

Your first priority should be to try to collect all the dust right at the lathe where it is created. But even with the best system, some dust will escape into the room. I have a $1^1/_2$-hp, 900-cfm dust-collection system from Penn State Industries. This has two 50-micron bags on it and two 4-inch input ports (or one 6-inch port). Finer 30-micron bags are now standard. In my first shop, I had this installed in the room next to the lathe room. The bags did leak some fine dust although it was not in the lathe room.

In my current shop, I have enclosed the system in a box located between my two lathes. At first I had two 16 x 20-inch fine furnace filters in the front of this box so that they would catch the fine dust leaking from the bags and of course allow air to escape from the box. This works well especially if you are heating your shop in cold climates and provided you are not doing the high volume of turning that I am. I found that I had to clean the filters twice a day and change them once a month, so I currently exhaust the air and fine dust out my basement window which is behind the box. Of course this means that I must provide for air entering the room to replace what I exhaust. Hence the furnace filter in the door of the room. Finer mesh (5-micron) bags are available, but these may plug up faster and reduce the system's air flow.

Controlling dust that escapes

As mentioned, some dust will always escape the inlet that is closest to the lathe. One way to collect some of this is to use a second inlet mounted above the lathe as shown in the photos.

In my first shop, I had a fan installed in a basement window of my lathe room blowing out of the room. This was very effective and I would recommend such evacuation if you can arrange it. You could buy one of the new ceiling-mounted air cleaning systems, but you're still dealing with a filter, and I question the high cost. These ceiling systems should be used only in addition to your main dust collection system, as collection at the source (lathe) is still far superior.

Personal protection

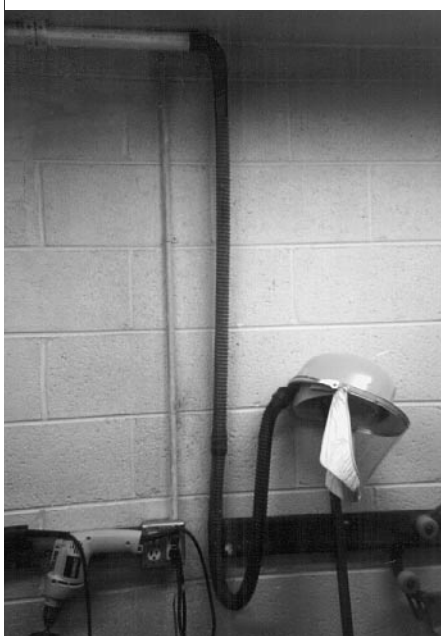
No matter what system you install, I believe that at least 25 percent of the dust will still be floating around the room. Since I do a very large volume of turning, I use the Airmate 3 helmet and backpack blower which pulls air through a filter and into the face area to keep most of the dust out. This also provides superior face and head protection from objects flying off the lathe. Once again, I was having to clean and replace the $16 filter too often, so I have put the blower in an adjacent room, and you can see the smaller hose running from a pipe to that room in the bottom photo on the facing page.

I have the newer (and cheaper) model of the Airmate, but would recommend it only for part-time or low-dust conditions. It has some advantages over the older models, but for woodturners the fan and filter being located over the forehead is too close to the dust source and clogs the filter easily.

Additional precautions for toxic or spalted wood

In the February 1995 issue of *Woodturning* magazine, Alec Jardine defines the many dangers of toxic and

Author's dust-collection system accommodates two lathe stations; here both hoses are directed to serve one lathe. One 4" hose with collection inlet is placed close to the dust source. The other hose helps clean the ambient air. In addition, he uses an Airmate 3 dust helmet, with the filter located in another room and air conducted to the helmet via a 2" PVC pipe, below.



spalted wood. When turning spalted wood, you can release fungal spores by the thousands. They are microscopic and can easily be inhaled. There is some question as to how dangerous this is, but if you read his article, I think you will agree that you should take the following simple precautions. I do!

1. Wear at least a simple dusk mask when preparing toxic or spalted wood for use on the lathe, chainsawing, bandsawing, etc.
2. For toxic wood, wear clothing that covers all your skin including arms and hands.
3. When turning toxic or spalted wood, wear at least a simple dust mask at all times, not just when sanding!
4. Leave all dust collection systems turned on all the time to clean the air as much as possible.
5. Clean your shop and remove all spalted chips immediately after turning. Keep the dust mask on!

Once again, the above are certainly not all the possibilities and solutions to these problems but have come from my personal experience. Keep in mind that due to the nature of woodturning, you can never completely eliminate these hazards to your health. However, any reduction in breathable dust is an improvement worth making.

Jerry McKay production-turns natural-edge vessels in Franklin, MI.

FURTHER *AW* READING

Ellsworth, David, "Studio Mulch: A Homemade Dust-Removal System," *AW,* June 1992, pp. 28–29 (with follow-up letters in *AW,* September 1992, p. 32).

Jacobs, Rodger, "Dust Extraction," *AW,* March 1992, p. 27.

Rosand, Robert, "Inexpensive Air Filtration, September 1997, p. 33.

Timby, John, "Dangerous Dust," *AW,* June 1994, p. 27.

Waidelich, Noble, "Healthy Choice," *AW,* March 1996, pp. 28–29.

Rotary Union for Vacuum Chucking

CHARLES BROWNOLD

MIKE DARLOW'S ARTICLE ON A SHOP-made vacuum chuck (*AW,* December 1993) inspired me to make my own, including the rotary union that is the heart of the system. My vacuum chuck now takes the place of rubber bands, tape, and expensive chucks for reverse-turning all kinds of pieces safely and accurately.

Begin with a Federal-Mogul sealed bearing #206-FF from an auto supply store. This bearing has seals on both sides and costs about $15. The bearing has a $2^{7}/_{16}$-inch o.d., a 1-inch i.d., and is $^{5}/_{8}$ inch thick. Any sealed-two-sides bearing near this size will do the trick. If you have a faceplate with a left-hand thread for the outboard end of your headstock spindle, you can adapt it to carry the bearing. I recessed the 6-inch-diameter outboard faceplate $^{1}/_{8}$ inch into a $^{3}/_{4}$-inch-thick, 8-inch-diameter maple disk, and turned the outside to a smooth rounded surface. I use this as a hand wheel to slow down and stop the lathe. In the wood on the opposite side from the faceplate I recessed the bearing, leaving $^{1}/_{8}$ inch above the surface. The bearing is a press-fit into this recess. Before pressing the bearing in place, drill four $^{1}/_{8}$-inch holes 90 degrees apart and in line with the bearing's outer race. These will enable you to use a short piece of $^{1}/_{8}$-inch dowel to drive out the bearing, should the need arise. When pressing the bearing in place, use an undercut block of wood or a metal ring that bears only on the outer race of the bearing. Press the bearing in slowly. If the fit is too tight, push out the bearing using the $^{1}/_{8}$-inch dowel. You want a tight fit. The bearing is retained in the maple by a turned hardwood cover plate with a $^{1}/_{8}$-inch deep recess. Four small wood screws hold the cover in place.

As an alternative to the outboard faceplate, purchase a left-hand threaded hex nut and make a glue faceplate as described in my article "Glue Faceplate," *AW,* June 1995, page 19. Install the bearing as above.

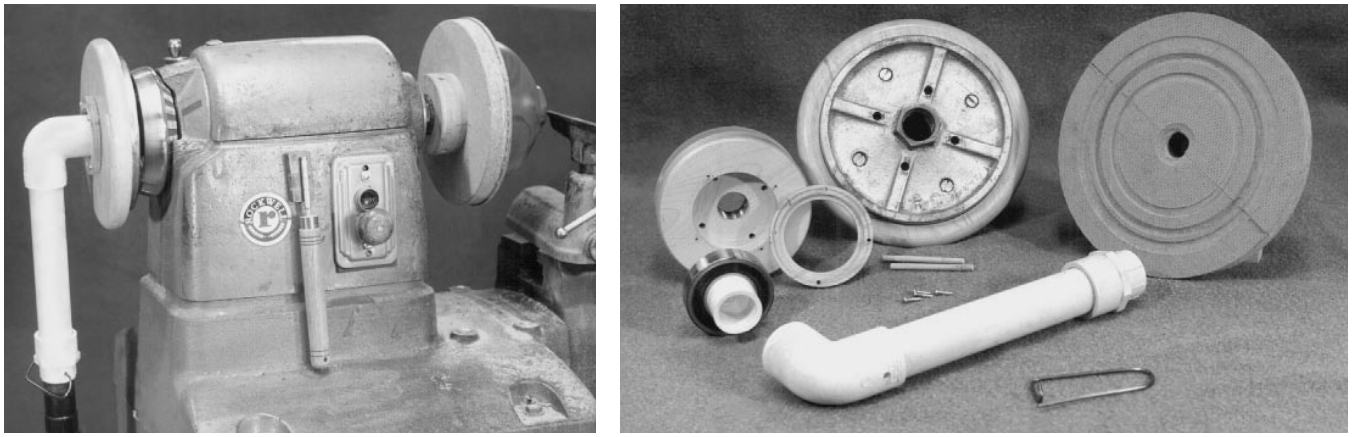
I used 1-inch schedule-40 PVC pipe and fittings to connect the rotary union to my shop vacuum cleaner. Using a $1^{1}/_{2}$-inch-long piece of this, I turned the $1^{5}/_{16}$-inch o.d. down to 1 inch for $^{5}/_{8}$ inch of the end. This gave a press-fit into the inner bearing race. I held the piece in my three-jaw chuck and used a small sharp scraper, taking light cuts and avoiding a wide curl of PVC. (Practice on a scrap piece of PVC.) Support the inner race as you press the plastic pipe into place. A drop or two of cyanoacrylate glue holds this in place. A 1-inch PVC elbow, an 8-inch-long piece of 1-inch pipe, and a 1-inch slip x $^{3}/_{4}$-inch female threaded reducing adapter (all schedule-40 make up the connection to the vacuum cleaner.

I turned the internal threaded end of the reducing adapter to an internal taper that fit the tapered end of the vacuum cleaner hose. I glued all pipe joints with PVC pipe adhesive, allowing twenty-four hours for a tight joint. Then I drilled a $^{1}/_{4}$-inch diameter hole through the L-fitting to allow air into the system to keep the vacuum cleaner motor from overheating. This small leak will not affect the holding power. When the tapered vacuum-cleaner hose fitting was connected to the tapered plastic pipe fitting, I drilled a $^{1}/_{8}$-inch hole through both. This allowed me to insert a "safety pin" (made from coat hanger wire) to prevent the fittings from coming apart. The rotary union is ready to go.

Darlow shows several excellent methods for maintaining concentricity when mounting your work using the vacuum system. I double-face-taped press-board (Masonite™) to a large wooden faceplate. This allows me to cut concentric recesses to center work pieces for turning the base or foot. I replace the press-board when there is no more space for concentric recesses.

I always use the tailstock as added security when reverse turning. Keep your shop vacuum filter clean to get the best performance from it. Why take a chance on losing an almost finished turning?

Charles Brownold, a frequent contributor, turns wood in Davis, CA.



Author's rotary union is made from a sealed ball bearing and PVC pipe press-fit into a handwheel (a wood-jacketed outboard faceplate). The vacuum chuck's faceplate (far right) is covered with press-board, recessed for concentric mounting.

WORLD TURNING CONFERENCE

An academic gathering and two shows

ALAN LACER

THE SECOND WORLD TURNING CONference last September, co-sponsored by the Wood Turning Center, the Berman Museum, and the Winterthur Museum, Garden, and Library, was different from typical AAW or BYU symposiums. Like the first World Turning Conference (see *AW,* September 1993) and the two allTURNatives conferences (*AW,* December 1995 and 1996), it was based more on an academic model of paper readings and panels than on chip-making. Also, rather than five or ten events occurring simultaneously, there was usually only one activity at a time—ensuring that you missed almost nothing of the conference. Days one and two were held on the campus of Ursinas College in Collegeville, Pennsylvania, while day three was at the Winterthur Museum near Wilmington, Delaware.

A hundred and thirty presenters and participants had come from many corners of the world, the presenters alone representing the U.S., Canada, Australia, Netherlands, Switzerland, Germany, Romania, England, and France.

Opening presentations

The first day's activities were kicked off with an intriguing talk by keynote speaker Suzanne Ramljak, former editor of *Sculpture* magazine. Beginning with the image of a pregnant woman, she discussed the fullness and ripeness of the convex form and extolled woodturning for forms that are full of life, with the potential for growth. She noted the rarity in nature of right angles and flat surfaces and the pitfalls of perfection—in everything, including what we make, imperfections and irregularities are natural, necessary, and honest.

A series of twenty-minute presentations followed, each affording a snapshot of current woodturning in a different country: Australia, Japan, Germany, the United Kingdom, and Switzerland. The last presentation by Sigi Angerer (a scheduled presenter at next June's AAW symposium) held particular interest for me. Long dominated by the guild system of master and apprentice, Switzerland seems ready for change. The national turning organization is composed of masters only—about 110 individuals. Sigi, as the newly elected president, is pushing to open membership to anyone connected to the trade (which includes the employees of the various shops). There is also a steady rise in the number of individuals doing turning as a leisure activity.

Economic forces are at work as well. To answer the challenge of competition from outside Switzerland, turners invested in more and more automated equipment. Only a few years ago it looked like woodturning's future lay in better and faster methods of copying. Succeeding at saturating the market, shops have shrunk in size and number and now *quality* is being proposed as the solution, especially in the area of design. Sigi felt that many masters are reluctant to explore new directions or take risks with current products and methods. Neither do the educational programs and testing procedures encourage or teach design. The rivalry of competition among shops paralyzes the sharing and exchanging of idea, and therefore there has been little or no cross-fertilization or growth from within the culture.

But change is in the wind. Faced with a new business landscape, there appears to be an interest in woodturning other than as a trade—more as a fine craft or decorative art.

During the lunch session we had the opportunity to watch two traditional carvers from Romania. Nicolae Purcarea and Zina Burloiu intrigued the group with highly detailed carved spoons, small cabinets, cups, and the like. Although not woodturners, they were received with enthusiasm and may well have returned to Romania as woodturners—they each had a hand at turning before their stay ended.

The afternoon sessions were a mix of historical and contemporary issues. Ned Cooke of Yale University gave an excellent perspective on turning in the context of furniture history. He pointed out that the lathe has not been used for much twentieth-century furniture, although components sometimes hint at turned forms. Avoidance may be a response to the excessive use of turned components in the nineteenth century or simply a lack of skill and finesse with the lathe. Few turners today, Cooke pointed out, have really explored the possibility of the lathe in making contemporary furniture.

"Curators' Focus"

The day was capped by an opening reception for the "Curators Focus" exhibition in the Berman Museum on campus. The show included fifty-one works from thirty-nine contributors from six different countries, drawn from a pool of 350 entries by 120 individuals.

Stephen Hogbin had proposed the theme of the show: to focus on turned work from a "quadraform" of perspectives: the physical (materials and techniques, mind and muscle), the emotional (form, expression, and beauty), the spiritual (myths, icons, and beliefs), and the intellectual (issues and knowledge, mind and tool).

Probably one of the most important aspects of the conference itself was the controversy that stemmed

The bold and the subtle: Alan Stirt's "Pine Needle Bowl w/ Cut Rim," left, (maple, milk paint, 16 1/2" dia), and Ernst Gamperl's "Bowl" (African ebony, 7 1/8" dia.), two graphically engaging pieces in "Curators' Focus."

from the exhibition—both the process of curating the objects as well as those pieces finally selected to be exhibited. This controversy spawned an alternative exhibition on the Internet entitled "Out of Focus" (see pages 42–43) as well as much lively debate during and after the conference. Although Hogbin's quadraform was supposed to inform the process of curating, even to the extent of assigning each of the four curators a context to evaluate submitted work from, it was questionable how much shape this structure actually gave the show. The work was an interesting mix of old, new, novel, and reworked themes—hard to see the glue that bound it all together. To a number of viewers, it seemed rather an unadulterated look at the field from the viewpoint of four individuals outside the woodturning mainstream: two museum curators, a jeweler, and an artist/turner from the Netherlands.

Interestingly, the curators were there to respond to their critics. In a panel discussion on day two, much was openly shared about the difficulties of using the four contexts to jury the show. Although the terms may have had meaning as a concept, they did not prove very meaningful for reaching consensus on the work.

Retreating from the original plan caused controversy with some who had followed the prospectus in creating and submitting work, only to find it rejected. Others were not inspired by the show's parameters, and some feared that the written word accompanying an entry was taking on more importance than the work itself. The curators offered instances to the contrary, and some revealing explanations for their choices.

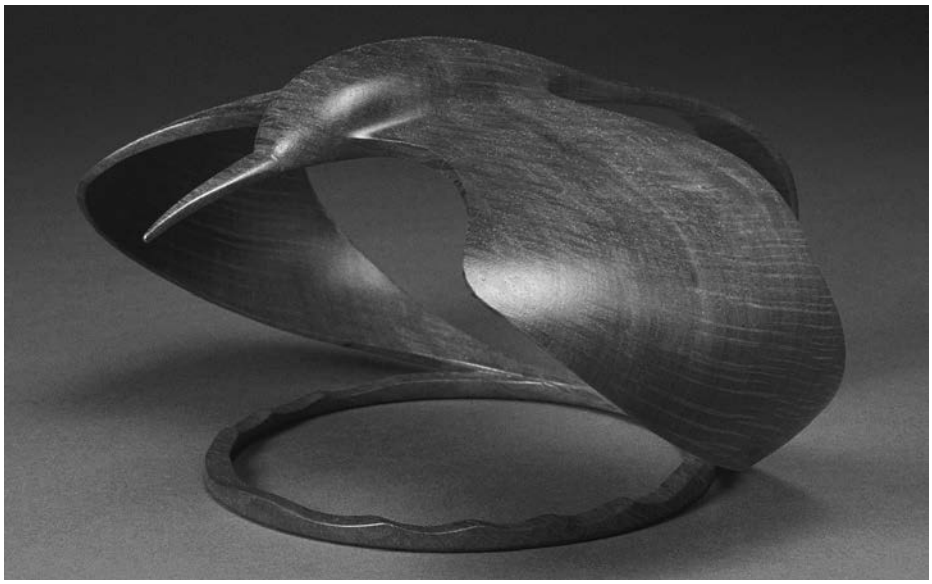
I concluded that the curators chose work that simply had the strongest "pull" for them as a group, decisions having been made by consensus, with no work exhibited on an "invited" basis. It was worthwhile to witness their "naive" look at the field and find what had really tripped their hammers. Some of the choices clearly showed a lack of knowledge of the field: a few pieces were mere phantoms of their source of inspiration, and perhaps some techniques were impressive to those unfamiliar with them.

All in all, it was a great experiment for that part of the woodturning field that wants to be judged as "art." I feel the show should be seen as the product of folks outside the mainstream. It ought not be read as the "best" or the cutting edge or the bellwether, only a glance from outside the fishbowl of a sometimes incestuous field.

One of the more practical discussions among the curators had to do with the reasons some work was not admitted. An old adage for anyone exhibiting work held true once more: the most important thing is to have good slides, and the second most important thing is to have good slides. Examples were discussed and slides displayed in which very fine work was represented by bad photography. Sometimes the photos provided too little information, making it almost impossible to judge the piece. In finally seeing the pieces in the show, the jurors admitted experiencing the usual discrepancies: work that looked better in the photo than it did in the flesh, as well as work that surprised on the upside.

The jurors offered a number of other reasons for their rejections: a lack of historical understanding, especially significant for sculptural work that rather demands a familiarity with what's gone on in that field; a lack of clarity where an idea was trying to be communicated; a lack of freshness or uniqueness, despite a high degree of craft; a clumsiness or pretentiousness.

I particularly valued the comments by the jurors that setting "art"



William Leete, professor of woodworking and product design at Northern Michigan University, gave a conference presentation on the design process for making his "Pepper and Salt Mills," left, (walnut, maple, dye, $10^1/_2$" high). Peter Lowe's "Kingfisher," right, (sheoak, 7" dia) was part of the "Wood Dreaming in America" show at the nearby Creations Gallery.

up as the ultimate model or highest objective may be somewhat hollow. Much of contemporary art may be confused, unintelligible, depressing, or just lost and searching for direction—it may even be looking to the crafts for inspiration. Creating finely crafted work with honesty and warmth has its own value.

Technical and entertaining

At lunch on the second day we had a splendid demonstration on the lathe by Ernie Neuman of Australia. In about an hour Ernie covered 3,000 years of woodturning objects—from Etruscan tops to television legs of the 60s. Educational and entertaining, Ernie held our attention with humor and deft turning skills.

The second day was capped by a banquet and Wood Turning Center Benefit Auction. Over $20,000 was raised at the auction to benefit the WTC's activities.

The final day was marked with a heavy dose of historical information, several presentations regarding giving and receiving criticism, and a panel discussing women's role in woodworking.

Stuart King of England gave an engaging presentation (and later, a demo over the lunch hour) concerning the pole lathe. He covered a variety of historical examples such as work from the sunken Mary Rose (flag ship of Henry VIII), ancient Celtic and Viking work, and the turnings of George Laily who was still producing bowls on the pole lathe into the 1950s. He next turned his attention to a handful of contemporary pole lathe turners who are making a go of it with restoration, furniture, and bowl work.

In the same spirit, Michael Podmaniczky delivered some detective work regarding spiral work on a reciprocating lathe. Given the large quantity of spiral work produced in previous centuries, it is feasible to assume that the reciprocating lathes may have simplified what appears to be a rather complex process. The turner working on a reciprocating lathe may have allowed the skew chisel to simply skate along in a uniform spiral—which tends to occur rather naturally if the cutting edge contacts the surface without bevel support. Podmaniczky placed his skew in a jig to fix the pitch while sliding it along the tool rest. The slow speed of the reciprocating lathe and its uniform motion may have allowed for quite regular patterns to be struck for the spiral work. Following the layout the turner may have combined processes of sawing away waste material and finally chasing the spiral with a gouge—again something well suited to the speed and action of the reciprocating lathe.

The afternoon covered several approaches to the question of criticism. First, Richard Hooper of England covered key terms. Steve Loar was next with guidelines for both giving and receiving criticism—ideas that get us to focus on growth issues rather than the attack-defense dynamics that often permeates the process of critical feedback.

The conference was brought to a close by future-note speaker Donald Kuspit with a paper entitled "The Psychology of the Turn and Curve." His imaginative critique of the "Curators Focus" from a Freudian or sexual perspective was certainly a new twist—or at least, it had not been too openly discussed or thought about.

Following the official close of the conference one last adventure awaited the conference goer: at the nearby Creations Gallery an opening reception of fifty-five works by twenty-two Australian turners.

All in all, it was a stimulating conference with a different spin, woodturning's academic congregation.

Alan Lacer is a contributing editor to this journal.

PHOTOS FROM THE MAILBAG

This box, 2" in diameter, is of ebony with leopard jasper inlay.
—Kip Christensen, Provo, UT

Everything doesn't have to be serious. This "fishbowl" is a segmented turning of oak with 6" mirrors and marine decals.
—Bob Deal, Jamestown, CA

I've been working on some masks. This one is "Pestilence," from the Ten Plagues series, included in the "Beyond Tradition" show at the Arkansas Art Center in Little Rock this fall. It's 55" high, with the rafia. *—Clay Foster, Krum, TX*

Here's a bowl I did last year, using some spalted sycamore and black walnut I harvested from our farm in Missouri. The bowl is $6\frac{1}{2}$" dia, and the walnut "corner" pieces are partly not turned all the way round, leaving eight intriguing accent grooves around the circumference.
—Bill S. King, San Angelo, TX

I turned this marriage goblet for my daughter's wedding. According to Bermudan tradition, it should be displayed in the home as a reminder of unity in marriage and passed down to the first married child, each bride and groom etching their initials on the bottom.
—Ken d'Ambrosio, Saunderstown, RI

OUT OF FOCUS AT WWW.WOODARTIST.COM

"OUT OF FOCUS" IS A FIRST-OF-ITS-KIND exhibition of woodturning on the Internet. This virtual, interactive woodturning exhibition is available for viewing through December 31 at www.woodartist.com. Initially, "Out of Focus" evolved as a reaction to "Curators' Focus: Turning in Context," the sixth show sponsored by the Wood Turning Center. Several artists, whose work was not accepted by the jurors for "Curators' Focus," sought to react constructively by organizing their own show.

Since many of the pieces were no longer available for an actual exhibition, Virginia Dotson suggested showcasing the work on an Internet site. She came up with the perfect title, "Out of Focus," and has volunteered much of the organizational work.

Sampled here, the site offers color photos, specifications, artists' statements, and an exciting innovation: the opportunity for viewers to comment instantly about the show. Virginia reads the comments and puts them on line available for others to review, creating a "conversation" among artists and viewers of the kind that is not readily available in more traditional exhibitions.

As indicated by statements from site visitors, "Out of Focus" has demonstrated the potential of the Internet for exhibiting the work of woodturners. Mark Richard Leach, one of the jurors for "Curators' Focus," wrote, "Congratulations on your project. It adds greatly to knowledge of the field of turning in its varied manifestations." He continues, "I feel that the 'Curators' Focus' exhibition is an important one. But I also feel that the one you've arranged here is equally compelling because it continues the constructive dialog begun earlier in and by the exhibition."

Stop in and visit the exhibit using a computer at your local library, if you don't have access to the Internet at home.

Fish; box; bubinga; 2" x 2" x 2.5"

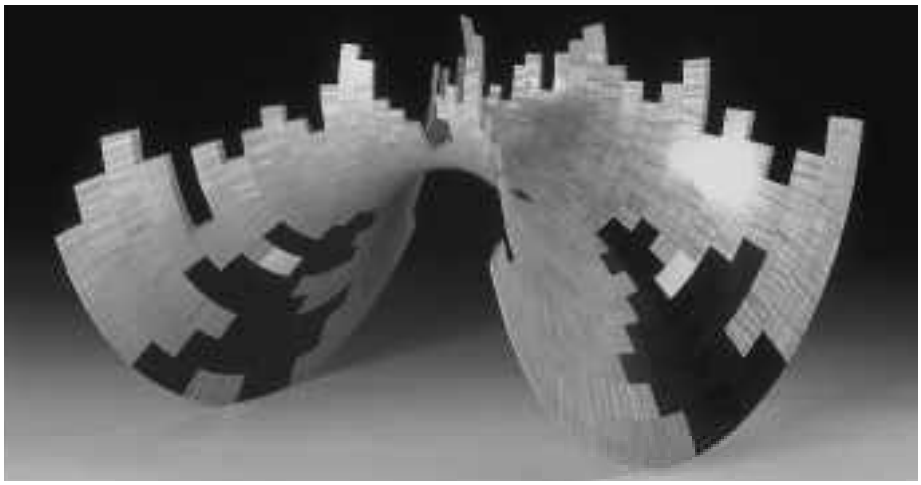
Mark Allen Blaustein, Pittsburg, PA

I enjoy being an artist because it allows me to express visually whatever is going on in my life, the art world and/or the world at large. I am not wedded to one particular look but try to let the creative stimulus determine both the look and the message of my work. It is an interesting journey. I have chosen "Fish" for this show because it reflects my feelings about shows and their processes, in general.

FROM VIEWERS' COMMENTS

Good job: I think I know how you did it: obviously you put a lot of work choosing proper orientation and location of grain pattern. Keep it up. *—John A. Galea*

Best work in this show. No hype. No glitz. No price. Just your basic masterful woodturning. Yeoman's work, Mark. *—Jay Osman*



Hyperboloid Fragment in Maple from the Degeneration series #9; American maple, Madagascar, rosewood, white Avonite; 16" x 12" x 9"

Bud Latven, Tajique, NM,

This piece is a recent work in the Degeneration series. Unlike my segmented vessel turnings, these larger works are more personal studies of sculptural forms. After design, construction and turning, fissures and voids are produced by removing segmented sections from the works. This de-construction results in a re-generation of new forms.…

FROM VIEWERS' COMMENTS

Bud Latven's work has been inspirational to me. The simultaneous symmetry with the asymmetry create a dynamic perspective that twists perceptions and invokes curiosity. The piece draws me in through the combined technical achievement with the beauty of the natural elements. This piece seems to continue the exploration. Unfortunately, viewing from one single photo cannot provide me with the complete experience. Someday I wish I could see one of his works in person. *—Andy Cohen*

I like this departure from the vertical. I'm reminded of Albert Einstein's theories on the universe. Timeless. *—Brion Clinkingbeard*

OUT OF FOCUS AT WWW.WOODARTIST.COM

Black Textured Vessel;
turned, carved, dyed maple;
11" h. x 10" d.; 1996
John Jordan, Antioch, TN

This piece reflects my continued interest in the visual and tactile effects of contrasting surfaces. These surface textures are achieved through various methods of carving. The piece has been dyed black to further enhance these surface qualities. Although the black color removes some of the considerations of using pretty wood etc., there remains a "woody" quality to the piece.

FROM VIEWERS' COMMENTS

John's work is always AWE-inspiring. The pieces practically call out to be touched and caressed over and over. The shape and the textures feel 'right' in the hand. The patterns are almost secondary up close, as the shapes generally lead the eye to start at the top and move to the bottom and back. Then stepping back, the patterns drive the eyes in numerous direction, but you never lose sight of the overall shape. In one word: BRAVO! *—Nick Silva*

Reality; wood and paint; 13" x 22" x 15"; 1995/6
Stephen Hogbin, Wiarton, Ontario

Reality is part of a series called the Mending Series. Each project contains a needle, thread, thimble, or an element that references change, alteration, improvement, transformation... Reality does not release the mending connections readily. The book is closed, the associations are not specific and the viewer is left to their own reality of what may be mended.

Open segmented turned vessel;
Brazilian satinwood, holly; 5.75" high x 6.5" dia.
Yosh Sugiyama, Redding, CA,

I began making open segmented turnings about eight years ago. At first, the spacings between the segments were kept narrow so as to add an element of surface texture to the turning. More recently, I have begun to widen the spacing so that one can look between the segments into the vessel and see the interplay between the inner and outer surfaces.

FROM VIEWERS' COMMENTS

A wonderful piece! Excellent combination of shape, technique, and execution that allows each facet to be enjoyed on it's own merit and as a total work!! *—Dave Sifers*

All the segmental turning I've seen to date does nothing for me, but this is just a little different. Makes me feel that perhaps it is something to be explored. *—Jim Pennie*

FROM VIEWERS' COMMENTS

It is good to see Stephen's work appearing after having not been seen too often for some time. Having admired Stephen's early works from afar, it is interesting to see the depth of expression in this piece. The narrative can also lead one to think in directions different than that expressed by the artist which creates a tension in context that is intriguing.
—Bill Stephenson

APPLICATIONS DEADLINE: DECEMBER 20, 1997

EDITOR'S NOTE: *This year the AAW has allocated $20,000 for Educational Opportunity Grants, available to members, local chapters, and youth in order to foster personal education as well as research and other projects. Recipients are asked to provide a report summarizing the experience and/or the project that the grant enabled. Following are two such reports. Many thanks to all those who have donated to the EOG Fund, principally through the annual symposium auction. To take advantage of this year's program, see the application insert at the back of this magazine.*

John Jordan workshop

When I first attempted turning wood I thought I could figure it out for myself. I started hacking away on sections of 2x4, old broom handles, anything I could find. Months later I was still hacking away and it wasn't fun at all. I bought a book. It explained some things, but more months went by and I was still basically hacking at the wood. On softwoods I was tearing the grain so badly I couldn't even sand it out, and after some truly startling catches I feared for my life every time I jabbed a tool into the spinning stock.

I looked for more information and found an instructional video. The first time I watched it I slapped my forehead so hard I knocked my glasses off. "So THAT'S how it's done!" I yelled, startling my neighbors as I ran for the workshop. I watched that video over and over, bought another, and then another. Eventually I figured out that I could make more sense of the books now that I had an idea of what was going on. I read everything I could get my hands on, continued studying the videos, and began making some progress on the lathe.

One day the saleslady at Woodcraft mentioned a turning club and why not come to a meeting? I did, and it opened up a whole new world. The Instant Gallery was inspiring and there was a fabulous demonstration by Pete Holtus, boxmaker extraordinaire. Pete was very generous with his time, and for the next nine months I attended his free classes for club members. I learned a lot and continued to practice, but I knew there was more, and I yearned to study with one of the masters.

In May of this year I got that chance. A 1997 AAW Educational Grant afforded me an opportunity to attend a three-day workshop with John Jordan. Recognized worldwide for his elegant hollow forms, Jordan is one of the premier turners of our time. His work is represented in all major collections, he has been a featured demonstrator at countless symposiums, and his instructional videos are a must for every aspiring turner

John lives near Nashville on a wooded 26-acre pioneer homestead dating back 200 years. Down the hill from the two-story log house is a spacious, modern workshop housing four lathes and a myriad of other tools and work stations. The lathes, of course, are the main event and include a Conover, a Woodfast 20-inch short-bed, the new OneWay 2036, and a delightful custom-built bowl lathe. All have variable-speed motors and pretty much represent the apex of turning equipment these days. A forested countryside with lots of great turning wood, a scenic, historic setting, a state of the art workshop, and John Jordan—I was in turner's paradise.

Casual, friendly, and outgoing, John displays the energy and enthusiasm of someone who truly loves what he is doing. In addition to being a formidable talent at the lathe, John is also a fine instructor. It is one thing to have the expertise, it is another thing to be able to communicate it successfully to others. John demonstrated that he could do this on any level, from beginner to advanced. Of the three people in our class, one was a novice, one was an avid hobbyist, and one was an experienced part-time turner. John took it in stride and worked with each of us on his own level. We came away with new perspectives, increased understanding, and improved skills—a highly successful workshop.

The workshop was organized as a series of discussions and demonstrations, along with plenty of time at the lathe for building skills, personal instruction, problem solving, and developing our own special interests. By the end of the third day we had carved our way through a serious amount of wood. The huge piles of shavings we swept up represented considerable experience gained in a short span of time.

A significant focus of our class was an in-depth study of the swept-back bowl gouge. With this single versatile tool we learned to make roughing cuts to true a chainsawn blank, shaping cuts that peeled away long streamers of wood very quickly, refining cuts for a smooth surface when approaching the final shape, shear-scraping on problem areas, and hollowing cuts for bowl interiors. John feels that if you can master one single tool, you gain an understanding of how tools work that will help make sense of the rest. "Learn one tool well and the others come easier," is how he puts it.

John created a lively atmosphere in his workshop. Doors and windows wide open to the world, energetic music on the stereo, and John singing as he moved from one lathe to the next, his enthusiasm was pervasive. I was glad there were other people taking the class with me because there was always a lot going on. "Rub the bevel," he yelled across the room behind his back without even looking up from helping me analyze the form of a bowl I was working on. John didn't miss a thing.

We crammed a lot into those three days. We were treated to a slide show of work by the world's greatest turners and a tour of John's impressive personal collection from the best of the best. There was time for socializing in the evenings, at a riverfront concert, sampling the local cuisine (the catfish was delicious), and a field trip to a craft fair featuring well known turner John Dodge Meyer (and also including then AAW president Charles Alvis).

If I had my life to live over I would not have attempted to learn woodturning without personal instruction right from the beginning. Despite what my grandfather used to say, experience is not the best teacher. As a former musician I should have known that. I would never have thought to give up the advantage of music lessons. It takes too long and it is too hard to discover everything on your own. Why handicap yourself? Woodturning should be easy and fun.

Looking over the shoulder of a master turner as he transforms a piece of log into an exquisite vase brings an immediacy to the learning experience that cannot be duplicated in books and videos. Having his personal attention as you make the cuts yourself gives your technique a jumpstart that can save literally years of trial and frustration. No matter what your skill level, a workshop such as this is valuable and something you will never forget. Now that I have done it, I can tell you that it makes a really fine vacation, too.

—Mike Paulson, Denver, CO

Mike Lee at Arrowmont

Having been awarded an AAW scholarship to Arrowmont School of Arts and Crafts in Gatlinburg, TN, I signed up for Mike Lee's workshop last August.

I found my week at Arrowmont to be very intense and short, so I was reluctant to spend any part of each day not turning. But in fact, part of the Arrowmont experience is sharing what others are doing throughout the school. I made an effort to visit other studios and attend evening slide shows presented by various teachers. Not that this was a sacrifice; it was exciting and inspirational to see how artists express themselves in other media and use techniques and designs that, who knows, just may find their way into my turnings some day.

Arrowmont in general and Mike's class in particular, is very process-oriented. Much of Mike's work is wonderfully organic in feel, highly sculptural, and textured. The process is very time-consuming, so he warned us not to expect to be taking home finished pieces. He also disabused many of us of the notion that texturing can replace sanding. We concentrated on learning and experimenting with techniques, from bowl- and spindle-turning basics to the real meat of the class: altering the turned from with texture, carving, and/or multi-axis turning. I had come for such alteration—of my thinking as well as of my turning.

I don't think I could have chosen a better class. Much of my work has been relatively thin-walled, often natural-edged forms. While there might be voids and *trompe l'oeil* edges, it all has had the imposed symmetry of single-axis turning. I hope that by learning to alter these forms I will achieve more sculptural, expressive work.

One of the biggest obstacles for me was mental: I have difficulty envisioning my finished piece in the formless mass necessary to leave unturned for carving. Mike encouraged us to try. But there's always room in my woodstove...

While much has been written on the new facilities at Arrowmont, I must tell you how superb they are. There are five different kinds of lathes to work on, from that Mercedes Benz of lathes, the OneWay, to the good old Ford standby General. Just be sure to bring your own tools, especially if you want to work with anything but the most basic tools. But no matter how fine the facility, what really makes the classes work are the teachers, and my experience with Mike Lee was wonderful.

On the last night, celebrating at a local pub, I learned from Mike that some years ago he, too, had come to Arrowmont with an AAW scholarship—at that time, $150. I truly felt that my $1,000 was an embarrassment of riches! Had I the chance to do it again, I would scrape together the travel money myself so that I could spend the AAW money on two classes instead of one.

To pass on what I learned, I demonstrated at the Cascade Woodturners' meeting last October, and I have contacted local high schools about presenting workshops there.

—Marquita Green, Longview, WA

THE UNION GRADUATE, A DJ HOMEMADE, AND THE ONEWAY

I AM AN ENGINEER AND MACHINIST BY trade. Most of my experience with lathes has been owning and using high quality metal-working lathes, which must hold extremely tight tolerances. So when I started woodturning many years ago, my first lathe, an old Delta, proved disappointing. It did fine with small work, but my interest, even then, was to turn large bowls and platters, which was not satisfactory.

Over the years, my budget grew, and I purchased a custom Union Graduate, which was considered a very finely made lathe. But despite its weight, out-of-round work would cause the machine to walk around.

Next, I designed a large 20-inch bowl lathe based on what I thought were the ideal characteristics. Although it was considerably better than the Graduate, it lacked rigidity.

Several months ago, a friend of mine who was having problems with his (unnamed high-quality) lathe came over to try his bowl on both my lathes. We went back and forth between machines and he was impressed with the improvement. Since he was thinking of purchasing a new Oneway, I decided to do a technical comparison of all three machines, before my friend spent his money.

So I purchased a new Oneway, to round out my collection, and did the comparison, which ought to be meaningful to serious turners. This is not intended as a survey article, comparing endless specs and features. It simply compares the performance you might expect while turning large work, which usually involves a lot of eccentric, out-of-balance forces.

What we look for in a big lathe

If you're going to turn big work all day long, you want safe, efficient, and accurate cutting. How do we get that?

- The bearings need to be large enough to take all the radial loads of rough turning and not over-heat up to 2,000 rpm. Large roller bearings used in some big lathes can take the loads but have built-in clearance that can create vibration and limit turning tolerances.
- The spindle mating surface must be flat, large, and well machined, so that faceplates and chucks rest against it solidly and without play.
- The motor should be rigidly mounted and the pulleys machined well enough that the transmission belt does not slip or create vibration and noise. For motors with electronic variable speed, the controls should react to torque changes quickly and smoothly.
- The lathe bed must be rigid, both in bending and torsion. Bowl turning creates forces that are primarily 90 degrees to the lathe's length. Most lathes do not have torsional rigidity, resulting in movement between the tool rest and the work and problems with tailstock alignment.
- The tool rest and tool-rest base must be rigid. Any small play between the tool rest and lathe bed will magnify in the work during heavy cutting. Even when the work is running fairly true, differences in wood density and grain will create differences in cutting forces that can be significant. Also, vibration will waste your turning energy and cause you physical stress.
- The lathe needs to have a footprint large enough to counteract eccentric forces. Even 500 pounds of sand in a lathe is not as important as having a wide footprint. Unless a lathe is completely rigid and level, bolting it to the floor will only prevent the machine from taking flight; it will not necessarily eliminate vibration and noise, and it may cause damage to the machine.

The tests

I used the same test loads and conditions for all three machines: a piece of wet walnut, 18 inches in diameter by 9 inches thick. To create uniform eccentric loads, I bolted a 6-inch faceplate 6-inches off center on the outside of the work. The results for the following tests are displayed in the chart on page 48:

I measured vibration on the tool rest and headstock under no load, balanced load, and eccentric loads at 600 and 800 rpm, using a high-quality vibration transducer and an oscilloscope. Vibration can compromise the surface finish you can obtain and contributes to noise.

I measured the bearing end play and run-out with a .0001-inch gauge, the same way I would on a precision metal lathe. I turned the test load as round as possible, with the sharpest tool, and measured variance between the tool rest and the turned cylinder, turned by hand and under speed. This is a very practical test because it accumulates all the possible movement in bearings, shaft, and tool rest and suggests the best possible surface that you can turn. In my experience, a tool bouncing more than .002 inch under load can create a poor surface.

Finally, I measured the sound level of each machine, 3 feet from the work, at 600 rpm. Anyone working all day on a machine does not want to feel like he has just driven a big rig across the state.

Union Graduate

Mine is a custom machine made by L.R.E. in England. It has new annual-contact headstock bearings. Bearing end play (.002) and axial run-out (.001) seem like small numbers but indicate that the bearings are not precision-mounted. The effect is magnified when chucks are installed.

The motor control is a high-quality AC variable-speed with no noticeable vibration at the belt.

DJ homemade lathe

The bowl lathe that I built is essentially a spindle purchased from DJ Enterprises in Washington. It is a massive 2-inch spindle mounted in

Specification / Test	Union Graduate	DJ	Oneway
Weight (lbs.)	480	1,500	700
Footprint width	13	25	30[1]
Lathe-bed rigidity[2]	55	20	210
Spindle mating surface	0.60	0.20	0.50[3]
Vibration baseline, 600 rpm	0.30	0.30	0.05
Vibration baseline, 800 rpm	0.30	0.65	0.05
Vibration with test load	0.35	0.45	0.15
Vibration with eccentric load (All vibration specs in "Gs")	0.80[4]	0.50[5]	0.25[6]
Bearing endplay	0.002	0.002	0.0005[7]
Axial run-out	0.001	0.0015	0.0001
Test load run-out at rest[8]	0.003	0.001	0.0015
Test load run-out running	0.007	0.007	0.003
Noise level (dBA)	64	73[9]	58

1. Includes a set of precision leveling screws and plates.
2. A complicated engineering calculation presented for comparative purposes only.
3. Faceplates sit against this precision-ground spindle face with astonishing accuracy and firmness; Oneway's faceplates are similarly well machined.
4. The lathe was dangerously walking across the floor!
5. The whole machine was rocking, although its weight kept it from moving on the floor.
6. The machine did not rock or budge
7. This is as good as most metal lathes.
8. These measurements are all better than most commercial wood lathes.
9. Mostly due to the exposed motor.

two double-row roller bearings. The bearings can be adjusted to take up some of their inherent clearance. Prior to these tests, I adjusted and ran in the bearings to the point where any additional tightening was producing heat.

The lathe bed is a torsion box made from 4x10 wood beams, topped with $^1/_2$-inch ground steel plate—basically a beefed-up Conover design. The drive is a $1^1/_2$-hp DC variable-speed motor, mounted right on the headstock. The tool-rest base is a Oneway.

Oneway

This machine is a new breed in the woodturning industry (See *AW*, December, 1996, pages 40–43). The spindle design is much closer to that of a traditional metal-working lathe in both concept and workmanship. The bearings are preloaded double-annual-contact ball bearings.

The drive motor is rigidly supported in the base and does not move. The Kevlar reinforced belts contribute no noticeable noise or vibration and do not hop under load.

The tool-rest base is absolutely rigid and precision-machined. The tool-rest post is secured by a shaped piston rather than by a grub screw digging into it, which means that the tool rest has excellent support and will not be marred. I recommend this tool-rest base to anyone wanting to upgrade or build their own lathe.

Conclusions

The Graduate is basically a good machine, but it needs a much larger base and should be bolted down. The design and play in the bearings is the poorest of this lot and may require periodic replacement if used for much large work. The rigidity of the outboard turning rest is good, and the readings back that up, but it is limited to about 19-inch capacity. The tool rest is massive and does not seem to add to any of the measured run-out. The Graduate is the most expensive lathe in this group.

A lathe, like the DJ I built is a great basic bowl lathe. Bearing play and run-out are acceptable when turning moderately large pieces. If you design a base that is heavy and wide, the only limitation appears to the torsional rigidity of the bed, which can easily be improved. By purchasing tool rests and a tailstock like those from Oneway or Woodfast, you can build a good if not beautiful lathe for about $2,500. The advantage is that you can have capacity of 20 or 24 inches with little sacrifice of accuracy, just by blocking up the headstock.

The Oneway in all measurements is just about twice as good as the rest. It was impressive that neither vibration readings nor visible movement changed much from balanced to unbalanced loads, without being attached to the floor. This performance, for a machine that weighs only 700 pounds, is certainly due to its torsional rigidity.

The low noise of the Oneway makes an immediate positive impression. Quietness is attributable to the motor being mounted inside the base and a high-quality motor control that does not have the high-pitched squeal associated with most variable-speed drives. This motor control is the best I have seen and makes large heavy turning almost effortless. Oneway also provides optional remote-control boxes and on/off switches that make large turning safer and more convenient.

If you want a lathe where you have only your technique to blame, the Oneway is certainly the best I have used. You may never test the limits of this machine, but it's nice to know what it can do.

Unlike most survey articles, I own all these machines, so with four lathes in my shop I have to worry about which lathe to get rid of, not which to purchase. I'll let the reader guess which one that will be!

Paul Feinstein is an engineer, machinist, and woodturner in Berkeley, CA.

POLYURETHANE GLUES

FOR YEARS, THE WHITE AND YELLOW PVA glues have been the reigning standard for most woodworkers and turners of segmented pieces. They are single-part, strong, quick to set up, and good gap fillers. They can be waterproof and, where necessary, perform well without clamping ("rub and squeeze" joining). By contrast, the two-part epoxies and resorcinols are messy and sometimes difficult use, have occasional entrapped air bubble problems, and, for maximum strength, have generally slow set and cure rates, which have largely relegated them to particular applications. The cyanoacrylates do see wide usage in small work, but their performance is questionable in heavier work situations, particularly where significant impact loads are involved.

The PVAs do have at least one serious weakness for turners using segmented designs. They can "creep" over time, resulting in fine ridges at the glue junctions. Creep happens when the wood expands and contracts from seasonal changes in moisture content. Under the pressure of expansion, the glue flows to follow the changes in the two adjacent wood surfaces. But the glue does not have the elasticity to flow back with later contractions. The creep ridge is easily removed, but this is not a happy answer for clients who have purchased an "art object."

Starting with two European products, polyurethane (PU) adhesives have become widely available to the U.S. craft market. They have most of the advantages of the PVAs and are strong and elastic enough to avoid creep. But there is a price to be paid; clamping is mandatory. In clamped joints, the glue appears a solid amber film similar to the yellow PVAs. Where not under pressure, the PUs cure into a foam, usually a greenish yellow that looks like a school science project gone bad. Without clamp pressure, the mating surfaces will be pushed apart by the developing foam. With one exception, the PUs are also slow setting— one hour or more even with the recommended water (the activating agent) spritzing. This often results in pieces shifting or "skating" under clamping pressure where unless the clamp loads are applied exactly perpendicular to the glue lines.

Nonetheless, I have found the PUs highly useful in assembling segments for turning, particularly where different wood species (with different moisture movement characteristics) are joined.

Tips on using PUs

- Avoid PU versions advertised as "high viscosity." With these, it is hard to get a thin layer of glue that still has good surface coverage. The thicker the glue film, the more likely are the above skating difficulties. The glue does stay put, but the pieces move more readily until the glue is set.
- Even with lower viscosity products, they can be made thinner by heating the container moderately. Radiators in winter, a baby bottle warmer, a heating pad, or a warm water bath (keep the cap tight and out of contact) all work well.
- Do use the widely recommended water spritz on one surface (glue only on the other) to speed up the set time. Even employing this technique, 45 minutes or more are needed to get a strong set. Leaving the assembly unclamped for this period eases any skating problem and, since cure time is 4 to 6 hours, the postponed clamping has no ill effect on the final joint.
- For short-term storing, keep the container upside down to avoid tip blockage from the surface scum that seems to plague all polyurethane products. Placing it inverted in a peanut butter jar or similar with the cap resting on the bottom minimizes glue leakage and moisture contamination. For longer storage, using a refrigerator or freezer greatly extends useful life and creates no later performance problems.

After in-use testing five of the PUs, I found no significant performance differences, except with "high viscosity" products, as stated. I use whatever is cheapest in terms of $/fl. oz.

Two new kids on the block

Recently, a couple of distinctly different PU glue have come to the market. Excel Express definitely beats the long set-up time problem. Using the water spritz, a strong set occurs in under 5 minutes. Clamp time is less than 1 hour, which speeds sequential assembly steps immensely. The glue comes in a cartridge that fits a standard caulking gun. The glue is highly thixotropic, which means that under pressure from the gun or spreading with a blade, it thins out easily. Remove the pressure, and it thickens up enough to prevent any skating. Dispensing control with the gun is excellent.

The tube comes with a fancy cap to minimize moisture penetration. I was still concerned about tip blockage from the moist air inside the cap cavity. On advice from a manufacturer's representative, I turned a simple plug out of high-density poly that works equally well.

Is there a catch? A small one. The cured adhesive is a milky white foam. Where too much glue has been used, this can be quite visible, particularly with darker woods such as walnut and mahogany. Any show with adjacent light-colored woods is easily handled with a wash coat of light-colored stain.

The Beall Tool Company (800/331-4718) sells a PU product labeled RPA Glue. The manufacturer is CP Adhesives, Inc. This glue is by far the thinnest I have seen—roughly equivalent to a typical product (eg. Excel One, Gorilla, PLPremium) after 30 minutes of more in a 120-degree bath. Consequently, it thin-spreads

very well and this helps control skating. It sets up fairly quickly, thought not nearly as fast as Excel Express. The downside is that its squeeze-out foam is also milky white.

The bottom line

In my judgement the PUs elimination of creep fills a broad-based need in assembling pieces for segmented designs. But we still do not have the one-size-fits-all ideal candidate. Excel Express comes closest and would be my unquestioned general purpose choice if its cured color were a medium amber rather than the current white. —*Willis Hunt*

CYANOACRYLATE GLUES

CYANOACRYLATE CEMENTS SUCH AS Superglue and Tuf Stuf are being used by the woodturning community for attaching wood to faceplates, making minor repairs after a dig-in, etc. I am writing this to clear up some incorrect ideas which I read in various woodworking magazines.

First of all there are at least three different ways to harden C-A cement:

- Moisture
- Chemical activators or hardeners
- Absense of oxygen

The effect of moisture is generally understood. It allows the hardening of C-A with a water spray if there is no objection to the whitening of the adhesive. Also the moisture in the wood itself will cure C-A within fifteen minutes to several hours. If I am using this method, I generally leave the assembled pieces overnight to ensure a complete cure.

The use of chemical activators to cure C-A is probably the most common method used in the shop. Recently the hardeners containing freon have apparently been removed from the marketplace because freon is an ecologically objectionable fluorocarbon. The substitute material presently available is easier to work with; unless there is a surplus of adhesive on the surface, an over-application of the spray will not turn the cement white and mar your work.

The fact that oxygen (i.e. air) .will inhibit the cure of C-A while lack of air will cause it to set leads to several interesting phenomena.

For one thing, you might not want to order a 5-gallon pail of the stuff; you would find that even if space remained above the liquid to allow air to contact the cement, all but the top inch or so would turn to jelly in a relatively short time. If you need five gallons, you should order 320 containers, each holding 2 ounces.

For another thing, flat metal pieces can be cemented together successfully by applying a minimum amount of cement to one or both of the pieces and then squeezing them together to eliminate the air. Caution: as in any cementing situation, both pieces must be very clean. A slight trace of oil will ruin the bond between the C-A and the metal.

Thirdly, since the cement is not particularly volatile, leaving the cap off after opening will actually increase shelf life. Incidentally, since the cap is not used, it can't stick.

While we are discussing sticking caps and a related problem, clogged tips, try this: after use, set the container down with a quick motion (actually rap its bottom on the bench). You will knock that last drop that collects inside the tip back down inside the container, thus minimizing tip clogging.

If, in spite of your precautions, the tip still clogs, don't try to push the clog back down the spout. It will reemerge and cause another clog the next time you have a cementing job. Instead, remove the whole tip from the container and clean it out from the inside. I have a 4-inch-long piece of straight coat-hanger wire with a slender point. I spin this in my drill-press and then force it carefully into the tip, effectively removing the clog. Works wonders! I feel this is safer than pushing the wire in by hand as there is less danger of stabbing myself in the hand holding the spout.

—*Dean Westervelt*

Willis Hunt, of Lexington, MA, wrote on segmented turning in the Septem - ber 1997 and the March and June 1996 issues of this journal. Dean Westervelt, of Acme, PA, is a retired chemical engineer.

NEVER SAY NEVER AGAIN

SOME YEARS AGO, I DECIDED THAT I JUST had to have a 2-foot bowl lathe. My little Myford was a great lathe, and I turn all my small work on it to this day. But, it just wasn't big enough. Unfortunately, I did not have enough money to buy what I really wanted, and ended up with a lathe that wasn't all it was cracked up to be. By the time I got done, fixing up and "fine-tuning" this so-called bowl lathe, I could have bought a really good lathe.

One of my fixes was to fill the base with about 3,000 pounds of concrete, after welding reinforcement bars into the interior of the case. This was after I used a leveling epoxy to fill any gaps between the basement floor and the case of the lathe. I wasn't sure if this was solid enough, so I welded the sections of the lathe cabinet together. After all, I was never going to move this lathe from where it was.

Well…I recently purchased a Oneway lathe, and guess what! The old lathe had to go. I removed all the parts that were bolted on, but still had about 3,000 lbs of concrete, rebar, and welded metal casing to get out of my basement. I started grinding the welds apart, but soon realized that this would take me weeks. My friend, Tim Carr, took pity on me and brought his cutting torches over and after a few hours work, the cases were "unwelded," but they were still bolted together from the inside. Finally, Tim was able to cut metal sections out of the cabinet, but then we had to deal with the rebar welded randomly inside. Once I was able to get at the concrete, I started drilling holes in it thinking that I could break the concrete. Within an hour or so, I was at my local rental store getting a jack hammer! Finally, progress! The center section of the lathe was reduced to a pile of small rocks which I was able to remove in buckets.

The tailstock section, probably a good 500 pounds, was yanked out of the basement via a chain, with my wife, Susan, in the driver's seat of my van. Did I mention that all this had to come out of the basement? The headstock section of the lathe was definitely the heaviest. I had to roll it to the basement door on metal pipes. Tim then came to the rescue again with his Farmall and lifted it out of the basement. Prior to coming over, he inflated his front tires to over 40 pounds and we just about flatted them!

The Oneway is now in its permanent place, leaded in and bolted to the floor, but I will never say never again!

—Robert Rosand, Bloomsburg, PA

Show your stuff!

Remember these several opportunities in 1998 to exhibit your work:

Pathways '98: Use the entry form inserted at the front of this issue, or call 216/687-2103

Third Biennial AAW Chapters Woodturning Show: Contact your local AAW chapter, or call 612/484-9094

Chapter Collaborative Challenge: Contact your local AAW chapter, or call 612/484-9094.

AAW Instant Gallery: Bring up to three pieces of your latest and greatest work for display in Akron, June 12–14.

TURNING WITH A DISABILITY

MY LIFE WAS GOING VERY WELL UNTIL I had a debilitating stroke. With this injury everything changed. I had to find a new direction, a different goal for my life. I was a right-handed surgeon, and now my right side is paralyzed. This was a very frustrating time for me. I had a workshop in my backyard, but was afraid to use it because of my disability. Gradually, I began to use the shop to pass the long uneventful days. The swelling in my brain was subsiding after six months. I was very cautious of having another accident. With the encouragement of my family and friends I took on more in my shop, and from this experience, I developed more confidence in my ability.

I eventually returned to the lathe, but it was very difficult to use. Because of the conventional methods of turning and the poor quality of my tools, progress was very slow. I began to talk to my friends in the woodturning field. At first they were reluctant to recommend anything new, but it became apparent that I needed new turning tools and a more forgiving lathe. John and Robyn Horn told me about John Jordan coming to Little Rock to teach a course. It was here that I learned about the tools and many of the techniques I use today.

The lathe was the most important item. I had a Myford LS-8, and I had heard that the new Myford Mystro has a bowl-turning attachment that would prove beneficial to me. Also, the Mystro has a rotating head assembly, which would be easier to use after a stroke. This way, I wouldn't have to bend over the lathe bed while turning. The bowl attachment would allow me to turn a 20-inch bowl, which was more than adequate for my needs.

Mr. Jordan recommended certain tools I find indispensible today. I have used the Henry Taylor HSS tools and the Jerry Glaser deep hollowing gouges daily for the past four years. Also, Mr. Jordan introduced me to the Stronghold four-jaw chuck, which is strong, easy to use, and reliable. I keep it on the lathe almost constantly, and have never had any trouble with it.

From John Jordan's videos I also made a grinder and tool holder for sharpening most of my turning tools and gouges. With the help of my friends at the welding shop, even John Jordan would be proud. I have made three of these grinders for my woodturning friends.

Because my right arm and hand are paralyzed, I found it helpful to turn handles of my turning tools so they will fit my hand comfortably. I have made all the handles uniform and of the same type of wood, so I can grasp each tool the same way.

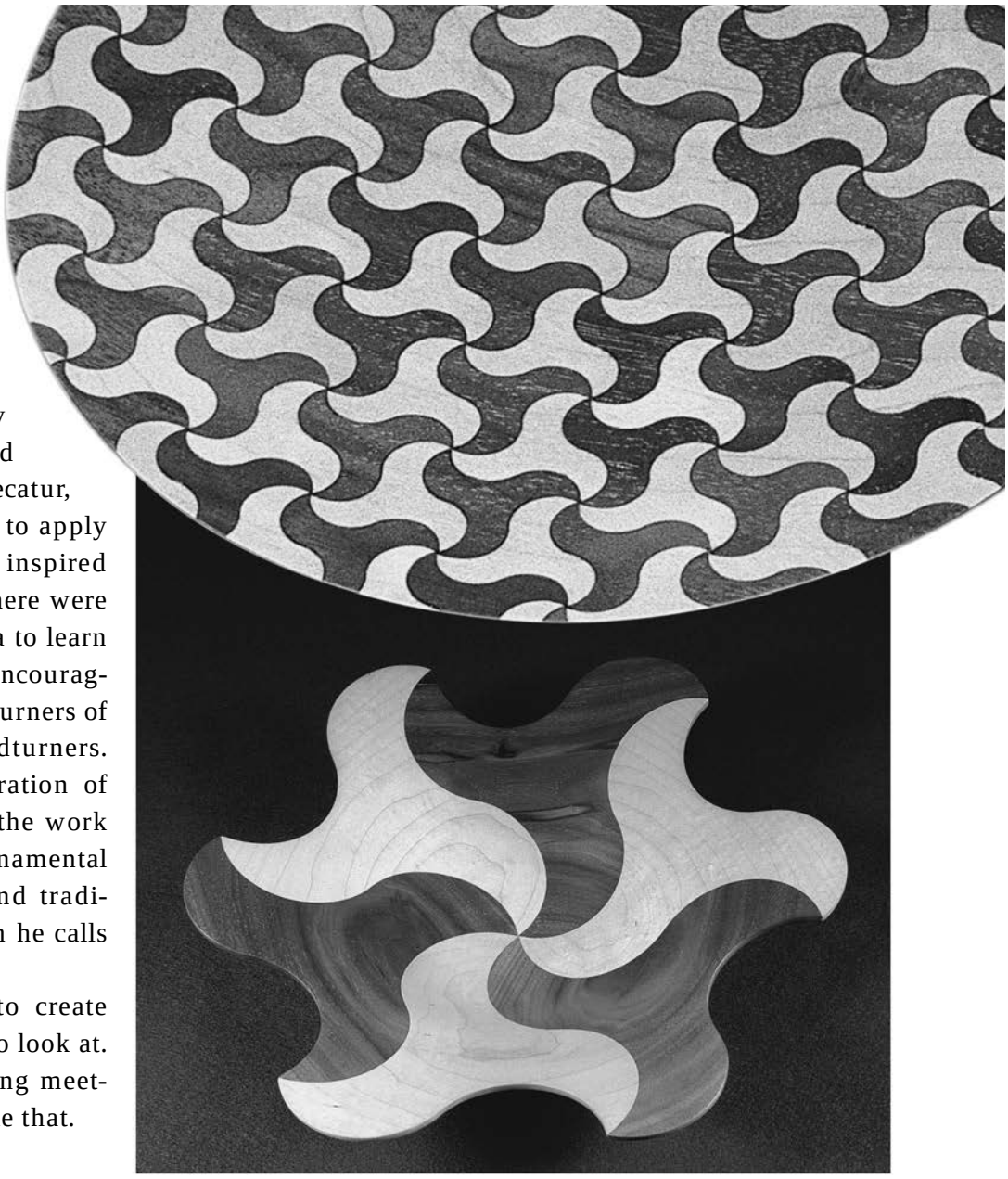
The rest of my turning concerns and accomplishments are not so different from that of other turners. I turn local hardwoods, as well as magnificent burls from California and Texas mesquite. I work with unbalanced pieces and defects in the wood, which I try to incorporate in the final piece. I show in local galleries, where most people want spalted elm, walnut and cherry. And I spend a good deal of my attention on sanding and finishing. Nothing detracts from a turning so much as the lack of adequate sanding and an appropriate finish. Anytime I skimp on sanding, the final finish always suffers and I feel badly for it.

No matter who you are or what your physical condition, nothing replaces the careful attention to details on the completion of any project. After all, we are not working to see who exerts the most effort, or who gets the most money for his work, but to get the job done right, to command respect and admiration from our fellow man.

—Harry L. Rounsaville, MD,
Little Rock, AR

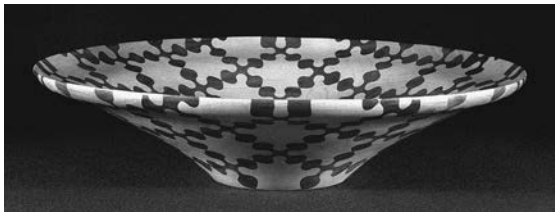
Four years after his stroke, Rounsaville now turns every day, mainly bowls such as the one of plum wood, 8" dia., above, and the natural edge one of figured maple, 10" dia.

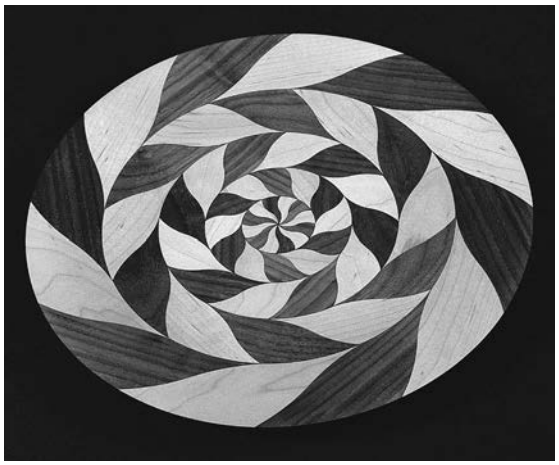
Contoured Segmented Turnings

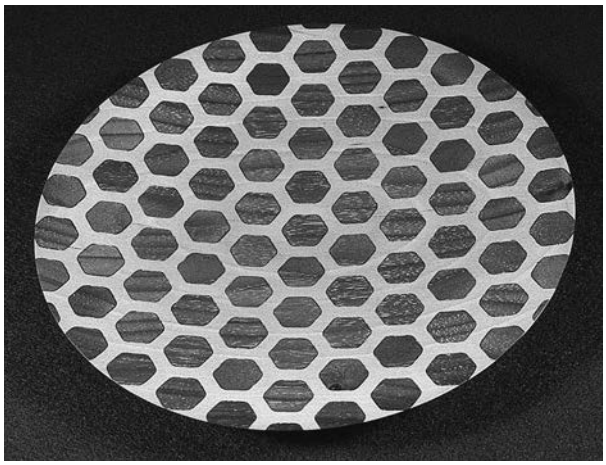


With a background in mold-making and a working familiarity with computer-numeric-controlled (CNC) machines, R.W. Ford of Decatur, Georgia, decided three years ago to apply himself to work that has long inspired him—ornamental turning. But there were no ornamental turners in his area to learn from, only the very supportive, encouraging, and generously informative turners of the Georgia Association of Woodturners. Their experience and the inspiration of their work helped steer Ford to the work you see here: a combination of ornamental concepts, modern technology, and traditional woodturning forms, which he calls "contoured segmented turning."

Ford had a burning desire to create something unique and pleasant to look at. Here's what monthly woodturning meetings will do with a motivation like that.







Clockwise from upper right:
"Swirl Triangle Plate," black walnut and maple, 7 1/8 dia;
"Swirl Triangle Bowl," black walnut and maple, 13 1/2 dia;
"Honeycomb Plate," black walnut and beech, 8 3/8 dia;
"Reversing Swirl Plate," black walnut and maple, 13 3/8 dia;
and "Puzzle Bowl," black walnut and maple, 14 1/4 dia.