Getting A Grip On Tools ■ Stack-Laminated Bowls ■ Turned Torsos ■ Annual Symposium ■

American Woodturner

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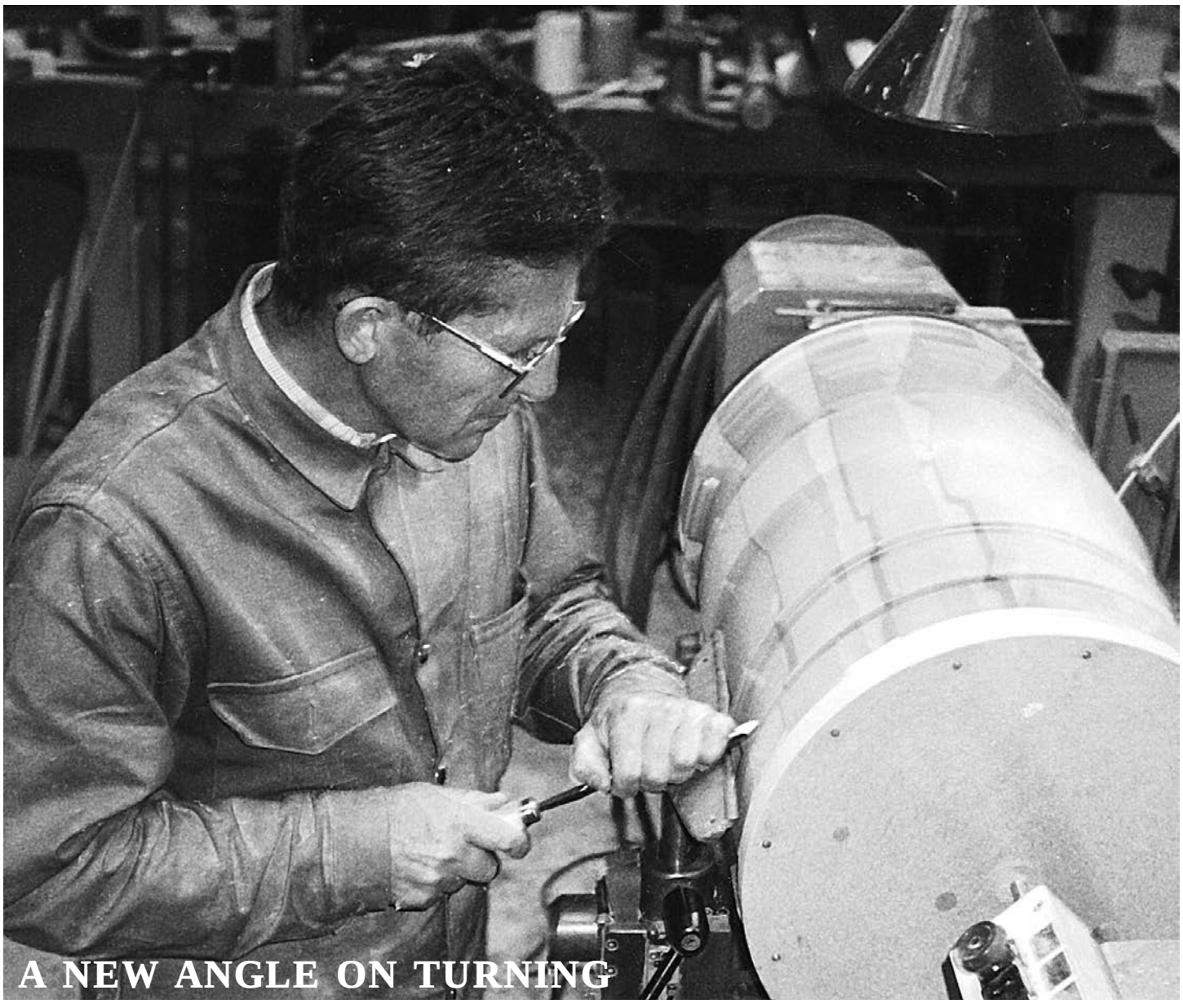

A NEW ANGLE ON TURNING

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

STARTING THE JOURNEY

One of the joys and advantages of being President of AAW is that you get great mail. After a lengthy brainstorming session with Clay Foster, I received this letter from him:

The Journey of An Idea

Ideas burn through some people's minds like lightning-spawned fire flashing across dry prairie grass. They come out as real as glinting steel, refined in the crucible of white hot thinking, forged in a moment amid a shower of sparks on the anvil of clarity.

For the rest of us, ideas move through the mind like driftwood down the muddy waters of a shallow canyon. They circle slowly in the eddies of fear. They run aground on shifting shoals of assumptions, and hang up on snags of misconceptions. They tumble over the cataracts of ignorance, to be pulled into the undertow of prejudice. They get caught on islands of contradiction which split the flow of thought. It's a long and tough journey through our mind for an idea, and the ones that survive often come out with the finer points missing and details abraded away by the sands of time.

Be not discouraged; things are not always as they seem. When Michael Hosaluk pulls one of those brilliant, fully developed, seemingly spur of the moment ideas out of his pocket, it's not as spontaneous as it may seem. The idea may have come quickly, but a lifetime of experience went into filling the pocket. Those apparently impromptu ideas are based on years of life experiences, many as a woodturner and woodworker. They come from a select bank of successful experiments culled from all the things that didn't work.

Don't get frustrated or depressed, and don't settle for the safety of mediocrity. With patience and fortitude, you can call upon the total range of your life experiences to expand the boundaries of your skills. The journey's just begun.

This letter brings up the subject of creativity. All of those people who can paint, turn, draw, talk, tell stories, play music - sometimes they come all in one package and you think: "this person is so creative, they can do anything!" And you say: "I can't do any of that stuff; it's not in me." And then you run into Mike Hosaluk, Frank Sudol, David Ellsworth or other teaching turners in AAW. You come to turning with what knowledge you have and what abilities you think you've garnered over the years, and these teachers challenge you to do something that you've never done, never would have tried. It seems to be a spontaneous thing they're asking you to do. As Clay says, they probably have years of experience getting other people to come up with what's in them, and to let go, and be carried away on the journey.

I recently attended a session with Mike Hosaluk and Frank Sudol at Arrowmont. I was in Mike's class, but the students in each class were going back and forth learning from both instructors. Frank's class was air brushing and carving thin-walled vessels with dental drills. Mike's theme was: "If it looks like it was made on a lathe, you're doing something wrong." Both classes were explosions of creativity for all of us.

There I was in Frank's class air brushing. I'd never done it, didn't know how and had never intended to air brush. I was in Mike's class making critters, creatures and fishes which were unlike anything I'd turned before. Sure, other guys did that, but I didn't think I could. Frank and Mike had me doing things that I wouldn't have dared to do before.

They shared their knowledge; they prodded, they taught us to poke holes in our own little selves, and let the creativity come through - creativity that we didn't realize we had. They pushed our ideas off shore.

Clay Foster is right "The journey's just begun." For beginning and experienced woodturners alike, we're just beginning to understand our own ideas and creativity. Thanks, Clay, for sharing your poetry with us.

Welcome

I am excited to introduce you to Dick Burrows, our new Journal Editor as of this issue. Dick comes to *American Woodturner* as a woodturner, freelance writer/editor, and former Editor-in-Chief of *Fine Woodworking* magazine. As a freelancer, his work has been in *American Woodworker, WoodshopBusiness*, *Fine Woodworking* and *American Craft*, and other publications. He co-authored *"Rude Osolnik: A Life Turning Wood,"* provided the photography for *"The Table Saw Book"* and wrote *"Basic Woodworking,"* published in England.

Dick balanced his writing career with production woodturning, specializing in what he describes as "creating objects from hunks of wood salvaged from manufacturers' scrap piles, urban street-side lumberyards and friends' firewood stacks." He turns a variety of traditional forms, ranging from salad bowls and cookie trays to architectural components, which he has been selling through galleries and craft shows in Connecticut, Tennessee, Kentucky and South Carolina.

Dick lives in Knoxville, TN, with his wife Lorraine, a textile artist. They have two grown children living in Connecticut.

The Board and I wish to welcome Dick to AAW as our Editor. With his warm personable demeanor, we expect he will be a good team member, one who you all will enjoy getting to know during the Akron Symposium in June. I encourage you to discuss with him your ideas for articles and your contributions to the Journal pages. I think you, too, will be impressed with his credentials and his enthusiasm for our field.

I look forward to seeing everyone in Akron.

—David Wahl, President
American Association of Woodturners

American Woodturner

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

On the cover: *Sigi Angerer, master turner from Lucerne, Switzerland, works on what looks like a large drum, but actually is a series of spindles that can be shaped simultaneously and uniquely using an old technique called angular turning. For more about this technique that offers contemporary woodworkers many design opportunities, see the article on Page 10. Angerer will be one of the featured demonstrators at the AAW annual symposium in Akron June 12-14. For more on the symposium see Pages 50-57.*

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 Lacer, 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.

The Local Chapter E-mail List:

The AAW has established an E-mail list designed to make it easier for local chapters and AAW board members to talk to each other. It allows chapter leaders to post questions and suggestions. Other chapter leaders across cyberspace can listen to the discussion or post their own solutions gleaned from years of experience.

There are more than 100 local AAW chapters across North America. Management and administration of chapters is a volunteer job and can take significant effort.

Communication among members of a group as large as AAW takes effort and more time than many of us can spare. Chapter Chatter was a tool for distributing information, but the information was always a number of months old. Editing, printing, and mailing all cost the AAW money.

Many of our chapter leaders are using electronic mail at home or work. This is an easy way to ask questions and get answers from people throughout the world at a very low cost. However, unless you know chapter leaders whom you trust and know how to contact them, you can't easily get your questions answered.

The AAW-L E-mail list has been formed for the exclusive use of local chapter representatives. Discussions on this list can help distribute information about chapters and ideas for improving administrative tasks, funding ideas, project and program ideas, as well as clearing up issues between chapters and the national group. The list is serviced on the server containing the AAW web site called RTPnet. This server is located in the Research Triangle area of central North Carolina and is run by a non-profit group set up to encourage universal access to Internet functions by area groups and people.

The list is "closed" to subscriptions. This means that you can not subscribe to it yourself as you can to "open" mailing lists. The list subscriptions can only be made and deleted by the AAW webmaster. Initially, subscriptions are limited to two chapter representatives designated by the local chapter president or board of directors. Additional members are the AAW board of directors, editor, administrator, and webmaster. Prospective chapter representatives can also be members, and should contact Clay Foster, Chapters and Membership Committee Chair, for inclusion on the list.

Chapter representatives may be the president and newsletter editor.

Substitutions can be made to other chapter members with e-mail access if the leaders aren't wired. Chapter presidents should send the names, chapter name, and e-mail addresses to the AAW administrator [aaw@citilink.com] and webmaster at [aaw@rtpnet.org].

Only members of the list can post messages to the list. This means that if someone in your chapter wants to post something, the chapter e-mail contact will need to post it from their subscribed e-mail address. If other people post to the list, the message will not be delivered (i.e., bounced).

Any post made to the list may eventually end up on the AAW web site as content for the local chapter pages or in the American Woodturner pages for all to see. Attribution will be given on any original content.

We hope this list will help in the administration of AAW local chapters. It should bring the local chapters closer together since most of us have the same problems. So far, there have been some interesting posts. After many more chapter people are on the list, we hope that it can be a primary way for chapters to distribute information between them. Our goal is to have at least one contact from each of the AAW local chapters on the list.

Roger Austin, AAW Webmaster, Raleigh, NC

Re Practicing grace

Why do we see the same few people bringing their latest work for exhibit at the show-and-tell Instant Gallery at every meeting? Are we intimidating our members from sharing their latest creations? The comments that are heard around the gallery table set the "tone" of the exhibit, and will determine whether someone brings another piece for exhibit, or if they ever bring anything at all. And many of the comments that we hear around the display table on a typical meeting night can only serve to raise the purpose of the Instant Gallery to that of a critical review. Let's stop the development of an atmosphere where only the experts and the insensitive can bring work for display. This is a hobby for most of us; we do it because it is FUN!

The most used definition of critique is "to criticize," that is, "to abuse, accuse, attack, belittle, berate, chide, condemn, blame, denounce, disapprove, fault, humiliate, lambaste, roast, and scold." These are not the definitions of critique that we want associated with our Instant Gallery. Even "constructive criticism" often is misinterpreted.

Critique is also defined: "to interpret, to review, to write-up, to study, and to analyze." In this context, the critique can be used to promote, applaud, congratulate, compliment, and encourage. This is the definition that we must emphasize.

A critique should not be given by anyone unless it has been solicited. Merely showing work to another is not an open invitation for critique. Knowingly soliciting critique by "experts" in a particular area or field is

Letters edited for clarity and space.

much different than receiving unsolicited, and perhaps unwanted, critique by another.

We should always refrain from needless personal criticism when viewing the work of others. This will only serve to offend and discourage someone from ever again putting their work up for view. We do not all have the same talent and skill. We are not all "experts." Even those of us who are considered "experts" once were beginners. The beginner already knows that the quality of his work is not as good, the walls not as thin, as the work of the "expert". Don't emphasize that inferiority. Encourage them, and show them how to improve the quality of their work.

Perhaps the best way to critique is to remember: "If you can't say anything good about the work, don't say anything at all." There is something good to be said about even the poorest of work. An old song puts it this way: "Accentuate the positive, eliminate the negative."

—Russ Fairfield, Vice President, and A. J. Northrup, Newsletter Editor, North Florida Woodturners,

Help with ginkgo

I recently came into possession of some ginkgo that broke down in a storm. Any information on turning and finishing would be appreciated.

—Walter E.Gerhart, 160 S. Charlotte St., Manheim, PA

Bill Stephenson replies:

Ginkgo (Ginkgo biloba) is botanically one of the oldest living species. It is rarely found in the wild and probably owes its existence to cultivation in temple gardens of China and Japan. It is commonly referenced as the maidenhair tree. Ginkgo grows widely as an ornamental in northern and eastern U.S.

Ginkgo does not appear to have any fungal or insect enemies and is resistant to industrial smoke and drought.

The leaves of ginkgo are fan shaped with parallel veins. The leaves are deciduous and turn a brilliant yellow in the fall. The trees are either male or female. The female produces an apricot-shaped fruit which when ripe has a very strong odor similar to rancid butter (or worse). Most of the trees that you might encounter are male as few people tolerate the smell of the ripened fruit in their neighborhoods.

The roasted pit of ripe fruit is considered a delicacy by Orientals. It has recently been cited as an herbal remedy, credited with improving memory and other claims.

The wood is cream colored and is somewhat fine textured. It is usually rather soft but finishes well when dried. Ginkgo has been used commercially, however, it is rarely found in quantities to be classed as commercially available. It should make a fine wood for woodturning. I have talked with several people that have turned it into small objects. Since the grain is rather bland, it has not been highly sought for woodturnings.

---William L. Stephenson, Jr., Loveland, OH, and AAW board member.

Kids say the darndest

A friend of mine was scheduled to give a presentation for career day at a local middle school. When her mother broke her leg, I was called on to fill in. Since part of our mission is to provide education and information about woodturning, it gave me the opportunity to do something I had been talking about doing for some time but never got around to. If you have ever considered demonstrating at local schools, YMCA's, etc. I urge you to do so. You don't even have to be a very good woodturner. You just need the desire to share your talents and passions with others. Some of the students had never even seen a lathe! While demonstrating and talking to a bunch of middle school kids is A LOT more intimidating than presenting to our membership, it also has its pluses. Read on.

Dear Mr. Rosand,

Thank you for coming to SAMS (the middle school) and showing us your many wonderful talents. I thought it was grate that you took your time to come in and show us how you do your job. My favorite thing was the big bumpy log. It was funkey. *—Jason*

Dear Mr. Rosand,

Thank you for coming to our school. I really enjoyed your visit. I didn't really think of woodworking as an art. When I thought of art I thought of painting and drawing, but you showed us that woodworking is really art. *—Jennifer*

Dear Mr. Rosand,

I enjoyed your presentation very much, but I don't think that woodturning is for me. I liked how you could use your lathe to make such precesion ornaments. *—Wes*

Dear Mr. Rosand,

I think woodchurning would be fun and hard work because some of the things you made were beautiful like the birdhouse and the tree ornaments. I would like to woodchurn, but I don't know if I could ever be that good. *—Brian*

Dear Mr. Rosend

Thanks a lot for coming to our school to show and talk to us about what you do. I think you're a good woodthing maker. I hope you can come back next year. PS I think you are cool!!! *—name unreadable*

And finally,

Dear Mr. Rosand,

I want to thank you for coming in and showing us how you turn wood. I thought it was really neat when you said that you use wood from trees. I think that is a good way to get wood from. *—Sonya*

—Bob Rosand, Bloomsburg, PA

ALABAMA WOODTURNERS ASSOCIATION: A BEGINNING

A LONG TIME COMING IS THE BEST WAY to describe the attitude of the fifty or so folks who gathered at Thuston's Saw Works in Birmingham on a cool January Saturday morning.

"I've been thinking we should do this for some time," said meeting organizer Nelson Brooks.

"When I heard Mississippi had formed a woodturners association, I knew it was time to do something in Alabama."

Brooks was light-hearted, but many of us there had begun to question why we lived in the hole in the doughnut woodturning world.

"I have been waiting for several years now for someone to get us all together," said Brooks.

Not surprisingly, everyone there, including one individual who had never held chisel to wood, voted to form a chapter of the American Association of Woodturners. "I want to learn how to do this," he told those around him.

Despite the fact that we were mostly strangers, events unfolded with enthusiasm and determination. A lot of those attending the meeting had traveled several hours to be present. Some had arrived two hours early.

Having myself been to a number of workshops and demonstrations over the years, I got a chuckle out of the sly manner in which some went about introducing themselves.

If you didn't know better, you would have been led to believe no one had ever turned anything before.

"Hey," said Brooks, "I've known some of you for years and I've seen what you can do. There are some mighty good turners in this room right now."

I didn't say anything, but I agreed with our newly elected president. I had seen a few pieces in Instant Galleries and recognized some of the names on the sign-in sheet. Alabama has a chance to develop a very effective teaching-learning-exchange program if we continue to attract the kind of folks present at this organizational meeting, I thought. The decision was made to meet the second Saturday of every month and to set the annual dues at $25.

"There is a lot of good work being done out there," said Brooks. "Stuff that is unbelievable. We all have something to learn and something to teach. I personally want the Alabama Woodturners Association to be well-represented by the year 2000 at the national convention," meaning the annual meeting of the American Association of Woodturners, "I think it will be in Atlanta that year. That's not too far from us, so a lot of us can go. Each of us needs to work toward the goal of having something to show at that Instant Gallery."

Two decisions were made at the end of the meeting that, to me, demonstrated an understanding of what it will take to build an effective association.

Led by several members who were also active in the Alabama Woodworkers Guild, and who had been through the group dynamics needed to build an organization, we were urged to concentrate at our next meeting on the basic, fundamental skills of sharpening.

In fact, a request was made to show how to use the various sharpening jigs out there on the market.

"If you don't have sharp tools you'll get frustrated and give up," said one of the audience.

"I used to use a tool until it was so dull it wouldn't cut," said another.

"I was afraid to sharpen it," he added.

"Or put it aside and buy another," said another new member.

A few of us who had seen the cream of the crop demonstrate at places like Arrowmont or Provo understood the frustration that comes from trying to sharpen like the pros. "You need to understand some things first before you can build that kind of skill," said someone.

A second decision that showed shrewdness and experience, in my opinion, was the request for everyone to bring "the worst piece of work they had ever done" and a piece they had decided to keep.

"In my case, they're the same," said the fellow next to me. Again I was reminded of the undercurrent in the room. Present were some highly skilled individuals doing some very good woodturning. In time, what they have to offer the rest of us will start to come forward. I look forward to the day when we are among good friends and eagerly show our latest work or demonstrate a technique.

Everyone reading this note is welcome to attend one of our meetings and, if you like, show us a thing or two. Just show up at Thuston Saw Works on 28th Street in Birmingham at 8:30 on the second Saturday of the month, and plan to stay to about 11:30.

Or call President Nelson Brooks at 205/988-3530 for details. If you like what we are doing, you're invited to join the Alabama Woodturners Association for a modest annual $25.

You don't have to be a woodturner, just have a curiosity about the craft.

Birmingham has wonderful shopping, beginning with some good stuff at Thuston's Saw Works, and top-of-the line restaurants.

—Conner Runyan, Fyffe, AL

Contact Data

For more information on the Alabama Woodturners Association, write: 6251 Victoria Drive, Pelham, AL 35124: or phone the association's president, Nelson Brooks, Pelham, Alabama, 205-988-3530.

A Cosmopolitan Touch at Akron

The annual AAW symposium will have a truly cosmopolitan flair this year, with exhibitors from many parts of the United States, Europe and Australia.

Demonstrators will also include members of another special group--the winners of the 1998 International Turning Exchange (ITE) residency, sponsored by The Wood Turning Center in Philadelphia.

This year's residents include four turners and one photographer, who also turns. They are photographer and writer Daniel Guilloux and turners Allain Mailand and Fabrice Micha from France; turner Gael Montgomerie from New Zealand; and turner Jack Slentz from Little Rock, Arkansas. A sampling of their work is shown below.

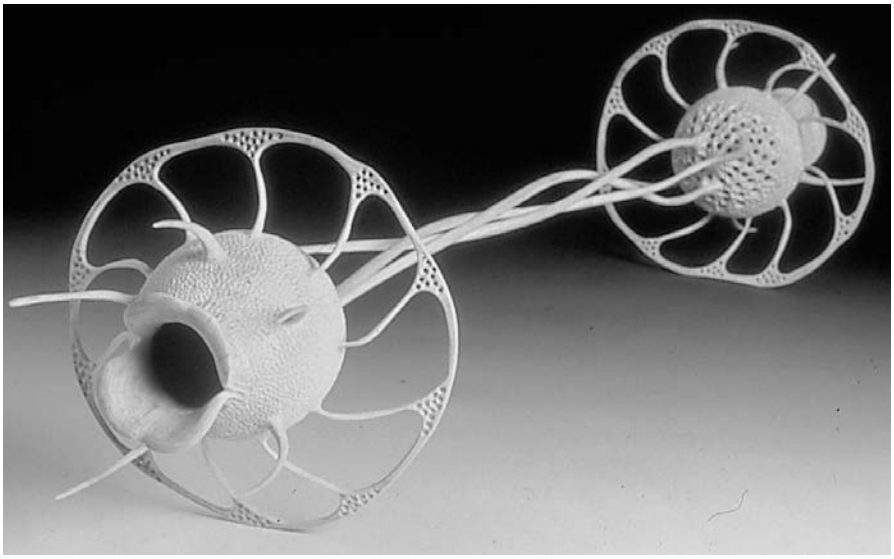
Mailand combines his interest in music and turning by hollowing drums, and musical bowls.

Montgomerie explores the balance between the wood, turning and "the color and exuberance of the growing tree."

Slentz employs burning and bleaching and various materials in his work. Micha, a turner for 20 years, uses traditional techniques for contemporary creations.

Work produced by the ITE residents will be exhibited at the Philip and Muriel Berman Museum of Art in Collegeville. The allTURNatives: Form and Spirit exhibit opens Aug. 7 and will tour the U.S. On Aug 8 the Woodturning Center and local AAW chapters are coorganizing an allTURNatives conference.

Left to Right: Gael Montgomerie: Growth Ring series-Sycamore, Bronze patina, copper, bamboo, 10 1/2" diameter: Fabrice Micha, Nautile II, peach and ebony, 11 3/4" high; Daniel Guilloux, Lace, cypress, 9 1/2" High.



Alain Mailland: Celtis Australis, 37 1/2" long

Jack Sletnz: Untitled, H: 43" x W: 60" x D: 64".

No Turning Back

RECENTLY, ON MY FIRST ANNIVERSARY with a lathe, I thought back on what a wild ride it had been. I've been an increasingly active woodworker for the past twenty years, but this turning stuff is something else!

The beginning was innocent enough. In late September a neighbor asked me to go with him to a demonstration on turning pens.

Hmmm… I didn't own a lathe, had no place to put one, had no known desire to make pens, and my bank account was about end-of-the-month dry.

So, Sure! Count me in!

Any time used in messing around a tool store is well spent. I even bragged when I got home that I'd been at Woodcraft for three hours and hadn't spent a dime. I described to my wife what I'd learned, explained that I still didn't have a burning desire for a new machine, and "that was that."

Only, "that" was when the Turning Bug was lying dormant in its new host.

Slowly, almost unnoticed, it began to grow and mutate. It was less than four weeks before I was back at Woodcraft, and I felt really "smart" when I skipped the tiny Carbotech and went for the small Record. With it's 9-inch vertical and 12-inch horizontal capacity, this was the lathe for me.

I can still remember lugging it onto my workbench and wondering just what I'd gotten myself into. I stalled for time by taking another week of evenings to design and build a stand for it, all the while reading every back issue of *Fine WoodWorking* on lathes and turning.

Then came the first pen. My jaw muscles ached from the worry and anxiety, but the pen looked pretty good! I was hooked. By late November I was back at WoodCraft for a one-evening bowl-turning class. I'd made a few dozen pens by that time, and was working my way through Richard Raffan's *Turning Wood.* I felt ready for the next step, where bowls seem to be the Holy Grail for turners. It's probably significant of my luck and skill that, on my first go at a bowl, I sorta, kinda parted the bottom off a little bit, uh, shy. This was my first major piece of Floor Art.

My next real push came when I attended part of the "Turning Retreat" last spring, sponsored by the Gulf Coast Wood Turners. In addition to seeing the demonstrations and learning more about how to turn wood, this was when I began to conceive of myself as a *turner,* and not just a woodworker with a lathe. I found that turners are good folks, with a certain zest and enthusiasm that welcomes newcomers. If invited and given permission, the more experienced guys would put a piece through a severe and even blistering critique. The club encourages the pursuit of art and excellence. But the same folks would hold up a sadly misshapen cup and applaud the maker's effort, appropriately encouraging future works.

It was then I realized that the club was not solely about turning and finished products, but about people. About turners. I like it. I like it a lot.

So, in June I managed to sell my Record and get a 12 x 36-inch Jet. I'm now settling down to become a woodturner.

I've got a long way to go, but it's not work and I have resources of encouragement. I give special thanks for Rob Christy, and Steve, and Terry LeGrue, who've been my mentors. It's been a great year, and I look forward to all that's ahead.

—Murray Powell, Houston, TX

P.S. In every venture of life, there are pros and cons, joys and heartaches. Here are some of mine about turning:

Pluses and selling points

•Even as a rank novice, I began to make recognizable objects almost immediately. Some were ugly-ugly, but you could see what they were and maybe even use them. So, the learning curve has a relatively gentle beginning.

•While it's fairly easy to make an object, it will take years of constant practice before I "master" the lathe. There is a vast subtlety that connects tool selection and control with the art of form and imagination. I originally dismissed using a lathe because "there are only so many table legs that you need." It seemed so limited and limiting. Now I can't imagine getting bored with turning.

•Wood costs are minimal, and I meet new people as I scavenge their tree limb trimmings.

•We have the most interesting wood and kindling for our fireplace. Floor art, practice pieces, cut-offs and cracked logs keep up a cheery fire.

•My family doesn't complain about noise with a lathe (Boy, do they hate routers!).

•Unlike building pieces of furniture, you don't need a lot of space –or days of time– while you sand, stain and put three coats of finish on a piece.

•Discovering that paper towels are really "kitchen paper."

Barriers and challenges:

What almost drove me crazy was finding that turning also required proficiency at other (unexpected) tasks:

•*Grinding.* Not only how to hold a tool to get it sharp, but: What size/speed grinder? What wheels? How to maintain your wheels? What shape do you really want for a tool? When to cool the tip? Not even the Big Name guys can agree. Yeesh.

•*Bandsaw.* Only once have I gotten a bandsaw blade stuck in a piece of green wood, but what a hassle! And

FLORIDA BLACKSMITHING AND VENISON

now I really wish I had a larger capacity saw.

•*Chainsaw.* Another item I never knew I needed until I got a lathe. I went with an electric model, but that restricts me to curb-wood that I can lift and that will fit into my van. How often do you sharpen the blade? Where do you keep it so that the drips of oil won't matter?

•*Drill Press.* OK, so why *does* the bit wander when drilling out a pen blank!? What speed is best? What style bit? This, of all, should be easy!

•*Chaff.* Turning generates an *amazing* amount of shavings! There is always some major pile to sweep up. I've now got one of the huge metal dust pans, and settled on the clear 55-gallon bags as my weapons of choice. The garbage collectors groan when they get to my house after I've been turning green wood.

—M.P.

Collecting Woodturning

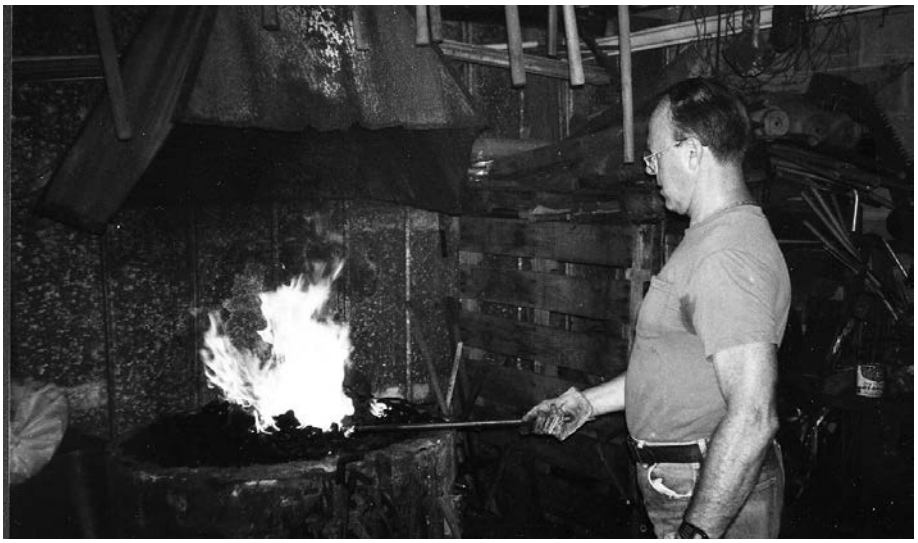
A special program on the hows and whys of Collecting, with emphasis on contemporary wood-turners will be held as part of the 12th annual Symposium of the American Association of Woodturners in Akron, OH.

The program is keyed to the idea that collecting is a passion.

The program will include presentations by noted authorities in the field.

Steve Loar will present a slide show and talk on "Pivotal Moments in Contemporary Woodturning," Fleur Bresler will talk about "The art of Displaying Your Collection" and "Documenting your Collection;" and Jane and Arthur Mason will discuss "Giving Something Back: Donations, Loans and Exhibits."

The program, beginning at 2p.m. Saturday, June 13, 1998 at the Knight Center, will also include an open discussion moderated by Steve Loar.



Bert Wortel of the Central Florida Woodturners at the forge.

Apopka, Florida—Thirty five members of the Central Florida Chapter of the American Association of Woodturners turned out on April 18 for a day of turning, blacksmithing, fellowship and good food at Dave Barriger's Annual Blacksmithing and Venison Stew Fest.

Barriger, an AAW Board member and one of the organizers of the 12th annual AAW symposium scheduled for June 12 - 14 in Akron, Ohio, has long had an interest in old-fashion blacksmithing as well as antique tools.

To better explore his fascination in the old ways of forging and other blacksmithing techniques, he erected a coal-fired forge adjacent to his wood turning shop here in Central Florida. Once a year, usually in April, he fires it up for the benefit of the Central Florida Woodturners. Members come out in droves to watch, participate and kibitz. Dave sees to it that they have access to a large pile of scrap metal, hammers, tongs, a variety of anvils, bending jigs and buckets of oil and water for tempering and cooling.

Hook tools, Dennis Stewart-type bent scrapers, conventional scrapers, parting tools and all manner of exotic iron devices are tortured into existence over a hot fire and stoic anvil.

Among the most widespread results are sore muscles and elbows.

The venison stew, a tradition by now, due to Dave's wife, Sonya's, diligence and skill is always a major success. This year it was augmented with several fresh loaves of homemade bread by Wynn Arnold, of the Central Florida group.

Topics of conversation ranged from the Frank Sudol-inspired nine-foot boring bar with headlight used for creating pierced vessels, to thin walled bowls, air-brush coloration, the stoutness of the coffee, the joys of being the sole male in a step-aerobics class and, of course, turning wood for fun and profit.

Barriger, a recently retired professor of dendrology, in addition to his responsibilities with the AAW, shows his work in 6 to 10 fairs per year, performs at folk festivals with his antique pole lathe and logging equipment, has been featured on TV turning wood and was one of the founders of the Central Florida Woodturners.

—Ken Keoughan, Friendship, ME

Double-sliding dowel cutter

The procedure that I use to make stoppers is quite similar to that described by Nick Cook in the cover story of the December 1996 issue of *American Woodturner*. Nick referred to sliding tables, but he gave no details about constructing them. I have built and used the table described below for cutting both the dowels and the blanks. The table slides in the bandsaw's miter groove and is reversible.

I made my table for an old (circa 1969) Sears Craftsman 12-inch bandsaw. The dimensions given can be easily modified for other models.

1. Cut the base from $^3/_4$- or $^1/_2$-inch good-quality birch plywood. My base is $5^1/_2$ inches wide by 15 inches long.

2. Cut the miter-groove runner from $^3/_4$-inch by $^3/_8$-inch stock. I used the UHMW plastic strips that are available. I cut mine 2 inches longer than the base is wide, that is, 6 inches long.

3. Mark where the runner is to be attached on the underside of the base. Attach the runner to the base at a right angle to the long dimension. For my table, I attached the runner 7 inches from one end and $7^1/_4$ inches from the other end. This dimension can be calculated as follows: stop-block length + length of dowel or stopper blank + distance from blade to left side of the miter groove. In my case, this comes out as follows:

Dowel side	
Stop block length	1″
Dowel length	2″
Blade to miter groove	4″
Total	7″
Block side	
Stop block length	1″
Stopper blank length	$2^1/_4$″
Blade to miter groove	4″
Total	$7^1/_4$″
Miter slot width	$^3/_4$″
Total base length	15″

4. Trim the runner so that it fits snugly in the miter groove and place the base on the bandsaw table. Mark in pencil the outlines of the fence assembly. (In my case, the fence is $1^1/_2$ inches wide and as long as the base. It is fitted 2 inches from each edge.) Make a cut to just beyond this line with the bandsaw blade that will be used for project cutting. Reverse the fence and make a similar cut.

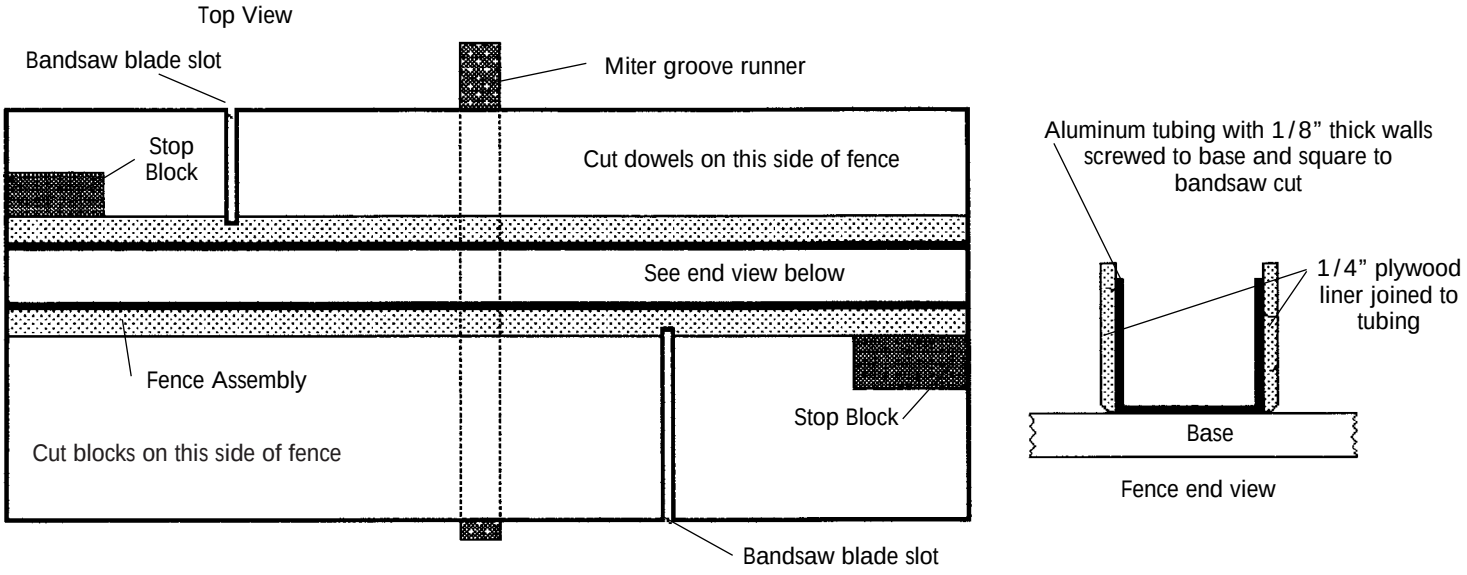
5. Cut the aluminum tubing the same length as the base. For my fence, I used heavy ($^1/_8$-inch-thick walls) 1x1 U-channel stock, 15 inches long.

6. Cut the two fence liners from $^1/_4$-inch birch plywood. I cut mine $1^1/_4$ inches wide by 15 inches long.

7. Bevel the bottom edge of the fence liners to avoid misalignment of the blocks and dowels due to sawdust buildup. Then attach the liners to the U-channel using glue, screws, or both.

8. Drill two holes, $1^1/_2$ inches from each end, in the bottom of the U-channel for fastening it to the base. Make the hole at the right end slightly oversize to allow some adjustment of the angle that the fence makes with the saw cut. Fasten the fence to the base with pan-head wood screws. Check the angle that the fence makes with the saw cut and adjust it to 90 degrees by loosening the attachment screw at the right end and moving the fence slightly as required. Make sure that both attachment screws are tight. You may now add one or two additional attachment screws if desired.

9. Cut and attach stop blocks to each side of the fence—one for cutting dowels and one for cutting the stopper blanks. I used blocks 1 inch square and $^3/_4$ inch thick. I placed



my blocks so that the dowels are 2 inches long and the blocks are $2^1/_4$ inches long.

—John Cobb, Larkspur, CO

Supersize packing material

I tried the shavings-packaging route. I don't think it's for large work—45 pounds of mulch was a bit much.

I repacked with tightly sealed empty three-liter plastic soda bottles, and the weight came in at 15 pounds. Supersize popcorn packaging!

—Richard Nicols, Falcon Heights, TX

Anti-fog cream

If you have trouble with your face shield and/or glasses fogging up when turning, try a product called "anti-fog" cream. I use it on both sides of my face shield. It polishes and cleans plastic and glass and also seems to repel most dust. One application will last several turning sessions. You may find it in an optical shop or department store. The product I use, "Anti-Fog," is made by World Optical in Arlington, TX. Phone: 817/261-9711.

—Mike Kornblum, Mtn Home, AR

Tips from Texas Turn or Two

Here are some tips I overheard at last year's Texas symposium:

From Bobbie Bridges—If you have a piece of spalted wood which splits and flies apart just when you are getting down to the right size or a punky center for a bowl, use Min-Wax 209. Soak the wood with it, let it dry, and repeat several times.

From Clay Foster—If you have been playing with the polymer clays and trying to make a pen, form the clay rather thickly around the brass tubes and bake about an hour. Then don't try and turn it down to that $^1/_{16}$ inch, but instead sculpt it at the lathe, producing a hand fitting pen.

From Gary Sanders—Take pictures of things that inspire you. (At the slide show he showed various mag wheels followed by the pieces that were inspired by the wheels.)

From Jerry Fant—Keep a sketchbook and record that thrust of a mountain that had a great shape.

From Betty Scarpino—I'm not much of a sketcher, but I do manage to get down shapes and things that interest me.

From Ben Talburt—One way to avoid busted knuckles is to take one of those bright colored hair scrunchies and wrap it around your chuck. It is a sure way to remind you not to come too close.

—Judy Williams, Austin, TX

Hot stuff declogging system

Hot stuff glue is one of the greatest turning aids I know, but trying to keep the nozzles free-flowing, especially when your concern of the moment is to get the pieces properly aligned and adhered, is extremely frustrating. I try to do the right thing and keep any drips outside the nozzle cleaned up before putting the cap on, but I don't always succeed. It must be everyone's problem, because they sell additional tips, and I find all kinds of advice on keeping things flowing. I finally gave up, admitting that I am by nature a slob who doesn't always pay attention to what's important in draining and cleaning the tip. Using the debonder to clean up gets frustrating as well, because the tip is always clogged when you have one piece on the chuck and a second lying on the lathe bed, ready to fall and dent as you try to get the #&$%@ glue out of the bottle.

Here, for those who are as frustrated as I, is the method I now use. Fill a large adult-proof pill bottle with acetone, making sure it is one of those which come with a plastic seal under the lid. Put a narrow-opening tip for water thin and a wider cut tip for the gap-filling type in the acetone, including a cap. The glue dissolves in the acetone, which must be periodically renewed as it becomes ineffective. When a tip on one of your active glue bottles becomes clogged, grope in the bottle for the appropriate replacement, wipe and swish it briskly through the air to evaporate the acetone, and swap tips. Use the clean top to recap, putting the old one in the acetone for cleaning.

The acetone needs replacement when it begins to leave white residue on the otherwise clean tip. While you're attending to the bond, the solvent is busy dissolving your carelessness without any other effort on your part. Sure beats running wires or debonder-soaked pins into the tip, only to find that a partially hardened glob on the inside plugs the tip anew when you have half as much glue as you need spread on the work.

—George Nazarko, Rapid City, MI

From the bottom up

I recently added a floor-sweep to my two-stage dust collection system. The original setup kept my bandsaw, belt/disk sander, and lathe reasonably dust free. But the floor, the final resting place for dust not picked up at the power tools, needed attention. Now with the floor-sweep and a push broom I have resolved the floor dust problem. Install a floor-sweep only if you have a two-stage dust collection system.

—Charles Brownold Davis, CA

Still growing

Here's a tip I learned from Rude Osolnik. As we all get older and fall prey to arthritis and such, it helps to have lathe tool handles that are larger in diameter, especially at the bulge near the ferrule. Rude feels that the larger diameter tools are easier on the hands.

—Lee Crowley, Stone Mountain, GA

Angular Turning on the Lathe

Profiles with edges

SIGI ANGERER
TRANSLATED BY ALAN LACER

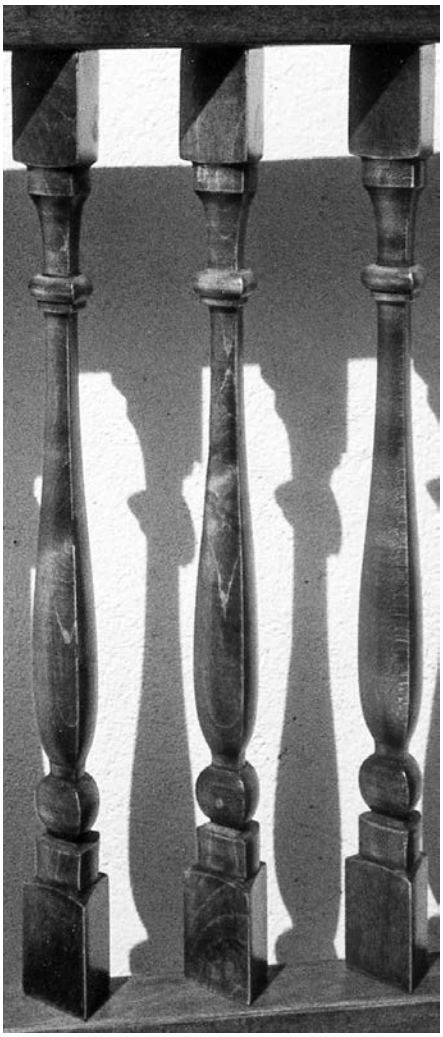
TRANSLATOR'S NOTE: *A short time ago I was in the shop of Swiss turner Sigi Angerer and noticed some unusual balusters. They looked like conventional turned spindles, but they were triangular in cross section. These triangular columns were my first exposure to angular turning. I later saw a stairway where the spindles were perpendicular to the ground but the beads were tilted to match the angle of the stair, and other startling forms that convinced me there are many older - almost forgotten - practices that offered tremendous design possibilities for contemporary turners. This article, which puts such techniques in historical perspective, as well as explaining how a few of such approaches are executed, first appeared in* Schweizerische Schreinerzeitung, *December 1991)*

"ANGULAR TURNING" IMPLIES A contradiction. Turning tends to round off the work, so how can there be angles and corners? Angular turning is an old technique that's described in Martin Teuber's book of 1756: *The Turning Art*. It is also described in Hugo Knoppe's *Turners' Handbook* of the last century. To quote from Knoppe's book: "Angular turning is a mass-production technique for manufacturing chair and table feet, columns, and similar work. Primarily four cornered objects are turned, although more corners are possible."

Today one can use milling attachments to produce large numbers of pieces economically. However, if only a few pieces are needed, making a profile cutter becomes less cost-effective—and the almost forgotten technique of angular turning becomes interesting once again.

The limits of round

Why do we need angular turning? Normally everything turned on the lathe is made round. The choice of shapes is restricted to a few basic forms: astragal (convex forms, which we generally call "beads"), cove, V-notch, V-bead, ogee, and flat (such as filets). Most cylinders can be divided and attractively shaped with these few forms. These shapes may be constraining, but the basic shape of each can be varied somewhat. The diameter of the work may vary greatly as well as the width of the basic shape. For example, an ogee may spread along the entire length of the spindle or be compacted into a few centimeters between other structural elements. And a single shape may be repeated to improve the overall effect of a piece.



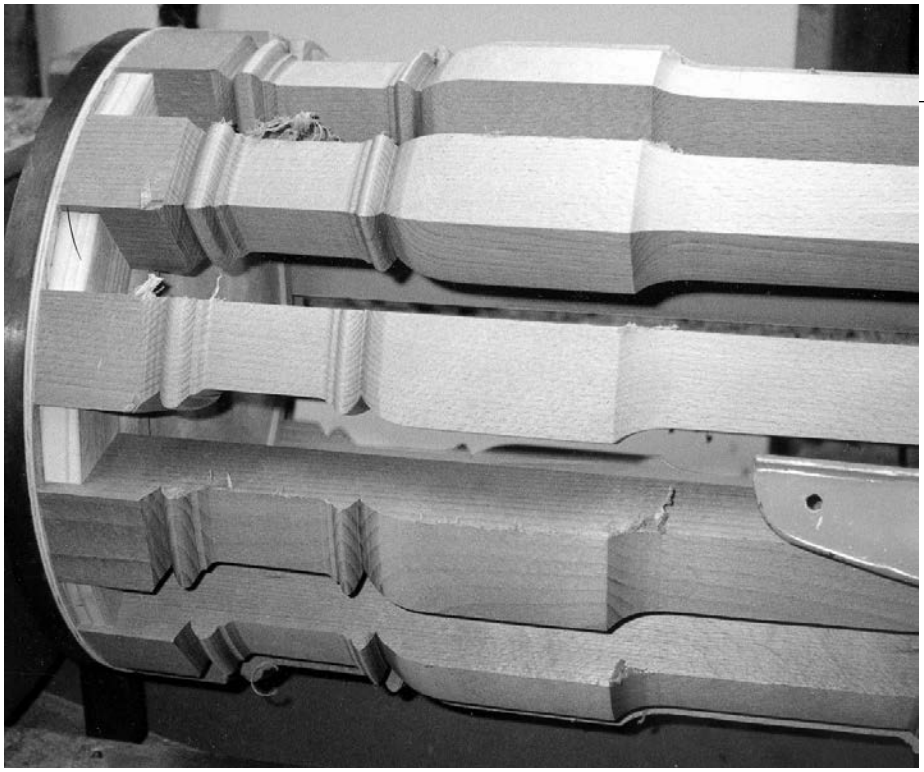
Despite this variety of possibilities, the turner has always attempted to break away from the rounded form. One obvious possibility is to leave square sections (or "pummels") in the work. Cutting flutes along the length of a cylinder is another form possibility that breaks away from the rounded surface. Oval turning is one more possibility.

Traverse turning

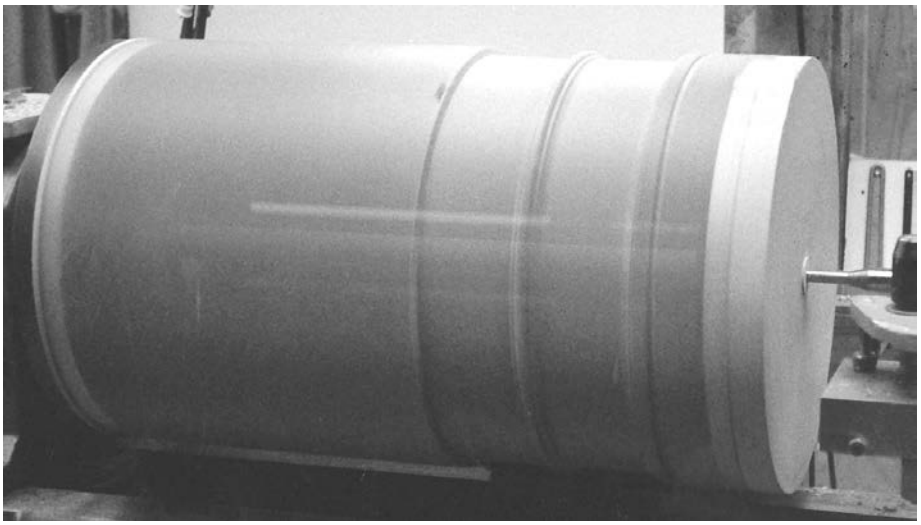
In the middle ages turners came up with other options based on what they called traversing spindle lathes and achieved an amazing degree of technical perfection. There are two basic types or actions of such lathes: where the movement of the headstock spindle is back and forth along the length of the lathe axis or where the movement is perpendicular to the normal lathe axis. With traverse turning* it is not possible to turn the work by hand. The tool must be held in a support system and operated with crank handles (the familiar cross-slide system on metal lathes). Such turning is not considered turning in the normal sense, but is seen as more of a process of machining the wood. Also, this type of turning requires a pattern to control the action and movement of the lathe spindle.

Although there are many beautiful examples of traverse turning, solving the technical problems seems more in the lime-light—resulting in a neglect of the overall design of the finished work.

*I have translated these types of turning as "traverse turning," which includes what we often refer to as "swash turning," "pumped turning," or the results of a rose engine lathe



Lathe Magic: Detail at left shows spindles with two faces turned, mounted on a drum.In the photo below, even though there are gaps between the spindles, the rotating assembly appears to be a single large cylinder. Historically some drums were as large as a meter in diameter and held 70-80 individual spindles.



Off-set turning

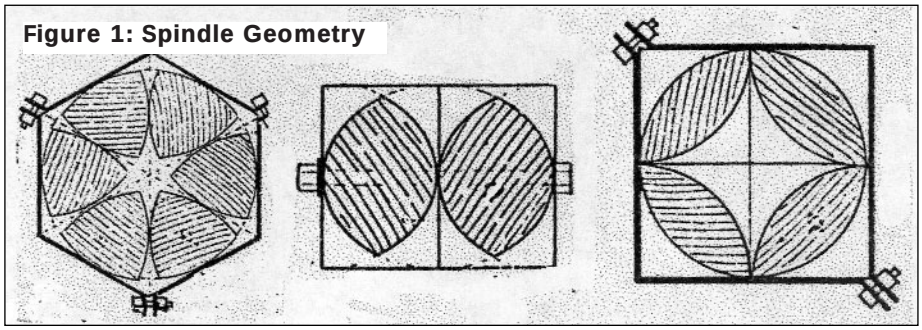
Another way to alter the cross section of a rounded form is off-set turning. With this method the turning stock is changed two or more times from the original turning axis but turned to the same profile. A simple and typical example of this method is the mouthpiece of a pipe. In earlier times these were turned from horn. To create the oval on the "bite" portion of the mouthpiece, it is turned on two different centers. The turning of a chair foot or back leg with an offset can also be turned in this manner. Because the axis of rotation remains in the center, the form is not changed and the work only receives a curved profile.

Off-set turning also includes angular turning. There are two distinct types of this turning. The simplest version involves the mounting of equal length workpieces between two mounting blocks. A second possibility is the turning of stock on a large barrel or drum.

Figure 1 shows the off-set turning possibilities of two, four, or six similar pieces. The diagrams also illustrate how the pieces are mounted and rotated within the mounting blocks. With this method it is possible to produce very individualized and very slender spindles. Because these spindles become so slender in cross-section, they must be turned by hand.

In fastening the work great care and precision is needed. The work must be solidly fastened at the ends and mounted exactly along its length. Just a half millimeter difference in mounting yields a change in profile between the parts. The best form will probably be a simple form, as the working action is only on one of the faces of the spindle at a time and not on the complete form. As a result of the flat cross sections that are produced, only a little material is available for shaping. It is difficult with this small amount of material to produce a good form. Also, for such slender work, only plain, straight-grained wood should be used.

With the use of a special chuck, off-center turning can also be used for face-grain turning. However, with such work we reach the limits of sensible production. Plenty of playful effects may be produced on such items as broaches and lidded



Turning three sided pieces, left, is no more difficult than doing two sided work, but it takes longer to shift and turn the stock for beading and profiling. Center, two rectangular pieces are bound together to form a larger square for turning. This approach wastes a lot of wood, and the large gaps that develop make it impossible to make very clean cuts. Joining four squares makes efficient use of wood, but the flattened curve makes it difficult to do much profiling without making the cross section too thin.

boxes. The problem with this technique is that there is too much concern for the effect and the technical expenditure and therefore one quickly loses sight of the overall form. In the final analysis, it is easy for this very exacting work to fall into the category of Kitsch.

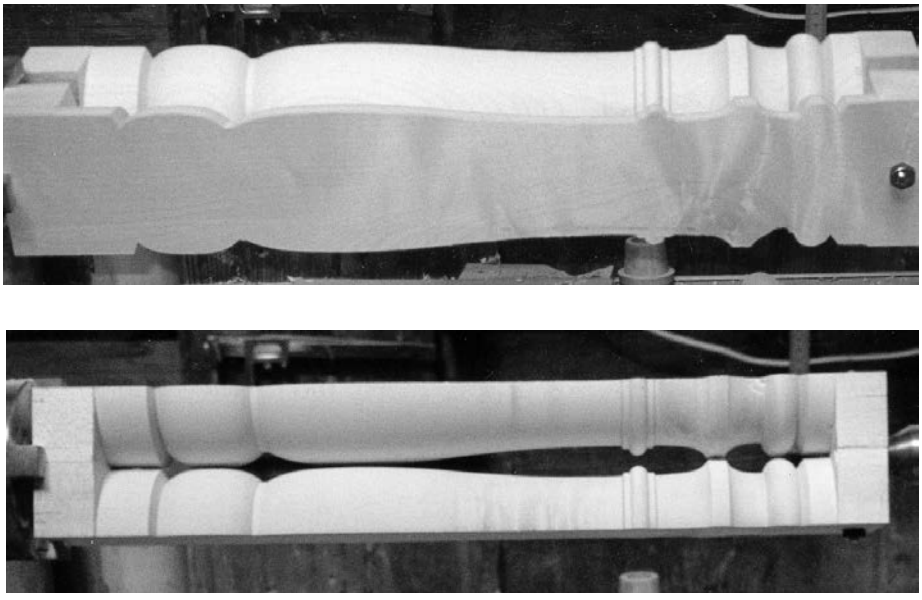
Angular turning on the drum

To perform the angular turning on a drum, two disks are mounted on a shaft. These disks incorporate a holding method (screwed, bolted, or clamped) to mount a number of spindle blanks. The blanks are square in cross-section and are evenly distributed around the drum. While turning, the blanks appear to create a large cylinder. On the outside face of this cylinder the desired profile is created. Following the profiling of the outside face, each blank is rotated 90 degrees and the profile is repeated. This process continues until all four faces of the square have been turned. With this technique each face may be cut cleanly (and presumably sanded, if necessary), which results in a completed spindle once all four faces have been turned. The process of profiling each piece produces an arch across its width; the greater the diameter of the drum, the flatter the arch becomes, and the more the spindle appears square in cross-section.

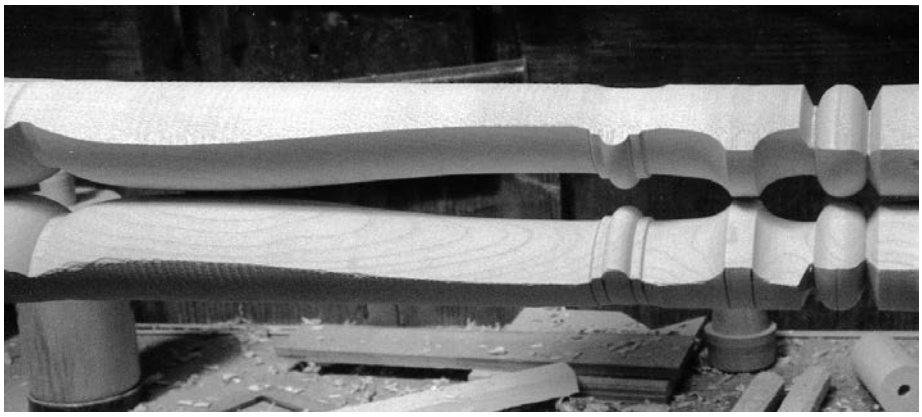
One must pay constant attention to the mounting of the spindle blanks in the holding device, in order to correctly profile all faces. If turning the profile by hand methods, one must always leave the spindles precisely in their original positions—in order to see the profile in the running drum. Otherwise, it is hardly possible to produce four identical sides. With a copier attachment on the lathe it is obviously easier to produce the identical sides. The pattern may be a flat template or a round spindle with the desired profile. The rotation of each spindle four times on the drum certainly involves extra expenditure of time. However, an important point should not be overlooked: a totally finished spindle is produced on the lathe.

Spindles with the milling attachment

Similar spindles can be produced using a milling attachment. With the drum securely locked, a large milling cutter may be run the length of the fixed spindle blanks. Once all spindles have been milled on one face, each is rotated 90 degrees and the



A lens shaped form develops if two rectangular pieces are joined together to create a square. The first turning operation profiles the outside face of the two rectangles. Next the two pieces have the inside and outside faces reversed for the second turning operation. Accurate alignment and profiling are necessary for producing the same form on both pieces.



The two rectangles have been turned once, reversed (inside to outside) and now are in the process of being re-turned. Note the lens shaped bead appearing on the right -hand portion of the spindles.

process continues until all four faces have been profiled. The milling of the profiles is simple and exact, although only one spindle at a time can be milled, which naturally is more time consuming. This method, in contrast to drum turning, cuts inward, leaving a concave surface, and tends to produce sharper edges, which are more easily broken during the manufacturing process or in use.

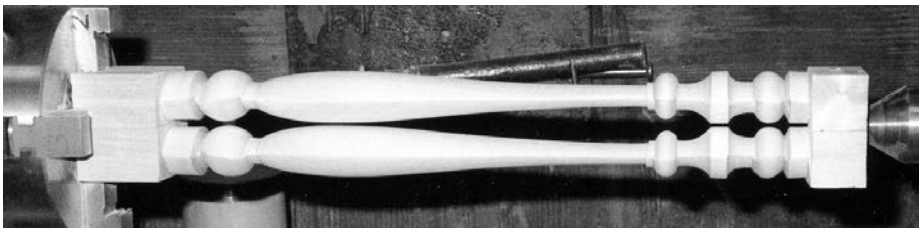
Oval columns

Without the drum it's possible to turn the spindle blanks into a "lens" shape (a double convex shape when viewed in cross-section, Figure 1). Concerning this possibility John Martin Teuber wrote "One may quickly and easily turn oval columns." The cross-section does look like an oval, but "lens" shape is a better description.

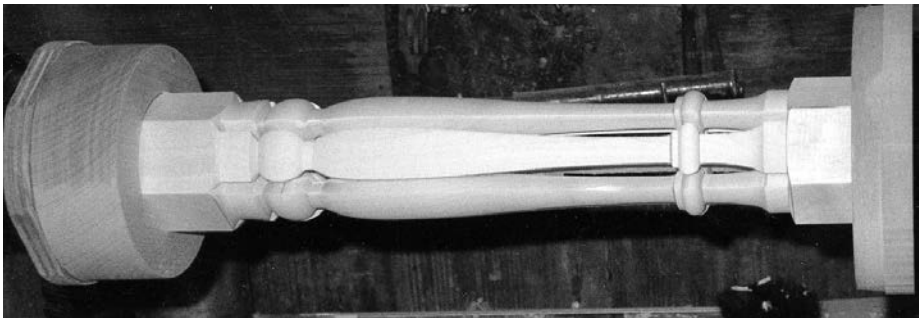
This type of mounting is amazingly simple. As Figure 1 shows, two rectangular blocks are bolted together to form a square. Then the desired profile is turned. Certainly both sides cannot be turned at once , because of the fashion in which the pieces are bolted together. The profile must be fashioned relatively flat, otherwise the spindle will become too thin. Both pieces have half of their profile shaped on the running lathe, as easily as turning an ordinary column. Next, the two pieces are unbolted and the inside and outside faces are reversed for final turning. The second turning must exactly follow the original profile. As it is very hard to see the profile while turning, the lathe must be stopped frequently to check the progress. The second profile can be finished off cleanly with stiff, unused sandpaper.

The same form can also be produced in another manner, as in Figure 1. The economy of material is much better in this second method. Also, the finishing-off of the work is better because the profiled angles have smaller gaps. Moreover, there are four completed spindles at the end of this process.

The one disadvantage of this process is a flatter cross-section due to the larger radius. In Figure 1 we see a three-cornered spindle produced from six blanks. In this method there will be three changes of the blanks until all three faces have been shaped. Because of the small gaps and similar proportions,



The profiling of both sides is now complete. The rectangular sections on the top and bottom remain joined together in a square.

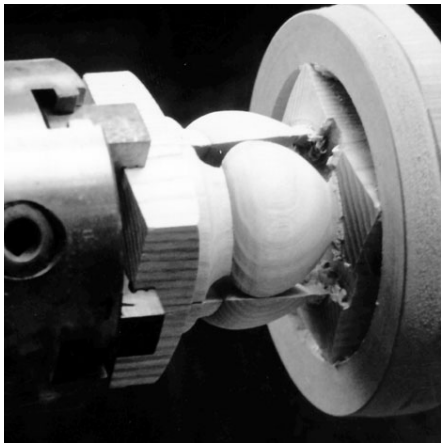


Six, three-cornered spindles are being turned.The pieces, originally sawn into equal-sided triangular stock, are held at each end by a fixture, which has a hexagonal recess fit to the size of the turning stock. Pieces are shifted in the fixture after each profiling. This is time consuming, but produces six completed spindles.

TURNED WIND CHIMES

A sound project

WILFRED ROTHERHAM



Short caps can also be turned with this technique. Waste on both ends is necessary for mounting purposes.

the profiles are finished off rather cleanly. The small cross-sections require great care in turning. In the longer spindles, vibration and flexing are major problems.

In turning these forms, it is advantageous to sketch the cross-section in order to ascertain the desired finished profile. Because you can not see the profile developing with the first turning, it is very easy to get the profile too thin.

All of the described turning techniques are more time consuming than normal round turning, and therefore the price of the finished work must be higher. However, the individual and elegant work thus produced will certainly be worth the effort and should secure the higher price.

I hope this description of angular turning will serve to inspire both the professional and amateur turner to increase their repertoire of woodturning forms.

Sigi Angerer is a professional and master woodturner in Luzerne, Switzerland. He will be a featured demonstrator at the AAW symposium in Akron, June 12–14. Alan Lacer is a turner and contributing editor to American Woodturner *living in Shoreview, MN. He is also a symposium demonstrator.*

MAKING TURNED WIND CHIMES PRESENTS a unique design opportunity for the turner. The chime is composed of an upper turned chime holder, a turned clapper, a wind catcher, and, of course, the chimes themselves.

The chime holder is made from rough stock approximately 5 to 7 inches in diameter and approximately 7 to 9 inches in length. From this rough stock a series of spindle shapes can be designed, incorporated, and turned.

The only allowance that must be made is to form a flat lower surface from which eye hooks can be screwed and the chimes can hang (Figure 1). For a five-chime wind chime you set your eye hooks at 0, 72, 144, 216, and 288 degrees. A second way to hang the chimes is to form an outer lip from which you can drill holes through and string the chimes (Figure 2).

I suggest that the upper portion of the holder be made narrower than the lower. The top of the holder will receive a cup hook for the chime to hang from. I also suggest that you design a small finial centered in the bottom of the holder. From this finial you'll attach a chain from which the clapper and wind catcher will hang (Figure 3).

The clapper is another spindle to design. Again, it too should be planned so as to have a smooth flowing top and bottom section. Since the width of the chime holder was approximately 5 inches, the clapper should be approximately 3 inches in diameter. This will allow it to hang within the circumference of the chimes without touching. The clapper will receive a chain at both top and bottom (Figure 4).

You can make the wind catcher in any shape you like—as long as it is flat and can catch enough wind to move the clapper against the chimes. I prefer to make an aspen leaf design, bandsawn to shape and decorated with a wood-burning tool (Figure 5).

The final part of this project is the chimes themselves. These can be made from $^1/_2$-inch aluminum conduit or copper pipe, or a combination of both. From a 10-foot piece of stock cut the pipe into lengths of 17, 19, 21, 23, and 25 inches. The tone of the chimes is controlled mainly by the length, and these lengths produce a soft and harmonious melody. Cut

Figure 1: Holder with eye hooks

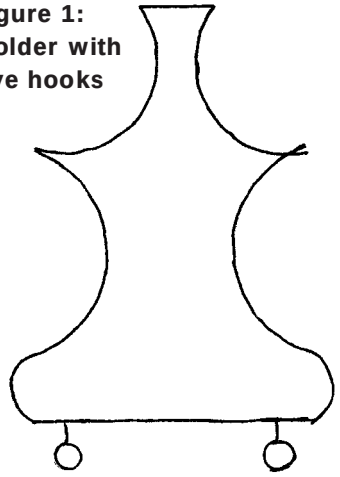


Figure 2: Holder with drilled holes

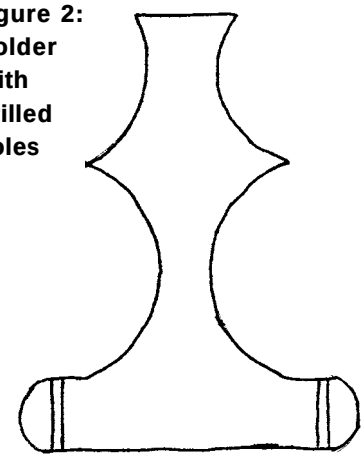


Figure 3: Holder with finial

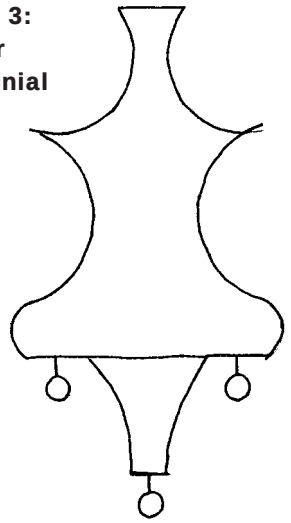


Figure 4: Clapper

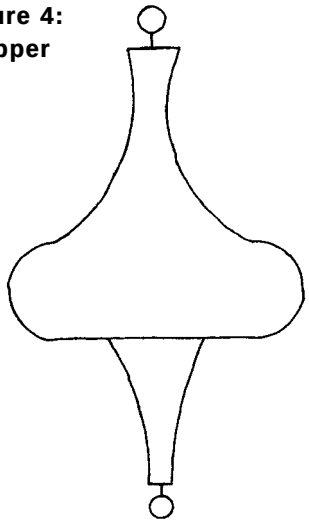
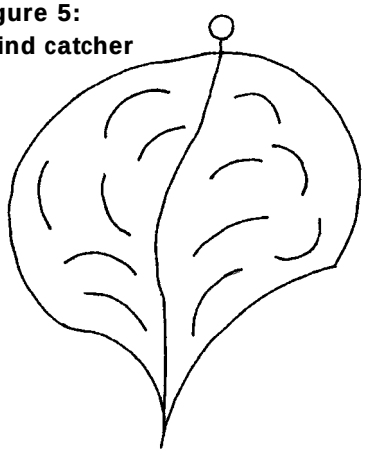


Figure 5: Wind catcher



one end of each section at a 45-degree angle, leaving the other end square. File off the burrs and smooth each end. Set up a stop block on your drill press and drill a $^1/_4$-inch hole approximately 1 inch from the square end.

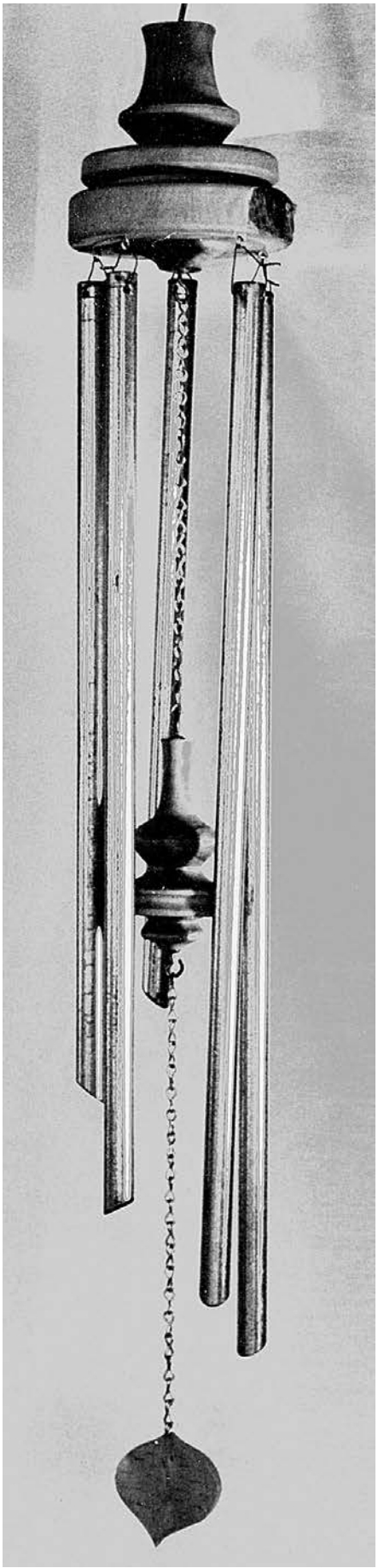
Make a mandrel (a tapered piece of wood) over which the square end of the chime will fit and mount it in your lathe chuck. Position the chime, bring up the tailstock with a live center, and fit it into the angled end of the chime. Rotate the chime at moderate speed and, using 60-grit sandpaper, sand the chime, removing all ink markings and stains. Such a coarse grit will not only polish the pipe but leave a series of scratches that will catch the light and add luster to the chimes. When they're complete, insert a grommet into each hole on the chime.

Spray or brush each chime and turned wooden piece with exterior polyurethane varnish. Two coats will be fine.

I use a 60-pound-test monofilament fishing line leader to hang the chimes from the chime holder. I have found the filament to wear much longer than string. However, if you are hanging the chimes from the chime holder using drilled holes, string looks more appropriate. The final step in this hanging process is to rotate your filament so that the knot is located within the chime body. It looks much cleaner that way.

This approach to making wind chimes will provide many different design opportunities, not only in the shaping of the wood elements, but in different combinations of chime material (copper and black walnut, for instance). When the wind is moving across the yard, you will hear your efforts in full voice.

Wilfred Rotherham turns wood in Silver City, NM.



GET A GRIP

The basics of supporting and controlling tools **RODGER JACOBS**

PROBABLY THE BEST WAY BEGINNER or intermediate woodturners can improve their technical skills is to learn to feel the wood through the tool. When you are feeling that effortless sweet cut and the shavings are piling up, the act of turning just naturally makes you smile. To develop the sensitivity to feel, a lot of repetition and some consistencies are needed. You need consistently sharp tools; you need to put in some hours behind the machine; and you need to know some basic strong and flexible hand grips. With the advent of the third generation of sharpening jigs (see *AW,* December 1997, page 8), keeping the tools sharp is a no-brainer. If you make objects in series, you'll learn to turn faster. And if you learn good, solid, basic hand grips, they will allow you to develop the sensitivity in tool handling needed to feel the cut. When the sensitivity is developed, you can make anything you want. All tool control flows from your grip. This article is about grips.

Grips are built on the tool rest. The tool rest consists of three sections: the bearing surface or top, the saddle or horizontal support, and the post. The turning tool rests on the top; the saddle provides a place for your anchor; and the post allows for positioning the height and rotational angle of the tool rest in the banjo (which mounts the rest to the lathe ways). Tool rests these days have a lot of different shapes, and for beginners that can be confusing. Let's use the KISS (keep it simple, stupid) principle and talk about only one tool-rest shape: the straight. Beginners are advised to stay with one rest until they learn to use their grips effectively.

You should file the top of your rest free of any nicks or grooves that could alter the tool motion. A good sensitivity exercise is to lay a tool on one end of the top and look away while sliding the tool across the rest. Try to sense any unnatural areas; develop your ability to feel. The tool rest should allow the tool to be as close to the work as possible, and that usually means a small and sometimes rounded top. The rest should be small enough through the saddle to allow you to hook your control hand index finger under to provide an anchor while using the underhand grip, and wide enough through the saddle for a good seat for your control hand palm to provide an anchor for the overhand. Folks with small hands do better with small tool rests.

Since some folks are right handed and some are left handed and some use either hand, let's simplify things by saying that the hand that is in contact with the rest is the *control* hand and the hand that supports the tool is the *support* hand. I'll use this terminology in describing the grips. Another thing: this article is not meant to be the definitive text on turning grips. This article is just a map that tells you how to get from point A to point B.

The common thread that runs through all grips is the anchor. Your tool must be anchored to the tool rest by your control hand in some manner. You can pull it down on the rest in the underhand grip, or you can push it down on the rest in the overhand grip. When vibration starts to creep into your work, you usually need more anchor. Your anchor can also be your pivot point for horizontal movement or your fulcrum for vertical movement, depending on what type of cut you are taking. One thing is certain, however you slice it, without an anchor you are going to be out of control, adrift, and probably headed for the rocks.

In a good grip the control hand and the support hand work together. The control hand provides your anchor, and it manipulates the tool. In the overhand grip you can push or pull the tool by extending or withdrawing (crabbing) the fingers of your control hand. In the underhand grip tool movement is controlled by pushing with the thumb or pulling with the fingers of the control hand. The control hand also provides power for the heavy cuts.

The support hand provides the finesse to keep heavy cuts tracking. The support hand also provides the leverage, rotates the tool to allow edge presentation, and raises and lowers the tool handle. Each hand is important. Train yourself to feel with both hands.

The overhand grip is generally the first grip folks are taught. It is natural feeling and suitable for both center- and facework. The overhand grip will get the job done. This grip works better if the lathe center height is a little below elbow height. With a lower lathe, the turner can easily lean forward and put a little body weight on their anchor. If the anchor is firmly set, it can be used as a pivot point to scoop out heavy cuts.

The edge of the control hand's palm is set into the saddle to provide the anchor, and all the fingers are laid overtop and along the far side of the tool shaft. The thumb of the control hand is pointing toward the turner and laid on the tool shaft. The tool is held firmly in tension between the fingers and thumb. Do not put any part of your hand over the top of the tool rest, as friction from the workpiece will heat it in a hurry. I have lost a couple of patches of hide forgetting this rule.

In the overhand grip with a set

The overhead grip presses the tool down on the tool rest. The control hand moves the tool along the rest by extending or clenching the fingers and thumb. The support hand often is braced against the side of the body.

anchor, you slide the tool along the top of the tool rest by either extending or clenching the fingers and thumb in short strokes while the anchor is held stationary. This grip is used primarily in hollowing, where the tool overhangs the rest a bit and a firm hold and precise control is needed. Sometimes the cut is only an inch or two until a new anchor is needed. If you put some weight on your control hand and use the anchor as a pivot point and sweep the tool handle with your support hand, you can really hog some wood.

In the overhand sliding grip you move the tool by sliding the whole hand while maintaining even downward pressure into the saddle for a firm anchor. This grip is usually used for outside shaping and finish cutting in both face and center work. The sliding grip can be used pulling or pushing, just remember to increase or decrease your anchor in direct correlation with how heavy or light a cut you are taking. The support hand holds the tool firmly with the fingers curled underneath and the thumb resting on top. Some folks like to hold the tool up around the ferrule for small tools and some like to hold it down around the butt for large tools. On long tools the support hand can tuck the tool into your hip and that helps your anchor. The support hand rotates the tool, raises and lowers the handle, and also pushes to advance and pulls to withdraw the tool. Concentrate on feeling with both hands. If the big V (vibration) starts in, put more pressure down on the rest and increase your anchor. Both these overhands have variations, depending on what you are turning.

The other basic woodturning grip is the underhand. I use the underhand grip a lot. I first learned it doing production centerwork, and I've found that it works great for

The underhand grip begins with the control hand palm up, index finger extended under the tool rest. The tool is squeezed onto the rest between the thumb and index finger.

There is little danger of pinching the index finger of the control hand between the tool rest and the work. The author uses his finger, to find if there are flats remaining on the work.

facework, too, because of the flexibility it affords. With equal effort, you can hog or go light with this grip. I seem to be able to feel my tool edge slide through the wood a little better with the underhand, and I use it for almost all my finish cuts and detail work. Learn this grip—it's a good'n.

The underhand grip works well with the lathe centers at elbow height or a little above. Your anchor is dependent on the combination of using a little body weight and ability to squeeze the tool down on the rest between your thumb and index finger. You can see how developed the thumb muscle of my turning hand has become.

The underhand grip with a set anchor allows fine control in small centerwork, and you can power through the wood's tendency to throw the tool uphill by using your thumb on the tool-rest top as a stop. In hollowing open facework you might be able to cut in only an inch or two at a time before having to move your anchor but the grip is rock solid. As you gain experience, you'll be able to slide your index finger, grab an anchor, and hog some wood. The underhand works great with a set anchor or as a sliding grip.

To get an underhand grip you first extend your control hand and point your index finger at the lathe. Hook that finger underneath the saddle of the tool rest with your palm up. Lay the tool across the top of the rest and your open palm. Grasp the tool firmly with three fingers on one side and your thumb on the other while pulling the tool down on the rest with your index finger. Rests that are small through the saddle are good for folks with small hands. Hold the tool in tension between your thumb on one side and your fingers on the other and pull up on the bottom of the saddle with your index finger: that pinches the tool and creates your anchor. By extending and pulling in your forefinger, you move in and out across the rest. Push with your thumb or pull with the opposite fingers to move the tool across the rest. Your support hand does the same job it does in the overhand: it raises, lowers, and rotates the turning tool.

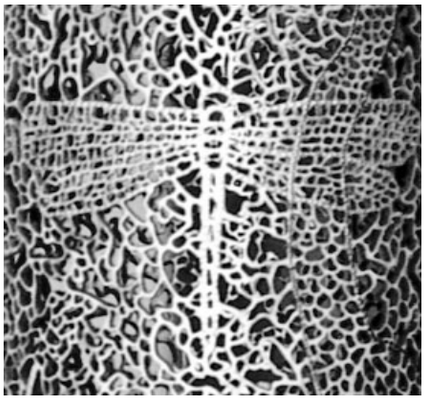
Don't worry too much about getting your index finger of your control hand pinched between the wood and the rest. If the work hits your finger, it will throw it down and out. I commonly use my index finger to find if I have left any flats on the work. In one variation of this grip, for small diameter centerwork, your control hand index finger extends under the saddle and lightly touches the back side of the spinning work. In effect, your finger acts as a steady rest. Sharp tools, a steady hand, clean living, and you'll turn long skinny stuff with ease. The precise control I get from this grip makes it my favorite.

These two grips, with their respective variations are some of the meat and potatoes of woodturning. When they are used properly, a good turner will flow from overhand to underhand and back to overhand without missing a lick. Take the time to practice and learn these grips. Concentrate on feeling the wood through the tool.

Rodger Jacobs is a professional turner in Newland, NC.

Ecological Disaster; Design Challenge

DICK BURROWS



Delicate dragonfly and duck are formed by piercing and carving thin wall sections of vessel, then accented with colored dyes.

Canadian turner Frank Sudol decides what's next after he dropped his delicately carved vessel with ducks, cranes, dragonflies and other marsh creatures, breaking out a section of the wall.

Last Spring Frank Sudol and Michael Hosaluk got their students at Arrowmont School of Crafts not only to do a lot of work, but to do even more thinking about what they were doing. You can expect the unusual when one of the classroom blackboards proclaims that "If it looks like it was made on a lathe, you're doing it wrong."

But one of the real show stoppers didn't even come out of the Gatlinburg, TN, classes. It was an accident that left a lot of folks speechless. After a slide presentation one night, Frank was showing some of the pieces he had safely carried with him all the way from Saskatchewan, along with a long-bed lathe, dyes, carving tools and assorted other paraphernalia.

As he was discussing one of his taller, exquisitely carved and colored pieces depicting the marsh, like the ducks and dragonfly shown above right, and his lifelong concern for the environment, he dropped the piece.

It hit hard enough to break off a section near the base. Frank swallowed hard as days of work disappeared.

Michael Hosaluk, another traveler from Canada, didn't miss a beat and quickly lived up to his reputation as advocate of the philosophy that there are no mistakes, no disasters -- Just Design Opportunities.

The piece was even better broken, he said, because it truly reflected Frank's concern for the environment and the damage it has suffered around the world.

That approach to environmental problems should be interesting. Frank says the best work is about sharing and honoring the feelings and gifts we have all received. "I want to find a place where there is no road and make a path."

The approaches suggested for repairing the piece might not be found on any path frequented by restorationists. The repair kit is likely to include barbed wire, tar, trash and other worldly debris that have tarnished the world that Frank so clearly wanted to portray.

Dick Burrows is editor of American Woodturner.

PUT A SPIN ON SPINDLE WORK

A colorful top for summer fun

BONNIE KLEIN

THE STUDENTS IN MY BEGINNING classes always seem to enjoy turning tops. Tops are fun to make, as well as to use, and they offer a great spindle gouge and skill building practice.

And, if you like colorful things, you can go to any art supply or department store and outfit yourself with markers that will transform your turning into any color combination you can imagine.

I start by gluing a 2 in. X 2 in. Eastern hard maple block to a scrap attached to my faceplate. Maple is a good turning wood and its fine texture and light color make it ideal for playing with various combinations of colors.

As with any turning project, sharp tools are important. The sharper the edge, the easier and cleaner the cut. A little time spent sharpening now will reduce the sanding work later. In fact, I encourage people to improve their cuts so only minimal sanding is required. A cleanly cut surface also takes color better.

1. Turn the cylinder true, using your favorite spindle gouge. As soon as I have a cylinder, I begin shaping the end farthest from the faceplate. This will become the bottom of the top, so make the bevel smooth and gentle.

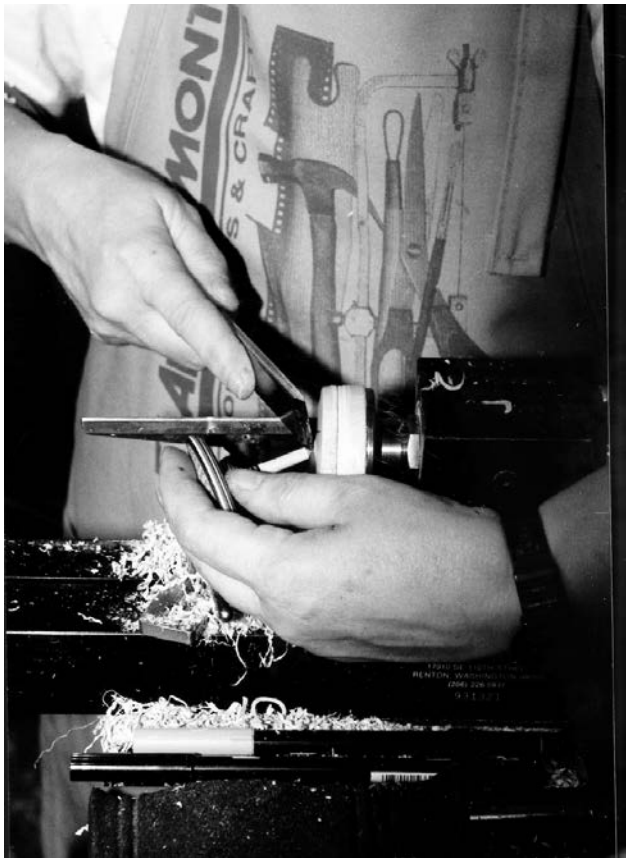
Bonnie Klein is a turner, teacher and author in Washington State.

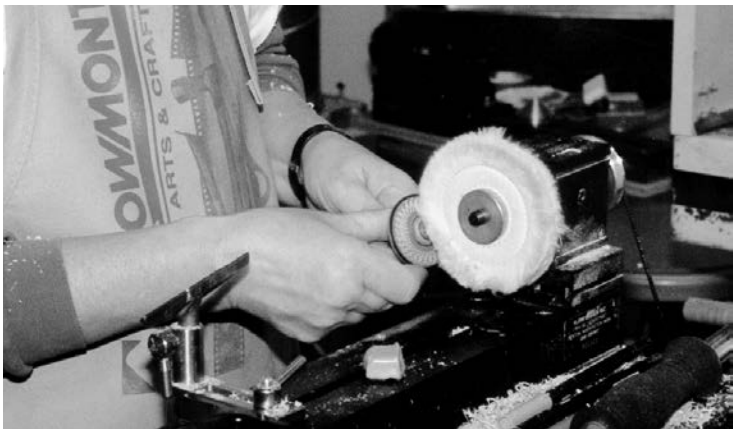
2. Decoration begins immediately. First I use a colored marker, then texture some of the colored areas with a chatter tool. Contrasting smooth bands of color with textured ones is very interesting, although you could use just smooth bands, if you prefer. Any combination of colors you like is OK.

3. Begin to shape the top end of the top. Always work downhill, riding the bevel for the cleanest possible cut. You don't want to make the body of the top too thin, but you do have a lot of room for your own design interpretation. Avoid flat areas on the top and bottom. Work with gentle curves to blend the body into a stem about $^{3}/_{16}$-in. in diameter. The secret to a good spinning top is a thin handle. The main disc is about $^{1}/_{4}$ in. thick at the rim. I like to shape the rim too. The top should be user friendly, so avoid making really sharp edges on the disc.

4. Continue to refine the handle. Aim for a diameter of about $^{3}/_{16}$-in. Work from the body to the thinner end to prevent breakage. You might like to bring up the tail stock for extra support.

5. As you refine the handle, it's fun to continue to decorate the domed area connecting the flat part of the top and the stem, as shown above. Again, markers, make it easy to apply colors to the top while it is spinning on the lathe. I like Tombow and Staedtler markers.



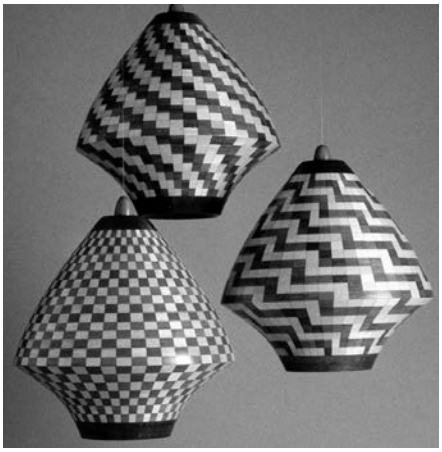


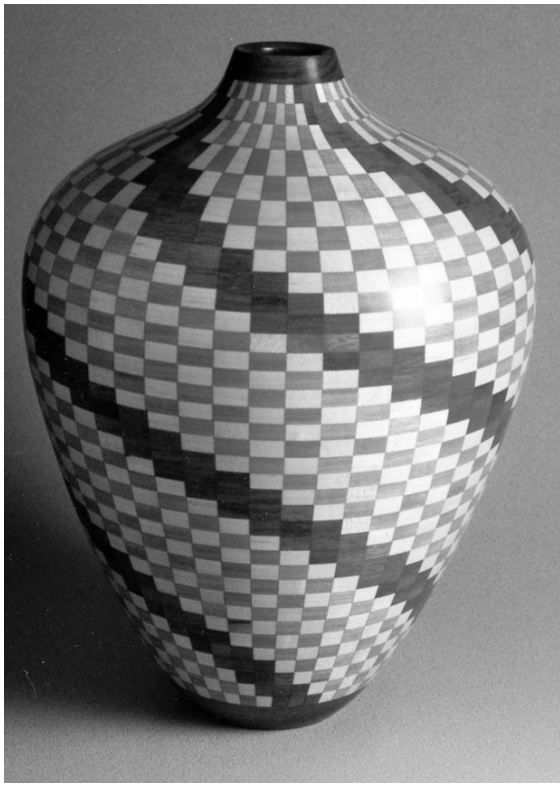
6. When you are satisfied with the stem, carefully part it off with the long tip of a skew. Cut carefully to avoid tear out and leave a smooth-to-the-touch end on the stem. Cradle the top in your hand as you cut, so you can catch it as it comes free. Then apply Carnuba wax with a buffing wheel to seal in the color.

BASKET BOWLS

Laminated, segmented, stacked-ring bowl

GARY JOHNSON





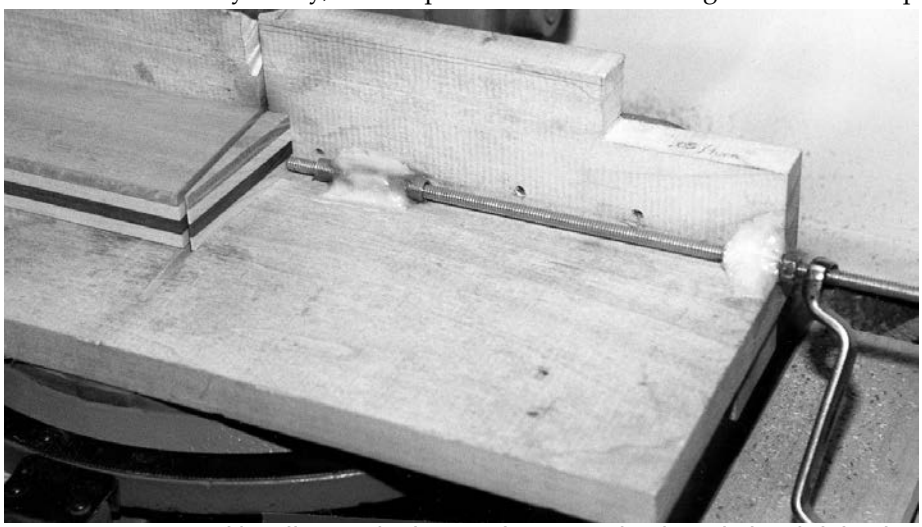
The author's basket bowl technique can be applied to any form, from a hanging ornament, top left, a tall vessel or the bowl described in the article.

I HAVE BEEN EXPERIMENTING WITH "Basket Bowls" assembled from multi-colored wood laminations. The technique creates the textured look of a splint basket, but the objects are actually smooth and can be turned into everything from hanging ornaments to vessels.

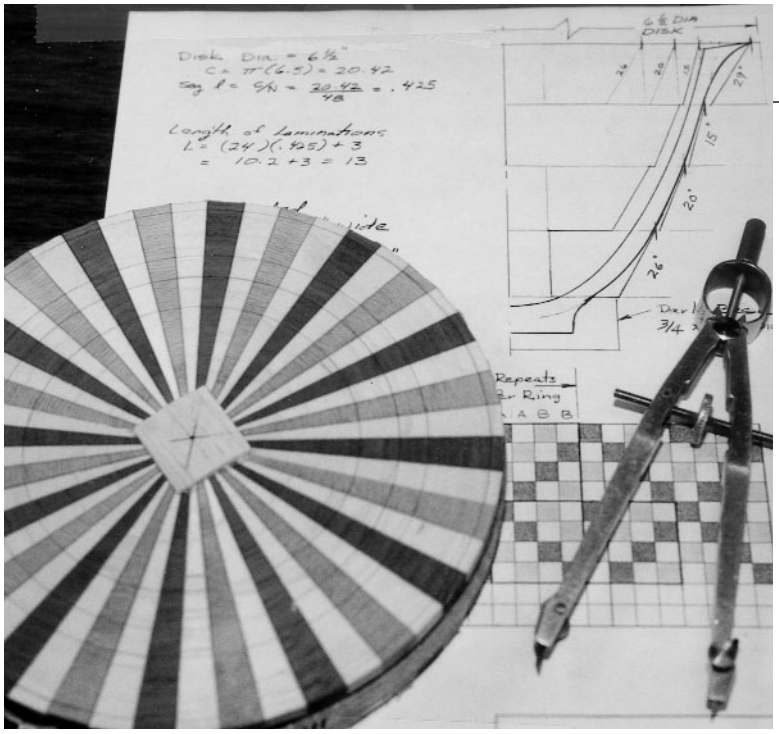
To begin the bowl, which is similar to those I demonstrated at the last two AAW symposiums, you need several $^1/_4$ x 3-inch-wide strips of wood in three different colors. I used walnut, oak and maple. To assure that all the wood is exactly the right thickness I resaw and plane it myself. Accuracy is important; otherwise you could have alignment problems later.

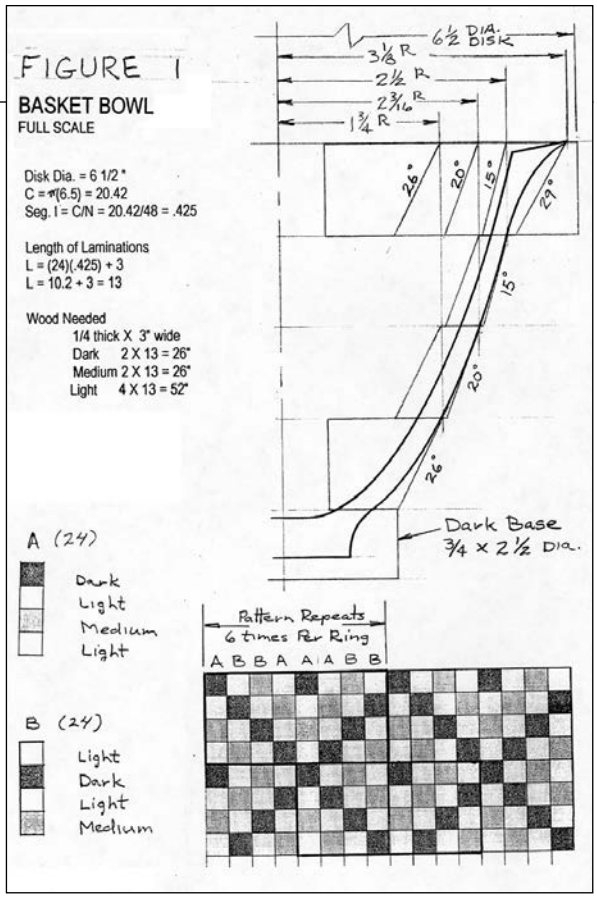
Prepare two separate four-layer laminated boards for each bowl. Each of these laminations is 3 in. wide by 13 in. long and will be cut into 24 segments, which are the actual building blocks of the bowls. I recommend either plastic resin or polyurethane glue for this operation. Use back up boards and lots of clamps to apply uniform pressure. When the assembly is dry, clean up the squeeze out and rip the sides straight and parallel.

Next cut the segments. This step requires great accuracy, so use a good sharp crosscut blade with a stabilizer to minimize wobble. I have used a radial arm saw, but now prefer a miter saw with a Forest Products Chopmaster blade (Forrest Manufacturing Co, Inc., 457 River Road, Clifton, NJ 07014 ; Tel: 800-733-7111)). I fitted my miter saw with a jig that relies on a threaded rod to control the width of the segments. For this bowl the width of the wide end of the segment is .425 to produce a $6^1/_2$-inch-diameter disk. The saw is set at $3^3/_4$ degrees to produce a $7^1/_2$-degree segment that gives 48 segments in the disk. Cut twelve segments from a piece of scrap wood, then check with a square. They should fit perfectly at 90 degrees but probably won't. Make a very small adjustment of the saw



Segments are cut with a jig attached to a miter saw. The threaded rod, joined to the jig with nuts set in thickened epoxy, controls the width of each segment.

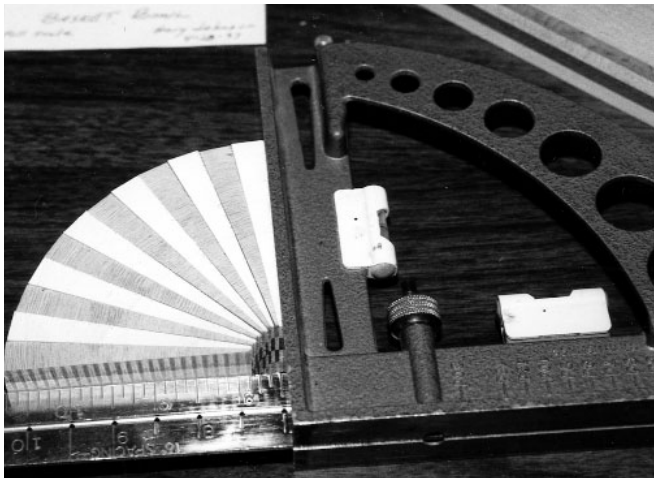




Assemble the segments in the sequence shown in the plan to produce the pattern shown in the open bowl on the facing page.
As you assemble the segments to form discs, it's a good idea to number them, so you can reassemble them in the same order when you glue them up.

angle (I tap the handle with a hammer and measure a gap with a feeler gauge between the handle and a stop block that I have clamped to the bed of the saw.) Cut another twelve segments and check again. Do this until you are satisfied that they give 90 degrees Then cut the segments from your laminated boards. Check after each twelve segments to make sure that they still are 90 degrees. Adjust if needed.

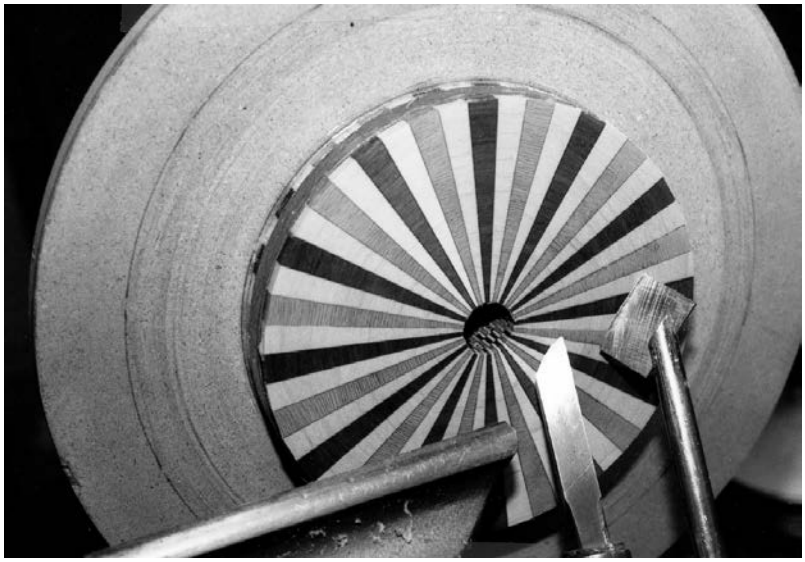
Assemble the segments in the sequence shown (Figure 1) to produce the desired pattern. Number the segments so you can get them in the same order when you glue them together. Use a metal band clamp (two or more can be joined together to get the required diameter). It usually takes between 45 minutes and 1 hour to glue up the disk, so I use a slow setting epoxy for this step. These are end-grain-to-end-grain joints, so they won't be super strong. To get the best strength I first apply a thin epoxy with a brush, then apply a thickened epoxy with a stick. I prefer silica for thickening, but other agents can be used to prevent the epoxy from being wicked into the end grain, resulting in a dry joint. Leave two opposite joints unglued so you will end up with two half discs to permit bandsawing the disk into rings. As you tighten the band clamp, work the disk to get it round, the glue lines all converging at the center. Clamp the disk between sheets of plywood to keep it flat while the glue sets up.

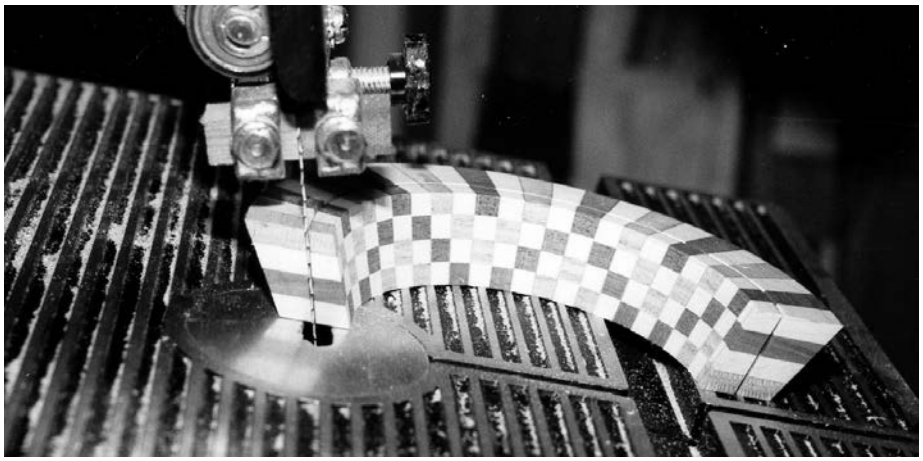


Sawn segments probably won't fit perfectly at first. Cut 12 segments and test with miter square. Adjust the saw as needed and try again until you get 90 degrees

After the glue has set up, mount the disk to an MDF faceplate by running a bead of hot-melt glue around it. Face off the disk with a roundnose and sheer scraper, removing only what's needed to clean and level it. Be sure to flatten both sides of each piece. Next hot glue a small piece of thin wood to provide a center for a compass. Draw circles on the disk per the plan .

Remove the band clamp and cut the half disks into half rings . Set the bandsaw to the angles shown using a protractor. I don't trust the angle scale on my saw. Carefully cut the



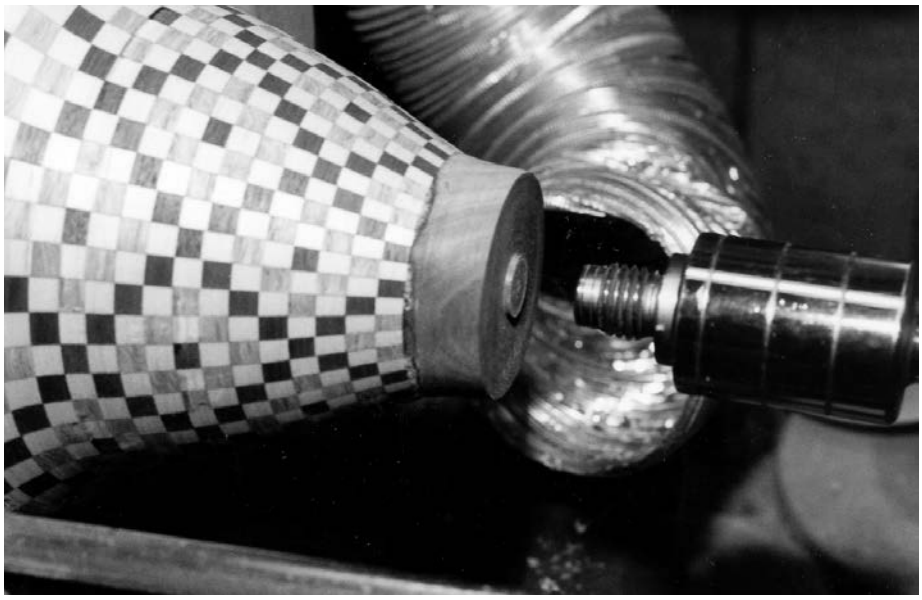


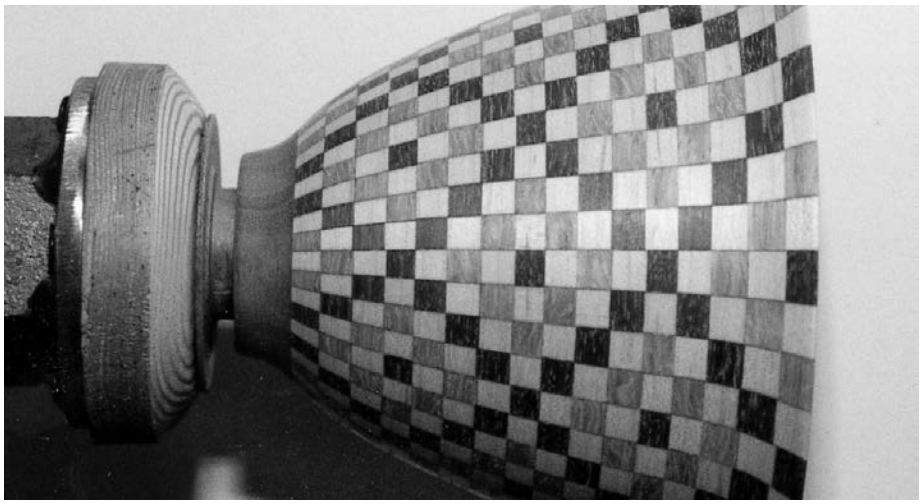
Bowl Assembly:
After the glue has dried, mount the disc to an MDF faceplate. Join the two pieces with a bead of Hot Melt glue. Then face off the disc, using a round nose scraper and a shear scraper. Do both sides.

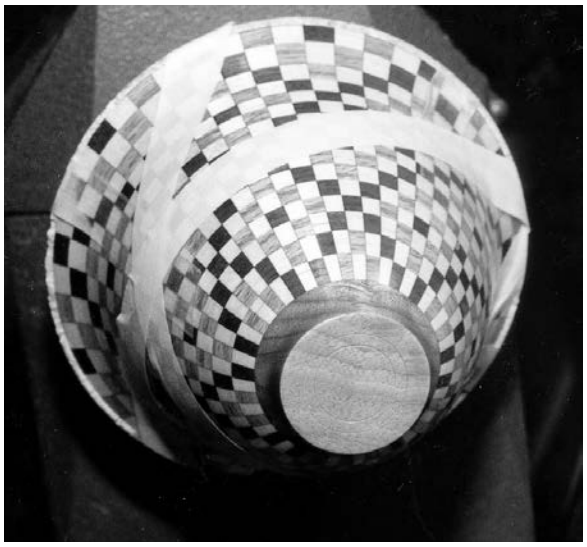
After removing the band clamps securing the half discs, band saw the rings. Set the bandsaw blade to the angles shown in the drawing. For accuracy use a protractor.
Cut on the outside of your guide lines. you can true everything when the bowl is assembled and turned.

After gluing the half rings together with fast-setting epoxy and masking tape clamps, you can level the dry rings on a disc sander. The author uses an MDF disc mounted on his lathe. The dust pick up helps remove the dangerous dust.

When the rings are finished, stack and glue them together. To align the pieces accurately and minimize slippage, from clamp pressure, the author puts four dabs of hot melt glue at each joint. The rings are permanently secured with Plastic Resin or Polyurethane glue.







After centering the bowl on an MDF faceplate, top, turn a tenon on the bottom to align the blank when it is glued onto a waste block. Finally turn the outside, then the inside.
Use a parting tool to establish the base height, as shown above, middle, then sand and finish.
Revese chuck the piece, left, to finish the bottom. The author cuts a groove into a particle board faceplate, then reinforces the jam fit with tape.

half rings. I always cut just to the outside of the lines. Glue the half rings together to form rings. I use a fast-setting epoxy for this operation. Masking tape is all the clamping that is needed. When dry, level the rings lightly on a disk sander. Mine is just a 12-inch disk of particleboard mounted on a faceplate on my lathe .

Stack and glue the rings together along with the $2^1/_2$-inch-diameter base piece, again using plastic resin or polyurethane .

Alignment is important—to help prevent slippage during clamping, I use four blobs of hot glue at each joint.

Next, center the bowl blank on the MDF faceplate and run a bead of hot melt glue around it. The outside can be rough-turned, the bottom is flattened, and a tenon is cut in order to center the bowl on a waste block. Prepare a waste block on a faceplate and glue the bowl to it with superglue. Final-turn the outside, then the inside. Establish the base height with a parting tool as shown in the photo, and then sand and finish. I like a wiping varnish finish such as Liberon Finishing Oil or Master Gel. Two coats are usually enough.

Part the bowl off. I recommend sawing off the last bit to reduce the anxiety level of this operation. Reverse-chuck the piece. I make a modified jam chuck by cutting a groove in a particleboard faceplate to fit the bowl rim. I don't trust just the jam fit, so I use masking tape or strapping tape for safety .

Finally, detail the bottom, sign it, and finish it.

It takes me about a week to make one of these bowls, so don't rush it. Have fun!

Gary Johnson, a retired aerospace engineer, specializes in segmented turnings in Bridgeton, MO.

SANDING DUST COLLECTOR

Inexpensive relief Just a Spray Away

JAMES R. JOHNSON

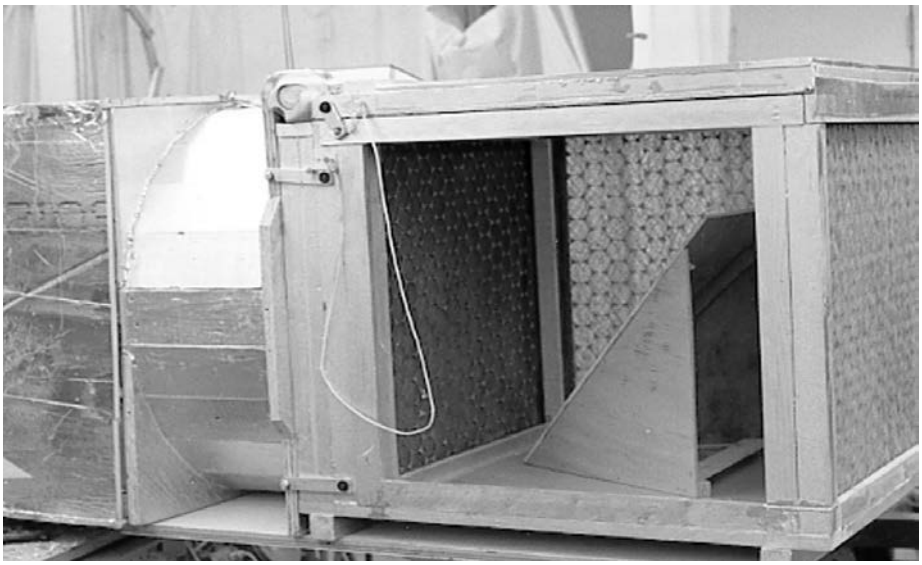
OK, FOLKS, LET'S CLEAR THE AIR ABOUT "dust collectors." Most units for the home shop are not what I consider dust collectors. Properly hooked up, they're good for removing chips and coarse particles, but not dust, unless the piece is small enough to nearly fit in the collection duct.

I decided that turners needed a "sanding-dust collector," and set out to build my own. The problem is that a typical commercial unit requires high air velocities and small ducts to move chips and heavier wood particles. The fine, nearly invisible dust remains in the air waiting for your lungs to filter it out.

In designing a collector for my shop, I decided to take a different tact, and put a large intake area close to the turning. Air velocity is not an issue with fine dust; you just need enough to entrain the dust and carry it into the collector. My answer was a fan and specially treated filters.

I start with common furnace filters. Straight from the store they are not terribly efficient at collecting the very smallest particles. But I found I could change that by spraying the inside face of each filter with Endust, the stuff you spray on your coffee table before you wipe the dust away. You can buy it at supermarkets and department stores. One spray a day is all it takes. The next morning (or the next time you need the collector), take the filters out, tap them on the floor , and vacuum the filters with your shop vacuum. Then stick them back in the box, respray with Endust and you're ready to go.

Essentially the fan blows the dust and air into a 2-ft.-square box equipped with four filters: one on each side, one on the back and one on the top. Each of the filters only has to handle a quarter of the air flow. Diffusers ensure that each filter receives its share of air and slows the flow, increasing filter efficiency and minimizing the dust blow back that would be likely with a single thick stack of filters.



Specially treated furnace filters, a salvaged fan and motor and a shop-built collection box and duct system are the heart of the system the author designed to filter sanding dust out of his shop. The ramp like device visible inside diffuses the air to all the filters.

My fan is salvaged from an outside condensing unit of a 3-ton air conditioner. In my area, HVAC contractors sell these fans for about $10 or give them away. The fan motors are sealed and the fan is sized to fit the motor.

The only drawback is that they generally are wired for 220 volts, so get the HVAC people to show you how to wire it. You should also scrounge a round grill about 4" in diameter larger than your fan to cover the opening in the fan housing and to keep your fingers out.

You can build the collector any way you want, but I'll offer some tips on construction, and on ways I've found to increase efficiency.

The fan's round housing is made with construction grade 2 X 4s. A heavy round housing might seem like overkill, but the shape greatly increases the efficiency of the airflow at the perimeter of the blades, where more of the air is moved. A square housing induces turbulence in the airflow, effectively reducing the opening about 25%.

I recommend an 18" to 22" diameter fan; it's effective and portable. Mine is 22". Since the fan size determines the dimensions of the rest of the unit, make sure you get it first

The inside diameter of the housing should be one inch larger than the fan. This provides clearance, and the housing has a disturbing habit of losing moisture and shrinking. For my 22" fan the diameter is 23"

The calculations are fairly simple. I used economical construction-grade 2X4's for stock. Remember those high school formulas about the circumference of circles. In my case, the INSIDE circumference is 3.141 times 23, or 72.25". Dividing that dimension into 24 staves, I end up with 3.01 per

stave. Since this is at the inside of the housing and the outside circumference is greater, I figured that would be about right for 2X4s, which are actually only about 3 1/2" wide.

The staves must be beveled on each edge, so that they will fit together to form a cylinder. Dividing a circle, 360 degrees, into 24 equals parts equals 15 degrees. Divide that in half, since you will be beveling both long edges, to determine the bevel angle at 7 1/2 degrees.

The next step is to set your tablesaw blade to that angle and rip enough stock to make 26 staves. Crosscut the staves at least two inches longer than the combined length of your fan/motor combo. After assembly I sand the edges to blend them into a rounded edge.

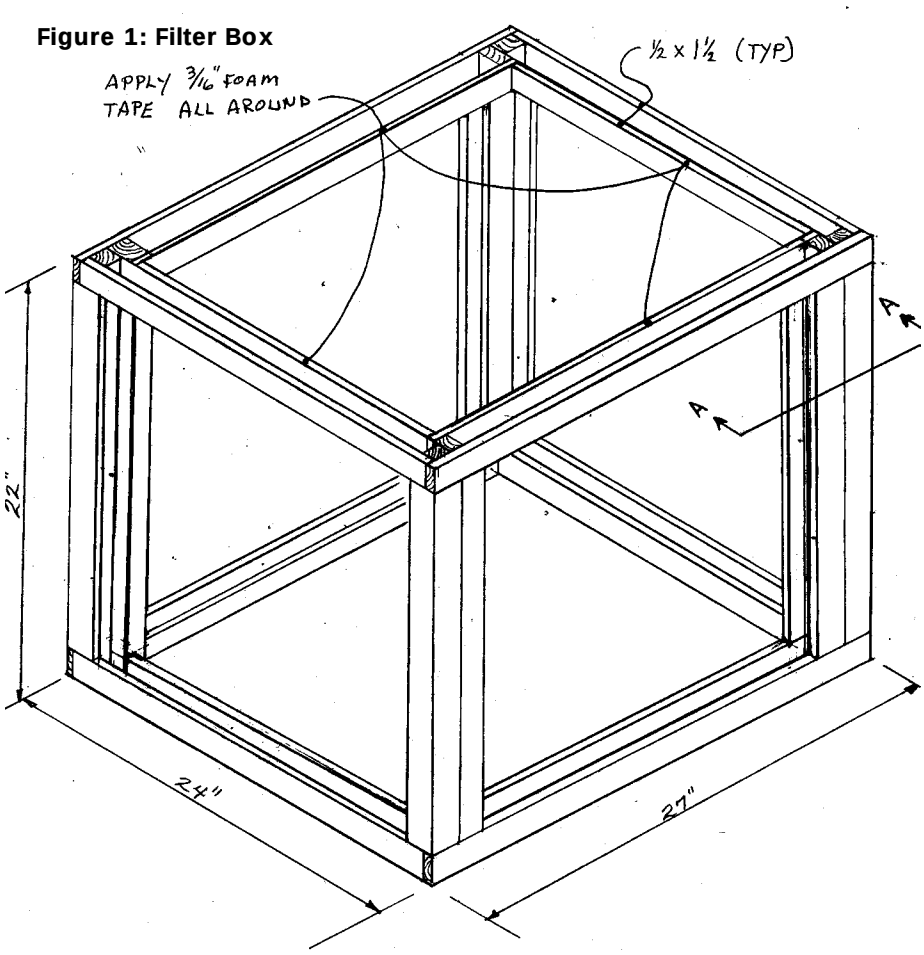
The housing is glued up in two halves. Lay 12 staves on a flat surface, the square end against a straight edge, and apply three strands of filament tape across their backs. Flip the assembly over, and prepare 2 lath strips with two marks 23" (or whatever your inside diameter is) apart and start small nails in the lath. Run yellow glue in the open joints, pull up the staves to form a half circle and nail a lath across the open side, aligning the marks you made earlier. Do the other half, and set both units aside to dry.

When both halves are dry, remove the lath strips and fit the halves together. The joints probably won't fit perfectly, but it doesn't matter. As they say in the construction trades, "we aren't building a Steinway."

Simply rip the two extra staves down the middle, predrill for screws and screw a piece on either side of the joint with the tapered side against the stave. Now you can cover the joint with glue and pull the two halves together with C-clamps.

While you're waiting for the cylinder to dry, build the filter box. Its bottom is a 3/4-in. thick piece of plywood, with its inner section cut out and

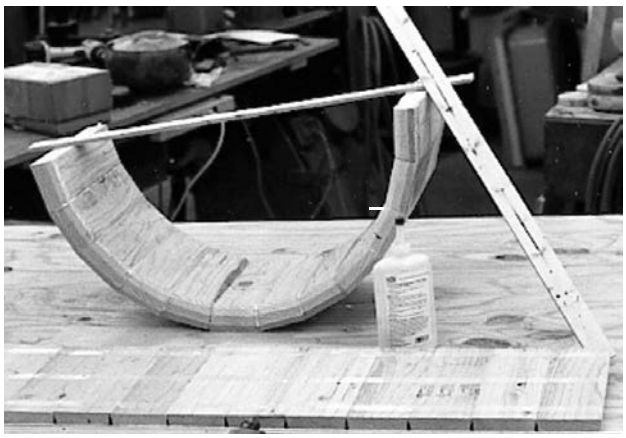
Figure 1: Filter Box



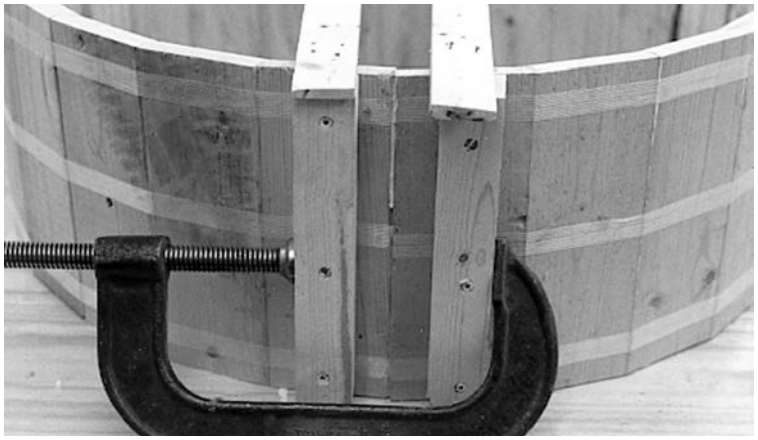
capped with a piece of 1/4-inch plywood to save weight. You only need the thicker plywood around the perimeter where the actual filter casings are. Build the casings anyway you want., as long as you leave a way to slide the filter elements up and out of the sides and out of the top. As you can see in Figure 1, I assembled the units with 1/2-in. thick strips, glue and small brads. It's pretty self explanatory. Again, be conscious of weight--use spruce or fir rather than heavier hardwoods. The top frame is hinged to the box with a strip of leather (cheap continuous hinges) with a string to hold it open when you remove the filters.

The filter element at the front (or intake side of the box, just behind the fan acts as a diffuser, along with the triangular structure at the bottom of the box. Since this front filter is mainly a diffuser rather than a collector, I don't spray it with Endust. The pyramid is a simple : 1/4 in plywood with 3/4 in. cleats, screwed to the bottom. Dimensions are not important: but mine is 14" high and 12 " wide. It knocks the air to the sides and top, with whatever air that goes by it exiting through the back filter. It works.

After the housing is dry, use coarse sanding discs to sand the round inlet smooth. Fill any rough areas on the inside with spackling or Rock Hard putty. Let dry and resand. To slow down the shrinking common in construction lumber, apply a coat of shellac, then , after that dries, one coat of aluminum paint. Aluminum paint is virtually waterproof because the aluminum flakes overlap one another like shingles on a roof.



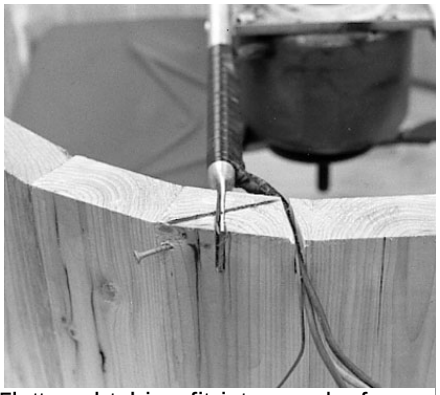
Build the cylinder in halves, using lath strips to set the diameter while the assembly dries.



Extra staves tacked to the two halves provide cleats for clamps to pull everything together to form the fan housing.

The fan motor is suspended by two pieces of $1/2$-in. EMT. If your motor does not have a square metal mounting bracket, You can cut one and attach it to the motor. Let it extend out about $3/4$ inch on either side, then bolt through the plate and tubing. Flatten each end of the tubing where it contracts the housing. With the housing face down, lay the fan with tubing attached down and mark the slots where the tubing contacts the housing. Cut with a couple of passes with a circular saw. Drill for a screw in each end. This is a particularly easy mounting system. Also cut a slot for wires to go through the housing. Make sure this slot is on top of the housing. When doing the final assembly, caulk or hot glue these slots to make sure no unfiltered air escapes.

A square piece of $3/4$-in. plywood is cut as large as the housing. The opening in the inside of the filter housing is laid out on one side of this plywood square. Lay the housing on top of this square and trace around the inside of the housing. Cut out the opening, cutting whichever line is on the inside. This is really an adapter piece to fit the fan housing to the filter housing. Four triangular blocks attached to the back side in each corner fit into the filter housing and lines the two pieces up. This adapter is screwed to the backside of the fan housing with some rubber weather stripping in between. Do not glue. You might have to remove the fan some day. Rubber weather stripping also goes between the adapter and the fan housing. Four metal swinging latches secure the two pieces together.



Flattened tubing fit into saw kerfs supports fan motor.

You should have a 3 to 4-in. space between the fan housing and the first filter element (the diffuser element.) This allows the air to slow down a bit and diffuse to the corners of the filter.

By making this section removable, you can separate the heavy piece from the bulky piece. This way , it is a one person job to move, and it is easier to build.

A double pole, single throw switch (which looks just like the switches on your wall, but has four places to hook wire) is the switch to use. These are available at any electrical supply store, and the people there can show you how to wire it. Also, ask about grounding the motor.

Cut the grill to fit and install it to the front of the housing with about 1" between it and the housing to minimize the air disturbance at the rounded outlet. The hood is made from $1/2$-in. foam insulation. Rectangular pieces of plywood are cut and glued with hot glue to the front corners of the housing. These pieces make it easier to attach a hood. If you place the collector close enough, you may not need it, but I found it helps. Duct tape everything together.

I built a roll-around table for my collector. It is just high enough to clear everything on the back side of my lathe and has enough overhang to get the opening fairly close. Casters make it is easy to roll around. When I am sanding on a table, the collector sits on the table and works well. When cleaning the shop, I put it on the floor and blow the dust off everything and let the collector catch it. I wear my Air Mate for this job.

I figured the total cost of the collector should be less than $50, if you got the fan for free. So for a few dollars and about a weekends work, you can breathe a little easier when you sand .

James Johnson is a woodturner in Kerrvile, TX

A Bowl Kiln

Cutting time and losses, both

DARRELL L. RHUDY

Like some other turners, I have found my pieces to be most stable if they are thoroughly dried before a final turning and finishing. I use only local native hardwoods that have a variety of moisture levels when I begin them. I rough-turn wall thickness to $1/2$ to 1 inch, depending on the species of wood (some species warp more than others) and size. After three to five days in my kiln, they're ready for final turning.

Inside measurements are $2\,1/2$ feet wide, 4 feet deep, and 5 feet high, with four levels (one is out of sight at the top of the cabinet.) All walls, door, top, and floor have 4 inches of insulation. The setup includes an electric space heater, 10-inch circulating fan, thermometer, hygrometer, through-the-wall thermostat, and and a 4-inch exhaust fan blowing through a clothes-drier vent. I built and equipped the kiln in 1991 for about $175.

Both fans run throughout the drying period. They do pull air in through the cracks around the door, as more humid air is blown out. The humidity level inside the kiln at the end will therefore vary, depending on outside humidity but ranges near 35 to 40 percent relative to the North Carolina climate. I adjust the thermostat to a temperature range of 90 to 110 degrees. I keep a log where I record date, time, temperature, and humidity three or four times a day to monitor the drying process. I have found that three to five days in the kiln results in a moisture content of 6 to 7 percent. Of course, after removal from the kiln, moisture content will increase to perhaps 10 to 15 percent. But at least the turnings have already experienced the most sever shrinkage they will see, and chances of future warping and cracking are significantly reduced.

Author's kiln can dry as many as 100 pieces in three to five days. Hose clamps around many turnings help to keep logs from cracking and warping to less than 3 percent.

I was losing about 10 percent of my pieces from cracking and warping, until I began using hose clamps on most pieces (see *AW*, September 97, page 10). Loss now is about 2 to 3 percent, and since the pieces are only rough-turned, the time invested in those that are lost is not great. The kiln holds from 50 to 100 pieces at a time, depending on their size.

A simple and inexpensive alternative kiln used by a couple of fellow turners is a discarded refrigerator. If the freezer is above or below the refrigerator section, remove or cut a large hole in the floor between the two. Cut a 4-inch hole in the door or wall near the floor to allow air to enter. Cut a 4-inch hole in the top to allow moist air to leave. Install a light bulb socket near the inside bottom. Using light bulbs varying from 100 to 200 watts, and adjusting the size of the lower opening, you will be able to achieve a temperature near 100 degrees and dry a load of pieces within a week. A 4- to 6-inch fan anywhere inside will reduce the time to four or five days.

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

TURNED TORSOS

Uncovering creativity

LYLE JAMIESON

MANY TURNERS LIKE TO MOUNT a piece of wood on the lathe and see what develops as they turn. This approach often produces something pleasing. However, I've found that the process to create something really special that has emotion and really speaks to the viewer will take an investment of your time and energy away from the lathe.

Inspiration and insights were plentiful at both the AAW Symposium in San Antonio and the World Turning Conference in Philadelphia last year. Many demonstrations and lectures were dedicated to the creative process. Both Steve Loar and Clay Foster shared their great insights into the creative process. Both promoted sketching and scrapbooks to collect ideas. By exploring different media you will discover what really pleases you. Hugh McKay said, "Pump information into your brain." (For presentations on creativity by Steve Loar and Hugh McKay, see the video "Techniques of the 1997 AAW Symposium," 612/484-9094.)

I think hard work and dedication can lead to creativity. It was not many years ago I was asking the question "Where do you get all your ideas?" Now I am being asked the very same question. If you keep your eyes open and explore other media, art and craft items, they will give you ideas. You need to see pottery and glass, visit galleries and museums, and explore illustrated books and journals. There are rounded shapes in two-dimensional art. All of a sudden you will see something that will lead you to say "I could do that in wood. That shape would look spectacular in wood. I could tweak it here and change it there and come up with something really exciting."

We get pleasure from the forms we create. To make the most of the turning experience takes some research. Something that impressed you years ago (and you took the time and effort to record in your sketch book or clip for your scrapbook) will come back to help create an idea for what you can turn today.

Turning begins as a relationship between wood and form. The grain lends itself and reacts to the rounded surfaces of the human shape. In all my work I try to reveal the beauty, color, and design of the wood. Wood has always been a sensual medium for me, and to bring the human figure into the mix has been stimulating and satisfying. The creative process has been fun. As you develop your own tastes for form and beauty, it will show in your turning. A little effort will produce lots of ideas to expand your turning pleasures

I was on my way back from the AAW Symposium at Greensboro two summers ago, when I stopped at a museum in Cleveland, Ohio. I was struck by an old stone sculptural form, an artifact created thousands of years ago. Doing a turning to re-

1. "Late Summer Tan," left, of English elm, 8" high.
2. "Dancer I,' above, Siberian elm, 8" high.
3. Dancer III," right, Siberian elm, 11" high.

4. "On the Move," left, spalted white birch, 11 " high.
5, "Princess," right, wild black cherry, 21" high.

semble the stone sculpture gave me a technical challenge. I asked myself "How do I hollow it? How do I chuck it? How do I balance it?"

My first attempt started with a squared up block of straight grained elm. On two sides of the block I sketched the front and side views of the form I wanted to turn. I left an inch or more waste wood around the entire drawing. From the drawing I could establish where the three axes would need to be, and I chucked it up between centers on one of the "leg" axes lines on the drawing.

At this point it was necessary to add counter balancing weights, since the block was mounted well out of balance and would vibrate without added weights. I turned a flat depression for the faceplate. Using the drawing for a template or guide, I measured the size and depth of the hole and turned the inside of the first leg. After turning the inside of both legs I had to fabricate someplace to mount a faceplate to hollow the opposite end of the piece. I used a plywood box screwed into the waste wood of the still intact wooden block.

You can understand why the inside turning needs to be completed before the outside so that the waste block remains for mounting the faceplates, weights, and a steady rest. The outside of the form could be turned only part way into the area between the legs; I removed the remainder of the wood by hand. I used sanding disks and rotary cutters to shape the outside. Any deep hollow turning requires precise control. To provide this degree of control I developed a two-tool-rest system (see *AW*, March 1997).

My first piece, "Late Summer Tan" in the Body Beautiful series was rather primitive (Photo 1). Using the same turning process, I started to breath life and emotion into future pieces, such as "Dancer I," by changing the proportion of the three axes, and then by changing the display presentation (Photo 2). As this series evolved I tried to make the shapes more and more realistic. With "Dancer III" I had to hollow the inside to the contour of the human form instead of turning straight-sided holes (Photo 3).

Just as with bowls, the key to preventing cracking is to have uniform wall thickness. The inside of the torso walls needed to follow the contour of the outside desired shape. For each successive piece in this series I added more shape and more form, which generated more life, more action and more feeling.

The next step in the transformation was to break out of the same plane and hollow all three axes from different planes. Up until now, all three holes opened into the center. Now, the inside turning of the sides and bottoms of the holes became more difficult because the second and third hollowings intersect the previously turned holes at odd angles. The openings created intermittent cuts along the side walls.

"On The Move"(Photo 4) is the first of the multi-plane turnings, and you can see much greater movement and action in this piece. Photo 5 shows "Princess" the most anatomically correct piece in the series.

Where do I go from here? Does

the human figure have to have legs? Some of John Jordan's hollow forms have great sensual appeal. What about the male counterpart to the female series? Should I use a fig leaf? I look forward to seeing where the creative process will take me.

Many would not have the equipment or desire to do sculptural forms or anything this technically challenging. However, it is interesting to see the creative transition of this series and the value of developing ideas and exploring all aspects of creativity.

Lyle Jamieson turns wood in Traverse City, MI. He is also a demonstrator at the AAW Symposium.

TURNED MODEL SAILBOATS

Turning to the wind

MARTIN STEVENS

DAYDREAMING BESIDE A WIND-RIPpled pond fused two of my favorite pastimes: sailing and turning. Why not turn a projectile shape out of low-density wood, bandsaw it down the center to create two hulls, then add lathe-turned spars, bandsawn keel, and other components to create working models?

The following project makes a sloop-rigged model yacht. You could use the other hull to complete a pair of identical sparring partners, or experiment with a different sail rig such as a ketch, yawl, schooner, or catboat, if you know about such things. First, though, some terms for the nautically challenged: *Bow*—sharp front end, *Stern*—blunt back end, *Mast*—vertical stick, *Boom*—horizontal stick at bottom of sails, *Bowsprit*—front horizontal stick, *Sheet*—sail control line, *Sheet cleat*—the thing you tie the sheet to.

For a 14x5$^1/_2$-in. double-hull blank, I began with a piece of 16x6x6-in. dry white pine, which had some splits and knots, but was suitable for painting after gluing the checks with cyanoacrylate and patching small voids with Bondo auto body filler. With a roughing gouge I trued the cylinder between centers, then defined the 14-in. length with a parting tool.

After setting calipers to the 5$^1/_2$-in. maximum hull width, I made a parting cut to define the center, then made a parting cut with the calipers at 3-in. to set the stern. Then with roughing and spindle gouges, followed by left- and right-angled shear scrapers, I tapered the blank to a fair curve, leaving $^1/_2$-in.-diameter stubs at each end. I created the stern overhang with a parting cut angled at 10 degrees, and cleaned up with a skew.

Next I sanded the blank to 220 grit, doing a certain amount of stationary with-the-grain sanding.

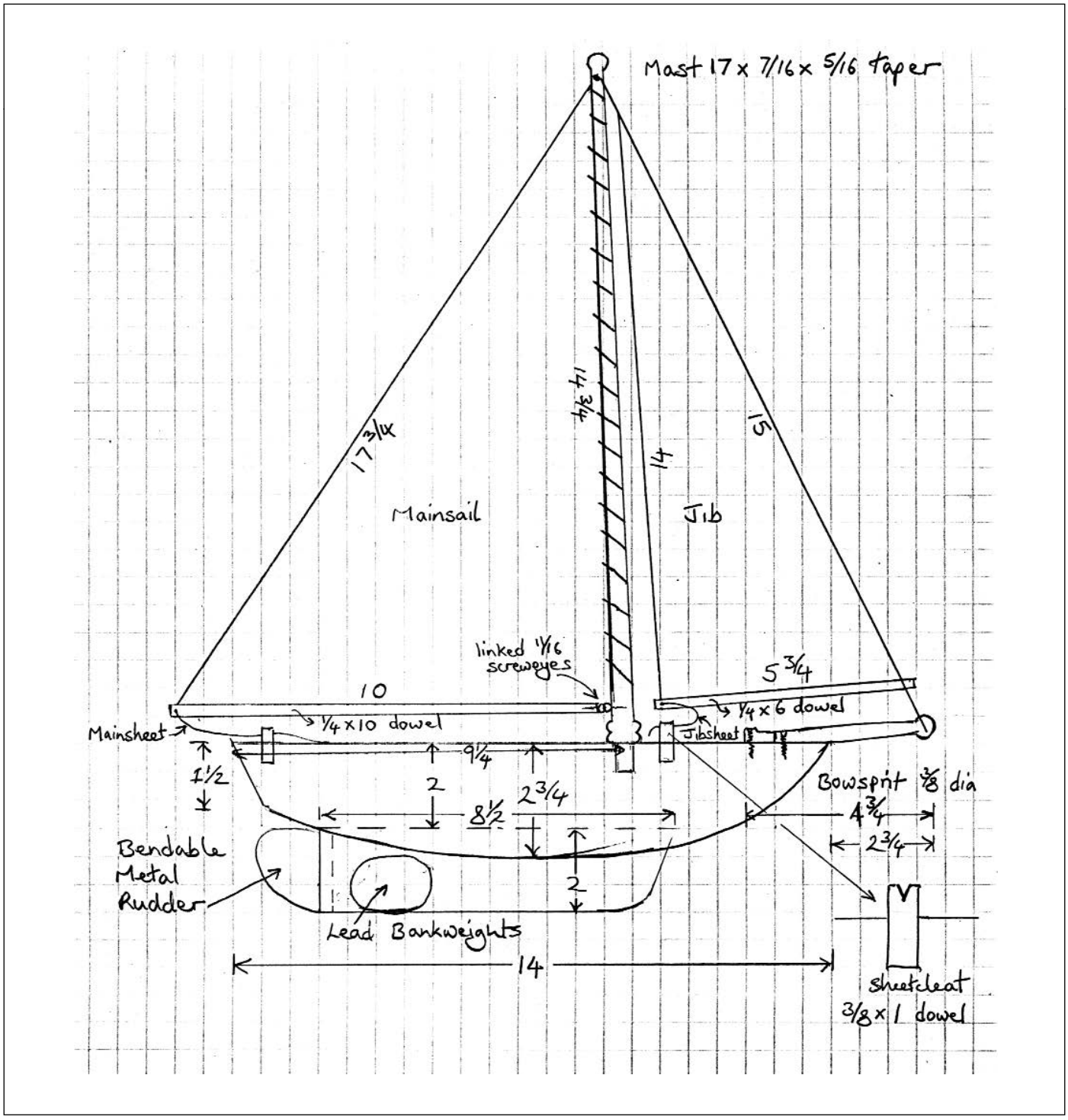
Using the tool rest as straightedge, I scribed my center rip line, then bandsawed off the bow and stern stubs. Then I made a slow, steady, freehand rip down the center. Use a sharp blade and be careful; you might want to support the cylinder in a cradle to steady the piece during the cut. I trued up the flat deck on my jointer using a wooden hold-down. Hand-planing, a belt sander, or just abrasive paper on a flat surface would also work.

I marked the deck with a centerline, along which I located the mast and sheet cleat holes. I used these marks to screw the hull upside down to some $^1/_4$-inch plywood scrap, which I clamped to my radial saw table. With the blade raised 2 inches above the plywood, multiple passes created the $^1/_2$-inch slot. for the keel. You could cut the slot using a jig on a table-mounted router, or by hand, with backsaw and chisel.

I made the keel from $^1/_2$ x 8$^1/_2$ x 2-inch pine. The bow end received a 15-degree angle, while the stern end got a $^3/_8$-inch-deep bandsaw kerf to accept a bendable rudder tab fashioned from galvanized roofing scrap. Before gluing the keel I drilled the $^3/_8$-in. deck holes on my drill press after first temporarily screwing the hull to a plywood scrap through the keel slot, inducing a little forward deck slope to give the mast a slight backward rake angle. With keel installed I shaped its leading edge to a sharp cutwater using rasp and sandpaper, then gave the hull a final sanding to 220 grit. I C-A glued the bendable metal rudder, then painted on three coats of exterior gloss.

I turned the mast and bowsprit from straight-grained cherry. Models tend to get retrieved by their mast tops, so I incorporated a ball at the end, also on the bowsprit to mitigate collision damage. To make turning the long, slender mast easier, I made a parting-tool cut to $^7/_{16}$-inch in the center, then clamped a $^7/_{16}$-inch open-end wrench to my tool-rest post to create a mini steady rest. I calipered the $^3/_8$-in. drill used to make the deck holes to size the bottom end of the mast, then turned a couple of decorative beads above this tenon. I sanded a slightly angled flat on the bowsprit to be able to screw it to the deck.

The booms are made from $^1/_4$-in. common dowel rod with two hardware store mini ($^{11}/_{16}$-in.) screw eyes, one opened with needle-nosed pliers then closed back over the other to form a link making the mast-to-boom articulated connection. Drill $^1/_{16}$-in. holes in the end of the main and jib booms to attach the sheets and through the end of bowsprit and top of mast for the jib. Sheet cleats are fashioned from 1-in. lengths of $^3/_8$-inch dowel with a V-shaped section whittled out of the top surface with a sharp knife which grips the heavy nylon sewing thread used for sheets and rigging. While the clear spar finish is drying, sails can be cut. Supermarket white crinkly plastic bags provide quick and functional sail material, if the leading edges and corners are reinforced with bent-over white electrical tape. For craft show-eye-appeal, ripstop nylon or light canvas might be better. The main sail is sewn to the mast with a spiral



stitch going around the mast and through the sail with about a 3/4-inch spacing. Upon water testing I found the boat was a little nose-down. I cut out a section of the rear keel and glued in 6 ounces of lead fishing weights, which I camouflaged with Bondo and paint. Now she floats level and rights herself after a gust.

To sail, select a day with sunshine and moderate breeze, find one or several youngsters and a pond, preferably with all-around access. Set sails at about 30 degrees to centerline. Leave rudder in straight-ahead mode, and launch across the wind. To sail upwind, tighten the main sail and perhaps bend in a little rudder angle. To sail downwind, tighten the jib and ease the main.

Other boat ideas: Tiny ones for Christmas ornaments. Mid-size keelless versions for bathtub imaginative voyaging. Turned head and shoulders human figures can be glued to the deck. The ever popular tugboat can be created with a block deck house, drilled portholes, and turned funnel. Long slender hulls for a catamaran. Maybe sometime when I feel ambitious I'll turn a 3 1/2ft mega yacht. Have fun.

Originally from England, Martin Stevens is a contractor, cabinetmaker, and turner in Black Mountain, NC.

SHAPE AND TEXTURE

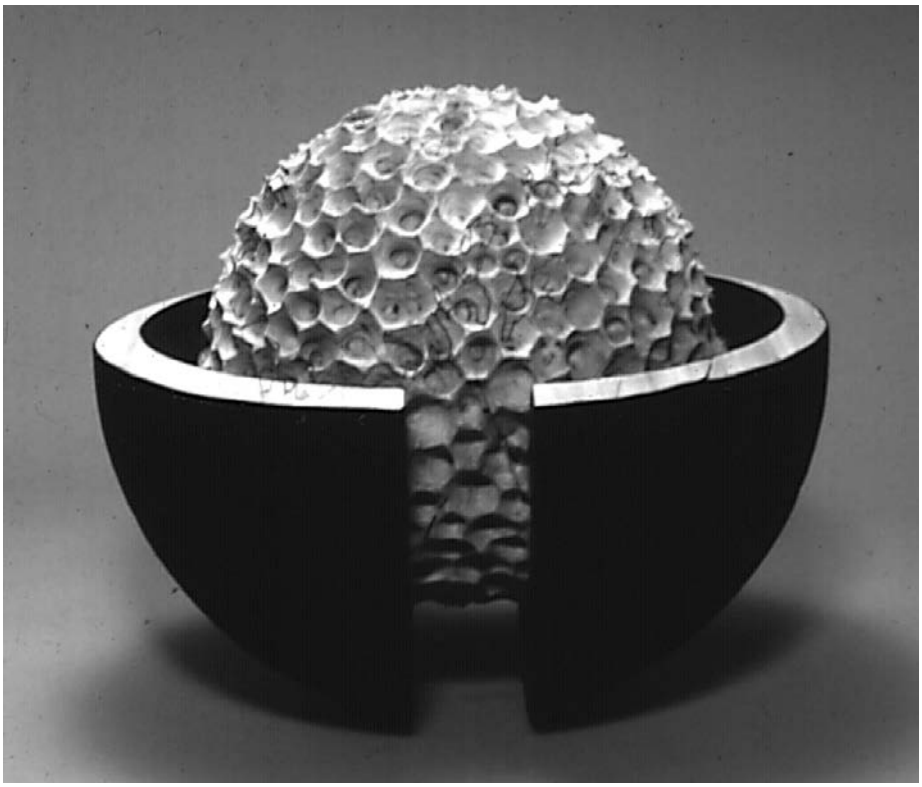
Collaborative work: Todd Hoyer & Hayley Smith

RUSS NELSON

LAST JANUARY, SIXTEEN TURNED WOOD objects made by Todd Hoyer and Hayley Smith appeared in a show, "Spheres and Hemispheres Collaboration," at the Joanne Rapp Gallery/The Hand and The Spirit in Scottsdale, Arizona. The collection included three miniatures, five mid-sized pieces, and eight large objects. What made the show unusual was that every piece in it involved close collaboration that produced a remarkably effective blending of ideas and execution by artists whose previous work had been highly individualistic.

Todd Hoyer and Hayley Smith were participants at the 1995 International Turning Exchange. This program, initiated by Albert LeCoff at The Wood Turning Center, brings together exceptional turners from around the world to explore collaboration during a seven week residency in Pennsylvania. (See Judson Randall, "Close-Quarter Collaboration," *AW,* December 1995) Hoyer and Smith's collaboration began with Smith's impulse to texture a large ash sphere turned by Hoyer. Together they identified additional possibilities—removing a wedge, sand blasting, scorching—that resulted in a finished piece considerably different from a simple textured sphere.

Recognizing the power of serendipity, they continued collaborating after the ITE concluded. According to their statement of intent for the show, Hoyer whose studio is in Bisbee, AZ, and Smith, who is from Wales, "initially worked with ideas, faxing drawings to and fro. We built upon the concepts that we discovered were of mutual interest, elements in our individual bodies of work that resonated, such as form, contrast, and surface treatments. We chose to start by exploring two forms, spheres and hemispheres: the sphere, a dominant theme within the work of Hoyer, the hemisphere, a dominant theme in the work of Smith."



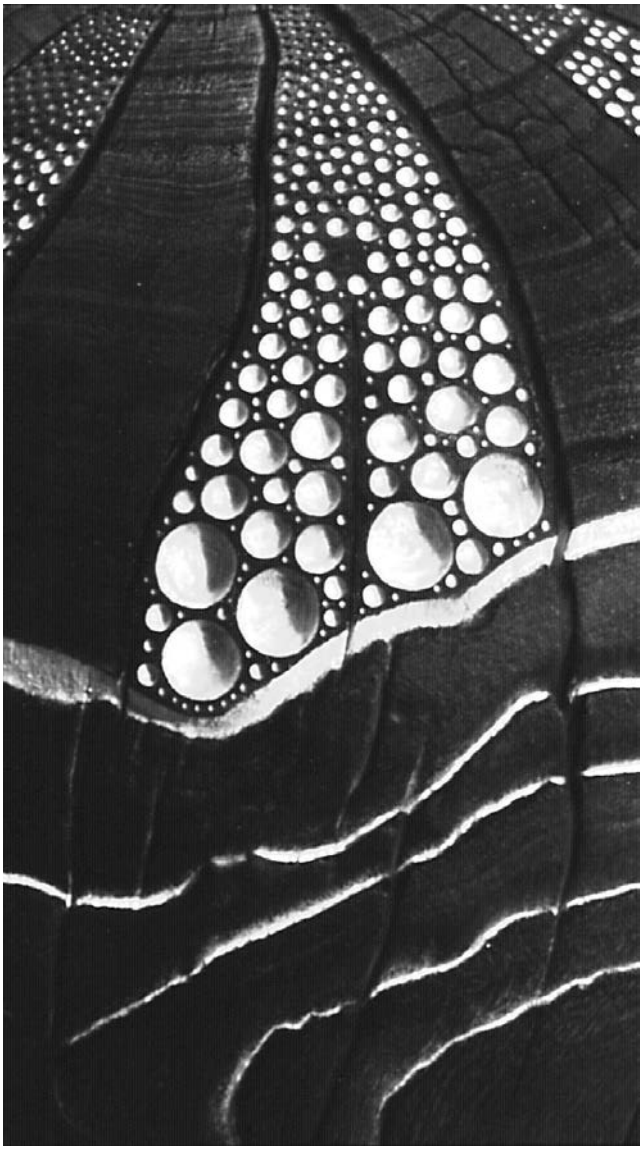
Cottonwood Sphere/Hemisphere (cottonwood, 13" x 15" diameter), the most brilliant illusion in the show, captures perfectly the interplay of spheres and hemispheres suggested by the title of the show: "Spheres and Hemispheres Collaboration." The hemisphere seems to hold a textured sphere whose full form is revealed by the cut through the middle of the hemisphere.

Prior to their collaboration, Hoyer and Smith had developed artistic vocabularies that included numerous common elements. Both emphasized simplicity of form. Both worked with locally available woods. Both reinforced form and material with surface decoration. Both are meticulous in the technical aspects of their craft.

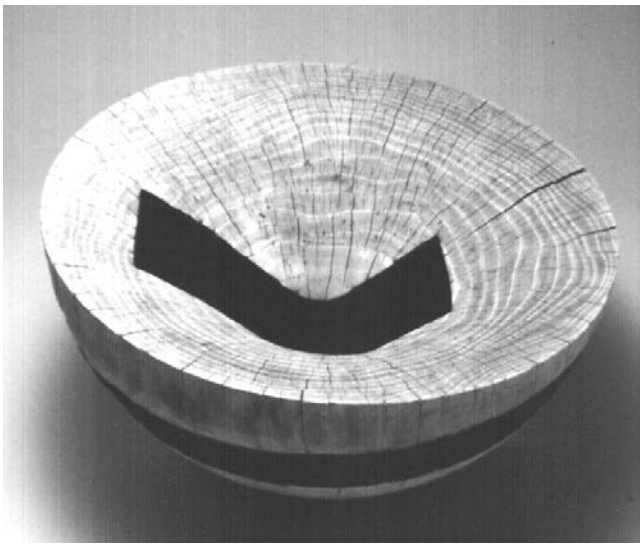
Despite these apparent similarities of approach, much of Hoyer's work portrays feelings arising from experiences in his life (see, Todd Hoyer, "My Work, My Life," *AW,* March 1997), while Smith's work is characterized by refined elegance (See the portrait of Smith in Tony Boase's, *Woodturning Masterclass,* Guild of Master Craftsman Publications, Ltd., 1995.)

In this show, every object demonstrated a seamless blending of the ideas of two strong artists, who previously produced highly distinctive work, into a coherent whole in which it was impossible to tell where the work of one ended and that of the other began. The results of their collaboration are superb.

Russ Nelson turns wood in Tempe, AZ.



The decoration on Elm Sphere #2 ($9\frac{1}{2}$" dia.) takes advantage of fault lines radiating from the pith that opened as the wood dried. After scorching, every other section between fault lines was cratered with a rotary carving tool to reveal the contrasting light color of the natural wood. Some grain lines were emphasized, providing color contrast that reveals the attractive grain pattern on the lower two-thirds of the sphere. This whimsical piece is a playful departure from the usual work of its creators.



Similar to Hoyer's work in the recent exhibition, "Turned Wood Now," (see *AW,* March 1998, page 38), Elm Hemisphere #7 ($9\frac{1}{4}$" x $17\frac{1}{2}$" dia.) combines an exterior of weathered elm banded by rusty wire wound into a wide groove, with a polished, cupped interior featuring a rectangular cutout with burnt side walls. The outside continues Hoyer's examination of the external effects of aging, but the interior reveals the refinement and polish that also come with age.

PHOTOS FROM THE MAILBAG

Big leaf maple vessel, above, by Mike Tomerlin of Pulaski, TN, is about 6 in. high and 7 in. in diameter. Mike has been turning since 1992, but only started turning full-time 18 months ago.

Ornaments, right, by Jim Bliss of Kennett, MO. Jim says the icicles are an excellent exercise for small spindle work. Keep a sharp tool and go lightly, he advises. Cedar ornaments are left unfinished; others are waxed or oiled.

White oak birdbath by Mary Lacer of Shoreview, MN. It's 38-in. high with a 16-in. dia. bowl and a 3 -in. diameter pedestal.

A 7-in. diameter Osage Orange bowl with natural edge by O. B. LaCoste Jr., a self-taught turner from Lafayette, LA. O.B. says he really enjoys working with local woods, many of them castoffs, which he calls "Cajun Exotics."

YOU CAN TAKE IT WITH YOU

"YOU CAN'T HAVE EVERYTHING," AND "you can't take it with you." We all grew up hearing these sayings, and usually didn't like the message. But I recently found out that the sayings are wrong, at least for turners who travel. On my last vacation, I decided that I could take my turning kit with me.

My wife and I headed off to a cabin in the mountains for a week. Normally, I have to go cold-turkey from turning when I am on vacation. My massive Powermatic 91 just doesn't travel easily. (I have 1,000 pounds of sand and steel added to the base.) I decided to get a Nova Comet mini lathe. This one really fit the bill. I got tremendous quality in a lathe and was able to take it with me while on vacation.

The Comet is a miniature lathe that you can be glad you have brought along. It has a big lathe feel because it is made from cast iron. At 60 pounds (without motor), it is heavy enough to tackle a large assortment of turning jobs, yet light enough to still be portable. It has a large shaft and center mount bearings that make it run vibration free. Because it is so sturdy, you can turn an 8- to 10-inch bowl without tearing up the bearings. The tailstock and tool rest have fast, positive lock-down cams, and the lathe bed allows for extension. This is nice for when you are at home and want to do long spindle work.

When I got the Comet mini lathe (from Woodcraft 1-800-225-1153), I also got a Premier Super Nova four-jaw chuck with the new power-grip jaws. In my opinion the new Nova chuck is now a world-class four-jaw chuck. This has made a very nice combination. Although I do use a faceplate for reverse-turning the bottom of a bowl, I find the convenience of the four-jaw chuck very desirable for most of my turning work.

Easy-carry tools

For my recent trip, I wanted to carry only the tools that I needed and nothing extra. A few years ago, I got into trouble when I borrowed a miniature lathe to make some pens for the wife of our club president. Ray had recently passed away, and I volunteered to finish some pen sets that he had started for his wife to give family members as mementos. Ray had glued up the pen blanks and left them $1/4$-inch long as the instructions suggest. However, he had a bandsaw in his shop, and I didn't have one with me on vacation. That extra $1/4$-inch of wood caused me a lot of grief turning. (Of course, as a beginner I didn't know how to use a parting tool.)

For this trip, I organized everything into five categories: lathe, lathe accessories/finish, tools, turning kits, and wood. I made a checklist several weeks in advance. (This is a holdover from my mountain climbing days. There are some things that you just do not want to do without while backpacking.) By going down the checklist, I was sure to have everything that I needed.

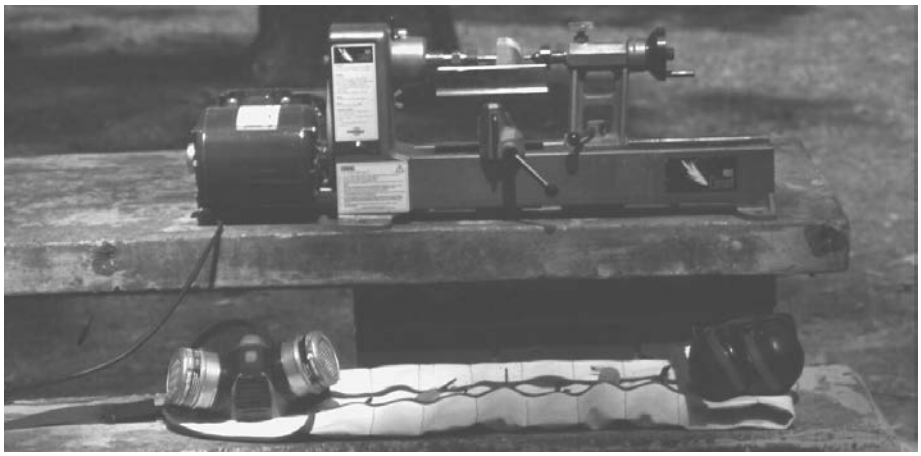
All of my turning tools went into two cloth pouches. One pouch was for normal size tools, and the other was for miniatures. The cloth pouch is great for organization and keeps the tools from being banged around. In full-size tools, I use a $1/2$-inch gouge, scraper, skew, and a parting tool. To keep things simple, I sharpened the tools before I left. To touch up the edge after working, I use a diamond hone and buffing compound on leather straps. For the parting tool and the scraper, I use a HSS burnisher to bring up a new burr.

The most important tool in my miniature set is a $1/4$-inch skew that is razor sharp. For very fine detail work, I find that an Allen wrench glued into a dowel handle makes a fine tool. This tool is very good for reaching into difficult areas, Again, you should shape and sharpen the edge before you leave. You can buy the small pouches, but you may have to have the large pouch sewn for you. (I have an industrial sewing machine on which I enjoy making my own pouches.)

All of my lathe accessories went into a single box. In this way I was able to pack everything days in advance and be sure that I had not left anything out. I included a Nova chuck, a faceplate, mounting screws, a black marking pen, an ice pick (to start screws), a screw driver, a socket wrench to remove the motor from the lathe, and wood finish. A cardboard box will work, but you might enjoy making a wood box just to practice your woodworking skills.

Since I was going to be doing some miniature turning, I was sure to include my miniature turning box. This is a compartmentalized plastic box that contains all the supplies that I need. Miniature turning uses many small parts, and I found it absolutely necessary to keep everything organized in one place. Since everything that you use for miniature turning is in the box, there is no chance that you will leave something at home. When you are at home, you are less likely to lose one of your valuable small parts if each one lives in its own special spot in the box. You can get one of these from your Woodcraft supplier.

For traveling, I decided that I wanted to take the motor off of the lathe. The motor is attached by two screws and takes only a couple of minutes to remove. There are two reasons I want the motor off for travel. First, it is safer. I don't want to take a chance on the motor fracturing the housing if I hit a bump. Second, without the motor, the lathe is lighter to carry. The heaviest single piece is then the headstock/ways, which weighs just 40 pounds.



The author's mini-lathe, tool roll, and other traveling paraphernalia.

Wood preparation

Since I did not want to carry a chain saw or a large band saw with me on vacation, I prepared my wood blanks in advance. Production turners know that this is an important time-saving procedure. This is also true for the recreational turner. I prepared blanks for pen turning and for making darts, Christmas ornaments, and bowls. The projects that I wanted to do were for Christmas presents. Over the last several years, I have been giving presents that I have made. I have been absolutely amazed at how pleased people have been with them. I suppose people appreciate the fact that their presents are things that I have spent hours working on myself. These gifts seem to be more meaningful to them than things I buy in a store.

Set up and use

Set up was very simple. The picnic table at our cabin was my work table overlooking the forest valley. Putting the motor on the lathe involved about two minutes work to attach two bolts. The lathe is stable and heavy enough that I did not need to attach it to the table. I laid out all of my tools and accessories where they were close at hand. This was easy to do since everything that I needed was in two boxes and two cloth pouches. Nothing to forget or lose.

In the next two hours, I made six pen and pencil sets. Remember, I had already done my glue-up at home. I like to use the professional pen turning mandrel. This mandrel allows me to turn any length kit. With this mandrel I can turn both ends of a pen at the same time. It's a really neat and easy system to use.

I use Quick Grip bar clamps to press my pen sets together. The Quick Grip is small and lightweight, and its soft rubber pads don't damage the pen parts. I know that the books recommend an arbor press. I don't own one, but I do own a bunch of Quick Grips. They do a good job, especially since I already own quite a few.

I sand to 600-grit sandpaper and then apply my finish. I alternate finishes between Deft wood sealer diluted 50/50 with lacquer thinner, and Hut Perfect Pen Polish (high gloss). I like the results of both finishes. Use the finish that you like best for the project that you are working on. If you sell your products for a living, your finish must be fast and suit the buying public. Since I don't sell my work, you will have to get somebody else to tell you what the buying public wants.

On the second day of our trip, I decided to make some darts for one of my daughter's friends. I thought this might be a nice gift for him. The dart kit comes with complete instructions. You can also purchase a miniature scale so that you can get the weight just right. The turning was simple, but the results were very impressive.

Christmas ornaments also make very nice gifts. I made a bunch of these for friends, my staff, and some of my special patients. The Christmas ornaments are nice because your friends will think of you every year when they decorate their Christmas trees. To me, that is a pretty successful present.

My last present was for my wife. I wanted to do something special. I decided to make her a jewelry box with an inlaid lid. For most of the turning, I used the new Nova four-jaw chuck. To reverse-turn the bottom of the lid and the box, I used a jam chuck on a regular faceplate. This is very easy to turn and fit. Since I knew in advance that I would be making some jam chucks for this project, I had turned a couple blanks for that purpose. I kept them in a plastic bag so that they would not dry out. This made them easier to turn and softer on my box and also kept them from cracking.

Conclusion

Life is good! Yes, you can have a quality lathe and take it with you. This can be really fun for vacations, and it can also be great for doing demonstrations. I enjoyed being in the cabin in the mountains, and I enjoyed turning on the lathe when I was in the mood. You might enjoy giving yourself a change of pace from your big lathe. The Nova Comet Mini Lathe gave me great performance and portability. If you own a minature lathe, consider taking it with you on vacation.

—Ron Hampton, Texarkana, TX.

McNaughton Center Saver

I first became interested in nested bowls when my wife bought a ceramic bowl set at a craft show. I thought a wooden set like that would be great. Wooden nested bowls have been around for centuries in Europe, but are rarely seen in the U.S., especially in modern times since utilitarian bowls are mostly plastics, ceramics, or metals. The early wooden sets were made from different chunks of wood (unlike the ones we'll discuss). There was one large bowl and then a set of gradually smaller pieces made to fit inside.

The McNaughton system from New Zealand, however, is designed to make nested sets from the same piece of wood. That means the grain and other characteristic of the wood show through on all the pieces. I have found the tool indispensable in my shop despite some early set backs with its set-up and instructional literature. I soon overcame my apprehensions and figured out why the instructions were so vague. When using the McNaughton tool, a demonstration is worth a thousand words. It takes practice, patience, and persistence (the three p's in woodturning).

A couple of years ago, before Craft Supplies USA marketed the center saving tool in their catalog, they asked me to use it in my shop and evaluate it. I used it in place of my other slicer (a center saver that produces cone shapes and not a semi-spheric shape, like the McNaughton) for a couple of days and thought the tool certainly was a novelty. I was worried that it was taking me too long to extract the center pieces compared to my slicer. I was in the middle of roughing out salad bowls for the wholesale part of my business and had 400 bowl blanks to rough-out. Needless to say, I didn't want to waste time on a tool that was slowing me up. As I worked

The McNaughton cutter is designed to curve deeply into the bowl blank

through the bowl blanks, I steadily increased the speed at removing the centers. Soon I was removing the blanks faster than with my old slicer. Not only that, I could get one, two, or even three bowls out of the main bowl blank. A huge savings.

Subsequently, Craft Supplies USA has asked me to field some of the questions from confused new owners of the McNaughton Tool. Most have stated that the directions that come with the kit are undiscernible. They simply do not understand them. I related with their plight, except I never read the directions (a trait past down to me from my father). Some of the questions were easy to remedy. For example, new users often set it up backward in the tool post, the tool cutters were too far away from the work, or the cutter was too high or too low. But it seems to me that mainly people have trouble because they hadn't the patience to practice (another human trait). I demonstrated the tool at the AAW Symposium in Greensboro, NC, in 1996 and the following year in San Antonio, TX, in the trade show area. People commented, "Oh, that's how its supposed to be set up", or "how come you make it look so easy." One person even said "if I thought it was that easy, I wouldn't have sent it back to the manufacturer". The secret of the McNaughton tool is practice, patience, and persistence, as I had learned.

The McNaughton tool, I believe, has a learning curve similar to a skew-chisel, and is possibly more difficult. It must be practiced to understand the nuances of the tool, even though the tool's concept and objective look fairly straight forward. Following are tips and insights to keep in mind when using the McNaughton tool.

Obviously selection of timber affects performance. Harder, denser timbers (i.e. myrtle, cocobolo, and most burl) cut better than say green ash or soft maples. For example,

most salad bowl blanks are side-grained. Harder timbers tend to produce sawdust-type shavings while soft timbers produce ribbon type shavings. When the tool cuts into a soft timber side-grained blank, it usually produces a ribbon chip until it curves deeply into the blank. The ribbon shavings are more likely to clog the kerf and the cut is more difficult to complete. It will eventually hit end-grain timber as the cutter turns toward the center, as shown, and produce sawdust. Further, don't expect to cut a complete arc from start to finish with the same kerf. A kerf of 1.25 times the width of the blade is usually sufficient to cut all the way through the blank. The instructions say to use a "fishtailing" type action (moving the handle back and forth horizontally) for relief in the kerf. This works but is slower than slightly widening the kerf.

The tool cutter ideally should line up at center, but I've found that being 1/2-inch above is okay also. The tool handle should be pulled-up all the way under the T-bar. Never let the tool handle drop from its position under the T-bar since this will cause a catch.

When starting the first cut, plunge into the wood as far as you can, until you feel your machine slowing up. Then pull the tool out and make a cut on the left side of the first cut to widen your kerf and plunge in again. Do not make a relief cut that will trap chips as this will really impede your progress. Even though the tools are curved, they do not automatically make it a set arc. Granted there are limitations, however, the tool can be subjective unlike other mechanical coning tools. I determine what blade to use, how deep or shallow to plunge the arc through the wood and how thin the walls shall be for each core. Only with practice will you know the approach you need to take.

The tailstock is great if you can use it. Due to the curve of the blades, occasionally the tailstock will hinder some of the cuts that you will need to make in order to retrieve some of the blanks. If you do not use the tailstock, the work piece must be fastened tightly either by a faceplate or chuck (a faceplate will always hold tighter than a chuck). A caution if not using the tailstock; if you cut the entire blank without leaving an inch or so, the blank is likely to fly out to who knows where (usually over your right shoulder). Instead I use a wedge to pop out the remaining inch or so. Stop short and continuously check your progress.

The McNaughton Tool also has a straight blade that I like for coning out the centers. It works on the same principle as the curved blade: the T-bar tool-post on the McNaughton tool takes all the torque instead of your forearm and elbow. Anyone who has used the McNaughton Slicer for any length of time will attest to its efficiency. The manufacturer of the McNaughton also touts a variety of other uses for the blades, but I'll leave that up to the user and the manufacturer to figure these out. In my shop I am only concerned with center saving.

The blades will probably last forever for the average hobbyist but if used enough will wear out or bend due to heat and torque. The manufacturer says that you can sharpen the blade with hand-held diamond hones. This is true if you do not overheat the tool and round over the edge.

If you are impatient like me, they will look like chain saw blades that ran into mud after awhile. So, I touch them up on the grinder from time to time. When they become worn down too far I install a high speed steel tip on the end to prolong their longevity.

The cost of the tool is fairly substantial (around $300). However, let us say we are making a salad bowl from a $100 piece of burlwood (not an uncommon cost for any timber nowadays), the dimensions of which are 12x6". I would typically get four smaller bowls out of the main 12x6" blank depending on the stability of the wood. Most American burled timbers are fairly stable (i.e. box elder, redwood, buckeye, ash) and won't need to be roughed out into thick blanks for drying (a topic left for another article). If stability of the timber is in question, I would probably get three pieces with wall sections of one inch to set aside and dry. But any way you look at it, three or five pieces out of one blank certainly gets you much more for your money, not to mention the great waste savings. I personally think with a couple uses the tool pays for itself, whether you are selling for a living or just making for gifts.

I usually stock extra McNaughton blades in my shop. But one day I was careless and bent a blade on a catch, which made the blade useless. The other one I had on hand was ground down too far to use. I immediately went down to Craft Supplies (conveniently located a couple blocks from my shop, my wife says). They were out of stock on the blade I needed. I remember being frantic about the news. "What am I going to do now? What did I do before I had one?" I had to go back and use the old method of slicing cones out. It worked but was not as efficient; the McNaughton tool had become a necessity for my production.

I hope you have success with the McNaughton Tool also. And by all means, practice on some wood you don't care much for before you mount up that $400 blank of Macassar ebony!

Mike Mahoney is a professional turner in Provo, Utah.

YOUR TURNING IS NOT A BATHROOM WALL

Decorative Techniques for Woodturners by Hilary Bowen. *Guild of Master Craftsman, 1997; distributed by Sterling, 800/848-1186. Paperback, 176 pages, $19.95.*

SURFACE DECORATION DONE WITHOUT thought is merely graffiti. Surface decoration done with thought is a designed surface. The definition of design is "to plan and fashion artistically or skillfully." This involves intent, planning, and practice.

I have always admired the work of Gael Montgomerie because of the apparent spontaneity of her applied colors and textures. The casual grace of her work is enviable. After watching her demonstration at the Greensboro symposium, I realized her decoration may have a natural and unforced look, but it is not by accident. The success of her work is a result of a lot of thought, previous experimentation, a knowledge of the materials she uses, and a deliberate awareness of the effect she wants to achieve.

Random, haphazard, and thoughtless attempts at surface decoration result in random, haphazard, and thoughtless turned objects. There might be an occasional success, but even a blind hog stumbles across an acorn every now and then. If you don't want people to think your work was done by a blind hog, create with forethought and intention, and educate yourself about the materials and processes you employ.

One source of information I read recently is *Decorative Techniques For Woodturners* by Hilary Bowen. Intended to promote interest in decorating turnings and to provide inspiration, it generally achieves its aim. The focus is on decorating turnings rather than on how to turn, and is meant as an introduction to techniques. It makes no pretensions of being a comprehensive treatise on the subjects covered.

The book consists mainly of four parts. Part one is about the use of metals such as brass rods and tubes, wire for inlay, molten alloys such as pewter, and sheet metal for laminates. Some techniques are simple, such as brass rod inserts, and can be done by any one capable of drilling a hole. Other techniques such as cast pewter attachments would require some experimentation and experience before being tried on a turning.

Part two is about coloring wood, with dyes, stains, and waxes getting the most attention. The section on inks and paints is brief, and it would be necessary to consult other sources for more in depth information about particular color mediums. She does include a good discussion about giving careful consideration to the use of colors on wood, and is careful to point out that her views are personal choices, not inviolable rules that must be rigidly adhered to.

The third part of the book is wood composite techniques, which includes segmented work and inlays. Most of her examples of segmented work are rather rudimentary compared to masters of the craft such as Ray Allen, but are probably a good starting place for the beginner. Her coverage of diamond stickwork has good instructions, and presents many possibilities for further exploration.

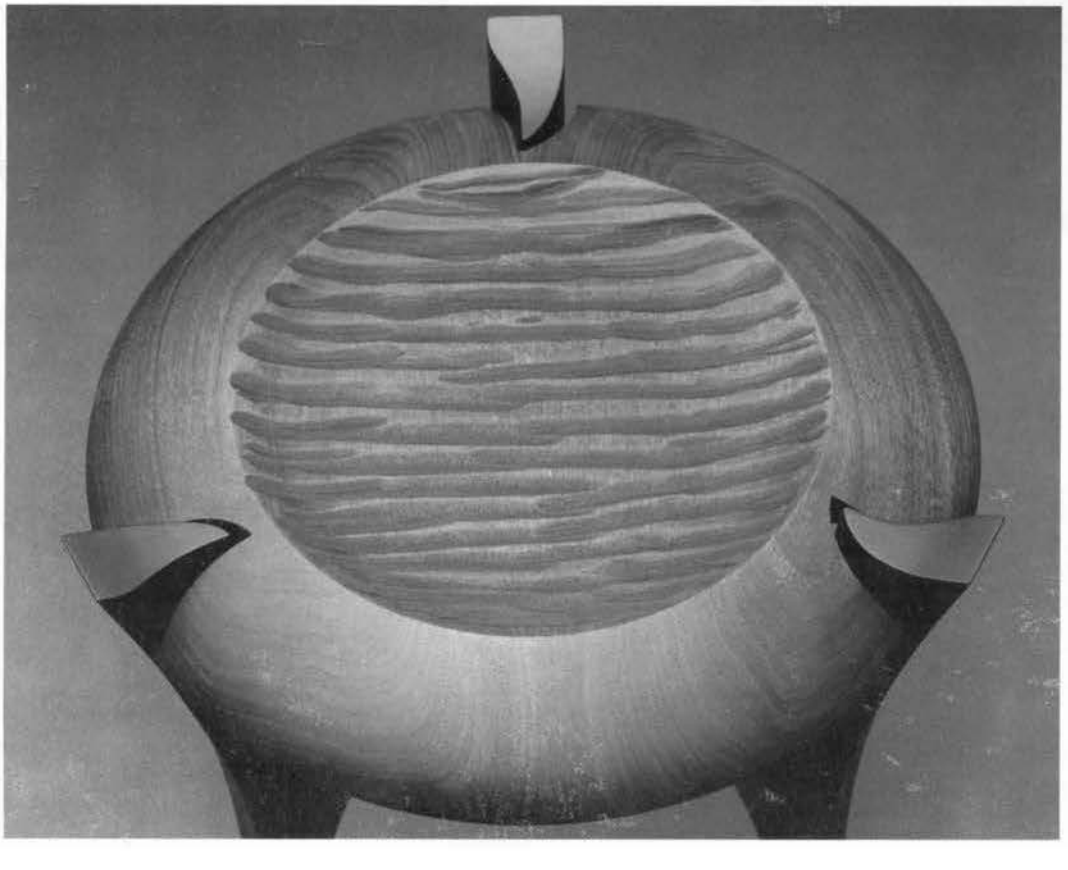
Part four of the book is of miscellaneous techniques. It contains some of the more exciting but lesser used techniques, such as the use of casting resins, scorching, and an intriguing process of "pimpling" wood. The chapter on carving adequately presents a couple of introductory projects.

The instructions for the various techniques are clear and as comprehensive as is needed in a book that is intended to be an introduction. It is well illustrated with many quality photographs and drawings, and Hillary's writing style is never pedantic, but an honest sharing of information from one woodturner to another. I think this book would be a popular addition to a club's library. —*Clay Foster*

Clay Foster, of Krum, TX, is well known for his surface-decorated woodturnings

Table of Sharing

"Collaborators," a show at the delMano Gallery in Los Angeles, teamed up several pairs of influential woodturners and decorative artists to create unique mixed media sculptures. Pictured here is a table that was the result of a collaboration between Douglas Finkel and Merryll Saylan. Other pieces in the exhibit were done by such well-known artists as Po Shun Leong and Bob Stocksdale; David Ellsworth and Giles Gilson; Michael Hosaluk and Mark Sfirri; and Christian and Micheline Burchard. The result was described in the exhibit catalog as "cutting edge and provocative, bridging the gap between decorative art and contemporary sculpture.



Occasional Table
Douglas Finkel/
Merryll Saylan

Walnut, Poplar, Paint,
Oil Color Glaze and
Aniline Dye
28" high x 19" dia.