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American Woodturner

The Journal of the American Association of Woodturners December 1995 $5.00 Vol. 10, No. 4

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

Bigger and Better

The magazine you're reading is the largest AAW journal we've ever published, having grown yet another four pages since the last. Blame it on the growth of our field. How else could we fit all the good material that continues to come in, on everything from stocking-stuffer projects, architectural turning, and oil finishes to a sensory understanding of form and an on-the-scene report of the International Turning Exchange. Congratulations to our editor and to all the contributors (authors and advertisers, alike), who continue to generate such expansive energies.

I can't promise the next issue will be larger again, but I can tell you that this organization is growing (we have over 5,600 members now), and that it is only a matter of time before we become the recognized leader throughout the craft fields: Best publications, best conferences, best association, best work by its members.

Sound far fetched? I don't think so, not when you consider how far we have come in our first ten years. If we work together and work smart toward our mission, these things, and many more, will happen. Let me share with you some other promising recent developments.

At our upcoming January Board meeting, we will have four members attending their first Board get-together. Congratulations to David Barriger, Susan Ellison, and Bill Stephenson, the winners of our recently completed annual election. In addition, congratulations to Larry Hasiak, who was the next runner-up and who has agreed to serve the remainder of Jack Aarsvold's vacated term. Already we're experiencing the renewed spirit of a full Board. Steve Garavatti, for one, has been active and constructive as our new treasurer, and his encouraging introductory report appears on page 52.

The 1996 symposium, scheduled for June 22–24 in Greensboro, NC, is shaping up well under the energetic direction of Nick Cook and Phil Pratt. We have a preliminary roster of international and national turners that includes Frank Cummings, Michael Hosaluk, Ray Key, Johannes Michelsen, Gael Montgomerie, Rude Osolnik, Michael Peterson, and Al Stirt. More names are in the works. In addition we're headed for a list of regional presenters that promises to be stronger than ever. These are people, who have proven themselves at innumerable local and regional events and are already attaining national recognition: Frank Amigo, Susan Ellison, Harvey Helmke, Rodger Jacobs, Bill Johnston, David Lancaster, Gary Roberts, Robert Rosand, and Betty Scarpino. Again, more names will follow.

Another exciting new development planned for this important, ten-year anniversary symposium, is an AAW-sponsored "Mentor Invitational" show. We're putting together work from more than forty turners to be displayed at the Guilford College Art Gallery, ten minutes from the Koury Center symposium site. Surveys have indicated that you want the AAW to be more active in organizing exhibitions, and we have great expectations. Details on this and the rest of the symposium will appear in the March issue, along with a registration form.

As our need grows to plan further ahead, so does our ability. The site for the 1997 AAW symposium will be the lovely city (and enthusiastic turning community) of San Antonio, Texas. While next year is our tenth anniversary as an organization, 1997 will be the tenth anniversary of the first AAW symposium (October 1987). Time turns well for us.

Speaking of our ten-year anniversaries, I have just received a copy of our 1996 calendar, and it is really impressive. Not only will it prove useful and attractive for your own use throughout next year, but you can be proud to give it to friends, relatives, and clients. It's an ideal way of showing people what woodturning and the AAW are all about. I encourage you to take advantage of the volume discount detailed on the inside back cover and use this calendar to help spread the word.

And speaking of spreading the word, beginning with this issue, *American Woodturner* is being carried by Ingram Periodicals, one of the largest distributors to newsstands and other magazine outlets. You'll note our new cover design, including price code that large retailers require. Barnes & Noble, for instance, has ordered 355 copies for 69 stores, and that's just a start. This is another great way for people to learn about woodturning and the AAW. If you know of local retailers who should be carrying our journal, tell them about Ingram (800/627-MAGS).

Video coverage of the 1995 symposium will be available by the end of this month, and it's bigger and better than last year's (again, see the inside back cover). Thanks to all those who have supported this program with their helpful feedback and purchases. Please continue to refrain from copying this product, and we can look forward to more video programs in the future.

Local chapter activities and regional events continue to grow. Take a look at pages 4 through 12 to see what I mean, and know that the Board has already approved financial help for another event in 1996. Keep your eye on our Calendar page. If your group has an idea for a mini-symposium or a public outreach event, I encourage you to submit a proposal and a request for support (if you need it) to the Board through the Administrator.

And, as we approach our tenth anniversary, thanks to that handful of woodturners who, back in 1986, envisioned all of this.

— Charles Alvis, President of the 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:

Bobby Bridges of Pasadena, TX, guides young Aaron Grantham of Miles, TX, through the excavation of a bowl in the hands-on area at last October's Texas Turn or Two IV. The symposium drew 275 participants, over a hundred more than last year. For more on the TTT-IV conference and the proliferation of turning events throughout the country, see the articles beginning on page 10. Photos by Larry Mart.

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Get to it

There's a remarkable woodturning tool on the market that to my knowledge has never been mentioned in these pages. It's cheap and a good one will last ten years. It does require some discipline to use, and your peers will ask what you're doing and why, but the benefits are amazing.

This tool will improve every cut, enhance every form, and increase accuracy, efficiency, and stamina. It will vastly reduce mishaps and accidents. Furthermore, its frequent and consistent use provides both a physical and psychological break from tedious tasks. This important side effect reduces muscle tension and improves circulation. Carpel Tunnel Syndrome is history. Psychologically, its periodic attention offers fresh eyes, introspection, and more critical thinking.

That's not all. Dedicated use of this tool will smooth spousal relations, parental influence, and raise your standing in the community.

Although most famous turners have never owned one, this is the nineties; it's okay to be different. This wonderful, amazingly incredible, woodturning tool is the broom.

—Baxter Wood, Lexington, VA

An on-site report

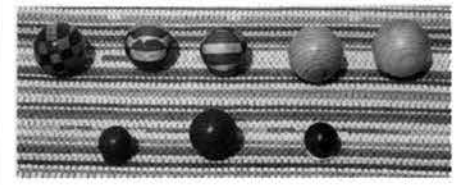
On Thursday, August 17th, fifteen representatives from six local chapters in the North Carolina area met with AAW president Charles Alvis; vice president, Nick Cook; and secretary, Phil Pratt at the Joseph S. Koury Convention Center in Greensboro, NC, to begin planning for next year's AAW symposium, "Turning Ten." We were treated to a tour of the center, and I must say that I was awed by its size and complex versatility. For the first time, we will have everything from shavings to showers under one roof. This appears to be a "miracle cure" for some of the nagging (sometimes large) problems that have beset this event in past years. There will be 1,000 reasonably priced guest rooms. "Restaurants galore and bathrooms by the hundreds" is not a serious overstatement. There are acres of nearby parking, an indoor/outdoor swimming pool, a shopping mall with movie theaters, and a golf course. (The last, naturally, is outside.) The auditoriums and demonstration rooms are cool, convenient, comfortable, adjustably large or small, well lighted, and endowed with multiple electrical outlets capable of handling all of the equipment required for slide presentations and demonstrations. The massive, 40,000 sq. ft. Guilford Ballroom in which the banquet and auction will be held can accommodate over 4,000 people, and there are provisions for large-screen viewing of the items to be auctioned. For those who need an afternoon nap, no more long walks back to the campus dorm or drives back to the motel.

The convention center staff with whom we met were very professional and accommodating about solving the problems presented to them by the AAW and regional chapter representatives. There were no disappointing compromises. If the expressions "One Stop Shopping" and "Satisfaction Guaranteed" can apply to a woodturning symposium, they surely fit here.

For those who will be attending their first symposium, "Turning Ten" will be something akin to divine culture shock. For the seasoned symposium-goers, it will be an excitingly new, refreshingly different experience. What a fantastic way to celebrate the tenth anniversary of the American Association of Woodturners! *—Ken Bachand, Brevard, NC*

Having a ball turning spheres

I am always glad when something turns out nice on the lathe. I enjoyed so much the article by Christian Burchard in the June issue. It was well written, and the pictures were good



and plain. I only wish they were in color. My first ball was a flop until I went back and reread the part about repositioning the blank *90 degrees* to its original axis. I did this not once but many times till I got a good sphere. Isn't that the way it is when we miss one little paragraph?

As you can see from the photo, my spheres are nice and round, turned all by eye, and, of course, hands. Isn't it wonderful how God has made us? The three spheres on the left in the back row were glued up from $^1/_2$-inch squares of cedar and ponderosa pine. The other two are ponderosa pine, and the ones in the front are walnut.

—Harold M. Miller, Hamilton, IL

A clarification

My letter in the September issue implied to some that the AAW has asked demonstrators to reduce their fees or forego expense reimbursement after arrangements have been made. This is not what I meant. In my own experience with the AAW, including my years as editor, I have found the AAW forthright and proper in its business relationships. The thrust of my letter was the issue of compensation for demonstrators in a maturing field. It would be good to hear more discussion on that subject.

—Betty Scarpino, Indianapolis, IN

Consider microwaving

Lyle Jamieson's article, "Green or Dry?" in the June issue, was enjoyable and interesting and will certainly be helpful to those who use green wood. My own adventures with green wood began shortly after reading an article by Jon Arno that appeared in *Woodshop News* in Octo-

ber 1992. The article nicely covers the behavior of many hardwoods from the standpoints of dimensional stability and differential shrinkage. Of particular interest to me, however, was a description, with how-to instructions (reprinted below) on the use of the microwave for curing wood.

I offer two important tips on the microwave method of curing: First, do not ever, under any circumstances, use the kitchen microwave, even in a harmonious household. I, unfortunately, tried it, and after scorching the second bowl (I had gotten away with the first), leaving a foul-smelling deposit of wood tar all over the inside of the unit, I was quickly made cognizant of the error of an unwelcome incursion into the culinary space. After cleaning, cleaning, and recleaning the kitchen unit, I bought my own for the shop ($99).

And second, to avoid the problem encountered above, buy a unit that has a mechanical selector switch and timer, because curing works best at med-low (or defrost), and it is easy to be absent-minded about the setting. The more recent and fancier microwaves are computer-controlled and, when started, default to the highest intensity, which, as I observed, scorches the wood. Set the microwave once and remove the knob.

Erratum and addendum

The phone number for Industrial Abrasives (Michael Gordon's letter, page 2 of the September issue, suggesting a supplier of hook-and-loop sandpaper in meter-wide strips) is 800/428-2222. And the phone number for Veritas Tools (suppliers of the burnisher on page 32 of the September issue) is 800/667-2986.

Microwave-Drying Wood

(reprinted with permission from Woodshop News, *October 1992)*

FOR YEARS, WOODTURNERS HAVE WONDERED WHY THEIR kitchen oven wasn't very effective as a makeshift kiln for drying bowl blanks. Logic would suggest it should work. After all, a kiln is little more than a large oven.

The big difference, however, is control. Just the right amount of heat for just the right length of time, combined with an occasional injection of steam—to ensure that the release of moisture from the wood is progressing at a gradual enough rate to relieve drying stress—are all critical factors that kilns are designed to control.

If the wood's surface dries below the fiber-saturation point before the interior of the wood has a chance to give up the free moisture in the cell cavities, checking and/or warping is a virtual certainty. Kiln operators get around this problem by using kiln schedules that have been carefully worked out for each species. But even when the woodworker tries to follow these schedules, kitchen ovens just don't provide the ability to control both heat and internal humidity over long periods. Besides, tying up the kitchen oven for days on end could lead to divorce.

The microwave oven doesn't exactly solve the problem of control, but it is quicker and seems to be kinder to wood. Unlike conventional ovens that heat an item from the outside in, the microwave uses radio waves that penetrate all the way through. Heat is produced by the friction of agitated molecules. The process is so quick that there is less surface dehydration while the interior is still cold and moist. Microwaves are especially advantageous for drying wood, because the lignin that bonds the wood cells together is thermoplastic, and the microwave seems to soften it. As a result, the cells are able to slide and realign themselves in the viscous lignin as they dehydrate and shrink. In fact, the microwave is so effective at softening the lignin while the wood is still moist, it's possible to take a rough-turned bowl blank, hot from the microwave, and literally form it by hand. Well-padded gloves are mandatory for this operation, of course.

As with most aspects of green woodturning, the right technique for microwave drying can be iffy. Microwave ovens are notorious for having their own personalities, and various species of wood take to the process with differing levels of truculence.

Because some woods tend to bleed resins, change color, or even harden when exposed to excessive heat, it's probably best to start off slow. I set the microwave to "defrost" for eight to ten minutes on the first couple of cycles and also allow longer intervals between cycles. After the first cycle, I attempt to hand-form the bowl as mentioned above, then let it cool off to where it can be picked up without gloves before returning it to the oven for another jolt.

Eventually, when it comes out of a cycle without any sign of distortion, I allow it to cool for several hours before putting it back on the lathe for final turning. Normally, six or seven cycles spread out over three or four hours does the trick for bowls with wall thicknesses of one inch or less. But with a little experience, it is possible to tell if the bowl is still a bit too green for final turning by the feel of the tool and texture of the shavings.

If the shavings seem to mat together when pressed in the palm of the hand, or if the freshly turned surface of the bowl feels a little fuzzy, just pop the blank back in the micro for another cycle or two. *—Jon Arno, Troy, MI*

WASHINGTON WOODTURNERS VIEW THE MASON COLLECTION

FOR THE LAST NINE YEARS, ARTHUR AND Jane Mason, of Washington, DC, have devoted passionate attention to developing a unique and beautiful collection of turned, carved, and sculpted wood. Their collection comprises some 430 pieces from 104 turners. Last April the Capital Area Woodturners enjoyed viewing the collection and visiting with Jane and Arthur.

The Masons' collection builds on a lifelong interest in wood, craft, and art. While young, Arthur acquired an appreciation for wood from his father, formerly a forester in Colorado. Jane's appreciation was built on an extensive background in clay. Her humorous clay sculptures are found throughout the house. In the bedroom, for example, are two sets of legs and feet in an affectionate pose protruding beyond a little blanket. It always invokes smiles and comments from visitors. Jane has had a number of her life-size clay heads cast in bronze. Long before the turned wood collection, their walls displayed drawings, watercolors, and paintings. And a George Segal sculpture still graces the upper right corner of the living room wall, as if endeavoring to take leave of the graceful tall silver flame by John Safer in the opposite corner. As Mark Lindquist pointed out, their choices of prints, painting, sculpture, and furnishings show that a sophisticated appreciation and knowledge of art was present when they discovered turned vessels.

The spark that lit their interest in turned wood occurred one day on an outing to enjoy art. They couldn't find a parking place at the National Gallery of Art in downtown Washington and settled for a space near the Renwick Gallery. On entering to see an outstanding exhibit of Frank Lloyd Wright's work, the docent at the entrance desk encouraged them to see also the Jacobson collection upstairs. The docent noticed their later effort to steal away without visiting the second floor, and they couldn't bring themselves to disappoint that lady. To this day, Arthur and Jane are thankful for the encouragement, for they were enthralled with the turned wood in the Jacobson collection.

Soon after purchasing an apple wood piece by a West Virginia turner, Fred Williamson, they told Sherley Koteen, who had recently juried a local art/craft show, about their interest in the Jacobson exhibit, and asked how they could acquire some turned wood. Sherley provided the names of woodturners in that show. One contact led to another. Upon giving me the surprise of my woodturning life, when they bought one of my bowls, I referred them to David Ellsworth, a visit with whom secured their practice of meeting and getting to know the turners whose work they choose to collect. Their passion for turned wood has taken them to turners' studios as far west as Hawaii, to AAW annual conferences and instant galleries, and to fine galleries displaying turned wood.

As the collection expanded by about fifty pieces yearly, so did attention to its display. Table and cabinet tops were quickly filled. A tall free-standing clear acrylic shelf unit was built for the living room. It effectively displays pieces without supplementary lighting. A single shelf nestled under the stairwell invites a slow descent from the living room for one more breathtaking view. Large pieces are set on low pedestals at the entrance way and in the living room. Some tall pieces by Mark Lindquist have their own pedestals or bases as part of the sculpture. Free-standing pieces are also in the dining room, stair landings, hallways, and any place they may tastefully fit.

Shelves were added to a bedroom wall to hold moderate-sized pieces. The sitting and TV room became a focal point for turned wood. There, deep, lighted shelving with

Robert Marshall

Jane Mason, center, discusses with members of the Capital Area Woodturners one of the 430 woodturnings she and her husband, Arthur, have collected.

sliding pocket doors on two walls allows for exposure of one or several of the five sections at one time. All display surfaces are glass, acrylic, marble, or painted, to enhance the attention to turned wood.

Jane and Arthur frequently move pieces throughout their four-level home, and in and out of a shelved closet packed with pieces. This continual change makes for a dynamic collection, since it is not all on display at one time. Sometimes pieces leave and return through loans to exhibitions, such as "Marriage in Form," the Stocksdale/Sekimachi show now on tour, and Mark Lindquist's "Revolutions in Wood," to tour next year.

Other pieces are in their business offices, the kitchen, their Florida home, and at their children's homes. You come to realize that turned wood is everywhere in their lives. Woodturners, despite the number of pieces they may have underway or completed in their shop and home, probably are not surrounded and absorbed in the vessel form as are Arthur and Jane Mason.

With a full house, Jane says they are not buying many more pieces. But later you will hear her say that they need a certain piece to round out the collection of a certain turner's work. Yet much of their collection is museum-quality. They are pleased that they have collected

The Masons display with particular pride this bowl by James Prestini.

Hap Sakwa's "de Chirico Bowl" occupies a special place on the dining room table.

work by twenty-one of the twenty-two turners in the Jacobson collection. With particular pride, Arthur displays a classic 12-inch bowl purchased, after considerable persistence, directly from James Prestini.

Jane and Arthur are following the evolution of many artists through collecting pieces from different stages in their development. In a few cases, they acquired a piece representing a stage in the turner's evolution that, taken alone, they probably would not have acquired.

An early trademark piece, Hap Sakwa's flower-shaped bowl from a wild lilac's crown area, resides in the den. In the center of the dining room table always resides his very different whimsical painted pedestal vessel filled with variously colored squares, pyramids, balls, and architectural shapes, his "de Chirico Bowl." Upstairs you find his large tea pot and a wall plate covered with colorful pottery shards that don't look like turned wood. Hap's sculptural work has evolved far from the burls of twenty years ago.

Similar comments could be made about the evolution of Addie Draper's work from burls (not in the collection) to delicate laminated vessels, to a composite piece on the entrance door wall. This small piece has a small, footed, hollow vessel resting on a triangular shape, both in black, mounted on a line-drawing background. It points to Addie's current work as a painter and reminds me of the loss this represents for woodturning.

A wonderful progression is seen in "Dotson Alley," residing atop a wall-mounted cabinet in the dining room. We see spalting in one of Virginia's early solid maple pieces, then veneer accents in solid wood, followed by Baltic birch. Elsewhere in the house are pieces incorporating acrylic, and emerging slices of air in the graceful recent pieces.

The striking variety in Bill Hunter's work is present from the smooth to the carved pieces, and then the positive/negative, pierced work. One turned piece is lidded with Marianne Hunter's colorful enamel and metalwork. Initially it was hard for Jane and Arthur to accept a carved vessel. Now, some pieces have a dynamic presence they wouldn't want to part with.

The wide range of David Ellsworth's work is seen here among forty-six pieces, from early to recent. The Masons have affectionately named a large blond piece "Beech Ball." A series of three pierced black oak balls share a living room table with the work of Stephen Hogbin and Stoney Lamar. Ellsworth's large round bottomless claro-walnut burl fits well next to an equally striking spalted maple globe by Philip Moulthrop.

Michelle Holzapfel's pieces incorporate sculpture with the vessel. Or, as in the very realistic "Breakfast," incorporate a vessel into a sculpture. Michelle brings her own special per-

THE MASON COLLECTION (CONTINUED)

Robert Marshall

"Dotson's Alley," one of the several places in the Mason collection that represents a developmental span in a turner's career.

spective to a meal on a tray with utensils and a draped ash bowl.

Many of Mark Lindquist's pieces are massive. In pictures, I haven't always liked them. The real pieces draw me in. The massiveness and roughness grows on me. To hear Jane talk about them, they seem to take on personalities, nearly becoming children. A small "captive" piece in a citrus wood has special meaning since it came from near their Florida home. Several of Mark's pieces recently purchased from Nathan Ancell's collection generated lots of excitement. A large V-shaped solid oak burl piece with a small turned half ball in its center stands majestically on its own narrow sculpted pedestal in the dining room.

Another piece from the Ancell collection, "the log," generated lots of poetic attention from Jane's sister, with whom the log resided temporarily in a Japanese setting. Officially titled "*Akikonomu*," the cherry and polychrome log stands an imposing 73 inches high. In anticipation of the log's arrival, Jane's sister writes:

"Has it arrived? Did it survive its trip without trauma? Does it fit in the corner you selected? Does it feel at home? Is it loved, or at least tolerated? Do its elegant colleagues accept it even though it is not turned properly, gawky and on the tall side? Did the other bowls talk about the large party it missed? I'm afraid the timing wasn't auspicious for a tree to enter a family. Let me know. Give it a pat or kick for me."

Giving pieces personality, Jane responded in part:

"The log was set to arrive Tuesday morning, and all the wood pieces in the hall disappeared. David Ellsworth's piece took refuge in the bathroom. "Watch in the Wilderness" [Stoney Lamar's very sensitive piece on Desert Storm] hovered in the corner. Mark Lindquist's "Captive" fell in a deep faint, and both Ed Moulthrop's big bowls moved upstairs to distance themselves from the new arrival....The log rolled in an hour late, lugged by three men, who, with grunts and groans, hefted it upright into its corner. It had to fit into its corner, and did....After it was up, Arthur and I looked around to see who would remain with the log in the suddenly smaller front hall. At that point, Mark's pieces recognized a true sibling, and returned to their stations. But Ed Moulthrop's work would not descend to hobnob with such a crude cousin, and moved permanently to the second floor...."

Arthur and Jane do have some different tastes. They buy pieces jointly, but are flexible enough to accommodate each other when differences are evident. Jane is attracted mainly by form and emotion of design. In keeping with a love of wood, Arthur favors pieces showing the natural wood grain patterns and color. Thus we see only a few painted or lacquered pieces by Giles Gilson, Michael Hosaluk, David Ellsworth, and the Hap Sakwa pieces mentioned earlier. This love for wood and graceful vessel form is elegantly shown on a dining room wall cabinet covered with small pieces by Bob Stocksdale. This love of Stocksdale's work is shared by museum curators. Of fourteen pieces that the Masons have donated to four museums, most were by Stocksdale.

The collection includes some very old pieces by unknown turners, such as an old Indian bowl. Also a few demonstration pieces from conferences and workshops are logged into Jane's carefully kept and custom-designed computer file. Eleven percent of the collection are single pieces by forty-five turners. A majority of the current collection, fifty-three percent, are by sixteen turners, each represented by eight to forty-six pieces. Nearly all of the pieces were acquired as new work; only a few have recently been acquired from the secondary market. All but several vessels are by American turners.

Inherent in the vessel's beauty is a certain risk. Many are fragile and easily broken, some can break naturally, or (believe it or not) can come with powder-post beetles. So a few pieces have left the collection, or returned to the artist for repairs.

Once, while reflecting on his very

Steve Bishop

Arthur and Jane Mason regularly attend turning events. Here they participate in a panel discussion at a recent regional conference in Maryland.

successful career as a tax attorney, including the publishing of professional papers, Arthur voiced feelings of surprise and pleasure that this relatively recent pursuit of a personal interest—this expanding turned wood collection—has by comparison, generated so much interest, enjoyment, and potential for lasting impact. The collection has added exciting dimensions to their lives. They meet and become friends with turners, gallery owners, and others interested in fine craft and art from all parts of this country. Locally, Jane and Arthur just completed six years on the James Renwick Alliance Board. Jane is now co-chairman of the annual Smithsonian Craft Show in Washington, DC, sponsored by the Smithsonian Women's Committee.

David Ellsworth and Mark Lindquist both spoke of Jane and Arthur's support for the woodturning field in many ways beyond purchasing work. They are motivated by a perspective extending beyond their personal enjoyment of the collection. By making their collection publicly accessible they are advancing awareness of woodturning, particularly among those who collect craft other than woodturning. They share their experience and enthusiasm by speaking at conferences and through participation on panels in the craft and collector community. They have also curated exhibitions of turned work and encouraged galleries and turners to plan exhibitions. They encourage museums to develop and expand turned wood collections. Their relation to woodturning is a passion we can all feel.

—Phillip Brown

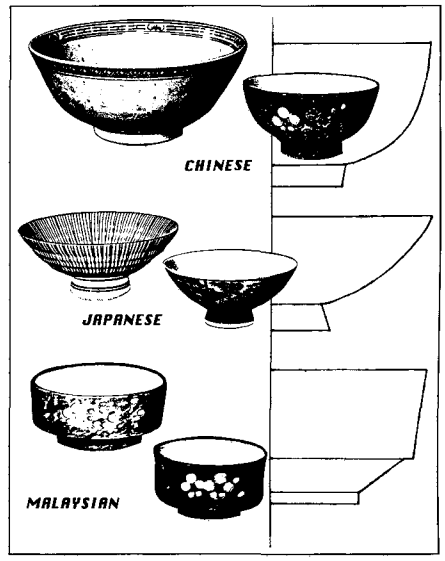
Phil Brown lives and turns in Bowie, MD. He thanks David Ellsworth and Mark Lindquist for their ideas and comments, and Pat McLaughlin, who helped prepare the manuscript.

STAGING A CONTEST: ORIENTAL BOWLS

THE OHIO VALLEY WOODTURNERS Guild has sponsored five annual turning contests. As a participant in previous contests, I took for granted the efforts of those responsible for coordinating the event. The contest just seemed to happen. This year, after being appointed chairperson for the 1995 contest, I learned just how wrong that impression was.

Our most recent contests had been spindle-turned objects—a bud vase in 1993 and a perfume bottle last year (see *American Woodturner*, June 1994, pages 38–39). Criticisms of past contests included insufficient preparation time, ambiguous rules, and unclear subject delineation. The executive committee of the chapter was sensitive to these complaints. At the June 1994 meeting it was announced that an oriental bowl had been chosen for the next contest to be held in January 1995. To get the thought processes rolling we had on display a collection of porcelain rice bowls from Japan and other Asian countries. During the summer a newsletter was sent to inform those members not present at the June meeting. This letter included the drawings of "typical" bowls (above right) and a very carefully structured set of rules.

The care taken in such aspects was in large part responsible for the success of the contest. In previous years members raised questions which resulted in clarifications (in other words, *changes*) being made after the initial announcement of the rules. This created bad feelings because it unfairly eliminated some of the entries that had been completed prior to the clarifications. Therefore, rule number one was established: "These rules will NOT be changed." The members were asked to refer all questions only to the contest chairperson; the executive committee faithfully referred any and all inquiries.



Alan Hildebrand

Sample bowl designs got contest participants thinking.

The second rule specified that domestic woods in any combination and of any species could be used. This inadvertently created some confusion. In the future the difference between domesticated and native North American woods will be taken into consideration. During the final judging some members stated that they did not use domestically grown non-native woods, and those who did use these types of woods felt negatively impacted during the judging process.

A size limitation was established because we felt that a miniature could not be fairly judged against a larger bowl. On the other end of the spectrum we wanted to stay within the lathe capacity of the majority of our members. A diameter of 3 to 11 inches was set.

After much discussion we decided to include the spouses at the contest meeting and to have them participate in the judging. It solved several problems and created goodwill and camaraderie. The spouses looked at the entries from a different perspective than the woodturners. A lunch meeting was planned which helped to make the contest flow smoothly. In

STAGING A CONTEST: ORIENTAL BOWLS (CONTINUED)

previous years there had always been a lull between the time the ballots were cast and the final tally. This year the meeting was held at a local Chinese restaurant. When participants completed the ballots, they entered a buffet line. The ballots were tallied as the group enjoyed lunch and socialized.

Originally an entry fee of $10 was intended to cover prizes for the winners. A five-month effort to gather prizes donated from woodworking supply manufacturers and distributors made this unnecessary. Instead, the entry fees were used to cover the cost of the luncheon.

Great effort went into planning the judging process to make it impartial. The executive committee originally considered several methods including inviting an outside expert turner, judging by entrants only, and judging by all members present. It was finally decided that all paid up members and their spouses could cast a ballot.

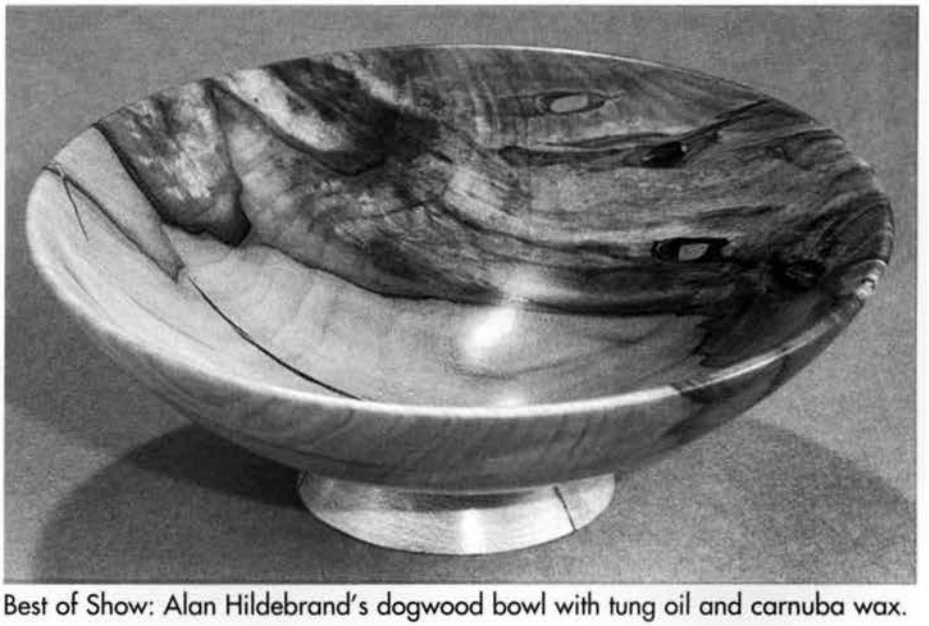
Each entrant, upon paying the entry fee, was given a three-digit identification number. This appeared in ink as the only allowable identifier on the bottom of the bowls. All bowls were brought in opaque bags and the bags were placed on the judging table. The bags were randomly mixed and unwrapped at once immediately prior to judging. While tallying the ballots it was found that one bowl had numbers that could have been misread. This probably hurt one entry and helped the other. In the future the numbers will be checked for clarity before the judging.

In previous contests entries had been separated into two categories: those who had won one of our contests before, and those who hadn't. Over the years the first category has become larger than the second. Despite some objections I eliminated this division and everyone got to compete on an equal footing. My goal was to try to have the membership express their individual talents with as few limitations as possible. Creativity was encouraged by allowing wide latitude in decorations and in finishing. The finished rice bowls reflected various interpretations of the subject. A diverse group of entries resulted, which can be seen in the photos here.

The member's entry number was placed on his ballot and his spouse's ballot. The rules clearly requested each person to vote only once per ballot for a particular bowl and that they not vote for their own entries. It took some time and was a challenge choosing among all of the entries and deciding how to vote.

Bowls were judged for first, second and third place in two categories: "artistic/aesthetic impression of the theme" and "overall finish." The Best of Show was determined by totalling the first-place ballots for both categories. This entry could also have won first place in each of the categories, but it was booted upstairs and of the remaining entries, the one that had the highest number of first-place votes won first place in each category. Second place in each category was determined by adding the number of first- plus second-place votes received by each entry. Third place was the highest vote getter after adding the first-, second-, and third-place votes for each category.

Five months before the contest I began to solicit prizes from local woodworking suppliers, from companies that advertise in *American Woodturner*, *Wood*, *Fine Woodworking*, *Woodworker*, and any other woodworking periodical I could lay my hands on. I continued this chore using three consecutive issues of each publication. The initial contact letters numbered over five hundred. I used a word processor to manage the mailing list. The companies responded generously. Each company that sent donations received a membership roster and a prompt thank-you letter. The contributors were also mentioned in the newsletter that was sent to the membership the month before the contest. In that newsletter the prizes and their donors were clearly listed and thanked. Prizes totaled well over

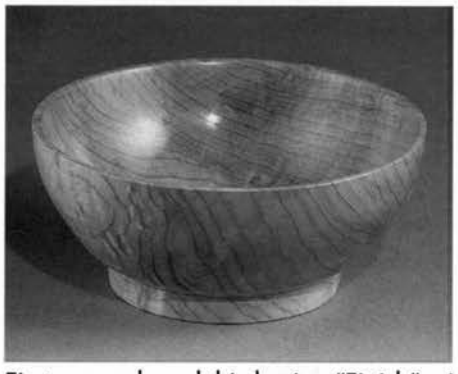


Best of Show: Alan Hildebrand's dogwood bowl with tung oil and carnuba wax.

Photos: Buzz Holtcamp



First, second, and third-prize "Theme" winners, left to right: Dick Zeller's poplar/maple inlays with an acrylic polyurethane finish, Ray Averwater's California cypress with polyurethane/oil, and Ralph Easley's eight various woods with Danish oil.



First, second, and third-prize "Finish" winners, left to right: Dennis Melcher's myrtle with wax, Chip Moeser's cherry burl with salad bowl finish, and Ed Schlueter's silver maple with Hut wax.

$3,000. Every member who entered the contest received a prize in excess of his entry fee. The prizes were sorted by retail value. Best of Show won a set of turning tools, gift certificates, wood burls, and much more. Each first-, second-, and third-place winner's prizes were of equal value for equivalent placement in the judging. The seven top winners each got a piece of specimen wood, a tool, a gift certificate, and miscellaneous other prizes, as well as a ribbon stating the category and his placement in that category. Every other contest entrant received a prize in the order of his numerical placement and a ribbon of honorable mention.

During the award presentation, each member briefly outlined the materials he had used and told of his trials and tribulations in completing the piece. Every bowl had a story behind it. After the contest all of the bowls were displayed at a local woodworking store, and professional photographs were shot. They speak to the quality and craftsmanship of all of the participants.

Best of Show, Alan Hildebrand's bowl (pictured on the facing page), started as a gnarly piece of dogwood with cracks, critter holes, and spalting. He meticulously filled the voids with epoxy and fine black sand. The finish was like a clear porcelain glaze.

Artistic First Place, Dick Zeller's bowl (shown upper left) drew a constant stream of servers and cooks from the restaurant staff. He had placed several plugs in the bowl, gave the outside a blue hue, and then wrote on the untinted plugs in Chinese: "This is the best bowl in the world."

Many entrants made multiple bowls before they liked one well enough to submit it for judging. The variety of bowls was awesome. Bowls had carved feet, included non-traditional materials such as Corian and epoxy, and were bleached and stained. One bowl had rice attached to the finish while the finish was still setting. Even with more than six months to prepare for the contest the restaurant soon was permeated with the scent of uncured oils and lacquers from the large number of bowls that had been completed at the last minute.

Careful planning by a group of people and lots of hard work made the contest a success. The number of entrants was more than twice that of the year before. And everyone had a memorable time.

We're planning to focus next year's contest on the platter, and to engage our neighboring chapters. If all goes as hoped, the best of these will be on display at the 1996 AAW symposium in Greensboro.

—Mike Gordon, Cincinnati, OH

MINI-CONFERENCES AND PUBLIC SHOWS PROLIFERATE

Texas Turn or Two IV

The fourth annual Texas Turn or Two (early last October) was a rousing success. You could tell something special was going to happen as early as 1:30 pm on Friday as equipment people started rolling into the Maricopa Ranch Resort. Nestled in the scenic Texas Hill Country near Canyon Lake, just north of New Braunfels, the wooded site was a natural place for woodturners from Arizona, New Mexico, Oklahoma, and Texas to congregate.

Although the official registration wasn't to begin until Saturday morning, earlybirds pitched in to get equipment, chairs, and tables set up for the next day's activities. It was a great opportunity to greet old friends and get to know some new ones. As the sun began to set, the "back-forty" bonfire was the place to be to burn some meat and exchange lies with the slate of demonstrators.

Reveille was sounded at the crack of dawn on Saturday morning from two quarters. The moaning wail of a homemade didgery-doo along with a steady beat of tom-toms added an Australian Outback air to the smell of fresh coffee and breakfast fixin's. By 9:30, registration packets had been handed to 275 avid woodturning enthusiasts who would be entertained, educated, and inspired for the next day-and-a-half by fourteen different demonstrators.

Larry Mart

With the aid of an overhead mirror, Clay Foster demonstrates how to smooth a turning with a cabinet scraper.

David Ellsworth demonstrated each and every step in the transformation of a rough log into a graceful hollow vessel. Clay Foster's rotations included two-piece hollow vessels (opening completely optional) and his multi-axis "wobble-pots" while he related snippets of life in Krum, TX. Charlie Brooks added something extra to turned vessels in the form of creative carving. Rick Chichester proved that every chesspiece, including the knight, can be turned on a lathe. Treenware as well as "hausfrau" sewing kits by Harvey Helmke are not just meant to be looked at, but actually put to very practical use. James Johnson exchanged ideas and stimulated thought about projects in more than just the traditional ways. Richard Jenkins demonstrated that a pitcher with a handle and spout can come from a single-piece turning. David Leith evidenced his preference for the surprises that result from off-center turning, and has plans to have perfected a wooden ball-cap by next year's gathering. James Poppell made lidded boxes look effortless, while Larry Roberts offered projects for beginning turners. Steven Smith demonstrated the virtue of patience in assembling segmented turnings. Jim Tolly showed us that pens don't all need to be factory-made. And finally, "stump the Gumps" regulars Freeman Anderson and Bobby Bridges offered hands-on and personalized wood, grinder, and yarn-spinning assistance.

Clay Foster managed to fill lulls in the activity, first with his attention-getting didgery-doo hen; later, with his even more attention-getting potato cannon—"Fire in the hole!" You would think that by lunch on Sunday, things would begin to wind down, but few people wanted to miss the (out)door prize drawings which included turning blanks (from alabaster to zebrawood), assorted turning tools (including a Carba-Tec miniature lathe), other shop accessories, and even several eight-hour gift certificates of instruction by several of the demonstrators. Almost $2,000 worth of door prizes in all.

A Texas Turn or Two (V) is already in the planning stages for the same location next year. We're looking for a crowd of 350 to 400 with six rotations instead of the four we had this year. That means we'll have an even greater variety of talent on display. Start making plans now to be a part of next year's event.

—Hans Haumann, San Antonio, TX

St. Louis Joy of Turning

The St. Louis Woodturners' Joy of Turning symposium with Alan Lacer, Bonnie Klein, Clay Foster, and J. Paul Fennell was a wonderful success. Ninety-six woodturners from eleven states flocked here last September. Thanks to Kirkwood High School for donating its facilities!

On the first day all participants were divided into four groups and rotated to each demonstrator. On the second day each demonstrator did something more specialized or advanced for three rotations, and the participants, free to choose who they wanted to see, attended these sessions equally well.

Klein demonstrated sharpening techniques, equipment, and tool shapes first; then tops, boxes, and beautiful stocking stuffers. Fennell showed first how to turn hollow vessels through a small opening using homemade tools and a fiberoptic light; then he demonstrated surface embellishment—grooving, gilding, and acrylics. Foster demonstrated

bowl turning from start to finish with the deep-fluted gouge and also how to make two-piece hollow vessels. Lacer expertly demonstrated how to use the skew, alleviating common fears of this versatile tool. Foster and Lacer also teamed up to show how to make a bowl from the very beginning: orienting the envisioned shape in a green log and chainsawing and mounting the blank.

The instant gallery filled six tables with outstanding turnings by participants and demonstrators. After the banquet dinner on Saturday night, each demonstrator gave a short slide show of their turning development and where they work and live. It made everyone feel much closer, like part of a great family, which all woodturners are.

The St. Louis Woodturners hope to see more members of our ever-growing family next September for "Joy of Turning 1996."

—David Wahl, St. Louis, MO

NEOWA at University of Tulsa

Last June, the University of Tulsa invited the Northeastern Oklahoma Woodturners Association to put together a show of members' work to be exhibited during October in TU's Alexandre Hogue Gallery. The show was arranged by NEOWA member Jim Vanderlind, who is also Dean of University and Community Services. Ten members submitted 125 slides, which were juried by Tom Manhart, Professor of Art and director of the gallery. Sixty pieces were accepted, and the show opened on October 5 with a reception at which Ron Fleming gave a good-spirited talk.

This was the first time some members had submitted work to be juried, so it was a good way to learn how that process works. Exhibiting members were Larry Anderson, Lloyd Basler, Pete Black, Bill Boggs, Dean Brinkhous, Jim Causey, Ron Fleming, Bob Fulton, Bob Hawks, Bob Lamons, Bob Marrs, Jim Vanderlind, Harry Wheeler, Jim Wise, and Oren Zehner. (Both Fleming and Hawks have pieces in the permanent White House Collection.)

Feedback has been more than gratifying. The University has indicated that it would like to make this a biennial show. One of the best ways to promote turning locally is to get shows in art galleries, schools, corporate offices, banks, churches, and shopping malls.

—Bob Hawks, Tulsa, OK

Hands-on Hapfo seminar

Last September in Springfield, MA, George Yurcak, national sales representative for E&R System Technik, hosted a Hapfo seminar and workshop. The Hapfo is a high-end copying lathe with manual, motorized, or hydraulic feed that excels in barleytwist, fluted, and hollow-core spindles. The demonstrators were Billy Avenshine of McKinney, TX, and Barrie Field of Milton Keynes, England. About twenty of us came from all over the country for the three-day event—Hapfo owners as well as prospective buyers, from a birdhouse maker and bagpipe manufacturer to several custom spindle suppliers, myself included. This was a vigorous bring-your-problem-and-share-your-solutions session.

Avenshine imported Hapfo lathes to the U.S. for over ten years, until E&R took over in 1989. He brought to this seminar more than sixteen years of experience on the machines, as well as an enlightening understanding of metals and cutting-tool geometry, rooted in his background as an aerospace engineer.

Field has a woodturning and metal-working business employing the Hapfo AP5000-HYDRO. Almost all of his balustrades incorporate twists or flutes. He brought the perspective of a production turner, sharing tool-sharpening techniques and custom-made jigs and fixtures. One job he described called for an 8-foot-long, 3/4-inch-diameter half-rope, necessitating the fabrication of a

Northeastern Oklahoma Woodturners were given a classy display space last October at the Alexandre Hogue Gallery at the University of Tulsa.

Hapfo seminar participant Kathy Cushing makes a hollow-core turning with instruction from Barrie Field, far right.

MINI-CONFERENCES AND PUBLIC SHOWS PROLIFERATE (CONTINUED)

following steady rest for the cutter.

As with all turning get-togethers, I came home brimming with ideas for a craft ever more fascinating. For info on future seminars, contact E&R at 413/827-7600.

—Jonathan C. Fosse, Fort Collins, CO

Bucks/WTC Mini-Symposium

"Mini-Symposium II," held last June at the Bucks County Community College in Newtown, PA, was an ideal opportunity for turners to see how the basics of woodturning can go far in many directions. A joint venture of the Bucks Woodturners and The Wood Turning Center, our keynote speaker was Dr. Bill Dayley, a ceramicist and Professor Emeritus of Philadelphia's University of the Arts. "Dr. Bill" presented an eclectic series of images, from the profoundly complicated designs in mosques and temples to the silly expression we see in the faces of animals. He bestowed upon each his enlightening and entertaining wit, as he revealed in them ideas for form, design, and inspiration.

Women woodturners highlighted this symposium's demonstrators: Judy Ditmer of Tipp City, OH, who recently published two books, on turning jewelry and turning bowls; Betty Scarpino, of Indianapolis, IN, former editor of *American Woodturner* now exploring artistic woodturning full-time; Virginia Dotson of Phoenix, AZ, whose laminated vessels are the cover story of last June's journal; and Susan Ellison of Easton, MD, who combines production turning with one-of-a-kind work. Additional instructors included Dave Lancaster and Jean and Lloyd Sumner. It was a well-rounded group.

Susan Ellison's staved birdhouses.

Although she displayed some beautiful bowls, Judy Ditmer demonstrated her skills in turning small boxes and jewelry. Attention to detail and an eye for design were her lessons, and she offered insights into jig making and tool sharpening to facilitate small-scale work.

Betty Scarpino covered a wide range of surface treatments, including bleaching, blackening, and texturing. Her emphasis was on the myriad opportunities for creativity even after a piece is turned.

Virginia Dotson evidenced an amazing ability to foresee beautiful results in a glued-up blank. At the same time she shared her vision, explaining thoroughly how she conceives and creates her subtle and complex vessels.

Susan Ellison explained the technical aspects of constructing staved containers and turning ornamental birdhouses out of them. In her work, Ellison incorporates computer spreadsheets she designed to efficiently fashion the built-up blank out of flat lumber, and reference data on individual bird species to ensure that her birdhouses are functional as well as beautiful. Her attention to ornament elevates an otherwise ordinary object into art (see photo left).

David Lancaster presented turning from the no-nonsense perspective of a production turner. His craft is large and small bowls, rough-turned from green wood and finished after drying into beautiful, functional work affordable in a large market. He showed us how to dispatch their production with grace and speed. (See pages 19–21 for more on Lancaster.)

Lloyd and Jean Sumner revel in taking rough materials, exploiting their natural beauty, and creating truly one-of-a-kind works. The Sumners have traveled extensively in their pursuit of special woods, and they shared some of their glorious finds from as close as their backyard to as far away as the rain forest.

Success at this symposium was a direct result of the hard work and dedication of organizers Dave Hardy, Matt Haist, Palmer Sharpless, Mark Krick, Jon Alley, and Bill Sticker. Many thanks!

—Michael F. Kehs, Quakertown, PA, and Philip R. Bowman, Easton, MD

Turners join EOWA show

Last July at Tulsa's Promenade Mall, the Eastern Oklahoma Woodcarvers Association held its nineteenth annual show. There were fifty-five booths with seventy-five carvers from eight states and, for the first time, the woodturners were invited to join us. Although only three participated—Vern Fetz of Arizona, and Bill Boggs and Jim Vanderliter from Oklahoma—they had reasonably good sales, and we feel the ice has been broken for more turners to join us next year.

Six formal monthly planning meetings went into organizing this event. Several carvers gave pre-show demonstrations at Builders Square, which helped to publicize the show, and there were many newspaper articles and television spots. All of this helped to ensure a great turn-out.

For information on our next show, July 12–14, 1996, contact me at 918/258-7996.

—Bob Fulton, Broken Arrow, OK

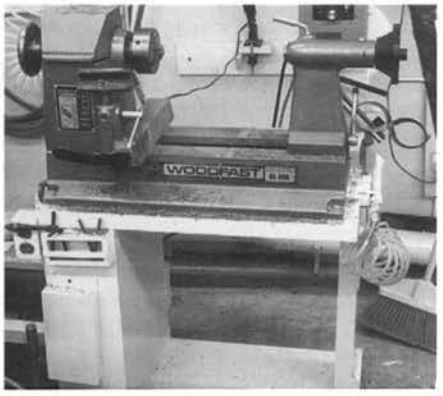
We've been getting some good tips lately, and the bank is growing nicely. It can be six months or more before a tip you send appears here, but material on hand like this makes for a stronger column. Please keep your ideas coming.

—Section Editor Robert Rosand, RD 1, Box 30, Bloomsburg, PA 17815

Have a seat

There are many woodturners, as well as aspiring turners, who's activities are limited by prolonged standing at the lathe. In my case, the arthritic changes in my knees and back preclude comfortable turning for more than a few minutes while standing. I decided to turn from a seated position.

Jerry Glazer, of Glazer Engineering, designed the solution pictured below, including the offset leg at the tailstock end that allows me to turn both on the side and the end of the lathe. Howard Lewin, of Custom Woods, built the stand. It is very strongly constructed of solid, eight-quarter maple.



I can now turn while sitting in comfort for several hours. The size of my turnings is limited only by the capacity of the lathe. This suggestion could be further adapted for those confined to wheelchairs.

—Robert J. McNeil, M.D., Cambria, CA

Alcohol for stabilizing wood

I acquired the idea of using denatured alcohol to control end grain checking from a passing reference in Conner Runyan's article on the Rude Osolnik symposium (*American Woodturner*, March 1995, page 7). I decided to do a few experiments in green black walnut.

First I turned and thoroughly sanded a small 6-inch-high endgrain bowl, which I submerged in two quarts of denatured alcohol for three days. I removed and air-dried the bowl in a plastic vegetable bag. When some radial checks appeared at the edge of the base of the bowl, I concluded that a three-day submersion was not effective.

My second experiment differed only in that I submerged two bowls for eight days. One piece developed slight radial pith cracks, which closed up totally within a few days. No edge cracks appeared.

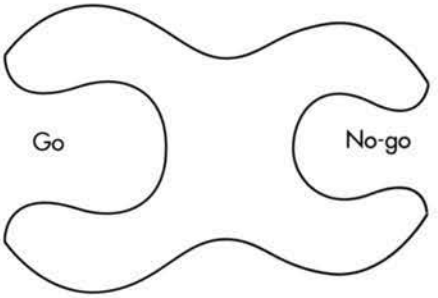
For my third experiment I cut four slabs of green soft maple and submerged them in used denatured alcohol for eight days. The pieces were each five inches in diameter ranging in thickness from $1/8$ to 2 inches. Examination of the air-dried slabs revealed that the $1/8$-inch slab warped in the alcohol solution; the $1/4$-inch piece warped slightly; the remaining pieces initially showed some $1/2$-inch radial pith checks. These checks closed up after several days of air-drying. It may be possible that these pith checks were in the wood prior to the experiment. No edge checks appeared on any of the seven pieces.

Several major concerns and questions arise out of these experiments: One is the high flammability of the denatured alcohol. Is there a safer solution that is as effective? Another is the proper disposal of the end-of-life denatured alcohol. And there's the fundamental question, what is the correct minimum and maximum time for the submersion in the denatured alcohol. Within the parameters of my experiments, there appears to be considerable merit in using the technique. I plan to continue the research.

—Robert C. Opdahl, Hurley, NY

Nova go/no-go gauge

For those of us who use the Nova chuck a lot, we are constantly turning tenons on pieces to fit into the jaws of the chuck. For each set of jaws there is a minimum and maximum diameter that the jaws can accommodate. Rather than constantly measuring, I made a go/no-go gauge out of clear plastic about $3/32$ inch thick with a large cutout the size of the largest acceptable diameter and a smaller cutout of the size of the smallest acceptable diameter. In use, you slide the gauge over the tenon and check that the tenon fits in the large opening and does not fit in the small opening. It could be made of any rigid sheet material: metal, hardboard, or plastic.



—Tsam Lerwill, Sacramento, CA

Blue-Collar Woodturning

Looking into the teeth of a spinning 6x6

HARRY LEVINE

My introduction to woodturning may not have been typical, but it gave me an appreciation for production work that has kept me working for many years. I'm not now a full-time blue-collar woodturner, but in the last fifteen years I have turned architectural components that have been used all over the world. My turning business is actually one of my hobbies—the only one that happens to pay monetary dividends.

I'm not a writer, but I was driven to write this article to introduce you to the little-touted and soon-extinct art of structural woodturning. Automatic lathes have replaced this form of woodwork, but automatic lathes cannot achieve the detail, and crispness of detail, that can be achieved turning by hand. Also, you can give the customer what he or she really wants, rather than having to take what is offered over the counter. Besides, people appreciate hand-done woodwork. I have never advertised my work, and yet I have orders from all over the country. I won't say what I earn, but let it suffice that you can make a good living once you get through the apprenticeship. If you're just starting out in turning, you ought to think seriously about a career in this artform.

From 1959 to 1963 I was working for the motion picture industry as a propmaker and special-effects man. In 1963 I had just finished doing effects for *My Fair Lady*, including all the fires on the set (trash cans, torches, etc.). As was the norm, when I was done with that picture, I was out of work until the next picture came along. Granted, I made enough money to see me through between pictures, but I am not one to sit idle waiting for work. I went to the state employment office seeking work in a woodworking shop and was told that the only opening was for a woodturner. Even though I had no idea what a woodturner did, I figured that if it was working with wood, I could do it.

Upon entering the shop, I saw several men working on familiar woodworking machines, but most were spinning wood and carving patterns into the pieces. Oh boy, I thought, now I know what woodturning is. I asked for employment and was told that the only thing open was lathe work. I asked if the man running the bandsaw could turn. The proprietor, Joe Egyedi, said yes. I told him I could run the rest of the tools in the shop until I learned to turn. He hired me, with the under-

standing that my learning would be on my own time.

I prepared blanks for the turners and did other non-turning operations. The turners would turn a stack of turnings each day without sanding them. I stayed after work and sanded these on the lathe, this for almost a year without touching a tool. Joe said he was teaching my brain and eyes to work with my hands, to feel the shapes and work together. At the time I began to think that he was just taking advantage of me, but over the years I came to see the importance of what he was doing.

After he was satisfied that my sanding skills were up to his standards, he would have the turners turn the shoulders on the posts and stack them. After work, I would turn the barrels between the shoulders. This went on until I could turn a waveless barrel. Then he started me, on scrap, turning beads and coves and gradually worked me into patterns. Once I could turn a successful pattern, he taught me to copy, freehand, an existing pattern.

This apprenticeship spanned two years. But before I could actually turn for pay, I was laid off due to lack of work and I didn't turn again until twenty years later. Even with this time span, my skills were still embedded in my brain, my hands, and my eyes.

I spent those twenty years as a deputy sheriff, in Los Angeles and now in Jackson County, OR. When I moved here, I could see a crying need for someone who could do custom turning and, figuring I was that someone, I took up the challenge.

My lathe is a modified Delta professional model. I extended the bed with 3x12 beams with steel caps to match the bed on the Delta. I can now turn up to 11 feet in length. For the tool rest, I had some tool-rest supports made similar to the Delta standard rest but these hold $1/4$ x 2-inch steel flatstock on edge on which my tools rest. By spacing the rest supports and choosing different lengths of flat stock, I can make a continuous tool rest that will accommodate any length of turning without the necessity of moving the tool rest while working.

My turning tools are mostly Sorby. The tools I use on a job like this are: $1\,1/2$-inch gouge, $3/4$-inch gouge, $3/8$-inch parting tool, and a $1\,1/2$-inch skew. I use no calipers or any other gauges or templates.

My safety gear includes a full face mask and padded gloves. I use weight-lifter gloves with the padded palm to dampen the vibration of the tool. At the end of the day, I'm not as sore in the right forearm as I used to be and I think this padding will help reduce the chance of carpel tunnel problems.

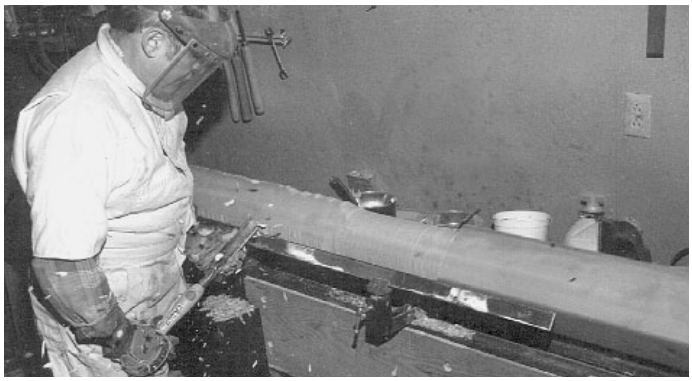
LeVine uses a $1\,1/2$" skew to cut the shoulders on this 96" long post.

To give you an idea of the kind of work I do, I'll describe in some detail a typical project. I call this kind of work "looking into the teeth of a spinning 6x6." These particular 6x6s became 96-inch turned cedar posts.

The first thing I do is select my material. Whenever possible I choose unfinished net 6x6 as dry as I can find. I have the good fortune of having a cedar mill just a few miles from my shop and ordered the material from them. They cut the posts from as knot-free material as they could find, however, there were still sufficient knots to hold my attention. I then straighten the posts on the jointer and cut them $1/8$ inch oversize. Next, I size them in the planer. I then cut them to length, planning where the turned portion will be and cutting so that this section will have the least amount of knots to contend with.

Once the posts are cut to length, I lay out the section that will be turned by marking the post with lines at the top and bottom of the turned section. I then mark the ends for center. There are 60 posts in this order, each one will be 20 minutes in the lathe, all matching when done.

With all the prep work done I put the post in the lathe, check it for clearance from the tool rest with a slow hand-turn, then turn on the lathe. I base my lathe speed on how well the post balances in the lathe. Balance depends on a lot of things: straightness of the post, moisture concentrations, location of knots, and, of course, just how well I centered the post to begin



LeVine rounds the pattern section using a $1\frac{1}{2}$" gouge, above. After marking out with a story stick, he turns the beads and coves, photos at right, using a $\frac{3}{4}$" spindle gouge. Below, LeVine shapes the tapered barrel section with a $1\frac{1}{2}$" gouge before smoothing it with a skew.

with. Nicking the square with the skew near each end while spinning tells me if I have it centered on the head- and tailstocks. A little persuasion with a mallet can bring the ends into center. Tighten the tailstock and away we go.

Using the lines drawn on the stock, I use a skew to cut in for the shoulders (photo page 15). This is done with the skew using the long end of the taper to cut into the 6x6. I start by cutting in about 1 inch inside the line, which shows up very well on the spinning wood, and then, much like Paul Bunyan cutting down a tree with his axe, I cut in until the bottom of the cut is centered on the line. I then cut in next to the line with the parting tool to get to round, at least for that $\frac{3}{8}$ inch. I find that using a parting tool to seek round, I have a better feel for when the squares disappear and the post becomes round. I then turn the pattern section to round with the $1\frac{1}{2}$-inch gouge (photo above left). You will note that all my tools have the factory handles removed and a much longer handle substituted. This is to give me the leverage to combat the force of the spinning wood. Once I have the round section I use a story stick to mark out the highlights of the patterns. The story stick is marked with any radical change in pattern, i.e. start and stop of beads, coves, etc. The actual shape of the bead or cove is still up to me to determine. From here on, the pattern is cut in using the tools listed above. The tapered barrel between the detail patterns is shaped with the $1\frac{1}{2}$-inch gouge and finished with the skew.

The last step in the turning is to sand it. I sand to 80 grit for paint-grade turnings and to 120 grit on most of the stain finish. The speed at which I sand negates a lot of the scratches left by the sandpaper. Also, the sandpaper I use is commercial grade, not commonly available. I get it from the local plywood mills. Quite often they get a new roll of paper for their plywood sanders that has a flaw in it. Any flaw transfers to the plywood so they won't use it. Even if I have to resort to getting their used paper, it's better than anything I can buy.

When turning stock such as this, the main danger to the turner comes from the knots. They are much harder than the surrounding wood so if you're not careful, you can catch a tool on them. This can result in ruined work, broken tools, and injury. I have had all these things happen to me over the years. Knots show up as dark spots on the spinning surface and are fairly easy to recognize. The trick is to slow down, strengthen your grip on the tool, and sneak into the harder wood.

Harry LeVine of Gold Hill, OR, works under the motto: "I turn, therefore I am — Gingerbread Man." His business, Gingerbread Man Custom Woodturning, specializes in the gingerbread woodwork found on Victorian houses.

CUSTOMER-ORIENTED PRODUCTION

At work with Myron W. Curtis

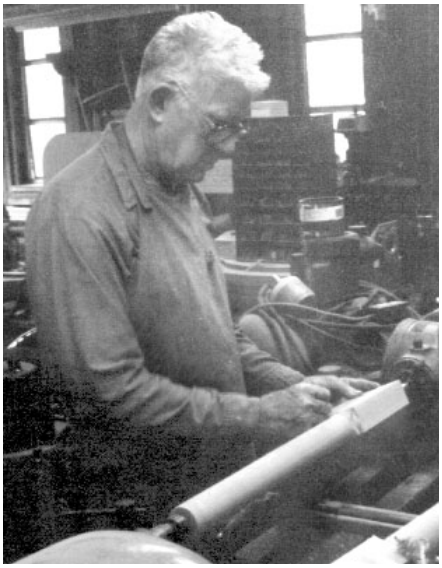
TOM FISHER

CUSTOM PRODUCTION TURNING DEpends on established clientele (typically contractors and woodworking shops) that keep the work coming. A traditional trade, it lends itself to marketing the old-fashioned way—depending on word of mouth and return orders by providing exactly what the customer wants, on time. That's how Myron Curtis runs Crafts in Wood, the small but dependable, can-do turning shop in our area.

Myron Curtis is a local hero among woodturners in Virginia Beach, VA. He is a founding member of our AAW chapter, Tidewater Turners. His enthusiastic support for turning and turners is constant. He teaches at Arrowmont and at home and is good for a well planned and presented demonstration anytime. He is currently participating in the development of a turning curriculum for a local museum.

Myron's background includes a career with the Navy from which he retired in 1960 and a stint as a shop teacher/drafting instructor in Virginia Beach through 1984. Myron's turning career began in 1937 when he built a woodturning lathe as a shop project. He has been turning professionally since 1989, specializing in architectural work but succeeding in all kinds of production turning.

The job Myron was working on when I last visited him started with a call from an established client of seven years who wanted four sets of cabriole legs. The process highlights the difference between production turning and most other turning projects. Production turning results in many copies of an object on order. There is no room for a mistake that will be multiplied over the span of the order. Particular attention has to be paid to having a complete understanding of the customer's desires.



Myron Curtis uses a "preacher" to lay out details on a cabriole leg blank.

It's nice to know the customer's needs as well, so that some improvement may be offered. Design, material, who provides the material, whether the material is a lay-up (glue-up), who does the lay-up, price, tolerance, finish, delivery date, all must be agreed to at the outset. There are usually trade-offs for each of these points, and priorities must be established. Delivery date, for instance, might have to relax to incorporate a certain material that is not on hand. Such trade-offs have to be understood and accepted. Each item not properly described and agreed to can result in an unsatisfied customer, which is to say, an unsuccessful job.

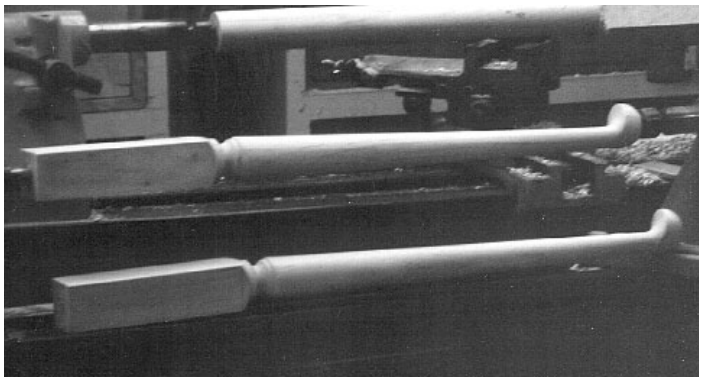
One way Myron ensures clarity and common understanding is to turn up to six samples of the project. The customer and Myron each signs every one of the accepted samples, and each party retains half of the signed samples for reference. Any differences between sample and the finished work is unacceptable.

Once the order has been established, Myron plans the process of production. It helps to consider every facet of the job, from material order to delivery schedule. The job must fit on the calendar and in the shop; labor as well as material resources must be accounted for. Myron has no trouble keeping his crew in tune with the task—he works alone.

Particular consideration must be given to orders that require a lay-up of material. Such jobs are common, since lumber is not readily available at a reasonable price in widths and thicknesses adequate to architectural turnings, which is Myron's main work. Glue-up must yield a balanced blank. The heavier the piece, the more necessary this is. Of course, if you prefer to see your lathe bouncing across the floor…. It usually works best if the customer provides the material. In that case flaws in the material, glue-up, grain, etc., do not compromise the order. Myron's being principally a turning shop, it is also usually more cost effective for the customer to use his own or another shop for the assembly of the raw material. For the cabriole leg project the raw material selected was maple, and it was acquired at a local lumber yard.

The sequence of assembling for this project is typical of most of the spindle work Myron does, particularly if there is a square section incorporated in the turning:

1. Crosscut stock to rough length.
2. Rip stock to rough dimensions.
3. Joint two adjacent sides.
4. Plane to thickness the remaining sides.
5. Trim the stock to exact length.
6. Locate a center at each end of the stock.
7. Develop a "preacher" from an approved sample. (The preacher, also known as a story stick, incorporates all the useful measurements. It is



Curtis details the transition from square to round, left. Above, one of the turnings compared with one of the samples.

usually $1/4$-inch stock, about $1\,1/2$ inches wide and any length, from slightly longer than the project to just as long as necessary to note a few important measurements from either end. At each mark near the edge of the preacher Myron cuts a notch that guides his marking pencil to the correct spot.)

8. Turn the first leg using the preacher. He invariably measures twice through this step, since the time spent measuring is insignificant compared to recovering from any mistake. When the leg is done, he measures everything again.

9. Compare this first leg to the signed and approved sample.

10. Turn the second leg, using the experience gained while turning the first to simplify and speed the process. Turn each leg as if there will be no sanding.

11. Sand anyway. Myron is aware that the sanding process can change the shape, soften sharp transitions, flatten beads, and such. He may rough-sand using 60 or 80 grit, using a light touch, and finish with 150-grit paper and Scotch brite. Myron frequently cleans abrasive residue from the lathe to lessen its wear on the lathe.

During the turning of each leg, Myron tries for a better cut, a safer or easier sequence of cuts, or different tools. The objective is to incorporate any time-saving approach into the process. It's Myron's way of building process reenginering into his work. Consideration for safety isn't interjected at any specific point. Safety is a state of mind that pervades everything from tool set-up to securing the shop for the night.

A significant lesson learned in production turning is that you can't do it for any length of time without good posture or sharp tools. If you pay attention to your body, you'll be told when you are hunching over the job or are too tense. If your hands and arms tire quickly, you are probably holding the tool too tight or the tool is dull. (Myron points out at this juncture that using sharp tools is about the only principle with which every turner agrees.)

Time considerations also suggest that you use the simplest tools that will get the job done. Myron does most of his architectural turning with a $1/8$-inch diamond parting tool and several round-nose scrapers handmade from planer blades or high-speed-steel square stock. On the cabriole legs he used round-nose scrapers measuring $3/16$, $1/4$, and $5/8$ inch wide. These tools are more than adequate in Myron's hands. He has the facility to use every facet of the parting chisel (all five sides) and the experience and feel to shift responsively from scraping to sheer-scraping to get the most out of each tool.

Sanding is a variable decided by the description of the task at the outset. The cabriole leg job is to be "stain grade." Unlike "paint grade," stain-grade work must be blemish-free. A chip or tear-out on a stain-grade job cannot be repaired. A paint-grade object will be finished with 150- to 220-grit sandpaper once any small tearouts or lumber defects are repaired with cyanoacrylate glue and sanding dust. Paint-grade work may also have visible scratches not apparent to the touch.

Each finished piece is stacked and the process continues. Articles that will be finished naturally require additional care, sanding, and handling. How much depends on the wood and the finish to be used. In any event, the important thing is that this has been anticipated at the outset, and the time and effort is reflected in the price quoted for the job.

Production yields to developing a sustainable pace and keeping at it as long as fatigue-induced errors don't intervene. Turning does not lend itself well to working harder when things go wrong. The most effective way to turn is to be well rested, prepared, and aware of the characteristics of the material you turn and the tools you use. Myron contends that the surest way to develop turning skills is to engage in production turning. It's more rewarding and thus has built-in motivations seldom provided by simple practice.

At the same time, there's no way to overstate the pleasure surrounding delivery of an order of well turned objects. There's the memory of skill applied to a task, the satisfaction of turning rough wood to beauty, and the expectation that this beauty will sustain the customer (and future business) for years.

Tom Fisher lives and turns in Virginia Beach, VA.

PROFILE: DAVID LANCASTER

Production bowl-meister from Maine

KEN KEOUGHAN

DAVID LANCASTER HAS TURNED A thousand bowls in the last twelve months. He has sold that thousand and is well on his way to completing another thousand bowls. He already has one order for four hundred.

What's his secret? He doesn't have a secret, at least not about bowl turning. David is gifted, driven, intelligent, and street-smart. He learns his lessons thoroughly and at depth. He works very hard. He is willing to pay the price. Most importantly, for him woodturning is a passion.

He can rough out the outside of a 14-inch bowl with just a couple of cuts. Two cuts per side for finishing a bowl. Sanding, he starts with 80-grit. He uses a variety of gouges depending on the wood, the shape of the workpiece, and frankly what comes to hand. Scrapers? Almost never. "You can cut a lot smoother than you can scrape," he says. The exception might be at the bottom of a bowl where the grain is very flat.

When he is roughing out from green wood he'll do thirty 10- to 16-inch bowls a day. At the end of the work day, which is closer to 15 hours than 8, he'll sweep up a full-sized pick-up truck load of shavings. They go to a horse farm down the road.

Let's step back and look at this woodturner from Maine. David for all the world looks like a young Teddy Roosevelt—stocky, bluff, impulsive, and with a laugh that explodes into exclamation points more than it expresses mirth. He's a man who is always in motion, always moving. Progress. Up and to the right. Always cooking, even when he's standing still. He's a rough-rider; lead, follow or get out of the way!

Yet there is a gentleness to Dave. He has an apprentice, Ephraim Staples, who described the learning environment David creates: "He started me out doing the sanding. Then the outside of small bowl-roughs. As I got better with the outside, he showed me how to do the inside."

David Lancaster, of Weeks Mills, ME, turns and sells more than a thousand bowls a year. Many are like this 14-inch cherry salad bowl.

"How did he show you?" I asked.

"Oh, well, I'd take hold of the gouge and then he'd put his hands on mine and show me." For Ephraim, it's the way forward. He'd worked with Dave in the construction business. Now he says, "No more poundin' nails," a refrain I've heard before in Maine.

In retrospect Lancaster's success seems to have been a lead-pipe cinch. He first turned a piece of wood eighteen years ago. He made a high chair for his daughter. They still have it. "It was done with chisels," he says. "You can still see a few skew marks on it. It took me a long time. I bought Peter Childs' book *The Craftsman Woodturner*. I studied and turned until I was done."

Later, he traded up for a Delta variable-speed lathe. "Every night I'd go downstairs and turn wood for two or three hours. My wife would say, 'What are you making?' I'd tell her 'Nothing, just practicing.' After a year or so I got to know my chisels pretty good." His interest to that point was spindles. He'd been a housing contractor, cabinetmaker, and had received a degree as an architectural draftsman. Architectural and furniture turnings were familiar to him. So that's what he did.

Finally he got a commission to turn four column bases for Hebron Academy in Hebron, ME. They were 47 inches in diameter and 14 inches high. This was his first attempt at faceplate turning. Each base was

Lancaster can rough out thirty bowls in a day.

laminated from 36 pieces of wood and weighed 300 pounds.

When this project was completed, the Delta had about variable-speeded itself to a standstill. He got a General 260 lathe and put a 3-hp motor on it. The die had been cast. Faceplate turning was what he wanted to do.

He began to experiment with bowls and hollow forms. Along the way he became the founding President of the Maine Woodturners Chapter of the AAW.

While at the 1993 AAW Symposium at the State University of New York (SUNY-Purchase) he met and watched Liam O'Niell. "Liam was aggressive. Fast. Took a lot of wood off and got to the shape he wanted in a hurry. I liked that," Dave says.

They struck a deal for the following spring. Liam would show Dave his production methods, how to turn out excellent quality products fast enough to price reasonably. "You can't make a 12-inch salad bowl and expect to sell it for a day's pay," Dave remembers Liam saying. Dave in return would set up a powerful vacuum chuck for Liam.

Over he went to Liam's home in Spiddel, County Galway, Ireland. Critical to Liam's production methods was the need to dry wood quickly and reliably. Enter the "dehydration kiln." David turned green bowls as fast as he could. Liam was out all day chainsawing to generate more bowl stock. Ultimately they went into the kiln. "Liam really had me humpin'," he says with a grin.

What else did he learn about production turning? "If you are making thirty bowls, do each step to each bowl before you go on to the next step. Get all your blanks ready for the lathe. Then rough the outside, and so forth."

In Dave's case that means he is working on literally 200 to 300 bowls at a time: "I have to. My kiln works best when it's full. And once it's full and turned on it has to remain on until the whole batch is dried. I can bring green wood down safely to about 8 percent moisture content in 21 to 30 days. But I can't take two or three or ten pieces out and replace them with new green roughs. It has to be done a batch at a time."

What does "safely" mean? "My first batch in the kiln was totally destroyed. I had only a small load. I ran it too hard and every single rough cracked." Was he discouraged? "No, it's part of the learning process. It was a little depressing though," he confesses with a rueful grin.

"Liam taught me a lot. You can't compromise your standards. But your standards have to be practical. A production bowl isn't a work of art or a museum piece. It's a functional bowl that's got to look and feel good if anyone is going to buy it. But it's not going to have thirty coats of lacquer and be inlaid with ebony and ivory."

The vacuum chuck which Liam wanted was something Dave had made on his own. He has also made two monster bowl lathes, his own tool rests, faceplates, and drying kiln. There's not much to be done with tools that he can't do if he wants to. Liam was impressed with David's vacuum chuck because it worked. It was powerful. "You need to be able to drop the pressure in the vacuum to 25 to 29 inches of mercury. When I could mount a blank and feel the suction through the grain of the wood, I knew it would hold. But it would have been useless without a variety of fittings including several different-sized drums, to which the bowls cling when the vacuum is activated."

Asked about the kiln, he says "It's made by Ebac and is designed for drying lumber. I built the box, designed and built the shelving in the box, and in general made it work right. It took some tinkering." As it stands, it's as neat and tidy as a refrigerator on it's side. I measures 4 x 4 x 10 feet and is set up so he can dry bowl roughs, planks, platters, and miscellaneous stuff. It runs at 110 degrees and will extract 30 to 35 gallons of water from a full load over the 21 to 30 day drying period. There is no heat source except the compression motor. Its heat is trapped inside the super-insulated box and is all that is necessary.

In the late 1980s and early 1990s the hollow form was the thing. Everybody was turning and talking hollow forms. So Dave found himself cast headlong into it.

"I wanted to learn from the best. So I went down to Pennsylvania for one of David Ellsworth's weekend courses." Into hollow forms he went, faceplate and gouge in hand. But something happened to alter his direction.

"One of the guys in the club (Maine Woodturners Chapter of the AAW) said one night, 'Anyone can turn a bowl. The real challenge is hollow forms.' That made me mad. In fact I got a little ugly about it. I was

Lancaster, gathering blanks.

Lancaster stacks bowls for one of the craft fairs he does throughout the country.

having no trouble turning hollow forms [and he has done some exquisite ones], but I had found that making a bowl was hard. I didn't think 'just anybody' could turn a nice bowl. So I started in on it big time."

Then I went to the SUNY Symposium and guess what? Everybody was doing hollow forms. I looked around and thought, 'There aren't enough museums and collectors to absorb all of this stuff and you can't do a goddam thing with 'em except look at 'em." Explosive burst of laughter here!

So he decided then and there, "I'm going back to basics. I'm going to do bowls. Bowls made only of native American wood. Big bowls that will hold something. Bowls that feel good and look like they are meant to be used. Maybe when I'm old someone will bring me back an old, beat-up, scarred-up bowl with my name on the bottom of it. I'd give her a new one free. Because a bowl all beat up from use would be *my* museum piece."

Over the years he has begun to get a little recognition. He will be in fourteen shows (twelve juried) in Maine and New England this summer. He's come to know and learn from many of the most prominent people in woodturning. John Jordan, Johannes Michaelson, Al Stirt, Dave Hardy, and Michael Mode have come to Maine as guests of the Maine Woodturners. The Bucks County Chapter of the AAW invited him to demonstrate at last spring's mini-symposium in Bucks County, PA. He has a lot to offer and is generous about sharing it. But he really rattled their cages down there because his style is rough, aggressive, and fast.

On the other hand, I have seen that he is very safety conscious. Since he's no goody-two-shoes, I asked…

"We work with sharp tools and powerful motors. There's a lot of weight and speed and torque. I had a chisel fly up and stick me in an artery in my neck once. It would have been funny but I was bleeding like a stuck pig. I was standing where I shouldn't have been. I was standing in an unsafe place. I don't do that any more. I use the Airstream helmet a lot. I'm asthmatic. The first time I saw a picture of a guy wearing one of those helmets I thought, 'What a wuss that guy is.' Then it dawned on me. With all the dust, chemicals, spores, and vapors, one of those Airstreams could prolong my turning career. I am absolutely passionate about my woodturning. I want to do it for a long, long time. Working safe helps make that possible."

His overall goal? From his lips to your ears: "I want everybody to have one of my bowls with my name on the bottom of it."

"What do you mean everybody?"

"I mean EVERYBODY! Everybody can afford my bowls. They're meant to sit on a counter with fruit in them or on a dinner table with salad in them. They're affordable and they're not meant to set on an *etagere* with a spotlight on 'em. I want everybody to have one of my bowls with my name on the bottom of it. David Lancaster."

Ken Keoughan is a retired advertising executive who turns in Mt. Dora, FL, and Friendship, ME. Photos by Andy Malloy/Kennebec Journal.

A Bowl Lathe from Stark

Reincarnating an antique metal lathe

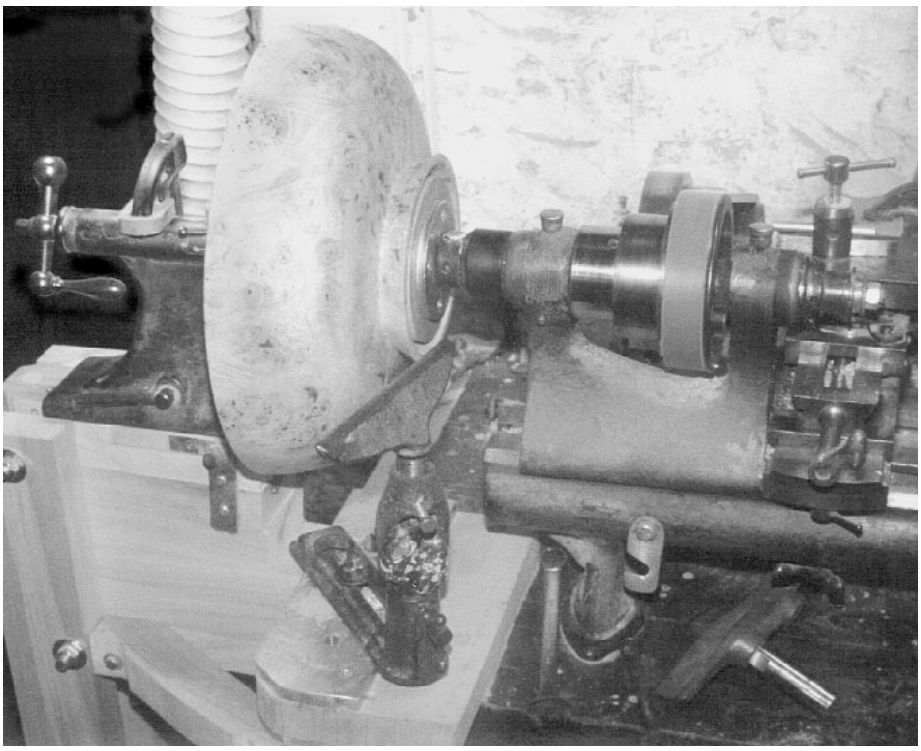
PHILIP A. DRINKER

In June 1993, *American Woodturner* published several articles on shop-built bowl lathes, which were for me a timely source of inspiration. Having been frustrated for years by the limited swing of a lathe built for inboard turning—and an occasional sore back from leaning over the bed—the idea of building my own bowl lathe came as a refreshing challenge.

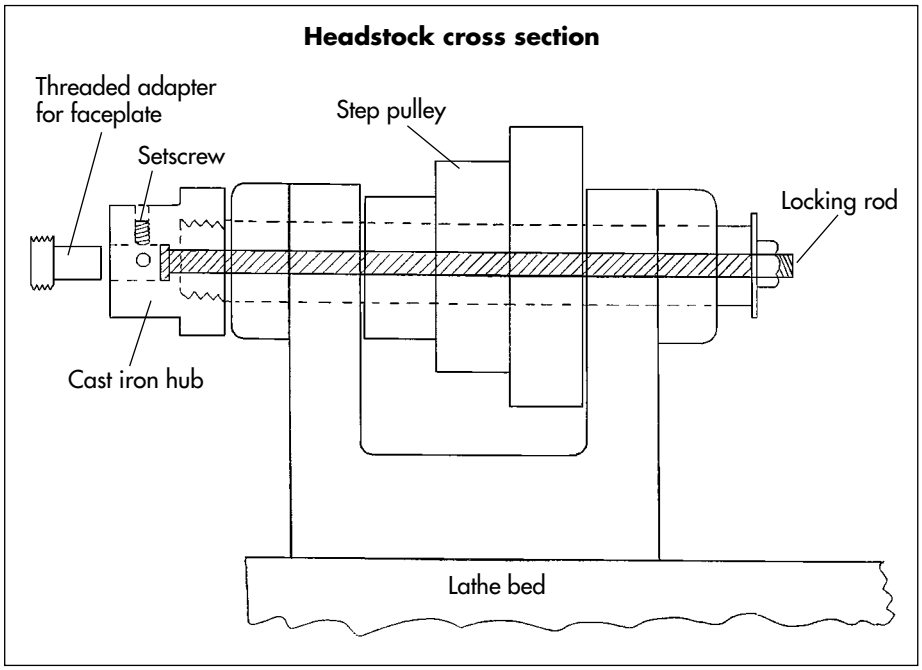
After scouring various used machinery shops in the Boston area, and being appalled at the asking prices for a shaft and pillow blocks on a reasonable frame, it occurred to me that I was, in fact, three-quarters of the way into the project, based on other equipment in my shop. Before getting my present lathe (an Atlas QC-54), I had been using a Stark facing lathe (ca. 1915, Waltham, MA)—a good substantial metal-turning lathe, but without longitudinal feed and threading capability. The cast iron bed and headstock weigh about 150 pounds, and the headstock is easily removable, making conversion to bowl work quite simple—just turn the headstock around. I would be very surprised if some other makes of lathe did not have this design feature, and thus could be converted in the same way.

Once the headstock was reversed and remounted, several other modifications were necessary. None were irreversible, should someone in the future wish to restore this nice antique to its original condition. Some of the needed modifications were obvious at the outset, while others came about from experience, as shortcomings showed up during use—the oops manifestation. Among the obvious ones:

A tool rest stand—I made this from poplar (a good affordable hardwood for such projects), with a $^1/_2$-inch alu-



Author's conversion of a Stark metal-turning lathe, with the headstock turned around, shop-made tool-rest and tailstock stands, and a locking rod to keep the threaded hub from unscrewing during operation.



minum surface plate, drilled in several places to accept a 1/2-inch bolt to secure the tool-rest holder. The stand is bolted to the end of the bench, with a support leg standing on the floor.

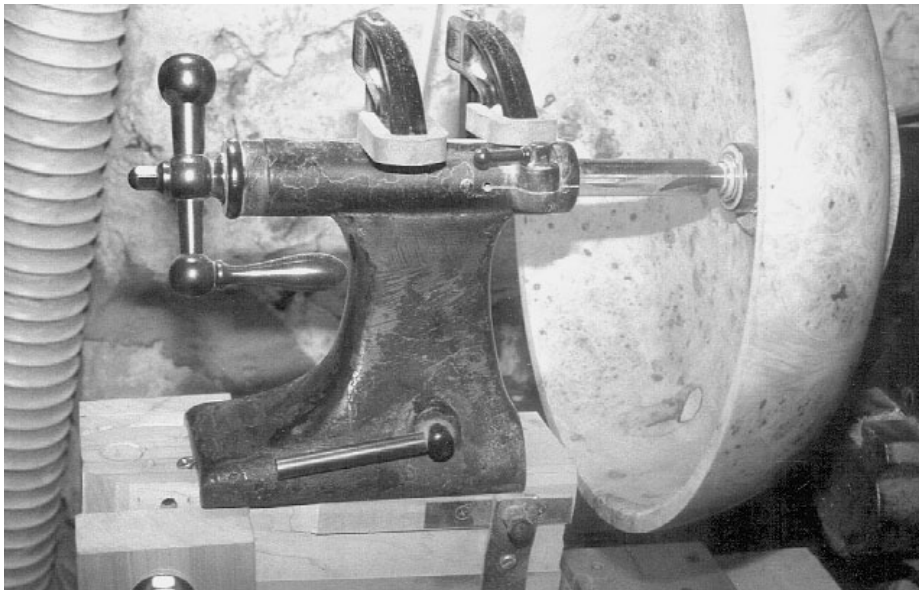
A tool-rest extension—The aluminum plate on the tool rest stand sits 11 1/2 inches below the center of the lathe shaft, so it was necessary to have the tool rest extendible vertically. I made the extension from a piece of 1-inch-diameter barstock and a 1-inch-i.d. receptacle, with setscrew, brazed to one end.

A locking rod—As shown in the drawing on the facing page, among the accessories I got with the Stark was a cast iron hub, threaded to screw onto the shaft (1 3/4 x 8 tpi). The original purpose of the hub is a mystery to me, but I have put it to good use. Turning outboard on right-handed threads, the work is liable to unscrew during normal rotation. I first drilled the hub to accept a 3/4-inch rod to a depth of 1 inch, and drilled out the remaining depth to 1/2-inch diameter. I inserted a pair of setscrews 90 degrees apart in the 3/4-inch section to secure the 3/4-inch tenon of the threaded adapter I use to mount the faceplates. I then passed a length of 1/2-inch threaded rod, with a thin nut brazed onto one end, through the hub and shaft, securing it tightly at the other end with a nut. The tension on the rod prevents the hub from unscrewing under power.

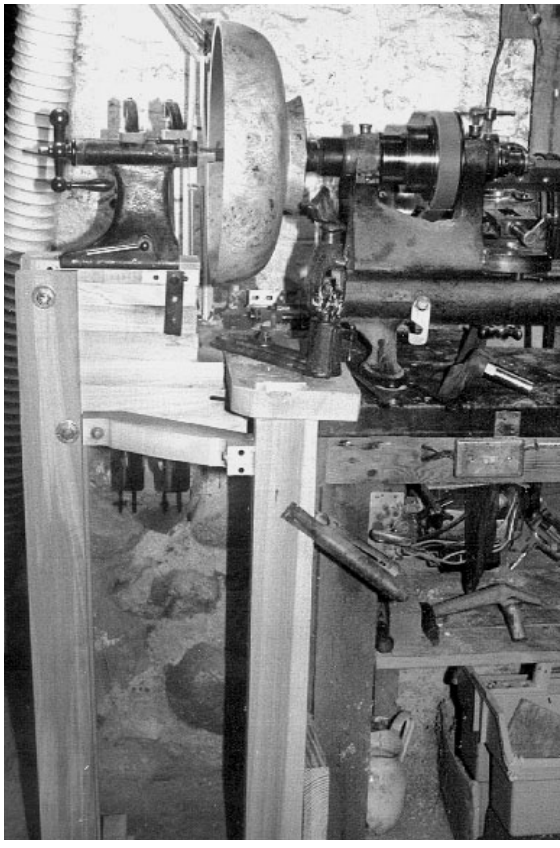
Later modifications included:

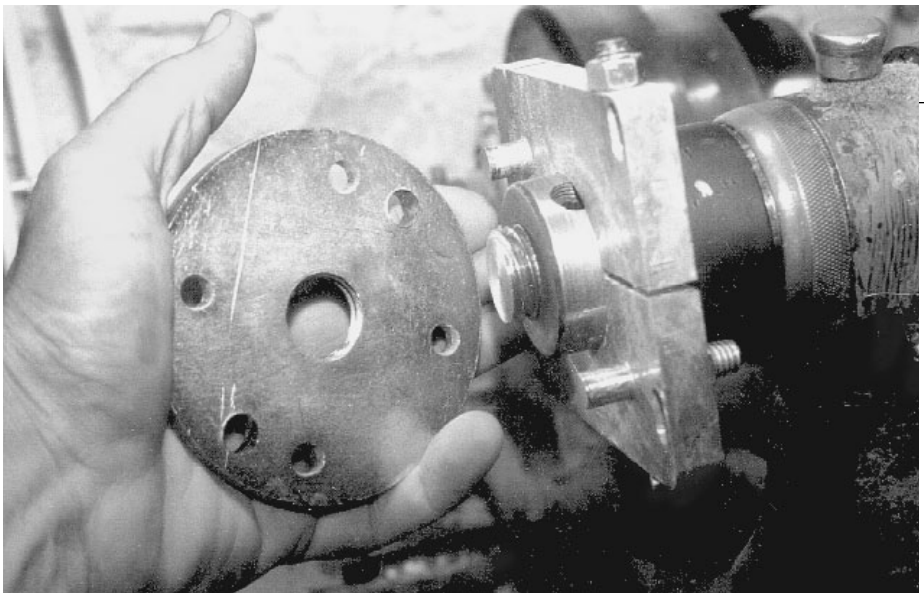
A tailstock set-up—As I began to venture into larger turnings, I found myself approaching the lathe in the mornings with a certain amount of trepidation. A large rotating mass, cantilevered off the shaft, and only approximately balanced, can be a daunting sight, and standing in front of it, a bit hair-raising. Using poplar again, I built a stand for the Stark tailstock that bolts to the bench and is stabilized by two diagonal braces (it is easily removed to allow access to the basement door). The top block, where the tailstock sits, is beveled at the edges (matching the Stark lathe bed), and pivots side to side to allow centering. Vertical alignment is done with shims. The tailstock is held in place with long-reach clamps, and a screw set into the wood to keep it from sliding.

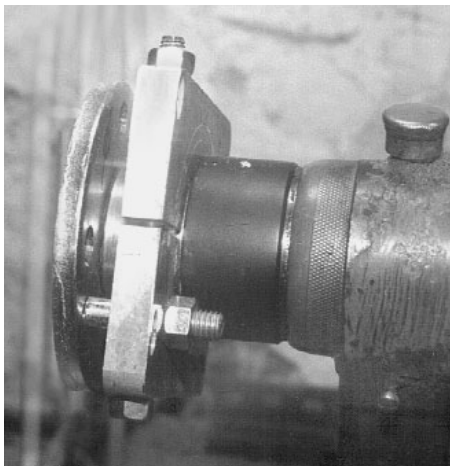
A live tailstock center—A few tries with a cup center demonstrated the need for better holding power, particularly during the roughing-out stages. I fashioned a live center from a ball bearing mounted on an appropriately tapered shaft (the Stark may predate the Morse classification—the taper seems to be unique, so I just copied it). Once the blank is mounted, the first step is to find the center, and cut a recess for the ball bearing. I use a 1 1/2-inch Forstner bit in a hand-held drill, and then enlarge the recess to a diameter of 1 9/16-inch, the o.d. of the outer bearing race. The live center is also useful during finishing of a large bowl with small base (as in the photos here), when I

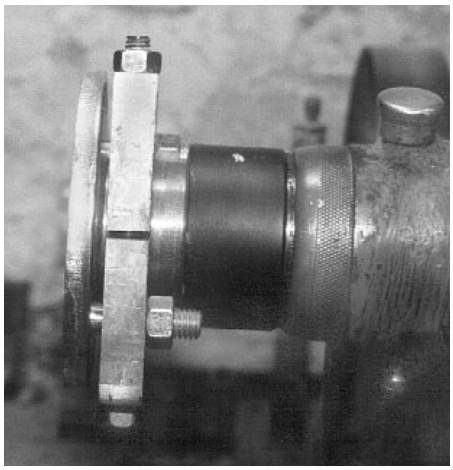


To stabilize out-of-round pieces and aid in finishing, the author mounted the original tailstock on a poplar stand, braced and bolted to the lathe bed.









A locking ring keeps the RH threads of the faceplate (shown held in the photo, top) from unscrewing during lathe rotation. The faceplate is screwed on (photo left) and the locking ring is slid over to engage its studs in the faceplate holes (photo right). Then the nuts are tightened to lock the split ring to the hub.

use double-stick tape—the bearing is padded with a piece of leather or cork.

A locking ring—When I converted to a threaded faceplate system (Craft Supplies, Provo, UT), a method was needed to prevent the faceplate from backing off during lathe rotation. The faceplate system comes with an adapter to fit your lathe, and four threaded faceplates. Although I got an adapter to fit the Atlas, the manufacturer was unable to provide me one for the large diameter of the Stark's shaft. I therefore machined a piece out of steel bar stock, with a $^3/_4$-inch-diameter stub to fit into the hub, and a 1-inch x 10-tpi thread at the end to fit the faceplates (see the drawing on page 22).

I machined the locking ring (shown in the photos above) from a scrap of $^1/_2$-inch aluminum plate. Two $^3/_8$-inch-diameter studs, set into the plate, engage holes I drilled in the faceplate. First I place the locking ring on the hub, studs facing out, and then screw the faceplate onto the shaft. I slide the ring into the engaged position and tighten the nuts, drawing the split ring tight on the hub. The faceplate will now not unscrew, whatever direction the lathe rotates. I find it useful in sanding a bowl to run the lathe alternately in either direction.

The lathe in its present form runs quietly, and is a real pleasure to use. I should mention, however, that as I began to work up to larger pieces, sometimes an inadequately balanced blank would cause the lathe and bench to dance about alarmingly, even though the whole structure is sturdy and quite massive. A length of threaded rod passed through the adjacent masonry bearing wall solved the problem, and the shop has been a more tranquil place since then.

The main drawback I have found with the lathe can be easily remedied: it lacks power. I am currently driving it with a $^1/_2$-hp, 1750-rpm motor. The biggest piece I've worked, the 16-inch bowl in the photos on the previous pages, is, I would say, just about the maximum that is practical. Turning had to be done with a very light touch to keep from stopping the lathe, and it was a very tedious process. A $1^1/_2$-hp motor will be my next acquisition.

The entire cost of the project has been under $100—for lumber, and miscellaneous hardware and fasteners. I did all the machining myself, using scrap materials on hand, and if I'd had to farm out the machining, I expect the cost would have run another $100. A lathe conversion, if you have a good starting point with an existing machine, is a very affordable venture.

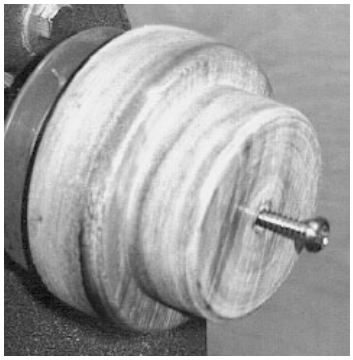
I must confess that I am finding big turning highly addictive, as I push cautiously at the limits. With a bigger motor, there is no reason not to jack up the lathe a few inches or so. Inevitably, other problems will surface, but the challenge of solving them is part of the fun.

Phil Drinker is a semi-retired biomedical engineer from Belmont, MA, who divides his time between woodturning and alphorn making, and his former career in the development of medical devices.

WOOD-JACKETED JAR LIDS

Dress up your cupboard

BARRY FEATHERINGILL



The author uses a special chuck, left, to hold his lid-jacket blanks. Once the lid recess is cut, right, he shapes the outside edge with a decorative profile. Finished examples, each with a knob to fit the hole it was mounted through, appear at top.

JARS THAT CONTAIN CANDY, COFFEE, preserves, grains, or knickknacks can be made more attractive by giving their lids wood jackets. This is a simple job, and a pleasing idea for a long-lasting present.

The blank can be mounted on the lathe using a screw chuck, glue (affixing it to a scrap piece mounted on a faceplate), or a special easy-to-fashion chuck. Mine is simply a disk of wood about 2 inches thick and 4 to 5 inches in diameter mounted on a faceplate. After truing up the disk, I create a smaller cylinder that will fit inside the metal lid. If the wood jacket is for a regular canning jar lid, make the smaller cylinder approximately $2\frac{1}{2}$ inches in diameter. Make sure that the face is square so that your lid doesn't wobble.

With this part of the chuck complete, drill a $\frac{1}{8}$-inch pilot hole in the center. This will receive a wood screw (I use a $1\frac{1}{2}$-inch #12 roundhead), the head of which will hold the jacket blank.

To make the lid jacket, start with stock that is at least $\frac{1}{4}$ inch thicker than the metal lid, and cut out on the bandsaw a disk slightly larger in diameter than the lid. For a regular canning-jar lid I cut a disk approximately $3\frac{1}{4}$ inches in diameter. Drill a $\frac{1}{2}$- or $\frac{3}{4}$-inch hole to a depth of the metal lid (for a canning jar, $\frac{3}{4}$ inch) as a gauge to tell how deep to turn out the recess. Now drill a $\frac{1}{8}$-inch hole in the center for the mounting screw to pass. (This hole is later used to put a knob on the lid.) Now mount the blank to the chuck, tightening the screw so the blank will not slip when you turn it.

With a roughing gouge, true the outside of the disk. Place the tool rest across the face (bottom of the jacket), and using dividers, mark the outside diameter of the metal lid on the face. I use a small gouge to excavate the recess for the metal lid and finalize the fit with a skew. If you are using a one-piece metal lid, it will not be necessary to make the bottom of the recess perfectly smooth. But if you are using a two-piece canning-jar lid, you'll want to make the inside of the recess presentable.

After turning the recess, you can go back to the outside edge and decorate it with any one of many designs. The photo above shows some basic ideas. The jar you are making the lid jacket for can help determine the design. A square-shaped jar will probably call for a square-edged jacket, while a round or ball-shaped jar might look better under a jacket with rounded edges.

After finishing the inside and edge of the lid, I remove the lid from the chuck and remount it with the top facing out. At this time you can decorate the top with a groove or small cove. Be sure not to make the design too deep, or you'll wind up with a piece of kindling. I usually leave the top plain.

Sand and finish the lid according to your preferences. After the jacket dries, you can attach a knob through the central hole. I use painted knobs and knobs of the same species as the jacket. You may even want to turn your own knob.

The project is so much fun, chances are you will find yourself hunting up jars to make more lid jackets for.

Barry Featheringill lives in Sullivan, IL.

FEEL-GOOD STOCKING STUFFERS

Massage tools can keep you in touch

RUS HARTMANN-HURT

COMBINE WOODTURNING AND MASsage therapy and what do you get? How about three novice projects, easily turned from shop waste, that can help you and yours feel better? These simple massage tools can be fun (and therapeutic) to make as well as to use.

There are many benefits to massage therapy. Physiologically, massage helps to decrease muscle tension, stress, blood pressure, and heart rate, while it improves digestion, circulation, the immune system, and sleep patterns. Psychologically, massage helps us to relax; it increases our sense of self, of vitality, and of vigor; it makes us more aware of our breathing; and it creates a feeling of nurture and general well being.

These quick and easy projects could be stocking stuffers for the coming holiday season, gifts that give good feelings throughout the coming year.

The following specs are offered as general guidelines for taking on these projects. I encourage everyone experiment, making modifications to to suit your own preferences and improve effectiveness and comfort.

Spinal roll

The spinal roll is shaped to massage the muscles on either side of the spinal column and neck. I made the first one for my wife, a physical therapist, who used to use two tennis balls in a sock to achieve the same result.

•*When to use*—This device is great for in the car especially on long trips. It is also effective while sitting in the easy chair or on the couch after a long day.

•*How to use*—Place the spinal roll along the neck, shoulders, upper back, mid-back, or low back, wherever you sense sore, achy tension. The balls go on either side of the spinal column.

How to make—Begin with stock to yield a finished form approximately 3 inches in diameter by 6 inches in length. Rough-turn to a cylinder and lay out lines to indicate $4\frac{1}{2}$ inches in overall length. Mark from each end line $2\frac{1}{2}$ inches toward the center. Locate and mark the center with a pencil. Using a $\frac{1}{8}$-inch parting tool, cut at the center line to a depth leaving approximately $1\frac{1}{4}$ inches connecting the two sides of the cylinder. With a $\frac{1}{2}$-inch sharp skew or $\frac{3}{8}$-inch gouge, shape what is basically two balls connected with a cove. Experiment with shaping the balls and flowing their inside edges into the cove, then see how it feels. Try the device in your car or easy chair before you remove the tenons. Reshape the balls to make them more or less pronounced if necessary. This will affect how it feels on your back and neck. Finish the cove leaving approximately one inch diameter connecting the balls. Remove most of the tenons and sand if necessary; a clean tool finish, however, is adequate for this project.

Foot roller

The foot roller is shaped to be used under both feet simultaneously, rolling it on the floor.

•*When to use*—Great for feet after a long day at the lathe making holiday presents, after giving massage, and just about any other time. Foot massage is great. Give your feet a treat!

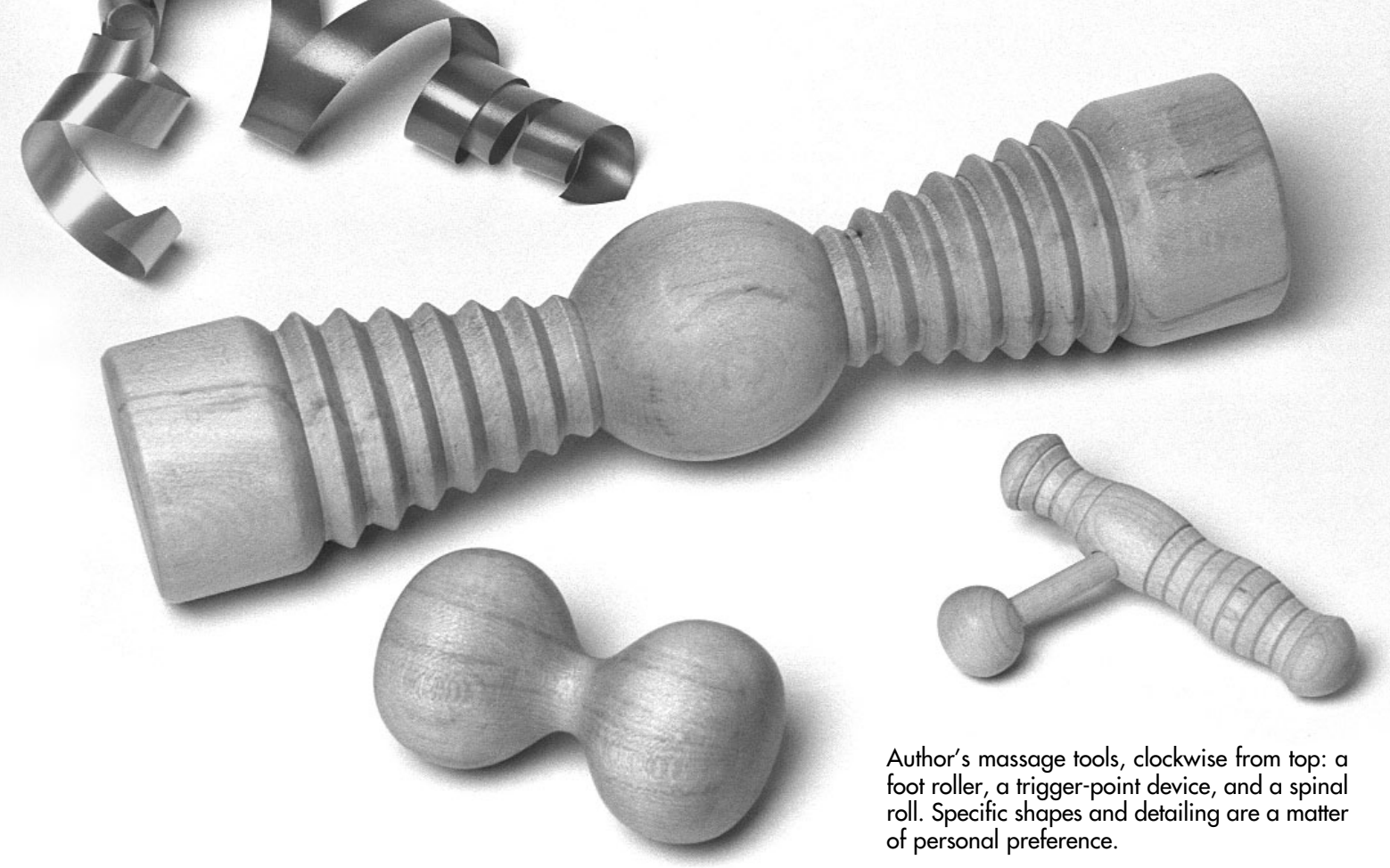
•*How to use*—While sitting in a chair, place your feet on the foot roller and move them back and forth. Experiment with increasing or decreasing downward pressure.

•*How to make*—Begin with glued-up or solid stock approximately $3\frac{1}{2}$ inches by 16 inches. Rough-turn to a cylinder approximately 14 inches by 3 inches, leaving approximately 1-inch tenons on each end. Find the center of the 14-inch cylinder and lay out lines indicating a 3-inch ball in the center of the work. With a parting tool cut a depth stop on either side of the ball leaving $1\frac{1}{4}$ inch connecting the cylinder on each side. Rough-turn and shape the ball with a sharp skew or gouge. Mark lines $1\frac{3}{4}$ inches in from each end and cut a taper from the lines to the ball. With a pencil, mark the taper with $\frac{1}{2}$-inch lines from the ball to within approximately $1\frac{1}{2}$ inches from each end. With a $\frac{1}{16}$-inch parting tool, part to a depth of approximately $\frac{3}{8}$ inch at each of the $\frac{1}{2}$-inch lines. Pencil-mark the center of each space between the parting marks. Using a sharp $\frac{1}{2}$-inch skew or $\frac{3}{8}$-inch gouge, cut a V-taper leaving the pencil line and cutting to the shoulder of the $\frac{3}{8}$-inch parting cuts on each side of the ball. Make final clean up cuts on the ball and clean up the V-cuts. Use a straight edge to check that the $1\frac{1}{2}$-inch-wide flats at each end are in line with the diameter of the ball. All three points should touch the straight edge enabling the device to roll on the floor without rocking.

Experiment and customize your foot roller by trying the device before you turn off the tenons on each end. Foot sensitivity varies from person to person; some may find the points on the V-grooves more or less soothing or stimulating than others. Variations could include cutting beads or V-grooves in the center ball and alternating bead and V-grooves on the tapers. Experiment and do what feels good to your feet.

Trigger-point device

Trigger points are areas of increased



Author's massage tools, clockwise from top: a foot roller, a trigger-point device, and a spinal roll. Specific shapes and detailing are a matter of personal preference.

metabolic waste within muscle tissue that excite segments of the nervous system and cause referred pain or sensation in other parts of the body. Most likely we have all felt at one time or another a knot or tight spot in our neck or shoulders or back. Massage therapists will use a simple device to take the place of their thumb to put direct pressure on a trigger-point area. Direct pressure helps to push the metabolic wastes from the muscle cells, and when the pressure is released, it helps to bring new blood, oxygen, and nutrients to the affected muscle cells.

•*When to use*—Great to use in place of one's thumb for direct, specific pressure on a localized area.

•*How to use*—Hold in hand with wrist and arm in straight alignment (not flexed or bent). Use body weight for pressure. Communicate verbally with the receiver about pressure—too much, too little? Hold for two to three minutes and release.

•*How to make*—Begin with 1-inch-square stock, 6 inches in length. With a drill press or hand-drill, bore a hole at approximately 50 to 60 degrees off of level on one 6-inch side, $2\frac{1}{2}$ inches from the end, to a depth of approximately $\frac{1}{2}$ to $\frac{3}{8}$ inch. Rough-turn, leaving a 5-inch cylinder with a $\frac{1}{2}$-inch tenon on each end. Round each end of the cylinder to what resembles half of a ball. Leave the section $\frac{1}{4}$ inch on either side of the hole untouched. Shape the remainder of the cylinder as though it were a hand grip. For a non-slip grip use the sharp corner of a $\frac{1}{8}$-inch parting tool to cut small grooves approximately $\frac{1}{8}$ inch apart on the handle. Sand lightly if necessary, though a tool finish is satisfactory. Turn off the tenons at each end of the cylinder, leaving half of a round ball on each end. Remove from the lathe and place a drop of glue in the hole and insert a $2\frac{1}{2}$-inch long $\frac{3}{8}$-inch dowel—turned or bought. Take a 1-inch-square piece of stock and bore a $\frac{3}{8}$-inch hole approximately $\frac{1}{2}$ inch deep. Using a drill chuck in the lathe and a $\frac{3}{8}$-inch dowel as a jam chuck/mandrel, turn a ball from the stock approximately 1-inch in diameter. (Because of the delicate nature of the friction/jam chuck, it is helpful to cut the corners of the stock at 45 degrees before starting to rough out the ball. Back up with the tailstock using a single-point revolving center.) Sand as needed. Experiment with how it feels. Various shapes and degrees of roundness will feel more or less aggressive. Do what feels good for you; chances are it will feel good for others as well. Glue ball to the device.

Touch can have wonderful therapeutic value for the receiver as well as the giver. A massage-tool gift you have created with your hands and from your shop's scraps can be a wonderful way to say you care about how somebody feels. With these quick-and-easy stocking stuffers you get to stay in touch with your friends, your family, your lathe, and feel good about all of it. I would call that a win, win, win situation. Happy and Healthy Holidays!

Rus Hurt, a former secretary of the AAW, is a certified massage therapist and a woodturner in Port Wing, WI.

Photo: Rick Mastelli

OIL FINISHES

Control through understanding

BOB FLEXNER

THERE ARE FOUR COMMON FINISHES used by most woodturners: oil, wax, lacquer, and shellac. (Shellac is also sold as French polish, woodturner's finish, and padding lacquer.) Of these four finishes, oil is the most misunderstood. The first step in gaining control over finishing is to understand the products. The purpose of this article is to clear up the confusion about oil finishes.

Oil

There are three types of oil: those that cure, those that partially cure, and those that don't cure. Curing is the chemical process in which the liquid oil turns into a solid film. Oils that cure can be used as finishes since they seal the wood and produce a fairly permanent sheen. Oils that don't cure, or cure only partially, don't perform well as finishes because they continue to soak deeper into the wood leaving the surface unprotected, or they remain sticky on the surface.

Common examples of oils that don't cure are mineral oil, vegetable oil, and motor oil. Examples of oils that partially cure are walnut oil, soy bean oil, and safflower oil. There are two commonly available oils that cure and thus perform well as finishes: linseed oil and tung oil.

Linseed oil is pressed from the seeds of the flax plant. In its raw form linseed oil takes a week or longer to cure. This slow curing makes raw linseed oil very impractical to use as a finish. To speed the curing manufacturers add metallic driers which act as catalysts speeding the introduction of oxygen into the oil. It is oxygen that causes the chemical reaction that turns the liquid oil into a solid film.

When metallic driers are added to linseed oil, the product is called "boiled" linseed oil. Boiled linseed oil cures in about a day. The name is a carryover from the days when lead (litharge) was added to linseed oil and cooked in order to become incorporated. Today, driers come in liquid form, so cooking is unnecessary.

Tung oil is pressed from the nuts of the tung tree which is native to China and grown commercially in South America. Tung oil sold in the U.S. as a wood finish does not have driers added. It takes two-to-three days for tung oil to cure when all the excess is wiped off of wood. Tung oil thus cures faster than raw linseed oil but slower than boiled linseed oil.

Both linseed oil and tung oil can be changed chemically if they are heated to about 500°F in the absence of oxygen. Oxygen-free, crosslinked bonds are formed, and if the oil is cooled just before it gels, a polymerized oil is created. Polymerized linseed and tung oils apply and cure more like varnish than oil. They complete their curing very fast when exposed to oxygen, much faster than varnish cures, and they cure glossy and hard. So, unlike linseed oil and pure tung oil, polymerized linseed and tung oils can be built up to a thickness on the surface of the wood.

This is pretty straightforward information. To better understand how confusion has been introduced, it will help to give some background.

History

Before the growth of the consumer market in the 1960s and 1970s, there was little confusion about finishes. There were fewer products available and most were bought and used by professionals who were fairly knowledgeable about them. Manufacturers helped by listing ingredients on the containers, something very few do anymore. The finishes used by these professionals were lacquer, shellac, and varnish. When polyurethane and two-part finishes, like catalyzed lacquer, became available, these were adopted.

In some circles, especially those involved with buying and selling antique furniture, linseed oil was often used. Sometimes, the linseed oil was mixed with varnish and thinned with turpentine or mineral spirits (paint thinner). The proportions and the exact types of varnish, oil, and thinner used were (and still are) often treated as secrets that had been passed down through many generations.

Boiled linseed oil and blends of boiled linseed oil and varnish are easy to apply. Simply wipe, brush, or spray the finish onto the wood. Keep the wood wet with the finish for five to ten minutes so it can soak in. Then wipe off the excess and allow the finish to cure overnight. Next day, sand or steel wool lightly to smooth raised grain. Then apply one or two more coats, allowing overnight for each coat to cure. Be sure to wipe off the excess after each coat. (You will have to wait much longer between coats if you use raw linseed oil.)

Despite the ease with which linseed oil and blends of linseed oil and varnish can be applied, a myth got started that our eighteenth century ancestors had rubbed coat after coat of these finishes into the wood. Supposedly, they did this to create superior protection and durability. This myth, which has been promoted by some manufacturers, found its way into books and magazines and is now so widely believed that it may never disappear.

I don't know how this myth began. There is no evidence that our ancestors spent time rubbing oil or oil/varnish blends into wood.

There's not even any evidence that our forebears had high regard for linseed oil as a finish or that they ever mixed oil and varnish together. Mention of our ancestors having thought or done any of these things doesn't appear in print until this century, much too distant from the eighteenth century for there to have been knowledge of actual beliefs and practices.

In addition, and even more telling, linseed oil is not a very protective or durable finish no matter how it is applied. Adding varnish helps a little but not much, because the finish still can't be built up to a hard protective coating. It's not likely that our ancestors, who spent most of their waking hours working to survive, wasted time rubbing in finishes when it did no good. They used linseed oil as a finish, of course, because it was available. Alternative finishes, such as shellac and varnish, often were not, for the resins had to be imported.

By the late 1960s the consumer market was growing, and many people may have discovered by sad experience the weaknesses of linseed oil and oil/varnish blends. These consumers were ripe for something new. Shellac, varnish, and lacquer were, of course, available at every paint store. But, even though far more protective and durable than linseed oil, none of these finishes had the mystique of oil, and they are more difficult to apply.

Around 1900 a new oil, called tung oil, was introduced into the West from China. It was quickly discovered that tung oil could be substituted for linseed oil to make more water-resistant varnishes. Though considerably more expensive than linseed oil, tung oil became the favored oil for making highly protective and durable varnishes, especially for outdoor use.

Pure tung oil can also be used alone as a finish or mixed with varnish just as linseed oil can. Used alone, tung oil produces a much more water-resistant surface than linseed oil.

It's much more difficult to achieve attractive results with tung oil than with linseed oil, however. You apply tung oil just like linseed oil. Allow the first coat to soak in for five or ten minutes, and wipe off the excess after each coat. But, you have to sand tung oil after every coat, not just after the first coat, because each coat of tung oil cures rough to the touch. And, it takes five-to-seven coats of tung oil, allowing two-to-three days drying time between coats, to achieve a smooth, attractive sheen. Still, the result is not as smooth or as attractive as that produced by just two or three coats of linseed oil or linseed oil/varnish blend.

But tung oil is associated with China, so it has a certain mystique. Since few people really knew what tung oil was anyway, some manufacturers found that they could create a market for varnish that had been thinned with paint thinner simply by calling the product tung oil. They were so successful that it is now almost impossible to walk into a paint store or home center without seeing some brand of "tung oil" on the shelf. Almost always it is not tung oil but thinned varnish.

Varnish is easier to apply than tung oil because only two or three coats are required to achieve an attractive sheen. Varnish is also much more protective and durable than tung oil because it can be built up thicker on the wood. Even when thinned a lot with paint thinner, varnish is still an excellent finish. But it is not tung oil, and calling it tung oil has caused an immeasurable amount of confusion in the craft.

The difference: oil vs. varnish

Oil is a natural product. Drying oils like linseed oil and tung oil cure slowly to a soft, wrinkled film if they are applied thick. Therefore, all excess oil should be removed after each coat. Oil finishes cannot be built to a thicker and more protective coating.

Varnish is a synthetic product made by cooking a drying oil, such as linseed oil or tung oil, or a modified semi-drying oil, such as soy bean oil or safflower oil, with a resin, such as alkyd, phenolic, or polyurethane. Varnish cures relatively rapidly to a hard, smooth film if it is applied thick. Excess varnish, whether thinned or unthinned, does not have to be wiped off. Varnish can be built to a thicker and more protective coating.

Varnish is as different from oil as bronze is from tin. (Bronze is made by smelting copper and tin.) Once oil combines chemically with resin to make varnish, it is no longer oil just as bronze is no longer tin. It is just as ridiculous to call varnish "tung oil" as it would be to call bronze "tin." It makes no difference that tung oil (instead of linseed oil, or some other oil) may have been used in making the varnish. The product is still varnish, it is not tung oil.

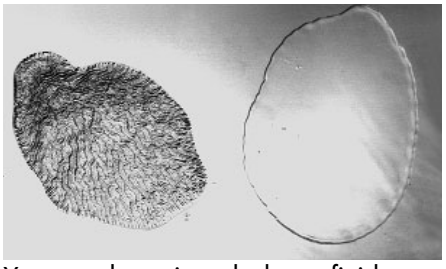
Nor does thinning varnish with paint thinner turn it into tung oil. Varnish thinned with paint thinner is still varnish. It just builds slower. Varnish thinned with paint thinner (so it can be wiped instead of brushed onto wood) is more properly called "wiping varnish" to distinguish it from unthinned varnish.

Wiping varnish

Since the early 1970s many companies have added a wiping varnish to their product line. The problem is that none of them labels it for what it is. Most call their product "tung oil," which it is not. Others call their product by a name that has no meaning. These include Waterlox, Seal-a-Cell, ProFin, Urethane Oil, and Val-Oil. None of these companies explains on the label what the product

Identifying "oil" finishes

Type	Characteristics	Brands
Oil/Varnish Blend	Cures soft and wrinkled after several days.	Behlen's Salad Bowl Finish, Behr Tung Oil Finish, Benjamin Moore Scandinavian Oil, Deft Danish Oil, Minwax Antique Oil, Minwax Tung Oil Finish, Penofin, Maloof Finish, Pratt & Lambert Okene, Velvit Oil, Watco Danish Oil.
Wiping Varnish	Cures hard and smooth overnight	Arm-R-Seal, Formby's Tung Oil, Gillespie Tung Oil, Hope's Tung Oil Varnish, Jasco Tung Oil, McCloskey Tung Oil Varnish, Nasco Tung Oil Finish, Profin, Sealacell, Urethane Oil, Waterlox, Val-Oil, Zar Tung Oil.



You can determine whether a finish contains oil or is thinned varnish by pouring some on glass and letting it cure overnight. If the puddle wrinkles and doesn't get hard, the finish contains oil (left). If the puddle cures hard and smooth, the finish is varnish (right).

is. Most imply that it is some type of oil. You, the user, have to know in advance what you are buying, or you have to do tests to determine what the product is.

Oil/Varnish blend

Before the growth of the consumer market, blends of oil and varnish, often thinned with paint thinner, were made up by the people doing the finishing. Oil/varnish blends apply and cure very much like boiled linseed oil and pure tung oil. But they cure a little faster and become a little harder depending on the ratio of varnish to oil. The higher the percentage of varnish, the faster the cure and the harder the resulting film. At about 95% varnish the product acts very much like varnish.

By the 1970s, enough people were using this finish to create a market large enough for major companies to supply it. Thus were born Danish oils and teak oils. (These names are derived from the finish believed to have been used on teak furniture imported from Denmark. Actually, the Danes used, and still use, catalyzed lacquer on this furniture. They apply it thin so it looks like oil.)

The market was still relatively small, however, until woodworking magazines began promoting the finish for use on newly made furniture and cabinets. Oil/varnish blends became one of the most popular of all finishes for woodworking, helped along by a number of myths. One of these, of course, is that these finishes were favored by our eighteenth-century ancestors. Another is that oil/varnish blends make the wood harder, the implication being that these finishes would make the wood more difficult to scratch. This second myth demonstrates better than any other the extent of the confusion surrounding oil finishes. How else could it have been possible for a woodworking magazine or a manufacturer to get away with promoting a finish that never gets hard for its unique ability to harden wood!

Most of these oil/varnish blends are called Danish oil, Scandinavian oil, Nordic oil, or teak oil, to indicate their supposed relationship with the finish used on furniture imported from Scandinavia. But others have names with no meaning, such as Antique Oil, Velvit Oil, Maloof Finish, and Salad Bowl Finish. Some oil/varnish blends are even called "tung oil," compounding the confusion about this oil even further.

How to tell which you have

Since some brands of each of the four types of finish—pure oil, polymerized oil, wiping varnish, and oil/varnish blend—are called tung oil, and many brands use names that don't give a clue about what's inside the container, we consumers are forced to run tests to determine which is which.

Linseed oil is always labeled linseed oil, raw or boiled, so far as I know. Pure tung oil has a very distinct smell that clearly distinguishes it from varnish and oil/varnish blends, both of which smell like varnish. There are very few brands of polymerized oil on the market, and they are usually called that. (Some gunstock finishes, like Tru-Oil, are polymerized oil.)

To determine whether a product that smells like varnish is simply thinned varnish or a mixture of oil and varnish (usually also thinned with paint thinner), pour some of the finish onto a non-porous surface, such as glass or plastic laminate, or create some overspill on the can, and let the finish cure overnight. If it cures hard and smooth, it is varnish thinned with paint thinner. If it cures soft and/or wrinkled, or doesn't cure at all, it is a blend of oil and varnish.

The right to know

The craft of finishing cannot mature as long as manufacturers and suppliers misrepresent their products, and woodworking magazines support this misrepresentation. There is no legitimate reason for a thinned varnish or a mixture of oil and varnish to be represented as oil. We who practice the craft should not tolerate this deception. We should demand accurate information so that we can make intelligent choices between products.

Bob Flexner operates a furniture repair and restoration business in Norman, OK. He is author of innumerable articles and the top-selling book Understanding Wood Finishing, *recently released in paperback (Rodale Press, 800/848-4735).*

The issue of food safety in finishing

PROBABLY NO SINGLE ISSUE OCCUPIES WOODTURNER'S DISCUSSIONS about finishing as much as food safety. The confusion about this issue is so great that many turners are afraid to use any curing finish. To be safe, they use mineral oils or vegetable oils that don't cure, or they compromise and use raw linseed oil or walnut oil that take weeks to cure. The result is a wood surface that is often dull or sticky and is poorly protected.

Curiously, food and child safety has become an issue in woodturning and woodworking circles while the rest of the population innocently coat their cutting boards, salad bowls, and children's toys and furniture with whatever finish they happen to stumble across at their paint store or home center. This fact alone should make you question the rationality of worrying about food safety. But there is more:

- No warnings appear on cans of finish or Material Safety Data Sheets (MSDS), and paint clerks are seldom aware that there may be a problem.
- Products labeled as food or salad-bowl safe are rarely available except at specialty woodworking stores. If there really were a problem, why wouldn't these products be available everywhere? The market would be huge.
- Most significantly, there is no record that anyone has ever reported a health problem resulting from the use of any finish!

In fact, there's no reason for concern. Food safety is a non-issue. The responsibility for woodturners' continued concerns lies with certain woodworking magazines and finish suppliers who persist in repeating misinformation. So far as modern science and medicine can determine, all finishes are safe for food contact once the solvents, which cause many finishes to smell bad, have evaporated and the finish has cured thoroughly.

Metallic driers

Among woodturners the issue of food safety almost always centers around the inclusion of metallic driers in the finish. Metallic driers are added to oil and varnish finishes to speed the curing. Without driers these finishes take many days or weeks to cure.

Lead driers were once commonly used in oil and varnish finishes. But in the 1970s it was learned that lead is highly toxic, especially to children. The problem was associated with the relatively large amount of lead contained in pigment and not with the small amount contained in finishes. Nevertheless, to be safe, lead was removed from all commonly available paints and finishes, including oils and varnishes.

Other metallic driers, including salts of cobalt, manganese, zirconium, and zinc, continue to be used in all varnishes and curing-oil finishes except raw linseed oil and pure tung oil. This includes those finishes marketed as food, salad-bowl, or child-safe. Without driers, these finishes would take many days or weeks to cure. There is no indication that these driers cause health problems. A very small amount is used, and it is well enough encased in the plastic finish film so that if any is ingested, it passes through the body without causing harm.

FDA regulations

The only guidelines we have for determining food safeness come from the FDA. The FDA has published a set of regulations for establishing the food safeness of finishes. These regulations are contained in the Code of Federal Regulations, Title 21, Part 175, which should be available at larger public libraries.

There are two pertinent conditions that must be met for a finish to meet FDA regulations.

First, the finish must be made from among the raw materials listed on nine double-columned pages. This list includes every oil, resin, drier, and additive commonly used in wood finishes (polyurethane is covered in Part 177). It does not include lead or mercury. Since lead is no longer used in common wood finishes, and mercury never was, it can be assumed that all wood finishes use only FDA-approved ingredients. (Note, however, that some specialty finishes still contain lead and are labeled thus.)

Second, the finish must be formulated in such a way that it does not leach more than a specified amount of extractive when subjected to a variety of specified tests. Every batch of finish has to be tested to determine whether it meets the regulations. Since no commonly available wood finishes, including those claiming to be food or salad-bowl safe, are subjected to these tests (they are expensive), none can actually claim that they meet FDA regulations.

This does not mean that these finishes are unsafe, only that they haven't been tested.

Notice that claiming the use of only FDA-approved ingredients, which all common finishes could probably do, is not the same as meeting FDA regulations. Nor is claiming that a finish is non-toxic the same as meeting FDA regulations. In practice, "non-toxic" simply means that the finish does not contain lead or mercury.

The conclusion is that we don't know for sure that any finish is safe to eat off of or to use on children's toys or furniture, even finishes that claim to be food-safe. But, based on FDA regulations, the way finishes are made, and the complete lack of any evidence to the contrary, we don't have any reason to suspect a problem either. *—B.F*

THE LATHE AS A THERAPEUTIC TOOL

Centering attention, peeling away anxieties

CHUCK MEYER

IT'S HARD TO CATEGORIZE OR STEREOtype a woodturner. The art has no boundaries on age, education, or region. The aspect that unites all woodturners is the sense of peace and accomplishment that comes with turning a piece of wood into a work of art or useful item. Methods and styles may vary, but turners are universal in their love of wood and of sharing what they do.

In June of 1992, I attended the AAW woodturning symposium in Provo, Utah. I was overwhelmed by all the talent assembled in one place. There was no reason for anyone to leave that get-together with any questions unanswered. Just about every aspect of woodturning was discussed, either in one of the hundred or so rotations, in the cafeteria, or in one of the halls. There was however, one area of woodturning (the one in which I am most involved) which I did not hear any mention of. This is the use of woodturning as a therapeutic tool for disabled people.

I am the vocational programs coordinator for Hays and Blanco Counties in Texas. I run the prevocational program for mentally ill (not to be confused with mentally retarded) people. I am employed by the Austin State Hospital and my program is funded both by the state of Texas and a private organization named Scheib Opportunity. Our facility is located about 35 miles south of Austin in San Marcos, TX.

Four years ago the director of psychosocial rehabilitation for the hospital, Leon Oehlers, approached me with a gavel from the Texas House of Representatives. He asked if I thought I could make some just like it and, even more important, if I could teach some of our clients to make them. I told him that if we had a lathe there would be no problem. He didn't know that my total experience on a lathe consisted of a half-day demonstration by Rude Osolnik five years earlier in Vernon, TX, and maybe thirty minutes in high school wood shop.

Searching the back rooms of the hospital, we found an old Sears lathe and an old set of Sears tools. After transferring the lathe to San Marcos and a couple of successful attempts at spindle turning, I felt I was ready to make our first gavel. Was I ever wrong! I did not know enough to slow a 4x4-inch piece of oak down until it's been turned round and balanced, nor did I know how important it would be to have a cut-off switch within reaching distance. The next thing I knew, I was in the ER getting my chin stitched up. I returned to work a day or two later determined to jump back on that horse. I completed the gavel with surprisingly good results and soon had a contract signed by the Texas House of Representatives.

That was three years ago. Today, we have seven lathes and a very complete woodshop in a 3800-sq. ft. building. We have several contracts with the Texas Industries for the Blind and Handicapped (TIBH), under which we produce five styles of gavels in three sizes. We have had many private contracts including one for a state politician to make 1,000 gavels in thirty working days. Several articles on us have appeared in local and state newspapers. Every time proceedings are broadcast from the state capitol our gavels are right there. One of our gavels was given to the Queen of England, and we were chosen to produce gavels out of the famous Treaty Oak.

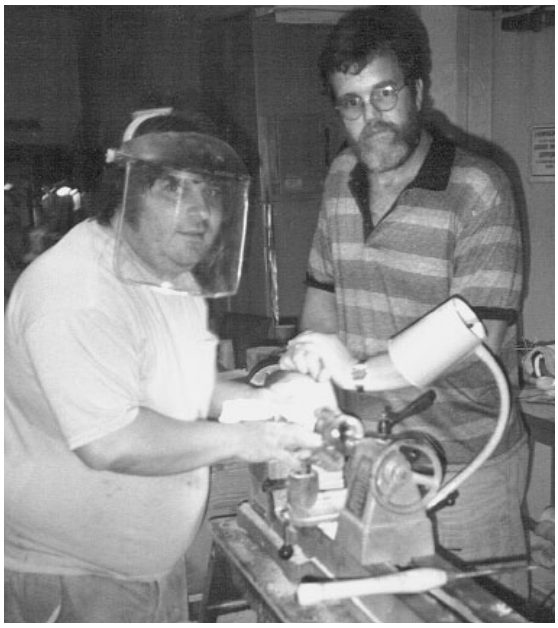
We also turn clothes trees for TIBH, balusters for the restoration of old houses, pen-and-pencil sets, potpourri bowls, and spinning tops. There are several contracts we have that do not utilize the lathe. We make picnic tables, a chair arm for a local furniture company, shipping crates, purple martin houses, cutting boards, wall-mounted hat racks, and several other small items.

All of this has been exciting for everyone, but the publicity is not the best thing to come out of it. People who have never been productive are now so. People who have never been able to hold a job are not only working but are doing a type and quality of work that leaves most people in awe. It gives the workers a sense of fulfillment that many people never experience. We are a nonprofit organization and pay our workers hourly.

The use of the lathe, however, is the central point. I believe that if the lathe did not have therapeutic value, ninety-five percent of all woodturners would not be woodturners. We have all experienced that sense of contentment and relaxation while turning (at least when Murphy is not around). We have all felt that sense of accomplishment when a piece is complete. The goal of therapy, after all, is to make you feel better, as does woodturning.

Most disabled people in our society are conditioned to believe that they are less of a person because of their disability. Often they never experience the satisfaction of creating something special. When you take their work and display it on TV, in the newspaper, in a judge's or queen's hand, on an historical building, or anywhere the public can see, admire, and respect it, you give these people a sense of self worth that is priceless.

This sense of self worth can be



Turning affords therapeutic benefits as well as self-supporting employment for clients in the Hays County pre-vocational program. At left Robert Padgett turns a piece of treaty oak with author Chuck Meyer standing by. At right, some of the 1,000 gavels made for the Texas Attorney General.

achieved in many ways, but I believe that lathe work is particularly well suited for several reasons. First, the lathe is a fairly safe tool. Once you teach the student to center and mount the piece on the lathe, start the lathe at a slow speed while standing to the side, and always wear a faceshield (one thing many turners do not do), the lathe becomes one of the safest machines in the shop. After three years of turning and teaching these people to turn, I am the only one to have been injured, and I believe that incident has made me a better teacher.

Second, working on the lathe commands your undivided attention for long periods. Most operations in the shop require you to pay attention for only a few seconds at a time—cutting a board, for instance, or drilling a hole. In comparison, lathe work can keep you focused indefinitely. This is especially important for the people I work with because, while they are focused on the process of turning, they are not focused on their problems. Often when they have nothing but their problems to think about, their anxiety escalates. But when they have something positive to do and be absorbed in, their frame of mind is positive, too. This holds true for all of us; it's just that most of us are able to find distraction on our own.

The third reason I feel the lathe has therapeutic value is because it is easy to get pleasing results. When I introduce the lathe to new people, I usually start them off with a small 2x2 blank, teach them the basics of using the tools, and let them have at it. The result is usually a weed pot or a candlestick that is overloaded with parting-tool cuts, poorly shaped, and poorly sanded. Nevertheless, the creator of this piece is always beaming with pride and usually hurries off to show his or her creation to anyone that might be around. After this initial encounter with the lathe, I teach a little more about using the tools, sanding, designing, and mastering the particular procedures for making the gavels or spindles. As they progress, so does their sense of accomplishment. The better they feel about themselves, the better they become, as with all of us.

The population of people that I work with have different types of problems. Some have thinking disorders, some are depressed, some have problems with drugs or alcohol, and some have problems with all of the above. Whatever their problems might be, they share some common needs. They all need to feel productive, they all need to feel wanted, they all need to feel special, and they all need to feel like they fit into as well as belong to our society. These needs are not unique to mentally ill persons. We all share these same needs, but most of us have been able to fulfill them or most of them in some way or another. What our program provides for these people is a first step, which is often the most difficult one. Once they see that they can have successes, their confidence builds, which often makes that second step easier. I am not saying that the lathe or our program is going to cure these people, but it can provide relief from their problems and a sense of self worth, as well as a few dollars in their pockets.

There is something magical about watching wood peel off as a piece takes whatever shape you want. It shouldn't be surprising to any woodturner that such magic can have therapeutic value for someone burdened with psychological problems.

Chuck Meyer coordinates the pre-vocational workshop program in Hays and Blanco Counties, TX.

GETTING A FEELING FOR FORM

Seeing is believing, but touching is knowing

MICHELLE HOLZAPFEL

*Editor's Note: Last August in Philadelphia, the Wood Turning Center's conference, entitled "*allTURNatives: Form & Spirit,*" marked the culmination of their ITE program (see pages 38–43) and another milestone in woodturning's pursuit of aesthetic and artistic understandings. Presentations included Michael Peterson's inspiringly beautiful slide show of natural forms, textures, and colors; Hugh McKay and William Moore's presentation of the role of drawing in their own design procedures; and Craig Nutt's step-by-step report on his use of the computer in three-dimensional modeling. Beyond the philosophy and good company, it was a nuts-and-bolts weekend for art turners. The following excerpt from one of Michelle Holzapfel's presentations, a slide show with a blind touch-test intermission, captures the exploratory spirit of the event.*

Holzapfel began with a series of images ranging in scale from a coin to the earth, seeming the size of a coin when seen from 100,000 kilometers. In between were tools, vessels, dwellings, monuments, and natural, prehistoric, and recently man-made land-forms. With each image Holzapfel drove home the point that we encounter things conscious, on some level, of their scale always measured from our human *point of view. She asked the audience to consider holding, touching, being held by, being contained within, or being removed from the objects observed. In this way she sensitized the audience to one of the ways we may interact with objects of turned art.*

We pick up with the second section of her presentation, which examines the predominance of the visual over the other senses in how forms inhabit space:

WE LIVE IN A VISUAL CULTURE, DOMInated by images. Information travels flat, and that's mostly how we see it—in print, on a screen, on a page. Information in the form we call "art" is also dominated by the two-dimensional image. Not only has painting been a dominant art form for centuries, but nowadays, we even get most of our three-dimensional art in two-dimensional form—in photographs, in publications, scanned into computers, on video and movie screens, and presented to one another at events like these in the form of slides. This is a distinct disadvantage for the third dimension.

Even when we do have access to three-dimensional art in museums, we aren't allowed to touch it, it's a hands-off, eye- and mind-centered, experience. All these factors combine to reduce an object to an image. In order to understand a two-dimensional visual image, we must participate in its reconstitution, like making orange juice from frozen concentrate, adding the water of imagination. That makes viewing a two-dimensional image participatory, and also subject to individual interpretation.

I first started thinking about this issue (of the priority of the visual over the tactile) after I observed a blind man who came into my booth at the Morristown Craft show many years ago, and asked to touch my work. I watched him experience each piece entirely through his hands, with great pleasure for both of us. I was grateful for the opportunity to consider more deeply the unspoken qualities, and the physical power, of three-dimensional forms. I've been trying to incorporate that experience into my work ever since.

If you ask, most people will say that the sense they would least want to lose is sight. Ever since humans stood upright, our eyes have caused us to gain a certain domination over our world. Our hearing, smell, taste, and touch have unfortunately diminished somewhat, compared to that of other animals, but we still retain great potential for aesthetic enjoyment through our non-visual senses.

I think a big part of the popularity of craft media is their visual appeal, but their deeper power lies in the fact that they also can be, and should be, touched, held, worn—appreciated from the neck down. Creating well-crafted objects that integrate our sensory apparatus, should be central to our efforts; the power of the senses should be acknowledged, studied, and maximized.

The mind and eye are the coolest of the senses, held aloof in our heads; the other senses are warmer, more bodily—fed by vibration, aroma, flavor, and texture. Our culture tends to place the senses in a hierarchy of importance, to privilege the "objectivity" of eye and mind above the other senses. When observing is considered purely visual, it makes me wonder what is so impure about the non-visual? Visual perception may be free from tangible mass, weight, and gravity, but free to do or be what? What do we lose when we give preference to vision?

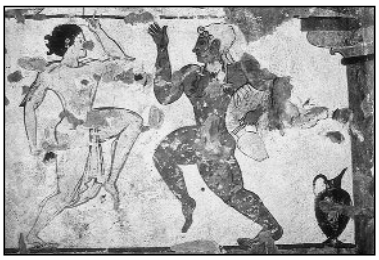
I think about these issues alot because I've become aware that even when I'm making a piece, I often stand back and look at it, reduce it to a series of approximate silhouettes, flatten it with my eye, think about which are the "best" sides, how it will look as a slide or in a catalog. This is not good. I've been working recently on my own perceptual tendencies and habits, trying to think more three-dimensionally and, to this end, my hands have been my greatest allies.

Here Holzapfel invited the audience to file down to the podium and be given an object, a different object for

each person, and to hold it and feel it without looking at it. It was an illuminating experience. Beyond the challenge of identifying the object from what seemed tantalizingly limited sensory input was the realization that there were not a lot of words or even ideas to associate with the sensation—certainly not definitive ones. The effect of finally looking at the object was for many of us a kind of reduction of the myriad possibilities we had come to associate with it.

Holzapfel presently resumed:
Let's go through a set of slides, progressing from two- to three-dimensions. I'll show some wonderful low- and medium-relief carving, which may prove inspirational for embellishing turned forms, and then we'll consider forms that emerge from flatness, and stand on their own as fully three-dimensional objects.

#1

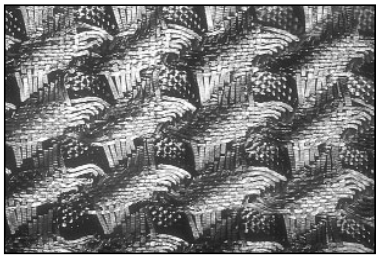


"Two Dancers"
Tarquinia, Italy, 475 B.C.

#2

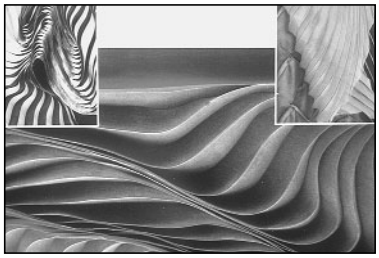
"Black Dune"
Edward Weston, 1936

#3



Rayon and paint
Lia Cook, 1989

#4



Pleated organza and paint
Bridget Bailey, 1987

#1, #2: The Etruscan fresco, "Two Dancers" depicts, among other things, a vessel rendered on a flat surface—similar to the way we might render a form in our sketchbooks—as a silhouette. The other image, "Black Dune," shows the depth of dimension, textural qualities, and visual power that can be translated into a flat medium, photography.

#3, #4: Although we tend to think of textiles as being basically flat, they exhibit a potent range of textures and forms that I've found inspiring.

#5, #6, #7: The Egyptian low-relief carving is a beautiful example of the rendering of mass and line on an almost flat surface. In "*Noli mi tangere*" and "Royal Tide," the relief is a bit deeper. The Renaissance carving masterfully produces a great sense of depth. The Nevelson shows the capacity for low-relief surfaces to convey a narrative quality, we literally "read" this work to take in its forms.

#8, #9: Now, in "Altar Retable" and "The Ascent of Simon Magus," the relief is deepening and the figures are beginning to emerge from

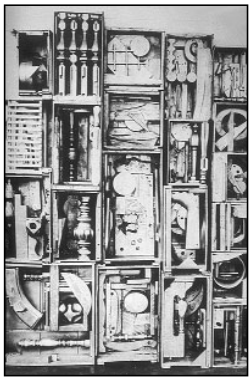
#5

Wood portrait panel
Egypt, c. 2650 B.C.

#6

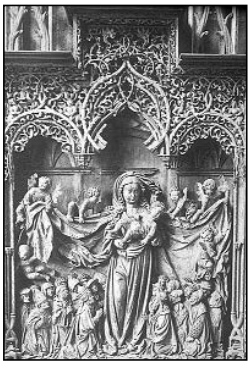
"Noli mi tangere"
Tilman Riemenschneider
limewood, 1491, Germany

#7



"Royal Tide"
Louise Nevelson, wood, 1960

#8

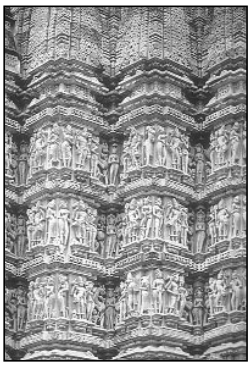


"Altar Retable," Sixtus di Staufen, Freiburg Cathedral, 1523

#9

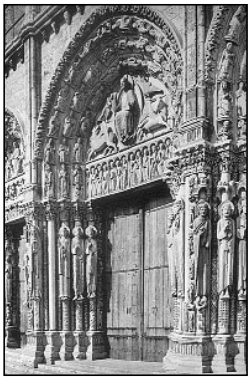
"The Ascent of Simon Magus" Gislebertus of Autun, 12th c.

#10



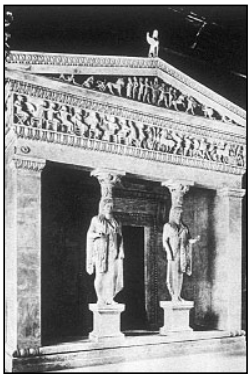
"Heavenly Bands of the Kandarya Mahadeva Temple," c. 1000 A.D.

#11



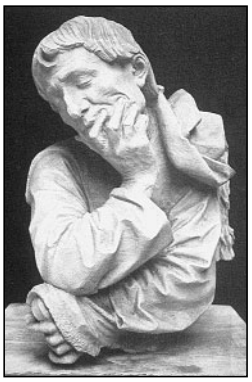
"Royal Portal of Chartres Cathedral," 1194-1260

#12



"Facade of Treasury of Sanctuary of Apollo at Delphi" Caryatids, 525 B.C.

#13



"Self Portrait?," Nikolaus Gerhaert, limewood, 1465

#14

"Internal and External Forms" Henry Moore, 1953

#15

"Single Form (Memorial)" Barbara Hepworth, 1961

the surfaces, stretching toward the viewer, pulling us more strongly into their spaces.

#10, #11: In "Heavenly Bands of the Kandarya Mahadeva Temple" and "Royal Portal of Chartres Cathedral," the human figure is structurally incorporated into the architecture. Especially in the serenely stylized figures of the Royal Portal and their geometric pedestals, we see the harmony of human and divine.

#12, #13: In "Facade of Treasury of Sanctuary of Apollo at Delphi," the figure has almost completely released itself from the facade of the building, standing away from the walls, but still functions as a supporting member.

The carved portrait, by Nikolaus Gerhaert, however, stands alone; it is liberated from its architectural duties—it is like us, a form meant to be viewed and appreciated from all sides. It has a dynamic, twisting composition, a distinct personality.

#14, #15: The truly three-dimensional form is also as much about the space around the mass as the form itself. In Moore's piece, the interpenetration of positive and negative spaces gives forms the tangible reality of individual bodies. Even the flatness of Hepworth's sculpture is transformed by its negative space into a powerfully three-dimensional statement.

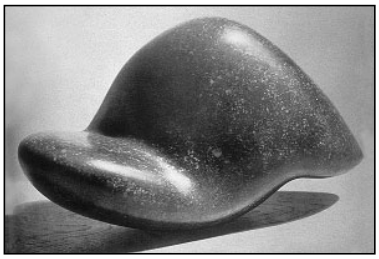
#16, #17: Three-dimensional forms excite the sense of touch, not just in our fingers, but in our centers. Even if we aren't allowed to touch these forms, we know how they must feel, in our mind's hands. Through eye contact alone, they stimulate the same tactile capacities of human perception.

#18, #19: Once again we return to the matter of scale. Three dimen-

#16

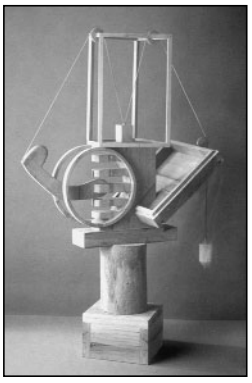
Detail: "Pauline Bonaparte as Venus Victorious," Antonio Canova, 1805

#17



"Fruit of a Pagan Stone"
Jean Arp, 1942

#18



"Homage to a Fallen Engineer"
Petar Barisic, 1992

#19

"Big Ladder"
David Nash, 1984

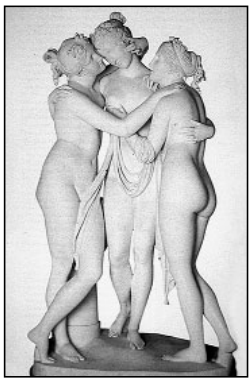
sional forms, when they reach a certain critical dimension, invite our participation and manipulation. We can imagine how our bodies might feel, interacting with these forms beyond the fact that their size transcends our human scale.

#20, #21: This sculpture of the Three Graces is Canova's interpretation of an ancient Classical motif, embodying the social dance of generous, loving friendship. It expresses a deep humanism, it is exactly life-size—not heroically larger than life, and it celebrates the beauty of the unadorned human form. Although we have here only one view, we can take a walk around it in our minds, watch it change, observe the movement of both the masses and the spaces, revel in the variety of textures. It delights me to imagine myself as a participant in this dance, or perhaps inside Freiburg Cathedral, looking up into the tracery of its spire, moving my imagination upwards, into its space.

#22, #23: I'd like to end with two views of a recent piece in which I've tried to put theory into practice. I attempted to make a piece true to the three-dimensional qualities of a cherry burl, with all its irregularities and imperfections. While making it, I spent alot of time—much more than usual—just feeling the form, with my eyes closed, as it developed. That feeling influenced my judgements in forming it, every bit as much as how it looked. It doesn't have one good side, in fact, it looks much better in real life than in a slide. I made this piece with and for my hands, it appeals to my hand's "mind." My work has been a continuous effort to integrate the unique sensibilities of both body and mind. I strive to honor the human body as a point of reference and a point of departure.

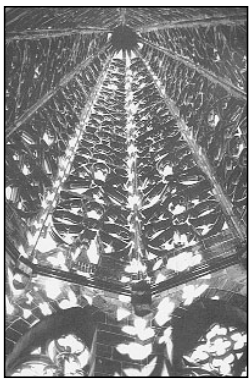
Michelle Holzapfel lives and works in Marlboro, VT.

#20



Graces, Antonio Canova, 1816, marble, 66" high

#21



Interior of Spire, Cathedral of Freiburg in Breisgau, Germany,

#22

"Three Graces," M. Holzapfel, cherry burl, 16" high, 1995

#23

"Three Graces," M. Holzapfel, cherry burl, 16" high, 1995

CLOSE-QUARTER COLLABORATION

The 1995 International Turning Exchange

JUDSON RANDALL

TODD HOYER: "Basically, I'm going to make a number of forms like this [drawing on a paper plate a form and then several end views of the form with cutouts of different shapes], and from that point, I can talk with some of these other people, and see if they're interested in whether their work will fit in a form like that."

BO SCHMITT: "Yup." [Taking the paper plate, he draws a small rectangular object that could fit, with colors perhaps, into the cutout that Todd has drawn.]

TODD HOYER: "It can be as simple as that. Here we have a beginning of a collaborative piece."

THE CONVERSATION OCCURRED AT A lunchtime picnic table in southeastern Pennsylvania on July 17, about a month after six international woodturners had gathered in a unique residency program to work together in the George School shop.

The International Turning Exchange (ITE), sponsored by the Wood Turning Center in Philadelphia, brought the artists from such diverse locations as Wales, Australia, England, Arizona, and Oregon. The program, which aims at producing collaboration and exploration among international turning artists, provided their transportation, housing, requested materials, and a woodworking shop, in addition to weekly stipends.

The artists were to live together for seven weeks and produce individual and collaborative works. An unusual addition to this residency was a writer/photographer to document the living and working aspects of the program. I was chosen to fill that role.

Although collaboration was the intention, during the early weeks in the shop, the artists would work largely on individual projects. Nevertheless, their conversations during each working day and into the evenings would bring them into idea-sharing and then, ultimately, to spontaneous collaboration, as on that hot July day between Todd Hoyer, of Arizona, and Bo Schmitt, of Australia.

A few days later, Hayley Smith, of Wales, stood looking at a 16-inch sphere turned from northern ash by Todd: "I just had this tremendous urge to texture that form," she said later. Within minutes, she and Todd began discussing ideas for the piece. In the following days, they refined and evolved their ideas.

So it went. Timothy Stokes, of Wales, and Richard Hooper, of England, jointly probed ideas and techniques on their respective projects. The effect of many of the crosscurrents throughout the group would not be evident until the work was on display at the culminating show, pictures from which are on pages 40–43.

With Todd's 12-year-old daughter Cody, who became an integral part of this unique association, the seven of us gathered in mid-June in a three-bedroom rowhouse in a suburban Philadelphia subdivision. To help orient us, Albert LeCoff, the Wood Turning Center's executive director, laid out a full schedule of places to visit and people to meet. We spent two weeks traveling to Delaware, Washington, and Philadelphia, visiting collectors, museums, galleries, and woodturning groups.

Then, we had four weeks to work in the George School shop before the final week that included setting up an exhibit and participating in a concluding conference. The artists, by working as many as fifteen hours a day for six to seven days a week, produced thirty-five remarkable works, two of them collaborations. In the exhibit at the Berman Museum at Ursinus College in Collegeville, PA, half of the pieces were sold, nine of them in the show's first hour.

When we arrived in what would be our home, some of the artists knew each other or had met at previous symposia. Most were meeting for the first time. But there was a strong sense of shared interest. The conversations immediately turned

Doug Finkel

The ITE residents on break, from left to right: Rick Hooper, Hayley Smith, Tim Stokes, Bo Schmitt, Jud Randall, and Todd Hoyer.

Photos pages 38–42: Judson Randall, unless otherwise noted

Tim Stokes, Bo Schmitt, and Hayley Smith at work in the George School shop.

lively around the topics of materials, tools, and approaches to form.

Todd, a sometimes quiet, sometimes directive person who is close to his daughter, was at the front of planning. He suggested processes for group living, and would later lead the entry into collaboration.

Tim, a genial and robust person who is quiet when the conversation is aside of his craft, rapidly became engaged when the subject turned to woodworking.

Bo brought a wealth of thought, experience, humor, knowledge, and tenacity. Rarely did a subject occur that Bo didn't offer a cross-cultural view of it. He talked knowledgeably about Buddhists, Muslims, Indonesians, and other cultures, and about their philosophical approaches.

Hayley, a lively and forceful personality, showed a quick sense of humor and a fondness for intellectually teasing her associates.

Rick, a gentle, introspective person with a kindly and somewhat professorial way of presenting his thinking, became a leveling influence among the residents.

I am a retired newspaper editor and intermediate turner. Entering the world of professional artist-turners was a wholly new—and somewhat intimidating—experience for me.

Initially, the artists wondered how they would be able to produce pieces for the planned exhibition less than two months away. Hayley said she was feeling pressure about having to produce results for the exhibit at the end of the four-week turning period. Rick believed that whatever would be produced would be the result.

"If all I produce is a pile of shavings, that will be this experiment," he said. Hayley acknowledged that what pressure she felt was of her own making. The others agreed that they each put pressure on themselves to produce a level of quality, and that the pressure was a necessary element of their working style. Bo said pressure is for him a "tool" that he uses to direct his efforts.

Within the first few days, Todd set up the slide projector in the garage, and everyone brought chairs to turn the small space into a presentation theater. We went through slides of each resident's work, with a few comments from each on the period of the pieces, and in some cases, discussion of what was going on in the artist's life at the time.

On June 17 at Bucks Community College in Newtown, PA, we met Mark Sfirri, a teacher and turner with experience in a variety of collaborative approaches. He said the ITE artists had the advantage of proximity, living together and being able to share thoughts whenever the need arose. He suggested that the artists look at their individual strengths so that the collaboration would draw from each.

He told us that collaboration should produce growth in the artists' approach to their work afterwards. "If you go away, and don't do any of the sort of work that you did together, you haven't grown."

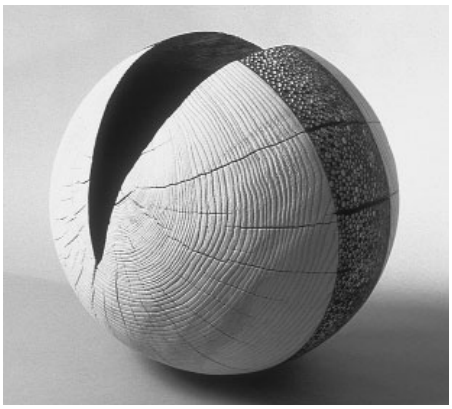
Sfirri's comment that proximity would be an "advantage" would take on a new meaning in the coming weeks as we experienced the compression of living and working so closely together. All of us strived to be "adult" about suddenly being thrust into such intensely close relationships, and we succeeded for the most part.

Collaboration occurred on a variety of levels and largely because, as Bo would later say with characteristic understatement, "we're sitting all over each other, and it helps us to grow a little bit."

Todd remarked: "In this situation, we're all caught up in one room together, and we're seeing the processes happening. [In your own shop] if your friends come over, [your work] is either close to done or they only see one stage of it, and they give a perspective on that versus the full process that we're doing here."

For Bo, collaboration occurs even in the absence of a finished piece of work. Referring to the drawing that he and Todd did on the paper plate, Bo pointed to his head, and said, "I have completed it, in here. He saw what I picked up and I saw what he picked up, and we brought it in there, and this could be sufficient for me to regard the work as completed. It is already collaboration. I can still regard it as a completed work in preparation, even though it was only on a paper plate and in our minds."

For Rick, the presence and influence of other artists can boost the creative process. "What interests me," he said, "when we come to make decisions, it's the end of quite a lengthy process of exploring differ-



Mark Sfirri

Hayley Smith was captured by the impulse to texture Todd Hoyer's ash sphere. That led to discussions on the possibilities: cutting out a wedge, blackening a band, and Dremel-cratering it to achieve the finished piece, at right, "Untitled #1."

ent ideas. But when somebody wanders across to look at your piece, to them it's like a beginning. So they can take the baton and run with it a bit, while you're kind of mentally exhausted with it. It's quite nice to have a surge of creative energy."

The artists were well chosen. They came to the residency from widely different backgrounds and using different techniques and styles.

Bo, 46, is a German-born artist who works and lives in Kendenup, Western Australia. Educated at the University of Munich, where he studied art history, philosophy, and psychology, Schmitt has been self-employed in a wide variety of fields, including photography, photo-journalism, commercial art, painting, woodworking, and woodturning.

Hayley, 29, lives and works on the Isle of Anglesey, Wales. Born in Cardiff, Wales, she received a bachelor's degree with honors in art and design from the Cardiff Institute. Over the last five years, Smith's work has been in more than thirty group and solo shows in Great Britain, Germany, and the U.S.

Rick, 37, is a Liss, England, born woodturner-artist, lecturer, and writer, who lives and works in Leicester. He received a master's degree in furniture design and technology from Buckinghamshire College in 1982. He has taught three-dimensional design at the Liverpool Institute since 1989, and his turned work has been in a number of exhibitions, including "Conservation by Design," "Turning Plus...III," and "Challenge V."

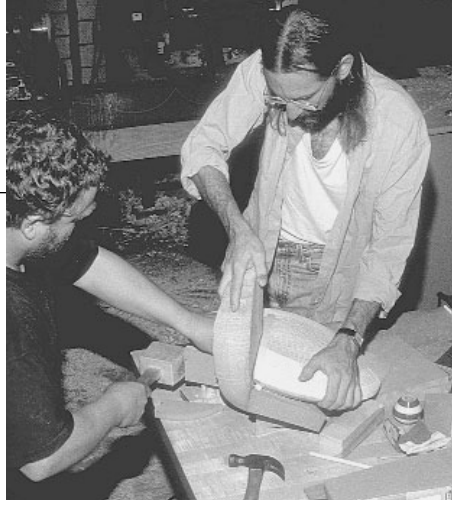
Tim, 40, was born in Leamington Spa, England, and currently lives and works in Cardiff, Wales. He received a bachelor's degree in sculpture from Exeter College of Arts and a master's degree in landscape architecture from Sheffield University. His work has been on permanent display at the Makers Guild in Wales Gallery in Cardiff, and in an individual exhibition in Cumbria, England.

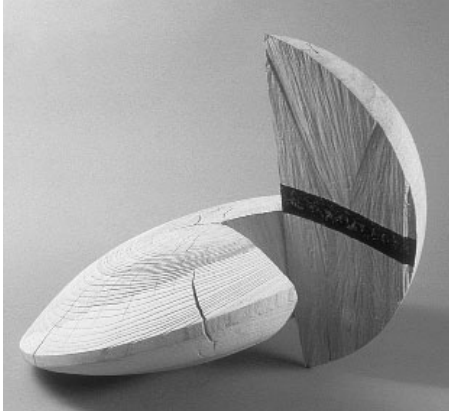
Todd, 43, is a woodturner/artist born in Beaverdam, WI, who lives and works in rural Bisbee, AZ. He was educated at Arizona State University in manufacturing engineering and design technology. Over the last thirteen years, his works have been in scores of invitational and juried shows. Todd has also been a teacher of woodturning at national and overseas conferences.

Around the dining room table one evening in late June, the group, still almost a week before entering the shop, discussed working modes, considering that they would be turning in close proximity to each other. They talked about whether they liked music, for instance, while they worked. Bo mentioned his use of an angle grinder with medium-density fiberboard that creates a lot of dust. Tim uses wax, and he and others use lacquer. Hayley and Todd suggested that Bo's dust would be troublesome to them. There was a momentary silence. Rick, demonstrating his knack for defusing tension, said, "Well, I like running around the workshop pretending I'm a chicken."

In late June, we finally entered the shop, and several turners were obviously excited. The shop was spacious, filled with light and broad workbenches. Everyone was impressed with the space. Our spirits, subdued during the hands-off two weeks of travel, lifted noticeably.

Hayley, particularly, had a new bounce in her step and a brightness in her eyes. "The energy is starting to flow," she said with animated shoulders. As she worked on a platter of





Mark Sfirri

Bo Schmitt and Todd Hoyer collaborated on the piece they named "Shape of Things to Come."

maple, she said, "Can you tell the difference? I'm totally relaxed now. This is the way it really ought to be."

Over the next ten days, the chemistry one might expect with a group of artists seemed to be working. They were getting ideas from each other, and their work was taking on some aspects that seemed borrowed from each other. Even they were a bit surprised at the influence they were having on each other.

I hadn't done much turning because of my chronicling tasks. In addition, I felt a bit intimidated trying to turn something in the presence of these professionals.

However, I decided to work on a piece of dried oak that had a hollow center. I mounted it on the lathe, not knowing that the pulley belting had been set to high speed. When I turned on the lathe, the piece disintegrated, and the chunks blasted out two shop windows, scattering glass outside and inside.

After helping to clean up the glass and bits of wood, I walked out into the expansive lawn, sat under a tree for an hour or so, and cried tears of shame. Later, with encouragement from Rick and the others, I turned a few spindle forms and bowls.

During the residency, we recorded four group conversations about the developing work, any collaborations, and their directions. From these conversations emerged a picture of increasingly closer work among the artists, even though some were not directly collaborating. Here are some excerpts of those discussions:

After lunch at that picnic table, the residents agreed that what had happened to that point was more "fertilization" than collaboration.

Bo: We're sitting all over each other, and it helps us to grow a little bit. I just sense that it's happening.

Jud: How do you sense it; what causes you to sense it?

Bo: I just do, to my great surprise, my work is already taking a new direction.

Jud: In fact are you all individually doing what you would have done had you not been together?

Tim: Not really. Sometimes, it's useful to get different points of view and different perspectives. Not on a particular piece, but on ideas for pieces. It's a continuation from one piece to another.

Rick: You're available to hear other opinions and other observations on your work. I think another thing I appreciate is generally that we're a supportive group, you know, we appreciate the others' work; there's no intimidation.

At this moment, Todd began sketching on the used paper plate, and Bo joined in with his ideas for that first conceptual collaboration.

Todd: It can be as simple as that. Here we have the beginning of a collaborative piece. It's interesting, with these cutouts, I didn't think of putting anything in it. But then when Bo came and put something in it, that gave me a whole different perspective of the piece. It's a sense of opening up your approach to a piece.

Tim: When Richard talked to me about various pieces, he's done exactly the same sort of thing: opened possibilities of other things. Obviously, I'll be working on the piece myself, rather than the two of us working on it.

Hayley: I think it would be a bad thing if it was created as an artificial situation; force you where you have to do this. If we actually come back with some kind of tangible forms of collaboration, that's a plus, too. I don't think we should force the issue. That would be artificial.

The next day, almost as though reacting to her previous day's statement, Hayley found herself drawn into a collaboration with Todd on the 16-inch sphere.

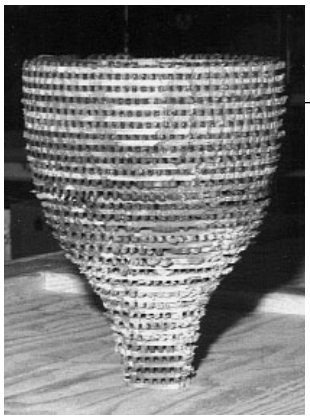
Discussing that inspiration, Hayley said, "It was really quite simple. I just had this impulse to texture it, and then that developed into a dialogue of the possibilities of what we could make. So we just talked about the ways of doing that. And that it has all sorts of possibilities."

As Todd put it, "What we originally talked about is totally different from what we're talking about now. We talked about just texturing the whole thing, making it crater-like and just having that sphere a crater-like sphere. Now we've cut a wedge out of it, and we're talking about sand blasting; we're talking about inking and discovering some texturing…it just changes. When you're working with two people, there are twice as many options."

As their joint work developed, Hayley, using a Dremel tool with various sized burrs, spent days texturing a blackened band around the sphere. She created a pattern of little white craters in the black band that added an unusual feel to the piece.

One of the most anticipated projects in the residency was Rick's technique of turning lattice forms that are supported by ice during the turning process.

For the piece, Rick glued up slender squares of wood that had been cut into lattice planes. He then glued the lattice squares into a stack, forming a three-dimensional rough lattice form that became the basic work piece. He placed it into a plastic



To fortify a delicate lattice-work blank for turning, Rick Hooper immersed the blank in a bucket of water and froze it. Turning the outside, left, was a refreshing experience. "Natural Force," thawing, is shown at right.

bucket that had been attached to a shop-made chuck.

Rick, helped by Todd, packed the structure into the bucket with crushed ice and water. The ice-and-water-packed structure was placed into a household freezer.

After several days in the freezer, the chuck with frozen contents was mounted on the lathe and Rick turned the interior of the form. Because the interior had not completely frozen, the form's inside wound up being ragged and torn looking, but the resulting texture offered a visual interest and feel to the piece.

Rick cut the partially shaped piece out of the chuck, and reversed it on the lathe so that its interior fit over a raised disk mounted on a faceplate. He then turned the exterior of the form, with ice chunks and water spraying everywhere. A bowl shape that tapers to a narrow base, the drying form began to take on the appearance of an artifact that had been unearthed from some ancient tomb. The interior, with its rough texture, looks a little like the inside of a bird's nest.

Among the most striking pieces that were created in those few weeks were those donated to the Wood Turning Center. They included Bo's intricately symbolic "From 'The Dark Heart,' Book 4, Chapter 7" (pictured on the facing page). The piece represents the racism of Philadelphia and the controversy over the pending execution of Mumia Abu-Jamal, the MOVE member convicted of killing a policeman.

Rick donated an untitled piece composed of birch plywood that is at once solid and airy, motionless and full of flight. A 16-inch-long pyramidal form with a rounded shape at the larger end, the work feels as though it should be a model for a monumental sculpture.

Tim donated one of his fin-series pieces, and Todd, with Hayley and Bo, donated the collaborative pieces pictured on pages 40 and 41.

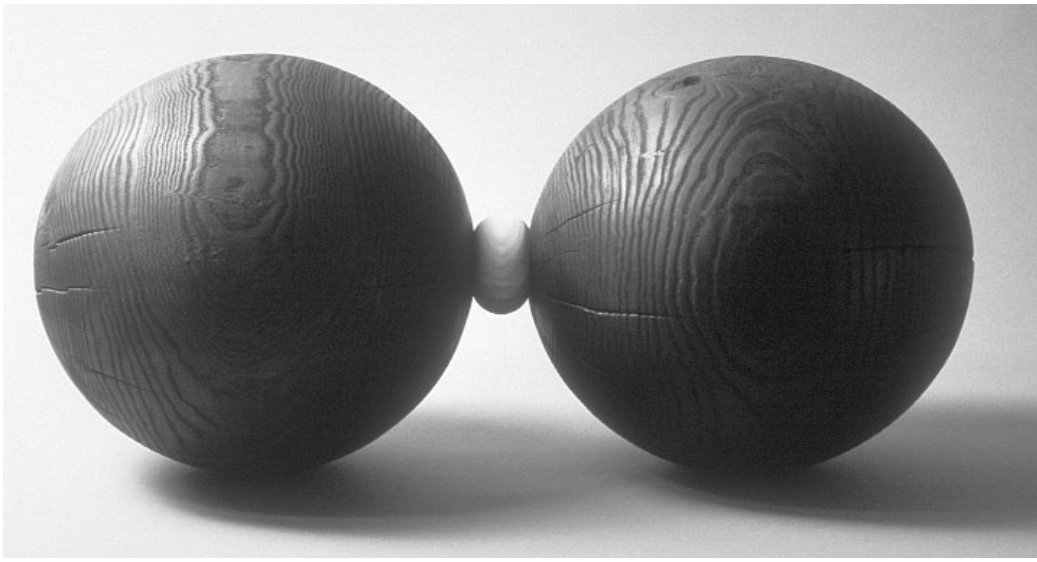
In an interview on August 5, after the residency, Mark Sfirri reflected on what he had seen of the collaborative situation. He said he believed the residents "got something out of" their experiences, and that he considered the collaborative sphere by Todd and Hayley to be "a significant piece."

The joint work they did during the residency, Sfirri said, showed him that they had arrived at an "understanding and trust between them. It seemed to me as though they acted as good sounding boards for each other."

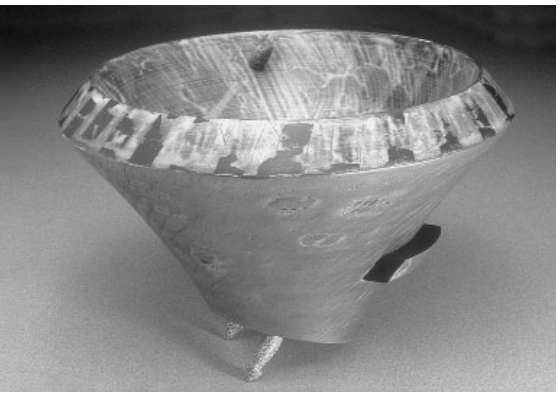
For their future, Todd and Hayley have embarked on more collaborative efforts. Each has purchased a fax machine, and between Wales and Arizona, the joint creativity is continuing as they share sketches and ideas for forms yet to be made. As Hayley put it in late July, "Todd and I have a tremendous empathy for each other's work, even though it's poles apart."

Judson Randall lives in Tigard, OR, and edits Turning Points, *the quarterly newsletter of the Wood Turning Center. For more information on future ITE programs, as well as membership in the WTC, call 215/844-2188.*

Mark Sfirri

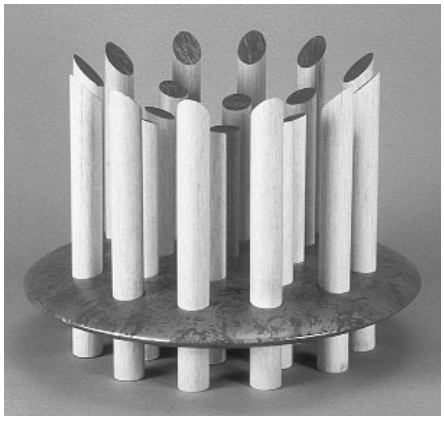


"Pressures" ash/burnt/inked, 23" long, by Todd Hoyer: "Having awakened with the idea of being compressed between two black spheres during a time of stress, the image resurfaced again during a hectic time at the residency. Turned from one piece of wood."

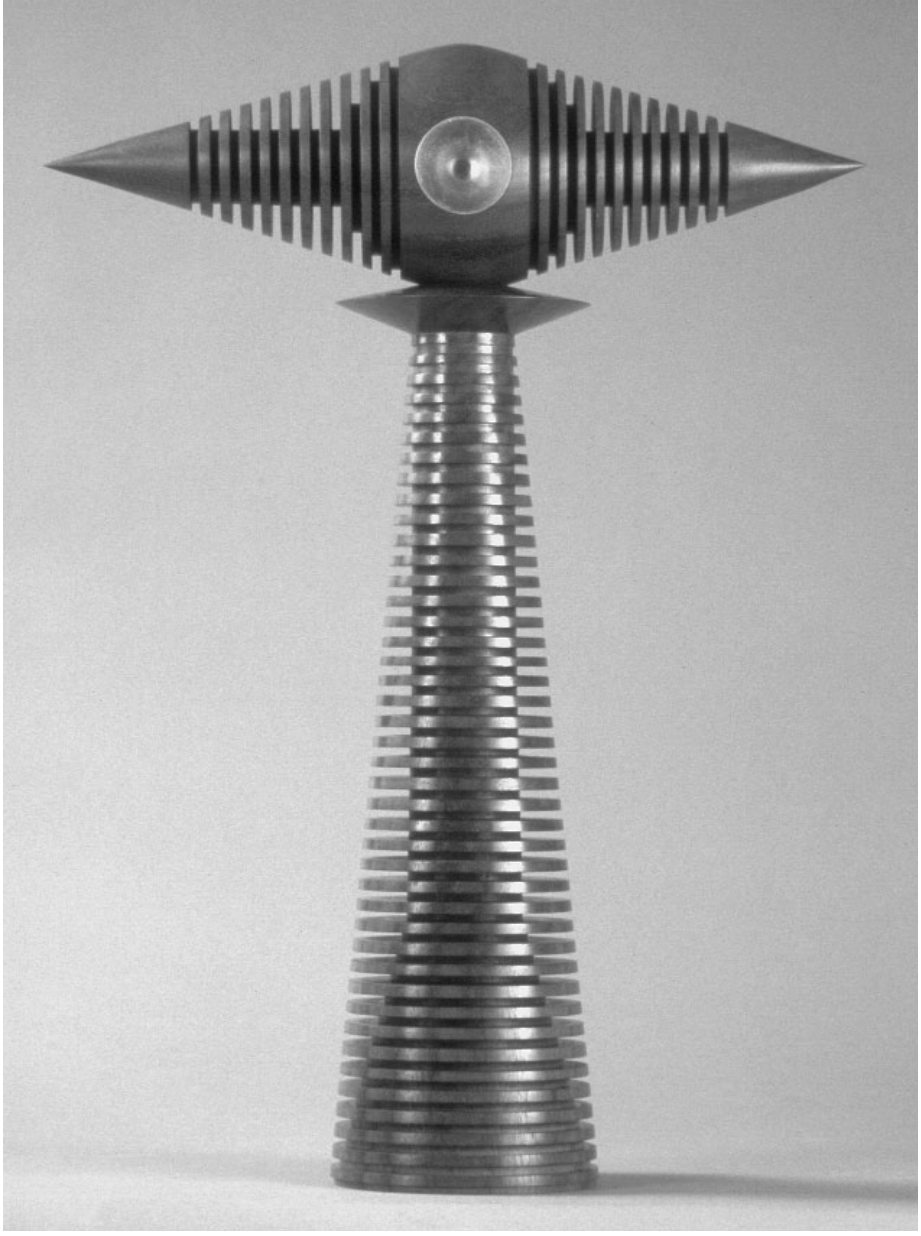


Bo Schmitt

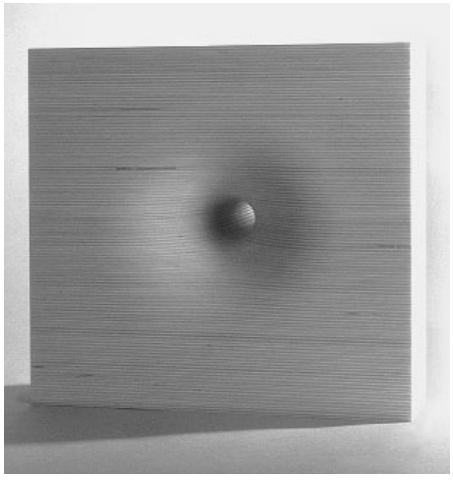
"From 'The Dark Heart,' Book 4, Chapter 7," MDF, Corian, enamel, acrylic, heat-tempered bronze, 12 5/8" dia., by Bo Schmitt: "A piece on the dark side in all of us, and especially on the dark heart of Philadelphia, the former City of Brotherly Love."

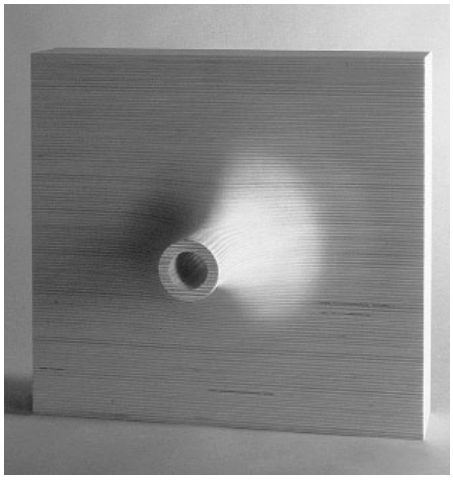


"A Turner's Manifesto," maple, MDF, copper bronze, acrylic, 13" dia., by Bo Schmitt: "A piece about volume, space, inner shape—the space within a bowl; the space without which no bowl is a bowl."



"Vessel on Stand," black walnut, gold leaf, 18 3/4" high, by Tim Stokes: "A ceremonial vessel based on the application of ritual and hidden inner meaning—hence the hidden form within and the elevation of the piece."





"Vector Warp," birch plywood, 13" high, by Richard Hooper: "This piece has to do with time and space and my interest in the concerns of theoretical physics. I use the term interest rather than understanding!"

"Hemispherical Bowl Form #3," ash, 6" dia., by Hayley Smith: "This bowl incorporates a new, bolder use of 'inscribed' texture, later applied to the collaborative work with Todd Hoyer."

Photos this page: Mark Sfirri, unless otherwise noted

WE'RE NOT IN KANSAS ANYMORE

KANSAS IS AS FLAT AS A PANCAKE. OR so it seems in many peoples' minds or late at night heading west on I-70. That's after you have come up from Lawrence, with it's beautiful hills and trees, and it ignores many stunning pockets of landscape hidden off from the main road. It also overlooks the subtle changes in attitude offered by the vast expanses.

In its few short years, the field of woodturning has been very much like Kansas, having a rather even terrain that belies its subtleties and isolated examples of inspiring irregularity. But we're approaching the mountains now, and from these new heights there will be many stunning and inspiring views. At the same time, the terrain will be rugged and life there will be more demanding than it has been on the plain.

Turning is at a threshold, not as in a doorway, where one has the choice to go back or to proceed, but as in puberty, where one moves, awkwardly, from one existence to another, never really able to turn back or regain the innocence of previous years. Adolescence is an ambivalent time, when we vacillate between the greater powers and responsibilities of maturity and the unfocused energies of childhood. It is a time of mercurial emotions, crises of identity, questions of authenticity, all compounded by peer pressure and a desire for acceptance.

In anticipation of the 1997 World Turning Conference, there is talk of our field having "come of age." The metaphors that promoters could spin from this would make good publicity, but it is wishful thinking.

Despite talk of the field's rapid rise to maturity, the pronounced reactions to works of allegedly high emotional and intellectual sophistication, and the claim that we are now a legitimate player in the arts, turning can, at best, claim only sporadic evidence of such a situation.

Woodturning has developed a substantial and broad base of technically competent practitioners, within which a growing number wish to advance their work into more expressive and artistic areas. Beyond a handful of artistic pioneers, the field is only now beginning to build a critical mass of individuals who not only voice an interest in aesthetic possibilities, but who have the will and personal fortitude to actually do what is necessary to make art.

The field faces several restrictions: diminishing training grounds for young potential turners through the loss of industrial arts programs, the lack of any significant academic base in post-secondary instruction, a membership that, by and large, lacks art/design experience, and a pervasive attitude toward workshop instruction that approaches aesthetic problems too narrowly. As a result, the field is hitting a "glass ceiling" of media/process, beyond which lies the more subjective and elusive skills concerned with concept and content. Without those skills and sensitivities, work of significant depth and sophistication is difficult. The field is in need of individuals who have received formal instruction in art, design, the history of the arts, creativity, exposure to other media, and the thinking that propels them.

Above all, the teaching of these skills needs to move beyond the tendency to approach our work in terms of singular solutions to singular problems encountered while working at the lathe. We need to achieve a more expansive and inclusive understanding of art/craft/design which each individual can apply in his or her own unique way.

This threshold was discussed in Rick Mastelli's review of the Arizona "Turning Plus..." exhibition and in David Ellsworth's commentary on reviews and critiques (*American Woodturner*, March and September 1995, respectively). Both authors, in their own ways, point to the contemporary analogy of the artist as the "antennae" of the culture, whose messages are sometimes as unwelcome as the critical discourse that accompanies the move into artistic realms. Simply put, the larger portion of the field's membership is interested in wood and turning, not in asking questions or making statements through their work, let alone receiving criticism of it. It's all been rather congenial.

With a relatively small group having only recently crossed the line into artistic work, and a larger number poised to make the try, there is a very real chance for polarization and fragmentation of what has been repeatedly referred to as a community. As with adolescence, we are going to experience rising tensions, questions of identity, and the conflicting desires to break away and to conform. For the segment of the membership who are pursuing art or even exhibitions, there needs to be a preparation for the inevitable: the truly critical review. It may come from within, but more likely from outside the group, but eventually a position will be taken, names named, and harsh words used. Are any of us ready for "ugly," "ineffectual," "awkward," "ill-conceived,"or worse?

Already we are seeing many things being tried; many of these will have to be discarded. We have seen appropriation of personal styles, with refinement or expansion of the vocabulary by some and mimicry and bastardization perpetrated by others. We have seen and will continue to see non-wood materials, attitudes, and working methods. We will see gaudiness and pretentiousness, even as expectations rise. We *should* see more adventurous work—work that offers and demands greater personal involvement and that risks disapproval. All this

should generate true critical analysis, as well as classes and conferences devoted to the skills of the mind and heart, rather than only to the material and the machine.

Clearly, we will have to reach outside our community and engage those with skills that we do not possess, and withstand their examination and judgments. And if we are to stay as a community, we will have to maintain tolerance of increasingly various and volatile concerns and activities. In this regard, the AAW journal has been an increasingly refined example of how these concerns may be balanced, offering pragmatic information, while presenting role-models and a place to examine more demanding themes and attitudes.

Art critic Clement Greenburg is well known for remarking, "All truly original art is ugly at first." It is ugly because it is a new/original expression, it is complex, and it challenges us, demanding involvement if we are to understand it. Unfortunately, much "modern art" has been predicated on the lack of public understanding. This created an intolerance of realism, beauty, and figurative content, and it established a standard for art as "non-objective."

Somewhere at the edge of or outside these definitions are areas rich with possibilities. There are many interested in doing work that inspires rather than provokes, work that can be enjoyed by a large public, maybe not easily but with reasonable effort for worthwhile results. Disregarding the art critics, people are increasingly attracted to "craft media" used for expressive rather than for "merely decorative" ends.

A common workshop theme over the last few years has been the narrative, often the personal narrative. Such an interest confirms the universal need and ability to speak about ourselves, to tell stories. Another widespread theme, again, not widely authorized by the Art overlords, but broadly appealing, is sculptural forms that reference use or utility. It is a promising avenue for connecting craft and art. We are even seeing an interest in the figure.

But the awkwardness that characterizes these explorations will become only more intense. The predominant interests of the majority continue to be with wood as a unique material, a fascination with largeness and smallness, a concern with speed of production, and a very serious tool fetish. These attentions are exasperated by a generally unsophisticated vocabulary for expressing ideas that do want to be heard. The few turned works that have been touted over the past few years as being political, outrageous, or exhibiting deep personal angst may well come to be seen as sophomoric, obvious, or safe. Were they powerful, demanding works, it is likely that they would not have gotten into turning-related exhibitions or received the official stamp of wonderment by our press. If they were really art, we probably wouldn't have liked them, at least not at first.

While the standards of quality have risen, they are not universally high. In their rush to be seen as creative, many individuals are producing schlock. Exploration, innovation, and aesthetic concerns do not give license to lower standards of execution. Neither do they guarantee the high sale prices associated with Art, and certainly they do not support the misguided notion that they will yield an hourly wage comparable to that of, say, an electrician or a dentist. The factors of originality, persistence of the vision, consistency, and viability are still very real.

By this point the individuals who produce utilitarian ware are probably florid and would point out how they are left out of the conversation. With turning exhibitions generally concerned with original artistic ventures, and the press trying to balance the how-to with one-of-a-kind work, the producers of multiples are usually left out. But how much is there to say? There has been little work done within contemporary turning which has investigated or elevated utilitarian ware. The interest and energies of the turning field have gone into one-of-a-kind, non-functional work, and predominantly from the faceplate. There has simply been no countering exploration of the useful item. Mark Sfirri's multi-centered spindle work is a well-known exception but, notably, it is in furniture. Be it a spoon, bowl, or rolling pin, is there nothing for use short of ritualistic ware (which, in a society that denies ritual, means sculpture)? I have fantasized for several years of an exhibition entitled "Turned for Use." It would showcase utilitarian work reflecting innovation and personal expression. Outside of furniture, an area conveniently left out of nearly all current turning discussions, would there be enough work to even mount an exhibition?

Our community has become more diverse as it has grown, and as it has become more skilled. If it is to stay unified, we will all have to listen, consider, tolerate, and hopefully, join in the dialogue. Change has been the hallmark of the field and has brought us so far, so fast. There is no slowing the pace or turning back. For all of the radicalness that we have seen, we are still only in adolescence. Quantum leaps lie ahead. These will strain our bonds as never before.

We are not in Kansas anymore, there are no ruby slippers, and we cannot return to the safety and calm of where we have come from. As the field of turning rises ahead, we will best proceed together, not apart.

—Steve Loar

Steve Loar is a teacher/author/turner who lives in Warsaw, NY, and is chairman of the School for American Crafts at the Rochester Institute of Technology.

Turning Projects by Richard Raffan. *The Taunton Press, Newtown, CT (800/888-8286), 1991. Paperback, 160 pages, $19.95.*

This is not a book for the absolute beginner. The best books for actually introducing turning would be *Turning Wood with Richard Raffan* and Keith Rowley's *Woodturning: A Foundation Course*, with *Turning Projects* being an excellent follow-up to either one. Raffan convincingly sets forth that speed, confidence, and the joy of the craft are the direct result of proficiency with a few fundamental tools and techniques. This book is about gaining those skills by starting small and simple, and then building through a variety of experiences, including working at different sizes. Each step becomes steadily more complex and demanding. Throughout, Raffan stresses repetition as the only way to gain true competence. Even the "eye" for attractive design and proportion is best sharpened through the repetition of a process and the attention which it demands. Modifications and investigations are encouraged as the best way to develop a personal style.

Raffan begins each project with a brief history or explanation, followed by a discussion of the necessary tools and techniques. Photos and drawings, as well as personal insights, provide a clear, reassuring explanation of the procedures. Even the occasional bulge or torn grain is used to advantage in order to provide a fuller understanding of the job. Raffan discusses possible variations of style and difficulty, and each project is accompanied by a mini-gallery of inventive applications of the process. The projects are variable in size and a variety of woods are applicable to each.

Notably, Raffan begins the work of establishing proficiency exactly at the point where most turners fear to tread—the skew-turned spindle. He provides plenty of work with gouges and scrapers as centerwork graduates to cutting end grain, hollowing end grain, and finally to facework.

Raffan has managed to take that bastard child, the "project book," and through his experiences and insights successfully mold it into a series of rewarding personal learning modules.

—Steve Loar

Woodshop Jigs and Fixtures by Sandor Nagyszalanczy. *The Taunton Press, Inc., Newtown, CT (800/888-8286), 1994. Paperback, 229 pages, $22.95.*

Shop Tips from America's Best Woodworkers. *Rodale Press, Emmaus, PA (800/848-4735), 1994. Hardbound, 320 pages, $27.95.*

Workshop Shortcuts: Tips, Tricks, Jigs and Aids for Woodworkers by Graham McCulloch. *Sterling Publishing Co. New York (212/532-7160), 1994. Paperback, 224 pages, $16.95.*

Last year saw the release of at least three new books on jigs. Each takes a different approach. Jigs are supposed to be short, intermediate projects to facilitate a current project. Often a jig becomes a diversion that delays and complicates the work at hand, a project in and of itself. Did you ever get back to making the next dozen or so of that project that the jig was supposed to make so quick? But jigs are irresistibly fascinating. There is not a woodworking magazine that does not include jig ideas.

Nagyszalanczy's *Woodshop Jigs and Fixtures* is my favorite because it is so different from other books on jigs. Plans for jigs and fixtures are organized by what they do—fences, carriages that slide, support tables, stops to set limits, templates, and fixtures to secure work. There is also a chapter on materials, hardware, and jig-construction techniques. I like this book because it helps you figure out how to design and build a jig so that it will have some general application and it shows how to use basic, versatile hardware like the toggle clamps. There are numerous photographs and lots of diagrams to help you see how the jigs were designed and constructed. This book encourages a creative approach to jigs.

Of interest to turners might be the bandsaw carriage for sawing small logs, the router carriage for use on the lathe, and the depth-and-layout jig for spindle turning.

Rodale's *Shop Tips* is very different. Their book editors have collected tips from numerous woodworkers all over the country. There are twenty-one chapters, plus an index, focusing on operations or machines: the lathe, layout and measurement, clamping, sharpening, joiner, hardware and fasteners, dust collection, and most of the major shop machines. This book is like a giant tips column. It is fun reading, a book you can pick up and put down at any time. There are more than 600 tips and 540 illustrations. The trick is finding the jig or tip before you finish the operation with which it would have helped. Turners will value the ideas for attaching bowl blanks, turning wheels, dampening vibration, making calipers and gauges, and turning mock cabriole legs.

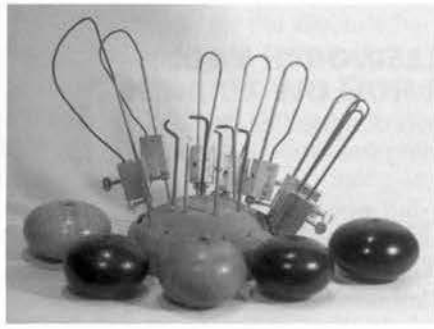
Graham McCulloch takes yet another approach in *Workshop Shortcuts.* This volume is encyclopedic. The tips and shortcuts are organized by tools and materials. There are sections on abrasives and adhesives, hinges, hole saws, caulk, benchtop power tools, drill bits, mathematics and geometric formulas, Murphy's Laws, pulleys, shelves, polygons, stains, and woodscraps. This is an idea book, and it is interesting useful reading. Among its jigs particular to woodturning are a safety guard for the lathe, a shop-made sanding drum, and a sanding tip about using Norton Durite.

While the ideas specific to turning in these books are limited, many of the general woodworking jigs and tips could be useful to shorten or ease your preparation work, so that you can spend more time turning.

—Robert Lenrow

Steve Loar, a teacher/author/turner in Warsaw, NY, is chairman of the School for American Crafts at the Rochester Institute of Technology. Robert Lenrow is a lawyer and turner in Paramus, NJ.

Shadetree Thickness Gauges, *Shadetree Engineering, PO Box 1593, Kerrville, TX 78602 (210/895-4233). $10 each or 6 for $50.*



SINCE DAVID ELLSWORTH, JOHN JORDAN, and others popularized the hollow-form turning, many turners have tried their hand at producing hollow, thin-walled vessels. Some have succeeded. Many more have not. Many times these failures are the result of turning through the walls, usually at a critical curve. The results are seldom repairable. Many turners try a time or two and then go back to open forms, forever abandoning the joy and fulfillment of turning a hollow vessel. Determining wall thickness is the critical aspect of this process and one that, until now, has been largely overlooked by product developers.

James R. Johnson of Shadetree Engineering has developed a unique set of thickness gauges that allow anybody to accurately determine—not guess at—the wall thickness of a hollow-form turning. The gauge is a small block of aluminum that has been machined to accept "hooks." The hooks are custom-designed by the user to determine the wall thickness at various points along the surface of the vessel. If you're making a small vessel with a relatively small opening, you may need up to a half dozen hooks, each configured to a different shape. Sounds expensive, doesn't it? But wait! You make the hooks from a common, readily available material—coat hangers! Cut them into 6–8-inch lengths. Insert one end into the gauge block body, allowing $1/4$ inch to project past the body. Bend the wire where it emerges from the body so that the end meets the end of the brass indicator rod. The stop on the brass rod may be adjusted so that when the wire hook and the rod meet, the stop is against the gauge body.

In use, the brass rod is withdrawn enough to allow the hook to be placed inside the turning and against the inside wall. The indicator rod is slid down against the outside wall of the vessel. The gap between the stop and the back of the gauge block is the thickness of the vessel. This gap may be measured with a micrometer, or the wall dimension may be estimated by comparing the gap to the thickness of the coat hanger wire, which happens to be .090 inch. The brass rod is .125 inch, so that gives another fast point of reference.

If you want to turn larger vessels, longer and larger hooks may be necessary. Brass brazing rod, unfluxed, is good. If you wish to use wire larger than $1/8$ inch, drill out the hole in the block body.

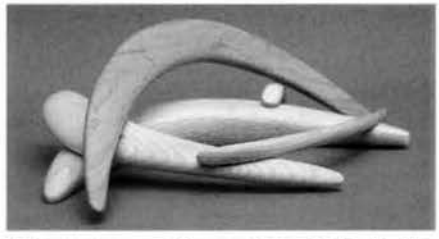
Reading the preceding paragraphs makes this all sound like rocket science. In actual use, with a guide block and cut-up coat hanger in front of you, the whole process suddenly pops into focus. And, best of all, this product works and works well. Since beginning to use these gauges, I have yet to blow up a hollow vessel! Well, at least I haven't blown any up because of turning through the walls. These thickness gauges won't rectify poor design or bad tool technique. But for knowing wall thickness, I recommend Shadetree's six-pack.

—Dick Gerard, Indianapolis, IN

PHOTOS FROM THE MAILBAG

When Peoples Bank offered to showcase my woodturning in their lobby last spring, I suggested including other craftspeople around a domestic theme. Kelly Mehler's cherry trestle table is the focal point of the ensemble, decorated with a runner and rug by weaver Jerri George. My centerpiece, a spalted maple service bowl and platter, are highlighted by the forged iron wreath and candelabra by Bob Montgomery. George Oberst's snake-carved curly maple spoons and my "Calla Lily Case" in walnut finish the table setting. The table is framed by Brian Boggs' ladderback chairs and David Wright's contemporary Windsors.

—Abe Harper, Berea, KY



When you make a nice plate, it deserves its own stand for a more dramatic presentation. I turned this 13" plate from maple and bandsawed the stand from scrap, pinning it together with dowels.

—Betty Scarpino, Indianapolis, IN

Here are two of my first production run of West African djembe drums, at the base of the rose gum tree they were cut from.

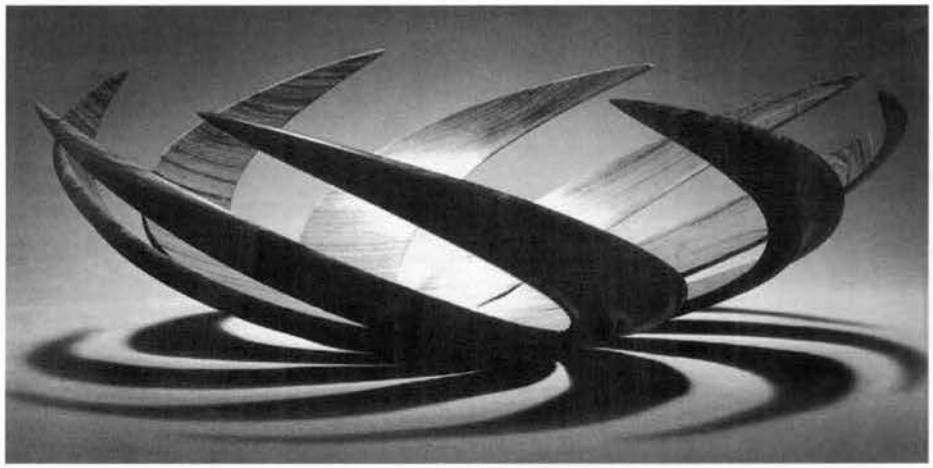
—John Allan, The Channon, NSW

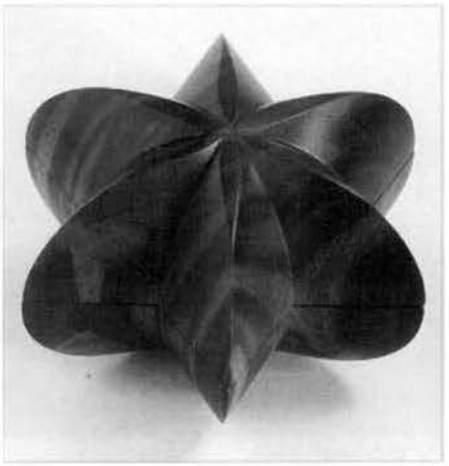
Last July the University of Arkansas, Fulbright College of Arts and Sciences purchased two of my pieces. A natural-edge bowl was given to Saudi Arabian dignitaries and the black walnut bowl with carved rim, above, was presented to the President of Taiwan.

Here's an 8"-dia. hollow sphere I made from red cedar, along with the log it came from. *—Devore O. Burch, Fort Worth, TX*

GALLERY

LAST FALL AT DEL MANO





The del Mano Gallery in West Lost Angeles continues to do an exceptional job featuring and promoting turned art. Last September and October their show of new work by turner William Hunter and jewelry artist Marianne Hunter celebrated the couple's twenty-five years as studio artists. Featured were fourteen pieces in Hunter's "Basket Series." "Shadow Grass," left, is of cocobolo, 12" dia.

In October, del Mano staged a one-man show of the *"klein und fein"* (small and fine) work of Hans Weissflog. Made entirely with tools and chucks he fashions himself, the work included eighteen intricately crafted boxes and bowls, most between 2 and 3 inches. At right is "Star Box," of Macassar ebony, $2^{7}/_{8}$" dia.

Del Mano is an excellent source for high-end turning and information about it. The gallery regularly puts together a color catalog to accompany their major shows, and they produce a video of their annual group show, "Turned Wood." For information about the gallery and its publications, contact Kevin Wallace or Ray Leier at 310/476-8508.

CALENDAR

Arizona

Dennis Elliott at The Select Art Gallery, December, Sedona. 520/282-3131.

California

Max Krimmel, Stephen Paulsen, and Hayley Smith at the Banaker Gallery, opening December 7, San Francisco. 415/397-1397.

Ron Kent at del Mano, January 20–February 17; "Small Treasures," March 9–April 6. Los Angeles, 310/476-8508.

Connecticut

Dennis Elliott, featured artist at University of Connecticut, Storrs, January 22–March 15.

Massachusetts

"Second National Exhibition of the AAW," Fitchburg Art Museum, January 28–March 24. Fitchburg. (Work to arrive by January 8.) 508/827-4314.

Missouri

"Ornamental Turning Seminar," featuring Ray Lawler, Jon Sauer, Gorst Duplessis, and others. May 10–12, UMKC, Kansas City. For information call Ted Crom, 904/475-1609.

New York

Constantine's classes with Sal Marino: Spindle Turning, January 27; Bowl Turning, February 3. Bronx. 718/792-1600.

North Carolina

"Turning Ten," the tenth anniversary symposium of the AAW, June 22–24, Greensboro. 612/484-9094.

Arrowmont: one-week workshops with Clay Foster, Ray Key, Michael Hosaluk, Bonnie Klein, Rick Stewart, March 4–29, Gatlinburg. 423/436-5860.

John C. Campbell Folk School: Fred Metzger, December 3–9; Rodger Jacobs, January 21–27; Bill Johnston, February 25–March 2. Brasstown. 800/365-5724.

Tennessee

Arrowmont: one-week workshops with Clay Foster, Ray Key, Michael Hosaluk, Bonnie Klein, Rick Stewart, March 4–29, Gatlinburg. 423/436-5860.

Washington, DC

"Washington Craft Show," December 1–3, Sheraton-Washington Hotel.

"Invitational Turned Object Show," Sansar Gallery, opening December 2. 202/244-4448.

"Revolutions in Wood: Retrospective of the Work of Mark Lindquist," Renwick Gallery of the National Museum of Art, March 15–July 7.

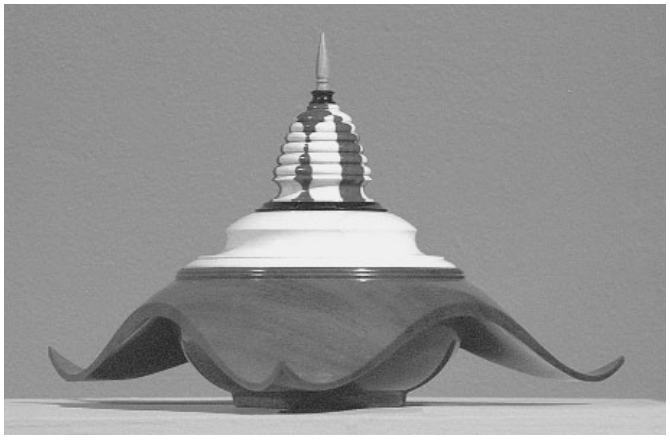
British Columbia

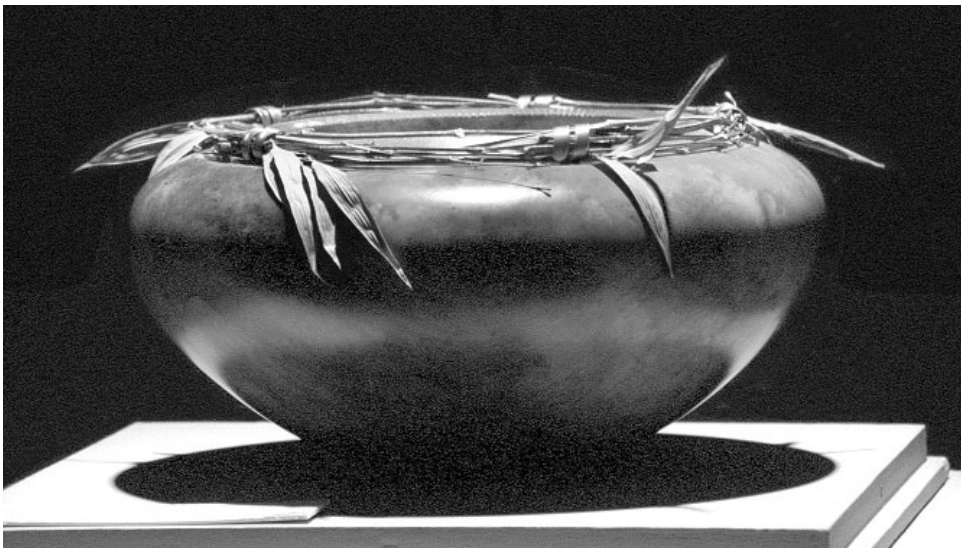
"Explorations in Wood '96" a juried exhibition at the Maltwood Art Museum and Gallery, January 28–March 22. Victoria. 604/592-4938.

Ontario

"Ottawa Valley Woodturners' Competition," March 1–3, Ottawa. Call Bart Poulter, 613/825-4658.

Deadline for March Calendar: January 15, 1996.





Nature *turning into* Art

Driven by their love of wood, Ruth and David Waterbury of Minneapolis, MN, started collecting woodturnings eleven years ago. To date they have about 140 pieces in their collection from eighty-five different artists. Last fall Carlton College, Ruth's alma mater in Northfield, MN, displayed fifty of these pieces, a powerful homecoming here in the north central U.S.

"It may be," says Ruth, "that building a collection is an art in itself. But for us, it is more of an adventure." Indeed, the Waterburys pursue a unique relation to collecting, for they both turn as well as collect, and they've gotten to know the makers of their collected work as demonstrators and instructors as well as artists.

The pieces here are indicative of the robust flavor of this show, "Nature turning into Art." Clockwise from upper left, they are Ed Boseley's "Sandcastle" of maple burl (12" dia.); Dennis Elliott's open vessel of maple burl (23 3/4" dia.); Michael Mode's triangular lidded vessel of purple heart, holly ebony, and pink ivorywood (5 7/8") high; Gael Montgomerie's hollow vessel of sycamore dyed with acrylic, decorated with leafed vines and copper (9 1/8" dia.); and Mike Scott's open vessel of burr elm (22" dia.). —*Mary Redig, Shoreview, MN*