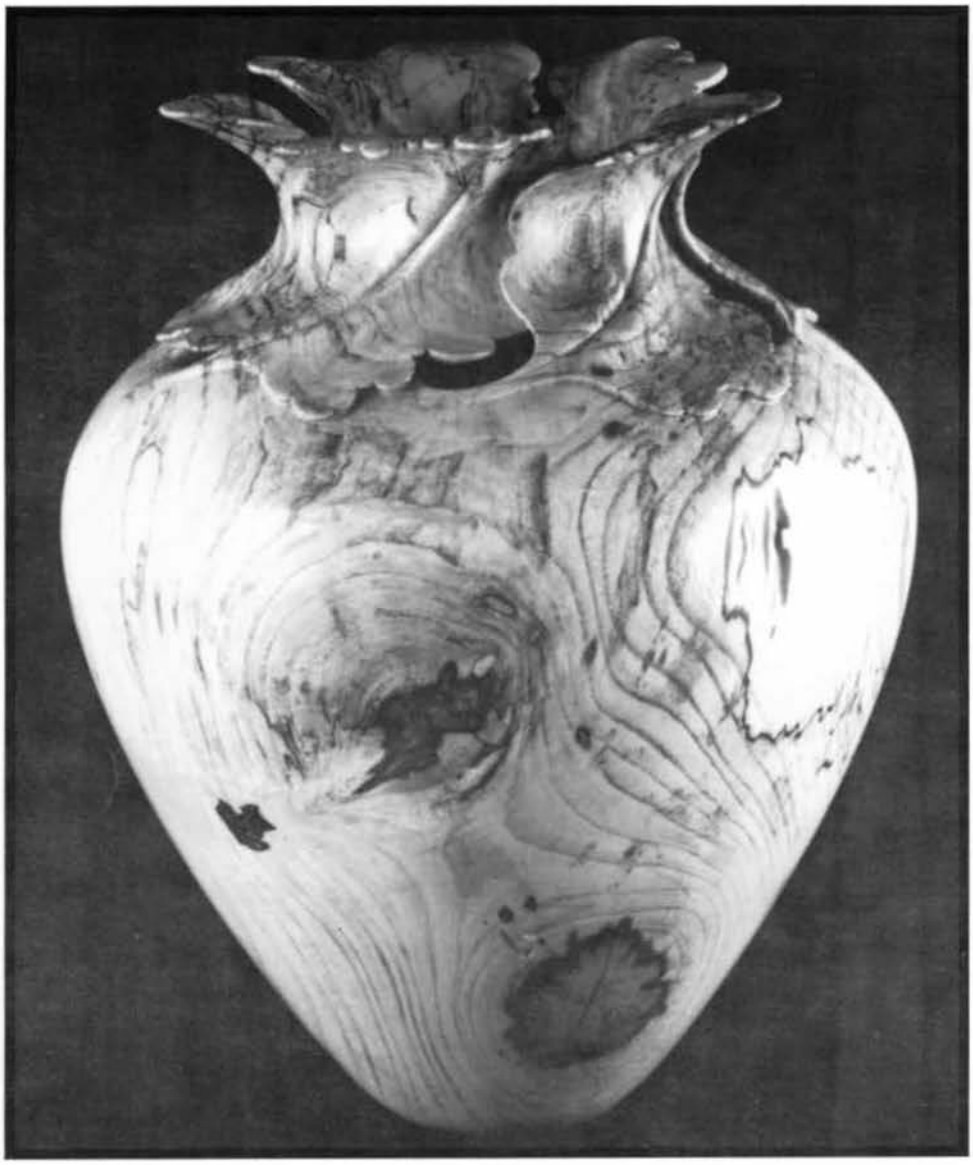
American Woodturner

THE JOURNAL OF THE AMERICAN ASSOCIATION OF WOODTURNERS VOLUME 4 NUMBER 4 JUNE 1990 $5.00



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

President's Page

David Ellsworth

This will be a short report, as my three lives have suddenly converged at the same time and I find myself travelling in ten directions at once instead of my usual six.

I've been asked by some of our members to re-emphasize the program I introduced in the March 1990 issue, called "Teaching Opportunities." Simply stated: AAW's expanding membership has created a need for more woodturning teachers and demonstrators that goes beyond what our existing craft schools and private turning companies can supply.

To get the ball rolling we need two things: First, we ask that our individual members and those from our Local Chapters let us know if they would like to have a teacher. Please describe the type or style of instruction desired, dates that might be available (such as chapter meeting dates), contact person(s), address, telephone, etc. Second, we need to hear from turners who are interested and willing to travel and demonstrate.

Our office in Texas will coordinate these two lists and put each party in contact with the other. It will then be up to the members and the teachers to work out the details such as schedules, fees, transportation, housing, etc. (Please note that our Texas office can only be the facilitator for initial contact, for it would not be efficient for the office to get involved in the details. We will, however, supply members with a follow up report to help us evaluate the success of the program.)

One very important feature of this program is that we're trying to draw out new talent. We will actively solicit the traveling schedules of the better-known turners, but you don't have to be a "professional" or a "master" woodturner to qualify. All you need is a skill that you would like to share with others, the desire to travel and make a little money, and the knowledge that there are a huge number of turners out there who are hungry for new input and experiences.

Yes, it may take some time to get the ball rolling in the beginning. but, we hope the momentum of supply and demand will grow as the word gets around.

Gears-Rust-Grease-YOU. Need I say more...

Write: American Association of Woodturners, Attn: Teaching Opportunities, 940 East Fifty-first St., Austin, TX 78751-2241

ANNOUNCEMENT

Thanks to the efforts of Rude Osolnik, General Manufacturing Co., LTD, of Quebec, Canada has donated a General 260 lathe, with variable speed motor and riser block, worth over $3000 for the drawing at the 1990 Symposium held at Arrowmont, Gatlinburg, TN. Tickets for the drawing will be $5 each or 5 for $20. AAW extends our deepest gratitude to General Manufacturing for their kind donation.

Note: Credit for the cover photograph of "Archiblocks" on the cover of the March 1990 issue goes to Ron Bower of Vergennes, VT, a craftsman whose company makes architectural building blocks in period styles for children and adults.

NEW OFFICERS ELECTED

According to the Bylaws of the American Association of Woodturners, the officers are elected annually by the Board of Directors. During the Feb. 22 Board meeting, after election results were announced, the following were elected as 1990 officers of the Association:

David Ellsworth, president, Quakerstown, Pa. (re-elected);
Alan Lacer, vice president, Norman, Okla.;
Rus Hurt, secretary, Port Wing, Wis. (re-elected); and,
Ernie Conover, treasurer, Parkman, Ohio (re-elected).

We congratulate them and thank them for their dedicated service.

American Woodturner

Contents

The American Association of Woodturners is a non-profit corporation dedicated to the advancement of woodturning. It includes hobbyists, professionals, gallery owners, collectors and wood and equipment suppliers. *American Woodturner* (USPS 000-1348) is published quarterly by the American Association of Woodturners. Regular membership rates are $20 for individuals and $50 for businesses. Supporting memberships are $100 and $250 respectively. Benefactor memberships are $500 and $650 respectively. Patron memberships are $1,000 and $1,500 respectively. Of any membership, $6 is allocated for an *American Woodturner* subscription. Single copy price is $5. Known office of publication and sales office is the American Association of Woodturners, 940 E. Fifty-first St., Austin, Texas 78751-2241, FAX 512/454-3036, 512/454-8626.

POSTMASTER: Send address changes to *American Woodturner*, 940 E. Fifty-first St., Austin, Texas 78751-2241, FAX 512/454-3036, 512/454-8626.

NOTE: AAW does not endorse any product featured or advertised in this Journal.

On the Cover

"Hackberry Flora" by Ron Fleming, 1989. Spalted Hackberry, 13 inches by 10 inches.

On the Back Cover

"Therefore I Am" by Dennis Mueller, 1989. Walnut and bleached, spalted maple; 45.5" inches by 13 inches. Photo by Rich Killion

Ornamentation

Ron Fleming

The design of an ornament should be compatible with the form and structure of the object which it adorns. It should be in complete subordination to the object, never insignificant or overpowering. The ornamentation used depends upon the form of the object as it is influenced by the nature of its material. It can also be influenced by a style or a particular function. The art of ornamentation, therefore, is an intimate relationship between form, material, style, and purpose.

The oldest style of ornamentation consisted mainly of geometric figures. Small circles, bands, and straight or curved lines represented in an abstract and often spiritual way, the natural world. As man, as artist, advanced intellectually and acquired more technical skills, the desire to capture a more "real" sense of animals, plants, and the human figure as ornamentation, was inevitable.

A plant, then, could be represented with ornamentation in two styles. First, the plant would be represented just as it is taken from nature, which is naturalistic (realistic); or secondly, the plant is represented in a style which reflects the spirit of the plant. At present, I am using both the naturalistic and spiritual styles of ornamentation in my work. I take the basic shapes of different flora and incorporate them into my turnings. Thereby, I create one final and lasting statement about the spirit of the plant. I think of it more as a sculptured form than a mechanically-turned object.

The lathe is the basic tool of my work along with chisels, grinders, sanders, and many other handmade devices. It seems that the more complicated the ornamentation becomes, the more difficult it is to find a tool to execute it.

I am a person who tends to work in my sleep. I will not only visualize an object in my subconscious; but over a period of time, I solve the problems about how to achieve what I am visualizing. Sometimes I doodle what I have visualized on a scrap of paper and pin it on my bulletin board. By the time I get around to starting it, I will have made it over and over in my mind and picked the wood that matches the design. However, I never let my "doodle" decide the final criteria on a piece. The material has an influence on the final shape and sculpturing of the ornamentation.

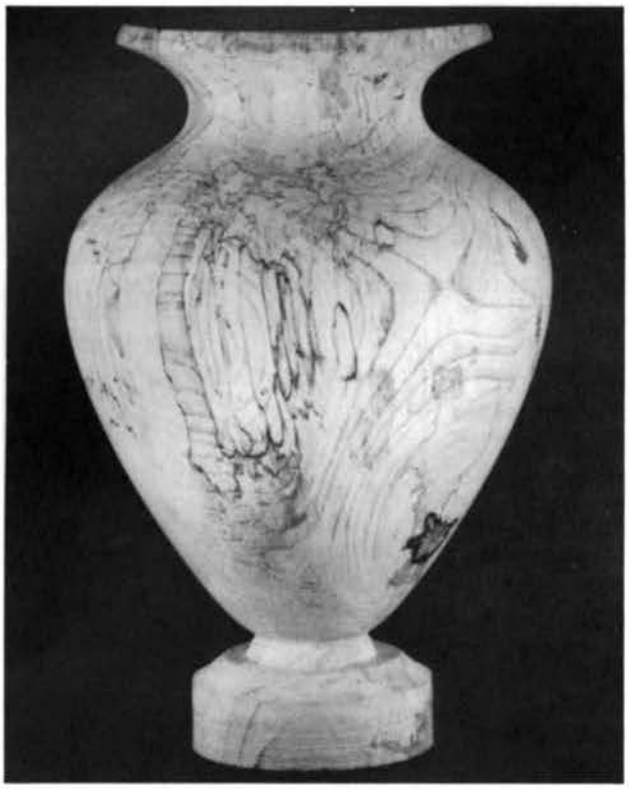


Figure 1. The basic form of the vessel is established, allowing plenty of extra wood to carve the floral ornamentation. The piece is mounted on a movable base.

The whole process is done in as much of a spontaneous manner as is possible. It is my purpose that the end result be a naturalistic culmination of spirit, form, and material.

Ron Fleming is a professional turner from Tulsa, OK.

ALL GOOD THINGS WHICH EXIST ARE THE FRUITS OF ORIGINALITY.

John Stuart Mill

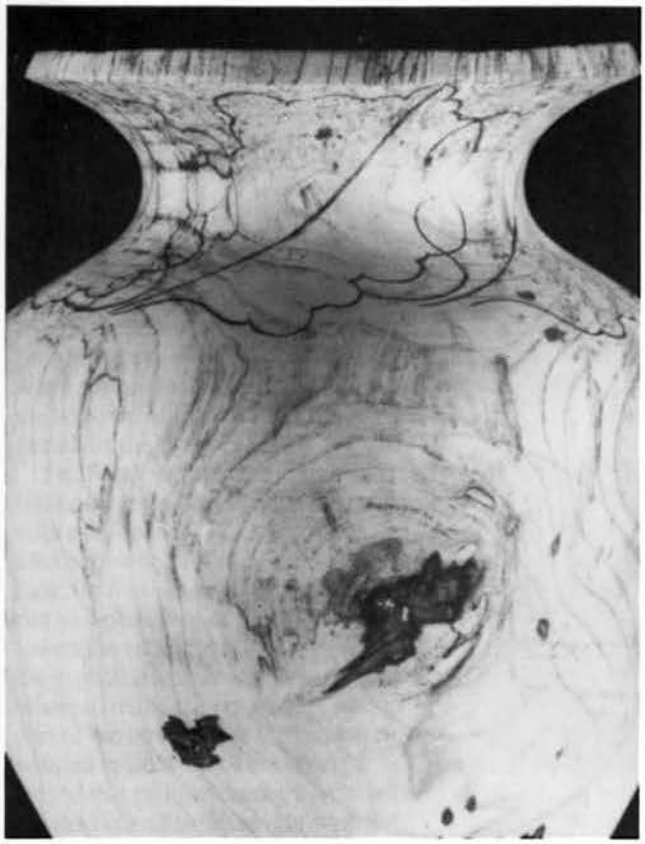


Figure 2. The floral design is sketched freehand on the mouth of the vessel. In this way I am able to allow the floral design to follow the lines and voids of the wood thereby giving the ornamentation a more natural feeling.

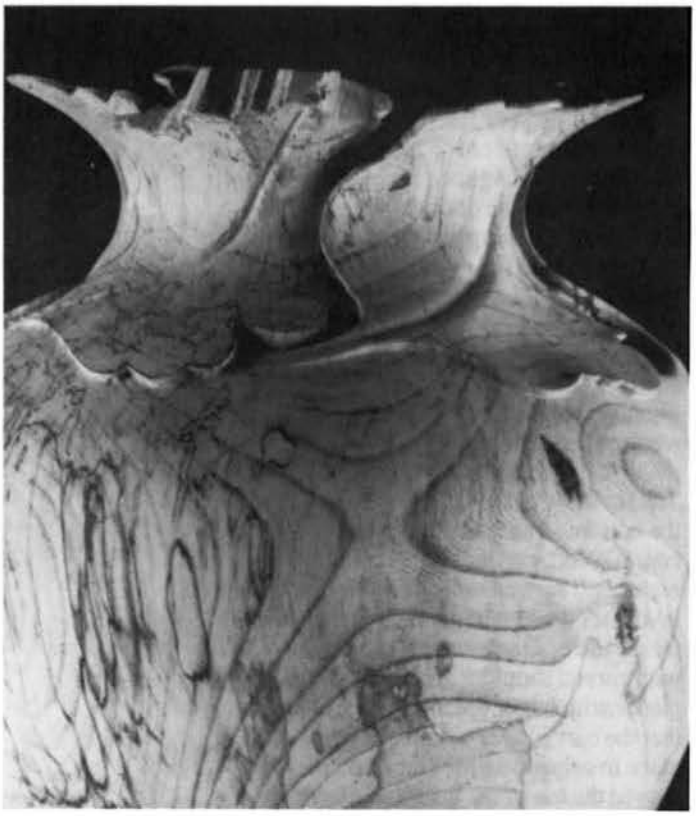


Figure 3. The floral design is carved in as much relief as possible, while trying to maintain strength as well as beauty.

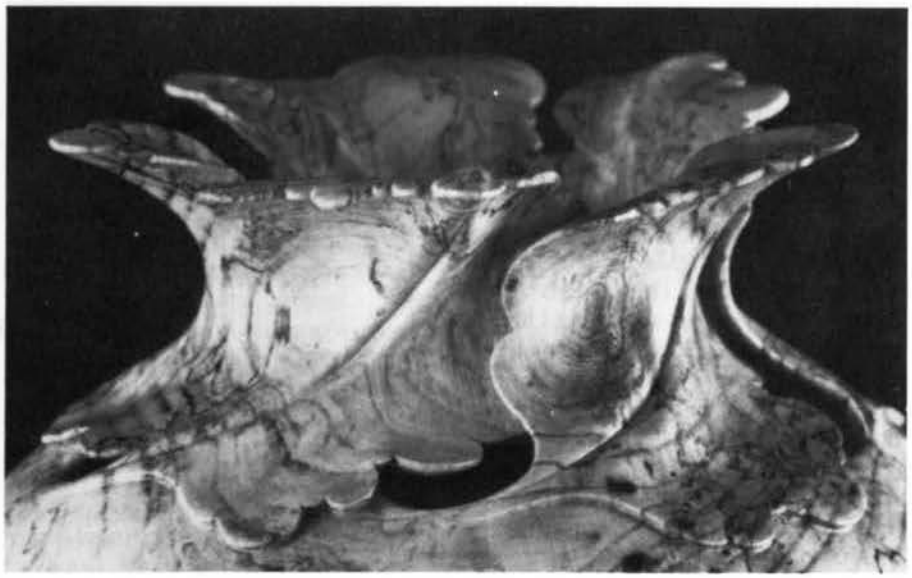


Figure 4. After the final sanding, I cut the vessel from its working base. The final finish is then applied in a variety of ways.

Carving flutes on hollow vessels

John Jordan

Carving on a vessel can convey many different feelings in a piece depending on the type of carving and the artist's intent. Is it coarse or finely textured? Regularly spaced or random? Is it used to define or highlight certain areas of the piece? Is it the dominant feature of the vessel? Carving can provide visual contrast to hold the eye and/or tactile sensations to please the touch.

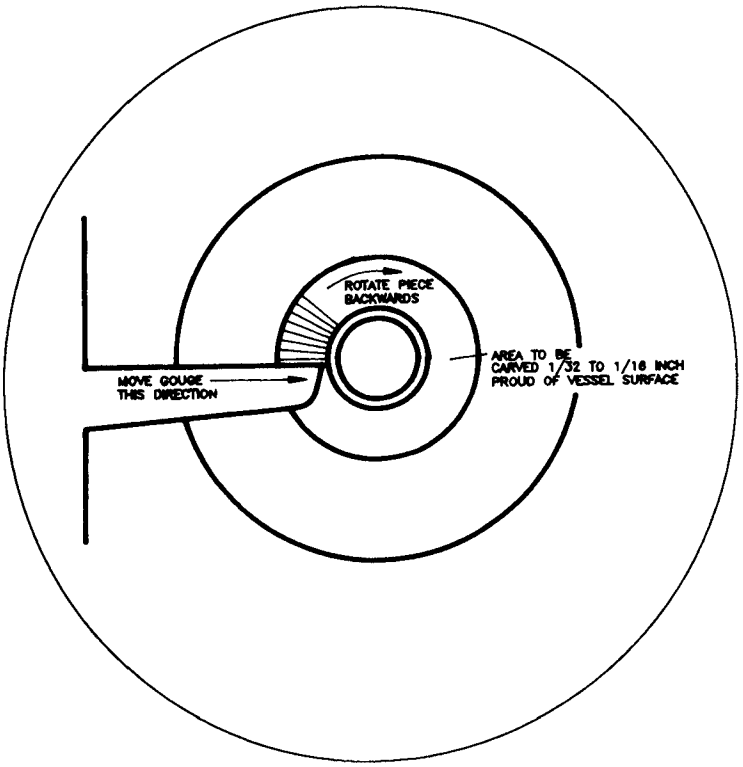
I frequently use carved shoulder areas in the pieces I make, particularly in the small-necked, hollow bottles. I became interested in the bottle shapes; and after some experimentation, I was able to make these pieces with good results. The first ones were hollowed through the bottom. The process was fairly complicated, and the piece needed to be rechucked several times. With the time involved, it was not practical to do these pieces too often. Later, when working with carved shoulder areas on hollow pieces with larger openings, I realized that the carved area would be a good place to conceal a glue-line. So I removed the top of the vessel, hollowed it out, glued the portion back and then shaped the piece to form the neck and lip. This has proved to be quite successful for me, and I use this technique quite often.

The carving that I use is on the shoulder area of the vessel, and consists of small, regularly spaced radial flutes. Since the carving is fairly time consuming, I always do it after the piece has been hollowed, so the time is not wasted in case something should go wrong. Decide where you would like the carving, and leave this area 1/32- to 1/16-inch proud of the vessel surface. This area should be smooth and follow the curve of the piece. Place the tool rest parallel to and almost touching the area to be carved. I use a 1/8-inch veiner gouge for the carving. Insure that the flutes will be on center by positioning the tool rest lightly below center. Lightly drag the gouge backwards to slightly score the surface, and check the mark to be sure it is on center. You can also spiral the flutes by raising or lowering the tool rest. Place the gouge horizontally on the tool rest and carve the flute, moving from the larger to the smaller diameter. The flute should get smaller as it nears the center, so lighten the cut as you go. Rotate the piece slightly so that the next flute is placed right next to the last. This could be indexed with the proper wheel, but I like the slight irregularities that spacing by eye produces. At first glance, the flutes may look perfect; but on closer inspection, it becomes obvious that it was done by hand and eye. Continue carving around the piece until you have nearly reached the end. You may need to adjust the width of the last two or three flutes to avoid ending up with a half flute at the end.

Since most of my pieces are turned with the long grain parallel to the lathe bed, most of my carving is done across end grain, so the results are pretty consistent. If your piece is oriented with the grain normal to the rotation, which is more common, you may have to deal with changing grain direction and tearout. Work slowly, use a sharp tool, and you should be able to deal with most grain situations. Sanding is not required, but the carving may be rubbed with Scotchbrite if there is any fuzz or roughness.

AN IDEA IS A FEAT OF ASSOCIATION.

Robert Frost



John Jordan is a professional turner and instructor from Antioch, Tenn.

Enhancing the grain pattern

Betty J. Scarpino

Carving the rim of a bowl can change a plain bowl into something stunning. The honey locust bowl in Figure 1 provided an ideal opportunity to enhance the grain pattern because the annual rings swirl up, down, and around. It was a simple matter to shape the rim of the bowl to follow the lines already suggested by the tree growth.

The first thing to do is to lightly draw lines on the inside and outside surfaces with a soft pencil. This gives one an idea of how the finished product would look. In this example, I did not want the rim to look forced or unnatural, so I followed the general outline suggested by the growth rings. It was easy to decide where to make the cut, except for the part of the bowl where the growth rings seemed to flow out of the bowl. I solved that problem area by emphasizing the flow rather than ignoring that aspect. I made jagged cuts at that point and shaped them so that the viewer's eye would come back into the bowl. The result, as you can see from the finished bowl in Figure 2, is a turned object that calls attention to the flowing grain pattern rather than conflicting with it or confining it to a circle.

To make the cuts, use the fastest and easiest method, and always keep safety in mind. For this bowl, I used a band saw to make the rough cuts. When you do this, make sure that the part of the bowl where you are making the cut rests flat on the band saw table. If you are not careful, the blade could grab the wood and pull the bowl out of your hands. Slowly rotated the bowl while making the cut and never hurry. Take only a little wood off at a time, and use relief cuts.

After establishing the rough shape, use a power sander to smooth the edges. A rasp or file would also work. Then sand the entire bowl through consecutively finer grades of sandpaper to 400-grit, removing any marks left after sanding on the lathe. After sanding, buff the bowl with a soft cloth to get it ready for the finish. All wood turners have their own favorite ways and brands of finish. Deft polyurethane works best for me. I apply seven coats and wipe each coat of finish on and buffed it dry immediately. Using this method requires no sanding between coats.

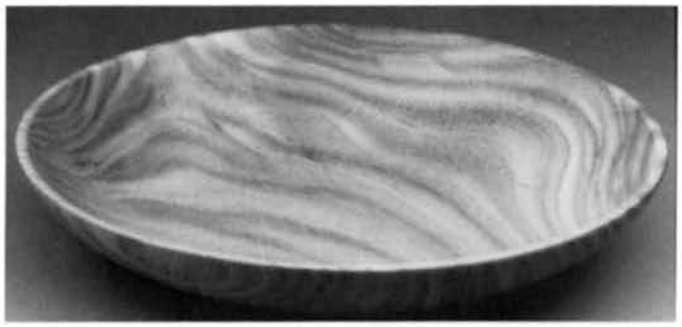


Figure 1. *Honey Locust Bowl, 8 1/2 inches x 2 inches before carving.*

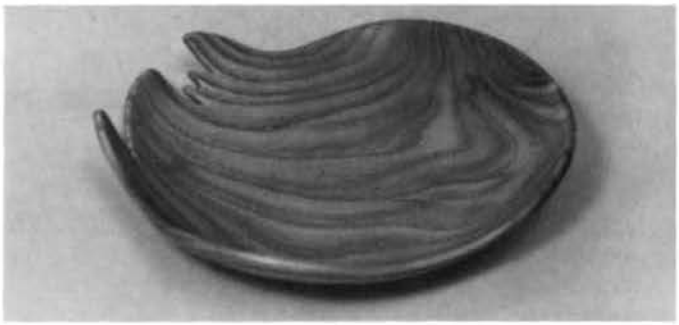


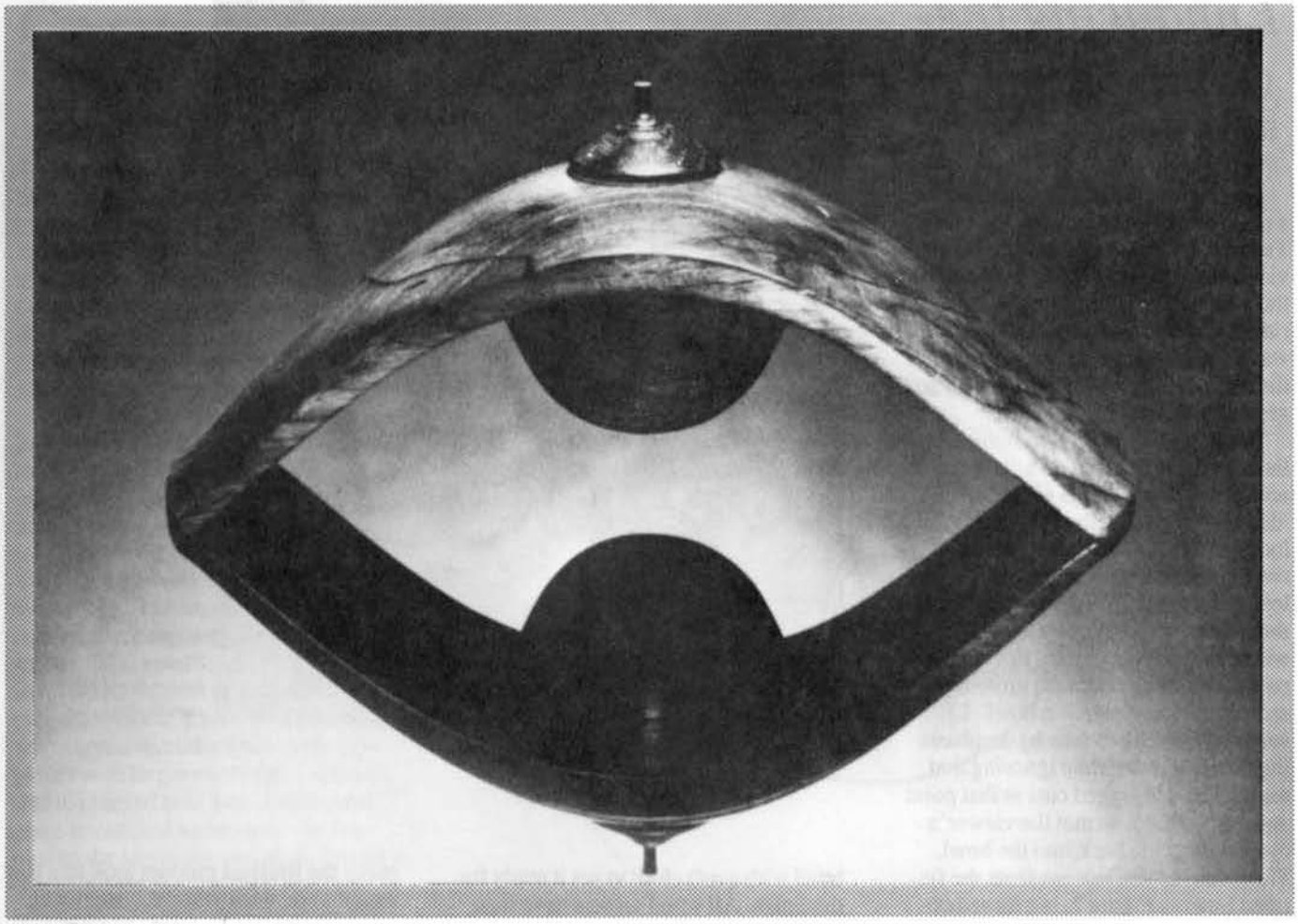
Figure 2. *Honey locust bowl after carving the rim.*

Shaping the rim of a bowl creates an interesting, integrated visual effect. My own personal rule in woodturning, "To make the finished product look like you meant to do what you did," applies emphatically to this process. The grain pattern present in the bowl is enhanced, not ignored. When I finished shaping the honey locust bowl, I felt as though I had accomplished this—the bowl came alive with the spirit of the living tree.

Betty Scarpino is a professional turner and editor from Indianapolis, IN.

DISCIPLINE AND FOCUSED AWARENESS...CONTRIBUTE TO THE ACT OF CREATION.

John Poppy



"Dream Vessel," by Don Hart, 1989. Spalted pecan, 5 1/2 inches x 2 1/4 inches x 2 1/4 inches.

DreamVessels

Don Hart

NOTHING HAPPENS UNLESS FIRST A DREAM.
Carl Sandburg

I had a dream. A dream to create my own hollowed turned vessel with a sculpted appearance. I wanted this turning to reflect my own personality, thoughts, and beliefs. Carl Sandburg once said, "Nothing happens unless first a dream." I also believe nothing happens unless we keep our dreams focused close to our hearts and minds. It is something very special and personal. I have perfected a method so that you may make a Dream Vessel.

Start this project by milling a piece of wood, such as spalted pecan, 5 1/2-inch x 2 1/4-inch x 2 1/4-inch, locate and mark the centers on both sides of the blank. These will be the locations for mounting between the head stock and tail stock. Using a 3/8-inch bowl gouge, start removing wood from the center of the blank to the ends, striving for a pleasing arc (Figure 1). Then, reverse the turning between centers; and with a 1/4-inch bowl gouge, remove wood from the wing to the vessel body (Figure 2). Thinning the wing at this point is crucial because later they will be too flexible to cut. On the bottom of the vessel leave a tenon, for attachment to a three-jaw chuck (Figure 3). Attach the tenon to the chuck and hollow the interior with a 1/4-inch bent tool. Wall thickness is more a matter of preference, about 3/32- to 1/8-inch thick. Next, hand-sand the area around the opening with the lathe running at about 800 RPM. Remove the turning from the 3-jaw chuck; and using a 1 1/2-inch diameter foam disc on an electric drill, sand the wings. Using a 3-inch face plate with a waste block attached, turn a small tenon on the waste block that will fit into the opening of the vessel and bring the tail stock up to the center mark on the tenon (Figure 4). Shape the vessel bottom and reduce the size of the tenon, which will be cut off and contoured to the rest of the bottom shape of the vessel. Before removing the tenon, sand the vessel body with the lathe running about 800 RPM. Only sand the body, not the wings, and watch your fingers. After the tenon is removed and the bottom sanded, sand the area under the wings by hand.

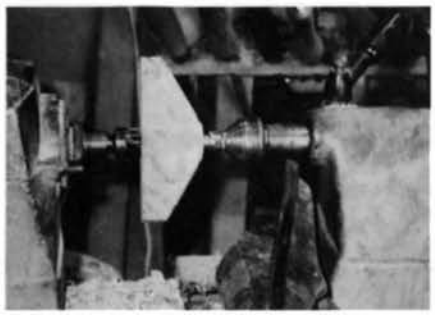


Figure 1. *Block is mounted and turned between centers.*

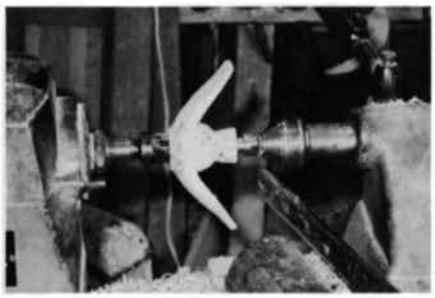


Figure 2. *Shaping the base of the Dream Vessel.*

Figure 3. *Hollowing the container.*

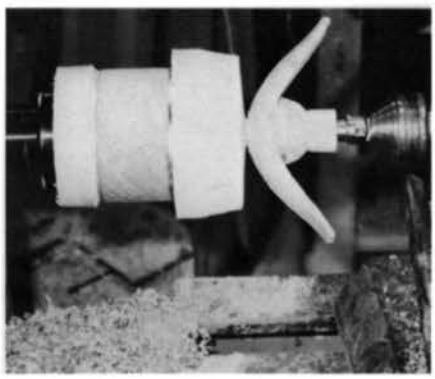


Figure 4. *Vessel attached to waste block.*

Select a piece of wood from the same spalted wood for the top. Mount it on a 3-inch face plate with the waste block attached using super glue. Turn a tenon to loosely fit the opening of the vessel. Hollow-out the tenon, and start shaping the top (Figure 5). A chain saw file with the tang ground like a scraper can be used to hollow-out the tenon and the area under the lid. Sand and apply wax to the bottom of the lid. Saw the lid from the blank. Using a 1/4-inch spindle gouge, make a recess to jam-fit the tenon on the lid in order to finish the top of the lid. Sand and apply wax. Buff the entire turning with tripoli on a buffing wheel. Apply wax and buff to a pleasing luster.

Now you have a completed Dream Vessel I hope this turning will be a challenge to you. Above all else, have fun, be careful and dream.

Don Hart is a professional woodturner from Pasadena, Texas.

Figure 5. *Shaping the lid to the Dream Vessel.*

ART FLOURISHES WHERE THERE IS A SENSE OF ADVENTURE.

Alfred North Whitehead

SILVER + GEMSTONE + TIMBER = LIDDED CONTAINER

Neil Derrington

The figure on Page 14 is a Macassar ebony container with silver and citrine, 5 inches x 3 inches.

Stimulation of one's thought processes often comes from seeing something in nature or observing other people's work. Such was the case with the creation of the design for my lidded container using silver, a faceted gemstone, and timber.

In 1987, I was fortunate to see a couple of slides of the work of Francois Lambert from Canada. Lambert had successfully used the art of silver inlay on his turned timber articles. As I had only been turning since 1985, I did not know that such work even existed. Before I started woodturning, I was a keen fossicker; hence my interest in gemstones.

In the back of my mind was the desire to create a design in silver to give the impression of silver flowing down the object. Since a liquid can not flow exactly the way we would like and the prohibitions of pouring hot silver down over the top of a thin-walled timber object also precluded this idea, my only option was the use of sheet silver, cut and fitted to the design shape. Another alternative would be to use the "lost wax" process, but this requires costly molds. This process was closer to my design, as three-dimensional planes would have been achieved with the flowing silver method of the "lost wax" process, instead of only two planes in the other method.

The initial exercise was to shape a piece of pine on the lathe, incorporating a substantial base to which silver could be fitted. At this point, I had no idea of what the finished article would look like; but I knew it would be a lidded container.

Commence by making an outline of the flowing silver onto the timber template. The actual flowing sequence was constructed from three separate pieces of flat sheet silver, beaten, fitted, and soldered to fit the template. After fitting and before joining each segment, the pieces are cut with a jeweler's saw to the design outline. The cut edges are rounded with a file and various grades of emery paper to remove the sharp edges. After joining the three segments, etched flowing lines are marked onto the surface of the silver with a small pointed scraper, but only at the three soldered joint positions.

The "brilliant cut" faceted citrine was mounted in a scalloped open crown to allow maximum light refraction and to also provide a functional top. The silver crown was spot soldered to the main body at the location of the six scallops. The final finish to the silver was achieved by buffing and polishing with jeweler's rouge.

To complete the design of the lidded container, which basically assumed the shape of a large egg standing on end, Macassar ebony was selected for the timber for a dark contrast with the silver. The lidded container was turned in the conventional way with no loss of grain pattern at the joint between the bottom and top. The joint was established at approximately 1/3 the vertical height from the bottom. After sanding, the silver cap was permanently fixed to the timber top with epoxy adhesive. The timber was coated inside and out with Watco Danish Oil and finished with Watco Satin wax. The silver-work also received a final polish.

For the last three or four years, the Woodturners Society of Queensland, Inc. has included a category in their annual woodturning competition viz., "A turned wooden article incorporating other materials visibly in the design, but excluding any carving or sculpting or other such work done upon the surface of the timber." The finished lidded container was judged best in the category at this competition, but the design judge questioned the use of a faceted gemstone to create the top.

Neil Derrington is a professional woodturner from Alderley, Australia.

Accenting turnings with silver and stone

Frank Nabrotzky

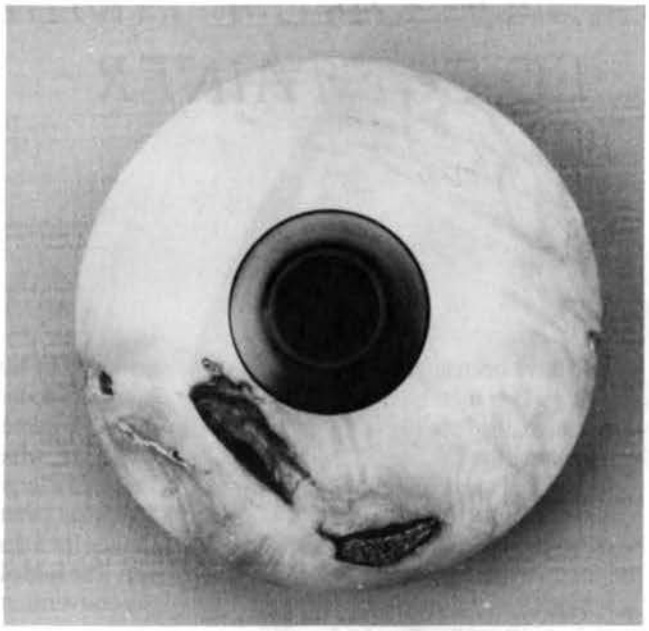


Figure 1. Maple with ebony insert.

THERE IS NOTHING NEW IN ART EXCEPT TALENT.

Anton Chekhov

Ten years ago I changed from lapidary and silver-smithing to wood turning because my love of wood overpowered my love of stone. I went through the typical learning process by turning bowls, plates, weed pots and boxes in order to get comfortable with the feel of the tools and to master the technique. Although the turnings were satisfying, I felt a need to branch out.

I have always been taken by the artistry of the Southwestern Indians. Their pottery and baskets, both in shape and design, fascinate me. It was only natural then that I began to challenge myself with closed hollow forms. The shapes I now incorporate in my work have been influenced by the Southwest.

Utilizing straight scrapers in my hollow turnings impaired my ability to create turnings with narrow openings. I realize I could switch to a hooked or angled scraper, but I enjoy the challenge of creating the thinnest hollow-form with a traditional/conventional tool. I solved this problem by creating exotic wood inserts. I was paid off in two ways. I had the smaller opening I wanted and the insert added a beautiful accent to the piece (Figure 1).

I studied each completed piece, and to some I began adding lids. It seemed I was always asking myself "what next" in my venture to create a new design or effect. During these personal critiques, I felt that what I wanted to achieve was the combination of warm tactile qualities of wood with the stark visual qualities of stone and metal.

I selected simple silver wire inlays, both flat and twisted, for my first designs. I believe the resulting combination of these natural materials evoked the sensual responses associated with the hardness of stone and metal and the softness of wood. The interplay was complimentary and dynamic.

Standard shapes of silver can be purchased from a jewelry supply dealer and with some imagination, any of these shapes can be incorporated into turnings

without spending a lot of money in equipment or materials. Square, triangular, and twisted silver wire can easily be epoxied into a recess or into a dovetail cut in the wood. I have also used polished stones in my pieces. Lapidary dealers stock pre-polished cabochons which can be easily placed in turnings by index drilling recesses or using a Dremel tool.

I search for wood which will bring out the best that nature has to offer. The characteristics I look for are color, figure and voids. Currently one could describe my preferred selections of wood as "defective." Natural holes, bark inclusions and rotten areas no instrument maker would even look at, lend themselves well to expanding my ideas into jewelry-enhanced designs. Voids in the finished turning provide ideal areas to accent. Not only have my turning skills been sharpened using these unusual blocks of wood, but I am also challenged to think more about the piece and how I want to embellish it.

When I reached this point in the creative process, ideas and designs came faster than the revolution of the lathe and soon came the sketchbook. Once all the ideas were on paper, I could concentrate on turning. Eventually pieces were created that had just the right opening or void that begged for a design that was already in the sketchbook.

Figure 2 is an example of utilizing the natural "defect" and of accenting it with a silver and stone. When ideas and possibilities present themselves, care must be taken not to overdo the design. Just because a turning has four holes available, does not mean that all of them must be filled. More is not better. Allow the single, well-placed addition to blend all the materials compatibly together.

Turning, as with life itself, is an ever changing process of learning and achieving, and of disappointments and successes. If the mind is open to both positive and negative criticism, risks are easier to take. My future plans are to produce some larger pieces and experiment with textured silver sheet. I am also contemplating adding some sculptural aspects to my work.

It's been personally satisfying to talk with people who have shown an interest in my new direction and enjoyable to hear what ideas they are planning to try in their turnings. I believe my love for wood turning shows in the pieces I create. Hopefully it expresses my personal feelings and qualities.

I have learned a great deal through reading the articles published in the "American Woodturner," and hope with my contribution here, I have helped to perk an idea or two in another woodturner. We all gain from one another's efforts because there are no limits.

Frank Nabrotzky is a professional turner from Salt Lake City, Utah.

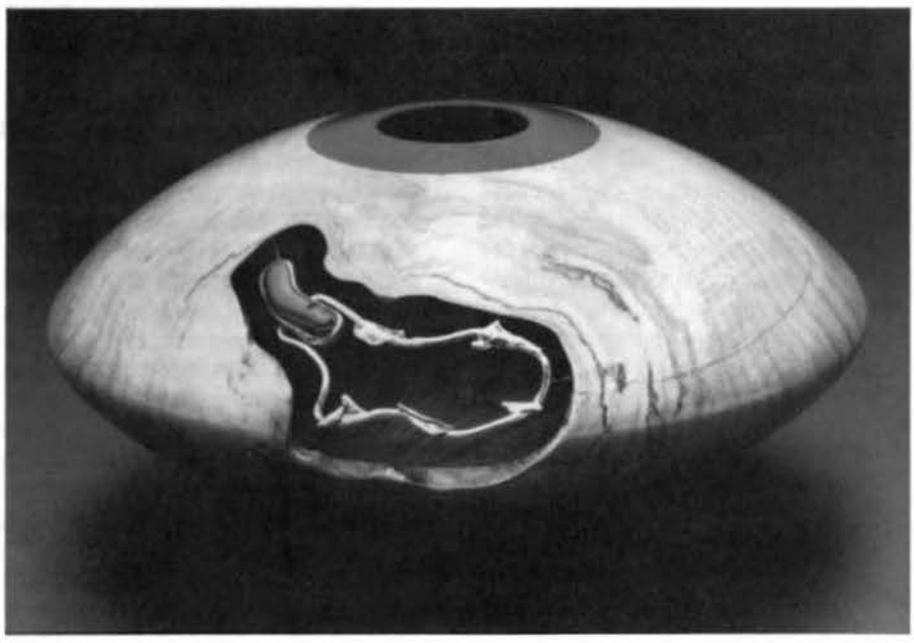


Figure 2. *Maple, ebony, silver and coral, 6 inches x 4 inches.*

Decoration/Ornamentation/Design/Pattern

Leonard R. Bean

For most of my woodturning years, I have explored the form and the mechanical processes involved with turning, and have attempted to unlock the natural beauty that lies just beneath the bark layer. It seems that one can explore forever and never settle into a pattern. However, some things about turning do remain constant, the desire to achieve excellent vessel form, to produce a highly polished surface, to allow the beauty of wood color and grain configuration to show, and to observe or to be told of the joy evoked by touching turned objects.

I do hand sculptured wooden dishes and some retain the controlled textural treatment which a sculptor's gouge makes when cutting. While doing these, I decided to try a design pattern on one of my octagon-shaped stave lidded vessels. Figure 1 illustrates this idea, but instead of using the gouge, I use a Foredom hand grinder with a flexible shaft and round high-speed steel grinding burrs. The reason for grinding out round holes in a pattern on the surface of a carefully turned vessel is to more fully explore form and design. Allow the vessel form to convey to you where to fit the design (pattern) on the vessel surface. Texture such as this can be added to any portion of the exterior surface of the vessel, but to be a successful piece, it must harmonize with the rest of the form. I do not add this type of texturing to all of my pieces, only a very few.

To begin the design, work with various hole patterns and sizes on paper until you have a pattern you like. Next, lay out the design with pencil lines drawn around the vessel spaced various distances apart using the pre-determined pattern. After the location lines are drawn, use a mechanical drawing compass to space out the location of the holes; and if all of the alignment is correct, pencil in the hole pattern and use pointed dividers to pinpoint the exact location of the holes. Carefully punch the center of each hole to be ground with a sharpened nail, using a small wooden maul. I deepen this hole with a steel center punch which broadens the hole so that the round grinding burr will not pop out of the hole as it is ground out. The location points are now ready to be ground into holes of various sizes and depths. For this, use round high-speed steel and carbide grinding burrs, 1/8-inch to 1/2-inch in diameter with 1/8-inch and 1/4-inch shanks.

Figure 1. *Staved lidded container with "carved" pattern.*

Support is necessary when grinding the holes; so leave the vessel mounted on the face plate and the lathe. It is best to grind holes from the top side for better control of the Foredom grinder. The flexible shaft allows a great amount of movement as you grind; but any other style of burr grinder would work. A variable speed tool allows greater control because the grinding burr can and does pop out of the hole at times. As the final design form emerges, changes can be made and more holes can be added, if needed, to balance the design. Final sanding and finishing is done on the lathe. The grinding burr leaves a smooth hole; but, care needs to be taken not to burn the hole as it is ground out.

Many turners use beads, grooves, the bark layer, natural edges, painted surfaces, chain saw edges, and other tooling marks to complete the turned-vessel design. I must agree with Richard Raffan's idea that once the color and grain pattern loose their brilliance you are left with only the form. The form and the detailing are the expression of the art of the turner.

Leonard R. Bean is a woodturner from Longview, Wash.

I FOCUS MY ATTENTION ON FORM AND TACTILE QUALITIES. EVENTUALLY, THEY WILL BE ALL THAT'S LEFT, AND IF THESE ASPECTS ARE FOUND WANTING NO ONE WILL BOTHER TO KEEP THE BOWL.
Richard Raffan

Sewn Bowls

Thomas Hourican

The partnership of fiber and various materials, including wood, goes back a long way in time. Several cultures have rich traditions of combining these materials for both utilitarian and decorative purposes. Particularly appealing are the strikingly beautiful geometric designs produced by Native American artists of the Southwest. Also, recent reading has put me in touch with the bone carving traditions of the South Pacific. The manner in which these artists lash the objects they create is an integral part of their finished carvings. The end product must be kept in mind when blending materials.

After drawing inspiration from these and many other sources, I began to incorporate sewing into my finishing process. Sewing the rim complements and enhances my bowl forms and provides many possibilities for creating repetitive patterns that can add textural interest.

There are a few intermediate steps for the production of a sewn bowl. First, turn the outside of the form and cut a narrow, shallow groove (a place for the holes). Setting the holes into the channel will help define the completed rim, giving it a crisp, clean appearance (Figure 1). Using the lathe's index, lay-out the location of the holes. These are then drilled, freehand, while the bowl is on the lathe. Use a drill bit large enough to pass through a standard leather-worker's needle. The intent is to create a very snug fit, as the thread should fill the hole and minimize the amount of light which may show through. Next, the inside of the bowl is turned. Another shallow groove is cut on the inside surface, completing the rim. The bowl is finished in the normal fashion and removed from the lathe.

At this point, select a color of thread and proceed to sew. Linen thread is available through leather supply houses. It comes in a few colors, waxed and unwaxed. The unwaxed variety is easily dyed to suit one's needs.

My first bowls were sewn completely around their rims. This process is as lengthy as the piece of thread required to accomplish the job with only one joint. The last stitch was cut and affixed to the hole with a dab of superglue. Some of the variables related to the creation of sewn bowls are thread colors, widths, stitch patterns, and placement on the forms (Figure 2).

Thomas Hourican is a full time woodturner and Irish musician living in Syracuse, N.Y.

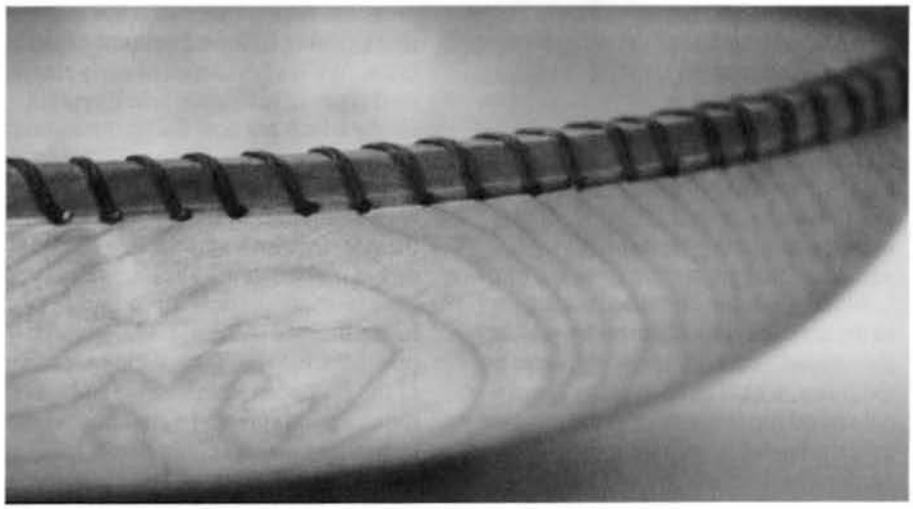


Figure 1. *Rim detail of quilted maple bowl with black linen thread, red ink, 10 1/2 inches x 3 inches.*

Figure 2. *Walnut with linen thread, 13 inches x 2 inches.*

The tradition of wind instrument making

Casey Burns

Most people think of wind instruments in terms of the relatively mundane instruments of the orchestra. In reality, woodwinds are found in almost every culture, and require a classification resembling that of the natural kingdom. Geographically, wind instruments are as wide ranging as the lathe, the primary tool required to make them. Historically, wind instrument making and the lathe are closely woven together. For the turner, investigation of this fascinating technology rewards one with new ideas that are sprung from the old.

Woodwinds are classified according to the acoustical mechanism by which they sound. Broadly speaking, there are the flutes, which include many historical and ethnic precursors to the ones we are familiar with, including the recorder, the Irish whistle and even certain organ pipes. Then there are the single reeds, including the clarinet and its precursors, plus many bizarre ethnic forms of this instrument that defy exact classification. The oboe and bassoon are members of the double reed family, which also includes many shawms of different cultures, various Renaissance instruments such as the krumhorn and rackett, and many others. Finally there are the bagpipes, which use both single and double reeds, but are unusual by their method of aspiration. When people think of bagpipes they think of Scotland, where this woodwind arrived relatively late. There are over 250 species of bagpipe known.

The scope of this tradition can be put in somewhat better perspective by considering the number of turners involved. A catalog of European makers, all turners, lists approximately 5000 from the Renaissance to the present who bothered to sign their work; this is just the tip of the iceberg. Here exists a technology directly relevant to the turner that has its roots in antiquity, has achieved a full and varied expression, and continues to evolve to this day.

Similar to many forms of artistic expression, the evolution of wind instrument turning followed cultural explorations. We find evidence of early single reed types of instruments in Egyptian tombs which are now found throughout the Mediterranean. Oboe type instruments evolved in China and headed west along trade routes. Along with these instruments was the lathe technology to make them. As cultures emerged, their instruments developed into distinct forms defined by local traditions and practices. Finally, the artistic excesses of the European Renaissance and Baroque Periods created a situation where instrument makers could barely keep up with a rapidly evolving and changing artistic expression. Unfortunately, in the last 150 years, such demands were put on the maker for acoustical perfection that the technology which created beautiful and delicately turned ivory flutes, boxwood oboes with engine turned mounts, etc. was left behind so that now we think of wind instruments in simplified, mass produced terms.

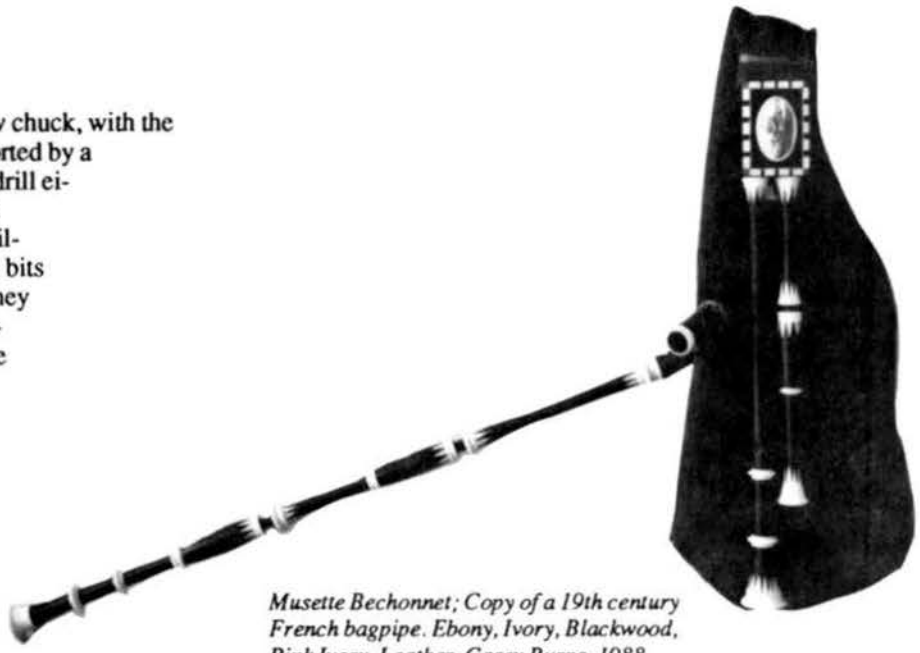
We almost lost the underlying current of ethnic wind instrument making, which continued to evolve at its leisurely pace until the two World Wars almost completely obliterated it. In the last 20 years, there has been a new renaissance which has rediscovered what was almost lost to us. Although many of the practices were lost, their results are not difficult to uncover in the hundreds of collections that are known to exist. In the isolated places where the tradition remained unbroken, fascinating clues to the past may be found, if one looks hard enough. In northern Africa, one can find instrument makers turning with a bow lathe, sitting on the ground and using their feet as a tool rest. A friend of mine recently met some Scottish bagpipe makers in Pakistan (where, actually, most of the pipes used in American pipe bands come from) who were using western lathes bolted to the floor and were surrounded by mountains of turning squares, completed bagpipe parts, and turning debris.

Today most wind instrument turners approach their art sideways - usually they studied some instrument such as the flute since childhood through college, and then chose to become a maker of historical varieties - reproducing the past. Or they have an interest in some ethnic music, and find that they must provide the tools to be able to create this music. Most are self taught. There is a preoccupation with what the instruments should exactly sound like. The sound of the instrument depends upon the shape created by the bore - that is, the wood on the inside that has been carefully removed. Some makers are myopic because of this preoccupation and regard the turning aspect of this craft as a somewhat painful necessity and refer to it disparagingly as "furniture making."

In the past, a strong integration existed between turning and wind instrument making. Because the craft is undergoing rediscovery by musicians who became turners out of necessity, isolation to the rest of the turning world has created conditions for the evolution of techniques specific to this craft. Fortunately, as with "regular turning," there are personalities and innovators who have approached this craft scientifically and are more or less responsible for "guiding the masses."

Metal lathes are most often used. The technique of boring the middle out of the spindle is a great mystery. Essentially, a cylinder is bored first by spin-

ning it in a three jaw chuck, with the outboard end supported by a steady rest and the drill either mounted or fed through a hollow tailstock. Regular drill bits are not used since they wander and are prohibitively expensive in the dimensions required. Instead, simple bits made from drill rod or gun drills, which are hollow and allow compressed air to blow out the chips are used. Once the blank is bored in this fashion, sockets for joining the different instrument pieces are turned using a boring bar in combination with a carriage stop. Finally, special tapered reamers are used to shape the bore precisely where the bore is not cylindrical. Once the inside is turned completely, the blank is mounted between a cone shaped center in the headstock, and a similarly shaped live center in the tailstock. Most wind instrument makers then turn the outside using scrapers.



Musette Bechonnet; Copy of a 19th century French bagpipe. Ebony, Ivory, Blackwood, Pink Ivory, Leather. Casey Burns, 1988

The reamers that are used are very special and must be made by the maker. The bores of most historical and ethnic woodwinds are rarely cylindrical nor do they follow any regular taper. Instead there are many irregularities to the taper that at first, one might attribute to sloppy technique - but are in fact, very important for the sonority or sound qualities and the tuning of the instrument. Therefore, reamers that can reproduce these bumps and grinds of taper must be accurately made to a tolerance of one- or two- thousandth of an inch. This presents great difficulty to most starting out, since the skills required to produce such an accurate tool are only achieved after long experience. These skills consist not only of being able to machine, but also of knowing what and which bumps and grinds are important acoustically. As with anything musical, practice is the best teacher. Also, carefully measuring the bores of old instruments helps us to generally understand the acoustical aims of our predecessors.

Unless the bore is very narrow, as with some bagpipes, the reamers are usually turned out of a .4% carbon steel known as Stressproof. This steel has enough carbon to retain a burnished edge but resists warping (after a quarter section is machined away). At first a carefully turned cylinder is produced. Then with the aid of a dial indicator reading diameter mounted on the cross slide, and supported by both a steady rest and follower rest, the reamer is turned, usually in one pass, at the lathe's slowest speed and rate of feed. After turning, the reamer is carefully sized using files and emory paper. The reamer blank is then machined on a milling machine to slightly less than 3/4 cross section, so that the single cutting edge has a few degrees of positive rake to it. At this point the edge is carefully honed and then burnished to a sharp edge. Fortunately, burnishing can remove enough metal to make the reamer "wider" if necessary - which is useful in exploring how minor differences in bore shape affect the sound.

The surface treatment of wind instruments varies greatly. In the classical music arena, some of the best examples of turning date from the French and English Baroque and are widely copied - finely executed rings, graceful shapes, and ornaments of ivory, sometimes ornamentally turned, are found. Researches of the last 15 years have uncovered a rich turning tradition in the many varieties of European bagpipes, especially those of the French, which are also traced to the Baroque along certain lines. In these bagpipes, one may find the use of several different kinds of woods and polychromatic inlays of pewter, horn, bone and ivory.

After the instrument is turned, the

outside is varnished. In the past, the instrument was simply soaked in a drying oil such as raw linseed oil. French polish with shellac was also commonly used. These techniques are used today, but my favorite is French polish using several coats of raw linseed oil, such as that found in health food stores (edible) mixed with super glue followed by buffing between coats. One maker accidently discovered that the super glue acts as a relatively non-toxic drying agent for the linseed oil. Boiled linseed oil, found in paint stores is avoided since it contains highly toxic cobalt driers.

There are certain claims from the past as to the woods used for turning and their preparation. Boxwood was cut into squares, turned, pilot bored, waxed and left buried in manure for twenty years before it would hold up to the rigors of repeated wetting and drying of playing. Instead of sawing wood on a bandsaw, blanks were cleaved out of the log to insure against any defects or irregularities. Today, the woods most commonly employed include boxwood, ebony, blackwood and other rosewoods, fruitwoods, olive, cocus and maple. Almost any hard and fine-grained wood is suitable provided it has some stability. One technique for improving the stability of some woods such as boxwood is to microwave the partially bored and turned blank (with endgrain sealed) followed by soaking and a prolonged period of drying - this process is akin to sizing fabric.

The elegant look of ivory is hard to resist for some makers - which is a dilemma many of us have to consider. Because ivory that is not seasoned for many years it is too unstable to use, especially for complete instruments, antique ivory is most commonly used. Unfortunately, this competes with the other demands for ivory which is contributing to the demise of the elephant, and so alternatives have been sought. Ordinary beef bone, cut from femurs and knuckles turns very well and is convincing - although it lacks the slightly creamy color of ivory. To process this bone, it is best to contact a local butcher, freeze the bone (and attached meat), bandsaw it to length, then boil it for a few hours in several changes of baking soda water until it is free of meat and grease, then bleach it in the sun for several weeks.

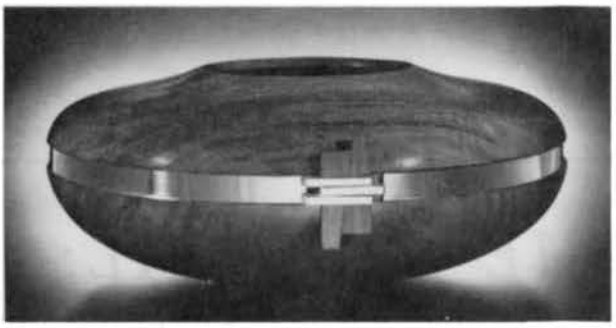
For me the process of turning bone or ivory is unhealthy, even with a good dust mask and dust collection equipment. I have turned enough of it to feel a heaviness in the lungs so that I no longer, along with ethical reasons, use it. Instead, I have found a completely nontoxic "alternative ivory" made of polyester resin that is manufactured in Chichester, England. This material is a joy to turn, unlike every other plastic alternatives I have tried, such as Corion. It drills well, is capable of fine detail, and has the color and feel of ivory. I also do not have to conserve every single chip of it. This material is affordable, and is available in diameters ranging from 25 to 75mm at $20 per pound, about a tenth of the cost of ivory.

Finally, once the "furniture making" is completed, the musical skills of the wind instrument maker are put to the test; tuning and voicing the instrument. In addition to the skills of the machinist and woodworker, the woodwind maker must be able to cope with reedmaking, which is a highly specialized art in itself, and must also be an accomplished performer on the instrument he or she is creating - or at least have a strong idea of what it should sound like. Usually making and playing develop hand in hand, especially with unusual varieties of woodwinds. I have found this to be the case with French bagpipes, which, along with flutes, are my specialty. Once the instrument sounds perfect, the processes of resawing the wood, making reamers and turning the pieces seems to fade in significance. Making the music is the primary joy of wind instrument making.

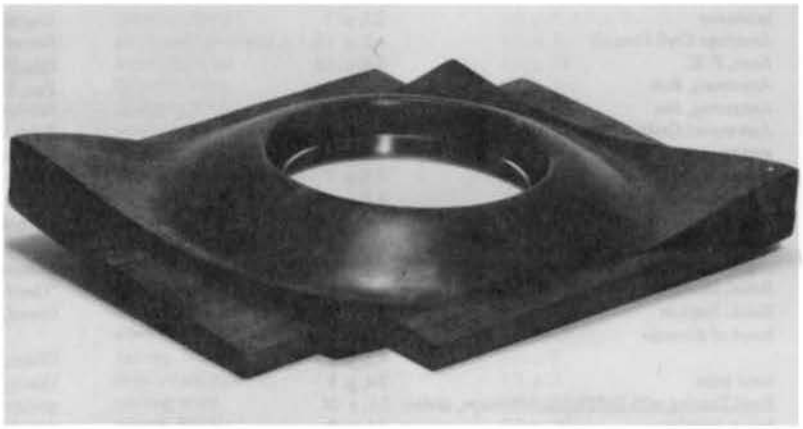
Casey Burns, Seattle, WA, has been making wind instruments, Irish flutes and European bagpipes, since 1982. He also teaches and publishes a magazine about wind instrument turning.

A Focus on HIDDEN TALENT

Curated by Albert LeCoff



R.W. Chatelain
River Red Gum Bowl with Silver Band (1988)
H. 3-1/2" x Diam. 9-3/4"



Thomas Hourican
Mirror (1989)
Walnut
L. 16-1/2" x W. 13" x D. 2"

John Jordan
Box Elder Carved Top Bottle (1990)
H. 12" x Diam. 9"

Helga Winter
Textured Madrone Trunk with Ebony Wedge (1989)
H. 8" x Diam. 14" ; Thickness, 1/4"

R.W. Chatelain, RD 1, Box 105, Huntington, VT 05462
Thomas Hourican, 119 Eloise Terrace, Syracuse, NY 13207
John Jordan, 446 Battle Rd., Antioch, TN 37013
Helga Winter, 1124 Van Ness St., Port Townsend, WA 98368

INDEX TO *THE JOURNAL:*

Volume 1, Number 1 through Volume 4 , Number 4 & Newsletter (NL) June 1986

Compiled by Betty J. Scarpino

GALLERY OWNERS ANSWER

Iona Elliott

For some, it has been difficult to understand the motives of the "Gallery Owner." In some cases, the artist sends his/her work out only to receive a check back months later, minus a percentage of money as compensation to the Gallery. What did the Gallery do to deserve this money? How did the sale occur? The following is a compilation of answers received from thirty galleries who replied to a questionnaire sent out to over sixty non-profit and private galleries.

Galleries find their new artists at wholesale and retail fairs and shows, through publications, from other galleries, and by word of mouth and referrals. They deal with as few as twenty-four and as many as five-hundred artists a year. Galleries, also, indicate that a turned-object takes from thirty minutes to five years to sell, with the average sale occurring within about three months. Most galleries will keep an unsold turned object in their gallery from three months to an indefinite period of time, as long as mutually agreeable with the artist.

Galleries take two days to three months to pay the artist for sold consigned work; however, the majority of the galleries paid the artist within thirty days after receipt of payment from the buyer.

Most of the galleries have shows throughout the year, and three have already had turned wood shows, and ten are planning shows later this year. They include: Banaker, Craft Alliance, Grand Avenue Frame & Gallery, The Hand & the Spirit, Highlight Gallery, Mendelson Gallery, Northwest Gallery of Fine Woodworking, Sansar, Spicewood Gallery, and del Mano Gallery.

All but three galleries agreed that artists sent their work in a timely fashion and that work arrives damaged less than one percent of the time. When returning consigned work to the artist, all galleries insured the work.

The gallery owners responded with seventy percent agreement that woodturning sales were on the increase. Interestingly enough, one gallery said they have experienced an increase in sales among their glass collectors. Seventy-five percent of the respondents felt that they have seen an increase in awareness among their clients in woodturning.

Twenty percent of the galleries have attended an AAW Symposium, and seventy-five percent would be interested in attending one if it was in their area. Seventy-five percent were interested in attending a local chapter meeting and would be interested in speaking on what it is like to be a gallery owner. Seventy-five percent agreed that books and videos are helpful in explaining and selling woodturning to clients and would like information on how to obtain them. All but one gallery found slide lectures, demonstrations, and an artist's presence helpful to the success of their openings. All owners felt that support materials help sell an artist's work.

Galleries responded that they disagreed with the pricing of an artist's work sixty-six percent of the time; twenty percent said they disagree occasionally, and fourteen percent said they do not disagree. Most galleries indicated that they would say something to the artist if they felt the pricing was incorrect. Another gallery replied, "If we do not feel a price is marketable, we do not represent the artist."

The gallery owners said they approach collectors through slides, mailers, invitations, and announcements; keep files and lists; call collectors; and place advertisements. Most collectors live within the vicinity of the gallery.

The second part to the questionnaire required longer answers, and twenty-five galleries completed this section.

What do you look for in work you show in your gallery?

Most of the galleries were in agreement with Mendelson's answer of "...quality, originality, and artistic merit." Clyde Jones added, "...appropriateness of material used." Rick Snyderman wrote, "I ask the question: What do I perceive to be the artist's objectives, and how successfully do they achieve it, in my judgement. Wholeness in compositional elements and content play important roles in my choices, as well as originality in creative ideas."

What makes an artist valuable to your gallery besides his/her work?

"Dependability," wrote Ruth Newmark of Gallery 8. "His/her loyalty," wrote Ruth Snyderman. "Cooperative attitude," replied Gretchen Keyworth, co-owner of Signature Galleries. "Reputation," wrote the Mendelsons. "Professionalism," wrote Sunny Brown of The Elements. Rick Snyderman wrote, "Art is the cultural and historical record of human civilization. This places a responsibility on both the artist, and in modern times, on their galleries to make a thoughtful and rigorous examination of why they do what they do, and what it has to contribute to that history."

What do you do to warrant the percentage you take from the sales of an artist's work?

Galleries responded: promotion, advertising, announcements, invitations, receptions, brochures, catalogues, shipping, insurance, knowledgeable sales staff, and, in the case of del Mano Gallery, videos. JoAnne Rapp of JoAnn Rapp Gallery/The Hand & The Spirit wrote, "A gallery is a business; it gives the artist exposure to a wide audience; it influences museums and collectors and the general public. The artist runs a business. Both sides of the monetary equation must work in order to have an effective relationship. For example, an

ART IS THE CULTURAL AND HISTORICAL RECORD OF HUMAN CIVILIZATION.

Rick Snyderman

artist's price includes material cost, labor cost, operating costs and profit. The gallery works on a similar (yet complex) set of rules." Rick Snyderman replied, "Percentages are a concept as outmoded as the dinosaur. An artist needs to set their price based on their needs. A gallery does the same. Percentages are meaningless in today's market of negotiated prices."

Do you think the artist should do more to help you sell his work?

Era Cherry of Banaker Gallery wrote, "...send clients, encourage people to buy from gallery, and not direct." Others replied that artists should respect their galleries as marketing agents by not selling privately, except at craft shows. Some galleries would like more input, biographies, and statements. Others, like Sue Braun from Touch O' The Ozarks wrote, "...provide as much information as possible to the gallery owner about how the item was made, time involved, and rareness of the piece of wood." Barbara Jedda of Craft Alliance wrote, "...inform the gallery of his/her list of collectors, send information on inventory sheets, title, media, retail price, etc." Ray Leier of del Mano said, "I think the artist does not realize that there is a partnership in selling his work. We need what I call ammunition to sell their work...such as professional black and whites and color slides, cohesive artist statements, and information about their techniques and what they are doing."

Do you think the AAW should do more to help promote woodturning? If so, how?

Most of the galleries are concerned with educating the public and would like more information about woodturning. Ron Isaacson of Mindscape wrote, "...public forum educational seminars to promote woodturning." Rick Snyderman replied, "By encouraging a more professional attitude on the part of artists, and by demystifying and putting on a more business-like basis the relationships between artists and galleries." Jackie Depew of Spicewood Gallery wrote, "Perhaps a demonstration/open house that we could advertise would create interest and help educate the public." Ruth Newmark of Gallery 8 wrote, "Try to get museums to understand woodturning." Shirley Dawson wrote, "We have just had our first woodturning exhibition and are not fully aware of AAW and what they do."

Is there anything you would like to get off your chest?

Sue Braun said, "...a relationship of mutual respect and common objectives between gallery operators and artists can help both parties to grow in the ways that each desire." Ruth Snyderman of the Works Gallery wrote, "Work should be consistently priced at conferences as well as in gallery exhibitions. The artists try to discount their work themselves, which is not good for gallery representation."

It seems the galleries are very aware about the need to educate the public about woodturning. They provide the best setting possible to show the artists work and work very long hours. The gallery owners advertise and publicize as much as they can to sell the artists work. Generally, it seems these gallery owners are doing this more out of love for the art than love for money.

Although this article only scratches the surface on some of the subjects covered, it seems as if artists and gallery owners have a lot in common. None of us are in this business to get rich quick. Appreciation is extended to the following galleries:

Galleries participating in the survey:

Banaker Gallery
1373 Locust St.
Walnut Creek, CA 94596

Brookfield Craft Center
286 Whisconier Rd.
Brookfield, CT 06804

Contemporary Crafts Council
3934 S.W. Corbett Ave.
Portland, OR 97201

Contemporary Craftsman Gallery
100 W. San Francisco
Santa Fe, NM 87501

Craft Alliance
6640 Delmar Blvd.
St. Louis, MO 63130

The Craftsman's Gallery
16 Chase Rd.
Scarsdale, NY 10583

The Dawson Gallery
349 East Ave.
Rochester, NY 14604

del Mano Gallery
11981 San Vicente
Los Angeles, CA 90049

The Elements
14 Liberty Way
Greenwich, CT 06830

Finishing Touch Gallery
1812 W. State St.
Freemont, OH 43420

La Jolla Gallery Eight
7464 Girard Ave.
La Jolla, CA 92037

Grand Avenue Frame & Gallery
964 Grand Ave.
St. Paul, MN 55105

Guild Gallery
152 E. Main St.
Abingdon, VA 24210

J o Ann Rapp Gallery/The Hand
& The Spirit
4222 N. Marshall Way
Scottsdale, AR 85251

Highlight Gallery
45052 Main St.
P. O. Box 1515
Mendocino, CA 95460

Images Gallery
1157 Pleasantville Rd.
Briarcliff, NY 10510

Mariposa Gallery
113 Romero N.W.
Albuquerque, NM 87104

Mendelson Gallery
Titus Square
Washington Depot, CT 06794

Mindscape Gallery & Studios
1521 Sherman Ave.
Evanston, IL 60201

Northwest Gallery of Fine Woodturning
202 First Ave. S.
Seattle, WA 98104

The Private Collection
21 East Fifth St.
Cincinnati, OH 45202

A Show of Hands
2440 East Third Ave.
Denver, CO 80206

Sansar Gallery
Tenley Mall
4200 Wisconsin Ave., N.W.
Washington, DC 20016

Signature Galleries
Dock Square, North Street
Boston, MA 02109

The Snyderman Gallery
317 South St.
Philadelphia, PA 19147

The Society for Art in Crafts
2100 Smallman St.
Pittsburgh, PA 15222

Touch O' The Ozarks
HCRI - Box 340
Lampe, MO 65681

Janis Wetsman
233 Oakland Rd.
Birmingham, MI 48009

The Worcester Center for Crafts
25 Sagamore Rd.
Worcester, MA 01605

The Works Gallery
319 South St.
Philadelphia, PA 19147

Swidler Gallery
308 Fourth St.
Royal Oak, MI 48067

Spicewood Gallery
1206 W. 38th St.
Austin, TX 78705

HISTORY OF OVAL TURNING

Part One of a Three Part Series

J. Volmer

Oval turning is an ancient craft requiring the use of the oval lathe, which is said to have been invented in the Middle Ages by Leonardo DaVinci. In museums, one can find pieces created in the last century by oval turning noble wood, ivory, bone, or soft stone like alabaster, serpentine, or pipe stone. Some of the pieces are small, flat lidded boxes, plates, key-hole plates for drawers or doors of furniture, rosettes and other decorative furniture elements, and frames of all sizes for pictures and mirrors. All these pieces are distinguished by great harmony in measurement, proportion, and design and by excellent performance and finish. The pieces generally demonstrate the outstanding master craftsmanship of the primitive non–precision lathe.

From about the middle of the last century, oval frames for portraits and mirrors were essential to the high-style interior. Today, you have to pay a considerable sum for a hand-turned gold leaf or black lacquer or French-polished oval frame from these periods.

Studying German newspapers and journals for turners from 1900 and following years, many issues contained advertisements of oval frame manufactures and oval lathe producers. There were many mills and shops in Germany, but nothing has remained. The most well-known German lathe producer wrote to me that he had sold his last oval-frame lathe in the early 1950s. In my region, I know a few individual turners and artisans who have an old oval lathe head stock in a dusty corner of their shop, which was left there by their predecessors. For some reason, most of them have not used them for turning oval pieces. In the USA, farsighted people preserved the oldest frame manufactory, the Schwamb Mill, from demolition. The Schwamb Mill, in Arlington, Massachusetts, has carried on through today as the oldest maker of hand-turned oval frames. It is a working museum, open to the public, and highly recommended to all who are interested in oval turning. An instructive article in "Fine Woodworking" magazine, May/June 1986, shows the mill's 19th century oval lathes in detail and describes the method and tools for turning oval picture frames.

Looking into the latest books on turning, there are hardly any remarks on oval turning. In the old books from Holtzappfel, Plumier, and Moxon, many pages are dedicated to the art of oval turning. The antique lathes and chucks are completely described, but very little on the method of turning and using the tools. Among the German books, I would like to mention the book "Das Drechslerwerk" by Fritz Spannagel, 1940 (reprints are available from Drechselzentrum, Ruhrbruchshof 5, D-4300 Essen). To me, this book was the bible of turning history, theory, and practice. It contains a long chapter on oval turning with precise descriptions of the oval lathe, tools and methods.

The only book I found that solely deals with oval turning, and especially with oval picture frame manufacturing, was published in 1029 in Leipzig, Germany, entitled "Handbuch derovaldreherei." Reprints are available from Verlag Theodor Schafer, Tivolistrasse 3, D-3000 Hannover. In the preface, the author, Hugo Knopp, a well known publicist on turning and a teacher of the German College for Turners in Leipzig, stated that wooden hand-turned oval frames never could be substituted by cheap frames made of paper, pasteboard, or colored plaster cast. In the eyes of every woodworker, his statement still seems to be right even today. Nevertheless, the mainstream demand for handmade oval and circular frames has passed due to changing interior styles and because oval turning has nearly died out. Today, oval picture frames, richly ornamented but solely made of plastics or plaster cast, are easily purchased as well as oval plastic plates and bowls and other utensils. All these things are produced with low cost technologies and the highest efficiency, against which no professional turner could compete.

Is there a chance for the rebirth of oval turning? In my opinion, oval turning cannot be expected to become again the preferred technology for economic batch production of wooden frames or bowls and plates. Numerically controlled high-speed milling-tool machines could do this with essentially higher productivity as well as automated lathes turning circular pieces for toys, lamps, or decorative utensils. Since, in the past decades, wood turning has become a most beloved hobby with serious engagement of thousands of people, there could be an increasing interest in non–standard turning techniques; and oval turning is an unusual technique of high fascination. For professionals, oval turning will be the challenge of their skill and creativity for objects of beauty, non-comparable to circularly turned pieces.

The main obstacle on the way to the renaissance of oval turning is the lack of oval lathes on the international market. Some enthusiasts have built a classical oval lathe based on the drawings in the Holtzappfel book or the article in "Fine Woodworking" magazine mentioned above. However, the working speed of the classical oval lathe is closely limited by inertial forces that cause violent vibrations. A simple solution for the elimination of these disturbing inertial forces has resulted from recent research work. Test lathes have been built, and they are running smoothly with considerably higher speeds, yielding cleanly cut work surfaces. Prospective producers could supply these novel high speed oval lathes in different sizes.

Dr. J. Volmer is a professor and oval turner from the German Democratic Republic. Part II will discuss and describe Dr. Volmer's addition to the oval turning lathe.

Woodturning and Carpal Tunnel Syndrome

Alan Lacer

I did not get injured by a tree I was felling, a kickback from a chain saw, a block flying off the lathe, or a serious dig-in with the skew. I got injured in a much more subtle way, and now I am greatly limited in the turning I can do.

The first indication I had that something was seriously wrong was when I started waking up at night with no feeling in one or both of my hands. My first thought was that I must be dying from clogged arteries, so I went to the doctor and was diagnosed as having "Carpal Tunnel Syndrome" (CTS). The doctor told me that I had classic symptoms of the condition and was not going to die, but I probably would not be able to use my hands strenuously for more than one or two hours per day.

The doctor began treating me with "soft therapy." This included wearing splints for three or four weeks, taking anti-inflammatory drugs and B-6 vitamins, and limiting the use of my hands. However, my condition continued to decline; and I eventually went to a hand surgeon. After more tests, I had surgery on both hands. Although I am no physician, I would like to share what I have learned.

CTS is a nerve disorder with many possible causes. The "Carpal Tunnel" is a narrow passageway at the base of the hand through which nine tendons and the median nerve pass (Figure 1). If the nerve becomes compressed or stressed, we have the beginning of CTS. The more common symptoms are a numbness, tingling, or aching feeling in the areas controlled by the median nerve (Figure 2); or perhaps an aching pain in the forearm, elbow, or even at the shoulder. Numbness in the hands at night is a common expression of the problem. Once you are awakened, shaking and moving your fingers and hand(s) usually returns the feeling. This numbness is due to a build-up of fluids in the constricted carpal tunnel which pinches off the nerve. The more severe symptoms may be a prolonged or constant loss of feeling or pain, an atrophy of certain muscles in the hand, or a growth of nerve tissue in the wrist area.

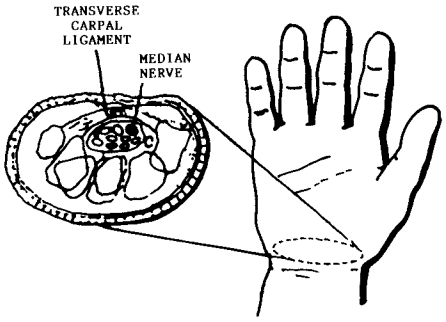


***Figure 1.** Section through the wrist, palm side up.*

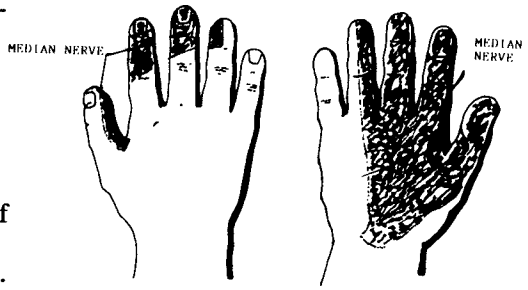


***Figure 2.** Areas of the hand serviced by the median nerve.*

Causes for CTS vary from an injury to the wrist area, arthritis, lupus, pregnancy, diabetes, lesions, certain drugs, or aberrant muscles and arteries. But the more common cause is related to excessive or repetitive movements of the hands and wrists. The damage can be made worse (or caused) if the movement is accompanied by impact or vibration. Since I developed the malady, I have met plumbers, hairdressers, assembly-line workers, checkers, writers, computer operators, and other woodworkers with the condition. Much has been in the news the last few years about meat cutters and computer operators falling victim in large numbers to CTS or "Repetitive Motion Syndrome," of which CTS is one manifestation.

The lathe itself, and motions associated with turning, can contribute to the development of CTS. The vibration of the lathe, impact to the hands through the tools, and the wrist movements involved with turning are all potential causal factors. Certainly not everyone who turns falls victim to CTS, and not even those who have turned for many years are sure candidates. Like most health issues, each person has his or her tolerances and limits; and not every turner works alike, uses the same tools, or has a lathe that generates the same amount of vibration.

Based on input from many sources, here is advice to turners to either help prevent or manage CTS:

1. Keep hands and forearms in an aligned position as

much as possible—avoid frequent bending of the wrist. The manner in which you reach to shake hands with someone is a very natural movement that puts little stress on the carpal tunnel area. Try to develop work habits with this forearm/wrist alignment in mind.

2. Avoid doing any single repetitive motion for very long. Some suggestions for computer operators may be good advice for turners. Work no longer than 40 or 45 minutes at the same motion before taking a break or varying the task. Mix the day with turning, preparing blanks, cutting wood, finishing, designing, or planing wood. Most of all, keep the workday moderate in length.

3. Try wearing padded fingerless gloves if vibration and impact are problems. Biker gloves can be bought with good padding in the palm area, or there are specialized safety gloves designed to absorb impact. I wrap the handles of my most frequently used tools with a cushioned handlebar wrap.

4. Stabilize the lathe. Very few lathe stands are worth much more than their scrap metal value. Either build a good wooden stand with an A-frame structure, pour a few yards of concrete in the basic shape of a stand, or modify your existing stand to accept plenty of sand. The net result will be safer and more predictable turning and less vibration transmitted into the nerve areas of your hands.

5. Use power tools to replace heavy hand work such as sanding, driving screws, cutting wood, etc. However, be sure that either the machine or your hands are well padded.

6. Avoid gripping the tool too tightly. This type of tension for long periods of time puts stress on the nerve area. In short, do not be a "white knuckle turner."

7. Limit the types of turning that require excessive wrist action and tension in the hands. I found that hollow turning with bent tools aggravated my hands greatly and may have been a culprit in my condition. Limit this type of turning, or experiment with swing-tip tools that do not seem to put the tension on the hands that regular bent tools do. Also, smaller scale turning certainly produces less impact and vibration than larger pieces. Green turning is also easier on the hands in that green wood offers less resistance to being cut than does dry wood.

8. Be moderate with chain saw use. I have heard of several woodcutters in my area coming down with CTS, and a chain saw is a ready source of vibration. If you use a chain saw often, you might want to invest in a saw that offers "counter vib" features.

If you already have CTS, you may be interested in the steps I have taken to manage this condition. I now wear an inflatable splint* on my worst hand. This allows me to control the amount of restriction I want for that wrist and provides extra insulation against impact and vibration. I also try to restrict my turning to short bursts (one or two hours with breaks), and never do ten-or twelve-hour days of heavy turning as I use to do. In addition, I take vitamin B-6 which, studies show, really does help the condition and is even a part of a prevention plan.

The family physician who first treated me remarked that most occupational cases referred to surgery soon changed professions following surgery. Either this meant they had mixed results, or they did not want the condition to reoccur. The hand surgeon gave a much more optimistic prognosis. He maintained that most people returned to their previous work. In my case, I guess both predictions were correct. One of my hands is useful for turning, while the other is still almost as bad as before surgery. I may be in that select group of ten to twenty percent that requires additional surgery, or the estimated seven to twenty percent in which surgery simply does not help. I could also be in the slow recovery group in which up to two years is needed for a full recovery. Currently, I am trying to reduce further damage with the methods outlined above rather than have surgery again; but it is a slow, gradual process.

If you turn wood, I strongly suggest that you take precautions to avoid getting Carpal Tunnel Syndrome. If you suspect the condition, start with a good General Practitioner who will perform basic tests, administer milder forms of therapy, and maybe prescribe treatment with a hand therapist. If a trip to the hand surgeon is in order, be sure to find one who does the procedure frequently, as their success rate is generally higher.

* The inflatable splint and padded gloves are available from Safeguard Industrial Corporation, R. D. #1, Leisz's Road, Leesport, PA 19533. (1-800 247-2358)

Alan Lacer is a professional turner and a Board member for AAW. He resides in Norman, Okla.

In harmony with nature

Glenn S. Elvig

As a woodworker, I have wondered the last few years whether my use of tropical hardwoods was in any way a contributing factor in the deforestation of the tropical rain forests. Until 1987 or so, I never questioned the source from where my local lumber dealer got our supply. I had heard from other woodworkers that I was not a part of the problem. According to most, the problem was due to the fast food chains raising cheap beef in Brazil, agricultural development, big money exploitation of underdeveloped countries, Japanese over-consumption of these rare and beautiful hardwoods, and the list goes on. From one source, I heard that there is more wood available today than ever before. On July 29, 1988, I started to believe there might be something to this "greenhouse effect" theory.

I was photographing wood sculptures made from ebony, mahogany, red narra, black palm, padauk, all tropical hardwoods, in my home in Minnesota. I realized not only was I using these woods, but I was taking these finished pieces to a number of major national and international markets where new customers and viewers were beginning to be smitten with their beauty. Ironically, I was also using tropical hardwoods in the manufacturing of a wholesale line of fireplace bellows—wood to burn wood. At the end of the summer, I heard on the news that the State of Minnesota had lost 15% of its pine forest to the extreme heat and lack of water. It was at this point that I decided that even if I was only a minute fraction of the deforestation problem, no matter how noble, or uplifting, or enlightening my next sculpture might be, it would have to be done using domestic woods.

However naive or simplistic, the following are some of the things that became part of my "rain forest" list:

To immediately start learning about and using domestic woods.

To work for an aesthetic and philosophical change in my old customers and work to change their buying habits.

To start planting the species of trees that I use to make my living (without intent of harvesting).

To start questioning the source of my wood supplies.

To continue to seek information about the deforestation problem, not just in the tropics, but also in our country.

To push for responsible foresting and logging practices.

To develop a recycling plan, and to work towards becoming more aware of and eliminating the use of toxins and other ecologically harmful materials and practices in both my personal and business life.

My list grows and changes; but since starting it, things have been interesting, challenging, busy, and fun.

Soon after I stopped using tropical hardwoods, my income went down dramatically. Since then, I have found some great domestic woods to use, and my income has rebounded. The use of less "dramatic" woods has pushed me as an artist to explore and address basic elements of design - form, mass, line, balance, movement, contrast - with renewed vigor. My customers have been respectful of the change, and, when aware of the reasons, have been more than willing to work with the "new" woods.

In 1989, my wife and I and our family planted approximately 5,000 maple, walnut, and evergreen trees. At one of my gallery shows in September, we passed out 1,000 seedlings to people who came to the opening. Since doing this, I have come to know that a forest in

Things do change. The only question is that since things are deteriorating so quickly, will society and man's habits change quickly enough.

Isaac Asimov

this part of the world has less of an impact on the global climate than does a tropical rain forest.

As with many things, the problem of tropical deforestation becomes more complex the more you look at it. Finger pointing is not a solution; but it certainly looks like ignorance, shortsightedness, politics, greed, lack of supervision, corruption, and big money have a lot to do with the disappearing forests. The thoughtless forest destruction, done in the name of progress, development, or civilization, seems no different than what went on and is still going on in this country.

Facts are easily attainable. Forests are being clear-cut. I have seen many South Carolina hillsides that have been logged and not replanted. As I flew to and from the AAW 1989 Symposium in Seattle, I could not believe the ravaged, clear-cut mountainsides of western Washington. I can only guess about the wholesale destruction of the tropical rain forests due to logging and agricultural encroachment. The facts are there. In Brazil, there is agricultural land available, yet government subsidies favor colonization of rain forest lands. Rain forest soils have proven to be unsuitable for any other sustainable activity than growing rain forests. Latin American and South American national debts seem to encourage hasty, shortsighted decisions. Studies have shown that even if one "suitable" tree is taken in a logging operation, the entangling vines that are part of the forest canopy may pull over countless other tress as the big one falls. Tire treads from the big logging tractors compact the soil so much that regrowth in the tracks is retarded by many years. Logging roads are easily used for agricultural and ranching development.

Because of the size, complexity, and the various reasons for global deforestation, it seems very easy for individuals, corporations, and countries to diminish, deny, or hide their degree of involvement or contribution to it. People will always claim their right to make a living for themselves and their families, and it seems that a certain "machismo" will forever drive mankind towards control of nature and the taming of the forests.

If you are concerned about the rain forest destruction or any forest destruction due to logging, agricultural development, etc., more and more information is available everyday. Information can be obtained from your state forestry associations and Department of Natural Resources. Addresses for foreign ministers and countries are available through your state senators and congressional people. Many environmental groups will eagerly send you information.

If we look at the recent ban on ivory, I believe it is just a matter of time before some tropical woods will become certified materials or even banned from use in this country. As woodworkers and people, I believe it behooves us to become aware of our sources and work for environmental responsibility. Ultimately, we must prove we are in no way part of the problem; or if we find we are, work to eliminate the problem. If we do not, no doubt we will be forced to live with the limitations that a government, or ultimately nature itself, will create for us.

Glenn S. Elvig is a professional woodturner from Minneapolis, MN.

American Association of Woodturners
940 E. Fifty-first St.
Austin, Texas 78751-2241

Bulk Rate
U.S. Postage Paid
Austin, Texas
Permit No. 116