

the
CREATIVE WOODTURNER

Inspiring Ideas
and Projects
for Developing
Your Own
Woodturning Style



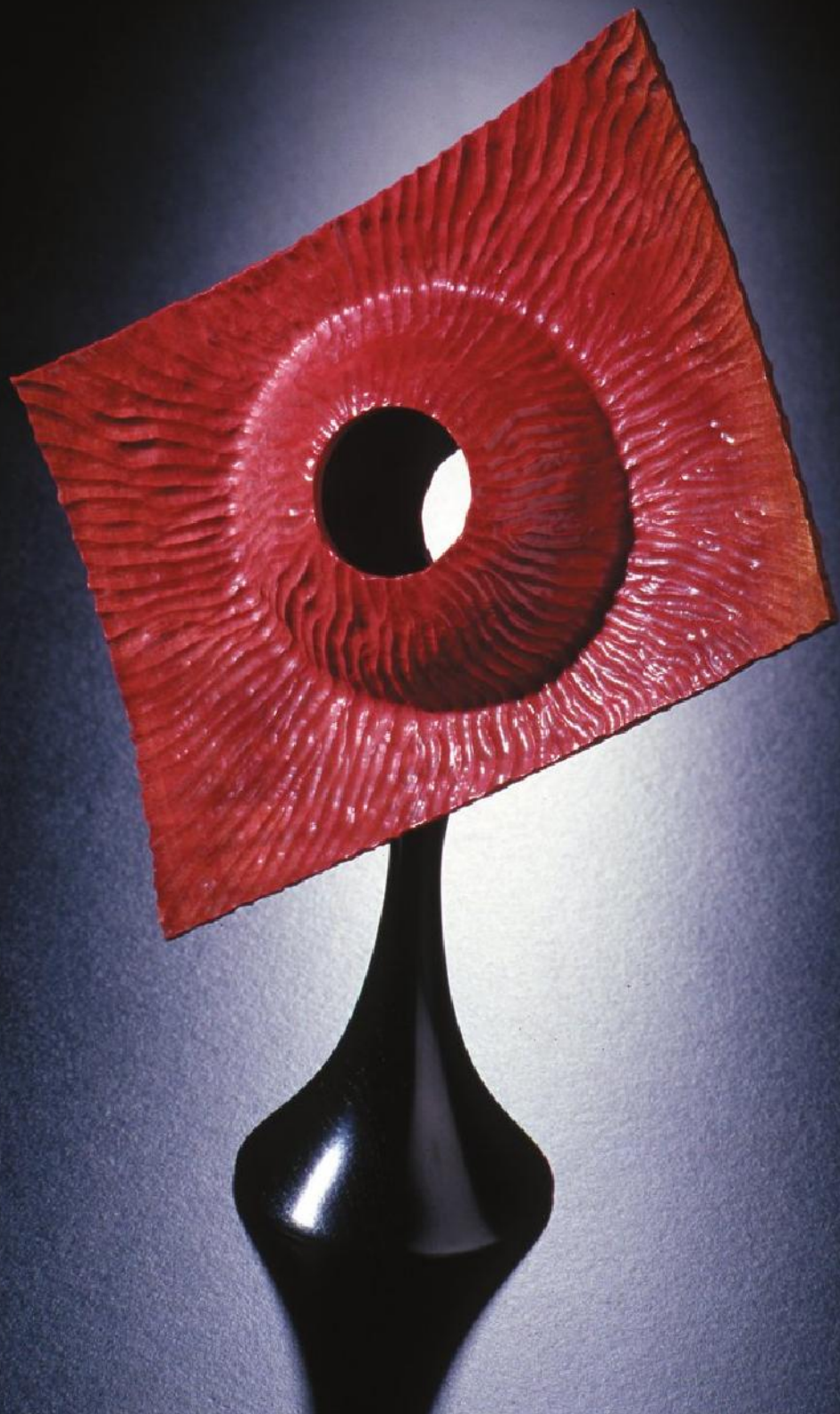
TERRY MARTIN

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the CREATIVE WOODTURNER

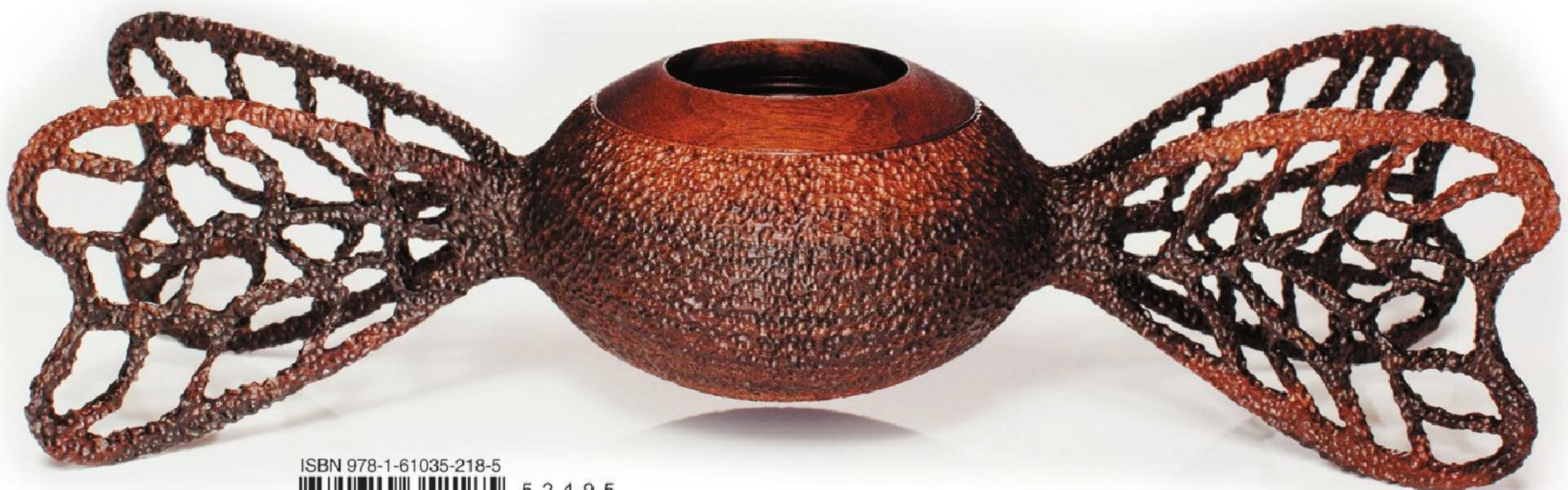
Inspiring Ideas and Projects for Developing
Your Own Woodworking Style

Every woodturning journey enthusiastically begins with learning the basic techniques for crafting with one's own hands. But, as time goes by, is mastering the techniques the end in itself? As a woodturner, how do you learn to combine your technical prowess with the creative vision needed to turn your own designs?



The Creative Woodturner is not your usual "how to" woodturning book. It won't tell you what a chuck is or how to sharpen a scraper; you probably already know all about tools and techniques. Instead, this book is a "how to" for unlocking your curiosity, breaking rules, and developing your own artistic style.

With 16 one-of-a-kind boxes, vessels, and bowls, a helpful list of *Idea Tools*, and insightful commentary from the art community, Terry Martin, a world-renowned woodturner and instructor, will teach you to think and see differently so your time at the lathe is not spent imitating someone else, but creating the original ideas that will set you apart.



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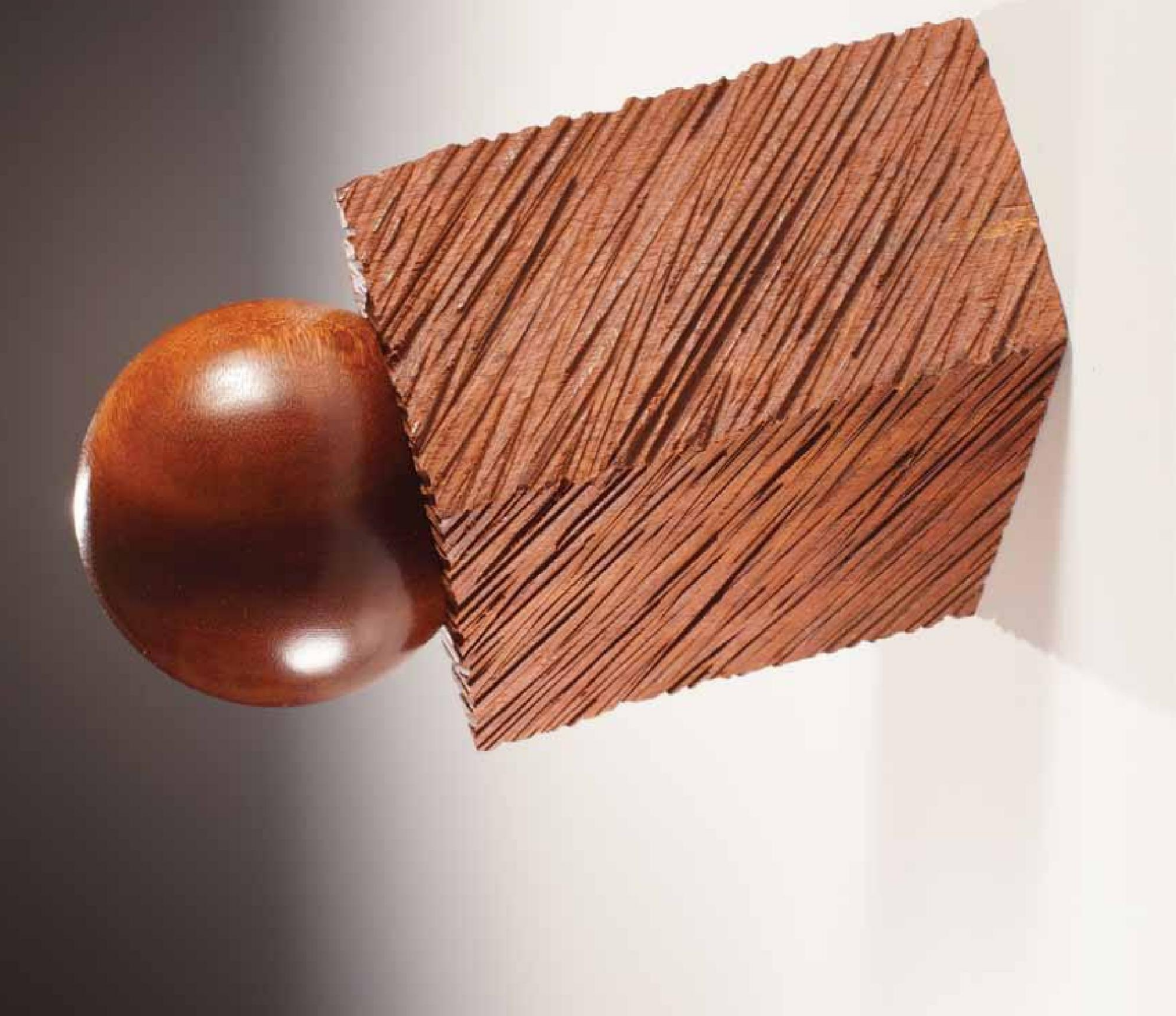
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Inspiring Ideas and Projects for Developing
Your Own Woodturning Style

Terry Martin



Linden Publishing
Fresno

The Creative Woodturner
by Terry Martin

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Foreword

Several years ago I wrote that turning was a magical process, in part because of the speed at which what seems a simple act—pressing the tool to the workpiece—results in shapes and forms that appear as if by a magician’s touch. Of course it is not nearly so simple. The seeming ease and flow of the turner’s hands and tools are the product of years of experience and experiment, rather like the way an accomplished athlete makes the improbable physical feat look easy, the work of a natural rather than the result of years of repetition and practice. The analogy is not mine alone, to be sure. In *The Nature and Art of Workmanship* (1968) British turner, artist, and teacher David Pye observed that, “There is a strong sporting element in some workmanship.” (124) Were he still alive, I’m certain that Pye would smile approvingly at Terry Martin’s work and his energetic approach to it, rich as both are in wit, play, and sport.

Pye called the accomplished craftsman’s experimentation and exploration of materials “the workmanship of risk,” distinguishing it from the competent repetition of skilled hands. Pye’s observations are complemented by the more recent analysis of sociologist and historian Richard Sennett, who in *The Craftsman* (2009) observed that artists ranging from goldsmiths to concert violinists developed “touch,” a physical intimacy and expertise with their materials and tools. These unmeasurable qualities are fundamental in the creation of great and often startling works of art.

Terry Martin relishes the potential in the workmanship of risk. His work is simultaneously new and grounded in tradition. It expands what we think is possible and probable in both the turner’s methods and in what the finished product can be. He has the touch that lets him push his tools to the edge, probing not only the physical limitations of his materials but also the affective potential that all of those who work in wood—from the expert to the novice—know is there.

Terry grew up close to the open spaces of Australia in the middle of the twentieth century. Nature can be harsh and living close to it usually involves hard work, but there is something about big spaces that gets into your head and into your blood, from wherever you hale and wherever you eventually land. This respect for and intimacy with nature and the environment is present in all his works. As readers of his masterful *Wood Dreaming* (1996) know well, he has also found respectful inspiration in the wisdom and worldview of Australia’s indigenous peoples.

All this resonates in his work’s complexity, wit, and sensitivity to wood’s special place in human experience. To see and think about his work reminds me of the phrase used to describe many of the exploring expeditions of the early nineteenth century: “voyages of discovery.” Terry Martin’s work is all of that.

—Harvey Green

Author of *Wood: Craft, Culture, History*

Introduction

When I started woodturning in the early 1980s, I only wanted to become a good bowl turner. I was filled with anticipation of the satisfaction I would get from making simple things with my own hands, but I had no inkling of the wonderful journey I was starting. Thirty years on I find it less easy to describe what I do. I could say I am a “woodturner”, “woodworker”, or “craftsman”, but because there has never been a ready description for the kind of work you will find in this book, I have also been described as a “wood artist.”

The only one of these descriptions that has ever been specific is “woodturner.” For thousands of years it meant somebody who used a lathe to quickly and inexpensively produce mostly functional, but sometimes decorative wooden items. As the need for such products has declined and turning has evolved into something new, this idea has been reversed and it is now often valued for the painstakingly slow production of expensive objects. There is no longer a simple definition of what a woodturner is, partly because some adventurous turners have broken almost every traditional woodturning rule. As a turner travels further from the roots of the craft, what they do may well become more like art. The final step is for a turner to try to find their own voice, that original idea that will set them apart from everyone else. In the search for that idea many turners expand their work well beyond simple turning, often using novelty, trickery, and whatever else they can think of to make

their work stand out from the crowd. Once you move into this territory, there is no rule book.

I am temperamentally unsuited to constantly repetitive turning and would probably have given up years ago if I had been limited to such work. My natural curiosity has driven me to challenge tradition and gleefully break rules. Along the way, many turners have asked me where I get my ideas, and that is why I wrote this book. I am not suggesting that my personal way of working is better than anyone else's. My hope is that by showing other turners how I learned to see things differently, it will help them find their own way.

What I have written partly comes from thirty years of personal exploration, but it is also the result of observing and befriending extraordinary people who have chosen to spend their lives in the not-very-profitable pursuit of creating art in wood. I want to acknowledge all of these friends for their willingness to share their knowledge and experience.



1

Thinking About Turning

Ideas are like rabbits. You get a couple of them and learn how to handle them, and pretty soon you have a dozen. JOHN STEINBECK

This is not the usual woodturning how-to book. A lot of readers will already know what a chuck is, or won't need to be told how to turn a goblet, or sharpen a scraper, so I won't list lathes and equipment that may be off the market before this book is purchased. Enough books have been written by turners who have strong ideas about these things. Not only do most of them tell you what to make and how to make it, they also tell you *how you should think*, usually based on formulas that specify what acceptable turning is.

I would never disparage traditional turning, but I do find following rules pretty boring and I've always been very wary of any pronouncements about turning that start with "this is the best way..." Even more, I have a strong aversion to statements that begin "this is the *only* way..." My feelings are well summed up what American blogger and furniture maker

Christopher Schwarz said in Australian Wood Review in 2013: "Respect and understand the past, but be prepared to reject it."

The difficulty lies not so much in developing new ideas as in escaping from old ones. JOHN MAYNARD KEYNES

My friend Jean-Francois Escoulen is one of the most respected turners in the world. From the age of sixteen he served a long and hard apprenticeship, as he explains: "I had to repeat the same thing till I got it right. Gradually I mastered all of the tools and for the next seven years I stood on the same spot in my father's workshop making the same things over and over." That's why he can still produce a cabriole leg to a specific design at blinding speed, and then do it without measuring, again and again. But in the mid 90s when he discovered the world of contemporary turning, all that changed: "When I was younger," he said, "I thought technique was everything. Now I ask myself if I wasn't a prisoner of technique."

Hell, there are no rules here—we're trying to accomplish something. **THOMAS EDISON**

Of course, breaking rules alone will not make you creative. In his book, *Serious Creativity*, Edward de Bono puts it very well: “Releasing the brake on a car does not automatically make you a skilled driver.” Both good woodturning and good wood art can only be achieved through good craftsmanship, but if you approach technique as an end in itself, you will find it very hard to let go and find new ways of doing things. An Australian wood artist, John Wooller, once showed me a burl in his garden that he intended to turn in one piece. It must have weighed a ton, but when I asked him how he was going to do it he dismissed the question with, “That’s only a practical difficulty. It’s the ideas that count.”

There’s no correlation between creativity and equipment ownership. **HUGH MACLEOD**

In this book I won’t be telling you what the best tool for each step is, because I don’t know what the best tool is. My choice only reflects what I am accustomed to using or what I own. For example, I tend to use bowl gouges where spindle gouges might be used by others, just because I am better at using a bowl gouge. That doesn’t mean it can’t be done just as well, or better, with another gouge, a scraper, or even sandpaper. Equally, most people in other parts of the world will not have the kind of wood I use, so they have to choose from what is available. Also, I only generally describe the measurements I use when I am making a piece, such as wall thickness. After all, what is the

best wall thickness? However, the main reason I don’t specify all these things is because this book is about encouraging you to think for yourself. I hope readers will not simply copy what I do, but will develop their own ideas, and that includes trying different woods, tools and equipment. When a technique is repeated, such as turning a spigot on the base of a bowl, there is no need to repeat its description in every chapter, so as you go further into the book there will be fewer practical explanations and an increasing emphasis on ideas.

It is ideas that distinguish wood art from traditional turning, something that is described very well by Mark Sfirri. Mark is a wonderfully creative woodturner, and he is also a deeply thoughtful educator and designer. In 2002 he addressed a conference at Yale University held in association with the tour of the exhibition *Wood Turning in North America Since 1930*: “There is a growing number of technically proficient turners who have not addressed the issue of design,” he said. “They have become better and better technicians, but their work doesn’t say anything.”

The chief enemy of creativity is ‘good’ sense. **PABLO PICASSO**

Often we will hear someone say, “I’m just not creative.” Behind this statement is the assumption that creativity is some kind of innate talent, and either you have it or you don’t. While most people understand that it requires repetitive practice to master a manual skill, such as cutting a bead in a spindle, they are often surprisingly reluctant to spend time developing their creative

skills. They may have tried it once or twice, then given up in embarrassment: “*I’m just not creative*”.

You can’t wait for inspiration, you have to go after it with a club. JACK LONDON

You can train yourself to become creative, but it is different from learning to turn a bead. When you are doing that, the brain and body will eventually internalize the movements, and after a number of repetitions your speed and accuracy will improve. Being creative is less clearly defined, which can make some feel insecure, as Sfirri explains: “How does one become creative? It takes as much, or more, effort as learning technique, *with the added risk of not being accepted or understood*.”

Being creative, involves the way we think, the way we see, and the way we interpret information. Much of this book is about that process and if you are open to it you can break down the barriers to producing original work.

There is much difference between imitating a man and counterfeiting him. BENJAMIN FRANKLIN

There is nothing wrong with copying, particularly at the beginning when we are developing our skills. It gives us a standard to aim for and helps us master difficult techniques. Some woodworkers, however, want to copy more than techniques and they get satisfaction from reproducing work produced through other people’s original thinking. If that’s what you enjoy, go right ahead—but you should always acknowledge the person whose idea it was. Equally, you should be content to call yourself

an artisan, or craftswoman, or woodworker – all terms that should be valued just as much as the often misapplied word “artist.” Most importantly, you should never sell copies of other people’s original work. That is an unprincipled intrusion into their market, no better than theft.

What concerns me most is that the more you copy, the less likely you are to create original work. In most woodturning exhibitions you will see clones of the latest fashion. In the 1970s Lindquist-like pieces with raw faults in the wood started to appear; in the 1980s it was Ellsworth’s hollow vessels; in the 1990s, three-legged bowls in the style of Hosaluk were common; during the 2000s we increasingly saw work that was heavily pierced and painted like Binh Pho’s pieces. They were sometimes brilliantly made, but they were still copies.

I can’t understand why people are frightened of new ideas. I’m frightened of the old ones. JOHN CAGE

I like to think I have had a few original ideas, but I am sure some of the things I describe in these pages had already been discovered by other turners before I uncovered them. When I am aware of that I always try to give credit. Equally, some turners have come to the same conclusions as I have without being aware of what I have done. It’s a very large field these days and it is impossible to keep up with what everyone is doing.

If you do see work that fascinates you, you can take the idea and alter it in original ways. I think very few artists mind if you do that, and many are delighted, especially if

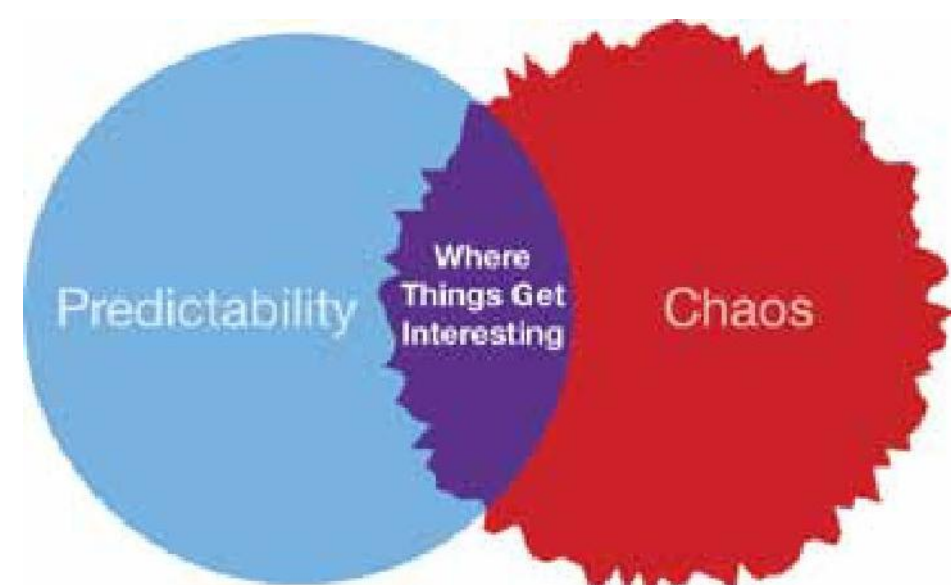
you give them credit for the inspiration. An accomplished jazz musician can take a melody and change the key, tempo and notes, then breathe some extra soul into it to produce something recognisable but completely original. It's called improvisation, and that's what we should do if we want to be creatively influenced by other people. But you need to do more than just change the color, or add a little extra decoration. If you find that people look at your work and say, "That reminds me of ...", perhaps you need to take the improvisation further.

Creativity is allowing yourself to make mistakes. Art is knowing which ones to keep. SCOTT ADAMS

We do need to be able to predict certain things when we work with wood, such as the way it will warp, what will happen when we cut in a certain way, etc. However, it is in the nature of improvisation that you may not know where you are going when you start out. Predictability is, after all, not very conducive to creativity. But introducing an element of unpredictability can help us see these things in new ways. The two ideas may seem mutually exclusive, but when we combine them there will always be a small overlapping area within which creativity can take place.

By introducing unpredictability into your work, you are bound to fail sometimes. For example, I had a very interesting experience when I started to explore how small the base of a bowl could be. When I started turning some told me that it should be one-third of the diameter of the bowl, but others said it should

be half. Many thought that the base of a fruit bowl, for example, should be wide so it wouldn't fall over when it was filled with fruit, but I soon discovered that most fruit will roll into the center of the bowl as it is filled, immediately stabilizing the whole. Then I learned that even if the bottom of the bowl is completely round, the bowl will rock, but the fruit will still not fall out. Around this time more and more turners were making bowls for contemplation, not for use. The bases of bowls and vessels became smaller and smaller to give a sense of "lift". I embraced this idea fully, confident that I was doing the right thing. Then, in 1995, I had my first solo exhibition in Japan. I noticed that certain pieces were not selling as well as I thought they would and one day a Japanese friend asked me, "Do you know why that piece won't sell?" I shook my head and she explained, "Japan is an earthquake country and it will fall over when a building shakes." I had lived in Japan through many earthquakes, but I had never made that connection. It made me rethink the whole question of bases and that is something I will explore in this book. In the realm of creative turning there is rarely one correct answer for any question, but if you keep asking questions you will find new answers.



1-1 Even when chaos exists, there is always an area where creativity can take place.

It is impossible for a man to learn what he thinks he already knows. **EPICETUS**

In 1989 I was at a demonstration where a well-known turner with a reputation for technical expertise was showing how to cut the outside of a bowl. When he finished he said, “That’s the best cut you can get on the outside of a bowl,” and invited us to feel it. After I felt the wood I could not resist saying, “I think

I can do better.” He snorted and thrust the gouge at me with a triumphant smile and said, “Show us then!” I turned the gouge “upside down” so the flute was facing downwards and took one quick pass, stopping half way so we could compare his cut with mine.

The others all agreed my cut was smoother, but the reaction from the demonstrator was, “That doesn’t count. You’re not holding the tool right!” I might be a bit more tactful these days,

Find the Right Angle and Let the Lathe Do the Work

The turner who was demonstrating was using a cut similar to Cut A. If you have your gouge ground at right angles to the flute, it is easy to cut with a minimum angle, but the top corner of the gouge is more likely to catch. With a more general grind, one way of increasing the efficiency of this cut is to raise the handle so the angle between the cutting edge and the wood decreases, lowering resistance to the cut, as in Cut B. In Cut C, the cut I used, the angle has decreased to almost zero.



Cut A: the tool is held in a flattish position and the cutting edge is at about 20 degrees to the wood as it comes down onto the tool. Note how the shavings are turned back upon themselves by the flute in the tool.



Cut B: by raising the handle, the angle between the wood and edge is decreased and the shavings can exit without hitting the flute.



Cut C: I have rolled the tool “on its back” and the edge is presented to the wood at almost zero degrees. The wood is sliced very cleanly, falling away below the cut in an unbroken ribbon.

but he probably still wouldn't accept what I did. He had been travelling the same route for so long that he was unable to imagine any other. If you want to be a real explorer, you need to wander off the beaten path. Sure, it will take time, but you'll see and learn a lot more.

You don't learn to walk by following rules. You learn by doing, and by falling over. **RICHARD BRANSON**

I have been delighted to find that a lot of studies confirm my own experiences of when and how new ideas happen. One of the best books on the subject is *The Brain that Changes Itself* by Norman Doidge. He writes: "All people start out with plastic potential. Some of us develop into increasingly flexible children and stay that way through our adult lives. For others of us, the spontaneity, creativity, and unpredictability of childhood give way to a routinized existence that repeats the same behaviour and turns us into rigid caricatures of ourselves. Anything that involves repetition—our careers, cultural activities, skills, and neuroses—can lead to rigidity."

I once experienced a good example of this when I was demonstrating how to hollow with the Stewart tool. I showed that the tool rest needs to be at the right height for the tool to cut at the center of the piece, and explained that I used a hacksaw to cut a small groove in my tool post (1-2) so I could set it at the same height every time. (1-3) Suddenly, a loud voice from the audience said, "You can't do that!" I looked up to see a red-faced man angrily shaking his head. "Why not?" I asked. "Because that's



TOP

1-2 A simple hacksaw cut in my tool post.

ABOVE

1-3 The tool cuts at center height.

not how you do it!" he replied. "But it works just fine for me," I said, "and it only takes a few seconds." A week later I received a small parcel containing a beautifully made brass collar with a thumb screw for tightening it onto my tool post. Although there was no note, I knew who had sent it. I'm sure he thought he was helping me, and it was very generous, but I could have told him that I wouldn't use it because it got in

the way when I wanted to lower my tool rest below center. Also, every time I moved it I would have to reset it later. I still use the groove in my tool post and it still works perfectly.

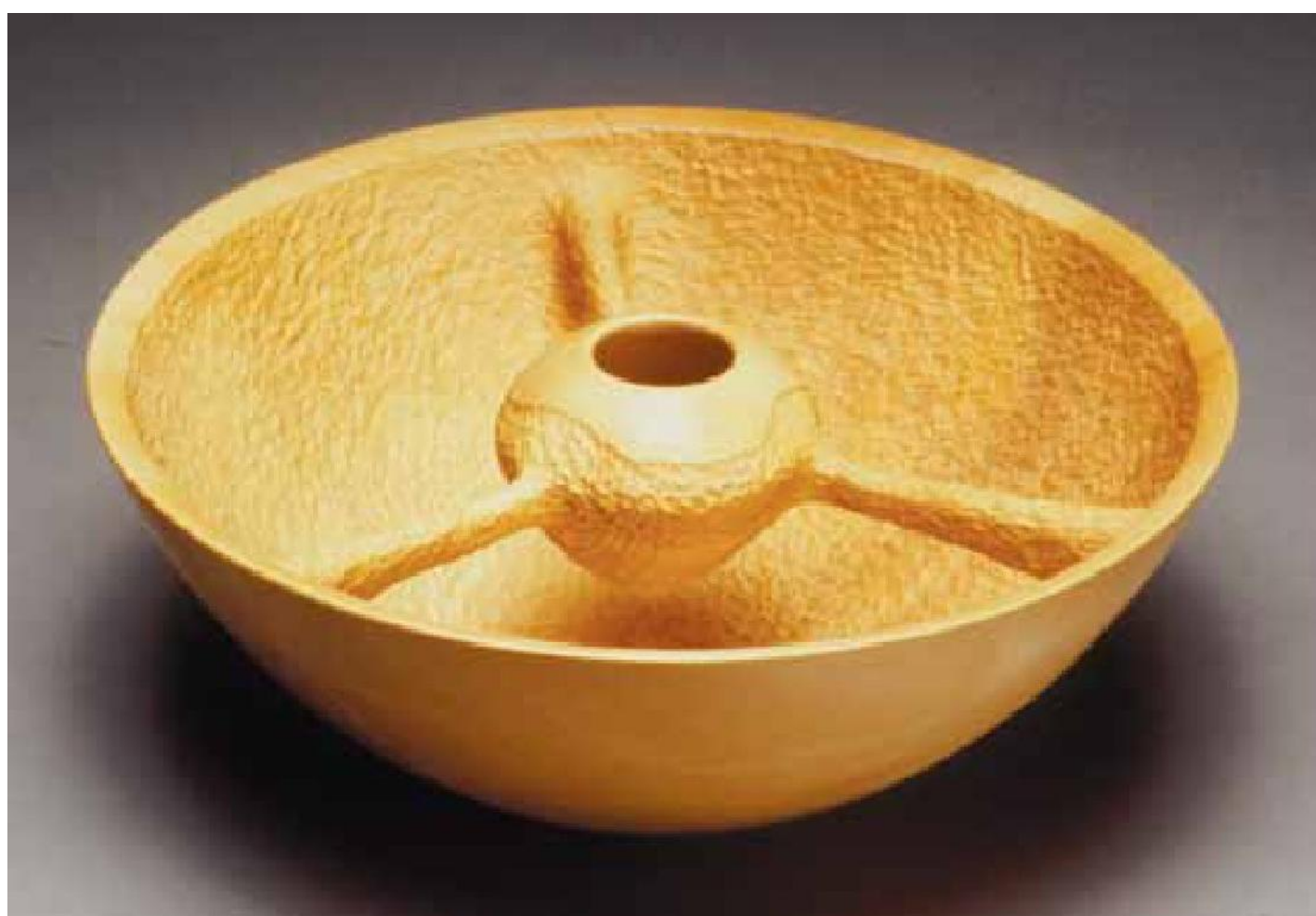
Accepting new ideas and learning new ways can be difficult, but Doidge confirms that it can be done: “Radical improvements in how we learn, think, perceive and remember are possible even in the elderly.

Anything that requires highly focused attention will help that system—learning new physical activities that require concentration, solving challenging puzzles, or making a career change that requires you master new skills and material.”

To me that sounds just like creative woodturning.

I dream my painting and I paint my dream. VINCENT VAN GOGH

For many years I have trained myself to *dream* new ideas, a technique I discovered by chance in the mid 90s. With no design training, I have never developed the habit of drawing what I make, so I have spent a lot of time developing my “imaging” skills. This consists of mentally rotating a piece of wood in my imagination, turning it through several axes to see how it can be changed. I often do this as I drift off to sleep and sometimes images coalesce in interesting ways. One night, tired



1-4 *Vessel in a Bowl*, 1995. Huon Pine, 11" D x 6" H (28 cm x 15 cm).

from a hard day in the workshop, I was lying in bed in that half-asleep, half-awake state where consciousness slips away. Suddenly a wholly formed image popped into my head. It was so startling that I woke up, found some paper and a pencil, and sketched the idea. The next day I went into my workshop and made the piece. It remains one of my most satisfying ideas and something that I still am inspired to expand on. The piece was *Vessel in a Bowl* (1-4) and it was the predecessor to *Impossibowl* in this book.

Since then I have always kept paper and a pencil beside my bed, ready for ideas to strike. Sometimes the whole process of making a piece, from the first to last cut, springs fully formed into my mind. Often the cold light of day exposes it as a poor idea, but occasionally it becomes a real breakthrough. There are many famous examples of this, such as Paul McCartney composing *Yesterday* in his sleep, and it is often spoken of as if it is a mystical creative process. I think it just shows that when you are

only partly conscious, you don't worry about rules and limits.

Why is it I always get my best ideas while shaving? ALBERT EINSTEIN

There are no guarantees this process will work, but it doesn't hurt to try. Plant a seed of thought in your head as you drift off to sleep, then let go and allow nature to take its course. It may be a piece of wood, it may be a bowl, or it may be a tooling process. Don't try to think of original ideas, just let the idea float in your mind and let it go where it will. This can also work in other circumstances, such as when the hot water washes away your stresses in the shower. *In Imagine: The Art and Science of Creativity*, Jonah Lehrer beautifully explains that when we let go, "...we are finally able to hear the quiet voices in the backs of our heads telling us about the insight. The answers have been there all along—we just weren't listening."

The absence of limitations is the enemy of art. ORSON WELLES

It seems paradoxical, but we can also stimulate creativity by setting clear limits. In *The Art of Choosing*, Sheena Iyengar writes: "We assume that if having choices is good, having more must be better...however, a wide variety of choices can also be confusing and overwhelming." She further writes: "Inventors and artists and musicians have long known the value of putting constraints on choice. They work within forms and strictures and rules, many of which they break only to establish new boundaries,



1-5 Eric Foulhe turning a soap flower.

sometimes even tighter ones." This is all the more credible when we learn that Iyengar has been blind since early childhood, and yet she became Professor of Business at the Columbia Business School. I think we can take her word for it that limits don't necessarily restrict creativity.

One example of how creativity can flourish within strict limits happened when I was teaching a series of classes in "creative turning" in France during the 1990s. The classes were for professional turners and one of my challenges was to offer activities that acknowledged their existing skills, but still gave them the chance to

try something new. One of the most successful exercises was when I asked them to “turn something for a blind person.” They discussed how to involve other senses than sight, then exploded into enthusiastic activity. Many of the pieces they made were wonderful, but one stands out. Eric Fouilhe was a maker of tailpieces for violins, a task that is both precise and repetitive, but he surprised us all with his originality. He took several small pieces of soap, each with different scents, and turned them on a lathe into flower-like shapes. (1-5) When they were done Eric threaded them all onto a thin dowel then, one at a time, asked each of us to close our eyes and placed the two ends of the dowel in our hands. He instructed us to hold the dowel beneath our noses and move it slowly across from end to end while we breathed in deeply. The flow of changing scents was amazing! He

had set himself the limited task of appealing to the sense of smell, but had asked himself *why must I use wood?* It was one of the most creative pieces of turning I have ever seen.

As another example of how to set limits to stimulate creativity, in 2002 I was asked to curate a national exhibition of wood art for a large Australian gallery. I didn’t want to have too wide a range of sizes in the show as large pieces can overwhelm smaller, more subtle work. It is boring to simply be given a size limit, so I decided to make the limit the very theme for whole show. We purchased plastic crates and sent one to each invitee. The only requirement was that the piece had to fit inside the crate. I called the show *Crate Expectations*. The artists responded with amazing inventiveness and the exhibition was very successful. It seems that, Houdini-like, the artist can be liberated by being put in chains.

2

Idea Tools

To the man who only has hammer, everything he encounters looks like a nail. ABRAHAM MASLOW

Over the years some of the best woodworking tools I have developed are simple ideas, and I use them just like any other tool in my workshop. I call them idea tools. Perhaps the most important of them all is:

Don't Ask What, Ask Why

If you want to be creative, don't ask yourself, "What can I make today?" Start by asking, *why?*

Why do I cut the wood this way?

Why must a candlestick be vertical?

Why do I have to do what everyone else does?

You may be tempted to answer, "because that's the way I always do it," but that only takes you around the block so you end up where you started. Once you have asked why, there is another question that can help you find a new answer:

What If...?

In 1996 I shared a residency at the Wood Turning Center in the USA with Michael

Brolly, a wonderfully unpredictable wood artist. I had made a fairly conventional square platter with a curved edge and when I asked Michael what he thought about it, he stood the platter on its edge, and said, "*What if* you stand it up like this?" I was deeply impressed because he was uninfluenced by the idea that it was a platter with a base, or even that it had been turned. For him it was a shape, a challenge to the imagination. Since then I have often made breakthroughs by framing very simple questions:

What if a bowl had a hole in the bottom?

What if I use a bandsaw as a texturing tool?

What if the recess for expansion chucking became part of the design?

You can play this game for hours and you never know where it will lead.

If You Have a Problem, Exaggerate it and Make it a Virtue

It's tricky to sand the inside of a deep hollow vessel and when I thought about it, I realized there is no particular reason why the inside has to be smooth, any more than the outside has to be. *What if I made it rougher?* I asked myself. Now I

often roughly groove the interior of my hollow vessels with a pointed tool. It's easy to do and no sanding is required. Also, the light is caught by the sharp edges of the interior grooves and that enhances the sense of depth and form. Best of all, the people who buy my work don't care whether the inside is smooth or not. But there is another reason, and that is another of my idea tools.

Contrast Enhances Everything

If you are in a dark room and emerge into bright sunlight, you have to squint to avoid the glare. It's the sudden contrast that causes the outside to seem so bright. This applies to any sensory experience: loudness vs. quiet; heat vs. cold; slow vs. fast. In woodturning, if you place a band of rough texture around the outside of a smooth bowl, the contrast, both visually and to the touch, will make the smooth seem smoother and the rough seem rougher. That's another reason why my grooved vessel interiors work. It is a contrast that allows the inside and outside to play both against and with each other. Equally, dark wood is even stronger if it is beside a light wood, and a dark pattern is even more effective if it is on a light background.

Look Outside the Field of Woodturning

Once you start to identify yourself as a woodturner, you tend to see everything from that perspective: "What's the best way to turn this?" Sometimes this kind of thinking has led to breakthroughs, such as the amazing chucking techniques of French turner Alain Mailland. He has been able to produce work on the lathe that defies understanding, but

even he admits that turning has its limits.

I once heard him asked if he thought of himself as a wood carver or a woodturner. He replied, "I spend most of my time sanding, so I suppose I'm a professional wood sander!"

If you want to find the answers to technical questions, it might help to talk to other woodturners, but if you want to be creative they might be the last people you want to consult. They are much more likely to come up with predictable responses because they are deeply involved with their own world of techniques and processes. *Why not* ask a complete outsider?

In 2012 at a wood symposium in China I met Pieter Baas, a highly respected wood anatomist. When I admitted I had never heard of wood anatomy, he explained his profession and showed me beautiful images of the cell structure of wood. I saw these ghostly patterns as unique designs created by the trees themselves and the possibilities flooded my mind. With Pieter's help I obtained permission to use the images for my work and the result, *Heart of the Tree*, is described in this book. Sometimes a new friend can help you see the world in new ways.

Many great ideas are born from a healthy irrationality. STEVE MARABOLI

Some of what you will find in this book may seem contradictory: open your mind vs. impose limits; work safely vs. break rules; find your own voice vs. talk to others. In fact there is no single path to creativity. You need to develop a menu of strategies and use them in different circumstances. In this book I have tried to illustrate the creative process by showing how

I came up with some new ideas. It is always fun for me, so I hope you can enjoy it as much as I do. But remember, there are many more ways of working creatively than mine, so I hope this book is only a starting point for you.

Sometimes our light goes out but is blown into flame by another human being. Each of us owes deepest thanks to those who have rekindled this light. ALBERT SCHWEITZER

Since 1991 I have written a great deal about woodturning and related subjects, but I have written relatively little about my own work. In 2010 I was showing images of my early work to

my good friends Ambrose and Brid O'Halloran. They surprised me when they said, "Why haven't we seen all this? You should let people know." Their interest in what I do led me to write this book, so my deepest thanks go to them both.

I am fortunate enough to have so many good friends who have shared this woodturning journey with me that I can't list them all here, but you know who you are, and thank you all. Most of all, I want to thank my wife Yuriko, who has never complained once as I struggled to survive as a turner, and my daughter Yumi, who has grown up with a father who came into the house every day covered in shavings and hope. She understands.

Safety First and Always

Conventional rules are not to be discarded lightly, but if you know them well, you can break most rules to achieve fascinating results. However some rules should never be broken and the most important of these are safety rules. Most of us have ten fingers, two eyes and a set of lungs, and there is no reason to endanger them. Please, use safe practices and apply them every time you work.

Safety Rules:

1. Always wear eye protection, and preferably a full face shield
2. Use a dust mask and have an air filtration system running in your workshop every time you work
3. Wear hearing protection when you use noisy machinery
4. Turn the lathe off before adjusting the tool rest or banjo
5. Tie back hair and avoid loose clothing or jewelry
6. Make sure any work is firmly mounted and rotate the work to make sure it is free before you turn on the lathe
7. Check the speed of the lathe is appropriate for the piece before you turn the lathe on
8. Examine the wood for dangerous cracks, bark inclusions, and other faults before you turn it. If you are not sure, don't use it
9. Make sure your tools are always sharp
10. Familiarize yourself with the manual and safety precautions for all of your machinery: lathe, saws, drills, carving tools, etc.
11. Never take chemicals for granted. Finishes of all kinds, particularly sprays, glues, and other compounds all have the potential to harm your health.

(After the rules found on the American Association of Woodturners website:
<https://www.woodturner.org/index.htm>)

Why These Pieces Are 100% Turned

When I am asked how I make pieces such as the Handled Bowl in Chapter 3, I always reply that they are fully turned on the lathe. I often get puzzled reactions and sometimes I am told it is not possible to fully turn such a shape. After I explain my die grinder rig, a common response is, “That’s not turning!” But I think it is.

Woodturning has been around for at least two thousand years, and maybe much longer. For the majority of that time, the wood has been driven with a reciprocating, or backwards-and-forwards, motion. The bow lathe, strap lathe, and pole lathe have been the main variations on this way of driving the wood. With all of them the wood spins back and forth and is only cut 50% of the time as it comes down onto the tool.

Those who claim that what I am doing is “not turning” have probably only ever worked with a modern electric lathe that spins the wood continuously in one direction. However, as recently as 100 years ago almost all the turners in the world used a reciprocating lathe and although they are a disappearing breed, there are still a few turners who make their living using these kinds of lathes. One example is the bow-lathe turners of Morocco, who you can still see in the markets turning trinkets for tourists. You can sometimes see pole lathe turners at craft fairs demonstrating their skills, and such turners often turned handled bowls just as I do, by turning the rim and then cutting away the unwanted part.

I have watched my friend Robin Wood hew an entire lathe—legs, bed, tool post, tailstock and tool rest—out of a log of oak in one day, and then spend the entire next day turning bowls on it just as quickly as most turners could do it on an electric lathe. He still makes his living this way and his family eats every day from bowls he made. Robin says, “Such things are not treasures, they

should simply be part of the way we live.” If you are interested in Robin’s work, visit his website (<http://www.robin-wood.co.uk>), or if you want to know more about the history of such turning and bowl turning in general, I recommend his book *The Wooden Bowl*, published by Stobart Davies.

Lathes that spin continuously in one direction have a much shorter history. These include hand-cranked lathes, steam powered belt-driven lathes, and finally electric lathes. In fact the modern electric lathe was not invented until the late 1890s in France.

I believe what I am doing is directly related to the basic technique that goes back to the dawn of turning: the wood reciprocates on the lathe and I apply the cutting tool as the wood travels back and forth. It would be slow, but I could do it by applying a gouge or other hand tool. I do it with the die grinder just to speed up the process. The fact that my cutting tool is powered by electricity is no more radical than the relatively recent electrification of the lathe. That’s why I claim the piece is fully turned.



My friend Robin Wood, who makes his living by turning on a pole lathe.



Handled Bowl, 2012.
Huon Pine, 10.5" dia. (26.5 cm).

3

Handled Bowl

There is nothing wrong with using unconventional techniques to produce traditional work and I have chosen a simple handled bowl to illustrate that idea. Handled wooden bowls have been made for thousands of years. All I have done is add a little modern technology in the form of a die grinder to remove portions of the turned form.

To start I mounted the blank on my screw chuck, a quick and easy way to mount small to medium pieces on the lathe. If a blank is larger and I need more security, I bring up the tailstock to support it until I have removed enough bulk. If it is very large, I use a faceplate with appropriately sized screws. With this blank secure I turned my usual double spigot, then shaped the outside of the bowl, leaving a heavy rim standing proud of the wall. (3-1)



3-1 Turning the outside of the bowl.

The Double Spigot

I often turn a “double spigot” on the base of a bowl. When I started production bowl turning there were no vacuum chucks available and I wanted to save time by not having to remount bowls to turn off the spigot. The smaller spigot is for holding the blank in the chuck. The second “spigot” is just a space for parting off the bowl when the turning is finished. After I had accumulated enough parted-off bowls, I always sanded the bases with a disc mounted in a Jacobs chuck in the lathe. Unlike other turners, the buying

public was not interested in whether I had turned and decorated the base, and it did not affect the sale price at all.

To make the spigot, I set my dividers to the internal diameter of the chuck jaws when they are perfectly circular. When they are manufactured, these jaws are turned as a complete circle on a metal lathe, then cut into four pieces to make separate jaws. The width between the jaws is the width of the saw cut. It is easy to see when the jaws form a perfect circle. (SB3-1) You will notice that these jaws bear the marks of many years of rough handling. In the next chapter I will show you how to rectify this.

Next, I transfer the diameter to the bottom of the bowl. (SB3-2). Note that the left leg of the dividers is supported by the tool rest and scribes the circle, while the right leg is held clear. If it contacts the wood the calipers will spin dangerously to the left.

I reduce the base around the spigot with a bowl gouge, then switch to a spindle gouge to precisely cut the spigot to the scribed mark. (SB3-3) I prefer to cut the spigot to the exact depth of the chuck jaws. I also taper the spigot to match the dovetail of the jaws. With a single chuck jaw placed on the spigot you can see there is maximum contact with

SB3-1 Setting the calipers.



SB3-2 Transferring the internal diameter of the jaws to the blank. This is not the same wood as the handled bowl.





ABOVE FAR LEFT

SB3-3 Cutting the spigot.

ABOVE LEFT

SB3-4 The spigot exactly matches the jaws .

ABOVE

SB3-5 The finished double spigot.

the jaw in all dimensions: the base, the inside face, and the top face of the jaws. (SB3-4) This gives maximum purchase and reduces the likelihood of slippage. An alternative view is that the spigot does not have to touch the base of the jaws as it is difficult to cut the spigot so precisely that it matches all three faces. Both views have merit. I sometimes do use a chuck with the jaws open beyond circular, but I try to limit it to wood that is strong and dry because if the spigot is oversized the jaws only contact the wood at eight high points. This usually means that when the jaws are tightened they are imbedded in the spigot, crushing the wood fibers. This concerns me as I think it weakens the spigot. Also, one chuck manufacturer produces banana-shaped serrated jaws designed specifically to be used in this crushing mode. It is extremely difficult to mount anything with precision when you use these jaws.

Once I have turned the primary spigot, I turn a second stepped “spigot” (SB3-5), which is not really a spigot, but a space for parting-off. Its diameter need only

be slightly larger than the first spigot, as that leaves less to turn away later. Its width should be slightly more than the width of your parting tool. I often use a thin parting tool made from a power hacksaw blade that only requires a tiny gap, thus saving valuable wood.

The bowl is then ready to mount in the chuck. I have removed two jaws here to show how it looks. (SB3-6). To ensure a big bowl is seated squarely in the chuck, I wind the tailstock in to seat the spigot fully in the jaws, then tighten it before I slide the tailstock away. The interior of the bowl is ready to be turned and the gap is ready for parting off when the bowl is done.



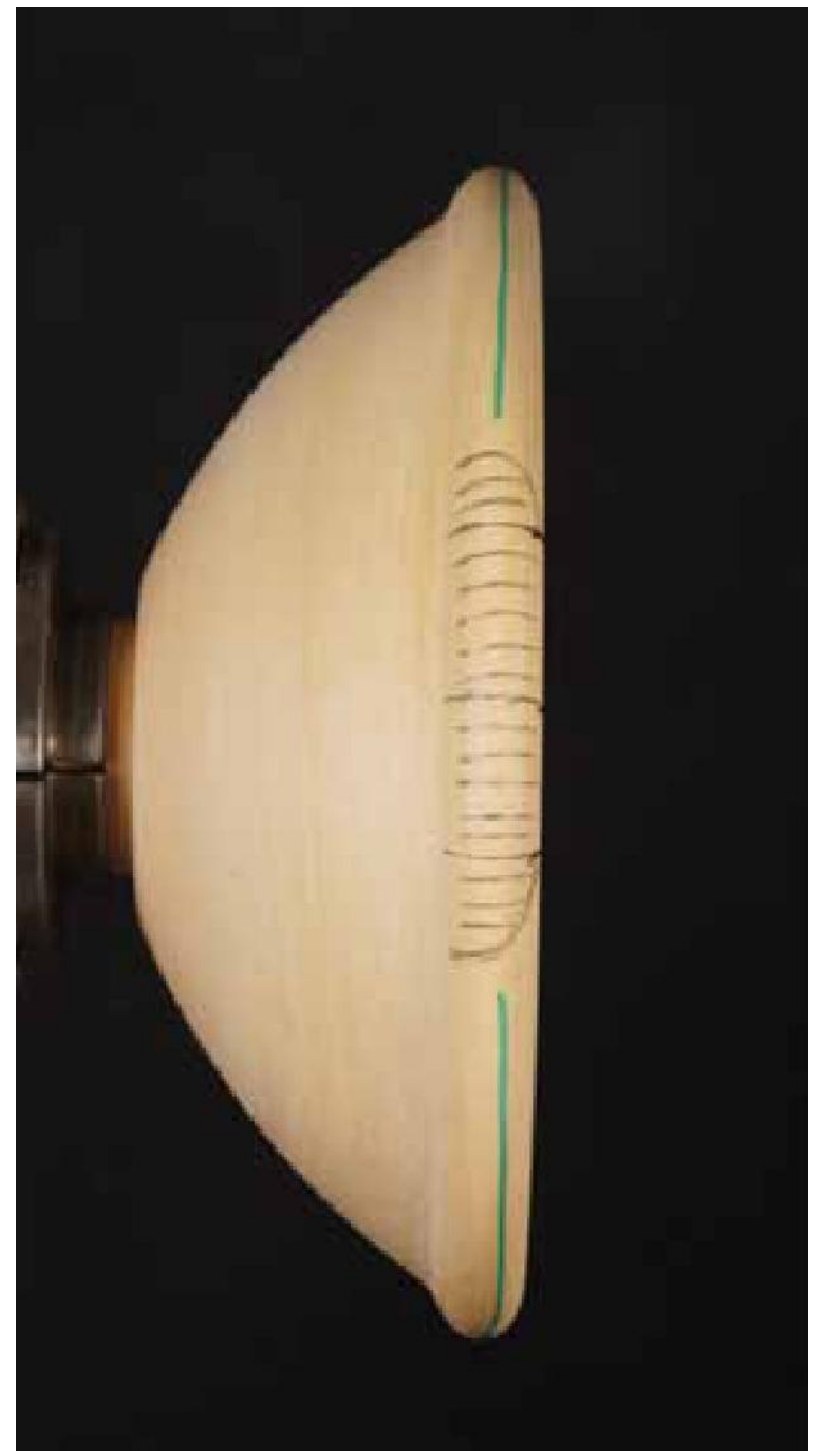
SB3-6 The tailstock is used to firmly seat the blank in the chuck.

BELOW

3-2 Undercutting the rim by swinging the gouge from left to right.

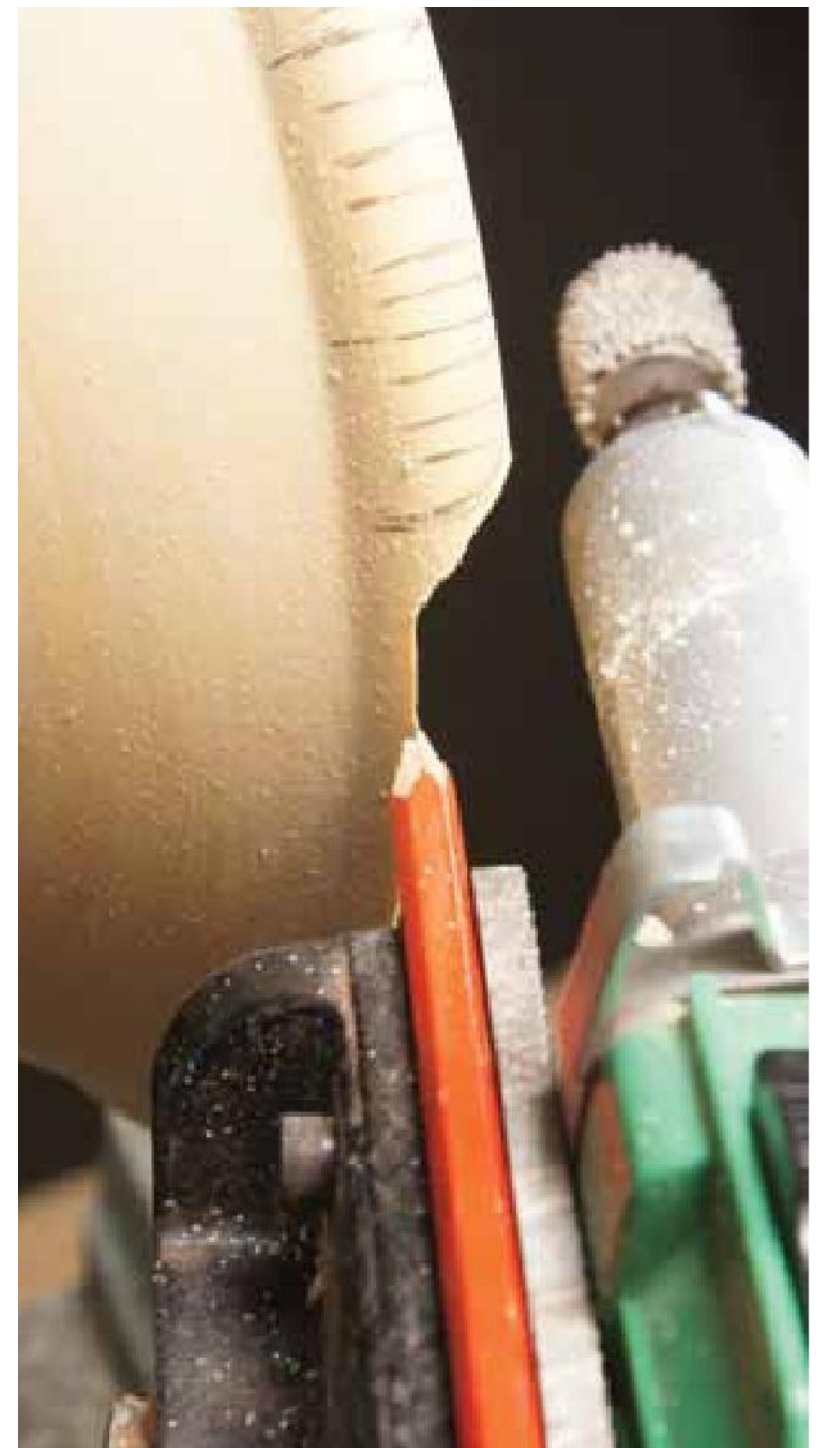
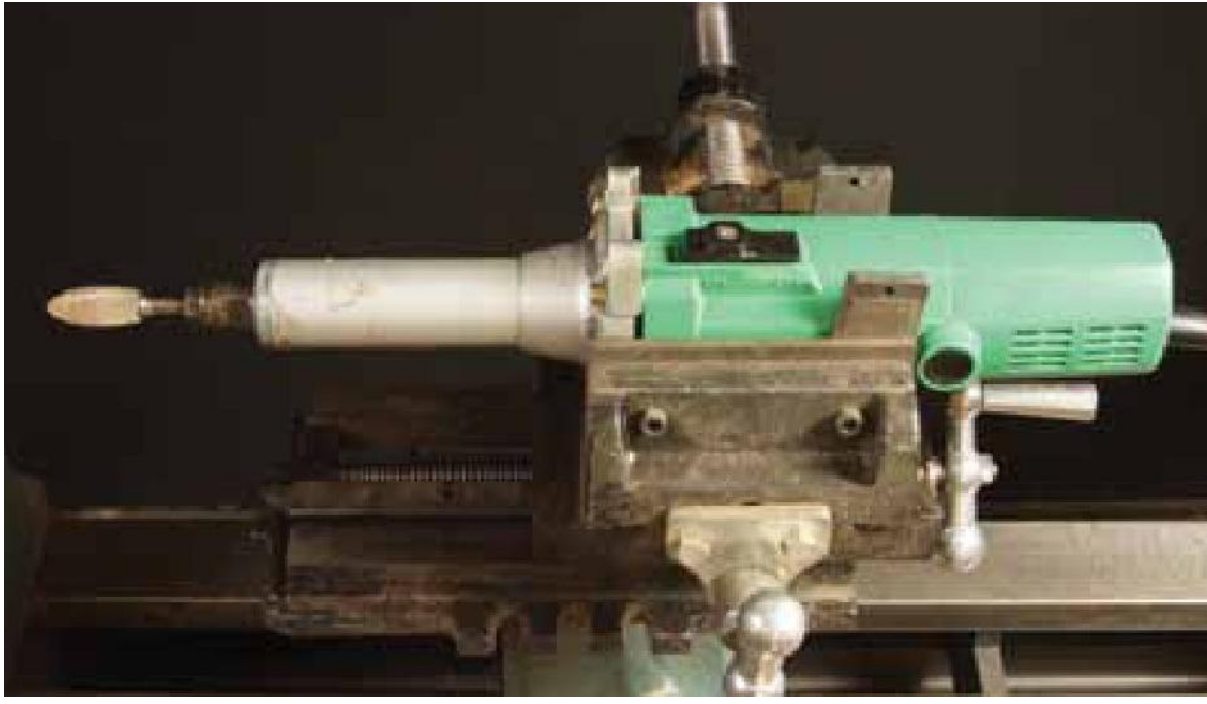
RIGHT

3-3 The marked-out handles.



After I reversed the bowl into the chuck, I rounded over the rim. Inside the bowl I undercut the inner rim to match it to the outside, then turned the rest of the wall down to a suitable thickness. (3-2) Once I had sanded the bowl inside and outside, I used the indexing head to mark out two handles on the sides of the bowl with the grain running parallel to the handles so they would be easy to shape later. (3-3). The green line indicated the area to be removed. Most importantly, the sections marked in black were the no-go areas.

Next I placed my usual rig for making intermittent cuts in the banjo. I have been using this simple set-up for over twenty years to make a variety of turned and sculpted pieces, and it has never failed me. It consists of an inexpensive cross-slide vice and a plate attached underneath with a post to fit in the banjo. I put my Hitachi die grinder in the vice, then place two rubber wedges at the rear to make sure the tapered grinder is firmly held in the vice. The rubber grips well, so the wedges do not work themselves out under vibration.



TOP LEFT

3-4 My usual setup for intermittent cutting of the rim.

ABOVE LEFT

3-5 Feeding in the die grinder.

ABOVE

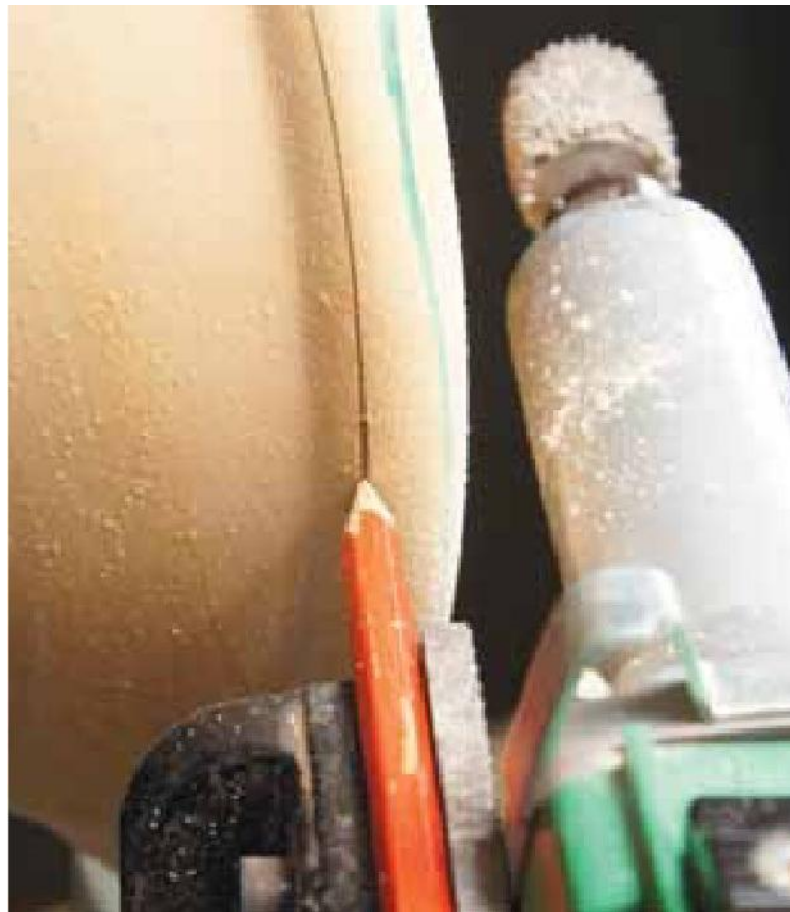
3-6 Lining up the pencil with the depth of the rim.

I use this grinder because its square-sided design means the vice can hold it straight and its construction is so robust that after many years of such use it has shown no ill effects. (3-4) A die grinder is a powerful tool, so it is important to be sure the tool is secure before you turn it on. I always wear a full helmet and ear plugs for this work. Since I devised this system some manufacturers have produced dedicated cross-slide vices for this process, so you may wish to search the catalogs for a model that suits your needs.

With a carbide burr in the grinder, I carefully positioned the grinder at

the angle I wanted to cut the rim and wound it in, as little as 1 mm (.03") at a time for each pass of the tool. If you try to cut too much you run the risk of kickback. I rotated the piece backwards and forwards between the no-go marks with my left hand using the outboard hand wheel, gradually winding in the grinder until I reached the depth I wanted. (3-5)

When I had finished the first side, I positioned the vice so that a pencil laid in a fixed position could be lined up with the depth of the rim. (3-6) It was simple to transfer the depth mark to the opposite side of the bowl so it



ABOVE
3-7 Transferring the depth mark to the opposite side.



ABOVE RIGHT
3-8 Shaping the rim with the smaller cutter.



RIGHT
3-9 Final shaping with a hand-held cutter.

could be cut to the same depth. (3-7) With the depth of the rim established, I changed to a smaller HSS cutter and shaped the rim with a series of small rounding-over cuts made by moving the banjo to different angles. (3-8)

Once the rim was roughly shaped I parted the bowl off the lathe, then continued shaping the rim and handles freehand using a flexi-shaft tool. (3-9) For the final shaping and sanding I used a method shown to me by several French turners. Sandpaper is inserted in a split pin and mounted

in a shaft-driven tool, like the wings of a butterfly. (3-10) The leading edge of the sandpaper needs to be longer, so it is mounted slightly off-center. I use this small flap sander more than any other for hard-to-get at places. It has the advantage of being very gentle on the wood, and it allows you to use offcuts of sandpaper that usually end up in the trash. I use Velcro-backed paper because it is slightly thicker and is less likely to fly out of the split pin. The pins are available from jewelry suppliers. With light sweeping

motions I sanded to 600 grit, gently rounding over any harsh edges. (3-11) You can do this sanding by hand, but this system makes it much easier.

I was happy with the final shape, but I felt the handles would look better if they were emphasized, so I stippled them with a pyrography pen, creating a dark contrast to the rest of the creamy wood. This is done by setting the tool to a temperature that does not burn too much (practice on a waste piece of the same wood), then lightly tapping the wood within the marked boundaries until the whole area is uniformly burnt.

This piece illustrates two of my idea tools that I talked about in Chapter 2. I first applied a power tool this way about 25 years ago when I wanted to irregularly shape a platter. I asked myself *what if*, and came up with the idea of mounting a router in a shop-made wooden cradle that I slid around on a table attached to the lathe. It was a very clunky system and the router was severely limited in how far it could reach into the work. After I looked at metal lathes I realized a cross-slide vice would give better control and then I saw that a die grinder would fit between the jaws. For a person like me without a trade background, this was a creative solution to a technical problem. The other idea tool that I used was contrast enhances everything when I highlighted the handles with the pyrography pen.



ABOVE
3-10 The butterfly split-pin sanding system.

LEFT
3-11 Using the butterfly sander to smooth the rim.

I chose Huon Pine for this bowl because it is easy to cut, but also because it has a unique scent that lingers for years. I didn't want to put a finish on the bowl that would seal the wood, so I simply buffed it with light abrasive and left it bare. For generations Huon Pine was one of the most prized timbers in Australia and it was aggressively cut till its survival was threatened. Appropriately, it is now a protected species, so we can only use deadfall wood, or wood that was cut in the past. Ian Trail generously gave me this wood from a stock of timber he had kept for decades. I hope he is pleased with what I did.



Munchtime, 2012.
Mallee burl, acrylic paint,
4.75" D x 1.5" H (12 cm x 3.75 cm).

4

Caterpillar Bowl

In 2012 I was invited to show my work in the annual themed exhibition organized by the Professional Outreach Program of the American Association of Woodturners. The theme that year was Beyond Containment. I kept asking myself what the word “containment” referred to and I could only imagine that the jurors wanted something that went beyond the usual bowls, vases, boxes, etc. As I always do when I am lost for ideas, I started searching through my wood stock in search of inspiration with the idea of containment firmly in mind. I saw there were many grubs in some recently cut wood, and was just about to pass over it when I thought, “They contain wood because they are eating it!” But how could I show that concept in a turned item? I thought of how we often turn wood that contains bugs, and that made me think of the number of times I have turned a bowl when grubs, or



4-1 The rough surface of the blank is drilled away to give good contact with the drive dog teeth.

parts of grubs, have flown out of the wood to splatter against my faceplate. Grubs and bowls: my idea was born.

With the recent experience of turning Handled Bowl in my mind, I put a piece of Mallee burl on the lathe between centers. If you need to use a drive dog against a rough surface of wood like this, it helps to first drill a flat spot with a sawtooth bit. (4-1)

4-2 Using a spindle gouge as a scraper, pulling it towards me to round the underside of the rolled rim.



4-3 The corner of a small square-ended scraper allows me to cut precisely under the rim.



I turned the outside of the bowl with a spigot as I usually do, in this case repeating the fatter rim that I did for Handled Bowl. On the inside I had to modify my turning technique because Mallee burl is many times harder than Huon Pine. Rounding over the underside of the rolled rim was tricky, so I used my favorite scraper, a spindle gouge. By rolling the tool on its side and applying the edge gently in shear-scraping mode, I pulled the tool towards me, producing shavings so fine that they were almost invisible.

(4-2) As long as you keep the gouge on its side and don't let it roll onto its back, you won't cause a catch. To cut the slight bulge below the rolled rim that would become my caterpillar's legs, I used the corner of a small scraper that allowed me to work "around the corner". (4-3) You could also use a small pointed hollowing tool.

With the turning finished, I had the shape of my caterpillar's fat body and legs below. The rim was partly broken up by the rough original



4-4 The turning is finished and the part of the rim to be removed is marked out with pink chalk.



TOP 4-5 Removing the unwanted rim.

MIDDLE 4-6 Scalloping the rim.

ABOVE 4-7 Cutting the bites in the rim.

surface of the burl, but that part was soon to be removed. I marked the part I wanted to keep in blue chalk, and the part to be removed in pink. (4-4) I used the same die-grinder set up to cut away the pink part, (4-5) then used a burr in a flexi-shaft tool to take scalloped cuts around part of the lower part of the rim (4-6) When that was complete, I switched to a tiny burr in my air tool to groove the scallops with tiny “bites”. (4-7) The rest of the lower rim was rounded and sanded as for a normal bowl.



ABOVE LEFT
4-8 Starting the caterpillar body.

ABOVE
4-9 Refining the body.

LEFT
4-10 Cutting the bite marks between the pairs of legs.

Next I marked the body segments for the caterpillar and inked in the legs on the smaller part I had turned below it. Then I used a smaller burr to start shaping the body. (4-8) When the body was roughly shaped, I switched back the air tool and started removing wood between the legs, and texturing the surface of the body with tiny dimples. (4-9) When I had cleared the wood between each set of legs I

repeated the bite marks I had done on the rim behind the caterpillar. (4-10)

After shaping the head with the air tool, I painted the caterpillar with acrylic paints. To create the spiky parts on the back I simply overloaded a small brush with paint and by holding the brush vertically to the surface, applied a dab of paint. When I pulled the brush gently back, it pulled a spike of paint with it. Left to dry, the spikes are surprisingly strong.



Detail of *Munchtime*.

The final piece, *Munchtime*, (see page 22) shows how a handled bowl can be transformed into a woodturning surprise. With a little *what if*, and some extra *why not*, I had made something I had never done before. My only regret is that the body of the caterpillar is a too straight. I should have cut it oversize so I could carve it into a more undulating shape. But I achieved what I wanted. The caterpillar is

munching its way around the rim with the characteristic scalloped bites they take, and that allows me to ask, does the bowl contain the caterpillar, or does the caterpillar contain the bowl? (above) Although caterpillars never eat hard Mallee burl in real life, I like to think it could consume the entire bowl, and so the caterpillar is Beyond Containment.



Hand and Eye, 2012.
Tasmanian Blackwood,
4" high x 7.25" wide x 4" dia.
(10 cm x 18.5 cm x 10 cm).

5

Hand and Eye

Simple handled bowls such as the one I showed in Chapter 3 are so familiar that we tend to take them for granted. However, early in my turning career I started to think about why a good bowl sits in the hands so comfortably that it feels like part of your body. Also, I saw that museums all over the world have collected a remarkable variety of bowls from different cultures and different eras: European Wassail bowls, Ming porcelains, Japanese tea ceremony bowls, Native American Animist bowls—the list goes on. Clearly the bowl often has a significance that goes far beyond the simple function of holding food or drink.

I believe that bowls have found such an important place in human culture because they are a physical extension of our hands. I started to watch people when they pick up my bowls. First they reach out, gather the bowl in



their cupped hands, and examine it. Then they lift it towards their face, and sometimes they even sniff it. It seems such a primal movement and I decided it probably feels so good because we are repeating one of the most basic and ancient movements that a human being can perform. When we lift water to our mouths with our hands we form a bowl with them, and this is exactly

5-1 A good bowl feels like it belongs in your hands.



ABOVE

5-2 Drilling out the blank.



ABOVE RIGHT

5-3 Rounding over the piece.

the same shape we make with our hands when we hold a bowl. You can try it for yourself. Hold your hands out in front of you, close together, palms up and fully relaxed. Immediately you can see that your fingers and palms form a bowl shape. Next, hold a favorite bowl in your hands. You will find that your hands are in the same position as they were when you were not holding the bowl. I believe this is why a good bowl feels just right. (5-1)

I had no independent evidence for the idea until I recently read what Richard Sennett wrote in his book, *The Craftsman*: “In the familiar physical gesture of grasping a glass, the hand will assume a rounded shape, suitable for cupping the glass, before it actually touches the surface. The body is ready to hold before it knows...”. I have been so intrigued with this idea that I decided to make a piece that

confirms the concept, a piece that tell your hands, through your eyes, what shape to form before you pick it up.

This piece is also a reaction to the fact that good wood is often cut for furniture makers, dimensioned along the grain in precise right-angles that are almost the opposite of what turning will produce. When I get wood like this I am reluctant to simply cut it round to make a smaller turning blank so, where possible, I like to turn a piece that is longer than it is wide. This is an application of my tool idea *if you have a problem, exaggerate it and make it a virtue*.

For this project I cut a piece of Tasmanian Blackwood 3" x 4" x 7.5" (7.5 cm x 10 cm x 19 cm). I drew diagonals from each corner to find the center, then punched a hole to guide the drill bit. I could have used a screw chuck to mount the wood

Rolling the Tool Into the Wood

When you are turning wood that is not circular, contact with the tool is intermittent, so you need to use a very controlled cutting technique. You can make intermittent cutting safer by following these guidelines:

Keep the speed as high as is safe for that particular piece. The quicker the piece rotates, the less time there is for the tool to enter the spaces between cuts.

Never allow any part of your hands to cross over the tool rest into the area where the wood is spinning.

Don't push the tool into the wood. Switch off the "rub-the bevel" rule and concentrate on pressing the tool down

on the tool rest. This is your fulcrum. Lower the tool handle, position the cutting edge near the place you want to cut and, by raising the handle gently and rolling the tool into the wood, you can control the rate of cut.



This photo of another piece shows how the tool is pivoted into the spinning wood. When cutting intermittently, this gives a high degree of control. Hand on tool removed for clarity.

on the lathe, but for a small vessel it is possible to eliminate one stage of the process by boring a hole with a sawtooth bit large enough to fit your chuck in expansion mode. I clamped the blank on the drill press and drilled about half way through. (5-2) Then, with the blank on the lathe, I shaped it as if I was turning a bowl. (5-3)

The outside line was smooth but not finely finished as the piece was going to be extensively sanded and textured. (5-4) For the same reason, there is no need for a double spigot as the small spigot will simply be sanded away. Another bonus of pre-drilling



5-4 The shaped base with the spigot.

RIGHT

5-5 Re-mounting
and lining up the
blank.

FAR RIGHT

5-6 Turning
from the center
outwards.

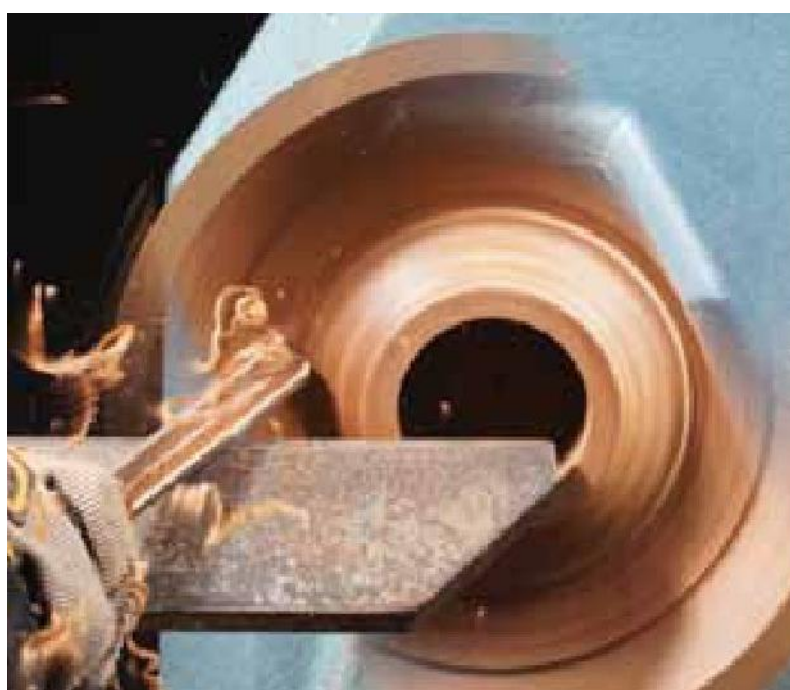


RIGHT

5-7 Turning
from the
outside inwards.

FAR RIGHT

5-8 Cutting the
dividing groove.

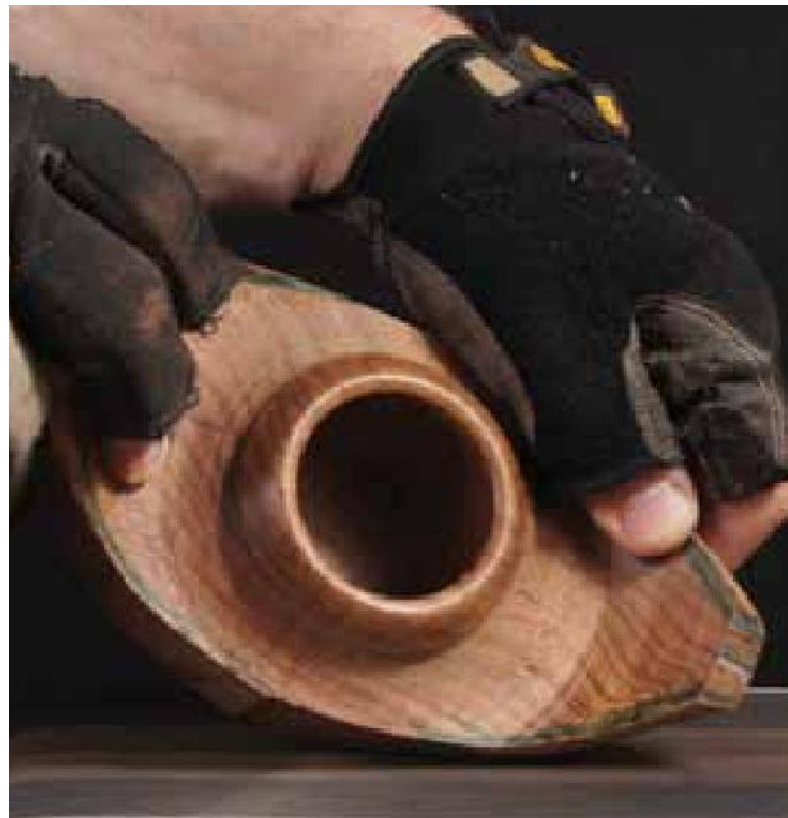


the hole for the opening is that I can check if it is seated accurately by putting the same bit into a Jacob's chuck and winding it into the hole before tightening the chuck. (5-5)

I started by turning outward from the opening as if I was shaping the outside of a hollow vessel, (5-6) stopped about half way, then cut from the outside inwards, like turning a bowl. (5-7) When the two curves were blended, I hollowed the piece, then sanded the interior and rim to a high finish. As the

final turning stage, I used a small pointed tool to cut a dividing groove which would separate the smooth rim from the rough body. (5-8)

Off the lathe I drew two curving lines on the underside of the piece to outline the final shape. It was not necessary to be very precise because a lot of material would soon be sanded away. I cut away the waste on the bandsaw, (5-9) then removed the spigot and sanded the corners round with 60-grit on the belt sander. As long as the piece is kept in constant



FAR LEFT

5-9 Cutting away the waste on the bandsaw. Note: I oversized the spigot and, just as I said in the previous chapter, the jaws have crushed the spigot.

LEFT

5-10 Rounding the piece on the belt sander.



LEFT 5-11 Sanding on the stiff leather disc.

ABOVE 5-12 Texturing the vessel.

movement, sweeping backwards and forwards to create flowing lines, it is one of the easiest and most rapid ways of shaping wood. But be very careful of your knuckles! (5-10) I smoothed the surface further with a shop-made system made for me by my friend Christian Delhon. It consists of a wooden cone mounted on a bolt with a layer of stiff leather glued on. Velcro is glued to the leather and the whole surface slightly resists flexing.

The disc partially wraps around the wood and quickly removes all the high spots, so it took no time to achieve a fully rounded smooth surface. (5-11) I had to be careful not to sand the raised rim of the vessel that had already been finished.

Lastly, I textured the surface of the vessel outside the rim using a high-speed air tool and a tiny burr. (5-12) It is time-consuming, but the resulting texture is pleasingly delicate. Often



5-13 The piece fits exactly as intended in the hands.

you will see attempts at this kind of texturing that look very rough. To be successful, the pitted surface has to be smooth in profile, the pits have to be uniform in depth and, even with small cuts like this, it is necessary to make each cut with the grain as cuts against the grain show up by reflecting the light differently. It is painstaking work, but the resulting contrast with the highly polished rim is very satisfying. Remember my idea tool: Contrast enhances everything. On the underside I left a small smooth area for my signature.

The finished piece fits beautifully in the hands with a strong sensation

that it really belongs there. The lightly textured surface feels very good against the sensitive surfaces of your hands. Most interestingly, if you hand someone this piece upside down, point first, or held in any other way, they will immediately hold it in exactly this position. (5-13) I believe it is the result of both the eyes and the hands reacting to our ancient instincts. That's why I called it *Hand and Eye*. (page 28) An oil finish to emphasize the rich wood tones makes the piece even more tempting to touch. Placed on a table, the piece rocks gently, almost begging to be picked up.

Turning Your Chuck Jaws on Your Lathe

It's important that your chuck jaws should run true, but years of use can wear the metal, or you may nick the edges with a badly placed cut. If you are not sure whether your jaws run true, put the chuck on the lathe and run it very slowly. If they are not true, a wobble will appear at their edges. You can firmly place a piece of wood on the tool rest and gently advance it up to the jaws to hear if there is an irregularity. If there is, the solution is simple: re-turn the jaws on your lathe. I've had some surprised reactions to this suggestion, but the wood lathe is the immediate ancestor of the metal lathe and there was once very little difference between the two. If you are careful you can turn soft metal on your wood lathe with hand-held tools.

To illustrate this I used the standard jaws on one of my Vicmarc chucks. They are around 25 years old and the numerous nicks in their surface are a record of my sometimes over-enthusiastic cutting. First, fit small fillets of wood in the gaps between all of the jaws when they are just slightly larger than a perfect circle, then tightly close the chuck. This prevents chatter when you are cutting the jaws. You must not try this without

securing the jaws in this way first. Also, when turning metal, eye protection is even more important than when you are turning wood.

With the chuck on the lathe, bring the tool rest up close to the faces of the jaws. Set the lathe to around 500 rpm and use a small square-ended scraper to true the metal. Let the lathe do the work. I find it easiest to use the same rolled-in cut I described earlier. (SB5-1)

In the same way, you can true up the outside and inside faces of the jaws. The improvement will immediately be obvious and there will now be much better contact between the wood and the jaws. (SB5-2) Not all jaws are made of soft metal and I certainly would not try this with an old engineering chuck. To test the hardness of your chuck's jaws, remove a jaw and try scratching its back with the edge of a turning tool. If it easily leaves a mark, you will know your tool is harder than the jaws.



ABOVE TOP

SB5-1 Rolling the scraper slowly but firmly into the chuck jaws by raising the tool handle.



ABOVE

SB5-2 The newly dressed jaws.



Impossibowl, 2012.
Huon Pine,
3.25" H x 8.25" dia.
(8.25 cm x 21 cm).



Top view of *Impossibowl*.

6

Impossiblebowl

Although copying somebody may not be a good way to develop creative abilities, most of what we do is based to some extent on things that have been done before, and improvisation on existing themes is a great way to work. This piece is an improvisation on the idea I had in 1995 that led to *Vessel in a Bowl*. I enjoy making pieces which look impossible and here I take one of the most commonly turned objects, a bowl, and do something to it that I believe has never been done before.

I started by turning the outside of a simple bowl in Huon Pine. Once the outside was turned I mounted it in the chuck, again with my double spigot. (6-1) Next, I started hollowing as if I was going to turn a normal bowl. Leaving a fairly thick rim, I cut down only a short distance into the bowl interior. (6-2) Once I had established the depth, I used a



ABOVE
6-1 The bowl mounted in the chuck after the outside is finished.



LEFT
6-2 Starting the hollowing.



LEFT
6-3 Flattening the top surface.

BELOW LEFT
6-4 Measuring the center.

BELOW
6-5 Drilling out the depth.



square-ended scraper to flatten the whole interior surface to the same depth. (6-3) Next I measured the depth the bowl needed to be, easily done by using a straight edge across the base, then subtracting the wall thickness. (6-4) I chose a sawtooth bit that would cut a hole just big enough to allow me to swing a hollowing tool

all the way inside to the outer rim. I subtracted the length of the tiny point at the center of the bit from the desired depth dimension, then drilled the bowl out to that depth. (6-5)

For the next stage I took the bowl off the lathe, still mounted in the chuck. I drew a bar shape roughly the same thickness as the bowl wall



ABOVE LEFT

6-6 Marking the first cross bar. The arrow indicates the grain direction.

ABOVE

6-7 Marking the second cross bar.

FAR LEFT

6-8 Drilling the depth holes.

LEFT

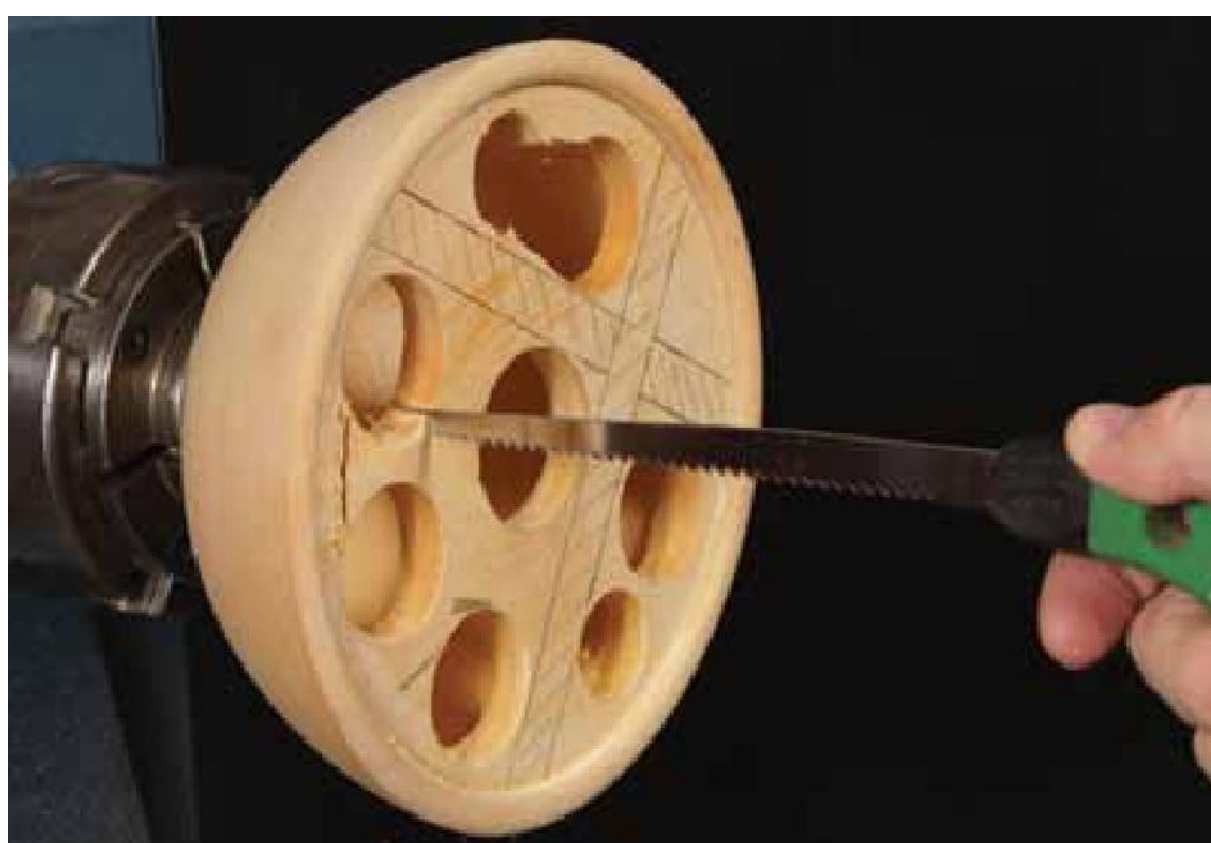
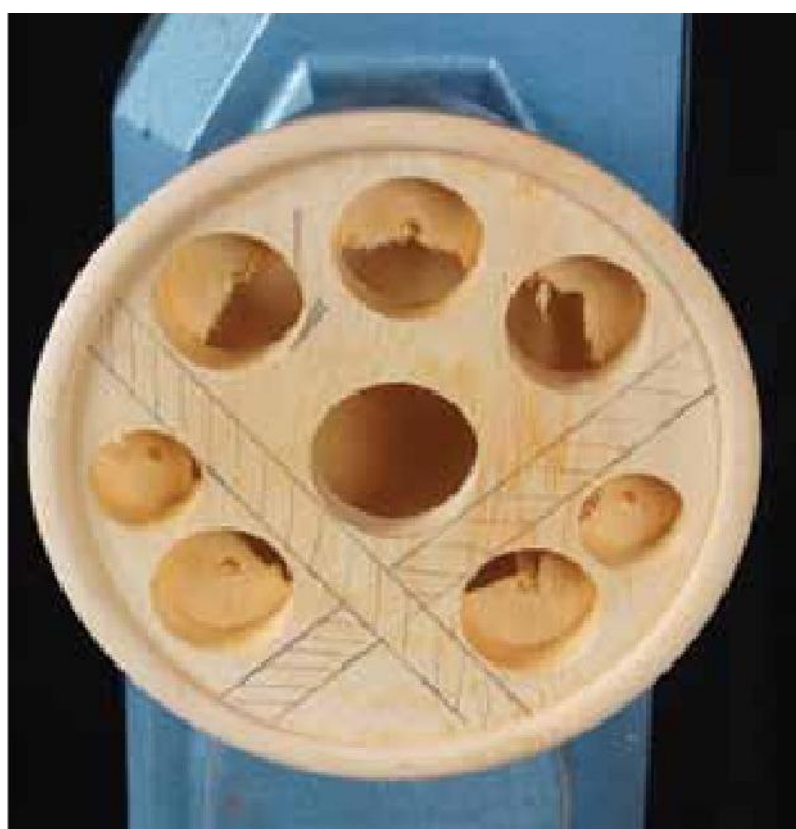
6-9 Starting hollowing.

at 45 degrees to the grain direction, just touching the hole on the inside edge. (6-6) Using a square, I marked the second bar at 90 degrees to the first. (6-7) They were both at 45 degrees to the grain direction, so they would be equally strong.

On my drill press I set the depth stop to the same dimension as the

thickness of the bars I had marked on the top of the bowl. Using sawtooth bits I drilled away as much of the wood between the bars as I could while still leaving enough wood to retain strength. (6-8)

With the bowl back on the lathe, I started hollowing with my Stewart tool. (6-9) With a light shining from



TOP

6-10 By cutting across carefully, I reveal the depth of the holes.

TOP RIGHT

6-11 Working towards the rim.

ABOVE

6-12 Working with a single light.

ABOVE RIGHT

6-13 Removing more waste with the pull saw.

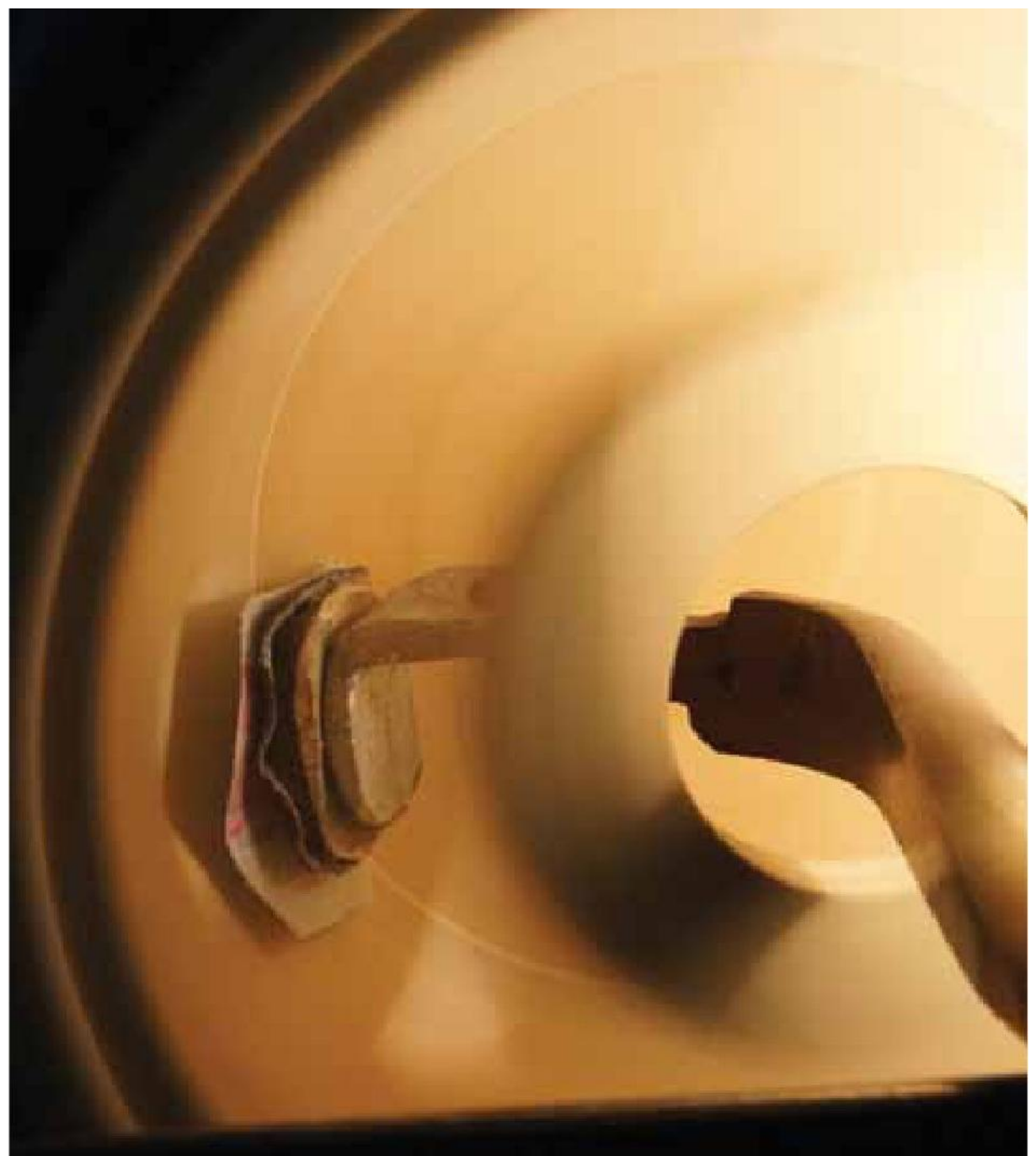
the right into the holes, I carefully worked my way across to the left. As I cut away the underside of the bowl top, I reached the depth of the drill cuts and the light started to shine through the base of the holes. (6-10) I continued to the rim, taking sweeping cuts from the base of the bowl towards me and stopping as soon as I could see through (6-11) As I approached the rim I turned off the main room lights and worked with a single light shining from the right. In this way I could see

exactly what the tool was doing. (6-12) I knew when to stop by measuring the wall thickness with calipers so it matched the thickness at the rim.

Once I finished hollowing I knew the remaining wood around the central hole was all exactly the same thickness. I didn't need to turn any more of the underside of the bowl interior, so it did not need to be so strong. That meant I could remove most of the remaining waste with a small pull saw. (6-13)



I've never sanded the interior of a deep hollow piece before, so I made my own sanding attachment for the Stewart tool. I cut a right-angled section from an iron shelf bracket, rounded over the ends on the belt sander, then drilled a hole for fixing it to the Stewart tool. I cut a rubber pad on the bandsaw from a pair of rubber sandals. I often use this rubber for sanding pads as it is just the right density and if you buy the largest sandals you can find, it is very cheap. One pair of size-13 sandals has lasted me nearly 20 years. I glued it to the bracket using shoe repair adhesive, then shaped it by sanding on the lathe. (6-14) I finally attached Velcro with the same glue. With this pad I was able to sand through to 600 grit, obtaining a finish just as good as if I had unrestricted access to the interior. (6-15)



TOP
6-14 Shaping the sanding pad.

ABOVE
6-15 Sanding the interior.



6-16 Blending the interior wall.

The next stage was to remove the remaining waste to blend with the upper and lower parts of the bowl interior. To make sure it was both circular and smooth, I used a very sharp tungsten bit in my die-grinder setup, carefully cutting towards the rim and stopping just short. (6-16) It was necessary to cut very carefully to avoid going too deep or damaging the cross bars. With a flexi-shaft tool I also cut back to the lines I had marked for the crossbars. You can see from the markings that I had changed my

mind about the width of the bars and added about 20%. (6-17) To finally blend the inner curves, I used a plastic tongue attachment on a delta sander with a rubber pad attached to soften the cutting action. The flexible attachment allowed me to sweep backwards and forwards with fine-grit sandpaper to get a perfect finish. (6-18)

I used a U-shaped carving gouge to blend the ends of the bars with the wall and by careful hand sanding I achieved a seamless transition from the walls to the bars. This is

very important as any evidence of carving between the bars destroys the effect. (6-19) All that was required to finish was gentle hand-sanding.

This piece took me about a week to make, with many rests between sessions to make sure I didn't work on it when I was tired. It feels good in the hand and challenges the eye. I left it without any finish as the smooth, buttery-looking wood compliments the simple design. I have shown it to many people and have always had a good response. But just when you think you know what people are thinking, you can be proven very wrong. One person said to me, "Why did you put the handles on the inside?"

The best comment came from my friend Mark Lindquist. I sent him a photo and told him I was trying to make an "impossible bowl". Mark replied, "Of course....it's an *Impossibowl!*" I had my name, so thanks Mark.

TOP

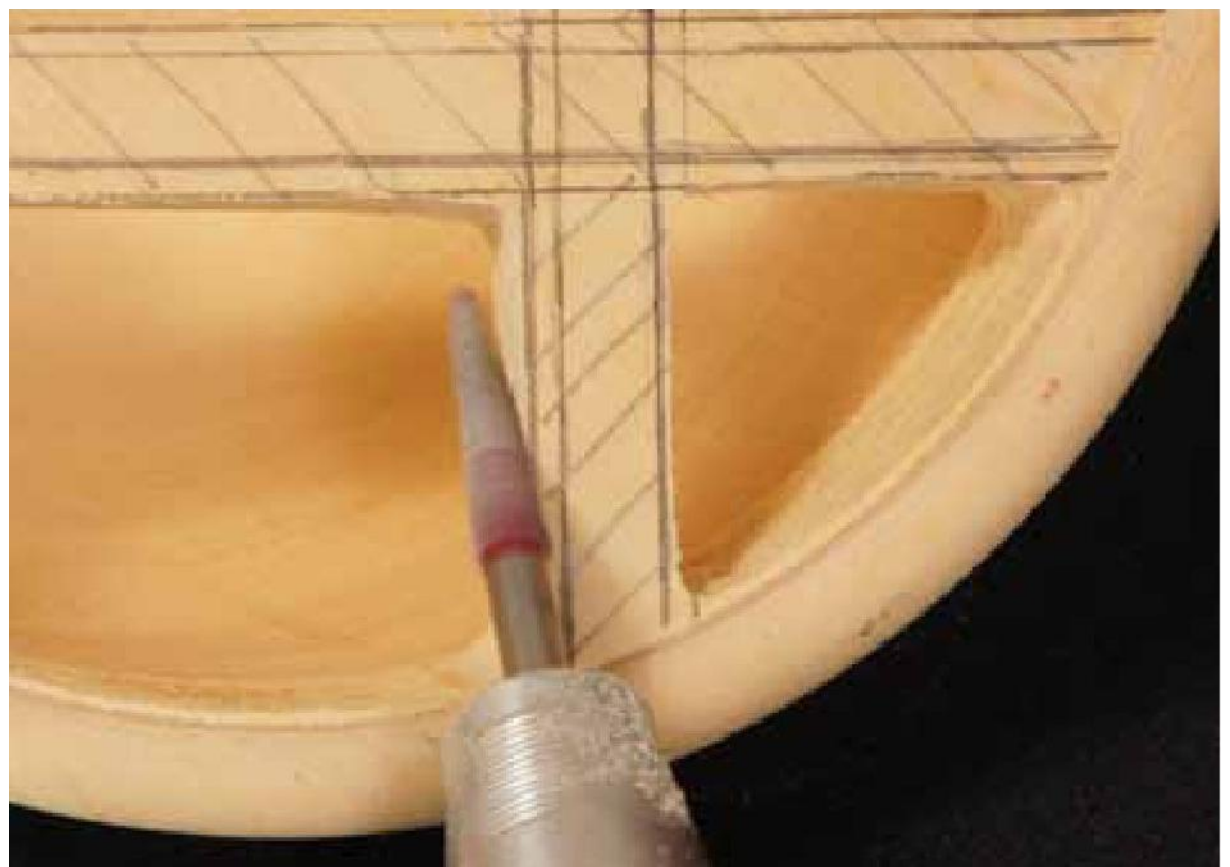
6-17 Cutting to the edge of the bars.

MIDDLE

6-18 Power sanding the inner wall.

RIGHT

6-19 Carving the transition between the bars and the walls.





Not More Than... Not Less Than..., 2012.
Queensland Rosewood,
6.75" high x 3" block width
(17 cm x 7.5 cm).

7

Not More Than... Not Less Than...

In the previous four chapters I showed some of what you can do with bowls if you think creatively. In this chapter I will play with another traditional form of turning, the goblet. This exercise is a good illustration of most of my idea tools, and it is also an example of how to creatively break the rules, and I mean that literally.

In the 1990s I was a member of a woodturning club that held a large annual competition and one category was “A Matching Pair of Goblets”. It’s often a challenge for hobby turners to produce identical pieces, so I appreciated the value of such an exercise, but I found the dimensional requirements amusingly tight. I can’t recall the detail, but they went something like: To be not less than 5" (12.5 cm) and not more than 6" (15.25 cm) in height, diameter to be no greater than 4¾" (12 cm)...and so on.

I decided to see if I could meet the criteria and still have some



fun, so I made my Matching Pair of Goblets. (7-1)

In this chapter I want to revisit that theme. I started with an old fence post made from Queensland Rosewood, partly rotted and split on the outside, but still in good condition on the inside—perfect for this project. From the soundest part I cut two pieces and on both ends of each piece I scribed

7-1 A Matching Pair of Goblets, 1990. Ironbark, old fencepost, 9.25" high (23.5 cm).



ABOVE

7-2 Scribed circle on the end of the section of fence post.

ABOVE RIGHT

7-3 Turning down to clean wood.

RIGHT

7-4 Shaping the goblet head.



a circle that was as central as possible while avoiding major splits. (7-2)

I mounted the first piece between centers and turned a spigot on one end. After reversing the wood into the chuck, I roughed down the wood for a little less than half its length to a depth where the cracks in the exterior had not penetrated. (7-3) Next, I

switched to a spindle gouge and turned the outside of the goblet. (7-4) To prevent vibration I hollowed the goblet while the stem was still oversized. (7-5) Even though this was end-grain turning, the soft wood enabled me to turn straight into the end grain with my bowl gouge. Once the goblet was hollowed, I finished the stem of the



goblet with a small decorative element at the top of the stem. (7-6) I cut the bottom of the stem so it looked like it was emerging from the solid block.

Once the first goblet was done I turned the spigot on the second piece of wood and mounted it in the chuck. Then I aligned the top of the goblet I had just turned with the left end

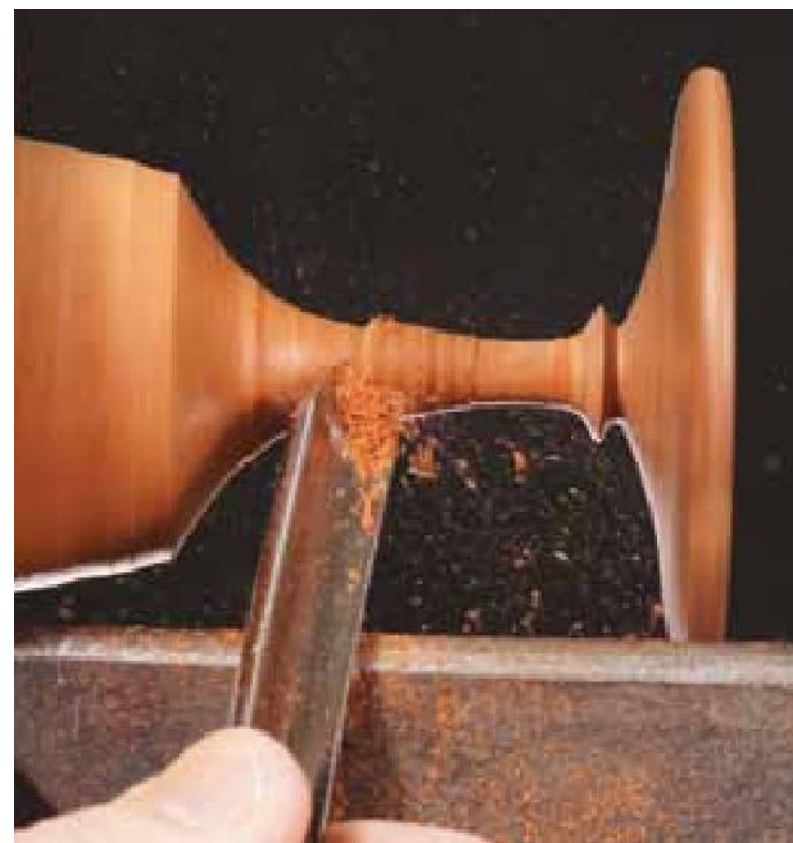
of the piece on the lathe (minus the spigot). (7-7) Because it was difficult to mark the exterior of this wood, I put a mark on the tool rest where the two pieces would match and where the base I was about to turn would be. (7-8) I roughed down the blank to the marked point in the middle, then turned the base of the second goblet

TOP LEFT
7-5 Hollowing
the goblet.

TOP RIGHT
7-6 Finishing
the stem.

ABOVE LEFT
7-7 Lining up
the pieces.

ABOVE
7-8 The line-up
point on the
tool rest.



TOP

7-9 Turning the base to length.

TOP RIGHT

7-10 Shaping the stem.

ABOVE

7-11 Grooving the block.

so both goblets would be the same height. (7-9) To finish the base I turned some decorative grooves in the bottom and completed the stem, including a decorative element to match the other piece. (7-10) I was able to move the tool rest in closer because I didn't need the match-up mark any more.

Sometimes when you revisit old ideas you can see something that completely eluded you the first time around. When I made my first set of these goblets all those years ago, I had great difficulty

getting a smooth finish in the end grain where the stems emerged from the blocks. In the years since then I have adopted the idea: If you have a problem, exaggerate it and make it a virtue. So to finish each of the emerging goblets, I used a shop-made curved and pointed scraper that Alan Mailland gave me many years ago to groove the surface of the block. The curve allowed me to cut almost straight into the wood without touching the spinning stem. (7-11) I didn't attempt to space the grooves uniformly. The grooves enhance the feeling that the goblets are "emerging" from the raw block. (7-12)

Once the turning was done, I cut off the spigots with the bandsaw, leaving the serrated saw marks to enhance the rough quality of the blocks. When they stand together they match up perfectly. (see page 44) The finished goblets show that they were made from the same block because the cracks

and faults line up. The unashamed purpose of these goblets is to have fun. I called this piece *Not More Than... Not Less Than...* for two reasons. The obvious one is the play on words from the competition guidelines. But I am also saying that my goblets are neither superior to traditional goblets, nor inferior. All things have their place.

Years ago when I submitted my goblets for the club competition, the Receiving Officer looked horrified and said, “What’s this?” “It’s my matched pair of drinking vessels,” I replied. He spluttered for a moment then said, “But they’re not finished!” He held up the goblet with the turned base and said, “Where’s the top of this?” I pointed to the block above the stem and said, “It’s in there.” He looked at me like I had gone completely mad. “I can’t accept these,” he stated. “They don’t fit the criteria.” He was wrong because the equivalent turned parts on each goblet matched perfectly and all the other dimensions were within the guidelines, but of course he wasn’t thinking of the criteria. What he meant was that the goblets didn’t match his vision of what matching goblets should be. I hope he gets to read this book and that my explanations here change his opinions a little.



7-12 The grooves around the stem in the block.



Geometrical Box, 2012.
Jacaranda, 5.75" H x 4" W x 4" D
(14.5 cm x 10 cm x 10 cm).

8

Geometribox

The lidded box is another kind of traditional turning that requires a range of skills, and in many how-to books the emphasis is often on mastering suction/snap-fit lids, disguised lid joints, threaded lids, and other techniques that require a degree of precision. I don't mind being precise, but I was asking myself why a turned box had to be round as far back as 1992, so this piece is the latest in a long line of square boxes.

To make this box I cut both the lid and body from the same piece of wood so they would expand and contract at similar rates when the ambient humidity changes. That means the lid will usually fit well. Also, lidded boxes are best turned with the grain running vertically so they will expand and contract uniformly around the diameter. I chose jacaranda because it is very stable wood and its creamy color is good for burnt decoration.



8-1 Turning the spigot on the base of the box.

First, I cut the body section from the larger block, mounted it on the screw chuck and turned a spigot on the end. (8-1) After I reversed it into the scroll chuck, I drilled out the core to establish the depth, then opened it out with a bowl gouge. (8-2) You can see from the fractured shavings that I am cutting into end grain. Ring tools and hook tools are both better for



TOP

8-2 Turning out the center of the box.

LEFT

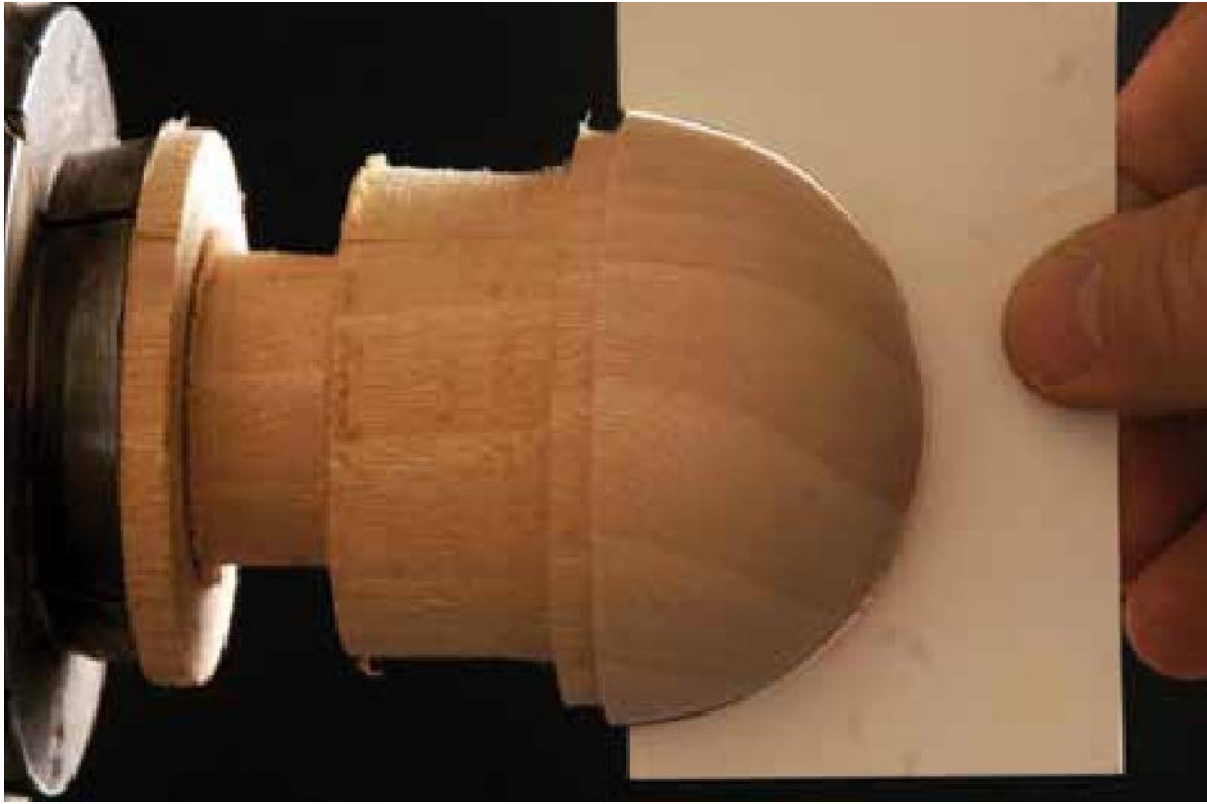
8-3 Rolling the tool towards the headstock to remove the spigot.

end-grain cutting, but this wood was easy to cut, so I stuck with my trusty bowl gouge. Once I had gone as far as I could with the gouge, I used a hollowing tool to open out the interior until I had the desired wall thickness. Because there are four thinner spots at the center of each square wall, I checked constantly with calipers.

After hollowing, I reversed the box onto the chuck to remove the spigot by carefully expanding the chuck jaws into the box opening.

With this technique it is important not to apply too much pressure as the end-grain can easily split. To reduce sideways stress that might pull the lightly-mounted box off the chuck, I used the rolled-in cut I described in Chapter 4 in easy steps across the base. This cut pushes towards the headstock and not across it. (8-3)

Next I turned a spigot on the lid section, then turned a hemisphere with a smaller lip to fit the box opening. I cut out a semicircular



LEFT

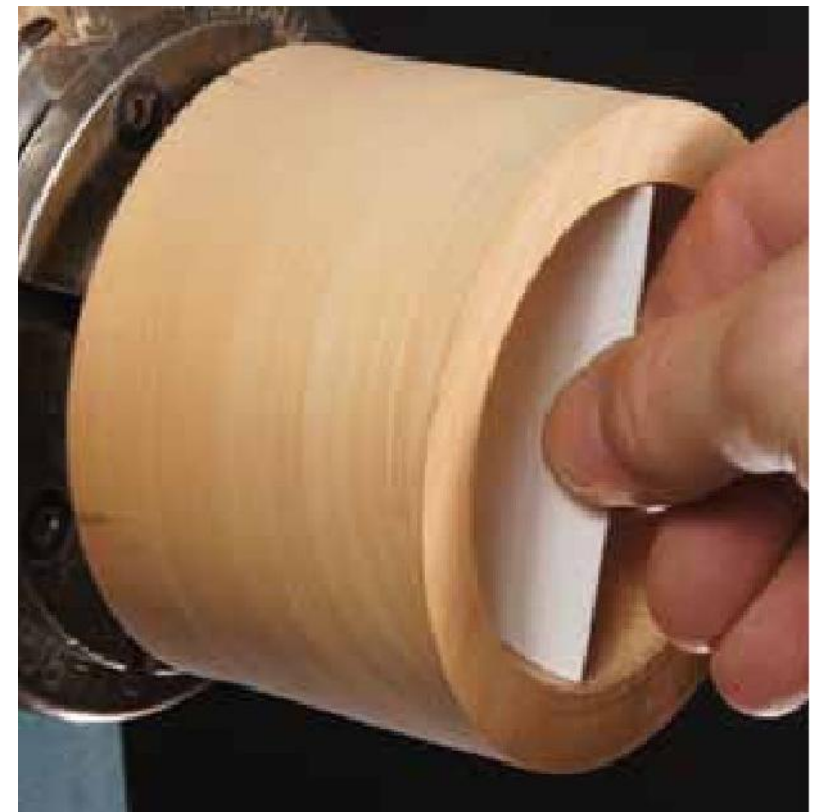
8-4 Checking the lid for roundness.

BELOW LEFT

8-5 Drilling the push-out hole in the base of the jam-fit chuck.

BELOW

8-6 Using the template cut-out to test the inside of the jam chuck.



cardboard template (carefully putting aside the arc of cardboard I cut out) and by holding it against the lid with a light behind it was possible to see any flaws in the curve. (8-4) Once I had the curve right I sanded it and parted it off just below the lip.

To hold the lid for hollowing, I made a jam-fit chuck from waste wood. First I mounted it on the screw chuck, turned a spigot, then drilled a hole in the base so I could push out the finished lid once it was turned.

(8-5) To make sure of a good fit for the lid, I used the section of cardboard I had cut out for the lid template to exactly mirror the lid shape. (8-6) Hollowing the lid was exactly the same as turning a small bowl. If the lid slips in a chuck like this, it's possible to improve the grip by dampening the wood with water. While the lid was in the chuck, I turned the rim to make it a slightly loose fit in the box so it would be easy to remove one-handed.



8-7 Sanding the box sides.



8-8 Texturing the sides with the pyrography pen.

To smooth the sides, top and bottom of the box I taped sandpaper to the top of my bandsaw table (the flattest thing in my workshop), and worked my way through to 600 grit on each side. (8-7) Once they were smooth I marked circles of the same diameter as the lid on each side of

the box, then textured them with the pyrography pen. (8-8) I left a “bright spot” in the upper right corner of each pattern to add the illusion of depth.

Geometribox incorporates several of my idea tools. It is a result of asking why a turned box has to be round. (8-9) It is also full of contrasts: with

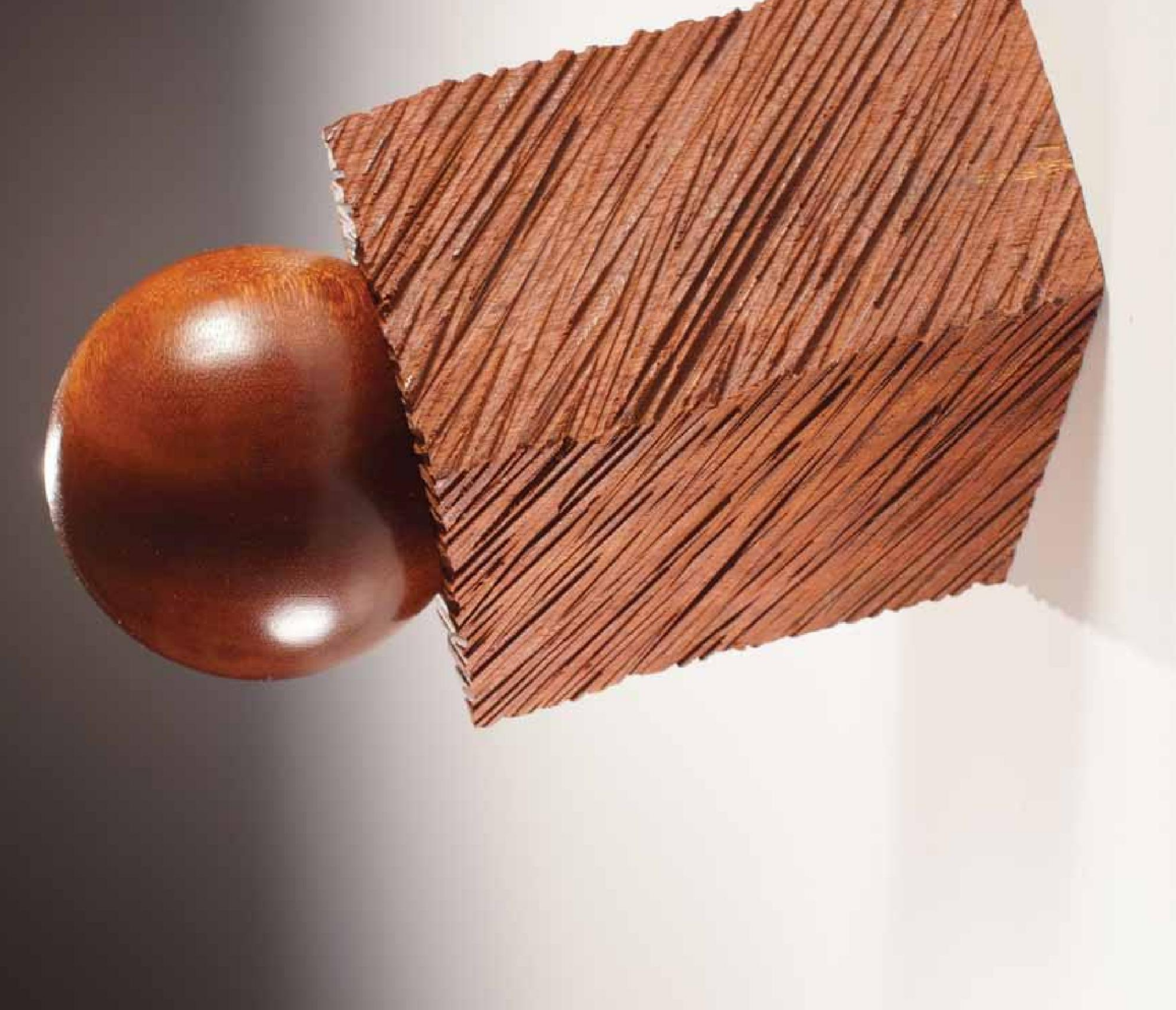


8-10 The open box.

the lid off you can see how the curved interior plays against the square exterior, and the dark burnt texturing is in strong contrast to the smooth pale wood. The diameter of the lid is mirrored in the circles burnt into the sides and when you hold the lid it nestles in your curved palm, just like a good bowl should. (8-10)

Perhaps all boxes need to have a hint of functionality about them

and this box certainly can be used to contain many things. But I was not exploring function here. I wanted to show how the very act of working within a set theme, or limit, can open creative opportunities. Perhaps, like my provocative *Matched Pair of Drinking Vessels*, I could enter a lidded box into a competition—with the lid glued on. I might call it *Stuck On You*. Names can be fun too.



Ball Box, 2013.
Queensland Rosewood,
6" high x 2.875" wide
(15.25 cm x 7.3 cm).

9

Ball Box

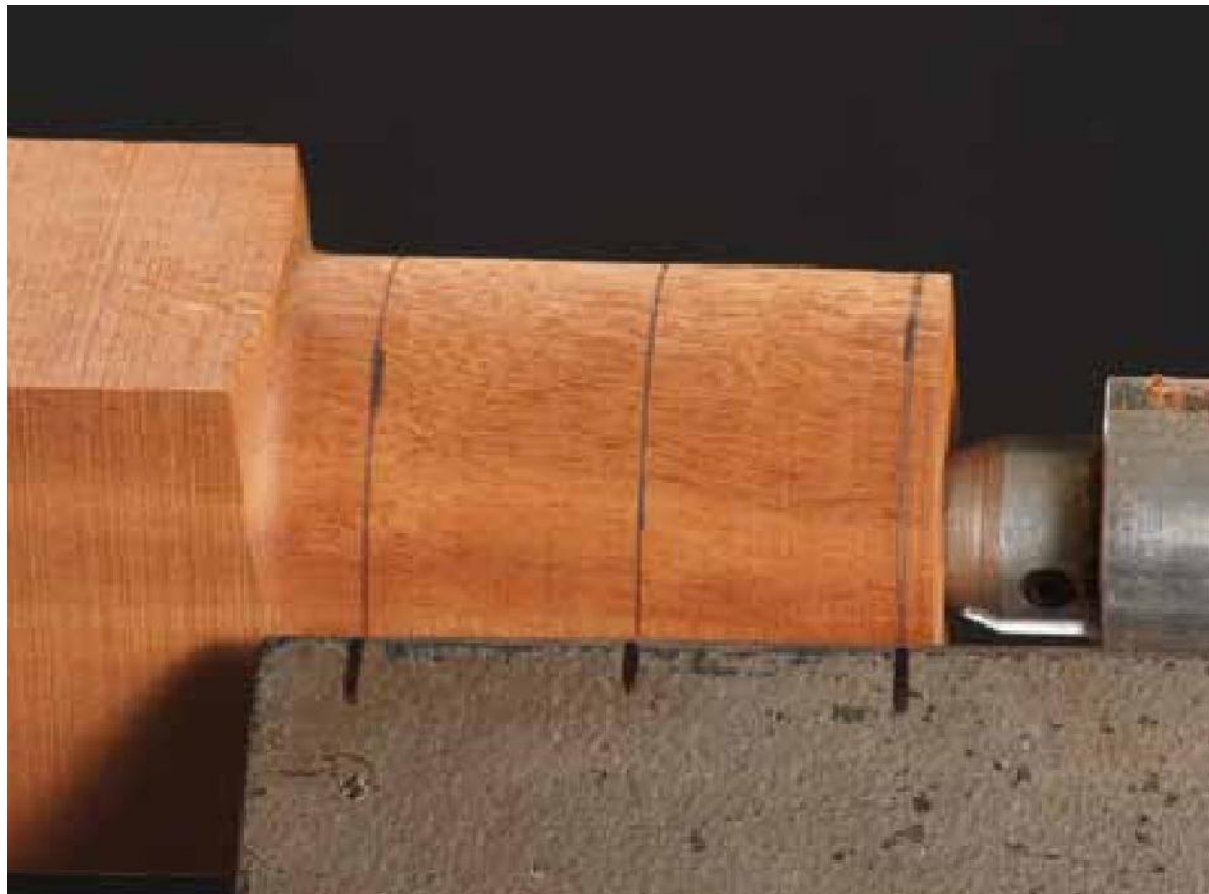
I like the notion that you can explore an idea by peeling away preconceptions, like layers of onion skin, to create new variations. With Geometribox, I played with the concept of square and round in a lidded container. In this chapter I want to take the idea of square and round a half step further, and then add a few other twists to create

an original piece that incorporates a whole set of contradictions and challenges to convention.

I wanted to show that you can turn both the lid and body from one blank, so I started with a long rectangular piece of Queensland Rosewood mounted on a screw chuck. (9-1) I turned one end of the blank to round and long enough to turn a



9-1 The rectangular blank on the screw chuck.



LEFT

9-2 Marking the ball dimensions.

BELOW LEFT

9-3 Turning the ball with the spindle gouge.

BELOW

9-4 Turning off the ball.



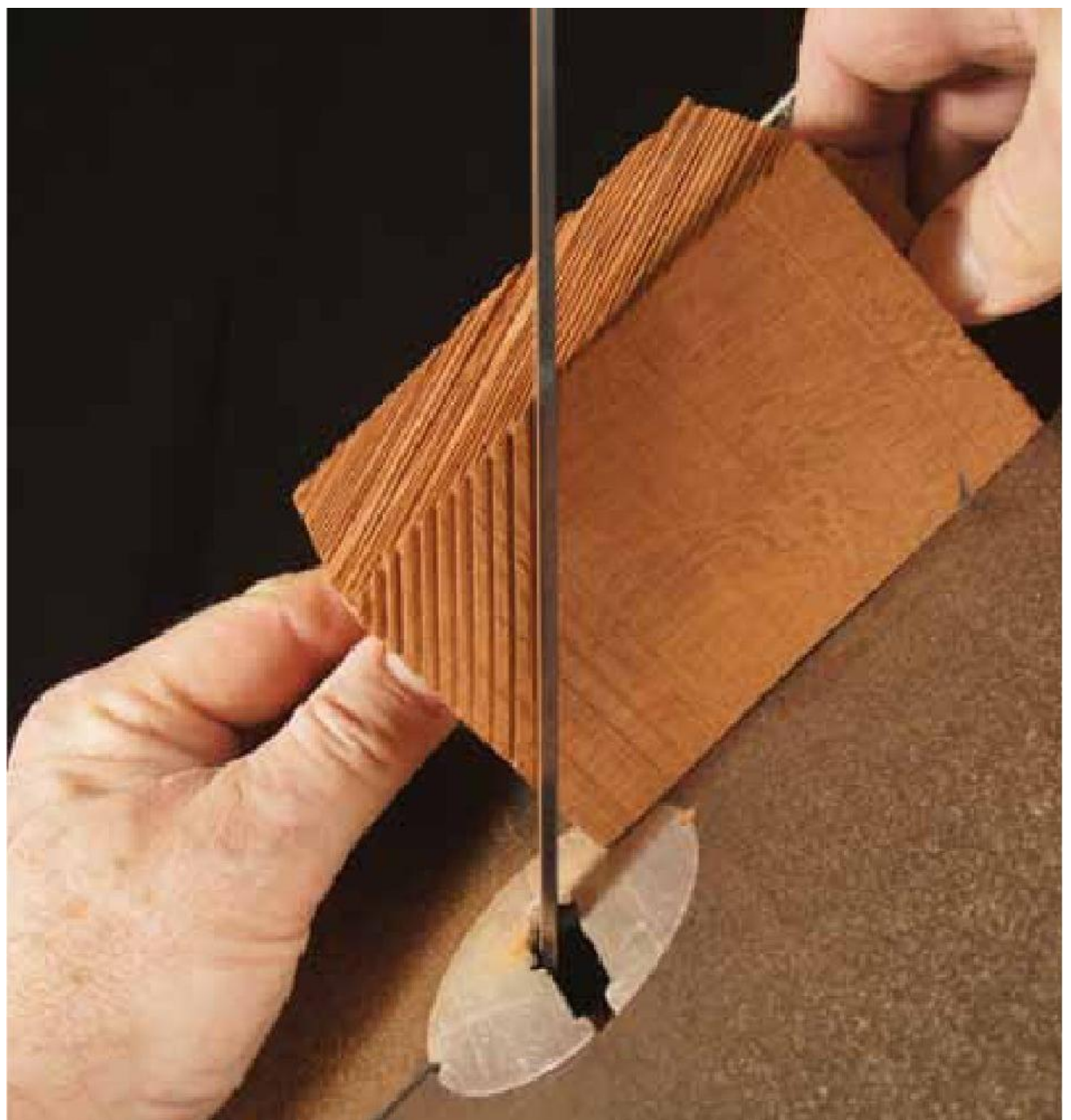
ball, plus enough space to turn it off the blank, i.e. diameter plus about 20%. I marked the diameter for the ball on the blank and I also marked the toolrest with a pen, so once the outside pencil marks on the wood were gone the marks on the toolrest would remain as a reference. It's easy to remove them later with solvent. Because the blank was long, I secured it with a cup-shaped live center with

no point. (9-2) Leaving the center line untouched, I rolled the spindle gouge to the right to cut a hemisphere, (9-3) then repeated it on the left. I removed the tailstock for a light finishing cut on the right. When the left side was nearly done, I sanded the ball to a good finish, then turned it off while gently holding it in my right hand to catch it. (9-4) If it is too tight, you can use a skew chisel to fit in the

gap, or enlarge the gap by turning away more wood on the left. I used a lathe-mounted sanding pad to clean up the ball where it was turned off.

When the ball was done, I turned a spigot on the end of the remaining blank, reversed it into the chuck, then bored out the box with a sawtooth bit of around $\frac{3}{4}$ the diameter of the ball. Once the box was drilled out I cut a tapered rim in the opening that allowed the ball to fit snugly. (9-5) I was not concerned with the finish around this tapered rim as that would be textured later. I hollowed the box in the usual manner and established the wall thickness by checking with calipers. When it was done, I left the spigot on the bottom as a convenient handle for the next operation.

The next stage is where this box departs radically from the previous box. I set my bandsaw table at 45 degrees to cut a series of rough grooves in each side. If you stand behind the blade when you do this, it is difficult to see what you are doing as the cut is on the far side, so I did it by standing on the opposite side to normal and pulling the box into the blade. (9-6) Because it is the opposite of what we usually do, it looks dangerous, so I need to explain how I did it. I used the hole in one end of the box as one handle, and the spigot on the other end as the second handle. I only moved the box into the blade a tiny

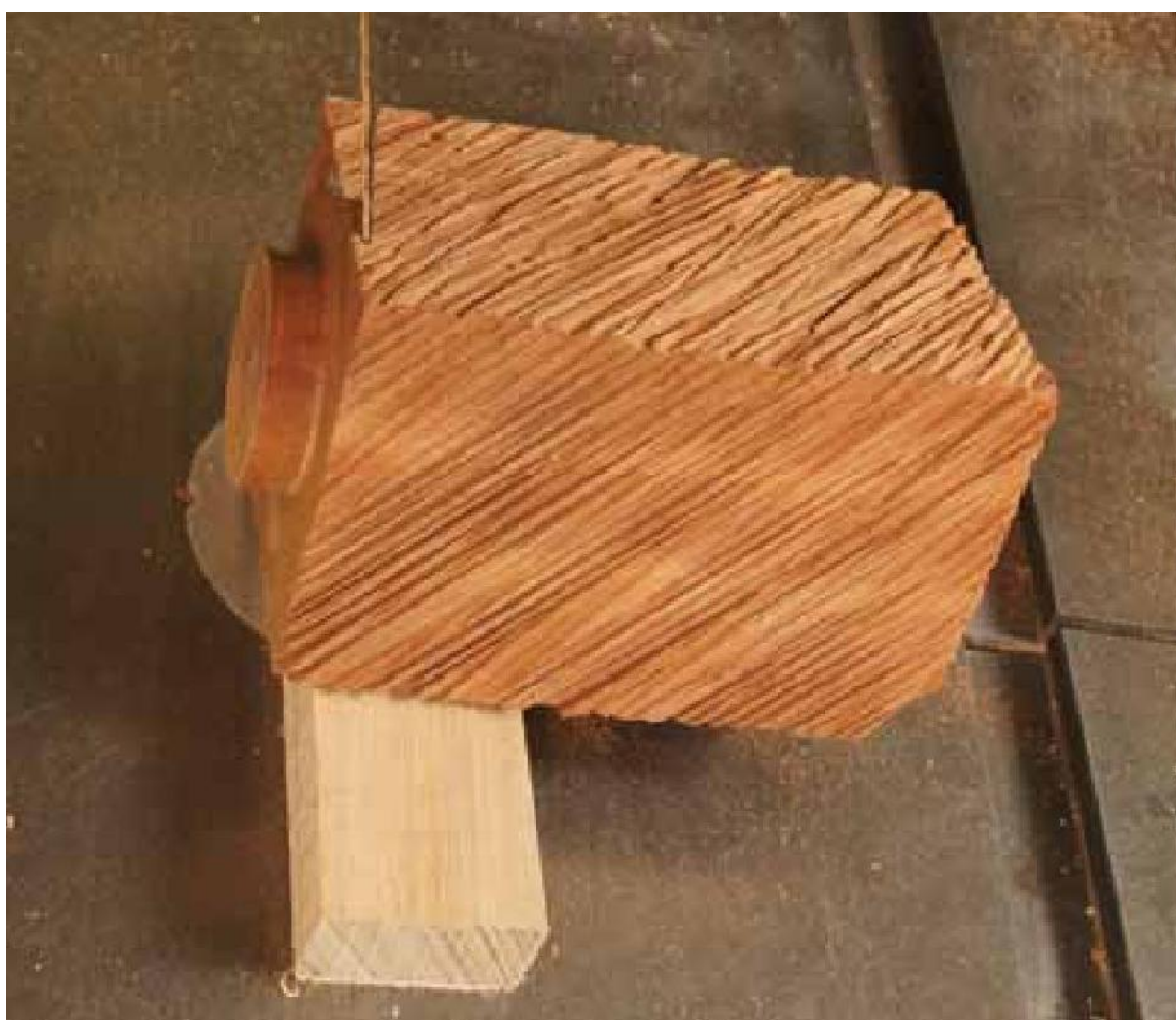


TOP

9-5 Fitting the ball in the tapered opening.

ABOVE

9-6 Cutting the first grooves at 45 degrees on the bandsaw.



TOP

9-7 The second series of cuts.

ABOVE

9-8 Cutting the base viewed from one side.

amount for each cut, so I didn't need to apply much pressure and after each cut I pushed the box away from me to clear for the next cut. All bandsaw operations are dangerous, so this one also requires care, but it is inherently no more dangerous than regular bandsaw operations. A cross-light will help you see the grooves more clearly. The depth can be irregular as that is the point of this surface, but take care not to cut through into the box interior. Next I changed the bandsaw table to around 40 degrees and did another series of cuts to overlap the first cuts. (9-7) Finally, I moved the table to 35 degrees and did another series of overlapping cuts. The resulting pattern is rough and random-looking, but very easy to make. I also cut a similar pattern on the top of the box around the recessed rim.

Most turners never question the vertical orientation of what they make, so bowls tend to sit straight on flat bottoms, vases stand vertically, and lidded boxes stand proudly upright, with the lid on the top. All of this is understandable as it is based on thousands of years of functional craft, but it is also because people are beguiled into orienting their work according to the axis of the lathe that it was turned on. My friend Jean-Francois Escoulen is the master of multiple axes, but I wanted to challenge these preconceptions with

a simpler variation. If you take a piece slightly out of its vertical orientation, it creates a sense of movement that is quite dynamic, so I decided to cut an angled base on this box.

It would have been easy to cut a wedge off the base while it was lying flat on its side, but I wanted a more complex compound angle, so I cut a waste wedge to lift one side of the box and then cut a second angle across the bottom. (9-8 & 9-9) The resulting base gave a satisfying offset lean, but not enough to dislodge the ball lid.

Despite breaking so many established precedents, this box answers many of the criteria we use to judge lidded boxes. The lid fits nicely in the hand and snugly in the top of the box, and it seals well. It will hold suitably sized objects if you choose, but we should be honest and admit that most turned boxes these days are not used, they are meant to be treasured objects in themselves. This box just goes further than most: the textured body of the square box is a strong contrast with the smooth round lid, and the angled stance of the body is reinforced by the angled texturing on the body. I think I challenged enough conventions in this piece to satisfy my rebellious urges.



TOP

9-9 Cutting the base viewed from the other side.

ABOVE

9-10 *Ball Box*, lid removed.



Lace Vessel, 2012.
Jacaranda, 3" high x 5.5" dia.
(7.5 cm x 14 cm).

10

Lace Vessel

At the end of Chapter 8 I suggested that I could glue the lid on a lidded box. It might have seemed I was joking, but when you brainstorm ideas there is no such thing as a joke—anything is possible. In this chapter I will explore that idea of a lid that can't be removed.

You will notice that when woodturners pick up a hollow vessel, they almost always stick their finger inside to see how thinly it has been turned or how smooth the inner walls are. That's not surprising because for a long time this kind of work was a yardstick for turning skill. However, with the development of so many different tools for hollowing and aids such as lasers to indicate wall thickness, there is no longer much need to be impressed with how thin the walls are. I believe this is a good development as it can

allow the form and ideas to take center stage where they belong.

If, however, you want to prevent this judgemental finger-poking, the best way is to make the hole in the top so small that nobody can fit their finger in. But that, in turn, makes the hollowing much more difficult. With this in mind, I have made a hollow vessel with a very small opening, achieved by making a separate “lid” and then gluing it into the body of the vessel.

I started by mounting the wood on the screw chuck, shaping the underside of the vessel, and turning a spigot on the base. After reversing the piece into the scroll chuck, I turned something resembling a flange on the top with another spigot that I will later fit into the vessel. (10-1) I parted off the flange using my shop-made thin parting tool.



TOP LEFT

10-1 The vessel mounted in the chuck. The flange has yet to be parted off.

TOP RIGHT

10-2 Parting off the flange.

ABOVE

10-3 The bit is smaller than the spigot.

This tool is over 20 years old and was made by grinding the teeth off a power hacksaw blade and mounting it in a turned handle with a slot cut in it. The blade is just the right thickness and strength for this kind of work. By widening the cuts slightly to prevent binding I was able to quickly separate the flange. (10-2)

After I finished the top of the vessel, I selected a sawtooth bit that was smaller in diameter than the spigot I cut on the flange (10-3) and used it drill the interior of the vessel to the depth I wanted. Next I hollowed the vessel. It is always better to make wall thickness reasonably consistent as it affects how a piece expands and contracts with the ambient humidity, but with this piece there was no need



LEFT
10-4 The flange will be turned down to fit this opening.

BELOW LEFT
10-5 Scribing the diameter of the opening with the compass.

BELOW
10-6 Reducing the thickness on the underside of the flange.



to be fussy about a smooth interior as it would be a finger-free zone. When the vessel body was complete, I already had the flange ready to be turned down to fit into the opening. (10-4)

Using the same method that I described in Chapter 8, I reversed the vessel onto the chuck and turned off the spigot with rolled-in cuts towards the headstock. After I finished the base I removed the vessel and mounted

the flange, spigot facing me, on the screw chuck by using the hole that was already there. First I turned down the overall diameter of the flange so it was in better proportion to the vessel. Next I transferred the diameter of the vessel opening to the spigot, (10-5) then reduced the thickness and curved the underside to match the curve of the top of the vessel. (10-6)



TOP

10-7 Turning down the spigot to fit the vessel opening. Note that the spigot is slightly tapered at this stage.

LEFT

10-8 Turning the top of the flange.

The next stage requires the most precision and is identical to how I would tightly fit a lid for a box. I carefully reduced the diameter of the spigot to fit the vessel, bringing the vessel opening up to the spigot after every fine cut to check for fit. It's easier to turn a slight taper so you

can tell when the spigot starts to go inside the hole, then once you know the true diameter, carefully turn down the taper till you have a perfect fit. (10-7) When the underside was finished, I reversed the flange into the scroll chuck, taking care not to crush the spigot. Then I was able to

turn the top of the flange. (10-8) In this case I turned an opening that flowed smoothly into the middle. The completed flange, when fitted, is like a lid with a hole in the middle and so it becomes the flared rim of the vessel. Just like the box in Chapter 8, the rim and the vessel are turned from the same piece of wood, so not only can you line the grain up perfectly, but also they will shrink and expand at the same rate, meaning they are very unlikely to pull apart or crack.

For the next stage the creative possibilities are endless. Because you have complete access to the rim from any direction, you can use it as a palette for a whole range of decorative techniques. With this piece I used the indexing head and tool rest to draw a series of radiating lines (10-9), then rotated the piece with the pencil fixed to draw a set of evenly spaced circles. I wanted to drill holes at each of the cross points, and for that I needed centering marks so the drill wouldn't wander. There are many ways to mark the wood, but because the rim was still in the chuck, both my hands were free, so I used my trusty Japanese awl. (10-10) It works by rolling the long handle between your palms and gives a very quick result.

With such good centering marks, it is easy to drill out the holes on the drill press with a waste block underneath to stop tearout. (10-11)



TOP

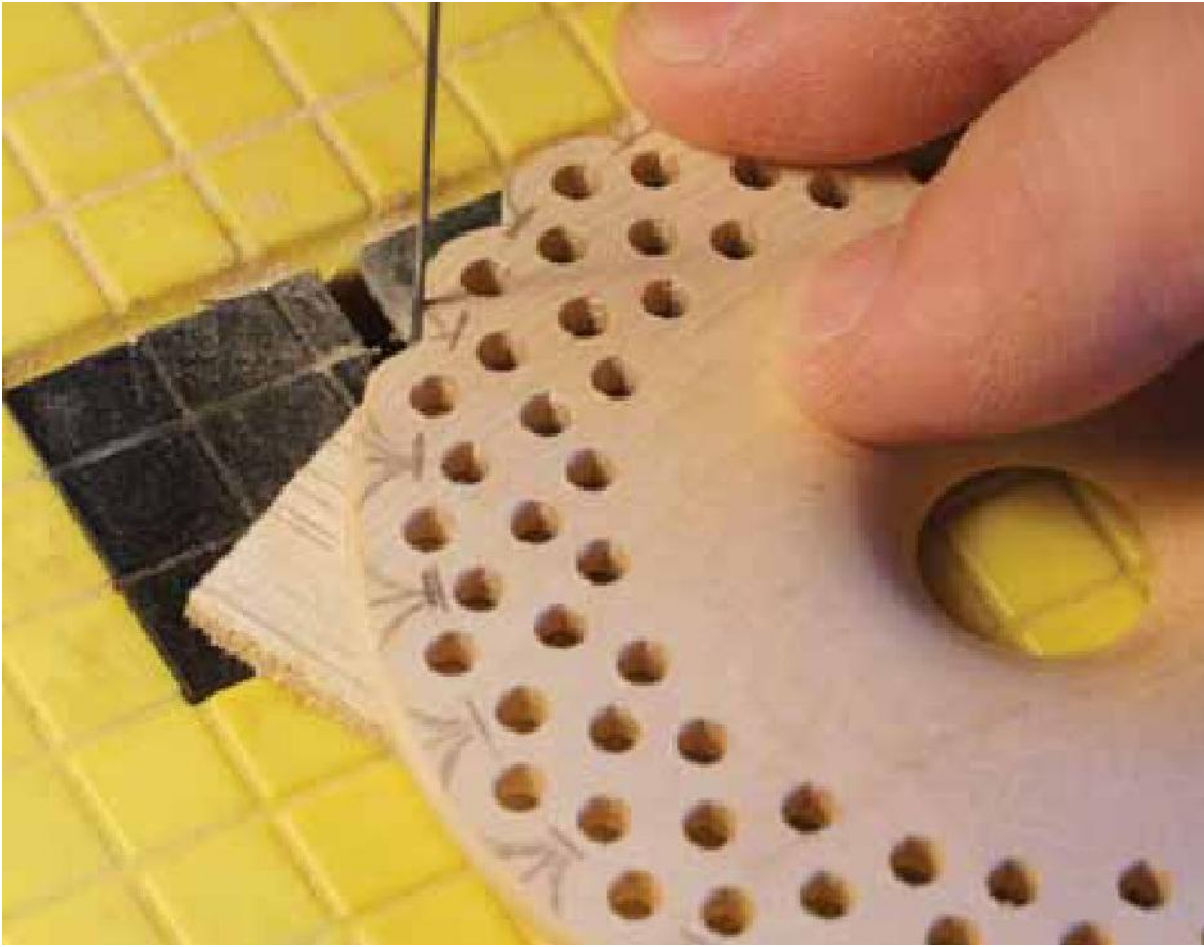
10-9 Drawing the lines on the rim.

MIDDLE

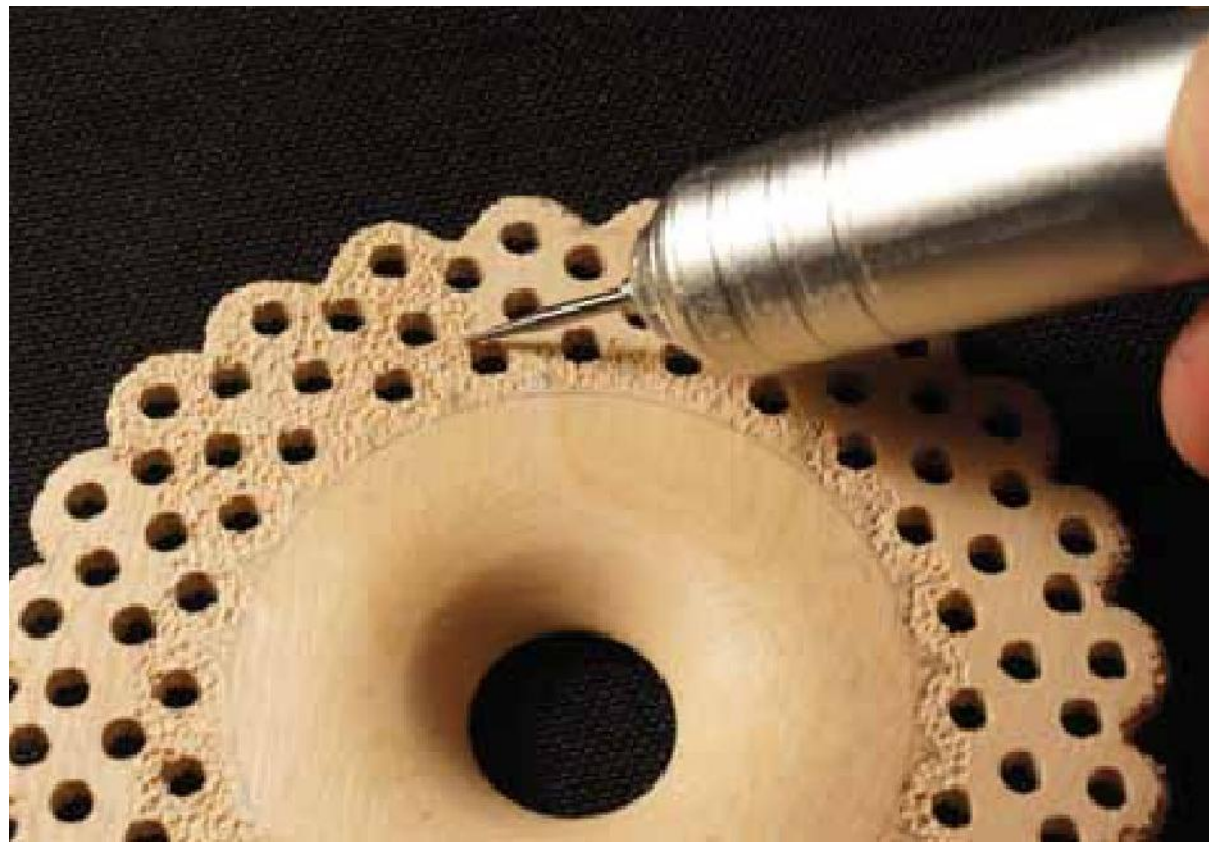
10-10 Using the Japanese awl to mark.

ABOVE

10-11 Drilling out the holes.



10-12 Sawing the rim.



10-13 Texturing the rim.

With this piece I found that the inner line I had marked was over the spigot, so I just ignored it. Next I marked out a freehand scalloped edge all the way around the rim.

To cut the scallops I used my small fretsaw to remove a series of triangular wedges, again with a waste block underneath to prevent snapping. (10-12) Next I textured the pierced area with an air-driven burr, and in

the process rounded over all the sharp edges. I scalloped the inner rim of the area to mirror the outer rim. (10-13)

When the texturing was finished I brushed the whole lid with a rotary nylon brush to remove any fine wooden flakes from the texturing. I applied a thin smear of carpenters glue to the inside rim of the vessel, then pushed the tight flange into the vessel, lining up the grain direction



10-14 *Scalloped Vessel*, 2012. Jacaranda, 4" high x 5.5" dia. (10 cm x 14 cm).

at the same time. The flange was just proud enough of the body to allow a pleasing shadow of the pattern. The end result was very like lace, so I called it *Lace Vessel*. (see page 62)

This is an interesting project because it uses so many techniques all in one piece. There are three ways of mounting the wood: screw chuck, and scroll chuck in both compression and expansion mode. It involves hollowing,

turning a platter-like disc, and the accurate fitting of a spigot. Best of all, it is open to many decorative variations, such as *Scalloped Vessel* (10-14) where I used pyrography to decorate both the rim and body. And all that because I asked *what if I glued the lid on a box?*



Gangabbarri, 2013.
10.25" L x 3.25" W x 2.5" H
(26 cm x 8.25 cm x 6.35 cm).

11

Gangabbarri

With the piece I have called *Gangabbarri*, I want to showcase the natural qualities of a piece of an Australian tree, but I also want to highlight something that the Australian Aborigines have known for thousands of years. They have one of the world's oldest woodworking cultures and we have much to learn from them. Because

they worked with simple stone tools, Aboriginal woodworkers always used a part of a tree that was already shaped like the thing they wanted to make. If they wanted to make a boomerang, for example, they used a section of the tree that had just the right curve. The resulting artefact was not only easier to make, it was also stronger.



A boomerang can travel very far and if it hits a tree or rock it needs to be tough to survive intact. In the photo you can see how in a boomerang that was made over one hundred years ago the form follows the grain and at the center is the tight grain that grew at a stress point in the tree. (11-1) This hardwood missile would have been able to survive almost any impact.

The word *Gangabbari* is the Aboriginal name for the low, thorny tree that provides this wood. It grows very slowly in the arid regions of my home state, Queensland, and although it is very hard and has tight growth rings, the wood has a waxy quality that makes it easy to work. Best of all,



11-1 With Aboriginal artifacts like this boomerang you can see how they cut along the grain to create a stronger artifact.

11-2 The curved wood mounted on the screw chuck.



its contrasting colors don't fade. It is a challenge to work, but the rewards are worth it. By working *with* the natural strength of the wood, I was able to create a thin piece that revealed the inner beauty and form of the tree itself.

As I described in the beginning of the book, I have always been interested in the relationship of the base of a piece with the surface it stands on. After my Japanese experience, I needed to rethink how my vessels were made, but I didn't want to go back to wide bases. As I said, if you keep asking questions you

will find new answers, so eventually I asked myself, *why do we need a base?* That led to, *what if the vessel had no base at all?* It was an intriguing thought and after much experimentation I started making arched vessels with widely spaced "wings" so the bottom of the vessel had nothing but air beneath it.

So to make this piece I began with a slightly curved section of tree. I held the wood in a clamp and used a sawtooth bit in the drill press to cut a flat spot at the high point of the arch. That meant it would seat squarely on a screw chuck. Then I drilled out a hole for the screw. With the piece on the lathe, (11-2) I turned a spigot, then cut the underside of the arch (11-3) so the curve of the wings was continuous. (11-4)

After I reversed the piece into the scroll chuck, I turned the top of the vessel, (11-5) hollowed it, then cut the top of the wings to follow the curve on the underside. At this stage I couldn't cut the wings to their final thickness (or should I say "thinness?") as I had to make sure the wood on both the top and bottom did not contain any faults. Once I was happy with the top curve, I power-sanded the upper surface. (11-6) With intermittent power sanding like this it is better not to push into the wood. Just hold the disc at a flat angle to the wood and let the lathe do all the work.

The manufacturer of my chucks, Vicmarc Machinery, offers accessory

BELOW

11-3 Cutting the underside. I am using my thumb to press the gouge firmly down on the toolrest as this makes it easier to control potential kickback generated by the intermittent cutting.

RIGHT

11-4 The underside is shaped.



ABOVE

11-5 Turning the top of the vessel.

RIGHT

11-6 Power sanding the wings.



Letting the Tree Speak for Itself

I grew up in the Australian bush where the trees were always a powerful presence and they have had a strong influence on my work. Buried within many Australian trees you can find unsurpassed grain and color, and such wood can cast a spell on us. In fact it was one of the main reasons I became a woodturner. Turning is a very good way to reveal the character of wood as it allows bold, plunging cuts right through every layer of the tree's history.

Many turners rely heavily on pretty wood to sell their work, which suggests that both turners and buyers are often more concerned with the wood than with the quality of their design. That's their choice, but we should never fall for the trap of believing that using a great piece of wood makes you an "artist." The credit for such beauty belongs to nature and to reveal it well you only need to combine basic technique with a certain amount of sensitivity to the tree and its natural qualities.

For example, not long ago a rough piece of the trunk of a small desert hardwood tree called Yakka was given to me. With the wood between centers it's hard to see that it has any interesting features, (SB11-1) but when it is roughed down, the orange-colored heartwood is quite surprising. (SB11-2) Desert hardwoods often have a waxy quality that makes them easy to scrape, so



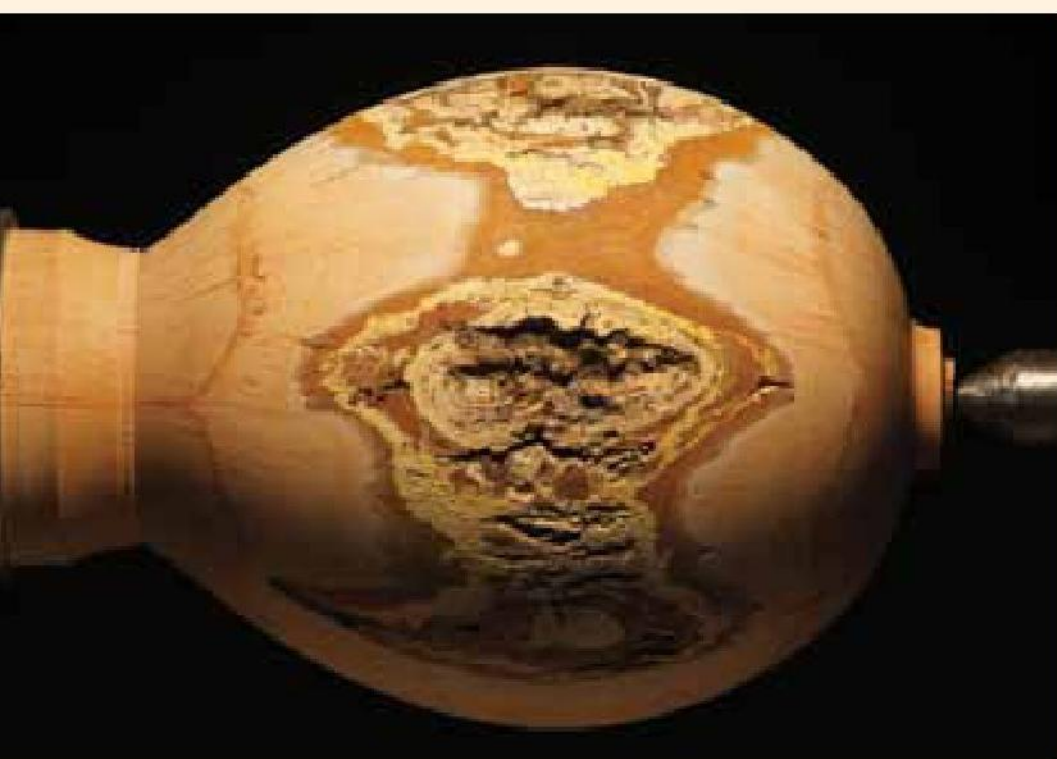
ABOVE

SB11-1 The rough section of trunk between centers.

RIGHT

SB11-2 Roughing down. Bark can fly off unexpectedly, so a face shield is important.





TOP

SB11-3 Sweeping cuts with a scraper are sometimes the best way to get a smoothly flowing line.

ABOVE

SB11-4 The balance between bark and heartwood is almost right.

I often use sweeping scraper cuts to create the general form, (SB11-3) then finish by shear-scraping. I wanted to leave a band of bark around the circumference as a reminder of the part of the tree that was once exposed to the outside world, so I had to constantly check the proportions



ABOVE

SB11-5 *Yakka Vessel*, 2012. Yakka, 5.5" H x 4.75" D (14 cm x 12 cm).

and line. (SB11-4) The final piece is a celebration of raw nature (SB11-5) and I am content with it. However, this kind of work *imposes* the design on the wood. It doesn't so much work with the wood, as subdue it, and that is a very European way of working that the early settlers brought to Australia.



RIGHT ABOVE

11-7 The shaped jaws.

FAR RIGHT

11-8 The wings are well supported by the chuck jaws.

RIGHT

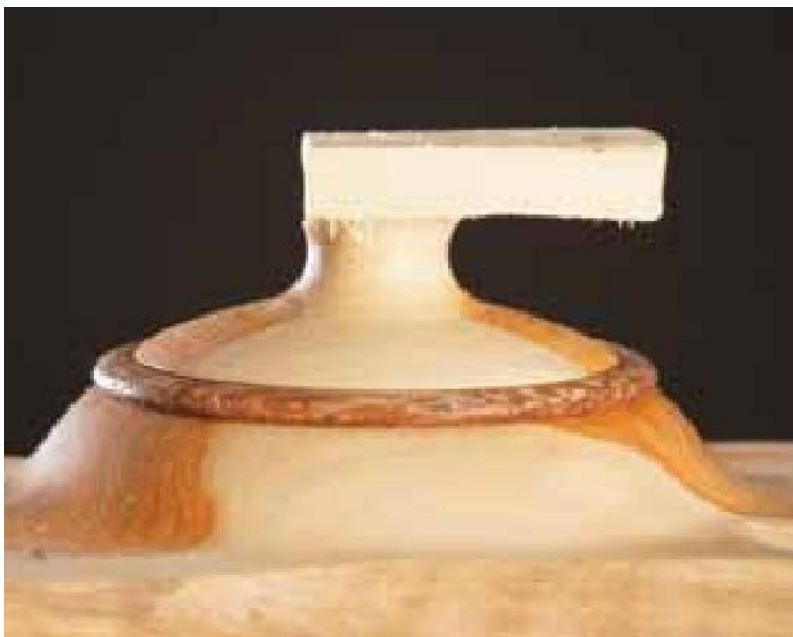
11-9 Shaping the ring.



jaws made in nylon. They are easy to cut, so I used a small scraper to shape an expanding spigot for the vessel opening and a curve to match the curve of the vessel wings. (11-7) When the piece was reversed the wings were well supported by the jaws so they did not flex. (11-8) I marked the depth of the interior of the vessel on the base so I could turn away the spigot to the right thickness. I matched the curve of the bottom of the vessel to the top, and finally power-sanded the underside of the wings.

I had intended to fit the lid directly into the vessel opening, but the first

lid I made looked odd because the contrasting grain did not match up. So, following the principle of *if you have a problem exaggerate it and make it a virtue*, I decided to emphasize the separation of the body and lid. I put a block of Meranti in the chuck and turned a small lip to fit inside the rim of the vessel, then reversed the lip into the chuck and shaped a ring. (11-9) Once I was happy with the fit and shape, I glued it into the vessel with regular carpenter's glue. I've never trusted cyanoacrylate glue since the curator of the Renwick Gallery in Washington told me their



FAR LEFT ABOVE

11-10 The spigot turned in sapwood.

LEFT

11-11 The final turning on the lid is complete.

FAR LEFT

11-12 The spigot is cut back to leave the handle.

conservators had discovered that such glues eventually disintegrate.

To make the lid, I cut a small block of Gangabbari, part sapwood and part heartwood, and put it in the chuck, sapwood out. I turned a temporary spigot in the sapwood, (11-10) then reversed it and turned the lip of the lid to fit inside the rim of the vessel. When the fit was satisfactory, I slightly hollowed the lid, then turned the top part with a spindle gouge, judging the shape by constantly stopping the lathe and holding the vessel in place on the lid to check the curves. (11-11) When the turning was done I reversed the lid on the chuck again and cut away the

sapwood with a small pullsaw till I had the blocked-out shape of the handle. (11-12) To finish I carefully shaped the off-center handle with a burr and gently hand-sanded the whole top.

I reversed these two pieces of wood so many times in the chuck that I suppose I could have called the piece *Reversing Vessel*, but I prefer the beautiful Aboriginal word *Gangabbari*. I believe I achieved my goals:

The arched wings are thin, but very strong because they follow the grain.

The wings lift the vessel off the surface, allowing light to pass below.

The natural wood features are shown to good effect.



12

Butterfly Vessel

With *Gangabbari* I showed how I work with the natural grain of wood to create thin, but very strong wings. Unfortunately, many turners do not have access to wood in the rough, so they don't have the option of cutting it to suit what they are going to make. If you are limited to

working with what you can buy from a wood supplier, part of the decision-making process has been taken out of your hands. As I described for *Hand and Eye*, wood from a saw mill is typically dimensioned for construction or furniture making and



Butterfly Vessel, 2013.
Macassar Ebony,
7.75" L x 3" W x 2" H
(19.7 cm x 7.5 cm x 5 cm).

it was partly in reaction to this that I started making out-of-round pieces.

Because I always described the parts that lifted my vessels as “wings”, it eventually occurred to me to ask, *what if I made real wings?* The result was my *Butterfly Vessel* series. For this piece I chose a length of Macassar ebony because of its tight grain and good working qualities. As usual, I mounted the blank on the screw chuck, turned a spigot, rounded the ends, then cut a concave line from the rim to the center portion where the vessel would be. (12-1) As for *Gangabarri*, I then turned the top and bottom, hollowed the vessel, and grooved the interior.



12-1 Cutting the concave underside and rounding over the ends.



ABOVE

12-2 Removing the waste on the bandsaw.

ABOVE RIGHT

12-3 Carefully blending the curve between the body and wings.

RIGHT

12-4 Cutting the thin groove to separate the rim from the body.

FAR RIGHT

12-5 My shop-made groove cutter.



With the initial turning complete, I marked out the wings and cut away the waste on the bandsaw. These wings are all about fragility, but I left them thick at this stage so I didn't snap them while I carved the rest of the body. (12-2) Unlike *Gangabbarri*, where the wings follow the grain, these wings are a compromise. They are cut at an angle of about 30 degrees

to the grain direction, which works if the wood is strong enough.

Next I replaced the piece on the lathe and further blended the transition from the body to the wings, being very careful to cut the wings only close to the body and not to push too hard. (12-3) Once I was happy with the upper curve of the body, I power sanded it and then, just as I did with

Hand and Eye, cut the sharp groove which would separate the smooth rim from the textured body. (12-4) For this cut I used one of my favorite tools. When we have finally ground away all of the fluted portion of a gouge, we are left with a stub of HSS, often still quite long and with a handle already attached. It is a waste to throw away such valuable tools, so I grind them into a variety of shapes for use as scrapers. (12-5) for this one I first grind a step in the tool to create a flat top, then grind the underside at two acute angles to create a well-supported sharp tip. As I described for *Hand and Eye*, rolled forward over the toolrest into the wood, it cuts beautifully every time.

As always, I reversed the piece onto the chuck in expansion mode, removed the spigot, and blended the shape of the bottom with the top. It's possible to hand carve the body between the wings to create smoothly blended curves, but as usual I used my standard die grinder setup for that stage. A small ball-shaped burr in the flexi shaft tool was perfect for final shaping in the tight area between the base of the wings. (12-6)

Once the body was shaped I drew vein patterns on the wings with marker pen and used a piercing bit in my high speed air tool to remove the wood between the lines. (12-7) It wasn't necessary to



TOP

12-6 Shaping in the tight spots.

ABOVE

12-7 Piercing between the vein lines.

be too precise as the wood still had to be textured. Similarly to *Hand and Eye*, I used a small ball bit to create a stippled surface at the same time as reducing the wings to their final delicate state. Finally, I lightly textured the body. Mission accomplished. The finished piece is about lightness, lift, and contrast.

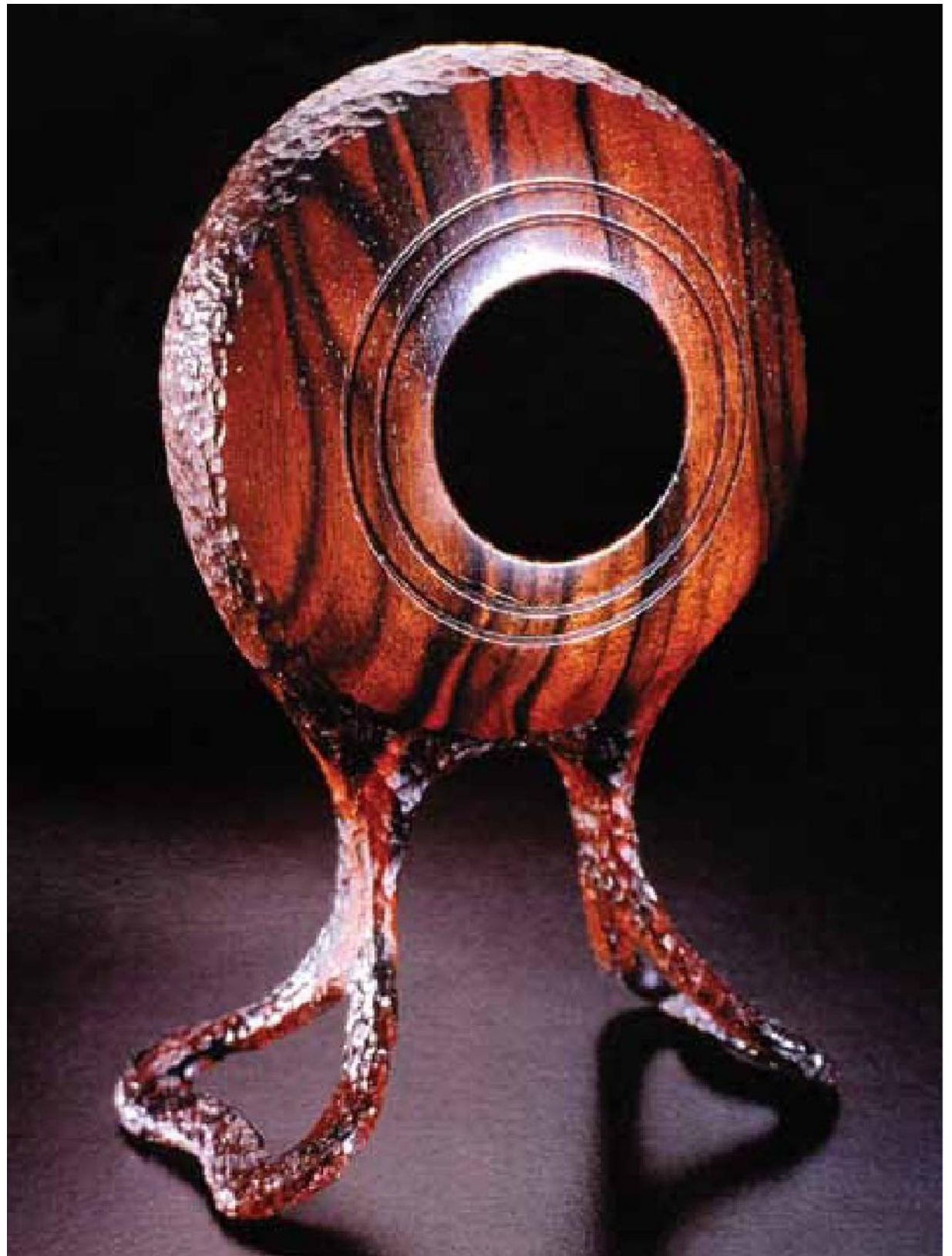


Pierced Cyclops, 2013.
Macassar Ebony, 5.25" H x 3" W x 2" D
(13.35 cm x 7.5 cm x 5 cm).

13

Pierced Cyclops

I was very happy with *Butterfly Vessel*, but I had a second reason for making it, and that is the subject of this chapter. My winged vessels were part of my search for what I described in the Introduction as my “own voice”, but somehow I never felt that they were different enough from what others were doing. The search continued. Not long after I returned from my 1996 residency in the USA, I was making a *Butterfly Vessel* from the same wood as this one, Macassar Ebony. I went too far with the carving on the wings and snapped one of them. As I sat slumped in a chair, looking at many hours of wasted work, Michael Brolly’s words came back to me: *What if I stood it up on end?* I did so and it created a whole new perspective on what I had made. I cut away all of the leg material on the end that I had broken, carved it to blend with the curve of the body, and was delighted with the result. (13-1)



13-1 OH#1, 1996. Macassar Ebony, 4.5" H (11.5 cm).



LEFT

13-2 *Cyclops #1*, 1996.
Macassar Ebony, 5" H
(12.5 cm).

BELOW LEFT

13-3 *OH #2*. This is
the result of removing
two legs from
Butterfly Cyclops.



We are so used to seeing vessels with the opening facing upwards that this view is at first confusing. The rim of the vessel is seen as a full circle, whereas they are usually seen as an oblong shape because we view them from a flat perspective. I thought the round opening on my first attempt looked like an open mouth, so I called it, *OH #1*.

I soon realized that the bottom of the vessel no longer had a purpose. After I asked myself, *what if I remove the bottom*, I realized it would not be so dark inside. I found this idea intriguing, so I made another piece, this time with three legs at one end, and turned it from both sides. That finished piece, was my first *Cyclops*. (13-2)

Since that piece I have always made my *Cyclops* in one process, but to illustrate here how it happened I removed the legs from *Butterfly Vessel*, then used my stipple-finishing process

RIGHT

13-4 Drilling out what used to be the base of the vessel.

BELOW RIGHT

13-5 *Butterfly Cyclops*, 2013. Macassar Ebony, 5.25" H x 3" W x 2" D (13.35 cm x 7.5 cm x 5 cm).



to blend the curves. In this way I created an interim piece, which I suppose I can call *OH #2*. (13-3)

For the next stage it was quick work to re-chuck the piece in expansion mode and drill out the bottom, just as I do with every *Cyclops*. (13-4) I lowered the speed of the lathe before I started because at high speed the initial surge might have snapped the fragile legs. After I had drilled through I only had to repeat what I had already done on the other side of the vessel: make a smooth rim, cut the groove to separate it from the body, then hollow and groove the interior to match the grooves from the other side. After touching up the texturing around the new rim, I had *Butterfly Cyclops*. (13-5)

I liked the piece a lot, but I felt the body looked too heavy for the delicate legs, so I decided to take it one step further by carving through





13-6 Carving away
the body walls.

the body walls. This was the first time I ever did this, and I knew I had to be very careful not to snap the remaining legs. I marked out a pattern on the body that reflected the leg patterns and carefully removed the wood with my air tool. (13-6)

Once it was complete, the lightweight body was much more in keeping with the legs. This piece is perhaps the most open to light and air of all the pieces I have ever made. (13-7, and page 82)

I call these pieces *Cyclops* because I think they resemble an eye and the original Cyclops was the one-eyed giant of Greek legend.

When I first discovered the idea I knew I had found something that could be explored almost infinitely because the only constraint was the turned eye, while the rest could be carved and shaped in any way I wanted. Since 1996 I have made around 100 *Cyclops* and many of them have ended up in major collections and museums around the world. I believe they work because they recognize a basic fact about contemporary turning that is not discussed very much: the turning is often just a pretext for making sculpture. Many wood artists, including me, are often motivated by what I call *pseudo function*: the



13-7 Detail of
Pierced Cyclops.

pretence that what they make is useful, even though it will never perform any practical function. As long as we do this, turning will continue to be seen by those outside of the turning field as craft, and that has held back many in their wish to be accepted as artists. I have continued to make my *Cyclops* because it is obvious they have no function other than to explore design in a beautiful

medium. Once I have turned that eye in the center, I have the freedom to do anything I want, but I retain that turned center for a very simple reason: it allows me to remain part of the turning world that I love so much.



Heart of the Tree, 2012.
10.25" high x 7.5" dia.
(26 cm x 19 cm).

14

Heart of the Tree

As I said in the last chapter, woodturners tend to cling to *pseudo function*. Except for *Pierced Cyclops*, all of the pieces I have made so far echo functional origins and are variations on containers. Now I want to leave tradition completely behind and make something that is only about an idea. This piece embodies several of my idea tools. The grooved interior is a good example *if you have a problem, exaggerate it and make it a virtue*. The oddly shaped piercings and the burnt edges are in strong contrast with the rest of the smooth exterior walls, so they embody *contrast enhances everything*. As I described in Chapter 2, meeting Pieter Baas, and the fact that I was open to his influence, is a good example of *look outside the field of woodturning*.

In the late 80s I used to do a lot of wood piercing. I often turned very thin bowls and cut out shapes such as insects

perched on plants, or Celtic knots. However, when the recent fashion for pierced work took off, my independent streak told me to stop doing it. But when I saw the images in Pieter's book, the patterns just begged to be pierced.

My favorite wood these days is Jacaranda, so I asked Pieter if he could help me find images of its cell structure. He referred me to the excellent Inside Wood website (<http://insidewood.lib.ncsu.edu>). The image I used was taken by the CSIRO Institute. To my delight, I had my pattern.

Piercing works best through cross-grain, not end-grain, so I needed a uniformly round section of tree to turn a strong hollow cylinder suitable for piercing. I chose a section of branch with the pith in the center and mounted a suitable length on the lathe between a large drive dog and live center. (14-1)



TOP

14-1 The Jacaranda branch mounted between centers.

ABOVE

14-2 Turning the spigot.

ABOVE RIGHT

14-3 Drilling out the blank. What look like smoke is in fact steam as the sap evaporates when friction heats the wood.

Because the wood was still quite wet, it was quick work to turn the piece round. It is always important to wear face protection, but especially so when you are turning wood like this as a flying piece of bark can do a lot of damage.

Once the piece was round I turned a spigot for my large chuck on one end. Like most turners, I love the hiss of the tool cutting as I produce long, snaky shavings that shoot into the air. This works particularly well

with damp wood, so I always take the chance to practice. By swinging the handle through a long arc you can find out how the wood reacts to different cutting angles and have a great time while you are doing it. (14-2) After remounting the blank in the chuck I turned the new face square, selected the largest bit that would cut without binding in the wood, and drilled almost all of the way to the chuck. (14-3)



TOP

14-4 Hollowing
with the
Jamieson tool.

LEFT

14-5 Parting off
the piece.

To hollow the piece I used the Jamieson tool (14-4), always pulling the tool towards me as I cut so I was working supported grain. This tool uses a laser guide for the wall thickness, so it is possible to finish this stage very quickly. As usual, I grooved the interior by using a pointed tip.

Once I had hollowed all the way to the bottom, leaving only a very thin membrane of wood supporting the piece, I slowed the lathe down and parted it off. By lightly gripping the

wood in my right hand, I was able to hold it when the cut was complete. (14-5) If you are nervous about such cuts, you can stop before the cut is finished and use a thin saw, such as a Japanese pullsaw, to complete the separation.

The walls were less than $\frac{1}{8}$ " (4mm) thick, so it only took a few days to dry. Once it was ready I pasted a blown-up copy of the Jacaranda cells to the wood, with a piece of transfer paper in

RIGHT

14-6 Transferring the pattern to the wood.

FAR RIGHT

14-7 Cutting away the major interior spaces.

BELOW

14-8 Cutting out the smaller cells.



between, then used a pointed scribe to transfer the pattern to the wood. (14-6)

Once the pattern was transferred I used a pencil to make it all clearer. Where the holes would be very small I left blank spaces as they could be cut freehand. I used my high speed air tool with a serrated long burr to cut away the major cell interiors. (14-7) After they were done, I started the painstaking task of removing the interior of the smaller cells. (14-8) Although there is some regularity to the shape of the cells, they are not identical, so I couldn't just drill them out with drill bits. This process took a few days and the most important thing I had to be careful of was breaking through the cell walls as they were often very thin.



When it is dry, Jacaranda is a very hard wood and I found it tended to char under the high speed of the air tool. This had the unexpectedly pleasing effect of making each cell stand out more. When I was finished, the carbon produced by the tool had stained the exterior, so

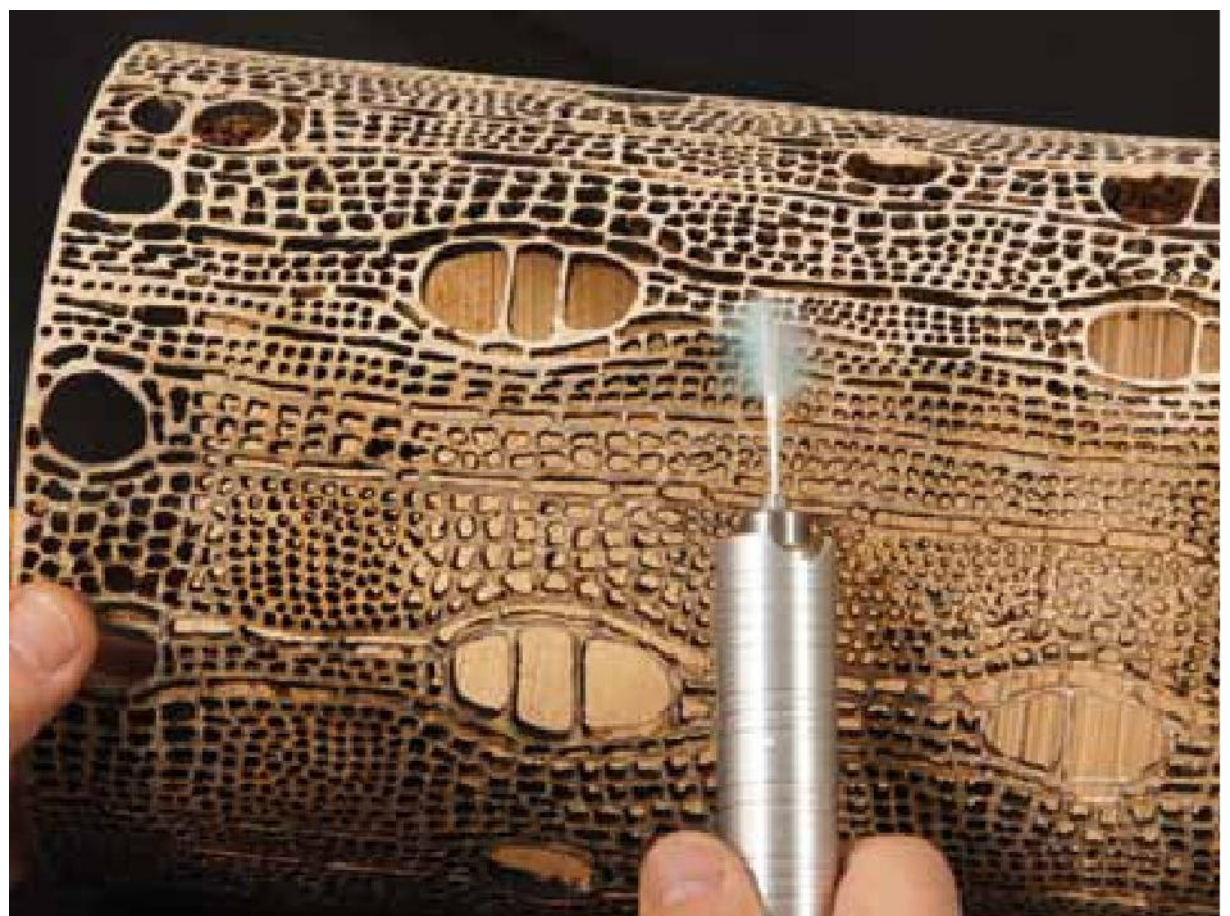
Turning Left-Handed

To part off this vessel, I used a left-handed cut, just like when I parted off the ball in *Ball Box*. I always assumed it was necessary, so I am reasonably ambidextrous as a turner. The layout of lathes means that most cuts have to be made with the right hand, so left-handers are already used to compensating, but there are some cuts that it just isn't possible to easily do right-handed. If you are a right-hander, there are two possible solutions. One is to reverse the lathe and work from

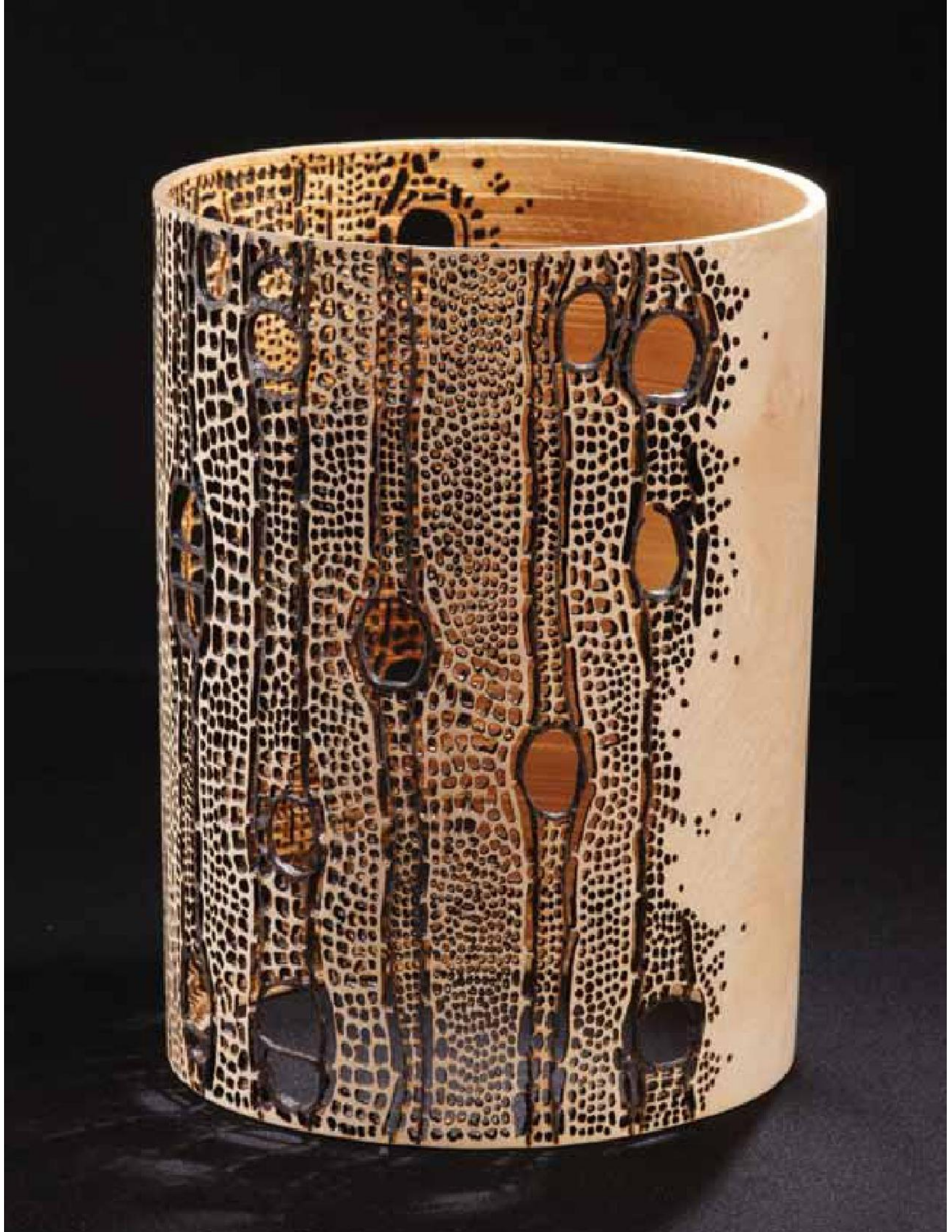
the other side, but most turners have their lathe close to the wall. The best solution is to switch hands. The main reason why many turners don't turn with their left hand is simply because they don't believe they can. However, if you use every chance to work with your left hand, eventually you will find it is no harder than working with your right. For example, try roughing down with a left-handed grip. You can't do any harm and it will get easier very quickly.

I used my butterfly sander to clean it up with gentle passes of fine-grit sandpaper. (14-9) Next, I used a spoon tip in a pyrography pen to smooth my rougher cuts, emphasizing the burning in the process. I then used the pyrography pen to darken the front edges of the major vessels and the vertical linking structures to contrast with the mass of smaller cells. Such work needs to be carefully paced and there is always a "hope-I-don't slip" stage. I've learned to stop when I'm too tired to concentrate.

The photograph of the finished piece shows why I did not pierce all of it. By keeping about 40% of the



14-9 Re-sanding the exterior.



14-10 Side view of
Heart of the Tree.

wall solid, I had a background to show the piercing to full effect. If I had pierced all the way around, the piercing would have been difficult to see against the “background noise” of the opposite side. With a vertical light to highlight the interior grooves, the effect is complete. (14-10)

This is partly a story about my chance meeting with Pieter Baas.

But there is another layer to be uncovered. For many years I thought I had independently developed the idea of grooving the interior of vessels. However, in 2012 a chance discovery showed me that we often absorb influences unconsciously. I was visiting my local woodturning club and I noticed a turned tube sitting unobtrusively at the end of a bookcase.



14-11 *Man and the Forest Architecture*, David Ellsworth, 1986. Camphor Laurel, 15.5" high (39.5 cm).

I picked it up and inside was written: *Man and the Forest Architecture, David Ellsworth 1986. (14-11)* This series by David was pioneering work, almost too advanced for its time, and he turned it when he was demonstrating in Brisbane in 1986. I joined the club in 1988, so I must have seen the piece then and it was probably the unconscious source of my grooved

interiors. Also, the subtle lean of this piece may well have planted the seeds of my liking for pieces like *Ball Box*. So *Heart of the Tree* is a homage to both Pieter and David, my good friends.



Aspects of Treeness, 2012.
Jacaranda, 17.5" x 10" x 4"
(44.5 cm x 25 cm x 10 cm).

15

Aspects of Treeness

In 1994 a turner named John Woollard said something to me that beautifully summed up my own beliefs about the material we woodturners use. John lived a quiet life in a small Australian country town and when I visited he delighted me with his blunt and affable opinions on life in general, but it was what he had to say about turning that I enjoyed most. “Look at this,” he said, waving a straight piece of milled wood, “all the *aspects of treeness* are gone! I don’t just turn wood, I turn pieces of trees.”

Of course we were not alone in this belief. Around the 1970s turners started confronting tradition by celebrating natural features in their work. It was the era of natural-edged bowls, wormy vessels, and raw texture. Great pioneers such as Dale Nish, Mark Lindquist, and Todd Hoyer had a strong influence on me when I started turning and the piece in this

chapter is as much a homage to them as it is to our best friends, the trees.

In 1995 in my first book, *Wood Dreaming*, I wrote: *Trees record the story of their own lives. Drought, flood, fire, disease and trauma all leave their indelible mark in the grain, color and shape of both the living tree and the wood cut from it.* Every time I cut a piece of wood I love to see the history that is revealed. After thirty years of doing this, I finally decided to make pieces that are a direct statement about this inner life. I also asked my daughter Yumi, now 26 years old, to work with me on these pieces. She has grown up in a house filled with wood art from all over the world and experienced first-hand the struggles of someone trying to make a living as a woodturner. Yumi has an unerring sense of what will work and has given me many good ideas.



15-1 Visitors to my exhibition the Beatrice Wood Center for the Arts in Ojai, California, looking at *My Life as a Tree*.

In early 2012 we made our first piece in this series, *My Life as a Tree*. We chose the wood together and I turned it into one of my Cyclops. Yumi and I then worked on the text to tell the story of the tree's life, written on the piece itself. I had an exhibition with 22 pieces that year and *My Life as a Tree* was by far the most popular. Visitors gathered around it and carefully read each sentence. (15-1) A good friend later told me, "Of all the things I have ever seen

you make, the piece you did with your daughter moved me most of all."

So Yumi and I decided to make an even more adventurous piece for this book. Searching through my stock of wood, we rejected the straight-grained pieces as too predictable. We wanted to show more of the complex possibilities of a tree's life. Among my Jacaranda stock were many pieces cut from low on the trunk where the bole flared into convoluted folds that stabilize the tree where it is subject

BELOW

15-2 The section of trunk. On the left are the borer trails.



RIGHT

15-3 Cutting wedges of wood from the blank.



to the most stress. It was easy to find a large section that promised a lot of interest, but when I cut through it with the chainsaw we found that borers had eaten their way into the rich sapwood just under the bark. I said, “Well, that’s no good with the borers in it,” and started to put the wood aside. Yumi said, “But that’s part of the tree’s life too. We should make a piece with the borer holes in it.” So that’s what we did.

I cut a blank with a large curved bark inclusion. (15-2) Just under the bark the borer holes were filled with the excreted cellulose left as they munched their way along the grain. I

used a compass to find an approximate center to the mass of wood and on the drill press I cut a recess to fit my large chuck in expansion mode. Mounted on the lathe, the piece was securely held while Yumi and I drew sinuous lines along the flat top and bottom of the piece to indicate the final shape. The convoluted curve of the base was to give the piece stability and the curves would cut across the grain, revealing different aspects of the tree’s life.

Next, I used my electric chainsaw to cut out wedges of wood to reduce bulk and improve the balance. (15-3) When the piece was more balanced, I made sure the speed was low,

Working Out of Round

There are inherent risks in making out-of-round pieces and carving wood while it is still on the lathe, so here is a checklist of basic precautions:

Wear a full face shield or helmet.

Keep your fingers behind the tool rest at all times. The side the work is spinning on is a no-go zone.

Wear gloves. When an out-of-round piece is intermittently passing the tool rest, if a finger inadvertently crosses into the no-go zone the flicking of the wood against the glove may be the early warning sign that will save you. I know this because I have a permanently bent finger from my pre-glove days.

With out-of-round or large pieces, always turn down the speed of your lathe or select your slowest pulley before you turn on the lathe. Only increase the speed gradually.

If you are power-carving or chainsawing a piece on the lathe, lock the spindle to prevent the wood rotating. When cutting through wood, make sure you don't hit metal parts.

Unless you are outdoors, only use an electric chainsaw, the fumes from a gas-driven saw will fill your workshop in seconds.



15-4 Refining the curves with the Foredom flexi-shaft tool. I am following the curve we marked on the base. The piece has not yet been hollowed.

turned on the lathe and wound up the speed to just below vibration level. I used the same sawtooth bit to cut through to the hole on the other side. This allowed me to mount the piece on both sides and turn the central Cyclops “eye”. Once the turning was done, I went to the bench and blended the curves of the turned portion with the rest of the piece. I did the first rough carving with an Arbortech, then refined it with a carbide cutter. (15-4)

When both Yumi and I were happy with the shape I used a power



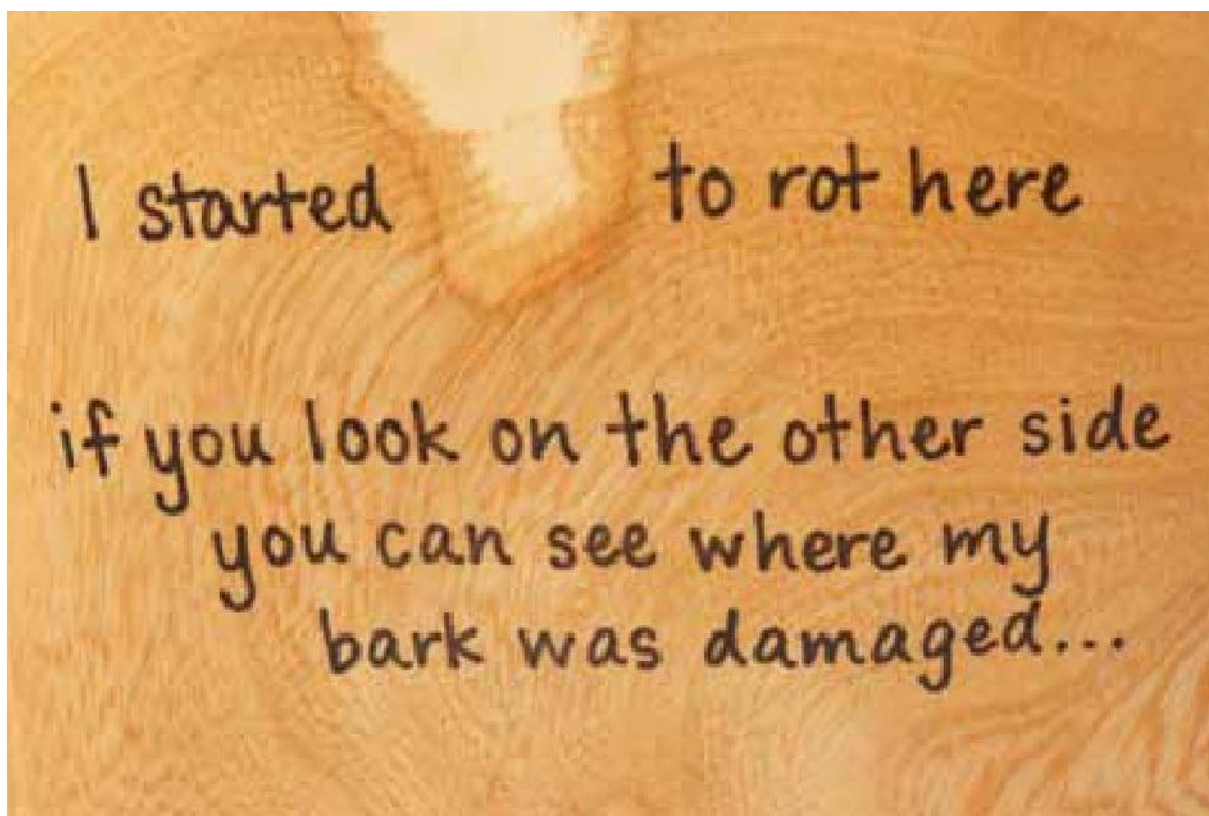
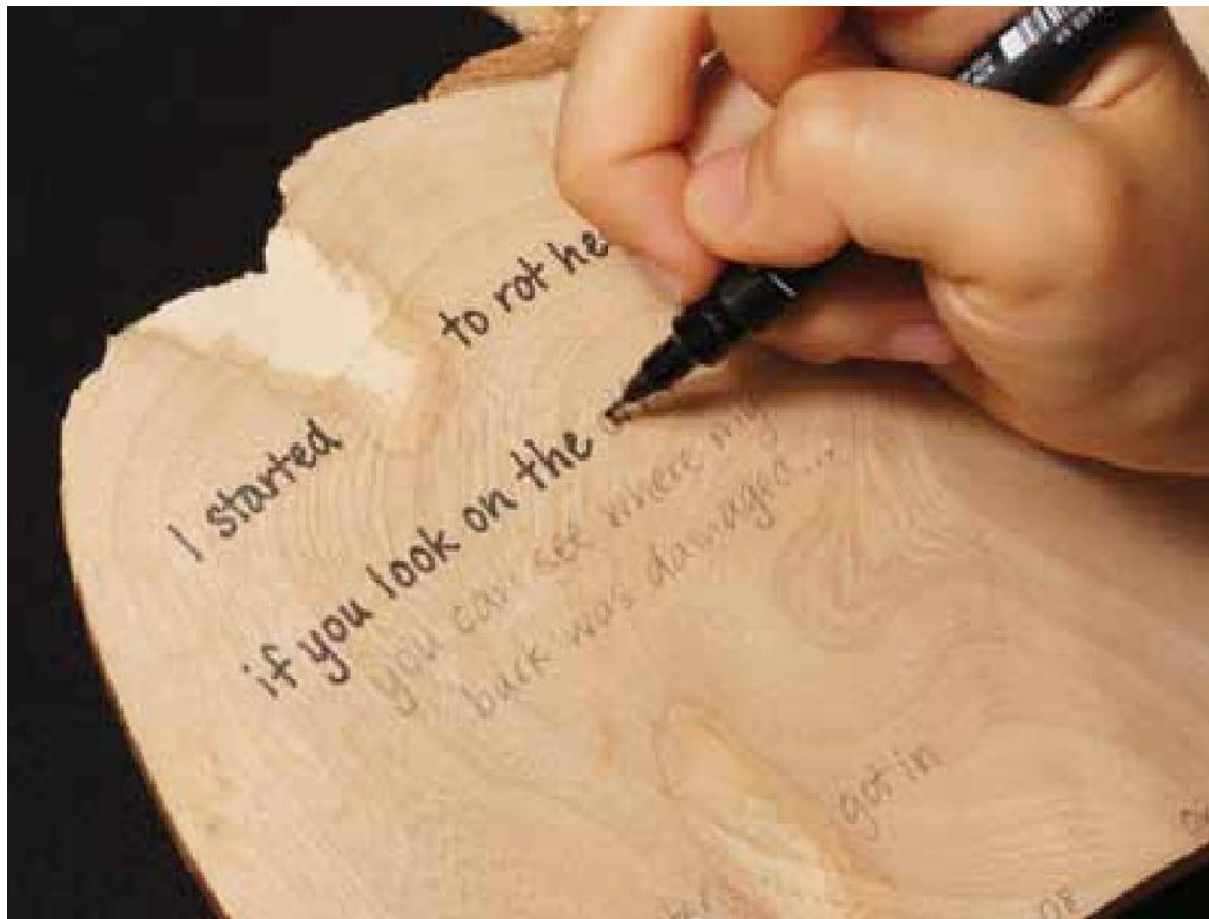
15-5 Sanding for final finish.

sanding pad to smooth the whole carved surface. (15-5) The final woodworking phase was to hollow and groove the inside of the “eye”. There was no need to extensively hollow as the main purpose is to create an intriguing interior space, but it does reduce the chance of splitting.

For the final stage, Yumi and I carefully examined the wood features, deciding where comments could be written. When we made our first piece together we had debated whether the comments should be along the lines

of, “This grain here shows...”, but decided that was too impersonal. We wanted to show what happens to a living organism over decades, so we agreed that first-person comments, seemingly spoken by the tree itself, would be best. The problem is how to avoid schmaltzy clichés. We decided that keeping it simple and matter-of-fact would work best. Our discussion for this piece went something like this:

Yumi: What about the growth rings? Should we say something about them?



ABOVE
15-6 Writing
the text.

LEFT
15-7 Yumi's simple
writing style works
very well.

Terry: We could say, "These lines show how much I grew each year."

Yumi: That's not bad. Can we add something about why they are different? How about, "Some years were better than others?"

We finally agreed on ten comments, five per side. They included, "After I died grubs came to live in my wood", and "My bark protected me so it took a lot of damage". We agreed that it's best not to take yourself too

seriously, so around the central eye Yumi wrote: "The man who made this hole was trying to be creative." As a final note, Yumi suggested writing the year of every second growth ring along the base, working backwards from the rim. The wood we cut had recorded the last 32 years of the life of a tree that probably lived a total of around 80 years.

We discussed the layout of the words, then Yumi wrote them in pencil



15-8 *Aspects of Treeness*, opposite side.

on the wood. She erased and rewrote each comment until she was satisfied, and when the pencilled words were finished, Yumi wrote over the pencil with an indelible felt-tip pen. (15-6) After the ink dried, she gently erased all visible pencil marks. Yumi's writing is so much better than my own. (15-7)

We decided to call this piece *Aspects of Treeness* in recognition of John Woollard's insight. It's hard to imagine a piece less like traditional turning.

The wood has started to rot, it was eaten by grubs, there is no straight grain, and the bark is still on it. But there is no mistaking the fact that, in John's words, this is a piece of a tree.



Feng Shui Cyclops
2013, Boxwood.
17" H x 3.5" W x 2.75" D
(18 cm x 9 cm x 7 cm).

16

Feng Shui Cyclops

Despite the fashion for collaborative work over the last twenty years, I haven't been an enthusiastic participant. However, Mike Hosaluk, probably the most enthusiastic proponent of collaboration as a trigger for creativity, once said to me: "Collaboration taught me to be more spontaneous. I think the best work is when it just pours out of you, letting go of your inhibitions, which opens new paths to explore." I respect Mike so much that I thought I'd try collaboration again for this book, and I asked two wood artists to each work with me on a piece.

The first person I asked is a Chinese woodcarver I met in 2012, Yu Zhongyong. He comes from the town of Huangshan and works on the preservation and restoration of wooden buildings, as he explains: "My hometown is famous for its ancient buildings located in what is considered

to be a 'Feng Shui treasure place', with mountains in the background and rivers in front. It is very difficult to do the maintenance, but I learn a lot when I preserve those old buildings."

Mr Yu has also mastered traditional Chinese carving, and when I met him a spark in his eye told me he was ready to try something new. I was delighted when he later sent me some photographs of his work and although I saw that his skill level was way beyond mine, I sent him some photos of my work and suggested we might work together. I was pleased when he replied: "Your work is like fresh air to me. What is your understanding of Chinese Feng Shui? I would like to make a piece which reflects the idea that man and nature are one. What do you think?"

I replied: "I don't know much about Feng Shui, but I understand it has to do with the flow of energy.



ABOVE

16-1 The window in Huangshan reflecting the principles of Fengshui.

ABOVE RIGHT

16-2 The “eye” of the Cyclops marked on the Boxwood.



I took a photo of a window in an ancient village in Anhui that made me think Feng Shui was used to design the architecture. I love this view as it is both the work of nature and of man. I sometimes think my *Cyclops* pieces unconsciously echo the Chinese idea of Feng Shui, as the hole in the middle allows light and air to pass through.” (16-1)

Mr Yu replied: “Feng Shui says to respect nature because if you don’t you are going to get paid back. My suggestion is you should just let your imagination go, work on a piece and then send it to me. I will also work this way. Do you agree?”

I found this idea delightful and began work. To start, I marked the “eye” of the *Cyclops* on the wood. (16-2) Next, I held the wood in a clamp and used a sawtooth bit to drill a flat spot larger than the hole I wanted, to create a flat shoulder for the chuck jaws to rest on. Then I used a sawtooth bit of the diameter of the chuck jaws to drill out the center to about half way through the wood. (16-3) This hole was for the chuck in expansion mode, which is what I do for all my *Cyclops*. The blank was ready to be mounted on the chuck. (16-4) On the lathe I used the same sawtooth bit that I used on



ABOVE

16-3 Drilling out the “eye.”

LEFT

16-4 The blank ready for mounting. Note the “shoulder” cut by the larger bit to ensure the wood is mounted squarely on the chuck.



RIGHT
16-5 Matching
the hole from the
other side.



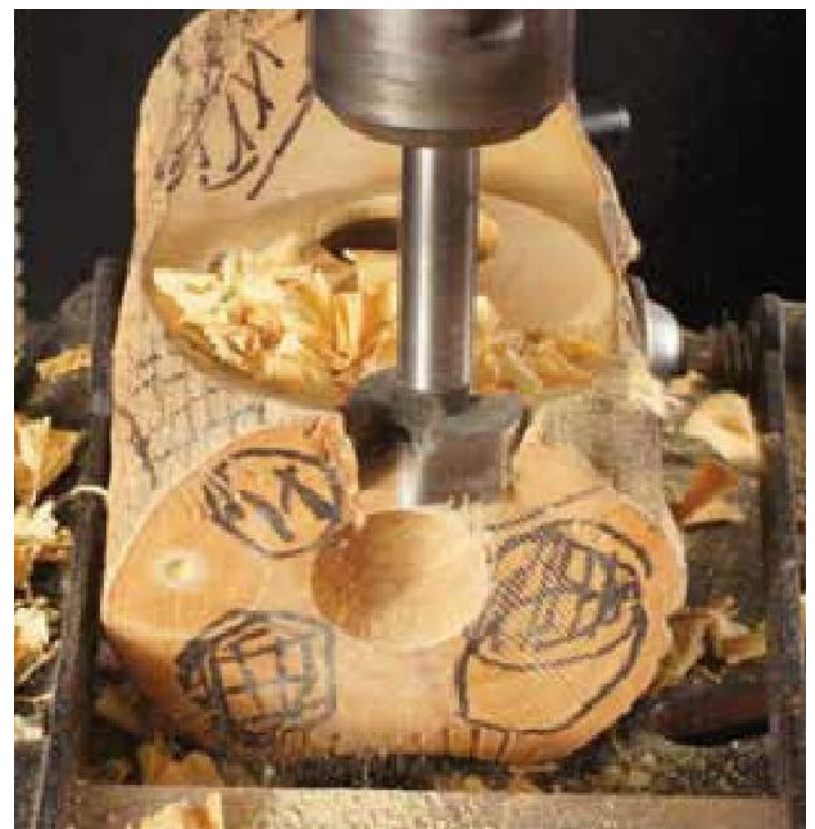
FAR RIGHT
16-6 Shaping
the “eye.”



RIGHT
16-7 Defining
the diameter.

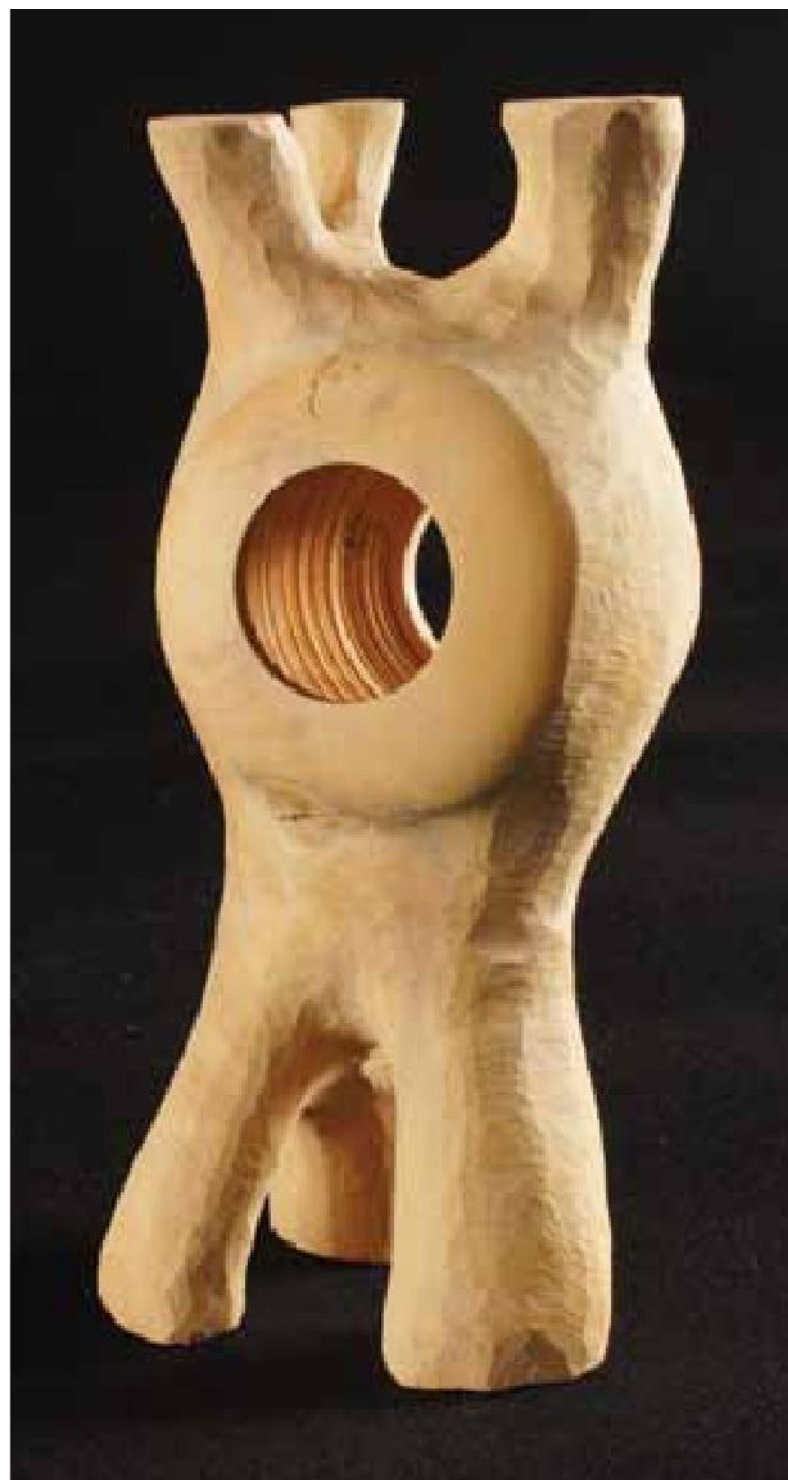
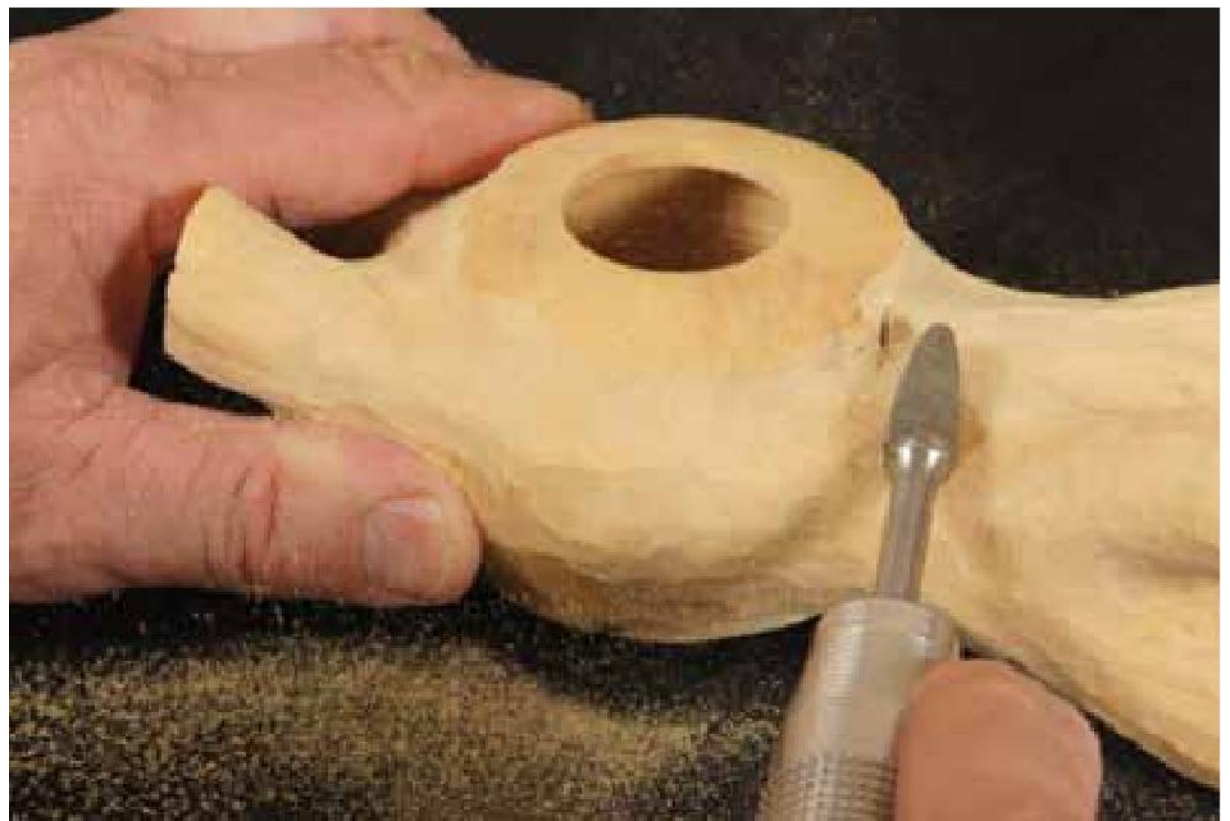


FAR RIGHT
16-8 Removing
unwanted bulk
on the drill press.



the drill press to drill from the other side. (16-5) This guarantees that the piece runs true no matter which side it is mounted on. Once the hole was complete, I turned each face to the same shape (16-6), then defined the circumference with a parting tool in scraping mode (16-7), transferring the diameter of the first side to the other with calipers to ensure they matched. The last stage of the turning was to hollow the eye, grooving the interior to catch the light.

I roughly marked out the wood I wanted to remove, then used two of my favorite carving tools, the drill press and bandsaw, to remove bulk. (16-8 & 16-9) To finish the carving I roughly shaped the wood with a variety of rotary burrs. (16-10) I was not trying to achieve a finished result as I wanted Mr Yu to see this was an area where he could do what he wanted. As a final step I remounted the piece on the lathe and used a power sander to blend



ABOVE LEFT

16-9 More bulk removed on the bandsaw.

ABOVE

16-10 Rough-shaping the piece with a shaft-driven rotary burr.

FAR LEFT

16-11 Rounding over with the power sander to blend the carved and turned areas.

LEFT

16-12 The partly finished piece I sent to Mr Yu.

the curves of the *Cyclops'* eye with the rest of the piece. (16-11)

I sent the piece to Mr Yu and waited for his response. (16-12) Some weeks later I received this reply: "This is the first time for me to work this way. It requires understanding of the cultural differences between East and West, so I'd like the piece to be both a symbol of friendship and of inter-cultural communication. Traditionally, Chinese wood carvers create realistic pieces. This work is

16-13 Mr Yu
working on
our piece.



very different and has made me think very deeply. Your *Cyclops* made me think of a compass, which is one of the great inventions of ancient China that was used by European explorers to discover much of the world. My idea is to carve a compass on this piece, but I will leave out the needle. The *Cyclops*' eye represents the eyes of Westerners. They should use their own eyes to appreciate Chinese Culture and understand Fengshui." I was moved by his sincerity and looked forward to seeing what he would do.

Some months later Mr. Yu sent me the finished piece. I had little idea of how he would interpret what I had done, so his explanation was fascinating: "Your piece had three feet on the bottom and three arms on the

top. These embrace all the meanings of Feng Shui, so I have carved the Chinese characters that represent them on the end of each limb: 天 (heaven) 地 (earth) 人 (people) on the bottom of the three feet; 精 (energy) 气 (spirit) and 神 (mind) on the arms. All of this represents the harmonious relationship between humans and nature. The Boxwood has a texture that reminds me of moving clouds and running water, and the most valued element in Feng Shui is water, so I have carved lucky clouds on the body as a symbol of energy and harmony."

"The symbols surrounding the eye of the *Cyclops* represent the eight essential elements, *sky, earth, thunder, wind, mountains, rivers, water and fire*. On one side they are arranged in



16-14 and 16-15
Details of *Feng
Shui Cyclops*.

the way Fu Xi prescribed 5000 years ago, and on the other side as Zhou Wen Wang described 2700 years ago. The gaps between the symbols are filled with charcoal ash in the traditional way. The eight symbols can be combined in different ways to create 64 different images, or explanations. Feng Shui masters use these symbols to predict what will happen, and to judge if something is good or not.”

I was amazed by the amount of thought and care that had gone

into his work. When I turn wood I suppose I am continuing an ancient tradition, but to have someone working with me quoting 5000-year-old precedents was very humbling. As a final thought, Mr Yu wrote, “What an unforgettable experience! I enjoyed it very much and hope we can work together again if you like my work.” All I can say is, “Me too!”

English/Chinese translation by Bin Yang



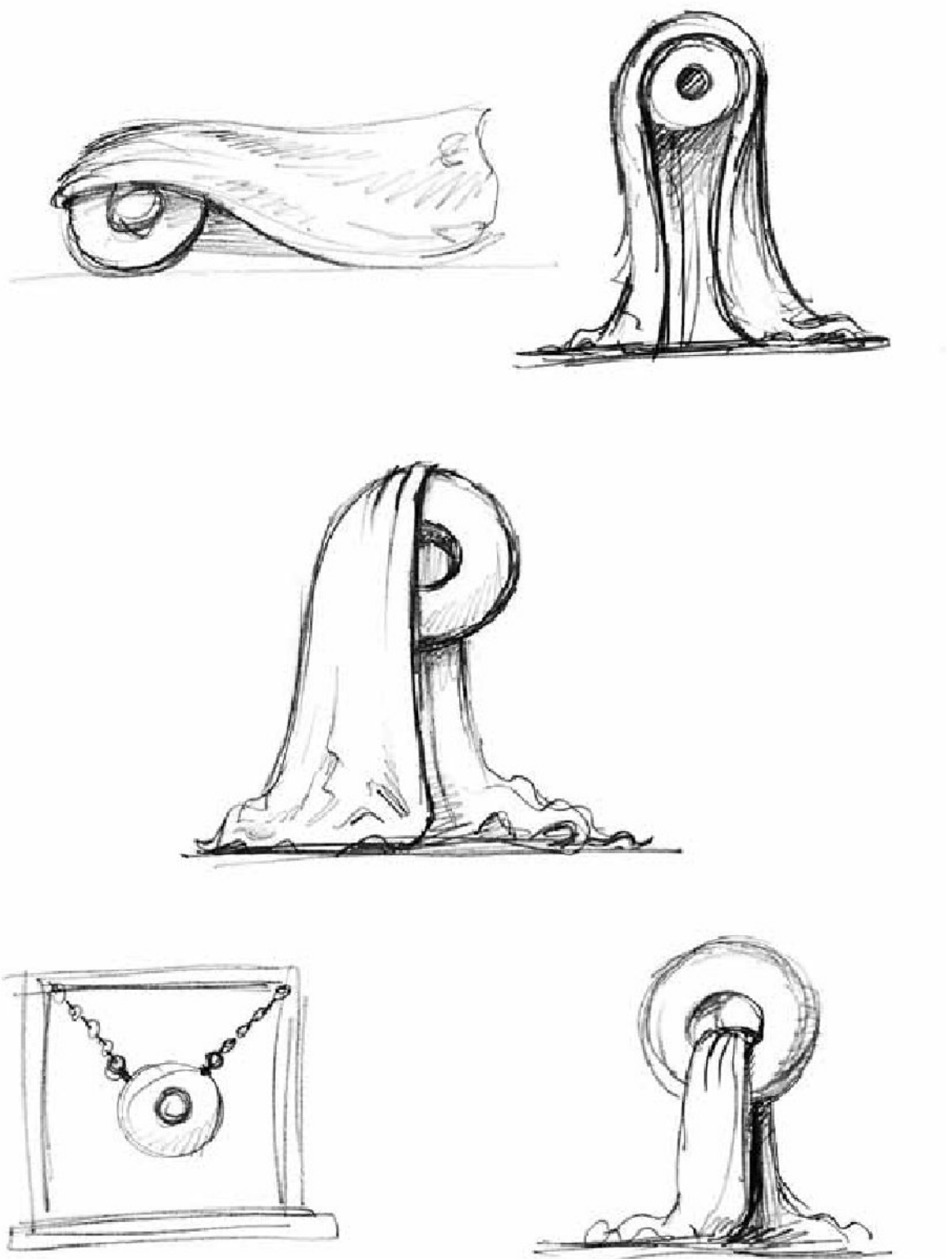
The Eye of the Beholder, 2013. Jacaranda, Jelutong, Acrylic, 10.25" H x 8.5" W x 5.5" D (26 cm x 21.5 cm x 14 cm).

17

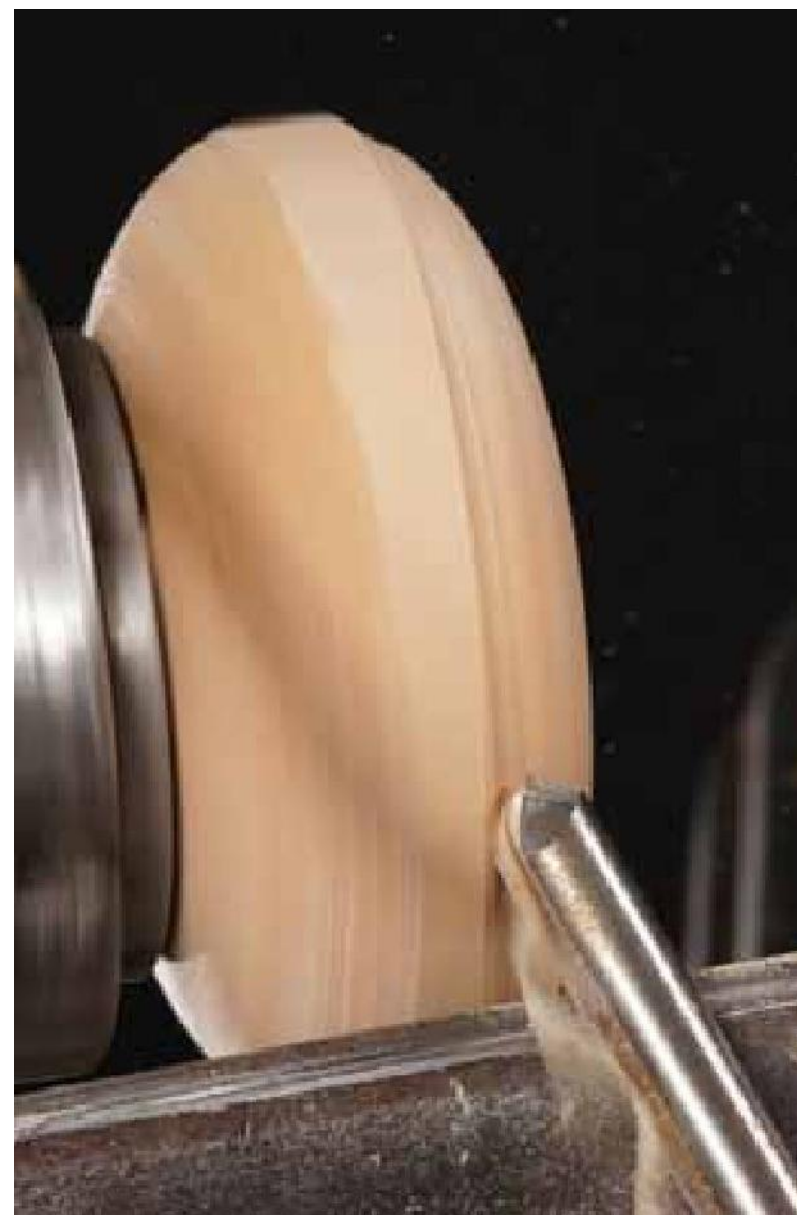
The Eye of the Beholders

My second collaboration was with John Morris, a remarkable sculptor who lives in my home town of Brisbane. I have long admired his work and believe he is one of the best wood artists in the world. As John is not a turner, my collaboration with him was another example of *look outside the field of woodturning*. John was trained as a graphic artist and he draws everything with meticulous detail. Unlike my own intuitive work, there is almost no improvisation after the sketches are complete, so I had much to learn from this collaboration.

John has never collaborated on a piece before, so we first discussed it at length. Just like Yu Zhongyong, John thought it would be good to incorporate my Cyclops idea, so he sketched some preliminary thoughts on how his work could support the central eye. (17-1) Once I saw the direction he was taking, I started to



17-1 John's preliminary sketches.



ABOVE LEFT

17-2 Boring out the eye.

ABOVE

17-3 Making the eye uniformly round.

LEFT

17-4 Hollowing the eye.

make the eye. This was the simplest Cyclops I've ever made because I didn't have to worry about carving, so I made it entirely on the lathe. I started with a blank on a screw chuck, turned a spigot, reversed it into the chuck, and drilled it out. (17-2) I took particular care to make the piece symmetrical so it would be easier for John to work with. (17-3) As John wanted to suspend the eye, I felt it had to be light, so I hollowed

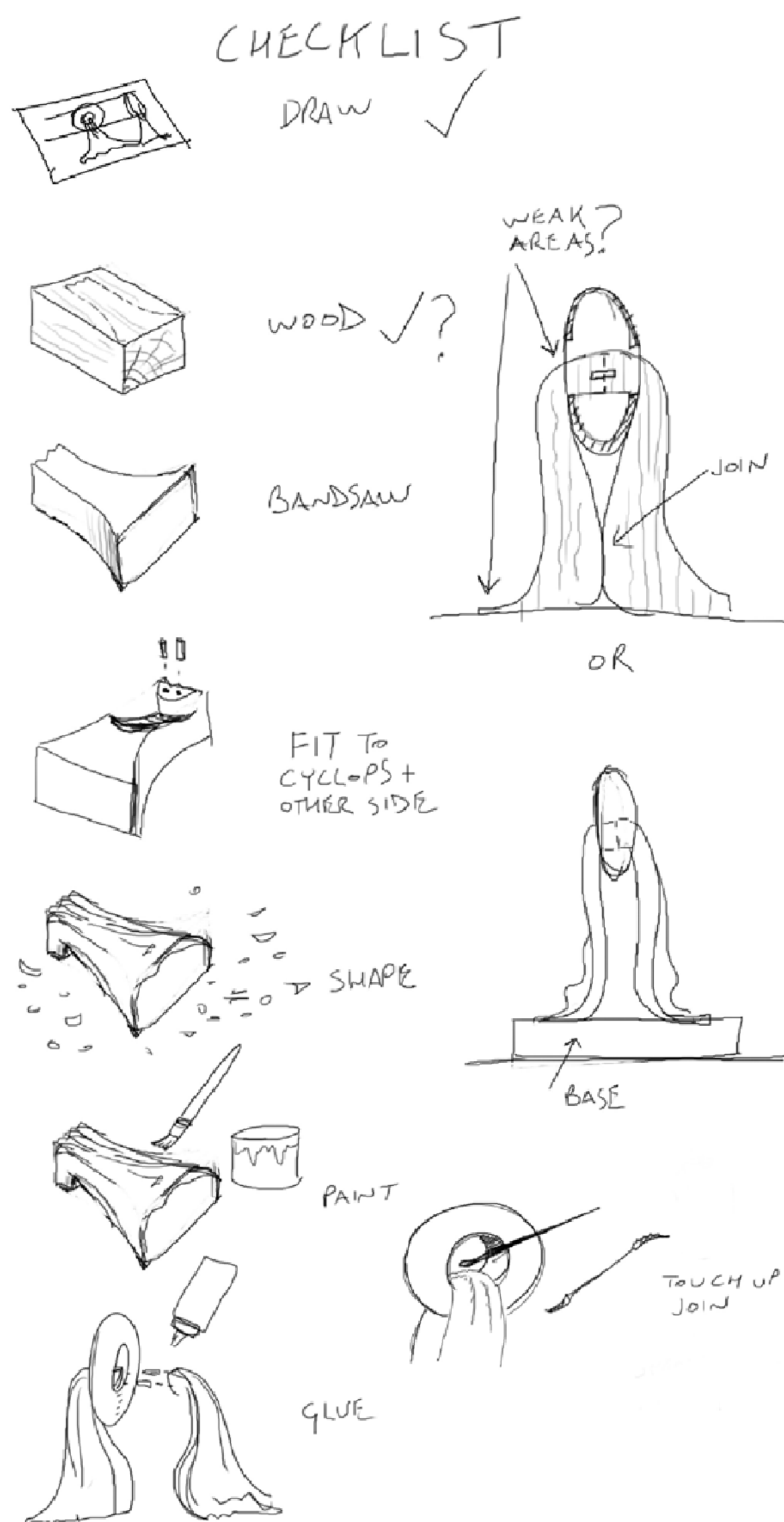
it all the way inside to a uniform thickness of around $\frac{1}{8}$ " (4 mm). (17-4)

After I gave the eye to John we discussed his sketches and agreed on the one we liked best. What John did next completely surprised me. First, he made a stand with a semicircle in the center of the same diameter as the center of the eye. He then soaked a piece of cloth in a heavy starch solution and draped it over the stand. That allowed him to play with how the



cloth draped. Once he had a form he liked, he left it to dry for a few hours. The final product was so stiff that it could be moved around safely. (17-5)

John then made detailed 1:1 drawings based on the model. (17-6) To help me with planning the photography of this project, John then sketched out the stages he would go through to complete the piece. (17-7)



TOP LEFT
17-5 The starch-stiffened model drapes.

BOTTOM LEFT
17-6 Making the final drawings for our collaboration.

ABOVE
17-7 John's process plan.



ABOVE
17-8 Transferring
the plans to
the wood.



ABOVE RIGHT
17-9 The jig that
guided John's
carving of
the center.

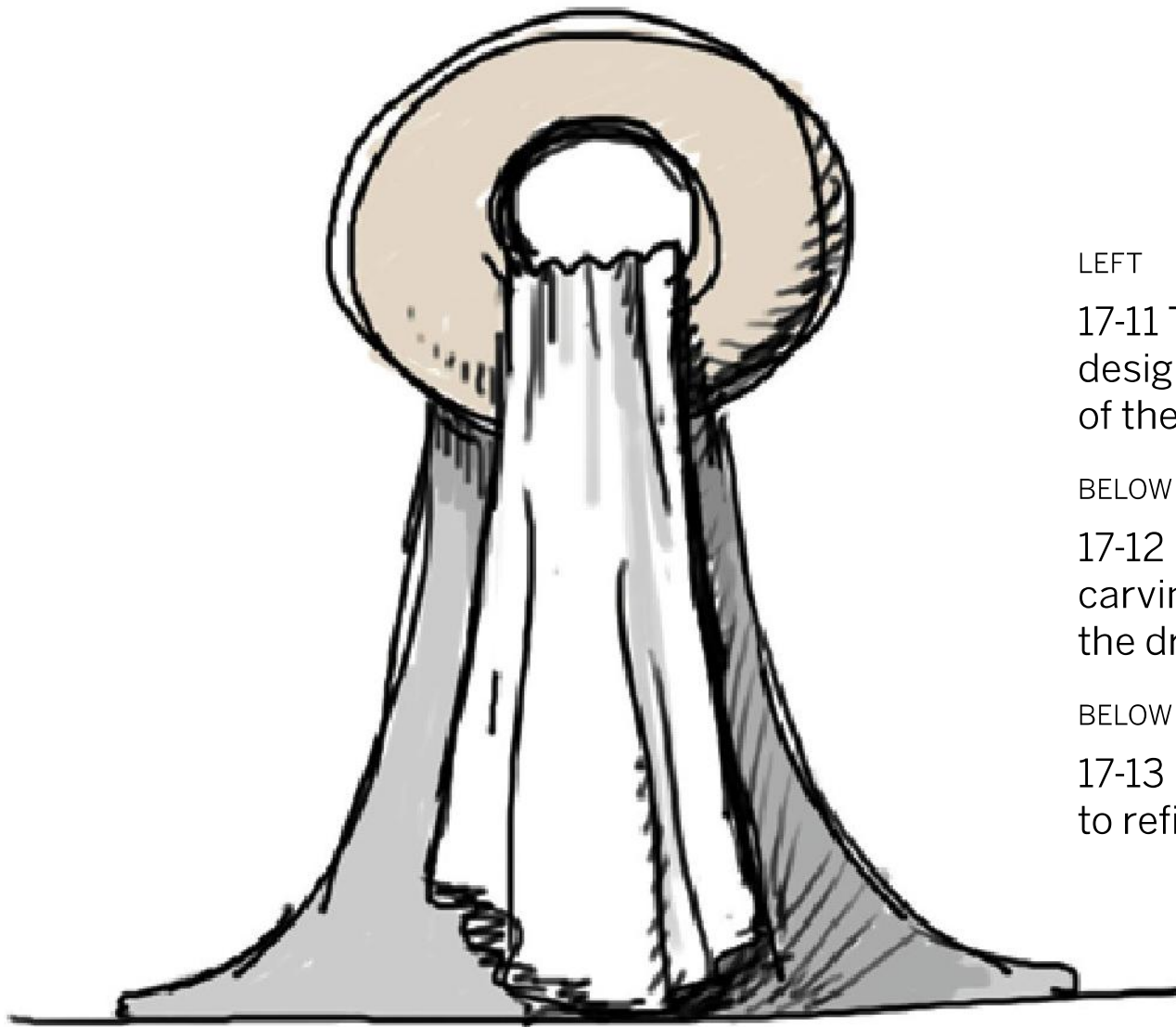


RIGHT
17-10 Carving to
fit the eye.

Over the ensuing weeks I saw that he had known exactly what he needed to do at every stage, right down to details such as the dowels needed to join the two halves of his work. It looks very technical, and it is, but with John the ideas always come first, and only then does he work out the technical details.

Once the plans were complete, John cut out the individual sections of the design, then transferred them

to a block of Jelutong. (17-8) After the two halves were cut out on the bandsaw, John went through a careful process of fitting them to the eye. He created a simple jig out of cardboard and mounted it on a pin inserted in the centre hole that would be used to match up both halves. (17-9) It enabled him to regularly check for fit as he carved the wood. (17-10)



LEFT

17-11 The new design for the rear of the drapes.

BELOW LEFT

17-12 Power carving the drapery.

BELOW RIGHT

17-13 Using a riffler to refine the shape.



John always says, “Planning is important, but you have to be open to changing things if they aren’t working.” When he saw the two halves, he decided he needed to change his design because the piece was looking too symmetrical. He sketched a shape for the rear

drapes and sent it to me, and I agreed it was better. (17-11)

John uses a variety of carving tools, and he usually proceeds from powered (17-12) to hand-held. (17-13) With constant try-fitting, he was able to make the fit perfect and when the pins aligned the halves, it



17-14 How the halves align.

was very strong. (17-14) When the drapes were done, John painted them with acrylic gesso and matt acrylic varnish to finish. (17-15 & 17-16)

It was a privilege to work with John because he is a far better woodworker and artist than I will ever be. I almost felt guilty asking him to collaborate with me because I knew he'd end up spending many more hours on it than I did. John had different concerns: "I felt I had to be more careful than

I am with my own work because I was constantly aware that somebody else's name was going to be on the piece too. It was an added responsibility." In the end we agreed the piece was very successful. We called it *The Eye of the Beholders* because it was the work of two wood artists who make things differently because they see the world in different ways.



ABOVE
17-15 *The Eye of the Beholder*, rear view.



RIGHT
17-16 *The Eye of the Beholder*, side view.



18

Tree

My love of trees has always influenced what I have made. Every time I cut a piece of wood, I think about the tree. In his seminal book *Wood: Craft, Culture, History*, Harvey Green explains this very well: “Part of the continuing lure of wood is that it is entirely organic,

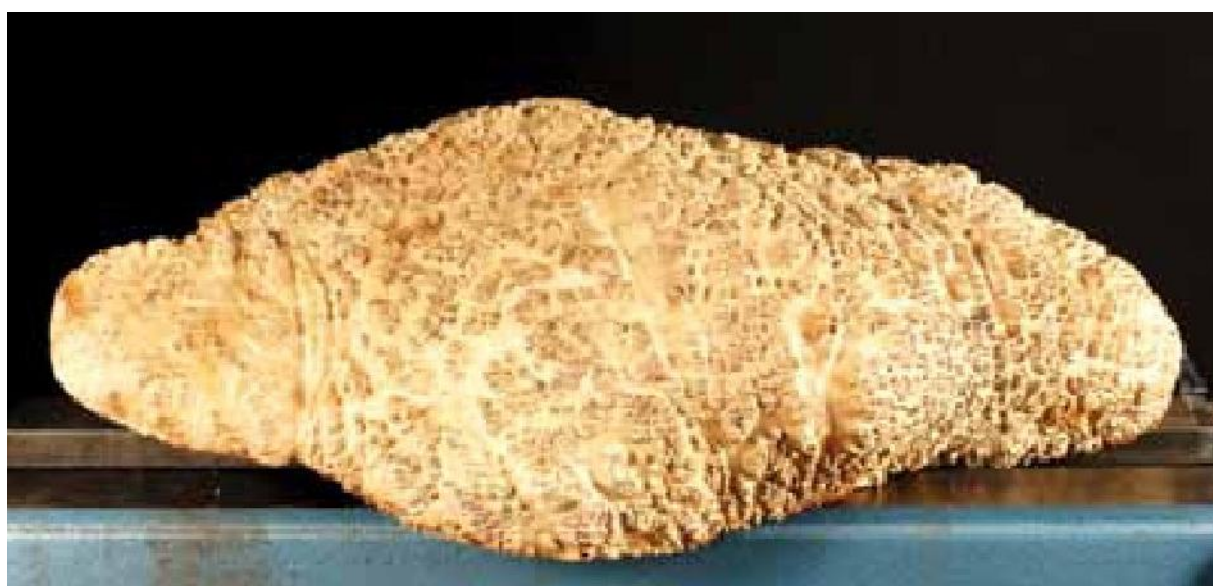
associated with nature in its wild and domesticated forms.” That’s why I try to leave something of the tree in so many of my pieces.

Sometimes I encounter a piece of wood that is so beautiful I feel it would be arrogant to try to improve it. For many years I have particularly



LEFT

Tree, 2012.
Red Mallee burl,
22" W x 9.5" H x 6" D
(56 cm x 24 cm x 15.25 cm).



18-1 The mallee burl.

loved Mallee burl. Mallee is among the hardest of Australian woods, but I always felt drawn to it, perhaps because it was the wood we heated our home with when I was a child. When you strip away the bark, the sapwood of these burls is amazingly textured, covered in dimples and sharp points. Many turners use these burls, but they always cut away most of the sapwood because it is just too spiky. I always felt it was a shame to remove the most interesting wood in the burl. By gradual experimentation and asking *what if*, I came up with the idea of making trees from trees.

I was stuck on using the whole burl as a canopy, but my daughter Yumi one day asked me why I didn't make a kind of bas-relief tree so the light could outline the shape of the trunk better. She was right and that is when I arrived at this way of making trees. This idea is so simple that in hindsight it seems obvious, but once I started showing these trees, public reaction told me that nobody else had ever used a burl in this way.

Most of the techniques I use have already been described in previous chapters. I start with a suitably shaped mallee burl (18-1) and sketch out



ABOVE
18-2 After cutting
on the bandsaw.



RIGHT
18-3 The branches
sketched in chalk.

shapes on the top surface with chalk. I erase and re-draw until I am happy, then fix the lines with marker pen. I remove the waste on the bandsaw (18-2), then mount the burl between centers on the lathe and sketch the branches in chalk. (18-3) The lathe is a perfect work station as the burl is held at a good height for working, the piece can be flipped and reversed to work from any angle, and it can be locked in any position using the

indexing head. There is no need for precision at this stage because I have a lot of wood to remove before I get to detailed work. With these trees I go through a process of reduction using ever-smaller tools in this order: chainsaw, bandsaw, belt sander, large Arbortech rotary cutter, smaller Arbortech cutter, die grinder, shaft-driven burr cutter, disc sander, flap sander, hand sanding. (18-4 & 18-5)

RIGHT

18-4 Reducing depth with the large Arbortech.

BELOW

18-5 Deep cutting with the smaller Arbortech.



Even though I can only work these burls when they are wet, it is still hard and forcing it would be disastrous as a crack in a branch means the end of the piece. I usually take about two weeks to finish a tree, although it requires time out to let the wood stabilize between steps. This burl weighed 61 lbs (28 kg) when I started and the finished tree weighs 2 lbs (1 kg).

I think my *Trees* are the best things I have ever made. At this stage you are

probably thinking, “Did he turn on the lathe? This looks like it was all carved.”

The answer is no, I did not turn on the lathe. I listened to that quiet voice in the back of my head that always tells me to break the rules. It seems the most creative thing I ever did as a turner was *not turn on the lathe*.

Thank you for reading this book. If it has been fun for you, you are probably heading in the right direction.



My first major exhibition was in 1992 at Bungendore Woodworks in Australia. It was, and still is, one the world's best galleries specializing in wood, and this was a very important step for me. At that time I was mainly concentrating on hollow vessels, although there were a few bowls and platters, some with pierced work and painting. The fact that every piece was sold gave me enough confidence to keep pushing the limits. Since that year I have taken part in over seventy exhibitions in ten countries, but none has been more important than this first foray into the gallery environment.

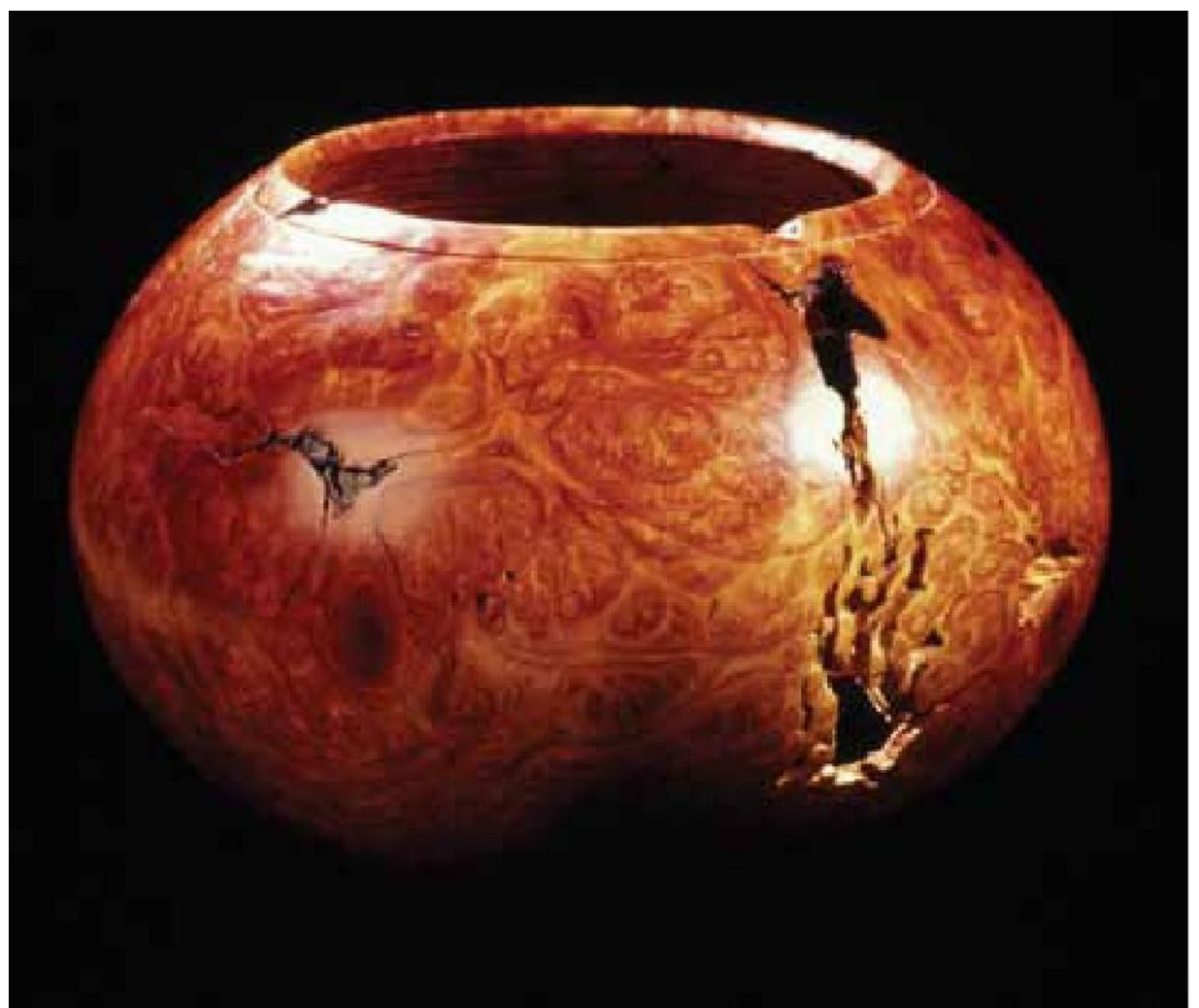
19

Gallery of My Work

Over the years I've enjoyed exploring new ideas, even to the point where I have made it harder to market my work. Collectors tend to follow fashions and buy what other collectors have, so there has been pressure to make series that are all similar, or even identical. But I became a woodturner so I could do what I

wanted, so I've always resisted that pressure. The pieces in this gallery are a small sample of my explorations. Some of them, such as *Ebony and Ivory*, were one-of-a-kind, whereas others, such as *Jarrah Vessel*, were part of a very large body of work that has been my mainstay for years.

Vessel, 1992. Mallee root, 18" D (45.75 cm). The strongest influence on me in my early days was the group of pioneers who broke new ground with the thin-walled hollow form. Of course David Ellsworth is preeminent, but I was also very influenced by Lindsay Dunn, a remarkable Australian turner who has never sought international recognition. This piece was turned from almost rock-hard Mallee root and featured bark inclusions, natural voids, and gorgeous grain. It was very much a piece for its time, and I still like to make such work, but there is not really anything original about it. As I described in the beginning of the book, mastering such work was like an apprenticeship to develop skills before trying my own ideas.



Vessel



Redgum Vessel



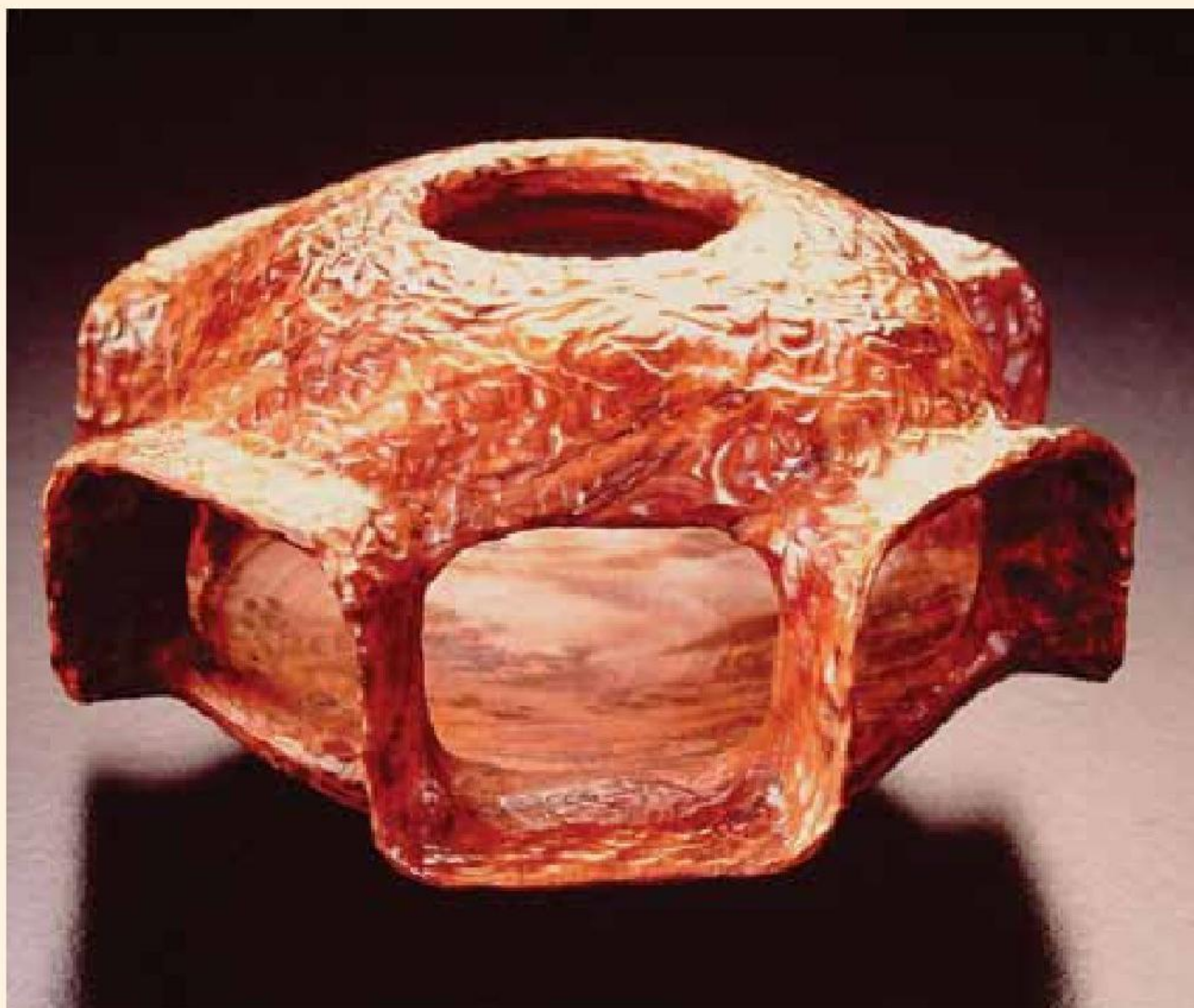
Ebony and Ivory

Redgum Vessel, 1993. Redgum burl, 9.25" D (23.5 cm). Another typical hollow vessel from this period with lots of holes. My fascination with light passing through the work started with such pieces and it would play a strong role in later years. I remember I sold this for \$100 and thought I was doing very well.

Ebony and Ivory, 1993. Huon pine and Ebony, 11" H (28 cm). This was an early attempt at purely sculptural turning. I wanted to see how far I could depart from the preoccupation with functional vessels and soon found that most turners thought I had developed a loose screw.



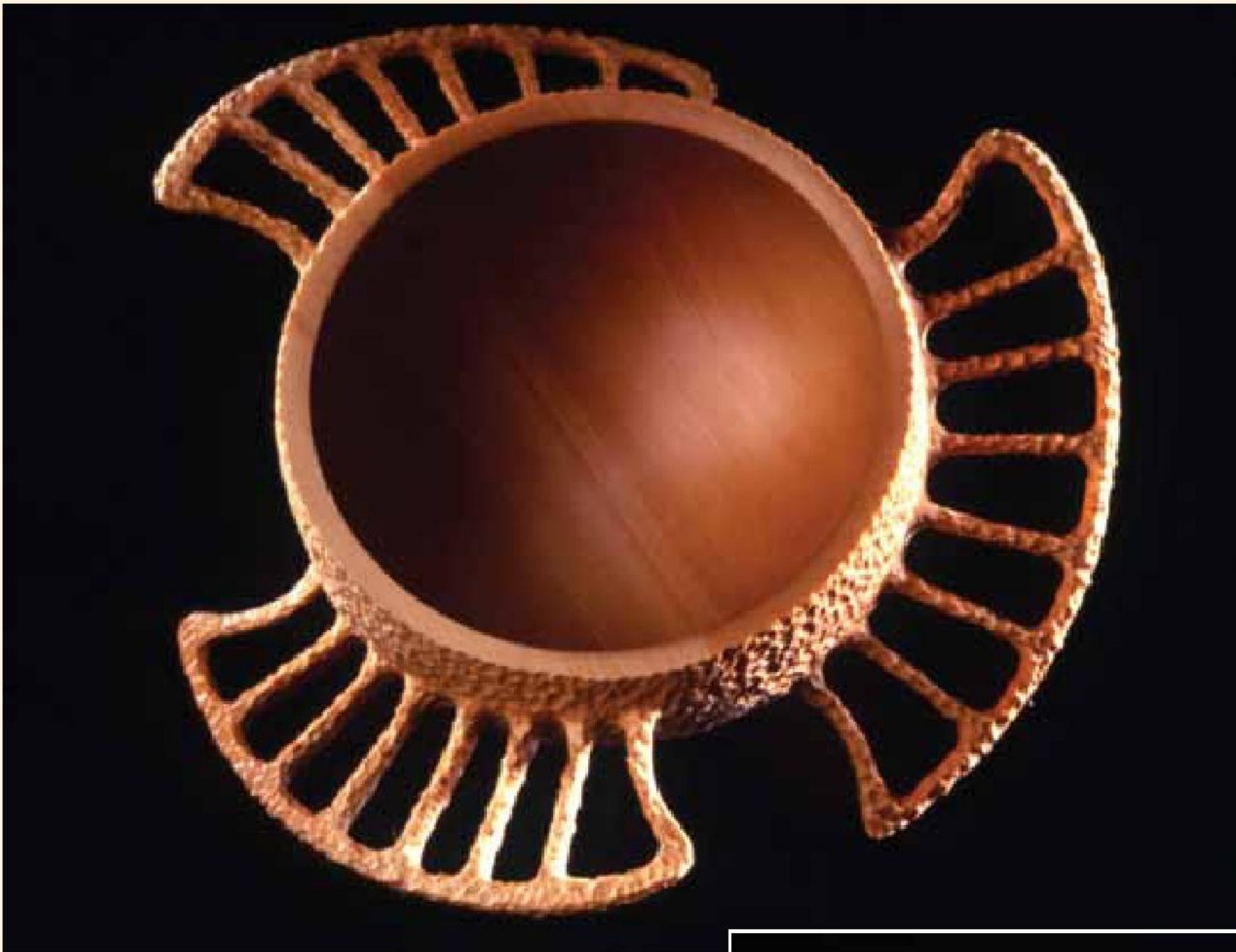
Winged Platter



Pierced Vessel

Winged Platter, 1994. Camphor Laurel, 19.5" D (49.5 cm). I became intrigued with rolling rims over to the point that they almost touched the surface, then cutting them away to "frame" the base of the platter. This was the precursor to my winged vessels.

Pierced Vessel, 1994. Thuya burl, 5" D (12.5 cm). This was one of the first pieces I made using my die-grinder rig and indexing head. I was also in the early stages of experimenting with textured finishes.



Huon Dream



Huon Dream, 1996. Huon Pine, 12" D (30.5 cm). Here I used my intermittent die-grinder cut to create eccentric wings, then stipple-carved it with a rotary burr to shape and finish in one process. This was another idea that I saw in a half-dream. By this stage I was starting to be paid enough for such pieces to justify the time it takes.

Suspended Vessel, 1997. Coolibah Burl, 20" W (51 cm). This piece was, for me, a logical extension of my winged platters. Once a rim becomes the support for a vessel by lifting it off the surface, it is no longer a rim. Piercing it allows more light and air to pass around and through the whole piece.



Suspended Vessel



Splash

Splash, 1997. Coolibah burl, 12" D (30.5 cm). These pieces were based on a strong memory of a photograph I saw when I was a boy. It was a high-speed shot of a stone dropping into a container of milk and the splash caught in mid-air. Plunging bowl cuts into a burl often suggest this kind of pattern. You can see how it started with a bowl form, but I decided to take it one step further and let light through the whole

piece. It had all the elements I love: lift, texture, light, air, contrast, and originality. I made many of these pieces but, in one of those examples of two turners thinking alike, around the same time Alain Mailland began to produce pieces that had similarities. I could see that he was taking them further than my pieces, so I decided an orderly retreat was best and I haven't made any since then.



A Bowl in a Burl



Jarrah Vessel

A Bowl in a Burl, 1999. Coolibah burl, 18" D (45.75 cm). I've always been fascinated with the idea that we are trying to see what is inside the wood and to predict what we can make from it. I combined the ideas from *Vessel in a Bowl* and my *Splash* series to create this idea where I "unfolded" part of the surrounding wood to hint at how we uncover hidden treasures. I grooved the interior of the bowl because after I made the first few with smooth interiors some turners refused to believe they were made on a lathe. These pieces were the predecessors of my *Angel* series, shown in the Cyclops gallery.

Jarrah Vessel, 2001. Jarrah burl, 14" H (35.5 cm). I always like to revisit the hollow form and with this piece I created one of my all-time favorites. I particularly like the small feet that offer a glimpse of light, and I turned it so the natural rim looked like it had dropped down to reveal the grooved interior. This takes a lot of foresight to align the piece on the lathe so it comes out right, and inevitably results in an off-balance blank that needs some chainsawing before you can turn the lathe on. This grooved interior is part of the direct lineage that began with the influence of David Ellsworth's *Man and the Forest Architecture* and ended up with my *Heart of the Tree*.



Reclining Vessel

Reclining Vessel, 2001. Jarrah burl, pine, acrylic paint. I made this piece for my first exhibition in Paris. Once I started experimenting with how far I could “drop” the rim of a vessel, I asked myself, *why not drop it all the way to the bottom?* It is a good example of how you should think of the idea first and how you are going to make it last. If I had known how tricky this would be I might not have

started it. It remained out of balance almost all the way to the bottom and took some very careful turning. Because there was no going back once I had finished hollowing, I had to completely finish about an inch at a time, grooves included. With no base and no reason to stand vertically, I made a minimalist cradle and laid it gently on one side.



Flood Bowl

Flood Bowl, 2012. Jacaranda, 5" x 16.5" x 9" (12.5 cm x 42 cm). In 2011 my state was devastated by floods and in the aftermath I was offered a lot of wood from trees that had been knocked flat by walls of water. I wanted to make something that told the story of how I came to be given the wood. *Flood Bowl* was made from a part of the tree that was folded in convoluted

curves. By following the grain I was able to make a piece that was thin but strong, just as I did with *Gangabbari*. I used so many techniques to make this piece that it almost summarizes how I think of woodturning these days. I believe turning is a good technique for shaping wood, but I don't want it to be an end in itself. When you combine it with other techniques,



Detail of *Flood Bowl*.

the creative possibilities are unlimited. But I couldn't resist having a turned bowl floating on the top of the wave. The part of me that wants to be a turner is still strong, and I am happy for it to be so.



Hokucyclops, page 142.

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Cyclops Gallery

By looking back over the development of my *Cyclops* series since 1996, I can track how a single idea has developed with time and experience. With the help of a lot of *what ifs*, and many more *why nots*, it has been a deeply satisfying journey for a rebel like me, and I get excited every time I start a new *Cyclops* because there are virtually no limits. I like the fact that they challenge preconceptions about what woodturning is and owe almost nothing to traditional turning. For me, they are vessels for light and air, vessels to hold dreams. I also enjoy watching the expressions that play across people's faces when they see this work. Sometimes it is puzzlement (what's it for?), occasionally scorn (that's not turning!), sometimes it is curiosity (why did you...?), but often it is delight, and these are the moments when it all seems worthwhile.

One of the most revealing responses is when people ask me, "What's it

for?" I understand from the question that they probably only see wood as useful for making functional items and can't disassociate wood from craft. I used to try to explain, but often found people have already made their minds up about such things. One day at one of my shows I had answered the same question several times with my usual replies:

It's not really for anything, it's something to entertain, something to enjoy for its own self.

Blank stare.

It can be anything you want it to be.

"Yes, but what's it for?"

One day, in frustration, I said, *It's an ashtray*. To my amazement, the person was completely satisfied with that answer. I tried it several more times and in every case they accepted the idea. It's a good reminder never to take yourself too seriously and I suppose one day I am going to have to make an *Ashtray Cyclops*.



Cyclops #5



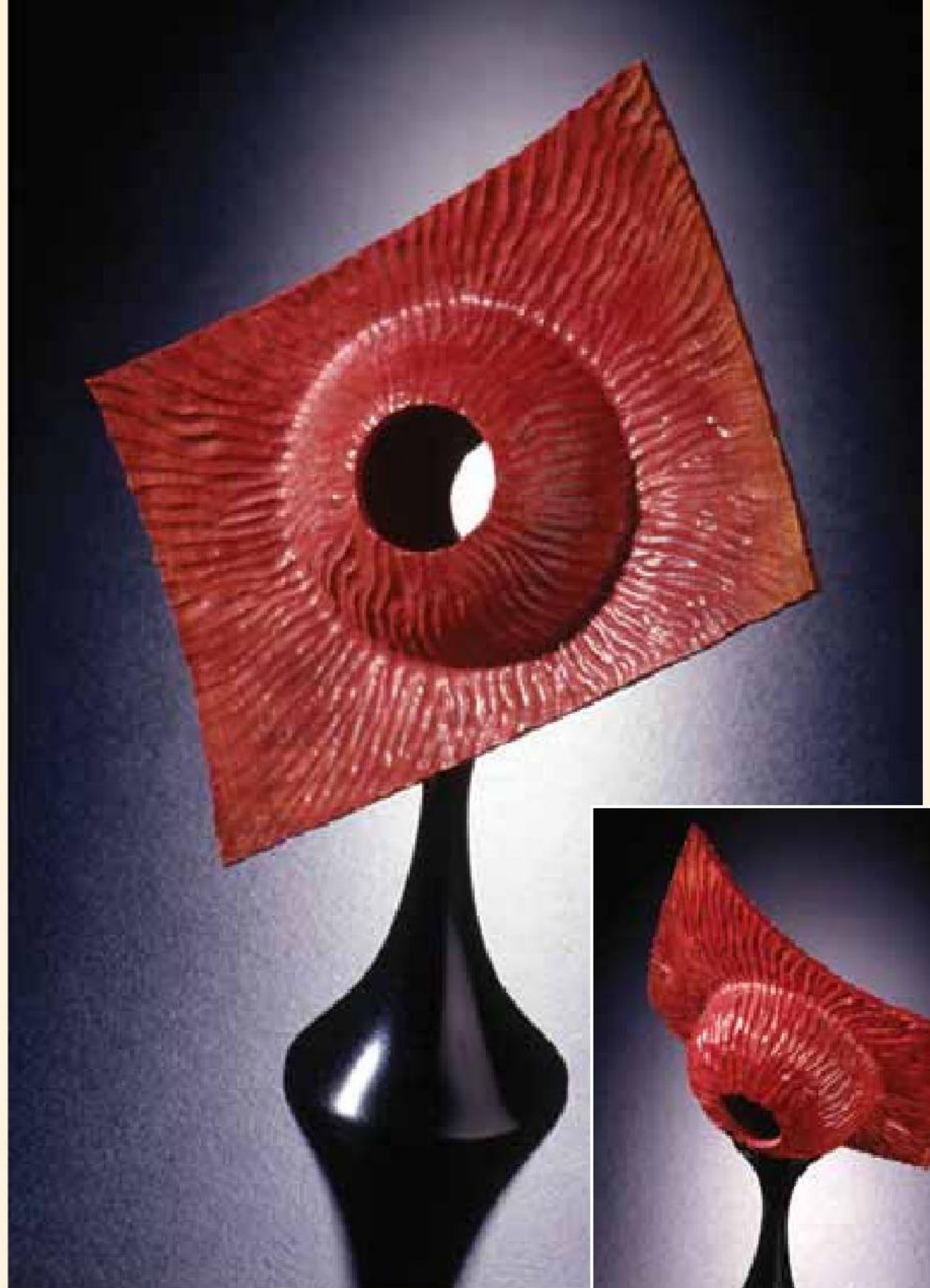
Cyclops #7

Cyclops #5 , 1996. Flame She-oak, 8" H (20.5 cm). This was an early variation of my first *Cyclops*. Three legs are always stable and there are many ways to vary their shape. It has all the basic ingredients of the series: central eye, turned faces on both sides, eccentric shape outside of the turned portion, and it is carved where it is not turned. It was still a very upright piece, something that would change in time. Most of all, this piece is a celebration of the wonderful grain of this wood.

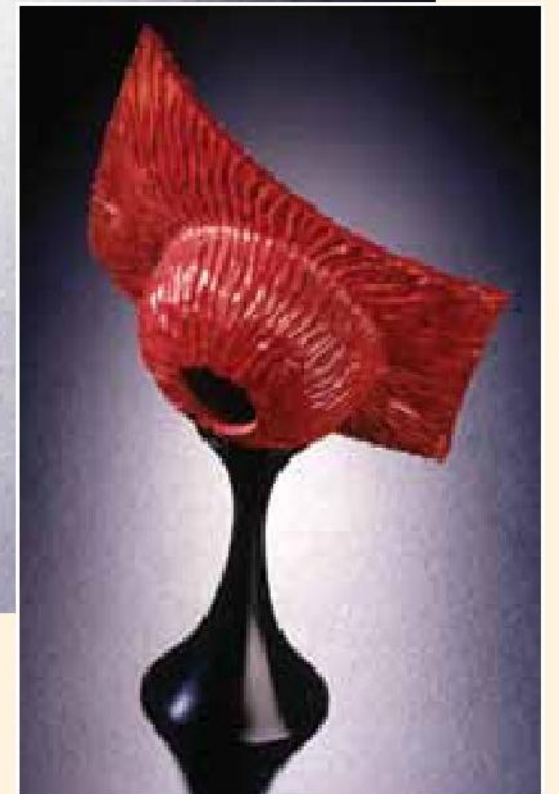
Cyclops #7, 1996. Hairy Oak, 5.5" H (14 cm). I started to experiment with making the supporting structure less symmetrical. Also, I wanted to include wood features in a less predictable way. This tree has folds that enclose the fibrous bark and the light sapwood starkly contrasts with the rich deep tones of the heartwood. It was a hint of how I would start to use wood features more creatively in the future.



Jarrah Cyclops



Bladerunner Cyclops
RIGHT Rear view.



Jarrah Cyclops, 1996. Jarrah burl, 16" H (40.5 cm). I wanted to make a more substantial *Cyclops*. I like the sense of strongly planted feet and centered stability, and that might have been why it was bought by a 5th Dan Aikido master. When turners look at my bigger pieces they often say something like, "Boy, the lathe must have jumped around when you were turning this one!" In fact it was perfectly balanced because there was an equal amount of wood at each end during the whole turning process. I simply cut off the top wood on the bandsaw when I had finished the turning and then blended the curve with my die-grinder rig. It is very revealing that almost nobody sees the possibility that I might have done this, which shows that we all tend to see what we want to see, something that I have always happily taken advantage of. As always, the stippled texturing not only creates the finish, it also allows me to perfect the final shape.

Bladerunner Cyclops, 1997. Pink ivory and ebony, 10" H (25 cm). This is the only *Cyclops* I have ever made from more than one piece of wood. I did it for several reasons. At that time I was extensively exploring my idea that *contrast enhances everything*, and I couldn't think of a greater contrast than Ebony and Pink Ivory. I also wanted to contrast the strong texture of the top with the smoothness of the base. Most of all, I wanted to create an interactive piece, something I had never done before. The top can be moved to different positions in different axes and this was a strong selling point. By this stage these pieces were starting to be purchased by significant collectors, which gave me more confidence to experiment.



Sweet Androgyne



Just Do It Cyclops

Sweet Androgyne, 1997. Ebony, 9" H (22.75 cm). This is probably one of the most unusual pieces I have made. It came from a train of thought about legs on bowls. I was trying to think of a way to make some original legs and asked myself, *why not make real legs?* Also, I had recently been given a book on African spoons by a friend, and on the cover was a spoon with legs, so that may have influenced me. It was the first piece of figurative carving I ever did and I enjoyed it very much. The name arose from the fact that when I reached the groin area I realized I had to choose what sex the piece would be. I chickened out and opted for no sex at all.

Just Do It Cyclops, 1997. Redgum, 10" H (25 cm). By this stage the questions *what if* and *why not* were generating more ideas than I could keep up with. I spent increasing amounts of time thinking about how I could make a piece float in the air, and this was the result. I thought it was one of the most successful pieces I had ever made, as the base only lightly touches the surface at two points, and light passes beneath the base as much as beneath the central eye.



Double Cyclops



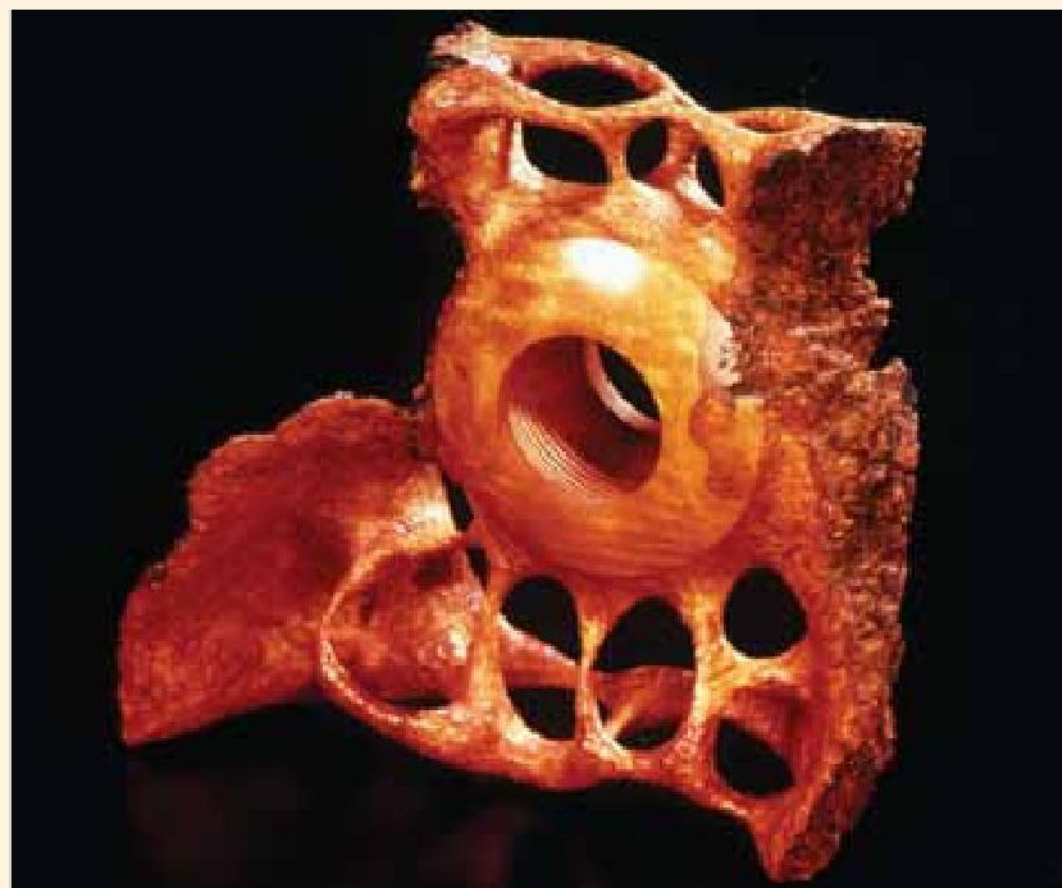
Twisted Double Cyclops

Double Cyclops, 1997. Macassar Ebony, 9" H (22.75 cm). Eventually I asked myself why a *Cyclops* has to have only one eye. The predictable answer is that they always do, but that is not much of an answer if you are trying to be creative, so I broke the rules. This seems a technical challenge because of the extreme eccentricity that should cause a lot of vibration when spinning at speed, but I simply did what I described earlier and gradually cut away pieces of wood as I turned and the weight distribution changed. I even made another *Cyclops* from one of the offcuts. With pieces like this and *Sweet Androgyne*, I entered the realms of pure sculpture.

Twisted Double Cyclops, 1998. Macassar Ebony, 9" H (22.75 cm). The moment I completed *Double Cyclops*, I thought it looked too "lined-up". I wanted to take it in my hands and give it a quarter twist to make it more interesting, so that's what I did with *Twisted Double Cyclops*. I only had to turn it on two axes and carve the supporting wood differently. I added some chatterwork and the grooved interiors caught the light better than the smooth interiors of my first effort. In fact I think I went too far and that it is not as successful as the first one, but it was a fun experiment.



Natural-Edged Cyclops



Caged Cyclops

Natural-Edged Cyclops, 1998. Coolibah burl, 7.5" H (19 cm). By 1997 the fashion for natural-edged bowls had started to wane, but I missed making them, so I thought, *why not* a natural-edged *Cyclops*? This piece incorporated my overarching wings, but the extra bars that supported them were a new idea. I put them in because burl wood can snap if too much stress is placed on one point. If I did this piece now I would probably make the bars more organically shaped.

Caged Cyclops, 1999. Tasmanian Myrtle, 8" H (20.5 cm). I was pleased with my return to natural edges and wood features, and I wanted to explore the idea further. I had an image of the eye enclosed in a matrix of wood, held in stasis. I left the bark on this piece so there was no mistaking: this is a piece of a tree! I called it *Caged Cyclops* because it reminded me of the glassblower's process called "caging" where a piece is entrapped in filaments of molten glass.

*Never Did
That Before*

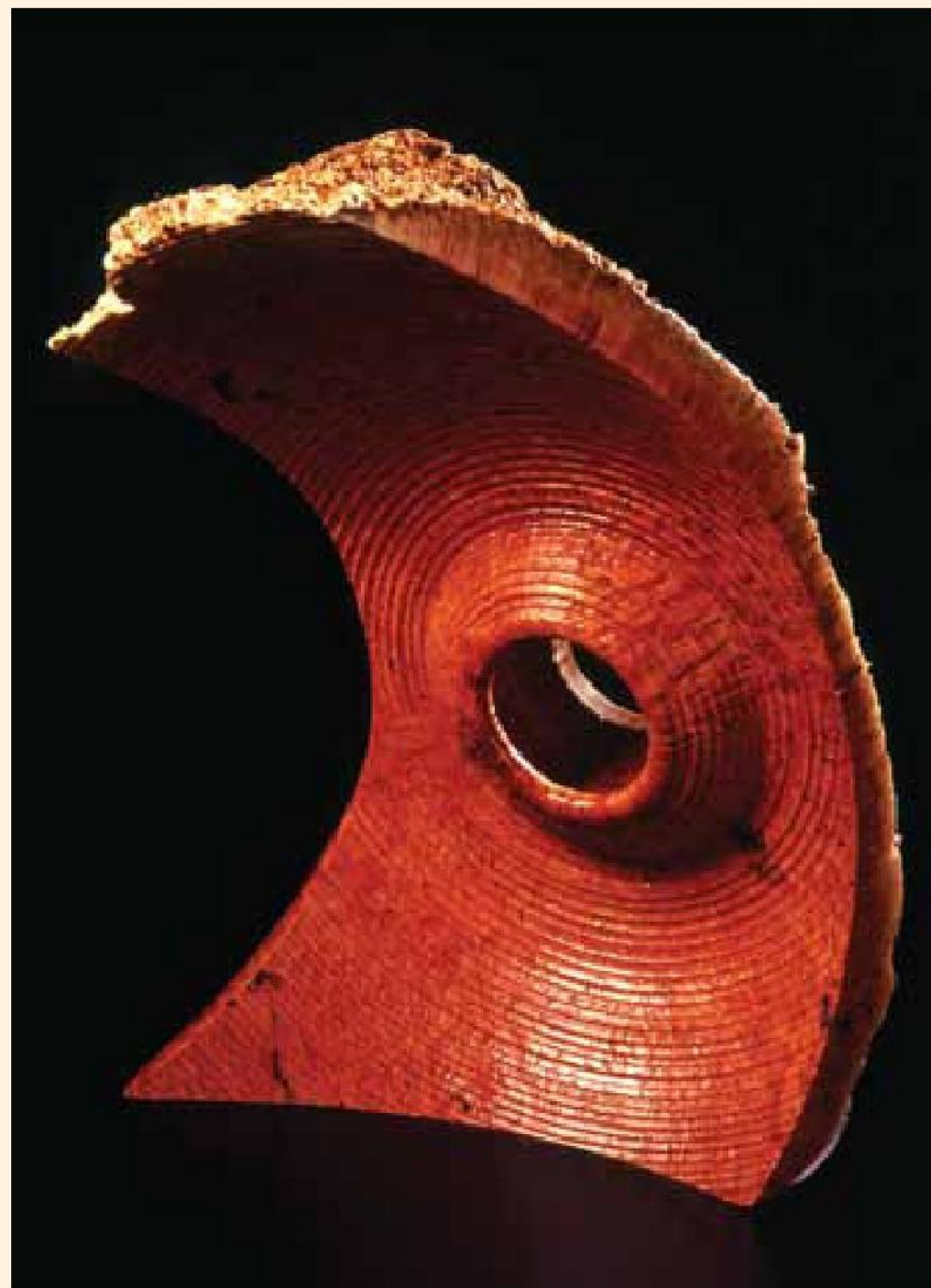


Never Did That Before, 1999. Redgum, 9" H (22.75 cm). In 1999 when I was demonstrating in France, I mentioned that I like to make things on the lathe that have never been done before. One man reacted strongly and said, "It's not possible to do anything unique on the lathe. It's all been done before." When I offered to make something unique for them, they practically rubbed their hands together in anticipation of my failure. I made a piece just like this one. It is obviously based on *Double Cyclops*, but I wanted to escape the predictable verticality of that piece. As I described before, I turned two centers from a larger blank by gradually removing wood as the center of gravity shifted. When the turning was complete I removed more wood on the bandsaw, testing the balance by removing more

and more of the base till it was almost tipping over. I also decided I wanted to let more light shine through the piece, so I cut away the rim of each eye on the bandsaw and left little flanges standing proud. This had the effect of reducing the weight even further, so I was able to cut a little more off the base. After the final texturing, my piece was complete. The spectators were as entertained as they were bemused, but there was general agreement that "perhaps such a piece had never been made on the lathe before." Since then I have extensively explored the use of the bandsaw as a texturing tool and have found it very versatile (see *Ball Box*). This was also one of my earliest attempts to create a sense of movement by playing with balance.



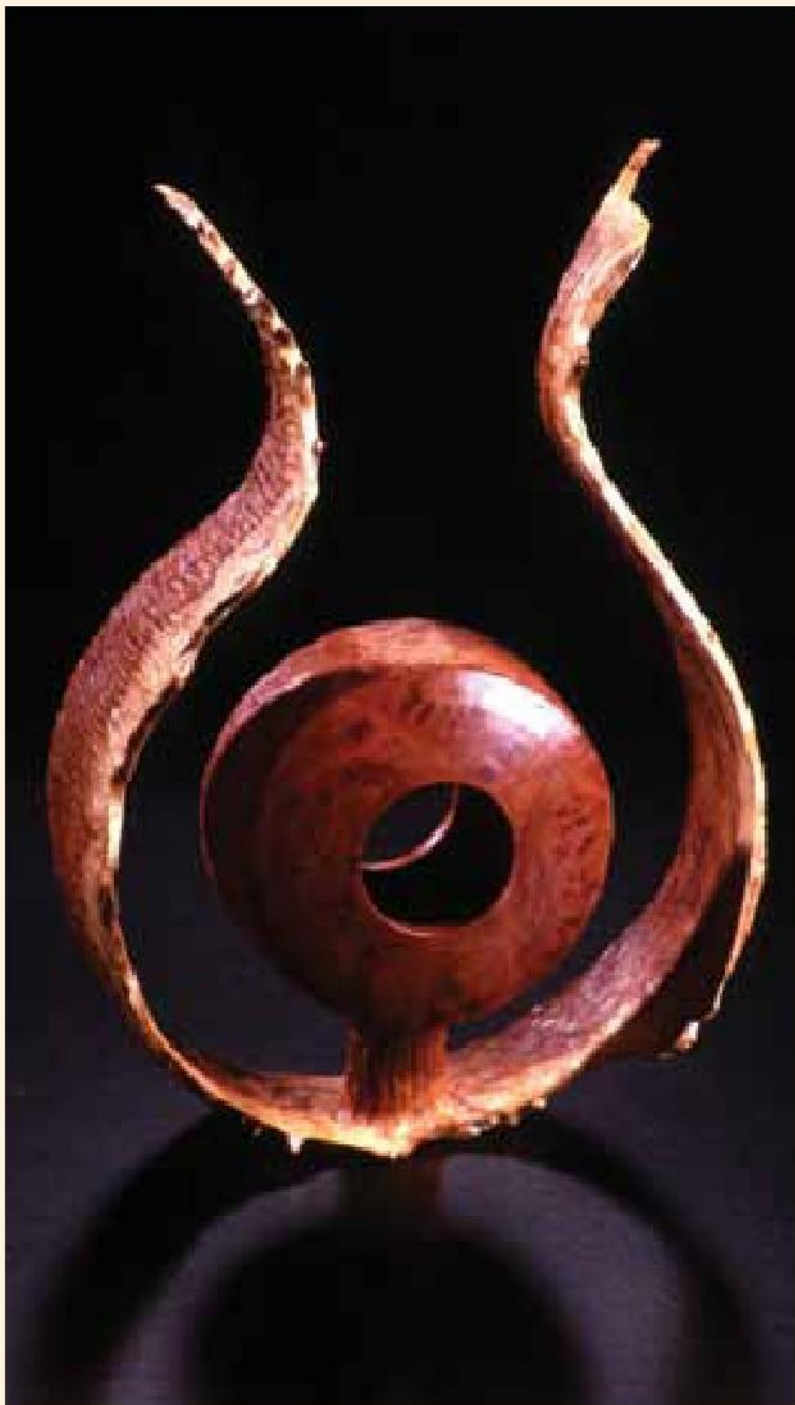
Chainsawn Cyclops



Hokucyclops

Chainsawn Cyclops, 2000. Jarrah, 15" H (38 cm). I had often noticed how a chainsaw leaves textured facets on wood that catch the light in interesting ways. I was cutting a large block of jarrah burl and was about to put this offcut aside when I saw how beautiful the patterns on it were. I took it straight to the lathe and turned the central part, leaving as much of the raw wood around it as I could. I then carved more grooves that echoed the saw marks. This piece remains one of my all-time favorites.

Hokucyclops, 2000. Jarrah burl, 20" H (51 cm). To make this piece I began with a 120-pound burl. I started by turning what was effectively a very large natural-edged bowl with a hole in the middle. Apart from the size, there was nothing particularly difficult about the turning. The creative part was working out where to cut away wood on the bandsaw. By making a straight cut across one end, I had a stable curved base. The cuts down each side were curved to enhance the arched-over nature of the piece. This was an early ancestor of *Aspects of Treeness* (Chapter 15). When I had finished, the overarching shape and the hint of froth at the top edge reminded me of the famous woodcut by the Japanese artist Hokusai where some fishermen are frantically rowing their boat as an enormous wave hovers over them, frothing at the edge and about to crash down on their vessel. So I called the piece *Hokucyclops*.



Angel

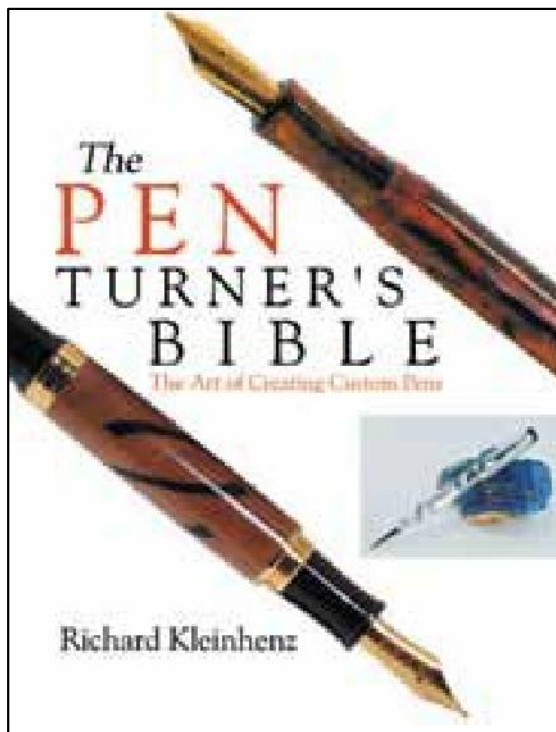
Angel, 2001. Coolibah burl, 10" H (25 cm). For this piece I asked myself whether, instead of the wings supporting the vessel, the vessel could support the wings. It's not hard to see why I called it *Angel*. It includes many of the ideas I love: creative removal of wood to confuse the viewer about how it was done, leaving some of the surface to remind us it is a piece of a tree, contrasting textures, and creating a rounded bottom that lets the piece rock gently.



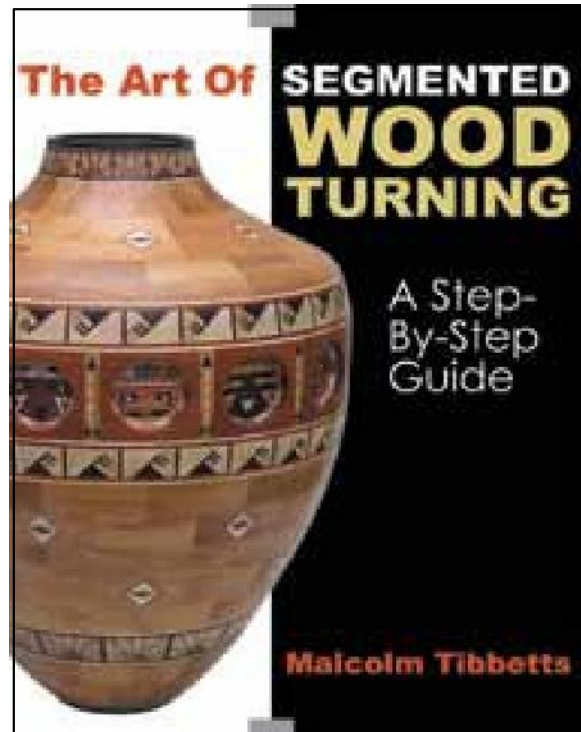
If You Go Down to the Woods Today

If You Go Down to the Woods Today, 2001. Tasmanian Myrtle, 16" W (40.5 cm). In 2001 I was invited to submit a piece for an exhibition to celebrate the end of old-growth logging in the jarrah forests of West Australia. I like the idea that wood artists, whose material comes from the trees, can make strong statements about sensible use of forest resources. I turned and carved this piece from Tasmanian Myrtle, another tree that comes from forests that are threatened. I called it *If You Go Down to the Woods Today* from the song *Teddy Bear's Picnic* which says: *If you go down to the woods today, you're sure of a big surprise*. I wanted to say that the forests are much more than a source of material and to appreciate that fully, you need to stand under the trees and experience the forest with all of your senses. I have never turned Jarrah since those forests were preserved and I no longer buy endangered species of wood. I am still working my way through old wood stock, but eventually I will only use easily obtainable local timbers. This is also one of my favorite pieces and it is the precursor of my *Tree* series.

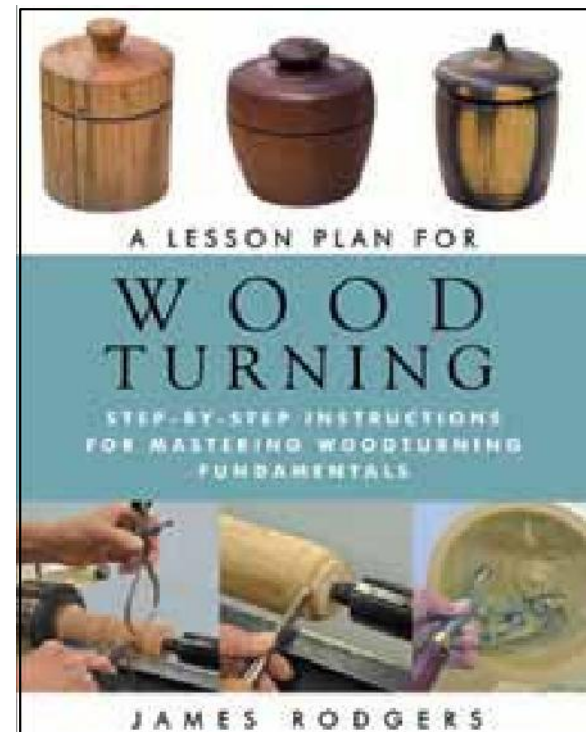
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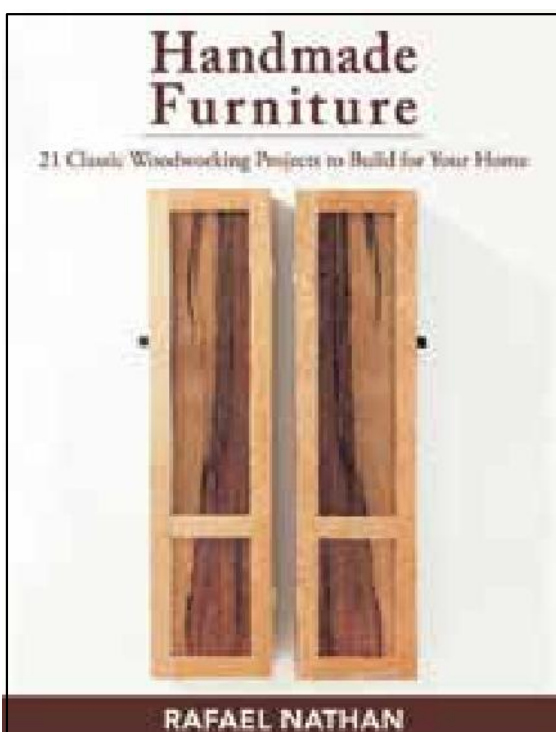
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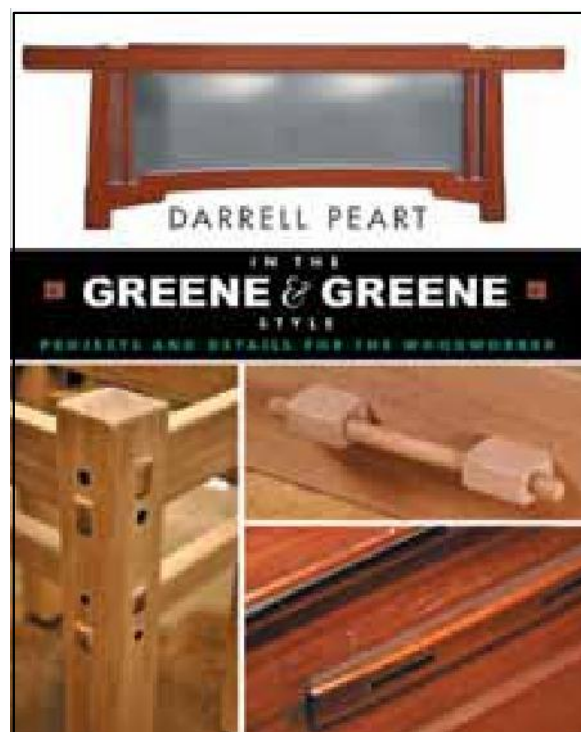
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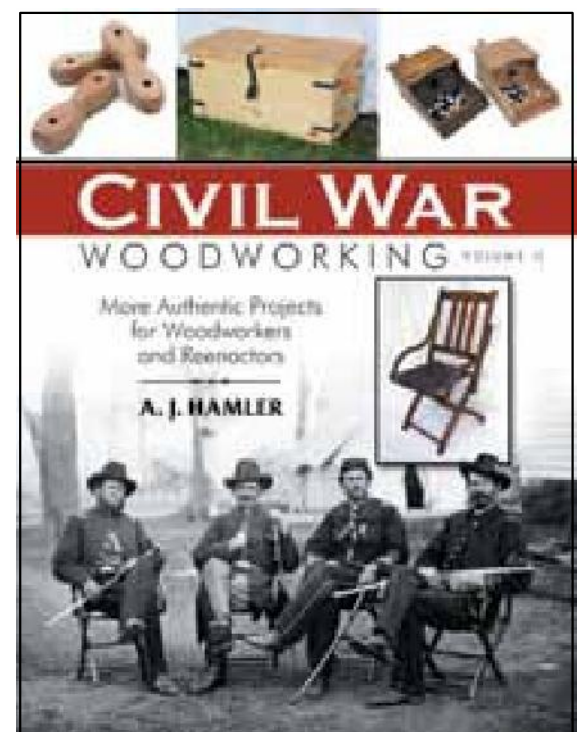
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