

Tips & Techniques from America's Best

OUR
200th
ISSUE

POPULAR Woodworking MAGAZINE

November 2012 ■ #200

SPECIAL ISSUE

Talking Shop With 8 Top Makers

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Really Retire?

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Learn to Use Hand Tools:
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Wendell Castle

Furniture Making:
Merging Art & Craft

Brian Boggs

The Quest for
A Perfect Chair

PLUS: Mary May

Dale Barnard

Jameel Abraham

Peter Ross

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- Precision-ground cast iron table
- Table size with extension: 27" x 40"
- Arbor: 5/8" • Arbor speed: 4300 RPM
- Max. depth of cut: 3 1/8" @ 90°, 2 1/16" @ 45°
- Max. rip capacity: 29 1/2"
- Max. dado width: 1 3/16"
- Approx. shipping weight: 542 lbs.

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- Max. cutting height: 12"
- Blade size: 143" L (1/8" - 1 1/4" W)
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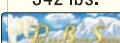


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- Cutterhead dia.: 3 1/8"
- Cutterhead speed: 5034 RPM
- Max. jointer depth of cut: 1/8"
- Max. width of cut: 12"
- Planer feed rate: 22 FPM
- Max. planer depth of cut: 1/8"
- Max. planer cutting height: 8"
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- Max. rabbeting depth: 1/2"
- Cutterhead dia.: 3"
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- Cuts per minute: 20,000
- Approx. shipping weight: 500 lbs.

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- Precision-ground cast iron table size: 8" x 76 3/4"
- Infeed table size: 8" x 43 3/4"
- Cutterhead knives (G0490): 4 HSS, 8" x 3/4" x 1/8"
- Cutterhead speed: 5350 RPM
- Cutterhead dia.: 3 3/16"
- Max. depth of cut: 1/4"
- Max. rabbeting depth: 1/2"
- Deluxe cast iron fence size: 36" L x 1 1/4" W x 5" H
- Approx. shipping weight: 597 lbs.

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- Max. workpiece height: 3"
- Min. workpiece height: 1/4"
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15" PLANERS

- Motor: 3 HP, 220V, single-phase
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- Min. stock length: 8"
- Max. cutting depth: 1/8"
- Feed rate: 16 FPM & 30 FPM
- Cutterhead speed: 5000 RPM
- Approx. shipping weight: 660 lbs.

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20" PLANERS

- Motor: 5 HP, 240V, single-phase
- Precision-ground cast iron table size: 20" x 25 3/4" (20" x 55 1/2" w/ extension)
- Max. cutting height: 8"
- Max. cutting depth: 1/8"
- Feed rate: 16 & 20 FPM
- Cutterhead dia.: 3 3/8"
- Cutterhead knives: 4 HSS (G0454)
- Cutterhead speed: 5000 RPM
- Approx. shipping weight: 920 lbs.

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- Footprint: 23½" x 16½"
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- Frame construction: Cast iron
- Table construction: Precision-ground cast iron
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- Blade size: 93½" long ($\frac{1}{8}$ " – $\frac{3}{4}$ " wide)
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14" Deluxe Bandsaw

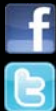
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Watch our free video of Peter Ross as he makes a pair of dividers.
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POPULAR Woodworking MAGAZINE

Number 200, November 2012. *Popular Woodworking Magazine* (ISSN 0884-8823, USPS 752-250) is published 7 times a year, February, April, June, August, October, November and December, which may include an occasional special, combined or expanded issue that may count as two issues, by F+W Media, Inc. Editorial and advertising offices are located at 8469 Blue Ash Road, Suite #100, Cincinnati, OH 45236. Unsolicited manuscripts, photographs and artwork should include ample postage on a self-addressed, stamped envelope (SASE); otherwise they will not be returned. Subscription rates: A year's subscription (7 issues) is \$24.95; outside of the U.S. add \$7/year • Canada Publications Mail Agreement No. 40025316. Canadian return address: 2835 Kew Drive, Windsor, ON N8T 3B7 • Copyright 2012 by *Popular Woodworking Magazine*. Periodicals postage paid at Cincinnati, Ohio, and additional mailing offices. Postmaster: Send all address changes to *Popular Woodworking Magazine*, P.O. Box 420235, Palm Coast, FL 32142-0235 Canada GST Reg. #R122594716 • Produced and printed in the U.S.A.

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NOVEMBER 2012, VOL. 32, NO. 6

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NEWSSTAND DISTRIBUTION:

Curtis Circulation Co., 730 River Road, New Milford, NJ 07646. PHONE: 201-634-7400. FAX: 201-634-7499.

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A Special Issue for a Special Occasion

Milestones are as special as we choose to make them. Our birthdays were gala events when we were younger, and mark important rites of passage as we mature. Then the intervals in between gain speed and birthdays not only lose importance, they become markers we might rather ignore. One day we look back and realize that we've been around for quite a long time.

This issue marks #200 for *Popular Woodworking Magazine*, and when we realized this milestone was coming we decided to depart from our regular format to celebrate the occasion. Over the years we've had the honor and privilege to spend time with many great woodworkers, and share their work, their lives and their points of view with our readers. Our pages may usually be filled with tools and projects, but the people who create the work are the most important part of what comes in to us. And you, our readers, are the most important part of what goes out in print or online. Those of us who work at *Popular Woodworking Magazine* couldn't do without either group.

So we decided to focus this issue on a select group of craftspeople – those whose work we admire, and whose careers have had an impact on those of us who would like to walk at least a few miles in their shoes.

In order to include as many people as we possibly could, we decided to make this issue truly special and omit our regular columns and features. If you're wondering what happened to Tricks of

the Trade, Letters, Arts & Mysteries or Flexner on Finishing, be assured that we will return to our regular format in the next issue. In this issue, you will find profiles of some amazing woodworkers as we visit their shops, look back on their work and get to know them a little better.

Much has changed since 1981 and our humble beginnings as *Pacific Woodworker*. Tools and information that were hard to come by at that time are now just a few mouse clicks away. What hasn't changed is the value of personal experience – the rewards from making things out of wood and leaving something physical that reflects both what we cared about and the skills we had at the time we made them. Experience is the best teacher, and these pages reflect decades of converting dead trees into useful and beautiful things with the aid of sharp bits of steel.

One of the common threads in these articles is curiosity: "Can I make this?" or "What would happen if I tried that?" All of the craftspeople in this issue started from there, and found their own answers. As you read this issue, look for inspiration, then get some wood, get something sharp, make something of your own and share that experience with someone else. That's the best experience and the best reward. **PWM**





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Reaching Issue #200

BY STEVE SHANESY

Editorial intrigue, hard work and some luck made this a leading woodworking magazine.

The story of reaching the 200th issue of *Popular Woodworking Magazine* is best told by simply dividing our history in half. The second half started in 1998 with the hijacking of the magazine. Yes, a conspiratorial heist hatched in the basement office where the magazine operated. It was a perfect crime. Nobody was jailed, arrested or even fired. Heck, no one was hauled upstairs for questioning.

The co-conspirators were the editorial staff: Christopher Schwarz, David Thiel, Jim Stuard and, of course, me. Our act was one of desperation, really. You see, the enterprise wasn't doing well financially. The parent company bought the magazine four years prior and it was looking like a bad investment. "I will close the checkbook if this doesn't get turned around," announced the company owner.

Prior to our hijacking, we were dutiful editors delivering what our bosses asked for, including something like 15 projects in every issue (some of which were just too crafty).

Knowing we had at most a year, we started making *Popular Woodworking* into the magazine we thought would best appeal to woodworkers. We swore an oath of secrecy and commenced plotting.

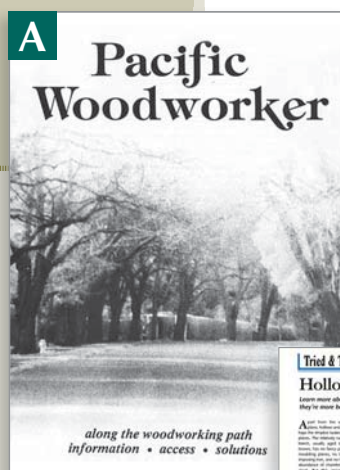
Stage Set for Change

By September of 1999 our changes were made. That issue, #110, had fewer projects, sported a new graphic design and a lead story on how to restore a rusted relic of a handplane. It was something of a metaphor for what was taking place with the magazine.

CONTINUED ON PAGE 12

EARLY MILESTONES

"Along the woodworking path." So read the headline of issue #2 of *Pacific Woodworker* (A), the original title of *Popular Woodworking Magazine*. It was a "touchy/feely" time. Graham Blackburn wrote a regular column dedicated to hand-tool use called *Tried and True* that ran for 10 years starting in 1986 (B). The 100th issue (C) was published in January 1998. Projects dominated content back then. The September 1999 issue (D) marked a turning point that put the magazine on a path leading to the current issue.



Spring, 1981: *Pacific Woodworker*, forerunner to *Popular Woodworking Magazine*, first appears

1984: Name Changed to *Popular Woodworker*

1985: Name Changed to *Popular Woodworking (PW)*

1986: Graham Blackburn's *Tried and True* column begins

1994: *Popular Woodworking* bought by current owner, F+W Media

July 1994: R.J. DeCristoforo's *Chris Cuts* column begins

January 1998: *Popular Woodworking* publishes Issue #100

How Do You Create Unlimited Frame & Panel Possibilities?



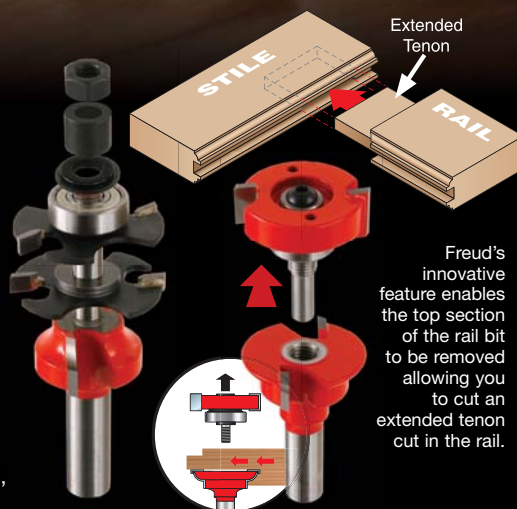
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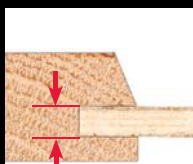


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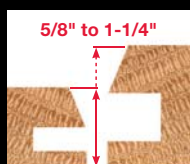
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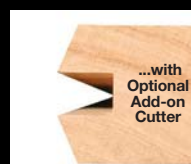
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Soon after this milestone issue hit the streets, we had a real stroke of luck – we learned the whole company was about to be sold. Changes in senior management were coming. Unknowingly, we had pulled off the caper during the changing of the guard. From that issue forward, no one ever again told us what to publish.

In Defense of the First 100

In all fairness, the magazine prior to our rehab was not entirely a bust. In the earliest days, when it was called *Pacific Woodworker* (the original focus was woodworking in the Northwest), it offered some excellent stories. Features on James Krenov, Sam Maloof and R.J. DeCristoforo come to mind. In 1984 the name was changed to *Popular Woodworker*, but that didn't stick for long; the *Popular Woodworking* moniker started a year later.

Graham Blackburn began writing for magazine in 1986. He wrote dozens of columns titled *Tried and True*, entirely focused on hand tools and a forerunner to the significant work the magazine would later do to promote hand-tool use.

DeCristoforo began writing for the magazine in 1994. He had long established himself as one of the most widely read authors of woodworking books and magazine articles. Expert finishing author Bob Flexner started with us in 1999 and continues to appear in our pages to this day.

A Success Story

By the end of 2005 the magazine had truly come into its own. It received high praise regularly from readers and was financially successful, too. Christopher Schwarz led a strong editorial team that included Bob Lang, with Megan Fitzpatrick as managing editor. Linda Watts was our rock-solid art director. Glen Huey would soon replace David Thiel, who took responsibility for the company's woodworking books program.

Coverage of hand tools was by then well ensconced in *Popular Woodworking* as the magazine made a deeper commitment to promoting hand-tool use. Adam Cherubini's Arts

& Mysteries column began. Well-known authors including Don McConnell and Lonnie Bird were regulars. They were later joined by David Charlesworth, Roy Underhill, Frank Klausz, Don Weber, John Wilson and Michael Dunbar.

But *Popular Woodworking* was never exclusively about hand-tool woodworking. A steady stream of projects and techniques on power-tool use offered a blended approach to the craft. In addition to the magazine's own talented editorial staff, power tool projects and techniques were contributed by Marc Adams, Bill Hylton and Nick Engler. Some writers, Scott Gibson and Mario Rodriguez among others, contributed stories on both hand and power tools.

Reaching issue #200 is something of an arbitrary milestone, but it does prompt one to reflect. *Popular Woodworking Magazine* has become a leader in the woodworking field based on what we hear from the larger woodworking community.

And just as one looks back at a time like this, one also muses about the future. What might issue #300 look like? Or perhaps more to the point, in another decade, will there even be print magazines? The digital age and the Internet have brought dynamic changes to the publishing world making this a very real question. In our new world 2026 is bound to be very different – just as we know 1998 looks so much different from today. **PWM**

Steve Shanesy is senior editor at Popular Woodworking Magazine. He served the magazine as editor starting in 1994 and later was named publisher. Steve can be reached at steve.shanesy@fwmedia.com.

LEARNING FROM THE BEST

Many top woodworkers contributed articles during the past decade, including Frank Klausz, on the cover in October 2005 (E) and Glen Huey and his father, Malcolm, from the February 2000 issue (F). Sam Maloof (and his shop) was featured in the June 2003 issue (G) and Roy Underhill has appeared frequently in our pages – pictured here on the June 2009 cover (H).



1998: Our first web site was launched

September 1999: New editorial direction undertaken

1999: Bob Flexner's Flexner on Finishing column begins

2004: *Popular Woodworking* editors publish *Woodworking Magazine* (WM)

2005: *Woodworking Magazine* publishes its first blog written by editor Christopher Schwarz

2008: First Woodworking in America Conference held in Berea, Ky.

April 2010: PW and WM merge to form *Popular Woodworking Magazine*



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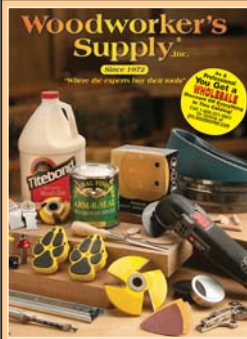
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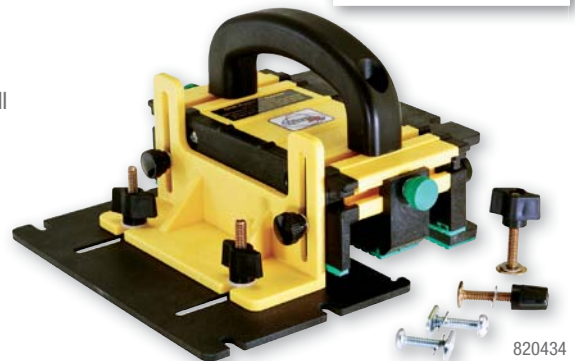
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Roy Underhill:

BY CHRISTOPHER SCHWARZ

More than 30 years on TV hasn't softened his approach to the craft, tools or people.

Still an Agent of Subversion



Professor Underhill. It's tough to catch Roy Underhill with his guard down. Here he is examining a chest of tools that was brought to The Woodwright's School to sell to Ed Lebetkin, who runs a tool store above the school.

It's a typical day at The Woodwright's School in Pittsboro, N.C. Sunlight floods the storefront room through two enormous plate-glass windows. Six students carve ball-and-claw feet at their German workbenches while 1930s-era music tinkles through the air.

Something crazy, radical and perhaps dangerous is about to happen.

Roy Underhill makes the rounds at the benches. He checks on each student, cracks a few jokes and retires to his miter box to crosscut the material for the next day's class.

A bell rings. The door to the school opens and in walk two women and a man. They stand at the entrance and look a tad bewildered, as if they accidentally stepped into a small flaw in the space-time continuum in this small Southern town.

Within seconds Roy and instructor Mary May are in front of them, all smiles and welcoming them into the shop. They invite them to look around at the benches, they explain what the students are doing. And they talk as if nothing unusual at all is going on in the bench room.

The students play along. They chat up the visitors, who gawk at the work on the bench, ask questions about the tools and still look a bit confused, but pleased.

After about 15 minutes the visitors leave, and the room falls silent again as the students return their full attention to their work.

This scene is repeated almost every day at Roy's small school. It is the unintended consequence of Roy opening his shop to students and the public a few years ago.

"I had this revelation about a month ago," Roy says. "I wanted to do the subversive woodworking thing with my school. But I didn't want to open it in a resort area because there you aren't working as an activist, you are preaching to the converted. Somehow I had the idea that the school should be in an old downtown.

"Then I got it. It's that window on the street—that's where you are making the change. That is where the subversive work is being done."

Indeed, many of the tourists who visit the school are genuinely floored to see ordinary people make things with



Work & ham. When a camera is involved, you can count on a funny expression. Here's Roy as he prepares stock for an upcoming class.



I saw this. When Roy teaches, his energy is directed entirely on engaging the students instead of on the work itself. It might sound like an odd approach, but it works incredibly well.



Gets you right in the chest. Every episode of "The Woodwright's Shop" involves some sort of gag. Here Roy prepares to fold himself into a tool chest.

their hands and not machines. Some of the visitors say they have distant relatives who used to build furniture or something with wood. But for many of them, it has never occurred that what happens within those four walls is even possible.

For Roy, what happens within those four walls is a simple continuation of his entire adult lifetime. Born in 1950, Roy grew up in the nation's capital and had his first brush with the future as a boy.

"When I was 11," he tells his students at the bar behind his school one night, "I was pretending to host my own woodworking television show. So that just goes to show you that what you were doing at age 11 could be your destiny."

I kept at him with more questions. What, I asked, do you remember about making up your own show?

Roy says his family had a hand-cranked grinder in their shop, and he vividly remembers pretending to be on television while grinding away on a piece of wood that was on its tool rest.

"And I remember saying to the pretend camera: 'Don't let me catch you doing this at home!'" Roy says. "So nothing changes – I mess something up on the show and say, 'Well... you get the idea.'"

Off the Commune & Into History

Most people are surprised at first to hear that Roy was a theater major at the University of North Carolina at Chapel Hill (where he trained to be a director and paid for his education by building sets). But after a couple seconds of thought, they get it. After heading to Colorado to start a theater troupe,

Roy and his wife, Jane, moved to a commune in New Mexico that was 17 miles away from the nearest power line.

One day, Roy went to Albuquerque to visit one of Jane's former professors, who just happened to be a tool collector.

"He had foot-powered table saws and jigsaws and all these incredible tools. I realized there was this whole technology that had developed and that was flourishing before rural electrification in the 1930s. That was a real revelation for the practical solutions for living the way we did." So at first, Roy's interest in muscle-powered work was purely practical – how to make a living in the wilderness when he wasn't doing free-lance demolition work with dynamite and very little training.

Eventually, the Underhills moved back to North Carolina where Roy pursued a master's at Duke University, studying forestry and the environment.

"I began dealing with the environmental science, about what was happening to the planet. Even 35 years ago the evidence was that global warming was happening because of fossil fuel. So this thing about muscle-powered tools was not just for the survivalist. It was for the person who wants the planet to survive, too."

Roy's master's thesis project was on muscle-powered woodworking, and he gave his presentation to fellow students and professors on a hillside at Duke – demonstrating the tools and how they worked with the material.

"Someone came up to me afterward and said, 'Wow. This would work on TV.' I said, 'Oh my gosh, I think it will.'"

Then Roy pauses for a moment.

"I must have cut myself or something," he says.



Cameraman. When a guest instructor teaches at The Woodwright's School, Roy uses a macro camera to project the action onto a screen for the students. Here Bill Anderson demonstrates saw-tooth geometry.



Stock prep made fun. On any given day, Roy is preparing stock – by hand – for a future class. Here is planing down the heads for one of his "Mystery Mallet" classes.

ROY UNDERHILL IS NOT FROM THE PAST

Many people think that Roy Underhill is all about returning to the past. They couldn't be more wrong.

I spent an evening with Roy and a group of North Carolina woodworkers at City Tap – the bar behind The Woodwright's School – where Roy said some choice things about his philosophy on life and work.

There Roy told the story of when he was invited to be on a radio program with other guests that was titled “The Past, the Present and the Future.”

“They hired me to be the guy representing the past,” Roy says, sounding a bit astonished. “I'm not the past. I'm all about the future. What I do is the future.”

That's a shocking statement to hear after viewing more than 30 years of his television program, which barely acknowledges the existence of electricity. But Roy insists he's not seeking to explain the past so we can understand it. Instead, he is seeking only to influence the

future course of human events.

“We don't have to be helpless consumers,” Roy says, “when we can still be craftsmen.”

And that is the real lesson Roy has been trying to teach us for the last three decades. And it is something that flows through the way he treats people (even people who don't know Roy Underhill from a hill in the ground). Yes, he looks like the rube on television sometimes, but inside beats the heart of a professor, a historian, a craftsman and an entertainer.

He structures his program so it moves fast, almost like you are being mugged, and it is filled with messages that stretch back to the beginnings of civilization and stretch forward beyond our time here.

Will we merely consume the resources around us? Or will we build something that outlasts ourselves and everyone we know?

—CS

The Lucky Breaks

After graduate school, Roy was teaching in 1975 and 1976 and trying to scrape by as a craftsman, building rakes, shovels and woodenware using hand tools. After Jane and Roy's first daughter was born, he realized they couldn't live without money anymore.

“We had to pay the hospital the \$250 to bring Rachel home.”

Roy had proposed a television show on traditional woodworking to the North Carolina public television system. After some debate, his idea was greenlighted. And about 20 minutes after that, Colonial Williamsburg called. Roy had applied there to work in case the television gig didn't work out.



Always time for a show. At least once a day during classes, Roy takes the action outside where the townsfolk gather to watch and laugh. Here Underhill is demonstrating a one-man log-cutting saw.

He decided to do both.

And so begins the part of Roy's public life that has been well-recorded. He became the first master housewright at Williamsburg, and his television show, “The Woodwright's Shop,” became the longest-running how-to show on public television. It started airing in 1979 and continues to this day.

During that time, Roy has remained steadfast in his devotion to hand work. In fact, he tells the guests on his show that they should pretend that power tools don't even exist. This is said right before he whips his entire production staff with a foam noodle.

Still, the idea sticks. “The Woodwright's Shop” has remained a singular voice that has always championed muscle power over every other kind of locomotion. And Roy has always sought to put hand work in its proper historical context, without a glossy varnish or a sugar coating.

And that's what in part caused him to leave Williamsburg.

Roy says he loved a lot of the aspects of his 15 years at Williamsburg. He met artisans who he works closely with to this day. He got to explore and practice traditional woodworking. And he learned how to combine his theater training with his love of the craft to work with the public that visited Colonial Williamsburg.

But an escalating dispute with the resident architectural historian over accurate practice proved too much to bear. While constructing recreated slave quarters, Roy received plans calling for stick-and-clay chimneys to be covered from top to bottom with horizontal clapboards. “It was the final absurdity, but they were adamant, and that was the end of that.”

Roy continued on in Williamsburg for a few more years, still shooting the TV series and writing books, including one on intelligence theory applied to communication, and a novel about a radio woodworker set in the 1930s. “Slowly, though,” he says, “the relentless fife and drum music started to get to me. I knew I had to get out!”

NEW DIGS, A NEW LIFE & AN OLD MILL

When Roy Underhill and his wife, Jane, decided to open a woodworking school in Pittsboro, N.C., they left a settled life in Williamsburg, Va., to become experts in sweeping an old dam.

After establishing the school and setting up the workbenches there, the Underhills completed the move by purchasing an old mill in a nearby town that had been converted to a house and had last been occupied by a metal artist.

The artist had died after accidentally falling from the top floor of the mill. And despite that odd death, the struc-

tures and its surrounding grounds are vibrantly alive – with wildlife, an impossibly verdant landscape and Roy's new workshop next to the mill.

Since acquiring the mill a few years ago, Roy has been juggling several flaming chainsaws as he has established his new school and kept his television show, "The Woodwright's Shop," running.

The mill itself has required a lot of work to keep it livable, from a new toilet to keeping the mill's dam in order by sweeping it daily when debris accumulates behind it.

Up the hill from the mill, there is a little cottage that is Roy's personal office and will eventually be a guest house for friends and instructors at the school. That structure needs new plumbing, walls, fixtures and a kitchen. Just some little stuff.

And Roy insists on doing all the work himself.

Or, as Jane puts it, "He is either very self-reliant or very cheap – I can't decide which."

Across the yard is Roy's personal shop, which he has been working on just as much as the mill or the guest cottage. Here he has installed a sizeable shop floor using heart pine boards from an old chicken hatchery.

"You can hardly see any of the chicken poop on it," Roy told me once.

He also has ripped out the shop's 1970s windows and installed some incredible metal divided-light windows – also salvaged from the chicken hatchery.

Underhill uses this shop to teach some of his classes that are more "woodsy." When Peter Follansbee needs to teach about riving oaks, this is where the class convenes. Underhill also teaches classes here on felling, splitting and sawing trees. There's a saw pit for sawing lumber out back



Milling about. The tall structure at the Underhill's home is the original mill. The lower structure on the right is a bit more modern and contains the kitchen and living room.

Oh Yes, the Teaching

During this period of limbo, Roy did some work as a communications consultant, worked on his novel and tried to figure out the next step. Then he remembered how much he'd enjoyed teaching and having a live audience. So he founded The Woodwright's School in Pittsboro, and bought an old mill nearby to live in with Jane, their dog and three cats.

The school has been a success. Perhaps too much of a success, and Roy says he has been stretched to the point where he is considering converting the school to a non-profit organization so he has a board of directors that can help run the school.

Roy teaches at his school quite a bit, but he also brings in other craftsmen, both local and international. And they usually end up appearing on "The Woodwright's Shop" as well. So Roy does a lot of work and sees a lot of work. But despite all his years of building and building, Roy does not consider himself much of a craftsman.

"I'm a teacher. That's all that I am," he says. "But if you don't have enough craftsmanship you can't teach it. I look at my early stuff and think, 'Hey, I could have been really good at this.' But that was never my ultimate goal."

Roy is absolutely selling himself short. Though many of the projects in his shop remain unfinished for years, his home is filled with the things he's built and they stand in opposition to his comment above.

But there is no doubt about where Roy's sympathies lie. On any given day at his school you'll find him slaving at his bench at one task or another. But as soon as the front door opens, the bell rings and strangers walk in, Roy puts down his tools and walks over to greet the visitors.

There is subversion that needs doing. **PWM**

Christopher Schwarz is the editor at Lost Art Press (lostartpress.com) and the author of "The Anarchist's Tool Chest." He can be reached at chris@lostartpress.com.



Clean that dam. The Underhill's dam on a typical July evening. Time to grab a broom and sweep that stuff over the edge.



Disconnected. The original wheel for the dam now sits outside the mill as garden ornament.



The home shop. In addition to the shop in Pittsboro, Roy is also restoring the shop at the mill for some classes.

and lots of room to split material.

He also has a small area for forging metal and a near-endless landscape of tetanus-inducing objects. The old mill was once home to a crazy array of woodworking machinery, cotton presses and all manner of rolling mills.

And instead of selling the abandoned machinery for scrap, much of it is concealed under the vines and underbrush around the mill. There is even a complete old tractor where a mature tree has grown into the metal rim of one of its giant wheels.

But the biggest feature of the local landscape – the one that dwarfs even the occupants – is the stream itself that powered the mill. The Underhills watch the water like the weather. At times it gushes over the dam like white-water rapids. Other times it barely trickles over the stone rim.

It has to be watched. Roy shows visitors the high-water mark from the stream. It's in his kitchen, about 5' off the floor. The outlets, he says, were filled with river debris.

But the dam and the water aren't just sources for worry. They are also a vibrant tapestry of life. There are otters who can be spotted by the patient observer – slow-moving beavers for the rest of us. There is a barred owl, who sits on a branch over the dam and gets bombarded by smaller birds when the owl gets too close to their nests.

And there are the Underhills, who watch it all from the back porch of their mill.

On any given morning you can find the couple sipping coffee as they stare out at the dam discussing the tasks ahead for the day – including who will sweep the dam that day.

—CS



The agony. Even Roy makes mistakes. After breaking off the horn of the tote of one of his favorite try planes, he displays a typical woodworker's reaction.

ONLINE EXTRAS

For links to all online extras, go to:

■ popularwoodworking.com/nov12

CLASSES: Find out what classes are coming up at The Woodwright's School.

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A prolific life. At almost 80 years of age, Wendell Castle's production is still substantial. Here he works out the details for one of his recent stacked laminate pieces (right).

The early days. Before even starting to build furniture in his late 20s, Castle's now-familiar forms were taking shape in his sculpture (below).



Wendell Castle: The Art of Furniture

BY SCOTT GIBSON

On the cusp of his 80s,
Wendell Castle revels in the
techniques that
launched his career.

It is a cool June morning, and a light northwest breeze is clearing out yesterday's squalls over western New York State. By 9 a.m., Wendell Castle is in his studio, alone, working on a drawing of a chair. An ellipsoid leg takes shape as the pencil glides over the paper.

A first-time visitor to this spacious workroom would be hard-pressed not to stand at the door and gape. Worktables are crammed with urethane models of upcoming projects, tools, glue bottles, bits and pieces of projects. Near the center of the room, a 400-pound chunk of stack-laminated ash rests on a pair of sawhorses and awaits carving. Drawings are pinned to a corkboard on the wall. Against one wall is an immense shipbuilder's band saw with a rotating head. Where do you look first? It's as if Castle's head had simply exploded, spilling ideas everywhere.



Sculptural woodworking. Clockwise from right: Castle's forays into *trompe l'oeil* (a French term that means "to fool the eye") led to perhaps his signature piece, *Ghost Clock*, from 1985, which is made from laminated and bleached Honduran mahogany. The sculptural coffee table is made of stacked laminated rosewood and the low table (made in 1972) is of stacked laminated walnut. Both display Castle's knack for constantly playing with new shapes and forms. Playful and masterful at once.



At the forefront of American furniture design for more than 40 years, Castle occupies a unique space bridging the gap between utility and fine art. On the day of my visit, five months before his 80th birthday, he is as deeply engaged in his work as he's ever been, juggling commitments to multiple shows and galleries both in the United States and abroad. And he seems to be savoring all of it.

"I think there are three kinds of people," he told a Furniture Society audience in 2008, "people who make things happen, people who watch things happen and people who wonder what happened. Let's be the first kind."

He certainly seems to have taken his own advice.

A Studio Running at Full-tilt

Castle's studio is only one wing of a shingled building on a quiet residential street in Scottsville, N.Y. In no time, Castle, who is dressed in shorts and an orange polo shirt and looking ready for an all-day hike, is leading a tour of this 15,000-square-foot labyrinth of workspaces and offices.

He bought the building, a former grain mill, in 1968 and has added on over the years. For a number of years, Castle ran a woodworking school here. Now, it houses seven employees who are doing their best to stay on top of a busy production

schedule. Works in progress are everywhere.

In one room, an assistant is cutting paper patterns that will become part of a stack-laminated piece. Nearby, another assistant is just finishing a glue-up and will shortly begin carving. We visit someone hand-sanding a mostly finished chair, a process he expects to take well into the following week. There is someone else finishing a series of tables in black aniline dye and nitrocellulose lacquer.

In a shop out back, repairs are underway on an old sculpture bound for an upcoming show. Castle stops to pull away a cloth covering a curvaceous metal chaise lounge perforated with hundreds of wiggly cutouts. It still needs work, but right now no one has any time to give it, and it will have to wait. In a corner of this workshop, he unveils a 1951 Nash Healey sports car, nearly restored but still in primer. The shop has



Taking risks. *Angel of Blind Justice*, made in 1990, shows Castle departing from furniture to play with forms and ideas in new ways.



Substantial work. Among the newer stacked-lamination pieces Castle is currently working on, are that a few are monumental in size. A 3D-model of the design is shown in the foreground.

made a windshield frame to replace the missing original.

There is the “hall of lathes” in a downstairs room that houses both metal and woodworking lathes, including a massive patternmaker’s lathe capable of handling an 8’-long workpiece. We pass a storage room stacked with sheets of veneer (“we’re not doing any veneer now”), and walk through a lobby where a beautifully veneered Brunswick billiard table sits in the center of the room (Castle says he has trouble finding people to play with him). Just outside under the porte cochère is Castle’s car, a white Porsche 911. “Turbo,” he says.

The studio and everything in it is woven completely into the fabric of Castle’s life. He typically works from 8:30 or 9 a.m. to 6 or 6:30 p.m., knocking off early two or three times a week for tennis. He’s in the studio on Saturdays, and often for a while on Sundays.

On this particular day, Castle is preparing for two shows that will run simultaneously in New York in the fall, one-man shows in Paris and Seoul, South Korea, and another at the Aldrich Contemporary Art Museum in Ridgefield, Conn. He’s also working on a commission for the Memorial Art Gallery at the University of Rochester. Plus, there are commissions waiting from his gallery in Seoul. And he still teaches a course at the Rochester Institute of Technology where he is an artist in residence. Oh yes, and then there is the martini glass he’s designing for Corning.

It’s a schedule that would bring anyone to his knees. Any plans of slowing down? Contemplating retirement? “You stop working, you rust, somebody said that,” Castle replies. “No, I have no interest in that. What would I do? You’ve got to do something and I so enjoy what I do. I don’t want to go fishing or anything like that. I don’t even like to go on vacations.”

Stack Laminations

Castle, born in Kansas in 1932, earned a bachelor’s degree in industrial design in 1958 and a master’s degree in sculpture three years later, both from the University of Kansas. He moved to New York to try to make a career as a sculptor, but that didn’t develop as he’d hoped. Then, in 1961, he entered a chair in a competition at the American Craft Museum (now called the Museum of Arts and Design). The piece earned him an offer to teach at the School for American Craftsmen at the Rochester Institute of Technology, where he became one half of a two-person department.

“You could count the pieces of furniture I had made at that point on one hand,” he says. “The only joint I knew to do was a dowel joint.”

But he brought a sculptor's eye to the program and he had an idea for a new way of making furniture—one that would prove pivotal for his career. Instead of assembling furniture from pieces of wood and conventional joinery, Castle glued pieces of wood together into stack laminations and carved the finished pieces from these blanks. The laminations could be cut into shapes so that the rough contours of the piece were established before he ever picked up a carving tool. The technique saved time and materials over conventional carving, and it made possible sculptural shapes unobtainable with conventional furniture making techniques.

In a 2008 interview with Bebe Pritam Johnson, co-founder of the Pritam & Eames gallery, Castle claimed to have come by the idea in the 1930s in a handyman magazine belong-

ing to his father. The article described how to make duck decoys by laminating layers of $\frac{3}{4}$ " plywood. Although Castle never made a decoy, he tucked the idea away, and years later adapted it to making furniture.

"I thought of it differently than people who generally think about furniture, and had come from a historical way of thinking about it," Castle says of his furniture making. "In a sense, it may have been by default for me that the laminating process was a process that was closer to being like sculpture because you could work with volumes. You don't get volumes in traditional furniture."

Castle also saw an opportunity: The handcrafted furniture movement was still in its infancy and no one else was designing furniture in quite the same way.



Still part of tradition. This writing desk and chairs, made in 1981, shows that even Castle's more traditional pieces display his signature touches.



Leave a mark. This stack-laminate coffee table from 1972 is made of maple; it's signed and dated with Castle's signature mark.



A different tack. Though still playful, Magician Clock, from 1984, is less organic and more geometric in form.

"I didn't see much happening in the field, and I realized that if I made furniture I could probably be out in front in no time," he says. "It was pretty clear to me early on that I could have a great success here. I didn't see anybody doing anything remotely like what I'd do, so I saw the field as being absolutely open."

In 1964, a music stand Castle designed was chosen for the Triennale di Milano, an important design exhibition in Italy. That won him a lot of attention, including coverage in *Time* and *Life* magazines. Many accolades have followed.

His early success was not only a sign of Castle's design agility, his talent for taking conventional thinking about furniture and turning it on its ear, but also evidence of a shrewd acumen about his career.

"I had ambitions to be successful," he says. "I always tried to put a goal there that I wanted to achieve, and I think I've had realistic goals. If you have unrealistic goals you're not going to fulfill those and be disappointed. If you make realistic goals, when you achieve those goals you realize the standard wasn't high enough, so you raise it a notch."

Moving on to Other Styles

As revolutionary as Castle's stack-lamination work seemed to be, it wasn't enough to hold his attention indefinitely. The work that followed reflected a variety of different styles, each

different from the last.

A trompe l'oeil series used detailed carving in wood to simulate other materials, most notably in *Ghost Clock* (shown on page 21), a tall clock that looks as if it's draped in cloth. He worked in plastic, designed and made a series of clocks, cabinets that looked like starfish and a line of chairs that looked like molars. He was commissioned by Steinway to make a custom case for its 500,000th piano in 1987.

One of his most surprising turns was a fine-furniture period prompted by an introduction to the work of Émile-Jacques Ruhlmann, an influential art deco designer.

Castle ran across a number of Ruhlmann's elegantly detailed pieces in the basement of New York's Metropolitan Museum of Art, where they had been collecting dust since 1929. Some of them weren't in great condition, but Castle was "super impressed" with the workmanship and design.

After talking it over with Alexander Milliken, his dealer at the time, Castle moved into a new phase.

"One of the most mysterious turns he ever took in our opinion was this whole fine-furniture series that he did for Milliken," Johnson says. "There was a kind of post modernism in the air, this was in the early '80s, and he was following up, maybe, in that case, on something that was in the air rather than what he really necessarily believed creatively."

"He produced some brilliant pieces; he kind of out-Ruhlmanned Ruhlmann," she adds. "But he said he had no interest in that period at all because it was about skill, and that's not what art is about. Art is not about skill. Craft is about skill. He makes that point very tellingly."

As out of character as the Ruhlmann-inspired period might have seemed, it was totally in character in one essential way, and that was Castle's willingness to adapt and change.

"Wendell is an astute kind of guy," says Peter Pierobon, a Vancouver furniture maker who studied at Castle's school in the early 1980s and went on to work in his shop for a couple of years. "He always told us as students that through the research he did into the early 20th-century designers like Émile-Jacques Ruhlmann and others that he basically came to understand that when styles changed, if you didn't change with them, you're going to go out of business. And that, I think, created the foundation for his desire to constantly be making new bodies of work."

"Wendell is in there and creatively challenging himself," Pierobon adds. "I have to say it's a risky way of working. If you're constantly changing you're pushing forward; you're not always going to be able to produce the most sophisticated, resolved things until you've worked through that process. Going back in Wendell's body of work, there were entire shows of stuff that I thought, 'Oh, my God, Wendell,



Mirror, mirror. This early mirror, made in 1976, expresses the combination of organic forms and playfulness common in Castle's work.



Pushing the envelope. This music stand, made in 1983, shows Castle applying to a more traditional form his tendency toward the organic.

IN THE STUDIO



Room to breathe. Castle's studio is spacious and well-lit, with mock-ups, tools and works in progress occupying most every worksurface.



Giant saw. This boat builder's band saw has a rotating head, rather than a tilting table, for making tapered cuts.



Technology at work. These days, models are carved from urethane foam and scanned into the computer, which then creates patterns for each layer of wood.



Steady work. Stacked laminations are cut to size from computer-generated patterns and clamped up rough before being carved to finished shape.

you've really lost it.' And I'm not the only one who thought that way. And then the next show comes up and you go, 'Oh my God, that is so stunning. It's so beautiful,' he says.

Castle looks back on this relatively short period as something of an aberration, but it provided two extremely valuable lessons. One, is that it's "OK to make mistakes, you learn that way." The second was that no matter how finely made, furniture patterned after Ruhlmann was never going to be art.

"So the discussion came up that what if I were to make some furniture with extraordinarily high-quality materials and extraordinarily high craftsmanship, would this, then, have the effect of bringing it up to being like art?" Castle says. "I now feel that was wrong. That did not happen, and would never happen, probably. But at that point it seemed like an interesting challenge."

And it goes right to the heart of one of Castle's rules of thumb: "If you hit the bull's eye every time, the target is too near."

When Does Furniture Become Art?

Some furniture makers may call themselves "artists" but that doesn't mean their work is viewed equally with painting or sculpture. Castle, however, genuinely has a foot in both worlds, making objects that are completely functional even if they are designed as art.

His focus is on design, and he thinks many contemporary makers spend too much time trying to cut the perfect dovetail and not enough time thinking about design.

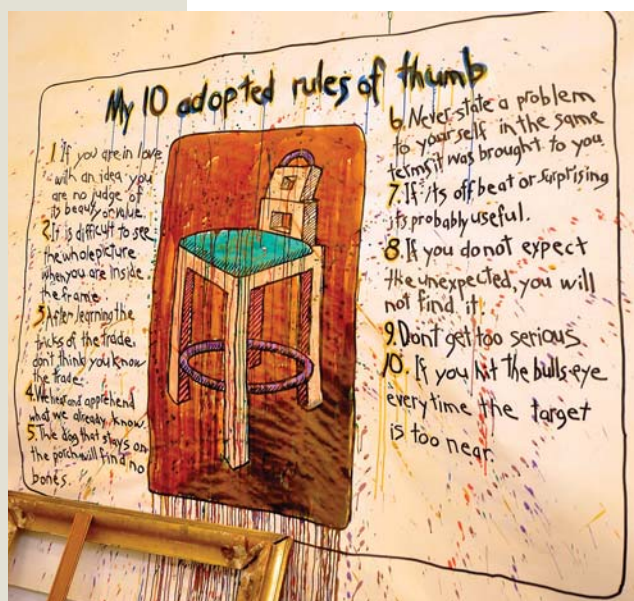
"I don't think there's enough emphasis on, or understanding of what constitutes, art," he says. "How do you make furniture that becomes art? A lot of people want to do this, and the answer is not easy. But one thing is for sure: You don't make it 'arty,' which is what a lot of people do."

Castle had a call a few years ago from someone who was working up a presentation for the Furniture Society and who wanted to know what, in Castle's opinion, constituted art furniture. Before Castle could reply, the caller gave his own

WENDELL CASTLE'S RULES OF THUMB

1. If you are in love with an idea you are no judge of its beauty or value.
2. It is difficult to see the whole picture when you are inside the frame.
3. After learning the tricks of the trade don't think you know the trade.
4. We hear and apprehend what we already know.
5. The dog that stays on the porch will find no bones.
6. Never state the problem to yourself in the same terms it was brought to you.
7. If it's offbeat or surprising it's probably useful.
8. If you do not expect the unexpected, you will not find it.
9. Don't get too serious.
10. If you hit the bull's eye every time the target is too near.

Keeping motivated. Long attached to the wall in Castle's shop is the original art for a print he made called "My 10 adopted rules of thumb."



definition, which was that art furniture had certain characteristics of furniture, but it really wasn't usable.

"And I said I don't think that's true at all," Castle says. "First of all, I would never use the term 'art furniture.' I think it would be a lot safer to say, 'furniture as art,' or even, more accurately, 'design as art.' It should absolutely be functional. It has other characteristics that make it fall into the category of art. And sometimes those are pretty hard to define. But they're there. Sometimes it's the way things are made. Sometimes it's what they're made out of....I don't think you do that by decorating it. What you have to have is a vocabulary that encompasses a lot of things."

Castle worked hard from the beginning to place his work in the realm of art, not craft, although now he wonders whether he should have pushed even harder. His intent, however, may help explain his attitude toward the raw materials of furniture making, particularly wood. It's a very different outlook than that of other 20th century giants – Wharton Esherick, George Nakashima, Sam Maloof, James Krenov – whose regard for a plank of wood could border on reverential.

Esherick, for example, eventually came around to like Castle's work, but in the beginning was critical because he thought Castle wasn't showing enough respect for wood. Esherick might bend wood, Castle says, but he would never laminate it.



Early stacked piece. This early armchair from 1967 is made of solid oak stacked and laminated in what would become a common Castle technique.

"Basically, I would have to agree that I don't really respect the wood, and I think that's another thing that sculptors have to think about: You can't think about the value of the material. You cannot even consider that, I think. You need to think of all material as you'd think of clay. It doesn't really have any value. It's only what you make out of that gives it value. That's the exact opposite of what Nakashima would think, and also Esherick and Maloof. There's a respect there for material that I do not have."

Coming Full Circle

For all of his experimentation in shape, form and materials, some years ago Castle decided the approach that most suited him was laminating and carving.

"That is really me," he says. "And I came to that decision by asking, 'What if I had no assistants and I had to make the work myself?' What would I make?' Well, it was clear to me that's what I would make. I wasn't going to cut dovetail joints. I wasn't going to veneer. I was going to carve. So that's what I'm doing. And it's really working. It's working."

And yet it's not exactly the way it used to be.

Castle has taken full advantage of digital technology to produce furniture. Pieces now begin as models carved from blocks of urethane foam. When he's satisfied, the models are scanned. Computer software turns these digital images into paper patterns for all of the laminations he will need. Once

the plies are glued together in order, it becomes a job of slicing away the sharp edges until the finished piece emerges.

He's also been tinkering with the use of an industrial robot like those used on automotive assembly lines (it turns out the automobile industry sells used robots for a relative song once they can't operate at their initial tolerances). He's hired some engineers to produce the software to guide the machine. It's been slow going, but in time he hopes to install one of the machines at his workshop.

His long and varied design history, his efforts to cast furniture as functional art and his unsentimental view of his materials all would seem to put Castle far from the mold of traditional woodworkers. Does he think he's made much of an impact on them, the men and women who are happy making furniture in their basement workshops on the weekends?

"No, not much," he says. "I think I've had an impact and influenced people to be interested in making furniture, but it's not furniture like mine. I've just elevated the interest in having a shop and making something. I imagine there's been some influence there."

Johnson, who has seen some of the best work contemporary furniture makers have to offer, has a slightly different take on Castle's legacy. She says he's carried on conceptually what Esherick established – namely, treating furniture as a fine-art medium.

"He can legitimately claim that he has succeeded on his own terms," she says. "His furniture forms are extraordinary. His detractors will say these are forms that no human being has seen before, and it's true. He really has made the connection between sculpture and furniture his, he's marked that territory. He's put a fence around it and he can claim it as his own." **PWM**

Scott Gibson is a contributing writer at Fine Homebuilding magazine and the former editor of Fine Woodworking magazine. He lives in southern Maine.



A hidden piece of furniture. Though not immediately apparent, a blanket chest hides inside this sculptural laminate piece from 1973.



Coming full circle. Castle's recent pieces are reminiscent of his earlier stacked-laminate work (dating back to the '60s), but with a cleaner and more refined look.

ONLINE EXTRAS

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WEB: View some online galleries of Wendell Castle's work.

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Mary May: Classical to

BY CHRISTOPHER SCHWARZ

A trip to Europe,
a phone call
and an undying love
of carving led her to
the creation of an
online school.



Calm & in control. During a recent class, Mary May casually carved a perfect ball-and-claw foot as she showed six students how to do it (above).

History lesson. In addition to teaching her students how to carve details, Mary is also deeply interested in the history and progression of the craft. Here she is explaining the variations on ball-and-claw feet (at right).



the Core

Many traditional woodworkers daydream about serving a formal apprenticeship, working as a skilled and independent craftsperson and then passing on his or her hard-won knowledge to the next generation of woodworkers.

It's a daydream that rarely evolves into anything more than that.

But for a young Mary May, that twinge led her to the phone book in her Minnesota town to look for someone – anyone – to teach her how to carve in the classical tradition. She had just returned from a backpacking tour of Europe where she had seen castles, cathedrals and some impressive carving.

She wanted to learn to carve like that, and she thought the Yellow Pages might be the place to look. As it turns out, she was correct.

She found two Greek carvers listed in the phone book, left phone messages for them both and got a call back first from Konstantinos Papadakis. Papadakis is a Byzantine-style carver who began in the craft at age 9 in Crete and then entered into a formal apprenticeship three years later.

Mary began working with Papadakis and eventually

became his apprentice for three years. She went on to study and work under other teachers in Greece and England. And then she ventured to Pasir Gudang, Malaysia, to carve wood and stone for a Chinese hotel magnate.

After all that excitement and travel, she settled on Johns Island in South Carolina to carve for customers, whether they needed an acanthus leaf or an egret. She set up shop in a narrow structure that is mostly windows behind her house, which she shares with her husband, a biodiesel Mercedes-Benz and cats. Wandering outside are goats and chickens.

It was here that she honed her craft in a focused way that most woodworkers – even professionals – do not. Instead of venturing into other parts of the craft, such as building casework, turning or whittling, Mary stuck to her guns and remained a classical carver. She was happy to carve a fireplace mantle or the bonnet of a highboy. But she didn't seek to build those forms from scratch.

In other words, she established herself as a traditional carver – a specialist and not a generalist. She served a formal apprenticeship and then did a stint as a journeyman, where she traveled to other shops to learn techniques. And



Claw in hand. With the sweep of her thumbs, Mary explains how the ball in this foot should tuck under the claws.



Casually across. With a sharp chisel, Mary quickly shapes the claws on the ball-and-claw foot with a few sure strokes.



Egg & dart. One of the mainstays of her business is making carved mouldings for reproduction furniture makers, restorers and historic preservationists.



Detailed knee. Much of Mary's work involves ornamenting furniture built by others, such as this detail carving of an acanthus leaf on a cabriole leg.

she'd hunkered down for years of the day-in and day-out all-consuming work in an effort to master the carving craft.

It was there, in the confines of her shop, that she saw the turning point of her carving career.

"There was a point when I was not real confident with projects that (customers) would present to me, and I wasn't sure if I could do it," she says. "Five or six years ago I gained the confidence in shapes and forms. As long as I had enough information, I knew I could get that shape out of the wood.

"That definitely was a revelation," she says. "Whatever comes through my door, I can do it."

So if you've been following the arc of her career, it has followed traditional lines: apprentice, journeyman, master of her trade. It's all very old school.

But there is one more step in this classical progression. And by the time you are reading this story, Mary will have taken it. After working in her shop for years like a hermit (that was her word, by the way), Mary has been completing the circle of apprenticeship by teaching other would-be carvers.

Learn from Anywhere

Instead of taking on one or two apprentices, however, Mary has plans to take on all comers. During the last few years, Mary has been teaching carving at woodworking schools and at seminars put on by the Society of American Period Furniture Makers (also known as SAPFM). Those seminars and classes gave her the confidence to start her own online video school where students can pay a monthly fee to watch video instruction on carving.

"I want to make this skill of carving available to anybody in any financial position – even if they cannot travel or afford to learn it in person," she says. "When I wanted to learn carving I was a student and had about \$20 to my name and there was no way for me to travel. Lucky for me I found my teacher in my town."

Her site is \$10 a month, with a free three-day trial period.

The videos on the site cover the gamut of carving projects, from instruction aimed at people who have never picked up a tool to advanced project-based videos on topics such as architectural carving and high-end furniture details, such as the acanthus leaf.

It will be interesting to see how her teaching style translates to the small screen. Compared to some energetic – almost spastic – online personalities, Mary is a teacher with an almost Zen-like calmness that flows into her students. During the spring of 2012, I observed a class of hers at The Woodwright's School in Pittsboro, N.C. She set out to teach a group of six students (plus one walk-in straggler) how to carve the ball-and-claw foot. The students ranged the gamut from dead-nuts beginners to carvers with years of experience at the bench. Yet all of them remained quiet, focused and determined to carve the ball and claw.

Part of their confidence came from Mary's written hand-outs, but part of it surely came from the fact that her instructions included no room for failure or even mistakes. She told them how to do it. She showed them. And when they strayed, she showed them how to get back on the right path.

Oh, and there was one more unique aspect to her instruction: All of the students had a plaster casting of one of her ball-and-claw feet. The students would study it intently, work on their own pieces and then compare the results. There was no doubt about the direction they needed to go.

These plaster castings, which Mary has offered through her web site for several years, are also available to her online students. The casts are a three-dimensional model that are like having a Sam Maloof rocker to study as you build your own interpretation.

Still a Professional

Despite all of Mary's efforts at becoming a carving teacher – both online and off – she remains a craftsperson who doesn't say "no" to any carving job. This spring she had to



Eagle example. This carved eagle is one of Mary's pieces that shows how she has mastered the sculptural side of the craft.

complete what seemed like miles of egg-and-dart moulding for a customer. And she was simultaneously working on a Celtic/Scandinavian project where she was carving the panels for a medieval table for a church.

One of the panels Mary was working on looked like three ducks eating the tails of three ducks. I think.

It's an unusual job, but not entirely out of her wide area of expertise. As Mary became proficient in carving wood, she also picked up the skills for carving stone. Stone, she said, is actually more predictable than wood because it doesn't have the kind of grain structure as does wood. You can, in most cases, work in any direction with your tools.

In fact, it is challenges such as this that keep her passionate about the craft.

"It's the process of figuring it out. How to make this cut. How to make that cut – it keeps me interested. I always love a challenge. Something new that I haven't done before. I always love that. If I ever get to the point where everything is easy, then that's where I'll stop carving."

The biggest challenge of her career just might be her online woodworking school and teaching the next generation of traditional carvers.

Many of the people who attend Mary's classes are engineers, usually retired, who are passionate furniture makers who want to add carved details to their projects. A few students are interested in more sculptural, artistic forms. And others are a wild card.

During the class on the ball-and-claw foot, a young woman walked into the school on the second day and started watch-



A little helper. For many years Mary has sold inexpensive plaster castings of her work to students. These three-dimensional models help cement the lessons she teaches in class and online.

ing the six students work on their ball-and-claw feet. She examined all of the sample carvings Mary had stacked onto the workbench next to hers. And she examined some of the tools on Mary's bench.

After assisting one of her students, Mary snatched up a piece of mahogany with her carvings on it and flipped it over. She drew a quick design on it and handed it to the young visitor with some tools. Within just a few minutes, the young woman – who said she was working in a power-tool cabinetshop – was incising lines with one of Mary's V-tools and smiling broadly.

"I've walked this path," Mary says later. "Now I'm in a position to share this. I don't know where this is going to lead. But the web site is the direction I am going now. Having that available really exposes it to so many more people. As a female 200 years ago I wouldn't be doing this sort of carving."

But with her help, perhaps a lot more people will be doing it 200 years from now. **PWM**

Christopher Schwarz is a contributing editor to Popular Woodworking Magazine and the publisher at Lost Art Press (lostartpress.com), which focuses on hand-tool woodworking. He can be reached at chris@lostartpress.com.

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VIDEO: Get Mary May's DVD with step-by-step instruction on carving an acanthus leaf.

BLOG: Follow Mary May's blog.

WEB SITE: Visit Mary May's web site for her carving business, Cornerstone Creations, and to find out more about her online school.

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Dale Barnard: Handing Down Tradition

BY ROBERT W. LANG

A journey from carpenter to furniture maker to teacher.



Dale Barnard got an early start in woodworking and he paid his dues the old-fashioned way. As a teenager, Dale worked for his father and learned on the job. Apprentices in trim carpentry literally start at the bottom, running baseboard. He had to master that task in closets before he was allowed to work in other rooms.

By the time he graduated high school he was performing finer work, in more visible places, but thought that a career teaching math might be a better choice. A few years later, Dale decided to follow in the family trade, and moved to a rural area in Southeast Indiana.

"When you move to an area like this, you can't be too choosy about the type of work you do," Dale said on a recent visit. "If you want to survive, you need to be willing to do just about anything."

In the early 1980s, Dale and his wife, Mary, purchased 80 acres of wooded land near the small town of Paoli, Ind., moved into a trailer on the property and raised a family while Dale built his shop from salvaged material. In between paying jobs, he worked on his own house, and after a dozen years it was completed; it's a few minutes' walk up the wooded hill from the shop.

Today, the house and shop fit in with the surroundings as if they had always been there, and it seems fitting that Dale's work comes from the heart of a hardwood forest. The scope of his work is as broad as the variety of plants that grow nearby.

There are a lot of small-town carpenters, but it is a field where those with skill, experience and a willingness to

produce unusual and high-quality work find themselves being sought out. As Dale's reputation grew, he was attracting clients looking for someone capable of building the best.

Opportunity Knocks

Two important things happened in the early 1990s that enabled Dale to make the leap from small-town carpenter to world-class woodworker. The right client came along at the right time, and Dale launched a web site to market his work beyond the bounds of the Hoosier National Forest.

The client was enamored with the work of California architects Charles and Henry Greene, and could afford to build a house styled after their work. Dale found himself in California, accompanying the clients to look at original examples, then reproducing signature Greene & Greene interior elements, including stairs and cabinets.

Numerous pieces of furniture followed, and Dale absorbed the essence of the originals and found ways to efficiently produce work to that high standard. At heart, he is a problem-solver who can't wrap his head around the idea that there might be something he wouldn't be able to do. When Dale needed stained glass for cabinet doors, he acquired those skills and added them to his repertoire.

His web site led other clients to discover him, and he showed his work at the annual Arts & Crafts conference in Asheville, N.C., widening his client base. His interest in Greene & Greene led him to study of other designers of the early 20th century, and Dale began to reproduce the work of Gustav Stickley and other makers of the period.



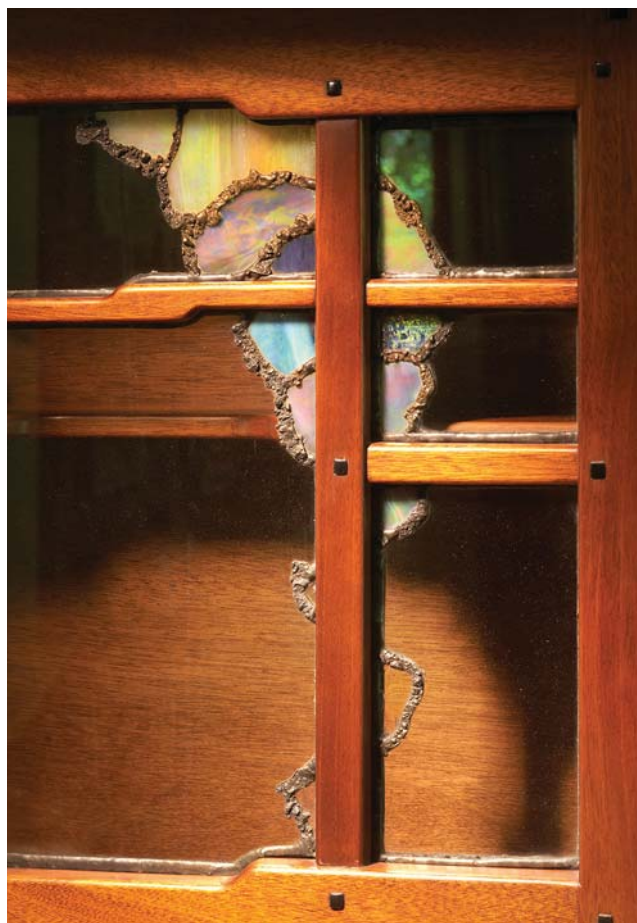
No limits. This Sam Maloof-inspired rocker displays Dale's ability to create beautiful work in a variety of styles.



Fits right in. These reproduction pieces are right at home in a restored 1920s Arts & Crafts bungalow.



True to form. This small wall cabinet is designed by Dale in the style of Greene & Greene. A detail of the glasswork is shown below.



Attention to detail. In addition to woodwork, Dale also makes his own stained glass when a project calls for it.

"I started at the top of the Arts & Crafts period with Greene & Greene; later on I discovered Stickley," Dale remarked. What started as serendipity became a passion, and he studied period pieces at every opportunity, often enlisting his wife, Mary, to distract museum guards while he got a close look.

In addition to reproductions of period pieces, Dale has the ability to design work to fit in with any particular style. Some of his pieces look like reproductions, until you realize that the original designers never produced such a piece. Dale has the talent and the imagination to solve the problem of, "What if Greene & Greene had made a tall clock or a billiards table? What would that look like?"

The Big Picture

Furniture is often viewed in isolation—gallery-type photos with nothing in the background. That's a good way to show off the furniture, but like the work of Greene & Greene that he emulates, Dale's work is better seen in context, in an environment where it fits in perfectly. And in many cases, Dale is responsible for the background as well as the furniture.

The tall clock shown below, patterned after the style of Greene & Greene, is impressive on its own, but as you look around the room, you realize that the man who built the clock also built the stairway behind it and inlaid the hardwood



Not a reproduction. Greene & Greene never designed a tall clock. Dale's familiarity with their design vocabulary led to this original design.



Four good sides. Dale has a unique method of making legs with quartersawn figure on all four sides, gluing four legs' worth of material at a time into a single block.



Think first. Dale reviews where to make the cut with student Larry Dack.



Marking made easy. Dale uses patterns for mortise layout; it's fast, accurate and consistent.



Make sure. Chair legs are mirrored pairs that are kept together. Before joints are milled, the layout marks are checked.



Mortise jig. This pedal-operated hollow-chisel mortiser makes quick work of milling the numerous joints in a Morris chair.



Just a minute. With experience, precision joinery is efficient. Final fitting of the joints in this chair back takes less than 10 minutes.

floor below it. And all of that after framing the building itself.

Some of the other photos shown in this article were taken at a restored bungalow from the 1920s, another project of Dale's that he uses as lodging for his students. It's hard to tell where the original woodwork ends and where the reproductions begin. The kitchen looks original down to the door catches, but the cabinets are Dale's work, a period-appropriate remodel of an earlier kitchen remodel that didn't fit so well with the Arts & Crafts house.

As in his own home, Dale's reproductions of period furniture live in an environment for which he is entirely responsible. Old work and new blend perfectly together, and it can be hard to distinguish one from the other.

In the Shop

Dale's shop is small, and at first glance seems a bit cramped. A closer look shows a collection of new and vintage equipment that make the creation of nearly anything in wood possible. And the shop is organized in a way that the work flows from one step to another with a minimum of wasted energy.

The shop is also comfortable; the wood floor was recycled from a building in downtown Indianapolis, and the space is air-conditioned. Machinery and benches are arranged so that any needed cutters or tools are within easy reach, or at most a step or two away.

Equipment was added as needs developed, and includes a wide jointer and planer (both with helical heads), a wide-belt



Nice & precise. Mortise locations are measured with calipers.



A closer look. Dale explains what happens inside the leg where two mortises meet.



Next step. The large band saw handles a variety of tasks. Here the top and bottom of a tenon is trimmed.

sander, a large lathe, a vintage shaper and an old-school, pedal-operated mortising machine. Tooling is stored near each machine, along with numerous jigs, patterns and fixtures.

I spent most of a day in Dale's shop taking the photos for this article, trying to stay out of the way as Dale and student Larry Dack worked on reproductions of an L. & J.G. Stickley bow-arm Morris Chair. Laminated legs were trimmed and planed to size, then marked for mortises from patterns.

Dale switched back and forth between patiently explaining and demonstrating techniques, and working on his chair at his normal pace. His years of professional experience at building clearly showed. After cutting mortises with the hollow-chisel mortiser and trimming the tenon ends at the band saw, Dale moved to a bench to fit the four back slats to the uprights.

I started snapping photos as he began fitting, and less than 10 minutes later the back was ready for a final sanding and assembly. Dale never hurried and never rushed, but there was not a wasted motion in the entire procedure.

Return to Teaching

Dale's willingness to take on whatever work comes his way continues, although his favorite part of woodworking is leaning more toward teaching. Several years ago he was asked to teach a class at a nearby woodworking school, and discovered that his early instincts about teaching were good ones. Shortly after, he began offering classes to small groups in his shop.

Dale was taught the craft by his father, who learned it from his father, and Dale's range of skills is reminiscent of craftsmen of 100 years ago. Rather than the specialists of today, Dale's specialty is doing anything and doing it to an incredibly high standard.

He keeps the size of his classes small, in order to better

pass along the skills and problem-solving techniques that have been used for generations. He doesn't just show a student how to do something, he explains why a technique makes sense, what the alternatives would be and when something else might be a better approach.

His voice of experience also delivers techniques for staying out of trouble. As Dale showed his student how to lay out the joinery on the legs, he also explained how to keep the parts organized in a simple, straightforward way. Dale is able to teach how to think like a cabinetmaker – to find effective solutions without getting sidetracked or bogged down in minutia.

Master of Multi-tasking

When I was at Dale's shop, an immense, modern extension dining table was awaiting delivery to a client in New York, along with a stack of period doors for a local customer. This type of work is scheduled around building furniture reproductions and Dale's class schedule.

Earning a living as a craftsman isn't an easy accomplishment. There is a lot of financial risk, and money isn't the primary reward. Building beautiful furniture is only part of the equation. Finding and nurturing clients, and developing an efficient pace, are equally important.

The measure of success is different than in most careers. Looking back there is time spent in a pleasant environment, making all manner of things as nicely as they can be made. Those things will be a testament to the values of the man who made them. Looking forward, work is lined up to pay the bills for the next year or so, and there is a considerable body of knowledge to pass along. **PWM**

Robert W. Lang is executive editor of Popular Woodworking Magazine. He can be reached at robert.lang@fwmedia.com.



New meets old. These new cabinets are made in a style and manner in keeping with the original construction of this restored bungalow.



Have a seat. This is the same style of Morris chair seen in progress in the photos on pages 35-36.



As good as it gets. This reproduction of a Gustav Stickley nine-drawer dresser is typical of Dale's Arts & Crafts pieces. He also made the hardwood floor and the adjacent trim.

ONLINE EXTRAS

For links to all online extras, go to:

■ popularwoodworking.com/nov12

VIDEO: Dale Barnard and his work were featured on the HGTV show "Modern Masters." Visit popularwoodworking.com/nov12 to watch.

WEB SITE: At Dale Barnard's web site you'll find a class schedule and a gallery of his work.

ARTICLE: Dale Barnard wrote about his technique for making through-tenons in our June 2010 issue (#183).

BLOG: Read about Robert W. Lang's earlier visit to Dale Barnard's shop.

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Brian Boggs: The Chairmaker Evolves

BY MATTHEW TEAGUE

From journeyman to elder,
a craftsman redefines his role.

CLOCKWISE FROM TOP LEFT: CHAIR LEG, PEGS & WOVEN SEAT PHOTOS BY LOUIS CAHILL; HANGING HICKORY BARK & PHOTO ON THE FACING PAGE BY THE AUTHOR; SUNNIVA OUTDOOR ROCKER PHOTO BY EMILY CHAPLIN; SONUS MUSICIAN'S CHAIR PHOTO BY MICHAEL TRAISTER

Details & design. Opposite page, clockwise from top left: Details such as chamfered end grain (shown here with a distressed milk paint finish) and faceted pegs are hallmarks of Brian Boggs' work. Hand-woven hickory bark is another signature element. The *Sunniva Outdoor Rocker* and *Sonus Musician's Chair* are among Brian's latest designs.

Old habits die hard. Below: Focused these days on turning out new designs, Brian still spends time at the shaving horse he designed and built years ago. Here he's holding a spokeshave he designed as well.



The story of Brian Boggs' first foray into building chairs has become almost mythical among furniture makers: Then a struggling artist in his early 20s who picked tobacco in the fall and did occasional carpentry, Brian stumbled across a copy of John D. Alexander's "Make a Chair from a Tree." Having little money for tools, Brian sharpened the end of a screwdriver to function as a chisel and set about building his first stool, and soon after he built his first chair – both using exactly the same processes Alexander taught.

Almost 30 years later, walking through the door of his current shop and gallery, 4,000 square feet at Biltmore Village in Asheville, N.C., those humble beginnings could seem a distant memory. It's quite the opposite. The three-slat ladder-back, perhaps Brian's most iconic design, is prominently placed and shows a clear but refined lineage to that first greenwood, Appalachian ladderback design. The other chairs and furniture in the room – a full line of outdoor seat-

ing, a heavily sculptural musician's chair, a six-slat rocker, a couple of dining tables, a headboard and a few others – have veered drastically in form from Brian's early chairs, but even at a glance something ties them all together. Perhaps it's the consistency of the lines in the backs of Brian's chairs, the attention to detail in the joinery or the hand-textured surfaces that adorn many of the pieces. Whatever it is, Brian's designs long ago became his own, both structurally and aesthetically. Taking a seat in a quartersawn oak outdoor chair that has recently gone into production, I'm reminded that not only are Brian's chairs stunning works of art, they also are arguably the most comfortable wooden chairs ever made.

Brian greets me with his big smile and a cup of coffee. He clasps his hands over his head, stretches and lets out a groan. This morning Brian is just two days back from Honduras, where he investigated a source for bark used to weave chair seats (hickory bark is becoming harder to get), and he has

had little sleep. Tired or not, he's on task and characteristically thoughtful as we take a seat in his gallery to discuss everything from how he got started in the craft to his theories on construction and design, what it means to be an artist and how that notion fits into the Boggs' Collective, the new venture in which he and his wife and business partner, Melanie Moeller Boggs, collaborate with other makers to both promote and support their work. It is at once an active and reflective time in Brian's career, and he's very conscious

of the ramifications of the decisions he makes. "I'm not an old man," Brian, now 53, says, "but certainly in this arena I'm becoming more of an elder than a journeyman. So now, what's my goal? What's my role in this thing?"

The Early Days

Brian always knew he was going to be an artist. "I had been painting and drawing. And in my mind I had been building toward becoming a professional artist since I was like 8 years

THE EVOLUTION OF A CHAIR



In the beginning. Early on Brian stuck to a traditional design and focused on improving techniques. The chair above, Brian's first, was mortised using a sharpened screwdriver.



Making it his own. Rear legs with an S-curve and three back slats instead of two add lumbar support and are key to the comfort of Brian's signature design.



Give it a lift. Once satisfied with his three-slat ladderback, Brian re-engineered the design and produced the same comfort in a two-slat bar stool.



Let it rock. Brian's classic six-slat rocker is wider and taller, and the curves in the back are slightly reworked. This one features a seat woven of Shaker tape.



Merging styles. This design blends the basic frame of Brian's ladderback with both vertical and horizontal back slats around which is a woven hickory-bark back.



A true original. This fan-back rocker shows hints of Sam Maloof, vaguely Asian lines and traditional joinery methods, all of which add up to a style best described as Brian Boggs'.

old,” he says. Then one day, even before the mythic copy of “Make a Chair from a Tree,” Brian came across James Krenov’s “The Fine Art of Cabinetmaking.” “I was just hitting a point where I was frustrated with my efforts and trying to be an artist as a profession,” Brian says. “And the book title, ‘The Fine Art of Cabinetmaking,’ just seemed to me like such an oxymoron. I had just never been exposed to the idea that furniture could be a place to express creativity, talent, visual inspiration, or anything like that. So I just had to see what the heck this was about. I was captivated.” Then Brian read a few more Krenov books, did the math and realized there was no way he could afford a woodshop. But the seed had been planted.

Enter “Make a Chair from a Tree,” which he found on his father’s coffee table. “There was something about that chair on the cover that just grabbed me,” Brian says. “And I saw a lot of potential for the idea of ripping a log apart and reassembling it using the way it moves naturally to lock things together.” Even early on, Brian was both artist and engineer, and somewhere between Krenov’s attention to detail and the natural science of Alexander, he glimpsed a place for himself. “It added dimension to what Krenov was saying about the beauty of the material,” he remembers. “This was about the physical nature of the material and using that as a structural way to add integrity to a piece. I was sold.” Even at that early stage, he was piecing together the logic of his choices, making them carefully and paying attention to detail – the same skills that would prove key to his success as a craftsman. “I could do that,” Brian realized, because Alexander’s methods were affordable. “Plus,” he points out, “it was a perfect fit because I was living in Appalachia where there was a long tradition of splitting logs and making chairs.” The pieces were starting to fall into place.

The Evolution of a Chair

In the beginning he stuck to the text. “I wasn’t trying to be creative,” he says. “I was just trying to get the process down.” Spend some time in Brian’s shop, however, and look at the line of bending forms on the back wall, at his spare but brilliant router pulpit (as he calls it), which is almost endlessly adjustable for cutting tenons, or feel the clean, finish-ready surface left from one of the spokeshaves he designed and you realize that he finds room for improvement in every process or machine. To take it a step further, the Rube-Goldbergesque bark-splitting machine that Brian invented (pulled out in the side lumberyard today for a cleaning) that looks like a

DESIGN MORE EFFICIENT TOOLS



A better spokeshave. Dissatisfied with the surface left from traditional spokeshaves, Brian designed his own (available from Lie-Nielsen Toolworks), which creates a finish-ready surface fresh off the shave.



Always a solution. Brian’s “Router Pulpit,” as he calls it, allows him to easily secure and tenon the ends of chair parts of any shape.



Starting from scratch. Brian’s bark-splitting machine, sometimes referred to as “Hankenstein,” separates layers of bark for weaving chair seats.

giant Dr. Seuss cacophony patched together with an Erector Set and outfitted with water tanks, spinning blades and an orchestra of turning gears and chains, is proof that even if there is no process or machine to use as a starting point, Brian will figure something out.

Brian’s approach to every creative situation – half artistry, half engineering – explains what became of Alexander’s greenwood design in Brian’s hands. As he tweaked the chairs, the design and methods began to evolve. He took a scientist’s approach to steambending, refined the simple curve in the rear legs with graceful S-curves and re-engineered the seat entirely, making it stronger and more comfortable (he does away with the knobs of the front legs that always hit a nerve). What slowly took shape was Brian’s three-slat ladderback, still a big seller and long his bread-and-butter design; the iconic image of that chair is the first thing that pops in most people’s heads when they hear the name Brian Boggs.

HANDWORK IS STILL KEY



Feeling his way. The challenge of reproducing many of Brian's designs falls in creating consistent, repeatable results using hand tools, as he does here carving the seat of a Sonus Musician's Chair.



A human touch. The toolmarks and texturing on the back of Brian's Logan Bar Stool are typical of his designs. It creates interesting shadow lines, begs to be touched and feels good under hand.

The curves in the back of the ladderback are still the starting point for most all of Brian's designs. He's tweaked them over the years depending on the chair at hand, but, based on the angle and curves in the back and the way it hugs your back in just the right spots, there is no mistaking a Boggs chair. (I've yet to see a knock-off able to replicate the comfort.)

As his competence with hand tools grew so did his confidence with design. Springing off the form of the ladderback, Brian pushed design and construction even further. His fan-back chair was a departure in many ways, a mash-up of a traditional ladderback and a Windsor, with a few vaguely Asian lines and hand-textured end-grain surfaces— all of which add up to something that can only be considered Brian's. As a designer, he was off and running.

He also began making rockers in both ladderback and fan-back styles, some with rockers attached as on a traditional Shaker rocker, others with a more sculpted look, reminiscent of Sam Maloof's work. In simply looking at photos of Brian's chair designs you see the clear evolution of the form (see the photos on page 40), something that he was able to accomplish only because he considered all aspects of the chair and sought constantly to improve what he'd done

before. (For more on Brian's design process and philosophy, visit the Online Extras for this article.)

A Place for Power Tools

In the early days, Brian stuck to hand tools. He still relies on them heavily and considers them the best way to learn the craft. "Hand tools are not necessarily the end-all, be-all," he says, "but certainly they're the way to begin because they allow you a very tactile, very direct way to experience the material."

Working at a feverish pace, he quickly became proficient with hand tools. "I started getting into reproducing parts and whole chairs and thinking about speed, economy. I remember going out a number of times in the morning and splitting and shaving a couple of hundred chair rungs by noon. I loved the game of seeing how many I could cut and seeing how consistent I could cut them at a pace."

He became so proficient, in fact, that he doubted machines were any faster. "I was splitting and shaving rungs by hand, start to finish, from log to ready to go into the chair, in less than 10 minutes," he says. That 10 minutes included cutting the round tenons with a drawknife. "Everything I was hearing," he says, "was that a lathe wasn't going to beat that."

He also loved the physical nature of the work. "My body felt good," he says. "I was young." But he knew he couldn't continue that way for the rest of his career; if his body didn't fail him, his creative juices would dry up. "It didn't take a whole lot of that," he says, "to start observing what was going on. It was clear that I was either going to get a machine or I was going to become a machine. I'd much rather get one."

After a few unsatisfying attempts with a router — which he used once and then shelved for years — taking a course with rustic chairmaker Dave Sawyer from North Carolina, served as an unexpected entree into power tools. "I already admired Dave a lot," Brian says. "He used a lathe so I figured it must not be a bad thing." Soon Brian was turning rungs in three minutes. These days he can turn one in 90 seconds.

Always conscious of speed and efficiency, Brian eventually warmed even to noisy routers, and has long relied heavily on both his overarm router and the router pulpit he created; between the two he can jig up to mortise, tenon or shape almost anything. The key, he says, is to think in terms of tool pathing: "I've made enough jigs so that I can sort of hold the router in my mind and move it the way it needs to move in relationship to a part and then fill in the supporting structure in my mind with what is needed to guide that path."

Recently, Brian has experimented with CNC technology. The question of how one goes, philosophically, from sharpening a screwdriver to subbing work out to CNC technology elicits a laugh. "It's got great potential for supporting production at a larger level," he says, "but so far I'm not impressed."

As we head through the door from the gallery into the shop, the first thing I see is a workbench lined with more than two dozen rear legs for a batch of Sonus Musician's Chairs. The parts have just come in from the nearby CNC shop, and on each is a small patch of tape marked with the variations in the mortise sizes, marked to the third decimal

place – Brian is dangerous with a pair of calipers. Brian's shop still cuts the parts, which allows them to orient the grain and medullary rays the way he wants. "We're totally controlling the quality of what this is in the chair," he says. "What they're doing is simply cutting the mortise."

Each piece is bored with a large mortise that splits into two smaller mortises, all of which are set at compound angles. "This is a three-way compound housed double-mortise," Brian explains. "You can't do that on a plunge router. There's no room for a jig and you wouldn't have a bit long enough." Pointing to the overarm router at the back of the shop, he says, "But Charlie (Marlow) is cutting these to a tolerance that the CNC operation down the road can't hit. And he wasn't a furniture maker when he came on board and he's only been here three months. And he's nailing that," Brian says with pride.

Perhaps I've a skewed taste, but as a furniture maker I contend that there is endless entertainment in seeing a grown man get worked up over a thousandth of an inch. "Our tolerance for a joint is plus or minus two thousandths and we're hitting that easily in the systems I designed," Brian says. "They've got a \$350,000 router and they're missing the mark on that? That's just...No way," he says, walking away from the bench. It's hard to tell whether Brian is more irritated at the variation in the CNC joinery or more proud of the precision his own shop turns out.

Building a Legacy

Brian had long wanted to move from Berea, Ky., (where he lived and worked for years), to Asheville, but the timing was never right. Just before 2008, Brian remembers, "I had six employees and their families committed to living in Berea.

There was no way I was going to move my company." And business was booming. "We were swamped," he says. "But I made a big mistake. A couple of them. One was that right before 2008, we were getting so much work. And I cut back on marketing because we couldn't handle any more sales. We couldn't handle the sales we had." Brian turned his focus to training employees, developing the building processes and getting production running efficiently. "My plan was to then turn around and start doing marketing," he says.

Unfortunately, the changing economy hit Brian and his business hard. "I didn't see the downturn coming," he remembers, "as a lot of people didn't."

But Asheville and a new business model were the silver linings. "It got slow enough to where it was just me and Stephen Zbornik, and Asheville was a great fit for Stephen as well at that time."

Shortly after the move Brian met his wife and business partner, Melanie. Melanie has a background in organizational development, where mission, values and strategy are key, but she also has a degree in graphic design that helps her understand how advertising and marketing work. She has played a key role in developing and running Brian's latest business, the Boggs Collective.

Standing in the gallery, Melanie puts the business into perspective. "Everything on this side of the wall is my responsibility," she says. "And," pointing to the shop on the other side, "everything on that side is Brian's." Any maker or entrepreneur who has tried to manage both a shop and business will understand the struggle. "Brian's a visionary," Melanie says, "but his gift is being able to really go down into minutia and look at process. And," she says, gesturing with her hand, "if you're down there you can't be up here."

SHARING THE CRAFT



In the shop. At left, Brian looks on as Charlie Marlow rolls epoxy onto band-sawn laminates and then glues them up between forms to make a back slat. Above, the shop is a collection of benches and hand tools, with the gallery just through the doorway at left.



A moment to reflect. Brian with his wife and business partner, Melanie, in the workshop beside his prize band saw, a Gates American from the 1930s.

“Melanie’s totally got my back,” Brian says, “when it comes to launching the company and making sure that where I put my energy is good strategy.”

Few makers who build furniture for a living do so solely on their own – it simply makes too much sense to hire help for milling lumber, sanding and various other chores so that you’re freed up for more skilled tasks. Brian figured that out early on, but in the last few years he’s pushed collaboration to a new level. With Melanie, Brian Boggs’ Chairmakers (in which he and a crew of seldom more than a half-dozen built Brian’s designs) became the Boggs’ Collective, a business venture in which the company has multiple arrangements with multiple makers both inside and outside Brian’s shop. The relationships are varied and fluid. Some are simply contracts for producing a certain number of Brian’s designs, some are more traditional employer/employee relationships and some are partnerships in which Brian co-opts or co-designs pieces with other makers.

“Our job,” he says, “is to design a company that will support all this creative work and support the craftsmen doing it – through infrastructure design, business design and marketing. We’ve got to build something that is sustainable. We have to create a company that is going to support us when we stop using our hands to create things.”

Many makers have a hard time sharing responsibility for a piece, or of letting go, to some degree, of the designs and control. But teaching, both in the classes he teaches around the world and in training employees that now work

with the collective, is becoming more and more important to Brian.

Stephen, with whom he made the move to Asheville, has since moved to Iowa, where he works on contract for the collective building the ladderback chairs that were the backbone of Brian’s business for so many years. When asked how it feels to have his iconic design created in such a way that his own hands never touch it, Brian takes a long pause, then pulls two ladderbacks – one cherry, one walnut – out from a dining table in his gallery. “What’s the difference between these chairs?” Brian asks. “Besides materials, what’s the difference in the attention to detail, the fit, finish, quality, overall comfort?” Nothing that I can see.

“Now sit in them,” Brian insists. I do. And I really try, but again, I can

feel no difference.

“Alright,” Brian says. “The cherry chair was made in 2006 in my shop in Berea by a team of craftsmen working under my supervision.” Then he stands behind the walnut version. “This chair,” he says, “was made two years ago by an individual in his own shop using my systems and processes.”

He puts his hands on the textured horns of the walnut ladderback. “I’m happier about this chair than I am about one that I can make myself,” he says. “It has to do with getting your ego out of the way. “When I started building chairs I wanted to prove that I could do it. Now I want to prove that it can be handed off. And the way to do that is to develop a process and provide an infrastructure that allows someone to succeed through that process and make a chair of the same standard and make a living.” **PWM**

Matthew Teague is the editor of this magazine. He can be reached at matthew.teague@fwmedia.com.



Branching out. Recent designs, the Lily Table and Lily Chair are a departure from Brian’s earlier styles and forms.

ONLINE EXTRAS

For links to all online extras, go to:

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VIDEO: Find Brian Boggs’ DVDs, “Hickory Bark from Tree to Chair: Weaving Hickory Bark Seats,” and “Drawknives, Spokeshaves and Traversers: A Chairmaker’s Tool Kit.”

BLOG: Read an excerpt from the interview for this article in which Brian Boggs discusses his design theory and methods.

WEB SITE: Read Brian Boggs’ article, “The Myth of Original Design,” from the December 2011 issue, #194.

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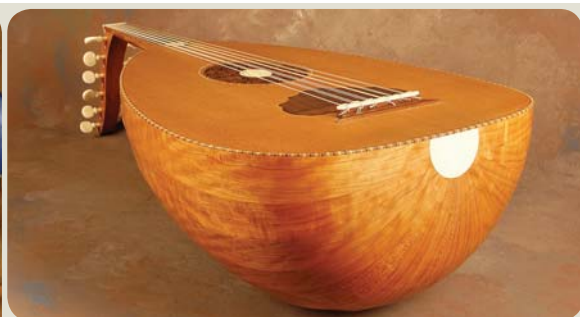
This Iowa-born toolmaker, woodworker and luthier strives for perfection.



Working large or small. Jameel Abraham's work is wide-ranging, from a 10'-long dining table (top) with a triple pedestal base to the backgammon board (lower) with exquisite inlay and veneer work.



Woodworker & toolmaker. Jameel is an accomplished woodworker and a principal at Benchcrafted, maker of high-quality woodworking bench vises and other woodworking tools and accessories.



Family has clearly played an important role in the development of Iowa-born woodworker and toolmaker Jameel Abraham. In 2006, Jameel, along with his brother, Father John Abraham (an Orthodox priest), and their father founded Benchcrafted – makers of a handful of high-quality, primarily workbench-related products including leg and tail vises and a Moxon-style benchtop vise.

But family influences run much deeper than the relatively recent origins of Benchcrafted. Jameel traces his woodworking interests to both of his grandfathers, who he describes as “serious hobbyists.” He fondly remembers spending time in the shop with both, and watching many an episode of Norm Abram’s “The New Yankee Workshop” and Roy Underhill’s “The Woodwright’s Shop” with his maternal grandfather. Who knows – this may partially account for Jameel’s mastery of both hand and power tools.

There is also a strong tradition of operating a family business. His father started a beeswax candle making business that Fr. John continues to oversee while also helping out with the Benchcrafted business. And until Benchcrafted began to consume all his time, Jameel worked in that business, too. Family influences and obligations aside, the accomplishments of this 38-year-old craftsman are keenly driven by a native sense of engineering and a self-imposed drive for excellence.

Early Woodworking Start

A few years after high school, in the mid-1990s, Jameel began taking woodworking seriously, spending more time in his modestly equipped shop. As his interest deepened he often visited the library to study period furniture. In those

Sampler. This page, clockwise from top left: This oud has a figured cherry bowl and spruce top. The “Monticello” bookcase with mitered-shoulder dovetails is made in beech. This detail of a small tabletop chest in bird’s-eye maple is one of many examples of Jameel’s mastery of dovetails. Jameel displays his modern sensibilities in a cherry and maple desk with a curved center drawer and parquetry doors.

early days, he worked with a contractor-style table saw and jointed his lumber with a Stanley No. 7 because, he said, he couldn’t afford a powered jointer. Thus he discovered the wonders of sharpening – a revelation from which he never looked back.

His father took note of his son’s growing woodworking interest and introduced Jameel to a local cabinetmaker friend who had studied with James Krenov and who was also strongly influenced by Japanese woodworking. This was Jameel’s introduction to fine woodworking, including hand-cut dovetails. Prior to that, “I was only learning from my own mistakes,” Jameel said.

While working full time in the family candle business, Jameel continued to develop his woodworking skills and became interested in luthiery. And in his mid-20s, he began making a Middle Eastern stringed instrument called an oud, which is related to the European lute (see “Woodworking on the Edge” page 48). He also unknowingly sowed the seeds for the Benchcrafted business when for his own use he developed a magnetized tool holder to organize and protect edge tools and plane blades.

You may know it by its commercial name: the “Mag-Blok.” Mag-Bloks are narrow lengths of wood embedded with powerful rare earth magnets; they can be hung on a

WOODWORKING ON THE EDGE

Jameel Abraham spent a number of years in his late 20s and early 30s as a luthier, building and repairing stringed instruments. During this period, he learned to build the oud (pronounced like mood), which he said “totally refined every aspect of my woodworking.”

The instrument is an ancestor of the guitar and is similar in construction to the European lute. The main differences are that the oud has a narrower neck and no frets. Its origins are in the Middle East and North Africa, with the earliest depictions dating back some 5,000 years.

The half-pear-shaped bowl of the instrument is usually made on a form, although Jameel said he’s made them “free form, which is more difficult, actually maddening.” It’s built much like a boat, starting with one center rib (stave or plank) placed in the center of the form, and glued to two end blocks. Each subsequent rib is fit to the previous one. The pieces are bent individually over a hot iron and the edges are fitted using an inverted handplane. Jameel described the work as very similar to how a cooper would fit the edges of barrel staves. As the ribs near

the face of the instrument they not only curve but twist, he said, and require a flat mating surface on a compound curve so each can be properly joined to the adjacent rib.

In addition to the striking inlay on the instrument’s neck and sound board, the fretwork rose in the sound hole is remarkable. The design is copied directly from the Damascus, Syria, workshops of the Nahat family of luthiers who worked between the early 1800s and the first half of the 20th century, Jameel explained. Into the center of his design, he has worked his name in Arabic script.

The fretwork material is made from glued-up blanks of cross-grained walnut veneer, which Jameel described as “micro-plywood,” which is often capped (as it is here) with a layer of certified, legal elephant ivory. “It’s a dream to work with,” he says. More often, though, he uses more readily available bone, which can be brought to a bright white using industrial-strength peroxide. He cuts the design using jeweler’s 2/0 blades in his scrollsaw and spends 10-15 hours cutting out a typical fretwork rose. —SS



Exquisite. This ornate example of an oud, made by Jameel Abraham, features amazing fretwork and exquisite inlay.



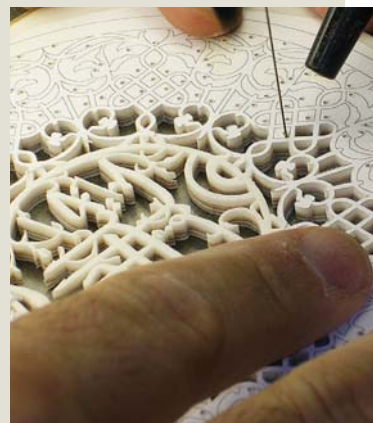
Fine Inlay. The head and tuning pegs exhibit flowing curves and fine details.



Pear shape. The bowl, or back, is usually built on a form with each piece hand-fitted to the next, much like barrel staves.



Joint under pressure. The oud’s bowl and neck are joined using a stout, perfectly fit dovetail. The joint must withstand hundreds of pounds of pressure from the instrument’s 11 strings.



Scrollwork. The rose is cut on the scrollsaw from shop-made “micro-plywood,” layers of cross-grained veneer topped with ivory.

CONTINUED ON PAGE 50



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Benchcrafted Blossoms

In 2005, Jameel began making Mag-Bloks from exotic species such as rosewood, and the product's striking appearance attracted attention, including that of Robin Lee of Lee Valley Tools, who placed a sizeable order. Suddenly, it started to look like a business; Benchcrafted was born. Lie-Nielsen Toolworks soon followed with an order, and Jameel found himself primarily engaged in the burgeoning Benchcrafted business.

Fast-forward a couple years to when Jameel decides he needs a bigger and better woodworking bench. His research led him to Christopher Schwarz's articles in *Popular Woodworking* on pre-Industrial benches and how they were used. While these old-style benches seemed right to Jameel, he wasn't satisfied with available workholding options.

His search for a good leg vise eventually led him to historic patent records pre-dating the Industrial Revolution, where he found the basis for what became Benchcrafted's next significant products: the Glide Leg Vise and Benchcrafted Tail Vise.

Though the initial design may be from patent records, "we incorporate our own ideas in the testing phase and further improve the function of the tools," says Jameel. "We'll use more modern and sensible materials if it yields a better product." Both of these vises received high praise from users for their extremely smooth operation and highest-quality manufacturing standards.

If Benchcrafted's product development seems a bit serendipitous, well, that's because it is. "I just want to make something because I think it's neat. My interest is to create useful things and hope they sell," Jameel explains. "When I'm in the shop working I want tools that are highly refined and work well. That's what appeals to me and that's how I approach products for Benchcrafted." He likens tools to well-crafted musical instruments: "They are unfulfilled unless they are played."

Fr. John (who majored in art in college and studied artistic metal work) concentrates on Benchcrafted's product aesthetics; Jameel focuses on engineering and the practical aspects of product use and development. Fr. John also shoots the company's photos and oversees artistic design needs, including the web site (benchcrafted.com), and handles customer service. "We make a good team," Jameel says, and complement one another's strengths.



Woodworking shop & test lab. Jameel's woodshop is located adjacent to his home and occupies what was once a two-car garage. Here, he always has a project in the works and tests Benchcrafted products "in context," he says.



Large scale, beautiful details. Jameel recently completed this 10'-long Shaker dining table in cherry. Three pedestals support the large top. Details included turned posts and pedestal feet.

CONTINUED ON PAGE 52

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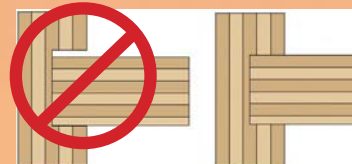
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Keeping a Balance

Although the business keeps Jameel busy, he says it's important for him to continue his woodworking to stay balanced. "I try to have a project in the works at all times," he says. Plus, "The shop allows me to test the company's new products in context." (His woodworking shop is a converted two-car garage adjacent to his home.)

So what projects has he been working on? "Simple stuff for the family," he says. "Projects for the house like a 10'-long Shaker-style dining table." Jameel recently completed an exquisite example of the Monticello stacking bookcases (pictured here on page 47) featured in the June 2011 issue of *Popular Woodworking Magazine* (#190). His version exhibits his dovetailing mastery – in this case, the through-dovetails with mitered shoulders at the front corners. Other fine examples of his expertise are the huge "condor tails" found on his workbench, which he cut using a combination of power and hand tools; he shared that approach in the August 2011 issue (#191) of this magazine.

Moving Forward

While Jameel makes sure to find time for woodworking, Benchcrafted product development continues as well. A



Fine-tuning. Jameel likes to balance his time in the shop between woodworking and product development. Of course, building projects allows him to test products (and try out new ideas) for Benchcrafted "in context."

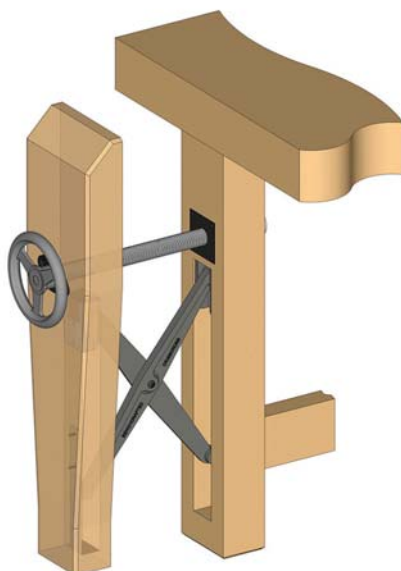
new-and-improved vise handwheel (with a thicker rim that provides more weight both for smoother action and better ergonomics) was recently introduced (it's based on the handwheels from H.O. Studley's tool chest). And, Benchcrafted is currently unveiling what Jameel and Fr. John believe is a major improvement over the traditional leg vise. Again scouring old patent records, Jameel uncovered a scissors mechanism called a "St. Peter's Cross" that was in use in the 19th century. It replaces the parallel guide common in many leg vises. This new/old scissors mechanism (which the company is calling the Benchcrafted Crisscross) automatically compensates for any workpiece thickness, and can be retrofitted to benches already equipped with a Glide Leg Vise.

There are many talented individuals in the woodworking toolmaking business. Some are at larger companies while others work at a "cottage industry" level. Jameel Abraham is one of a handful of these smaller-scale toolmakers whose products are both inspired and informed by his mastery of the woodworking craft. **PWM**

Steve Shanesy is a senior editor at *Popular Woodworking Magazine* and can be contacted at steve.shanesy@fwmedia.com.



Give it a spin. New handwheels from Benchcrafted come in two sizes, one for the Glide leg vise and one for the tail vise.



New product. Benchcrafted is releasing a new leg vise featuring a scissors mechanism that will eliminate the parallel guide and automatically compensate for variations in workpiece thicknesses.

ONLINE EXTRAS

For links to all online extras, go to:

■ popularwoodworking.com/nov12

WEB SITE: Check out the Benchcrafted site and blog. You'll also find a link there to Jameel Abraham's extensive blog about the oud.

ARTICLE: Go online to read our review of Benchcrafted's Glide Leg Vise.

VIDEO: See the oud being played and discover the beautiful sound of this ancient instrument.


VIDEO: See an animated clip of the new Benchcrafted Crisscross vise mechanism in action.

TO BUY: *Popular Woodworking Magazine* April 2011 (#189) with Jameel Abraham's article "Precision Inlay, Simple Tools."

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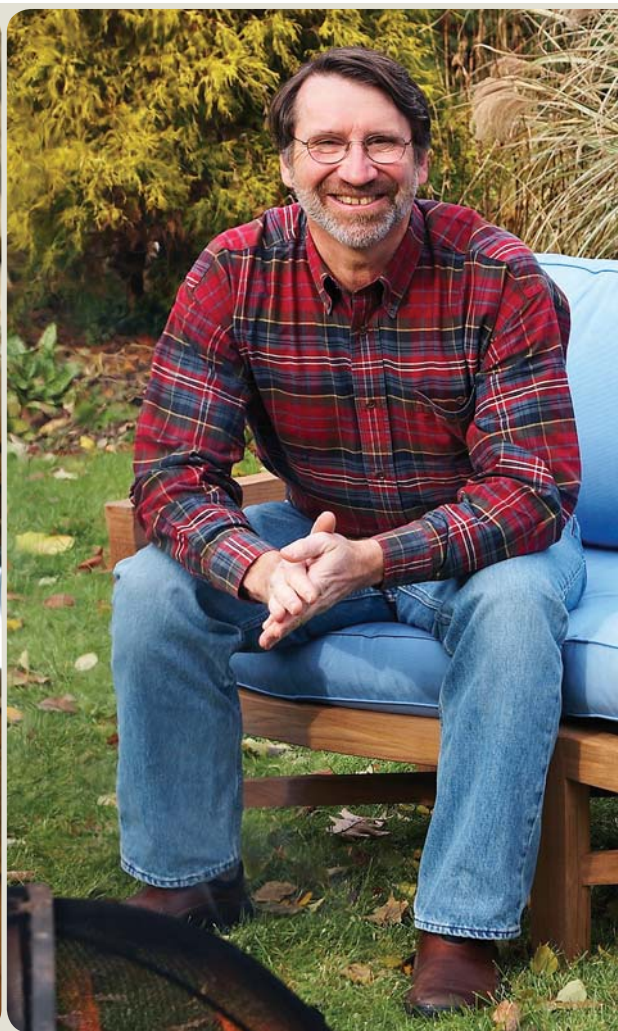
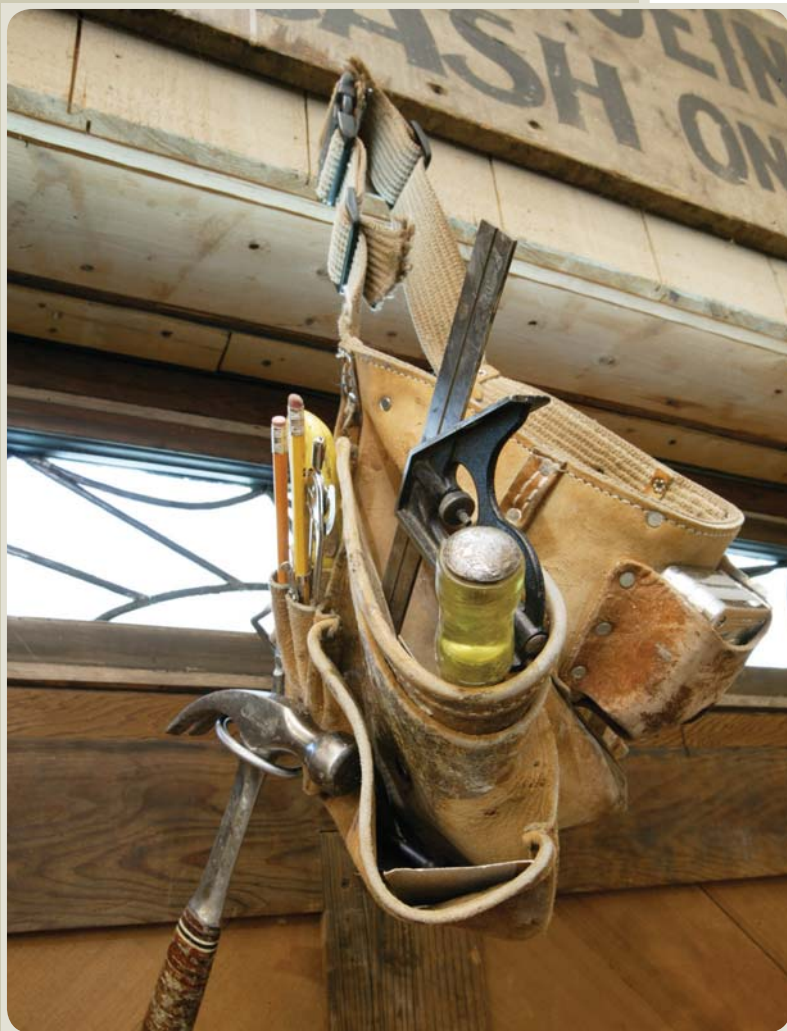
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Norm Abram: Life



BY JEFFERSON KOLLE

Can America's most recognizable
woodworking personality
actually retire?

Norm Abram first stepped in front of a television camera in 1979 as the lead carpenter on “This Old House,” a show on which he still appears. A decade later, Norm began “The New Yankee Workshop,” and for 21 seasons he taught a glued-to-the-screen audience how to make furniture. Norm never skipped the hard parts, and while he didn’t make them look easy, he did show you that they were doable. As such, his gentle smile and reassuring manner coaxed countless people to take up the craft of working wood.

He has appeared on lots of other shows as well as in countless magazines, including two articles in the August 2005 issue of *Popular Woodworking Magazine* (#149). “The New Yankee Workshop” may be over, but Norm is hardly retired. He just bought a new old house that he’s renovating and he’s mulling over ideas for a new shop, so he can keep building and building.

In a recent discussion, Norm talked about TV, the Internet, woodworking and safety.

After ‘New Yankee’



Your show, “The New Yankee Workshop,” introduced countless people to the craft. What’s the best thing people can learn from watching a woodworking television show? Also, what are the limits of TV? In other words, what can’t people learn from watching “New Yankee.”

In the television show, we touched on every step in the process of making a piece of furniture. Because of the time constraints we couldn’t show every setup – every time we set the rip fence on the table saw, for instance. And if there were four table legs to make, for instance, we’d only show how to make one of them. The idea was to give a woodworker the inspiration to try building a piece of furniture.

Sometimes people who ordered the plans from an episode would write to say that they thought the cutlists should have exact measurements for every single piece of wood. I’d tell them that for many of the pieces the cutlists only contain approximate dimensions to be used as a guide. Part of mak-

ing furniture is cutting and fitting pieces as you work your way through the piece. It’s a step-by-step process.

For all the confidence and inspiration we gave viewers – and I think video is better at this than a book or magazine – there are some things that television can’t do. It can’t teach you how it feels to have a tool in your hand or what wood grain feels like. It can’t show you what it’s like to squeeze just the right amount of glue out of a tight mortise-and-tenon joint. Hands-on is the only way to learn. You have to get out in the shop and work the wood, learn how the tools work.

So, watch a video to get inspired, then get out there and put that inspiration to work.

What’s the appeal of woodworking in the Internet age? It seems as though today’s focus is always on the newest electronic gadget or technology. How does an ancient craft such as woodworking compete against other activities that are vying for people’s time?

Woodworking gained a real momentum from the Internet, which is good, but the problem is that the Internet is a two-dimensional medium, and woodworking is a three-dimensional activity.

The danger will be if people start to rely on the Internet as a real woodworking community. If you think about it – and I know this is certainly true for me – there is a huge benefit to hanging out with other woodworkers and talking shop. Regardless of what some people want you to believe, you can’t get a real community with Twitter.

And unfortunately, there is lots of bad information online; some of it is really scary. It’s probably not intentional, but I’ve seen some content that sets up the illusion that you can do whatever you want and get away with it.

Similar to television, the best online woodworking content gets people to try something, get their hands dirty.

But, you know, I think what’s going to happen is that people are going to turn to woodworking as a way to get away from the Internet. People who spend their work days in front of a computer are going to go down to their shops to get away from the virtual world to something more real.

What’s next for woodworking? Any new tools or materials that have caught your eye lately?

Finishes and adhesives have gotten better in recent years. They are easier to use, quicker to clean up and – the major benefit – more environmentally friendly, not just for the people using them but for the planet, too.

Dust-collection devices on handheld tools have improved a lot since they first came out. Most of them actually work real well now.

One power tool that I really like is a hand-held tool that

CONTINUED ON PAGE 57

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cuts mortises for a proprietary floating tenon. We all figured out pretty quickly that a standard biscuit joiner was good for registering pieces but not great for structural applications.

I was talking recently to a professional cabinetmaker about the floating-tenon tool and he said, “But the thing costs about \$800.” My point to him was that the tool would pay for itself in one job, just because of the time it saves.

You mentioned that one of your interests in semi-retirement is developing your own style of furniture. You said, for instance, that a Sam Maloof chair is immediately recognizable. Any hallmarks of the Norm Abram style that you can tell us about?

I’m not certain yet. It won’t be contemporary—that’s just not my thing. I think it will be an adaptation of period furniture,

along the lines of what Thomas Moser did with Shaker furniture. Mainly, it will be very functional.

I’ve got some ideas for outdoor furniture, too. I built an Adirondack chair for “New Yankee” that had a much different seat angle than traditional ones. The best thing about it was that you could easily stand and get up out of the chair once you were seated, which is real difficult to do in the traditional design.

Maybe there won’t be a Norm Abram signature style, but it’s something I’m looking forward to playing around with.

What do you admire most about period furniture makers, and conversely, what do you admire most about your contemporaries?

For me, one of the best parts of “New Yankee” was that I was able to travel around and look at some of the best furniture in the country. And as much furniture as I’ve seen, I am still amazed at the quality of work that was done by hand. The marquetry and inlays... just astounding.

Getting back to furniture styles for a moment: I really admire that so many of the period furniture makers never signed their work, yet it was distinctive enough that experts can identify otherwise anonymous furniture makers by the way a dovetail was cut or by the arch of a ball-and-claw foot. Of course, the experts are also getting regional clues by the secondary wood used or by the style of a geographic region.

My wife, Elise (who is an accomplished potter), and I go to a lot of furniture shows that have many contemporary pieces. I appreciate some of the craftsmanship, but lots of studio or

CONTINUED ON PAGE 61



The real deal. Norm developed his skills while working as a carpenter, and those skills led to his appearances on “This Old House.”



Popular project. This router table was one of the show’s most popular projects; versions of it can be seen in shops around the country.



Familiar scene. For 21 seasons, Norm Abram hosted “The New Yankee Workshop” on national public television and inspired thousands of people to get involved with woodworking.



Tag team. In 2005, Steve Shanesy (who at the time was publisher and editor of this magazine) joined Norm in building a pair of Adirondack chairs.

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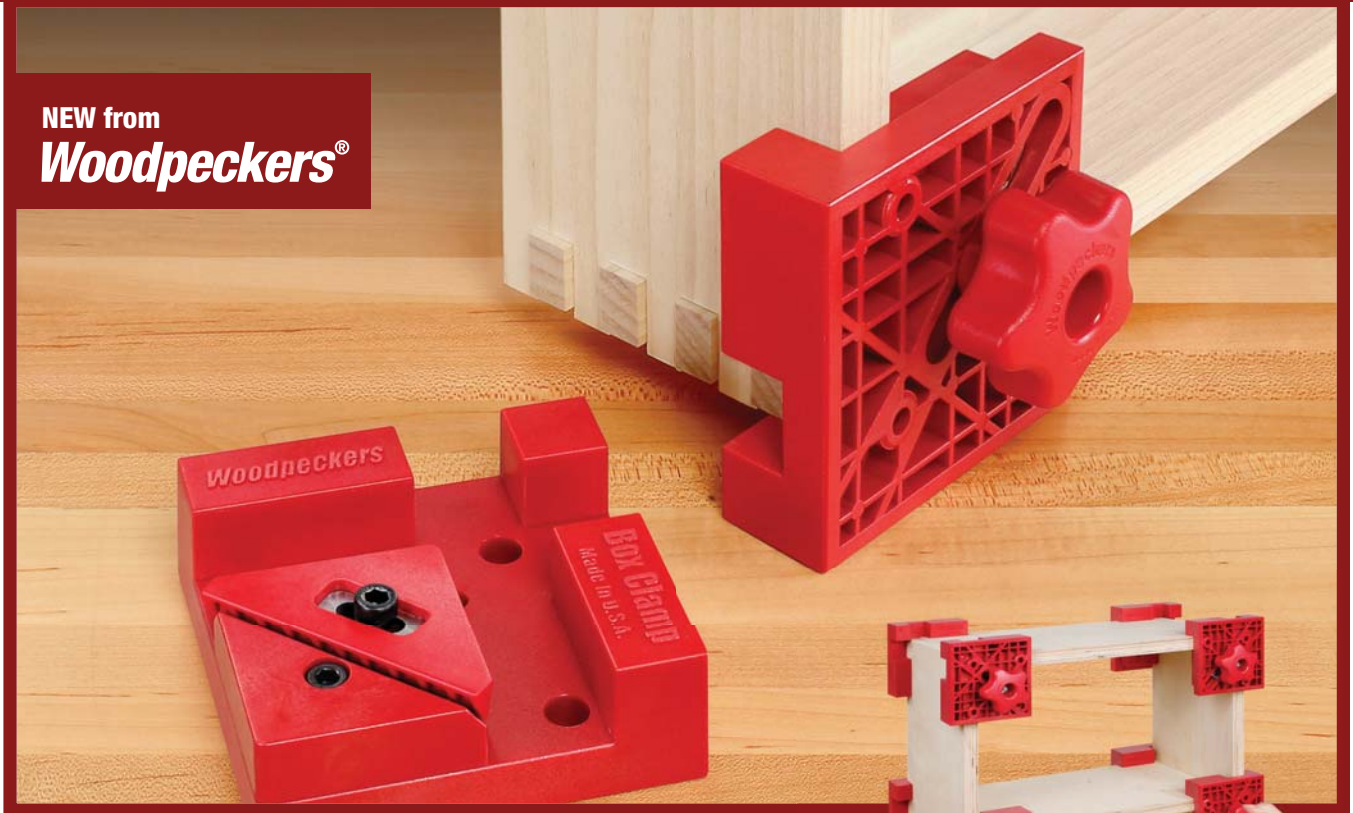
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One of many. Abram built hundreds of pieces for the show, many of them reproductions from historic locations, such as this candle stand from Mount Vernon, built from a cherry tree that grew on the estate.



Man of many styles. Projects on the show ranged from simple shop projects to high-style pieces such as this elegant Regency headboard in mahogany.

CONTINUED FROM PAGE 57

art furniture stretches the limits of my definition of what furniture is. For me, it has to have function first. You have to be able to actually use a chair to sit in, for instance.

You always stressed safety on “New Yankee,” especially safety glasses. What do you think is the biggest reason woodworkers get hurt?

Woodworking takes real concentration. Distraction is the biggest enemy. Lose your focus and you’ll get hurt. If you have to have a TV in the shop, turn it off when you’re making a cut, especially if it’s with a power tool.

How about “New Yankee Workshop” reruns or videos?

Put it on pause. Seriously, there are other factors that make it easier to get distracted. It probably goes without saying, but if you have a glass of wine or a drink with dinner, stay out of your shop for the night.

One thing I do to keep focused is talk to myself in the shop all the time. I tell myself what the next couple of steps are going to be because it will have an impact on what I’m doing at the moment. Then I can focus on process, technique and safety.

If you’re tired, you’ll get distracted. Same thing if you’re rushing; your mind will be on completing something rather than concentrating on what you’re doing right now. I’ve learned that the best thing for me to do is walk away if I’m getting tired or if my mind drifts, and come in early the next day.

Another thing that leads to injuries is trying to make the wrong tool work for the right job.

This isn’t woodworking, but it did involve a cutting tool: Recently, I was getting ready to open a bunch of “little necks” (a sweet New England bivalve, usually eaten raw) and I couldn’t find a clam knife, so I grabbed a regular kitchen paring knife. It was the wrong tool for the job, and I thought to myself, “This is just a bad idea.” Sure enough, I slipped

and sliced the palm of my hand. Fortunately, no stitches.

Finally, make sure the tool you’re using is sharp. It sounds clichéd but it’s worth repeating: A dull tool is more dangerous than a sharp one. That’s because it takes more effort to cut with a dull tool, and when a dull tool slips off a piece of hard wood it can go right into your soft hand or arm or leg.

Any idea about what was the most popular “New Yankee” project ever?

The comfortable, functional Adirondack chair was very, very popular. And any time we did shop furniture – and by that I mean something like a tool hutch or router table – it was a home run with viewers.

I think there are a few reasons for this: First, shop furniture is accessible, not complicated. Second, it’s more forgiving because it’s not as if it is going to be displayed in your living room. And third, shop furniture is a means to an end. Once you’ve built it, it’ll help you to move onto more refined projects.

After so many years in the shop, what do you hope to learn next? (Or, are there any woodworking skills that you’d still like to master?)

We never spent much time on “New Yankee” talking about finishing. That’s something I’d like to play around with. The wipe-on polyurethanes are great products, but there are so many other finishes out there.

I want to learn about more glazing and built-up finishes: layering and shellac.

Carving is a whole other skill set that I’d like to get good at.

What’s the best tip you ever learned from a fellow woodworker?

One of the most amazing techniques I learned was steam bending from Mike Dunbar (a Windsor chairmaker in Hamp-

ton, N.H.). He builds a steam box from PVC pipe and makes the steam using a propane burner to heat water in a 5-gallon can. When the steamed wood comes out of the pipe, you can bend it in very tight curves.

Imagine that a young kid comes to you and says, “I want to be a woodworker. What’s the first thing I should do?”

I get asked this question a lot. And it’s not just kids. People tell me they didn’t have the influence from a father or grandfather, or if they say, “I wish I’d paid attention to my father or grandfather when they wanted to teach me something. I don’t want my kids to make the same mistake.”

It’s really a shame that so few high schools, even vocational schools, no longer have shop programs. As I said before, there is only so much woodworking you can learn from magazines, the Internet and television. You have to get your hands into it.

I encourage people to find a local woodworking group or club. Some woodworking-supply stores hold classes where you can learn hands-on. And there may be a woodworking school in your area. You need to find people to connect to.

And there are a surprising number of woodturner groups that are always looking for new blood. That can be a good way to get a kid’s juices flowing. I also tell people that they have to be patient; these skills don’t come quickly. Too many kids don’t want to start at step one. There’s a reason it’s known as skill-building.



At your service. This serving trolley with a removable tray is one of many outdoor furniture projects Norm built over the run of the show.

So, Norm, can you tell us what are you going to build next?

A shop. I still have access to “The New Yankee Workshop” building, but that won’t be forever. Elise and I recently bought an old house near the ocean, and there is no shop on the property. And it might surprise you, but I’m not going to build a wood-frame building. I’m going to build the walls out of ICFs (insulating concrete forms) and the roof from SIPs (structural insulated panels) because they are so energy efficient.

And then I want to build a sailboat—a Herreshoff sloop. I’ll probably go to a boat-building school to learn some skills first. There are quite a few in New England. **PWM**

Jefferson has been a carpenter, woodworker, oil-field roughneck, bailbondsmen, magazine editor, college instructor and pearl diver. Someday, he hopes to figure out what he wants to be when he grows up. He writes from Bethel, Conn.



The day job. Norm continues to be a part of “This Old House,” where he got his start 10 years before beginning “The New Yankee Workshop.”

How it all began. “The New Yankee Workshop” was always project-oriented; on episode 110, in 1989, Norm showed viewers how to build this candle stand from Hancock Shaker Village in Massachusetts.



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VIDEO: In 2007, Norm Abram was interviewed by Popular Woodworking Magazine senior editor (then editor and publisher) Steve Shanesy.

BLOG: Read this blog post about Norm Abram’s decision to stop production of “The New Yankee Workshop.”

WEB SITE: Visit the official “New Yankee” web site to watch selected episodes of the show, or purchase project plans and DVDs.

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Modern process. Although blacksmith/whitesmith Peter Ross uses some modern machines, such as this power hammer instead of a sledgehammer to make the initial strikes on searing-hot iron, the end result of his work is thoroughly old-fashioned (right).

A rusting horde. Like most smiths who work in forged iron, Peter is always on the lookout for raw materials. He keeps piles of his finds behind the outbuildings on his property (below).



Peter Ross: Controlled

BY MEGAN FITZPATRICK

This smith's hand-forged tools
and hardware combine
art and function.

“Today, we aim for too much perfection; period work wasn’t like that,” says blacksmith/whitesmith Peter Ross. Handwork, he says, is a culmination of learning to do things quickly with few tools and little fussing, whether that’s working with iron or working with wood. With a sufficient level of skill, “you end up with pieces that have a spontaneity...but in a fairly controlled way because of the person doing it.” That ephemeral quality of controlled irregularity is what draws Peter to historical work.

Peter has been interested in period tools, hardware and techniques since his introduction to blacksmithing during high school, at what is now called the Long Island Museums at Stony Brook, in Stony Brook, N.Y. He then volunteered and was later employed at Old Bethpage Village Restoration, an 1860s living history museum on Long Island. After two years at the Rhode Island School of Design, Peter left college to work with Dick Everett, a smith who

ALL PHOTOS BY THE AUTHOR EXCEPT FINISHED DIVIDERS & HOLDFAST, BY CHRISTOPHER SCHWARZ;
ILLUSTRATION COURTESY OF THE COLONIAL WILLIAMSBURG FOUNDATION
& THE TOOLS AND TRADES HISTORY SOCIETY. THE CHEST, COMPLETE WITH ITS TOOLS,
IS ON DISPLAY IN THE GUILDHALL MUSEUM IN ROCHESTER, KENT, U.K.



Irregularity

specialized in historic reproductions of house hardware, in East Haddam, Conn., before opening his own smithy on Deer Isle, Maine, in 1976. Three years later, he became a journeyman blacksmith at Colonial Williamsburg as the living history museum was transitioning the smithy from creating souvenir pieces to making authentic reproductions of historical metal artifacts. Peter soon became the shop's master, and until 2006 worked at Colonial Williamsburg where he investigated historical methods of work and produced metal work for the museum.

Today, Peter works in his (preternaturally clean and organized) one-man smithy in Siler City, N.C., where he makes and sells traditional hardware and tools, from gorgeous dividers to hinges of all shapes and sizes and period locks of every sort. And just about any custom piece a woodworker might want, including a replica of the massive holdfast shown in André Roubo's 18th-century book "L'art du Menuisier"; it

Super-sized. This massive holdfast is a reproduction of one shown in André Roubo's "L'art du Menuisier." The most difficult part of making it was sourcing the iron, says Peter (top).

From stock to tool. What starts as a piece of iron bar is within half a day transformed by Peter into a gorgeous set of dividers (above).

WHITESMITH?

While many modern dictionaries define "whitesmith" as a worker in tin, the 18th-century definition is a smith who forges iron and steel pieces that are customarily finished bright by filing or polishing. Sort of like a joiner vs. a carpenter or a rough carpenter vs. a finish carpenter.

— Peter Ross

weighs in at 9 pounds., 7 ounces, and is 18" long. (Peter also makes excellent holdfasts in a more typical size.)

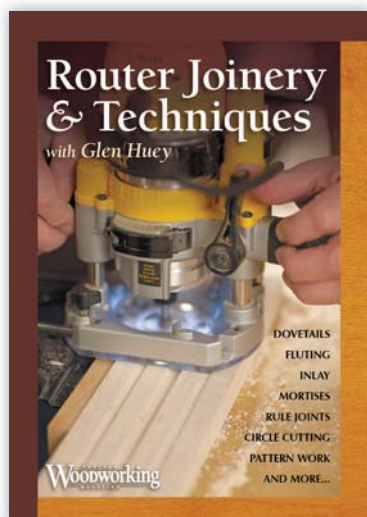
Same Work, Different Story

Though he no longer works at a museum, Peter still creates pieces that would be at home in the past—but now he works in blue jeans instead of breeches, and his commute is a stroll

CONTINUED ON PAGE 67

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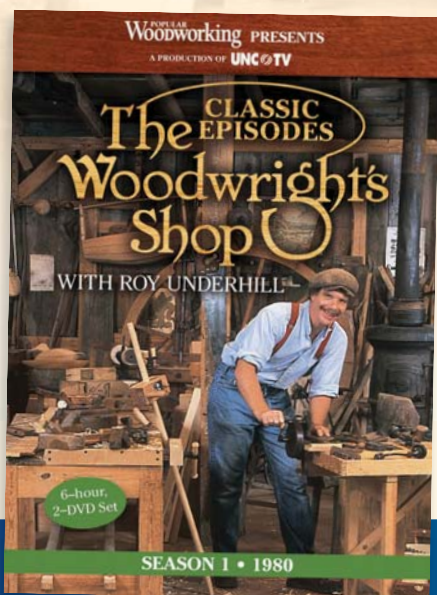
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through the backyard of the old farmhouse that he and his wife, Louise, are renovating.

“The story is different; the tool is not. I pick my process for my own enjoyment,” he says.

The forge in Peter’s smithy uses an electric fan instead of a bellows, and he employs a power hammer for the initial steps in the hammering process, but the end result is the same – period-correct hand-forged tools and hardware.

“What I’m trying to do is make things out of the same raw materials and in a way that’s indistinguishable between a new and period piece.”

But those same raw materials can be difficult to come by, says Peter; there is now a limited supply of iron because it hasn’t been smelted for 50-60 years, and many blacksmiths are in competition for available scrap. (There is hope for “new” iron, though, at least in small amounts. Peter has two friends at Colonial Williamsburg who are investigating traditional smelting processes, and they’ve had some success in producing small batches.)

Behind the building that houses his smithy, Peter hordes piles of rusting wagon wheels, fencing, farm equipment and other iron items, just waiting for him to turn old into something new (that looks old). And he never knows where scrap iron is going to turn up. Some of his stash is from a town in Vermont that flooded in the fall of 2011. “They were cleaning out one of the buildings and there was a rack of iron that had been there for 100 years,” he says.

Today, many blacksmiths work in steel, which, because it’s still being made, is easy to find. But Peter prefers the iron because the impurities make it less predictable. There’s a lot more risk in working iron than steel, he says. “It’s a lot like woodworking, with variable grain.” The grain comes from the impurities in the materials, which stretch when the iron is heated and shaped. So when it breaks – and it does break – it breaks like wood. Iron is also softer than steel (which is typically iron with carbon, or another alloy such as manganese or tungsten, that acts as a hardening agent), so it’s easier to manipulate.

Historic Philosophy

For Peter, spontaneity is more enjoyable than perfection – which is not to say his work isn’t precise, but “precise” is quite different than “perfect.”

“I do most of my work with hand tools and try to get things to come out consistently, but I also enjoy the irregularities,” Peter says.

That’s what draws him to historical work – both in working with iron and working with wood.

“When you really study antiques carefully, you can see there’s a lot more reliance on practice than on lessons that have been established in a book. When you look at a real piece and you look at what’s visible and not, there’s a reasoned approach to putting extra time into areas that show – things that would be a waste of time in areas where it’s not valued,” he says.

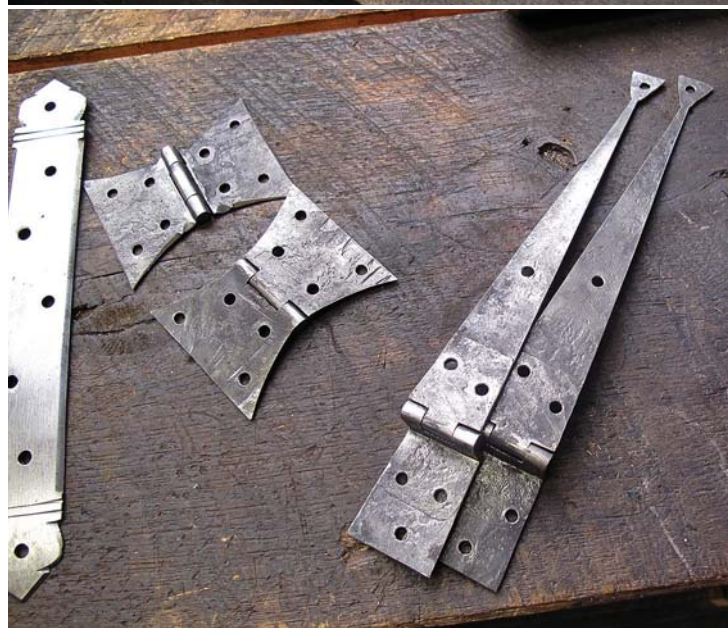
“You see that in tools. Steel just the for cutting edge. Vis-

ible surfaces of tools that have to be more precise are ground or filed; other areas are left rough-forged.”

But “rough” doesn’t mean crude; it means simply that there’s a minimum level of finish on a given surface – the finish that’s necessary for the tool to work, Peter says.

“My interest in history is what went on in the workshop. What kinds of attitudes did they have about their work? Can you tell how carefully they used the materials and the tools? What was OK to hide? To show?”

Peter has his own research collection from which to learn; in a room behind his forge, he has floor-to-15’-ceiling shelving lining the walls, and it’s stuffed full with old locks, hinges, tools and other period metal pieces.



Hinges of all sorts. Among Peter’s specialties are period hinges for a multitude of applications. If you have a hinge need, Peter can fill it.

Benjamin Seaton's Tools

Peter's contributions to woodworking go far beyond the work he does at his forge.

In 1994 and 1995, Benjamin Seaton's historic tool chest and its almost-pristine contents were on loan to Colonial Williamsburg from the Guildhall Museum in Rochester, England, for the exhibition "Tools: Working Wood in Eighteenth-century America." After the exhibit closed, Peter and Jay Gaynor, director of historic trades at Colonial Williamsburg, spent several months studying, measuring and drawing the tools. Peter and Jay's detailed drawings, along with new drawings of the chest by Mack Headley, are included in the second edition of "The Tool Chest of Benjamin Seaton," published by the Tools and Trades History Society. These drawings provide incredible insight into the crafts of both toolmaking and woodworking in the period, and are a goldmine of information for anyone interested in 18th-century tools and practices.

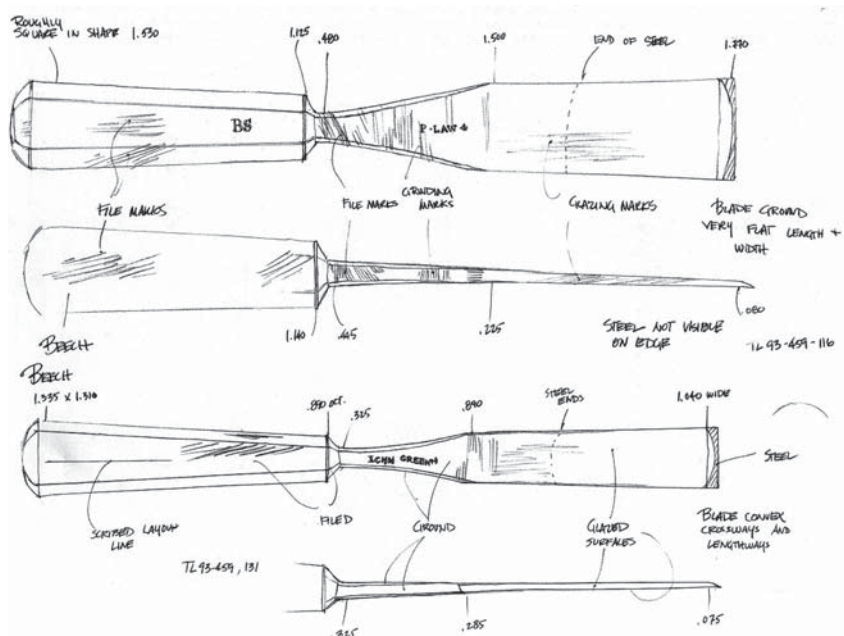
"We were careful to record how precise or imprecise they (the tools) actually are. The abundant flaws, irregular sizes and irregular shapes are very different from modern expectations, and call into question the assumption that good handwork must be done with super-precise tools."

The drawings record not only these irregularities, but also help to illustrate Peter's philosophy: "The value is in carefully researching and making something that matches."

"If you don't care about whether it's historically correct, it's probably better off to redesign things and come up with a contemporary form that's simply interesting to look at." PWM

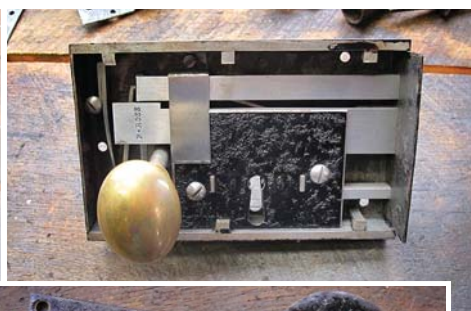
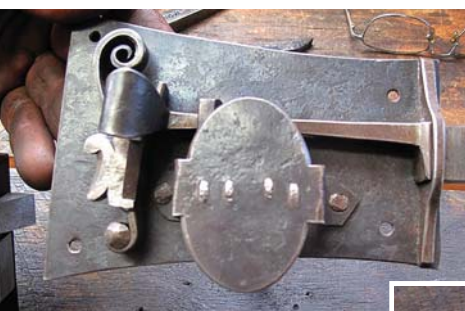


A break with tradition. Peter also enjoys crafting decorative pieces such as this stylized floral hanging rack.



Law firmer chisel. This firmer chisel is just one of the many hundreds of measured drawings Peter worked on with Jay Gaynor of the tools in Benjamin Seaton's tool chest.

Megan is managing editor of this magazine. She can be reached at megan.fitzpatrick@fwmedia.com.



Reproductions. Above is a 17th-century-style spring lock. At top right is the inside of an iron rim lock with a brass knob. At bottom is a plate latch with a black glossy finish typical of 18th- and 19th-century hardware.



ONLINE EXTRAS

For links to all online extras, go to:

■ popularwoodworking.com/nov12

VIDEO: Watch as Peter Ross makes a pair of forged dividers.

BLOG: Read more about the Roubo holdfast Peter Ross made for Christopher Schwarz.

WEB SITE: Discover the Tools and Trades History Society, publisher of "The Tool Chest of Benjamin Seaton."

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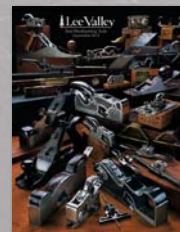
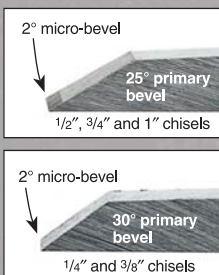
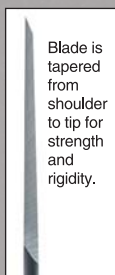
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