



Foreward to the New Edition

It's been thirty-four years since this book was first published. Much has changed in those years in woodworking technology for both amateurs and professionals. The level of interest in wood craftsmanship that exists today has never been greater. While industrial furniture making has migrated from the U.S. to China and the rest of Asia, participation in amateur woodworking has grown exponentially. Strange, isn't it that the more our economy turns its back on manufacturing (now fewer than 14% of us make things for a living, whereas when this book was first published that percentage was double), the more important it seems for us to create objects of beauty and utility. I firmly believe that as a species we define ourselves in large part by the products of our hands. By imposing upon natural materials intelligence, energy and imagination we assert our humanity. High technology does not alter this. Living

in a world devoid of craftsmanship, a virtual world, does not nourish the soul. Imagination can be made real through the enhancement of natural materials and a commitment that beauty flows from aesthetic, indeed divine inspiration.

Globalization has brought us a cornucopia of manufactured things made inexpensive through cheap labor and environmental indifference. Please understand, I am happy that for less than twenty dollars I bought a quartz watch with an expansion band from Walmart and it runs flawlessly. The downside, of course, is that not one of my countrymen had a hand in making it.

As a boy, during World War II, I remember rationing and material scarcity brought on by the war effort. Even before the war, families were required to make things because the 1930's were lean times and even a suburban household had chickens,

grew vegetables, made clothes and fashioned things needed to furnish the home. It was all make-do and those home-made things had no economic dimension. Handiwork was looked down upon and seen either as an economic imperative or psychological catharsis. The word 'handicraft' bore a negative connotation; quaint but of no serious relevance.

Then came the 1970's and a pervasive movement away from polyester, plastic laminates, planned obsolescence and the idolatry of all things mass-produced. As part of the return to nature, handcrafted objects — be they food, jewelry, tableware, clothing and certainly furniture — gained in stature and relevance. And where did the disaffected youth of America turn for role models in escaping what had become conspicuous consumption? For many it was the Shakers, that small band of nineteenth century celibate idealists who praised God in all their actions, particularly the work of their hands.

It was in the nineteenth century that the Shakers produced the incredible objects we so venerate today. While so much of their industry lives in the misty past, their legacy is in the artifacts they left behind. Interest in their designs is as strong today as it was when this book was first published, possibly stronger. While these three decades have witnessed the arrival and in most cases the departure of butcher block, Scandinavian, Post Modernism and a reacquiring of regular Modernism, the fascination in Shaker design remains strong. Every other antique furniture auction seems to have at least one Shaker object which sells at a strong piece. This, while other more formal, often mahogany, period pieces, sell at prices greatly reduced from three decades ago. This holding of value is the direct result of the inherent beauty of early Shaker design, beauty that stems not only from form, but from supreme workmanship, a commitment to utility and a total understanding of material.

For the woodworker the fascination is often rooted in the essential simplicity of the work. Compound joinery, extensive curvilinear shapes, applied ornament, fancy veneers, elaborate hardware — these things are not to be found in these simple, primitive, very American forms. Rather, symmetry, economy of form and material, design consonant with material, utility and purity of form are the things that illicit such passion.

Years ago while walking the herb garden with Sister Mildred she looked upon this book with some pride and offered two very clear observations: firstly, all references to the Shakers seem in the past tense and at the time there were still six sisters very much alive at Sabbathday Lake, Maine and Canterbury, New Hampshire. Secondly, "Imitation is the highest form of flattery", she said and was very much flattered by the "copies" appearing in the book. I apologized for the first slight and for the second, I vowed from that day forward to design and build furniture following general Shaker approbations while avoiding imitation. The fact is, very few of the pieces shown in the first edition are slavish copies and many are original in every respect.

Several items appearing in the original measured drawing section have been eliminated and a dozen or so new items

have been added in an effort to "update" this volume. Also, new color photography has replaced all of those black and white photos. The section on tools is altogether new in that so much has changed over the last thirty-years in terms of woodworking technology and the availability of equipment for the home workshop.

As the text clearly points out, the whole effort here is to stimulate the reader in his or her design explorations. Nothing of these designs is sacrosanct and everything is subject to improvement. I believe that good design is rooted in scientific method, which, simply stated, holds that truth resides first in observation, then requires consensus from others and finally is always subject to change and improvement. I have never designed anything that cannot be improved — perfection is a mythical state in which no mortal lives.

The life expectancy of a design can be plotted on a continuum beginning with the most fleeting, FASHION. These days fashion has a life expectancy of maybe a season, two at best. Moving along the continuum we come to STYLE. This too, is perishable, much like something left in the freezer too long. Let's give style three years. Longest lasting is transcendent EPOCHAL design; that which extends beyond millennia and arguably will never be lost to the ages. Shaker design, and by extension the design I have given most of my adult life to, hovers someplace between Style and Epoch. At the risk of hubris, I believe most of these pieces offer meaning that transcends time and place — it is universal and intergenerational.

If little has changed in Shaker-inspired design, much has changed in tools and processes used in building these pieces. In 1977, my shop had a full compliment of hand tools (planes, chisels, mallets, measuring tools, etc.) and fewer than ten power tools, both portable and stationary. Today craftsmen have available to them in specialty stores, online, and in catalogs, hundreds of power-assisted tools and machines from battery powered hand drills to numerically controlled routers, lasers, orbital sanders and air powered nailers.

And finally, little has changed in thirty-plus years relative to materials. Perhaps the greatest change has been in the number and type of glue and mastics. Various synthetic resins have augmented white and yellow glue. Some defy description. Trees and the lumber they yield haven't changed over these years. What has changed is the number and availability of the resource. There is more hardwood growing in the United States today than in 1977.

According to the U.S. Department of Agriculture, the volume in hardwood forests has increased 199% from 1953-2007. As we enter the era of "green design" it is comforting to know that there is a sustained supply of American hardwood for our grandchildren and their progeny. Things made from those trees should be conceived and built to last at least as long as it took those trees to grow.

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Deacon's Bench

What distinguishes this bench from the Shaker settee of the nineteenth century is the use of the arched leg supports. The inspiration for the supports is the ship's knee, a diagonal support made from a naturally-bent tree member (usually where a limb grows out of the trunk). Made of hackmatack or oak, ship's knees gave considerable support to crucial joints. Our "knee" derives its strength from wood lamination. Five pieces glued under pressure in a form provide unbelievable strength. Two forms, a male and female, are cut in the shape of an arch and five $\frac{1}{8}$ " \times $\frac{3}{4}$ " \times 24" strips are glued together using five or six clamps for pressure. Once set up, this becomes almost unbreakable. Notice, too, that the legs are fastened to the seat with glue and wedged similarly to an ax handle. Use maple in the legs and hickory or ash in the back spindles.

As you will have noted, the length is adjustable, and a longer bench is made possible with the addition of a third pair of legs.

TOM'S NOTES: *The spindles can be shouldered at their thick end and driven into sockets that do not go all the way through the seat or they can be $\frac{1}{2}$ " or $\frac{5}{8}$ " cylinder-shaped and can be driven through the hole from the underside of the seat. If you elect this approach you should glue the socket and drive a wedge flush into the spindle to tighten the joint. The upper end of the spindles can be left to "float". If the bench is to sport only four legs, they should be splayed out on each side about 3° from vertical.*

MATERIALS

- 21 board feet of primary wood
- 4 board feet of rock maple
- 30 lineal feet of $\frac{1}{2}$ " square ash stock

