

Sound Principles: Intermediate Woodturning with Stuart Batty

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Stuart Batty knows what he's doing: that is clear from the minute he begins to teach.

Generally speaking, the more that we perform a learned skill, the less conscious our actions become, even as we build on and refine our skill. After we've been doing something for a long time, chances are that we no longer know exactly *how* we do it. Stuart knows, however, and his ability to describe precisely what he does and how and why he does it makes him an exceptional teacher.

Thanks to an Educational Opportunity Grant from the American Association of Woodturners (AAW), I was able to take a five-day intermediate woodturning class with Stuart at Craft Supplies in Provo, Utah, in July 2004. There were ten other students in the class, representing a broad range of turning experience, all of us eager to learn more from a master. And Craft Supplies is well equipped to host such classes, with a full-size lathe for every student, each with a full set of tools and lathe accessories, and an ample supply of wood for every exercise. Even so, eleven students did prove to be too many for such an intensive class.

The five days were packed with information. Stuart starts all his classes with the same basic principles, principles that he continually refers back to throughout his teaching. He summarizes these in seven terms: grain, chuck, sharpen, tool rest, speed, stance, and technique. First, the **grain**, or orientation, of the wood (side grain or end grain) determines the way to best **chuck** (hold) the piece and, then, the direction of the cut. This, in turn, affects **sharpening**, beginning with the type and size of the tool you select and determining the angle or angles at which it should be ground. According to Stuart, the “magic angle” for most cutting tools—“nature’s perfect angle for cutting wood”—is 40°—which happens to be the angle at the tip of beavers’

teeth (he measured). Once the wood is chucked and the tool is sharp, the height and clearance (the distance from the piece) of the **tool rest** must be set—usually with the rest as close as possible to the work and with the cutting edge of the horizontal tool aligned with the center of rotation. Then you’re ready to turn on the lathe. According to Stuart, the lathe **speed** should be as fast as possible while still being safe: set the speed to just short of “suicidal,” he says. (Beginners, work up to it!) When taking a **stance** at the lathe, foot placement is key, and you should begin at the end: find the position you want to finish up in at the end of the cut and then shift to the position you need to be in to start the cut; in short, start uncomfortable and end comfortable. Use your whole body, not just your arms, for greater stability and control. All of the preceding six factors must be correct before **technique** comes into play; if they’re not right, neither will your technique be.

The goal of the class wasn’t to produce finished work, though we did have some show-and-tell pieces to bring home by the end. The first two days we simply made shavings, practicing basic cuts in a variety of contexts. Stuart was trained as a spindle turner, and his techniques derive from that training. Contrary to what one might expect, however, he derides the skew (which he says is useful “only for V cuts”) and uses gouges—primarily bowl (deep-fluted) gouges—for almost everything. Despite my familiarity with using gouges to turn bowls, as someone who has done relatively little spindle turning, I found some of Stuart’s approaches and techniques a little foreign at first. But as I applied them, I “got” how and why they work—which leaves me able to apply the principles on my own and make more-educated choices as I develop my own skills. Over the last three days of class, we applied those approaches and techniques to making actual pieces: bowls, spheres, a square-edge bowl, a long-stemmed goblet.

Stuart's instruction is methodical and precise: hold the handle so, place your feet here, approach the wood at this angle. And because the instruction is grounded in understanding why you do each thing in a particular way, even if you don't master specific techniques during the class, if you've paid attention and continue to do so, you can practice to your heart's content back home.

Of course, many of the things we learned don't require practice—just putting them into practice. I'm still absorbing and adding tidbits to my daily repertoire. Most useful is what I learned about sharpening—how to sharpen for different results and how it *feels* to cut with an actually sharp tool and not just a *pretty* sharp one. I take the time to sharpen frequently now and always before my final cut. Because I cut cleaner, I sand much less. I don't rub the bevel; I float the bevel—and a radically shortened, 40° bevel it is. I chuck better, with more thought and with crisply undercut shoulders for my tenons (dovetailed, of course). I often use jam chucks now, in ever more creative ways. I love using my negative-rake scraper. I had already upped my lathe speed and continue to push my comfort level—safely. I can hear bounce starting as I cut and know to back off—*not* push harder—before it becomes chatter that has to be cut away. I pay much more attention to my body position and balance as I turn. I'm having to adapt some of what Stuart demonstrated—he is, after all, a foot taller than I am, and his center of gravity is even higher, relatively speaking. I still haven't figured out how to see the curve while doing a push cut. But the principles are all proving sound, and I can see improvement every time I turn. Now I just hope that I learned enough about teaching from Stuart's example to share what I learned about turning with the folks in my local woodworking club.