

ROGER SMITH

ONE MAN AND HIS ART



At the age of twelve, Roger Smith sat in his bedroom at his family's home in Manchester, England, and unscrewed the back of his Timex. His motive—curiosity: “I was always wondering how things worked. I wanted to know how the hands moved and what made the ticking noise,” he says. The result—total destruction: “The going train flew by my left ear and the mainspring flew past my right ear, but I didn't know their names at the time.” Did he resolve to dedicate his life to watchmaking as he crawled around the room hunting for the recently airborne parts? “No,” he says with a laugh. “I just wanted to find the pieces that jumped out of my watch.”

Even without the benefit of a pre-teen epiphany, Roger Smith would eventually discover how the hands moved and what made the ticking noise. He learned about being a watchmaker through thousands of hours perched at a workbench—and by being the only person ever apprenticed to the greatest watchmaker of the twentieth century.

Four years after inducing the parts of his Timex to defy gravity, Smith entered the Manchester School of Horology. “I had no idea what I would do when I left, but it looked like a fun way to spend three years.” The

impetus for Smith to study horology came from his father. “I just wasn't interested in anything academic. Any spare time I had I used to make plastic or wooden models, mostly planes and ships. Dad saw that I always had a leaning towards anything mechanical and realized that's where my talents lay.”

The school's curriculum focused on repair and restoration of clocks. The most crucial skill Smith acquired was the proper use of lathes and hand tools. “The main thing is learning how to hold tiny components with a tweezers and at the same time file and shape them,” says Smith. “You have to file down a spring to 3/100ths of a millimeter without breaking it or losing it. I learned different filing techniques and developed a feel for how to do these things.”

During Smith's last year at the school, a lecture by the watchmaker Dr. George Daniels was announced. The response was “George who?” “It seems incredible now,” says Smith, “but none of us knew anything about George Daniels.” He researched Daniels's career, and what he discovered left him agog with wonder.

Born in London in 1926, George Daniels was a world-renowned clock and watch restorer, a consultant

to Sotheby's auction house, an author, lecturer and the first person in nearly 200 years to make a watch entirely by hand. He invented the Daniels co-axial escapement, which enables mechanical watches to approach the accuracy and reliability of quartz watches.

As Daniels spoke that afternoon at the horology school, the enormity of his achievement became clear to Smith. There are thirty-six different skills involved in producing a pocket watch. Traditionally, great watchmakers designed watches and employed a group of craftsmen to execute the designs. Craftsmen specialized and developed expertise in one of the thirty-six skills. Daniels, however, had mastered every one—an incredible achievement for a single individual. And, because many of the skills were no longer practiced in England, Daniels was completely self-taught.

Daniels never hired a workforce. He designed his watches, then made them, piece by piece. The only parts he purchased from others were the jewels, the mainspring and the balance spring. Daniels told the students he completed only one watch a year, each one a test of his theories about mechanical timekeeping and a part of his campaign to convince the Swiss watch industry to adopt the co-axial escapement. He extolled the glory days of English watchmaking, an era that stretched from the seventeenth to the nineteenth century when even the master watchmakers of Geneva admired and copied the technology and artistry of “English style” watches. Young Smith left the lecture in awe of Daniels's dazzling litany of accomplishments as well as his ambition, focus and energy.

In 1989, a few months after the lecture, Smith completed his training and found a job servicing and repairing watches for a distributor of Swiss brands. That Christmas, his father gave him a copy of *Watchmaking*, George Daniels's encyclopaedic guide to the craft. Throughout the following year, as Smith read and re-read the book, he grew disenchanted with his job. When, for the umpteenth time, he reached the final sentence—“Lastly, fit the movement together with the dial and the hands, into the case....”—he closed the book and decided, “If he can do it, I can do it. I can make a watch by hand.”

Smith composed a letter to Daniels applying for an apprenticeship. A week later, Daniels responded that he always worked alone but invited Smith to his home and workshop on the Isle of Man, a rocky chunk of land in the middle of the Irish Sea. Over lunch, Daniels offered the young man one piece of advice, “If you want to make a watch by hand, the only option is to do what I did and teach yourself.”

On returning to Manchester, Smith quit his job, borrowed money from his father to purchase equipment, secured enough freelance repair work to repay the loan and cover the rent and converted a 7-by-12-foot section of his parent's garage into a workshop. For his first handmade

timepiece, he decided on a twin-barrelled tourbillon pocket watch with a spring detent—the watchmaking equivalent of a novice rock climber setting out to scale K2.

After eighteen months and 3,500 hours of tedious work, Smith completed his watch and flew to the Isle of Man to hear the verdict of George Daniels. It came like a



from top—The Daniels Millennium Watch; Smith's No. 2 pocket watch.
opposite—No. 2 pocket watch movement; Roger Smith in his workshop.

thunderclap; “Not up to scratch,” Daniels declared. He applauded the workings of the watch but was critical of the finish and the styling. He advised Smith to try again.

Smith recalls, “George told me that a handmade watch should look created and not handmade. I knew exactly what

he meant; it had to do with the finish. Every single component has to be made right and finished right. When you make a component, you cut it and file it. I had left file and cut marks on some. When he used the word 'created,' he meant that, when you look at a handmade watch, you shouldn't see any evidence of the work that went into it."

Back in Manchester, disappointed but not dismayed, Smith designed his second pocket watch, another twin-barrelled tourbillon with the addition of a four-year perpetual calendar. Having almost reached the figurative summit of K2, Smith decided to perfect his skills by climbing Mt. Everest. He says, "I had already made one tourbillon pocket watch, and I didn't want to make another exactly the same. If I was going to learn how to make and finish components properly, I wanted the extra experience of making the perpetual calendar."

"I had to learn how to handle all the components without damaging them, without leaving any marks. When you polish a pinion [a toothed cylinder that connects adjacent toothed gears in the gear train], you finish one area, and you think it's perfect. Then you polish another area, and you mark the one that's already polished. I had to learn the right sequence for doing things."

In between making the watch and doing repairs, Smith traveled to London to examine great watches owned by collectors and museums. He became completely enamored with and determined to emulate watches in the English style with raised barrel bridges, jewels set in tiny cups called chatons and all brass and steel components gilded and given a "frosted finish." An English-style watch is completely covered by a single plate that is delicately engraved for visual grace.

After a year's labor, Smith finished the perpetual calendar pocket watch, but a painstaking inspection revealed an awkward truth. The components made at the beginning of the project were inferior to those made toward the end. Deciding that only perfection was acceptable, Smith remade the watch—all 150 pieces—four times. Some components were cut and finished as many as eleven times. The entire process consumed five years of his life, 1992 through 1997. Had he wasted his time? The only way to know was to return to the Isle of Man and the workshop of George Daniels.

Handing the watch to Daniels, Smith feared that five years of effort might be negated. "I really felt that I had given it my all, and if he didn't like it, I'd just have to find something else to do with my life," he says. Although it must have seemed like an eternity, Smith does not know how long George Daniels peered into his watch that morning before proclaiming, "You've done it! Excellent! Well done! The finish is excellent, and the watch works well. The styling is not quite there, but that will be picked up with time." Smith was in shock. "George kept talking, but I didn't hear anything else he said. My mind and my heart were racing away."

Smith returned to Manchester elated and confident. He

continued his repair work and he developed a new income stream restoring antique pocket watches. He also received his first commission. A collector asked Smith to make another twin-barrelled pocket watch with a power reserve and a remontoir, a device that ensures greater accuracy by smoothing out the uneven force generated by the mainspring. A week after Smith accepted the commission, his phone rang. It was Daniels.

After a 30-year sales campaign promoting the co-axial escapement, Omega, one of the giants of Swiss watchmaking, had agreed to use Daniels's invention. To celebrate his triumph, Daniels decided to produce a series of wristwatches. "It's too big a job for one man," Daniels told Smith. "Would you consider working with me?" Instantly, Smith agreed. After completing the repairs that remained on his workbench, Smith moved to the Isle of Man. It was 1998. For the next three years, he worked with Daniels on the 50 wristwatches now known as the George Daniels Millennium Watches.

Smith describes his time with Dr. Daniels as a "finishing school." The first few months were spent preparing tools before cutting the components. Smith assumed responsibility for the hand-turned dials. Today, the dials on most watches are printed, only a few expensive watches have patterns carved or "turned" on the dials using a computer-controlled machine. On a George Daniels watch, the dials are hand-turned using an antique carving tool called an engine. On the engine, the blade that carves the dial remains stationary while the engine operator manipulates the dial with levers and knobs to produce the desired pattern. Smith says, "To produce one that compares favorably with dials from the eighteenth or nineteenth century takes months of practice. You have to develop a feel for the machine. Sometimes you are cutting lines that are only a few millimeters long, and because of the size of the blade, you cannot see the lines you are cutting."

After a year, Daniels left Smith totally in charge of watch production. During evenings and weekends, Smith continued work on his pocket watch commission. With the exception of Christmas, Smith worked seven-day, 100-hour weeks until 2001 when the Millennium Watches and his own commissioned No. 3 pocket watch were completed.

Happy living on the Isle of Man, Smith bought a house, converted the garage into a workshop and set up a company called Roger W. Smith, Ltd. He says, "It has been a long time since a customer has been able to walk into a watchmaker's workshop and discuss with the owner what type of watch he or she would like. With the help of modern communications, I provide that service from the Isle of Man."

For his first "out-on-his-own" project, Smith designed and made twelve manually wound wristwatches with 18 karat gold rectangular cases, measuring 28mm by 36 mm by 10mm with sapphire crystals front and back. The hand-turned silver dials display the hours and minutes with gold batons, an

offset seconds hand and a retrograde calendar mechanism. The watch has 21 jewels, the hour, minutes and seconds hands are 18 karat gold, and the retrograde calendar hand is blued steel. Each one sold for £12,000.

As Daniels had predicted, Smith's mastery of styling developed over time. Smith learned that styling watches is all about proportion, whether in the movement, the case or the dial. He says, "All the parts of a watch should have a natural look, like the branch of a tree, it's thicker near the trunk where it needs the strength then it tapers naturally so it looks right." Smith says he learned about dial proportion from working with Daniels. "I would make a dial with a seconds ring 10mm in diameter and 2mm thick. I didn't realize that changing it would make it easier on the eye. There are no principles; you just have to work it out. You make a hand, and it doesn't look right, and you remove a tenth of a millimeter, and it's perfect."

Smith considers his own style relatively simple but of the highest quality and completely English. "English watches are understated with the functionality of the watch the key thing. By 'simple' I mean that I don't want the tourbillon to be visible on the dial, only through the back of the case," he says. Style issues are crucial to Smith's custom-made timepieces. These watches are unique and made entirely by hand to the client's specifications, although he says, "At the end of the day, it's got to look like one of my watches, and I must be happy with it."

Consulting with clients is an important part of the process. Smith says, "Recently, I met an American in London, and for three hours we discussed what sort of watch he would like. It's a very personal thing."

Twenty-first-century technology plays an important role in Smith's eighteenth-century mode of watchmaking. He communicates with overseas customers via e-mail, sending them drawings and receiving their comments. The "design and build" process for Smith's custom made watches starts on a computer as well. Smith explains, "Computer drawings are 20 times real size. Considering the tolerances, the computer is a big help. With pen and paper, you don't get the same accuracy."

For Smith, design starts with the dial. "Once I know where the hour, minute and second hands are going to be, and how much information is on the dial, I design the movement," he explains. He makes the movements for commissioned watches from scratch. The mainspring, balance spring and jewels are the only components Smith purchases. Other parts are cut from brass or steel, gilded and finished. The brass plates and gold cases are fashioned in much the same way. Smith even grinds his own crystals. The only time another person touches the watch is when the design of the hand-turned dial requires engraved numerals; a specialist in London does the engraving.

Commission watches start at about £45,000 and usually

require twelve to eighteen months to complete. Smith is about to start work on a new series of round wristwatches with the help of another watchmaker, his first employee. The Daniels co-axial escapement will ensure the watches tick and tock accurately and each one will feature a power reserve.

Anyone who has the opportunity to examine a



R.W. Smith wristwatches. All photos courtesy of Roger Smith.

Roger Smith watch will appreciate the quality, creativity and the long hours that go into making it. And considering Smith's story, one is sure to agree that his achievements in watchmaking more than make up for that ruined Timex! ❖

Interview and article by Michael Clerizo. To learn more about Roger Smith watches, visit <www.rwsmithwatches.com>.