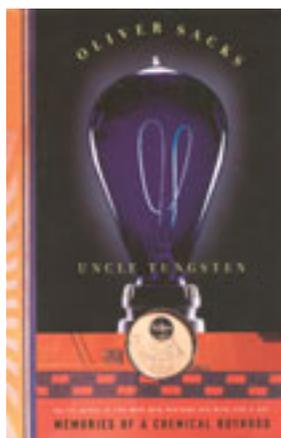


Boyish Charms



Uncle Tungsten: Memories of a Chemical Boyhood

Oliver Sacks

Alfred A. Knopf, New York, 2001,

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The kind of “chemical boyhood” that Oliver Sacks lived would be well-nigh impossible today. Sacks’s parents allowed him the freedom to experiment with toxic, flammable, and even radioactive materials, largely unsupervised, in an unused laundry room in his family’s home. Sacks recalls, “Conveniently, this room led out to the garden, so that if I concocted something that caught fire, or boiled over, or emitted noxious fumes, I could rush outside and fling it on the lawn.” Jim Ryan, our editor, compared Sacks’s upbringing to that of Harry Potter, the apprentice sorcerer, a description that seems particularly apt in light of the “stinks and bangs” that came from Sacks’s makeshift lab (*TCAW*, January 2002, p 9).

Samuel and Elsie Sacks, Oliver’s parents, were physicians. They examined patients, performed surgeries, and delivered babies in their clinic, situated in the Sacks family home. Sacks’s uncle Dave (the eponymous Uncle Tungsten) and Abe Landau co-directed the Tungstalite company, manufacturing lightbulbs before the days of mass production. Uncle Tungsten ran the business and taught Sacks the secrets of metallurgy. “Uncle loved the density of the tungsten he made,” recalls Sacks. “He loved to

handle it—the wire, the powder, but the messy little bars and ingots most of all.” Uncle Abe was the researcher, helping to develop Marmite (a strong-tasting but nutritious yeast extract), inventing a method to frost lightbulbs using hydrofluoric acid, and exploring the mysteries of radiation and bioluminescence. Each member of Sacks’s family brought Oliver into his or her own little corner of the science world, sharing with him the wonders of what things were made of, how the world works on its smallest level, and how the great minds of science figured all of this out.

Young Oliver and his brother Michael were sent to a boarding school in the distant Midlands of England to escape the chaos of London during World War II. The Dickensian deprivations and humiliations of the Braefield School were a dubious improvement over the bombing and air raids in the city. Oliver sought refuge in the systematic and orderly nature of the periodic table, the certainty of mathematics, and the delight of finding scientific and

mathematical principles at work in the natural world. Sacks’s “garden of numbers” was not only “delightful and friendly, always there, but part of the plan on which the whole universe was built. Numbers, my aunt said, are the way God thinks.”

Sacks’s introduction to the work of the Curies caused this orderly universe to teeter, but not topple. “The feeling of the elements’ stability and invariance was crucial to me psychologically, for I felt them as fixed points, as anchors, in an unstable world. But now, with radioactivity, came transformations of the most incredible sort.” It took some time for Sacks to come to terms with the random chance and unavoidable uncertainty of the quantum mechanical universe, but “learning of this was the third ecstasy of my life, at least of my ‘chemical’ life—the first having been learning of Dalton and atomic theory, and the second of Mendeleev and his periodic table.”

Sacks interweaves brief histories of the giants of the physical sciences and their discoveries in between segments of his own life, and the result is an engrossing narrative of how he came to embrace the physical sciences with such enthusiasm and limitless curiosity. How could he not be enchanted, when surrounded by such scientific passion from his extended family members and the stories they told him of the great pioneers of chemistry?

Other aspects of Sacks’s scientific education were more disturbing. His mother encouraged him to observe her dissections of stillborn infants. When he was 14, she apprenticed him to a colleague of hers, a professor of anatomy at the Royal Free Hospital, who assigned Sacks to dissect the cadaver of a young girl about his own age. The prospect of exposing an adolescent boy to this type of experience is somewhat shocking to modern eyes, and indeed, Sacks found it deeply disturbing at the time. (This did not stop him from becoming a neurologist many years later.)

The book ends as Sacks’s boyhood draws to a close, and with it the chemical chapter of his life. This reviewer looks forward to reading about his “biological adolescence.”

—Nancy K. McGuire ♦

A Personal Note

At the Fall 2003 ACS National Meeting in New York City last month, Oliver Sacks spent several hours signing copies of *Uncle Tungsten* at the *Chemical & Engineering News* booth in the exhibit hall. Within a few minutes of his arrival, a line of autograph seekers had wrapped around the booth.

One of the perks of being an ACS employee (and an acquaintance of several of the *C&EN* folks) was avoiding the line and leaving my book for Dr. Sacks to sign. That afternoon, I retrieved my book. Unfortunately, he had inscribed the title page to the wrong person. No matter. With a few strokes of his pen, he covered the name with a whimsical drawing of a cuttlefish—an unexpected bonus. (You’ll have to read the book to see why the cuttlefish is funny, but it involves an explosion.)

—NKM