Sample C1 Reading text

Science Books

Anjana Ahuja reviews a selection of science publications.

The most anticipated book of the year was *The Universe in a Nutshell* by Stephen Hawking. A follow-up to his best-seller *A Brief History of Time*, this is a sumptuously illustrated romp through cosmology written in bite-sized chapters. It is a competent introduction to how the universe began with a Big Bang and may end up with a Big Crunch. Along the way, there are multidimensional universes to be conquered, so Hawking's book may end up lying guiltily on the coffee table.

My next choice is *The Science Book: 250 Milestones in the History of Science*, edited by Peter Tallack. A silver slab of a book, it guides the reader through a chronology of science, beginning in Swaziland 37,000 years ago with the origins of counting, and ending with the recent Human Genome Project. Topics are summarised on one page, making it ideal for dipping into bits of science such as superconductivity and why there are different blood groups.

Rivalry is often the lifeblood of science, and so I was thrilled to see Michael White's inspired treatise on the subject earlier this year. *Rivals* details eight feuds, both historical and contemporary, that fuelled academic endeavour. We learn that Sir Isaac Newton harboured an almost pathological desire to humiliate and hinder competitors. His main rival was Gottfried Wilhelm von Leibniz, a German mathematician who claimed to have invented calculus at the same time as, and independently of, Newton. The enraged Englishman rallied supporters to denigrate von Leibniz as a plagiarist.

Those who like to witness harmony among their fellow humans will be heartened to read *The Seven Daughters of Eve* by Brian Sykes. Sykes is an Oxford University geneticist who has discovered that 95 per cent of Europeans are descended from one of seven ancestral mothers, and his book is the unashamedly upbeat story of how the discovery came about. In this racy, pacy account, Sykes bestows nicknames on his seven European matriarchs (Katrine, Xenia, Jasmine, Velda, Ursula, Tara and Helena), and indulges in amusing speculation about what they would have been like.

Biographies are always coveted possessions. I recommend two of this year's crop. The first is Oliver Sack's poignant memoir, *Uncle Tungsten*. It is a story of a strange childhood bound up with the history of chemistry. Sacks, a neurologist who has written eloquent accounts (*Awakenings, The Man Who Mistook His Wife For a Hat*) of how strange the human mind can be, dreams that elements in the Periodic Table are his friends. It is admittedly, a slightly bizarre book, but written with elegance and compassion.

My second suggestion is *The Northern Lights*, Lucy Jago's fictionalised account of the life of Kristian Birkeland. He was a Norwegian scientist who tried to understand the Aurora Borealis, the dancing coloured lights that streak across polar skies. Birkeland, born in the middle of the 19th century, was a textbook eccentric: obsessive, absent-minded and disorganised. As Jago explains, his theory – that the dancing lights arose from the interplay between the Earth's magnetic field and charged particles streaming from the sun – was largely disregarded. It is a perfect

winter tale of ice and light. However, some may find the blurring of fact and fiction, and the excitable speculation about Birkeland's final years a little trying.

If you're looking for a book to shock you out of complacency, you could try *Surviving Galeras* by Stanley Williams, a chilling first-hand account of a volcano eruption in 1993 that killed several of Williams' colleagues. Along the way, Williams, who was injured, tells us about the elite band of researchers who would study volcanoes despite the very real dangers involved. Williams's veneration of these hero-vulcanologists is controversial in the geology community, but his take offers an irresistible insight into the reckless, darker side of science.