

SCIENCE

Science maven lost in own space

Measuring the Earth with a Stick: Science as I've Seen It

By Bob McDonald
Viking, 334 pages, \$32.99

REVIEWED BY MICHAEL R. LeGAULT

Science is interesting. Science is fun. Science is even, teachers and parents take note, cool. Oh how times have changed.

The rise in the popularity of science is no doubt partly related to its new status as anti-authoritarian, anti-establishment. Today's iconoclasts are mop-headed computer-science and math whizzes who, like rock stars of the past, drive Maseratis and have framed photos of themselves on covers of magazines.

But the groundswell of interest in science is also due to the Bob McDonalds of the world. Somewhat like zealous missionaries, McDonald, host of CBC's *Quirks and Quarks*, and his brethren journalists, have gone forth in ever-increasing numbers to seek stories and spread the word about things scientific to the heathen masses. Indeed, from the Discovery Channel to the Learning Channel, from Bill Nye (the Science Guy) to The New York Times and The Economist, the number of outlets in the media offering some form of science proselytizing has exploded.

Scientists may grumble about the dumbing-down of complex work to a glib sound bite or convenient hook, but they can't argue about the results. Science, once viewed as impenetrable and yawn-inducing, is now often at the centre of conversation at parties and social gatherings.

McDonald is not content merely to sate the public's desire for scientific knowledge. He wants to convey, he suggests, the unique insights and perspectives scientists themselves often experience while pursuing their experiments and research, the "poetry of science."

McDonald, who has written two previous books based on the children's television show, *Wonderstruck*, which he hosted for seven years, is definitely onto something. The connection between art and science has often been noted by scientists and artists alike, but is rarely discussed. Science and art are both activities that extend our knowledge beyond what we can know merely using our five senses. Both rely heavily on intuitive, non-linear thinking to see problems, sort information and make decisions. Scholars have speculated

that it was Einstein's unshakable intuitive belief in the unity of the universe that led him to his breakthrough discovery, the Special Theory of Relativity, which proved that matter and energy are fundamentally identical.

McDonald comes closest to capturing a flavour of this perspective in the book's opening chapter. Lying on a steep slope in East Africa one night, he sees so many stars that he experiences the illusion he is slipping off the earth. Cleverly, he uses the sensation to glissando into a commentary about the illusions of motion, time and distance in the universe, which are actually reality. We don't feel we're moving but we are, in at least three different directions and three (very fast) speeds. The stars we see at night are ghosts, light that departed the surface of their native suns millions of years before. We've heard most of this before. But what makes it meaningful is that McDonald connects it, with fresh wonder, to the creative methods science uses to make these discoveries about the universe. Science, we can see, inches closer to poetry, which by a different type of ingenuity also extends our senses, allowing us to understand the ways of the heart.

Unfortunately, much like his hold on the earth that African night, McDonald rather quickly loses his grasp of this fledgling theme. He has lots of nifty stories to tell — how the Russian space station Mir is designed, what it is like to feel the force of acceleration in a rocket, how whales hear and communicate. These are stand-alone anecdotes, however, sprinkled with some absorbing facts and details. Unlike the first chapter, there is no effort to connect the tales, for example by working in references to ideas, discoveries, philosophy, to the premise that science has a poetic side.

As it proceeds, the book also becomes less about science and more about, well, Bob McDonald. A sailing excursion becomes the background for a largely unscientific treatise about the declining quality of the Great Lakes. (McDonald repeatedly confuses water clarity with water purity, when in fact a lake's turbidity or clarity tells us nothing about the level of pollution.) A long narrative about a mishap to McDonald on a secluded tropical island invokes trite observations about the body's ability to withstand pain. A chapter on the passing of a terminally ill friend of McDonald's contains



Bob McDonald: Spreading the word about things scientific.

an overview of cancer research that is cursory at best.

What McDonald has essentially written is not a book about science, or the poetry of science, but a memoir of a broadcast science journalist. This may move McDonald's fans. Given his years of experience covering science, and a public that is more knowledgeable

and curious about science than perhaps any other time in history, it seems a better choice would have been to leave himself out of it.

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