

Science: From the Atom to the Universe

What is it?

- Explanations
- Narratives of investigations
- These are the big minds asking and answering the big questions of our time
- Memoirs of scientists and their work
- Popular science writing contains the "argument" or theme; the "protagonists" or people who articulate the theme; and the "cinema" which is the means of painting pictures in the mind of the reader.
- Good science writing invites the reader to connect threads from the past to the future and from the world to the self
- Good science writing connects the self to the text.
- Science explains mysteries; especially appealing is a scientific analysis of a known story, like the *Perfect Storm*.
- Science is often embedded in memoir and fiction (e.g. Annie Dillard, James Michener)

Why do people read it? (a.k.a. the appeal factors)

- To learn by reading compelling writing instead of reading jargon, charts and data.
- To satisfy curiosity - science is inherently interesting.
- To be challenged to think in ways that are unfamiliar; for example in Michael Pollan's, *Botany of Desire*, "We automatically think of domestication as something we do to other species, but it makes just as much sense to think of it as something certain plants and animals have done to us."
- To be more competitive in the workplace as the relationship between science and economics has been part of history since industrialization and continues through the computer age.
- Practical science reading on dieting, smoking, metabolism and exercise helps an individual resist pseudo-scientific information.

Who reads it?

- People who love science
- Cynics - people who want to prove or disprove something
- People who want to acquire scientific knowledge but who don't want to keep running to the dictionary

Genre & Sub-Genre Overview

Nature Writing

- *The Wild Trees : a Story of Passion and Daring* by Richard Preston
- *Orchid Fever : a Horticultural Tale of Love, Lust and Lunacy* by Eric Hansen

- *Swimming with Giants : My Encounters with Whales, Dolphins and Seals* by Anne Collet
- *Arctic Dreams : Imagination and Desire in a Northern Landscape* by Barry Lopez
- *The Weather Makers: How Man Is Changing the Climate and What it Means For Life on Earth* by Tim Flannery

Discovery

- *Shadow Divers : the True adventure of two Americans who Risked Everything to Solve One of the Last Mysteries of World War II_* by Robert Kurson
- *The Road to Ubar : Finding the Atlantis of the Sands* by Nicholas Clapp *Big Bang : The Origin of the Universe* by Simon Singh
- *Your Inner Fish : A Journey Into the 3.5-Billion-Year History of the Human Body* by Neil Shubin

Everyday life

- *The Secret Life of Dust : From the Cosmos to the Kitchen Counter, the Big Consequences of Little Things* by Hannah Holmes
- *What the Nose Knows: The Science of Scent in Everyday Life* by Avery Gilbert
- *Never Shower in a Thunderstorm : Surprising Facts and Misleading Myths About Our Health and the World We Live In_* by Anahad O'Connor
- *Musicophilia: Tales of Music and the Brain* by Oliver Sacks

Follow the Scientists

- *The Immortal Life of Henrietta Lacks* by Rebecca Skloot
- *Longitude: the True Story of a Lone Genius who Solved the Greatest Scientific Problem of his Time* by Dava Sobel
- *The Seashell on the Mountaintop: a Story of Science, Sainthood, and the Humble Genius Who Discovered a New History of the Earth* by Alan Cutler

Classics

- *The Greatest Show on Earth: the Evidence for Evolution* by Richard Dawkins
- *Silent Spring* by Rachel Carson
- *Origin of the Species* by Charles Darwin
- *The Double Helix; A Personal Account of the Discovery of the Structure of DNA* by James D. Watson
- *A Brief History of Time* by Stephen Hawking

Other Authors You Should Know

Carl Sagan, Brian Green, Jane Goodall, David Attenborough, Mary Roach, Carl Zimmer

Awards

Science Writing Award in Physics; National Outdoor Book Awards (NOBA)

National Academies Communication Awards (Keck Futures); Los Angeles Times Book Prizes