

Curt's Reading List

People often ask me for book recommendations, so here are a few of my favorites, grouped by primary topic. I'll add more as time permits. You can find all of these on www.amazon.com; most are available in paperback.

Adventure

Undaunted Courage by Stephen Ambrose. The incredible story of Lewis and Clark's journey of discovery across the American West. See what it was like to go hiking in the days before freeze dried food, GoreTex rain gear, and GPS. (Ambrose's other books are well worthwhile and could be listed in the history section.)

Down the Great Unknown by Edward Dolnick. The story of Powell's 1869 trip down the Colorado River. Rafting the Grand Canyon will become your life's obsession after reading this.

Touching the Void by Joe Simpson. See what "desire to live" really means in this epic story of a mountain climb gone bad. The eponymous movie is the only climbing movie ever made that shows what alpine climbing is really all about. Read this and you'll be begging me for ice climbing lessons.

Endurance: Shackleton's Incredible Voyage by Alfred Lansing. Perhaps the greatest tale of survival in the history of exploration. You'll see why Shackleton is still studied in business schools today for his leadership style. You'll also be cured of any desire to be shipwrecked in Antarctica.

Seven Years in Tibet by Heinrich Harrer. The amazing story of how an Austrian mountaineer escaped from a British internment camp in India during WWII, crossed the Himalayas, and ended up serving as a tutor and advisor of the young Dalai Lama until Tibet was overrun by the Communist Chinese.

History

A Distant Mirror: The Calamitous 14th Century by Barbara Tuchman. A fascinating look at life in Europe in the days of Crusades and the Black Death. This book may turn out to be a prescient introduction to a future once again filled with religious war (this time between the fanatical followers of Christian Bush and Muslim bin Laden), or of a world devastated by some sort of AIDS/Ebola/flu epidemic that could wipe out a billion people. (Tuchman's books are all good. Bush's war on terrorism would provide a nice new chapter for her book *The March of Folly*, which shows how ignorant and arrogant leaders blindly pursue policies that are guaranteed to give a result exactly opposite to what was desired.)

Crazy Horse and Custer: The Parallel Lives of Two American Warriors by Stephen Ambrose. A vivid description of an epic clash of cultures, neither of which had the slightest understanding of the other. Change the details, and it could be reissued as *Bush and bin Laden*.

Anasazi America by David Stuart. The best study of the rise and fall of the Anasazi civilization, with interesting parallels for modern American culture.

Science

Gödel, Escher, and Bach: An Eternal Golden Braid by Douglas Hofstadter. When I read this in 1979 it was the most mind-expanding book I had ever read. This book explains some of the most fundamental concepts of mathematics and human thought in a way that is both engagingly literary and comprehensible to the lay person.

DNA: The Secret of Life by James Watson. The clearest explanation I've found of molecular biology: how DNA works, gene splicing, how the human genome was sequenced, how the stain on Monika Lewinski's dress was traced to Bill Clinton, etc. This book convincingly shows that life really is just chemistry.

Our Cosmic Origins: From the Big Bang to the Emergence of Life and Intelligence by Armand Delsemme. An intellectual *tour de force* that gets you from the big bang to human consciousness in 300 pages. Best read as a summary of results from many fields; understanding every page would require you to have degrees in physics, astrophysics, astronomy, chemistry, geology, genetics, evolutionary biology, molecular biology, psychology, neurophysiology, and a lot more.

The Demon-Haunted World: Science as a Candle in the Dark by Carl Sagan and Anne Druyan. A lucid argument for science and rational thinking, especially relevant for a nation now ruled by religious superstition and anti-intellectualism.

The Diversity of Life by Edward Wilson. Gives a wonderful overview of the mechanisms of biological evolution.

Why People Believe Weird Things: Pseudoscience, Superstition, and Other Confusions of Our Time by Michael Shermer. Shermer discusses in a neutral, non-judgmental way why some people believe in astrology, alien abductions, psychic surgery, creationism, etc, in spite of no evidence for the correctness of their beliefs and overwhelming evidence for the incorrectness of their beliefs.

Anything by Stephen J. Gould or Richard Dawkins.

Theology

Why Christianity Must Change or Die by Bishop John Shelby Spong. Spong is the only Christian theologian I respect, because he is willing to look at scientific evidence and revise his religious beliefs accordingly. His conclusion: Darwin got it right, your theistic God doesn't exist, and you might as well get over it. Not surprisingly, Spong is despised by fundamentalists.

Rescuing the Bible from Fundamentalism, also by Spong. A century ago, educated people thought that religion would wither away because science gives better explanations of how the world works, but the opposite has happened. This book gives insight as to why fundamentalism is winning the battle against science and rationality, when it should be the other way around. (This is must reading for irreligious liberals who still can't figure out why people vote for Bush.)

Native Wisdom: Perceptions of the Natural Way by Ed McGaa. This book was very important in my own spiritual development. McGaa, a Lakota, explains how a spiritual life can be built on knowledge, self examination, and living in harmony with nature. I grew up a fundamentalist and this was my first—and very eye opening—view of a religion that isn't based on guilt, sin, punishment, salvation, dogma, centralized mind control, and an apocalyptic world view.

Why God Won't Go Away: Brain Science and the Biology of Belief by Andrew Newberg and Eugene d'Aquili. The emerging science of "neurotheology" shows how evolution has hardwired our brains to believe in God. The authors also present plausible hypotheses to explain near-death experiences in physiological terms of what happens in an oxygen-starved, dying brain.

Unfortunately, of course, not one of the books listed above under Science or Theology will ever be read by the people sitting in fundamentalist churches on Sunday morning, supremely confident in their beliefs that the world is only 6,000 year old, evolution is doesn't happen, and that heaven will be their reward for unquestioning adherence to disproved dogma.

Finance

Your Money or Your Life by Joe Dominguez and Vicki Robin. This seminal book of the "voluntary simplicity" movement shows that it is easily possible to live well on very little income if you get your priorities straight and don't seek happiness in material possessions. I measure my wealth by how much free time I have to travel and do volunteer work, not by the car I drive. Work to live, not live to work.

The Millionaire Next Door by Thomas Stanley and William Danko. This recommendation may appear inconsistent with *Your Money or Your Life*, but they complement each other quite well. Most millionaires are millionaires because they live modestly and don't get caught up in the American nightmare of conspicuous consumption. Start young and you'll retire a millionaire, even on an oceanographer's modest salary.

Environmentalism

Illumination in the Flatwoods by Joe Hutto. This short book will connect you with nature in a way that no Sierra Club picture book ever could.

Desert Solitaire by Edward Abbey. This will help you understand why my plan for retirement is to spend almost every day hiking in the desert. After *Desert Solitaire*, you can graduate to *The Monkey Wrench Gang* by Abbey.

Cadillac Desert: The American West and Its Disappearing Water by Marc Reisner. The definitive study of the land-rapist greed and shortsightedness that continues to devastate the most beautiful geography on earth in exchange for quick and easy profits.

Fast Food Nation: The Dark Side of the All-American Meal by Eric Schlosser. Read this and you'll never eat at McDonald's again.

The Future of Life by Edward Wilson. Another great book by Wilson. This one explains the environmental problems facing the world and offers possible solutions (if only people would listen).

Novels

Sorry, but I've never read one I that would recommend. (*The Monkey Wrench Gang* mentioned above is really history called a novel because the names were changed to protect the guilty from prosecution)

Seminal Science Papers

Someday I may find time to assemble a list of the 100 most important papers in science. In the meantime, here is a start with several of the most important papers of the last half century. These technical papers are not for the innumerate masses. However, they have revolutionized our understanding of the universe and, if you call yourself a scientist of any flavor, you need to read these.

“A Structure for Deoxyribose Nucleic Acid” by J. D. Watson and F. H. C. Crick, *Nature*, vol.171, p 737, 1953. This one-page paper describing the double-helix structure of DNA ended the era of classical biology and opened the era of molecular biology and our understanding of the chemical basis of life and all of the knowledge associated with DNA as described in the book *DNA* listed above. Nobel Prize in Physiology or Medicine awarded in 1962 for the work summarized here.

“Deterministic Nonperiodic Flow” by E. N. Lorentz, *Journal of Atmospheric Science*, vol. 20, pp 130-141, 1963. This is the founding paper leading to what is now called chaos theory, with applications to everything from weather forecasting to understanding heart fibrillations. This was the best paper I read as a meteorology grad student, and I immediately programmed the equations to verify his results.

“A Measurement of Excess Antenna Temperature at 4080 Mc/s” by A. A. Penzias and R. W. Wilson, *Astrophysical Journal* vol. 142, pp 419-421, 1965. Two Bell Telephone engineers trying to figure out the cause of static in a microwave antenna discovered the “afterglow” from the creation of the universe. The equally profound companion paper (titled “Cosmic Black Body Radiation”) by Dicke et al. on pp 414-419 of the same issue put these observations into the context of what is now called the Big Bang explanation of the birth and evolution of the universe. This short paper blew away the steady state theory of the universe (it’s always been there), opened the door for modern cosmology, and got them the Nobel Prize for Physics in 1978.

“A Mathematical Theory of Communication” by C. Shannon. *Bell Systems Tech. Journal*, 27, pp. 379-423 and 623-656, July and Oct, 1948. Shannon, who also worked for Bell Telephone, just wanted to figure out how much information you could squeeze onto a phone line. He ended up with the theory of digital communications that underlies almost all communications today, including the internet. The biological implications of this work for understanding how neurons and genes communicate with each other are just starting to be investigated. Leave this one for last; it’s seriously heavy reading.