The Scientist As Rebel Freeman Dyson

Infinite in All DirectionsTin CansBehemoth: A History of the Factory and the Making of the Modern WorldTheology in the Context of ScienceThe Ultimate Quotable EinsteinNecessary EvilsMaker of Patterns: An Autobiography Through LettersFROM EROS TO GAIAMaverick GeniusThe Scientist as RebelThe Foreign Policy AuctionHeretical Thoughts about Science and SocietyAdvanced Quantum MechanicsThe Beginning of InfinityPerfectly Reasonable Deviations from the Beaten TrackSelected Papers of Freeman Dyson with CommentaryGeniusThe Scientist as RebelOtherspaceWe Love You, Charlie FreemanDreams of Earth and SkyComing of Age in SamoaThe Mystery of ConsciousnessBirds and FrogsEmber and AshThe End Of ScienceMacabreBorn CuriousMakers of Modern ArchitectureIt Ain't Necessarily SoOn the FutureDear Professor DysonThe Scientist As RebelBrilliant BlundersA Many-Colored GlassA Cultural History of PhysicsWeapons and HopeDisturbing The UniverseImagined WorldEinstein

Infinite in All Directions

It has long been one of the most fundamental problems of philosophy, and it is now, John Searle writes, "the most important problem in the biological sciences": What is consciousness? Is my inner awareness of myself something separate from my body? In what began as a series of essays in The New York Review of Books, John Searle evaluates the positions on consciousness of such well-known scientists and philosophers as Francis Crick, Gerald Edelman, Roger Penrose, Daniel Dennett, David Chalmers, and Israel Rosenfield. He challenges claims that the mind works like a computer, and that brain functions can be reproduced by computer programs. With a sharp eye for confusion and contradiction, he points out which avenues of current research are most likely to come up with a biological examination of how conscious states are caused by the brain. Only when we understand how the brain works will we solve the mystery of consciousness, and only then will we begin to understand issues ranging from artificial intelligence to our very nature as human beings.

Tin Cans

New York Times Bestseller: This life story of the quirky physicist is “a thorough and masterful portrait of one of the great minds of the century” (The New York Review of Books). Raised in Depression-era Rockaway Beach, physicist Richard Feynman was irreverent, eccentric, and childishly enthusiastic—a new kind of scientist in a field that was in its infancy. His quick mastery of quantum mechanics earned him a place at Los Alamos working on the Manhattan Project under J. Robert Oppenheimer, where the giddy young man held his own among the nation’s greatest minds. There, Feynman turned theory into practice, culminating in the Trinity test, on July 16, 1945, when the Atomic Age was born. He was only twenty-seven. And he was just getting started. In this sweeping biography, James Gleick captures the forceful personality of a great man, integrating Feynman’s work and life in a way that is accessible to laymen and fascinating for the scientists who follow in his footsteps.

Behemoth: A History of the Factory and the Making of the Modern World

As staff writer for Scientific American, John Horgan has a window on contemporary science unsurpassed in all the world. Who else routinely interviews the likes of Lynn Margulis, Roger Penrose, Francis Crick, Richard Dawkins, Freeman Dyson, Murray Gell-Mann, Stephen Jay Gould, Stephen Hawking, Thomas Kuhn, Chris Langton, Karl Popper, Stephen Weinberg, and E.O. Wilson, with the freedom to probe their innermost thoughts? In The End Of Science, Horgan displays his genius for getting these larger-than-life figures to be simply human, and scientists, he writes, "are rarely so human . . . so at there mercy of their fears and desires, as when they are confronting the limits of knowledge."This is the secret fear that Horgan pursues throughout this remarkable book: Have the big questions all been answered? Has all the knowledge worth pursuing become known? Will there be a final "theory of everything" that signals the end? Is the age of great discoverers behind us? Is science today reduced to mere puzzle solving and adding detains to existing theories? Horgan extracts surprisingly candid answers to there and other delicate questions as he discusses God, Star Trek, superstrings, quarks, plectics, consciousness, Neural Darwinism, Marx's view of progress, Kuhn's view of revolutions, cellular automata, robots, and the Omega Point, with Fred Hoyle, Noam Chomsky, John Wheeler, Clifford Geertz, and dozens of other eminent scholars. The resulting narrative will both infuriate and delight as it mindless Horgan's smart, contrarian argument for "endism" with a witty, thoughtful, even profound overview of the entire scientific enterprise. Scientists have always set themselves apart from other scholars in the belief that they do not construct the truth, they discover it. Their work is not interpretation but simple revelation of what exists in the empirical universe. But science itself keeps imposing limits on its own power. Special relativity prohibits the transmission of matter or information as speeds faster than that of light; quantum mechanics dictates uncertainty; and chaos theory confirms the impossibility of complete prediction. Meanwhile, the very idea of scientific rationality is under fire from Neo-Luddites, animal-rights activists, religious fundamentalists, and New Agers alike. As Horgan makes clear, perhaps the greatest threat to science may come from losing its special place in the hierarchy of disciplines, being reduced to something more akin to literaty criticism as more and more theoreticians engage in the theory twiddling he calls "ironic science." Still, while Horgan offers his critique, grounded in the thinking of the world's leading researchers, he offers homage too. If science is ending, he maintains, it is only because it has done its work so well.

Theology in the Context of Science

A bold and all-embracing exploration of the nature and progress of knowledge from one of today's great thinkers. Throughout history, mankind has struggled to understand life's mysteries, from the mundane to the seemingly miraculous. In this important new book, David Deutsch, an award-winning pioneer in the field of quantum computation, argues that explanations have a fundamental place in the universe. They have unlimited scope and power to cause change, and the quest to improve them is the basic regulating principle not only of science but of all successful human endeavor. This stream of ever improving explanations has

infinite reach, according to Deutsch: we are subject only to the laws of physics, and they impose no upper boundary to what we can eventually understand, control, and achieve. In his previous book, The Fabric of Reality, Deutsch describe the four deepest strands of existing knowledge-the theories of evolution, quantum physics, knowledge, and computation-arguing jointly they reveal a unified fabric of reality. In this new book, he applies that worldview to a wide range of issues and unsolved problems, from creativity and free will to the origin and future of the human species. Filled with startling new conclusions about human choice, optimism, scientific explanation, and the evolution of culture, The Beginning of Infinity is a groundbreaking book that will become a classic of its kind.

The Ultimate Quotable Einstein

An illuminating collection of essays by an award-winning scientist whom the London Times calls "one of the world's most original minds."From Galileo to today's amateur astronomers, scientists have been rebels, writes Freeman Dyson. Like artists and poets, they are free spirits who resist the restrictions their cultures impose on them. In their pursuit of Nature's truths, they are guided as much by imagination as by reason, and their greatest theories have the uniqueness and beauty of great works of art.Dyson argues that the best way to understand science is by understanding those who practice it. He tells stories of scientists at work, ranging from Isaac Newton's absorption in physics, alchemy, theology, and politics, to Ernest Rutherford's discovery of the structure of the atom, to Albert Einstein's stubborn hostility to the idea of black holes. His descriptions of brilliant physicists like Edward Teller and Richard Feynman are enlivened by his own reminiscences of them. He looks with a skeptical eye at fashionable scientific fads and fantasies, and speculates on the future of climate prediction, genetic engineering, the colonization of space, and the possibility that paranormal phenomena may exist yet not be scientifically verifiable.Dyson also looks beyond particular scientific questions to reflect on broader philosophical issues, such as the limits of reductionism, the morality of strategic bombing and nuclear weapons, the preservation of the environment, and the relationship between science and religion. These essays, by a distinguished physicist who is also a lovely writer, offer informed insights into the history of science and fresh perspectives on contentious current debates about science, ethics, and faith.

Necessary Evils

This is the definitive edition of the hugely popular collection of Einstein quotations that has sold tens of thousands of copies worldwide and been translated into twenty-five languages. The Ultimate Quotable Einstein features roughly 1,600 quotes in all. This paperback edition includes sections unique to the ultimate collection--"On and to Children," "On Race and Prejudice," and "Einstein's Verses: A Small Selection"--as well as a chronology of Einstein’s life and accomplishments, Freeman Dyson’s authoritative foreword, and commentary and descriptive source notes by Alice Calaprice.

Maker of Patterns: An Autobiography Through Letters

Is our nature—as individuals, as a species—determined by our evolution and encoded in our genes? If we unravel the protein sequences of our DNA, will we gain the power to cure all of our physiological and psychological afflictions and even to solve the problems of our society? Today biologists—especially geneticists—are proposing answers to questions that have long been asked by philosophy or faith or the social sciences. Their work carries the weight of scientific authority and attracts widespread public attention, but it is often based on what the renowned evolutionary biologist Richard Lewontin identifies as a highly reductive misconception: "the pervasive error that confuses the genetic state of an organism with its total physical and psychic nature as a human being." In these nine essays covering the history of modern biology from Darwin to Dolly the sheep, all of which were originally published in The New York Review of Books, Lewontin combines sharp criticisms of overreaching scientific claims with lucid expositions of the exact state of current scientific knowledge—not only what we do know, but what we don't and maybe won't anytime soon. Among the subjects he discusses are heredity and natural selection, evolutionary psychology and altruism, nineteenth-century naturalist novels, sex surveys, cloning, and the Human Genome Project. In each case he casts an ever-vigilant and deflationary eye on the temptation to look to biology for explanations of everything we want to know about our physical, mental, and social lives. These essays—several of them updated with epilogues that take account of scientific developments since they were first written—are an indispensable guide to the most controversial issues in the life sciences today. The second edition of this collection includes new essays on genetically modified food and the completion of the Human Genome Project. It is an indispensable guide to the most controversial issues in the life sciences today.

FROM EROS TO GAIA

We all make mistakes. Nobody is perfect. And that includes five of the greatest scientists in history -- Charles Darwin, William Thomson (Lord Kelvin), Linus Pauling, Fred Hoyle, Albert Einstein. But the mistakes that these great scientists made helped science to advance. Indeed, as Mario Livio explains in this fascinating book, science thrives on error; it advances when erroneous ideas are disproven. All five scientists were great geniuses and fascinating human beings. Their blunders were part of their genius and part of the scientific process. Livio brilliantly analyses their errors to show where they were wrong and right, but what makes his book so enjoyable to read is Livio's analysis of the psychology of these towering figures. Along the way the reader learns an enormous amount about the evolution of life on earth and in the universe, but from an unusual vantage point -- the mistakes of great scientists rather than the achievements that made them famous.

Maverick Genius

In this sequel to The Scientist as Rebel (2006), Freeman Dyson—whom The Times of London calls “one of the world’s most original minds”—celebrates openness to unconventional ideas and “the spirit of joyful dreaming” in which he believes that science should be pursued. Throughout these essays, which range from the creation of the Royal Society in the seventeenth century to the scientific inquiries of the Romantic generation to recent books by Daniel Kahneman and Malcolm Gladwell, he seeks to “break down the barriers that separate science from other

sources of human wisdom." Dyson discusses twentieth-century giants of physics such as Richard Feynman, J. Robert Oppenheimer, Paul Dirac, and Steven Weinberg, many of whom he knew personally, as well as Winston Churchill's pursuit of nuclear weapons for Britain and Wernher von Braun's pursuit of rockets for space travel. And he takes a provocative, often politically incorrect approach to some of today's most controversial scientific issues: global warming, the current calculations of which he thinks are probably wrong; the future of biotechnology, which he expects to dominate our lives in the next half-century as the tools to design new living creatures become available to everyone; and the flood of information in the digital age. Dyson offers fresh perspectives on the history, the philosophy, and the practice of scientific inquiry—and even on the blunders, the wild guesses and wrong theories that are also part of our struggle to understand the wonders of the natural world.

The Scientist as Rebel

The Foreign Policy Auction

While the physical sciences are a continuously evolving source of technology and of understanding about our world, they have become so specialized and rely on so much prerequisite knowledge that for many people today the divide between the sciences and the humanities seems even greater than it was when C. P. Snow delivered his famous 1959 lecture, "The Two Cultures." In A Cultural History of Physics, Hungarian scientist and educator Károly Simonyi succeeds in bridging this chasm by describing the experimental methods and theoretical interpretations that created scientific knowledge, from ancient times to the present day, within the cultural environment in which it was formed. Unlike any other work of its kind, Simonyi's seminal opus explores the interplay of science and the humanities to convey the wonder and excitement of scientific development throughout the ages. These pages contain an abundance of excerpts from original resources, a wide array of clear and straightforward explanations, and an astonishing wealth of insight, revealing the historical progress of science and inviting readers into a dialogue with the great scientific minds that shaped our current understanding of physics. Beautifully illustrated, accurate in its scientific content and broad in its historical and cultural perspective, this book will be a valuable reference for scholars and an inspiration to aspiring scientists and humanists who believe that science is an integral part of our culture.

Heretical Thoughts about Science and Society

Published by CUSTOM BOOK PUBLICATIONS Noveletta Imprint.Family, friendship, loyalty, and consternation is at the heart of Tin Cans. Lana must decide what to do with her mobile home business, which is always teetering in the red. Exhausted from the process of keeping the business afloat, what will happen if she closes? Will her family think its just one more failure? Will her friends stand by her? And what about her employees? They are such a whacky bunch, who would possibly hire them. All in all, its good old fashioned dysfunctional fun.

Advanced Quantum Mechanics

Just as gendered, cultural, and geographical perspectives have illuminated and advanced theological thought, the contributions of twentieth-century science have much to offer theology. In his latest book, physicist-theologian John Polkinghorne, renowned as one of the world's foremost thinkers on science and religion, offers a lucid argument for developing the intersection of the two fields as another form of contextual theology. Countering recent assertions by new atheists that religious belief is irrational and even dangerous, Polkinghorne explores ways that theology can be open to and informed by science. He describes recent scientific discourse on such subjects as epistemology, objectivity, uncertainty, and rationality and considers the religious importance of the evolution in these areas of scientific thought. Then, evaluating such topics as relativity, space and time, and evolutionary theory, he uses a scientific style of inquiry as a foundation on which to build a model of Christian belief structure. Science and theology share in the great human quest for truth and understanding, says Polkinghorne, and he illustrates how their interaction can be fruitful for both.

The Beginning of Infinity

The old ones will have their revenge. Two peoples have been fighting over the same land for a thousand years. Invaders crushed the original inhabitants, and ancient powers have reluctantly given way to newer magics. But Ember was to change all this with a wedding to bind these warring people together - until her future goes up in flames. Ember's husband-to-be is murdered by a vengeful elemental god, who sees peace as a breach of faith. Set on retribution, she enlists the help of Ash, son of a seer. Together they will pit themselves against elementals of fire and ice in a last attempt to end the conflicts that have scarred their past. They must look to the present, as old furies are waking to violence and are eager to reclaim their people.

Perfectly Reasonable Deviations from the Beaten Track

Profiles notable twentieth-century architects, including Frank Lloyd Wright, Charles and Ray Eames, and Frank Gehry.

Selected Papers of Freeman Dyson with Commentary

Renowned physicist and mathematician Freeman Dyson is famous for his work in quantum mechanics, nuclear weapons policy and bold visions for the future of humanity. In the 1940s, he was responsible for demonstrating the equivalence of the two formulations of quantum electrodynamics OCo Richard Feynman''s diagrammatic path integral formulation and the variational methods developed by Julian Schwinger and Sin-Itiro Tomonoga OCo showing the mathematical consistency of QED. This invaluable volume comprises the legendary lectures on quantum electrodynamics first given by Dyson at Cornell University in 1951. The late theorist Edwin Thompson Jaynes once remarked, OC For a generation of physicists they were the happy medium: clearer and better motivated than Feynman, and getting to the point faster than SchwingerOCO. This edition has

been printed on the 60th anniversary of the Cornell lectures, and includes a foreword by science historian David Kaiser, as well as notes from Dyson''s lectures at the Les Houches Summer School of Theoretical Physics in 1954. The Les Houches lectures, described as a supplement to the original Cornell notes, provide a more detailed look at field theory, a careful and rigorous derivation of Fermi''s Golden Rule, and a masterful treatment of renormalization and Ward''s Identity. Future generations of physicists are bound to read these lectures with pleasure, benefiting from the lucid style that is so characteristic of Dyson''s exposition.

Genius

“Freeman’s rich and ambitious Behemoth depicts a world in retreat that still looms large in the national imagination.... More than an economic history, or a chronicle of architectural feats and labor movements.”—Jennifer Szalai, New York Times In an accessible and timely work of scholarship, celebrated historian Joshua B. Freeman tells the story of the factory and examines how it has reflected both our dreams and our nightmares of industrialization and social change. He whisks readers from the early textile mills that powered the Industrial Revolution to the factory towns of New England to today’s behemoths making sneakers, toys, and cellphones in China and Vietnam. Behemoth offers a piercing perspective on how factories have shaped our societies and the challenges we face now.

The Scientist as Rebel

Freeman Dyson’s latest book does not attempt to bring together all of the celebrated physicist’s thoughts on science and technology into a unified theory. The emphasis is, instead, on the myriad ways in which the universe presents itself to us--and how, as observers and participants in its processes, we respond to it. "Life, like a dome of many-colored glass," wrote Percy Bysshe Shelley, "stains the white radiance of eternity." The author seeks here to explore the variety that gives life its beauty. Taken from Dyson’s recent public lectures--delivered to audiences with no specialized knowledge in hard sciences--the book begins with a consideration of the practical and political questions surrounding biotechnology. As he seeks how best to explain the place of life in the universe, Dyson then moves from the ethical to the purely scientific. The book concludes with an attempt to understand the implications of biology for philosophy and religion. The pieces in this collection touch on numerous disciplines, from astronomy and ecology to neurology and theology, speaking to the lay reader as well as to the scientist. As always, Dyson’s view of human nature and behavior is balanced, and his predictions of a world to come serve primarily as a means for thinking about the world as it is today.

Otherspace

Scientist. Innovator. Rebel. For decades, Freeman Dyson has been regarded as one of the world's most important thinkers. The Atlantic wrote, "In the range of his genius, Freeman Dyson is heir to Einstein – a visionary who has reshaped thinking in fields from math to astrophysics to medicine, and who has conceived nuclear-propelled spaceships designed to transport human colonists to distance planets."

Salon.com says that, "what sets Dyson apart among an elite group of scientists is the conscience and compassion he brings to his work." Now, in this first complete biography of Dyson, author Phillip F. Schewe examines the life of a man whose accomplishments have shaped our world in many ways. From quantum physics to national defense, from space to biotechnology, Dyson's work has cemented his position as a man whose influence goes far beyond the field of theoretical physics. It even won him the million dollar Templeton prize for his writing about science and religion. Recently, Dyson has made headlines for his controversial views on global warming, and he continues to make waves in the science community to this day. A colleague of Albert Einstein at Princeton and friends with leading thinkers including Robert Oppenheimer, George F. Kennan, and Richard Feynman, Freeman Dyson is a larger-than-life figure. Many of his colleagues, including Nobelists Steven Weinberg and Frank Wilczek, as well as his wives and his children, Esther and George Dyson, have been interviewed for this book. Maverick Genius, Schewe's definitive biography, paints a compelling and vibrant portrait of a man who has been both praised for his genius and criticized for his unorthodox views.

We Love You, Charlie Freeman

This book offers a unique compilation of papers in mathematics and physics from Freeman Dyson's 50 years of activity and research. These are the papers that Dyson considers most worthy of preserving, and many of them are classics. The papers are accompanied by commentary explaining the context from which they originated and the subsequent history of the problems that either were solved or left unsolved. This collection offers a connected narrative of the developments in mathematics and physics in which the author was involved, beginning with his professional life as a student of G. H. Hardy.

Dreams of Earth and Sky

Spanning the years from World War II, when he was a civilian statistician in the operations research section of the Royal Air Force Bomber Command, through his studies with Hans Bethe at Cornell University, his early friendship with Richard Feynman, and his postgraduate work with J. Robert Oppenheimer, Freeman Dyson has composed an autobiography unlike any other. Dyson evocatively conveys the thrill of a deep engagement with the world-be it as scientist, citizen, student, or parent. Detailing a unique career not limited to his groundbreaking work in physics, Dyson discusses his interest in minimizing loss of life in war, in disarmament, and even in thought experiments on the expansion of our frontiers into the galaxies.

Coming of Age in Samoa

The Mystery of Consciousness

This book is about amnesties for grave international crimes that are adopted by states in moments of transition or social unrest. The subject is naturally controversial, especially in the age of the International Criminal Court. The goal of

this book is to reframe and revitalize the global debate on the subject, and to offer an original framework for resolving amnesty dilemmas when they arise. Most existing literature and jurisprudence on amnesties deal with only a small subset of state practice and sidestep the ambiguity of amnesty's position under international law. This book addresses the ambiguity head on and argues that amnesties of the broadest scope are sometimes defensible when adopted as a last recourse in contexts of mass violence. Drawing on an extensive amnesty database, the book offers detailed guidance on how to ensure that amnesties extend the minimum leniency possible, while imposing the maximum accountability on the beneficiaries.

Birds and Frogs

A provocative and inspiring look at the future of humanity and science from world-renowned scientist and bestselling author Martin Rees Humanity has reached a critical moment. Our world is unsettled and rapidly changing, and we face existential risks over the next century. Various outcomes—good and bad—are possible. Yet our approach to the future is characterized by short-term thinking, polarizing debates, alarmist rhetoric, and pessimism. In this short, exhilarating book, renowned scientist and bestselling author Martin Rees argues that humanity’s prospects depend on our taking a very different approach to planning for tomorrow. The future of humanity is bound to the future of science and hinges on how successfully we harness technological advances to address our challenges. If we are to use science to solve our problems while avoiding its dystopian risks, we must think rationally, globally, collectively, and optimistically about the long term. Advances in biotechnology, cybertechnology, robotics, and artificial intelligence—if pursued and applied wisely—could empower us to boost the developing and developed world and overcome the threats humanity faces on Earth, from climate change to nuclear war. At the same time, further advances in space science will allow humans to explore the solar system and beyond with robots and AI. But there is no “Plan B” for Earth—no viable alternative within reach if we do not care for our home planet. Rich with fascinating insights into cutting-edge science and technology, this accessible book will captivate anyone who wants to understand the critical issues that will define the future of humanity on Earth and beyond.

Ember and Ash

This book is the outstanding and most frequently cited work in the field of Anthropology. It made the author world-famous and established her as the leader in her field for the next 50 years. One of the reasons this book became so famous was her observation that young Samoan women deferred marriage for many years while enjoying casual sex before eventually choosing a husband. This led to the Sexual Revolution that swept America in the 1960s and brought about the establishment of the Sexual Freedom League and other organizations. The Free Love generation idolized Margaret Mead.

The End Of Science

For most people, the season of spring means new sunshine, fresh blooms, and

embarrassing spring break stories. But for Eliza Serpan, springtime brings fresh corpses. This bourbon guzzling, machete wielding, antisocial mortician has an uncanny knack for putting on the best funerals in the U.K.-even when she is faced with a sudden series of horrific events of the occult that threaten her very existence. But when Eliza discovers that making death look good isn't her only talent, she welcomes this new dance with the devil. Because after all, you should never underestimate a woman who can embalm.

Macabre

A lifetime of candid reflections from physicist Freeman Dyson, “an acute observer of personality and human foibles” (New York Times Book Review). Written between 1940 and the late 1970s, the postwar recollections of renowned physicist Freeman Dyson have been celebrated as an historic portrait of modern science and its greatest players, including Robert Oppenheimer, Richard Feynman, Stephen Hawking, and Hans Bethe. Chronicling the stories of those who were engaged in solving some of the most challenging quandaries of twentieth-century physics, Dyson lends acute insight and profound observations to a life’s work spent chasing what Einstein called those “deep mysteries that Nature intends to keep for herself.” Whether reflecting on the drama of World War II, the moral dilemmas of nuclear development, the challenges of the space program, or the demands of raising six children, Dyson’s annotated letters reveal the voice of one “more creative than almost anyone else of his generation” (Kip Thorne). An illuminating work in these trying times, Maker of Patterns is an eyewitness account of the scientific discoveries that define our modern age.

Born Curious

A Nobel Prize-winning physicist, a loving husband and father, an enthusiastic teacher, a surprisingly accomplished bongo player, and a genius of the highest caliber---Richard P. Feynman was all these and more. Perfectly Reasonable Deviations From the Beaten Track--collecting over forty years' worth of Feynman's letters--offers an unprecedented look at the writer and thinker whose scientific mind and lust for life made him a legend in his own time. Containing missives to and from such scientific luminaries as Victor Weisskopf, Stephen Wolfram, James Watson, and Edward Teller, as well as a remarkable selection of letters to and from fans, students, family, and people from around the world eager for Feynman's advice and counsel, Perfectly Reasonable Deviations From the Beaten Track not only illuminates the personal relationships that underwrote the key developments in modern science, but also forms the most intimate look at Feynman yet available. Feynman was a man many felt close to but few really knew, and this collection reveals the full wisdom and private passion of a personality that captivated everyone it touched. Perfectly Reasonable Deviations From the Beaten Track is an eloquent testimony to the virtue of approaching the world with an inquiring eye; it demonstrates the full extent of the Feynman legacy like never before. Edited and with additional commentary by his daughter Michelle, it's a must-read for Feynman fans everywhere, and for anyone seeking to better understand one of the towering figures--and defining personalities--of the twentieth century.

Makers of Modern Architecture

U.S. foreign policy is being sold; not just altered, shifted, manipulated, or influenced – sold. Every single day the agents of foreign governments work to not only monitor U.S. foreign policy, but to actively change and even create it. They meet with policymakers, donate to their campaigns, write their speeches, and even write legislation. Yet, foreign lobbying garners scant attention, and no book has been written on the subject – until now.Ben Freeman, an expert on foreign influence in U.S. politics, goes inside the seedy underbelly of this half billion dollar foreign lobbying industry. Through exhaustive analysis he shows how foreign money infects the U.S. political process – systematically undermining U.S. foreign policy.The Foreign Policy Auction is an impassioned expose of an industry whose primary goal is bending U.S. politics to the will of foreign governments. It's a sobering realization of how foreign policy is actually made in the U.S. The Auction is open, how much will your government cost today?

It Ain't Necessarily So

A FINALIST FOR THE 2016 CENTER FOR FICTION FIRST NOVEL PRIZE AND THE 2017 YOUNG LIONS AWARD “A terrifically auspicious debut.” —Janet Maslin, The New York Times “Smart, timely and powerful . . . A rich examination of America’s treatment of race, and the ways we attempt to discuss and confront it today.” —The Huffington Post The Freeman family--Charles, Laurel, and their daughters, teenage Charlotte and nine-year-old Callie--have been invited to the Toneybee Institute to participate in a research experiment. They will live in an apartment on campus with Charlie, a young chimp abandoned by his mother. The Freemans were selected because they know sign language; they are supposed to teach it to Charlie and welcome him as a member of their family. But when Charlotte discovers the truth about the institute’s history of questionable studies, the secrets of the past invade the present in devious ways. The power of this shattering novel resides in Greenidge’s undeniable storytelling talents. What appears to be a story of mothers and daughters, of sisterhood put to the test, of adolescent love and grown-up misconduct, and of history’s long reach, becomes a provocative and compelling exploration of America’s failure to find a language to talk about race. “A magnificently textured, vital, visceral feat of storytelling . . . [by] a sharp, poignant, extraordinary new voice of American literature.” —Téa Obreht, author of The Tiger’s Wife

On the Future

This book is a sequel to the volume of selected papers of Dyson up to 1990 that was published by the American Mathematical Society in 1996. The present edition comprises a collection of the most interesting writings of Freeman Dyson, all personally selected by the author, from the period 1990–2014. The five sections start off with an Introduction, followed by Talks about Science, Memoirs, Politics and History, and some Technical Papers. The most noteworthy is a lecture entitled Birds and Frogs to the American Mathematical Society that describes two kinds of mathematicians with examples from real life. Other invaluable contributions include an important tribute to C. N. Yang written for his retirement banquet at

Stony Brook University, as well as a historical account of the Operational Research at RAF Bomber Command in World War II provocatively titled A Failure of Intelligence. The final section carries the open-ended question of whether any conceivable experiment could detect single gravitons to provide direct evidence of the quantization of gravity — Is a Graviton Detectable? Various possible graviton-detectors are examined. This invaluable compilation contains unpublished lectures, and surveys many topics in science, mathematics, history and politics, in which Freeman Dyson has been so active and well respected around the world.

Dear Professor Dyson

"Freeman Dyson has designed nuclear reactors and bomb-powered spacecraft; he has studied the origins of life and the possibilities for the long-term future; he showed quantum mechanics to be consistent with electrodynamics and started cosmological eschatology; he has won international recognition for his work in science and for his work in reconciling science to religion; he has advised generals and congressional committees. An STS (Science, Technology, Society) curriculum or discussion group that engages topics such as nuclear policies, genetic technologies, environmental sustainability, the role of religion in a scientific society, and a hard look towards the future, would count itself privileged to include Professor Dyson as a class participant and mentor. In this book, STS topics are not discussed as objectified abstractions, but through personal stories. The reader is invited to observe Dyson's influence on a generation of young people as they wrestle with issues of science, technology, society, life in general and our place in the universe. The book is filled with personal anecdotes, student questions and responses, honest doubts and passions"--

The Scientist As Rebel

From Galileo to today’s amateur astronomers, scientists have been rebels, writes Freeman Dyson. Like artists and poets, they are free spirits who resist the restrictions their cultures impose on them. In their pursuit of nature’s truths, they are guided as much by imagination as by reason, and their greatest theories have the uniqueness and beauty of great works of art.Dyson argues that the best way to understand science is by understanding those who practice it. He tells stories of scientists at work, ranging from Isaac Newton’s absorption in physics, alchemy, theology, and politics, to Ernest Rutherford’s discovery of the structure of the atom, to Albert Einstein’s stubborn hostility to the idea of black holes. His descriptions of brilliant physicists like Edward Teller and Richard Feynman are enlivened by his own reminiscences of them. He looks with a skeptical eye at fashionable scientific fads and fantasies, and speculates on the future of climate prediction, genetic engineering, the colonization of space, and the possibility that paranormal phenomena may exist yet not be scientifically verifiable. Dyson also looks beyond particular scientific questions to reflect on broader philosophical issues, such as the limits of reductionism, the morality of strategic bombing and nuclear weapons, the preservation of the environment, and the relationship between science and religion. These essays, by a distinguished physicist who is also a prolific writer, offer informed insights into the history of science and fresh perspectives on contentious current debates about science, ethics, and faith.

Brilliant Blunders

Physicist Freeman Dyson discusses his six "heresies": The end of the United States as the top nation; Global warming, land management and climate, rising sea levels, oceans and ice ages; The wet Sahara; The domestication of biotechnology; Biological sharing and the Darwinian interlude; Rural poverty.

A Many-Colored Glass

Infinite in All Directions is a popularized science at its best. In Dyson's view, science and religion are two windows through which we can look out at the world around us. The book is a revised version of a series of the Gifford Lectures under the title "In Praise of Diversity" given at Aberdeen, Scotland. They allowed Dyson the license to express everything in the universe, which he divided into two parts in polished prose: focusing on the diversity of the natural world as the first, and the diversity of human reactions as the second half. Chapter 1 is a brief explanation of Dyson's attitudes toward religion and science. Chapter 2 is a one–hour tour of the universe that emphasizes the diversity of viewpoints from which the universe can be encountered as well as the diversity of objects which it contains. Chapter 3 is concerned with the history of science and describes two contrasting styles in science: one welcoming diversity and the other deploring it. He uses the cities of Manchester and Athens as symbols of these two ways of approaching science. Chapter 4, concerned with the origin of life, describes the ideas of six illustrious scientists who have struggled to understand the nature of life from various points of view. Chapter 5 continues the discussion of the nature and evolution of life. The question of why life characteristically tends toward extremes of diversity remains central in all attempts to understand life's place in the universe. Chapter 6 is an exercise in eschatology, trying to define possible futures for life and for the universe, from here to infinity. In this chapter, Dyson crosses the border between science and science fiction and he frames his speculations in a slightly theological context.

A Cultural History of Physics

Collects essays on scientists and their working practices, including Edward Teller, Isaac Newton, and J. Robert Oppemheimer.

Weapons and Hope

Disturbing The Universe

The commonly held view of Albert Einstein is of an eccentric genius for whom the pursuit of science was everything. But in actuality, the brilliant innovator whose Theory of Relativity forever reshaped our understanding of time was a man of his times, always politically engaged and driven by strong moral principles. An avowed pacifist, Einstein’s mistrust of authority and outspoken social and scientific views earned him death threats from Nazi sympathizers in the years preceding World War II. To him, science provided not only a means for understanding the behavior

of the universe, but a foundation for considering the deeper questions of life and a way for the worldwide Jewish community to gain confidence and pride in itself. Steven Gimbel's biography presents Einstein in the context of the world he lived in, offering a fascinating portrait of a remarkable individual who remained actively engaged in international affairs throughout his life. This revealing work not only explains Einstein's theories in understandable terms, it demonstrates how they directly emerged from the realities of his times and helped create the world we live in today.

Imagined World

"An inspiring look at women who realized curiosity plus tenacity equals success." —Kirkus Reviews "[A] captivating compendium." —Publishers Weekly Discover the histories of twenty incredible female scientists in this inspiring biography collection from beloved author Martha Freeman and Google Doodler Katy Wu. Why do galaxies spin the way they do? What's the best kind of house for a Komodo dragon? Can you cure malaria with medicine made from a plant? The scientists and mathematicians in Born Curious sought answers to these and many other fascinating questions. And it's lucky for us they did. Without their vision, insight, and hard work, the world would be a sicker, dirtier, and more dangerous place. The twenty groundbreaking women—including Rosalind Franklin, Marie Tharp, Shirley Anne Jackson, and more—came from all kinds of backgrounds and had all kinds of life experiences. Some grew up rich. Some grew up poor. Some were always the smartest kid in class. Some struggled to do well in school. But all had one thing in common: They were born curious. Are you curious, too? Read on.

Einstein

Readers of Freeman Dyson's previous books, Disturbing the Universe, Weapons and Hope, and Infinite in All Directions, have discovered for themselves what Dyson reveals here: that he was a writer long before he became a distinguished scientist. The aim of this new book, as Dyson says, is to open windows, to let the experts inside the temple of science see out, and to let the ordinary citizens outside see in." In this process an immensely broad range of ideas, people, contemporary history, and discoveries of many sorts pass in review. Beginning with a piece of writing he did as a child and ending with recent work, he goes from Eros, the god or youthful passion, to Gaia, the fertile life-giving mother-planet Earth. The pilgrimage is a good metaphor for the life of a writer. This book is full of discoveries. In the company of one of the most lucid minds of our time, one approaches great men and problems central to our common existence. Always there is warmth, kindness, high intelligence and humor. Dyson is intimate with both science and man. Whether he is dealing with the problems of physics or politics, whether he is engrossed in astronomy or literature, whether he is concentrating on an African village of space science, Dyson's view is always "infinite in all directions," always following the path of diversity, always keeping his eye on the wonder of our earth and the health and happiness of its inhabitants.