Jesus taught his followers that it is easier for a camel to go through the eye of a needle than for a rich man to enter heaven. Yet by the fall of Rome, the church was becoming rich beyond measure. *Through the Eye of a Needle* is a sweeping intellectual and social history of the vexing problem of wealth in Christianity in the waning days of the Roman Empire, written by the world’s foremost scholar of late antiquity.

Peter Brown examines the rise of the church through the lens of money and the challenges it posed to an institution that espoused the virtue of poverty and called avarice the root of all evil. Drawing on the writings of major Christian thinkers such as Augustine, Ambrose, and Jerome, Brown examines the controversies and changing attitudes toward money caused by the influx of new wealth into church coffers, and describes the spectacular acts of divestment by rich donors and their growing influence in an empire beset with crisis. He shows how the use of wealth for the care of the poor competed with older forms of philanthropy deeply rooted in the Roman world, and sheds light on the ordinary people who gave away their money in hopes of treasure in heaven.

*Through the Eye of a Needle* challenges the widely held notion that Christianity’s growing wealth sapped Rome of its ability to resist the barbarian invasions, and offers a fresh perspective on the social history of the church in late antiquity.

Peter Brown is the Philip and Beulah Rollins Professor of History Emeritus at Princeton University. His many books include *The World of Late Antiquity*, *The Rise of Western Christendom*, and *Augustine of Hippo*.
Fit is a manifesto about architecture and society that seeks to fundamentally change how architects and the public think about the task of design. Distinguished architect and urbanist Robert Geddes argues that buildings, landscapes, and cities should be designed to fit: fit the purpose, fit the place, fit future possibilities. Fit replaces old paradigms, such as form follows function, and less is more, by recognizing that the relationship between architecture and society is a true dialogue—dynamic, complex, and, if carried out with knowledge and skill, richly rewarding.

With a tip of the hat to John Dewey, Fit explores architecture as we experience it. Geddes starts with questions: Why do we design where we live and work? Why do we not just live in nature, or in chaos? Why does society care about architecture? Why does it really matter? Fit answers these questions through a fresh examination of the basic purposes and elements of architecture—beginning in nature, combining function and expression, and leaving a legacy of form.

Lively, charming, and gently persuasive, the book shows brilliant examples of fit: from Thomas Jefferson’s University of Virginia and Louis Kahn’s Exeter Library to contemporary triumphs such as the Apple Store on New York’s Fifth Avenue, Chicago’s Millennium Park, and Seattle’s Pike Place.

Fit is a book for everyone, because we all live in constructions—buildings, landscapes, and, increasingly, cities. It provokes architects and planners, humanists and scientists, civic leaders and citizens to reconsider what is at stake in architecture—and why it delights us.

Robert Geddes is an architect, urbanist, and teacher. He is dean emeritus of the Princeton School of Architecture; Henry Luce Professor Emeritus of Architecture, Urbanism, and History at New York University; and a fellow of the New York Institute for the Humanities and the National Academy of Design. The American Institute of Architects honored his professional firm for its “design quality, respect for the environment, and social concern.”

“Fit is a pleasure to read—lucid, wonderfully lively, and continuously interesting. Geddes’s mode of arguing by quotation and illustration is very appealing, like talking with a great conversationalist with a well-stocked mind and library. And there is a real moral to the book’s argument about what our architecture needs more of.”

—Alan Ryan, Princeton University
In *The Story of America*, Harvard historian and *New Yorker* staff writer Jill Lepore investigates American origin stories—from John Smith’s account of the founding of Jamestown in 1607 to Barack Obama’s 2009 inaugural address—to show how American democracy is bound up with the history of print. Over the centuries, Americans have read and written their way into a political culture of ink and type.

Part civics primer, part cultural history, *The Story of America* excavates the origins of everything from the paper ballot and the Constitution to the I.O.U. and the dictionary. Along the way it presents fresh readings of Benjamin Franklin’s *Way to Wealth*, Thomas Paine’s *Common Sense*, “The Raven” by Edgar Allan Poe, and “Paul Revere’s Ride” by Henry Wadsworth Longfellow, as well as histories of lesser-known genres, including biographies of presidents, novels of immigrants, and accounts of the Depression.

From past to present, Lepore argues, Americans have wrestled with the idea of democracy by telling stories. In this thoughtful and provocative book, Lepore offers at once a history of origin stories and a meditation on storytelling itself.

**Jill Lepore** is the David Woods Kemper ’41 Professor of American History at Harvard University and a staff writer at the *New Yorker*. Her books include *The Mansion of Happiness*, *The Whites of Their Eyes* (Princeton), *New York Burning*, and *The Name of War*.

“Jill Lepore is one of America’s most interesting scholars—a distinguished historian and a brilliant essayist. This prolific collection of articles and essays is a remarkable body of work that moves from early America to our present, contentious age. It will entertain and challenge anyone who wants to take an engaging walk through American life.”

—Alan Brinkley, author of *The Publisher: Henry Luce and His American Century*
The 5 Elements of Effective Thinking

Edward B. Burger & Michael Starbird

*The 5 Elements of Effective Thinking* presents practical, lively, and inspiring ways for you to become more successful through better thinking. The idea is simple: You can learn how to think far better by adopting specific strategies. Brilliant people aren’t a special breed—they just use their minds differently. By using the straightforward and thought-provoking techniques in *The 5 Elements of Effective Thinking*, you will regularly find imaginative solutions to difficult challenges, and you will discover new ways of looking at your world and yourself—revealing previously hidden opportunities.

The book offers real-life stories, explicit action items, and concrete methods that allow you to attain a deeper understanding of any issue, exploit the power of failure as a step toward success, develop a habit of creating probing questions, see the world of ideas as an ever-flowing stream of thought, and embrace the uplifting reality that we are all capable of change. No matter who you are, the practical mind-sets introduced in the book will empower you to realize any goal in a more creative, intelligent, and effective manner. Filled with engaging examples that unlock truths about thinking in every walk of life, *The 5 Elements of Effective Thinking* is written for all who want to reach their fullest potential—including students, parents, teachers, businesspeople, professionals, athletes, artists, leaders, and lifelong learners.

Whenever you are stuck, need a new idea, or want to learn and grow, *The 5 Elements of Effective Thinking* will inspire and guide you on your way.

Edward B. Burger is a professor at Williams College, an educational and business consultant, and a former vice provost at Baylor University. He has authored or coauthored more than sixty-five articles, books, and video series; delivered over five hundred addresses and workshops throughout the world; and made more than fifty radio and television appearances. His teaching and scholarly writing have earned him many national honors, including the largest teaching award given in the English-speaking world. Michael Starbird is University Distinguished Teaching Professor at The University of Texas at Austin and an educational and business consultant. His numerous books, lectures, workshops, and video courses have reached large national audiences of students, teachers, businesspeople, and lifelong learners. His success at teaching people to think has been recognized by more than a dozen awards, including the highest national teaching award in his subject.
An interview with Edward B. Burger and Michael Starbird

What motivated you to write this book?

Successful people are successful because they think well. Over the past twenty-plus years, we came to realize that better thinking came from specific strategies that anyone can learn and apply. Once we isolated and distilled those strategies, they became the five elements of effective thinking.

What's the main message you would like your readers to get?

We want everyone to discover that they can think far better than they currently do. They can solve business and personal problems more innovatively; they can discover and celebrate previously hidden opportunities in their own worlds. Whether old or young, they can learn and change by following practical and straightforward strategies of effective thinking.

What are your long-term goals for this book?

We hope it will become a standard tool for businesspeople, for students and teachers, for parents and lifelong learners, for athletes, artists, and everyone else. When we ourselves are faced with difficult challenges, we simply turn to the five elements of thinking and inevitably new ideas and approaches appear. We would like institutions—from governments to businesses to schools—to discover new ways to succeed. We hope that individuals in every walk of life will turn to the five elements for inspiration and direction as they face the unknown challenges that always lie lurking.

Can you give some examples of how you hope the book will change the way people think?

Businesspeople have already referred to our ideas as “an intellectual GPS” that guides them to better ideas. They have reported that the five elements are taped to their desks for ready reference.

Students testing these elements have told us that their approach to school was completely changed by them, and that they became more focused on real learning and thinking rather than checking off required boxes toward a degree.

Teachers have told us that our concepts have changed their goals in teaching. They became more clearly focused on teaching students to think better in concrete ways offered by their subjects. These teachers found that the goal of teaching creativity, curiosity, and deep understanding profoundly changed what they do inside and outside the classroom.
Exam Schools
Inside America’s Most Selective Public High Schools

Chester E. Finn, Jr. & Jessica A. Hockett

What is the best education for exceptionally able and high-achieving youngsters? Can the United States strengthen its future intellectual leadership, economic vitality, and scientific prowess without sacrificing equal opportunity? There are no easy answers but, as Chester Finn and Jessica Hockett show, for more than 100,000 students each year, the solution is to enroll in an academically selective public high school. Exam Schools is the first-ever close-up look at this small, sometimes controversial, yet crucial segment of American public education. This groundbreaking book discusses how these schools work—and their critical role in nurturing the country’s brightest students.

The 165 schools identified by Finn and Hockett are located in thirty states, plus the District of Columbia. While some are world renowned, such as Boston Latin and Bronx Science, others are known only in their own communities. The authors survey the schools on issues ranging from admissions and student diversity to teacher selection. They probe sources of political support, curriculum, instructional styles, educational effectiveness, and institutional autonomy. Some of their findings are surprising: Los Angeles, for example, has no “exam schools” while New York City has dozens. Asian-American students are overrepresented—but so are African-American pupils. Culminating with in-depth profiles of eleven exam schools and thoughtful reflection on policy implications, Finn and Hockett ultimately consider whether the country would be better off with more such schools.

At a time of keen attention to the faltering education system, Exam Schools sheds positive light on a group of schools that could well provide a transformative roadmap for many of America’s children.

Chester E. Finn, Jr., is president of the Thomas B. Fordham Institute and a senior fellow at Stanford University’s Hoover Institution. A former assistant U.S. secretary of education, he is the author of many books, including Charter Schools in Action and Troublemaker (both Princeton). Jessica A. Hockett is an education consultant specializing in differentiated instruction, curriculum design, and lesson study. She earned her doctorate in educational psychology from the University of Virginia.

“As a proud graduate of the Bronx High School of Science, I have a deep and abiding appreciation for the importance of exam schools in our educational system, and this book arrives in the nick of time. Finn and Hockett pull back the veil of mystery surrounding these schools to show us where they’ve succeeded, where they’ve fallen short, and what we can learn from these remarkable institutions to improve the education of all Americans.”

—Andrew Lo, Massachusetts Institute of Technology
How can developing countries grow their economies? Most answers to this question center on what the rich world should or shouldn’t do for the poor world. In *The Quest for Prosperity*, Justin Yifu Lin—the first non-Westerner to be chief economist of the World Bank—focuses on what developing nations can do to help themselves.

Since the end of the Second World War, prescriptions for economic growth have come and gone. Often motivated more by ideology than practicality, these blueprints have had mixed success on the ground. Drawing lessons from history, economic analysis, and practice, Lin examines how the countries that have succeeded in developing their own economies have actually done it. He shows that economic development is a process of continuous technological innovation, industrial upgrading, and structural change driven by how countries harness their land, labor, capital, and infrastructure. Countries need to identify and facilitate the development of those industries where they have a comparative advantage—where they can produce products most effectively—and use them as a basis for development. At the same time, states need to recognize the power of markets, limiting the role of government to allow firms to flourish and lead the process of technological innovation and industrial upgrading. By following this “new structural economics” framework, Lin shows how even the poorest nations can grow at eight percent or more continuously for several decades, significantly reduce poverty, and become middle- or even high-income countries in the span of one or two generations.

Interwoven with insights, observations, and stories from Lin’s travels as chief economist of the World Bank and his reflections on China’s rise, this book provides a road map and hope for those countries engaged in their own quest for prosperity.

Justin Yifu Lin is founding director and professor of the China Centre for Economic Research at Peking University. From 2008 to 2012, he served as chief economist and senior vice president of the World Bank. His many books include *Demystifying the Chinese Economy* and *Economic Development and Transformation*.

“The Quest for Prosperity is an important book. Written with verve and clarity, it reflects a deep understanding of global economic issues, and proposes practical solutions that anyone concerned with the plight of the world’s poor would be wise to read.”

—Robert Fogel, Nobel Laureate in Economics
The book of Genesis has had one of the most intriguingly complex lives of all biblical texts. Superbly interweaving many different readings of Genesis, from the allegorical and scientific to the historical and literary, Ronald Hendel covers diverse moments of reception, such as Galileo’s writings, Darwin’s theory of evolution, the American Civil War, and Kafka’s parables. Each chapter is a gem in its own right—and together they create a spellbinding narrative.”

—Ilana Pardes, author of Melville’s Bibles

Ronald Hendel

During its 2,500-year life, the book of Genesis has been the keystone to almost every important claim about reality, humanity, and God in Judaism and Christianity. And it continues to play a central role in debates about science, politics, and human rights. With clarity and skill, acclaimed biblical scholar Ronald Hendel provides a panoramic history of this iconic book, exploring its impact on Western religion, philosophy, science, politics, literature, and more.

Hendel traces how Genesis has shaped views of reality, and how changing views of reality have shaped interpretations of Genesis. Literal and figurative readings have long competed with each other. Hendel tells how Luther’s criticisms of traditional figurative accounts of Genesis undermined the Catholic Church; how Galileo made the radical argument that the cosmology of Genesis wasn’t scientific evidence; and how Spinoza made the equally radical argument that the scientific method should be applied to Genesis itself. Indeed, Hendel shows how many high points of Western thought and art have taken the form of encounters with Genesis—from Paul and Augustine to Darwin, Emily Dickinson, and Kafka.

From debates about slavery, gender, and sexuality to the struggles over creationism and evolution, Genesis has shaped our world and continues to do so today. This wide-ranging account tells the remarkable story of the life of Genesis like no other book.

Ronald Hendel is the Norma and Sam Dabby Professor of Hebrew Bible and Jewish Studies at the University of California, Berkeley. He is the editor in chief of The Oxford Hebrew Bible and the author of Remembering Abraham and Reading Genesis.

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Since they were first discovered in the caves at Qumran in 1947, the Dead Sea Scrolls have aroused more fascination—and more controversy—than perhaps any other archaeological find. They appear to have been hidden in the Judean desert by the Essenes, a Jewish sect that existed around the time of Jesus, and they continue to inspire veneration and conspiracy theories to this day. John Collins tells the story of the bitter conflicts that have swirled around the scrolls since their startling discovery, and sheds light on their true significance for Jewish and Christian history.

Collins vividly recounts how a Bedouin shepherd went searching for a lost goat and found the scrolls instead. He offers insight into debates over whether the Essenes were an authentic Jewish sect and explains why such questions are critical to our understanding of ancient Judaism and to Jewish identity. Collins explores whether the scrolls were indeed the property of an isolated, quasi-monastic community living at Qumran, or whether they more broadly reflect the Judaism of their time. And he unravels the impassioned disputes surrounding the scrolls and Christianity. Do they anticipate the early church? Do they undermine the credibility of the Christian faith? Collins also looks at attempts to “reclaim” the scrolls for Judaism after the full corpus became available in the 1990s, and at how the decades-long delay in publishing the scrolls gave rise to sensational claims and conspiracy theories.

John J. Collins is the Holmes Professor of Old Testament Criticism and Interpretation at Yale University. His many books include Beyond the Qumran Community: The Sectarian Movement of the Dead Sea Scrolls, Introduction to the Hebrew Bible, and The Scepter and the Star: Messianism in Light of the Dead Sea Scrolls.
Inheriting Abraham
The Legacy of the Patriarch in Judaism, Christianity, and Islam

Jon D. Levenson

Jews, Christians, and Muslims supposedly share a common religious heritage in the patriarch Abraham, and the idea that he should serve only as a source of unity among the three traditions has become widespread in both scholarly and popular circles. Inheriting Abraham boldly challenges this view, demonstrating Abraham’s distinctive role in each tradition, while delineating the points of connection as well.

In this sweeping and provocative book, Jon Levenson subjects the powerful story in Genesis of Abraham’s calling, his experience in Canaan and Egypt, and his near-sacrifice of his beloved son Isaac to a careful literary and theological analysis. But Levenson also explores how Judaism, Christianity, and Islam appropriated these narratives, often reimagining Abraham and his life in mutually exclusive ways. Historically, the three traditions have differed sharply over what Abraham’s life foreshadows, how the Abrahamic community is constituted and sustained, and what practices the patriarch’s example authorizes. In these disputes, Levenson finds illuminating signs of profound and enduring theological differences alongside the commonalities.

A stunning achievement that is certain to provoke debate, Inheriting Abraham traces how each community has come to revere Abraham as an exemplar of its own distinctive spiritual teachings and practices. This probing and compelling book also reveals how the increasingly conventional notion of the three equally “Abrahamic” religions derives from a dangerous misunderstanding of key biblical and Qur’anic texts, fails to do full justice to any of the traditions, and is often biased against Judaism in subtle and pernicious ways.

Jon D. Levenson is the Albert A. List Professor of Jewish Studies at Harvard University. His many books include Resurrection and the Restoration of Israel: The Ultimate Victory of the God of Life, which won the National Jewish Book Award, and Creation and the Persistence of Evil (Princeton).

The Library of Jewish Ideas presents accessible, engaging, and authoritative books that will appeal to anyone curious about Jewish perspectives on key areas of human experience, from humor and death to law and language.
Two Cheers for Anarchism
Six Easy Pieces on Autonomy, Dignity, and Meaningful Work and Play

James C. Scott

James Scott taught us what’s wrong with seeing like a state. Now, in his most accessible and personal book to date, the acclaimed social scientist makes the case for seeing like an anarchist. Inspired by the core anarchist faith in the possibilities of voluntary cooperation without hierarchy, Two Cheers for Anarchism is an engaging, high-spirited, and often very funny defense of an anarchist way of seeing—one that provides a unique and powerful perspective on everything from everyday social and political interactions to mass protests and revolutions. Through a wide-ranging series of memorable anecdotes and examples, the book describes an anarchist sensibility that celebrates the local knowledge, common sense, and creativity of ordinary people. The result is a kind of handbook on constructive anarchism that challenges us to radically reconsider the value of hierarchy in public and private life, from schools and workplaces to retirement homes and government itself.

Beginning with what Scott calls “the law of anarchist calisthenics,” an argument for law-breaking inspired by an East German pedestrian crossing, each chapter opens with a story that captures an essential anarchist “truth.” In the course of telling these stories, Scott touches on a wide variety of subjects: public disorder and riots, desertion, poaching, vernacular knowledge, assembly-line production, globalization, the petty bourgeoisie, school testing, playgrounds, and the practice of historical explanation.

Far from a dogmatic manifesto, Two Cheers for Anarchism celebrates the anarchist confidence in the inventiveness and judgment of people who are free to exercise their creative and moral capacities.

James C. Scott is the Sterling Professor of Political Science, professor of anthropology, and codirector of the Agrarian Studies Program at Yale University. His books include Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed, Domination and the Arts of Resistance: Hidden Transcripts, and most recently, The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia. He is a fellow of the American Academy of Arts and Sciences and a part-time mediocre farmer and beekeeper.

“I am a big fan of James Scott. In this highly readable and thought-provoking book, he reveals the meaning of his ‘anarchist’ sensibility through a series of wonderful personal stories, staking out an important position and defending it in a variety of contexts, from urban planning to school evaluation. I don’t know of anyone else who has defined this viewpoint so successfully.” —Francis Fukuyama, author of The Origins of Political Order

November
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192 pages. 8 halftones. 5 ½ x 8 ½.
POLITICS • ANTHROPOLOGY

PRESS.PRINCETON.EDU
“The nearby asteroids are Earth’s closest neighbors and key stepping stones for our expansion into space. Yet these rogue space rocks can also threaten our planet. Noted scientist Donald Yeomans is one of NASA’s ‘men in black,’ keeping an eye out for wayward asteroids. He clearly explains what we know about these celestial denizens—and what discoveries will help us avoid a cosmic catastrophe.”
—Tom Jones, veteran astronaut, author of Sky Walking

Of all the natural disasters that could befall us, only an Earth impact by a large comet or asteroid has the potential to end civilization in a single blow. Yet these near-Earth objects also offer tantalizing clues to our solar system’s origins, and someday could even serve as stepping-stones for space exploration. In this book, Donald Yeomans introduces readers to the science of near-Earth objects—its history, applications, and ongoing quest to find near-Earth objects before they find us.

In its course around the sun, the Earth passes through a veritable shooting gallery of millions of nearby comets and asteroids. One such asteroid is thought to have plunged into our planet sixty-five million years ago, triggering a global catastrophe that killed off the dinosaurs. Yeomans provides an up-to-date and accessible guide for understanding the threats posed by near-Earth objects, and also explains how early collisions with them delivered the ingredients that made life on Earth possible. He shows how later impacts spurred evolution, allowing only the most adaptable species to thrive—in fact, we humans may owe our very existence to objects that struck our planet.

Yeomans takes readers behind the scenes of today’s efforts to find, track, and study near-Earth objects. He shows how the same comets and asteroids most likely to collide with us could also be mined for precious natural resources like water and oxygen, and used as watering holes and fueling stations for expeditions to Mars and the outermost reaches of our solar system.

Donald K. Yeomans is a fellow and senior research scientist at the Jet Propulsion Laboratory, where he is manager of NASA’s Near-Earth Object Program Office and supervisor of the Solar System Dynamics Group. He is the author of Comets: A Chronological History of Observation, Science, Myth, and Folklore.
Heart of Darkness
Unraveling the Mysteries of the Invisible Universe

Jeremiah P. Ostriker & Simon Mitton

*Heart of Darkness* describes the incredible saga of humankind’s quest to unravel the deepest secrets of the universe. Over the past thirty years, scientists have learned that two little-understood components—dark matter and dark energy—comprise most of the known cosmos, explain the growth of all cosmic structure, and hold the key to the universe’s fate. The story of how evidence for the so-called “Lambda-Cold Dark Matter” model of cosmology has been gathered by generations of scientists throughout the world is told here by one of the pioneers of the field, Jeremiah Ostriker, and his coauthor Simon Mitton.

From humankind’s early attempts to comprehend Earth’s place in the solar system, to astronomers’ exploration of the Milky Way galaxy and the realm of the nebulae beyond, to the detection of the primordial fluctuations of energy from which all subsequent structure developed, this book explains the physics and the history of how the current model of our universe arose and has passed every test hurled at it by the skeptics. Throughout this rich story, an essential theme is emphasized: how three aspects of rational inquiry—the application of direct measurement and observation, the introduction of mathematical modeling, and the requirement that hypotheses should be testable and verifiable—guide scientific progress and underpin our modern cosmological paradigm.

The story is far from complete, however, as scientists confront the mysteries of the ultimate causes of cosmic structure formation and the real nature and origin of dark matter and dark energy.

Jeremiah P. Ostriker is professor of astrophysical sciences at Princeton University. His books include *Formation of Structure in the Universe* and *Unsolved Problems in Astrophysics* (Princeton). Simon Mitton is affiliated research scholar in the history and philosophy of science and a fellow of St. Edmund’s College, University of Cambridge. His books include *Fred Hoyle: A Life in Science* and *The Young Oxford Book of Astronomy*.
A LOOK AT TWO PIONEERS OF MATH AND TECHNOLOGY, AND HOW THEY CREATED THE COMPUTER REVOLUTION

The Logician and the Engineer

How George Boole and Claude Shannon Created the Information Age

Paul J. Nahin

Boolean algebra, also called Boolean logic, is at the heart of the electronic circuitry in everything we use—from our computers and cars, to our kitchen gadgets and home appliances. How did a system of mathematics established in the Victorian era become the basis for such incredible technological achievements a century later? In The Logician and the Engineer, bestselling popular math writer Paul Nahin combines engaging problems and a colorful historical narrative to tell the remarkable story of how two men in different eras—mathematician and philosopher George Boole (1815–1864) and electrical engineer and pioneering information theorist Claude Shannon (1916–2001)—advanced Boolean logic and became founding fathers of the electronic communications age.

Presenting the dual biographies of Boole and Shannon, Nahin examines the history of Boole’s innovative ideas, and considers how they led to Shannon’s groundbreaking work on electrical relay circuits and information theory. Along the way, Nahin presents logic problems for readers to solve and talks about the contributions of such key players as Georg Cantor, Tibor Rado, and Marvin Minsky—as well as the crucial role of Alan Turing’s “Turing machine”—in the development of mathematical logic and data transmission. Nahin takes readers from fundamental concepts to a deeper and more sophisticated understanding of how a modern digital machine such as the computer is constructed. Nahin also delves into the newest ideas in quantum mechanics and thermodynamics in order to explore computing’s possible limitations in the twenty-first century and beyond.

The Logician and the Engineer shows how a form of mathematical logic and the innovations of two men paved the way for the digital technology of the modern world.

Paul J. Nahin is the author of many best-selling popular math books, including Mrs. Perkins’s Electric Quilt, Dr. Euler’s Fabulous Formula, and An Imaginary Tale (all Princeton). He is professor emeritus of electrical engineering at the University of New Hampshire.
Guesstimation 2.0
Solving Today’s Problems on the Back of a Napkin

Lawrence Weinstein

Guesstimation 2.0 reveals the simple and effective techniques needed to estimate virtually anything—quickly—and illustrates them using an eclectic array of problems. A stimulating follow-up to Guesstimation, this is the must-have book for anyone preparing for a job interview in technology or finance, where more and more leading businesses test applicants using estimation questions just like these.

The ability to guesstimate on your feet is an essential skill to have in today’s world, whether you’re trying to distinguish between a billion-dollar subsidy and a trillion-dollar stimulus, a megawatt wind turbine and a gigawatt nuclear plant, or parts-per-million and parts-per-billion contaminants. Lawrence Weinstein begins with a concise tutorial on how to solve these kinds of order of magnitude problems, and then invites readers to have a go themselves. The book features dozens of problems along with helpful hints and easy-to-understand solutions. It also includes appendixes containing useful formulas and more.

Guesstimation 2.0 shows how to estimate everything from how closely you can orbit a neutron star without being pulled apart by gravity, to the fuel used to transport your food from the farm to the store, to the total length of all toilet paper used in the United States. It also enables readers to answer, once and for all, the most asked environmental question of our day: paper or plastic?

Lawrence Weinstein is University Professor of Physics at Old Dominion University. He is the coauthor of Guesstimation: Solving the World’s Problems on the Back of a Cocktail Napkin (Princeton).

Praise for Guesstimation:

“A left-brain book that helps you approximate answers to the types of questions actually asked in some job interviews today.”
—Peter Coy, BusinessWeek
Praise for The Best Writing on Mathematics 2011:

“Mathematics instructor Pitici turns out a second volume of unexpectedly fascinating mathematical research, musings, and studies that explore subjects from art to medicine. . . . From a discussion of the utility of mathematics in stone and bronze sculptures to a study of computing and its interaction with the sciences, readers from many disciplines will find much to pique their interest.”
—Publishers Weekly

This annual anthology brings together the year’s finest mathematics writing from around the world. Featuring promising new voices alongside some of the foremost names in the field, The Best Writing on Mathematics 2012 makes available to a wide audience many articles not easily found anywhere else—and you don’t need to be a mathematician to enjoy them. These writings offer surprising insights into the nature, meaning, and practice of mathematics today. They delve into the history, philosophy, teaching, and everyday occurrences of math, and take readers behind the scenes of today’s hottest mathematical debates. Here Robert Lang explains mathematical aspects of origami foldings; Terence Tao discusses the frequency and distribution of the prime numbers; Timothy Gowers and Mario Livio ponder whether mathematics is invented or discovered; Brian Hayes describes what is special about a ball in five dimensions; Mark Colyvan glosses on the mathematics of dating; and much, much more.

In addition to presenting the year’s most memorable writings on mathematics, this must-have anthology includes a foreword by esteemed mathematician David Mumford and an introduction by the editor Mircea Pitici. This book belongs on the shelf of anyone interested in where math has taken us—and where it is headed.

Mircea Pitici, a PhD candidate in mathematics education at Cornell University, teaches math and writing at Cornell and Ithaca College. He also edited the 2010 and 2011 editions of The Best Writing on Mathematics (see below).
In 1969, Princeton physicist Gerard O'Neill began looking outward to space colonies as the new frontier for humanity’s expansion. A decade later, Eric Drexler, an MIT-trained engineer, turned his attention to the molecular world as the place where society’s future needs could be met using self-replicating nanoscale machines. These modern utopians predicted that their technologies could transform society as humans mastered the ability to create new worlds, undertook atomic-scale engineering, and, if truly successful, overcame their own biological limits. *The Visioneers* tells the story of how these scientists and the communities they fostered imagined, designed, and popularized speculative technologies such as space colonies and nanotechnologies.

Patrick McCray traces how these visioneers blended countercultural ideals with hard science, entrepreneurship, libertarianism, and unbridled optimism about the future. He shows how they built networks that communicated their ideas to writers, politicians, and corporate leaders. But the visioneers were not immune to failure—or to the lures of profit, celebrity, and hype. O’Neill and Drexler faced difficulty funding their work and overcoming colleagues’ skepticism, and saw their ideas co-opted and transformed by Timothy Leary, the scriptwriters of *Star Trek*, and many others. Ultimately, both men struggled to overcome stigma and ostracism as they tried to unshackle their visioneering from pejorative labels like “fringe” and “pseudoscience.”

*The Visioneers* provides a balanced look at the successes and pitfalls they encountered. The book exposes the dangers of promotion—oversimplification, misuse, and misunderstanding—that can plague exploratory science. But above all, it highlights the importance of radical new ideas that inspire us to support cutting-edge research into tomorrow’s technologies.

**W. Patrick McCray** is professor of history at the University of California, Santa Barbara. He is the author of *Keep Watching the Skies!: The Story of Operation Moonwatch and the Dawn of the Space Age* (Princeton) and *Giant Telescopes: Astronomical Ambition and the Promise of Technology*.

“Having been a cheerleader for the grand schemes recounted in this book, I’m happy to be a cheerleader for the book itself. It is accurate, thorough, and insightful. Since this century is certain to produce many new cadres of visioneers, the book will lend perspective on how best to critique and harness their dreams.”

—Stewart Brand, author of *Whole Earth Discipline*
The White Planet
The Evolution and Future of Our Frozen World

Jean Jouzel, Claude Lorius & Dominique Raynaud

From the Arctic Ocean and ice sheets of Greenland, to the glaciers of the Andes and Himalayas, to the great frozen desert of Antarctica, The White Planet takes readers on a spellbinding scientific journey through the shrinking world of ice and snow to tell the story of the expeditions and discoveries that have transformed our understanding of global climate. Written by three internationally renowned scientists at the center of many breakthroughs in ice core and climate science, this book provides an unparalleled firsthand account of how the “white planet” affects global climate—and, in turn, how global warming is changing the frozen world.

Jean Jouzel, Claude Lorius, and Dominique Raynaud chronicle the daunting scientific, technical, and human hurdles that they and other scientists have had to overcome in order to unravel the mysteries of present and past climate change, as revealed by the cryosphere—the dynamic frozen regions of our planet. Scientifically impeccable, up-to-date, and accessible, The White Planet brings cutting-edge climate research to general readers through a vivid narrative. This is an essential book for anyone who wants to understand the inextricable link between climate and our planet’s icy regions.

Jean Jouzel, Claude Lorius, and Dominique Raynaud are internationally acclaimed scientists who have won many awards for their work documenting long-term climate change through the study of deep ice cores. Jouzel and Raynaud are members of the Intergovernmental Panel on Climate Change, and Lorius was awarded the 2009 Blue Planet Prize.
Wind Wizard
Alan G. Davenport and the Art of Wind Engineering

Siobhan Roberts

With Wind Wizard, Siobhan Roberts brings us the story of Alan Davenport (1932–2009), the father of modern wind engineering, who investigated how wind navigates the obstacle course of the earth’s natural and built environments—and how, when not properly heeded, wind causes buildings and bridges to teeter unduly, sway with abandon, and even collapse.

In 1964, Davenport received a confidential telephone call from two engineers requesting tests on a pair of towers that promised to be the tallest in the world. His resulting wind studies on New York’s World Trade Center advanced the art and science of wind engineering with one pioneering innovation after another. Establishing the first dedicated “boundary layer” wind tunnel laboratory for civil engineering structures, Davenport enabled the study of the atmospheric region from the earth’s surface to three thousand feet, where the air churns with turbulent eddies, the average wind speed increasing with height. The boundary layer wind tunnel mimics these windy marbled striations in order to test models of buildings and bridges that inevitably face the wind when built. Over the years, Davenport’s revolutionary lab investigated and improved the wind-worthiness of the world’s greatest structures, including the Sears Tower, the John Hancock Tower, Shanghai’s World Financial Center, the CN Tower, the iconic Golden Gate Bridge, the Bronx–Whitestone Bridge, the Sunshine Skyway, and the proposed crossing for the Strait of Messina, linking Sicily with mainland Italy.

Chronicling Davenport’s innovations by analyzing select projects, this popular-science book gives an illuminating behind-the-scenes view into the practice of wind engineering, and insight into Davenport’s steadfast belief that there is neither a structure too tall nor too long, as long as it is supported by sound wind science.

Siobhan Roberts is a freelance science journalist who first wrote about Davenport and wind engineering for the New York Times. She is the author of King of Infinite Space: Donald Coxeter, The Man Who Saved Geometry.

“This accessible book describes the accomplishments of the wind engineer Alan Davenport, who was instrumental in introducing the use of models and wind tunnel testing for tall-building and long-span-bridge design. In following Davenport’s career, Wind Wizard provides an excellent overview of wind engineering for general readers.”
—Henry Petroski, author of The Essential Engineer: Why Science Alone Will Not Solve Our Global Problems

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The Two Yvonnes
Poems

Jessica Greenbaum

This is the second collection from a Brooklyn poet whose work many readers will know from the New Yorker. Jessica Greenbaum’s narrative poems, in which objects and metaphor share highest honors, attempt revelation through close observation of the everyday. Written in “plain American that cats and dogs can read,” as Marianne Moore phrased it, these contemporary lyrics bring forward the challenges of Wisława Szymborska, the reportage of Yehuda Amichai, and the formal forays of Marilyn Hacker. The book asks at heart: how does life present itself to us, and how do we create value from our delights and losses? Riding on Kenneth Koch’s instruction to “find one true feeling and hang on,” The Two Yvonnes overtakes the present with candor, meditation, and the classic aspiration to shape lyric into a lasting force.

Moving from 1960s Long Island, to 1980s Houston, to today’s Brooklyn, the poems range in subject from the pages of the Talmud to a squirrel trapped in a kitchen. One tells the story of young lovers “warmed by the rays / their pelvic bones sent over the horizon of their belts,” while another describes the Bronx Zoo in winter, where the giraffes pad about “like nurses walking quietly / outside a sick room.” Another poem defines the speaker via a “packing slip” of her parts—“brown eyes, brown hair, from hirsute tribes in Poland and Russia.”

The title poem, in which the speaker and friends stumble through a series of flawed memories about each other, unearths the human vulnerabilities that shape so much of the collection.

Jessica Greenbaum is the author of the award-winning poetry collection Inventing Difficulty. Her poems and essays have appeared in the New Yorker, the Nation, Poetry, Southwest Review, and elsewhere. She is the poetry editor of upstreet.

Praise for Jessica Greenbaum’s Inventing Difficulty:

“These are tough, passionate poems that spring from an urgency both intellectual and primal. They are wry, hilarious, and wacky at times, heartbreakingly sad at others. Jessica Greenbaum brings a sparkling imagination and a vital, divine impatience to American poetry. How we need her, right about now!”

—Phillip Lopate

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POETRY

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The Fairies Return
Or, New Tales for Old

Compiled by Peter Davies
Edited and with an introduction by Maria Tatar

Originally issued in 1934, The Fairies Return was the first collection of modernist fairy tales ever published in England, and it marked the arrival of a satirical classic that has never been surpassed. Even today, this reimagining of fifteen timeless tales—from “Puss in Boots” to “Little Red Riding Hood”—is still fresh and bold, giving readers a world steeped not in once upon a time, but in the here and now.

Longtime favorites in this playfully subversive collection are retold for modern times and mature sensibilities. In “Jack and the Giant Killer,” Jack becomes a trickster who must deliver England from the hands of three ogres after a failed government inquiry. “Ali Baba and the Forty Thieves” is set in contemporary London and the world of financial margins and mergers. In “The Little Mermaid,” a young Canadian girl with breathtaking swimming skills is lured by the temptations of Hollywood. And Cinderella becomes a spinster and holy woman, creating a very different happily ever after. These tales expose social anxieties, political corruption, predatory economic behavior, and destructive appetites even as they express hope for a better world. A new introduction from esteemed fairy-tale scholar Maria Tatar puts the collection in context.

From stockbrokers and socialites to shopkeepers and writers, the characters in The Fairies Return face contemporary challenges while living in the magical world of fairy tales.

Peter Davies (1897–1960) was the rumored inspiration for Peter Pan, the daredevil character created by his adoptive father, author J. M. Barrie. Davies was the founder of the publishing house Peter Davies Ltd. Maria Tatar is the John L. Loeb Professor of Germanic Languages and Literatures and chair of the Program in Folklore and Mythology at Harvard University. She is the editor of The Annotated Peter Pan and the author of Enchanted Hunters (both Norton), among many other books.