

## The Invention Of Science A New History Of The Scientific Revolution

An astonishingly revisionist biography of Alexander Graham Bell, telling the true—and troubling—story of the inventor of the telephone. We think of Alexander Graham Bell as the inventor of the telephone, but that's not how he saw his own career. Bell was an elocution teacher by profession. As the son of a deaf woman and, later, husband to another, his goal in life from adolescence was to teach the deaf to speak. Even his tinkering sprang from his teaching work; the telephone had its origins as a speech reading machine. And yet by the end of his life, despite his best efforts—or perhaps, more accurately, because of them—Bell had become the American Deaf community's most powerful enemy. *The Invention of Miracles* recounts an extraordinary piece of forgotten history. Weaving together a moving love story with a fascinating tale of innovation, it follows the complicated tragedy of a brilliant young man who set about stamping out what he saw as a dangerous language: Sign. The book offers a heartbreaking look at how heroes can become villains and how good intentions are, unfortunately, nowhere near enough—as well as a powerful account of the dawn of a civil rights movement and the triumphant tale of how the Deaf community reclaimed their once-forbidden language. Katie Booth has been researching this story for over a decade, poring over Bell's papers, Library of Congress archives, and the records of deaf schools around America. But she's also lived with this story for her entire life. Witnessing the damaging impact of Bell's legacy on her family would set her on a path that upturned everything she thought she knew about language, power, deafness, and the telephone.

Jesuit engagement with natural philosophy during the late 16th and early 17th centuries transformed the status of the mathematical disciplines and propelled members of the Order into key areas of controversy in relation to Aristotelianism. Through close investigation of the activities of the Jesuit 'school' of mathematics founded by Christoph Clavius, *The Scientific Counter-Revolution* examines the Jesuit connections to the rise of experimental natural philosophy and the emergence of the early scientific societies. Arguing for a re-evaluation of the role of Jesuits in shaping early modern science, this book traces the evolution of the Collegio Romano as a hub of knowledge. Starting with an examination of Clavius's Counter-Reformation agenda for mathematics, Michael John Gorman traces the development of a collective Jesuit approach to experimentation and observation under Christopher Grienberger and analyses the Jesuit role in the Galileo Affair and the vacuum debate. Ending with a discussion of the transformation of the Collegio Romano under Athanasius Kircher into a place of curiosity and wonder and the centre of a global information gathering network, this book reveals how the Counter-Reformation goals of the Jesuits contributed to the shaping of modern experimental science.

A riveting road map to the development of modern scientific thought. In the tradition of her perennial bestseller *The Well-Educated Mind*, Susan Wise Bauer delivers an accessible, entertaining, and illuminating springboard into the scientific education you never had. Far too often, public discussion of science is carried out by journalists, voters, and politicians who have received their science secondhand. *The Story of Western Science* shows us the joy and importance of reading groundbreaking science writing for ourselves and guides us back to the masterpieces that have changed the way we think about our world, our cosmos, and ourselves. Able to be referenced individually, or read together as the narrative of Western scientific development, the book's twenty-eight succinct chapters lead readers from the first science texts by Hippocrates, Plato, and Aristotle through twentieth-century classics in biology, physics, and cosmology. *The Story of Western Science* illuminates everything from mankind's earliest inquiries to the butterfly effect, from the birth of the scientific method to the rise of earth science and the flowering of modern biology. Each chapter recommends one or more classic books and provides entertaining accounts of crucial contributions to science, vivid sketches of the scientist-writers, and clear explanations of the mechanics underlying each concept. *The Story of Western Science* reveals science to be a dramatic undertaking practiced by some of history's most memorable characters. It reminds us that scientific inquiry is a human pursuit—an essential, often deeply personal, sometimes flawed, frequently brilliant way of understanding the world. *The Story of Western Science* is an "entertaining and unique synthesis" (*Times Higher Education*), a "fluidly written" narrative that "celebrates the inexorable force of human curiosity" (*Wall Street Journal*), and a "bright, informative resource for readers seeking to understand science through the eyes of the men and women who shaped its history" (*Kirkus*). Previously published as *The Story of Science*.

"Inventions and Patents" is the first of WIPO's Learn from the past, create the future series of publications aimed at young students. This series was launched in recognition of the importance of children and young adults as the creators of our future.

*The Origins of Modern Science* is the first synthetic account of the history of science from antiquity through the Scientific Revolution in many decades. Providing readers of all backgrounds and students of all disciplines with the tools to study science like a historian, Ofer Gal covers everything from Pythagorean mathematics to Newton's *Principia*, through Islamic medicine, medieval architecture, global commerce and magic. Richly illustrated throughout, scientific reasoning and practices are introduced in accessible and engaging ways with an emphasis on the complex relationships between institutions, beliefs and political structures and practices. Readers gain valuable new insights into the role that science plays both in history and in the world today, placing the crucial challenges to science and technology of our time within their historical and cultural context.

A preeminent classics scholar revises the history of medicine. Medical thinking and observation were radically changed by the ancient Greeks, one of their great legacies to the world. In the fifth century BCE, a Greek doctor put forward his clinical observations of individual men, women, and children in a collection of case histories known as the *Epidemics*. Among his working principles was the famous maxim "Do no harm." In *The Invention of Medicine*, acclaimed historian Robin Lane Fox puts these remarkable works in a wider context and upends our understanding of medical history by establishing that they were written much earlier than previously thought. Lane Fox endorses the ancient Greeks' view that their texts' author, not named, was none other than the father of medicine, the great Hippocrates himself. Lane Fox's argument changes our sense of the development of scientific and rational thinking in Western culture, and he explores the consequences for Greek artists, dramatists and the first writers of history. Hippocrates emerges as a key figure in the crucial change from an archaic to a classical world. Elegantly written and remarkably learned, *The Invention of Medicine* is a groundbreaking reassessment of many aspects of Greek culture and city life.

The early modern period used to be known as the Age of Discovery. More recently, it has been troped as an age of invention. But was the invention/discovery binary itself invented, or discovered? This volume investigates the possibility that it was invented, through a range of early modern knowledge practices, centered on the emergence of modern natural science. From Bacon to Galileo, from stagecraft to math, from martyrology to romance, contributors to this interdisciplinary collection examine the period's generation of discovery as an absolute and ostensibly neutral standard of knowledge-production. They further investigate the hermeneutic implications for the epistemological authority that tends, in modernity, still to be based on that standard. *The Invention of Discovery, 1500–1700* is a set of attempts to think back behind discovery, considered as a decisive trope for modern knowledge.

For much of history, strangers were seen as barbarians, seldom as fellow human beings. The notion of common humanity had to be invented. Drawing on global thinkers, Siep Stuurman traces ideas of equality and difference across continents and civilizations, from antiquity to present-day debates about human rights and the "clash of civilizations."

A reinterpretation of Sarpi's life as expressing a carefully thought out hostility to doctrinal religion.

A unique A-to-Z reference of brilliance in innovation and invention Combining engagingly written, well-researched history with the respected imprimatur of Scientific American magazine, this authoritative, accessible reference provides a wide-ranging overview of the inventions, technological advances, and discoveries that have transformed human society throughout our history. More than 400 entertaining entries explain the details and significance of such varied breakthroughs as the development of agriculture, the "invention" of algebra, and the birth of the computer. Special chronological sections divide the entries, providing a unique focus on the intersection of science and technology from early human history to the present. In addition, each section is supplemented by primary source sidebars, which feature excerpts from scientists' diaries, contemporary accounts of new inventions, and various "In Their Own Words" sources. Comprehensive and thoroughly readable, Scientific American Inventions and Discoveries is an indispensable resource for anyone fascinated by the history of science and technology. Topics include: aerosol spray \* algebra \* Archimedes' Principle \* barbed wire \* canned food \* carburetor \* circulation of blood \* condom \* encryption machine \* fork \* fuel cell \* latitude \* music synthesizer \* positron \* radar \* steel \* television \* traffic lights \* Heisenberg's uncertainty principle

Using Nobel Prize-winning examples like the transistor, laser, and magnetic resonance imaging, Venky Narayanamurti and Tolu Odumosu explore the daily micro-practices of research and show that distinctions between the search for knowledge and creative problem solving break down when one pays attention to how pathbreaking research actually happens.

The epic story of how science went "big" and the forgotten genius who started it all—"entertaining, thoroughly researched...partly a biography, partly an account of the influence of Ernest Lawrence's great idea, partly a short history of nuclear physics and the Bomb" (The Wall Street Journal). Since the 1930s, the scale of scientific endeavor has grown exponentially. The first particle accelerator could be held in its creator's lap, while its successor grew to seventeen miles in circumference and cost ten billion dollars. We have invented the atomic bomb, put man on the moon, and probed the inner workings of nature at the scale of subatomic particles—all the result of Big Science, the model of industrial-scale research paid for by governments, departments of defense, and corporations that has driven the great scientific projects of our time. The birth of Big Science can be traced nearly nine decades ago in Berkeley, California, when a young scientist with a talent for physics declared, "I'm going to be famous!" His name was Ernest Orlando Lawrence. His invention, the cyclotron, would revolutionize nuclear physics, but that was only the beginning of its impact, which would be felt in academia, industry, and international politics. It was the beginning of Big Science. "An exciting book....A bright narrative that captures the wonder of nuclear physics without flying off into a physics Neverland....Big Science is an excellent summary of how physics became nuclear and changed the world" (The Plain Dealer, Cleveland). This is the "absorbing and expansive" (Los Angeles Times) story that is "important for understanding how science and politics entwine in the United States...with striking details and revealing quotations" (The New York Times Book Review). "The Invention of Modern Science proposes a fruitful way of going beyond the apparently irreconcilable positions, that science is either "objective" or "socially constructed." Instead, suggests Isabelle Stengers, one of the most important and influential philosophers of science in Europe, we might understand the tension between scientific objectivity and belief as a necessary part of science, central to the practices invented and reinvented by scientists."--pub. desc.

Novel Science is the first in-depth study of the shocking, groundbreaking, and sometimes beautiful writings of the gentlemen of the "heroic age" of geology and of the contribution these men made to the literary culture of their day. For these men, literature was an essential part of the practice of science itself, as important to their efforts as mapmaking, fieldwork, and observation. The reading and writing of imaginative literatures helped them to discover, imagine, debate, and give shape and meaning to millions of years of previously undiscovered earth history. Borrowing from the historical fictions of Walter Scott and the poetry of Lord Byron, they invented geology as a science, discovered many of the creatures we now call the dinosaurs, and were the first to unravel and map the sequence and structure of stratified rock. As Adelene Buckland shows, they did this by rejecting the grand narratives of older theories of the earth or of biblical cosmogony: theirs would be a humble science, faithfully recording minute details and leaving the big picture for future generations to paint. Buckland also reveals how these scientists—just as they had drawn inspiration from their literary predecessors—gave Victorian realist novelists such as George Eliot, Charles Kingsley, and Charles Dickens a powerful language with which to create dark and disturbing ruptures in the too-seductive sweep of story. The Invention of Science A New History of the Scientific Revolution Harper Collins

We live in a world made by science. How and when did this happen? This book tells the story of the extraordinary intellectual and cultural revolution that gave birth to modern science, and mounts a major challenge to the prevailing orthodoxy of its history. Before 1492 it was assumed that all significant knowledge was already available; there was no concept of progress; people looked for understanding to the past not the future. This book argues that the discovery of America demonstrated that new knowledge was possible: indeed it introduced the very concept of 'discovery', and opened the way to the invention of science. The first crucial discovery was Tycho Brahe's nova of 1572: proof that there could be change in the heavens. The telescope (1610) rendered the old astronomy obsolete. Torricelli's experiment with the vacuum (1643) led directly to the triumph of the experimental method in the Royal Society of Boyle and Newton. By 1750 Newtonianism was being celebrated throughout Europe. The new science did not consist simply of new discoveries, or new methods. It relied on a new understanding of what knowledge might be, and with this came a new language: discovery, progress, facts, experiments, hypotheses, theories, laws of nature - almost all these terms existed before 1492, but their meanings were radically transformed so they became tools with which to think

scientifically. We all now speak this language of science, which was invented during the Scientific Revolution. The new culture had its martyrs (Bruno, Galileo), its heroes (Kepler, Boyle), its propagandists (Voltaire, Diderot), and its patient labourers (Gilbert, Hooke). It led to a new rationalism, killing off alchemy, astrology, and belief in witchcraft. It led to the invention of the steam engine and to the first Industrial Revolution. David Wootton's landmark book changes our understanding of how this great transformation came about, and of what science is.

In *The Lagoon*, acclaimed biologist Armand Marie Leroi recovers Aristotle's science. He revisits Aristotle's writings and the places where he worked. He goes to the eastern Aegean island of Lesbos to see the creatures that Aristotle saw, where he saw them. He explores Aristotle's observations, his deep ideas, his inspired guesses--and the things he got wildly wrong. He shows how Aristotle's science is deeply intertwined with his philosophical system and reveals that he was not only the first biologist, but also one of the greatest.

A portrait of scientist and theologian Joseph Priestly evaluates his friendships with such founding fathers as Benjamin Franklin and Thomas Jefferson while citing Priestly's role in the nation's intellectual development, the pursuit of key scientific agendas and the founding of the Unitarian Church. Reprint. A best-selling book.

Modern physical science is constituted by specialized scientific fields rooted in experimental laboratory work and in rational and mathematical representations. Contemporary scientific explanation is rigorously differentiated from religious interpretation, although, to be sure, scientists sometimes do the philosophical work of interpreting the metaphysics of space, time, and matter. However, it is rare that either theologians or philosophers convincingly claim that they are doing the scientific work of physical scientists and mathematicians. The rigidity of these divisions and differentiations is relatively new. Modern physical science was invented slowly and gradually through interactions of the aims and contents of mathematics, theology, and natural philosophy since the seventeenth century. In essays ranging in focus from seventeenth-century interpretations of heavenly comets to twentieth-century explanations of tracks in bubble chambers, ten historians of science demonstrate metaphysical and theological threads continuing to underpin the epistemology and practice of the physical sciences and mathematics, even while they became disciplinary specialties during the last three centuries. The volume is prefaced by tributes to Erwin N. Hiebert, whose teaching and scholarship have addressed and inspired attention to these issues.

How did mythology and religion first begin? Where did the ideas of "God," "spirit" and "soul" come from? The author takes us to ancient times, showing us how early humans struggled to make sense of the world around them. Drawing on history, geology, volcanology, anthropology, chemistry, astronomy, archeology, oceanography, biology and cognitive science, the author reveals the surprising true meaning of our most sacred stories. "Bill Lauritzen is some kind of genius." Sir Arthur C. Clarke. "Anyone interested in science and religion should read this book." Dr. Elizabeth Loftus, Ph.D., psychologist, UC Irvine. "Bill Lauritzen has systematically analyzed, from an original viewpoint, the historic sources related to the origins of religion. He summarized his research in this interesting and thought-provoking book." Mamikon Mnatsakanian, Ph.D, astrophysicist and mathematician, California Institute of Technology.

This edited collection explores the genesis of scientific conceptions of race and their accompanying impact on the taxonomy of human collections internationally as evidenced in ethnographic museums, world fairs, zoological gardens, international colonial exhibitions and ethnic shows. A deep epistemological change took place in Europe in this domain toward the end of the eighteenth century, producing new scientific representations of race and thereby triggering a radical transformation in the visual economy relating to race and racial representation and its inscription in the body. These practices would play defining roles in shaping public consciousness and the representation of "otherness" in modern societies. *The Invention of Race* provides contextualization that is often lacking in contemporary discussions on diversity, multiculturalism and race.

A wonderfully readable account of scientific development over the past 2500 years, focusing on the lives and achievements of individual scientists, by the bestselling author of *In Search of Schrödinger's Cat* In this ambitious new book, John Gribbin tells the stories of the people who have made science, and of the times in which they lived and worked. He begins with Copernicus, during the Renaissance, when science replaced mysticism as a means of explaining the workings of the world, and he continues through the centuries, creating an unbroken genealogy of not only the greatest but also the more obscure names of Western science, a dot-to-dot line linking amateur to genius, and accidental discovery to brilliant deduction. By focusing on the scientists themselves, Gribbin has written an anecdotal narrative enlivened with stories of personal drama, success and failure. A bestselling science writer with an international reputation, Gribbin is among the few authors who could even attempt a work of this magnitude. Praised as "a sequence of witty, information-packed tales" and "a terrific read" by *The Times* upon its recent British publication, *The Scientists* breathes new life into such venerable icons as Galileo, Isaac Newton, Albert Einstein and Linus Pauling, as well as lesser lights whose stories have been undeservedly neglected. Filled with pioneers, visionaries, eccentrics and madmen, this is the history of science as it has never been told before.

Written by an author with plenty of experience holding a scalpel, Dr. David Schneider's *The Invention of Surgery* is an in-depth biography of the practice that has leapt forward over the centuries from the dangerous guesswork of ancient Greek physicians through the world-changing developments of anesthesia and antiseptic operating rooms to the "implant revolution" of the twentieth century. *The Invention of Surgery* is history of surgery that explains this dramatic, world-changing progress and highlights the personalities of the discipline's most dynamic historical figures. It links together the lives of the pioneering scientists who first understood what causes disease and how surgery could powerfully intercede in people's lives, and then shows how the rise of surgery intersected with many of the greatest medical breakthroughs of the last century. And as Schneider argues,

surgery has not finished transforming; new technologies are constantly reinventing both the practice of surgery and the nature of the objects we are permanently implanting in our bodies. Schneider considers these latest developments, asking “What’s next?” and analyzing how our conception of surgery has changed alongside our evolving ideas of medicine, technology, and our bodies.

The acclaimed author of *Founding Gardeners* reveals the forgotten life of Alexander von Humboldt, the visionary German naturalist whose ideas changed the way we see the natural world—and in the process created modern environmentalism. NATIONAL BEST SELLER One of the New York Times 10 Best Books of the Year Winner of the Los Angeles Times Book Prize, The James Wright Award for Nature Writing, the Costa Biography Award, the Royal Geographic Society's Ness Award, the Sigurd F. Olson Nature Writing Award Finalist for the Andrew Carnegie Medal for Excellence in Nonfiction, the Kirkus Prize Prize for Nonfiction, the Independent Bookshop Week Book Award A Best Book of the Year: The New York Times, The Atlantic, The Economist, Nature, Jezebel, Kirkus Reviews, Publishers Weekly, New Scientist, The Independent, The Telegraph, The Sunday Times, The Evening Standard, The Spectator Alexander von Humboldt (1769–1859) was an intrepid explorer and the most famous scientist of his age. In North America, his name still graces four counties, thirteen towns, a river, parks, bays, lakes, and mountains. His restless life was packed with adventure and discovery, whether he was climbing the highest volcanoes in the world or racing through anthrax-infected Siberia or translating his research into bestselling publications that changed science and thinking. Among Humboldt’s most revolutionary ideas was a radical vision of nature, that it is a complex and interconnected global force that does not exist for the use of humankind alone. Now Andrea Wulf brings the man and his achievements back into focus: his daring expeditions and investigation of wild environments around the world and his discoveries of similarities between climate and vegetation zones on different continents. She also discusses his prediction of human-induced climate change, his remarkable ability to fashion poetic narrative out of scientific observation, and his relationships with iconic figures such as Simón Bolívar and Thomas Jefferson. Wulf examines how Humboldt’s writings inspired other naturalists and poets such as Darwin, Wordsworth, and Goethe, and she makes the compelling case that it was Humboldt’s influence that led John Muir to his ideas of natural preservation and that shaped Thoreau’s *Walden*. With this brilliantly researched and compellingly written book, Andrea Wulf shows the myriad fundamental ways in which Humboldt created our understanding of the natural world, and she champions a renewed interest in this vital and lost player in environmental history and science.

Details the true story of a timid young Quaker and amateur meteorologist named Luke Howard who was hurled into the spotlight when he assigned poetic names to the clouds in December 1802, which became a landmark in natural history and meteorology and caused him to become immortalized in the works of the Romantics. Reprint. 10,000 first printing.

This study draws a new picture of the invention of the emblem book, and discusses the textual and pictorial means that were developed in order to transmit knowledge, from Alciato to Vaenius, with special emphasis on the emblem commentary and natural history.

This vividly illustrated book introduces the reader to the brothers Montgolfier, who launched the first hotair balloon in Annonay, France on 4 June 1783. Originally published in 1983. The Princeton Legacy Library uses the latest print-on-demand technology to again make available previously out-of-print books from the distinguished backlist of Princeton University Press. These editions preserve the original texts of these important books while presenting them in durable paperback and hardcover editions. The goal of the Princeton Legacy Library is to vastly increase access to the rich scholarly heritage found in the thousands of books published by Princeton University Press since its founding in 1905.

Color photography as a new invention is chronicled in this book, which also includes wireless telegraphy and sending photos by wire. The Autochrome color process had been recently brought on the market by the Lumiere Brothers shortly before this 1917 publication.

A portrait of the German naturalist reveals his ongoing influence on humanity's relationship with the natural world today, discussing such topics as his views on climate change, conservation, and nature as a resource for all life.

From the bestselling author of *Everything Bad is Good for You*, Steven Johnson's *The Invention of Air* tells the incredible story of scientist and radical Joseph Priestley, who invented soda water, discovered oxygen, and incited rioting with his political views. In 1794, Joseph Priestley - amateur scientist, ordained minister and radical thinker - set sail for America to escape persecution. Steven Johnson tells his incredible story: the discovery of oxygen, the invention of a science, the founding of a church, and, with the great minds of his time, the development of the United States itself. But Priestley's revolutionary ideas put him in terrible danger. Johnson uses the progress of Priestley and his colleagues not merely to describe the wonder of discovery, but to show us how we have come to understand the world, how far we have travelled with the power of human enquiry - and how one man's curiosity can help build an entire country. 'A shot of the purest oxygen' Simon Winchester 'Packed with excellent stuff' Russell Davies 'Entertaining ... clear-sighted and intelligent' New Yorker 'As full of ingenuity and as delightful as its subject' Financial Times 'Brilliant' The New York Times 'Johnson paints Priestley not as a man of the past but precisely the sort of figure the world needs more than ever' New York Post Steven Johnson is the author of the acclaimed books *Everything Bad is Good for You*, *Mind Wide Open*, *Where Good Ideas Come From*, *The Ghost Map*, *Emergence* and *Interface Culture*. His writing appeared in the *Guardian*, the *New Yorker*, *Nation* and *Harper's*, as well as the op-ed pages of *The New York Times* and the *Wall Street Journal*. He is a Distinguished Writer In Residence at NYU's School Of Journalism, and a Contributing Editor to *Wired*.

One of the world’s most beloved and bestselling writers takes his ultimate journey -- into the most intriguing and intractable questions that science seeks to answer. In *A Walk in the Woods*, Bill Bryson trekked the Appalachian Trail -- well, most of it. In *In A Sunburned Country*, he confronted some of the most lethal wildlife Australia has to offer. Now, in his biggest book, he confronts his greatest challenge: to understand -- and, if possible, answer -- the oldest, biggest questions we have posed about the universe and ourselves. Taking as territory everything from the Big Bang to the rise of civilization, Bryson seeks to understand how we got from there being nothing at all to there being us. To that end, he has attached himself to a host of the world’s most advanced (and often obsessed) archaeologists, anthropologists, and mathematicians, travelling to their offices, laboratories, and field camps. He has read (or tried to read) their books, pestered them with questions, apprenticed himself to their powerful minds. *A Short History of Nearly Everything* is the record of this quest, and it is a sometimes profound, sometimes funny, and always supremely clear and entertaining adventure in the realms of human knowledge, as only Bill Bryson can render it. Science has never been more involving or entertaining.

A companion to such acclaimed works as *The Age of Wonder*, *A Clockwork Universe*, and *Darwin’s Ghosts*—a groundbreaking examination of the greatest event in history, the Scientific Revolution, and how

it came to change the way we understand ourselves and our world. We live in a world transformed by scientific discovery. Yet today, science and its practitioners have come under political attack. In this fascinating history spanning continents and centuries, historian David Wootton offers a lively defense of science, revealing why the Scientific Revolution was truly the greatest event in our history. The Invention of Science goes back five hundred years in time to chronicle this crucial transformation, exploring the factors that led to its birth and the people who made it happen. Wootton argues that the Scientific Revolution was actually five separate yet concurrent events that developed independently, but came to intersect and create a new worldview. Here are the brilliant iconoclasts—Galileo, Copernicus, Brahe, Newton, and many more curious minds from across Europe—whose studies of the natural world challenged centuries of religious orthodoxy and ingrained superstition. From gunpowder technology, the discovery of the new world, movable type printing, perspective painting, and the telescope to the practice of conducting experiments, the laws of nature, and the concept of the fact, Wootton shows how these discoveries codified into a social construct and a system of knowledge. Ultimately, he makes clear the link between scientific discovery and the rise of industrialization—and the birth of the modern world we know.

An accessible reference offers a panoramic perspective on scientific inventions that reflect the human race's efforts to understand and master the universe, sharing chronological and geocultural coverage of ten distinct eras.

The Invention of Telepathy explores one of the enduring concepts to emerge from the late nineteenth century. Telepathy was coined by Frederic Myers in 1882. He defined it as 'the communication of any kind from one mind to another, independently of the recognised channels of sense'. By 1901 it had become a disputed phenomenon amongst physical scientists yet was the 'royal road' to the unconscious mind. Telepathy was discussed by eminent men and women of the day, including Sigmund Freud, Thomas Huxley, Henry and William James, Mary Kingsley, Andrew Lang, Vernon Lee, W.T. Stead, and Oscar Wilde. Did telepathy signal evolutionary advance or possible decline? Could it be a means of binding the Empire closer together, or was it used by natives to subvert imperial communications? Were women more sensitive than men, and if so why? Roger Luckhurst investigates these questions in a study that mixes history of science with cultural history and literary analysis.

The Invention of Science: Why History of Science Matters for the Classroom introduces readers to some of the developments that were key for the emergence of Eurocentric science, the discipline we call science. Using history this book explores how human groups and individuals were key to the invention of the discipline of we call science. All human groups have a need and desire to produce systematic knowledge that supports their ongoing survival as a community. This book examines how history can help us to understand emergence of Eurocentric science from local forms of systematic knowledge. Each chapter explores elements that were central to the invention of science including beliefs of what was real and true, forms of reasoning to be valued, and how the right knowledge should be constructed and the role of language. But most importantly this book presented these ideas in an accessible way with activities and questions to help readers grapple with the ideas being presented. Enjoy!

An engaging new history of the Royal Society of London, the club that created modern scientific thought Founded in 1660 to advance knowledge through experimentally verified facts, The Royal Society of London is now one of the preeminent scientific institutions of the world. It published the world's first science journal, and has counted scientific luminaries from Isaac Newton to Stephen Hawking among its members. However, the road to truth was often bumpy. In its early years-while bickering, hounding its members for dues, and failing to create its own museum-members also performed sheep to human blood transfusions, and experimented with unicorn horns. In his characteristically accessible and lively style, Adrian Tinniswood charts the Society's evolution from poisoning puppies to the discovery of DNA, and reminds us of the increasing relevance of its motto for the modern world: Nullius in Verba-Take no one's word for it.

'The most stimulating history book which has come my way this year ...'History Today

From the bestselling author of How We Got To Now, The Ghost Map and Farsighted, a new national bestseller: the "exhilarating"( Los Angeles Times) story of Joseph Priestley, "a founding father long forgotten"(Newsweek) and a brilliant man who embodied the relationship between science, religion, and politics for America's Founding Fathers. In The Invention of Air, national bestselling author Steven Johnson tells the fascinating story of Joseph Priestley—scientist and theologian, protégé of Benjamin Franklin, friend of Thomas Jefferson—an eighteenth-century radical thinker who played pivotal roles in the invention of ecosystem science, the discovery of oxygen, the uses of oxygen, scientific experimentation, the founding of the Unitarian Church, and the intellectual development of the United States. As he did so masterfully in The Ghost Map, Steven Johnson uses a dramatic historical story to explore themes that have long engaged him: innovative strategies, intellectual models, and the way new ideas emerge and spread, and the environments that foster these breakthroughs.

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