

Making The Modern World Materials And Dematerialization Vaclav Smil

Business professionals and consumers will learn about the challenges and opportunities facing the manufacturing world in this highly readable perspective on materials and environmental sustainability. Finalist in the 2019 San Francisco Writers Contest.

A study of how materialism and consumerism undermine our quality of life. In *The High Price of Materialism*, Tim Kasser offers a scientific explanation of how our contemporary culture of consumerism and materialism affects our everyday happiness and psychological health. Other writers have shown that once we have sufficient food, shelter, and clothing, further material gains do little to improve our well-being. Kasser goes beyond these findings to investigate how people's materialistic desires relate to their well-being. He shows that people whose values center on the accumulation of wealth or material possessions face a greater risk of unhappiness, including anxiety, depression, low self-esteem, and problems with intimacy—regardless of age, income, or culture. Drawing on a decade's worth of empirical data, Kasser examines what happens when we organize our lives around materialistic pursuits. He looks at the effects on our internal experience and interpersonal relationships, as well as on our communities and the world at large. He shows that materialistic values actually undermine our well-being, as they perpetuate feelings of insecurity, weaken the ties that bind us, and make us feel less free. Kasser not only defines the problem but proposes ways we can change ourselves, our families, and society to become less materialistic.

This volume presents a global narrative of the origins of the modern world. Unlike most studies, which assume that the rise of the West is the story of the coming of the modern world, this history accords importance to the 'underdeveloped world'.

Introduction -- Thrifty science: oeconomy and experiment -- Making a home for experiment -- Shifty science: how to make use of things -- The power of lasting: maintenance and cleaning -- The broken world: repairs and recycling -- Secondhand science -- Auctions and the dismantling of science -- The palatial laboratory: economy and experiment -- Conclusion

From composer, musician, philanthropist--and son of Warren Buffett--comes a warm, wise, and inspirational book that expounds on the strong set of values given to him by his trusting and broadminded mother, his industrious and talented father, and the many life teachers he has met along the way.

It's the revolutionary world history study guide just for middle school students from the brains behind Brain Quest. *Everything You Need to Ace World History . . .* kicks off with the Paleolithic Era and transports the reader to ancient civilizations—from Africa and beyond; the middle ages across the world; the Renaissance; the age of exploration and colonialism, revolutions, and the modern world and the wars and movements that shaped it. The BIG FAT NOTEBOOK™ series is built on a simple and irresistible conceit—borrowing the notes from the smartest kid in class. There are five books in all, and each is the only one book you need for each main subject taught in middle school: Math, Science, American History, English, and World History. Inside the reader will find every subject's key concepts, easily digested and summarized: Critical ideas highlighted in marker colors. Definitions explained. Doodles that illuminate tricky concepts. Mnemonics for a memorable shortcut. And quizzes to recap it all. The BIG FAT NOTEBOOKS meet Common Core State Standards, Next Generation Science Standards, and state history standards, and are vetted by National and State Teacher of the Year Award–winning teachers. They make learning fun, and are the perfect next step for every kid who grew up on Brain Quest.

When Lefebvre's book first appeared in the 1960s it was considered a manifesto for a social movement that focused on the quality of life experi-enced by the individual--by the com-mon

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man and woman. His emphasis on the quality of life will have even more appeal to those currently living with the problems of inflation, unemployment, and dwindling natural resources. Basing his discussions on everyday life in France, Lefebvre shows the degree to which our lived-in world and our sense of it are shaped by decisions about which we know little and in which we do not participate. He evaluates the achievements and shortcomings of applying various philosophical perspectives such as Marxism and Structuralism to daily life, studies the impact of consumerism on society, and looks at effects on society of linguistic phenomena and various kinds of terrorism communicated through mass media. In his new introduction to this edition, Philip Wander evaluates Lefebvre's ideas by relating many of them to current contexts. He discusses the political and economic aspects of daily life in the 1980s, the work environment, communications, and the world of science and technology.

A comprehensive account of how energy has shaped society throughout history, from pre-agricultural foraging societies through today's fossil fuel-driven civilization. "I wait for new Smil books the way some people wait for the next 'Star Wars' movie. In his latest book, *Energy and Civilization: A History*, he goes deep and broad to explain how innovations in humans' ability to turn energy into heat, light, and motion have been a driving force behind our cultural and economic progress over the past 10,000 years. —Bill Gates, *Gates Notes*, Best Books of the Year Energy is the only universal currency; it is necessary for getting anything done. The conversion of energy on Earth ranges from terra-forming forces of plate tectonics to cumulative erosive effects of raindrops. Life on Earth depends on the photosynthetic conversion of solar energy into plant biomass. Humans have come to rely on many more energy flows—ranging from fossil fuels to photovoltaic generation of electricity—for their civilized existence. In this monumental history, Vaclav Smil provides a comprehensive account of how energy has shaped society, from pre-agricultural foraging societies through today's fossil fuel-driven civilization. Humans are the only species that can systematically harness energies outside their bodies, using the power of their intellect and an enormous variety of artifacts—from the simplest tools to internal combustion engines and nuclear reactors. The epochal transition to fossil fuels affected everything: agriculture, industry, transportation, weapons, communication, economics, urbanization, quality of life, politics, and the environment. Smil describes humanity's energy eras in panoramic and interdisciplinary fashion, offering readers a magisterial overview. This book is an extensively updated and expanded version of Smil's *Energy in World History* (1994). Smil has incorporated an enormous amount of new material, reflecting the dramatic developments in energy studies over the last two decades and his own research over that time.

The revered New York Times bestselling author traces the development of technology from the Industrial Age to the Digital Age to explore the single component crucial to advancement—precision—in a superb history that is both an homage and a warning for our future. The rise of manufacturing could not have happened without an attention to precision. At the dawn of the Industrial Revolution in eighteenth-century England, standards of measurement were established, giving way to the development of machine tools—machines that make machines. Eventually, the application of precision tools and methods resulted in the creation and mass production of items from guns and glass to mirrors, lenses, and cameras—and eventually gave way to further breakthroughs, including gene splicing, microchips, and the Hadron Collider. Simon Winchester takes us back to origins of the Industrial Age, to England where he introduces the scientific minds that helped usher in modern production: John Wilkinson, Henry Maudslay, Joseph Bramah, Jesse Ramsden, and Joseph Whitworth. It was Thomas Jefferson who later exported their discoveries to the fledgling United States, setting the nation on its course to become a manufacturing titan. Winchester moves

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forward through time, to today's cutting-edge developments occurring around the world, from America to Western Europe to Asia. As he introduces the minds and methods that have changed the modern world, Winchester explores fundamental questions. Why is precision important? What are the different tools we use to measure it? Who has invented and perfected it? Has the pursuit of the ultra-precise in so many facets of human life blinded us to other things of equal value, such as an appreciation for the age-old traditions of craftsmanship, art, and high culture? Are we missing something that reflects the world as it is, rather than the world as we think we would wish it to be? And can the precise and the natural co-exist in society?

A wide-ranging, interdisciplinary look at global changes that may occur over the next fifty years—whether sudden and cataclysmic world-changing events or gradually unfolding trends. Fundamental change occurs most often in one of two ways: as a “fatal discontinuity,” a sudden catastrophic event that is potentially world changing, or as a persistent, gradual trend. Global catastrophes include volcanic eruptions, viral pandemics, wars, and large-scale terrorist attacks; trends are demographic, environmental, economic, and political shifts that unfold over time. In this provocative book, scientist Vaclav Smil takes a wide-ranging, interdisciplinary look at the catastrophes and trends the next fifty years may bring. Smil first looks at rare but cataclysmic events, both natural and human-produced, then at trends of global importance, including the transition from fossil fuels to other energy sources and growing economic and social inequality. He also considers environmental change—in some ways an amalgam of sudden discontinuities and gradual change—and assesses the often misunderstood complexities of global warming. *Global Catastrophes and Trends* does not come down on the side of either doom-and-gloom scenarios or techno-euphoria. Instead, Smil argues that understanding change will help us reverse negative trends and minimize the risk of catastrophe.

Winner of the Pulitzer Prize In this groundbreaking biography of the Japanese emperor Hirohito, Herbert P. Bix offers the first complete, unvarnished look at the enigmatic leader whose sixty-three-year reign ushered Japan into the modern world. Never before has the full life of this controversial figure been revealed with such clarity and vividness. Bix shows what it was like to be trained from birth for a lone position at the apex of the nation's political hierarchy and as a revered symbol of divine status. Influenced by an unusual combination of the Japanese imperial tradition and a modern scientific worldview, the young emperor gradually evolves into his preeminent role, aligning himself with the growing ultranationalist movement, perpetuating a cult of religious emperor worship, resisting attempts to curb his power, and all the while burnishing his image as a reluctant, passive monarch. Here we see Hirohito as he truly was: a man of strong will and real authority. Supported by a vast array of previously untapped primary documents, *Hirohito and the Making of Modern Japan* is perhaps most illuminating in lifting the veil on the mythology surrounding the emperor's impact on the world stage. Focusing closely on Hirohito's interactions with his advisers and successive Japanese governments, Bix sheds new light on the causes of the China War in 1937 and the start of the Asia-Pacific War in 1941. And while conventional wisdom has had it that the nation's increasing foreign aggression was driven and maintained not by the emperor but by an elite group of Japanese militarists, the reality, as witnessed here, is quite different. Bix documents in detail the strong, decisive role Hirohito played in wartime

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operations, from the takeover of Manchuria in 1931 through the attack on Pearl Harbor and ultimately the fateful decision in 1945 to accede to an unconditional surrender. In fact, the emperor stubbornly prolonged the war effort and then used the horrifying bombings of Hiroshima and Nagasaki, together with the Soviet entrance into the war, as his exit strategy from a no-win situation. From the moment of capitulation, we see how American and Japanese leaders moved to justify the retention of Hirohito as emperor by whitewashing his wartime role and reshaping the historical consciousness of the Japanese people. The key to this strategy was Hirohito's alliance with General MacArthur, who helped him maintain his stature and shed his militaristic image, while MacArthur used the emperor as a figurehead to assist him in converting Japan into a peaceful nation. Their partnership ensured that the emperor's image would loom large over the postwar years and later decades, as Japan began to make its way in the modern age and struggled -- as it still does -- to come to terms with its past. Until the very end of a career that embodied the conflicting aims of Japan's development as a nation, Hirohito remained preoccupied with politics and with his place in history. Hirohito and the Making of Modern Japan provides the definitive account of his rich life and legacy. Meticulously researched and utterly engaging, this book is proof that the history of twentieth-century Japan cannot be understood apart from the life of its most remarkable and enduring leader.

How much further should the affluent world push its material consumption? Does relative dematerialization lead to absolute decline in demand for materials? These and many other questions are discussed and answered in Making the Modern World: Materials and Dematerialization. Over the course of time, the modern world has become dependent on unprecedented flows of materials. Now even the most efficient production processes and the highest practical rates of recycling may not be enough to result in dematerialization rates that would be high enough to negate the rising demand for materials generated by continuing population growth and rising standards of living. This book explores the costs of this dependence and the potential for substantial dematerialization of modern economies. Making the Modern World: Materials and Dematerialization considers the principal materials used throughout history, from wood and stone, through to metals, alloys, plastics and silicon, describing their extraction and production as well as their dominant applications. The evolving productivities of material extraction, processing, synthesis, finishing and distribution, and the energy costs and environmental impact of rising material consumption are examined in detail. The book concludes with an outlook for the future, discussing the prospects for dematerialization and potential constraints on materials. This interdisciplinary text provides useful perspectives for readers with backgrounds including resource economics, environmental studies, energy analysis, mineral geology, industrial organization, manufacturing and material science.

This volume questions whether ideas of revolution are still relevant in the postmodern and globalized world of the twenty-first century. Featuring contributions from some of the world's leading sociological and political thinkers on revolution, it combines theoretical concerns with a variety of detailed case studies of individual revolutions. Subjects covered include: democracy and revolution from 1789 to 1989 twentieth century revolutions and theories of revolution, including Marxism, modernization and structuralist theories revolution in the "Third World" and the variable geometry of the

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paths to modernity Islamic revolutions and modernity the 1989 revolutions as "democratic revolutions" or "elite-led transitions" globalization, the nation-state and revolution empire and "democratic revolution" network society and revolution Islamic fundamentalism, international terrorism and revolution democratic revolution as a new form of revolution postmodern theories of revolution new social movements, identities and new figures of revolution. Revolution in the Making of the Modern World will be essential reading for students and scholars of comparative politics, political theory, revolution and political sociology.

Over 400 years ago, Swiss alchemist and physician Paracelsus (1493-1541) cited: "All substances are poisons; there is none that is not a poison. The right dose differentiates a poison from a remedy." This is often condensed to: "The dose makes the poison." So, why are we overtly anxious about intoxications? In fact, poisons became a global problem with the industrial revolution. Pesticides, asbestos, occupational chemicals, air pollution, and heavy metal toxicity maintain high priority worldwide, especially in developing countries. Children between 0 and 5 years old are the most vulnerable to both acute and chronic poisonings, while older adults suffer from the chronic effects of chemicals. This book aims to raise awareness about the challenges of poisons, to help clinicians understand current issues in toxicology.

Materials science and engineering (MSE) contributes to our everyday lives by making possible technologies ranging from the automobiles we drive to the lasers our physicians use. Materials Science and Engineering for the 1990s charts the impact of MSE on the private and public sectors and identifies the research that must be conducted to help America remain competitive in the world arena. The authors discuss what current and future resources would be needed to conduct this research, as well as the role that industry, the federal government, and universities should play in this endeavor.

Examines how the Inquisition's sentiments are thriving in today's world, tracing the history of its legacy through stories that lead to modern incarnations like Vatican edicts, the Third Reich, and Guantanamo's detention camps.

This book introduces materials and how advances in materials result in advances in technology and our daily lives. Each chapter covers a particular material, how the material was discovered or invented, when it was first used, how this material has impacted the world, what makes the material important, how it is used today, and future applications. The list of materials covered in this book includes stone, wood, natural fibers, metals, clay, lead, iron, steel, silicon, glass, rubber, composites, polyethylene, rare earth magnet, and alloys.

A systematic investigation of growth in nature and society, from tiny organisms to the trajectories of empires and civilizations. Growth has been both an unspoken and an explicit aim of our individual and collective striving. It governs the lives of microorganisms and galaxies; it shapes the capabilities of our extraordinarily large brains and the fortunes of our economies. Growth is manifested in annual increments of continental crust, a rising gross domestic product, a child's growth chart, the spread of cancerous cells. In this magisterial book, Vaclav Smil offers systematic investigation of growth in nature and society, from tiny organisms to the trajectories of empires and civilizations. Smil takes readers from bacterial invasions through animal metabolisms to megacities and the global economy. He begins with organisms whose mature sizes range from microscopic to enormous, looking at disease-causing microbes, the cultivation of staple crops, and human growth from infancy to adulthood. He examines the growth of energy conversions and man-made objects that enable economic activities—developments that have been essential to civilization. Finally, he looks at growth in

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complex systems, beginning with the growth of human populations and proceeding to the growth of cities. He considers the challenges of tracing the growth of empires and civilizations, explaining that we can chart the growth of organisms across individual and evolutionary time, but that the progress of societies and economies, not so linear, encompasses both decline and renewal. The trajectory of modern civilization, driven by competing imperatives of material growth and biospheric limits, Smil tells us, remains uncertain.

Meat eating is often a contentious subject, whether considering the technical, ethical, environmental, political, or health-related aspects of production and consumption. This book is a wide-ranging and interdisciplinary examination and critique of meat consumption by humans, throughout their evolution and around the world. Setting the scene with a chapter on meat's role in human evolution and its growing influence during the development of agricultural practices, the book goes on to examine modern production systems, their efficiencies, outputs, and impacts. The major global trends of meat consumption are described in order to find out what part its consumption plays in changing modern diets in countries around the world. The heart of the book addresses the consequences of the "massive carnivory" of western diets, looking at the inefficiencies of production and at the huge impacts on land, water, and the atmosphere. Health impacts are also covered, both positive and negative. In conclusion, the author looks forward at his vision of "rational meat eating", where environmental and health impacts are reduced, animals are treated more humanely, and alternative sources of protein make a higher contribution. *Should We Eat Meat?* is not an ideological tract for or against carnivorousness but rather a careful evaluation of meat's roles in human diets and the environmental and health consequences of its production and consumption. It will be of interest to a wide readership including professionals and academics in food and agricultural production, human health and nutrition, environmental science, and regulatory and policy making bodies around the world.

An investigation of the America-Rome analogy that goes deeper than the facile comparisons made on talk shows and in glossy magazine articles. America's post-Cold War strategic dominance and its pre-recession affluence inspired pundits to make celebratory comparisons to ancient Rome at its most powerful. Now, with America no longer perceived as invulnerable, engaged in protracted fighting in Iraq and Afghanistan, and suffering the worst economic downturn since the Great Depression, comparisons are to the bloated, decadent, ineffectual later Empire. In *Why America Is Not a New Rome*, Vaclav Smil looks at these comparisons in detail, going deeper than the facile analogy-making of talk shows and glossy magazine articles. He finds profound differences. Smil, a scientist and a lifelong student of Roman history, focuses on several fundamental concerns: the very meaning of empire; the actual extent and nature of Roman and American power; the role of knowledge and innovation; and demographic and economic basics—population dynamics, illness, death, wealth, and misery. America is not a latter-day Rome, Smil finds, and we need to understand this in order to look ahead without the burden of counterproductive analogies. Superficial similarities do not imply long-term political, demographic, or economic outcomes identical to Rome's.

This inquiry into the technical advances that shaped the 20th century follows the evolutions of all the principal innovations introduced before 1913 (as detailed in the first volume) as well as the origins and elaborations of all fundamental 20th century advances. The history of the 20th century is rooted in amazing technical advances of 1871-1913, but the century differs so remarkably from the preceding 100 years because of several unprecedented combinations. The 20th century had followed on the path defined during the half century preceding the beginning of World War I, but it has traveled along that path at a very different pace, with different ambitions and intents. The new century's developments elevated both the magnitudes of output and the spatial distribution of mass industrial production and to new and, in many ways, virtually incomparable levels. Twentieth century science and engineering conquered and

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perfected a number of fundamental challenges which remained unresolved before 1913, and which to many critics appeared insoluble. This book is organized in topical chapters dealing with electricity, engines, materials and syntheses, and information techniques. It concludes with an extended examination of contradictory consequences of our admirable technical progress by confronting the accomplishments and perils of systems that brought liberating simplicity as well as overwhelming complexity, that created unprecedented affluence and equally unprecedented economic gaps, that greatly increased both our security and fears as well as our understanding and ignorance, and that provided the means for greater protection of the biosphere while concurrently undermining some of the key biophysical foundations of life on Earth. Transforming the Twentieth Century will offer a wide-ranging interdisciplinary appreciation of the undeniable technical foundations of the modern world as well as a multitude of welcome and worrisome consequences of these developments. It will combine scientific rigor with accessible writing, thoroughly illustrated by a large number of appropriate images that will include historical photographs and revealing charts of long-term trends.

A re-evaluation of Genghis Khan's rise to power examines the reforms the conqueror instituted throughout his empire and his uniting of East and West, which set the foundation for the nation-states and economic systems of the modern era.

One of the most urgent challenges in African economic development is to devise a strategy for improving statistical capacity. Reliable statistics, including estimates of economic growth rates and per-capita income, are basic to the operation of governments in developing countries and vital to nongovernmental organizations and other entities that provide financial aid to them. Rich countries and international financial institutions such as the World Bank allocate their development resources on the basis of such data. The paucity of accurate statistics is not merely a technical problem; it has a massive impact on the welfare of citizens in developing countries. Where do these statistics originate? How accurate are they? *Poor Numbers* is the first analysis of the production and use of African economic development statistics. Morten Jerven's research shows how the statistical capacities of sub-Saharan African economies have fallen into disarray. The numbers substantially misstate the actual state of affairs. As a result, scarce resources are misapplied. Development policy does not deliver the benefits expected. Policymakers' attempts to improve the lot of the citizenry are frustrated. Donors have no accurate sense of the impact of the aid they supply. Jerven's findings from sub-Saharan Africa have far-reaching implications for aid and development policy. As Jerven notes, the current catchphrase in the development community is "evidence-based policy," and scholars are applying increasingly sophisticated econometric methods-but no statistical techniques can substitute for partial and unreliable data.

On the 500th anniversary of Luther's theses, a landmark history of the revolutionary faith that shaped the modern world. "Ryrie writes that his aim 'is to persuade you that we cannot understand the modern age without understanding the dynamic history of Protestant Christianity.' To which I reply: Mission accomplished." —Jon Meacham, author of *American Lion* and *Thomas Jefferson* Five hundred years ago a stubborn German monk challenged the Pope with a radical vision of what Christianity could be. The revolution he set in motion toppled governments, upended social norms and transformed millions of people's understanding of their relationship with God. In this dazzling history, Alec Ryrie makes the case that we owe many of the rights and freedoms we have cause to take for granted—from free speech to limited government—to our Protestant roots. Fired up by their faith, Protestants have embarked on courageous journeys into the unknown like many rebels and refugees who made their way to our shores. Protestants created America and defined its special brand of entrepreneurial diligence. Some turned to their bibles to justify bold acts of political opposition, others to spurn orthodoxies and insight on their God-given rights. Above all Protestants have fought for their beliefs, establishing a tradition of principled opposition and civil disobedience that is as alive

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today as it was 500 years ago. In this engrossing and magisterial work, Alec Ryrie makes the case that whether or not you are yourself a Protestant, you live in a world shaped by Protestants.

Part of the hugely popular Without the Hot Air series, this book is accessibly written from an engineering perspective on a wide range of materials. Presenting a vision of change for how future generations can still use steel, cement, plastics, etcetera, but with less impact on the environment, this book is a wake-up call first, and then a solutions manual. By providing an evidence-based vision of change, the book can play a significant role in influencing our future. Written for designers; engineers; operations, technical, and business managers; traders; and government and NGO officials associated with business, climate, energy, environment, waste, trade and financing. It is relevant to a wide range of industries, including energy, construction, consulting, manufacturing, transport, and architecture, but will also appeal to those who love popular science. This second edition is updated with the latest developments in both science and industry.

What makes the modern world work? The answer to this deceptively simple question lies in four "grand transitions" of civilization--in populations, agriculture, energy, and economics--which have transformed the way we live. Societies that have undergone all four transitions emerge into an era of radically different population dynamics, food surpluses (and waste), abundant energy use, and expanding economic opportunities. Simultaneously, in other parts of the world, hundreds of millions remain largely untouched by these developments. Through erudite storytelling, Vaclav Smil investigates the fascinating and complex interactions of these transitions. He argues that the moral imperative to share modernity's benefits has become more acute with increasing economic inequality, but addressing this imbalance would make it exceedingly difficult to implement the changes necessary for the long-term preservation of the environment. Thus, managing the fifth transition--environmental changes from natural-resource depletion, biodiversity loss, and global warming--will determine the success or eventual failure of the grand transitions that have made the world we live in today. This is a follow-up book to the author's Sustainable Energy Without the Hot Air, which had a large influence on both government policy and public opinion of how we should plan our energy for the future. This book faces up to the impacts of making materials in the 21st century. We are already making materials well, but demand keeps growing and we need to plan for a sustainable material future. The steel and aluminium industries alone account for nearly 30 per cent of global emissions, and demand is rising. The world target is to reduce industry's carbon emissions by 50 per cent by 2050. However, projections are that world demand for materials will double by 2050, so to meet our emissions target, we have to achieve a 4-fold reduction in emissions per unit of material used: industry will have to make huge changes, not just to the processes involved, but to the entire product life-cycle. This book presents a vision of change for how future generations can still use steel, cement, plastics etc., but with less impact on the environment. First it is a wake-up call, then it is a solutions manual. The solutions presented here are ahead of the game now. By providing an evidence-based vision of change, this book can play a significant role in influencing our energy future. How much further should the affluent world push its material consumption? Does relative dematerialization lead to absolute decline in demand for materials? These and many other questions are discussed and answered in Making the Modern World: Materials and Dematerialization. Over the course of time, the modern world has become dependent on unprecedented flows of materials. Now even the most efficient production processes and the highest practical rates of recycling may not be enough to result in dematerialization rates that would be high enough to negate the rising demand for materials generated by continuing population growth and rising standards of living. This book explores the costs of this dependence and the potential for substantial dematerialization of modern economies. Making

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the Modern World: Materials and Dematerialization considers the principal materials used throughout history, from wood and stone, through to metals, alloys, plastics and silicon, describing their extraction and production.

The sequel and companion volume to C.A. Bayly's ground-breaking *The Birth of the Modern World, 1780-1914*, this wide-ranging and sophisticated study explores global history since the First World War, offering a coherent, comparative overview of developments in politics, economics, and society at large. Written by one of the leading historians of his generation, an early intellectual leader in the study of World History Weaves a clear narrative history that explores the themes of politics, economics, social, cultural, and intellectual life throughout the long twentieth century Identifies the themes of state, capital, and communication as key drivers of change on a global scale in the last century, and explores the impact of those ideas Interrogates whether warfare was really the pre-eminent driving force of twentieth-century history, and what other ideas shaped the course of history in this period Explores the causes behind the resurgence of local conflict, rather than global-scale conflict, in the years since the turn of the millennium Delves into the narrative of inequality, a story that has shaped and been shaped by the events of the last hundred years

"Aiming to elucidate the complexity of material flows of modern societies, their prerequisites and their consequences"--

'My favourite author has done it again. *Numbers Don't Lie* is by far his most accessible book to date, and I highly recommend it to anyone who is curious about the world' Bill Gates Is flying dangerous? How much do the world's cows weigh? And what makes people happy? From Earth's nations and inhabitants, through the fuels and foods that energize them, to the transportation and inventions of our modern world - and how all of this affects the planet itself - in *Numbers Don't Lie*, Professor Vaclav Smil takes us on a fact-finding adventure, using surprising statistics and illuminating graphs to challenge lazy thinking. Smil is on a mission to make facts matter, because after all, numbers may not lie, but which truth do they convey? 'Smil's title says it all: to understand the world, you need to follow the trendlines, not the headlines. This is a compelling, fascinating, and most important, realistic portrait of the world and where it's going' Steven Pinker 'The best book to read to better understand our world. It should be on every bookshelf!' Linda Yueh 'There is perhaps no other academic who paints pictures with numbers like Smil' Guardian

A bestselling historian shows how the British Empire created the modern world, in a book lauded as "a rattling good tale" (*Wall Street Journal*) and "popular history at its best" (*Washington Post*) The British Empire was the largest in all history: the nearest thing to global domination ever achieved. The world we know today is in large measure the product of Britain's Age of Empire. The global spread of capitalism, telecommunications, the English language, and institutions of representative government -- all these can be traced back to the extraordinary expansion of Britain's economy, population and culture from the seventeenth century until the mid-twentieth. On a vast and vividly colored canvas, *Empire* shows how the British Empire acted as midwife to modernity. Displaying the originality and rigor that have made Niall Ferguson one of the world's foremost historians, *Empire* is a dazzling tour de force -- a remarkable reappraisal of the prizes and pitfalls of global empire.

The story of humanity - evolution of our species; prehistoric shift from foraging to permanent agriculture; rise and fall of antique, medieval, and early modern civilizations; economic advances of the past two centuries; mechanization of agriculture; diversification and automation of industrial production; enormous increases in energy consumption; diffusion of new communication and information networks; and impressive gains in quality of life - would not have been possible without an expanding and increasingly intricate and complex use of materials. Human ingenuity has turned these materials first into simple clothes, tools, weapons, and shelters, later into more elaborate dwellings, religious and funerary structures,

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pure and alloyed metals, and in recent generations into extensive industrial and transportation infrastructures, megacities, synthetic and composite compounds, and into substrates and enablers of a new electronic world. This material progress has not been a linear advance but has consisted of two unequal periods. First was the very slow rise that extended from pre-history to the beginnings of rapid economic modernization, that is, until the eighteenth century in most of Europe, until the nineteenth century in the USA, Canada, and Japan, and until the latter half of the twentieth century in Latin America, the Middle East, and China. An overwhelming majority of people lived in those pre-modern societies with only limited quantities of simple possessions that they made themselves or that were produced by artisanal labor as unique pieces or in small batches - while the products made in larger quantities, be they metal objects, fired bricks and tiles, or drinking glasses, were too expensive to be widely owned.

INSTANT NEW YORK TIMES BESTSELLER “One of the most important books I’ve ever read—an indispensable guide to thinking clearly about the world.” – Bill Gates “Hans Rosling tells the story of ‘the secret silent miracle of human progress’ as only he can. But Factfulness does much more than that. It also explains why progress is so often secret and silent and teaches readers how to see it clearly.” —Melinda Gates "Factfulness by Hans Rosling, an outstanding international public health expert, is a hopeful book about the potential for human progress when we work off facts rather than our inherent biases." - Former U.S. President Barack Obama Factfulness: The stress-reducing habit of only carrying opinions for which you have strong supporting facts. When asked simple questions about global trends—what percentage of the world’s population live in poverty; why the world’s population is increasing; how many girls finish school—we systematically get the answers wrong. So wrong that a chimpanzee choosing answers at random will consistently outguess teachers, journalists, Nobel laureates, and investment bankers. In Factfulness, Professor of International Health and global TED phenomenon Hans Rosling, together with his two long-time collaborators, Anna and Ola, offers a radical new explanation of why this happens. They reveal the ten instincts that distort our perspective—from our tendency to divide the world into two camps (usually some version of us and them) to the way we consume media (where fear rules) to how we perceive progress (believing that most things are getting worse). Our problem is that we don’t know what we don’t know, and even our guesses are informed by unconscious and predictable biases. It turns out that the world, for all its imperfections, is in a much better state than we might think. That doesn’t mean there aren’t real concerns. But when we worry about everything all the time instead of embracing a worldview based on facts, we can lose our ability to focus on the things that threaten us most. Inspiring and revelatory, filled with lively anecdotes and moving stories, Factfulness is an urgent and essential book that will change the way you see the world and empower you to respond to the crises and opportunities of the future. --- “This book is my last battle in my life-long mission to fight devastating ignorance...Previously I armed myself with huge data sets, eye-opening software, an energetic learning style and a Swedish bayonet for sword-swallowing. It wasn’t enough. But I hope this book will be.” Hans Rosling, February 2017.

Warren Buffett built Berkshire Hathaway into something remarkable— and Fortune journalist Carol Loomis had a front-row seat for it all. When Carol Loomis first mentioned a little-known Omaha hedge fund manager in a 1966 Fortune article, she didn’t dream that Warren Buffett would one day be considered the world’s greatest investor—nor that she and Buffett would quickly become close personal friends. As Buffett’s fortune and reputation grew over time, Loomis used her unique insight into Buffett’s thinking to chronicle his work for Fortune, writing and proposing scores of stories that tracked his many accomplishments—and also his occasional mistakes. Now Loomis has collected and updated the best Buffett articles Fortune published between 1966 and 2012, including thirteen cover stories and a dozen pieces

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authored by Buffett himself. Loomis has provided commentary about each major article that supplies context and her own informed point of view. Readers will gain fresh insights into Buffett's investment strategies and his thinking on management, philanthropy, public policy, and even parenting. Some of the highlights include: The 1966 A. W. Jones story in which Fortune first mentioned Buffett. The first piece Buffett wrote for the magazine, 1977's "How Inflation Swindles the Equity Investor." Andrew Tobias's 1983 article "Letters from Chairman Buffett," the first review of his Berkshire Hathaway shareholder letters. Buffett's stunningly prescient 2003 piece about derivatives, "Avoiding a Mega-Catastrophe." His unconventional thoughts on inheritance and philanthropy, including his intention to leave his kids "enough money so they would feel they could do anything, but not so much that they could do nothing." Bill Gates's 1996 article describing his early impressions of Buffett as they struck up their close friendship. Scores of Buffett books have been written, but none can claim this work's combination of trust between two friends, the writer's deep understanding of Buffett's world, and a very long-term perspective.

* Our summary is short, simple and pragmatic. It allows you to have the essential ideas of a big book in less than 30 minutes. As you read this summary, you will learn that the increased consumption of materials is the major feature of the modern world. You will also learn that : the invention of the steam engine revolutionized mankind; a long-term dematerialization without radical changes in lifestyle is very unlikely; humanity's material progress is experiencing two successive ages; energy is the most important of all materials; our civilization is at a crossroads in terms of our consumption of materials; the current level of material consumption is very recent if we place it in the long historical period. The consumption of materials is at the heart of economic production, without which it could not exist. Materials of all kinds, be they mineral, vegetable, etc., condition our daily life, modern life, that of industrialized countries whose societies are consumer societies. Their production, use and destruction, once they have become waste, are the subject of this book, which examines the costs of our society's dependence on materials, as well as the possible paths to a progressive dematerialization, which the threatened integrity of the biosphere makes indispensable. *Buy now the summary of this book for the modest price of a cup of coffee!

"A sprawling story richly textured with original material, quirky details and amusing anecdotes . . ." —Wall Street Journal "It is a cause for celebration that Yergin has returned with his perspective on a very different landscape . . . [I]t is impossible to think of a better introduction to the essentials of energy in the 21st century. The Quest is . . . the definitive guide to how we got here." —The Financial Times This long-awaited successor to Daniel Yergin's Pulitzer Prize-winning *The Prize* provides an essential, overarching narrative of global energy, the principal engine of geopolitical and economic change. A master storyteller as well as a leading energy expert, Daniel Yergin continues the riveting story begun in his Pulitzer Prize-winning book, *The Prize*. In *The Quest*, Yergin shows us how energy is an engine of global political and economic change and conflict, in a story that spans the energies on which our civilization has been built and the new energies that are competing to replace them. *The Quest* tells the inside stories, tackles the tough questions, and reveals surprising insights about coal, electricity, and natural gas. He explains how climate change became a great issue and leads readers through the rebirth of renewable energies, energy independence, and the return of the electric car. Epic in scope and never more timely, *The Quest* vividly reveals the decisions, technologies, and individuals that are shaping our future.

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The Earth is at a crossroads. Adrian Miller, one-time ruler of the modern world, reviled by

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many, is presumed dead. But in truth, he is quite lost, trapped on an alien world. Now finding himself with a second chance, he takes the opportunity to try and reconcile with his past, build a new future. But it soon becomes apparent that far more than his conscience is at stake if he can't. Henry Forman, beloved hero and brilliant engineer, has his new life with the woman he loves ripped swiftly out from under him before it begins. A crisis of unprecedented scale emerges. He must rise to face this challenge, as there aren't many others who will. And yet, he doubts that he can do enough to make a difference this time. Both must race against the clock if they are to rediscover who they really are, and save all of humanity from a terrible fate. Destiny may have stitched their lives in place, but strings can sometimes unravel.

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