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When challenges arise, Downloads The Making Of The Atomic Bomb doesn't leave users stranded. Its error-handling area empowers readers to identify issues quickly. Whether it's a hardware conflict, users can rely on Downloads The Making Of The Atomic Bomb for step-by-step guidance. This reduces frustration significantly, which is particularly beneficial in fast-paced environments.

## The Making of the Atomic Bomb

**Winner of the Pulitzer Prize, the National Book Award, and the National Book Critics Circle Award** The definitive history of nuclear weapons—from the turn-of-the-century discovery of nuclear energy to J. Robert Oppenheimer and the Manhattan Project—this epic work details the science, the people, and the sociopolitical realities that led to the development of the atomic bomb. This sweeping account begins in the 19th century, with the discovery of nuclear fission, and continues to World War Two and the Americans' race to beat Hitler's Nazis. That competition launched the Manhattan Project and the nearly overnight construction of a vast military-industrial complex that culminated in the fateful dropping of the first bombs on Hiroshima and Nagasaki. Reading like a character-driven suspense novel, the book introduces the players in this saga of physics, politics, and human psychology—from FDR and Einstein to the visionary scientists who pioneered quantum theory and the application of thermonuclear fission, including Planck, Szilard, Bohr, Oppenheimer, Fermi, Teller, Meitner, von Neumann, and Lawrence. From nuclear power's earliest foreshadowing in the work of H.G. Wells to the bright glare of Trinity at Alamogordo and the arms race of the Cold War, this dread invention forever changed the course of human history, and The Making of The Atomic Bomb provides a panoramic backdrop for that story. Richard Rhodes's ability to craft compelling biographical portraits is matched only by his rigorous scholarship. Told in rich human, political, and scientific detail that any reader can follow, The Making of the Atomic Bomb is a thought-provoking and masterful work.

## Dark Sun

Here, for the first time, in a brilliant, panoramic portrait by the Pulitzer Prize-winning author of The Making of the Atomic Bomb, is the definitive, often shocking story of the politics and the science behind the development of the hydrogen bomb and the birth of the Cold War. Based on secret files in the United States and the former Soviet Union, this monumental work of history discloses how and why the United States decided to create the bomb that would dominate world politics for more than forty years.

## The Making of the Atom Bomb

Discusses various topics connected to the production of the atom bomb, including the development of nuclear energy, work on atomic weapons at the Los Alamos and other sites, and the decision to use the first atomic bomb during World War II.

## The Manhattan Project

The ramifications of the Manhattan Project are still with us to this day. The atomic bombs that came out of it brought an end to the war in the Pacific, but at a heavy loss of life in Japan and the opening of a Pandora's box that has tested international relations. This book traces the history of the Manhattan Project, from the first glimmerings of the possibility of such a catastrophic weapon to the aftermath of the bombings of Hiroshima and Nagasaki. It profiles the architects of the bomb and how they tried to reconcile their personal feelings with their ambition as scientists. It looks at the role of the politicians and it includes first-hand accounts of those who experienced the effects of the bombings.

## Remembering the Manhattan Project

During World War II, nations raced to construct the worldOCOs first nuclear weapon that would determine the future of the world. The Manhattan Project, one of the most significant achievements of the 20th century, was the culmination of AmericaOCOs war effort. Today, although the issue of nuclear weapons frequently dominates world politics, few are aware of the history behind its development. Part I of this book, comprised of papers from the Atomic Heritage FoundationOCOs Symposium on the Manhattan Project, recounts the history of this remarkable effort and reflects upon its legacy. Most of the original structures of the Manhattan Project have been inaccessible to the public and in recent years, have been stripped of their equipment and slated for demolition. Part II proposes a strategy for preserving these historical artifacts for the public and future generations.\"

## The Making of the Atomic Bomb

Describes in human, political, and scientific detail the complete story of how the bomb was developed, from the turn-of-the-century discovery of the power of the atom, to the first bombs dropped on Japan.

## The Manhattan Project

A history of the origins and development of the American atomic bomb program during WWII. Begins with the scientific developments of the pre-war years. Details the role of the U.S. government in conducting a secret, nationwide enterprise that took science from the laboratory and into combat with an entirely new type of weapon. Concludes with a discussion of the immediate postwar period, the debate over the Atomic Energy Act of 1946, and the founding of the Atomic Energy Commission. Chapters: the Einstein letter; physics background, 1919-1939; early government support; the atomic bomb and American strategy; and the Manhattan district in peacetime. Illustrated.

## Manhattan Project: The Untold Story of the Making of the Atomic Bomb

“Groueff, a Paris-Match reporter, was sponsored by The Reader’s Digest to write this prodigious account of the multiple efforts which went into the creation of the first atomic bomb between 1942 and 1945. The book is a history of the men involved, mainly; and Groves, the military commander, is obviously the author’s hero. Reading like the account of a hurdle race, the book charges into a discussion of a problem, then ‘finds’ and describes the man who bested it. Thus are described the building of Oak Ridge, Fermi’s atomic pile, the electromagnetic process, the crises over the barrier and the valves for the gaseous diffusion process, the last-minute decisions concerning the implosion process with plutonium. Groueff does convey well a scene of fantastic activity, where different solutions to one problem were worked on simultaneously, where industrial equipment came before scientific results were known, where the ‘impossible’ was achieved — in time. The material is fascinating, and the scientific information is well presented... [an] excellent overall view of a monumental project.” — Kirkus “Groueff has for the first time given due recognition to some of the minor figures, particularly engineers and technicians, and has preserved in his pages much information that would otherwise perish with the participants or lie forever buried in the archives.” — Kendall Birr, The American Historical Review “Groueff... covers the Manhattan Project from its beginning in 1942 to the bombing of Hiroshima... [he] concentrates on the engineering and industrial effort that went into producing the first atomic weapons... The result is a popular but responsible account, episodic in structure, rich in detail and human interest... for the first time a book aimed at the mass market gives engineers and industrialists their due. It is a great story of the almost incredibly complex task of translating theory into industrial and military reality.” — Oscar E. Anderson, Jr., Science “So intriguing in fact and in style is the text of the narrative of this book that, once begun, it cannot be put down until the end... In these pages the names and roles of some of the world’s greatest scientists and engineers unfold in thrilling parade, with Dr. Vannevar Bush the leader. These men of vast knowledge and ability unite with the commercial managers and their companies mobilized

by the hundreds for the construction and operation of the many facilities involved." — Leo A. Codd, Ordnance "Excellent... maintains a high degree of exciting suspense." — Washington Star "A fascinating account of a stupendous effort." — Chicago Tribune

## The Making of the Atomic Bomb

This title explores the historical development of the atomic bomb.

## The Manhattan Project

On the seventy-fifth anniversary of the first atomic bomb, discover new reflections on the Manhattan Project from President Barack Obama, hibakusha (survivors), and the modern-day mayors of Hiroshima and Nagasaki. The creation of the atomic bomb during World War II, codenamed the Manhattan Project, was one of the most significant and clandestine scientific undertakings of the 20th century. It forever changed the nature of war and cast a shadow over civilization. Born out of a small research program that began in 1939, the Manhattan Project would eventually employ nearly 600,000 people and cost about $2 billon ($28.5 billion in 2020) -- all while operating under a shroud of complete secrecy. On the 75th anniversary of this profoundly crucial moment in history, this newest edition of The Manhattan Project is updated with writings and reflections from the past decade and a half. This groundbreaking collection of essays, articles, documents, and excerpts from histories, biographies, plays, novels, letters, and oral histories remains the most comprehensive collection of primary source material of the atomic bomb.

## Manhattan Project

A thrilling narrative of scientific triumph, decades of secrecy, and the unimaginable destruction wrought by the creation of the atomic bomb. It began with plutonium, the first element ever manufactured in quantity by humans. Fearing that the Germans would be the first to weaponize the atom, the United States marshaled brilliant minds and seemingly inexhaustible bodies to find a way to create a nuclear chain reaction of inconceivable explosive power. In a matter of months, the Hanford nuclear facility was built to produce and weaponize the enigmatic and deadly new material that would fuel atomic bombs. In the desert of eastern Washington State, far from prying eyes, scientists Glenn Seaborg, Enrico Fermi, and many thousands of others—the physicists, engineers, laborers, and support staff at the facility—manufactured plutonium for the bomb dropped on Nagasaki, and for the bombs in the current American nuclear arsenal, enabling the construction of weapons with the potential to end human civilization. With his characteristic blend of scientific clarity and storytelling, Steve Olson asks why Hanford has been largely overlooked in histories of the Manhattan Project and the Cold War. Olson, who grew up just twenty miles from Hanford's B Reactor, recounts how a small Washington town played host to some of the most influential scientists and engineers in American history as they sought to create the substance at the core of the most destructive weapons ever created. The Apocalypse Factory offers a new generation this dramatic story of human achievement and, ultimately, of lethal hubris.

## The Apocalypse Factory: Plutonium and the Making of the Atomic Age

In 1974 India exploded an atomic device. In May 1998 the new BJP Government exploded several more, encountering in the process domestic plaudits but international condemnation and a nuclear arms race in South Asia. This book is the first serious historical account of the development of nuclear power in India and of how the bomb came to be made. The author questions orthodox interpretations implying that it was a product of the Indo-Pakistani conflict. Instead, he suggests that the explosions had nothing to do with national security as conventionally understood. Instead he demonstrates the linkages that existed between the two apparently separate discourses of national security and national development, and explores their common underlying basis in postcolonial states. The result is a remarkable book that breaks new ground in integrating comparative politics, international relations and cultural studies.

## The Making of the Indian Atomic Bomb

More than seventy years ago, American forces exploded the first atomic bombs over the Japanese cities of Hiroshima and Nagasaki, causing great physical and human destruction. The young scientists at Los Alamos who developed the bombs, which were nicknamed Little Boy and Fat Man, were introduced to the basic principles and goals of the project in March 1943, at a crash course in new weapons technology. The lecturer was physicist Robert Serber, J. Robert Oppenheimer’s protégé, and the scientists learned that their job was to design and build the world’s first atomic bombs. Notes on Serber’s lectures were gathered into a mimeographed document titled TheLos Alamos Primer, which was supplied to all incoming scientific staff. The Primer remained classified for decades after the war. Published for the first time in 1992, the Primer offers contemporary readers a better understanding of the origins of nuclear weapons. Serber’s preface vividly conveys the mingled excitement, uncertainty, and intensity felt by the Manhattan Project scientists. This edition includes an updated introduction by Pulitzer Prize–winning historian Richard Rhodes. A seminal publication on a turning point in human history, The Los Alamos Primer reveals just how much was known and how terrifyingly much was unknown midway through the Manhattan Project. No other seminar anywhere has had greater historical consequences.

## The Los Alamos Primer

Christoph Laucht offers the first investigation into the roles played by two German-born emigre atomic scientists, Klaus Fuchs and Rudolf Peierls, in the development of British nuclear culture, especially the practice of nuclear science and the political implications of the atomic scientists' work, from the start of the Second World War until 1959.

## Manhattan Project

Richard Rhodes's 1986 Pulitzer Prize-winning book The Making of the Atomic Bomb narrates the years preceding the Hiroshima and Nagasaki bombings. It focuses on how a group of international physicists uncovered nature's potential for destruction through advances in nuclear physics and quantum theory. They harnessed the power of physics to develop the first atomic bombs...Purchase this in-depth analysis to learn more.

## The Making of the Atomic Age

The final volume in Richard Rhodes's prizewinning history of nuclear weapons offers the first comprehensive narrative of the challenges faced in the post-Cold War age. The past twenty years have transformed our relationship with nuclear weapons drastically. With extraordinary depth of knowledge and understanding, Richard Rhodes makes clear how the five original nuclear powers--Russia, Great Britain, France, China, and especially the United States--have struggled with new realities. He reveals the real reasons George W. Bush chose to fight a second war in Iraq, assesses the emerging threat of nuclear terrorism, and offers advice on how our complicated relationships with North Korea and South Asia should evolve. Finally, he imagines what a post-nuclear world might look like, as only he can.

## Elemental Germans

With a new preface by the author Controversial in nature, this book demonstrates that the United States did not need to use the atomic bomb against Japan. Alperovitz criticizes one of the most hotly debated precursory events to the Cold War, an event that was largely responsible for the evolution of post-World War II American politics and culture.

## Summary of Richard Rhodes's the Making of the Atomic Bomb by Milkyway Media

In a national survey at the turn of the millennium, journalists and historians ranked the dropping of the atomic bomb and the surrender of Japan to end the Second World War as the top story of the twentieth century. The advent of nuclear weapons, brought about by the Manhattan Project, not only helped bring an end to World War II but ushered in the atomic age and determined how the next war-the Cold War-would be fought. The Manhattan Project also became the organizational model behind the impressive achievements of American \"big science\" during the second half of the twentieth century, which demonstrated the relationship between basic scientific research and national security.

## Twilight of the Bombs

A Study Guide for Richard Rhodes's \"The Making of the Atomic Bomb,\" excerpted from Gale's acclaimed Nonfiction Classics for Students. This concise study guide includes plot summary; character analysis; author biography; study questions; historical context; suggestions for further reading; and much more. For any literature project, trust Nonfiction Classics for Students for all of your research needs.

## The Decision to Use the Atomic Bomb

The development of nuclear weapons during the Manhattan Project is one of the most significant scientific events of the twentieth century. This revised and updated 4th edition explores the challenges that faced the scientists and engineers of the Manhattan Project. It gives a clear introduction to fission weapons at the level of an upper-year undergraduate physics student by examining the details of nuclear reactions, their energy release, analytic and numerical models of the fission process, how critical masses can be estimated, how fissile materials are produced, and what factors complicate bomb design. An extensive list of references and a number of exercises for self-study are included. Revisions to this fourth edition include many upgrades and new sections. Improvements are made to, among other things, the analysis of the physics of the fission barrier, the time-dependent simulation of the explosion of a nuclear weapon, and the discussion of tamped bomb cores. New sections cover, for example, composite bomb cores, approximate methods for various of the calculations presented, and the physics of the polonium-beryllium \"neutron initiators\" used to trigger the bombs. The author delivers in this book an unparalleled, clear and comprehensive treatment of the physics behind the Manhattan project.

## The Manhattan Project

The enthralling life story of Conant who, as scientist and president of Harvard, was drawn into the secret effort to build the atom bomb and subsequently helped determine America's course during the Cold War and the nuclear age. Photos.

## A Study Guide for Richard Rhodes's The Making of the Atomic Bomb

Energy is essential for the economic growth of a nation. Its absence or deficiency makes a nation highly vulnerable to international arms twisting as well as internal disturbances. As such, it is an important element in a nation's security matrix. India which is in the lower half of the countries as far as the energy consumption per capita is concerned. One of major reasons is the gap between the demand and the capacity of the country to supply the energy from indigenous sources. One of the important sources that hold promise in Indian context is the nuclear energy as it is clean and the resource; thorium to produce power through this route is available indigenously. However despite a well developed plan for energy conversion in place, using indigenous resources for over half a century, it is still considered only promising. Relevant questions in this regard are; whether perceived promise is realizable? If so, in what time frame and at what cost? Will it be safe keeping in view its capacity to cause wide spread devastation? Is there a need to seek technical collaboration with other countries or will it be better to go indigenous route only? How do we tackle the

widening demand- supply gap during the interim? And finally is there a case for a review for the existing decision loop/energy management system? An attempt has been made in this book to address these issues. It is also expected that the concept advocated in this book for achieving energy security for India by 2030 will initiate a wider debate on the subject.

## The Physics of the Manhattan Project

Nuclear Energy is one of the most popular texts ever published on basic nuclear physics, systems, and applications of nuclear energy. This newest edition continues the tradition of offering a holistic treatment of everything the undergraduate engineering student needs to know in a clear and accessible way. The book presents a comprehensive overview of radioactivity, radiation protection, nuclear reactors, waste disposal, and nuclear medicine. The seventh edition is restructured into three parts: Basic Concepts, Nuclear Power (including new chapters on nuclear power plants and introduction to reactor theory), and Radiation and Its Uses. Part Two in particular has been updated with current developments, including a new section on Reactor Safety and Security (with a discussion of the Fukushima Diiachi accident); updated information on naval and space propulsion; and revised and updated information on radioactive waste storage, transportation, and disposal. Part Three features new content on biological effects of radiation, radiation standards, and radiation detection. Coverage of energy economics integrated into appropriate chapters More worked examples and end of chapter exercises Updated final chapter on nuclear explosions for current geopolitical developments

## James B. Conant

Why did the US intelligence services fail so spectacularly to know about the Soviet Union's nuclear capabilities following World War II? As Vince Houghton, historian and curator of the International Spy Museum in Washington, DC, shows us, that disastrous failure came just a few years after the Manhattan Project's intelligence team had penetrated the Third Reich and knew every detail of the Nazi 's plan for an atomic bomb. What changed and what went wrong? Houghton's delightful retelling of this fascinating case of American spy ineffectiveness in the then new field of scientific intelligence provides us with a new look at the early years of the Cold War. During that time, scientific intelligence quickly grew to become a significant portion of the CIA budget as it struggled to contend with the incredible advance in weapons and other scientific discoveries immediately after World War II. As Houghton shows, the abilities of the Soviet Union's scientists, its research facilities and laboratories, and its educational system became a key consideration for the CIA in assessing the threat level of its most potent foe. Sadly, for the CIA scientific intelligence was extremely difficult to do well. For when the Soviet Union detonated its first atomic bomb in 1949, no one in the American intelligence services saw it coming.

## Nuclear Energy in India's Energy Security Matrix

Though thousands of articles and books have been published on various aspects of the Manhattan Project, this book is the first comprehensive single-volume history prepared by a specialist for curious readers without a scientific background. This project, the United States Army’s program to develop and deploy atomic weapons in World War II, was a pivotal event in human history. The author presents a wide-ranging survey that not only tells the story of how the project was organized and carried out, but also introduces the leading personalities involved and features simplified but accurate descriptions of the underlying science and the engineering challenges. The technical points are illustrated by reader-friendly graphics. .

## Nuclear Energy

In a national survey at the turn of the millennium, journalists and historians ranked the dropping of the atomic bomb and the surrender of Japan to end the Second World War as the top story of the twentieth century. Nuclear weapons, brought about by the Manhattan Project, helped bring an end to World War II and ushered in the atomic age and determined how the next war -- the Cold War -- would be fought. The

Manhattan Project also became the organizational model behind the impressive achievements of American \"big science\" during the second half of the 20th century, which demonstrated the relationship between basic scientific research and national security. This is the revised edition of a comprehensive history of the origins and development of the American atomic bomb program during WWII. Includes a Bibliography and Manhattan Project Chronology. Figures. This is a print on demand report.

## The Nuclear Spies

This book discusses the decision to use the atomic bomb. Libraries and scholars will find it a necessary adjunct to their other studies by Pulitzer-Prize author Herbert Feis on World War II. Originally published in 1966. 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.

## Manhattan Project

In the years following FDA approval of direct-to-consumer, genetic-health-risk testing, millions of people in the United States have sent their DNA to companies to receive personal genetic health risk information without physician or other learned medical professional involvement. In Personal Genome Medicine, Michael J. Malinowski examines the ethical, legal, and social implications of this development. Drawing from the past and present of medicine in the U.S., Malinowski applies law, policy, public and private sector practices, and governing norms to analyze the commercial personal genome sequencing and testing sectors and to assess their impact on the future of U.S. medicine. Written in relatable and accessible language, the book also proposes regulatory reforms for government and medical professionals that will enable technological advancements while maintaining personal and public health standards.

## The Manhattan Project

An illustrated history of the making of the atomic bomb.

## The Atomic Bomb and the End of World War II

General Leslie Groves and J. Robert Oppenheimer were the two men chiefly responsible for the building of the first atomic bomb at Los Alamos, code name \"The Manhattan Project.\" As the ranking military officer in charge of marshalling men and material for what was to be the most ambitious, expensive engineering feat in history, it was General Groves who hired Oppenheimer (with knowledge of his left-wing past), planned facilities that would extract the necessary enriched uranium, and saw to it that nothing interfered with the accelerated research and swift assembly of the weapon.This is his story of the political, logistical, and personal problems of this enormous undertaking which involved foreign governments, sensitive issues of press censorship, the construction of huge plants at Hanford and Oak Ridge, and a race to build the bomb before the Nazis got wind of it. The role of groves in the Manhattan Project has always been controversial. In his new introduction the noted physicist Edward Teller, who was there at Los Alamos, candidly assesses the general's contributions-and Oppenheimer's-while reflecting on the awesome legacy of their work.

## Personal Genome Medicine

The first systematic look at the different strategies that states employ in their pursuit of nuclear weapons Much of the work on nuclear proliferation has focused on why states pursue nuclear weapons. The question of how states pursue nuclear weapons has received little attention. Seeking the Bomb is the first book to

analyze this topic by examining which strategies of nuclear proliferation are available to aspirants, why aspirants select one strategy over another, and how this matters to international politics. Looking at a wide range of nations, from India and Japan to the Soviet Union and North Korea to Iraq and Iran, Vipin Narang develops an original typology of proliferation strategies—hedging, sprinting, sheltered pursuit, and hiding. Each strategy of proliferation provides different opportunities for the development of nuclear weapons, while at the same time presenting distinct vulnerabilities that can be exploited to prevent states from doing so. Narang delves into the crucial implications these strategies have for nuclear proliferation and international security. Hiders, for example, are especially disruptive since either they successfully attain nuclear weapons, irrevocably altering the global power structure, or they are discovered, potentially triggering serious crises or war, as external powers try to halt or reverse a previously clandestine nuclear weapons program. As the international community confronts the next generation of potential nuclear proliferators, Seeking the Bomb explores how global conflict and stability are shaped by the ruthlessly pragmatic ways states choose strategies of proliferation.

## Dark Sun

This volume, prepared by an acknowledged expert on the Manhattan Project, gives a concise, fast-paced account of all major aspects of the project at a level accessible to an undergraduate college or advanced high-school student familiar with some basic concepts of energy, atomic structure, and isotopes. The text describes the underlying scientific discoveries that made nuclear weapons possible, how the project was organized, the daunting challenges faced and overcome in obtaining fissile uranium and plutonium, and in designing workable bombs, the dramatic Trinity test carried out in the desert of southern New Mexico in July 1945, and the bombings of Hiroshima and Nagasaki.

## Trinity: A Graphic History of the First Atomic Bomb

Well-known names such as Albert Einstein, Enrico Fermi, J. Robert Oppenheimer, and Edward Teller are usually those that surround the creation of the atom bomb. One name that is rarely mentioned is Leo Szilard, known in scientific circles as “father of the atom bomb.” The man who first developed the idea of harnessing energy from nuclear chain reactions, he is curiously buried with barely a trace in the history of this well-known and controversial topic. Born in Hungary and educated in Berlin, he escaped Hitler’s Germany in 1933 and that first year developed his concept of nuclear chain reactions. In order to prevent Nazi scientists from stealing his ideas, he kept his theories secret, until he and Albert Einstein pressed the US government to research atomic reactions and designed the first nuclear reactor. Though he started his career out lobbying for civilian control of atomic energy, he concluded it with founding, in 1962, the first political action committee for arms control, the Council for a Livable World. Besides his career in atomic energy, he also studied biology and sparked ideas that won others the Nobel Prize. The Salk Institute for Biological Studies in La Jolla, California, where Szilard spent his final days, was developed from his concepts to blend science and social issues.

## Now It Can Be Told

\"The Spanish Civil War (1936-1939) inspired and haunted an extraordinary number of exceptional atrists and writers, including Pablo Picasso, Joan Miro, Martha Gelhorn, Ernest Hemingway, George Orwell, and John Dos Passos. It spurred breakthroughs in military and medical technology. New aircraft, weapons, tactics, and strategy all emerged in the intense Spanish conflict. Progress also arose from the horror: doctors and nurses who volunteered to serve with the Spanish defenders devised major advances in battlefield surgery and frontline blood tansfusion. Rhodes takes us into the battlefields, bomb shelters, and hospitals; into the studios of artists; and into the hearts and minds of a rich cast of characters, showing how the ideological, aesthetic, and technological developments that emerged in Spain changed the world forever.\" --

## Seeking the Bomb

From the moment radiation was discovered in the late nineteenth century, nuclear science has had a rich history of innovative scientific exploration and discovery, coupled with mistakes, accidents, and downright disasters. Mahaffey, a long-time advocate of continued nuclear research and nuclear energy, looks at each incident in turn and analyzes what happened and why, often discovering where scientists went wrong when analyzing past meltdowns.Every incident has lead to new facets in understanding about the mighty atom—and Mahaffey puts forth what the future should be for this final frontier of science that still holds so much promise.

## Atomic Bomb: The Story of the Manhattan Project

Spanning ten historic years, from the discovery of nuclear fission in 1939 to ‘Joe-1’, the first Soviet atomic bomb test in August 1949, Atomic is the first fully realised popular account of the race between Nazi Germany, Britain, America and the Soviet Union to build atomic weapons. Rich in personality, action, confrontation and deception, Jim Baggott’s book tells an epic story of science and technology at the very limits of human understanding.

## Genius in the Shadows

Hell and Good Company