The Atom Bomb

Tamara L. Roleff, Book Editor

David L. Bender, Publisher
Bruno Leone, Executive Editor
Bonnie Szumski, Editorial Director

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Chapter 1: The Development of the Atom Bomb

1. The Discovery of Fission by C.P. Snow
   When unstable elements such as uranium-235 are bombarded with slow-moving neutrons, the uranium nucleus undergoes fission. Fission splits an atom's nucleus in two, forming two new elements, and releases additional neutrons as well as a considerable amount of energy. The discovery of fission was critical to the creation of the atom bomb.

2. The First Nuclear Chain Reaction by Laura Fermi
   After the discovery of fission, scientists began working on a way to control the release of excess neutrons to produce a nuclear chain reaction. A small nuclear reactor made of graphite bricks and lumps of uranium was built on a squash court in Chicago. By regulating the amount of neutron-absorbing elements in a nuclear chain reactor, fission can be controlled.

3. The Race to Make the Atom Bomb by Robert C. Batchelder
   Although many of Europe's preeminent scientists migrated to the United States when Adolf Hitler came to power, a few remained in Germany and worked on atomic research. The United States intensified its efforts to develop the atom bomb with every report it received of German work on atomic energy, because it feared the results if Germany developed the atom bomb first.

4. The Manhattan Project by Ferenc Morton Szasz
   The Manhattan Project—the code name for the U.S. effort to build the atomic bomb—was one of America's best-kept secrets. The United States started from scratch and developed an entire nuclear energy industry in just a few years.
5. **The Trinity Test** by Leslie R. Groves
   The first explosion of an atomic bomb at the Trinity Test Site was a tremendous success. The bomb’s destructive force far exceeded its creators’ expectations. Observers of the Trinity Test were in a state of profound awe over the bomb’s power.

Chapter 2: The Decision to Drop the Atom Bomb

1. **It Was Always Assumed the Bomb Would Be Used** by Alan Cranston
   There was never a debate over the decision to use the atom bomb. It was assumed by all those involved in the atom bomb project—scientists, military officials, and politicians alike—that the bomb would be used against the enemy whenever the bomb was ready.

2. **The Government Was Justified in Using the Atom Bomb** by Henry L. Stimson
   The atom bomb was considered a legitimate weapon of war in 1945, and the decision to use it against Japan was carefully considered. Dropping the bomb on Japan was the only sure course that would end the war quickly and with minimal loss of American lives.

3. **Using the Atom Bomb Was Unnecessary and Immoral** by Hanson W. Baldwin
   Japan was a defeated nation whose surrender was inevitable. The atom bomb was not needed to end the war; at most, it hastened the end by just a few days. Americans have lost their morality by employing such a weapon of mass destruction.

4. **The Atom Bomb Was Used to Intimidate the Soviets** by Gar Alperovitz
   Dropping the atom bomb on Japan was not necessary to force Japan’s surrender. The United States used the atom bomb to intimidate the Soviet Union and give America an advantage in post-war negotiations.

Chapter 3: Aftermath

1. **A Hiroshima Survivor’s Tale** by Atsuko Tsujioka
   When the atom bomb exploded over Hiroshima, the city was obliterated, tens of thousands of Japanese civilians were killed, and even more were injured. A survivor of the atomic blast describes her experience and laments the direction science has taken.
2. Visiting the Devastation of Nagasaki
   by Charles W. Sweeney, with James A. Antonucci and Marion K. Antonucci
   The pilot that dropped the bomb on Nagasaki visits the city shortly after the Japanese surrender. Although he realizes that one bomb was responsible for destroying an entire city and killing and injuring tens of thousands of people, he does not regret the decision to drop the bomb, as he believes it was the only way to ensure a speedy end to a bloody war.

3. A Society Laid Waste by The Committee for the Compilation of Materials on Damage Caused by the Atomic Bombs in Hiroshima and Nagasaki
   The atom bomb so completely destroys families, businesses, and the government that people are unable to cope with the bomb's destruction. Consequently, the entire society in those cities collapses.

Chapter 4: America in the Cold War

1. U.S. Soldiers Are Exposed to Radiation in Postwar Tests by Michael Uhl and Tod Ensign
   American troops were exposed to atomic blasts and radioactive fallout during nuclear tests in the Nevada desert in the 1950s to determine the bombs' effects on their warfighting skills. The soldiers were rarely given protection from the explosions or accurate information about the dangers of radiation.

2. The Continuing Cycle of Fear and Apathy by Paul Boyer
   Americans have alternately feared and been indifferent to the atom bomb and the possibility of nuclear war. Anxiety levels tend to rise when the bomb is a featured part of foreign policy decisions; apathy usually takes over when Americans are preoccupied with other world events.

3. The Atom Bomb in Pop Culture by Bryan C. Taylor
   Many of the public's fears and concerns about atom bombs and nuclear energy have been reflected in movies, television programs, and books. As society's worries evolved, so, too, did the mass media's portrayal of the bomb.
Chapter 5: In Retrospect: Scientists Evaluate the Atom Bomb

1. A Scientist Leaves the Manhattan Project
by Joseph Rotblat

Scientist Joseph Rotblat joins the atom bomb project in the early stages to help ensure that the United States develops the bomb before Germany. When he discovers the real purpose of the bomb, his conscience will not permit him to continue working on the project and he leaves before the bomb is completed.

2. Scientists Look Back on the Manhattan Project
by William L. Laurence

Twenty years after the atom bomb was dropped, various scientists and military and government officials associated with the Manhattan Project discuss their views about the atom bomb. They reveal their thoughts on whether it was right to develop the bomb and whether the United States should have warned Japan before dropping it.

3. Scientists Must Be Morally Responsible for Their Work
by John A. Simpson

Scientists and engineers must take responsibility for the consequences of their work. Those who participate in nuclear weapon projects must educate the public and the government about the dangers of atomic bombs to ensure that the weapons are never used.

4. The United States Was Right to Build the Hydrogen Bomb
by Edward Teller

The United States was right to develop the atom bomb because the opportunity to increase knowledge should never be avoided. In the same respect, the United States was again correct to develop the hydrogen bomb, especially since the Soviet Union had already begun working on its own bomb.

Chapter 6: Epilogue

1. The Enola Gay Controversy
by Michael J. Hogan

More than fifty years after the end of World War II, controversy reigns over the dropping of the atom bomb on Japan. Conflicting views of how the atom bomb should be portrayed led to the cancellation of a planned exhibit by the Smithsonian Institution.