

BOOK REVIEW

The Twilight of the Bombs: Recent Challenges, New Dangers, and the Prospects for a World Without Nuclear Weapons

Richard Rhodes

(Knopf, 480 pp., \$27.95)

By Lauren Rutledge

The history of nuclear weapons is a short and turbulent one. In just 73 years of nuclear history, the world has seen the annihilation of Hiroshima and Nagasaki, the doomsday standoff of the Cuban Missile Crisis, and the frantic stockpiling of weapons between the US and USSR that almost literally ended the world as we know it. The Cold War was the Golden Age of nuclear weapons and led to the definition of a nuclear program as a status symbol. Although the Cold War is long over, international nuclear policy remains frozen in its antiquated grip and focuses on regulating nuclear weapons rather than getting rid of them. *In The Twilight of the Bombs: Recent Challenges, New Dangers, and the Prospects for a World Without Nuclear Weapons*, Pulitzer prize-winning journalist and author Richard Rhodes addresses the following question: given the collective memory of going to bed uncertain that the world would still be there in the morning, why do we still rely on weapons that can end civilizations in seconds?

In his book, Rhodes examines, “how the dangerous post-Cold War transition was managed, who its heroes were, what we learned from it, and where it carried us” (Rhodes 2011,9). Interestingly, Rhodes is not a nuclear scientist

or scholar of any kind, which works to the lay reader’s advantage with a topic as technical as nuclear weapons proliferation. He uses his background as a journalist to weave a thoroughly researched and entertaining tale of the post-Cold War conflicts involving nuclear weapons, which is told largely through first person accounts of the major players themselves.

The book is broken into four parts. Part I details the beginning of Iraq’s secret nuclear program in the early 1990’s and the attempts of the International Atomic Energy Agency (IAEA) and the newly formed United Nations Special Commission (UNSCOM) to uncover and regulate it. Part II chronicles the breakdown of the Soviet Union and the quandary of how to secure one nuclear arsenal split into four. Part III tells the story of South Africa, the only country in history to voluntarily give up their nuclear program, as well as how Jimmy Carter likely prevented a second Korean War. Part IV deals with more recent events including George W. Bush’s conflicts with Saddam Hussein’s ghost nuclear program and the subsequent invasion of Iraq, the current state of the US nuclear arsenal, the likelihood of a nuclear terrorist attack, and a compelling argument for total disarmament in the future.

Part I opens with Iraq's formal decision to pursue a nuclear weapons program in 1988 with credit lent to them by the US during the Iran-Iraq war and the proceeds from US-purchased oil. Rhodes spends much of this chapter reviewing the familiar events leading up to the Gulf War and heavily criticizing the first Bush administration for its decisions to supply Iraq with military technology and allow Bush officials to have Iraqi oil holdings during the conflict. This criticism of the Bush administration is woven throughout the book and at times seems excessive, but Rhodes also reserves a healthy amount of criticism for the later Clinton and George W. Bush administrations and provides a relatively non-partisan view.

Rhodes goes on to explain how Hussein began an eight-month crash nuclear program during the Gulf War in an attempt to defend newly invaded Kuwait, but kept it from the IAEA and the UN. At the time, Iraq allowed IAEA inspectors in but only admitted them to declared nuclear sites and required inspectors to give ample notice of their arrival so that Iraqi soldiers could scrub the sites of evidence. This deception sets the tone for the rest of the Iraqi nuclear story. The next few chapters read like a Tom Clancy novel and deal with the creation of a UN Special Commission to inspect and oversee the destruction of Iraq's nuclear arsenal. The inspections include covert Special Forces, a car chase, and unauthorized access to an Iraqi military base. The chapter begins with the appointment of State Department official Robert Galluci as head of UNSCOM, and his voice tells much of the Iraq story in a thrilling first-hand account.

After becoming exhausted with the same hide and seek routine that Iraq had given the IAEA, Galluci and UNSCOM took matters into their own hands and began doing surprise inspections of off-limits sites, which is how they eventually found documented proof of an Iraqi nuclear weapons program. The rest of the story includes the concealment of documents

in clothing, a tense four-day standoff with the Iraqi government in a parking lot, and smuggling the most important documents out of Iraq with a medical team. Rhodes's reliance on first-hand accounts make this and other stories throughout the book come to life. He uses Part I as a vehicle to demonstrate the dangers of bureaucratic tape in inspections and the danger of using personal vendettas to justify military action.

Part II is another familiar story told in a new way, chronicling the implications of the fall of the Soviet Union for global nuclear security. It opens with the August 1991 coup that saw a group of rebels attempt to overthrow Soviet leader Mikhail Gorbachev and successfully disconnect his Cheget, the Soviet equivalent of the American nuclear football, from Moscow. During these tense days, no one was sure who had full control over the Soviet nuclear arsenal. In the aftermath, it became clear that the tiered Soviet safeguard system protected the arsenal from any real danger, but the scenario sparked hypothetical discussions in the nuclear community. Rhodes relies on first hand testimony from Mikhail Gorbachev as well as several nuclear experts to demonstrate that a nuclear coup might be a very real possibility.

After the Soviet Union broke down into four separate countries, Rhodes highlights another problem. Instead of one unified nuclear power, the world faced four very new and unstable nuclear weapons states. Much of this story is told through the accounts of Senator Sam Nunn and renowned nuclear expert Dr. Bruce Blair. There was intense political conflict over whether or not to provide stabilizing humanitarian aid to the former Soviet Union to prevent a nuclear crisis. Despite intense opposition by Richard Cheney and Republican Senators (who receive a healthy amount of criticism as a group), negotiations eventually convinced Ukraine, Belarus, and Kazakhstan to hand over their nuclear weapons to Russia.

However, this transition brought up questions that are still relevant today:

how should the international community ensure that countries have really given up their weapons and what happens afterwards? The answer to these questions lies in mutual verification and international inspections. Rhodes uses the story of Soviet disarmament as a vehicle to illustrate that it is possible to control and secure the weapons of an unstable state if the right precautions are taken. He also convincingly argues that the subsequent steps of Russian-US cooperation can be used as a template for future disarmament efforts. Russia and the US began to work together on problems such as how to prevent Soviet scientists from selling their knowledge and what to do with leftover highly enriched uranium. American and Soviet scientists were shocked at how easy these once daunting problems were solved after simply consulting each other. This mutual cooperation led to one of the most poignant quotes of the book by Soviet scientist Viktor Mikahilov, illustrating the influence that cooperation can have on nuclear nonproliferation: "I could not imagine, even in a flight of scientific and technical fancy, those wondrous cities as 'military targets.' ...Those thoughts simply terrified me..." (Rhodes 2011,125).

Part III is a critical section of the book because it tells the story of South Africa, which is the only country in history to voluntarily give up its nuclear weapons program. South Africa began its program because it felt threatened by the Soviet Union. It initially found a way around testing bans and IAEA oversight by copying the World War II American-tested bomb design, eliminating the need for a trial and error process. The program continued until the dismantlement of the Soviet Union, when South Africa no longer felt threatened. A less publicized explanation for disarmament is that South Africa was on the cusp of radical regime change and the white Afrikaner government did not want nuclear weapons to fall into the hands of the newly risen black-majority government. In 1991, South Af-

rica signed the Nuclear Nonproliferation Treaty, demonstrating that it is possible for a nation to disarm. Rhodes uses this as a case study for voluntary disarmament and a beacon of hope for the future.

After a thoughtful recounting of a lesser-known story involving Jimmy Carter's prevention of a second Korean War and a brief discussion of India and Pakistan's nuclear programs we finally arrive at Part IV, which tells the tale of the more recently familiar events leading up to the invasions of Iraq and Afghanistan and Rhodes's reflections on the future of US involvement in both countries. This is arguably the most editorialized section of the book and includes more opinionated statements from Rhodes than in other sections of the book where he acts as a historian. In the early chapters, Rhodes focuses heavily on what he perceives as the unjustified decisions of the second Bush administration to invade Iraq, spurred by a personal vendetta against Hussein. This section includes direct quotes by Bush and his staff that seems to support Rhodes's claims.

At the end of the final section the author brings us back to where the book began, in Iraq 1998, providing a sense of closure. Rhodes tells the story of Iraq's denial of a weapons program and the George W. Bush administration's unfounded insistence otherwise through first hand accounts of the characters involved. Then, September 11, 2001 changed the political climate and American perceptions of the Middle East forever. Rhodes uses quotes from Donald Rumsfeld, Richard Cheney, and President George W. Bush to tell the story of how the administration used two tenuous and later disproved pieces of evidence of a nuclear weapons program to justify the invasion of Iraq and Afghanistan. This story continues through the 2003 bombings of Iraq, and the rest is history. Rhodes uses these events to explain how we arrived at our present nuclear policy doctrine.

The conclusive last chapter is oddly discordant with the well-written,

logical, and organized tone of the rest of the book. The chapter covers three very separate and very distinct topics that are individually coherent and intelligent but have no real relation to one another. The first section discusses the possibility and implications of a terrorist group obtaining a nuclear weapon or materials. The second section focuses on the technical and political feasibility of a total global disarmament, which Rhodes argues for convincingly. The third and final section goes into a theoretical analysis of the morality of nuclear weapons, theories of public, private, and state violence, and the value of human life. This last philosophical section is certainly warranted in the discussion of the future of nuclear weapons, but seems especially out of place when compared to the factual analytical nature of the rest of the chapter and book.

I would recommend *The Twilight of the Bombs: Recent Challenges, New Dangers, and the Prospects for a World Without Nuclear Weapons* to anyone who wants to gain a more detailed understanding of a problem that has the potential to end civilizations and yet receives significantly less attention than is commensurate with its destructive ability. Rhodes's use of first person accounts from everyone from Saddam Hussein to four US presidents makes the story come alive in a way that captures and keeps the reader's attention. His lay explanations of complex nuclear topics make it an enjoyable read, even for someone without any prior nuclear weapons knowledge. However, one of the most powerful aspects of the book is his prose. In the very last chapter Rhodes asks the reader: "Nuclear weapons, never weapons of warfare except in the grandi-

ose imaginations of air-power fantasists, have reverted to their original function: they are terror weapons. Are we terrorists?" (Rhodes 2011, 298). This thought-provoking and powerful prose coupled with the book's well-researched and solid argument for a global zero level of nuclear weapons will be hard for readers to ignore.

However, the editorial comments about individual players in the game are more frequent than needed, despite being supported with facts. The final section is also somewhat disjointed and lacks a true theme. Rhodes does not offer much in the way of specific policy recommendations to begin the process of disarmament. It leads the reader to the conclusion that we should disarm, but stops short of explaining exactly how. The last chapter is also more idealistic than seems appropriate for the current state of nuclear weapons. Rhodes assesses the current nuclear climate as ripe for near term disarmament but does not provide much in the way of convincing evidence. Additionally, there is not much coverage of several agreements essential to understanding the evolution of nuclear weapons policy, such as the Agreed Framework and Six Party Talks.

In sum, Rhodes's ability to make a complex topic accessible while maintaining its academic integrity, his skill at catalyzing readers to action, and the timeliness of the book in light of recent events all make this a worthwhile read for anyone. *The Twilight of the Bombs* is the spark needed to start a public discussion on the topic of nuclear arms that is sorely needed. We may not quite be in the "twilight" of the nuclear bomb era as Rhodes claims, but the sun is certainly beginning to set.

References

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