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Cautionary tale of nuclear ambitions

Reviewed by George A. MacLean
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In Mortal Hands
A Cautionary History of the Nuclear Age
By Stephanie Cooke
Bloomsbury, 465 pages, $33.50

The subtitle of this book might lead readers to think it is largely academic.
But the "cautionary history" is written more like a cautionary tale, complete with main players, intrigue, multiple story lines and even a moral.

Stephanie Cooke is a London-based nuclear industry insider, a journalist and analyst of nuclear issues for more than three decades. This is her first book, and it's an important one: In an age when weapons proliferation and energy scarcity leave governments scrambling for solutions, Cooke takes a comprehensive look at the past century of nuclear ambition.

Suspicions about nuclear power are well-founded, given the history of weapons grafted from peaceful energy programs. There is, she writes, a "blurred seam along which the 'good' side of nuclear runs with the 'bad.' "

That is precisely why we ought to be so worried about nuclear today. Her initial inspiration was Iraq's clandestine weapons program, which ultimately led to the American invasion in 2003.
But Cooke eventually turned to a broader issue: How so many countries around the world have abused the nuclear-power system to acquire weapons. Troublingly, she shows that Iraq is not the most terrifying case.

Beginning at the turn of the last century, Cooke explores how the development of atomic energy was a race to "control the world" with new weapons. It's an important theme, the relationship between nuclear power and weapons.

It was believed that nuclear technology could stop Adolf Hitler, and, later, deter the Soviets, and maybe even abolish all forms of war. But their first -- and only -- use, on civilians in Hiroshima and Nagasaki, led many scientists involved in atomic programs to feel betrayed and naïve as the weapons they developed were used for a horrible purpose.

Today, talk of "preemptive nuclear strikes" and regional, or "theatre," nuclear conflict pull us even further afield from those early discussions of deterrence.

Largely an agnostic regarding nuclear power, Cooke reluctantly concludes that energy will always be connected to weapons. During the boom of the 1950s, nuclear grew rapidly amid claims power would be "too cheap to meter," then hit its plateau with the stunning accidents at Three Mile Island and Chernobyl, followed by mounting concerns about waste disposal.
More politicized than oil, nuclear was viewed with ambivalence and distrust, as early efforts to regulate the "bad"side quickly became unachievable. "Gentlemen's

agreements," like the 1968 Nuclear Non-Proliferation Treaty, were soon anachronisms to those bent on developing bombs of their own.

And those early nuclear scientists, like Robert Oppenheimer, who came to condemn weapons programs were either ignored, or persecuted.

Others saw nuclear espionage as a lucrative career, resulting in several new nuclear programs (Israel, India and Pakistan, among others) that benefited from simple self-interest.

Simply put, nuclear has not given us a cheap and safe power alternative, and after all the money spent on weapons programs since 1940 ($5.5 trillion by the U.S. alone), it hasn't abolished war, either. But, as Cooke laments, we continue to pour money into both sides.
Her main themes are critical:

- Nuclear energy failed to develop as hoped, and soon became entwined in the politics of weapons development.
- Nuclear safeguards failed, and we now face danger from weapons and energy production.
- Nuclear waste has never been properly dealt with, and there are no solutions to solve it.
- Nuclear is not the answer for our current energy woes. Other choices, like wind, solar, and conservation, are more realistic.

Back to Iraq, where Cooke started: Saddam didn't have nuclear weapons, but he came close in the late 1980s, and likely would have, had he not so foolishly invaded Kuwait in 1990.

Iraq's defunct nuclear ambition nonetheless led the Bush administration to invade in 2003. It may be a matter of hindsight now, but for observers of the war on terror, that decision may have deep and abiding effects for generations to come.

Those who have worked or researched at the periphery of the nuclear industry know it's a hard field to crack. The science, which she explains in a straightforward manner, is complex, and the politics more so.

Cooke's many years in that field gives her reader a rare perspective, as she had access to facilities, talked to the main players, and, most importantly, knew the intricacies of this bewildering topic.

This is a book many have been waiting for. Factual, wide-ranging, instructive and engaging, it will no doubt become a benchmark in nuclear politics.

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