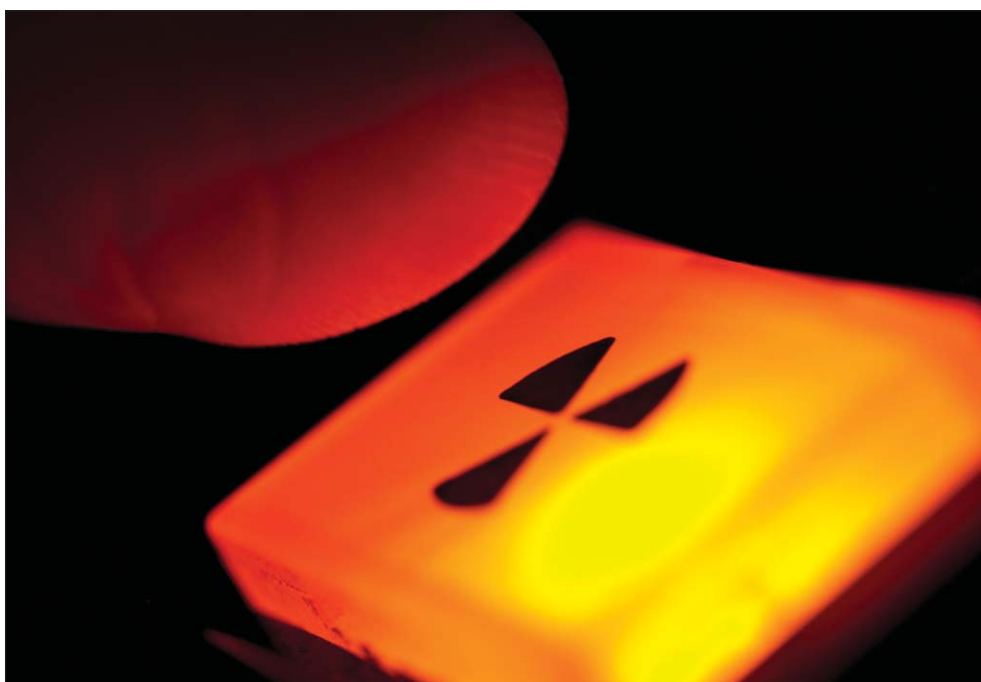


Reviews

John Mueller

Bombendämmerung



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Push the button
Has the threat of nuclear war passed?

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

Richard Rhodes
2010 Knopf
£17.99/\$27.95hb
369pp

The US writer Richard Rhodes has chronicled the history of nuclear weapons in three very well-received books, dealing in sequence with the making of the atomic bomb, the making of the hydrogen bomb and the making of the nuclear arms race. In titling his fourth and final entry in the series, *The Twilight of the Bombs*, he has played on the fourth and final entry in the famous opera cycle by an earlier Richard: *Götterdämmerung*, or “the twilight of the gods”.

But while Richard Wagner achieved – or even defined – grand opera, Richard Rhodes’ subject matter more nearly resembles soap opera, as his book engagingly relates the various fussings and fumings of over-wrought decision-makers in the post-Cold-War era. Like their predecessors, they repeatedly inflated threats and erroneously envisioned apocalypse. As a result, guided primarily by alarmist hysteria, myopic misperception and faulty intelligence, they went to the brink of costly, destructive war – or even over it, as in the case of Iraq in 2003.

Take the substantially imaginary crisis in 1994 over the nuclear potential

of North Korea. At the time, officials in the Clinton administration in the US massively exaggerated the threat presented by that infinitely pathetic country, misinterpreted questionable intelligence and prepared for a preventive war that, Rhodes suggests, might have resulted in the deaths of hundreds of thousands of people. The crisis ended when Clinton’s predecessor Jimmy Carter correctly concluded that what the North Koreans actually yearned for was fewer threats and a little respectful attention, and artfully resolved the teapot tempest in an agreement that was later undermined by Clinton’s successor.

Rhodes also offers interesting details about the aftermath of the collapse of the Soviet Union. During the early 1990s, alarmed Western officials scurried to get Belarus, Kazakhstan and Ukraine to graciously accept fulsome bribes to turn over the nuclear weapons that they had inherited but were incapable of operating. And there is also the saga of South Africa, which built a few (apparently untested) bombs that could not solve – or even relate to – any of its real-life problems, only to quietly abandon

them when the prospect of black majority rule loomed in the late 1980s. Sadly, Rhodes leaves unrecounted the costly efforts of Libya’s self-important Muammar Gaddafi to attain a bomb or two. When that project was abruptly abandoned in 2003, inspectors found much of his laboriously acquired material still in its packaging.

Although he impressively unpacks the intelligence failures and political deceptions that led to the 2003 war in Iraq, Rhodes appears to think that the conflict – which has probably already resulted in more deaths than the Hiroshima and Nagasaki atomic bombings combined – would have been justified if Saddam Hussein actually had attained, or was on the road to attaining, something of a nuclear arsenal. Yet it is unclear what Saddam, who presided over a deeply resentful population and an exceedingly unreliable army (fearing overthrow, he was wary of issuing it bullets), could have done with a tiny number of bombs against his neighbours and their massively armed well-wishers other than seeking to stoke his ego and to deter real or imagined threats. But this consideration goes unaddressed.

Perhaps in part because he cannot bear to think about writing yet another book on the subject, Rhodes concludes by strongly advocating that nuclear weapons should be formally eliminated. He does this even though he himself suggests – twice – that such a disarmament process might require launching wars to disarm the occasional recalcitrant country (Israel, perhaps?) as a last resort. And unlike nuclear weapons since 1945, these wars would kill lots of people.

Rhodes continues to consider nuclear weapons as “really important things”, even though, as he points out, they have proven to be militarily useless. Is there any better evidence of this, he notes dramatically, “than six decades of futility”? During the course of those same decades, however, people have routinely made confident proclamations that, because the bombs exist, they must necessarily go off. Rhodes uncritically services

that hoary tradition, undimmed by two-thirds of a century of perpetual error, when he decrees that “as long nuclear weapons exist, they will proliferate, they will be used”. It is exactly the kind of glib alarmism he so deftly punctures elsewhere in the book.

Mark Twain once suggested that the music of Wagner is not as bad as it sounds. Maybe something similar can be said about nuclear weapons. They have proved to be militarily useless, and their chief supposed achievement – deterring the Third World War during the Cold War – continues to be undercut with each leak from Soviet archives. Although highly sympathetic to revolutionary and civil-war violence, Soviet ideology dismissed direct war against the capitalist world, nuclear or otherwise, as stupendously stupid. In other words, there was nothing for US nukes to deter.

For nuclear weapons to fade, perhaps nothing needs to be done but wait, while avoiding waging sanctionious anti-proliferation wars that snuff out more lives than Hiroshima. Despite the author’s protestations about the inevitability of proliferation, his book ably demonstrates that

A disarmament process might require wars as a last resort

the trends are generally in the opposite direction. In the 20 years that the book covers, more countries have abandoned nuclear-weapons programmes than have taken them up. Moreover, the US and Russia have even engaged in something of a negative arms race, massively reducing their atomic arsenals from ridiculously large levels to ones that are merely foolishly large. Meanwhile, the French have cut their collection of nuclear bombs by two-thirds, and the British have wondered in public why the UK needs to have any at all. (Good question.)

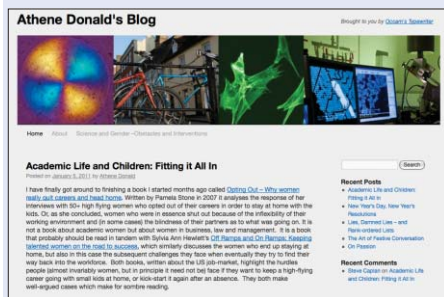
Wagner’s *Götterdämmerung* ends with a bang. A monumental bonfire is set, the lead soprano dives into it on horseback, a mighty river overflows its banks and drowns the villain, ag-

grieved water nymphs recapture some stolen gold in the flood, and the gods and their entire stomping grounds go up in flames, all accompanied (or propelled) by a whole lot of impressive, if sometimes rather loud, music.

By contrast, “Bombendämmerung” might end in a whimper as more and more taxpayers gradually come to muse on the expense (more than \$50bn per year for the US alone, Rhodes says) of maintaining the useless things. The weapons, without studied effort, might then be allowed to rust in peace, rather like the cannon that British Canada and the US pointed menacingly at each other for decades after their war of 1812. There would, however, be no accompanying music: although there are those who consider Wagner an exception, the rusting process has never recommended itself as a dramatic device to opera composers.

John Mueller is a political scientist at Ohio State University, US, and the author, most recently, of *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda* (Oxford University Press, 2010), e-mail bbbb@osu.edu

Web life: Athene Donald's Blog



URL: occamstypewriter.org/athenedonald

So what is the site about?

Athene Donald is a physicist at the University of Cambridge who blogs mostly about physics-related social issues such as science communication, funding, education and (especially) women in science. Long an esteemed member of the UK’s biological and soft-matter physics community – among other honours, she was appointed Dame of the British Empire in 2010 for services to physics – Donald has recently become a more public figure as well, writing regularly for national newspapers, featuring on discussion panels and so forth. Many posts reflect her views on articles published elsewhere in the blogosphere or the mainstream press, or are otherwise inspired by current events.

Can you give me some examples?

Like many blog authors, Donald not resist the impulse to post about her New Year’s resolutions. But unlike some, hers actually make for interesting reading. Resolution no. 1 – “I will ensure I return all referee reports on papers by the due date” – is sure to gladden the hearts of reviewees and journal editors alike, and when coupled with resolution no. 3 – “I won’t accept any more invitations to write reviews” – it even sounds achievable. Another recent post on “the art of festive conversation” addresses the tricky question of how to tell someone at a cocktail party that you are a physicist.

Why should I visit?

As blogs go, this one is relatively new – the first post was in August 2010 – but we get the impression that its author has been itching for an outlet for her opinions for years. Donald’s posts are informative, plain-spoken and thought-provoking (though often a bit long-winded), and despite the multitude of claims on her time, she usually takes the trouble to reply to readers who comment on them. Anyone who wants to learn what it is like to be a senior woman in science – including aspects that have little to do with gender, such as committee work, conferences and research itself – should check out her blog.

Can you give me a sample quote?

In a post entitled “Where’s the ‘wow factor?’” – a reference to a question posed at a September 2010 meeting on biology in physics – Donald writes, “The speaker...seemed to think that only topics like astrophysics would grab the imagination, particularly of the young who we need to entice into physics. I cannot agree. As ever, it seems to me that it is horses for courses – some schoolchildren will doubtless look up at the night sky and be inspired to ask questions and demand answers, which may indeed lure them into a physics/astrophysics degree; others will be less excited by this and want to know about totally different things...it depresses me that some of these other aspects, perhaps more ‘mundane’ because closer to our everyday world, are so readily overlooked. As a teenager I quite explicitly turned my back on cosmology...because I wanted to study things that seemed more relevant to our lives, but which were still ‘physics’. That has of course been the path I have followed ever since, as I have wandered through the study of metals, polymers, food, colloids, plants and ultimately cells...I am sure other schoolchildren also will find the ‘wow factor’ in things that are neither millions of light-years away nor only to be found in the Large Hadron Collider.”