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Blow it up real good

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A Most Damnable Invention:

Dynamite, Nitrates, and the Making of the Modern World

By Stephen R. Bown

Viking Canada, 288 pages, \$35

The history of science and technology is something of a specialist ghetto, at any rate among professional historians, most of whom seem to prefer more discursive subjects. This is unfortunate, because few things have been more important to the modern world than technology. Calgarian Stephen R. Bown, a popular rather than an academic historian, has made the social history of science and technology something of a personal forte.

Bown's last book, *Scurvy*, looked at the cure to that disease, an important step in the rapid advance of global trade and conquest in the 18th and 19th centuries. This volume traces the history of dynamite and its predecessor, gunpowder. Bown relies primarily on secondary sources, but is generous in his citation of others and includes a useful concluding note on his sources.

Anyone who can remember being a boy figuring out the ratio of sulphur, saltpeter and charcoal needed to make a nice bang in the back alley will enjoy the book. Bown's knowledge of the science is sound without being technical; there are no chemical formulae here, but also, alas, nothing to cook up in the back yard.

Explosives, as Bown shows, were important not merely for their obvious military uses, but for such civil engineering projects as tunnels and railways, as well as for mining. Until Alfred Nobel perfected a process for making a more powerful explosive than gunpowder, many ambitious projects were prohibitively difficult.

Dynamite, Bown argues, was important to such accomplishments as the St. Gotthard

tunnel between Switzerland and Italy, the Canadian Pacific Railway and the Panama Canal. Bown might also have mentioned the role of dynamite in South African gold mining, the Transvaal dynamite monopoly being one of a number of British grievances against the Boer republics in the period prior to the South African War of 1899-1902.

Before proceeding to the history of dynamite, Bown relates the history of gunpowder, from its invention in China to its spread into Europe, not neglecting the fascinating tale of Tokugawa Japan's decision to abandon firearms for reasons of social stability.

As the modern discipline of chemistry developed in the 19th century, numerous explosives were invented. The difficulty lay in creating a stable substance that exploded only when it was supposed to. It was Alfred Nobel who, in 1867, invented dynamite, a stable explosive made by combining nitroglycerin with a kind of clay.

Nobel's father had also been an experimental explosives maker, and Nobel lost a brother to an explosion in his father's factory. Nobel was a driven man, an active chemical researcher as well as a hyperactive businessman. His training was informal, but his experiments were inspired and often productive of practical results, even if, as Bown explains, his methods were (perhaps deliberately, given patent problems) obscure.

Nobel died a very rich man in 1896, leaving a will that created the Nobel Prizes. In addition to those for the hard sciences, there were to be prizes for literature "of an idealistic tendency" and for the promotion of "fraternity between nations."

Whether the bile of Harold Pinter displays any "idealistic tendency" is perhaps a matter of opinion. Many current critics seem to imagine that pessimism, at least about the West, is a prerequisite to artistic seriousness. That Nobel, a man of wide interests, should have thought idealism indicative of literary virtue is testament to his progressive 19th-century world view: He believed that scientific and cultural advances made for a better world. It was a view both genuinely held and hard to square with his own career as an arms merchant. There was no doubt a certain amount of guilt behind the Peace Prize, the idea for which was suggested by a sometime secretary of Nobel's, the Austrian pacifist Bertha von Suttner. Austria, once more famous for its emperors -- if not its corporals -- now puts the likeness of von Suttner on its two-Euro coins.

The recipients of Peace Prizes have been an odd bunch. Some choices have been testaments more to earnest hopes or political correctitude than to diplomatic efficacy: The name of Kofi Annan is a byword for unctuous incompetence; the Guatemalan Rigoberta Menchu has been exposed as a fraud; our own Lester B.

Pearson's famous intervention at Suez in 1956 had the primary effect of handing an unearned victory to a hostile Arab dictator; no one can remember the peace women of Northern Ireland; Mohammed El-Baradei, the most recent winner, has been singularly ineffective against the Iranian nuclear program. Alfred Nobel admired results above all.

Though Bown makes repeated and often arguable (and sometimes extravagant) claims for the historical importance of dynamite and its inventor, he focuses upon the particulars of the product's manufacture and use without offering an explanatory social synthesis, unlike more sweeping histories of technology such as Jared Diamond's *Guns, Germs and Steel* or Daniel R. Headrick's more academic *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*.

But Bown is a storyteller more fond of vignettes full of details than of searching analysis. He has written a good read for pyrotechnics, gun nuts and those just interested in this important aspect of history.

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