

## Testing times in Australia

John Simpson

**A Very Special Relationship: British Atomic Weapon Trials in Australia.** By Lorna Arnold. HMSO, London: 1987. Pp. 323. Pbk £7.95.

OVER the past two years, the nuclear trials conducted by the British government in Australia between 1952 and 1963 have been the subject of an Australian Royal Commission and several books (see the review in *Nature* 318, 319; 1985). Lacking, however, has been a concise and balanced account of these activities which attempts to place them in their historical context, rather than judge them from the perspective of current values and political issues.

Lorna Arnold now offers us such a study, but at the same time gives us a foretaste of some elements of the forthcoming official history of the British nuclear programme during this period. This makes her book of interest not only to those who wish to know more about the tests in Australia, but also to those who seek to understand something of the nature of the development of nuclear weapons. Arnold has had access to British documentation on both the Australian tests and the nuclear-weapon programme, and has interviewed many of its managers. The result is a very readable and informative volume.

One problem with writing books about nuclear tests is that a full understanding of each test demands knowledge of the weapon research and development programme being attempted. Yet details of such programmes have been the most closely guarded of state secrets. The originality and strength of Arnold's account is that she has been allowed to lift a corner of the veil of secrecy still surrounding the British programme in the 1950s, and offer an authoritative but limited explanation of what the Australian tests were for.

The book does not cover the Christmas Island tests in 1957 and 1958, and the picture is therefore far from complete. But it does contain some previously unrevealed elements. These include the three weapon types which were under development in late 1955; the use of enriched uranium and boosting in weapon tests in late 1956; the revised testing objectives of July 1956; the three weapons other than Blue Danube that Britain was in a position to produce by mid-1957; the emphasis, by 1957, on the development of small-yield plutonium warheads for use on anti-aircraft missiles and as a smaller and lighter trigger for H-bombs; the testing in 1957 of advanced fission devices with

mixed plutonium and uranium cores; and the need by 1959 to contemplate safety tests on nuclear weapons being made in Britain to Anglicized American designs. This type of information gives coherence to Arnold's account, and enables a much clearer picture to be built up of why specific tests were conducted. It also enables some evaluation to be made of the significance of the tests.

In the course of her account Arnold deals in a low-key manner with almost all of the recent accusations that have surrounded the issue of testing in Australia. She accepts several of them, and offers explanations of why others should be rejected. This is therefore not an apologia on behalf of the British government, although she maintains throughout that levels of exposure to radiation were within acceptable limits.

Many readers will no doubt regard Arnold's book as suspect on at least two counts: much of the documentation she has used is not yet available for independent evaluation, and she follows the official line that exposure to low levels of radiation carries no appreciable health risk. Yet despite some minor errors which suggest the book was rather hurriedly completed, it remains a convincing, broad-based and fair account of the events in Australia three decades ago. As a result of its publication, the general public will be able to make its own informed judgement on the actions of the British and

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Cloud over Maralinga — fireball of the nuclear device exploded at Maralinga, South Australia, on 9 October 1957. It was the fifteenth such test carried out by Britain.

Australian governments of the period, and of the decisions taken by the managers of the British nuclear-testing programmes. □

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## Not lurid virology

Beverly E. Griffin

**DNA Tumor Viruses: Control of Gene Expression and Replication.** Edited by Michael Botchan, Terri Grodzicker and Philip A. Sharp. Cold Spring Harbor Laboratory: 1986. Pp. 620. Pbk \$75.

BOOKS, even scientific ones, used to be for reading. One author (or occasionally two), one book. Thus among the books that influenced me in my choice of career were well-written and thought-provoking tomes such as Fruton and Simmonds's *General Biochemistry*, Watson's *Molecular Biology of the Gene*, and Luria's *General Virology* (billed to me by my bookseller as *Lurid Virology*). Those in other disciplines would, I suspect, come up with similar lists of one- or two-author volumes.

*DNA Tumor Viruses*, Vol. 4 in Cold Spring Harbor Laboratory's *Cancer Cells* series, contains a wealth of information, but for all that — or because of all that — it is not designed to be read. More than 200 authors were involved, and I suspect that it will not have much influence on anyone's career. The editors say that one of

their objectives was to update the 1980 book of the same title, but the latter, known to many simply as "Tooze", had one editor and 14 authors. It was meant to be read, and potentially was therefore not without influence on a part, at least, of the scientific community.

I dwell at length on this subject because I am beginning to wonder about the role of books and whether authors, editors (and publishers) have much concern for the reader, or whether he or she, like the dodo, is becoming an anachronism. Maybe the current trend in which books increasingly mimic journals (with editors as referees), and in which journals proliferate beyond a recognizable readership, has gained too much momentum to be halted. If it spreads, will even novels be written by multiple authors? I hope not.

I am, of course, being unfair to the book under review. But having taken the preface at face value, I was disappointed at the failure of many of the contributors to deliver. In addition to the *raison d'être* given above, the editors promise a history of DNA tumour viruses followed by an elaboration of current and future developments in the field. In general, the second aim is paid lip service only. One of the great frustrations for me was to find that Dulbecco, a scientist greatly valued for his