That striking statesman

Robert Fox

Benjamin Franklin: A Biography. By Ronald W. Clark. Weidenfeld & Nicolson: 1983. Pp. 527. £18.50.

THE public face of Benjamin Franklin is a familiar one. It is a face of good-hearted simplicity and sober common sense, qualities which allowed Franklin's natural humility to survive unimpaired as he rose from the obscurity of a Boston printing house to the rank of "the first American", an Enlightenment *philosophe* who could stand proudly before Louis XVI at Versailles wearing neither wig nor sword.

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Ben Franklin, "the first American".

The Autobiography in which Franklin handed down a carefully doctored account of his life was understandably a favourite work in the young American republic. Making much of Franklin's modest origins, it impressed the youth of America with the limitless power of self-help and the virtues of abstinence and industry that are epitomized in the most famous of Franklin's literary creations, Poor Richard.

The real Franklin, as might be expected, was very different. There was in fact rather little of the homespun Poor Richard about him. Ronald Clark's richly documented biography shows him whoring with relish as a young man in Philadelphia, indulging in business practices that verged on the unscrupulous, setting up in style in London and at Passy, and revelling in the refined world of the Parisian salons which he frequented for eight years towards the end of the Ancien Régime. During his stay in England as the representative of the aggrieved Pennsylvania Assembly (1757-1762), he was so taken with London society that he was tempted to settle there.

In these years, it seems, he still proudly regarded himself as "a Briton". Indeed, by an irony that Clark exploits to good effect, only his wife's reluctance to follow him across the Atlantic prevented a course of action which might have diverted America from the road that led to Yorktown and independence.

Although this is only incidentally a scientific biography, Clark shows that the discrepancy between myth and reality has extended to Franklin's science. In his own lifetime and for decades afterwards, Franklin was revered as the inventor of bifocal spectacles, the lightning conductor and the Franklin stove, and it is certainly the case that his interest in gadgetry was substantial and abiding. But gadgets, however ingenious, have little to do with Franklin the scientist. Far more relevant to this Franklin is the comparatively slender volume of letters to his London friend Peter Collinson which he published in 1751 as Experiments and Observations on Electricity. A clear contemporary assessment of Experiments and Observations is implied by the fact that by 1774 it had gone through five English editions and been translated into German and, at Buffon's suggestion, into French. The book also stimulated immediate repetition of the "Philadelphia experiments" throughout Europe, most notably at Marly-la-Ville, where lightning was spectacularly drawn down from the clouds and shown to be a form of electricity, as Franklin maintained.

Clark treats Franklin's science lucidly, though without attempting a serious reinterpretation of either its content or its intellectual and social context. So, at a time when the Yale University Press's Papers of Benjamin Franklin are eating an ever greater hole in our library budgets and turning Franklin into one of the bestdocumented figures in history, the problems of interpretation remain as numerous as ever. It would be intriguing to know, for example, what light the case of Franklin might throw on the supposed provinciality of culture in colonial America. Does correspondence of the kind that Franklin sustained with natural philosophers in Europe imply that he felt America to be dangerously detached from the hub of things, or did the Europeans genuinely feel that Franklin's Philadelphia had something to offer them? It seems clear that by the time of Franklin's death in 1790, European interest in American science was diminishing rapidly, and it remained at a low ebb until its dramatic revival in our own century. But the circumstances of that decline of interest have still to be elucidated.

Biography is such a notoriously difficult genre that it may be unreasonable to expect even a master of the art like Ronald Clark to confront these wider issues. But issues are what his richly informative study appears, above all, to lack. The book gives little impression of the current interest in the Newtonian tradition in the eighteenth century and in the aether theories which engaged so much of Franklin's attention. In the realm of general history too, there are problems. The bibliography has no place for Henry F. May's outstandingly suggestive book The Enlightenment in America or for Donald H. Meyer's Democratic Enlightenment. Of course, Clark may disagree with May's ingenious slicing up of the American Enlightenment into phases characterized as moderate, sceptical, revolutionary and didactic. But to ignore secondary literature of such obvious relevance and interest is to court the charge of scholarly myopia. It is a pity to see signs of that malady in a book which, as a purely personal and political biography, nevertheless has a great deal to commend it.

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Not the end of the world

Joseph Silk

The Ultimate Fate of the Universe. By Jamal N. Islam.

Cambridge University Press: 1983.

Pp. 156. £7.95, \$13.95.

Evolution of the Universe.

By I.D. Novikov.

Cambridge University Press: 1983.

Pp. 176. £7.95, \$14.95.

THE Universe is open: it will expand forever. The first threat to civilization, notwithstanding the odds on self-destruction, will come when the Sun evolves into a bloated, red giant star. But this is some five billion years hence, and we may confidently expect that man will long since have civilized other planets around other stars. Even the supply of stars, however, is finite. The resources of energy are not inexhaustible. Stars die, collapsing into black holes, white dwarfs or neutron stars, more compact than the Earth. The supply of gas for making new stars gradually runs down.

Long-range forecasts of our fate in such a far-distant future provide the basis for J.N. Islam's *The Ultimate Fate of the Universe*. Written without the use of mathematics, it is intended for the general reader with little background in astronomy