

# Book Review Section

Compiled by John Jenkin\*

**Roy MacLeod and Milton Lewis (Eds), *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion*. London: Routledge, 1988. xii + 339pp., \$105.**

The emphasis of this volume on the history of colonial medicine in the nineteenth and twentieth centuries falls on the political, cultural, economic and social dimensions of medical practice. In terms of scope, the focus is most often on the activities of physicians and public health reformers in the British dominions, but a few essayists range farther afield to provide snapshots of contemporaneous developments in the Belgian Congo, Algeria, Indochina, the German islands of the Pacific and the Philippines. As a collection of studies in retrospective policy analysis, the volume provides a sumptuous sampler of recent attempts to relate the history of medicine to the retention and development of the European colonies. The book's goals are both modest and ambitious; modest because the editors have wisely decided that they cannot be exhaustive in coverage. Thus there is little mention of how indigenous healers reacted to medicalization by European physicians. The collection is ambitious because the editors have produced a collection of case studies which carries the reader well beyond the descriptive, physician-centred history that abounds in this corner of the subject and approaches their goal of lending coherence to 'the agenda' of those who study colonial medicine.

Readers who expect this book to provide an analytical model to conceptualize the relationship between medicine and empire will be disappointed. Perhaps the history of colonial medicine is, as yet, too inchoate to hazard the sorts of schematic models already proposed for colonial science and technology by MacLeod, George Basalla, Immanuel Wallerstein, Lewis Pyenson, Ian Inkster, Daniel Headrick and others. Yet editor MacLeod's penchant for analytic models is alive and well in the volume's introduction, where it manifests itself as a lucid account of

the development of the historiography of imperial medicine. This, we learn, is composed of four sequential and overlapping layers: the heroic era, the age of the participant-historian, the rise of the history of epidemic disease, and finally the revisionist phase which seeks to specify medicine's value as an agent of social control. Exemplars of this latest genre, the book's fifteen essays are clustered into three sections which address medical policy and administration, professionalization, and the politics of race and epidemic disease.

Michael Worboys opens the first section with a reconsideration of the rivalry between the twin godfathers of British tropical medicine, Patrick Manson and Ronald Ross. The essay is a rich blend of institutional, political and medical history, and Worboys links the tensions between the two men to the divergent professional pressures operating on the entrepreneurial Ross, a scientific and political outsider who directed the Liverpool School of Tropical Medicine, and on Manson, the collegial head of the London School of Tropical Medicine who gained the ear of the Colonial Office.

The divergent styles of imperial medicine are brought into focus in Raeburn Lange's piece on the establishment of a health service in the Cook Islands, and in Wolfgang Eckart's contribution to the history of German medical services in the Caroline, Mariana and Marshall Islands. Cook Island natives, some of them trained in western medicine by the Central Medical School in Fiji, gained limited access to European medicine after New Zealand organized medical services. Paternalism and perhaps humanitarian motives informed New Zealand's medicalization of the islands, and by Lange's account the natives experienced a real gain in well-being. Eckart chronicles a very different story in the German Protectorates, where commercial ventures formed to export copra, rubber and phosphate ruthlessly exploited the natives. The Pacific was a medical backwater for Germany, which concentrated its efforts on the health situation in Africa and New Guinea. Eckart, whose mastery of the archives is evident, has pieced together a chilling tale of medical neglect from scant manuscript evidence.

Anne Marcovich devotes her energies to a comparison of French medical intervention in Algeria and Indochina. This derivative essay, based solely on printed sources, relies heavily on the work of Yvonne Turin and Bruno Latour. Although her study of Indochina shows that old-style sanitary measures continued well into the present century, it divides the history of French colonial medicine into pre- and post-Pasteur

\* Dr J.G. Jenkin is a Reader in Physics at La Trobe University, Bundoora, Victoria 3083.

phases and overstates the influence of the microbial theory of disease on the practice of colonial medicine. The translation is not Marcovich's own, and the original French version of the paper may have contained a more nuanced account of these important events.

Three of the five essays in section two, those authored by Donald Denoon, Diana Dyason and Helen Woolcock, speak to the Australian experience. Denoon's article on the relationship between medicine and settler capitalism shows how medical administration in Australasia and South Africa was subordinated to political purposes. His succinct section on the differential reception and reordering of western medical ideas in temperate Victoria and New Zealand, the near-tropical environs of Queensland, and the exclusively tropical climes of New Guinea and Papua lays the foundation for integrating the history of medical policy with the ecology of disease. This piece, more than any other in the collection, will figure on the must-read lists for those who aspire to fashion a global agenda for the historiography of colonial medicine. Queensland receives additional attention from Woolcock, who explores attitudes toward health by examining alien labour policies and the oft-repeated claim that Queensland's salubrious climate posed no barrier to demographic and economic progress. Australasian scholars already know that Diana Dyason is serious about an active retirement, and we the readers profit from her portrait of medical professionalization in Victoria.

With the loss of Erwin Ackerknecht, William Coleman and Jacques Léonard, historians of demography and epidemic disease may feel rather glum about the last two years. But cheer up, for most likely these scholars would have taken an interest in and appreciated the scholarship in the final section of this volume.

The chapter by Alan Mayne is top-rate social history and employs the smallpox epidemics of 1881–2 as a lens to examine various dimensions of the economic and cultural dependency that bound the communities of Sydney and Melbourne to the mother country. The health policies enacted on the periphery took as their reference point the experience of smallpox in the London slums. But colonial sanitary authorities were more than passive conduits of British cultural imperatives, and they altered British policies to fit their local situations. For example, quarantine practices, which had fallen out of favour in Britain by the 1880s, persisted somewhat longer on the borders of empire. Mayne shows how racial prejudice toward

Asians and local marketplace conditions combined to bolster quarantine strategies in Victoria and New South Wales. He also reads the history of the epidemics as a series of opportunities for social and cultural control which were seized upon by the urban bourgeois. These elite historical actors, Mayne argues, blamed the victims of smallpox for their own diseased condition, and used the circumstance of the epidemic to restrict the sphere of state action and to win concessions for private enterprise. All this is heady stuff, the best of class analysis. Historians of epidemiology are sure to note that the rhetoric employed in the 1880s is not so different from similar liturgies generated by the present scourge of AIDS.

Editor Lewis focuses on the strategies to promote infant health in New South Wales, which arose in response to the documentation of declining birth rates for colonists and various fears for the health of the white race that swept Europe and the colonies in the nineteenth and early twentieth centuries. While Australia shared the concerns of Europe, Lewis identifies the regional pressures of a strong nationalist ideology and fear of Japanese expansionism as the major inspirations for Australia's infant welfare movement and general campaign to increase the continent's white population. Lewis writes from a global perspective, and explores numerous parallel developments from countries in both hemispheres.

The health of Africans is the concern of two articles in the final section. Maryinez Lyons' study of the development of a policy of sleeping sickness control in the Belgian Congo chronicles the deployment of a paternalistic sanitary strategy designed to protect the profits of the colonizers and only secondarily the health of native rubber collectors. This account – of massive surveys, attempts at containment, and medical passports – is enlivened by an analysis of the political factors that drove King Leopold II to seek help from the Liverpool School of Tropical Medicine in stopping the epidemic. Historians of colonization have grown critical of the term 'scramble' to describe the late nineteenth century expansion of Europe into Africa, but the imagery of competitive scramble still lingers, perhaps rightly so, in much of our scholarship. Yet the use of foreign experts by colonial authorities, in instances such as the Belgian case or Robert Koch's African expeditions, deserves closer scrutiny. By 1900, tropical medicine was an international field, replete with a coterie of expert consultants. Medical expertise became a kind of commodity which could be bought, sold and sometimes copied by foreign governments. Historians of science

and imperialism need to press beyond the competitive metaphor, where appropriate, and consider instances where Europeans of different nationalities collaborated in the exploitation and development of the non-European world.

While many of the authors examine racial attitudes in relationship to colonial health care, this theme is given a cogent currency by Shula Marks and Neil Anderson in their essay on typhus and social control in South Africa. The South African strategy to deal with typhus, if strategy is an appropriate description, was designed to contain the disease in the rural black areas and protect the health of the white population. This strategy was all the more insidious because typhus, like the greatest killers of Africans – measles, tuberculosis, malnutrition and deficiency diseases, tends to receive much less attention in the international press than the more spectacular afflictions such as AIDS and plague. Moreover, the health of native Africans received an additional blow when South Africa ceded responsibility for African health care to the inexperienced and impoverished Bantustan health authorities.

Historians are not known for their unanimity of methods and subjects, and it is apparent that 'the agenda' has not yet emerged. Nonetheless, this provocative collection provides several valuable tools for the construction and refinement of our various agendas. The editors are to be congratulated for assembling a sensitive cultural critique of many manifestations of colonial medicine, and chided for leaving sections of the manuscript in German. The volume is as distant from idiosyncratic history as it is from dull prose, and it is especially recommended to those historians concerned with the professional, administrative and sociopolitical dimensions of European medicine, both in Europe proper and in the Southern Hemisphere.

Michael A. Osborne,  
History Department,  
University of California, Santa Barbara.

**Sophie C. Ducker (Ed.),** *The Contented Botanist: Letters of W. H. Harvey about Australia and the Pacific*. Melbourne: Melbourne University Press/Miegunyah, 1988. xvi + 413 pp., 20 plates, \$65.95.

On 4 August 1853, William Henry Harvey (1811–1866) departed from Southampton for a long-planned voyage to Australia, to collect algae. Harvey had, by that time, published major works on the algae of Ireland and of Britain more generally, *Nereis australis* (algae of the South Ocean), and had

begun a major work on the seaweeds of North America, *Neveis boreali-americana*, for the Smithsonian Institution. He remained away from his posts as Keeper of the Herbarium at Trinity College, Dublin and the Chair of Botany of the Royal Dublin Society until October 1856. In that period he travelled via Gibraltar, overland to Suez, to Ceylon, to Albany and the Swan River, and to Victoria, Tasmania and Sydney, from where he made a side excursion to the South Pacific, calling at Auckland, Tonga and Fiji. From Sydney he went to Valparaiso and home. In each location at which he stopped he collected algae, for his own herbarium and for sale to subscribers, thus partly offsetting the cost of his voyage. During his travels he wrote frequent letters home, and these have now been collected in this selected edition.

Unlike the reader of a complete correspondence, such as that now being published for Charles Darwin or under preparation for Ferdinand von Mueller, readers of selections such as this must depend on the editor for the context, cross-referencing and interpretation that could otherwise be gained from a full corpus. The support given to the reader who is not steeped in algological literature and who has not had privileged access to the corpus of Harvey's letters is an important component in judging this edition. In choosing letters leading up to the voyage, and those dealing with the distribution of the collection and the publication of *Phycologia australica* – in which Harvey illustrated his collection with his own lithographs, Ducker has served us well. We are able to follow Harvey's planning, and indeed excitement, about his 'long cherished plan of foreign travel which will leave me something to dwell on for the time to come, and serve to give useful and pleasant occupation for the rest of my life' (W.H.H. to Mrs Asa Gray, 14 April 1853). By this device we are allowed to see, in Harvey's own letters, a rounded view of the planning, execution and resolution of the journey. (Each letter used is printed in full, with Harvey's punctuation, spelling and asides.) Ducker's introduction fills in essential background to Harvey's early years: the role of Sir William Hooker in getting him started on his botanical studies and his brief period in the Cape of Good Hope as assistant to his brother Joseph, the Colonial Treasurer, as well as the origins of his American connection, which has led to the preservation of many of these letters in the Gray Herbarium at Harvard. Similarly, she sketches the final years of Harvey's life, his marriage and death.

Although it is not clear whether there are any letters written during the voyage that

have not been selected for inclusion, it appears to be a very full, if not complete set for the period of the journey itself. The coverage of his journey up to his illness in Valparaiso is without gaps, for example, so that it would be possible to determine his whereabouts for almost every day from the time he reached Ceylon up until his stay in the English hospital at Valparaiso.

This precision of record is possible mainly because Harvey wrote long 'Journal' letters to his family – particularly to his sister and his niece. These letters contain observations on convicts, on social conditions ('the fashion here is, to have no servants' – W.H.H. to Mrs Gray, 2 February 1854, from Albany, W.A.), on government, mission work, land settlement and general living conditions, as well as touching on botanical matters and giving descriptions of landscapes written with a botanist's eye. Letters to the Hookers and other botanists have more botanical detail, but, except for some letters to Asa Gray written after Darwin's *Origin of Species* was published, do no more than touch on theoretical matters. Perhaps this is not surprising since, as Ducker points out, 'he proposed no great new hypothesis; he presented no new theories; he discovered no new laws, and found no new stars in the Universe.' Yet there is value here for botanical historians, and for those interested in the development of botanical networks.

Harvey was a well established botanist, judged by the Hookers of Kew to be a sufficiently sound general botanist to be given, with Sonder, the responsibility for the *Flora capensis* (1860–65), one of the series of colonial Floras sponsored by the Colonial Office from 1860, and to which Bentham's *Flora australiensis* (1863–78) is the Australian contribution. His views on other colonial botanists and collectors are therefore based on greater experience than his expert knowledge of the seaweeds. We find that he judged Ferdinand von Mueller, then in his second year as Government Botanist of Victoria, 'an excellent fellow, and wonderfully sound, for a German, in his conception of species. He is prepared to knock down many of Cunningham's, of J.D.H's and even (tell it not in Dean Street) of R.B's' (W.H.H. to Sir William Hooker, 5 September 1854). James Drummond, 'the botanical explorer of the Swan River Colony' is spoken of affectionately as the man to 'whom we owe our knowledge of at least ¾ of its vegetation'. William Archer, Ronald Campbell Gunn, Dr George Bennett and others are visited, described and occasionally judged.

We glean insights into Harvey's views on the limits of species and on the problem of working with difficult groups such as

*Pelagonium* solely from herbarium specimens. We learn of the frustration of collecting algae, when one has only a limited time at each locality and needs to wait for storms to produce a strong drift, of the frustration of missing flowering periods, and of the difficulties of collecting, preserving and processing in the field.

For the botanical historian, then, these selected letters provide a quarry for snippets of data, for contemporary insights, and for illustrative quotation. But they are a quarry with much overburden, and for this purpose the index is satisfactory if one uses it creatively. The volume is not densely indexed, however, and is not as potent a tool as the index to the *Correspondence of Charles Darwin*, which makes much greater use of conceptual indexing in addition to locating references to specific people, places and species. Moreover, for the reader who wishes to use the collection for general social history, the index is much less satisfactory: it seems to have been prepared with a botanical user in mind. This is a great pity, for the letters will be much harder to use than they might have been, and useful views on social conditions, on the administration of government, and on French, American and British competition for Pacific influence will not be easy to follow up for want of some general, first-level index entries.

There are other frustrations with the scholarly apparatus. End-notes are usually very helpful, but at other times they seem redundant. For example, on p.232, when Harvey is describing his stay in Auckland, we find the passage 'Capt. D. took me to Rangitoto<sup>13</sup>, a curious volcanic island forming the south head of the harbour' when Harvey is describing his stay in Auckland. Note 13 reads: 'A curious volcanic island forming the south head of Auckland harbour'. There are not very many such notes, but they are annoying. Similarly, the otherwise useful set of biographical notes is incomplete. It is, of course, very difficult to identify every person named in the letters, but what is puzzling is the decision to add, for a small number of people, a footnote saying that they have not been identified, and for others to silently ignore them. Even more irritating is the occasional identification of a person in footnotes, but no biographical entry for them. Mr Lowell, for example, is identified in a footnote (in the second letter in which he is mentioned) as 'John Lowell, son of John Amory Lowell, the founder of the Lowell Institute. He had scientific interests and supported collectors'.

In other cases, it may have been impossible for the editor to have provided clarification of issues mentioned, where Harvey is reply-

ing to points made in a letter which he is answering. If such letters survive, it would have been helpful to have had a summary; if they do not, it would have been useful to have been told this explicitly in the preface or introduction.

Despite my criticisms of the apparatus, the collection is a useful one, and for the general reader too. It is a fascinating insight into the life and times of Australia and the Pacific just after the gold rushes. The letters reveal Harvey's attitudes, abilities and character. He was a likeable man, wrote interesting letters and reported his own and his companions' ideas on class, society and missionary enterprise in a manner to which one cannot take offence. Contemporary illustrations of some key locations, photographs of Harvey, the Grays and of Australians met on his travels, useful maps, and two reproductions of Harvey's lithographs of Australian algae add to the interest and usefulness of the volume. Botanists will also find useful the listing of plants mentioned in the text, with modern synonymy.

Sophie Ducker is to be thanked for turning her attention more and more to the history of her scientific field when, as she said to me some years ago when we met accidentally in the archives of the Royal Botanic Gardens at Kew, she 'had grown too old to dodge the waves on the rocky platforms and had given up collecting algae'. From that change of intellectual focus a version of Harvey's never published but hoped for *Journal* has finally seen the light.

A.M. Lucas,  
King's College,  
London.

**Jean Chaussivert and Maurice Blackman (Eds.),** *Louis Pasteur and the Pasteur Institute in Australia*. Kensington: French-Australia Research Centre, University of New South Wales, 1988. 93pp., illus., \$12

This small book comprises papers delivered at a symposium in 1987 to mark the centenary of the Pasteur Institute. The conference, organised by the University of New South Wales' French-Australian Research Centre, focused particularly on the activities of the Pasteur Institute in Australia in the 1880s and 1890s, and readers of this journal will primarily be interested in the three papers on this subject. Other papers reproduced here encompass Pasteur's research career, his work on the asymmetry of crystals and his microbiological studies on wine, the Pasteur Institute's contributions to molecu-

lar biology, the Pasteur Institute's public health work in New Caledonia, and the controversy surrounding possible occupational cancers among genetic engineers at the Pasteur Institute. Several authors stress the mutual benefits that flowed from French scientific activity in Australia, but in a style reminiscent of international diplomacy rather than scholarship. (The fallout of other French enterprises in the Pacific never seems far from this book.)

The three contributions on Australia cover different aspects of what proved to be a curious exploratory attempt by Pasteur to establish a branch of his Institute in Australia. P.M. Rountree provides an overview of the episode. In 1887 the New South Wales government announced a reward of £25,000 for a biological method of exterminating rabbits, which had overrun the pastoral areas of the colony. Pasteur took up the challenge and sent two scientists, Adrien Loir and Louis Germont, who arrived in Sydney in 1888 carrying bacterial cultures of chicken cholera, which Pasteur had isolated several years previously and which he hoped would prove fatal to rabbits. The State government's Rabbit Commission cooperated by building a laboratory and animal enclosure for the scientists on Rodd Island in Sydney Harbour. The Pasteur Institute's scientists successfully demonstrated that the chicken cholera was fatal to the rabbits, but they failed to satisfy the Rabbit Commission's requirement that the disease was sufficiently contagious to pass readily through the rabbit population. In the event the Rabbit Commission was dissatisfied with all submissions, and Australia would wait over 60 years for the introduction of myxamatosis as a biological control.

The French scientists also explored other potential applications for the biotechnologies that Pasteur had so successfully developed and exploited. They established that a local disease of sheep was in fact anthrax, and conducted successful trials with anthrax vaccine. When it was clear that the Rabbit Commission was not going to give them the prize, Pasteur recalled his scientists to Paris. In 1890, however, Loir returned to supervise the manufacture and distribution of anthrax vaccine and pleuropneumonia vaccine for cattle. Loir returned to Paris in 1893, but other French scientists maintained the Australian branch of the Institute until 1898.

Pasteur viewed the whole episode with considerable bitterness and recrimination. J.S. Chaussivert's paper reports the contents of correspondence between Pasteur and his scientific agents. Pasteur blamed the Rabbit Commission's rejection of his scheme on the

machinations of a German doctor appointed to the Rabbit Commission, and to Australian jealousy of the French. Chaussivert suggests that Pasteur ignored the Commission's insistence that the disease be highly contagious because he failed to grasp the immense size of Australian farms.

Jan Todd shows how the Pasteur Institute only partially adapted to Australian conditions, this time in the introduction and marketing of anthrax vaccine. The French scientists had identified anthrax and established the efficacy of the vaccine in New South Wales in 1888, but smarting from his rejection by the Rabbit Commission, Pasteur waited until 1890 before arranging for local production and dissemination of the vaccine. Spore of the attenuated bacilli were sent from Paris to Sydney, where the Pasteur scientists produced the vaccine. However, the vaccine was never widely used, because it was sensitive to high temperatures and required mustering the animals twice to give them two separate doses. Pastoralists, squeezed by the 1890s depression, saw the vaccine as risky and overpriced. Within a few years a local vaccine was produced by pastoralist John Alexander Gunn and bacteriologist John McGarvie Smith, who combined Pasteur's techniques with those of his arch-rival, the German Robert Koch; the single-dose vaccine proved to be cheap, effective and safe and was quickly accepted by local graziers.

Although the narrative emerges clearly enough from these three papers, the analysis is rather sketchy. The episode is treated in relative isolation from the rest of Pasteur's career, the development of bacteriology and the application of scientific research to the problems of Australia's primary industry. Randall Albury's paper summarising Pasteur's career provides insights into Pasteur's strategy of finding practical applications for his basic research in order to obtain funding from government and industry. Pasteur built his research institute on government prizes such as that funded by the New South Wales government; hence his annoyance at the drying up of the expected cash flow. The recent work of Bruno Latour on *The Pasteurization of France* (Harvard, 1988) shows that Pasteur's success can be seen as a process of extending the certitude and authority of the laboratory over large areas of public health and primary industry. The strategy of secrecy, competition and hierarchical organisation, so successful in the expansion of markets and empires in the 19th century, was applied by Pasteur to bacteriology with stunning success, even if New South Wales proved a rather recalcitrant colony. Both these authors adopt approaches

that could fruitfully be applied to the history of the Pasteur Institute in Australia.

Richard Gillespie,  
History and Philosophy of Science  
Department,  
University of Melbourne.

**Marion Ord (Ed.),** *Historical Drawings of Moths and Butterflies by Harriet and Helena Scott.* Sydney: Craftsman House, 1988. 147pp., 56 plates, \$85.

**Marion Ord (Ed.),** *Historical Drawings of Native Flowers by Harriet and Helena Scott.* Sydney: Craftsman House, 1988. 137pp., 51 plates, \$85.

These excellently produced publications, endorsed by the Australian Bicentennial Authority in 1988, confer great credit on the editor Marion Ord and the publisher Craftsman House. Marion Ord wrote the text and selected the plates, providing an instructive addition to the early history of science in Australia.

Ever since Captain Cook's arrival, accurate graphic records of the flora and fauna of this continent have become part of our visual heritage. Owing to the outstanding work of scholars, foremost among them Bernard Smith, we have remained familiar with the names of early artists such as Sydney Parkinson, Ferdinand Bauer, the Port Jackson painter and others. Botanical art has to this day remained a live tradition in Australia, as can be seen from the work of Margaret Stones and Celia Rosser. Into this distinguished company of names Marion Ord has introduced two new ones: those of Harriet and Helena Scott, whose best work had never before been reproduced by modern methods. The sumptuously presented drawings are chosen from the collections of the Australian Museum and the Mitchell Library.

In the Introduction we are told that the sisters were the grand-daughters of Dr Helenus Scott, a physician and botanist living for thirty years on the island of Salsette, near Bombay, where he worked for the East India Company. Dr Scott had three sons, including Alexander Walker Scott, the father of Harriet and Helena. Alexander Walker was educated in England, went to Cambridge, began life as a lawyer but soon followed his brothers to Australia. It appears that he had been trained in drawing and was brought up with a wide knowledge of natural science. While he had a marked predilection for entrepreneurial enterprises, he never ceased

to specialise in entomological research, and trained his daughters in the exact techniques of the natural science illustrator. Marion Ord gives a vivid account of the many avenues of enterprise open in the middle of last century to a versatile and inventive man like Alexander Scott. His most successful venture was the farm on Ash Island, in the mouth of the Hunter River, where he grew oranges and entertained friends with whom he could share his interests in natural science. Among his visitors was the explorer Ludwig Leichhardt, who went plant collecting with him and 'found their collection of minerals and shells instructive in the extreme'. Some of the acquaintances the Scotts cultivated in Sydney were medical men such as Dr David Ramsay, one of whose sons became a childhood friend of Harriet and Helena, and Dr James Mitchell, father of David Scott Mitchell, founder of the Mitchell Library. When Alexander Scott prepared the work which brought recognition to the family, namely *Australian Lepidoptera and their Transformations*, the plates were 'drawn from life by Harriet and Helena Scott, with descriptions, general and systematic, by A.W. Scott M.A.' He tried to publish this book in Sydney in 1851, but did not succeed until 1864 in England with the publisher van Voort. Botanist William Swainson praised the exact naturalism and the three-dimensional effects obtained in the drawings. The insects were depicted life size, mostly together with the caterpillar, the chrysalis and the plant the caterpillar feeds on. Antennae, legs and other details are delineated in the lower margin. The sisters became famous and were made honorary members of the Entomological Society of Sydney.

In some plates distant landscapes are sketched in – of scenery around Sydney – which suggest in a general way the habitat of the insects which occupy the foreground. Both volumes of the 'Ash Island Series' (Vol. I moths and butterflies, Vol. II native flowers) reproduce the original illustrations in three-quarter reduction. Some of them are accompanied by contemporary comments, either taken from Alexander Walker's descriptions or, more often, from William Swainson's review, which was published in the *Sydney Morning Herald* in August 1851.

In view of the fine production of these books and the introductions so full of new facts and events, it is regrettable that we have not been given more precise details: one would have liked to have been told, for example, from which of the two volumes of the Lepidoptera – one published in London in 1864, the other in five parts in Sydney in

1890–98 – the plates chosen for the moths and butterflies volume were taken. The text accompanying the plates rarely mentions the plants on which the caterpillars feed, although they are executed with great attention to botanical accuracy. It would also have been helpful to have had notes from a present-day entomologist telling us how many of the butterflies illustrated are still in existence, and which of them is uniquely Australian.

While the book on butterflies does provide occasional comments on the plates, text only very rarely accompanies the illustrations of native flowers. We find inscriptions showing where some of the flowers were found, but the drawings in this volume are not often signed and give the impression of not having been planned for publication.

Sometimes information is rather confusingly distributed: plate 37 of volume II carries a note 'the first of a series of Australian Christmas cards 1879'. An explanation is found on p.29 of the Introduction: 'The artist also designed the first Australian Christmas cards printed by Turner & Henderson in Sydney in 1879'. No comment is made on the process employed by this firm, and no reference appears to plates 27–51, where these cards are illustrated. Both books would have benefited from lists of plates and indices.

Ursula Hoff,  
Department of Fine Arts,  
University of Melbourne.

**J.H. Pearn**, *In the Capacity of a Surgeon: a biography of Walter Scott, surgeon and Australian colonist, and first civilian of Queensland*. Brisbane: University of Queensland, 1988. vi + 226pp., illus. \$28.

Professor John Pearn has rendered a service to Australian medical history in publishing this very readable biography of Walter Scott (1787–1854). Scott is the only person known to have had any medical training among the seventy men, women and children that founded the first settlement in Queensland at Moreton Bay in 1824. Little original material has been found concerning the detailed nature of the medical problems encountered during its first eleven months, when Scott, the commissariat storekeeper, acted also in the capacity of a surgeon. Illness was a major concern. The commandant, Lieutenant Miller, subsequently complained that 'sickness attacked the Prisoners' – twenty-nine convicts, mainly volunteers. Frequently Miller had only 'nine, ten, eleven

or twelve men, per day, to carry into effect plans that would have required at least one hundred'. The little that is known about Scott's work at the settlements concerns his commissariat activities, not his role as surgeon. Such was the obscurity surrounding that role that Dr E.S. Jackson, Queensland's first medical historian, speculated in 1929 that the expedition must have had someone responsible for the care of the sick, but 'who that person was, I have found it impossible to determine'. The clue is in the journal of His Majesty's Botanist, Allan Cunningham, where among those listed aboard the brig, the *Amity*, that took the settlers to Moreton Bay was 'a commissariat store-keeper (acting also in the capacity of a surgeon)'.

Pearn took up the challenge to find out more about this unsung pioneer. In the best biographical traditions, he traversed the scenes of Scott's life, from his birthplace in the Scottish borders to Edinburgh, where Scott, although he had already practised as a surgeon, studied at the medical school for two years; thence to Sydney, Moreton Bay, the Hunter River area, where Scott acquired two grants of land, and finally to London where Scott died. Pearn took his camera, and the biography is well illustrated with photographs of the places important in Scott's life. In addition, there are many photocopies of documents, maps, newspaper articles, sketches and the like. These all serve to flesh out the rather meagre factual records, and the result is an informative, thought-provoking, fully referenced and absorbing account of Scott's life and times.

Scott was born in a hamlet in Westerkirk parish, Dumfriesshire. His father, an anti-monny miner, died when Walter was three. How could the widow's son become a surgeon? The answer has implications for today's Australian politicians and educationalists. The attitudes of the border Scots were anything but anti-educational. The community was socially advanced and succoured those in need. The mining company built a school and the miners set up a library. Pearn provides evidence of the beneficial results of this valuing of education in the small community of fewer than seven hundred. He lists an almost incredible number of Westerkirk children who became eminent in engineering, medicine, the armed services and so on.

The reasons why Scott migrated and joined the commissariat are unknown. It is almost certain that he did not practise full-time as a surgeon in Australia, nor have detailed records been found of his medical work in the Moreton Bay settlements. We are left to ponder about the disharmony between the settlers and their new environment. Of

the Aborigines seen near the site of the first settlement, Cunningham wrote: 'the full-grown men were exceedingly robust of athletic form and muscular limb, were in good condition . . . their stature averaging 6 feet'. Yet within weeks of their arrival the settlers would have presented a sad contrast. On top of his storekeeper duties, Scott undoubtedly was trying to cope with dysentery, fevers and viral diseases, as well as convicts 'speared by the blacks' or flogged by the soldiers. Children were born. Here again Scott's role, if any, is unknown. Scott's own health declined, his eyesight suffered permanent damage, and he is the first European in Queensland known to have had symptoms indicating trachoma.

The settlement at Redcliffe was abandoned after seven months and transferred to Brisbane. This would have been very arduous for the commissariat storekeeper, responsible for ensuring that no supplies were lost. The stock of medicines was almost exhausted. Soon the food supply, the issuing of which was Scott's duty, became seriously depleted. Crops were either not ready for harvest or had failed. It was probably due largely to Scott's abilities that no death occurred during the eleven months that he acted in the capacity of a surgeon. However, it must have been a considerable relief when Dr Henry Cowper, the settlement's first official medical attendant, arrived.

The expedition seems to have been unrealistically equipped medically. Within a few days of landing, the first urgent requests for more medical supplies were sent to Sydney, but no real improvement occurred during Scott's period of responsibility for the sick. Pearn provides an interesting account of the materials held in medical stores in New South Wales, and of the basic pharmacopoeia that accompanied Scott to Moreton Bay.

Scott returned to Sydney after two years in Queensland and continued working with the commissariat until his resignation in 1830. With his land grants in the lower Hunter Valley he became prosperous and served the district in many ways. In 1854 he travelled to London, possibly to seek help for his failing health. Soon after, an epidemic of cholera broke out and at its height Scott died, probably from the disease.

How did Scott, a kindly man known for 'private acts of kindness liberally bestowed', view the convict system? In 1846 he was reported as saying of convicts: 'he had always found them acting honourably', and of the transportation system: 'he detested and abominated the very thought'. It is comforting to think that in the early days of settlement in Queensland, Scott, one of its



few civilians, may have eased the plight of the sick and shown them some of his 'unostentatious benevolence'.

Readers will feel indebted to Professor Pearn for his enthusiasm and commitment in researching Scott's life, and for this addition to Australian medical history.

W.A. McDougall,  
School of Dental Science,  
University of Melbourne.

**T.B. Millar (Ed.)**, *The Australian Contribution to Britain: Papers of a Conference at the Royal Society, 7-8 June, 1988*. London: Australian Studies Centre, University of London, 1988. 141pp., £6.00.

I was sceptical. A small collection of papers, particularly from another little-known bicentennial conference, seemed unlikely to demand attention. And yet the title was intriguing and provocative; Britain's contribution to Australia is unquestionably extensive, but Australia's contribution to Britain? In addition, the conference was convened by the Australian Studies Centre of the University of London, the Royal Society, and the Britain-Australia Bicentennial Committee in the U.K., and was held at the Royal Society; it must surely be worth reviewing (cultural cringe?)

My initial reaction turned out to be the correct one; this is a disappointing collection of papers which, for the most part, fails to come to grips with the apparently promising subject of the conference. The head of the Australian Studies Centre, Professor Millar, hoped to focus upon 'those who made the journey from the Antipodes back to Britain' – those migrants who returned – and upon those Australians who significantly influenced British life. In the end, the papers in this volume are about the latter, the 'luminaries', and not the former, the 'workers'.

The two papers of most interest to readers of this journal are Robert Honeycombe (Emeritus Professor of Metallurgy of the University of Cambridge and an expatriate Australian) on 'Physical Science and Technology', and Frank Fenner (Emeritus Professor of Microbiology of the A.N.U.) on 'Medicine and Medical Science'. Like most of the other papers, these authors found themselves discussing the British contribution to Australia, and then corrected this tendency by listing Australians who had achieved position and fame in the U.K. The paucity of Australian influence before World War II and its greater importance after 1945 is a recurring theme; perhaps not surprising in

the sciences, for example, since the overall levels in Australia of graduates, practising scientists and scientific effort rose greatly after 1945, while our attachment to the U.K. declined much more slowly.

Honeycombe suggests that Australia has contributed most to British science in astronomy, physics and chemistry. In astronomy this has occurred through the use by U.K. astronomers of facilities in Australia, and in all three fields by the journeys to the U.K. of Australian scientists – in physics by Lawrence Bragg and a number of Laby's Melbourne students (e.g. Massey and Burhop), and in chemistry by James Mason and a group of Sydney graduates (e.g. Nyholm, Sir John and Lady Cornforth, Birch and Buckingham). Many such travellers stayed on, to contribute directly and significantly to British scientific activities. Honeycombe's list of Australian technology advances – including the Ford utility truck or 'Ute' – also reminds us that Australians can be industrial innovators.

Fenner points out, correctly, that science is an international activity and that discoveries in science are not generally location-specific. His paper is therefore concerned 'with Australian medical scientists, practitioners and administrators and the contributions they have made to Britain'.

He gives a useful if subjective table of 23 'Australian graduates (mostly MB BS) who went to Britain and rose to eminence there'; and he highlights several, including Grafton Elliot Smith, who 'made an indelible impression on British anthropology and neurology', and Howard Florey, who 'exemplifies best the two-way contributions between Australia and Britain'. Florey's school of pathology at Oxford, Fenner points out, 'was a Mecca for young Australian scientists seeking overseas experience ...' Florey's chair was later filled by another Australian, Henry Harris (a 1950 Sydney medical graduate), who has helped 'to realize the dream of Sir Hugh Cairns that the Oxford clinical school should be an outstanding centre of good professional science as well as good professional medicine'.

It is left to authors in other fields, however, to ask the searching questions and to provide a deeper analysis. Anthony Delamothe, deputy editor of the *British Medical Journal* and a London theatre critic, in a survey of the Australian contribution to British theatre, film and ballet, asks: 'what counts as Australian, exactly, and what counts as a contribution?' To count as a contribution, Delamothe suggests, it is not sufficient for even an outstanding act or piece of theatre to play in London and then move on. To qualify for that description something

significant and more permanent has to pass between the Australian performer and the British theatre, and as examples he gives Michael Blakemore's direction and John Bluthall's acting. Like others, he does not satisfactorily define 'Australian'.

In place of a list of names, Delamothe gives us 'history'. He notes the frequent British put down of Australian theatre (as does Smith of Australian art), and lists Australia's major contributions to British theatre as: Australia as a place for British productions to tour profitably and where British actors could get work, and, in the other direction, the importance of Australian performers to British vaudeville, to British theatre after the Second World War – when a whole generation of Australian talent decamped there – and to the 'physicality' of the British stage.

Delamothe concludes that 'Australians have made contributions here but have not changed things remarkably; it is important to recognise, however, that whatever contributions have been made, they have been purchased at a price for Australia'. Perhaps the same could be said in relation to Australian science.

Professor Bernard Smith's paper on 'An Australian contribution to British art?' is the best in the collection – witty, pungent, penetrating, and doubtful about the wisdom of the conference topic. A few quotations may suffice:

In my experience, artists are deeply suspicious of their work being evaluated in national terms.

So I fear that the question 'what has been Australia's contribution to British art?' is one of those trick questions like whether one has stopped beating one's wife.

The question of the 'exotic' probably lies at the heart of understanding – and misunderstanding – the relationship that Australian art bears to British art.

Smith includes a devastating analysis of British reaction to post-WWII Australian art, and finally concludes:

A small group of Australian artists has broken through the massive prejudices of the past, but it still suffers from being treated as exotica.

Has Australian art made a contribution to British art? Frankly, I do not know.

Such a conclusion is sad enough for a conference that started in hope but concluded, in its printed form, disappointingly. There is, however, worse to follow. In a review of 'Media and Publishing', Michael Davie, for a time the editor of the Melbourne *Age* newspaper, makes a plausible case that the Australian who has made the greatest impact on Britain in the last 200 years is Rupert

Murdoch. Davie concedes that Murdoch's defeat of the print unions at Wapping and his saving of several newspapers from extinction are pluses. He also suggests, however, that 'when Mr. Murdoch bought the *Sun*, the standards of the Fleet Street dailies were on the improve, . . . they treated their readers as intelligent beings'; but that 'nowadays, the mass circulation of tabloids print more tripe than any newspapers in the world known to me'. Similarly, after the *Times* and *Sunday Times* bought and published the Hitler Diaries, 'an unrepentant Mr. Murdoch was afterwards quoted as saying, "After all, we are in the entertainment business" . . . This was not a statement that any previous *Times* proprietor could have made. It is surprising how quickly a famous newspaper's authority can crumble.'

The contribution of Australian science and scientists seems rather insignificant when viewed from this sad perspective.

John Jenkin,  
Physics Department,  
La Trobe University.

**John Pearn (Ed.)**, *Pioneer Medicine in Australia*. Brisbane: Amphion Press, 1988. xiv + 325pp., illus.; \$24.95 (cloth), \$19.95 (paper).

This book consists of papers given at the Australian Bicentennial Medical Congress, held at Cairns in 1988. More than half the authors are medical graduates and two-thirds are Queenslanders. Three-fifths of the papers are about Queensland topics, suggesting that a narrower title might have been a better guide to potential readers. Some of these characteristics, unfortunately, reflect prevailing difficulties in the historiography of medicine in Australia. There is still too much parochialism and too little recognition that the view from outside is as significant for understanding the institution of medicine as the view from within.

The opening essay on 'The Land They Left Behind: England in 1787' does not prepare the reader to take a benign view of what will follow. It is ill-ordered and inaccurate. The proposal to look at Portsmouth and Plymouth in 1787 through the eyes of a Portsmouth doctor and the Tolpuddle martyrs is imaginative, but it is not carried through. In 2500 words we leap from William Dampier, 100 years before the First Fleet, to Henry Ayers, who left Portsmouth two generations after the Fleet and can hardly have been a 'prominent Portsmouth citizen', whatever he became in South Australia after arriving there at the age of twenty. In between we are told,

inaccurately, that Mozart's music was heard for the first time in 1787 and, accurately but irrelevantly, that Beethoven was seventeen.

Pearn's account of the First Fleet surgeons is organized around an important question, whether diversity in medical education – which he finds lacking now but believes was evident in his subjects then – is good for the discipline and its patients. The other contributions, in a section called 'First Doctors', also have an organizing principle for the presentation of interesting though not always original material. Helen Woolcock's account of medical supervision on an emigrant ship to Moreton Bay in 1861–62 is the best of the five essays in the section – though the date hardly suggests her characters were among the first doctors.

Part II of this volume, called 'The Hostile Land', has two accounts of pioneering work – on hookworm and trachoma – which are competent pieces of medical history. There is also an interesting account from a medical perspective of working conditions and occupational health problems in the pearling industry, which adds yet another chapter to the sorry account of exploitation of workers by primary industries in Australia. A fourth paper, on 'Murderers' Skulls', is neither about pioneering nor about a hostile land: it is useful chiefly for its warning against the manipulation of statistical techniques by biological determinists.

'Public Health and Tropical Medicine' has been a topic of some recent significance in Australia. The section of *Pioneer Medicine* bearing this title might have illuminated the dynamics of the recent interest, but it does not do so. There is a commentary on some of the characters in a photograph of the official party at the opening of the Australian Institute of Tropical Medicine at Townsville in 1913, and an account of the later translocation of the Institute to Sydney. The second of those items does not have a clear narrative line and is not convincing in its effort to apply Roe's style of cultural history to the explanation of the retreat from Townsville. A chapter on 'A Rainforest Pharmacopeia' does not live up to its subtitle – 'Five thousand years of effective medicine' – although it does demonstrate the arrogant ignorance of the European response to Aboriginal knowledge and does provide lists of pharmacological substances and practices. In the fourth paper in Part III, May also demonstrates that 'early health problems in aborigines' owed as much as modern 'health' problems in Aborigines do to the imposition of a white system which is insensitive to the black culture it displaces.

Part IV of the book is a bits-and-pieces col-

lection called 'Pioneers and Pioneering Medicine'. It begins with a chapter which, insouciantly, claims to be about early Australian obstetrics but is mostly about midwifery and is whiggish and un-original. Worse, it appears uninformed by the body of scholarly knowledge about the topic which has been published previously. It is followed by a piece on 'Australian Medical Governors', which pursues no theme in medical, political or constitutional history. A chapter on the origins of the Royal Flying Doctor Service is straight, progressive narrative, which alludes to some of the technical problems of developing the service but gives no hint of the strength, and little of the nature, of the interests and forces with which founders had to contend.

Three of the chapters in Part IV are more competent. Pearn himself, with John Wilson, gives a fair account of the contention which surrounded Sister Elizabeth Kenny's innovations in rehabilitative nursing, especially for polio victims. In addition, Wilson and Pearn establish valid grounds for considering a link between her unorthodox training and her willingness to depart from orthodox methods. The paper on Jack Barnes, who did the detective work on the box jellyfish, is a useful contribution to knowledge, and the account by Geoffrey Kenny of H. J. Wilkinson's innovative work on the way that skeletal muscles operate is another reasonable account of science from within.

Medical history in Australia has gone long enough down the track of publishing unrevised conference papers and memorabilia. Some of the papers in this collection (for example, one on the introduction of trout and salmon eggs to Australia) would probably not have achieved publication anywhere but in this volume. These proceedings should have had a much firmer editorial hand, which Pearn's writing suggests he would be capable of providing.

A foreword to *Pioneer Medicine in Australia* by Dalton, the professor of history at James Cook University, suggests that

the tendency has been for the medical doctor and the historian, having come into medical history from different directions, to return each of them whence he came, to address his findings to his peers, but to interact further scarcely at all.

A little of the good medical history written in Australia appears in the *Medical Journal of Australia*, although most appears in other settings and, regrettably, overseas. Virtually none of the good history of medicine or sociology of medicine that is done in Australia is offered to the *M.J.A.*, and most of the historians and sociologists would have

no expectation that it would appear there. It would do no harm to the scholars in history and sociology to have to imagine a medical audience for their critical work on medicine, and it would benefit the medical profession considerably to read some of that critical study. The *M.J.A.* might do the profession, the country and the critical scholars a considerable service by finding an editor of authority and setting aside a few pages each month for the best Australian writing in medical history and the history and sociology of medicine. A year or two of that would see the quality of the offerings advance some distance beyond what is gathered in *Pioneer Medicine in Australia*.

Neville Hicks,  
Department of Community Medicine,  
University of Adelaide.

**Jack Ritchie**, *The Australian Trout: its introduction and acclimatisation in Victorian waters*. Melbourne: Victorian Fly-Fishers' Association, 1988. 104pp., illus., \$27.50.

**Robert O'Brien**, *Ballarat Fish Hatchery: A History, 1870-1987*. Ballarat: Ballarat Fish Acclimatisation Society Inc., 1988. 201pp., illus.; \$30 (cloth), \$19 (paper).

How many trout-fishing readers of this journal thought that they were angling for an indigenous fish? – a belief confirmed by the title of a recent book, *The Australian Trout*. The much smaller print of the subtitle – *its introduction and acclimatisation in Victorian waters* – reveals the trout's true alien origins. Because it reached Australian waters in the middle of last century, the trout is about as Australian as the rabbit! Fortunately, there are genetic as well as geographic justifications for calling the brown trout, now happily acclimatised in Australian waters, the 'Australian trout'. Because its ancestors came so long ago from such a small sample of the English brown trout population, the Australian trout is now genetically distinct from its British cousins. I'm not sure whether a similar claim can be made for the development of an Australian strain of the rabbit. However, unlike the rabbit, the trout is generally well regarded and now constitutes Victoria's and Tasmania's most important freshwater recreational fishing resource.

The rabbit, which was introduced by eager allies of the Acclimatisation Society of Victoria, is partly to blame for the bad press given to nineteenth century acclimatisation

activities. Although, in post-goldrush Victoria, the acclimatisation of exotic plants and animals was officially encouraged in the hope of enhancing agricultural diversity and prosperity, and although such activities have greatly influenced the shape of the twentieth century Australian environment, little serious study has been made of this popular and respected mid-nineteenth century activity. By focusing on the environmental havoc caused by the rabbit and using the wisdom of hindsight, authors such as Eric Rolls (in *They All Ran Wild*) have denigrated nineteenth century acclimatisation activities and have failed to consider them in their proper economic, social and scientific context.

I had hoped that these two recently published books covering the trout's Australian debut would set the record straight. Both books are descriptive rather than analytical and of popular rather than academic appeal. Both reveal nineteenth century pictures of acclimatisation untinted by twentieth century concepts. However, only Ritchie's *The Australian Trout* includes any contextual background. O'Brien's picture of the Ballarat Fish Acclimatisation Society in his *Ballarat Fish Hatchery*, only a small portion of which deals with nineteenth century activities, is both fragmentary and backgroundless.

Jack Ritchie, a metallurgical engineer by profession and an experienced fisherman by inclination, describes the protracted attempts to establish in Australian waters the economically important salmon, *Salmo salar*, and, as an after-thought, its less economically attractive relative, the brown trout, *Salmo trutta*. Since the 12,000-mile sea trip from London to Melbourne took about three months, this was not an easy task, and the lengths to which dedicated individuals, aided by institutions and governments, went are remarkable. It is a fascinating saga involving significant but, by today's standards, very rudimentary advances in the science of fish culture.

Because salmon and brown trout are cold water fish, temperatures over about 24°C are lethal to them. Consequently, they cannot survive a prolonged sea voyage through the tropics. But could their ova? The artificial hatching and rearing of these two fish had been practised in Europe for barely a decade when the first unsuccessful attempt was made – in 1852, without ice – to transport the commercially desirable salmon, as fertilized ova, across the equator to Tasmania. Despite concerted efforts in Tasmania and England, and the use of tons of ice to cool the gravelbeds of ova, two subsequent attempts nearly a decade later were also unsuccessful. In

London, a group of Australian colonists had even formed the 'Australian Association', with the specific aim of effecting the antipodean transfer of salmon ova. It included James Youl from Tasmania and Edward Wilson of the Melbourne *Argus*, a founder of both the British and Victorian acclimatisation societies.

Ritchie describes the complexity of interactions that resulted in the first successful antipodean transportation of salmon and trout ova in 1864. Experiments at the Wenham Lake Ice Company in London had demonstrated that fertilized salmon ova could survive for almost four months if packed in living moss, charcoal and surrounded by ice. Youl's appeals for salmon ova in the *London Times* yielded both salmon and brown trout ova. Also donated were dock and ship space, including a substantial 'ice house', on a speedy clipper ship, the *Norfolk*, on her trip to Melbourne. In special boxes in the 'ice house' Youl carefully packed the thousands of fertilized ova. A sailing rather than a steamship was chosen because of its less damaging vibrations on the delicate ova. On the other side of the world Edward Wilson arranged for the trans-shipment of most of the ova from Melbourne to Hobart. These ova were carefully delivered to gravel hatching beds on the Plenty River (a tributary of the Derwent) which had been prepared several years earlier in eager anticipation by the honorary Tasmanian Salmon Commissioners. Within months of their first release in Tasmania, young salmon were also released into Badger Creek near Healesville, Victoria.

Success was illusory. Despite three further successful shipments of salmon ova across the equator, and reported sightings of salmon in the Derwent and the Yarra, salmon have never become acclimatised in Victorian or Tasmanian waters. On the other hand, by the 1870s brown trout from ova spawned in Tasmania had been successfully introduced and distributed by the Acclimatisation Society of Victoria to rivers throughout Victoria. Thus, the successful outcome of the protracted voluntary labour of such men as James Youl and Edward Wilson, and the hundreds (possibly thousands) of pounds spent by the Tasmanian Salmon Commissioners, the Victorian Government and the Acclimatisation Society of Victoria, was the introduction into Australian rivers, not of salmon but of the brown trout. These were the ancestors of today's Australian trout.

In the final quarter of the nineteenth century, after Victoria's acclimatisation society had recognized its zoo-keeping role, an enthusiasm for fish acclimatisation persisted. Societies were formed specifically for

the acclimatisation of fish. Remarkably, the fish hatchery of one such society, the Ballarat Fish Acclimatisation Society, still functions at the southern end of Ballarat's Botanical Gardens. Unfortunately, O'Brien's *Ballarat Fish Hatchery* does not explore the important role of the society within the active fish acclimatisation network in late nineteenth century Victoria. From the society's minutes O'Brien has extracted a multitude of items to form a temporal collage of the society's activities, including the several introductions of trout ova from Tasmania and the hatching and distribution of the young trout. Unfortunately, these activities are not set in the context of their times, and are evaluated no further. No sense of the difficulty or enthusiasm emerges. Instead, an extensive, albeit somewhat disjointed picture of the society's personnel and activities during its long lifetime is revealed. Of the numerous interesting early photos, most are undated; and frustratingly, there is no index.

In *The Australian Trout*, the details of the elaborate and ambitious piscicultural activities involved in the attempts to introduce salmon and trout into antipodean waters are set against the mid-nineteenth century global popularity of acclimatisation. However, there is no attempt to explain these activities in terms of contemporary biological ideas. The lack of both evolutionary and ecological concepts that must underpin a simplistic faith in acclimatisation is not considered. Furthermore, while the distribution of trout is clearly described, the biological repercussions of these introductions remain unmentioned. Although that story is not as dramatic as the cautionary tale of the rabbit, the ecological effects of trout on indigenous fish and other organisms is worthy of comment.

Despite these annoying inadequacies, the saga described in this small and attractively produced book, *The Australian Trout*, is well worth the attention of anyone who, like myself, is interested in the history of animal introduction and acclimatisation in Australia.

Linden Gillbank,  
History & Philosophy of Science  
Department,  
University of Melbourne.

**Timothy O'Leary**, *North and Aloft*. Brisbane: Amphion Press, 1988. x + 180pp., illus., \$25.

**Timothy O'Leary**, *Western Wings of Care*.

Brisbane: Amphion Press, 1988. viii + 100pp., illus., \$25.

Timothy O'Leary was a flying doctor, one of the few to record his experiences. Sixty-two years old when he died in 1987, he was unable to complete his personal memoir. This was undertaken by John Pearn and Graham Anderson, and to their credit, O'Leary's personal touch remains in the printed volumes. And what a saga it is!

*North and Aloft* and its companion volume *Western Wings of Care* provide a vivid account of medicine in the outback. Broadly, the theme is a celebration of life in one of the most difficult areas of Australia – isolated western Queensland and the Gulf country. It is the story of a life of service. It concerns the ordinary, everyday problems and joys of doctoring in that region, where life itself is an extraordinary battle of survival over distance, nature, ignorance and hardship. Significantly, the whole of O'Leary's professional life was devoted to the people of inland Queensland; he brought modern medicine to the outback.

Perhaps O'Leary's major contribution is his articulation of the two main problems that confronted the practical delivery of medical care in outback Queensland. Lack of resources prevented the establishment of adequate health services in that inhospitable terrain; more doctors and nurses were needed. The other serious difficulty was a fundamental problem of the time: the time when Aborigines had very few legal rights, were not classified as citizens of their own land, and were generally subjected to a standard of medical care substantially inferior to that delivered to the sophisticated European city folk. O'Leary recognised the evils of paternalism, and with a blend of idealism and pragmatism endeavoured to be the personal physician of thousands of black and white Australians.

What O'Leary has chosen to record reflects a good deal of the man himself. His chronicle is never depressing, although sometimes sad. All three periods in which he wrote – 1954–55 as a young doctor at Charters Towers, the 1980s immediately prior to his retirement due to ill health, and the last year of his life, 1987 – were momentous times. This testimony reflects not only his sensitivity and intellect, but also his wholeness.

A close brush with death on 22 October 1953, in a plane crash which claimed the lives of Renee Burke, O'Leary's wife of six weeks, and the pilot, Martin Garrett, stimulated O'Leary to commence writing these memoirs. From a personal examination of the circumstances of the first major air

tragedy sustained by the Flying Doctor Service, O'Leary has been able to fit together the disparate elements which made up this unique, world-renowned, flying medical service. The vision of the founder, Reverend John Flynn, and the use of pedal-operated wireless sets invented by the brilliant radio engineer Alf Traeger, gave continuity to the contemporary scene. O'Leary pays tribute to his fellow workers, none more poignantly than the radiomen, whom he describes as 'unsung heroes' and as 'essential a component of the operating team as the doctor, the pilot and the maintenance crew'. As anchorman at the nerve centre of the base, the radio operator was vital for efficient running of the Royal Flying Doctor Service.

Romantic perceptions of the work of the flying doctor attracted the more adventurous members of the medical profession. This resulted in a high turn over of staff; for, in addition to the bleakness associated with outback living and contrary seasonal conditions, the absence of a medical fraternity and the prohibition of night flying created disaffection. In the post-war period, between 1947 and 1961, Cloncurry saw nineteen flying doctors; it was difficult to retain one for even twelve months. O'Leary stayed twenty-seven years.

His first posting was to the new base at Charters Towers, where he remained for five years. *North and Aloft* is about this early period, when the young Irish immigrant was able to develop, despite his deep personal grief, a strong bond with that harsh environment and the people he served. During his tenure, O'Leary was responsible for the extension of medical clinics into the Gulf of Carpentaria, where most of his patients were Aboriginal people. During the early 1950s, when flying was hazardous and radios and instruments were inadequate, he conducted monthly medical clinics at the numerous Aboriginal mission stations. He notes that some tribal customs, mostly to do with marriage, were still prevalent. Only rarely was contact made with Aborigines living under the 'protection' of the missions.

For seven years O'Leary then worked in Brisbane as the Medical Superintendent of the Royal Flying Doctor Service (Qld). Of this period he has recorded nothing. Similarly, there are no clinical writings from Cairns or Mount Isa. From his tenure at Charleville we have some interesting clinical and aviation stories as well as a good photograph of O'Leary conducting a daily 'radio medical'.

Especially useful in each volume is the comprehensive index, which, beside mentioning place names, deals with subjects such as crocodiles, mercy flights, snake bite, survival rations and infant mortality. A

valuable appendix, repeated in both volumes, is a chronology of Timothy Joseph O'Leary; *Western Wings of Care* has an additional chronological list of the aircraft used in Queensland by the Royal Flying Doctor Service. A liberal use of photographs, many taken by the author, gives an immediacy to the text, thus creating a more personal record of the patients and friends of the compassionate physician. These handsomely hardbound books are decorated with paintings by Paul Ramsden and Robert Allen, depicting the Royal Flying Doctor Service team – doctor, nurse, pilot and radio operator – against the harsh red earth of inland Australia.

Lori Harloe,  
Department of History & Politics,  
James Cook University of Nth. Qld.

## **Erratum**

Volume 7, number 4 – in the book review of *Mawson's Antarctic Diaries*, the last four lines on p.427 should be transposed to four lines up from the bottom of p.428.

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