Book Review Section

Compiled by R. P. Robertson*

Michael E. Hoare (Ed.), The 'Resolution' Journal of Johann Reinhold Forster 1772-1775 (Hakluyt Society, London, 1982), 831 pp. in 4 vols (£40 the set).

J.R. Forster replaced Joseph Banks at the last minute as naturalist on Cook's second voyage. For most historians, Forster has lingered in the shadow of Banks and his scientific work on the second voyage has received more brickbats than plaudits. Hoare, in his biography of Forster, *The Tactless Philosopher* (1976), sought to redress this balance. He made a strong case for Forster as 'a clever but a litigous quarelsom fellow' whose contributions to the natural history of the Pacific region testify to his competence and dedication.

This edition of Forster's *Journal*, his day-by-day account of the voyage including his observations and occasional reflections on natural history and other topics, is a welcome addition to the Forster literature. In common with most volumes in the Hakluyt series, the edition is equipped with an informative and lengthy introduction, a useful index and bibilography, some maps and illustrations and extensive, meticulous annotations. The latter include additions and clarifications drawn from publications on the second voyage and the provision of scientific names for species observed by Forster and modern place names. The set is attractively presented and relatively free of typographical errors.

What is the niche to be filled by this publication? For a fuller, more readable - but sometimes sanitized — Forsterian version of the voyage, one can consult Georg Forster, Voyage Round the World (1777, reprinted and edited by R.L. Hahn, 1968, Georg Forsters Werke. Sämtliche Schriften, Tagebücher, Briefe Vol. 1) which draws very heavily upon his father's journal. Omitted or softened in Georg's version are some of J.R.'s more intemperate diatribes against Cook, William Wales, and other companions, and some private comments such as those dealing in detail with his own health and circumstances. If one is interested in J.R.'s more reflective conclusions and interpretations, particularly in anthropology, recourse could be made to J.R. Forster, Observations Made During a Voyage Around the World (original edn 1778; reprinted 1969, Readex Microprint Series 'Landmarks of Science'). Finally, for a useful

biographical study, there is Hoare's Tactless Philosopher. The text of the Journal and Hoare's notes do add somewhat further detail to and support for the portrait of Forster as a capable and conscientious naturalist perservering in the face of innumerable obstacles, some of his own making. The range of his interests and his learning revealed in his *Journal* go some way in justifying his reputation in Europe as a 'polyhistor'. Particularly striking are his sometimes acute comments on the languages and cultures of Pacific peoples. Forster's narrative also throws into sharp relief the difficulties and limitations confronted by naturalists on voyages of discovery; for example, his laconic notation of near-freezing temperatures in his persistently leaking cabin as Cook skirts the Antarctic ice-pack, the conflict between scientific interests and naval discipline, the lack of time on shore for systematic collecting during a voyage devoted primarily to geographical exploration and charting (the latter two were recurrent refrains among Forster's counterparts on the French voyages as well). This unvarnished account, though sometimes tedious, may well appeal to the general reader and to Pacific historians.

Nonetheless, the historian with scientific interests or the scientist with historical interests may be left with a sense of disappointment. Hoare's oft-expressed concern with Forster's science is not clearly reflected in either the Introduction or the notes. The former focuses on biographical and bibliographical detail and the reader is bombarded with the names of individuals with whom Forster was acquainted but of whom the relevance either to his science generally or the voyage in particular is not always shown. More regrettably, neither the Introduction nor the notes adequately places in context Forster's scientific work. How were Forster's observations, reflections and conclusions shaped by contemporary attitudes, knowledge and practices? What impact, other than increments of detail, did his work have; for example, how did Forster's field methods compare with those of other naturalists? What questions of taxonomy were then at issue? Of particular help would have been a brief sketch of contemporary anthropological theories — or, less anachronistically, theories about the nature of man - to serve as an introduction to and basis for the evaluation of Forster's extensive comments on Pacific islanders and his special interest in linguistics. It must be acknowledged, however, that such an orientation would be atypical of the Hakluvt series. This publication does make available to the specialist an accessible source for further studies. Taken as a naturalist's field notes, the Journal could provide raw material for an investigation of

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field methods, for insights into how these notes were worked up into polished presentations, for comparisons with similar work of his contemporaries, for exploring the complex relations between theories and observations, for examining the interaction between theories of man and voyage literature in the Enlightenment and the early nineteenth century, and similar matters.

For the general reader, the *Journal* provides an occasionally interesting narrative; for the specialist, it raises some potentially important questions and can serve as a source for answering others.

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D.J. Carr (Ed.), Sydney Parkinson: Artist of Cook's 'Endeavour' Voyage (British Museum and Australian National Univ. Press, Canberra, 1983), 300 pp. (\$49.95).

Here is a publication that in many ways is at least 200 years overdue! Professor Carr is to be congratulated, as are the contributors and publishers, in bringing to the notice of a wide audience the varied contributions that Sydney Parkinson was to make in a short lifetime to one of the greatest voyages of exploration. It is no doubt a surprise to many that discoveries, observations and illustrations made in such notable pioneering circumnavigations remain to be fully published and accessible to scholars and those interested in the earliest perceptions of the lands we now occupy. Few expeditions were so comprehensive in their planning and so great in their achievement as Cook's first voyage to the south seas. In the perspective of time the stated primary aim of the voyage, the observation of the transit of Venus on June 3rd 1769 from Tahiti, is of relatively minor significance. The secret aim, the search for a southern continent, resulted in the charting and describing of the southern oceans and the coasts of New Zealand and Eastern Australia.

The scientific leader, Joseph Banks, enjoyed the benefits of a support team of eight: Dr Daniel Solander, an exceptionally able ex-pupil of Linnaeus; Herman Spöring, not only a protege of Solander but also a gifted artist; two full-time artists, Alexander Buchan and Sydney Parkinson; and four assistants. Buchan died eight months out, shortly after arrival at Tahiti, and the prime responsibility for the visual record was to be with Sydney Parkinson for the most significant part of the voyage through the Pacific to New Zealand, East Coast Australia and Batavia in Java. He too was to die, at 26 years of age, out from Batavia on the homeward voyage. The present publication is the first full appraisal of the accomplishments of Parkinson.

Of the botanical record, Parkinson produced almost one thousand drawings with 276 in colour completed. There are 86 completed of animals, mostly pelagic organisms and oceanic birds (presumably to while away the time at sea), and there are a further 212 animal drawings incomplete. There are over 100 drawings of people, tattoo patterns, houses, boats and scenery — a phenomenal output for a young artist often working under pressure in incredibly difficult cramped conditions on board ship and in most difficult circumstances on shore. Banks recorded that the flies on shore at Otaheite were so intolerable as to 'eat the painter's colours off the paper as fast as they can be laid out'.

We get earlier glimpses of Parkinson prior to the voyage, a Quaker already teaching botanical drawing at the age of nineteen, then working for Banks on mammal and bird material brought back from Newfoundland and Labrador. Certainly comments of various workers on the voyage attest to Parkinson's industry, but the visual evidence would alone suffice. We also learn that Parkinson, along no less with Banks and several crew members, allowed Tahitians to tattoo their arms which Blunt suggests might represent the beginnings of the naval tradition 'of this curious and barbaric custom'. Glimpses such as these tell us something of Parkinson but he remains a somewhat enigmatic character, despite the scholarly accounts in the various chapters of this volume and the generously illustrated text.

It is perhaps idle to speculate on what Parkinson would have achieved if he had been spared to return to England. Certainly we would have had much better accounts than those published from his journal; also, it seems likely that he would have himself worked up the sketches and colour notes into the finished drawings, but this is not in any way to cast unfavourable judgment on the artists that Banks entrusted with the work. It is well recognized that drawings completed by Polydore Nodder, John Cleveley, Jr, John and James Frederick Miller, often developed to full colour illustrations from brief notes on a pencil sketch together with a pressed herbarium specimen, are notable examples of the art of botanical illustration. One example is given in the four blocks that comprise plate 30 and to this could be added the copper engraving at long last being printed in colour by the *poupée* process (revived for this purpose) along with the other 740 engravings by Alecto Historical Editions, but that deserves to be the subject of another review.

In comparing the artistic and scientific quality of Parkinson's botanical drawings with that of his greatest contemporary botanical draughtsmen, Ehret and the Bauer brothers, Wilfred Blunt comes to the firm conclusion that Parkinson does not attain the same class. But we must remember that Parkinson's productions are those of a man in his early twenties, working at speed under difficult conditions; the great masters worked in their maturity at a much slower pace in the relative comfort of their studios. Having seen some of the originals of the botanical drawings housed at the British Museum, I have little doubt that Sydney Parkinson was heading for the achievements in botanical illustrations that would have matched those of the masters.

In addition to Parkinson's industry as an illustrator, he kept his own journal and he also industriously prepared dictionaries of the various languages encountered; these are said to be more comprehensive in their word coverage than those of either Cook or Banks. It is to be regretted that the original manuscript of Parkinson's journal has been lost and that the publication of an edited version shortly after the return of the expedition was out of Banks' control.

Nearly two-thirds of the present volume deals with the drawings of plants. Firstly, there is an overview of the voyage and of Sydney Parkinson and his fellow artists by Wilfred Blunt. In succeeding chapters, experts follow the course of the voyage dealing with the flora of the regions visited: Madeira, Brazil and Tierra del Fuego (Phyllis Edwards), the Society Islands (F.R. Fosberg and Marie-Hélène Sachet), New Zealand (E.J. Godley), Australia (R.J. Henderson) and Java (W.T. Stearn). The animal drawings are discussed by Alwyne Wheeler with comments on the identity of Captain Cook's kangaroo and on the birds of Parkinson's sketchbook by Denis Carr. Finally Adrian Horridge interprets the sketches of the Javanese boats, and J.R.H. Spencer the coastal profiles and landscapes. Each of these specialists emphasizes aspects of ethnography, ethnobotany and ecology which can in many cases be linked back to Parkinson's published journal, as well as the journals of Cook and Banks.

This volume is generously illustrated both in black and white and colour plates. Inevitably most illustrations are considerably reduced to fit within the format of the book. I personally would have appreciated a few details from the larger drawings at their actual size to heighten understanding of the skill and technique of the artist. It is unfortunate that many of the colour plates of the plants lose some of their impact by having a false yellowish or even greenish background - a defect in the colour printing. Nevertheless, the quality is sufficient to convince the reader of the scientific quality of these portraits from Nature. Equally important, the sample is sufficiently large and diverse to justify placing Sydney Parkinson as one of the great biological illustrators. Perhaps further researches may reveal more of this young man, for one cannot help feeling when one has read this work that there is surely still more to know.

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T.M. Perry, The Discovery of Australia: The Charts and Maps of the Navigators and Explorers (Thomas Nelson Australia, Melbourne, 1982), 159 pp., 85 plates (\$60.00).

Dr T.M. Perry is one of Australia's foremost historical geographers. His *Australia's First Frontier* (1963) constituted an epoch making study of white land settlement in New South Wales that has done much to make historians aware of the benefits and insights that can be gained from using methodologies, perspectives and *mentalités* of other disciplines. In recent years Perry has turned his attention also to the processes of discovery and exploration of Australia's shoreline. *The Discovery* of Australia, therefore, in many ways represents a culmination of his experience in tracing the advances on both the maritime and continental frontiers of the white man's geographical knowledge of Australia.

The story of Australia's discovery can be told in many ways; Perry's main objective is to show how "the navigators' and explorers' knowledge and speculations were made available to the public through published maps". Speculation, indeed, reigned supreme until the first authenticated sightings of the Unknown Southland, *Terra Australis Incognita*, by Dutch seamen early in the

seventeenth century. The next two centuries or so saw the balance between 'speculation' and 'knowledge' move from the former to the latter, as far as the coastline of Australia was concerned; although much detailed work still had to be accomplished in the nineteenth century, the main outlines had by then been firmly fixed. On land, the real understanding of the geography of the interior was then only awakening, and with it came the abandonment of the beliefs held in large rivers and an interior sea. Until the end of the 19th century explorers could still blaze new trails across what, ironically, were termed the large 'white' spots on the map. It was, in fact, only with the advent of aerial surveying that all of the continent could be sighted and mapped.

In reviewing this Discovery of Australia one must begin with its format and presentation. The publishers have allowed Perry to produce a largesize volume with a more than generous number of illustrations. Indeed, the 85 maps vie with the text for the reader's attention, even if it is clearly Perry's intention that both be considered as integral parts of his story; clear references in the text make that easily possible. Nevertheless, the maps (many in colour and/or of a double-page format) in themselves constitute a valuable record of the cartographic history of Australia, and it is here that the generous format of the book is completely vindicated: in contrast with many authors who do not understand the true purpose of illustrations and infuriate their readers with illegible reproductions, Perry is able to proffer maps on which, in virtually all instances, details can be traced and read as clearly as on the originals.

Despite its price the book is intended for the general reader rather than the specialist historian, geographer or cartographer, and this is clearly reflected in the text. Perry provides a succinct yet lucid and evocative overview, in which he firmly sets the historical benchmarks in the development of the cartographic representation of Australia. Starting with medieval notions of the presence of a landmass in the Southern Hemisphere, he takes the reader through the successive periods in which first Ptolemaic speculations and then misinterpreted passages of Marco Polo's travel record were taken up to give content to the Unknown Southland. World maps of what one might call the 'integralist' Ortelius and the younger Mercator (because they were not inclined to leave portions of their maps blank) are contrasted with the 'realist' Edward Wright who refused to depict what as yet was undiscovered (although even he drew a little snaky piece of coastline south of Java). A brief discussion is devoted to the possibility of a Portuguese discovery of Australia, some time in the early 16th century, illustrated by a facsimile of the so-called Dauphin map drawn by the first enthusiast of that speculation, George Collingridge. Although he could not have had the benefit of the latest analyses of the subject, Perry firmly rejects the view that the Dieppe maps show an outline of the Australian coastline; he does not, however, rule out the possibility of either a sighting of Australia by the Portuguese themselves or some knowledge of its existence filtering through from their contacts with the indigenous traders and navigators of South East Asia. But it is clear to him that any statement to that effect can only be made when positive evidence emerges, which until now has not been the case.

[For more on the latest analyses of this subject see Helen Wallis (Ed.), *The Maps and Text of the Boke of Idrography presented by Jean Rotz to Henry VIII* (London, 1983); W.A.R. Richardson, 'Is Javela-Grande Australia? The Linguistic Evidence Concerning the West Coast', *The Globe* (Journal of the Aust. Map Circle) **19** (1983) 9–46, and 'Javela-Grande: A Place Name Chart of its East Coast', *The Great Circle* (Journal of the Aust. Assoc. for Maritime History) **6** (1984) (in press); also O.H.K. Spate, 'Jave-la-Grande: The Great Whodunnit', *The Great Circle* **6** (1984) (in press).]

Chapters 3 to 6 contain the broad story of the Dutch discovery of so much of Australia, Tasmania and the west coast of New Zealand that about one half of their shorelines, albeit with a large number of minor question marks, could be mapped in outline and in consequence the Great Southland considerably reduced in its size and northerly extension. The main stages of what may be called the creation of New Holland are well known, and Perry does not offer any new insights. The contributions of both involuntary and voluntary discoverers and explorers are duly noted, and a tribute is paid to the two climactic voyages of Tasman: climactic because they dramatically extended the current knowledge about Australia, but also because at the same time they meant the end to Dutch interest in exploring the new land.

In recent years the early Dutch contacts with Australia have received ample historical, archaeological and cartographical attention, and in this light it may be useful to consider some of Perry's main objectives and methods. His chronological account of the voyages of the navigators is straightforward, but not analytical or critical. Little attention is given to the causes, the dynamics, of the exploratory voyages or to an evaluation of their results in the light of the aims and interests of the Dutch East India Company; for example, no criticism is made of Tasman for his lack of zeal on his second voyage when he failed to find Torres Strait. The value of Tasman's achievement is assessed on the basis of the manuscript Bonaparte map, an important exception to Perry's stated intention to only use published maps in his discussion of the spreading of cartographic knowledge about Australia. Even if he, properly, draws our attention to Joan Bleau's world map of 1648 to demonstrate that Tasman's discoveries rapidly became commonplace, his argument that Tasman remapped the eastern shoreline of the Gulf of Carpentaria must necessarily rest on an examination of the manuscript chart. Thus the full story cannot be told from only the printed sources, even if after the return of exploratory expeditions their findings rapidly found their way into print. From the list of plates it is clear that Perry was limited to selecting maps from the collections in the Dixson, General Reference and Mitchell Libraries at Sydney, including separate prints and maps provided with the published accounts of the explorers' voyages. Thus printed as well as manuscript maps in the Netherlands or elsewhere that could fill gaps or provide a more accurate assessment of the progress of knowledge have not been used. Moreover, it can be strongly argued that any account of public, as opposed to private or 'pure', knowledge necessarily implies a continuous comparison between the state of the art in both sectors: indeed, as we realize now more than ever before, the relationship between scientific achievement and public awareness is a question of acute importance.

If, however, the account is to be of published sources only, the Bonaparte map should not have been a part of it, even if it happens to be in Sydney and perhaps is one of the most beautiful manuscript maps of the period. In that case, too, the importance of the Bleau world map of 1648 should have been stressed, and its reproduction would have included New Zealand's west coast. But the history of cartography is too much interwoven with arguments and appreciations of an aesthetic nature to ever be entirely consistent. This is also shown in Perry's selection of two maps, both copies of a Goos map of the East Indies of 1666 (plates 22 and 23, Seller 1670 and De Wit 1680) on which, remarkably, Van Diemen's Land is missing. These two maps are good examples of the artistic quality then being achieved by commercial publishers, but they did not constitute the latest in public knowledge. The very fact that for more than a century maps could be produced that did not take into account the latest discoveries (another good example is plate 13, a Hondius map of 1630) demonstrates that many maps obviously were intended for uncritical collectors — this professional schizophrenia might well be acknowledged as a major historical theme. [For a succinct overview of this situation see R.V. Tooley, *Maps and Map-Makers*, pp. 121–4 (London, 1952).]

This schizophrenia should not be confused with the ongoing debate between 'positivists' (who only printed what was discovered) and 'speculators' (who used dotted lines to create connections between actual discoveries) that continued until well beyond 1800, when finally all stretches of the Australian coastline were charted. In particular, French cartographers of the 18th century attempted thus to shape New Holland's east coast. By concentrating on these mainstream developments Perry neglects what little advances were made on the west coast: Dampier's discoveries are tucked away in the caption to a Bellin map of 1753, and no attention is given to the twisted history of the realization of Point Cloates. Conversely, no comment is made about the erroneous positioning of the Trial rocks, now known to be part of the Montebello Islands.

Chapters 7 to 10 cover the results of the great Pacific rush of the 1760s and their aftermath. James Cook necessarily takes pride of place (criticism of his failure to realize the existence of Bass Strait is churlish in view of the sheer extent of his other achievements), but he stands by no means alone. Having provided the large outlines of Australia's eastern coast and, with Bligh, the practical confirmation of Dalrymple's archival discovery of Torres Strait, as well as detailed hydrographic charts of those shores, Cook was followed by a veritable school of naval surveyors and explorers. The contribution of the French, especially of the Baudin expedition (most of its maps published by De Freycinet), has not been neglected. Perry is particularly good in recounting the progression in detailed knowledge achieved in what might be termed the succession of generations from Cook (and perhaps Vancouver whose map of King George's Sound should have been included) via Flinders and Bass to King and Stokes.

The focus of Perry's interest remains firmly fixed on showing cartographic advances *per se*, and the mapping of such major features as Bass Strait or the Gulf of Carpentaria figures prominently. His account is not influenced by either the strategic-commercial forces behind exploration or the political-economic consequences arising from it. The search for rivers was not just a geographical quest, but also part of a well-understood economic strategy designed to find access to the interior or to discover local resources for commerce and/or agricultural development. Hence, some would argue that James Stirling's exploration of Swan River and its tributaries should have been included, as it immediately led to the establishment of the new colony of Western Australia in the then unclaimed part of Australia; this, in turn, hastened the definitive charting of its coasts by Wickham and Stokes. Similarly, it would have been interesting to see the progressive mapping of the northern Australian coast and islands where in the 1820s and 1830s a succession of trading posts was founded as intended 'Singapores' of the Eastern seas (this could have been included instead of the map of either Cambridge or Exmouth Gulf, neither of which has as yet had any economic or political importance). Tasmania, on the other hand, is well served by the separate Chapter 11, devoted to the evolution of the Admiralty chart of the island, in which the twin processes of accumulation and imparting of knowledge can be followed in fascinating detail.

The maps of Tasmania also form an elegant structural and thematic bridge linking seaborne to inland exploration. Chapters 12 to 14 deal with the latter's successive stages, conceptually organized around the main geographical questions posed by the new continent: 'The problem of the rivers', 'The way north', and 'Across the desert'. In his competent and confident style Perry discusses the travels and discoveries of the major explorers, from Blaxland, Oxley, Mitchell and Sturt via Leichhardt and Stuart to Forrest, Warburton and Giles. The lines are boldly drawn but, again, some readers would disagree with Perry's selection. By organizing his material around the indicated themes, Perry has to a certain extent predetermined his account, as is shown by the absence of Gregory and Strzelecki (Mount Kosciusko curiously is also missing from Bartholomew's 1914 bathyorographical map of Australia that concludes the book). More surprising in the light of Perry's own interest in land settlement is that there is no specific discussion of the contribution made by people other than the heroic explorers. It must also be stated that towards the end of the volume the text becomes overshadowed by the maps; in particular, Chapter 14 could have benefitted from a more extensive discussion. Map 64, which interestingly shows the speculation

about the supposed 'Great River' in Australia's interior (dating from 1827/1830), also deserved more comment as it includes (ironically, close to the later 'paradise of dissent' of South Australia) the region of 'Anglicania' with many other English topographic names, while in the north 'Australindia' reflected the close associations of Australia with the British Empire in Asia.

Chapter 15, finally, concludes Perry's account with a presentation of six general maps of Australia ranging from 1798 (taken from Aaron Arrowsmith's epochal 'Pacific Ocean' in nine sheets) to 1914. Here also the text is too brief to convey anything more than the most basic information, including a reference to the demise of the famous 'hairy-caterpillar' representation of mountains and ridges. The choice of six maps over such a long period must necessarily be a personal one, but Perry has achieved a nice balance, including one American (1855) and one French (1863) map. The latter, ironically, provides more information about the minor explorers of Western Australia than any other reproduced in the book. A justification of the choice would nevertheless have been welcome, as would also a more extensive listing of the major maps and map-makers that did not gain selection. Thus, some will be moan the absence of any mention of Tallis's immensely popular maps (the last with significant illustrations), others that of A.K. Johnston's National or Physical atlasses, the latter the first of its kind in Britain and rivalling the work of the German pioneers. Others, again, will feel that some regional maps or city and/or suburban plans should also have been included to illustrate the massive changes the Australian landscape was undergoing; after all, there is a two-page colour reproduction of the settlement at Sydney Cove in July 1788 to point the way towards that theme.

If judged as a general introduction to the subject, *The Discovery of Australia* is valuable and effective. The foregoing paragraphs suggest that one can put question marks against certain elements of both its conceptual foundation and the implementation thereof, but these reservations should not detract from the considerable merits of the book. But it must be stressed that, despite the numerous illustrations, the book is no more than a general introduction. There is no discussion of the concept of 'discovery' and to what extent maps can represent it, of the process of the dissemination of knowledge, or of the development of surveying and cartographic techniques (including the hoary question of establishing the exact longitude of places). Perry's account is largely narrative, but as such it is attractive, skilled and thorough.

In conclusion, two more observations may be made. Australia has been explored by representatives from many countries as well as people born Australians. This diversity found its expression in the names given to newly discovered landmarks. but these were not always retained after further exploration, political change or land settlement. The survival or not of specific Dutch and French names, the taxonomy of British names, the acceptance of many Aboriginal names and finally the search for truly 'Australian' names would have constituted a fascinating subject. This is strongly suggested not only by the New Holland-Australia and Van Diemen's Land-Tasmania metamorphoses and the disappearance of many of the namings of Baudin's Napoleonic expedition, but also by the (not mentioned) proposal around 1800 to call the new continent Ulimaroa. Finally, it would have been useful if the select bibliography had been more extensive. It is true that many additional references are given in the list of plates that accompanies the listed literature, but collectively they do not provide the sufficiently broad entry into the more specialized material that the enthusiastic and stimulated general reader would wish to consult.

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E. Grainger, The Remarkable Reverend Clarke: The Life and Times of the Father of Australian Geology (Oxford Univ. Press, Melbourne, 1982) (\$24.99).

While reading Elena Grainger's book, I fell to contemplating how the present practice of geology differs in many ways from that in Clarke's time, 140 years ago, even though the underlying principles remain the same. I could not help thinking that Clarke operated in the field in many of the same ways as natural philosophers had operated in Europe 140 years before him. Clarke had the advantage over those earlier scientists of interpreting what he saw in terms of the principle of uniformity, propounded by James Hutton late in the eighteenth century and popularized by Thomas Playfair and then Charles Lyell. Clarke also had the advantage of knowing that William Smith had used fossils for correlating and tracing beds of sedimentary rocks. Now, 140 years after Clarke started working in Australia, we operate with the same principles, albeit refined, but in a framework forecast by Hutton to be an immensity of time, and now quantified by use of radioactive decay, a process unknown to Clarke. We can compare the pioneering work of Clarke pushing laden horsedrawn drays up mountain slopes with that of the geological pioneers of today looking at Earth from space, at the deep-sea floor from submersible craft, and at the atom with X-rays. Clarke maintained detailed meteorological records from which, with considerable labour, he traced the path of storms. How poetic he might have been on seeing the great spiralling systems of clouds in satellite photographs projected daily on television.

The function of a review however is not to speculate on the subject of the book, but rather to analyse the book. In a biography of a famous scientist we expect to learn of his life and achievements; to find out how and for what reason he achieved what he did; how these achievements added to prior knowledge and how they related to the contemporary scene and affected later knowledge. Thus, in a book on the 'remarkable' Reverend Clarke, we expect to learn something of his personal and professional life, and the sense in which he can be considered the father of Australian geology. Also, what was known of the geology of Australia beforehand? What was his contribution, particularly to the geology of Australia and generally to the understanding of world geology? To what extent was his work seminal -did he serve a master-apprentice relationship with others who contributed to the field — and did his observations and ideas spur others on to make their own observations and produce their own ideas?

These expectations are to some extent fulfilled, but I left the book disappointed. Certainly we learn more of Clarke's personal life than in previously published accounts. Grainger has gone to considerable pains to research Clarke's family circumstances and personal history, and brings forward material not advanced by James Jervis in his extensive biography of Clarke published in 1945. We learn of his father's blindness, the knowledge of which may have influenced some of Clarke's own thoughts late in life. We also read of his father's litigation, probably justified, and this leads us to wonder about heredity when we read later of the relationship of Clarke to Sir Roderick Murchison, Edward Hargraves and Frederick M'Coy, as he strove to defend his perception of his public reputation and honour. Grainger brings out the

blighting personal and family effects of almost continual poverty, and also describes Clarke's strong personal commitment to increase our understanding of the Earth and its history, possibly at times to his own and his family's disadvantage. Parts of his personal history, however, do not seem to be adequately explained. The reasons advanced for his resignation as head of King's School seem to be inadequate. Jervis hinted at personality clashes with his assistant, a lead not taken up by Grainger. It is interesting to learn that he had been offered the Chair of Geology at the University of Sydney, but the reasons advanced for his declining it are not entirely satisfactory. Perhaps in both cases Clarke wanted to be a 'free spirit' and the constraints and discipline inherent in both positions may have been for him fundamentally unacceptable. This need for freedom may have been known to his contemporaries in positions of authority and may have led to him not being offered the position of Government Geologist of New South Wales early in the 1850s. In terms of his local knowledge, his understanding of the subject and his rapport with the extensive mining community, he seems to have been eminently suited. A deeper probing of this anomaly would have been appreciated. Despite these reservations, I found that Clarke's personality emerges from the pages of the book.

I was, however, disappointed with the treatment of Clarke as a geologist. Although the general background of the state of geology early last century is considered, the treatment is somewhat superficial and, in places, misleading. There is no clear statement of the knowledge then available when Clarke started his work in New South Wales, nor of the extent to which Clarke was familiar with it. In this regard, I was amazed some years ago to read Charles Darwin's comments on the geology of Tasmania, written during the fourteen days or so he was in Hobart in 1836. My respect for Darwin's powers of observation and deduction apparent in his comments was in no way reduced after reading the extensive information that Darwin had available to him from work by earlier observers.

Clarke's geological work is described and a general picture emerges, but the details are unclear and the reasons for Clarke's deductions not very obvious. Much has been made of Clarke's notorious conflict with M'Coy but the basis and details of it are confusing. There is, however, a more recent article by T.G. Vallance on 'The Fuss about Coal' in which the controversy is clarified and placed well in the contemporary scene. Of more importance, the sense in which Clarke is the 'father of Australian geology' is not made clear. With the exception of the stratigraphy of the coal bearing formations of the Sydney Basin, the relationship of Clarke's work to later work is not adequately demonstrated. It is, however, clear from Grainger's narrative that Clarke added greatly to geological knowledge of New South Wales and that his work did form a basis which later geologists refined and built upon. He had no apprentice, no geological curate so to speak, and the influence he had was through his own speaking and writing. He seems to have been almost crustily independent.

Grainger claims that Clarke was a remarkable man and, on the evidence she presents, I must agree. Not only was he a pioneer geologist, but he was also an accomplished poet, a meteorological observer, an observer of fauna and flora, a transient oceanographer and a sympathetic student and friend of the Aborigines. His breadth of interest matched that of several other contemporary pioneering natural scientists in Australia, and to some extent reflects the age in which he lived and the environment in which he worked. In England he had already demonstrated a catholicity of interests with a leaning to geology. Australia offered a multitude of unexplored niches for scientific study and Clarke probed many of these with enthusiasm and effect. He was a remarkable man in a group of remarkable naturalists in early Australia. It is interesting, but probably fruitless, to speculate on whether he would have achieved what he did if he had had immediate responsibility for his family during his most productive years, rather than indirect responsibility for them at a distance in England and Ireland.

Grainger's book could have been shorter as some of the material offered seems irrelevant. In a few places the expression is unclear, possibly due to poor proofreading of which there are some noticeable examples. The book is interesting but is not a definitive study of the 'father of Australian geology'; it casts new light on Clarke's personal life but leaves other important areas unprobed.

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John Pearn and Catherine O'Carrigan

(Eds), Australia's Quest for Colonial Health: Some Influences on Early Health and Medicine in Australia (Dept of Child Health, Royal Children's Hospital, Brisbane, 1983), 304 pp. (\$11).

This book records the entertaining speeches of a collection of doctors telling little stories about other doctors, mostly the fruit of part-time devilling in a variety of archival and secondary sources. With one or two honorable exceptions the book adds nothing to scholarship. The people who attended the conference upon which it was based might value it as a record of the presentations; it serves no other obvious purpose, except perhaps to point to the need for a vastly tighter agenda at future meetings of this sort.

The book opens with some brief biographical notes on the surgeons associated with the First Fleet, some notes about the health of the convicts of the Second Fleet (Gandevia is not acknowledged though he was present at the conference), and then a couple of pages on what is claimed to be 'the first bad debt'. How can this be known and what does it prove? The padded detail in the note is irrelevant anyway.

And so the book proceeds: some minor notes (nothing new) on part of the General Hospital in Macquarie Street Sydney, on the scientific activities of the surgeon of the Baudin expedition, early anaesthesia, early ovariotomies, and a couple of medical biographies. None of this addresses either part of the book's title. There is no connecting argument about a quest for health: by whom and defined in what way? What is colonial health anyway? If any of these sidelights were really influences on either health or medicine, it is not made clear in the brief papers which are presented.

There is one paper addressing 'some facets of public health', which attempts to congratulate 19th century medical men for their heroic leadership in providing better living conditions. The case is not proven, to say the least, as the author ranges about eagerly to claim almost any change as the work of medical men. Concern about pulmonary tuberculosis in the medical journals does not prove medical men did anything substantial about the problem. Of course they did, but it was part of a wider community concern about TB reflected sometimes in hysterical social comment, at other times in contributions towards the establishment of various sanitoriums. The isolation of those 'hospitals' met community demands for security as much as any scientific criteria about cause and effect. The doctors were operating in an amateur age.

Similarly, the account of the work for pregnant women by the Benevolent Society of N.S.W. which yielded the Royal Hospital for Women, Paddington, is a superficial account which assumes the validity of the institutional male-dominated model of the management of pregnant women, especially if poor. It misses the charitable, social welfare role of the Benevolent Society's work, and misses the documented disasters this institutional model brought in its wake on a number of occasions [see B. Dickey, 'Charity in New South Wales', Ph.D. thesis (A.N.U., 1968) pp. 192-4, 420-1; and Dickey, 'Hospital Services in New South Wales 1875-1900. Questions of Provisions, Entitlement and Responsibility' Journal of the Roy. Aust. Hist. Soc. 62 (1976) 39-40]. It then lapses into a list of eminent medical names. What does it tell us of the perception of female illness, or its incidence, let alone its social and economic causes? What of the social and economic profile of the cases presented at Paddington? Surely these are part of the 'quest for health'.

David Evans, one of the few contributors without medical qualifications, has contributed three papers. One on some of the difficulties with the logistics of smallpox vaccine lymph in colonial Victoria is a useful and detailed account of its subject. But it misses the central issue, the willingness of colonial Victorian society to impose compulsory vaccination on its members. Why this enormous intervention in the liberties of the subject, and why is there a contrast with New South Wales? The imitation of the English example is relevant. Were the self-serving recommendations of medical men involved, or are we once again looking at a complex expression of community concern? No doubt Evans will examine these wider questions before he completes his history of the Commonwealth Serum Laboratories. Unfortunately his paper on the poor in late 19th century New South Wales and Victoria is slipshod and needs further work. A detailed study of the subject has been given elsewhere [see Dickey, Ph.D. thesis (1968); Dickey, 'No Charity There', and references therein (1980); R. Kennedy (Ed.), Australian Welfare History. Critical Essays (1982), notably Chapter 3, the most recent of Kennedy's essays on charity in Victoria]. The same can be said of Evans' essay on abusing charity, a complex issue in the ethics of social welfare in 19th century Australia. Careful attention needs to be paid to the community's values, especially to the place of work, and the class relationships expressed by the process of work.

Another paper with effectively argued historical research was written by Donald McDonald on the hospitals for the insane in N.S.W. McDonald has for years contributed useful papers on the social history of N.S.W. and now he has brought his study of care of lunacy to a climax. If Norton Manning and his colleagues emerge as exercising little more than custody of their patients at places such as Callan Park and Tarban Creek, then that is another reminder of the ambiguous relationship between the medical practitioners and the community of colonial Australia. Indeed, Manning became more and more a bureaucratic deployer of custodial resources, and less and less the classic Hippocratic healer drawn from the heroic doctorcentred model of medicine implicit in the construction of this book. McDonald has the eve to see this. Few of the other contributors were aware of such contrasts. Fortunately, effective work is proceeding elsewhere on the history of perceptions of mental illness in Australia. We can look forward to fuller reports on this work, notably from Steven Garton [see his 'Bad or Mad? Developments in Incarceration in N.S.W. 1830-1930', in What Rough Beast (1982)]. No doubt there will be others.

Medical history is too serious to be left to amateurs alone: I define 'amateurs' as those without professional training and practice in history, not medicine, although of course such amateurs have as much right as anyone else to undertake the task. But like everyone else they must accept the corollary of open criticism. Surely we can encourage one another to do better than this exploratory volume. Studies of technical practice are an obvious point of departure for historically minded medical scholars. But such enquiries should be given as much social context as possible: alternative procedures, patient-doctor relationships, and economic and even geographic location all need attention. Nor should merely the practices signalling the onset of modernity be reported and analysed; that is too triumphalist. Beware the historian of the next century who remarks on the foolish practitioners of the late twentieth century! Careful questions need to be asked about the emergence of differing models of interaction ('healing' if you like) between people in 19th century Australia when physical wellbeing was in question. The nature of the profession of medicine and its claims for autonomy and exclusive control of sickness and much health need to be explained, not just assumed. It is a

social construct imposited upon Australian society between 1880 and 1920, and it is a valid subject for historical enquiry. Indeed the concept of *mentalité* or mind-set could usefully be applied to the succession of models of analysis and action applied by medical practitioners. Not only would the character of the assumptions be worked out whether for miasmic or technological, post-germ theory — but also the inferences for resource allocation and power relationships.

The ready adoption of the institutional model of care and healing also needs more careful enquiry. The values other than searching for health inherent in that process must be worked out: how much social control was there in the provision of TB sanitoria, for example, or in the lunatic asylums? How far was the advent of 'scientific medicine' in the 'new' hospitals of the late 19th century a social good, and how much a professional imperative? These questions certainly deserve a conference, but one with firm editorial guidelines and a commitment to enquiry and questioning of unexamined assumptions.

Already good work is being done on such health factories. Gordon Rimmer's *Portrait of a Hospital: The Royal Hobart* (1981) and Ann Mitchell's *The Hospital South of the Yarra* (1977) are two recent contributions. Both are aware not only of medical practice, but also the politics of resource allocation, questions of guiding community values, the criteria by which effectiveness might be assessed, and the interactive social patterns of the various groups involved in the hospital process. Perhaps we could hope for an assault on the overall Australian history of hospitals, in which clients as well as service providers could be studied.

Work on the power relationships associated with health are also beginning to emerge, and more of this is needed. Alternative conceptions of the mode of delivery of services were frequently debated with great controversy. Nor should the interpenetration of medical practitioners into the wider political and social scene be ignored. The power and prestige of their professional position sometimes became the base for substantial community leadership, philanthropic service, or alternative careers.

Exploring that notion of alternatives (a central tool of historical enquiry) in another way suggests the question of health, as defined by medical people, as compared with alternative definitions. Labelling these other options as 'quacks' is a defensive mechanism which needs enquiry and explanation over time; labelling them as 'supporting professions' is no different. An obvious area already attracting attention is the management of women's conditions. F.B. Smith's *The People's Health 1830–1910* (1979) is an example of another way the 'search for health' could be examined.

All this suggests, therefore, assaults on broader subjects, as Neville Hicks has suggested in his chapter 'Medical History and the History of Medicine', in *New History: Studying Australia Today* (Eds G. Osborne and W.F. Mandle) (1982). Indeed, I commend that chapter for a fuller discussion of the ways forward in this field.

While the simple rescue of past behaviour presented in engaging prose can be attractive in its specificity, surely the corporate character of historical knowledge must also be recognized. The connections, the meanings, the social realities, the constructions of shared reality, the reverberations beyond the unique and the specific, must all catch the attention of historians seeking to delineate the story of Australia's continuing 'quest for health'.

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