

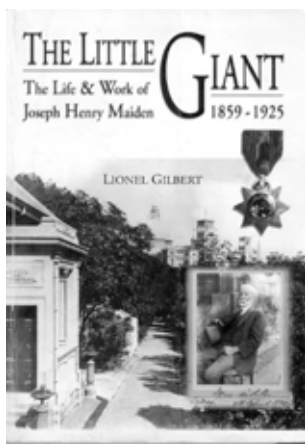
Reviews

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Lionel Gilbert: *The Little Giant: The Life and Work of Joseph Henry Maiden, 1859–1925*. Kardoorair Press: Armidale, in association with the Royal Botanic Gardens, Sydney, 2001. 429 pp., illus., ISBN: 0 908 24444 4 (HB), \$104.50; ISBN: 0 908 24445 2 (PB), \$40.00.



Joseph Henry Maiden's career straddled two centuries, and two eras in Australian botanical history — with and without the presence of Baron Ferdinand von Mueller. When Maiden arrived in Sydney at the age of 22 in 1881, Mueller was 56, and completely dominating the botanical scene. Maiden paid due deference to his senior colleague and was rewarded with friendship and information that he turned to good use in his directorships at Sydney's Technological Museum (now the Powerhouse Museum), and Botanic Gardens. Maiden, however, was to outlive Mueller by 29 years, and became a leading

scientific figure in a much more crowded local field. Maiden is most well known for his contributions to economic and descriptive botany, but he also made significant contributions to technical and science education in general.

Surprisingly, given Maiden's prominence in Australian science, no biography of him has hitherto been published. Lionel Gilbert, however, is an obvious choice to have made up for this lack. In 1971 he was awarded a PhD for a thesis on 'Botanical investigation of New South Wales, 1811–1880'. Subsequently, he published *The Royal Botanic Gardens, Sydney: A History 1816–1985* (1986), and *The Orchid Man: the Life, Work and Memoirs of the Rev. H. M. R. Rupp 1872–1956* (1992) in both of which Maiden figured prominently. At the beginning of *The Little Giant*, Gilbert also acknowledges the role played by Lawrence Johnson, a former Director of the Royal Botanic Gardens, Sydney, in urging that the biography be written. Johnson was a great admirer of Maiden, but unfortunately died in 1997, before *The Little Giant* was published.

Maiden left many resources for a biographer. As Gilbert observes, he was 'an almost unbelievably prolific writer of notes, memoranda, letters, reports, articles, papers, pamphlets, and books' (p. 9), many of which survive. They are not, however, conveniently located in one or even several places although there are substantial holdings at the Powerhouse Museum, Archives Office of New South Wales and Royal Botanic Gardens, Sydney. Gilbert started tracking down Maiden's manuscripts and

publications in his research for the history of the Sydney Botanic Garden in the 1980s, and continued thereafter. He thanks many individuals for assisting him in this quest in the introduction to *The Little Giant*, including Maiden's grandchildren, but the credit for such a big research effort must belong mainly to Gilbert.

As well as creating records about himself, Maiden had a passion for collecting biographical information about other botanists. It made him realise the importance of writing reminiscences for the use of future researchers. Contrary to his own experience, however, as Gilbert notes, Maiden 'left his own biographical details to be sought and recorded by others' (p. 9). This raises the possibility that, despite the existence of bulky Maiden manuscripts, there are important gaps in what can be known about him. Gilbert's brevity on the subject of Maiden's early life in England does seem to be due to a lack of available information, but it is not clear if this is also the reason for his occasional and discontinuous references to Maiden's wife and five children.

The Little Giant is divided into four parts, which in turn are divided into chapters (thirteen in all). These are followed by a bibliography of Maiden's publications, six appendices that reproduce some key sources, notes and a 'select' index. As in Gilbert's earlier books, there is no list of references, which must therefore be found by going through the notes. A liberal number of black and white photographs of maps, manuscripts, people, places and objects are scattered throughout the book. There are also a few colour plates, including a portrait of Maiden opposite the title page, which does not really benefit from being in colour. There is no list of illustrations, but each one is reproduced with a detailed caption and citation of its archival location.

The first section of the biography is called 'Scientist in the making' and covers

Maiden's life in England from 1859–1880. Although this is the shortest section of the biography, it does identify several important educational influences on Maiden. Successively, between 1872 and 1879, he attended two schools in London (London Middle Class School and Birkbeck Institution), which brought him under the notice of Frederick Barff and Thomas Twining, both prominent reformers in technical and science education. Maiden matriculated and qualified for admission to the University of London in 1879, where he studied for 18 months. His botany professors were Daniel Oliver and Robert Bentley. However, an unspecified illness prompted Maiden to leave England in 1880 and travel to Australia to recover his health.

His arrival in Sydney in 1881 was opportune. A Technical or Working Men's College had opened in the city in 1878, and a Technological Museum was in the planning stages. Within two weeks of his arrival, Maiden had been appointed a part-time lecturer at the College, and before the end of the year, Curator at the museum. The speed with which he acquired these positions in Sydney was, in part, due to his prominent English contacts as well as his own ability to impress. He was soon called on to prove his worth when the museum burned down in 1882 along with the rest of the Garden Palace in which it was housed. The museum's collections were almost completely destroyed, and Maiden re-established them in the Agricultural Hall in the Outer Domain, where they remained until a new building was erected for them in Ultimo in 1893.

Gilbert covers most of this period in his second section 'Curator and collector'. It draws heavily on information from surviving institutional minutes and correspondence, and we are made to feel almost as if we are sitting with Maiden at his desk. He emerges as an energetic, if somewhat exacting, administrator and promoter of practical science for whom no detail was

too small to be overlooked. Under Maiden's curatorship, the museum's collections were more than replenished, and they were made popular (as attendance figures testify). Maiden also established a laboratory where he carried out experiments on native plants, the results of some of which he published in his main work on economic botany, *The Useful Native Plants of Australia*, in 1889.

Maiden also started developing an interest in descriptive botany at the museum where he established a herbarium, based on his own and other collectors' specimens, as well as a botanical library. Gilbert covers some of Maiden's descriptive botany in the second section, but discusses most of it in the third and largest section, 'Botanist and Director'. Maiden built up the Sydney Botanic Gardens as an internationally recognised centre of botanical research, naming more than 300 species of Australian plants himself and contributing important works on acacias and eucalypts, including *A Critical Revision of the Genus Eucalyptus* which was published in 8 volumes between 1903 and 1933 (the last parts appearing after his death).

Maiden sought contact with Mueller because of his great knowledge of Australian plants, but this clearly did not overawe Maiden. Gilbert alludes to differences between the two men over the identification of specimens and nomenclature, but does not discuss these, or indeed Maiden's views on any issues in late-nineteenth-century botany, in detail. With already so much to say about Maiden, this is perhaps no surprise, but it does mean that Gilbert has left room for other researchers to focus on more specific questions about Maiden's work. For example, what were his views on the environment, acclimatisation, species delimitation, or on the largest issue in nineteenth-century biology, evolution?

As well as amply fulfilling his official scientific duties, Maiden made a substantial

contribution to the development of several scientific societies including the Geographical Society of Australasia, the Australasian Association for the Advancement of Science and the Linnean Society of New South Wales. In 1899, Maiden returned to Europe and attended the International Botanic Congress in Paris and the Botany section of the British Association for the Advancement of Science (BAAS). In 1901, he was involved in the celebrations for Federation and at the beginning of WWI, the visit of BAAS to Australia. For the sake of friendship it is perhaps fortuitous that Mueller died before this time when Maiden came to think of Germans as constitutionally bad. Maiden also contributed planting advice for the national capital of Canberra.

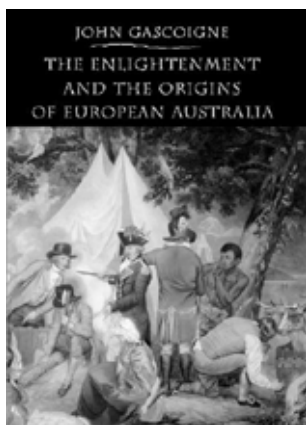
Gilbert's fourth and final section is called 'Reluctant retiree' but includes the years leading up to Maiden's retirement in 1924 and the aftermath of his death in 1926. Maiden was humble about own achievements. In 1896 he said, '... now that the Baron is dead, the idea of one botanist for the whole of Australia is out of the question'. This was true in the sense of there being increasing numbers of state-employed botanists, but Maiden's own work was not limited by state boundaries. His research on eucalypts and acacias covered the continent. Nevertheless, while Mueller was a botanical pioneer, Maiden was a member of the next generation whose achievements are inevitably seen in reference to Mueller. Gilbert's title sums up something of this situation, as well as being a reference to Maiden's physical stature.

The Little Giant is a welcome contribution to the history of Australian science, written with humour and ample documentation. In the introduction, Gilbert thanks Dr Tony Scanlon for his 'gentle wielding of the editor's knife', but Scanlon still left a great deal of text (at 429 pages) for readers to peruse. The biography has a narrative structure within which Gilbert creates

short sections on various subjects, but their titles, like 'Home and away' and 'Business as usual?' tantalise, rather than inform. The broad scope of these sections mean that the book will be of interest to a range of readers and scholars, although the richest material is botanical. On this subject, Gilbert saves his best until last with a critical reading of Maiden's opus on eucalypts in the final chapter.

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John Gascoigne with Patricia Curthoys:
The Enlightenment and the Origins of European Australia. Cambridge University Press: Cambridge, 2002. xiii + 233 pp., illus., ISBN: 0 521 80343 8 (HB), \$69.95.



Continuing his research into the historical associations between British imperialism and the Enlightenment, John Gascoigne has produced a book that investigates how the values of reason, progress and improvement shaped the development of European Australia between 1788 and

1850. Gascoigne establishes the religious and political contexts in which the Enlightenment was received before analysing the application and impact of its major tenets on Australia's landscapes and inhabitants.

Enlightenment philosophy held that moral improvement resulted from exposure to the correct environment. In the Australian context, faith in the environment's capacity to reform and rehabilitate convicts often superseded references to the redemptive effects of religion. Gascoigne argues in chapter two that religious institutions were relatively weak in Australia due to their plural beginnings and short life span. Further, certain aspects of Christianity were actually compatible with Enlightenment attitudes. For instance, clerics were often receptive to the notion that both nature and the Bible constituted examples of God's work.

In his section on politics (chapter three), Gascoigne argues that the anti-authoritarian nature of Australian political culture can be explained by the transposition of British Enlightenment thought to a peculiarly Australian colonial context. The espousal of freedom and equality as political values inspired early nineteenth-century discussions on freedom of the press and the separation of the executive, legislative and judicial powers in the Australian colonies.

In chapter four, 'The Earth and its fruits', Gascoigne describes how the same Enlightenment rhetoric legitimised resistance against the establishment of a British-style landed aristocracy. For instance, the Colonial Office prevented pastoralists from acquiring too much property. These restrictions were based on Enlightenment attitudes to land that defined sedentary agriculture as the benchmark of advanced civilisation. In the Enlightenment schema of rational land use and social development, much of the Australian continent was characterised as 'wasteland' awaiting improvement. Pastoralists, who utilised

large tracts of land without cultivating it, were ranked just above hunter-gatherers (such as the Aborigines) on Enlightenment hierarchies of civilisation.

Improvements to the land were aided by scientific research and the steady proliferation of agricultural societies through the first half of the nineteenth century. Interestingly, Gascoigne posits that while these improvements were certainly geared toward feeding the colony and providing bases for prosperity, on a more fundamental level these projects were concerned with making 'a strange land into more familiar forms' (p. 85). This venture proved particularly successful in Van Diemen's Land, which was more readily Europeanised than mainland Australia.

In 'Race and the limits of "improvement"', Gascoigne provides a valuable insight into the influence of early evolutionary theories on Enlightenment attitudes toward race and civilisation. Racial differences were thought to be the result of environmental variations. Scottish thinkers in particular tended to subscribe to the notion of evolutionary stages and the possibilities for human improvement based on the historical example of European advancement. Significantly, clerical and scientific élites believed that Aborigines and Europeans were members of the same species, but that the former were arrested at an earlier stage of development. Gascoigne makes the important point that racist distinctions based on a belief in *biological* differences did not receive élite endorsement until the mid-to-late nineteenth century, when policies of improvement to indigenous communities were abandoned in favour of segregationist programs.

Throughout his book Gascoigne draws pertinent comparisons between the infant Australian colonies and the United States, both of which had short histories of settlement relative to Europe. Gascoigne finds

that from the earliest days of settlement in the Australian colonies, the influence of religion as an institutional force was significantly weaker than in the United States.

Similarly, while acknowledging that Australian colonial élites inherited their reform-oriented outlook from British Enlightenment thinkers, particularly Jeremy Bentham, Gascoigne argues that the Australian colonial experience was distinct from that of its British forbears. He emphasises that 'without the sanction of time and custom' the church and the aristocracy remained relatively weak institutions in Australia compared with Britain (p. 35).

Some of the most fascinating parts of Gascoigne's study are those sections in which he discusses the legacy of the Enlightenment in Australia and the contradictions inherent in its application to a colonial context. On the one hand, the future-oriented aims of the Enlightenment were particularly appropriate to a fledgling settler society where references to history and tradition had little resonance. The Enlightenment, Gascoigne suggests, had the strongest impact because it arrived in Australia first. He also posits that the values of progress and improvement that are cherished by parties on both sides of the political spectrum in contemporary Australia are a testimony to our Enlightenment heritage.

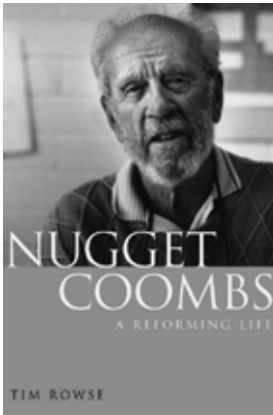
However, the enduring tensions created by contradictions between Enlightenment philosophy and practices represent another legacy of the period. The deleterious impact of disease, displacement and violent conflict on indigenous communities provides a case in point. Contradictions between Enlightenment theory and practice assume striking dimensions from 1833, when slavery was abolished throughout the British Empire and yet the subjugation of Aborigines in Australia continued. Gascoigne's own concluding

remarks perhaps best express the complex origins of European Australia:

The Enlightenment left a deep imprint on Australia, but the land and its people were also able to demonstrate the limits, as well as the possibilities, of the Enlightenment's faith in improvement (p. 172).

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Tim Rowse: *Nugget Coombs: a Reforming Life*. Cambridge University Press: Melbourne, 2002. 430 pp., illus., ISBN 0 521 81783 8 (HB), \$59.95.



Born in February 1906 in Western Australia, his father an English railway worker and his mother a first generation Australian of Irish Catholic descent, Herbert Cole Coombs is one of the most significant figures in the history of Australian public policy. A list of his various positions and activities in Australia's public affairs between 1935 and the 1976 explains why:

- Bank economist (1935–1939),
- Treasury official (1939–1942),
- Director of Rationing (1942),

- Director-General of post-war Reconstruction (1943–1949),
- Governor of the Commonwealth and Reserve Banks (1949–1968),
- Pro-Chancellor of the Australian National University (ANU) (1959–1968) and Chancellor (1968–1976),
- Chair of the Australia Council for the Arts (1967–1973),
- Chair of the Australia Council (1973–1974), and
- Chair of the Council for Aboriginal Affairs (1967–1976).

Add to these positions Coombs' advocacy of the Council for Scientific and Industrial Research (CSIR) between 1945 and 1949, his role in establishing the Australian Elizabethan Theatre Trust in 1954, founding ANU in 1949 and his support for indigenous rights over two decades (both as public servant and public intellectual), and it is possible to understand why Coombs is an almost 'inexhaustible' subject for biographers.

Tim Rowse is interested in Coombs' public life, primarily his contribution to economic policy in Australia and the manner in which Coombs' long career as a leading public servant both initiated and reflected key changes in Australia's political culture. The intellectual breadth of Rowse's analysis of Coombs' public life is impressive. His command of several spheres of Australian (and British) intellectual, political, economic and cultural history is simply outstanding. Although Rowse has published primarily in the field of indigenous studies in the last decade, he is probably one of the few Australian scholars capable of the intellectual scope on display in *Nugget Coombs*. While Rowse is a sympathetic biographer, he is also keen to distance himself from Nugget nostalgia (usually articulated by those 'disturbed by the movement to free market neo-liberal economics'), and remains

constantly wary of overstating Coombs' singularity.

In his effort to contextualise various aspects of twentieth-century history in Britain and Australia, Rowse is rarely satisfied with Coombs' reflections alone. For example, in his attempt to depict the conditions in London schools during the depression of the 1930s, Rowse quotes Coombs' observations as a casual teacher but also seeks out the recollections of East Enders, thereby deepening the reader's understanding of the period. He achieves similar levels of understanding when he writes on Walter Murdoch or the intellectual climate of the London School of Economics in the 1930s.

In many respects, *Nugget Coombs* is a history of public policy in Australia. The book charts the changing culture of government administration. From the moment Coombs enters the public service as Director-General of post-war Reconstruction in 1942, there is a gradual emergence of what Rowse terms 'the responsive public servant'.

Nugget Coombs is also the second instalment in Rowse's survey of Coombs' public life. In 2000 he published *Obligated to be Difficult*, a study of Coombs' work with indigenous Australians between 1967 and 1995. In the introduction to *Nugget Coombs*, Rowse betrays a sensitivity about the relationship between the two books — going so far as to list the page numbers for those readers interested only in indigenous issues — something they could surely do themselves by referring to the index. The two books need to be read reciprocally for a full understanding of Coombs' public life.

Rowse claims that in both *Obligated to be Difficult* and *Nugget Coombs*, he has presented Coombs' life as a series of attempts to answer the question: how can liberal government draw heavily on the expertise to policy intellectuals while continuing to honour popular sovereignty? The two

books, says Rowse, show how 'liberal governance' can be seen as 'an endless and unavoidable effort to deal with certain dilemmas of rule'. Two problems in particular arise — how to secure within the political élite an economic rationality that was socially integrative and ecologically responsible and how to 'sensitise' the political élite to issues and people who might be excluded too easily from the sense of 'economic rationality'.

Coombs' professional life was devoted in large part to the first problem. He helped to instigate and also benefited from the rise of 'the economist' as the central figure in government planning and policy. This was evident particularly between the wars and again during and after the Second World War when, as Rowse writes, 'mobilizing and then demobilizing a war economy made economics the basis for a general administrative competence'. In addition, Coombs was at the forefront of Labor's 'new internationalism' in the 1940s. Between 1942 and 1948, Coombs became a 'central figure in an international community of government officials' championing a Keynesian, full employment internationalism that entailed a challenge to protection'. Coombs was no anti-capitalist, nor did he support Chifley's attempt to nationalise the banks in the late 1940s, but 'like so many liberals of his time', he was intent on finding a way to 'bring social justice into a society which privileged the private ownership of the means of production'.

Coombs' faith lay in government as an instrument of social justice and a potential corrective to the inherent imbalance and inequalities of capitalism. Thus, for Coombs, economic rationality was a means of securing desirable political and social outcomes through economic policy and management. It was not a spectator sport — observing the antics of the free market — or gambling on the outcomes.

In the last three decades of his life, Coombs could be seen working actively to

sensitise the political élite to those groups who might otherwise have been forgotten by governments. In his support for indigenous rights and autonomy (a treaty) and through his continued advocacy of the arts, he was, as Rowse explains, 'energised' through his rediscovery of 'the Australia he thought he knew'.

One of Rowse's constant and most interesting themes is popular sovereignty, a theme that becomes especially relevant in the 1970s. At this time, the rise of interest groups and the new social movements saw the role of the public servant shift from being an anonymous government servant and adviser to a more active agent — both enabling and sustaining channels of communication between government and the new, more popular centres of political power. Rowse describes this new role as 'the responsive public servant'. With this function (one also forced on parliamentarians, as they too were forced to respond to new political bodies constituting various conceptions of 'the people'), Rowse isolates a crucial moment in Australian political history, when the rhetoric of political negotiation (a time also driven no doubt by the influence of the electronic media) increasingly reflected models of participatory democracy.

Interestingly, Rowse is able to show how Coombs dealt pugnaciously and creatively with this development, seeking not only to reflect the views of others but also to interpret them, provoke them and question them. Perhaps this is a measure of Coombs' 'enlightened leadership', one that is often lacking today, both in government and in the public service.

The dilemma Rowse faced in writing Coombs' biography was whether and how to honour Coombs' wish that the book was not to intrude on his personal life. Writing to Rowse, Coombs offered his thoughts on the prospect of a biography:

Such exercises inevitably, whether deliberately or by accident, intrude on personal

space — attitudes, beliefs and relationships that I have always tried to protect as private. Few people are capable of articulating the content of their own 'personal space' and I doubt whether I am one of them. I have therefore preferred to 'look outward'.

Rowse decided to respect Coombs' wish. Consequently, Coombs has managed to exert considerable influence over the focus of this biography. Yet in many ways, Rowse, like Coombs, prefers to 'look outward'. In this sense, the interests and inclination of biographer and subject coincide. The genre of biography, however, has different conventions and expectations. As Rowse admits, the book is 'more impersonal than most readers of biographies would wish'.

Rowse's decision to consent to Coombs' public/private boundary raises some difficult issues. On one level his respect for Coombs' wishes is admirable. Yet on another level, Rowse has imposed a dividing line over which he cannot help but trespass. Consider the following remarks by Rowse:

Coombs' nickname was a personal metaphor, laying the basis of an identity that synthesised physical endowment with moral outlook ... perhaps Coombs' persistent tactics of self-effacement are part of the truth of the inner man.

Now and then, in one phrase, Rowse manages to hint at Coombs' personal qualities and inner life. Writing of Coombs' astonishment at his wife's determination to honour the teachings of the Catholic Church on sexuality, Rowse quotes Coombs' daughter, Janet, in order to demonstrate that Coombs was 'never bound to fidelity'. He lived most of his life away from his family, even more so after retirement, and as Rowse observes, it was only when he suffered a stroke in the last years of his life that 'his family reclaimed him'.

Coombs was a very familiar type of Australian male, a man who was deeply ambitious, intelligent, gifted and driven.

Yet a man who also insisted on hiding these qualities behind a language of self-effacement and the overwhelming desire to be seen as an ordinary man. To admit otherwise publicly would be arrogant, pretentious and pompous, leading only to the dreaded halls of 'the establishment'. For Coombs, the measure of his individual achievement lay in how effectively he managed to enable and initiate social justice and cohesion. At the same he worked hard to empower those Australians who had hitherto been excluded from the political process — particularly Aboriginal people.

Rowse claims that as a result of his decision to avoid intruding on Coombs' 'personal space' he is left with no alternative but to make 'a virtue of impersonality', and cast his study of Coombs' life as an exploration of some themes in Australia's twentieth-century history. Then comes the line that has probably invited the most criticism from reviewers to date — 'some biographies tell the reader what made the subject tick. This one does not'.

To my mind, Rowse need not have been so hard on himself. First, even within the parameters Rowse has set, there is abundant material to cause the reader to reflect on what made Coombs tick. How, in any case, is it possible to separate any person's public life from their 'personal space'? Are not attitudes, beliefs, and intellectual development just as crucial as the emotions in explaining the inner life of any human being? Each informs the other. At one point, Rowse seems to acknowledge this himself: writing of Coombs' Boyer Lectures in 1970, he notes that Coombs reflected 'on an issue at the centre of his

life; the limits of enlightened leadership'. Second, after insisting that the book does not explain Coombs' inner life, Rowse writes that '*Nugget* is about Coombs from life to death'; a statement that seems too large a claim after his earlier insistence that the book focuses only on Coombs' public life. In many ways, the structure of the book conforms closely to John Passmore's acute observation of Coombs' character — 'I saw him as a series of admirable projects'.

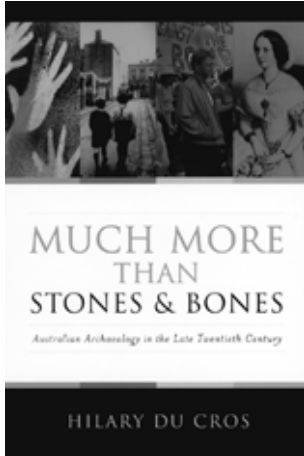
Finally, by gauging his assessment of Coombs' professional life against Paul Kelly's concept of the 'Australian Settlement' (White Australia, protection, wage arbitration and imperial benevolence), paradigms that Kelly alleges prevailed from the time of federation until the 1980s, Rowse exposes the limitations and weaknesses in Kelly's argument. He explains how Kelly has ignored the ways in which Coombs (and many others) worked to undermine much of the 'Australian Settlement' and why Kelly has too readily assumed that there is no alternative open to contemporary Australia than the market-orientated global forces to which he remains captive.

Nugget Coombs is a significant scholarly achievement. It is a book of profound interest to anyone interested in Australian political history — a book that will endure.

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STOP PRESS: Mark McKenna's latest book *Looking for Blackfellas' Point: An Australian History of Place* was awarded the Douglas Stewart Prize for Non-fiction and the 2003 Book of the Year at the New South Wales Premier's Literary Awards in May.

Hilary Du Cros: *Much More than Stones & Bones: Australian Archaeology in the Late Twentieth Century*. Melbourne University Press, Carlton, 2002. xvii + 204 pp., illus., ISBN 0 522 85020 0 (PB), \$34.95.



Each discipline has its moment in the public eye, whether science or humanities, when it becomes embroiled in wider cultural debates. For nuclear physics it was the post-war decades of the 1950s and '60s. For ecology, it was the early environmental activism of the 1960s and '70s. Today, the hot spot is Australian history, where a heady mix of contemporary politics, national identity and historical re-interpretation suffuse public debates. For Australian archaeology, the most intense public moments were in the 1980s, and the issue was not history but heritage.

In *Much More than Stones & Bones*, Hilary Du Cros, archaeologist and cultural heritage analyst, presents a short history of Australian archaeology in the 1980s, using a series of case studies to examine the public engagement of the profession during a key period in its development. Her focus is on the people who respond to professional archaeology: volunteers, amateur archaeologists, politicians, devel-

opers, environmental groups, community groups and Indigenous Australians. She sees such groups as integral to professional practice and the negotiation of heritage values. They are not simply passive consumers of élite science.

'How did the broader community feel about archaeology?', asks Du Cros. *Much More than Stones & Bones* begins with the salvage excavation of the Commonwealth Centre and Telecom site in Little Lonsdale Street in the heart of Melbourne in 1989. Here Du Cros is staking out some territory. A large urban excavation into the seamy past of a major city ('Secrets from brothel-site bedrock' claimed headlines in the *Weekend Australian*) contrasts with the popular notion that archaeology necessarily involves prehistoric sites in remote areas. It also provided Du Cros with the opportunity to look at the involvement of volunteers in such digs. Volunteers, it seems, *join* for the romance of archaeology and the theatre of the dig and *stay on* for the sense of tangible history and the camaraderie.

The theme of archaeological theatre is carried over to the next major case study, Tom Haydon's controversial film *The Last Tasmanian*. This award-winning documentary presents an indictment of colonial destruction of Tasmanian Aboriginal society, and draws on research by archaeologist and co-writer Rhys Jones. When it was released in 1978, it drew strident criticism from an unexpected audience: contemporary Tasmanian Aboriginal groups took immediate offence at the implication that their cultural identity had been destroyed during the colonial period. As one media commentator put it, the film 'had its heart in the right place, but its head decidedly isn't'.

In 1983, archaeological excavations at the site of First Government House in Sydney involved different protagonists, but a now familiar mix of archaeology, politics and identity. Construction of the building

had begun in 1788 as a residence for Governor Phillip. By 1845 it was a ramshackle collection of buildings and an impediment to city traffic and it was demolished. By the 1980s, however, it had assumed major symbolic and heritage status as Australia's first public building. Redevelopment of the site, by then an old car park, unleashed intense lobbying by heritage agencies, community and professional groups, as well as the media, to investigate the site and preserve any subsurface remains. Archaeological excavations in 1983 and 1984 revealed an array of surviving footings, drains and refuse pits. 'Government was born here' proclaimed a bill pasted on the hoardings surrounding the excavation. Subsequent conservation of the site involved establishment of a new Museum of Sydney where glass floor panels provided visitors with a view of the foundations of the colonial buildings.

At much the same time (1980–1983), prehistoric archaeology found itself in the midst of a national conservation campaign in the 'fight to save the Franklin River'. In the aftermath of the flooding of Lake Pedder, conservation groups vehemently opposed further dam construction by the Hydro-Electric Commission. The Franklin River in southwest Tasmania became the next flashpoint. The archaeological discovery of late Pleistocene occupation sites in limestone caves in the catchment was crucial in reversing moves to dam the Franklin — although the media preempted this discovery, claiming younger artefacts as a 'significant Ice Age find'. Excavations at Fraser Cave, renamed Kutikina by contemporary Tasmanian Aboriginal groups, demonstrated an actual rather than anticipated 'Ice Age' find in 1981. John Mulvaney and Rhys Jones put a case to the Senate Select Committee on southwest Tasmania for preservation of the area. International scholars signed a full-page advertisement in a national newspaper under the headline 'Do people

overseas care more about preserving Australia's treasures than our own Government?'. In the end, archaeology carried the day. 'Without first-class research', heritage and conservation debates were 'just a bullring' Prime Minister Malcolm Fraser declared.

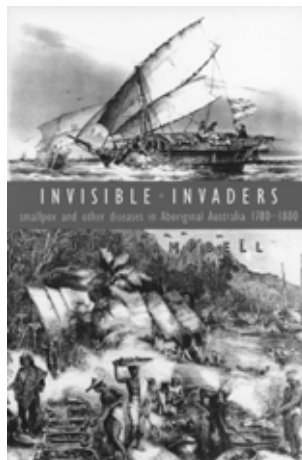
Even so, as their science increasingly became someone else's heritage, archaeologists found that political, religious and community values prevailed over 'first-class research'. In the final case study, Du Cros looks at the repatriation of prehistoric human skeletal collections to Aboriginal groups. Most archaeologists supported the return of historic remains or those of known individuals, such as Truganini, but were opposed to the destruction or reburial of ancient remains. The issue came to a head in 1990 with repatriation of fossil skeletons dating between 9,000 and 15,000 years ago from Kow Swamp in Victoria. Indigenous community demands, political expediency on the part of the Victorian Government, and splits within the archaeological community ultimately led to the destruction of a major scientific collection. Throughout *Much More than Stones & Bones* Du Cros develops a picture of a discipline that readily sought and found a popular audience but became increasingly politicised by the encounter. In particular, the resurgence of a militant Aboriginal identity — itself part of a wider working out of colonial relations between the Australian state and Indigenous communities — caught the archaeological profession by surprise.

Much More than Stones & Bones provides a worthwhile account of Australian archaeology in the 1980s but the writing is bland and descriptive. There is precious little analysis, no sense of broader historical context and no attempt to provide an engaging narrative. Du Cros allows few 'voices' in this book (direct quotations are rare) and we are left with little insight into the motivations of

individuals and organisations caught up in these events. There is little reference to debates in public history and no sense that the history of science might provide any insights. And she avoids the key question: ‘How was archaeology transformed by these encounters’? In the 1970s ecologists increasingly withdrew from high-profile environmental debates to preserve their professionalism. In archaeology, the commercial and consulting arm has professionalised, but academic archaeologists still have no professional body. The Australian Archaeological Association sets ethical standards but not qualifications as a prerequisite for membership, and the trend is away from élite science-based research towards community-based projects that bridge the schism that opened up between archaeologists and indigenous stakeholders in the 1980s.

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Judy Campbell: *Invisible Invaders: Smallpox and Other Diseases in Aboriginal Australia 1780–1880*. Melbourne University Press: Carlton, 2002. xiv + 266 pp., illus., ISBN 0 522 84939 3 (PB), \$49.95.



Judy Campbell has quarried descriptive writings, memoirs and official reports from white Australia’s first one hundred years, looking for mentions of the pock-marked faces of Aborigines. From this stock of observations she has deduced the time and the place of several waves of smallpox ‘invasion’. Smallpox is not the only disease that engages her — measles, tuberculosis and treponema infections (some endemic to the pre-colonial population) are mentioned — but smallpox is of particular interest because of three things that she has to say about it. First, it entered the Aboriginal population independently of the British colonists, through northern Aboriginal contacts with the people of the Indonesian Archipelago beginning in the eighteenth century. Second, it greatly disabled the Aboriginal response to the spread of British pastoralists. Third, remedial and preventative action by British colonists, both kindly and self-interested, ameliorated Aboriginal suffering from smallpox

to some extent. Together these points make a new story about Aboriginal vulnerability to the forces of world history.

Australian ports saw localised, short-lived outbreaks of smallpox among colonists and visitors from time to time. Inland, among Aborigines, the problem was more extensive and persistent. Campbell traces sightings and indirect evidence (pock-marked adult Aborigines' stories of childhood illness) to deduce a 1789 outbreak among Aborigines in NSW, Queensland, Victoria and South Australia. There was another in eastern Australia from 1828–1832. In the late 1860s, active smallpox was observed in SA, the Northern Territory, Queensland and in northern parts of Western Australia as late as 1870. Campbell points out that these written records do not tell us the full extent of each outbreak, nor the speed of their spread. If in some regions (such as Queensland before 1830) she has very few observations to work with, the epidemiology of smallpox allows her to infer that a few sighted cases indicate an infected population. Where she has many observations (including survivor memories), she is confident in inferring the directions in which the second and third smallpox invasions moved.

Campbell is aware that discussions of the causes of Aboriginal death in the first century of colonisation are loaded with moral implications. It was common in the nineteenth century to attribute Aboriginal population decline to venereal disease, but this theory can be understood as a means collectively to forget the extent of illicit and unacknowledged violence against Aborigines. Now the contribution of settler violence has been recognised (though estimates of its toll remain controversial), and it is smallpox — 'the worst disease ever seen among indigenous Australians' and the 'major single cause' of their decline in the period 1788–1880 — of which we must be reminded. Its memory was still fresh to

interested colonists in the 1890s, but by the 1970s, Aboriginal vulnerability to smallpox had moved to the margins of scholarly attention. When economic historian Noel Butlin researched it, he sought in his title *Our Original Aggression* (1983) to align the story of smallpox with the story of colonial violence. He found it plausible to speculate that Captain Phillip's officers had deliberately infected Aborigines with stocks of *Variola* virus that they had brought with them for their own protection. (This itself was a variation on an old story. William Charles Wentworth in 1819 had blamed James Cook and, in 1824, the French.) Jared Diamond's popular *Guns, Germs and Steel* (1997), influenced by Butlin, is the subject of a series of critical comments by Campbell.

Campbell sees herself as having a number of advantages over Butlin. He did not know what we can now read about the history of smallpox in the 1988 WHO report *Smallpox and its Eradication*, including grounds for doubting that *Variola* could survive the voyage to Port Jackson. The recent eradication studies also showed that transmission of smallpox in small, nomadic populations, as in Somalia, could be unexpectedly prolonged. Campbell has found more observations of pock-marked Aborigines than Butlin, who was not aware of the 1860s outbreaks that she traces. Nor did Butlin cite the 1831 survey of regimental surgeon John Mair of extensive smallpox infection among Aborigines of inland NSW — crucial to Campbell's case that the east coast was unlikely to have been smallpox's entry point. Campbell casts such doubt on the suggestion that Aborigines got smallpox from east coast colonists that we are keen to know of smallpox outbreaks in the Indonesian Archipelago, 1780–1880, and of the *prau*-borne Macassan visitors to Australia's north coast. She has strongly suggestive, but not conclusive, evidence that these visitors brought smallpox. She

presents evidence that the infection spread from the Top End to the south and east of the continent from 1824 to 1830, and then into NSW and what we now call Victoria in the early 1830s.

The many observations adduced by Campbell, combined with her own reasonable speculations, give a miserable portrait of the life of indigenous Australians at the moment of their contact with Europeans in such places as the islands off southern Queensland and along the Murray River. Where food was plentiful, relatively dense populations favoured rapid spread and high incidence of infection. Case fatality rates were probably made worse by the decimation of food gatherers. If people fled before the disease, they were likely to carry it to their neighbours. To the extent that sorcery was prominent in their explanatory models of illness, smallpox-ravaged populations were moved to take revenge on neighbours and old enemies. Some Aborigines blamed the British, but the British had violent answers for indigenous accusations.

Campbell writes over-confidently that smallpox caused more Aboriginal deaths in 1789, the 1820s and early 1830s than 'intermittent frontier violence'. This compares one speculative death toll with another. We simply don't know the relative weights of these two causes of Aboriginal mortality. When she adds that the disease 'precluded effective resistance to the invaders', she shifts from comparing two independent variables to pondering the causal relationships between them. And what does she mean by 'effective'? Aborigines were 'effectively' resistant with violence only in the short term, for the colonists were quite determined to use all violence necessary to secure their life and property. This was demonstrated in Queensland, where European authority met 'effective' resistance by unleashing the Native Mounted Police, shielding it from public scrutiny for the sixty years that

it took to make every corner of Queensland safe for colonists. If the depopulating effects of the three waves of smallpox invasion predisposed surviving Aborigines to a strategy of accommodation rather than violence, as Campbell seems to suggest, then it arguably contributed to the prevention of such slaughter. One thing is clear: Aborigines suffered a 'triple whammy' in the nineteenth century. They had no technological counter to smallpox from Indonesia, to measles, venereal diseases and tuberculosis from Europeans and to improvements in the colonists' rifles from the late 1850s.

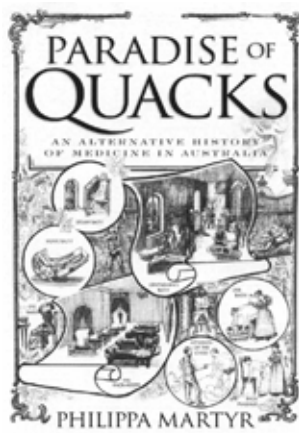
The colonists suffered very few deaths from smallpox, having known since the 1790s how to prevent infection and having developed a system of quarantine as an early priority of government. One of the minor themes (not indexed) of Campbell's book is that colonists' interventions, particularly in Western Australia, may have reduced the severity of the third smallpox outbreak among Aborigines. Compassion and the colour-blind efficiency of public health thus made it adaptively rational for colonised Aborigines to choose to be 'inside' rather than 'outside' the Europeans' domain.

We are currently being invited to reconsider the idea, promoted since the late 1970s, that Aborigines were very commonly violent resisters of European colonialism, combative 'patriots' even. One line of revision (from Keith Windschuttle) acknowledges the intensity of Aboriginal violence, but recasts the Tasmanian 'patriots' as bloodthirsty plunderers; criminals without higher purpose. Campbell offers an alternative line of revision, not tainted by Windschuttle's cringing alignment of 'right' with colonial might. Campbell portrays a mainland Aboriginal population battered by three waves of deadly smallpox epidemic that coincided with the European invasion. Decimated and demoralised (and even

turning on each other) these people were physically and psychologically unprepared for 'resistance', though some were motivated to this by thinking that the illnesses that were killing them were products of the newcomers' malevolence. The option of accommodating rather than resisting was sweetened, at least in some regions, by the readiness of the newcomers to offer some solutions to some of their illnesses. The historiography of indigenous 'survival' is enriched by Campbell's scholarly illumination of the implicit calculus of Aboriginal self-preservation.

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Philippa Martyr: *Paradise of Quacks: an Alternative History of Medicine in Australia*. Macleay Press: Paddington, NSW, 2002. 394 pp., illus., ISBN 1 876 49206 6 (HB), \$39.95.



Medical practice in Australia has come a long way since the first convicts stumbled ashore in 1788. The historiography of

Australian medicine, however, has generally been dominated by 'scientific' medicine, i.e. hospitals and doctors. Detailed analysis of the many fringe dwellers of orthodox medicine has been sparse. Philippa Martyr's history of medical quackery goes a long way to filling the gap. Her study examines those who healed outside the confines of mainstream medicine — the electromagnetists, phrenologists, clairvoyants and others — and shows that many of the debates today about 'real' doctors and 'good' medicine have a long history indeed.

The study begins with a detailed consideration of medical practice during the early decades of permanent European settlement in Australia. Martyr reviews eighteenth-century precepts about medicine, Aboriginal views of sickness and healing, and the efforts of convict doctors in the infant colony. Along the way she debunks the myth that Captain Cook pioneered the British Navy's use of lime juice to combat scurvy, citing instead the efforts of both earlier and later mariners to control this scourge of long sea voyages. Several important themes are also introduced, including the role of women as healers, homeopathic practice and medical legislation, which are explored further in subsequent chapters.

The nineteenth century was a golden age of unrestricted medical practice in the Australian colonies. Doctors of dubious qualification flourished, and the ready availability of powerful drugs meant that self-diagnosis and healing were common. Homeopathy, herbalism and hydropathy all grew in popularity, while clairvoyant physicians also gained adherents. As always, however, much medicine began in the home, and women remained the primary healers for many families.

Patent medicines were the exemplars of medical quackery in this period, and perhaps deserve more detailed treatment than Martyr provides. Consumers were

faced with a wide array of balsams, elixirs, essences and tonics, available over the counter or via mail order. These were loudly and often fraudulently advertised as treatment for dozens of ailments. Some were quite harmless, containing little more than sugar and coloured water. Others contained active ingredients that actually produced their advertised effect. Still others contained powerful drugs, including narcotics, in dangerous concentrations. Opiates and alcohol were sometimes added because heavy consumption could lead to addiction and thus increased sales. Patent medicines were also popular in isolated rural areas where access to doctors and hospitals was both difficult and expensive. By the turn of the century, however, patent medicines were under sustained attack by orthodox medical practitioners, who saw their livelihood under threat from providers of alternative remedies. Although increasing government regulation gradually tightened control over patent remedies, Australians remained avid consumers well into the twentieth century.

The distinction between orthodoxy and quackery in Australian medicine has not always been clear-cut, however, and Martyr traces this relationship in considerable detail. She reminds us, for example, of the widespread antipathy towards 'foreign' doctors, including practitioners trained in Europe and America. In spite of continual attempts to legislate and register those formally qualified to practise and those not, a large degree of overlap has persisted since at least the early nineteenth century. 'Grandfather' clauses permitted elderly practitioners to keep working on the basis of lengthy experience rather than formal qualifications, while chemists dispensed free medical advice along with medicines. Doctors themselves prescribed patent medicines and referred patients to alternative healers. Orthodox medicine also gradually embraced those alternative therapies, such as hydrotherapy, massage and

electrotherapy, which had proved their efficacy. More recently, acupuncture, hypnosis and meditation have gained far greater acceptance in conventional medicine than earlier generations allowed.

Homeopathic medicine also crops up frequently in Martyr's study. Developed by the German physician Samuel Hahnemann in the 1790s, homeopathic cures were effected by preparations that induced symptoms of the disease in a weaker form, which the body could more easily overcome. Administering them in minute doses, it was believed, could heighten the effects of drugs: the more dilute the dose, the greater the 'dynamic' effect. Homeopathy was popular because of the ready availability of medical chests and homeopathic guides to 'self help', putting treatment into the hands of the patient. As well, the very mildness of homeopathic therapies, which effectively allowed nature to take its healing way with disease, contributed to its popularity among many women and children.

The twentieth century saw medicine and public health increasingly caught up in the legislative authority of the states, at the same time as medical intervention in private life was on the rise. Between 1914 and 1960, every state in Australia passed registration laws covering the practice of dentistry, optometry, midwifery, physiotherapy and other forms of health care, attempting to regulate who could practise and who could not. In spite of this, healing innovations flourished, especially in the form of osteopathy, chiropractic and naturopathy, as awareness grew of the role of the whole body and lifestyle in illness and its prevention.

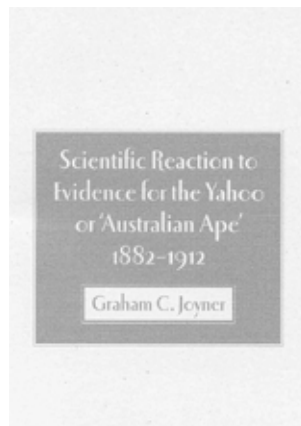
This awareness expanded dramatically from the 1960s onward, as attacks grew on the perceived arrogance of organised medicine, alongside the embrace of holistic philosophies of healing. Martyr's final chapter surveys these sweeping changes to the social context of medicine. She argues

that many forms of healing currently fashionable, including herbalism, homeopathy and traditional Chinese medicine, have been practised for generations in Australia. She also documents a dramatic expansion of educational institutions offering training in complementary healing, which today embraces a bewildering variety of forms from acupuncture, naturopathy and dietetics, to kinesiology, shiatsu and aromatherapy.

Alternative medicine has trodden a long and difficult path in Australia over the past two hundred years. Along the way, some therapies were rejected and moved outside medicine, while others were quietly absorbed into mainstream practice. Martyr's study conveys well the great diversity and mutability of different forms of healing, how treatments regarded as normal to one generation often came to be regarded as bizarre by the next. She also avoids simplifying the often-complex relationships between healers (mainstream or otherwise), legislators and the public they were meant to serve. More detail in several areas, however, could have made a good book even better. Little mention is made, for instance, of surgical practice, as it was slowly wrested from the hands of barbers and butchers during the nineteenth century. In addition, relatively few illustrations are provided, in spite of the rich sources of historical imagery available. These could have added texture to the historical narrative without undermining its scholarly context. Notwithstanding such issues of emphasis and detail, this is a fascinating study, and offers a comprehensive and accessible history of alternative medical practice in Australia.

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Graham C. Joyner: *Scientific Reaction to the Evidence for the Yahoo or 'Australian Ape' 1882–1912*. Canberra, the author, 2002. 32 pp., (PB), \$11.50; author contact: joyner84@netscape.net



This booklet is an intriguing read. Joyner has a passionate interest in nineteenth-century accounts of the 'Yahoo' (sometimes known, erroneously he argues, as the 'Yowie') or Australian ape. Here he investigates the failure of Australia's scientific establishment to take account of evidence of this creature, focusing on two specific incidents in 1882 and 1912. Joyner has researched these accounts exhaustively, and his use of both published sources (mostly newspapers, especially local ones) and unpublished sources (particularly Australian Museum correspondence) is serious, carefully directed and impressive in its detail.

In 1882, McCooley, a collector for the Australian Museum, conducted a campaign to interest the museum in the stories of the Australian ape, and to have them fund an expedition for him to collect a specimen. He claimed to have seen the animal, and also to know of the location of a skeleton of this 'most uncouth and repulsive looking creature' (p. 5). The museum rejected these proposals. The second

incident concerns some plaster casts taken from 'Yahoo' footprints in the Monaro in 1912, which were examined and dismissed by Edgworth David at the University of Sydney. To Joyner's mind the 'consequences were disastrous', that is, David prejudiced the possibility for scientists to investigate these reports with any degree of open-mindedness.

Joyner is determined to reassess the validity of the original reports of the presence of an ape-like animal in the Australian bush. Although he does not make his own views explicit, he is clearly sympathetic to these original reports. He has collected such accounts for many years, having deposited a collection of them in the National Library as long ago as 1973. In this alone Joyner has provided an invaluable service for those interested in the more fantastical or mysterious elements of Australian natural history.

Joyner devotes considerable space to detailing the events, the persons involved and the reliability of their observations, essentially on the basis of the correspondence between these and other observations that he has gathered. While this is an interesting argument, it seems to me that Joyner underestimates the power and reach of stories which take on a mythopoic quality and may become very widespread in a culture (such as colonial Australia, with its high degree of social change and personal mobility), without necessarily being able to trace linear routes of influence between one account and another.

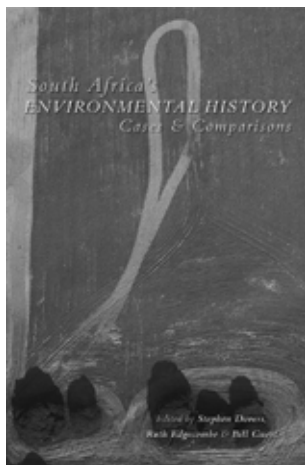
Thus his argument that these were independent, but highly correspondent, accounts needs further analysis.

For Joyner, the accounts of an Australian ape are no more implausible than other, more famous quirks of Australian nature which were also greeted with scientific skepticism, including 'the platypus's' eggs, marsupial reproduction and the Queensland lungfish' (p. 25). Indeed Joyner's key argument is that scientific skepticism may act to blinker investigation of natural phenomena, by demanding particular varieties of evidence that may be impossible to obtain. In making this argument, Joyner invokes some interesting speculation about the nature of language and knowledge, and points out that a scientific rejection of evidence may, as it indeed proved in the case of the platypus, rest on an inadequate imagination as much as it does on an inadequate body of evidence.

Although Joyner's argument has merits and provides much further food for thought, (particularly in relation to Aboriginal categories and words for natural phenomena), it does not prove entirely persuasive in this context. To my mind, the evidence for the 'Australian ape' remains largely of a legendary nature. The investigator who wishes to argue otherwise has a very significant burden of proof to establish the claim.

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Stephen Dovers, Ruth Edgecombe and Bill Guest (eds): *South Africa's Environmental History: Cases and Comparisons*. Ohio University Press: Athens, OH, 2003. ix + 326 pp., illus., ISBN: 0 821 41498 4 (PB), US\$24.95.



Eric Pawson and Tom Brooking (eds): *Environmental Histories of New Zealand*. Oxford University Press: Melbourne, 2002. xvii + 342 pp., ISBN: 0 195 58421 X (PB), \$39.95.



These two exciting collections mark the coming of age of environmental history in southern lands. The South African book includes eleven important, close-grained,

local studies of key environmental issues in South Africa, whilst the New Zealand collection contains thirteen such chapters. Together these showcase the power of historical narrative and analysis in environmental issues. The New Zealand collection concludes with four 'perspectives' — reflections on the crucial concerns of the present in New Zealand — biological invasion, Māori cultural heritage, environmental law and public policy. The South African collection finishes with five chapters about South Africa's relations with the rest of the world. They have a strong 'world history' perspective. First South Africa is compared with the rest of Africa (William Beinart and Gregory Maddox), then its neighbours, Australia (Stephen Dovers), South America (John McNeill) and South Asia (Ravi Rajan).

The unashamedly southern bias of the South African collection makes it an important book for those working in Australasia and the Pacific, and a refreshing change from the constant need to explain these regions in terms of the ecologies and histories of Europe and North America. Its consciously comparative tone is undoubtedly the product of its senior editor, Stephen Dovers, coming from elsewhere (Australia), and this considerably helps outsiders to enjoy the collection.

As Jane Carruthers, a South African who has written a good deal of comparative environmental history, observes in her introduction, environmental history in South Africa has emerged relatively late, because the antecedents and ramifications of apartheid have rather overwhelmed its small academic community. South African environmental history must operate in the context of the changing political dispensations associated with the end of apartheid, although there are antecedents such as P. J. van der Merwe on the Trekboer economy and other early writers working on historical material in a range of disciplines from the 1930s. Carruthers

characterises environmental history as a ‘subdiscipline’ of cultural history, and in South Africa its edge is certainly politico-cultural, as the case studies in this book show. By contrast, Stephen Dovers, more conscious of the strong traditions of historical sciences in Australia, prefers to define environmental history as an ‘interdisciplinary area’. Dovers works hard in his editorial role (especially in the comparative chapters) to situate South Africa’s stories in the historiography, or should I say interdisciplinography, of elsewhere.

Some of the case studies naturally lend themselves to comparisons with Australia. Lance van Sittert’s lively study of ‘Our irrepressible fellow colonist’ documents the prickly pear invasion of the Eastern Cape from 1890 to 1910, just as Queensland was confronting similar pressure on its ‘progressive farming’ practices. Harald Witt’s chapter on plantation forestry — with the twist that the imported species are eucalypts and acacias, not *Pinus radiata* as in Australia — is intriguing because it focuses on private-sector forestry interests. Windmills, pumps and wire fencing have transformed the Karoo, as Sean Archer shows — and these same technologies have been important in the ecological revision of arid lands in Australia. And fire is important too — but in another context. John McAllister argues that it has been shaping the grassland biome since at least the Pleistocene. McAllister’s discussion of anthropogenic and climatic firing will be of great interest to Australians, who grapple with similar debates.

South Africa also offers a strikingly different sort of environmental history. John Lambert’s chapter on the crisis in the homestead economy of colonial Natal in the early nineteenth century, Jabulani Sithole’s chilling account of the environmental context for violence in Pinetown (inland from Durban) between 1920 and 1936 and William Beinart’s analysis of the origins of the Pondoland revolt in 1960,

refer to different places and times. But as a group they share narratives where environmental issues such as soil erosion and land degradation become pretexts for racial tension and violence. Here the indigenous and invading economies compete for land to put to similar purposes — farming is not just for the invaders, and good and bad practices are hotly disputed.

Not all the case studies are issues-focused and local. Nancy Jacobs, an American scholar of South Africa, re-visits a model put forward by Carolyn Merchant in *Ecological Revolutions* (1989) to consider the colonial ecological revolution in Kuru-man, in the Kalahari on the border of the Northern Cape and North West provinces. Jacobs takes Merchant’s theory of the ‘major transformations in human relations with nonhuman nature’ to see how a theory based on the meeting of Native American and European ideas in New England translates to the colonial encounter between Tswana-speaking people and Europeans. The difference between cultivation and cattle herding is paramount (something that, incidentally, marks the different colonial encounters of southern and northern Australia). Jacobs reads primary (western) sources of the 1820s to reconstruct some of the traditional ecological knowledge and Tswanan cosmology at the time of encounter. Her reading is nuanced by an awareness of the political need to avoid a ‘merrie’ portrayal of pre-modern societies (p. 23). She also reads missionary records for their documentation of droughts, climate and environmental change in the nineteenth century. The connection of the environmental, philosophical and historical (e.g. the rush for diamonds from 1867 and the long drought of the 1890s) is built on the Merchant legacy, but Jacobs finds that the Merchant model has limited application for some aspects of the situation in South Africa. In particular, there is no allowance for the idea that indigenous people themselves could ‘adapt to and

benefit from the colonial ecological revolution' (p. 33). In an echo of Carruthers' introduction, Jacobs advocates stronger acknowledgment of indigenous forces for environmental change in environmental historiography, something that would be welcome beyond South Africa as well.

As we move from the old lands of South Africa to New Zealand and the Pawson and Brooking collection, we are immediately struck by just how 'new' New Zealand is. Geologically recent and peopled late by both first and second settlers, we have moved truly into another world. Instead of the 'out-of-Africa/cradle of civilisation' questions, we are confronted with the opposite: archaeologist Atholl Anderson asks just how recently did settlement begin — 2000 years ago, 800–1200 years ago or just 600–800 years BP? His evidence leans towards the third alternative — but not before we have learned much about the deep geography of the land. The excellent maps and graphics in this chapter and throughout (no doubt a legacy of Eric Pawson's experience with the *Historical Atlas of New Zealand*) complement Anderson's neat word sketch of a place of forts (pā) in the wind and hunting sites (Moa bones) in the leeward portions. Climate and culture, land and settlement patterns are all interwoven in this powerful introduction.

New Zealand has many significant differences from its large neighbour, Australia. One of its most important is the legal relations between European and Māori peoples. The early work of the Waitangi Tribunal is well known, but in this collection Evelyn Stokes takes such documents as the Muriwhenua Land Report (p. 35) and reads it for environmental as well as (cross-) cultural insights into the early settlement period.

Although the lands are very different, South Africa, Australia and New Zealand share common European settlement patterns, with the vision of serving the

Empire through an economy based on primary industry. New Zealand's extraordinary grasslands revolution that rendered a mountainous, forested land fissured by rivers, gullies and coastline into a land suitable for wool, that great staple of Northern England's mills, was a truly remarkable one. As Peter Holland, Kevin O'Connor and Alexander Wearing argue, grass became the centre of much scientific and technological effort. Agrostologists and plant ecologists became highly influential shapers of the new society, the best example being the internationally distinguished Leonard Cockayne, whose name appears in a number of chapters as he moved from grassland improvement to environmental and conservation initiatives in forests and mountains. Colonisation connected the old world and the new through that powerful wool industry, a prime example of the Wakefield dream described so well by Jim McAloon (pp. 59–60), where labour in the colonies creates the primary material for industrial production at the heart of empire. Other issues such as fire and rabbits, and Terry Hearn's interesting chapter on mining (a subject often overlooked in environmental histories) also have strong echoes for readers from other settler societies.

In Australia, forest history, especially the industrial history of southern forests, has dominated environmental history, somewhat surprisingly in a continent largely lacking forest. New Zealand's traditionally distinctive, heavily-forested landscape yields a very different sort of history, one about clearance and making grasslands, and not valuing forest until it was too late. Graham Wynn evokes the forest claustrophobia of Sarah Harris in 1841 in her words: 'the forest is behind me and the sea in front', and develops the psychology as well as the economics of clearance in the nineteenth century. The confined and rugged topography gave a high value to a clear view. But, as Paul Star and Lynne

Lochhead reveal, the period 1880–1930 brought a change, with more local environmental consciousness, pride and some belated preservation. From this period on, New Zealand forest industries drew more on exotic timbers. Indigenous remnant forests were increasingly reserved and forest history stories are not so much of industry, but of preservation and the ecological consciousness of national parks.

Mountains, as Eric Pawson relates, also became tied to tourism and nationalism, from Victorian followers of the picturesque and the spectacular to health tourists in search of pure air. Mountains were central to the earliest national parks, ‘wastelands’ that could be spared for aesthetic and sporting purposes because they could not be farmed. Later, forest remnants joined the national parks, but some ecosystems were very late to be considered for inclusion. Geoff Park’s chapter on ‘swamps’ (now more positively termed wetlands) revealed a voracious search for farmland that led to an 85% decline in wetlands in New Zealand. New Zealanders drained and engineered level farmland pleasing to the Pākehā eye, which was amenable to geometric management. Fear of a hidden (or denied) Māori threat was a serious factor in the love of ‘safe’ cleared country. Wetlands were not valued until the 1960s as key ecosystems in the chain and as culturally important places for Māori.

Even in the 1980s, the political preference for agricultural grasslands was overpowering, despite the fact that New Zealand’s remarkable statistic of 51% grasslands was well above the world average. Tom Brooking, Robin Hodge and Vaughan Wood reconsider the ‘grasslands revolution’ and the power of agrostologists in the modernising of New Zealand. Their chapter brilliantly shows the mutually-supportive elements of the ethic of industrial agriculture and the cultural history of science, and how such a programme can

become out of step with a land’s ecological needs, despite the best intentions.

It is rare indeed to find a collection where the chapters are of such a uniformly high standard. Each is a gem in its own right, but their subjects have been cleverly interwoven by the editors, giving an unfolding, chronologically logical, environmental history of the New Zealand. And the book is not just about historical issues. Current issues such as urban development, suburban gardens, feral weeds, environmental law and policy, and the cultural identity of both Māori and Pākehā are developed historically in the final sections of the book. The reflective interdiscipline of environmental history is thriving in both New Zealand and South Africa.

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Archives and conferences

First in a series of archival tours and conference reviews for readers of Historical Records of Australian Science.

‘E. M. Baldwin Collection’ of Engineering History

National Museum of Australia Library and Archives (NMA),
216 Northbourne Avenue, Braddon, Canberra, Australia.

Open to the public daily 9–5.

Librarian: Julie Philips.

Email: j.philips@nma.gov.au
or ph: +612 6208 5112.

This rich collection of historic early engineering items was gathered by the late E. M. Baldwin in his former works at Castle Hill, Sydney. (The collection is unrelated to the world-famous engineering

works of Matthias William Baldwin in Philadelphia, USA). It comprises a very extensive library of historic texts, catalogues and early engineering serials of the last two centuries, including some volumes dating from the 1780s. The texts are primarily British. However, there are also important works of German, French and American origin.

The huge tomes of the British engineering weeklies *The Engineer* and *Engineering* dominate the shelves in the archive. They are the most complete runs of these journals in Australia that I am aware of, and certainly the most accessible and convenient to use. The former starts with Volume 1, Number 1 (1856), the latter commences in the 1860s (exact date unclear) and is bound and indexed bi-annually. *The Engineer* was cumulatively indexed up to 1959. This index is unfortunately not with the collection, but is available at the National Library of Australia in Canberra. *Engineering* spans over 100 years, continuing into the late 1960s.

The collection will interest not just engineering history enthusiasts, but also transport historians and preservationists. If you need to know how it was done, how it works or where it was made, all the answers are here. If you are interested in *A History of the Steam Engine* you can find at least four different books of this title from 1824, 1826, 1879 and 1883. If you need to know about ‘gutta-percha’ (tree sap used to insulate wires in the pre-synthetic era), you can find it here! Early railway histories such as one by Nicholas Wood (1825) and Tredgold’s *Railways and Carriages* (1835) can be read for many different things. One little gem is Cornish’s [2nd edition] 1837 guide and timetable for the Grand Junction Railway. This early trunk route later became part of the London Midland route to Liverpool and Manchester. As evidence of its exceptional rarity, this guide does not appear in Ottley’s *Bibliography of the Railways of Britain*.

Other works of significance include *Marine Shipbuilding*, *Horology and Chemical and Electrical Engineering*, some of these dating from the time of earliest development in these fields. There are also ephemera and catalogues of early motor vehicles and motorcycles, such as *The Automotor and Horseless Vehicle Journal 1897*.

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John Thomas Lamprière’s Meteorological Registers (Port Arthur, Van Diemen’s Land)

National Archives of Australia,
85 Macquarie Street, Hobart, Tasmania, Australia.
Open to the public weekdays from 9:00–4:30.
Director of the Hobart office: Eleanor Wolf.
Email: eleanorw@naa.gov.au

The important nineteenth-century archives held in the National Archives of Australia’s Hobart office include nineteenth-century tide gauge measurements recorded by John Thomas Lamprière, a storekeeper at the penal settlement of Port Arthur.

These nineteenth-century measurements have recently been compared with measurements taken by an international research team led by David Pugh (UK), John Hunter, Richard Coleman and Chris Watson (University of Tasmania). In their *Port Arthur Study* — a seven-year scientific research project aimed at verifying rising Australian sea levels — they focused on a collection of Lamprière’s observations held at the Royal Society in London. The recordings were, however, incomplete and many gaps existed.

A goldmine of additional data collected by Lamprière appears in series P2472, *Register of Meteorological Observations and Tides, Port Arthur* (1837–1842, 1858, 1863, 1865 and 1877), which includes tide measurements and other meteorological data also recorded by Lamprière.

In all, over 250 000 sea-level observations were collected and analysed during the study, which found that Australian sea-levels have risen an average of 1.4 mm each year since 1841 — a total rise of 16.7 cm.

Historians interested in the meteorological sciences, past and present, may wish to visit the Hobart collections and look at the sea-level stories uncovered through the recent *Port Arthur Study*.

The National Archives of Australia's main location is Canberra but it also has offices and records in every state. For further information, telephone the Archives' National Reference enquiry line on 1300 886 881, or email: ref@naa.gov.au.

Eleanor Wolf
National Archives of Australia
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Conference review

23° South — The Archaeology and Environmental History of Southern Deserts

National Museum of Australia
15–18 January 2003
http://www.nma.gov.au/exhibitions_and_events/special_events/deserts_conference
(verified 4 March 2003).

This unusual four-day conference brought together archaeologists and quaternarists working in the deserts of southern Africa, Australia and South America for the first time. Conference organiser Mike Smith (Director of Research at the National Museum of Australia) sought to stimulate discussion on the interaction between environment and human societies.

It made for an entertaining spectacle, with archaeology being thrown in the ring with paleogeomorphology, followed by presentations on the llama in the Atacama and bushman rock art in the Kalahari. It was a reminder of the extraordinary rich-

ness of past human experience in response to vast climatic and environmental change.

The strength of the conference lay in the ability of researchers to make comparisons both across continents and across disciplines. Overall, it was successful not through any attempt to generalise about all three zones, but through the perspective that comparison brought to each field. Some of the more interesting correspondences concerned the transition from hunter gathering to pastoralism, the interpretation of rock art and ethnographic material and the variety of approaches and techniques in studying vegetation, climate and sea level change.

On the Australian experience, Steve Morton (CSIRO Sustainable Ecosystems) discussed the importance of hunting (of megafauna), fire, artesian bores and grazing in the desert. Stuart Pearson (University of Newcastle) discussed new methods in approaching Holocene vegetation history through rodent middens — a powerful new source of information. Ingereth Macfarlane (ANU) presented a consideration of the interaction between people and place through the lens of water in the Simpson Desert. And Dick Kimber (as himself) discussed with skill aspects of contact and culture in the western desert.

As Mike Smith suggested, the desert is in many ways an extreme environment, a frontier for people arriving from gentler climes. It requires human societies to adapt or perish. From the perspective of human–environment interactions, it is not only a frontier of survival but, for some, a useful frontier of research.

The conference *23° South* will take place again in South America in 2005. A special exhibition on deserts is planned for 2004.

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