

Reviews

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David Penington: *Making Waves: Medicine, Public Health, Universities and Beyond.*
The Miegunyah Press: Melbourne, 2010.
ix + 389 pp., ISBN: 970522857443, \$69.95.

David Penington has had a long and creative career in medicine, in public health and in university teaching and management. His autobiography is aptly titled 'Making Waves' because he is a doctor who has always 'made a difference' to whatever field or project he has undertaken. Much of this 'difference' has been challenging to vested interests, some of it controversial. Should any of the antagonists who drew swords with him over the reforms to the Victorian Certificate of Education read this memoir, they might be surprised.

Penington is a complex man: highly gifted intellectually, a classical musician, a private student of theology, and an instinctive questioner. He also has had great assurance in his own judgement—or diagnosis—of a problem, whether it is drug addiction, community health, health system administration, university administration, or the management of a terrifying, new, sexually transmitted disease.

That assurance is the trained assurance of a doctor who has to make difficult decisions on the basis of the evidence and in light of a confident ethical formation, and then take action, even if that action is radically new or will distress vested interests. It is also that assurance that has sometimes antagonized people who have dealt with him outside the clinical setting. And it raises the problem of the status of evidence-based expertise in the wider community where other values and understandings are in conflict with it.

The assurance also derives from a distinctive moral career shaped by his family, in particular his mother, and his aunt Frances Penington. David Penington is an outstanding example of the serious-mindedness of the professional, Melbourne, middle-class that was responsive to

Christianity in Action. His mother was a pacifist who forbade her sons to join the cadets at Scotch College, who devoted herself to the hugely important work of the Free Kindergarten Union among the inner city poor, and who was horrified by the human misery of the Great Depression. At school, Penington was restricted by severe asthma and it was not until his early manhood that he was able to take up rowing and participate in sport. He found solace in music and study, and was something of an outsider in the sporty, militaristic manliness of Scotch. These must have been formative experiences that thickened his skin.

The other influence was his father, whom he loved, but whose conservatism in all things, including medicine, set the son on a course of opposition to the Melbourne medical establishment, its limited clinical vision, its privileges and prejudices. Penington escaped much of the Melbourne acculturation by completing his undergraduate medical studies at Oxford and building his clinical and research career in the United Kingdom. When he returned to Australia, he brought clarity of vision about running the hospitals, the necessity for research to be at the heart of the clinic, and for the academic units in hospitals to be fully integrated with the hospital as an institution.

Penington also developed into a gifted teacher—indeed he had almost chosen teaching over medicine as a career. His passion for active learning, where students engaged with problems rather than absorbed facts, was to animate his reforms of the Melbourne medical curriculum.

But the moral seriousness, nurtured by the Student Christian Movement and his own extensive reading, shaped a medical vision that saw the patient in social context, and the practice of medicine as needing to be community based and community focussed. Penington welcomed the vision for health of the Whitlam government and against mainstream opinion in the profession,

was instrumental in the foundation of the North Richmond Community Health Centre, and the Department of General Practice and Community Medicine in the Medical School. Reform of the curriculum entailed curtailing the financial empires of obstetrics and paediatrics and restructuring the decision making in the Faculty to prevent vested interests delaying necessary change.

Likewise as Vice Chancellor, Penington found university administration overly legalistic and he cut through procedures and regulations, habits and pockets of laziness and ineptitude, to produce a more modern institution that had a clearer sense of a common purpose rather than a collection of private entitlements.

But when he stepped outside the hospital and the university, he found himself on a trickier stage. As the haematologist in charge of the Blood Bank, he made the clinical decision to ban gay men from donating blood. The gay community felt vilified and Penington had a bitter enemy advising the Minister of Health, Neal Blewett. Penington had to withdraw and a different political approach engaged the gay community in a world-leading program of preventive sexual education and self-care. Similarly, his radical approach to drug addiction, by legalising marihuana and undermining the drug trade, was difficult to sell to a conservative electorate and medical profession. And when he took on the radical education movement that was focussing on competencies, levelled playing fields and experimental assessment, he found himself recast as a creature of the establishment, defending elitism in education.

Yet in retrospect, this was not fair. There is a tension in advanced intellectual work between expertise and common understandings, between high skill and general skill and the status of knowledge itself in policy and politics. And if Penington may seem a creature of the private school elite, he has done more than most to expand the social vision of medicine in this country and to advance education and research. The university and medical school he so effectively 'triaged' now presents a student body that is more diverse demographically and ethnically than ever before and, thereby, more representative of the communities it will serve.

Penington has been involved in nearly every major health policy movement since the 1970s.

His memoir will be of major value to later historians of these developments and controversies. That many who were also protagonists may disagree with his version of events and of himself is all to the good as it will stimulate debate on a critical period of Australian history.

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Helen MacDonald: *Possessing the Dead: The Artful Science of Anatomy.*

Melbourne University Press: Carlton, 2010.
x + 289 pp., illus., ISBN: 9780522857351
(PB), \$39.99.

Possessing the Dead, a rare combination of rigorous historical research and Poe-esque gothic horror, explores the workings of the Anatomy Acts in nineteenth-century Scotland, England and Australia, and the artful methods by which the medical men and anatomy inspectors appointed to administer the Acts successfully took possession of the dead. The tools of the medical men were subterfuge, disingenuousness and disguise; their tasks were to procure bodies, circumvent objections, and prevent or discredit public outrage. As MacDonald herself states, the picture 'is not a pretty one' (p. 13).

Following a vivid, if somewhat involved, description of an affray between working men and medical students at the University of Edinburgh, MacDonald traces the genesis, evolution and implementation of the *Act for Regulating Schools of Anatomy* (1832), which was a response to increasing incidences of body snatching, and the infamous Burke and Hare murders. She details the parliamentary modifications that turned custody into possession and placed a time limit on people's ability to object to the appropriation of their friends' and relatives' bodies for medical dissection (p. 220).

Subsequent chapters discuss various local manifestations and consequences of the initial Anatomy Act and its successors. In Edinburgh and Glasgow, for example, 'funeratories' were established to house the institutional dead; their ostensible role as halfway houses between death and burial conveniently concealed the fact that corpses not claimed within forty-eight hours were automatically sent to anatomy schools. In London, anatomy inspectors hired 'expeditors' to superintend the removal of corpses from

workhouses, hospitals and gaols, and compensated workhouse masters and undertakers for help in obtaining specimens, ignoring a statute that banned body sales. Hospital pathologists, taking advantage of the Act's failure to regulate post-mortems, subjected corpses to aggressive examinations. In Australia, government officials, medical officers and amateur collectors answered the calls of British surgeons investigating the developmental history of humankind by severing limbs from 'racially' interesting hospital corpses and exhuming bodies from Indigenous graves. Perhaps most disturbing of all, such ghoulish practices, in modified form, persisted well into the twentieth century: the British *Corneal Grafting Act* (1952) and *Human Tissue Act* (1961), which permitted the removal of body parts for transplantation, medical education and research purposes, specified no minimum time period before a corpse could be harvested, required no record-keeping, and contained no penalties for breaking the law. Informed consent was only mandated in 2004; Australian laws have yet to follow suit, and the 'strong voices' still raised today 'to advocate a return to taking organs without first obtaining explicit consent', MacDonald predicts, threaten to take us on 'a bedevilled course back to the past' (p. 230).

MacDonald engages with her topic both intellectually and emotionally. She combines a scholarly approach to her material with a genuine sense of outrage at the contemptuous treatment of the vulnerable by the powerful. This anger is not merely the misguided result of 'transpos[ing] modern sensibilities on to the past'; MacDonald supplies ample evidence of a widespread awareness, amongst that past's inhabitants, that many people objected to the 'mutilation' of their own remains and those of their friends (p. 216). She cites British parliamentarians who believed that respectful disposal of the dead embodied 'some of the best feelings of human nature', London commentators who considered their government's proposal to 'enact a law that sent people's remains to be dissected without their consent' a 'moral violation', anatomy inspectors who repeatedly encountered people 'claiming and burying corpses of others who were not their own relatives', medical men who 'shudder[ed] at the thought' of donating themselves to science and 'took care in making funeral arrangements for their own remains and those of people they

loved', and the concerned correspondent who reported Truganini's plea to the Tasmanian *Mercury* before dying: 'Don't let them cut me' (pp. 9, 140, 216–227, 221). The monumental disconnect between these attitudes and the cavalier appropriation, mistreatment and disposal of human bodies fuels MacDonald's ire and is compellingly communicated to her readers.

MacDonald notes that her history 'uses the language of the past' (p. vii), yet it is not clear whether the word 'race' falls into this category. Although most references to 'race' occur within quotes from contemporary sources, phrases such as '[p]arts removed from people of mixed racial descent were considered useless in determining racial origins' (p. 113) imply that 'race', one of history's most insidious floating signifiers, describes differences actually and consistently existing between groups of people. Recent challenges to this reified notion, both by genetic research into human diversity and by scholarly problematizations of 'race' as a purely discursive and political construct, should, I think, have been acknowledged.

This caveat aside, *Possessing the Dead* contributes substantially to the history of British and Australian science. Meticulously researched and vividly written, it will interest not only historians of science, medicine and technology, but also all those concerned with social justice, power disparities, and the abuses, past and present, too often committed in the name of science.

Hilary Howes

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R. Keith Johns: *A Mirage in the Desert? The Discovery, Evaluation and Development of the Olympic Dam Ore Body at Roxby Downs, South Australia, 1975–88*. O'Neil Historical & Editorial Services: Adelaide, 2010. 64 pp., ISBN: 97809805201 (PB), \$30.

It is rare that a former bureaucrat writes a memoir, and in this regard Keith Johns' recollections as a senior government administrator concerning the early years of the Olympic Dam project are very welcome. His short review, *A Mirage in the Desert*, however, barely scratches the surface of the controversial mining project at Olympic Dam in South Australia and (perhaps rather

unwittingly) shows the eagerness of the South Australian bureaucracy to see Olympic Dam proceed regardless—Sir Humphrey Appleby would be suitably impressed.

The review is clearly written with the implicit assumption of the gargantuan economic value of Olympic Dam as the over-riding consideration—demonstrating that this somewhat narrow, dogmatic view was prominent in all advice given to governments of the day. Unfortunately, the report barely covers actual evidence and details, especially the complexity of the project, its massive capital cost and uncertain operating costs—nor does it adequately address any of the major criticisms surrounding government subsidies, and support versus royalties and revenues.

Perhaps the greatest weakness—indeed failure—of the review is its lack of coverage of the scientific innovation in mineral exploration, which the Olympic Dam discovery ushered in. The deposit starts 400m below ground and was discovered partly through luck, but mainly through brilliant geological theorizing on the relationship between major tectonic faults and suitable stratigraphy combined with geophysics to target denser, mineralized rocks that produce a gravity and magnetic anomaly. This approach is now widely used to discover new mineral resources, including Prominent Hill in 2001, just to the west.

Several major challenges confronted the development of Olympic Dam, not the least of which was the separation of copper and uranium. These took several years of research as well as a large pilot project to meet; yet Johns fails to cover this adequately. These aspects are not merely the purview of a miner—they cut to the heart of government policy in maximising the benefits and minimising impacts of major mineral projects. Other critical issues in Olympic Dam's history include indigenous concerns from the Kokatha and Arabunna, impacts on mound springs of the Great Artesian Basin, the major weaknesses of the environmental impact assessment process, uranium extraction and nuclear issues—Johns' approach is to summarily dismiss them without showing an understanding of the intricacy of any of them.

The fact that Olympic Dam ore contains uranium links the project intimately into the nuclear debate. In order to produce a marketable low radioactivity copper metal, as well

as provide a potentially significant by-product revenue stream, uranium was always intended to be extracted. The Olympic Dam project could have easily been developed without extracting the uranium and just focussing on copper, gold and silver (and possibly even rare earths)—yet Johns barely even acknowledges such options, let alone government's role in promoting the best public outcome over a single company's desire for profit. By 2009, uranium had only provided 18.4% of Olympic Dam economic value, with copper 75.7% and gold-silver the remainder.

The final major area that the review fails to address is the legal privilege given to the project through the Roxby Downs Indenture act (1982)—legislation intended to protect the sanctity of Olympic Dam's development and operation and severely limit public scrutiny. Johns' gives the Indenture the most coverage of his review, but again shows how strongly the bureaucracy backed the project without critical faculties. For example, blindly accepting that 'developers needed . . . an indenture' (p. 25) to secure development is a weak justification in protecting the public interest. Furthermore, Johns also acknowledges the 'very supportive' (p. 28) role that the media can play in such debates, subtly revealing that they were rather biased towards Olympic Dam's development.

The review will add to historical knowledge, but arguably contributes significantly less to the public sphere than other books such as those by John Showers (*Return to Roxby Downs*) or John Read (*Red Sand Green Heart: Ecological Adventures in the Outback*). While the Olympic Dam deposit is indeed gargantuan, as are concerns about its numerous aspects, Johns' review remains a mirage of its own—full of hope and yet fails to deliver.

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Harry Allen (ed.): *Australia: William Blandowski's Illustrated Encyclopaedia of Aboriginal Australia*. Aboriginal Studies Press, AIATSIS: Canberra, 2010.
viii + 188 pp., ISBN: 9780855757137 (PB), 9780855757175 (HB), \$60 (PB), \$140 (HB).

This beautiful book, an edited translation of William Blandowski's original *Australien*

in 142 *photographischen Abbildungen nach zehnjährigen Erfahrungen* (Australia in 142 photographic illustrations from 10 years' experience) dating from 1862, presents what is a little-known work for the first time to a wider audience. Editor Harry Allen and translators Lillian Barton and Melanie Wittwer reveal the extraordinary range of images produced during Blandowski's trips along the Murray River between 1850 and 1857, including depictions of landscapes, native Australian fauna, and scenes of Indigenous Nyeri Nyeri (Yarri-Yarri) life. Each illustration, painstakingly reproduced from the original albumen prints, is accompanied by a translated caption and supplemented with explanatory notes. Allen's introduction contextualizes these exquisite images, providing detailed and accessible information on Blandowski's life and career, the structure of *Australia's* narrative and the technical production of its images.

The son of impoverished Polish aristocrats in Gleiwitz, Upper Silesia (now Gliwice, Poland), Blandowski lived in Australia for ten years between September 1849 and March 1859. Shortly after arriving, he embarked on several expeditions around Adelaide and along the Murray River. He also surveyed pastoral runs in South Australia, tried his luck at gold prospecting, became a council member of the Philosophical Society (later the Royal Society) of Victoria, and was for a short time curator of the colony's Museum of Natural History. He later fell out with influential members of the Philosophical Institute and was criticised for refusing to surrender materials from his Murray River expedition to the government. *Australia*, published at his own expense following his return to Gleiwitz, represented the end of his once-promising Australian career.

Modelled on the publications of British and French explorers, Blandowski's *Australia* used visual images and commentary to convey 'a comprehensive account of Australian natural history and the life of its Aboriginal inhabitants' (p. 9), proceeding from birth through to adulthood, in sickness, and at death and burial. Blandowski sympathized with the Indigenous groups he encountered and was anxious to correct popular misconceptions. He argued, for example, that the 'exertion' involved in catching wombats in their burrows showed that '[t]he accusation that the Aborigines have a

lack of energy and endurance is a very unfair one' (p. 82), and wrote admiringly of Indigenous hunting techniques, including spear- and net-fishing, emu-stalking and duck-trapping. His depictions of Indigenous life alternately emphasise its strangeness and its familiarity. He described 'Aboriginal dances' as having an 'ambiance of mystery', and admitted that some parts of the men's initiation ceremony to which he had devoted fourteen illustrated plates were 'not entirely understandable', while others, in consequence of Indigenous silence on spiritual and ritual matters, remained 'unknown' to European observers (pp. 109, 113, 119). Conversely, his montages of daily life show familiar scenes: friends embracing, boys playing football, young men participating in wrestling competitions (pp. 48, 60, 116–118). These illustrations of 'quiet domesticity', Allen suggests, 'provide insight into the ordinariness of Aboriginal life', connecting us as viewers with the Indigenous peoples depicted and confronting us with their 'undeniable humanity' (pp. 9, 11). In an explanatory postscript, Blandowski stressed the 'qualities of head and heart' of the Indigenous people he had come to know, praising their courage and 'natural decency' and describing them as 'faithful and warm-hearted friends' (p. 163). Although he believed that their decline and (supposed) disappearance represented 'the outcome of processes beyond human control', he openly deplored the violence of attempts by colonial settlers to exterminate them.

While Blandowski's illustrations form the core of this book, several supplementary essays help further our understanding of their significance. Mark Dugay-Grist, archaeologist and former Curator of South-eastern Australia at Museum Victoria, eloquently emphasizes the importance of Blandowski's work for Nyeri Nyeri descendants. Unlike many of his contemporaries, Blandowski recorded the Nyeri Nyeri names for the animals, fish and insects he collected; he also acknowledged Indigenous peoples' contributions to his knowledge-gathering endeavours and recorded his thanks for their assistance. The Blandowski expedition, Dugay-Grist adds, took place at 'an all-important time in the greater scheme of things', when the Nyeri Nyeri were 'fully developed as a hunter-gather [sic] society ... at the height of [their] culture' (p. 2). Artist Brook Andrews' meditation

on the contemporary uses of nineteenth-century photographs, despite its sometimes turgid prose, and Luise Hercus's informative overview of the Indigenous people and languages of the Murray in the 1850s offer further insights. As Dugay-Grist suggests, this thoughtfully-presented reinterpretation of Blandowski's classic images is a true 'gift from the past' and one to be grasped with both hands.

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Carolyn Rasmussen with Alister Danks:

Double Helix, Double Joy: David Danks: The Father of Clinical Genetics in Australia.
The Miegunyah Press: Carlton, 2010.
344 pp., ISBN-13: 978-0-522-85799-3
(HB), \$49.99.

At the end of *Double Helix, Double Joy* its authors have included a very useful appendix, a tabulated time-line that juxtaposes a column recording the key events in the life of David Danks with a second column offering a snapshot of other relevant happenings in and around those years. This table vividly brings home the point that Danks began his clinical training in 1952, just one year before Watson, Crick, Franklin and Wilkins published their papers on the discovery of the double helix of the title of this biography. One year after the papers were published Danks graduated from the University of Melbourne with his MB, BS. Looking back at these dates, one marvels at the rapidity with which the young medical graduate not only absorbed the content and implications of this new discovery, but also even more remarkably, applied it with such facility to usher in the era of clinical genetics in his own country a little over a decade later.

The 250 or so pages preceding this table give an account of Danks' life both in and out of medicine and science, beginning with a brief account of his roots and ending with a postscript (following the brief notice of his death in 2003) about the fate of the Murdoch Childrens Research Institute, which was the home for Danks' most lasting legacy to his chosen field of medical genetics. As biographies go, it is not a particularly innovative narrative, neither breaking new ground in the art of biography or historiography, which many of the scientific

biographies that have been appearing over the past two decades have been wont to do. But then again, it does not purport to do any of these things. The primary motivation for writing this book, according to one of its authors Alister Danks, the youngest son of the subject, was 'to pull together a record of [David Danks'] achievement and to understand [...] the challenges that he had faced and how he had achieved success'.

In this endeavour Danks succeeded admirably. He began the project shortly before his father's demise (who died after battling Parkinson's Disease for some years) by conducting a series of interviews with various colleagues and in 2007 began to collaborate with Carolyn Rasmussen, the Melbourne-based public historian and biographer. Although Rasmussen never had the opportunity to meet David Danks herself, she appears to have captured the essence of his philosophy and work ethic—to find the 'fun' in his work—and communicates this to readers.

The title of the book comes from the title one of Danks' own public lectures in 1985, in which he predicted the immense benefits to be reaped from an understanding of the double helix. Nowhere better is his belief vindicated than in the solid legacy that David Danks left in the guise of the Murdoch Institute and the Clinical Genetics Services. David Danks obviously had an enormous and far-reaching impact as evidenced by the wealth of positive comments quoted in this biography from friends and colleagues overseas and at home. After reading his biography I am left with the feeling that I would have liked to meet the man, share travel stories over a cup of coffee or a drive somewhere perhaps, and most of all, been privy to his enthusiasm for his work and his conviction in its value.

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Libby Robin, Chris Dickman and Mandy

Martin (eds): *Desert Channels: The Impulse to Conserve.* CSIRO Publishing: Collingwood, 2010. xx + 352 pp., ISBN: 9780643097490, \$59.95.

The French have a useful (and not disapproving) phrase, *haute vulgarisation*. By this they describe the kind of book that synthesizes the findings of many specialist scholars into an

overview acceptable to academics and accessible to intelligent members of the general public. In history, eminent practitioners of the genre include Simon Schama and Geoffrey Blainey. Multi-disciplinary studies by their nature present a challenge for this sort of enterprise. An obvious response is to compile an anthology of essays from authorities in each of the fields concerned, but this requires skilled editing and a clear understanding of the dominant themes under consideration. *Desert Channels* is a model example.

Its chapters are set in the Channel Country of south-western Queensland, once the scene of a receding sea on whose shores giant reptiles trod the earth, but in recent millennia the locality of river systems draining into the sink of Lake Eyre. Often dry, sometimes in flood, these watercourses—the Mulligan, the Georgina, the Diamantina, Cooper's Creek—do not behave like conventional rivers but spread themselves thinly over a land of poor and uneven rainfall, giving sustenance to a remarkable variety of animal and vegetable life. These creatures have survived through many adaptations to living in an environment of 'boom and bust'. The humans who have chosen to live in this region have showed the same adaptability. It is well known that the Iningai people thrive in the country where Burke and Wills perished through lack of understanding about the proper preparation of nardoo; perhaps less well known that the Mulligan River Aborigines drove a brisk trade through their command of *Duboisia hopwoodii*, the shrub from which the narcotic pituri originates. Later comers also adapted resourcefully, and if the first pastoralists showed ignorance of good conservation practices, especially in the use of apparently inexhaustible supplies of artesian water, their successors have learned better.

A great virtue of *Desert Channels* lies in the fact that its authors include not merely the scientists, naturalists and historians who would be expected to contribute to such an anthology, but also representatives of both the ancient and recent indigenous inhabitants of the Channel Country. Their contributions are unified by a shared passion for the conservation of their vulnerable environment and a ceaseless curiosity to learn about its ecology. Their research requires patience and a readiness to accept surprises. A decade of observation led to the publication of

a paper arguing that a Simpson Desert marsupial, the dasyurid, Wongai Ningai, bred only once in its short life; the year after the paper appeared, the ningais bred twice. Fossilised tracks at Lark Quarry from ~95 million years ago suggested that a herd of smaller dinosaurs stampeded on encountering a large carnivorous theropod; but, as I was drafting this review, news has arrived that the aggressor was herbivorous. The process of continuing discovery, if at times disconcerting, must be enlivening.

Along the way, the authors share with their readers many insights into survival techniques in the Channel Country. Many creatures from the echidna to the tiniest frog endure hard seasons by deep burrowing. Others like the dunnarts are more opportunistic, commandeering other creatures' burrows. Desert crabs seal their holes and slow their metabolisms, even their production of urine, remaining in a state of suspended animation for several years if necessary, until the good times come again. For urban readers (like most of us) these essays are informative and fascinating.

Even the finest survival techniques are not always proof against introduced predators such as the fox, cat, goat and camel. The casualty list includes the desert rat-kangaroo, a tiny creature swift enough to tyre three horses when the naturalist Finlayson observed it in the 1930s, but not swift enough to avoid extinction. Poorly thought out developmental projects offer a further threat, such as the proposal to impound waters for cotton growing. Among the strongest opponents of this scheme are the settler families who have come to understand the country through three or four generations. They join the naturalists and scientists in urging the necessity of systematic conservation. State and federal governments have responded sympathetically from time to time, but not always systematically.

The sixteen essays and several sidebars in this collection are written readably and accessibly. They are reinforced by a generous selection of well-chosen photographs, some with the immediacy of good family album snaps, others chosen to focus attention on some telling detail of the natural or built environment that might otherwise escape the casual observer. These are augmented by the patiently created landscape paintings of Mandy Martin. In a book whose standards of production are generally attractive, the maps are the only disappointment; they are not always

easy to read and sometimes seem to miss places such as the Vergemont Channels, which a reader unfamiliar with the country would like to locate. Otherwise this is a splendid book that deserves to be read by specialists and general readers alike.

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Penny Olsen: *Upside Down World: Early European Impressions of Australia's Curious Animals*. National Library of Australia: Canberra, 2010. 258 pp., illus., ISBN: 9780642277060 (PB), \$39.95.

There is more to Penny Olsen's *Upside Down World* than first meets the eye. From a cursory glance the book appears to be a collection of thirty-nine short pieces, each of them dealing with the introduction of Australian animals into nineteenth-century English scientific circles. These pieces are interesting in themselves, and sometimes amusing, but there is a subtlety about the presentation that builds into a whole that is both more interesting and greater than the sum of its parts. On a closer reading, Olsen's book is a social history of a significant period of natural history study, as well as a demonstration of how the wheels of natural science enquiry turned in the early nineteenth century.

England loomed large in the scientific affairs of its distant colony, and continued to do so for at least a century after European settlement. But the excitement that revolved around the new and peculiar Australian animals was not confined to scientific circles. As Olsen points out in her Introduction, there was popular enthusiasm for the new fauna, helping to spark what became a widespread interest in natural history and lead to the formation of popular societies to study nature.

The volume is structured in a straightforward fashion: each of the thirty-nine chapters that follow the Introduction focuses on a particular species. The chapters are grouped under three headings: 'Mammals' (nos 1–16); 'Birds' (17–31); and 'Reptiles, Amphibians and Fish' (32–39). Details are provided of the European 'discovery' of the animal, the process whereby its scientific name was arrived at, and the first publication of its image. Each of these pieces is profusely illustrated with colour reproductions of the earliest images of the animal. In several

cases (one could say too many) Olsen also notes that the particular species is now extinct. The substantive part of the book concludes with a section titled 'Who's who: the main observers'. This part comprises a series of brief biographies, alphabetically ordered by surname, of the major observers of Australian fauna in the earliest years of European settlement.

This is a useful list of impressive individuals. The efforts to document the amazing creatures brought from Australia involved many of the luminaries in natural history of eighteenth and nineteenth centuries. Men such as Joseph Banks (who was the central figure in a network of collectors and observers, mostly working on his behalf), Robert Brown, Ferdinand Bauer, John Gould, Richard Owen and many others made contributions to the scientific understanding of these animals. Keeping specimens alive during a sea voyage to England was often difficult—the first Koala reached UK in 1880, although the animal was described as early as 1798—so English researchers were reliant on local informants and collectors. Much depended on accurate drawings, paintings and description by men like John Latham, John Hunter and John White, as well as a group of artists known as the Port Jackson Painter.

With reputations to be made or maintained, English scientists would rush into print with every new discovery. Given this, and the number and the strangeness of Australian animals suddenly coming under scientific gaze, it is unsurprising to find that there were many misconceptions published about the fauna. Several Australian marsupials, the Thylacine and the Tasmanian Devil for example, were initially thought to be varieties of possums, and ascribed to the genus *Didelphis*, the American opossums—previously the only known examples of marsupials.

For anyone interested in natural history this is a book to cherish, for both the information and illustrations. The author and publisher are to be commended for bringing to a wide audience the wonderful stories that make Australian natural history such an enthralling and endlessly interesting study.

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Rebecca Jones: *Green Harvest: A History of Organic Farming and Gardening in Australia*. CSIRO Publishing: Collingwood, 2010. 208 pp., ISBN: 9780643098374 (PB), \$49.95.

CSIRO Publishing has done a fine job in recent years of bringing the history of Australian science—in all its many facets—to public attention. In my own field I think of Helen Hewson's *300 Years of Botanical Illustration* (1999) and Rob Freestone's *Urban Nation* (2010) as fine contributions to scholarship. And now *Green Harvest* by Rebecca Jones joins that worthy group.

Jones covers her ground in four chapters efficiently organized around the themes of soil improvement, chemical-free horticulture, ecological well being, and the 'Back to the Land' movement, each concluded with a substantial case study profiling a key contributor. A fifth chapter summarizes the last decade, while copious notes and a bibliography round out the book. Her approach is to tell the story of Australian organic farming and gardening from the perspective of the organic growers themselves. Herein lies one of the key strengths of the book, and also—to my mind—a possible weakness.

The author's research is wide-ranging, and the synthesis of a great mass of disparate research material (written and orally based) is wholly admirable. And yet I was left wanting additional historical context, especially of organic gardening's 'pre-history'. Although not disclosed by the book's title, the story of *Green Harvest* starts in the 1940s—when the word 'organic' was first consciously used by growers—but throughout the nineteenth and early twentieth centuries, organic horticultural practices were routinely discussed in Australian garden writing (especially in the weekly press and in technical documents put out by newly established government agricultural departments). This is rightly the subject for another time and another book, but the idea of a fully formed movement commencing during and immediately after World War Two—although an appealing thesis—seems to mask earlier interest in the subject.

The fourth chapter 'Back to the land' is the most vividly written, perhaps because the author identifies herself (in the book's introduction) with this phase of organic gardening. Elsewhere

I occasionally yearned for a more engaging tone—this book is based on the author's doctoral thesis and its origins are sometimes betrayed by the mechanistic, block-building approach sanctioned by the academy. A more finely nuanced incorporation of the case studies would surely have helped here: perhaps twenty-four vignettes, each one-sixth the length of the four existing essays, seamlessly incorporated might have resulted in a more satisfying literary fusion of organic gardening theory and practice.

At the book's widest level, environmental history forms the lens through which Rebecca Jones has examined her subject, embracing changing ideas about health and environment. Such ideas are not merely confined to pragmatic practical aspects of horticulture: *Green Harvest* tackles far less tangible aspects of rebellion, refuge, self-sufficiency, closeness to nature, and the continuity of the yeoman idyll (which inspired the ideology behind much of Australia's rural settlement). The book is at its strongest when canvassing such ideas and linking them to the core subject of organic farming and garden.

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Andrea Bandhauer and Maria Veber
(eds): *Migration and Cultural Contact: Germany and Australia*. Sydney University Press: Sydney, NSW, 2009. x + 254 pp., ISBN: 9781920898632 (PB), \$35.

If you thought that Dada, Sigmund Freud and Indigenous Australian culture had nothing in common, think again. *Migration and Cultural Contact*, the result of a symposium held in 2006 in the Department of Germanic Studies at the University of Sydney, tracks these and other historical, and contemporary, connections between Germany and Australia in an exceptionally diverse collection of essays. While some of these, notably John F. Williams' discussion of German Anzacs, offer new perspectives on relatively familiar topics, the majority of this volume's contributors bring to light little-known and often unexpected cultural, intellectual and aesthetic exchanges between the two countries.

The editors have imposed an effective structure on the disparate topics covered by grouping

related essays into four sections. The first two of these centre on the German-Lutheran missionary Carl Friedrich Strehlow (1871–1922), who in 1894 took charge of the Hermannsburg Mission near Alice Springs and learned the languages of the local Luritja and Arrernte peoples. Section I, ‘Cultural Disseminations of Missionary Ethnography’, focuses on the impact of Strehlow’s seven-volume *Die Aranda- und Loritja-Stämme in Zentral-Australien* (The Aranda and Loritja tribes in Central Australia, 1907–20) in Germany, specifically in relation to European understandings of so-called ‘primitive’ cultures. Thus Ortrud Gutjahr, in a particularly interesting account, traces the incorporation of information gathered by Strehlow into early twentieth-century discourses of ethnopsychology, notably Sigmund Freud’s *Totem und Tabu* (1913). Walter F. Veit shifts this focus from science to literature, examining the Dada poet Tristan Tzara’s *Poèmes Nègres*, French translations of Indigenous songs from Africa, Oceania and Australia, including four totemic songs collected and translated from the Arrernte and Luritja languages by Strehlow. The essays in Section II, ‘Living the Mission: Religious Disseminations’, turn to Strehlow’s life and work at the Hermannsburg Mission, exploring the origins of its European patriarchal structures and the ways in which these played out in the unfamiliar surroundings of Central Australia. Bandhauer and Veber’s study of the letters of courtship exchanged by Strehlow and his fiancée, Frieda Keysser, illuminates the explicitly gendered hierarchy underpinning the German Lutheran missionary project, while Anna Kenny’s essay focuses on the ways in which key aspects of Strehlow’s theology were expressed and transformed through the mutual engagement between Strehlow and his Indigenous flock.

Section III, ‘Narratives of National and Cultural Identity’, covers a somewhat eclectic range of topics. Gerhard Fischer lists research desiderata relating to Germans in Australia, Kathrine M. Reynolds analyses factors influencing emigrations from nineteenth-century Nassau to Australia, and Frederika van der Lubbe surveys the historiography of Cook’s voyages from the German perspective. The final section, ‘Imaginations of Australia in German Literature’, contrasts two very different fictional works: Judith Wilson examines Therese Huber’s *Abentheuer auf einer Reise nach Neu-Holland* (Adventure on a journey to New Holland,

1793–94) and its depiction of a South Sea arcadia, while Birte Giesler discusses Urs Widmer’s *Liebesbrief für Mary* (Love letter for Mary, 1993), a ‘highly ironic piece of intercultural literature’ which toys with language problems and colonial stereotypes in order to mock simplistic German images of Australia as ‘untouched’ and ‘close to nature’ (pp. 243, 252).

My principal criticism of this volume is stylistic rather than content-related. References alternate uneasily between in-text citations and footnotes; the latter are generally reserved for lengthier (e.g. archival) references and/or commentary, but the overall effect is awkward, particularly when both translated and original texts are included. Several paragraphs of Veit’s essay, for example, are simply crawling with brackets and parentheses. While this meticulousness attests to the authors’ scholarly approach, it noticeably hampers ease of reading; in my opinion, a purely footnote- or endnote-based referencing system would have been preferable. With regard to content, however, the essays are both scholarly and accessible. They admirably fulfil the editors’ stated purpose of offering ‘a series of insights into ongoing interdisciplinary research . . . in areas such as German literary and cultural studies, history and ethnology’ (p. 1). The volume as a whole will be of interest to students of Australian and German cultural, scientific and literary history. The first two sections, which provide exciting new perspectives on the intimate and extensive interactions between Indigenous and European cultural worlds, represent a particularly welcome contribution to the history of anthropology and the study of European-Indigenous encounters.

Hilary Howes

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C. Fisher and J. Calaby: *The Top of the Top End: John Gilbert’s Manuscript Notes for John Gould on Vertebrates from Port Essington and Cobourg Peninsula (Northern Territory, Australia): with Comments on Specimens Collected during the Settlement Period 1838 to 1849, and Subsequently, The Beagle, Records of the Museums and Art Galleries of the Northern Territory*, Supplement 4, 2010. 240 pp., ISSN: 1833-7511, \$66.

When this large, 240-page tome slid from its postal envelope onto my already cluttered desk, I shuddered. My initial thought was, 'yet another long read that will occupy me for some time and add little to my knowledge of Northern Territory wildlife'. Still, as I commenced a quick flick through the pages, I could see that what I knew was a mere drop in the bucket; here was a plethora, a mine of new information. It was something that I could really get my teeth into and learn from.

The authors are Clem Fisher, a dedicated museum worker with years of experience in England, and the late John Calaby, a man with wide field and museum experience and a wealth of knowledge on Australia's mammal fauna. I vividly recall sitting at John's kitchen-table years ago while both authors waxed lyrically on various aspects of the work.

The basic purpose of this monograph is explained in its title, the reproduction and annotation of notes on northern Australian vertebrates made by John Gilbert, a taxidermist for the Zoological Society of London, who travelled to Australia with John Gould in 1838. Although Gould made extensive use of Gilbert's notes in the text for his famous works on the birds and mammals of Australia, they have not been appreciated in their entirety before, perhaps, in part, because Gilbert met an untimely death in 1845 after being speared by an Aborigine.

The result of years of dedication, it is much more than a facsimile edition. The authors' contributions include a wealth of information regarding another of Australia's best-known secrets—'The Top End'. How many times has that phrase reverberated through conversations inspiring scientist and traveller alike? How little apart from the semi-regular documentaries do we know of this harsh, tropical, environment and its fantastic European history?

One thing that stood out during my reading of *The Top of the Top End* is the great care the authors took with the 'proper documentation of Australia's fascinating fauna' (Preface). Each section of the work delivers a closely knit account of each included species. Subject matter varies widely from history, people, and four vertebrate groups (Ichthyology, Herpetology, Mammalogy, and Ornithology) all documented with accounts of early and modern specimen details and illustrated with renditions from early artists and modern photography. To complement many

accounts are images of other early and recent field data and diaries. How could you possibly not become enthused by the quantity and quality of the data!

Several tables provide data summaries complete with interesting facts while more detail and images on specimens is provided within the species accounts. It is here we see some of the dedication of the authors—locating and documenting details on specimens from institutions scattered across the face of the globe. Specimens and documents have been dispersed to many museums from Europe to Australia and North America and elsewhere.

This monograph will fascinate the uninitiated while providing positive inspiration and knowledge to the better informed. A great read and one that I will regularly consult.

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Museum Victoria

Peter Emmett and Tony Kanellos (eds):

The Museum of Economic Botany at the Adelaide Botanic Gardens: A Souvenir.

Board of the Botanic Gardens and State Herbarium of South Australia, Adelaide, 2010. 186 pp., ISBN: 978-0-9775608-9-9, \$40.

The term 'economic botany' is perhaps not well understood these days, being redolent of old-fashioned notions of what botany is about. A museum of economic botany conjures visions of fusty objects of vegetable origin, tedious in their proliferation in old-fashioned glass cases, and accompanied by hand-written labels stating the name and country of origin of each object, but little else.

In fact, economic botany touches on the economic, environmental, social, and cultural fabric of all human societies. It encompasses the utilization of plant materials for tools, food, medicine, building materials, and as cultural and ritual objects. Museums of economic botany were a notable feature of many nineteenth-century botanic gardens, including those in Australia. According to Sir William Hooker who, as Director of the Royal Botanic Gardens, Kew, instituted that Garden's Museum of Economic Botany in 1857, the collections in such a museum were designed to show all sorts of useful and curious products furnished by the vegetable kingdom for the use and convenience of man. These museum collections contained material

that could not be exhibited in the living collections or in the herbarium, and hence formed the essential third part of a botanic garden.

In Adelaide, Richard Schomburgk, like his counterparts in Melbourne, Kew and many other places, was convinced that the key role of botanic gardens was to undertake programs to promote the local economy, and a museum of economic botany was critical in this endeavour. He readily adopted the model provided by Kew for museums of this kind.

In celebration of the restoration and reopening of the Adelaide Botanic Gardens' Museum of Economic botany comes this 'souvenir'. This is possibly one of the few remaining such museums. How better to mark the restoration and rejuvenation of a gracious nineteenth-century building and its invaluable contents than with a work of this quality?

The book is in five sections, the first of which addresses the history of the Museum. Prominence is given to people who were integral to the establishment and operation of the Museum, especially Schomburgk, during whose directorship the Museum was opened in May 1881. Also discussed are the design and building of the Museum, with descriptions of the original layout and the contents of each display case. Sources of objects in the Museum included government agencies, nurseries and commercial enterprises, and individuals, from all over the world.

Next come sections that address issues in the use of plant materials and the process of restoration. These include discussions of economic botany in relation to Australian Aboriginal ethnobotany and the applications (and implications) of modern scientific techniques such as genetic modification. In the description of how the restoration was accomplished, it is clear that the object was not just a faithful restoration of the Museum in its heyday, but to ensure that it operated as an up-to-date exhibition space, with room for temporary exhibitions and the implementation of high quality museum practices such as appropriate lighting.

Photographs of the new display cases follow, each devoted to a particular class of product, with a brief statement of the significance of the exhibits. Showcased are things such as papers and books, drugs and medicine, and also, as indicative of the nineteenth-century origin of the

Museum, models of fruit and fungi, and busts of notable scientists.

In the last section, several people were invited to examine an object from the Museum and write about their response to it. Things as diverse as dibbles, dragon's blood and dogon cloth are illuminated for the reader according to the varied specialties and experience of the writers.

This book is not just a dry catalogue of the exhibits in the Museum. Instead the Museum is presented as a vibrant part of a forward-looking Botanic Garden, and the on-going relevance of the Museum collections is underlined. The sense of achievement on the part of the participants in restoring the Museum to its former position and making it relevant to our times is apparent from the enthusiasm of their writing. There is a generous quantity of photographs of objects in the Museum, the luminaries involved in its history, and people in all parts of the world preparing and using plant materials. The wide range of people writing articles in the book, thirty-three in all, offers similarly diverse perspectives on the value of the Museum and its collections, as well as highlighting what might be called the personality of the individual objects that are allowed to 'speak' in the last section. Not only is the book an invaluable record of the Museum and its restoration, but it is also an inducement to visit the Museum and an invitation to consider more seriously how economic botany has relevance for mankind into the future.

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Kevin Markwell and Nancy Cushing:

Snake-bitten: Eric Worrell and the Australian Reptile Park. UNSW Press: Sydney, 2010. 240 pp., illus., ISBN: 9781742232324 (PB), \$39.95.

The intersections between travel and natural history are well documented; indeed, they comprise a major strand in the historiography of colonial science. This genre is dominated by the movement of collectors and their specimens: by the expeditions, encounters, transfers and appropriations that paradoxically devitalised 'nature' well into the twentieth century. What happened, however, when the process was everted—when the specimens and the collectors themselves became the objects of travel? In short, how do we account

for the growth of relocated 'nature' as a tourist phenomenon?

The authors of *Snake-bitten* are well qualified to address this question: Kevin Markwell is a scholar of tourism with a background in biogeography, whilst Nancy Cushing is a cultural and environmental historian. Together, they have published an eminently readable account of the inception and evolution of the Australian Reptile Park, a seminal post-war attraction situated in the locale of Gosford, mid-way between Sydney and Newcastle.

Markwell and Cushing's narrative is propelled by the biography and legacy of the park's creator, amateur naturalist-cum-entrepreneur, Eric Worrell. Self-taught and a prolific author, Worrell remained a boundary rider on the outskirts of twentieth-century Australian biological science. His work both informed and drew upon the rapidly sub-dividing disciplines of vertebrate zoology (particularly herpetology), clinical and experimental toxinology, and ecology and conservation. One of the strengths of *Snake-bitten* is the way in which Worrell and his park are located not as the amateur periphery of these increasingly professionalised sciences, but rather as an interchange central to public engagement with local biology and ecology. Indeed, a telling incident early in the book relates how Worrell was invited onto the grounds of Sydney University to locate a juvenile crocodile 'misplaced' by the Zoology Department.

Yet *Snake-bitten* provides more than a contextualised biography. It reconstructs the travails attending the genesis and regeneration of the Australian Reptile Park as an institution: a workplace, a training ground, a production facility, a tourist destination, a commercial enterprise and an artificial habitat for its many non-human denizens (including Ploddy, the 26.5 m-long concrete dinosaur). The text seamlessly integrates Worrell's publications with popular media accounts, archival documents and numerous interviews with scientists, entertainers, local government figures and—not in the least—current and former employees of the park. The book's cover image adroitly encapsulates this complexity: milking snakes for their venom comprised not only an entertaining 'show' for tourists, but served simultaneously as a platform for Worrell's conservation and first-aid messages. Furthermore, the extracted

venom was then sold for antivenom production, fuelling research and clinical management of snakebite whilst returning a commercial income for the park. Moreover, it provided Worrell with everyday opportunities to interact with and better understand his beloved ophidians, whilst asserting his dominant role within the menagerie.

Inclusive as this account is, however, its focus comes at a contextual cost. The early chapters sketch out some of the interwar antecedents for Worrell's ambitions, including the Adelaide Snake Park and the fading tradition of snake shows that lured out Sydney's amateur herpetologists. Thereafter, Worrell's Ocean Beach Aquarium (1950–60) and its successor—the Australian Reptile Park—are positioned as prototypes for a new mode of public engagement with captive native fauna. Insufficient consideration is given, however, to comparable local venues that had displayed indigenous animals for popular edification since the 1870s. By 1950, these included not only the long-established zoological gardens in major capital cities, but also regional attractions that predated Worrell's initiatives, including Le Souef's Aquarium and Museum in Rosebud and the Sir Colin McKenzie Sanctuary in Healesville. Moreover, there is little reference to the exponential growth of other zoos, parks, reserves, aquariums and 'worlds' that competed with the Australian Reptile Park following the transformation of Australian tourism in the 1970s.

Eric Worrell died in 1987, and the authors may have been wise to close their account at that point. In detailing the park's rejuvenation beyond this nadir, the final chapters display less critical distance from their source material than hitherto, and the text takes on a disquietingly teleological tone. It would perhaps have been preferable to devote the final chapters to analysing the shifting cultural impact of Worrell and his wildlife attractions from 1950 to 1990, before completing the narrative arc in a short afterword.

Snake-bitten is a well-crafted work targeted to a general readership. The authors' prose balances description, explanation and anecdote with an openness to their protagonist's whimsical side. Moreover, it serves a valuable purpose in illustrating the blurred boundaries between 'popular', 'amateur' and 'professional' biology that accompanied new ecological understandings of

native fauna in mid-to-late twentieth century Australia.

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Richard Aitken: *The Garden of Ideas: Four Centuries of Australian Style*. Miegunyah Press: Melbourne, 2010. 243 pp., ISBN: 9780522857504 (HB), \$64.99.

The Garden of Ideas is the culmination of a series of productive explorations of Australian gardening that began with *The Oxford Companion to Australian Gardens*, edited by Richard Aitken and Michael Looker (2002). This was followed by Aitken's *Gardenesque: A Celebration of Australian Gardening* (2004), *Botanical Riches: Stories of Botanical Exploration* (2006), and *The Garden of Ideas* (2010). The three most recent titles, published by Miegunyah Press, are visually exciting from the temptingly tactile covers to the last page.

The sub-title—*Four Centuries of Australian Style*—places the content within the broad context of international social and cultural history, ranging from the opinions of the Third Earl of Shaftsbury in the early eighteenth century to Charles Jencks' 'Garden of Cosmic Speculation' (1989–2007) in Scotland, from the Greek geographer Ptolemy's ideas of a southern continent to Bernard Tschumi's award winning design for a Parisian park (1982–84).

Aitken's chapters are broadly chronological, with some inevitable overlap. He begins with ideas about 'the Australian garden' from the 1600s, when the 'great south continent' was variously imagined as 'waste, wilderness, or paradise'. Early explorers often perceived the Australian landscape as a 'natural park', but this ideal was difficult to sustain due to low and irregular rainfall, nutrient-deficient soils and the lack of skilled labour. The 1820s to 1840s saw experiments in colonial landscape and ornamental gardening as new villa residences linked 'money and ambition, ground and potential, power and privilege'. Town planning included the establishment of parks and gardens for recreation, leisure and botanical purposes.

Earnest debate over the best style of layout for these new spaces—whether formal or

informal—ensured that such urban green spaces and their settings were truly gardens of ideas (p. 61).

Australian flora interested botanical collectors, but gardeners usually preferred familiar introduced plants, and the widespread planting of ornamental native plants was not common until the second half of the twentieth century. The 1860s to 1880s saw an emphasis on scenic effect using floral bedding, conifers and foliage plants. Cities and gardens of the 1880s to 1920s were influenced by the professionalization of garden design, increased urbanisation and a growing sense of Australian identity. The 'modernism, functionalism and naturalism' of the 1920s to 1960s presented the private garden as an extension of the house, and the public garden as the product of modern town planning. Now, in the early twenty-first century, there is an enormous range of garden styles, from naturalism to the use of bold styles and textures. However, looming climate change emphasizes sustainability—the use of simple materials, and planting for low maintenance with plants from comparable climates.

The Garden of Ideas contains Aitken's 'personal selection of key moments and stylistic movements in Australian garden making'. The evocative images—drawings, paintings, plans, prints and photographs—are large, clear, and, generally, published here for the first time. Extensive captions ensure that this book will be enjoyed at random, as a coffee-table volume, while its erudite yet engaging text also makes it a valuable resource for the garden lover or historian of science.

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Rob Youl, Brian Fry and Ron Hateley
(eds): *Circumspice: One Hundred Years of Forestry Education Centred on Creswick, Victoria*. Forestry Education Centenary Committee: South Melbourne, 2010. xvi + 278 pp., ISBN: 9780977524068 (PB), \$40 (+\$15 postage from Department of Forest and Ecosystem Science, Melbourne School of Land and Environment, The University of Melbourne, Water Street, Creswick, Vic. 3363, Australia).

The century of Australian forestry education that began in the Victorian School of Forestry (VSF) at Creswick in October 2010 was well worth celebrating. As for many centenaries, a committee was formed and a publication prepared to mark the event. The genre of centenary publications is rich with names, anecdotes, reminiscences, old photographs and often with finely researched essays; this book no less so. The three editors—who also wrote several chapters—took a happy geological metaphor when they began ‘conglomerating’ the contributions of twenty-one authors represented in the four forewords, twenty-five short chapters and an appendix. Short memoirs of a further sixty-six contributors, varying in length from a single sentence to a few pages, are carried in the penultimate chapter. This conglomerate of large and small is held together by its narrative of change from modest beginning to international standard. It is also imbued with a sense of uncertainty about the future of forestry.

The Victorian School of Forestry began as a government training school that took young men of 14 or 15 years old with a Leaving Certificate for three years of mixed practical and classroom teaching to equip them as field staff for the Forestry Department, later Commission. Its relationship with the University of Melbourne was critical to its success and eventual incorporation into the University, as described in chapters by Linden Gillbank and Ian Ferguson. A. J. Ewart, the foundation Professor of Botany, Director of the Botanical Garden and Chairman of the Board of Examiners, insisted on high standards of scientific training from the beginning. It was achieved enabling the University to accept a handful of VSF diplomates directly into the second year of a BSc course from 1929. No doubt it was Ewart’s influence that stimulated the School’s extensive herbarium, described in a chapter by Tina Bell, Penny Blackwell and Amanda Ashton. In 1949, the University started a two-year BSc course in forestry for VSF diplomates, and in 1981 it took over the course at Creswick to provide a four-year BSc Forestry degree that it taught across the Creswick and Parkville campuses. Research and postgraduate education expanded on both campuses in the same period. Falling student numbers and a restructuring of the University’s model of education ended its undergraduate forestry courses. Now forestry in Victoria can only be taken as

a post-graduate course after a general science degree, and the Creswick campus is used as a centre for ecosystem science research and industry technical courses.

Centenary publications risk a ‘Good Old Times’ tone, but there is little of that here; indeed, the changes of the 1970s ‘chipped away at granite traditions’ that were austere and bureaucratically petty, as Ray Spencer and Rob Youl describe. Nevertheless forestry education at Creswick created a strong *esprit de corps* among Victoria’s state foresters that served them well until it dissipated in the reorganisations of government agencies from the late 1980s. The subsequent decline in forestry education is apparent from the excellent appendix prepared by Thomas Baker and Fiona Hamilton that records the VSF and Melbourne University graduates in forestry, 1912–2009. The book’s last chapter by Gerd Bossinger and Rod Keenan puts a brave face on the future prospects for ecosystem science in Australia and overseas.

The institutional changes and developments are the large components of this book. Their general history has been recorded in other publications to which the chapters by Gillbank and Ferguson provide welcome additions. The other major institution was the Australian Forestry School, founded by the Commonwealth Government in 1926 and closed in favour of a new Department of Forestry that started in 1965 in the Australian National University. Its history has been recorded, but the history of forestry education in the University of Adelaide from 1911 to 25 still needs to be explored. Forestry is also offered in Southern Cross University and the Universities of Queensland and Tasmania, but they are too recent to provide historical subjects.

Centenary publications have a captive readership for whom names must be mentioned but need no introduction. For a wider readership they and minor matters can be skipped, but in doing so small components can easily be missed and that would be a pity. The VSF’s motto, *Circumspice* provides the book’s unexplained title and can be read as ‘look about you’. It is a good injunction in the forest and an encouragement to historians of science to dip here and there into this ‘conglomerate’ book.

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Stephen Jackson: *Koala: Origins of an Icon*. Allen and Unwin: Crows Nest, 2010. 337 pp., ISBN: 978 1 74237 323 2, \$35.00.

Stephen Jackson and Karl Vernes: *Kangaroo: Portrait of an Extraordinary Animal Icon*. Allen and Unwin: Crows Nest, 2010. 338 pp., ISBN: 978 1 74175 903 7, \$24.99.

The kangaroo is perhaps one of the most enduring symbols of Australia. Australian backpackers in the far corners of the globe forgo our flag (so readily confused with other former British colonies in the Pacific) in favour of an image of the animal universally associated with our country. No matter how far from home, no matter how remote, or how great the language barriers, kangaroos inevitably seem to emerge as the one thing everyone knows about Australia.

Koalas similarly occupy a large part of the foreign imagination about Australia. If not literally an 'icon' in the strictest sense, they certainly feature in the top ten Australian sights to see, and like many of Australia's unique and distinctive animals, they hold a special place in the imagination of many people.

Small wonder then that Allen and Unwin would wish to build a series following on from Ann Moyal's classic tale in *Platypus* (first published ten years ago), by adding *Koala* and *Kangaroo* to a timely reprint of the original book.

For historians of science, these new publications immediately invite comparison with Ann Moyal's elegant and substantive, foundational book, and her own subsequent follow-up book *Koala* published by CSIRO Publishing. The other comparison to be drawn, particularly by more scientifically inclined readers, is with similar series such as the long-running Australian Natural History Series, once published by University of New South Wales Press, but now also continued by CSIRO publishing.

Ann Moyal's books are well known to most historians of Australian biology, presenting a concise analysis within a broad social historical framework of the discovery and understanding of the species being discussed. The Australian Natural History Series will be more familiar to scientists, typically written by biologists as a general summary of the latest knowledge on the species, often with a technical slant.

Both *Kangaroo* and *Koala* are written by biologists with excellent credentials both in

mammalian research, and in popular writing. It is perhaps not surprising then, that these books really hit their stride when discussing the natural history and biology of their respective species. In these chapters, the books present an easy to read and accessible overview of the animal's biology, ecology and behaviour. As expected from a trade publisher, the books are formatted for 'reading' rather than having the more structured format of the Natural History Series aimed at technical, educational and reference audiences. Many traditional trade publishers remain convinced that general audiences find diagrams, sub-headings, tables and indexes off-putting; however, the lack of these features also makes it more difficult for readers to dip into books and seek out the information they are looking for, which may be a negative for the growing educational and non-fiction markets. Fortunately, *Kangaroo* and *Koala* have retained excellent reference lists (for both text and images), good illustrative material in support of the text, some informative appendices and reasonable indices.

While these books are well suited to a broad general readership, they are unlikely to provide a historian of science with the careful and critical analysis of social history they might expect from the association with *Platypus*. On the positive side, however, the books benefit from an added depth of scientific knowledge. Both aspects of this are illustrated in the retelling of the first capture of a koala by a European. Francis Barrallier, a Frenchman appointed as ensign to Governor King, lead expeditions seeking passage through the Blue Mountains in 1802. On one of these expeditions, his Aboriginal guides brought back parts of a 'colo' to eat. Barrallier managed to obtain two feet, in exchange for two spears and a tomahawk, and sent the specimen back to Governor King. Barrallier has also been widely credited with securing Governor King the first live specimen of a koala, which was reported by the Sydney Gazette in August 1803 as having given birth to 'two pups'. Moyal, the historian, notes that Barrallier was unlikely to have been the source of this specimen since he left Australia, out of favour with King, in May. In contrast, Jackson, the biologist, is rather more struck by the report of rare koala twins.

Both koalas and kangaroos are charismatic and interesting enough species to warrant a multitude of books, written from a diversity of perspectives and for a variety of audiences,

even if the publishers seem to suffer from an imagination deficit in coming up with original titles. Nonetheless, these two new books are certainly attractive additions to that growing collection and will no doubt prove popular on the 'Australiana' shelves of bookshops and libraries alike.

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Exhibition review

'Exploration and Endeavour: The Royal Society of London and the South Seas', National Museum of Australia and the Royal Society, supported by the Australian Academy of Science and the Australian Institute of Marine Science, 15 September 2010 to 6 February 2011. Curator: Michelle Hetherington. Design: Freeman Ryan Design.

Stepping into 'Exploration and Endeavour' in the National Museum's new studio gallery space, it is clear from the outset that it is a gem of an exhibition. A celebration of the Royal Society's 350 years, this is no plodding account of the Society's history; curator Michelle Hetherington has created an elegant dance through the Society's engagement in our region. The enticing glint of a delicate orrery and Captain Cook's quadrant in the first cases hook one's curiosity, a backlit William Hodges scene of a Tahitian bay on the rear wall glows in the low lighting, leading you in, and you slip into a slower pace, and into the panel text, as a Handel sonata plays, flowing then to the sound of waves.

The story told here begins with the motivating impetus for scientific endeavour embodied in the Royal Society's motto: 'Take no-one's word for it'. The narrative moves deftly through key investigations: from the Transit of Venus, to the quest to measure longitude, to treatments for scurvy, right through to a link to the present day: with the final alcove of the exhibition holding a coral core sample from the Coral Sea, tracing climate change, a record stretching from the eighteenth century to now.

Hetherington's text is captivating, and she takes care to explain the workings of the instruments as well as the part they play in the unfolding story. Major personalities in the voyages: Joseph Banks, James Cook, Matthew

Flinders are given presence through their letters, images, and text. Including the Society Islanders who travelled with the voyagers: Omai (Mai) and the navigator/high priest Tupaia, we can gain through their experiences some sense of the impacts European expeditions would increasingly have on the indigenous people of the region.

The objects, images and narrative are deftly interwoven, and this carries through in the excellent catalogue. The main corpus of instruments and documents were selected from the Royal Society's collection, but these are supplemented with the National Museum's *Endeavour* canon, William Bayly's magnifier, and plates from *Banks' Floreligium*. Being presented with objects such as the quadrant that Banks had to carefully recover from the Tahitians who had taken a shine to it, and the very substantial, grandfather-clock of a regulator from the *Resolution* voyage, one starts to comprehend more fully the practical challenges of Enlightenment experimentation on far-flung shores.

The opening show for the National Museum of Australia's new 'studio gallery' space, *Exploration and Endeavour* sets a high standard. The space has a neatly contained feel, a bite-sized offering, always a useful outlet for curatorial experimentation. The public program for the exhibition was limited to a single event, an entertaining reading from journals and correspondence between several key figures, performed by Rhys Muldoon, Andrew Sayers and Michelle Hetherington. Held in the studio, it was tightly packed, but again, this provided a suitable intimacy that would have been lost in the large theatre.

This beautifully crafted exhibition and accompanying catalogue and website are fitting tributes to the contribution that the Royal Society made throughout the eighteenth century to a growing understanding of the Southern Seas. And, as the coral core demonstrates, this is a process that continues, through the work of the Australian Institute of Marine Science and the Australian Academy of Science, which was set up in 1954 by the Royal Society's Australian Fellows.

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National Museum of Australia