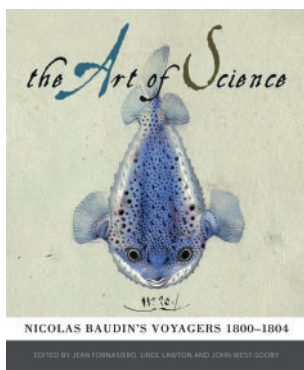


Reviews

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Jean Fornasiero, Lindl Lawton and John West-Sooby:

The Art of Science.
 Wakefield Press: Adelaide, 2016.
 175 pp., illus., ISBN:
 9781743054277 (PB), \$39.95.

The voyage led by Nicolas Baudin and its extraordinary scientific achievements are well known to most historians of Australian biology. One of the most expensive and scientifically well-equipped

expeditions of discovery, Baudin's voyage returned to France with a bounty of Australian ethnographic, cartographic and biological material. Over 200,000 specimens and an unparalleled collection of living plants and animals swelled the basements of what is now the Muséum d'histoire naturelle in Paris, as well as the greenhouses of the Empress Josephine.

Baudin's legacy may have been tarnished for decades by his surviving officers, particularly François Peron, but his work has recently been more objectively examined for its achievements and failures. Generations of Australian researchers, in particular, have led the charge in rediscovering Baudin.

The scientific value of Baudin and Peron's biological collections was greatly diminished by the early death of so many of the officers and scientists, but one collection remained in the possession of the surviving artist, Charles-Alexandre Lesueur, who ultimately left it to the Muséum d'histoire du Havre. The collection's acquisition by a smaller regional museum, rather than being swallowed by larger Parisian archives, has allowed a stronger focus on promoting the material and building strong connections with Australia—particularly indigenous communities.

The Art of Science, edited by Jean Fornasiero, Lindl Lawton and John West-Sooby, accompanies an impressive exhibition showcasing the art and achievements of Baudin's voyage. The opportunity to develop the exhibition came about, in part, through a redevelopment at Le Havre, an opportunity and a challenge seized by the South Australian Maritime Museum in collaboration with four other Australian museums. Circulating between these five museums until late 2018, the exhibition contains more than 350 objects from the Le Havre Museum, as well as previously undisplayed material from the National Archives in Paris, such as logbooks, coastal profiles and hand-drawn maps.

For many academics the written word dominates the communication of knowledge. But for scientists, art has long played a crucial role in accurate and effective communication. Nowhere is that more obvious than on the voyages of discovery where both maritime knowledge (in the form of cartography) and biological knowledge (in descriptions of new species) must be rendered in visual forms. The drawing of knowledge, as much as the writing of it, was paramount, highlighting the value of artists like Lesueur and Petit on voyages of discovery.

The text of the book accompanying the exhibition may not be new to readers familiar with work in this field, and generally provides a breadth of information, rather than depth of analysis. Despite that, there are some interesting discussions on the role and development of the artwork by Gabrielle Baglione and Cédric Crémère, as well as by Sarah Grishin, which are particularly pertinent to the topic.

The main value of this book, however, as with this exhibition, lies in the illustrations. The intimate and personal portraits of Aboriginal men and women, for example, with names, details and circumstances, suggest an unusually sensitive level of engagement with Indigenous Australians. These are portraits of individuals, of acquaintances, rather than just subjects, representatives of race or culture. The images have many facets, shifting as we look at them. In one glance they might appear intensely romantic, or extraordinarily realistic, while simultaneously encoding scientific information about form and shape. The intermingling of science and art in the zoological images is likewise breathtaking—best appreciated with a magnifying glass.

While the book includes an array of images from all of the exhibitions, each venue features different objects and themes. Objects too, bring a resonance that neither text nor images can ever fully convey. The exhibition's premiere in South Australia, for example, focused on the natural history of Kangaroo Island. Baudin's fair copy logbook is on display here for the first time, its sheer size evidence of the vast scale of the captain's paperwork (particularly given his propensity to communicate with his officers by letter). Peron's dynameter, for measuring native strength, a contemporary artists' travelling palette, the copper plate from which was printed the first complete map of Australia, the Berthoud's chronometer that allowed the French ships to calculate longitude accurately: all these objects shift our perceptions and assumptions about the voyage.

The exhibition travels in the first half of 2017 to Tasmania, where displays at the Queen Victoria Museum and Art Gallery in Launceston and the Tasmanian Museum and Art Gallery in Hobart will focus on the important anthropological work completed at Maria

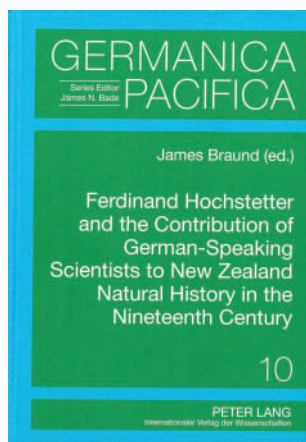
and Bruny Islands, providing an opportunity for those communities to see some of these early representations directly for the first time. The rich natural history collections of these regions will also be explored, contrasting historical data and images with modern biodiversity surveys and specimens.

In the second half of 2017, the exhibition travels to the Australian National Maritime Museum in Sydney, where the focus will fall on Peron's secretive 'espionage' work and the detailed drawings he commissioned, of battlements and strategic structures. Here too, are drawings of local Aboriginal people, their artefacts and lives reconnecting with the places from whence they were originally drawn.

In the larger space of the National Museum of Australia, at Canberra, visitors will have an opportunity to view the widest range of artefacts and objects until mid-2018. The exhibition finishes its tour at the Western Australian Museum in Perth with a focus on the remarkable marine specimens collected, the coastal profiles of the expedition's first landfall in Australia and the famed image of the banded hare-wallaby.

This exhibition and book continue the process of reviving an all but forgotten part of Australia's French legacy. It provides an opportunity for a broad audience to connect with the ongoing research that many historians, translators, scientists and historians of science have completed, particularly over the last 20 years, on the French voyages of discovery. And it reminds us too that science and discovery, not just colonization and settlement, is a part of Australia's European history—and that this scientific vision is breathtakingly beautiful.

Danielle Clode
Flinders University



James Braund (ed.):
Ferdinand Hochstetter and the Contribution of German-Speaking Scientists to New Zealand Natural History in the Nineteenth Century. Peter Lang, Frankfurt am Main, 2012. 314 + x pp. ISBN: 9783631604063 (HB), €56.95.

Just as in nineteenth-century Australia, German-speaking scientists made enormous contributions to New Zealand science in far greater proportion than their numbers would suggest. This

book is a major contribution to documenting their involvement in the form of a collection of sixteen essays arising out of an international symposium held in Auckland in September 2008.

Part 1 consists of six essays on general aspects of German-speakers' contributions to New Zealand science, anthropology and exploration from the eighteenth through to the nineteenth century. Part 2 comprises ten essays on the topic of Ferdinand Hochstetter and the *Novara* expedition of 1857–9.

The scholarly introduction by editor James Braund, which places Hochstetter in context of New Zealand science, is a comprehensive overview and summary of the involvement of German-speakers. Beginning with the Forsters, who travelled on James Cook's second voyage, this valuable introduction to the available literature is enhanced by the extensive footnotes.

In part 1, Horst Dippel examines European knowledge about New Zealand in the late eighteenth century, including the differences in interpretation of the Maori between Johann Forster and his son George after their visits in 1773 and 1774. Peter Clayworth discusses the visit of Baron Carl von Hügel in 1834, including a detailed summary of Hügel's journal of his visit. Ivo Holmquist summarizes information on Swedish natural scientists, who were students of Linnaeus and visited the Pacific with an emphasis on Sven Bergren's visit from 1873–5. The sub-Antarctic Auckland Islands were the location of the German 1874 Transit of Venus expedition. Elliott W. Dawson and Hilmar W. Duerbeck give an account of the expedition, James Bade discusses the work of the expedition photographer, Hermann Krone, while David Bade provides an account of the history of human contact and naming of features on the islands.

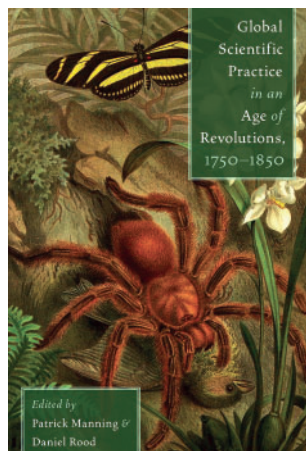
Part 2 of the book opens with an essay by Hermann Mückler outlining Austria's unsuccessful attempts—beginning in the eighteenth century—at establishing overseas colonies in Africa, India and the Nicobar Islands. To the surprise of this reviewer, the voyage of *Novara* was not just a scientific expedition but was intended to play a role in obtaining an overseas colony for Austria. Secret instructions to the commander of the expedition, Wüllersdorf-Urbair, on this subject were never implemented because of the political climate in Europe, which meant Austria could not afford to annoy either friends or potential enemies.

David G. L. Weiss in his essay traces the beginning of the Austrian navy and trading voyages with a discussion of Austrian involvement with the construction of the Suez Canal and its bearing on the empire's colonial ambitions. He then goes on to discuss the preparation and outfitting of *Novara* and the role of photography onboard the ship. Christa Riedl-Dorn examines the background of the naturalists of *Novara*, the reasons they were chosen and the instructions they received.

Other essays examine the work of *Novara* scientists and their associates: Robert Pils on the botanical work, Helge Selleny on the painter Joseph Selleny, James Braund on Hochstetter's fieldwork, Mike Johnston on Hochstetter in Nelson, Rolf Brednich on Augustus Koch the draftsman, and John Webster on the photographer Bruno Hamel. The concluding essay by Michael Organ summarizes Hochstetter's time in Australia.

The book as a whole exposes an interesting contrast between German-speaking scientists working in both countries. In Australia they either settled or spent long periods of time in the colonies, whereas their periods of time in New Zealand were brief, and few settled there. These essays form a major contribution to the history of the natural sciences in New Zealand and to a lesser extent Australia, as many of the scientists dealt with worked across the Australasian colonies.

Thomas A. Darragh
Museum Victoria



Patrick Manning and Daniel Rood (eds): *Global Scientific Practice in an Age of Revolutions, 1750–1850*.

University of Pittsburgh Press, Pittsburgh, 2016. 401 + xiii pp., illus., ISBN: 9780822944546 (HB), US\$49.95

This book is the product of the conference ‘Linnaean Worlds: Global Scientific Practice during the Great Divergence’, held in May 2012 at the World History Center, University of Pittsburgh. The conference is part of a major

initiative at Pittsburgh to integrate the history of sciences within its world history projects. And it appears, with this book, that the projects are producing much new work in the history of the sciences.

Interestingly, one of the aims of this conference was to consider how ‘the Great Divergence’ thesis of nineteenth-century Western economic predominance fits with recent research in the history of science. Yet at the conference, while Linnaeus was heavily discussed, the Great Divergence was barely mentioned. Although also relatively absent from this book, the theme appears nominally in Chapter 6 by Goran Rydén and more fully in a concluding chapter by Jessica Ratcliff. What the text reinforces, however, is the current trend towards studying global scientific interconnections. Its value lies in extending approaches to exchange of knowledge, alongside a concerted effort to explore the role of civil society in scientific practice.

Several examples illuminate the diverse topics covered in this book. In Chapter 12, ‘Stamping Empire’, Devyani Gupta discusses the postal system in India. We learn that in the late eighteenth century it was still possible to address a letter, based on earlier Persian traditions, ‘To the sacred feet of the most worshipful, the most respected brother, Guru Pershad Singh’. These practices annoyed the rational-minded British colonizers who wiped out the traditional modes of addressing letters.

In another example, concerning hummingbirds, we learn that for nearly three centuries it was believed by European naturalists that these small birds went into hibernation. Not until the Mexican naturalist José Antonio Alzate showed in numerous publications that this was not the case, were natural history texts rewritten. In this book Linnaeus receives three chapters, and even here the contributors chart fuller accounts that engage with Linnaeus’ students and the evolution of his thought and practices in a global dimension.

Australia, and much of the Pacific, appear only briefly. This absence, nevertheless, should not deter historians of Australian science from attending closely to the fresh approaches on offer when history of science and global history are paired. In Australia, where the colonial past often warrants attention, some examples in this book are valuable. While discussing Spain’s cinchona plantations in Loja, Ecuador, Matthew James Crawford writes: ‘By taking a more global perspective on the history of science, empire, and exploitation of colonial natural resources, this episode serves as a reminder that the globalization of European science even in the

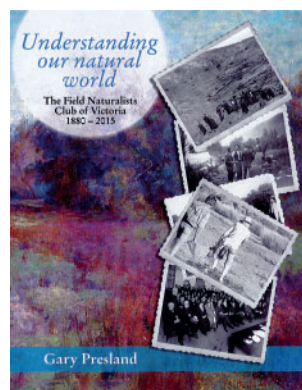
context of imperial power was a complicated affair in which local contexts mattered as much as long distance structures of trade and governance’.

The book contains twelve case studies that primarily cover Europe and the Americas with forays into Asia. It is split into five sections: exchanges among ways of knowing; evolution of the Linnaean vision; debates on description and taxonomy; logistics, management, and planning; and labour and economics in history. The collection is diverse so it is worth briefly mentioning them for any readers with an interest in exploring a particular topic. The twelve chapters cover: cinchona, hurricanes, artist Maria Sibylla Merian, three on Linnaean apostles and networks, hummingbirds, border surveys in the north-east of Argentina, the pink armadillo (or *pichicego*), Caribbean sugar industry, the Wardian case, and the Indian postal system. There are also two concluding, but ponderous, chapters on potential connections with economic history and labour history.

As is typical with edited volumes, many readers might only look to chapters relevant to their own interests. However, anyone picking up this book should spend time reading Manning’s introduction, which offers a great overview of the field and its emerging themes. Given the diverse range of topics covered—alongside a very good introduction—*Global Scientific Practice* would be an ideal text for teaching.

Exchanges of knowledge on the ground and the significant impact of civil society to the making of science are the important contributions of this book. These themes help us to see more subtle stories beyond the great projects of classifying the natural world that took place in European centres in the age of revolutions.

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Gary Presland: *Understanding Our Natural World: The Field Naturalists Club of Victoria, 1880–2015*. Field Naturalists Club of Victoria: Blackburn, 2016. 275 + vi pp., ill., ISBN: 9780975233924 (PB), \$30.00.

The Field Naturalists Club of Victoria (FNCV) has existed for over 135 years, providing the opportunity for amateurs, researchers and scientists to explore and discuss nature. The Club has operated continuously, without a name change, since its formation in 1880 and has published *The Victorian Naturalist* since 1884. Author Gary Presland is not only an involved member of the Club, but an archaeologist and historian who brings historical context to this history. The Club has always had a local focus, with the study of accessible fauna, flora and landscape in the Australian state of Victoria its objective. Thus, Victorian nature, Victorian campaigns for conservation, and Victorian men and women feature throughout.

The history of the FNCV is organized chronologically into three parts. In the first, we read of the interest in the Australian colonies in forming societies to study natural history. Some were socially exclusive, or designed for specialists. Gradually, more popularly based field naturalists' clubs developed, particularly in the late nineteenth century. Sometimes they were short-lived, others merged with similar bodies and others changed their names. The FNCV survived and Presland stresses the continuities of its aims and activities over time. Lectures, excursions, and the publication of members' papers in its journal soon formed the Club's signifying and enduring practices. While the first cohort of members was male, women were soon welcomed in increasing numbers. Meetings and excursions provided social and recreational activities. Even in the early years, some members met their future partners at Club venues. Presland devotes chapters to various concerns of the Club over its first 50 years, including its wildflower and nature shows, designed to interest the public in the nature of their own country; involvement in conservation initiatives (see below); and connections with the Museum of Victoria and the Royal Botanic Gardens.

Parts two and three cover the Club's second 50 years and its endurance into the present. The formation and fortunes of Special Interest Groups (SIGs) feature, with the groups of the present representing the current focus of the Club. After purchasing a property in suburban Blackburn in 1995, the Club enjoyed advantages in possessing its own hall for meetings and activities. Presland presents the FNCV as remaining active and viable: 'Nature study, undertaken for its own sake, has an enduring appeal'. I was interested in the expertise that members of the SIGs demonstrate through their research activities, often carried out in association with government or other bodies.

Other histories of conservation and preservation in Australia have linked early twentieth-century interest in natural history with a growing concern about the natural environment and the need for its protection. Presland outlines the involvement of the FNCV in conservation issues in Victoria. The Club was a major actor in the declaration of Wilsons Promontory as a national park in 1898, and in its later protection. I did find that Presland's attempt to distinguish preservation from conservation entered an already murky debate and cannot agree that the overall intention of naturalists was to keep natural history intact as an object for study. The purposes of preservation and protection always encompassed more than scientific study and it was often the passionate naturalist who spoke of an intrinsic value in nature and promoted aesthetic appreciation.

Over the years, subcommittees were formed to look into various issues of conservation, sometimes forming deputations to make representations to the state government. Club member Crosbie Morrison was prominent in the Club's involvement with the Standing Committee of the National Parks Conference and the formation of a Victorian National Parks Authority in the 1940s and 1950s. Late in the century, however, with many bodies, including government agencies, working for conservation, the FNCV appears to have stepped back to concentrate upon natural history. Yet, as the position of conservation co-ordinator fell vacant early in the present century, an Environment Fund was set up to support small research projects, particularly those addressing the biodiversity of Victoria. The Club also hosts an annual Biodiversity Symposium.

Presland addresses the Club's former interest in Aboriginal material culture, as an accepted part of natural history, incisively and

sensitively. He analyses the substantial changes in Aboriginal studies that occurred in the later twentieth century, as it developed into a separate and independent discipline.

The men and women who joined the Club and devoted their time to its functioning and its causes feature throughout the book. Many remained members for decades, passing on their interests and concerns to their successors. This makes the book of interest to current and former members, indeed to anyone with an interest in former Victorian naturalists and their work. Historians of natural history, science and conservation will find this book a valuable contribution. A beautiful cover features young naturalists absorbed in the landscape (oil painting, c. 1896) with superimposed black and white snaps of the FNCV. It is a well-presented book throughout and its text accessible to both general and specialist readers.

Dorothy Kass
Macquarie University



Robert Wainwright:

Maverick Mountaineer: George Ingle Finch, the Wild Colonial Boy who Took on the British Alpine Establishment.
ABC Books: Sydney, 2015.
407 pp., illus., ISBN:
9780733333729 (PB), \$32.99.

Maverick Mountaineer screams in headline fashion from the front cover of this entertaining biography of pioneer Australian-born climber and chemist George Ingle Finch (1888–1970), who was an integral part of the 1922 expedi-

tion to Mount Everest. Biographer Robert Wainwright succeeds in telling an unvarnished version of Finch's long and adventurous life, revealing a singular and inventive man who was not of his time.

Wainwright is no stranger to this genre, having researched numerous biographical accounts of legendary Australian figures, but his great achievement in this book is his insertion of Finch into the historical record for his significant contributions to mountaineering and science. In four parts, Wainwright tells a convincing story of this inadequately heralded colonial climber, whose achievements were routinely undermined by the British alpine climbing establishment.

His opening chapter paints a bucolic scene of 13-year-old Finch at the top of Mount Canobolas in 1901 in Orange, New South Wales, drinking in his first view from the summit and where his vision to become a mountaineer took hold. The image is enduring. The reader follows his journey from his first notorious night-time ascent of Notre Dame Cathedral with brother Max, to conquests of the Eiger, Jungfrau, Matterhorn and others, and later through the harsh Tibetan winds to his prized Everest.

Despite wanting to join the three Everest expeditions over 1921–4, Finch was only granted permission to attend the climb of 1922. Wainwright reveals the overt and covert attempts of the British climbing establishment to sideline the forthright, longhaired,

German-educated colonial, via class prejudice and a biased medical report. Finch pioneered, amongst other ingenious inventions, the use of bottled oxygen for climbing at extreme altitudes. His ideas were divisive, attracting establishment criticism and ridicule. This continued even after he proved the value of oxygen during the 1922 Everest climb with companion Geoffrey Bruce, reaching record altitude. Wainwright suggests that the subsequent 1924 Everest expedition of George Mallory and Andrew Irvine may not have been fatal, had Finch been involved to provide oxygen expertise.

Wainwright's Finch is fascinating because of his creative responses to adversity. Despite being deliberately denied opportunities—and becoming the victim of character assassination—Finch took no revenge on his detractors. He continued to contribute to expeditions in selfless and surprising ways, including providing unparalleled technical expertise when team equipment failed. He emerges as a complex character, motivated by elements deeper than individual glory.

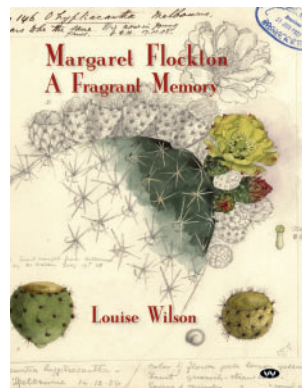
His personal life was also unconventional. Abandonment issues, romantic dalliances, chaotic relationships, and queries about paternity are peppered through this frank biography. Readers interested in his Hollywood actor 'son' Peter Finch will find this content compelling, and Finch's bohemian theosophist mother Laura is as intriguing on the page as she probably was in life. Finch's final marriage to Scottish wife 'Bubbles' brings him much-needed stability, and the reader gains unusual access to his vulnerable interior life through excerpts from his desperate romantic letters.

Finch shone scientifically pre- and post-Everest, and during two world wars, gaining various honours. Wainwright widens the lens to reveal his eminent research breakthroughs in industrial chemistry, professorship at Imperial College London, his aid to young Jewish scientists and students, membership of the Royal Society, and selection by Indian Prime Minister Nehru to lead scientific development in India. At age 71 Finch gained full public recognition when elected president of the formerly hostile Alpine Club of London, which is a delightful final twist.

There are no footnotes or maps, but Wainwright's listed research sources are thorough, credible and used well. The most significant include family archives and interviews, private papers of Finch (including his handwritten 1922 Everest expedition diary), archives of the Alpine Club and the Royal Geographical Society, and literary sources including Finch's original and republished memoirs. The eight-page photographic centrepiece is educational, particularly the amusing 1922 images of gentleman climbers sporting pyjamas and jumpers teamed with tweed suits, which contrast with Finch in his unique eiderdown jacket invention, forerunner to the puffer jacket. Captions are telling: 'George demonstrates his oxygen system to cynical team members while the porters look on'.

Climbers of all hues would find this book absorbing, as would people interested in amateur gentleman climbers, the history of Everest, and purist debates about 'cheating' with bottled oxygen in an era when Nepal was closed to foreigners. It is a long read, and Wainwright's detailed descriptions of climbing and the terrain could weigh down the narrative for the general reader. George Ingle Finch deserves to be as well known to Australians as George Mallory and Edmund Hillary, and Wainwright's biography ensures this.

Vanessa Witton
Sydney



Louise Wilson: *Margaret Flockton: a Fragrant Memory*. Wakefield Press: Mile End, 2016. 306 + viii pp., illus., ISBN: 9781743054475 (HB), \$49.95.

Louise Wilson's biography *Margaret Flockton: a Fragrant Garden* is a fitting tribute to Australia's first professional botanical artist. Its 2016 publication was timely, coinciding with the 200th anniversary of Sydney's Royal Botanic

Garden. Margaret Flockton (1861–1953) was employed at the Garden between 1901 and 1927, working in the National Herbarium as a botanical illustrator. Prior to her employment at the Herbarium she was already an established artist.

While Flockton was not the only female botanical artist in nineteenth- and early twentieth-century Australia, her success as a lithographer, artist and scientific illustrator distinguishes her from her peers. Despite the success she achieved during her lifetime, her artistic and professional achievements were largely forgotten in the fifty years following her death in 1953. In 2003 thanks to the efforts of Catherine Wardrop and Lesley Elkan—botanical artists at the Royal Botanic Garden—she was rediscovered. A year later an award for scientific botanical illustration, named in Flockton's honour, was established. The publication of this biography further ensures that neither Margaret nor her art will be forgotten again.

While the research that has been undertaken to bring this book to fruition is extensive, Louise Wilson writes with an easy flow that engages the reader's interest. Her skill as a family historian is evident throughout the biography. Wilson has successfully woven the life story of Margaret Flockton, or 'Aunt Mog' as she was known and remembered within her family, into the wider historical narrative. Wilson has outlined her family connections in some detail. The inclusion of the relevant family trees assists in unravelling these relationships.

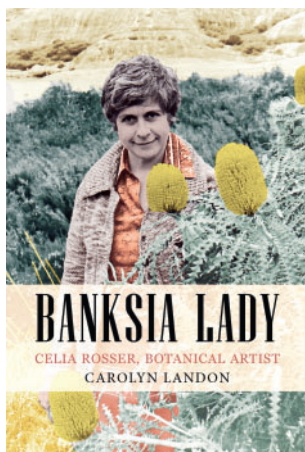
Margaret Flockton: a Fragrant Garden follows a chronological approach, made up of two parts—her time in England and then in Australia. Most of the book is devoted to the account of Margaret's life in Australia. There are some delightful additions to the text, such as the poems by family members, which further add to the sense of memory and intimacy that the book evokes.

Although the book is indexed it is the chapter headings that invite the reader to delve further. Wilson introduces some controversy in the chapter 'Art versus Science'. There she discusses the career of *en plein air* artist Marion Ellis Rowan juxtaposed against that of Flockton. Ellis Rowan was as prolific an artist as Flockton, but became—in Wilson's words—a celebrity while Margaret was ignored. Wilson attributes Ellis Rowan's success to the efforts of pioneer botanist Sarah Hynes. Hynes was working in the Herbarium at the same time as Margaret. After she lost her battle with Joseph Henry Maiden (Director of the Botanic Garden) and the Garden's bureaucracy she was moved to the Department of Public Instruction. Wilson suggests that Sarah Hynes exacted her revenge on her female rival for Maiden's approval by championing the cause of her friend Ellis Rowan at Margaret's expense.

Throughout the book Wilson has included informed and interesting discussion about the scope of Flockton's work. Margaret did not confine her art to botanical subjects. The inclusion of the reproductions of her pictures of birds, in particular the Kingfishers on page 80, together with Wilson's commentary is fascinating. The painting titled 'Old Lady' on page 89 confirms Margaret's artistry. The 'Fortune Teller' on page 101, which is my personal favourite, provides further evidence of Flockton's versatility.

The inclusion of these and many hundreds of other full colour illustrations is the highlight of the book. They are listed in the front for ease of reference. All the illustrations have been well chosen, comprising a mix of images of Flockton's family photographs, correspondence (sometimes delightfully illustrated), certificates, watercolours by family members and of course the art works by Flockton herself. The reproduction of Frank Flockton's sketches of home (England) adds a poignant touch, reminding us that 'home' was a cherished memory for many nineteenth-century immigrants. This adds to the warmth and intimacy of the biography. There are extensive endnotes, while the comprehensive bibliography includes archival material from Australia and the UK, books, journal articles, newspapers, oral histories and family records. Louise Wilson is to be congratulated for her success in bringing Margaret Flockton and her art to the attention of today's readers.

Christine Yeats
Royal Australian Historical Society, Sydney



Carolyn Landon: *Banksia Lady: Celia Rosser, Botanical Artist*. Monash University Publishing: Melbourne, 2015. 241 pp., illus, ISBN: 9781922235800 (PB), \$39.95.

Known for her work as a biographer and memoirist, Carolyn Landon's *Banksia Lady* follows in a similar vein to her previous work in all respects but one: her choice of subject. Landon's books generally focus on little-known personalities; however, in *Banksia Lady* she focuses on Celia Rosser, a

highly acclaimed botanical artist central to the celebrated Banksia Project administered by Monash University.

Following a fairly chronological path, this book maps the journey of both the artist and the 25-year Banksia Project. Commencing with Rosser's humble beginnings as a student, the text progresses through her 'discovery' in 1965 via an exhibition at a North Melbourne gallery. Subsequently commissioned by the Maud Gibson Trust to create six banksia paintings for the National Herbarium of Victoria, Rosser became the Science Faculty Artist at Monash University in the early 1970s. Appointed principal artist for the Banksia Project until its completion in 1999, Rosser's accomplishment drew the acclaim of botanists, botanical artists, academics and scientific societies around the world.

Commencing in 1974, the Banksia Project sought to illustrate every species within the genus to an exacting standard—the first

time such a large genus had been entirely painted in this manner. The chosen botanist was Alex George, known fondly as the 'Banksia Man', while Rosser was promoted to the role of 'University Botanical Artist to paint every known species of Banksia'.

Intricacies of the Project's development are well documented in *Banksia Lady*, from the perspective of both Rosser and her cohort through well footnoted letters, reports, associated websites and transcribed interviews. The book contains lovely descriptions of Rosser and George's process of learning to work together, from George's realization that Rosser needed to observe species in the wild, to Rosser's acknowledgement that all of her drawings required scrutiny for botanical accuracy before they could be finalized.

The story does not shy away from the administrative and practical aspects of the Project's development—a process that was often political and at times tumultuous. While some of the later chapters bear dramatic names ('Disaster', 'Pressure', 'Recognition'), they accurately reflect the concurrent state of the Banksia Project. Its ups and downs are tactfully described by Landon, as are Rosser's marriage break-up, funding restrictions, the seizure of the paper supply upon bankruptcy of the paper mill, and challenges posed by the ever-increasing number of Banksia species located by George. The author provides a constant reminder that at the centre of the Project was a focused, sensitive and incredibly talented artist who faced steep learning curves, times of great stress and a few emotional moments throughout her long career.

Landon allows the reader to perceive how daunting Rosser's journey must have been, notably her courage in moving from a slightly naïve Faculty Artist—without any knowledge of microscopes or how to create scientifically accurate botanical drawings—to the single artist central to the Banksia Project. The author elaborates the complex process required to create a single banksia painting, which could take up to 300 h. Considering the amount of material the book covers, this might seem an indulgence; however, these descriptions provide insight into Rosser's exacting process as well as her lived reality. 'Sometimes you might do as many as ten drawings to get exactly what you want' Rosser is quoted as saying. '[I]t depends on the banksia, of course. But you can't tell until you've put some paint on it whether it's right'.

In articulating the complexity of the creation process, Landon enables the reader to understand both the innate talent of the artist and the knowledge and techniques required to produce these vibrant works, which are of almost inconceivable accuracy. Rosser's skill is also well articulated by her colleagues and supporters throughout the book, with notable excerpts from letters and interviews placing her work in context. 'It is encouraging to see work being produced today, nearly two centuries on, that stands comparison with that of the immortals such as the Bauer brothers and Redoute', wrote Bertram Evelyn Smythies. In 1977, he awarded Rosser the coveted Jill Smythies Award for Botanical Illustration at the Linnean Society in London.

An easy-to-read biography, one can readily become lost in the personal stories of Rosser's life and the very personal narrative of her work. Rosser's desire to learn and her unquenchable curiosity are well described, as are her vulnerability and naivety at different stages of the project.

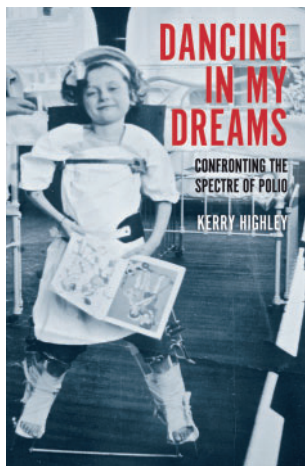
Few unfavourable remarks can be made, other than that further rich details were undoubtedly lost in seeking to balance as much information and context as possible. A few of the plates featuring

images of the artist and her works seem out of focus, over-exposed or slightly faded, while several are captioned without an associated date. Considering the incredibly high calibre of the artist's work this is slightly disappointing, but the plates work as a reference guide. Indeed, the inclusion of Rosser's drafts serve to illustrate her skill and patience in the creation of these extraordinarily detailed works, with field sketches of *Banksia dryandroides* and preliminary drawings of *Banksia ashbyi* providing some context to the process of working up a painting.

While the book itself doesn't contribute new information about Banksias, it serves to highlight the astounding work generated by the Banksia Project, providing welcome context and exploring the history of botany, botanical art, botanic gardens, academic societies and associated museums and collecting institutions.

One feels that Landon took the time to get to know Rosser, her colleagues and her friends on the journey to writing this biography. As a result, *Banksia Lady* is written with great warmth, honesty and a wonderful understanding of what it means to be a contemporary botanical artist. There is no doubt that the creation of the Banksia florilegium is a triumph for Australian science and the arts, and *Banksia Lady* pays tribute to this great accomplishment while revealing with sensitivity and deserved respect, the personal stories of the artist who made this great achievement possible.

Rebecca Anderson
Curator, Sydney



Kerry Highley: *Dancing in My Dreams: Confronting the Spectre of Polio*. Monash University Publishing: Clayton, 2016. 262 + x pp., illus., ISBN: 9781922235848 (PB), \$39.95.

The evocatively named *Dancing in my Dreams: Confronting the Spectre of Polio* is a history of the poliomyelitis epidemics that gripped industrialized countries in the first half of the twentieth century. Australia, nevertheless, is its main focus. As the title suggests, author Kerry Highley's

emphasis is on the experiences and perspectives of those afflicted with the disease, most of whom were children. Although only a small proportion developed central nervous system involvement—and even fewer experienced paralysis—this book foregrounds the treatment and rehabilitation of those cases, offering insights into the effects of disability on young lives.

Undoubtedly this publication is a valuable contribution to Australian medical and scientific history, if for no other reason than it is the first to provide a comprehensive and skilled documentation of the national experience of poliomyelitis. In addition, Highley's incorporation of patient testimony to convey the grave social impact of polio is refreshingly novel and empathetic for a disease history monograph. It works effectively alongside official and media sources to interpret what the epidemics meant for their juvenile victims, as well as for their families, carers and communities.

Armed with first-hand testimonies, including interviews with former patients of Melbourne's Fairfield Infectious Diseases Hospital, Highley takes her readers, chapter by chapter, through the successive stages experienced by patients. The ordeal of the initial diagnosis forms the subject of a chapter entitled 'I'm Afraid It's Polio', followed by the hospitalization period and then the rehabilitation phase.

In particular, the reader learns of childrens' confusion, pain and fear, arising not only from polio itself, but from standard management techniques. These entailed separation from parents and sharing close company with hospital armamentaria—the splints, heliotherapy bed and the coffin-like respirator, for example. Other salient individuals are not neglected: the country GP who had to break the diagnosis to apprehensive families, or the overworked nurses in a hospital ward of 900 patients.

This narrative is interspersed with chapters that document the history and epidemiology of the disease in Australia, the treatment protocols adopted between the 1920s and 1950s, the growth of scientific knowledge about polio, and the ultimately successful immunization campaigns of the 1950s. In the concluding chapter, vaccination is extolled for almost eradicating polio worldwide, grist for the mill of Highley's cautionary message to current anti-vaccination campaigners.

Considerable discussion is spent contrasting the 'orthodox' therapy of Melbourne physician Dr Jean Macnamara with the more controversial practices of nurse Elizabeth Kenny. The latter's period in the USA, where she met with more success than in Australia, is discussed in detail. The Australian medical establishment of this period comes in for strong criticism for its failure to endorse Sister Kenny's gentle physical therapy, and denying Australian children its benefits.

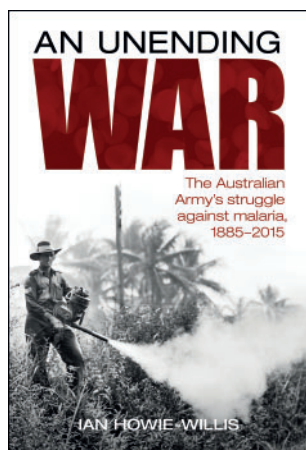
Highley's admiration for Kenny is made abundantly clear. She explains how the USA warmly welcomed this antipodean nurse and took up her treatment, comprising heat pads and passive muscle movements in the early phase of the disease. Standard treatment in Australia, as advocated by Macnamara, involved immobilization of the affected muscles, sometimes for many months, to prevent permanent deformity. For Highley, such treatment was unnecessarily harsh and inefficacious, yet continued because its practitioners jealously guarded their profession and the right to dictate a single therapeutic model.

Highley's argument makes a plausible rejoinder to the historiographical arguments in past issues of *Australian Historical Studies*. A less than convincing contribution to the debate, however, is Highley's polarization of the two women at its centre. Macnamara is depicted as uncaring and unprincipled for advocating immobilization, while her motive—to produce straight bodies—is seen as symptomatic of her eugenicist sympathies. The evidence for this 'motivation' is scanty indeed. Had this book included images of the gross deformities that can occur in polio sufferers, such as genu recurvatum (hyperextension of the knee), and conceded the role of orthoses in their prevention, Macnamara might be better understood—like Kenny—as having her patients' welfare at heart.

Highley's credentials as both medical scientist and historian have enabled her to produce a social history of polio that soundly addresses the scientific—and sometimes complex—aspects of her subject matter. At the same time this book is accessible to a wide range of readers. Any biomedical concepts or terms are clearly

explained. It is concise with just 177 pages of text, and sports a rich display of photographs, mostly of key practitioners and of patients undergoing therapies or in their othoses. Some helpful tables on the statistics of polio in Australia and other industrialized countries are provided at the end of the text.

Charmaine Robson
Sydney



Ian Howie-Willis: *An Unending War: the Australian Army's Struggle Against Malaria, 1885–2015*. Big Sky Publishing: Newport, 2016. 348 pp., illus., ISBN: 9781925275728 (HB), \$34.99.

With *An Unending War*, Ian Howie-Willis has cemented his place as one of Australia's foremost historians of military medicine. Building upon his brace of biographies of army medical supremos, this monograph spans

the entirety of Australia's formal overseas military deployments. The author's assertion that malaria has remained a consistent foe—at least for the past century—is well supported by an impressively wide evidence base, from entomology to ephemera.

The book rapidly moves from colonial conflicts to the Australian Naval and Military Expeditionary Force that captured German New Guinea in 1914. Its core, unsurprisingly, lies in the World War Two campaigns and command structures so familiar to the author. The final third of the work, nevertheless, focuses in valuable detail on the Vietnam War and subsequent operations, with a separate (and somewhat triumphalist) chapter devoted to the facility currently known as the Australian Army Malaria Institute.

Each theatre tends to be tackled in a systematic way, commencing with an outline of the political, geographical and operational context. In large part these sections reflect the official military and medical histories of the relevant conflicts, with the attendant advantages and pitfalls. Sensibly, perhaps, Howie-Willis has focused the bulk of his primary research on the medical, scientific and command elements of the army's sporadic attempts to comprehend and combat malaria.

As the author makes clear, it was never a straightforward battle. Since 1914, military attempts to prevent, contain or treat malaria have always dealt with more than mosquitoes and *Plasmodium* parasites. Entomological and ecological understandings of malaria's complex transmission cycle soon prompted a form of environmental warfare, targeting local terrains, water, vegetation and atmospheres. Malaria also prompted problematic relationships with human populations in occupied areas—whether allies, enemies or civilians—who were often apprehended as disease reservoirs.

Arguably, though, the army's most persistent struggles around malaria were internal. In part, these were conflicts of authority: setting scientific expertise and clinical priorities against operational necessity and organizational orthodoxies. But perhaps most importantly, Howie-Willis regularly reiterates what he terms 'the strangely

lackadaisical attitude of Australian soldiers to their own protection against disease'. Time and time again, troops were ordered to undertake protective tasks, ranging from digging drainage trenches to taking daily medication. Time and time again, they proved erratic or overtly unwilling to comply.

Howie-Willis acknowledges that soldiers were often sceptical about the threat posed by malaria—and the purported benefits of prophylactic drugs. Nevertheless, as the above quote suggests, he ultimately struggles to comprehend why so many personnel would resent being coerced to enact *rational* scientific measures. Yet many 'diggers' considered them effeminate, or likely to produce literal or figurative impotence. Art scholar Ann Elias noted a similar soldierly reticence to adopt *sensible* camouflage measures in her 2011 monograph, *Camouflage Australia*.

This is perhaps a missed opportunity within *An Unending War*: to enquire more deeply about the limits of personal decision-making in the face of strident organizational pressure and apparently incontrovertible expert advice. Given the massive Commonwealth expansion into managing the health of the nation during and after World War Two, the results would be of value well beyond the military medical context.

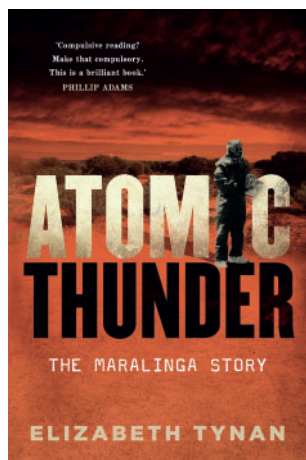
Indeed, I disagree with Howie-Willis' suggestion that punishing soldiers who contracted malaria on Bougainville in 1945 'was perhaps a novel way of maintaining an army's strength'. While these men were presumed to have been slipshod or disobedient in taking their preventive atabrine tablets, it was in fact a long-established military tradition to treat venereal diseases as self-inflicted wounds and to stop soldiers' pay until the affliction had resolved.

Overall, this book well balances its military and medical elements, providing satisfying detail of the operational impact of malaria and biomedical research projects conducted both in Australia and in the field. Readers seeking a solid understanding of the role of entomology and ecology will find relatively little; however, this was likely an authorial decision not to overlap too extensively with Tony Sweeney's authoritative *Malaria Frontline* (2003). Both texts remind us, however, that a book-length biography of Australia's malaria savant, Neil Hamilton-Fairley, remains sorely lacking.

Sadly, some oddities and omissions mar *An Unending War*. For instance, while a consecutive series of numbered footnotes indicates quoted sources, a competing set of numbered footnotes is overlaid to explain specific points on selected pages. Surely asterisks for the latter would have been less confusing? I was surprised to see Michael Tyquin's *Gallipoli: the Medical War* missing; ditto for Mark Harrison's *Medicine and Victory*. The bibliography sports frustrating inconsistencies in type size, italicization and pagination. While the book is admirably illustrated with apposite images and maps, unfortunately Figs 7.1 and 9.9 are reproduced so small that their text is illegible.

In sum, this is a valuable work that covers a breadth of eras, regions, conflicts, command cultures and scientific schemas. Howie-Willis has again demonstrated his ability to structure and explain these multiple contexts in a thoughtful, readable and satisfying format.

Peter Hobbins
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Elizabeth Tynan: *Atomic Thunder: the Maralinga Story*. NewSouth Publishing: Sydney, 2016. 373 + viii pp. ISBN: 10987654321 (PB), \$34.99.

Among the more controversial episodes in Australia's history is the use of Commonwealth land for testing atmospheric nuclear weapons and related components between 1952 and 1963. Numerous texts, varying greatly in purpose and tone, have aimed to explore these tests and their consequences. Two, for example,

have outlined the tests from the Australian and British Government perspectives, namely J. L. Symonds, *A History of British Atomic Tests in Australia* (1985) and Lorna Arnold, *A Very Special Relationship: British Atomic Weapon Trials in Australia* (1987). Many more works have aimed to expose the associated human and environmental damage, a recent example being Frank Walker's *Maralinga: the Chilling Exposé of our Secret Nuclear Shame and Betrayal of our Troops and Country* (2014).

Elizabeth Tynan's *Atomic Thunder: the Maralinga Story* represents a somewhat different approach. The author seeks not to justify the tests, nor to frame the conduct of those responsible in the worst possible light. In this exploration, a more measured and objective tone has been adopted and this is a refreshing change. While no author is situated to offer final comment as to the true underlying events of the testing program and no interpretation is free from flaw, this work forms a significant contribution. *Atomic Thunder* makes interesting reading for those disposed toward weighing up the evidence before arriving at a final opinion, as contrasted with other works on the subject that may have greater appeal for a general audience.

A range of authoritative sources has been consulted in support of Tynan's convincing line of analysis. The work is strong in its use of primary archival material, with corresponding exploration of how the events and information pertaining to the tests unfolded into the public conversation, necessitating a discussion of material derived from historical news media and other accounts. References are provided for each chapter and the text is well edited and compiled.

Tynan's book does not deny that very real harm resulted from the tests but, importantly, the work is careful to show that there is uncertainty about the level of harm and the difficulties inherent in demonstrating a causal relationship between an event and a health issue. An example can be seen Chapter Seven, which discusses a phenomenon that has come to known as the 'Black Mist'. Tynan is likewise careful in Chapter Six to clarify that the yield of the most powerful nuclear weapon tested in Australia is contested, citing my own published work.

Investigative journalists have been a dominant voice in the public conversation around Australia's place in nuclear weapons testing, and this text shows that a sensationalist approach is not warranted when an evidence-based inquiry clearly highlights that the tests resulted in considerable harm. It is merely the precise *extent* of

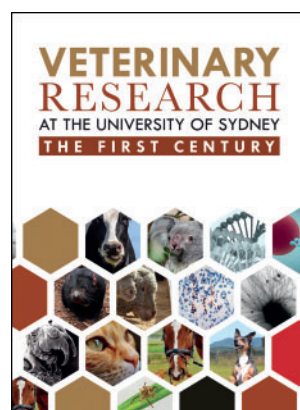
that damage that remains open to debate. Tynan's background in science journalism sees her well situated to offer a commentary of this nature.

For those unfamiliar with British nuclear testing in Australia, Tynan's work offers an overview in the early chapters, followed by a more in-depth analysis of the consequences of the tests. Importantly, the manner in which this story became known to the general public is also explored. In one pertinent example, Chapter Eleven details how *New Scientist* magazine contributed to breaking the story of the levels of contamination actually present at the Maralinga site. This chapter also offers useful insight into the similarities between 'minor trials' conducted in Australia and their American equivalents conducted in Nevada. According to Tynan, these similarities enabled data from the US—made available well after the 1984–5 Australian Royal Commission into the tests—to be used to estimate the actual levels of contamination at Maralinga. The data proved valuable as comparable American experiments involved a greater effort in terms of documenting residual plutonium traces.

The first chapter does not begin with an account of the tests themselves, instead opening in the mid-1980s, with health physics professionals conducting a survey of the most contaminated site within Maralinga, code named TARANAKI. These personnel placed their trust in the works of their predecessors and were sparing in the use of personal protective or monitoring equipment. As Tynan reveals, they were in for a shocking surprise. Later chapters detail matters such as the strict control of information that surrounded the tests, due in part to governmental censorship and self-censorship within the media. These contests between truth and secrecy are set against the backdrop of the ideological struggle that defined the latter half of the twentieth century: the Western democratic powers against the Soviet Bloc.

Although there is ample room for debate about many of the issues forming the scope of the work, a great deal of new insight is provided throughout.

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John Egerton: *Veterinary Research at the University of Sydney: the First Century*. University of Sydney Press, Sydney, 2016. 431 + 25 pp, illus., ISBN: 9781742103945 (PB), \$35.00.

This book comprises 11 chapters detailing the evolution of research at the Veterinary School, University of Sydney. It covers the period from the School's establishment in 1910 through to 2010.

The first and second chapters revolve around the origins of the faculty and its first six Doctors of Veterinary Science. Interestingly, these doctors included two non-graduates of the Sydney Veterinary School (S. Dodd and R. M. C. Gunn) and four graduates (I. Clunies Ross, H. R. Carne, H. G. Belschner and W. I. B. Beveridge). All

graduated in veterinary science before 1931 and two of the latter (Belschner and Beveridge) pursued their research careers outside of Sydney's Faculty of Veterinary Science.

It is surprising that Professors C. W. Emmens and T. J. Robinson were not included in the list of persons; they more than anyone else brought the modern research approach and PhD thesis examination into the Faculty of Veterinary Science following their appointments as Professors in 1948 and 1956, respectively. Then there was H. McL. Gordon who provided teaching in veterinary parasitology and support for research in the Veterinary School from the Council for Scientific and Industrial Research (CSIR)—and later the Commonwealth Scientific and Industrial Research Organisation (CSIRO)—from 1937 until his retirement in 1969. He also gave a lifetime of generous opportunity to numerous research students by making his technical officers and research facilities available to assist Veterinary School research projects in veterinary parasitology.

These three scholars were doyens of veterinary research in the University of Sydney Veterinary School and deserve special mention. The association with CSIR/CSIRO was further enhanced with M. C. Franklin being seconded by Clunies Ross to assist Robinson in establishing research in the department of animal husbandry, embracing both veterinary and agricultural science faculties.

The third chapter is devoted to the development of research support that was nearly non-existent in the Faculty until CSIR's McMaster Laboratory of Animal Health was established in 1931. Clunies Ross, first officer-in-charge, made laboratory space available for H. R. Carne and a paid technical officer in the CSIR building for his research on caseous lymphadenitis. The other veterinary laboratory in New South Wales, Glenfield Research Station, also cooperated with the Faculty in making departmental facilities and officers available for research studies.

From the 1930s philanthropy and—after World War Two—the animal industries contributed to veterinary research efforts with capital and operating expenses. This funding expanded research in Sydney and helped establish research at Camden.

Six chapters are devoted to detailing the research conducted in the traditional faculty departments of veterinary pathology and

bacteriology, veterinary physiology, animal husbandry and animal science, veterinary medicine, veterinary anatomy and veterinary surgery. Each chapter contains details of the research conducted in the departments, the students who conducted these projects and the machinations of continuing restructures of the Faculty since the 1970s. Some may find the presentation tedious but, for those interested in a research area, each provides essential detail of the research conducted, researchers, postgraduate students and interactions with researchers in Sydney and worldwide.

The final two chapters on International Research and Into the Future speak for themselves.

Some 37 persons contributed to the compilation of the book, describing the evolving research areas in the Faculty to 2010. There is a conclusions section in each chapter, while some are sparsely interspersed with text boxes. These add to the overall understanding of the background of subjects, and more use of them would assist readers in gaining an overview of the research effort in a discipline not of particular interest. The research in each department is broken down into research areas, which will help those wanting to focus their reading.

Documentation of the veterinary research at the University of Sydney is a timely record of the research, mainly conducted over the last 60 years, that has been compiled while many key participants are able to provide details. It is a valuable source of information and inspiration for Australian and international veterinary researchers, and for people generally interested in scientific advances. Junior researchers will benefit from reading the sections in which they would propose conducting their studies. Veterinary alumni in general have a document detailing the development of veterinary research and knowledge from the time since their graduation. Reading the book will encourage alumni to believe that veterinary research is still contributing 'to the solution of animal health, welfare, conservation and problems worldwide'.

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Melbourne