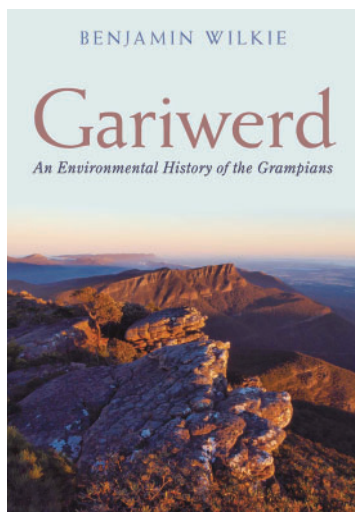


## Reviews

Compiled by Peter Hobbins

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### Benjamin Wilkie:

*Gariwerd: an Environmental History of the Grampians.*

Clayton South, Victoria:

CSIRO Publishing, 2020.

148 pp., illus.,

ISBN: 9781486307685

(PB), \$49.99.

Benjamin Wilkie's book is well named, as the title *Gariwerd* immediately sets the context for this environmental history of the land of the Djab wurrung and Jardwadjali people and their ancestors in western Victoria. By supplanting the British name 'The Grampians' with

*Gariwerd*, Wilkie immediately de-colonises the space to focus on an environment with a deep history and a 22,000-year-long relationship with Aboriginal people. For me, this was the strength of his book.

The first section gives a detailed account of the geology, soils, climate and vegetation in *Gariwerd*, an area that Wilkie clearly knows well. He walks the reader through the mountains as if on a virtual tour, as he describes the flora and fauna from its swamps in the savannah woodlands, the grassy plains, heaths and banksias, sclerophyll forests and the towering Grampians' gums (*Eucalyptus alpina*) and the resident animals. This is a diverse biophysical environment, altered by time, climatic changes and Aboriginal land management practices. One small point—as a reader less familiar with the region—I would have found a map that indicated the location and scale of *Gariwerd* enlightening, but the illustrations helped and the colour photographs in the centre of the book provided an attractive compensation.

The second section offers a rich history of how the Djab wurrung and Jardwadjali people of the Kulin nation lived on this land for centuries. Drawing on a range of sources including Aboriginal creation stories, rock art, and scientific and archaeological reports, Wilkie provides a detailed narrative of Aboriginal cultural practices, language and diet as well as hunting and farming practices in this region before colonisation. This chapter provides a profound contrast with a later part of the book that describes how the land was altered, the water harvested and the ecology changed by British and European settlement.

Despite explorer Thomas Mitchell's lowly opinion of Australia, Wilkie reveals that even he could not be unmoved by the unsurpassed beauty and 'sublime scene' from a mountain summit. As Mitchell predicted, his favourable reports would be the 'harbinger of mighty changes'. As the author of *The Scots in Australia* (2017), Wilkie is well qualified to write on the colonisation of *Gariwerd*—an area that became home to a significant number of Scots—and his book provides a confronting account of a colonial invasion, with its 'large-scale guerrilla warfare and planned massacres' that peaked in the 1840s. Attuned to environmental agency, Wilkie notes that the disputes over land, water and resources on this pastoral frontier were exacerbated in times of drought. When the killing of sheep increased, so did the reprisals. Yet he notes that the Aboriginal and settler relationship was not always antagonistic, and some settlers bemoaned the destruction they had wrought to both people and the environment within a few decades of arrival.

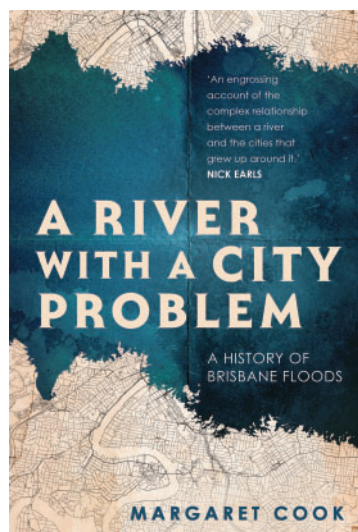
Wilkie explores familiar environmental history topics: British exploitation of the land for agriculture, timber extraction and unsuccessful forays into gold mining as settlement in the region expanded beyond pastoralism. The introduced species of sheep, deer and rabbits further degraded the land. The region, particularly its wildflowers, attracted the attention of botanists and specimens taken from the region joined the vast network of samples sent to the Royal Botanic Gardens in Kew, England. *Gariwerd*'s water could also be transplanted from the mountains, diverted, stored in reservoirs and fed through tunnels and pipelines to supply farms in the Wimmera Mallee district. Tourism grew as rail and roads made the region more accessible, but it was aesthetic and scientific values that led to the area's declaration as the Grampians National Park in 1984.

The book goes full circle and returns to the Djab wurrung and Jardwadjali people in Wilkie's discussion of the conflict over the names *Gariwerd* and The Grampians. The plans of Scottish parliamentarian Steve Crabb in 1989 to rename the national park *Gariwerd* and reinstate 15 Aboriginal names within the park created community furore at erasing history, the irony not lost on others who respected traditional ownership of the land. The vacillation between British and Aboriginal names exposed the failure of many Australians to reconcile themselves with the country's colonial history, which Wilkie suggests remains the context for Native Title. Wilkie leaves us with hope that native title and a joint management plan for *Gariwerd* National Park may create some reconciliation, but then again, he warns it may lead to further conflict. Time will tell.

The book is aimed at a wide audience, as Wilkie himself notes, and it does have general appeal as both an environmental and social

history, offering a well documented and readable account of a specific locale that would be of value to scholars and general readers alike.

Margaret Cook  
The University of the Sunshine Coast



**Margaret Cook:**  
*A River with a City Problem: a History of Brisbane Floods.* University of Queensland Press: St Lucia, 2019. 232 + XIV pp., ISBN: 9780702260438 (PB), \$32.95.

This is a detailed and important study of the three greatest floods on the Brisbane River since British settlement. The main actor in the dramas is the river itself. For millennia it has channelled water from the high country to the sea, scouring out a floodplain that can accommodate

flows during periods of massive rainfall. Aboriginal inhabitants called it Maiwar; they lived by it and fed from it without attempting to harness or distort its natural rhythms.

Margaret Cook's thesis is that early British settlers expected to use the river and its floodplain for practical purposes in ways that were common in Europe. It would be a transport route, a port, a source of drinking water and provide land for housing and farms on its floodplain. Despite the massive flood of 1841—that came too early to check the progress of the still-small settlement—these objectives had been amply realised by 1893. Brisbane became a city of over 100,000 people and its suburbs spread over the floodplain of the river that meandered extravagantly through them. Cook makes the point that the unique combination of rainfall variability and intensity in Brisbane's hinterland could, very occasionally, result in floods of immense magnitude. Unfortunately this propensity was not yet clear to the city's inhabitants.

The multiple floods of 1893 brought chaos to Brisbane, killing 35 inhabitants and flooding many scores of buildings. This shattered belief in a useful and beneficent river; it was now seen as a malevolent force threatening the further advance of civilisation in Queensland. A few thoughtful observers argued that the human occupation of the floodplain had exacerbated the floods, but they were not heeded. The majority wanted flood prevention rather than floodplain management. The Queensland government did what most colonial governments did when faced with a major problem and called in foreign experts, all of whom recommended the building of a dam for flood control as well as for water storage.

For the next three decades the river was widened, deepened, straightened and retaining walls were built to contain it. Initially a dam was considered to be too costly, but the depression of the thirties was a good time to undertake large public works and the Somerset Dam was started in 1934 to provide water for Brisbane and to control floods. While it was not completed until 1959, its presence persuaded most Brisbanites that the city was now flood-proof. Experts disagreed but their message was ignored by land developers, town planners, local politicians and intending residents, all with a financial interest in building more homes and shopping centres in the suburbs that were spreading across the floodplain.

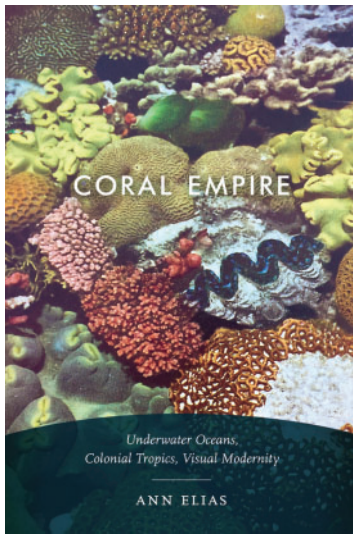
When the 1974 floods struck, Brisbane was ten times larger than it had been in 1893. Fewer lives were lost but many people were injured and around a third of all houses flooded, leaving behind a stinking mess of mud, destroyed furniture, clothing, food, ruined homes and suburban lives. It became painfully clear that the dual-purpose Somerset Dam had failed to prevent flooding because during the most extreme rain events it had to release water from a full dam or risk failure of the dam wall. At one point during the crisis, Clem Jones, mayor of the Greater Brisbane Council, overruled the water experts at the dam and refused to release water. Convinced he knew better, Jones got away with this but his hubris later encouraged the widespread belief that it was the dam managers who were at fault in their response to the floods, rather than the dam itself.

After the recriminations died down another dual-purpose dam, Wivenhoe, was built and again seen as a saviour of the city. Alternative forms of flood mitigation and planning regulations that were becoming increasingly common in cities elsewhere were neglected. In a re-run of the period after 1893, many more houses were built on the floodplain, their inhabitants comforted by the existence of two large dams. A subsequent long drought and water restrictions diverted their minds from floods.

The 2011 flood was as horrible as the earlier great inundations, but affected far more people and property as the city had more than doubled in size since 1974. The televised chaos coincided with inland floods that submerged nearly 80 per cent of Queensland. Again there was a search for scapegoats and again the managers of the dams were blamed. As yet there does not appear to be any shift in popular attitudes towards more effective forms of flood prevention.

Cook has written a thought-provoking environmental history of how Brisbane has failed over nearly two centuries to subdue the river that runs through it. She is convinced that whenever extreme weather events occur in the future—and global warming is likely to stimulate more of these—there will be further catastrophic floods. However, the people of Brisbane still appear to believe that if the dams are managed properly they will be safe. It could be quite some time before we know who is right, but in the meantime every potential home buyer on the Brisbane floodplain should read this book before they put down a deposit. It makes a convincing case that this might not be a good idea.

Tony Dingle  
Melbourne



**Ann Elias:**

*Coral Empire: Underwater Oceans, Colonial Tropics, Visual Modernity.* Duke University Press: Durham, 2019. 296 pp., illus., ISBN: 9781478003823 (PB), USD \$26.95.

Annual apocalyptic images of grey, lifeless, climate-ravaged coral visualise all that is problematic about modernity. Faced with these pictures, it is easy to forget what a recent, technological wonder of the world we enjoy in representations of the bright, moving colour

of the tropical underwater world. This wonderful book by Ann Elias reminds us of this achievement, sharing the story of two men who immersed themselves in tropical seas to make this coral underwater-wonderland widescreen-real for early twentieth-century viewers, through museum dioramas and displays, in movie theatres, in the popular press and in tourist kitsch.

Showmen Frank Hurley and John Williamson went beyond the limits of land-based or overwater human vision to take movie cameras underwater. For the first time they brought a new ‘coral phantasmagoria’ to rapt audiences. Williamson’s first submerged photographic experiments occurred as early as 1913 in the chilly waters of Chesapeake Bay, before he moved to the warm, clear waters of the Bahamas in the 1920s. In Australia, Frank Hurley took two photographic expeditions to Papua and Australia’s tropical north, 1921–3. Exploiting both the familiar masculinist, colonialist narratives of exploration and conquest and the real-time labour of local men, they created a colourful moving imaginary for the age. *Coral Empire* is a case study in the methods and success of each man, based in extensive archival research and close readings of their imagery, and anchored in Elias’s background as an art historian.

The book is a meditation on coloniality and its underwater shadows and techno-science and its photographic instruments: submersibles, aquariums, lighting, colouration, still photography and movie cameras. It explores the web of crossovers between art and science in visual modernity. The modern museum is an important lens too, as a producer of both natural imaginaries and scientific facts from the newly revealed undersea world, and for its relationship to audiences and consumers of the new underwater sublime.

For Australian readers, the book is a companion piece to Ian MacCalman’s *The Reef: a Passionate History*. For historians of science, it is another example of the potential for local histories of practice in place that are also ambitious explorations of larger themes, especially in this case where the links between Williamson and Hurley had been long forgotten. It is a triumph that the writer’s understanding of the place of scientific labour and representation—in global visual and popular cultures—is so nuanced and wide.

It is hard to imagine now what a sensation these images were for audiences whose closest experience of undersea life would have been

seashore encounters or aquariums. These photos and film were windows to a new world. And windows they were, since the photographers could not yet take their cameras into the water. Diving equipment was primitive, lenses were non-refractive and the technology did not exist to water-seal cameras for another two decades. Instead, Williamson used purpose-built submersibles, photographing and filming his visions of sea life through the framing of undersea glass windows. Hurley went in the opposite direction, harvesting coral and animals for a land-based, carefully curated aquariums and taking photographs and film through their glass walls. Elias’s descriptions of the difficulties of underwater photography and her detailed investigation of Hurley’s elaborate aquarium set-up on a beach in Port Moresby are fascinating. Such is the durability of the coral phantasmagoria—and its ability to erase the materiality of local environments and social and imperial relations—that Elias gives us the surreal, absurd image of ‘a Melanesian canoe and crew in the colonial tropics transporting a Western fish tank over reefs teeming with fish and brimming with corals’.

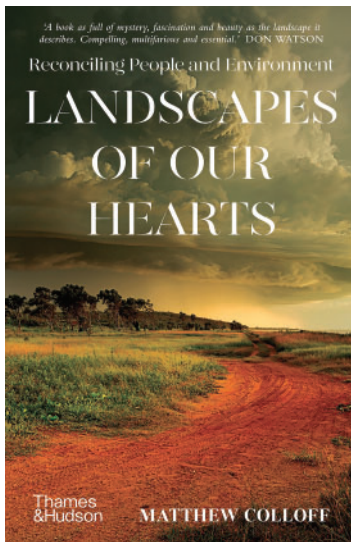
Parallels with the aesthetic, audience education and engagement goals of museum habitat dioramas are obvious. Both Williamson and Hurley produced their own commercial images and films and also collaborated with museum professionals to produce undersea dioramas, working respectively with the Field Museum in Chicago and the Australian Museum in Sydney. The chapters on these expeditions are particularly interesting, revealing the manual labour of collecting specimens and the technological fixes required to bring nature to the city museum. Both expeditions inserted media events into scientific study, with breathless newspaper prose promoting their progress. Both also involved some dubious collecting practices. The Hurley-McCulloch removal of cultural objects without permission is well known in Australia. The Field Museum-Williamson Undersea Expedition was an environmental disaster. They removed an incredible three tons of coral and took back 15 enormous crates of material to build their tropical diorama in Chicago. In 1936, the New York Museum of Natural History was said to have bested that devastation; they removed another 40 tons from the same reef.

The original films and photographs Williamson and Hurley produced were black and white and sometimes blurry and indistinct. It was back at the laboratory that the images were given life with hand-colouring and layering effects to create full technicolour glory. Elias concentrates her readings on the creation of the original visual spectacle. Although she considers Hurley’s construction of ‘composite’ images, the book is much less detailed on this second part of the creative tension between technology, art and science. Little is said about the role of each man’s scientific collaborators in corroborating and authenticating the bold colours they chose, and of the labour of production staff in realising the vision on film.

Elias’s book is full of stories of the crazed search for authenticity and the extrovert, heterosexual romance with the natural world hidden amid modern spectacle. It is a refreshing dip into the new arena of the ‘blue humanities’. Yet it is another cautionary tale of the hubris and human estrangement from the natural world that are entangled with the crushing complexity of our climate crisis. As Elias shows, solutions—both scientific and creative—might start with some history.

Vanessa Finney  
Australian Museum, Sydney





**Matthew Colloff:**  
*Landscapes of our Hearts: Reconciling People and Environment.* Port Melbourne: Thames and Hudson, 2020. 336 pp., 16 pp colour illustrations, ISBN: 9781760761028 (PB), \$34.99.

Matt Colloff has spent the last quarter century exploring the varied landscapes of Australia. In this deeply personal book, he writes of how they have found their way into his heart.

Colloff joins a distinguished lineage of ‘outsiders’ who came to Australia

to study its distinctive environments as scientists, and ended up writing about their passion for the place. The first and best-known in this group is Francis Ratcliffe, whose *Flying Fox and Drifting Sand* (first Australian edition, 1947) was widely read in the 1950s and 1960s. Indeed, it sat on the reading list for matriculation English in some states. It was subtitled—*the Adventures of a Biologist in Australia*—and adventures they were.

Ratcliffe, fresh from Scotland, set out on a motorcycle to learn about the migratory patterns of the giant fruit bats. On his way he met ordinary Queenslanders—‘bullock-drivers, drovers and possum hunters’—and talked to those whose livelihoods were threatened by flying fox invasions. His problem was not ‘the animal’, but the intersections between the animal and the economic objectives of fruit growing. The drifting sand problem in the troubled South Australian landscapes in the ‘dirty thirties’ saw Ratcliffe sharing meals in houses so dusty that the tablecloth was spread over the plates and he had to thrust his fork underneath it to retrieve the food, one mouthful at a time. The big national problems also shaped personal stories, and Ratcliffe’s biological adventures drew the two together.

Another more recent adventuring biologist couple were Richard and Barbara MacMillen. *Meanderings in the Bush: Natural History Explorations in Outback Australia* (2009) introduces Richard MacMillen, a visiting American arriving in 1966, when the Channel Country unexpectedly turned very wet, stranding him up to his axles in mud. MacMillen’s Australian colleagues teased him and dubbed him ‘Bogger Dick’, but he kept coming back, exploring the natural history of the uncertain and variable ecotones of desert, clay pans and ephemeral rivers, becoming one of Australia’s international ecological champions. Dick and his wife Barbara have become honorary Australians, still returning regularly over half a century later for scientific conversations and field studies, or what they like to call ‘meanderings in the bush’. At home in the United States of America they regularly host passing Australians and still closely follow Geelong in Aussie rules football.

Colloff, like Ratcliffe and the MacMillens, writes well and weaves his science into his travelling exploits. Perhaps he will be the last generation of field scientists whose work shaped a lifetime

of travelling. Like Ratcliffe, Colloff became an Australian citizen, so he is strictly an ‘insider’, not an outsider. Nevertheless, he retains a sense of his English self, and writes to engage European sensibilities as well as the local. Indeed, like Dorothea MacKellar, he started in England, with ‘grey blue distance, brown streams and soft dim skies’. Growing up in Kent, he grew to love natural history, perhaps especially in fishing places, before moving his loyalties and his sense of place to this sunburnt country, with its particular problems in a time of climate change.

In 2020, when none of us are travelling, armchair tales of the land are especially welcome. But the concept of long-term field work—which measures changes over decades and stays with communities until one is dealing with grandchildren of the people first contacted—is changing too. Science now labours under the research grants system, where projects must be acquitted in one, three or at most five years. It looks very different from the days of slow travel, where local contacts were essential not just to science, but also to survival. Even in the time between Colloff’s arrival in 1994 and now, science and the ways we understand the landscape have changed dramatically, especially for scientists working on climate adaptation.

Colloff and other climate scientists have had to grapple with the pain of change. He knows what changing climates are doing to ecological systems. Like Joëlle Gergis—his Fenner School colleague at the Australian National University—Colloff does not shy away from talking about the losses as well as the gains in knowledge over his research career. He is strong on trees and waterways. Those who know his *Flooded Forest and Desert Creek: Ecology and History of the River Red Gum* (2014) will not be surprised to find a terrific chapter on ‘The trees that shaped the land’. Water is a central feature, especially in the Millennium Drought years in the Murray–Darling Basin, when field work took him to parts that were seriously stressed. In ‘Values, rules and knowledge’, Colloff returns to water, reflecting on questions of its management and environmental justice.

Colloff’s beloved places include suburban landscapes, where so many of us are confined this year, and ‘holiday’ landscapes that are not primarily about production. All are already affected by changing climates, and all are under pressure from expanding human use. They are also part of his scientific agenda, which concerns adaptation as well as climate change. His writing is about being at home ‘in a strange land’, and he begins literally at home. On a hot summer day, we walk with him and his dog along the ‘Dog Beach’ on Canberra’s Lake Ginninderra, and notice the different ways that families from China, Vietnam, Afghanistan, India, Sri Lanka and Sudan all share this park and use it differently.

Even closer to home, there are gardens growing different foods. Colloff’s wife Alison has adopted an allotment in a community garden in the western suburbs of Belconnen. There she meets a fellow gardener from Myanmar, one of the Karen people who has escaped persecution and wants to grow her own vegetables. Making a home is a way to make friends, and growing food in the land is something that makes friendships possible across cultural and language barriers. This often happens in urban settings, and Colloff is right to explore it here. His idea of ‘a land of here and there’ is the migrant experience that so many Australians have encountered. It is where being at home in a new land can also incorporate a strong imaginative sense of identity from a former place. Colloff writes of

his own life: ‘The notion of translocality, of an existence that is grounded in being between places, brings ... an understanding of the common aspects of their new landscape that resonate and mingle with those of the old’. The riverine waterscapes of the Murray–Darling Basin are, for Colloff, imaginatively filtered through his childhood ramblings near English rivers, lakes and streams. He is both an insider and an outsider in Australia—perhaps making a home rather than being at home here—but nonetheless nourished and refreshed by the natural world around him.

One of my favourite sections of the book is entitled ‘Urban trees and the rewilding of Hackett’. Kentish villages have inspired a romantic appreciation of old trees, but in Canberra old trees contend with pragmatic risk-managing councils. They need active protection to survive at all. The old aesthetic drives their care, but the protest movement is essential too, and for a new practical reason. Losing trees will make heat stress in Canberra’s suburban homes unbearable, particularly if the overuse of air-conditioning causes power supplies to trip.

The urban world is also a place of the heart but seldom celebrated as such. The science of future management can partner with the nostalgia for places left behind, but still cherished. It can build a society, not just an economy. Colloff writes of ‘making meaning of place’ in urban environments, riffing on the idea of historian Graeme Davison, who suggests that ‘without the river valley our lives are too shallow but without the city square they lack purpose; together they may allow us to be at home’.

The vexed question of the relations between Nature and Nation, something that I have also explored in *How a Continent Created a Nation* (2007), is at the core of this book. Science once worked in lock-step with nation-building, particularly in Canberra in its earliest years, which coincided with the establishment of the Council for Scientific and Industrial Research (CSIR) in 1926. But in recent years, the nation is more often portrayed as an agglomeration of business interests, and sometimes its social and environmental dimensions are left behind.

Colloff decries this lack of strategic national ideas: ‘Anything with the word “national” in front of it—National Broadband Network, National Disability Insurance Scheme, National Biodiversity Strategy, National Indigenous Reform Agreement, National Water Initiative—seems just too hard for successive governments to implement over the long-term without political compromise or the lure of short-term gains’. What happened to the constitutional structure of federation? As lawyer Kim Rubinstein argues, the state governments were established in 1901 to guard the interests of business, while the federal government was there to protect citizens. What has happened since is that business has globalized, as have the citizens. The identity of place is now subordinated to much wider forces, with many citizens identifying with more than one place, living in a world informed by cosmopolitan forces. At times it is hard for governments to put people and the public interest before ‘the economy’, as the politics of Covid-19 has revealed.

The ‘national interest’ is also much more complex when the nation is more than six times as big, and it is entangled so completely with the international interest. The nation that came together in 1901 was just 3.7 million people—about the size of south-east Queensland today. It depended strongly on Britain, and while we still have a queen as head of state, we no longer travel on British passports. A hundred years ago, Colloff would not have had

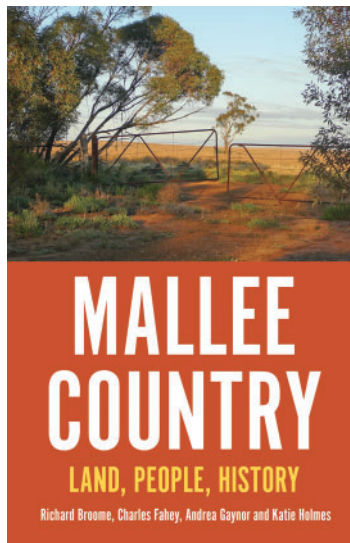
to distinguish between his old identity and his new. Indeed many Australians who had never been to England still called it ‘Home’ then. The national is increasingly a strange concept, out of step with the ways that people live their lives. This dissonance is particularly true in a place like Australia, where so many of us travel widely and have come from other places.

Meanwhile the ecological frameworks for ‘Australia’ have changed too. We now know so much more about this place than we did before the work of CSIR and other scientific research over the past hundred years. Climate change affects all of the continent, but not in the same way, or even at the same times, as the rolling wildfire seasons reveal. The tropical north is so different from the 70% of the continent that is ‘arid’, and the tiny percentage that is ‘temperate’, where almost all the people live. Colloff is justified in being sceptical about the value of a National Climate Adaptation Strategy, especially if it simply becomes a target for interest groups that want to shut down evidence-based policy making.

Colloff is also right to appeal to hearts as well as heads in working out how to face the planetary changes that climate change brings. We need action, not paralysis, and that will come from passion as well as good scientific understandings. *Reconciling People and Environment*, the subtitle of this book, is a big long-term project. However, there is a new urgency to get on with it, and not to leave both people and environments behind in a narrow definition of nationhood.

Libby Robin

Fenner School, Australian National University



**Richard Broome,  
Charles Fahey,  
Andrea Gaynor and  
Katie Holmes:** *Mallee  
Country: Land, People,  
History*. Monash University  
Publishing: Melbourne,  
2020. 415 pp.,  
ISBN: 9781925523126  
(PB), \$39.95.

It is not sand, salt or ‘inland’ sea but sugar that greets the reader of *Mallee Country*. In an exquisite prologue, this much-anticipated history unveils a semiarid landscape where excess sugars are a ‘powerhouse’ of wildlife. Sugary exudates are the by-

product of intense sunshine over mallee lands, which incites trees and shrubs to produce more carbohydrates than the soils can convert into plant fibre or seed. We are invited, then, into ‘wondrous’ lands where diverse fauna ‘luxuriate’ in the sweetness of honeydew, manna and the ‘licking utopias’ of lerp.

Teeming with life, *Mallee Country* is a rich and erudite history of nature and culture in three bands of southern Australia that cover parts of New South Wales, Victoria, South Australia and Western Australia. The word ‘mallee’ derives from a Wemba Wemba word,

'mali', for a form of eucalyptus tree with a multi-stemmed trunk, branching out from a woody lignotuber at or below ground. Fittingly, *Mallee Country* 'branches out' in response to the critical challenge of giving voice to the diversity of both human and non-human histories. The task seems especially important in landscapes where stories of the past have been told predominantly through the lens of locality and farming. Here, four gifted historians (collaborating on a multi-institutional project conceived a decade ago) combine Indigenous, Australian, environmental and agricultural historical approaches in the one authoritative tome on mallee lands. This has not been done before. The result extends the book's chronological sweep from Deep Time to the present, deepens its intellectual insight and adds pedagogical value for those of us captivated by history as *history making*, caught up in the human activity of scholarship on the past and present.

The narrative arc is mallee country's Anthropocene, staged in four parts, where the first is quick to upend the colonial vision of passive land. Part One opens with a metaphorical device—a single day—to summarise Deep Time and Earth's emerging topography. The metaphor is a nod to the incomprehensibility of geologic time; further perplexity is explored in the contrast between land-use practices and cultures in the coming of the Anthropocene. For more than 50,000 years, Aboriginal peoples lived in symbiosis with mallee lands, defined by laws, and spiritual and cultural practices, adapting and evolving a sustainable living shaped by 2,000 generations of stewardship. The intrusion of European settlers and pastoralism in the nineteenth century permanently changed mallee country, rupturing Aboriginal cultures and bringing the dispossession of ancestral lands. Violence was compounded by disease and cultural dislocation, leading to the erasure of some groups. Indigenous custodianship and settler-Indigenous relations are fundamental concerns threaded through the book.

Part Two, spanning 1880 to 1945, chronicles the radical transformation of lands once derided by settlers as a 'howling wilderness' covered in 'dismal scrub' into dry-farmed wheat-fields. The authors pay careful attention here (as elsewhere in the book) to the advent, lived experience and social-environmental impacts of government-backed settlement schemes that included farms for returned soldiers and ended in hardship and failure for many. Innovations such as the mallee roller, stump-jump plough and stripper helped propel this agricultural imperative. Indeed, in South Australia it extended recklessly north of Goyder's Line, where annual rainfall is usually too low to support cropping.

With such dreams, determination and ingenuity came environmental catastrophe, as massive land clearing and drought brought dramatic red-brown dust storms and desolation. The Federation Drought was formative, encouraging notions of rural endurance notably in the Victorian Mallee that persisted even as 'the wind became another punishing feature of mallee life, as if trying to rid the land of those who dared to rest upon it'.

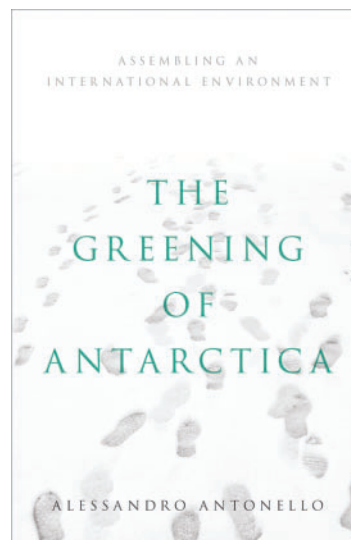
After decades of being pushed to the brink, developments in science and technology ushered in a 'golden age' for mallee farmers in the mid-twentieth century, and rising commodity prices in the post-war years encouraged massive new mallee land schemes in Western Australia and South Australia. Part Three charts this period to 1983. By the late 1960s, overproduction in most years created new problems, leading to a build-up of wheat stocks by the Australian Wheat Board. Wheat quotas followed—as did more

droughts, plus dust storms, and plagues of mice and locusts. Attempts to counter environmental degradation included the adoption, over time, of no-till farming techniques. Importantly, all along, we learn of the broader rise in advocacy for conservation of mallee lands in the twentieth century.

Part Four makes a distinctive contribution in exploring the challenge of sustaining diversified farming communities in the face of fluctuating markets and environmental difficulties—not the least being vulnerability to climate change. Here, the combination of environmental and oral history offers fresh insights on what it is like to live with environmental change—and, significantly, how the 'wider, global neoliberal denial of community' has played out in mallee country. The authors spotlight the role of the arts, nature and both Aboriginal and European heritage in sustaining mallee communities. They engage too with the continuing connection of Indigenous people to mallee places, their adherence to traditional clan lands and their boundaries as a supreme value, and the significance of Native title in their bid to gain respect and recognition as Traditional Owners.

We are left, then, with signs of resilience, creativity and hope—for lands and for people whose outlook is bittersweet.

Deb Anderson  
School of Media, Film and Journalism  
Monash University



**Alessandro Antonello:**

*The Greening of Antarctica: Assembling an International Environment.* Oxford University Press: New York, 2020. 250 + ix pp., illus., ISBN: 135798642 (HB), GBP£47.99.

In the 1960s and 1970s, 'the modern international environmental character' of Antarctica was established and the seeds laid of our current approach to the management and protection of the southern continent. These decades saw the rise of a broad popular consciousness of the environment, and of the

acceptance of an ecosystem approach to analysing and managing the world's natural resources. Historian Alessandro Antonello explains his title, *The Greening of Antarctica*, as meshing two related developments. The first is the general change in perceptions of Antarctica during these decades; the second encompasses treaty-based negotiations to conserve and protect Antarctic flora, fauna and marine ecosystems.

On 1 December 1959, representatives of 12 nations including Australia gathered in Washington DC to sign the Antarctic Treaty. Promulgated in 1961, this Treaty mandated the peaceful uses of Antarctica, barring military pursuits and nuclear technology or wastes. It also shelved territorial claims within the Treaty area for the life of the document.



Achieving consensus on the process of administering it was a colossal undertaking. A British delegation brief for the 1968 consultative meeting in Paris, for example, noted that the four United States representatives ‘expressed such divergent views that it was difficult to forecast the policy which may eventuate in Washington’. Antonello delivers a clear picture of the infinitely complex international diplomatic and scientific manoeuvring required to bring the Treaty into existence and to keep it alive.

During the 1960s and 1970s, the popular conception of Antarctica changed from depictions of a sterile continent to a living and fragile place shaped by biological forces. At the same time, the newly constituted Scientific Committee on Antarctic Research, which first met in 1958, gradually assumed the central position of ‘premier international scientific organization that spoke for the Antarctic environment’. The author sees the signing of the Convention for the Conservation of Antarctic Seals in 1972 as a critical moment that confirmed the Scientific Committee’s central place in administration and regulation of the Treaty regime.

For the first time, Antonello critically analyses the negotiations for this convention and two other fundamental documents—the Agreed Measures for the Conservation of Antarctic Fauna and Flora, and the Convention on the Conservation of Antarctic Marine Living Resources. He also brings in a fourth—the Convention on the Regulation of Antarctic Mineral Resource Activities—which was eventually rejected.

Chapter 1 examines the move towards conservation of wildlife through the Agreed Measures for the Conservation of Antarctic Fauna and Flora. Completed in 1964, it was the first post-Treaty agreement and applied only to land-based organisms. Its nature conservation focus set the Treaty regime on a course that persists into the present.

Sealing in the Antarctic, particularly for fur seals and elephant seals, was an essentially a nineteenth-century activity that was briefly mooted for revival in the 1960s. As chapter 2 details, this renewal of hunting did not happen. Nevertheless, Treaty parties signed the Convention for the Conservation of Antarctic Seals, banning the capture of Ross seals, fur seals and elephant seals.

Moving into the 1970s, chapter 3 discusses mineral and hydrocarbon extraction prospects, in advance of the formal negotiations towards the Convention on the Regulation of Antarctic Mineral Resource Activities in the 1980s. Mining negotiations in the 1970s moved Antarctic Treaty diplomacy towards environmental protection, later manifested in the Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol), signed in 1991.

Chapters 4 and 5 address Antarctic fisheries and marine living resources, plus the Convention on the Conservation of Antarctic Marine Living Resources, signed in May 1980. Importantly, this convention hugely expanded the Treaty area. In addition to land and ice shelves below 60° south, it also encompassed the high seas—which had been explicitly excluded in the original treaty—and subantarctic islands. Tensions emerging during this phase of diplomacy included issues of marine sovereignty and the new concept of exclusive economic zones.

The first two decades of Treaty development and implementation took place in a setting of complex world developments. The geographical area under negotiation was Antarctica, and the Treaty singled out science as an acceptably peaceful activity. It should not

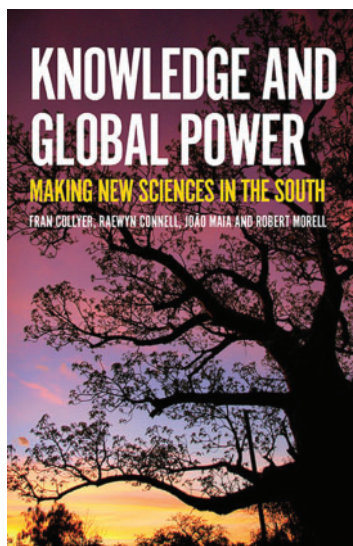
surprise us that the problems involved in reaching agreement were perennial international disparities in power and authority. Likewise, the negotiation process was strongly affected by the forceful ideas and actions of individual participants. As Antonello notes, not even the geographical limits of Antarctica were agreed when the Treaty was devised. Throughout the negotiations, diplomats and other participants struggled to define usable boundaries for the globe’s least-known and least-studied continent.

The author has a sophisticated grasp of the negotiations and contexts of the Treaty, and puts the long process into its broader, changing context. He also has the ability to take us back to the concerns of the era he writes about. We see them as dynamic times: certain decisions were made and courses followed. It might have been otherwise. It is the magic of good historians and writers that they can create—as Antonello does here—a feeling of the present’s fluidity and uncertainty while writing of past times. To use his concluding words, ‘critical histories that explore the paths almost taken, and that recognize the past’s present and futures, can usefully lengthen foreshortened visions’.

Detailed chapter notes at the end of the book offer abundant evidence of Antonello’s deep scholarship. A bibliography is divided into archival and published sources, a distinction perhaps less important than formerly with the increasing digitisation of archival records. Given that Antarctic history is as full of acronyms as any specialist area, it is hard to see how their use on many pages could have been avoided. Readers, however, may rue the lack of an explanatory list of the main acronyms.

What emerges from this book is a view of Antarctica as an ‘international environment... fought over in the 1980s especially in the context of a mining debate that eventually led to a comprehensive environmental protection and management regime, whose seeds can be found in the 1960s and 1970s’. Throughout *The Greening of Antarctica*, the place of science in an international diplomatic and political system is never out of sight.

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**Fran Collyer, Raewyn Connell, João Maia and Robert Morell:** *Knowledge and Global Power: Making New Sciences in the South*. Monash University Publishing: Clayton, Vic. 217 pp., ISBN: 9781925495768 (PB), AUD \$39.95.

In July 2019, I attended the World Congress for Environmental History, hosted by the Federal University of Santa Caterina in Florianópolis, Brazil (UFSC). I was there because its history department is home to an

energetic environmental historian who had gathered around her a large group of postgraduate students and the institution was actively seeking to host major international conferences. UFSC is a comprehensive research university, yet its scholars work in the intolerable climate of Jair Bolsonaro's fascistic, populist rule, which includes frequent attacks on knowledge and independence.

As an Australian with a fellowship at a wealthy institution whose resources allowed me several international trips per year, it was impossible not to be profoundly conscious of the disparity in opportunities for contributing to a global scholarly conversation. Colleagues gathered from around the world, but many who were meant to join us could not: last-minute visa or budgetary snafus halted their mobility. Even with a short and direct flight from Buenos Aires, a colleague from Argentina could not attend because of the parlous financial situation of his research institute.

This experience was front of mind when reading *Knowledge and Global Power*. This work places Australia, Brazil and South Africa within the same frame of analysis as members of the 'global South' or 'southern tier', structured by history and current political economic conditions to be subservient members of the global knowledge economy. Authored by two Australians, a South African and a Brazilian, this book begins from the premise that there is a 'global knowledge economy'. However, participation and recognition within that economy is unevenly distributed among 'knowledge workers'—that is, researchers, although the authors remind us of the huge body of support workers necessary for original investigations to occur.

Agenda-setting and glory remain in the hands of scholars generally based in English-speaking universities in the United States and Britain. Meanwhile, researchers in the 'southern tier' participate in this knowledge economy by adopting the frameworks of the dominant north. Reframing and redeploying a concept from Beninese philosopher Paulin Hountondji, the authors term this process 'extraversion'. They furthermore suggest that one can test the openness of the global knowledge economy by exploring new areas of knowledge, where a scholar might have a greater chance of entry and influence. In testing their hypothesis, this book analyses three 'emergent' knowledge domains: gender, climate change, and HIV/AIDS.

The authors pay close attention to the daily lives of knowledge workers in the 'southern tier', especially as a way of understanding what strategies researchers use to negotiate their position in the global knowledge economy. Scholarly work and its conditions differ across the world and need to be described and accounted for. The authors conducted short-form ethnographies and interviews with researchers in a South African climate research unit, a Brazilian HIV/AIDS centre, and an Australian gender research unit. They also undertook quantitative research in the Web of Science scholarly database. While clearly a great deal of on-the-ground effort has been made, the 'ethnographic' elements of this work are thin, although the interviews provide some insights.

The book contains some fascinating information and telling pieces of data. It was, for example, surprising to read that most 'southern tier' lead authors had received their PhDs in their own countries. Yet most interviewees neither mentioned the global South as a concept, nor were they interested in epistemological or de-colonial alternatives to their established intellectual frameworks. Despite these moments of illumination, the book is uneven,

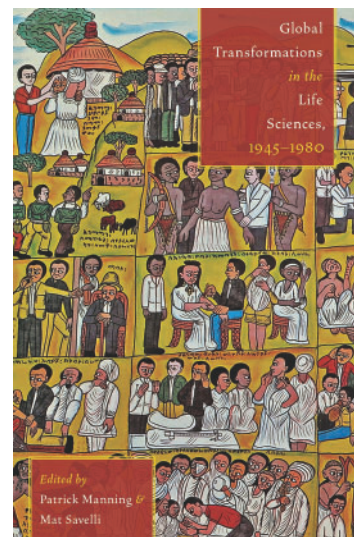
relying on contestable concepts and framings, and curious analytical choices. At several points, the words of interviewees go critically unchallenged and uncontextualised. The chapter on publishing subtly slides into a discussion about the United States, without really connecting it to the larger questions of the book.

Two larger conceptual issues will determine a reader's response to this book. First, is Australia part of the 'global South'? Connell has previously argued for a 'southern theory' in which Australia has a place. While in general her arguments are compelling, the inclusion of Australia in this field of vision will strike some readers as problematic. A related question is whether the southern frame has heuristic value. Either Australia differentiates itself from the North and aligns itself with societies actually oppressed by northern hegemony, or it separates itself from the South, despite some parallels in historical trajectories.

The second conceptual and analytical issue is whether gender studies, HIV/AIDS, and climate change are too diffuse to be productively analysed. HIV/AIDS certainly seems the most coherent of these knowledge domains, thus forming the strongest case in this book. Conversely, as a historian of climate science, I was sensitive to some of the authors' claims about the history and sociology of this research area.

If we do take the authors' concepts and framings as provocations, *Knowledge and Global Power* could stimulate a valuable avenue of work. We must look at the daily lives of knowledge workers, appreciating their struggles and successes within a global knowledge economy truly stacked against them. And, as the authors affirm, scholars in the 'global South' are local experts too, important in their own communities. Even if knowledge today is made in and through a global system, it is created in particular places which also demand particular kinds of knowledge.

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**Patrick Manning and Mat Savelli (eds):** *Global Transformations in the Life Sciences, 1945–1980*. University of Pittsburgh Press: Pittsburgh, 2018. 328 pp., ISBN: 9780822945277 (HB), USD\$45.00.

The editors and writers of this volume are to be applauded for riding well ahead of the decolonization curve. *Global Transformations in the Life Sciences* showcases its importance, both in the sciences and in their histories. This theme was at heart of discussion

on the state of the discipline at the recent (and first) digital festival of the British Society for the History of Science. Exploring similar themes, this collection of 12 essays is based on papers first



presented at a 2014 conference on post-World War 2 life sciences, held at the University of Pittsburgh's World History Center.

One of the overarching aims of the World History Center event was a desire to 'articulate the study of science (and technology) within world history and identify global perspectives in the history of science'. The theme is thus very broad—or even diffuse—for a collection that concentrates on the life sciences over a very small window of time. Spanning a mere 35 years, the essays cover varied topics in diverse places. Whereas some chapters focus on specific places, the major emphasis is on global developments, giving new life to the maxim popularised by microbiologist René Dubos: 'think globally and act locally'.

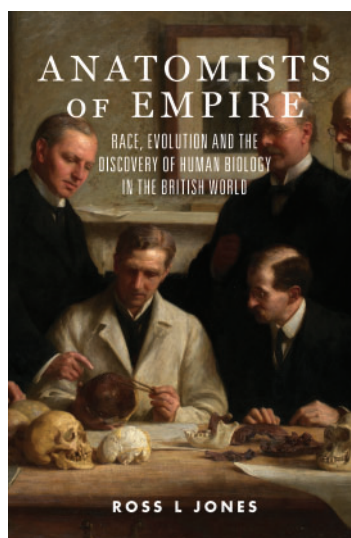
Moreover as Patrick Manning, one of the editors of *Global Transformations in the Life Sciences* makes clear, the term 'global' has been used in more than merely a geographical sense. In his schema, the 'global' frame is implicit to analysing the history of science at 'various scales of social and academic life'. These scales are made evident in the various contributions herein: David Wright, Sasha Mullally and Renée Saucier explore the Indian 'brain drain', while Franck Stahnisch details the less familiar 'brain gain' in post-war North America. Smallpox eradication, sexology and racism through the rare lens of fingerprint research in East Asia are also fair game in this fascinating and diverse volume.

The insertion of science into post-war history is clarified by Joanna Radin, who positions the life sciences as 'central to imagining the human future on a planet that they had already irrevocably transformed'. I can fully understand the desire to consider the post-World War 2 transformations in the life sciences. But why stop at 1980? In reviewing the chapters, I am tempted to think that the bookend may simply be an artefact of circumstance, the particular case studies presented here. If the choice was explained, I missed it. Calling attention to it in the title was perhaps not necessary; the phrase 'after World War 2' might have been a better choice, as most insights offered by the authors transcend the nominal date range. Indeed, some of the essays, notably, the concluding contribution by Jon Agar about the Sixth Extinction, are certainly not time-bound in any way. This extinction is still ongoing today, at an accelerated pace.

This minor burr aside, the collection makes good on the promises offered in the introduction. For instance, it highlights the complex evolution of the life sciences after the Second World War. The contributors also elaborate the innovative ways in which decolonisation motivated local developments that both 'contributed to and relied substantially on the main line of evolving biomedical knowledge'. Daniele Cozzoli's examination of post-war research on curare is a great example that shows how the investigative enterprise in France and Italy was dependent on the networks established with South Americans. Lijing Jiang reverses the axis of influence, asking how international developments in cancer research were interpreted in China.

I make no apology here for mentioning just two essays from the many excellent contributions. This is a strong and cohesive volume that well justifies its place within the series of conferences hosted by the World History Center on the globalisation of science. I leave the actual reading of the individual essays to scholars and students alike, who may be sure that they are well worth the effort.

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**Ross Jones:** *Anatomists of Empire: Race, Evolution and the Discovery of Human Biology in the British World.* Australian Scholarly Publishing: Melbourne, 2020. 295pp + xiii, illus., ISBN: 9781925984705 (PB), \$49.95.

This is an interesting and complex study of three interesting and complex men, all of whom have been largely forgotten in their own discipline and outside of it. The three main characters—the Australian Grafton Elliot Smith, the English Frederick

Wood Jones, and the Scot Arthur Keith—fall into the mould of 'they don't make them like that any more'. The late nineteenth-century British Empire has a lot to answer for, but it is important to remember that it also threw up hundreds, if not thousands, of ruggedly individual and highly gifted men and women who shaped modern science, industry, education and medicine as we now know it. Most of them came from the enormous and aspirational middle class, as these three men did. All were of modest means when they started their professional lives, but all were blessed with brilliance, open minds, curiosity and determination.

All of them showed promise from youth; some earlier than others. Smith was from the distant colonies and journeyed far to make it good at 'Home' in Cambridge. Wood Jones was struggling academically until he hit his stride. Keith was a scholarship boy. While Jones' account of their romantic histories at the opening is very distracting and left me wanting more, I had to resign myself to more serious endeavours. Thankfully the rest of their lives were equally interesting—just for different reasons.

All three men reached academic maturity at a critical time in the history of science in the Anglosphere, as Darwin's theories about the origin of species were generating an ongoing crisis with establishment Christianity and establishment science. Jones gives an account of an absolutely extraordinary meeting of nascent anthropologists in Melbourne on 4 August 1914, the day that World War I was declared. Practically everyone who was to turn out to be anyone in British anthropology was present: Smith (diffusionist), Bronislaw Malinowski (functionalism), Robert Marrett and Henry Balfour (cultural evolutionism) and Alfred Radcliffe-Brown (structural functionalism). In fact, Radcliffe-Brown wouldn't have become Radcliffe-Brown if he had not met his future mentor, Malinowski, in Melbourne in 1914.

What struck me forcefully while reading this book—entirely politically incorrectly—is the sheer overpowering curiosity of these anatomists of Empire and their scientific peers. Yes, they proceeded with no regard for the rights of other human beings who they considered to be possibly inferior. Yet that very desire to investigate those peoples, even as specimens, is so different from the history of Europe and indeed the rest of the world for centuries beforehand. Mostly, strangers were for killing. That human beings had the time

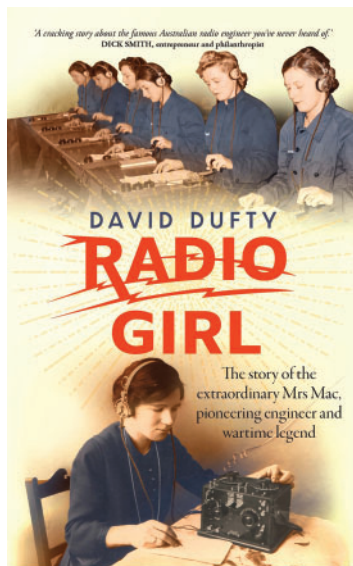
and the disposition to look on strangers—whose strangeness was about as strange as they could imagine—with curiosity instead is a reminder that there is historical good in the bubbling stew of Empire, as well as evil. The same ideas in this stew cooked up rather differently outside the Anglosphere, as we were later to discover at Nuremberg.

This book goes everywhere with these three intrepid men. We visit the sandy beaches of the Cocos Islands; the discredited ditch where ‘Piltown Man’ was allegedly discovered; the sarcophagi and boneyards of Egypt; the massive cool grey stone museums in London; and the reddest and strangest corners of the Australian continent and New Mexico. There are literally rags and bones and hanks of hair, and enough skull-measuring to satisfy the most determined craniologist or phrenologist. If these anatomists and anthropologists had observed themselves and their own social networks as closely as they studied most of their human subjects, they would also have found plenty of evidence for universal human failings. This litany included in-house bickering, professional boundary-riding, social ostracism, rival organisations and long-standing academic grudges.

The book concludes with the birth of the concept of ‘human biology’. It is difficult to remember that a concept as basic and ubiquitous as this had to begin somewhere. Jones traces it to Raymond Pearl’s 1924 book on the subject. But *Anatomists of Empire* also ends by touching on the darker side of interwar anthropology: its marriage with the eugenics movement.

This is an elegant book; it feels and looks and smells good, and as a paperback it is a joy to hold and read. But I longed for anatomical illustrations to accentuate the many different points and adventures in the story. The only images are of some of the dramatis personae; while they are sterling characters, they do not capture the heart like a good cutaway does. This is my only complaint about an otherwise very comprehensive and readable book.

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**David Dufty: *Radio Girl: the Story of the Extraordinary Mrs Mac, Pioneering Engineer and Wartime Legend*.** Allen & Unwin: Crows Nest, 2020. 302 pp., illus., ISBN: 9781760876654 (PB), \$29.99.

The name of Florence Violet McKenzie is probably not well known to many Australians but certainly deserves to be so. She was a pioneer of radio in Australia, being Australia’s first certificated woman radio telegraphist and the first female member of the

Wireless Institute of Australia. In 1934, she established the Electrical Association for Women, and her Women’s Emergency Signalling Corps was crucial for the development of Australia’s Navy and the telegraphic capabilities of Australia’s armed forces during World War 2. McKenzie was generally known as Mrs Mac, from which can be deduced the respect and affection in which she was held.

This is not the first time McKenzie’s story has been told, preceded as it was by a radio program and entries in the *Dictionary of Sydney* and the Australian Women’s Register ([www.womenaustralia.info](http://www.womenaustralia.info)). In addition she was given suitable prominence in the several histories of the Women’s Royal Australian Naval Service. David Dufty’s previous book, *The Secret Code-breakers of Central Bureau* (2017), highlighted the unreadiness of Australia’s armed services, at the outbreak of World War 2, in terms of intelligence-gathering and code-breaking: McKenzie and her school deservedly have a place in that book. More recently her contributions were recognised by inclusion in *Anything is Possible: 100 Australian Engineering Leaders*, published by Engineers Australia in 2019. This is, however, the first extended biography.

One of the themes running through the book is that McKenzie thought women as capable as men and found ways to help women achieve their potential. In her various ventures, many of them firsts, she used her own experience of overcoming entrenched barriers to establish organisations and training facilities with the purpose of improving the prospects of women and empowering them to seek better opportunities for themselves.

McKenzie qualified as an electrical engineer in 1922, the culmination of a long road in which she found her path blocked by the sort of bureaucratic and attitudinal barriers that we might expect to have existed at that time. In achieving this success she engaged in some creative lateral thinking that saw her set up an electrical engineering business and become owner of Australia’s first retail outlet for radio and electronic parts.

In the later 1930s, as the shadow of war grew ever more ominous, McKenzie involved herself in the formation of the Australian Women’s Flying Club, one of her roles being to teach Morse code to its members. Recognising a potential vacuum in the availability of competent Morse code operators, she next established, at her own expense, the Women’s Emergency Signalling Corps for the sole purpose of teaching women this essential communications method. It will come as no surprise that she had no trouble is recruiting students, or that many of these women excelled as telegraphists.

Dufty paints an illuminating picture of McKenzie’s prolonged attempts to interest Australia’s armed forces in including in their ranks people who were more than capable of filling essential (and largely vacant) positions. From the Australian Army and the Royal Australian Air Force she met a barrage of excuses as to why enlisting women would be detrimental and impractical.

The Royal Australian Navy, in the person of Commander Jack Newman, proved considerably less obdurate. Having visited McKenzie’s Sydney headquarters and seen for himself that the skills of her trainees far outweighed those currently available to the Navy, Newman convinced his superiors of the benefits of utilising these skills. Thus in 1941, with the enlistment of 14 young women, was born the Women’s Royal Australian Naval Service (WRANS). This was a life-defining event for these women. McKenzie’s

training school proved vital in the training of both women and, later, men to fill essential roles for the remainder of the war.

This is an eminently readable book, not weighted with the gravitas that often attends biographies. McKenzie emerges from the pages as a lively, capable and determined woman. Her role as an influential radio pioneer in Australia is clearly delineated. So too is her prescience in the establishment of the Australian Women's Flying Club and the Women's Emergency Signalling Corps to prepare that overlooked section of society, women, to make a substantial contribution to the prosecution of World War 2.

There is much to learn here of the early days of amateur radio in Australia; the difficulties for women in obtaining a trade qualification; the readiness with which women made themselves available in large numbers to support the war effort. McKenzie's adventures with military bureaucracy are described without an excess of criticism of the way those bureaucracies operated in their time. The judicious use of extracts from the newspapers and popular press

provides a rich flavour of community opinion and support for McKenzie's activities.

There is also a liberal selection of photographs. They relate predominately to the Flying Club, the Signalling Corps and the WRANS, but also include some from McKenzie's early days in radio, her Wireless Shop and the Electrical Association for Women. Most of the photographs have been credited as coming from the Ex-WRANS Association and various public repositories. Another rich source of images may well have been descendants of those early WRANS, some of whom have been included in the acknowledgements.

One mistake leapt off the page. On page 154 is a list of the first 14 women to join the Royal Australian Navy. The second is stated to be Joan Code. No, Joan Cade. How do I know this? Joan was my mother.

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