

Call of the Reed Warbler. A New Agriculture, A New Earth

By Charles Massy

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Reviewed by Jen Silcock^A

Australia is biogeographically unique: an ancient, infertile, predominantly arid and long-isolated island continent, with specially adapted animals and plants that occur nowhere else. It was tended and mythologised for millennia by hundreds of nations of sophisticated ‘hunter-gatherer’ land managers, followed by a sudden and momentous biogeographic watershed: the arrival of Europeans a mere 230 years ago.

What followed is summarised pithily in, and provides the starting point, for Monaro (southern Australia) sheep farmer Charles Massy’s recent book, *Call of the Reed Warbler*: a violence inflicted on the people and their country as the newcomers imposed ideologies and management practices disastrously ill-suited to the land they had arrived in. Massy outlines how these industrial agricultural practices, embedded within our prevailing socio-political systems, have depleted Australia’s soils, destroyed vast areas of forest and grassland, driven species to extinction and undermined animal and human health, as well as contributing to anthropogenic climate change.

Call of the Reed Warbler charts Massy’s evolving thinking about Australia, and the world’s, current ecological and human health crisis. He paints a grim picture of the current industrial system of agriculture, entrenched within a ‘Mechanical’ mindset: ‘Quite simply, modern industrial agriculture has crudely and violently destroyed healthy soils, healthy functioning landscapes and ecosystems, healthy animals, healthy behaviour of animals and humans in landscapes, and healthy people’ (p.397).

But this is no doom and gloom hand-wringing. Massy believes there is a way to avert the impending crisis, and it starts with agriculture: not the industrial-style agriculture that has prevailed in Australia since European arrival, but a regenerative agriculture, focussed on both country and community. Fittingly, for a book that weaves in stories of regenerative agricultural practitioners from around Australia and beyond, it reads like a series of long chats around a farmhouse kitchen table, interspersed with meanders through the paddocks.

The book is structured around five key landscape functions and their regeneration: solar energy, the water cycle, soil-mineral cycle, dynamic ecosystems and the crucial human-social systems. These are then placed within the larger picture of how regenerative agriculture can heal the Earth, and ourselves, all underpinned by embracing what Massy calls the ‘Emergent Mind’. These huge concepts and their implications are covered with urgency, clarity and a generally light touch – although some

sections do feel heavy-going and mired in academic parlance, perhaps reflecting the book’s genesis as a PhD thesis. However, key messages are distilled throughout and on the whole it makes for compulsive reading.

Call of the Reed Warbler is brimming with wonderful passages of prose and disturbing facts in equal measure, and by the end I had dog-eared many pages to return to and ponder. To name just a few, early Australian settler John Robertson’s description of the changes wrought to his selection in the southern state of Victoria in less than a decade of sheep grazing (pp. 58–59) should be required reading for anyone interested in Australian history and ecology. I learnt that the history of “rotational grazing” ideas dates back to 1760s–70s French and Scottish Enlightenment thinkers, and enjoyed reading about the influence of lunar cycles on plants and pollination. And I challenge anyone to remain unmoved by the descriptions of rampant and entrenched use of chemical cocktails on food-producing land (as recommended by agronomists and other advisors), or cited research that shows that a typical apple in the USA in 1914 supplied 26 times more nutrients than a modern apple!

It is also full of genuinely challenging and original ideas. Massy links landscape health to spiritual fulfilment, and gently suggests that a factor in rural ill-health (physical and mental) may be connected to the way ‘we farmers’ treat the landscape – as evidenced by practices of modern agriculture like spraying, aggressive ploughing, clear-felling of trees and creation of monocultures. His assertion that post-1788 Australians can never fully belong on this continent until they acknowledge and respect the dispossessed Indigenous managers cuts to the core of belonging and reconciliation in Australia.

Call of the Reed Warbler puts forward a new narrative for this ancient country – one that is not dissimilar in its scope to the ‘explorer/frontier’ epic that still looms large in Australia’s national psyche – but this time humble, gentle and questing, based on working with nature rather than conquering it. Massy calls for a bottom-up revolution, against the dehumanising and destructive forces of prevailing socio-political and economic systems, and underpinned by love and respect for country.

Sensitivity and deep thought are evident throughout, perhaps most obviously in the moving and profound vignettes of the author’s farm in various seasons, and of events in his life (the most shocking comes, without warning, late in the book). He does not

shy away from the damage he unwittingly inflicted on his own land, and these sections pack great emotional punch. After injudicious ploughing on sloping land followed by a storm, he writes: 'I had cost the landscape and our family perhaps a thousand years of topsoil in only twenty minutes, preceded by two days of a thoughtless gambler's punt' (p.184). Damage can still be seen 36 years later, despite the switch to regenerative practices.

The book is well indexed and extensively footnoted, and I found myself frequently flipping to the References section. And this is where the major frustrations and shortcomings of the book lie. Many key scientific statements are backed up by nothing more than a 'personal communication', newspaper article or inaccessible grey literature. For example, the increasing insect diversity on a New England farm due to regenerative agriculture was apparently studied by the local University, but this is not referenced. One of cell grazing pioneer Alan Savory's grazing trials is stated to have carried 'more than twice the number of cows than traditional approaches'. These are spectacular claims, with obvious implications for grazing management if true, although the only confirmation of this is a personal communication from Savory (rather than a reference that an interested reader could go and look up). Similarly, key claims about the potential of switching to regenerative agriculture to decrease Australia's carbon dioxide emissions by 25% annually (p.442) are also footnoted with a personal communication.

Perhaps in some cases this lack of referencing is because the science does not yet exist to back up the on-ground observations of regenerative agriculture practitioners – and this points to a key requirement for agricultural and rangeland scientists in studying and documenting the examples cited in this book, and other regenerative practices. However, in others Massy alludes to 'extensive literature', then fails to cite it. He writes that rangeland scientist Terry McCosker published '18 papers in six months across eight different disciplines' based on 'the best practical research ever done in the [Northern] Territory to this time' (p.425) – but only a single McCosker paper appears in the reference list. Soon after, he refers to the 'voluminous scientific work' relating to the water cycle governing heat dynamics of Earth (and thus regenerative agriculture's potential to address climate change); this may be so, but a single reference in a small online regenerative agriculture journal called Soils For Life does not constitute voluminous scientific work.

Most concerning are instances where peer-reviewed literature that conflicts with the narrative presented in the book is completely ignored. Perhaps the most serious examples of this scientifically selective approach are in the cell grazing realm. Studies thus far have consistently shown little, if any advantage, of multi-paddock cell grazing over continuous grazing. A review summarising 27 studies from Africa and North America, published in the *Journal of Range Management* (Briske *et al.* 2008), found no scientific evidence for improved plant production, pasture condition or animal performance under rotational grazing regimes.

Similar conclusions come from a rotational cell grazing system at Beetaloo station in north Australia, a key example in *Call of the Reed Warbler*. The reader would conclude that it has been a success, with widespread implications for tropical

grazing systems. However, scientific results from the trial (which are not cited, or even referred to in the book) refute these claims. Although this is an evolving area of research in Australia, and managers who practice such systems are often excited by the early results, the lack of scientific evidence for animal or ecological outcomes should have been acknowledged. Other grazing management practices, such as wet-season spelling, are consistently supported by scientific studies, but are not mentioned.

The practice of telling the stories of regenerative practitioners is excellent as far as narrative structure and impact go, but more solid science is needed, or at least acknowledgement of gaps in current knowledge, to make this a convincing scientific read. This would move regenerative practices from the anecdotal to the scientific, and provide a much more solid footing for their widespread adoption.

Some of the 'regenerative' practices advocated in *Call of the Reed Warbler*, particularly spreading of waters with poly-pipe so that all country can be utilised, may also have serious biodiversity consequences. Country that had escaped regular grazing by introduced herbivores would be able to be grazed regularly if stock had access to water, with potential implications for grazing-sensitive 'decreaser' species. Increased densities of waterpoints also allow predators like cats and foxes to spread across the landscape, with potentially disastrous effects on medium-sized mammals and ground-nesting birds. The magnitude of these impacts is still uncertain, but there is a sufficient body of literature for it to have at least been mentioned. Instead, Massy makes entirely unsubstantiated claims about 'startling regeneration and biodiversity' due to installation of water points and cell grazing. One of the few examples examining the effect of grazing regime on biodiversity (Dorrough *et al.* 2012) was done not far from Massy's Monaro farm, and found that no plant or animal species responded positively to rotational grazing, and that rotational grazing alone is unlikely to enrich biodiversity.

There is also a strong emphasis throughout on improving groundcover, and a desirable state described as 'near one hundred percent' (p.385). This is clearly not natural or achievable over large parts of lower-rainfall Australia, nor desirable given the importance of inter-tussock forbs in grasslands, for example. I was also left wondering why there was no mention of macropods – surely a keystone of regenerative land management in Australia, not to mention a very healthy meat source for all the reasons outlined in the Chapter on 'Healing Ourselves'.

Despite these scientific misgivings, which I do feel undermine sections of the book, I finished *Call of the Reed Warbler* inspired about what farmers are doing and learning across the country in an attempt to heal their land, and produce healthy, nutrient-dense food in the process. Regenerative agriculture is a broad umbrella, and different methods are likely to work in different ecosystems, with different results likely in different seasons. This means much trial and error, and the importance of documenting both successes and failures is paramount. A clear role for rangeland and agricultural science exists, to advance us along the path that Charles Massy so evocatively advocates at this critical juncture in the history of the Earth and humanity. A path that shows great promise, but which is unlikely to fit into a coherent linear narrative as attempted here, and must

be supported by well-designed and rigorous science across Australia's complex and varied ecosystems.

References cited

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^A*Jen Silcock is a post-doctoral researcher with the Threatened Species Recovery Hub at the University of Queensland, Australia. She works across Australia on conservation of rare and threatened plants and animals, grazing and fire ecology, vegetation dynamics, historical ecology and arid zone wetlands, but has a particular interest in the mulga country of western Queensland.*