

BOOK REVIEW

Tim Flannery 1994, *The Future Eaters*, Reed Books, 39 black and white photos, some sketches and four maps, 423 pp., \$22.95 paperback.

“If they are to preserve their unique natural heritage...”

John Sibly

Community
environmental
educator
Loxton



This is a wonderful book. In a truly literal sense, the pages of *The Future Eaters* are filled with fantastic tales of land-masses moving north from the ancient Gondwanaland over the last hundred million years, carrying with them assemblages of the most wondrous plants and animals. And then, in quite recent times in terms of the tales of drifting continents, there are the further wondrous journeys of our human forebears and their encounters with the highly distinctive plants and animals that had evolved on each island and landmass. It is however in the telling of the tales, perhaps as much as in the incredible tales themselves that the reader of *The Future Eaters* becomes caught up in the events that spill out across the pages. With verve and great immediacy, Tim Flannery tells great tales and guides his readers through one intriguing mystery after another, providing all along the way anecdotes, amazing clues, corroborative evidence, theories, and explanations, and all at a pace that keeps the reader gasping.

It is appropriate perhaps for me to acknowledge my admiration for writers and journalists such as Robyn Williams of the ABC *Science Show*, and Stephen Jay Gould, who have done so much over the years to interpret science and the environment for the general reader and radio listener. In their own ways Robyn's and Stephen's contributions have been veritable *tours de force* in scientific and environmental education. Robyn through the *Science Show* has presented hundreds of marvellous weekly programs, while Stephen has been producing his stylish articles on a monthly basis for *Natural History* in

the USA for eighteen years. The articles have been collected into six volumes, the last two of which are *Bully for Brontosaurus* and *Eight Little Piggies*. The latter carried this comment, “Rather than serving up his science cold, Gould invariably puts a spin on it, taking his readers down innumerable byways of history, literature and personal anecdote along a route to his theoretical conclusions”. The value of these serious popularisers can scarcely be over-rated; likewise Tim Flannery's *The Future Eaters* has an immense value. Although so much of science and the technologies built upon it affects almost every aspect of our lives, there appears to be very little in-depth understanding in the community of its laws and processes. It is of particular concern when we see that members of parliament tend to be qualified in law, economics and management, but with minimal backgrounding in science generally, let alone environmental science. How can they possibly be expected to make appropriate decisions about the use and care of the country's natural resources? But as well as illuminating the world as seen by the endeavour of science itself, what Tim Flannery, Robyn Williams and Stephen Jay Gould do is to interweave scientific insights with the events that make the headlines day to day, and with many of the key problems that face humankind as the 20th century draws to a close.

In particular, what Tim Flannery has done is to place the events of the growth and spread of the human species into a fully evolutionary context and with a special focus on the ‘new’ lands of the South Pacific. In *The Future Eaters*, we are introduced to Meganesia and Tasmantis. These are the southern lands which broke away from Gondwanaland some 50 million years ago with their different geologies, landforms that changed with time and sea levels, each carrying different but related plant and animal populations that evolved distinctively over the millions of years. They became what we now know as Australia, New Guinea, New Zealand, New Caledonia and Norfolk Island. It was into these lands that humans began to move at least 40,000 or so years ago. It might be longer we are told, but clear evidence is hard to put together. Unlike Africa and Asia where humans had been coevolving and coexisting with other species for over a million years, these were ‘new’ south lands in the sense that they had no previous experience of an extremely versatile predator—the human. And here is the nub of Flannery's story. Many of the events in the story are recent enough to be precisely documented. What was needed was someone with a sharp eye and an ecologically attuned mind to sift and sort through the hints and clues available and who could get out into the field to find missing pieces. These are what Tim Flannery brings to the task—the task of reconstructing as clear a picture as possible of the state of these ‘new’ south lands before the arrival of the first humans, and then to document the interactions between the humans and each of the ‘new’ lands. To that task he brings a lifelong enthusiasm for the natural world, extensive fieldwork in Australia and New Guinea in zoology and paleontology, a great sense of the evolutionary time scale, and a keen interest in the rapport

that can be developed between human societies and the land—and then perhaps lost again. Importantly, as an author he brings an ability to confide in his readers and carry them along with him as he seeks possible explanations and proposes theories that will make it possible to fit together an array of disparate pieces.

The book is presented in three parts—An Infinity Before Man(sic), The Arrival of The Future Eaters—human groups that are maladjusted to the ‘new’ lands, and The Last Wave: Arrival of the Europeans.

In the first part, we learn of the distinctive conditions on each of the parts of Meganesia and Tasmantis and of the distinctive communities of plants and animals that evolved there. Just a few examples from these chapters are possible here, but they might whet the appetite. Why should New Caledonia have few birds, but well developed gecko populations, and why should New Zealand have such an “unbelievable assemblage” of birds, many of them flightless and occupying niches more traditionally filled on the ‘older’ continents by mammals? The question of the origin and possible range of marsupials is taken up and evidence is carefully pieced together to show that marsupials probably originated in the South American end of the then Gondwana and spread across into the Australian side where they became dominant forms, as they initially did in South America, after the severing of the links some 50 million years ago. In attempting to account for the plants and animals that populated the Australian continent, Flannery argues that three factors were most strongly influential—the continent’s gradual drift north into lower latitudes, a geology that provided a flat, nutrient-poor covering over much of the continent, and the unpredictable nature of the weather patterns that selected for abilities to withstand protracted dry years. Interestingly, Flannery takes as a given that ENSO—the El Nino Southern Oscillation phenomena that seems now to dominate Australia’s current weather patterns, and to a lesser extent climates world wide—also operated through prehistoric times. Currently when the low pressure centre of the air masses over the Pacific Ocean is in the vicinity of New Guinea and Indonesia, a wet phase operates, but when the low pressure centre moves out over the central Pacific, a dry phase operates. These features of the world’s weather patterns have been recognised only in recent years, but I do not know of other references to the likelihood of them operating over the prehistoric period.

In attempting to account for the the forms of plants and animals we have come to regard as uniquely Australian, Flannery turns also to what some will see as being a more contentious factor. He refers to “a growing realisation of the way in which nature works [in Australia]. Biologists are finally understanding that evolution in Australia is not driven solely by nature ‘red in tooth and claw’. Here a more gentle force—that of coadaptation—is important”. Possible altruism between different life forms is still disputed by the upholders of the ‘selfish gene’ theory, as for example in *The Selfish Gene* (1976) and *Climbing Mt Improbable* (1996).

In Part Two—The First Future Eaters, Flannery’s focus is on the last 40–60,000 years and the arrival of the first humans. The earliest groups were the ancestors of the Australian Aborigines and the New Guineans whose cultures developed so differently in the two countries which were physically so different. Flannery explains that clear insights into the critical years, ones occurring just after the arrivals of these peoples are probably the most difficult to gain of all the periods and places dealt with in the book. In terms of the main focus of the book as a whole this is a pity as the period is that of the disappearance of the the marsupial rhino, the diprotodons, giant kangaroos and wombats, horned turtles and the rest of Australia’s megafauna which, according to Flannery’s evidence and theories, had played a vital role in the Australian ecology up to that time. With the loss of megafauna a new balance had to be established in Australia and, it is argued, there was time for this to happen over the next 30,000 years or so. It was a balance that utilised a less efficient cycling of nutrients via fire, and enabled a relatively stable Aboriginal population of some 500,000 or so to be sustained. Intricate social arrangements between ecologically appropriate tribal groups of 500 or so had to be devised over this period to fit in with the low fertility of most of the country and the periodic harsh conditions imposed by ENSO. In this section the impacts of the Maori in New Zealand and the Rapanui on Easter Island are also examined. The history of each group shows a society that initially flourished while its resource base was more than adequate but which went into sad decline as it literally ate itself out of house and home. The comparison between Australian Aboriginal peoples on the one hand and the Maori and the Rapanui on the other relates to the much bigger stage available to the Aborigines for the playing out of their dramas and the extensive time during which complex stable arrangements with their adopted land could evolve.

Part 3 is The Last Wave: The Arrival of the Europeans. Interestingly, Flannery sees the need to provide a summary of the prehistoric times in Europe in order to establish the salient characteristics of the people who evolved there and who went on to spread their culture and technologies across the globe. To do this it is necessary for him to sketch in the climatic and environmental conditions that shaped these people, conditions in stark contrast to those that had prevailed in the ‘new’ south lands the Europeans were about to encounter. While reference throughout the book to the importance of the climates, soils and topographies of the various lands on their ecologies was not the least bit surprising, the extension of the argument to the determination of the nature of their human societies was. ‘Environmental Determinism’ is a more or less discredited theory that occupied the minds of many geographers earlier this century (Blunden et al. 1978). In a sense the very idea became what we might now label as ‘politically incorrect’. The evidence amassed by Flannery, however, puts the theory well and truly back on the agenda. What he has done is to view human activities in a far more ecological way than previously and, of necessity, over much longer periods

of time—over the whole span of history and pre-history in fact. It is, I believe, this link between the nature and status of human societies in relation to their land and resource bases that provides this book with its most chilling and important message—if population numbers outstrip resources, does society inevitably find itself on a slippery downward slope? But I jump ahead of the details of Part 3. Particularly in this final section Flannery is at pains to point out the brevity of human history in Europe compared with that in Asia and the ‘new’ south lands. Like Flannery, many who read this review will have a nostalgia for the ‘old countries’ from which their forebears migrated some time in the last two hundred years or so. They will know something of British or European history and will have some sense of the links back to Roman and Greek times. But the first humans were in Australia at least 40,000 years ago, and were well established across the continent 30,000 years ago, over 20,000 years before the Greek civilisation. After what was in all likelihood a dramatic 10,000 years of coming to terms with this flat, relatively infertile ENSO-afflicted land, the Aboriginal inhabitants refined over the next 30,000 years a rapport with the land based on low population numbers, intricate kin and cooperative arrangements, and widespread use of fire. The time needed for this refinement of their practices, Flannery argues, was of critical importance. Then came the Europeans. They had mind-sets developed in a fertile, productive and ecologically weedy Europe. Their so recently developed technologies were wielded upon the ‘new’ south land as though it was another Europe. The newcomers were soon disillusioned but were not able to readily comprehend the reasons for their frustrations. In the 1990s despite growing concern and mounting evidence they still fail to comprehend. The recent preoccupation with being part of Asia further confirms that there is as yet no clear concept of the real nature of this south land and how to establish a sustainable rapport with it. According to Flannery “Australia can never be like Asia in an ecological sense”.

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There are over a hundred pages on which Flannery explores the history of European impacts on the lands and on the Aboriginal peoples of the ‘new’ south lands and in the process he makes many shrewd observations. Here are a few:

- he finds it “intriguing and heartening that European Australians should seize on the ideal of mateship so quickly after colonising their new home. ... Aboriginal people had, and still have, social obligation that link people over thousands of kilometres. In times of crisis, these social obligations could see people sharing their few resources with visitors from even worse affected areas.”
- a problem in working towards a better rapport with the land lies in that, “many people confuse it [multiculturalism] with immigration.” Here Flannery

points to a distinction that should be made between those who might argue for some limit to total population for Australia on ecological / quality of life grounds, and those who are concerned about the racial mix of any immigration policy

- while the point is not explored further, his suggestion that it is “ [Australia’s] economic addiction to home ownership and construction which adds pressure to continued population growth”, certainly does hit a nail on the head. In South Australia for example, but doubtless in all states, a key government measure of the ‘health of the economy’ is data on house building approvals and completions. Clearly for those concerned that Australia should be striving for an ecologically sustainable balance between population and resources and who fear that current population numbers are already too high, as Flannery does, the measure is totally inappropriate
- Flannery’s scientific rationalist approach is at variance with views expressed by some sections of the ‘environment movement,’ as for example in suggesting that it is perhaps more sustainable to be utilising kangaroo, emu and even whale meat rather than endorsing bread from a maladjusted farming system that is, “destroying seven kilograms of irreplaceable soil, upon which everything depends, for each kilogram of bread we consume” Vegetarians and near-vegetarians often tend to claim the high ground in arguments about ecological sustainability. They point to the ‘eating lower on the food chain’ argument in favour of ‘treading more lightly’ on the land. Alfred W. Crosby (1986) effectively details, especially in chapter 8, an alternative view deserving of attention. There is of course the related issue as to why mutton and beef—or dog perhaps—should be more acceptable than emu to some conservationists. But Flannery does not venture into that debate. If, however, our objective is to find how best to reach ecological sustainability in our living while at the same time maintaining high levels of biodiversity, then there is much to be gained from a little reflection in response to Flannery’s arguments and observations
- “the newly proclaimed Mabo legislation may have wiped out the concept of *terra nullius* from Australia’s law books, but the idea is still alive and well in the minds of those who promote the concept of wilderness.” It is probably the case that wilderness is often loosely defined by some as pristine remote areas, that is, areas not affected by human action. This supports the concept of *terra nullius* in suggesting that before European colonisation no people affected the land. However the South Australian Wilderness Act, Sect. 12(2)b, defines wilderness as “land and its ecosystem before European colonisation”. This definition suggests that Aboriginal peoples’ management and modification of Australia retained its wilderness qualities

Noting that in the last case cited above the author's comments are too far-reaching, his intention of making his readers tidy up their views on a number of conservation and environmental issues is laudable. Particularly for environmental educators who deal constantly with young people, positions and values need to be kept under constant review. Careless adoption of dogma, and loose application of labels to 'other' groups are ever-present traps for all of us.

The title of the book *The Future Eaters* refers to the impact on lands and resources by people whose concepts of the lands in which they find themselves are derived from quite different conditions. The result is a serious mismatch, a maladjustment which results in a consumption and destruction of the land and its resources in ways and at speeds that prevent the recycling, rehabilitation and renewal necessary to an on-going stable relationship between the people and those lands and resources. In effect people are eating the resources that might otherwise sustain future generations. The history of many islands of the Pacific, but particularly Easter Island and New Zealand, attest to the rapid and utter collapse of anything approximating civilised living as a people's resource base is destroyed.

I conclude using the author's Dedication to a book which I hope will be widely read and widely influential. I recommend it to environmental educators especially for the broad sweeping ecological background it provides against which day to day activities, field trips, nature diaries and so on should be charted.

I dedicate this book to the Australians who are trying to forge nations out of the chaos of colonial history. It is my hope it will help them understand they are special, for they inhabit unusual lands. It was in their countries that future eaters began. If they are to preserve their unique natural heritage, their newly forged nations must cease to be the realms of future eaters.



References

- Blunden, John et al. 1976, *Fundamentals of Human Geography: A Reader*, Harper and Row, Open University.
- Crosby, Alfred W. 1986, *Ecological Imperialism: The Biological Expansion of Europe 900–1900*, Cambridge University Press, Cambridge.
- Dawkins, Richard 1976, *The Selfish Gene*, Oxford University Press, Oxford.
- Dawkins, Richard 1996, *Climbing Mt. Improbable*, Viking, London.
- Gould, Stephen Jay 1991, *Bully for Brontosaurus*, Norton, New York.
- Gould, Stephen Jay 1994, *Eight Little Piggies*, Penguin, London.
- Government of South Australia 1992, *Wilderness Protection Act*, Adelaide.

John Sibly retired in 1994 from his work as a lecturer in Geography and Environmental Studies at the institution now known as University of South Australia which he joined in 1967. He was President of the Conservation Council of SA for nine years in the 1980s and President of the Nature Conservation Society of SA 1990–94. Currently he is living at Loxton in the SA Riverland where he finds that his membership of the Murray Mallee Soil Board and the Murraylands Consultative Committee on National Parks provides him with new challenges and venues for environmental education.
