

Imperial Ecology: Environmental Order in the British Empire, 1895-1945. By PEDER ANKER. Cambridge MA: Harvard University Press, 2001. vii + 343 pp. ISBN 0 674 00595 3.

In 1999 Kent Blaser described the relationship between science and history as 'one of the important and chronically unresolved problems of contemporary philosophy of history'. Blaser postulated how the writings of the renowned author and scientist Stephen Jay Gould might, in the new century, contribute to resolving some of the issues that divide the natural sciences and history and thus narrowing the gap between the 'two cultures' that C.P. Snow so famously identified in 1959.¹ In his last and posthumous book *The Hedgehog, The Fox, and the Magister's Pox: Mending and Minding the Misconceived Gap between Science and the Humanities*,² Gould dealt with this challenge in some depth, as also did famous biologist E.O. Wilson in *Consilience: The Unity of Knowledge* although within a different framework and rather less entertainingly than Gould.³

In *Imperial Ecology: Environmental Order in the British Empire, 1895-1945*, Peder Anker analyses how this rift might either have been avoided or healed before it became a chasm. This would have been accomplished during the interwar years through an epistemological alliance between the emerging disciplines of human and natural ecology within the international context of the British Empire. Equally importantly, Anker details the large part that South Africans played in philosophical thinking around the natural and social sciences at this time and he enlarges our understanding of South African history by doing so. Anker is a Norwegian scholar who is active in researching topics around the history of ecology, history of science, philosophy, environmental politics and ethics. *Imperial Ecology* is based on his 1999 Harvard University PhD thesis for which he was awarded the biannual dissertation Forum for History of Human Science Prize from the History of Science Society in 2000. He has also received a number of other prizes and awards and has a substantial list of publications.

This ambitious and thoroughly stimulating book brings together a number of the historiographical strands that are evident in the latest southern African history. First, there is a wider context because South Africa's role is interpreted on a large stage that includes continental Africa as well as an empire of global proportions. Second, the cultural history of science that is becoming so prominent in historical studies worldwide, is prioritized here. Third, it has a distinct biographical focus together with a re-evaluation of the leadership and administration of the colonial endeavour, and fourth, it is an intellectual history. The chapters are arranged chronologically and thematically as follows: 'From Social Psychology to Imperial Ecology'; 'General Smuts's Politics of Holism and Patronage of Ecology'; 'The Oxford School of Imperial Ecology'; 'Holism and the Ecosystem Controversy'; 'The Politics of Holism, Ecology, and Human Rights'; 'Planning a New Human Ecology' and 'A World without History'.

¹ K. Blaser, 'The History of Nature and the Nature of History: Stephen Jay Gould on Science, Philosophy and History', *The History Teacher*, 32, 3, 1999, pp.411-430.

² (London, 2003).

³ (London, 1998). See also D. Worster 'The Two Cultures Revisited: Environmental History and the Environmental Sciences', *Environment and History*, 2, 1996, pp.3-14.

As Anker explains, the first half of the 20th century produced ferment in many of the sciences. The First World War had encouraged technological innovation and it also strengthened ideologies of nationalism with the aim of doing so under an international umbrella of the League of Nations. It was consequently important for a country like South Africa to make its mark. The main thesis of this book is to contrast the colonial periphery with the imperial metropole and to argue that ecological science, as we know it today, was shaped largely by the tension between South African idealists who believed that nature's economy was fixed and British mechanists who believed that it could be planned and altered. These ideas were transposed onto social thinking in that South Africa's social and environmental science was about fundamental order (including racial order) while the British view was that any order was contextual and could therefore be reordered. Anker's thesis is both unusual and innovative and contains much to inform both ecologists and historians. The author embeds the burgeoning science of ecology into the colonial endeavour and into a paradigm of nationalism. This book links ideas about the natural world with ideas about constructing or nurturing an appropriate society in a manner that would be unthinkable today.

It is extremely difficult almost a century after the events and debates analysed here to imagine a world in which Freud, racism, Jan Smuts, pasture science, wildlife observations, economics, ethology, and imperialism all interfaced in totally fluid ways and that a variety of methodologies both coincided and were interchanged. Helen Tilley, historian of the African Survey (with which Anker's book is also concerned), recognises the exceptional nature of Anker's thinking because he so closely links biology to the human sciences in a manner not previously done.⁴ Anker's cast of characters is not large – a small group of influential scientists and politicians from metropole and periphery were involved and these were the people who were keen to have tools with which to understand human and natural relations so that social and natural resources might be better managed, and indeed, controlled. This is the 'environmental order' of Anker's title. In the 1920s South Africa and Britain were in the process of defining 'ecology' and grappling with ideas about how to separate culture from nature when thinking holistically. The history of ecology has received considerable attention⁵ but in none of these works does South Africa, and particularly its scientific bureaucracy (John Phillips, J.W. Bews) play a greater part than it does here.

Anker's story emphasises the imperial conference of 1924 that envisaged a grand botanical survey of the British Empire. South Africa had a pivotal role because it was the only part of the empire that had a well established national survey. This endeavour premier Jan Smuts had encouraged because botany was the 'science that could unite the country through his philosophy of holism' (p.54). Smuts's close friend, I.B. Pole Evans, the Welsh plant mycologist who headed the Division of Botany and Plant Pathology in Pretoria, as well as the Botanical Survey of South Africa, was put in charge of the project. By the 1920s South African botany (as also its ornithology) had moved beyond the classificatory stage and plant and animal associations and relationships were the object of study, often expressed in colonial discourse. Smuts was a powerful scientific patron and a major part of this book is devoted to the scientific bureaucracy and issues of patronage and academic rivalries. As Anker observes,

⁴ H. Tilley, 'African Environments and Environmental Sciences: The African Research Survey, Ecological Paradigms and British Colonial Development, 1920-1940', in W. Beinart and J. McGregor, eds, *Social History and African Environments* (Oxford etc, 2003), p.122.

⁵ See for example, F.B. Golley, *A History of the Ecosystem Concept in Ecology* (New Haven, 1993); D. Worster, *Nature's Economy: A History of Ecological Ideas* (Cambridge, 1977); A. Bramwell, *Ecology in the 20th Century: A History* (New Haven, 1989).

the 'question of preserving their research laboratories' was paramount (p.222). The author's description of Arthur Tansley's loss of employment at Oxford University and his poor relationships with many of his contemporary scientists ('Botanical Bolshevism') is extremely interesting (pp.16-32) and indicates the vicious nature of some of the scientific politics of the time.

Underpinning much of the activity in environmental thinking was the philosophy of ecology and also its disciplinary paradigms. Did ecology advance gradually towards a 'climax' and thereby achieve a stable state? Using analogies from nature, Smuts and the South Africans argued that it did, and that human rights should also be gradually extended in accordance with evolutionary development from 'primitive family to the modern state' (p.43) to mirror the natural world. Anker is particularly good at explaining some complex ideas around environmental and social stability simply and clearly, ideas that have, of course, been superseded by new paradigms of disequilibrium, at least ecologically. This book demonstrates how close ecology and history once were because chronological change is the hallmark of both disciplines. In 1904 ecology was considered merely a 'fashionable study' (p.1), only fifty years later it 'embraced an enlarged order of nature, knowledge, and society, with ecologists fashioning themselves as the new masters and interpreters of this world' (p.237), a position which it holds to this day. History's trajectory over the century is another story.

Imperial Ecology is extremely readably written: the language is clear and the arguments both logically expressed and easy to follow. Anker acknowledges support and help from many South African historians. There are only a very few errors or anachronisms that display lack of long-term familiarity with South Africa's historical landscape. Anker refers to 'a community of Bantus and Hottentots' involved in the 'Bondelwaart' rebellion (p.51); there are 'Kaffir wars' without inverted commas (p.62); and Smuts has been given a stepdaughter, Kathleen Mincher (p.55). But these are minor errors that do not detract from the presentation of a fascinating and provocative broad picture of imperial scientific connections and concepts creatively and expertly analysed.

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