

Bookshelf Special Feature Part 2: National Park Science

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Bookshelf

A Review of *National Park Science*: Jane Carruthers' Magnum Opus

by Bernhard Gißibl

* **Part 1** features **Jane Carruthers'** introduction to her book and a comment by **Libby Robin**. A full review of *National Park Science* by Bernhard Gißibl will appear in an upcoming issue of the journal *Environment and History*.

Jane Carruthers' *National Park Science* is the first comprehensive and authoritative study of the rise of the conservation sciences in South Africa. The book charts the various disciplines that have contributed to the field and situates their development in the national and international processes and constellations that shaped the professionalization and institutionalization of sciences as varied as zoology, botany, animal ecology, invasion biology, and many other, ever more specialized subdisciplines. It is a story of science made in Africa, and is awe inspiring in its interdisciplinarity.

Digesting an impressive number of sources from an array of disciplines and archives, Carruthers traces how the raw material of South Africa's flora and fauna was nurtured in various protected areas, not just national parks. The study shows how protected nature was subjected to thorough analysis by amateurs, hunters, collectors, and, increasingly, university-trained scientists. Hailing from South Africa herself, Carruthers analyzes how the various sciences contributed to the management of these territories, how the management objectives of protected areas shaped the kind of science that could be conducted, and how governmental interests were served by both the protected areas and the sciences they enabled.

The almost 500 pages offer a wealth of insights and stimulating observations. The title promises "National Park Science," but the book delivers so much more. Carruthers

also provides a general history of South Africa through the particular lens of the country's appreciation and study of its nature. Undeniably, the book is also the defining study for the history of the country's protected area estate. The author situates its development in provincial, national, imperial, and international contexts, showing that for most of the twentieth century, we are dealing with a highly politicized and racialized issue of conflicting land and resource use rather than a story of increasingly enlightened environmentalist sensibilities. Although an emphasis on the Kruger National Park is unavoidable given its prominent role in the conservation sciences, Carruthers convincingly decenters Kruger where appropriate and refutes the many and persistent myths around South Africa's largest conservation fortress. Throughout the book, the reader senses that the more vibrant, interesting, and often the more "progressive" developments in terms of management, science, and ideas of nature protection happened beyond Kruger, particularly in the decades of apartheid. Often overlooked, yet significant, areas like the Natal National Park in the Drakensberg Mountains finally receive their due share of attention.

National Park Science is pioneering in that it provides the first book-length analysis of the conservation sciences in any African country, and beyond the focus on just one park or research station. While her early study of the Kruger National Park has paid special attention to "the other side of the fence," this time Carruthers' interest lies with the sciences that buttressed the conservation fortresses from within. Never failing to address the imperialist, nationalist, and racist contexts in which the conservation sciences operated, the lens of national park science allows her to discuss more than just the various sciences of wildlife that dominated in Kruger, and which Westerners routinely associate with the National Parks of Africa. Rather, it is a story of increasing scientific complexity, with zoology—the other sciences of wildlife and botany—branching out in subdisciplines as diverse and specialized as invasion biology, fire ecology, or conservation biology. And it is a story of increasingly complex paradigms of scientific management.

Carruthers' book further provides a welcome benchmark for comparative studies of park-related sciences in sub-Saharan Africa and beyond. Take East Africa, for example. As in South Africa, the management of national parks in Eastern Africa has taken a thoroughly scientific and ecological approach since the late 1950s. In the wake of decolonization, new research programs and institutes mushroomed across Kenya, Uganda, and Tanzania. And everywhere during the 1960s and 1970s—in Tsavo, the Serengeti, and the Kruger Park—park managers and scientists were confronted with the challenge of managing rising elephant populations. Carruthers shows how the nationalist and inward-looking apartheid

regime in South Africa adopted a commercial and agricultural approach to park management. Its home-grown scientists of largely Afrikaner origin solved the elephant problem by dedicating their research to refine the art of sanitized, efficient, and selective killing that came to be known as culling. While apartheid South Africa provided a conducive political environment for such policies, culling failed to become a persistent management policy in East African parks, despite some attempts during the 1960s. This was, amongst others, because park science and management were conducted in the limelight of Western publics sensitive to the welfare of East Africa's megafauna. Moreover, the European and North American scientists working in East Africa's protected areas were forced to communicate their ideas of park management diplomatically to post-independence African governments across the former colonial divide. Without culling, scientists and park managers in East Africa had to watch the "elephant problem" and learnt that park ecologies were underlying dynamics that did not fit any assumptions of a balance of nature.

There were further differences due to the absence of decolonization in South Africa. Scientific park management under apartheid neither attracted great numbers of Western conservation NGOs, nor produced mediatized postcolonial conservation heroes like Bernhard Grzimek or Iain Douglas-Hamilton; nor did it encourage the feminist sensitivities towards wild animals introduced to East Africa through female scholar-conservationists like Jane Goodall, Daphne Sheldrick, or "elephant woman" Cynthia Moss. As a consequence, East African conservation was not only marked by undeniable colonial continuities that persisted after decolonization. Seen from a South African rather than a "Western" vantage point, conservation sciences in East Africa were also characterized by greater scientific diversity, managerial openness, and a postcolonial moral and political context in which black Africans formally governed National Park Science through consultative bodies. Increasingly, they were also responsibly conducting National Park Science themselves.

Despite its special and at times highly complicated subject, Carruthers' account is highly readable and accessible to both the nonspecialist and general reader. The book is structured in three chronological periods, each of which is characterized by a triad of three defining aspects: the three Ps— protection, preservation, propagating—the three Ms—measuring, monitoring, manipulation—and the three Is—integration, innovation, and internationalization. The chronology is guided by key political developments in South African history, leaving no doubt that the conservation sciences were both political and

ecological, and highly dependent on the political contexts in which their research questions and objectives were framed.

National Park Science is Jane Carruthers' magnum opus, the culmination of her lifetime's research into South Africa's environmental history. The book demonstrates convincingly that the National Park Sciences are not merely the realm of the natural sciences but that they urgently require humanities and historical perspectives as corrective and for reflection. Finally, *National Park Science* is also a lesson South Africa's environmental history can teach the world. Perhaps in no other country, the separation of humans and protected nature along racist lines has been put into practice more consequentially than in South Africa, having left a legacy that SANParks and the current practice of National Park Sciences are still struggling to redress. Carruthers describes the history of these efforts critically, yet in a spirit of reconciliation that is fully aware that future conservation is best served not by reckoning with the past, but by holding out for dialogue even with those positions that are rejected or heavily criticized. *National Park Science* is, thus, Afropolitan environmental history at its best, and a most stimulating and inspiring read for both practitioners and scholars of conservation, in and out of Africa.