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INTRODUCTION: THE ECOLOGY OF FENCING

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In the autumn of 2004, a remarkable gathering of 102 scholars took place at St Antony's College, Oxford: they had come for an interdisciplinary symposium on 'Trees, rain, and politics in Africa: the dynamics and politics of climatic and environmental change'. Symposium papers were grouped into panels that focused on either particular resources (such as trees and water) or particular aspects of social relationships (such as politics and discourses). This format resulted in a series of dialogues between the natural science and social science paradigms, and this first half of the present issue of *Africa* takes as its theme just one of those interdisciplinary conversations. Taken together, these authors demonstrate how the hybridization of natural science and social science can benefit understandings of the African past, interpretations of the African present and planning for the African future.[1]

All three articles focus on the unexpected social and ecological effects of physical boundaries in the semi-arid Karoo region of South Africa, but in different historical contexts. For both people and wildlife, life in the Karoo had long centred on mobility and flexibility as adaptations to the area's scarce and unpredictable rainfall. In the late nineteenth century, however, South African farmers increasingly inscribed social organization upon the landscape by enclosing land with fences (van Sittert 2002). This reorganization of space had, as this group of articles shows, severe long-term consequences because enclosure made relationships between society and ecology in the region increasingly inflexible. As the Karoo system 'hardened' through the physical means of fencing, the social means of institution building and the ideological means of apartheid policies, particularly fragile landscapes became less resilient. Current efforts to conserve the unique vegetation of the Karoo are building new physical, social and ideological structures atop a complex history of ecological disruption, social differentiation and ideological contestation. Each of the following articles on the region shows the complex local legacy of boundary making in the Karoo. Together, however, they show a regional process and point out

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[1] The symposium was sponsored by the British Academy, the British Institute in Eastern Africa, and St Antony's College. The event's hosts and organizers included David Anderson (University of Oxford), William Beinart (University of Oxford), Dan Brockington (University of Manchester), Wendy James (University of Oxford), Paul Lane (University of York), and Michael Sheridan (Middlebury College).

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that landscape features, such as wire fences, are not simply objects. They are social relationships in which people negotiate the meanings of land, resources and property (Walker and Peters 2001) – and these negotiations have long-term ecological consequences, which then become contexts for further social and political dynamics. Fences are, in sum, excellent sites for the study of both historical ecology and political ecology in southern Africa because they mediate both material and ideological change.

Chris Roche's article weighs the evidence that rinderpest, the epizootic disease that disrupted ecological and economic systems throughout eastern and southern Africa in the last decade of the nineteenth century, caused the decline of springbok migrations in the Karoo – and finds this evidence weak and circumstantial at best. Enormous migrating herds, or 'treks', of the small antelope had been a key determinant of vegetation states in the Karoo. Although the cessation of these treks in 1896–7 coincided with the impact of rinderpest in the region, it was the conjuncture of enclosure, drought and hunting that stopped the springbok, not disease. Roche's richly detailed analysis of how, when and why this process unfolded as it did shows that although springbok had been a keystone species in Karoo ecology, fences were the keystone technology in Karoo history.

The second article maintains a tight analytical focus on the village of Paulshoek in the western Karoo region of Namaqualand, but it also consistently shows how external technological, political and ideological processes shaped local ecology. Again, fencing marks both the spatial and temporal thresholds of change. Rick Rohde and Timm Hoffman present a compellingly hybridized social-botanical history that shows the 'eco-drama' (Rajan 2002) that accompanied the end of colonialism in the Karoo. Agrarian ways of life had, to some degree, co-evolved with Karoo vegetation throughout the colonial period. After the 1950s, however, as apartheid policies separated the people of Paulshoek, fences became the material manifestations of ideology. Flexible social and ecological borders became fixed boundaries, and the newly separated lands of the 'white' and 'coloured' farmers became landscapes with quite different vegetation communities. The fence-line contrast between Paulshoek and the surrounding commercial farms is an illustration of the dialectical process of landscape change in relation to ongoing social and political transformation in South Africa. Political ecology has been accused of having neither enough politics, nor enough ecology (Watts and Peet 2004; Vayda and Walters 1999; Walker 2005). Rohde and Hoffman's article has both, which makes it an example, perhaps, of a transdisciplinary 'historical political ecology'.

This section's third article also concerns political and ecological change in Namaqualand, with a focus on the 'greener' side of the fence. Many white farmers have been transferring their lands to the South African state for two major purposes: conservation and land distribution. Tor Benjaminsen, Thembela Kepe and Stine Bråthen show how these goals come into conflict, and that the more powerful conservation interests usually win these struggles by erecting fences,

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establishing management institutions and positioning themselves in reference to particular ideologies about land degradation in South African society. In their analysis, the perspectives and needs of local people are marginalized by this three-pronged process of boundary maintenance. Once again, the physical structures of fencing and the ideological structures of policy overlap in political practice.

These articles about the past and present ecological status of a South African landscape have significance beyond the social boundaries of fencelines, the ecological boundaries of the semi-arid Karoo and the scholarly boundaries of South African studies. The collaboration among these authors is an example of the sort of interdisciplinary, hybridized social history and ecology that can unravel the tangled complexities of landscape transformation in Africa (Beinart and McGregor 2003). Such analyses can and should have impacts beyond the academy. The recent literature on environmental policy suggests that enhancing social and ecological resilience, rather than simply building institutions for conservation and/or development, is the key to preparing for twenty-first century climate change (Berkes and Folke 1998; Fisher and Feinman 2005; OXFAM 2006). By showing how and why flexible and dynamic social and ecological relationships became increasingly rigid – in this case through fencing – a hybrid social-natural science can, we hope, generate hybrid policies for resilience.[2]

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[2] On efforts to create a hybrid social-natural science, see Batterbury, Forsyth and Thomson 1997; Zimmerer and Young 1998; Zimmerer and Bassett 2003; Gunderson and Holling 2002; Gotts 2007.

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