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## *Men, Science, Travel and Nature in the Eighteenth and Nineteenth-century Cape*

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*Ecofeminist writing has re-evaluated the Western scientific revolution as an essentially male enterprise which classified and exploited nature, as well as facilitating the domination of women and colonised peoples. Mary Louise Pratt's Imperial Eyes extends this analysis by focusing on European scientific travellers in the extra-European world in the late eighteenth and early nineteenth centuries. At a general level, over a long period of time, there is force in this argument. But this article argues for a more fluid approach to masculinity and science. In exploring the writings of some visiting scientists at the Cape, especially Anders Sparrman and William Burchell, it highlights their role in developing alternative visions of social interaction and the natural world. The article concludes with an assessment of the position of Mary Barber, one of the first women at the Cape to receive recognition as a natural scientist; while she was subordinated to men in colonial scientific work, her life illustrates that women could be absorbed in these activities and that their views about nature and indigenous people did not necessarily differ from those of the men amongst whom they worked.*

### **Introduction**

European expansion was, in its initial phases in many areas of the world, often a male endeavour. This was the case not only in respect of military, naval, commercial and bureaucratic activity but also of scientific exploration that accompanied and facilitated expansion. Insofar as analysis of the gender-specific character of imperialism has been pursued, it has been seen as the font of particularly powerful forms of patriarchal and racial domination. The European masculinities associated with empire, formerly judged heroic and self-sacrificing, are now often presented as harsh and uncompromising, roughened by long absences from women at home, and steeled by conquest and the arrogation of racial superiority. This article explores a more complex view of imperial masculinities, at least in respect of scientific travellers.

Feminist writing has re-evaluated the Western scientific revolution as an essentially male enterprise which classified and dominated nature. Carolyn Merchant played a key role in elaborating this idea from the vantage point of the early modern era.<sup>1</sup> Historians have long commented on this period as one in which human beings envisaged themselves as 'lords of nature' – 'the germinal core of the intense anthropocentric orientation characteristic of our modern age'.<sup>2</sup> Merchant added a gendered dimension to the argument, and a

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1 Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (San Francisco, Harper and Row, 1990) first published 1979. Carolyn Merchant, *Earthcare: Women and the Environment* (New York, Routledge, 1995) focuses more on women and less on a critique of men and science.

2 Max Oelschlaeger, *The Idea of Wilderness: from Prehistory to the Age of Ecology* (New Haven, Yale University Press, 1991), p. 84.

critical view of scientific progress, arguing that organic metaphors associated with women's approaches to nature were displaced by mechanical images and male rationalism. Her work was also part of a newly defined environmental history that placed a critique of degradation, and a celebration of more sustainable visions of human interactions with nature, at its core. She provided important ideas for ecofeminism as a distinct strand of environmental thinking.

Linked analyses investigated 'compulsive masculinity' in the competitive quest for scientific innovation and control.<sup>3</sup> Women were seen to have been socially disadvantaged – 'smothered by invention' – in the process of technical and industrial innovation.<sup>4</sup> Science not only destroyed women's roles but extended the power of men over women. Vandana Shiva brought these strands together in assessing the recent impact of science and technology on rural women in the third world.<sup>5</sup> She argued that development thinking and policy, dominated by a patriarchal, scientific perspective, has facilitated a project of 'domination and destruction, of violence and subjugation, of dispossession and the dispensibility of both women and nature'. Shiva recognised that 'the period of the scientific revolution itself was full of alternatives to the masculine project of mechanistic, reductionist science, and it was also full of struggles between gendered and non-gendered science'. But patriarchal approaches were victorious against 'those who were defined into nature and made passive and powerless: Mother Earth, women and colonised cultures'.

From the vantage point of southern Africa one of the most interesting excursions along these routes has been Mary Louise Pratt's *Imperial Eyes* – an analysis of European travelogues and scientific writing on the extra-European world in the late eighteenth and early nineteenth centuries. She inserts a more critical dimension into an academic literature which has increasingly recognised the importance of botany and natural history in the extension of European empires.<sup>6</sup> 'Natural history', Pratt argues, 'asserted an urban, lettered, male authority over the whole of the planet; it elaborated a rationalising, extractive, dissociative understanding which overlaid functional, experiential relations among people, plants and animals'.<sup>7</sup>

These writings contain powerful insights and it is patent that men dominated most scientific enterprise, as well as exploration and the literature it produced, which facilitated metropolitan expansion. But their propositions operate at a general and sometimes polemical level. This article tests some of their ideas largely with evidence from the eighteenth and nineteenth century Cape; for that reason it focuses mostly on Pratt's work. It explores: the extent to which scientific knowledge and classification was simply a metropolitan imposition; the complexity of masculinity expressed through travel and natural history writing (as opposed to conquest and warfare); and conservationist rather than extractive impulses. It also looks briefly at one woman's involvement in natural history and suggests that by the mid-nineteenth century, at least, the enterprise could be shared; perhaps what is more noteworthy is the subordinate position of women in scientific work rather than the essential difference of their ideas.<sup>8</sup>

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3 Brian Easlea, *Fathering the Unthinkable: Masculinity, Scientists and the Nuclear Arms Race* (London, Pluto, 1983).

4 Wendy Faulkner and Erik Arnold (eds), *Smothered by Invention: Technology in Women's Lives* (London, Pluto, 1985); Lynda Birke et al., *Alice through the Microscope: the Power of Science over Women's Lives* (London, Virago, 1980).

5 Vandana Shiva, *Staying Alive: Women, Ecology and Development* (London, Zed, 1988), quotes from pp. 14, 21.

6 Lucile Brockway, *Science and Colonial Expansion: the Role of the British Royal Botanic Garden* (New York, Academic Press, 1979).

7 Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London, Routledge, 1992), p. 38.

8 Shiva tends to collapse non-Western thinking about nature with organic and female approaches. We also need to ask harder questions about men's approaches in African indigenous or local knowledge but this is a paper largely about European men.

My aim is not to dispute the general orientation of these earlier ecofeminist writings which identify increasing metropolitan, male understanding and control of extra-European nature. Nor is it to contest the coercive and extractive facets of colonial conquest in South Africa. Rather, I want to apply more fluid approaches to the production of knowledge and, following Connell and others, to masculinity in respect of a particular group of men. Ecofeminist views seem to allow little space for variations in male identity, or for the role of men in developing alternative visions of social interaction and the natural world. Connell's understanding of masculinity allows more scope for such an investigation. He specifically makes use of interviews with Australian male environmentalists in order to illustrate a challenge to pervasive 'hegemonic masculinity'.<sup>9</sup> Although it would be wrong to equate modern environmentalists with eighteenth-century scientific travellers, my article attempts to explore another, sometimes self-conscious projection of dissident masculine identity in that era.

### People and Knowledge in the Colonial Environment

Mary Louise Pratt suggests that a key moment in the assertion of a male, scientific worldview came around the 1760s when Linnaeus, the Swedish natural historian, had elaborated his system for classifying and naming species: this helped both to trigger a rapid increase in natural history exploration and to stimulate syntheses of the botanical and zoological knowledge it produced. After the 'Linnaean watershed', she argues, travellers took far less notice of people. Scientific travel literature 'naturalised' the travel zone.

The landscape is written as uninhabited, unpossessed, unhistoricised, unoccupied even by the travelers themselves. The activity of describing geography and identifying flora and fauna structures an asocial narrative in which the human presence, European or African is absolutely marginal, though it was, of course, a constant and essential aspect of the traveling itself.<sup>10</sup>

Pratt argues that as part of this asocial approach at the Cape, Khoikhoi servants and guides, on whom these trips often depended, are seen only 'in occasional passing glimpses: referred to simply as "a/the/my Hottentot(s)"... none is distinguished from another by a name or any other feature'. The travelling naturalist 'can walk around as he pleases and name things after himself and his friends back home'. Not only is 'European authority and legitimacy ... uncontested', but 'indigenous voices are almost never quoted, reproduced or even invented'. Where these authors undertake ethnographic descriptions, they are judged to homogenise their subjects, as part of the process of 'deculturation and deterritorialisation'.

Pratt's subsequent chapters to some degree contradict these stark arguments but her challenge and insights should send us scurrying back to the travel literature on which so many historians have relied. Her emphasis on the way in which encounters with the tropics shaped metropolitan science echoes other recent writing, notably by Richard Grove.<sup>11</sup> Yet there are problems in her characterisation of the travel writing. In particular her choice of Anders Sparrman's *Voyage to the Cape of Good Hope, 1772-6* is hardly the most suitable

9 R.W. Connell, *Masculinities* (Cambridge, Polity Press, 1995), ch. 5: 'A Whole New World'; Maria Mies and Vandana Shiva, *Ecofeminism* (London, Zed, 1993). I do not necessarily accept all the features which Connell identifies as part of contemporary 'hegemonic' masculinity (see also Morrell's comments in the introduction to this issue). Clearly this varies enormously through time and social context, which also complicates any historical attempt to identify alternative, or 'soft' masculinities.

10 Pratt, *Imperial Eyes*, p. 51, following quotes, pp. 52, 63-64.

11 Richard Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1800* (Cambridge, 1995); David Arnold, *The Problem of Nature: Environment, Culture and European Expansion* (Oxford, Blackwell, 1996).

to sustain her argument.<sup>12</sup> Sparrman, a Swede (b.1748), spent two of these years at the Cape, and nine months travelling there, interspersed with a long, unplanned trip on Captain Cook's *Resolution* as assistant naturalist. He was certainly a pupil and admirer of Linnaeus, yet an alternative reading of his text might suggest a rather different analysis of his approach to the natural world, to the indigenous inhabitants and science.

This analysis, like Pratt's, will rely largely on self-presentation by travelling scientists rather than attempt the difficult, if not impossible, task of reconstructing their actual behaviour – which could modify the conclusions. Sparrman's text could be read as an example of interactive knowledge in the production of Western natural science. When he visited the Cape, self-consciously scientific understandings of the environment were in their infancy and were not initially developed in separation from other forms and founts of knowledge. Science itself was a less defined and specialised sphere, especially in a colonial context. Not only was the expanding Colony very varied in its topography, fauna and flora, but knowledge was built from a multiplicity of indigenous and colonial agents, each with different languages, modes of living and views of nature. Sparrman, as well as some of the others who followed him such as William Burchell, reflected elements of this diversity.

It is important to emphasise from the outset that authors such as Sparrman and Burchell were to a great extent dependent on the colonial infrastructure in order to pursue their travels – and this included the availability of bilingual Khoikhoi guides whose subservient role was not in question. But their very dependency necessitated intensive interaction with people at all levels of colonial society.<sup>13</sup> A reading of their texts suggests, for example, that Pratt exaggerates the degree to which they depicted an 'uninhabited' land. Visiting scientists frequently named and described settlers farms at which they stayed. Moreover, they often located and named African people in the environment, which is why they are valuable sources for African historians.

There were relatively few 'Hottentot captains' by the time Sparrman visited but amongst those he recorded were Rundganger and Kies; he also tells the story of the deceased chief Ruyter, a 'remarkable man'.<sup>14</sup> Despite noting that Rundganger was a colonial appointee believed to 'spy on other Hottentots', Sparrman reported the chief to complain that the Dutch were 'unjust invaders of the Hottentots territories'. A Xhosa party whom he encountered near the Fish river is portrayed as a dauntingly dominant presence.

With reference to his servants and guides, Sparrman does speak constantly of 'my Hottentots' but occasionally names them, notably 'Jan Skepper, the most alert and intelligent of all my Hottentots' and the 'marksman, Plattje'.<sup>15</sup> When describing encounters with Boers, whom he more frequently names, he quite often mentions Khoikhoi men with them. Sparrman distinguishes individual Khoisan people, even where he does not name them, and does not always create stereotypes: for example he is happy to record a man who 'had no faith in witchcraft'.<sup>16</sup>

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12 Anders Sparrman, *A Voyage to the Cape of Good Hope towards the Antarctic Polar Circle Round the World and to the Country of the Hottentots and the Caffres from the Year 1772–1776* (Cape Town, van Riebeeck Society, 1976, 1977), 2 vols., edited by V.S. Forbes based on 1785–1786 English editions.

13 Janet J. Ewald, 'Strangers in a Strange Land: Travellers and the Construction of Male Genders in Nineteenth Century Africa', paper to the conference on Gendering Men in Africa, Minneapolis, 1990 made a similar point: 'as an African historian, I know that Africans contested European power. And as someone who has travelled in Africa, I know that real travel does not allow for any free and full "requisitioning" of one's hosts'.

14 Sparrman, *Voyage to the Cape of Good Hope*, vol. 1, pp. 229, 240; vol. 2, pp. 11, 123.

15 *Ibid.*, vol. 2, p. 195.

16 *Ibid.*, vol. 2, p. 35.

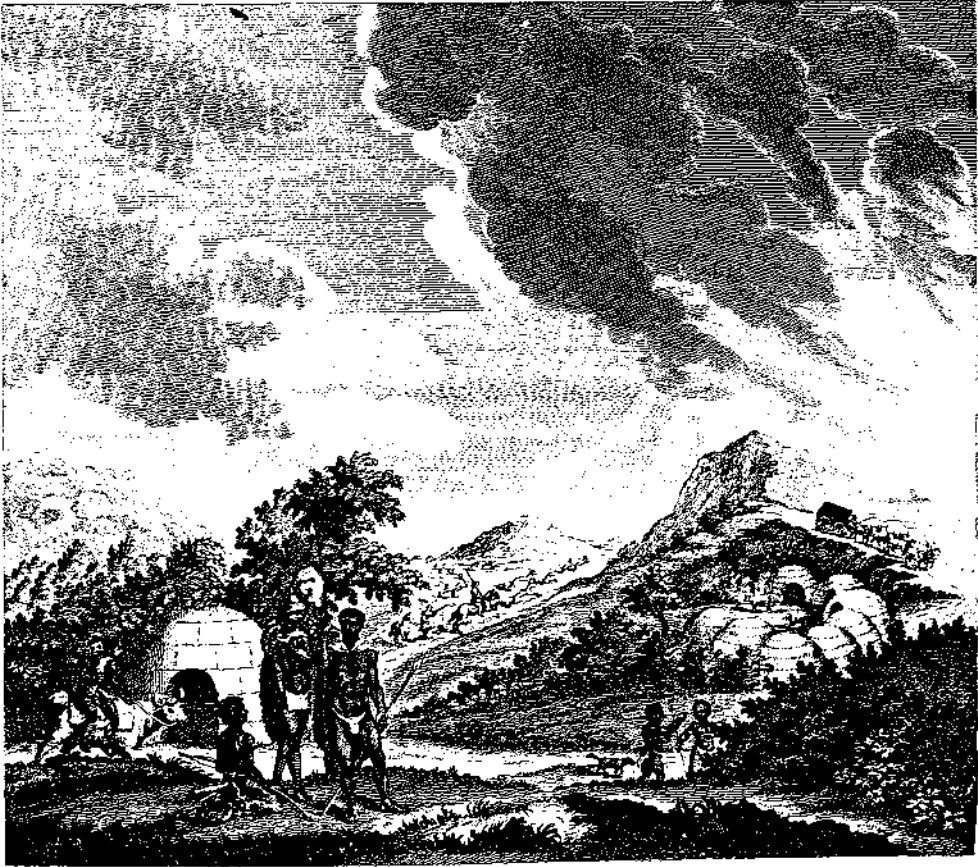


Figure 1. Prospect of the County at the Cape of Good Hope.

Sparman's frontispiece which Pratt reproduces apparently in support of her interpretation seems directly to contradict it (Figure 1). A Khoikhoi family appears in the foreground of a bucolic landscape amongst their huts looking for all the world like European landowners asserting their right to property in a late eighteenth century portrait. The scene does also depict Boers with ox-wagons, horses and rifles, some of them hunting, looming rather indistinctly – perhaps threateningly – in the background. But if we are to interpret such pictorial representations, the very fact that the colonists are spatially relegated must have significance. Both in his title and his introduction he refers to the Cape as the 'land of the Hottentots'.

Burchell (b.1781 in England) had already worked at Kew and spent some years on the island of St Helena, partly as government botanist, when he arrived at the Cape. Despite the fact that he visited thirty five years later (1810–1815), and was a more assiduous collector and classifier of nature than Sparman, he was also more meticulous in locating people and naming servants. His discussion of the African people whom he encountered forms a particularly valuable historical record. As Isaac Schapera notes

his verbal sketches of his Hottentot servants, of individual Bushmen, and of the Tlhaping noblemen ... are among the most effective passages in his book .... He was obviously interested in his fellow-creatures as human beings, and not as mere ethnic specimens.<sup>17</sup>

Burchell wrote in some detail about his attempts to hire Jan Tamboer as overseer and wagonner from the Hottentot regiment in Cape Town and, when this failed, about his replacement Philip Willems.<sup>18</sup> Stoffel Speelman, whose portrait Burchell drew, as well as Magers and Jan Kok, amongst his key assistants, were also included in the text on a number of occasions. Burchell even commented on the way in which Khoikhoi people had come to be named by the Dutch colonists and now had two names.<sup>19</sup> On the road, he found many of the trekboers taciturn, if hospitable in their way, and he clearly enjoyed the company of his guides and servants whose loquacity, especially around the fireside, he described sympathetically. He specifically noted – almost to affirm the authenticity of his experience – that he travelled for four years with ‘no companion or assistant, nor other attendants than a few Hottentots, the number of whom never exceeded ten’.<sup>20</sup> ‘To me’, he wrote, ‘almost everything truly African was interesting; and nothing gratified these feelings more than an opportunity of observing and conversing with the Hottentots’.<sup>21</sup>

It is possible to go through a number of texts at this time extracting different approaches to the indigenous people of southern Africa. All elaborate a sense of racial difference, but most are aware of people in the landscape both as groups and individuals and while some distance and dehumanise their African subjects, some evince relatively sympathetic attitudes. Even Cumming, the notoriously self-publicising, macho, mid-nineteenth century British hunter, who had pretensions to a popular scientific contribution in his zoological notes, is careful to name his servants: Kleinboy, Carollus and Cobus who ‘proved to be first-rate in his calling, being the best horseman I met with in South Africa’.<sup>22</sup> Nor are they omitted when he recounts his hunting escapades.

Travelling scientists did not all adopt the same narrative techniques nor write for the same purpose. Thunberg, another student of Linnaeus, who visited the Cape between 1772 and 1775, devoted himself more systematically than Sparrman to botanical classification and his legacy in this regard remains powerful.<sup>23</sup> It is true that he makes less mention of his servants in his travel text. But as Vernon Forbes, meticulous editor of recent reprints of both of these authors, notes, Thunberg’s published travel text was ‘terse and factual’ – more directly based on his botanical notebooks – while Sparrman’s tended to be ‘diffuse and discursive’. Thunberg would have been a better example for Pratt than Sparrman. Yet we must also understand that Thunberg wrote his book as an older man, many years after he returned from the Cape, when his memories were no longer fresh. Sparrman left South Africa at 28 and wrote up his Cape material for publication more immediately and with the verve of relative youth.

17 William J. Burchell, *Travels in the Interior of Southern Africa* (London, Batchworth Press, 1953), reprint of 1822–1884 edition introduced by I. Schapera, p. xii.

18 Burchell, *Travels in the Interior of Southern Africa*, vol.1, pp. 49–50, 113–120.

19 See Richard Elphick, *Khoikhoi and the Founding of White South Africa* (Johannesburg, Ravan Press, 1985), pp. 208–210 for a discussion of Khoikhoi names.

20 Burchell, *Travels in the Interior of Southern Africa*, vol.1, p. 50. In fact, none of them stayed with him throughout his long journey and he often met farmers and stayed at or near their houses.

21 *Ibid.*, vol. 1, p. 50.

22 R.G. Cumming, *The Lion Hunter of South Africa: Five Years' Adventures in the far Interior of South Africa with Notices of the Native Tribes and Savage Animals* (London, John Murray, 1856), pp. 10, 41.

23 Carl Peter Thunberg, *Travels at the Cape of Good Hope 1772–1775* (Cape Town, van Riebeeck Society, 1986) edited by V.S. Forbes.

While Thunberg had a more central botanical purpose in his published travel text, it is interesting that he carefully named settlers and their farms – they provided his social and geographical map of the Cape. Although he devoted little space to Khoikhoi people as individuals, he did make an attempt to get beyond a descriptive ethnographic record by reconstructing the location of the Khoikhoi polities before colonisation. He thus explicitly recognised that this had not been an ‘unpossessed’ landscape. By specifying historical territories for Khoi chieftaincies he was in a sense providing the raw material for writing a history of dispossession.<sup>24</sup> Thunberg also recorded Khoikhoi word lists – by no means the first or last to do so.

A further example may help to flesh out these points. William Somerville, physician and civil servant at the Cape during the first British occupation, recorded his journeys, mostly to the north of the Colony in 1799–1802; he did not publish at the time.<sup>25</sup> Somerville wrote a good deal on ethnography as well as natural history and in no sense saw the landscape as unoccupied. Although we know the names of his main Khoi servant (Hendrik Booy) and some of the Koranna guides who were employed near the Gariep (Orange) river, he also gave relatively little attention to individuals.<sup>26</sup> However, he was on an official expedition and the style of his text is more formal than that of Sparrman or Burchell. The personal anecdotes in which he indulged tend to have an explicitly medical interest – such as the effects of a scorpion bite on one of the (unnamed) Khoikhoi servants.<sup>27</sup> In an appendix, he wrote an intentionally sober account of the ‘Hottentot apron’ – a term which he rejected – or the stretched labia which excited male European attention.

Somerville’s lack of attention to individuals cannot be taken to define the tenor of his text as a whole. He attacked the romanticisation of primitive pastoral life yet he clearly saw value in some of the skills that it bequeathed. He reported on ‘seventy Bosjeman’ who lived on a farm in the recently colonised Tarka area. While they worked for the farmer, they had retained some social cohesion: the shepherds amongst them went ‘to the fields armed with a Bow and quiver of poisoned arrows’, and were ‘extremely vigilant and faithful’, protecting the flocks from theft and ‘the Lion, the Wolf, the tyger, or Jackall’.<sup>28</sup> Somerville praised this arrangement in which a settler drew on indigenous communities and practices as a benign way forward, in contrast to the hostility displayed by most frontier Boers towards the San.

Sparrman gave Khoikhoi names for places and especially rivers even though these sometimes already had Dutch names that were soon to displace them.<sup>29</sup> He, and others, also noted Khoikhoi words for animals, plants and objects.<sup>30</sup> Burchell specifically used Gariep, rather than the renamed Orange, and apologised to his readers for giving so many places their Dutch names, ‘when I ought to have given the original’. ‘It is certainly bad taste’, he continued, ‘to substitute, in any country, a modern or a foreign name, for one by which a place has been for ages known to its native inhabitants’ and explained that he was constrained by the fact that the Khoikhoi people with whom he travelled themselves used

24 *Ibid.*, p. 173.

25 Edna and Frank Bradlow (eds), *William Somerville's Narrative of his Journeys to the Eastern Cape Frontier and to Lattakoe 1799–1802* (Cape Town, van Riebeeck Society, 1979).

26 *Ibid.*, p. 101. The Gariep was renamed the Orange in the late eighteenth century apparently by Robert Jacob Gordon (see below). Somerville reported the Khoikhoi name and others used it into the early nineteenth century. It was restored in 1994.

27 Bradlow (eds), *William Somerville's Narrative*, p. 86.

28 *Ibid.*, p. 26; ‘wolf’ was used at the time for hyena and ‘tyger’ for leopard.

29 Sparrman, *Voyage to the Cape of Good Hope*, vol. 2, pp. 26, 31, 65, 148. Some Khoi names, especially in the southern and Eastern Cape, have survived up to the present.

30 Compare Thunberg, *Travels at the Cape of Good Hope*, pp. 248–251 who is less forthcoming in this respect.



the Dutch names.<sup>31</sup> Certainly there is enough material in these and similar texts to begin constructing systematically a map of Khoikhoi place names – as well as some aspects of ‘colonial Hottentot’ life.

Even more striking in Sparrman are regular, appreciative references to Khoisan knowledge and techniques, such as the uses of plants and animal products, which he openly acknowledged that he learnt directly from servants. He admired their capacity to find water, although they themselves suggested that it was often their animals that found it.<sup>32</sup> (He also commented favourably on the Khoikhoi capacity to learn from animals.) In reiterating this point, he denied that this ‘talent, which is universally acknowledged’, had anything to do with a ‘particular acuteness in the organ of smell’ – but that as in the case of tracking, resulted from ‘the faculty of observation, and judgement of the Hottentots’.<sup>33</sup> Burchell compared tracking skills to complex branches of European knowledge.

These Africans pay an extraordinary degree of attention to every little circumstance connected with the habits and mode of life of the wild animals ... [T]here are a multitude of ... circumstances from which they deduce information ... Cases occurred frequently during these travels, when this knowledge proved of the utmost importance: it is therefore a subject deserving of attention.<sup>34</sup>

Sparrman recorded how he learnt from a ‘Hottentot-Boshiesman’ ‘that the root of the da-t’kai, a shrub of the *mesembryanthemum* kind pretty common here, eaten raw, was, in fact, very well-tasted’ and noted that ‘the African colonists ... are not near so forward to investigate the virtues of the plants of this country as by encroachments to increase their property’.<sup>35</sup> Burchell also elaborated on Khoikhoi botanical knowledge: ‘from the neighbouring hills, Speelman brought home a short fleshy plant, well known to the Hottentots, by the name of *Guaap*, and to botanists by that of *Stapelia pilifera* used for quenching thirst’.<sup>36</sup> In one of a number of outbursts against ‘colonial tyranny’, Sparrman criticised the violence involved in capturing slaves and, with a clarity startling to the modern reader, offered a justification of the value of indigenous knowledge on a global scale. Surely, he argued, it was in the interests of ‘Christians’ to gain such knowledge by protecting rather than killing its bearers.

The *Peruvian Bark*, *senega*, ophiorza, sarsaparilla, quassia, with many other useful remedies, calculated for preserving millions of our species, have we not learned them all from those we call savages? and perhaps might learn still more, if our tyranny had not already, I had almost said, entirely extirpated them, and together with them the fruits of their useful experience.<sup>37</sup>

On a number of occasions Sparrman offered Khoikhoi experience to enlarge his zoological reportage. He told a (possibly tall) story about ‘an elderly Hottentot’ who avoided becoming victim to a lion by deploying his ‘small skill ... in zoology, (or, to speak plainly, his knowledge of the nature of animals)’.<sup>38</sup> Sparrman adds, not untypically, that while colonisation and firearms made the Khoikhoi ‘less exposed to the ravages of this fierce animal’, nevertheless ‘I could not but agree with them, that the colonists themselves were

31 Burchell, *Travels in the Interior of South Africa*, vol. 1, p. 202.

32 Sparrman, *Voyage to the Cape of Good Hope*, vol. 2, p. 14.

33 *Ibid.*, vol. 2, p. 223.

34 Burchell, *Travels in the Interior of Southern Africa*, vol. 2, p. 66. See Laura Nader (ed), *Naked Science: Anthropological Inquiry into Boundaries, Power and Knowledge* (New York, Routledge, 1996) for discussion of long-running debates about differences between Western science and local knowledge.

35 Sparrman, *Voyage to the Cape of Good Hope*, vol. 2, p. 78.

36 Burchell, *Travels in the Interior of Southern Africa*, vol. 1, p. 173.

37 Sparrman, *Voyage to the Cape of Good Hope*, vol. 1, p. 155.

38 *Ibid.*, vol. 2, p. 46.

a much greater scourge to them than all the wild beasts of their country put together'.<sup>39</sup> His servants knew where to find honey in trees because they could see where rats had gnawed at the trunks. He was intrigued by Khoikhoi use of animal products such as the secretion of a hartebeest gland for medicine, eland horns for tobacco pipes, sinews for cloak-ties, and grey rhebok horns for awls.

Perhaps most significantly in the context of the late eighteenth century Cape, Sparrman – although no uncritical admirer of an 'arcadian pastoral idyll' – appreciated the skills of the Khoikhoi as pastoralists.<sup>40</sup> He noted how they moved with their animals as soon as grazing became exhausted or the cattle showed signs of sickness: this he thought was one reason why the 'cattle of the Hottentots, in some measure, keep up to their original standard whilst, on the contrary, those of christians degenerate to a smaller race'.<sup>41</sup> He also reported a story that the

Caffres fondled and talked to their cattle a good deal as they stood in the craal; doubtless, in the same manner as the Arabians do to their horses ... making them thrive and rendering them brisk and lively, and at the same time more intelligent and tractable.<sup>42</sup>

Burchell wrote that 'the facility and adroitness with which Hottentots manage the [riding] ox, has often excited my admiration. It is made to walk, trot, or gallop, at the will of its master'.<sup>43</sup>

Vernon Forbes includes in his edition of Sparrman a running commentary gleaned from unpublished notes by Robert Jacob Gordon, commander of the Dutch garrison at the Cape in the late eighteenth century. Gordon travelled with Thunberg in 1773, made a number of important exploratory trips himself, and was undoubtedly an authority on the natural history and society of the Cape.<sup>44</sup> He was intensely critical of Sparrman partly, it seems, because of the latter's public censure of Dutch colonial rule and colonists, but also because of his apparent inaccuracies and embellishments. The tradition in travel writing of reporting wonders and marvels was still relatively fresh and, at least in caricature, persisted into the nineteenth century.<sup>45</sup> Sparrman assured his readers that he would tell no tales of 'men with one foot'; nevertheless he relished a good story, was careless with orthography, susceptible to reporting hearsay where it accorded with his views, and intentionally speculated on natural history and animal behaviour.<sup>46</sup> Some of Gordon's criticisms were unjustifiably harsh, but leaving aside Sparrman's veracity in every case, what is particularly interesting here is that the type of hearsay which he was prepared to report was often sympathetic to African people.

Although much of the area occupied by the Khoikhoi had been conquered decisively, there is a good deal of evidence in these texts alone of interaction in the genesis of early scientific knowledge. Scientific travellers also noted that a number of settler practices were

39 *Ibid.*, vol. 2, p. 44 and for following information pp. 150, 164, 170, 224.

40 Words taken from Donald Worster, *Nature's Economy: a History of Ecological Ideas* (Cambridge, 1994), 26. Sparrman advocated the commercial development of Cape agriculture.

41 *Ibid.*, vol. 1, pp. 238ff. The observation was not necessarily true.

42 *Ibid.*, vol. 2, p. 14; compare John Barrow, *Travels into the Interior of Southern Africa*, vol. 1 (London, T. Cadell and W. Davies, 1806), p. 121.

43 Burchell, *Travels in the Interior of Southern Africa*, vol. 2, p. 66; compare Sparrman, *Voyage to the Cape of Good Hope*, vol. 1, p. 227.

44 L.C. Rookmaker, *The Zoological Exploration of Southern Africa 1650–1790* (Rotterdam, A.A. Balkema, 1989), ch. 7; V.S. Forbes, *Pioneer Travellers of South Africa* (Cape Town, A.A. Balkema, 1965).

45 Stephen Greenblatt, *Marvelous Possessions: the Wonder of the New World* (Chicago, University of Chicago Press, 1991); Julia Blackburn, *Charles Waterton 1782–1865: Traveller and Conservationist* (London, Vintage, 1997).

46 Forbes and Rookmaker suggest that Gordon may also have been put out because his own extensive knowledge, acquired over a far longer period and probably more accurate than Sparrman's, was not being celebrated in print; it was drawn on by many others. Gordon felt that Sparrman exaggerated the dangers of some of his escapades, and inserted himself too centrally in the text.

learnt from the Khoikhoi, while recognising that such transfers of knowledge took place in the context of dispossession and violence, and to some degree consciously recorded this process of 'creolisation' or the forging of a 'Cape vernacular' – as the contested amalgam of colonial cultures has more recently been called.<sup>47</sup>

Undoubtedly, late eighteenth and early nineteenth European travelling scientists reworked what they learnt from the Khoikhoi and occasionally immortalised one another in the binomial latin names of plants. Specialist knowledge and categories assumed a greater importance during the nineteenth century and became more influential in shaping science, farming practice and government policies which were to have far-reaching impact on both environment and society. But some did quote and acknowledge indigenous voices and it is important not to date this silencing too early. It is an irony that because so few Khoisan people were literate at the time, we must rely partly on such travel texts to piece together even a limited encyclopaedia of local knowledge.

### Masculinity, Travel and Self-Criticism

Patrick O'Brian's novels about seamanship, conquest and natural history attempt to capture not only the details of British naval life in the hey-day of sail in the early nineteenth century, but also the quality of male relationships on board ship. O'Brian has read deeply in the naval history of the time but also, as a biographer of Joseph Banks, in the scientific and travel literature.<sup>48</sup> He contrasts Jack Aubrey, an English captain, with Stephen Maturin, globe-trotting ship's doctor, naturalist and part time spy. Aubrey is a bluff and straightforward man, like the prototypical heroes of early British adventure novels. In the *Mauritius Command*, for example, he willingly escapes a country cottage, 'crowded' with women – such as his wife and mother-in-law – and children, and rushes off at a moment's notice to command an equally crowded, but clearly, for him, more congenial ship on a long journey to conquer Mauritius from the French.<sup>49</sup> As with so many imperial men, his was a male environment; though by no means averse to life's refinements, he could realise himself through his task in an institution, in command of a hierarchy, and in successful conflict and violence.

Maturin is portrayed as a more complex man. Morality and identity seem less certain for him. He loved wine, and had a 'passionate concern with birds'.<sup>50</sup> While he agreed that naval posts had helped him get to the further reaches of the world, he found that the priorities of the navy were other than his own: 'they have carried me to remote countries, within reach of the paradise-bird, the ostrich, the sacred ibis ... and then, almost without exception, they have hurried me away again'. Maturin sought the freedom offered by travel rather than the comforts of naval discipline. Science was always to the fore: he carved out time to weigh, draw and measure a live aardvark at the Cape. His knowledge of medicine and his capacity to heal rather than fight gave him pride. He valued the skills of diplomacy above the cut and thrust of battle. He preferred to operate by himself, behind the scenes,

47 A.M. Hugo, *The Cape Vernacular* (Cape Town, University of Cape Town, 1970), inaugural lecture, new series, no. 2. Creolisation, now widely used of colonial societies, seems first to have been applied to South Africa by Robert Ross, 'The Anthropology of the Germanic-speaking Peoples of Southern Africa', unpublished paper presented to the conference on History and Anthropology in Southern Africa, University of Manchester (1980) drawing on Sidney W. Mintz and Richard Price, *An Anthropological Approach to the Afro-American Past: a Caribbean Perspective* (Philadelphia, 1976). Pratt does allow for an element of 'reciprocity' in the scientific travel writing.

48 Patrick O'Brian, *Joseph Banks: a Life* (London, Collins Harvill, 1987); Martin Walker, 'Going Down a Storm', *The Guardian*, 10 December 1996.

49 Patrick O'Brian, *The Mauritius Command* (London, Harper Collins, 1996).

50 *Ibid.*, pp. 128–129.

rather than in a group of men, to accumulate knowledge and humanity rather than victories, to persuade by print, rather than the sword.

The two are presented as harmonious partners in the imperial enterprise, but we should not be blind to the potential for conflict between their differing attributes. Masculinity is a slippery concept, both because it is difficult to distinguish analytically from class and race, and because men, individually and collectively, can display a wide range of behaviour. Nevertheless, it is important to press analytically beyond a seamless concept of masculinity as violent or controlling patriarchy. If we relinquish the uncritical and comfortable projection of British naval conquest by O'Brian, the character of Maturin might give some leads for thinking in a less stereotyped way about masculinity as part of a gendered identity amongst enlightenment scientific travellers.

Pratt recognises that not all imperial men are the same. Natural scientists thought of themselves in a different light from the 'conquerors and commercial travellers'.<sup>51</sup> She uses the term *anti-conquest* to describe the rather 'utopian, innocent vision of European global authority' in their narratives; interest in nature allowed them 'an utterly benign and abstract appropriation of the planet'. 'The self-effacing protagonist of the anti-conquest', she continues, 'is often surrounded by an aura not of authority but of innocence and vulnerability'. But Pratt ultimately sees these as dissembling narrative tactics: 'no world is more androcentric than that of natural history'. Not only is landscape and nature sometimes represented as female, to be taken, but the possibility of natural science depends upon conquest. In a slightly different context, Anne McLintock argues that literacy and writing in themselves are an expression of dominant masculinity: the 'poetics of male authorship is not just a poetics of creativity but a poetics of possession and control over the issue of posterity'.<sup>52</sup>

Sparrrman would explicitly agree that 'well-regulated commerce as well as navigation in general, has its foundation in science, and at the same time receives light from it, while this [science], in return, derives support from, and owes its extension to the two former'.<sup>53</sup> But we should not leap directly from this link to fuse empire, conquest, enlightenment science, masculinity, domination of nature and his travel text. Sparrrman's writing, as Pratt suggests, transmits a sense of weakness in the face of nature and local people, black and white. Although his trip as a whole was planned to further scientific collection and recording, in its details it was often shaped by this vulnerability, the unpredictability of travel and the serendipity of opportunity. As a guest in the Colony, he did not project himself in a primarily dominant or patriarchal mode. He celebrated, in contrast to European order and decorum, his dishevelled appearance, his 'Hottentot' shoes, his unorthodox garb and long beard.<sup>54</sup> His companion, Immelman – who had also travelled with Thunberg – wore a nightgown on horseback to keep cool.

Like most Cape travellers, Sparrrman was an enthusiastic hunter, both for meat and in the search for specimens. He was occasionally under pressure to hunt more often than he wished; his Khoikhoi servants once told him to spend less time looking for plants and insects and more in finding game for provisions.<sup>55</sup> Although many hunting texts elaborate on the thrills, spills and risks of the chase, Sparrrman also tells stories against himself. He describes his rashness, driven by the excitement of the hunt, in chasing a buffalo into a thicket against the advice of the Khoikhoi guides. He ended up looking for a tree and

51 Pratt, *Imperial Eyes*, p. 50, following quotes from pp. 39, 56.

52 Anne McLintock, *Imperial Leather: Race, Gender and Sexuality in the Colonial Contest* (London, Routledge, 1995), p. 235.

53 Sparrrman, *Voyage to the Cape of Good Hope*, vol. 1, p. xiii.

54 *Ibid.*, vol. 2, p. 106.

55 *Ibid.* vol. 2, pp. 100, 163.

recognising he had been foolhardy. Sparrman also reports falling off his horse when hunting and the consequent pain and discomfort.

The hippo hunt, which is a major feature of the final section of the work, is also full of mishap; no-one involved redeemed themselves. The party set up three shooting stations to kill a hippo as it came out of the Fish river.

But to the great endangering of our lives, we ... found the animal much quicker in its motions, as well as bolder than we had thought it; for while I was sitting half asleep and moralising on the subject, struck with the consideration, that we, with our guns, had at that present moment the dominion over Job's Leviathan or Behemoth, while on the other hand, the flies, or small musquitos, had the dominion over us ... a sea-cow came rushing upon us out of the river with a hideous cry, as swift as an arrow out of a bow; at the same time, I heard the farmer call out, 'Heer Jesus!'.<sup>56</sup>

Most of the hunters ran in fright 'and spent the remainder of the night in laughing at each other'. Gordon called this 'the foolishest story in the book'. Even if elements were apocryphal, Sparrman was deploying an intentional slapstick humour and self-deprecation in the account.

Sparrman's self-criticism was also evident in the report of his attempt to shoot a honey-guide bird, highly valued by the Khoisan because it directed them to bees' nests, so that he could examine it more closely; his moral tale has a bearing on his attitude to the natural world, discussed further below. This plan

offended my Boshies-men not a little: and though I had previously promised an ample reward, consisting of glass beads and tobacco, to my *Zwellendam* Hottentots, on condition that they would assist me in catching and shooting a *honing-wyzer*, yet I found them too much the bird's friend to betray it; a circumstance that gave me great pleasure, as it shewed that these people were in general possessed of good and grateful hearts; though ingratitude, I am very sorry to say it, is a crime, by no means rarely to be met with among men.<sup>57</sup>

Sparrman could certainly be overbearing and reflected contemporary European ideas of different gradations of 'savageness'. He was critical of a colonist who had married 'an ugly sooty mulatto'.<sup>58</sup> He spoke of 'camp rules' which entailed a 'good drubbing' for disobedience and admitted that they were 'twice under the necessity of trying what effect blows would have'. He was concerned, however, to explain to the reader that any resort to punishment was tempered by his vulnerable position as an employer, for maltreatment might provoke desertion. He seemed not to have protested when farmers required 'lazy Boshies-men-Hottentots' to run behind them, riding at a trot. But he turned the story also into an appreciation of Khoisan stamina and swiftness. His initial behaviour towards a daunting party of Xhosa men was unforgivably rude and full of bravado though he justified it by his own fear and by having to give his frightened servants a lead.

Yet, as noted above, Sparrman often adopted an explicitly humane position on some of the social ills of the Colony. He was very uneasy about slavery and its consequences – 'that violent outrage to the natural rights of mankind, always in itself a crime, and which leads to all manner of misdemeanours and wickedness'.<sup>59</sup> These were relatively early years of the abolitionist movement. And he could be highly critical of the Boers in their approach to

<sup>56</sup> *Ibid.*, vol. 2, p. 208.

<sup>57</sup> *Ibid.* vol. 2, p. 148.

<sup>58</sup> *Ibid.*, quotes in order from vol. 1, p. 287, vol. 2, pp. 224, 62, 205, 195.

<sup>59</sup> *Ibid.* vol. 1, p. 200. Although James Walvin, 'Symbols of Moral Superiority: Slavery, Sport and the Changing World Order, 1800–1940', in J.A. Mangan and James Walvin (eds) *Manliness and Morality* (Manchester, Manchester University Press, 1987), pp. 242–260, links abolitionist moral superiority, masculinity and British imperialism.

the indigenous inhabitants. He described a trap set by Boers who killed game and then left the meat. When San people came to eat it

the farmers ... turned the feast into a scene of blood and slaughter. – Pregnant women, and children in their tenderest years, were not at this time, neither indeed are they ever exempt from the effects of the hatred and spirit of vengeance constantly harboured by the colonists with respect to the Boshies-man nation; excepting such, indeed, as are marked out to be carried away into bondage.<sup>60</sup>

Sparman praised the Khoisan for their 'moderation ... towards their tyrants' and found it easy to understand why they wished to escape service in pursuit of 'liberty, the greatest of all treasures'.<sup>61</sup> Burchell similarly took great pains to emphasise his humanity, his careful negotiations with Khoikhoi people whom he met and employed so that there could be 'perfect confidence on both sides'. He opposed slavery as 'morally wrong, and directly contrary to the best and dearest feelings of human nature'.<sup>62</sup> As he moved north of the colony, where independent San bands survived, he affirmed that 'my notions of human nature were not so harsh as to forbid me expecting virtues among savages; and I looked forward with pleasure and increasing eagerness to that part of my journey'.<sup>63</sup> He defended the San against the prejudices of his servant Speelman and was unusually determined to extend to them his vision of a common humanity. He even praised their poets who could 'rhyme as well as many ... of my own country, and possibly may have as much genius'.<sup>64</sup> Although he was an advocate of British colonisation, he shared with Sparman a sense of self-regulation and constraint in relation to indigenous people as well as an intellectual curiosity about them.

There are many sections in Sparman where such questioning intellectualism is evident. His argument with the famous French naturalist, de Buffon, about the necessity for humans (as animals with only one stomach and short intestines) to eat meat is a case in point and, in the context of the eighteenth century, says something about the nature of Sparman's masculinity. Buffon asserted that animal food was an 'indispensible necessity': 'were man reduced to ... living on bread and vegetables alone, he would scarcely be able to support life in a weak and languishing condition', perhaps even to reproduce.<sup>65</sup>

Sparman, clearly no vegetarian, nevertheless cited in argument the Brahmins in India, who were quite able to propagate themselves, as well as the poor at the Cape, in China, New Spain and Egypt as examples of communities who could survive at least for periods with little meat in their diet. The inhabitants of the South Seas and Easter Island (where he had travelled with Cook), who had little access to meat, were nevertheless 'swift as goats and seemed to be very healthy'. Moreover, their diet hardly affected their reproductive powers in that 'their vegetable food did not make them tardy in the performance of the love making rites'. Sparman may have been indulging in already powerful European male South Sea sexual fantasies – or trying to introduce colour, or justifying rape – when he expanded his argument by noting that an island woman 'who had swam to our ship, when it was at a great distance from the shore, was said within the space of a few hours, to have served seventeen of our sailors and marines, before she swam again to land'. He thought that peas, turnips, cabbage and 'other flatulent vegetables' might even enhance sexuality. He also drew on comparative anatomy in suggesting that monkeys and even dogs with a similar digestive system could survive largely without meat.

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60 Sparman, *Voyage to the Cape of Good Hope*, vol. 2, p. 111.

61 *Ibid.*, vol. 1, pp. 199–200.

62 Burchell, *Travels in the Interior of Southern Africa*, vol. 1, pp. 28, 232.

63 *Ibid.*, vol. 1, p. 201.

64 *Ibid.*, vol. 2, p. 61; his evidence was a little flimsy.

65 Sparman, *Voyage to the Cape of Good Hope*, vol. 2, pp. 174ff.

While his hostility to de Buffon, which borders on the polemic, indicates that he could be intellectually competitive, Sparrman certainly tried to project the benign face of science. His text emphasised that he wished to help people medically. In a visit to the Caledon baths, he tried both to assess their medicinal value, and to treat those who did not seem to benefit, including a Madagascan slave.<sup>66</sup> His discussion of how to treat worms from which the Boers suffered grievously – as their sheep did later as well – showed the importance he attached to ‘satisfaction in being useful, and shewing my gratitude to these hospitable rustics’.<sup>67</sup> He dispensed medicine for free, while acknowledging that this placed him in a good position to acquire information in return, and was typically self-deprecating about his ‘slender stock of medical knowledge’. Whether or not Sparrman was in fact generous, he was keen to illustrate how he returned as well as took knowledge – including his own ideas about potential remedies which used local plants.

Neither Sparrman nor Burchell wrote much about women in their travel texts, nor do they name them, which is telling in itself. Sparrman found himself a little uneasy amidst the British officers and crew on Cook’s ship; he was judged ‘proper’, ‘prudish’, ‘reserved’ and ‘awkward’ by later authors.<sup>68</sup> As a more mature man, he was certainly condemnatory both of the lack of ‘modesty’ of Tahitian girls, and the behaviour of the sailors, who ‘succumbed to the customs of the land’ and were punished by infection with venereal disease.<sup>69</sup> It is not clear from his texts whether he participated. Although he did not mention any sexual encounter on his trip, he hinted to Thunberg that he may have been interested and, having met Immelman’s ‘fair sister’, suggested that he would have preferred travelling with her than her brother.<sup>70</sup> He described in some detail, possibly to titillate his readers, how he and Immelman larked about with two young Khoikhoi girls, but emphasised their ultimate ‘decency’.<sup>71</sup> A Boer women, he suggests, tried to persuade him to settle in the AgterBruintjieshoogte near Graaff-Reinet. There is a certain longing here for the ‘easy and pleasant’ life of the colonists, and for the space of the rural Cape, but Sparrman metaphorically retreated with a brief explanation to the reader that he knew life there would not be free of conflict. He did not marry on his return to Sweden.

Burchell comes through as a less bumptious and more sensitive man. His intended wife jilted him for the captain of the ship that was taking her to St Helena to join him; like Sparrman, he did not marry. He travelled to Latin America for five years between 1825 and 1830 but spent much of the rest of his life working on his collections, and exploring his artistic interests, in increasing isolation. Perhaps their travels made so major an impact on both that they never fully reintegrated into European society. Perhaps, as Pratt suggests in a footnote on Humboldt, some men travelled in order to escape the ‘heterosexist and matrimonialist structures of bourgeois society’.<sup>72</sup> There is no clear evidence in their writing that Sparrman or Burchell were homosexual in orientation. Although scientific exploration, as in the case of ship-board life, could clearly be a context for ‘exclusively male society’, these authors tended to stress and celebrate their constraint and individuality rather than participation in collective masculine exploits, sexuality or the exercise of male authority.

Somerville displayed less sensitivity in his more formal, impersonal narrative, but it

66 *Ibid.*, pp. 153ff.

67 *Ibid.*, vol. 2, p. 138.

68 *Ibid.*, vol. 1, pp. 4–5.

69 Anders Sparrman, *A Voyage round the World with Captain James Cook in HMS Resolution*, edited by Owen Rutter (Gold Cockerill Press, 1944), pp. 81–82; see also p. 66. First published in 1802 and 1818 as an expanded version of the short passage in his Cape travels, it lacks their energy.

70 Sparrman, *Voyage to the Cape of Good Hope*, vol. 1, pp. 5, 131; he also suggested (vol. 2, p. 107), an interest in ‘Christian lasses’.

71 *Ibid.*, vol. 1, p. 208.

72 Pratt, *Imperial Eyes*, p. 240, note 10.

may be unwise to deduce too much about his approach to masculine authority from his text. After further spells in colonial and naval service in Canada and the Mediterranean, he returned to Britain in 1811 and married his cousin Mary as her second husband. Mary Somerville, a largely self-taught mathematician and astronomer, became, after marriage, one of the leading women scientific writers of her time; Somerville College in Oxford was later named after her. Although she had struggled to get a scientific education – and was hampered both by her father and first husband – Somerville, ‘convinced that his wife’s work was more important than his own, neglected his interests for hers, “ransacking libraries and even copying her manuscripts”’.<sup>73</sup> Analysis of masculinity amongst scientific travellers must allow for such deviations.

## Science and Conservation

Key ecofeminists have suggested that the male scientific enterprise spoke not least of classification, domination and exploitation. This was certainly a major part of the imperial project and by the early decades of the nineteenth century, much had been achieved in the literary mapping of the Cape environment. Yet the scientific travellers’ ambition to understand the environment as a whole occasionally allowed alternative visions. As early as Sparrman, a more concerned and even environmentally protective strand is noticeable in their writing. Botanical and zoological knowledge, perhaps the strongest branches of natural history at the Cape, identified the richness of local flora and fauna and also, very hesitantly, threats to that natural wealth. Natural history became significant not only amongst visitors but in settler intellectual endeavour.<sup>74</sup>

Science gave people new power over nature, of which they were highly aware. But there was an obverse side to these developments in that ‘man’-centred views of nature came under question. As Keith Thomas notes, even Descartes, along with other early modern scientific philosophers, ‘rejected the idea that the natural world was created for man alone’.<sup>75</sup> Development of the microscope, journeys of exploration, astronomy and geology all began to change the ‘arrogance of humanity’ in scientific writing. To this was increasingly added appreciation of the aesthetic value, and balance or wholeness, in nature – ideas developed in different ways by eighteenth century authors from Rousseau to Gilbert White.<sup>76</sup> Enlightenment scientific thinking should not be divorced from romantic ideas about nature which flourished in the early decades of the nineteenth century. Thomas offered these strands in European thought too uncritically in trying to show overall changes in British attitudes and behaviour by 1800. But if one set of scientific images were extractive and mechanistic, others, especially in the natural sciences, could draw on conservationist ideas and on romantic language.

We can find some of these ideas in the Cape travel literature, not least in Sparrman. He has long been recognised as an early commentator on ‘overstocking and overgrazing’.<sup>77</sup>

73 Bradlow (eds), *William Somerville's Narrative*, p. 22; Dale Spender, *Women of Ideas (and What Men have Done to Them)* (London, Ark, 1982), p. 233, based on Lynn M. Osen, *Women in Mathematics* (Cambridge, MIT Press, 1974).

74 A disproportionate number of botanical explorers and local botanists, including many of those mentioned in the article, are included in the *Dictionary of South African Biography (DSAB)*. The development of local scientific and conservationist networks is elaborated below and in a forthcoming book.

75 Keith Thomas, *Man and the Natural World: Changing Attitudes in England 1500–1800* (Harmondsworth, Penguin, 1985), pp. 167–169.

76 Gilbert F. LaFreniere, ‘Rousseau and the European Roots of Environmentalism’, *Environmental History Review* (1990), pp. 41–72; Worster, *Nature's Economy*.

77 T.D. Hall, ‘South African Pastures: Retrospective and Prospective’, *South African Journal of Science*, XXXI (1934), pp. 59–97; see also P.J. van der Merwe, *Trek: Studies oor die Mobiliteit van die Pioneersbevolking aan die Kaap* (Cape Town, Nasionale Pers, 1945), pp. 71ff.



Scouring early writings on agriculture, T.D. Hall, an important South African scientific conservationist of the inter-war years, found comments were already being made by eighteenth century Dutch officials about the 'disappearance of grass and the springing up of small bushy plants in its stead'.<sup>78</sup> They were also concerned with deforestation, wood supplies and profligate killing of wildlife. In Sparrman, Hall detected a sustained discussion of the problem which, while it clearly drew on local ideas, was possibly one of the first in print:

In consequence of the fields being thus continually grazed off and the great increase of the cattle feeding on them, the grasses and herbs which these animals most covet are prevented continually more and more from thriving and taking root, while on the contrary, the rhinoceros bush which the cattle always pass by and leave untouched is suffered to take root free and unmolested and encroach on the place of others ... [This] punishment for their sins (as they call the rhinoceros bush) together with several other dry, barren shrubs and bushes is found in greater abundance than anywhere else near their farms.<sup>79</sup>

As illustrated above, Sparrman distinguished between settler and Khoi pastoral methods. Colonists, he thought, were not only too immobile, but kept too many cattle. He thought that the Khoikhoi, who moved their dwellings and stock frequently, were more sensitive to such degradation.

Sparrman also suggested that wildlife, using both browse and veld, grazed in a more balanced way than cattle, which concentrated on grass.<sup>80</sup> He initiated a discussion on the complex interactions between locusts and grass arguing that here too there was some balance in nature. As after fire, 'the ground is ... stripped quite bare; but merely in order that it may shortly afterwards appear in a much more beautiful dress, being, in this case, decked with many kinds of annual grasses, herbs, and superb lilies, which had been choaked up before'.<sup>81</sup> Despite his avarice for samples and willingness to shoot for the pot, Sparrman was aware that Cape wildlife as well as pasture was imperilled. His text as a whole reveals the 'the cumulative effects of man's destructive hand upon the environment'.<sup>82</sup>

Sparrman was clearly reflecting a more general perception held at the Cape at the time. A few years later the Dutch visitor, Hendrik Swellengrebel, noted that within seven or eight years of the Boer occupation of the Camdeboo, then on the eastern outskirts of the colony, 'the luxuriance of the grass ... [had] already started to deteriorate markedly' and would soon 'become wholly deteriorated just like that which lies nearer the Cape'.<sup>83</sup> Swellengrebel related his comments to lack of markets and knowledge, the 'indolence' of Cape farmers, and their tendency to expand and compete in new areas rather than invest in their land.<sup>84</sup> These critiques of Cape pastoral practices built an environmental dimension into the often-rehearsed Company argument for more intensive farming and closer settlement. They anticipated a range of later conservationist comments although Sparrman may have been amongst the last to praise the Khoi methods of rapid transhumance.

Recent discussions of romanticism, and especially the large literature on Wordsworth, offer interesting insights for an analysis of travel literature at the time. In *Romantic*

78 Hall, 'South African Pastures', p. 66.

79 Sparrman, *Voyage to the Cape of Good Hope*, vol. 1, pp. 238ff, 252.

80 Hall, 'South African Pastures', p. 75.

81 Sparrman, *Voyage to the Cape of Good Hope*, vol. 1, p. 330. The idea of a 'just equilibrium' in nature was also developed in relation to the role of hyenas (vol. 1, pp. 170-174); vol. 2, p. 60 on wildlife.

82 Sparrman, *Voyage to the Cape of Good Hope*, vol. 1, p. 3, comment by Forbes.

83 Susan Newton-King, 'The Enemy Within: the Struggle for Ascendancy on the Cape Eastern Frontier, 1760-1800' (unpublished Ph.D. thesis, University of London, 1992), pp. 98-101.

84 G.J. Schutte (ed), *Briefwisseling van Hendrik Swellengrebel Jr oor Kaapse Sake 1778-1792* (Cape Town, van Riebeeck society, 1982), pp. 166, 355, annexure to Swellengrebel to C. de Gijselaar, 26 June 1783; see also pp. 348-50.

*Ecology*, Jonathan Bate takes issue with marxist critics who have seen Wordsworth's work as an outcome, and celebration, of agricultural enclosure which – as Pratt suggests for Cape travel literature – placed nature at the centre of a depopulated countryside.<sup>85</sup> In this view, romanticism could be seen as a fig leaf to hide the thrusting excesses of early industrial capitalism, fuelling bucolic fantasies divorced from the material realities of the world which gave rise to it. Bate attempts a more sympathetic reading, placing Wordsworth, in his time and place, as a key figure in an environmental tradition which both recognised the changing material world and began to develop a critique of elements of exploitation.<sup>86</sup> Nor was his romantic view divorced from science; Wordsworth incorporated new geological understanding into his poetry as well as his descriptive guide of the Lake District. These different readings point to complex links between industrialisation, exploitation, science, romanticism and conservation in the early nineteenth century.

Grove has begun to illustrate some of these intellectual strands in the growing British understanding of tropical and colonial environments. In St Helena, Burchell systematically collected and classified plants, but also consciously emphasised an aesthetic approach and wrote lyrically of the island scenery: of 'sublime' views and 'luxuriance of the verdure' which caused 'a delightful feeling strangely mixed with sensations of fear and wonderment'.<sup>87</sup> He joined a wider network of administrators and scientists concerned about island deforestation. Burchell occasionally reiterates such romantic appreciation in his Cape travels, when sitting beside the Gariep, or even in the Karoo: 'the truest definition of *Taste, Beauty, the Picturesque*, may be found in ... the word Nature'.<sup>88</sup>

Despite his awareness of environmental change, Burchell is less forthcoming on this issue. He explains but, like Sparrman and Thunberg, does not criticise the practice of burning veld to clear land for the spring rains; he comments on the wide distribution of 'rhinoceros bush' but not its spread.<sup>89</sup> However, he noted firewood shortages, the drifting sands on the Cape flats and the scarcity of the overhunted eland, prized for its meat.<sup>90</sup> As a botanical collector, he worried that frequent fires on the slopes of 'Devil's Mountain' above Cape Town would destroy its range of 'curious and beautiful plants'.<sup>91</sup> In a colony where travellers were passing through large stretches of semi-arid land, and where the rhythms of their own movement, as well as local stockowners, were not least attuned to the availability of pastures, it is not surprising that this became a persistent, if somewhat muted thread in the literature. Commenting on the paucity of grazing for his oxen around a farm in the Roggeveld, he wrote with feeling that 'the sheep of the place consumed, like locusts, every blade of grass and leafy twig within a moderate compass'.<sup>92</sup> He was also an advocate of tree planting.<sup>93</sup>

On occasions when Burchell's vision of nature is made explicit, he presents a well-formulated view of complex interaction and balance.

In this arid country, where every juicy vegetable would soon be eaten up by the wild animals,

85 Jonathan Bate, *Romantic Ecology: Wordsworth and the Environmental Tradition* (London, Routledge, 1991). See also Judith W. Page, *Wordsworth and the Cultivation of Women* (University of California Press, Berkeley, 1994).

86 Bate, *Romantic Ecology*, pp. 38–48. He suggests that this tradition was taken up by Ruskin, Morris and early advocates of a Lake District national park.

87 Grove, *Green Imperialism*, pp. 350–351.

88 Burchell, *Travels in the Interior of South Africa*, vol. 1, p. 203.

89 *Ibid.*, vol. 1, pp. 39, 101–102; compare Thunberg, *Travels at the Cape*, p. 83.

90 *Ibid.*, vol. 1, p. 218; Grove, *Green Imperialism*, p. 354.

91 Burchell, *Travels in the Interior of Southern Africa*, vol. 1, pp. 38–39.

92 *Ibid.*, vol. 1, p. 172. The comparison between sheep and locusts was made famous later by John Muir ('hooved locusts'). Burchell described sheep 'moving in a compact body, like an army invading the country'.

93 William J. Burchell, *Hints on Emigration to the Cape of Good Hope* (London, J. Hatchard, 1819), p. 43.

the great creating power, with all-provident wisdom, has given to such plants either an acrid or poisonous juice, or sharp thorns, to preserve the species from annihilation, in those regions, where, for good and wise purposes, they have been placed . . . . In the wide system of created objects, nothing is wanting, nothing is superfluous . . . . Each has its peculiar part to perform, conducive ultimately to the well-being of all. Nothing more bespeaks a littleness of mind, and a narrowness of ideas, than the admiring of a production of Nature, *merely* for its magnitude, or the despising of one, merely for its minuteness: nothing more erroneous than to regard as useless, all that does not visibly tend to the benefit of *man*.<sup>94</sup>

He could recognise the desirability of co-existence with nature, as well as a degree of hegemony over it. Although conservationist ideas even then sometimes addressed efficient management, investment and the optimum use of resources in the long term, rather than an aesthetic or romantic appreciation of nature, nevertheless science contained a number of potentialities. The scientific impulse as expressed by these travellers was not always simply extractive.

### The Gendered Nature of Science: Women in the Enterprise

A rapidly expanding academic literature on the history of natural history in the West is revealing extensive, if circumscribed, involvement by women over a long period, especially in botany. By the early nineteenth century in Britain 'botany . . . had become a popular recreation; flower painting, now accorded a place among the elegant accomplishments of every young lady of fashion, created a demand for manuals of instruction'.<sup>95</sup> Women, especially but not only from wealthier, educated backgrounds, illustrated the great classificatory endeavour, because it was a task seen to accord with domesticity. The extent to which they were involved not only in illustration but as collectors and classifiers is still being explored.<sup>96</sup> Certainly women corresponded widely with leading botanists and contributed descriptions and drawings both to popular magazines and more scientific publications.

A number of women who visited the Cape or settled there wrote about their experiences in the nineteenth century.<sup>97</sup> However, Mary Elizabeth Barber (b.1818) was one of the earliest South African settler women who was able, to some degree, to realise her scientific ambitions and contribute to the literature on natural history.<sup>98</sup> Her parents, Miles and Anna Bowker, were amongst the wealthiest of the 1820 British settlers and with their many sons became one of the major landed families in the nineteenth century Eastern Cape. Miles Bowker farmed innovatively on the coast of Albany district with woolled sheep and cattle, crops and fruit; he also grew indigenous aloes and succulents. One of his sons remembered: 'my father did little work in this country but make gardens'.<sup>99</sup> Family tradition, perhaps

94 Burchell, *Travels in the Interior of South Africa*, vol. 1, pp. 161.

95 Wilfrid Blunt, *The Art of Botanical Illustration* (London, Collins, 1950), p. 211.

96 Londa Schiebinger, 'Gender and Natural History', in N. Jardine, J.A. Secord and E.C. Spary (eds), *Cultures of Natural History* (Cambridge, 1996) suggests that even Maria Sibylla Merian, one of the best known eighteenth century collectors and illustrators, did not try to classify plants. Marcia Myers Bonta, *Women in the Field: America's Pioneering Women Naturalists* (College Station, Texas A and M University Press, 1991) and Merchant, *Earthcare*, indicate that the boundaries between these activities could be fluid.

97 Michelle Adler, 'Skirting the Edges of Civilization: British Women Travellers and Travel Writers in South Africa, 1797-1899' (unpublished PhD, University of London 1995).

98 DSAB, vol. II, p. 26; S. Schonland, 'Biography of the Late Mrs. F.W. Barber', *Records of the Albany Museum*, 1, 2 (1907). Adler, 'Skirting the Edges', discusses Barber briefly in a chapter on botanical writing devoted largely to others such as Marianne North.

99 I. Mitford-Barberton, *Comdt. Holden Bowker: An 1820 Settler Book including Unpublished Records of the Frontier Wars* (Cape Town, Human and Rousseau, 1970), p. 44. Bowker was involved in a wide range of settler enterprises.

partly patriarchal myth, records that his daughter took her interest in natural history from him.

The Bowkers were not only a relatively wealthy family with an interest in plants; some were associated with a small network of British settlers who explicitly saw the link between science and colonial development. Scientific endeavour increasingly found a local base in the first half of the nineteenth century; in the Eastern Cape, Dr W.G. Atherstone provided a focus for activities and discussion.<sup>100</sup> After training with his father, the district surgeon of Albany, he spent a few years of formal study in Europe, qualified in 1839, and launched a successful medical career in Grahamstown: he is well-known as the first doctor in South Africa to have used anaesthetics. Atherstone also devoted a good deal of time to zoology, veterinary science, geology and botany. From 1847, he sent dried and living botanical specimens to Sir William Hooker at Kew; his own substantial collection was later presented to the Albany museum.<sup>101</sup> Atherstone and some of his colleagues were well aware of earlier botanical writings.

In 1845, Mary Bowker married Frederick Barber, a chemist who came to South Africa in 1839, specifically because of his connection with Atherstone, his cousin.<sup>102</sup> Barber started farming on Atherstone's father's land and, in about 1848, after a short sojourn in Graaff-Reinet district, he and his wife settled on their own property, Highlands, near Grahamstown, a relatively good sheep farm on account of its elevation. Members of the Bowker family were involved, by the mid-1840s at least, in sending seeds and plants to a relative in England; botanical paintings from Mary accompanied them.<sup>103</sup> By the late 1840s, she had begun a long correspondence with William Harvey, curator of the herbarium (1844–1856) and Professor of Botany (1856–1866) at Trinity College, Dublin.<sup>104</sup>

Harvey visited the Cape as a young man in 1835 and spent a few years there as Colonial Treasurer. Already an ardent botanist, he collected systematically and completed a short book on South African plants, one of the earliest published locally, by the time he left in 1838. Harvey explicitly included women when he exhorted missionaries, doctors and farmers in the colony to develop systematically the collecting habit and help expand the recorded knowledge of Cape plants. In Barber's case it certainly worked. She wrote to Harvey:

I never should have known anything of botany had I not, by mere chance, seen a copy of your *Genera of South African Plants*, with the introduction to botany at the beginning of it. This volume I borrowed and here commenced some of the happiest days of my life; for in all places and at all times, in peace and in war, botany has been one of my greatest pleasures; and often when we have been driven away from our homes, and had them burned by savages, and have had nothing to shelter us but a wagon for months together, then botany has been my sovereign remedy to drive away care ... So you see, anything I can do to assist you, by collecting plants, is only repaying the debt of gratitude I owe to you for 'value received'.<sup>105</sup>

Through Atherstone, Barber also offered her services to Sir William Hooker at Kew in 1849: she was introduced as 'the lady with whom Harvey corresponded for upwards of a

100 Edmund H. Burrows, *A History of Medicine in South Africa* (Cape Town, A.A. Balkema, 1958), pp. 168–173; *DSAB*, vol. I, pp. 25–27.

101 Kew Archives, London, Director's letters, vol. 59, W. Guybon Atherstone to Sir William Hooker, 8 March 1847 and subsequent letters.

102 I. Mitford-Barberton, *The Barbers of the Peak: a History of the Barber, Atherstone, and Bowker Families* (Oxford, 1934), p. 71.

103 Albany Museum, Grahamstown, SM 5325(7), John Mitford Bowker to Mary Barber, 26 June 1846.

104 *Memoir of W.H. Harvey, M.D. F.R.S., etc. etc. Late Professor of Botany, Trinity College, Dublin* (London, Bell and Daldy, 1869), no author given.

105 Mitford-Barberton, *The Barbers of the Peak*, p. 85.

year, regularly addressing her M. Bowker Esq.’<sup>106</sup> Atherstone forwarded a few drawings and explained that she could only work for payment as ‘in consequence of the Kafir wars this once wealthy family has twice been reduced to the verge of ruin’. Her links with Kew did not evolve at this stage.

Settler natural history, as these quotes suggest, did not necessarily go hand in hand with any critique of colonialism. The Bowkers were ubiquitous in the brutal British military activities in the Eastern Cape and in demanding land in districts conquered from the Xhosa. Mary Barber’s younger brother, James Henry, with whom she worked most closely in botanical research, was a professional soldier.<sup>107</sup> Her husband fought in the war of Mlanjeni (1850–1853) and was rewarded with land on the Swart Kei river to which they briefly moved. Most of the Bowkers were strong proponents of settler interests and against missionary endeavours to protect Africans; one has been called ‘an anti-liberal extremist’.<sup>108</sup> Mary Barber lived amongst men who, although they differed as individuals – and Atherstone may have been an exception – were collectively imbued with a newly forged British frontier masculinity. With its land-owning, hunting and military ethos, its emphasis on accumulation and settler racial superiority, this was closer to what might be termed a ‘hegemonic’ masculinity than that displayed by some of the earlier scientific travellers.

Barber loved the variety of plants and insects. Commenting on Graaff-Reinet, she wrote: ‘I do not like this part of the Colony half as well as Albany, this farm that we are on has not got a single tree upon it in sight of the house, there is nothing but bare hills to be seen.’<sup>109</sup> By contrast, she found Highlands, where she lived for much of the period between 1848 and 1870, a ‘paradise for the naturalist’; its varied topography with elevated pastures, deep wooded valleys and rock outcrops increased the variety of species to be found in a small area.<sup>110</sup> Her husband seems to have been quite often absent, and he left for Kimberley in 1868. Mary Barber eventually joined him there in 1871 but for periods she seems to have lived a relatively independent life on Highlands, closely involved with her family, three children, and her growing number of correspondents both in the Cape and Britain.

Barber could not easily travel independently and relied to some degree on the richness of her immediate environment, and her male network, for collecting. James Henry Bowker, an officer in the Frontier Armed and Mounted Police, later a major colonial military figure, was stationed in various locations on the fringes of colonial territory in the Transkei and Lesotho, and had opportunities to collect in locations little visited by colonists. Barber and her brother forwarded plants, seeds, illustrations and descriptions to Harvey. Her role was particularly important because in the 1850s, Harvey undertook a major classificatory and publishing task – the first definitive multi-volume work on *Flora Capensis*. Barber’s letters to Harvey may not have survived.<sup>111</sup> But it is possible to get a flavour of her relationship

106 Kew, Director’s letters, Atherstone to W. Hooker, 9 January 1849.

107 *DSAB*, vol. II, p. 73. Kew Gardens, Director’s letters, vol. 189, Mary Barber to J. Hooker, 9 May 1867. He never married.

108 Andrew Bank, ‘Of “Native Skulls” and “Noble Caucasians”: Phrenology in Colonial South Africa’, *Journal of Southern African Studies*, 22, 3 (1996), p. 399 refers to John Mitford Bowker. For background, J.B. Peires, *The Dead Will Arise* (Johannesburg, Ravan Press, 1989); Clifton C. Crais, *The Making of a Colonial Order: White Supremacy and Black Resistance in the Eastern Cape, 1770–1865* (Cambridge, 1992); Timothy Keegan, *Colonial South Africa and the Origins of the Racial Order* (London, Leicester University Press, 1996).

109 Albany Museum, SM 5325(4), M.E. Barber to My Dear Mary Anne [Mrs. Mitford Bowker], 20 July 1847.

110 Mitford-Barberton, *Holden Bowker*, p. 226.

111 Harvey’s papers at Trinity College, Dublin, do not seem to include them and the herbarium manuscripts collection is uncatalogued and could not be checked. Notes and descriptions sent by Barber do survive, but these are catalogued by species, not under her name, so that they are difficult to find. Except in a few cases, Harvey seems to have cut Barber’s plant descriptions out of her letters, pasted them onto the specimens, and discarded the rest. Thanks to Dr John Parnell, Trinity College, and Dr Fergus Campbell, Queen’s University, Belfast, for this information.

with these key British botanists from those she wrote to Joseph Hooker, who had succeeded his father at Kew. These begin to reveal the constraints on a mid-Victorian colonial woman who was keen to participate in the advancement of natural science.

On a number of occasions Barber stressed her dependent role as both a woman and a colonial; there was sometimes a quality of ingenuousness in her writing. In a letter to Harvey which has survived, she followed erudite observations about the distribution of pelargoniums with self-deprecation: 'if I do not describe my plants right I hope you will let me know and teach me the right way, you know I am only a *wild ignorant Africander!*'<sup>112</sup> When Harvey died in 1866, she lamented to Hooker 'alas for Cape botany and the wild flowers of the Cape! now that we have lost our chief, there will be no one to regard them'.<sup>113</sup> She offered Hooker her services (unpaid) in the typical female role of illustrator to draw rare species, as she had done for Harvey, because it was difficult to cultivate them in Europe. She apologised to Hooker: 'I am afraid I am a very troublesome correspondent (more trouble than I am worth) but the fact is, now that poor dear Harvey is no more, all my scientific scribblings, and wants, come upon your devoted head'.<sup>114</sup>

Barber despaired of the lack of literature in the Cape and thanked Hooker profusely for sending papers to the 'wilderness': 'they are greedily devoured as a starved boy would devour plum pudding'.<sup>115</sup> After she had visited Roland Trimen, entomologist and curator of the South African Museum in Cape Town, she wrote apparently with only limited irony:

I was going to say that 'he is one of the best fellows that I have ever met', but, on second thoughts, especially as he is a Fellow of the Royal Society, and also a 'fellow' of as many other learned societies as you please, it is perhaps hardly fair to reduce him to the common fellowship of ordinary mortals.<sup>116</sup>

Yet Harvey, Hooker, Trimen and others clearly took her seriously, responded regularly, and Hooker sent scientific papers which he had written, reports from Kew, as well as seeds for trial in South Africa – including tobacco and pyrethrum at her husband's request. Imperial scientists laid great stress on their networks of information. Fields such as botany and entomology were still dependent on observation and collection, rather than laboratory work where it was more difficult for women such as Barber to acquire skills and technical training. There are parallels within other scientific disciplines at a later date where women put their energies into field studies because they were unable to gain access on more equal terms in other spheres.<sup>117</sup>

Despite her apologies, Barber showed clear signs of ambition. She was anxious to get specimens found by herself and her brothers to the centres of classificatory knowledge; like other Victorian naturalists, they had species named after them. She forwarded a live example of the largest species of aloe for display at Kew; it took over a year to arrive, dead – probably because it was not unloaded from the ship when it first called in England. There are indications that she was making strong suggestions about the classification of species to Harvey. Some of her notes and descriptions still survive in the Trinity herbarium as the formal record; similarly, some type specimens and drawings in the Albany museum, Grahamstown, are from her and Atherstone's collections. By the mid-1860s, if not before,

112 Trinity College, Dublin, Herbarium: Pelargonium genus: 985/131–4, including M.E. Barber to W.H. Harvey, no date. Thanks to Fergus Campbell for copy.

113 Kew, Director's letters, Barber to Hooker, 9 May 1867.

114 Kew, Director's letters, Barber to Hooker, 28 September 1870.

115 Kew, Director's letters, Barber to Hooker, 26 October 1876.

116 Mary Elizabeth Barber, 'Wanderings in South Africa by Sea and Land, 1879', *Quarterly Bulletin of the South African Public Library*, 17, 4 (1963), p. 103.

117 Donna Haraway, *Primate Visions: Gender, Race and Nature in the World of Modern Science* (New York, Routledge, 1989).

she was beginning more explicitly to readjust the asymmetrical relationship, not only supplying, drawing and describing, but writing scientific articles and pressing Hooker to find publication outlets for them in her own name.

By this time in middle age, Barber was not too intimidated to challenge Hooker. She added her own thoughts about the transmission of seeds by birds and ocean currents in response to a paper which he sent on 'Insular Plants'. One of the papers she forwarded to him for publication was on the power of snakes to 'fascinate' or mesmerise their victims before killing them. When Hooker raised queries about her evidence, she defended herself vigorously, citing her own observations, those of her family, and instances seen by Atherstone: 'throughout the whole of our wanderings thro' woods and all kinds of lonely places, not one of us have ever seen a snake *spring upon* and seize either a rat, or bird, or frog, or any creature whatever'.<sup>118</sup> She did not let this issue drop in later letters: 'call it fascination, *paralyzation*, or what you will, there is no doubt about it' – adding that her family had used the term fascination since she was a child.<sup>119</sup>

Initially focused more on plants, Barber increasingly turned to zoology and entomology, publishing articles on insects, birds, and fossils. She continued to supply others with information, contributing to E.L. Layard's *Birds of South Africa* and Trimen's first standard work on South African butterflies. A number of sources record that she, as well as her brother, was made a member of the Linnean Society in London. She did publish two papers in the *Journal of the Linnean Society* and had two additional papers read there but the Society did not admit any woman to a Fellowship until 1904.<sup>120</sup> Perhaps there were advantages, as a woman, in being part of an elite network in colonial society: she was a founder member of the South African Philosophical Society in 1877.

Mary Barber made some effort to keep up to date with the literature, despite the lack of books, and on more than one occasion noted Darwin's influence on her ideas: 'I have Darwin to thank for nearly all I know on the subject of fertilisation, my eyes were opened by reading his books, especially that on the fertilisation of orchids'.<sup>121</sup> She wrote that her own observations 'point towards Mr. Darwin's theory as the true one (the natural system I might say) and I could write you many pages upon this subject, relative to things of this country'. She corresponded with Darwin and he was reader of one of her papers submitted for publication 'On the fertilisation and dissemination of *Duvernoia adhatodoides*'.<sup>122</sup> This was a shrub, which her brother found in the Transkei, dependent for fertilisation on a large carpenter bee, which had to force open the 'constricted tubes of the blossom' for access to nectar, thereby collecting large quantities of pollen. Darwin thought the paper worth publishing because although such specialised dependence by a plant on one insect was not unknown, it was rare and he recalled no other example where there was 'a mechanical obstacle requiring strength to be overcome'.

Barber clearly had an original scientific contribution to make, but her vision of nature was not simply scientific: it included an element of religious appreciation and romantic wonder. She confided to Hooker that 'Dr. Harvey and myself would mostly "go in" for the marvellous and the strange, either in appearance or in habits, and our favourite motto was "Oh Lord how wonderous are thy works etc etc"'.<sup>123</sup> Her introduction to the

118 Kew, Director's letters, Barber to Hooker, 15 November 1869.

119 Kew, Director's letters, Barber to Hooker, 28 September 1870.

120 Information from Gina Douglas, Librarian and Archivist, Linnean Society of London.

121 Kew, Director's letters, Barber to Hooker, 9 March 1866.

122 Linnean Society of London archives, MS SP 57, signed M.E. Barber, Highlands, 12 November 1867, and report by Charles Darwin, Downe, 10 May 1869.

123 Kew, Director's letters, Barber to Hooker, 26 December 1866. Harvey, writing to Hooker at the same time, was hostile to some of Darwin's ideas.

manuscript on *D. adhatodoides* dwelt on the charms and beauty of this 'handsome' plant and the woods in which it was found; she wrote further of the 'mystery of this plant' and the 'wonderful evidence of a divine guardianship and protecting power' which shaped the complementarity between bee and plant.<sup>124</sup> She also drew slightly different conclusions about the broader meaning of Darwin's insights into interactions in nature, seeing in them less the competition for survival and more – as in earlier traditions of natural philosophy – a balance of kinds:

for assuredly the great machinery that was set in motion in the beginning, before 'the first blade of grass grew upon the burning Silurian rocks', is it not still in perfect order, and working out the omnipotent will of the creator of worlds, in harmony and love?<sup>125</sup>

Her attempt to hold together a religious, harmonious view of nature at the same time as pursuing scientific enquiry might help to explain another passage. Atherstone was sent by the government in 1871 to investigate reports of a gold nugget apparently discovered in the arid Gough area of the Cape. He could find no evidence of auriferous deposits and wrote amusingly of the episode in the *Cape Monthly Magazine* where Barber also published a travel sketch on Kimberley at the time.<sup>126</sup> Barber recalled this later in an unpublished travel journal.

I must say that I glory in a 'dead secret', and protest against anything being found out and explained until at length the world we live in become threadbare and devoid of all that is wonderful and mysterious. It is a mistake to know too much; we lose our veneration for the hidden things of nature, thereby becoming too matter of fact, and throwing off all sentiment and poetical feelings: there may be folly in too much learning.<sup>127</sup>

Conservationist concerns had by no means died at the Cape. In the 1850s and 1860s, there were debates, articles and government commissions on overgrazing, forest legislation, irrigation and water resources. As Grove has illustrated, John Croumbie Brown, Colonial Botanist between 1862 and 1866, was a powerful protagonist of desiccationist ideas and the protection of vegetation.<sup>128</sup> Barber renewed her contact with Kew through him and reflected some of these concerns. In writing about the stone grasshopper, she noted that it was not only difficult to find because it took on the colouring of the surrounding rocks, but increasingly rare because of 'the trampling of the feet of many sheep ... more specifically as the [species] is a wingless one'.<sup>129</sup> She was one of the natural scientists arguing for protection of 'useful' birds, notably insect eaters, and discussed the relationship between 'the locusts and the locust-birds – the manner in which they continually keep each other in check'.<sup>130</sup> (The control of locusts was becoming a question of increasing import both to farmers and the state in the Cape.) In a paper on the rare stapelia genus of flowers, which she drew meticulously, she raised alarms about extinction in the face of the combined

124 Linnean Society, MS SP 57.

125 Kew, Director's letters, Barber to Hooker, 9 March 1866 and 9 May 1867.

126 A.M. Lewin Robinson (ed), *Selected Articles from the Cape Monthly Magazine (New Series 1870–76)* (Cape Town, van Riebeeck Society, 1978) contains Atherstone's Gough articles as well as Barber's 'Night at Du Toit's Pan'.

127 Mary Elizabeth Barber, 'Wanderings in South Africa by Sea and Land, 1879', II, *Quarterly Bulletin of the South African Public Library*, 17, 3 (1963), p. 71.

128 Richard Grove, 'Early Themes in African Conservation: The Cape in the Nineteenth Century' in D. Anderson and R. Grove (eds), *Conservation in Africa: People, Policies and Practices* (Cambridge, 1987), pp. 21–39; 'Scottish Missionaries, Evangelical Discourses and the Origins of Conservation Thinking in Southern Africa 1820–1900', *Journal of Southern African Studies*, 15, 2 (1989), pp. 163–187; 'Scotland in South Africa: John Croumbie Brown and the Roots of Settler Environmentalism', in Tom Griffiths and Libby Robin (eds), *Ecology and Empire: Environmental History of Settler Societies* (Edinburgh, Keele University Press, 1997), pp. 139–153.

129 Kew, Director's letters, Barber to Hooker, 9 March 1866.

130 *Ibid.*



onslaught of 'civilisation and colonisation', cattle, sheep, goats, 'the florist and the gardener'.<sup>131</sup>

Mary Barber did not hold any formal position but, unusually for her time and place, was able to create some role for herself as an expert on natural history. She worked through two male networks: imperial scientists based in British institutions or Cape museums, and local relatives and enthusiasts. Although she was in significant respects subordinate, and seems to have been careful not to challenge her position radically in either world, she received considerable recognition in both and was gradually, to some degree, able to readjust her relationships. It is intriguing to ask also whether her view of the natural world was significantly different from the men amongst whom she worked.

It is true that the more romantic, religious and conservationist elements in her writing drew on well-established intellectual traditions. If collecting and microscopes were one side of natural history for Victorians, including some men, 'curiosity, wonder, and close vision' were another: 'what could be more beautiful, more amazing than nature's details'.<sup>132</sup> Further research may confirm that her view did stand out from the more developmentalist and scientific approaches to the natural world which were increasingly articulated in the Cape. But even in her work, religiosity was juxtaposed with an enthusiasm for discovery, description, classification and use of plants which was not significantly different to that of the men in her milieu.

In other respects, also, Barber was content to go along with values and ideas of her dominant settler group. Her writings suggest some interest in African culture, and she apparently planned to publish a general book on African people and natural history in South Africa. This did not come to fruition although some of her notes towards it were probably used in other ways. Here the unattractive and truly colonial aspects of her approach emerge, especially in the intense sense of racial difference and prejudice characteristic of some Eastern Cape settlers. In her article on Kimberley, she compared the Khoikhoi language to that of animals. She was clearly sensitive to new social Darwinist currents in European thought and invoked scientific knowledge to emphasise racial hierarchy.

But what is this peculiar noise – these low, chattering, clicking sounds that are gradually approaching us? Surely it cannot be that there are troops of baboons or monkeys in the encampment! Now it is lost in a loud burst of hilarious laughter. From yonder tent, however, we hear it again, and the truth flashes across our wondering brain – a troop of Korannas speaking their own wild language. Oh that Darwin were here to take notes! These creatures (like their hairy prototypes) wander about in gangs; they cannot endure solitude, and are seldom seen alone; their language is fearfully close to that of the 'beasts that perish'.<sup>133</sup>

The difference between this element in her writing and some earlier travel texts by men is striking. Burchell found pleasure in the Khoikhoi language around the campfire and expressed a wish to join the party; others tried to record it. It is an irony that Barber had clearly read Burchell and praised his work.<sup>134</sup> Colonial women could be involved – though as unequal partners – in similar enterprises as men, not least the hardening of racial attitudes in the later nineteenth century Cape. Khoikhoi knowledge was decreasingly seen to be needed. Scientific rationality of a certain kind increasingly reinforced racial division.<sup>135</sup>

131 Kew, Director's letters, paper on *Stapelias* enclosed in Barber to Thistleton-Dyer, 12 January 1888(?)

132 Lynn L. Merrill, *The Romance of Victorian Natural History* (New York, Oxford University Press, 1989), p. 5.

133 Lewin Robinson (ed), *Selected Articles from the Cape Monthly Magazine*, p. 161: Mary Elizabeth Barber, 'Night at du Toit's Pan; Notes from a Journal'. There is a similar passage in Barber, 'Wanderings in South Africa', *Quarterly Bulletin of the South African Public Library*, 17, 2 (1962), p. 43, which also includes disparaging comments about her servant. Darwin is unlikely to have rejoiced in this formulation.

134 Barber, 'Wanderings in South Africa', p. 51.

135 For a recent restatement of this argument about the nineteenth century, Kenan Malik, *The Meaning of Race: Race, History and Culture in Western Society* (Macmillan, London, 1996). For science and race in South Africa,

In conclusion, ecofeminist writing has tended to fuse scientific exploration, hegemonic masculinity, colonialism, and the classification and appropriation of natural resources by Europeans. There is a certain force in this approach on a global scale over a long period of time. But I have tried to complicate the picture, at least with reference to the Cape. It would be a mistake to overlook the extent to which some enlightenment scientific travellers explicitly drew on and admired indigenous knowledge about nature or the significance of their critique of colonialism at the Cape. The liberatory aspects of enlightenment rationality and scientific thought, together with some romantic ideals, were a rebellion against even more hierarchical male authority in such spheres as church, state and the military. These challenges could in certain contexts also provide a limited space for women, indigenous people and nature. Moreover, there are elements in this scientific tradition which are not simply focused on making lists and exploiting nature, but suggest more holistic and conservationist approaches; these also deserve systematic exploration.

The practice of science, however, while requiring particular rational processes, was also socially embedded. As networks of natural science emerged at the Cape, they did so partly within a hegemonic culture and masculinity, which prioritised military conquest, settler rule, and colonial development. Both in Britain and at the Cape natural sciences became linked in complicated ways to racial thinking. These assertions were primarily a collective male endeavour. The experience of Mary Barber suggests that although women could, with difficulty, be involved in scientific work, they tended to be in a subordinate role, and we should be cautious in identifying significantly different thinking about nature or race amongst nineteenth century elite settler women.

Masculinity, scientific enquiry, exploitation of nature, European expansion and colonial domination have a complex interconnection. Science could be associated specifically with a project of dehumanisation and domination. But especially in the scientific travel texts of men like Sparrman and Burchell, we can find the germ of alternative masculinities realising themselves, for example, in a sometimes self-conscious individualism, humanitarianism, anti-colonialism, vulnerability, informality, self-deprecation, appreciation of nature and excited intellectual adventure. Although they were inevitably part of an imperial world and did not make much direct impact on the outcome of colonisation at the Cape, we can find some of the ideas which they espoused in other commentators and occasionally in significant debates on both politics and conservation. Should we not search out and distinguish such refreshing legacies, in opposition to those of stadium masculinity, rather than weave them into a seamless cloak of male domination?

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Footnote 135 *continued*

Maynard Swanson, "'The Sanitation Syndrome': Bubonic Plague and Urban Native Policy in the Cape Colony, 1900–1909', *Journal of African History*, 18 (1977); Saul Dubow, *Scientific Racism in Modern South Africa* (Cambridge, 1995); Harriet Deacon, 'Racial Segregation and Medical Discourse in Nineteenth-Century Cape Town', *Journal of Southern African Studies*, 22, 2 (1996).