



Environment & Society Portal



The White Horse Press

Full citation:

Brown, Karen. "The Conservation and Utilisation of the Natural World: Silviculture in the Cape Colony, c. 1902–1910." *Environment and History* 7, no. 4 (November 2001): 427–47. <http://www.environmentandsociety.org/node/3099>.

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The Conservation and Utilisation of the Natural World: Silviculture in the Cape Colony, c. 1902–1910¹

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ABSTRACT

The period between the culmination of the South African War in May 1902 and the Union of South Africa eight years later witnessed a significant phase in the development of the Cape's Forestry Department. The Colony's scientific foresters articulated a rhetoric of crisis, based on the assumption that global timber supplies were almost exhausted, in order to encourage politicians to take action to forestall an impending disaster. After the War, the conservation and extension of the country's dwindling woodlands was promoted as a key political issue by Jameson's Progressive Party, which held office from February 1904 to February 1908. The organisation of the Forest Department and the work it performed became the subject of government investigations in an endeavour to achieve silvatic self-sufficiency through the application of more systematic and scientific land management procedures. As a consequence, the Department was centralised under the Chief Conservator of Forests and nationally based conservation programmes, based on German precedents, were put into place. Protecting the trees and encouraging sustainability of yield involved the imposition of restrictions on felling and access to woodlands. This paper explores the ideology of forest conservation and the evolution of silviculture in the post bellum Cape, as well as the socio-economic impact of these policies, focusing in particular on African populations residing in the Eastern Cape and the impoverished woodcutters from the Knysna Forests.

KEY WORDS

Silviculture, conservation, progressivism, self-sufficiency, resistance

On 12 January 1909 the Chief Conservator of Forests, Joseph Storr Lister, ordered the removal of Zondiwe Makiwane and his extended family from the

Lenye Forest in the Eastern Cape.² This was a culmination of a bitter legal struggle between the local people and the colonial state as to who should have control of silvatic resources. The Makiwane family claimed legal and prescriptive rights dating back to 1863 to what they called 'common land' situated to the south of the Lenye Forest. Here they collected wood, cultivated the soils and grazed their stock. In 1885, however, the newly established forest administration, eager to establish its authority and to access conserve and manage the 'exceptionally fine sneezewood trees',³ surveyed Lenye. It was decided that not only the wooded areas, but also the surrounding grazing lands should be part of the demarcated territory placed under state control. Beacons were erected to mark the boundaries, symbolic of the Department's acquisition of geographical space. The Makiwanes were determined to retain agricultural autonomy within their environment and over the next 20 years they contested this sequestration in the courts and defied the authorities on the ground. They refused to pay fines for cultivating mealies, grazing stock and building kraals within the forest boundaries. They destroyed beacons, demanded revised surveys and petitioned governments. In November 1906 Walter Stanford, the Progressive Party's Minister of Native Affairs, ordered an enquiry. The magisterial court subsequently adjudicated that the Lenye Forest and its environs fell within the ambit of the Forest Department's authority and declared that the Makiwanes had no legitimate right to the commonage. As a consequence they were evicted and forced to accept alternative land in the Wolf River Location.⁴

The case of Zondiwe Makiwane and his family provides an insight into some of the issues surrounding the evolution of the Forestry Department and its consequent social and economic impacts. The acquisition of the land and its riches by the ruling elite was no longer incumbent upon military conquest. The state could now obtain title to resources through the backing of the courts. This in turn was indicative of a dominating culture, which was prepared to witness an increase in government ownership of resources and the consequent disempowerment of those who claimed traditional access to them. During the latter part of the nineteenth century, silviculture as a gospel of conservation and forest management had been a subject of growing interest within the British Empire and in the United States. It was linked to notions of 'progress' and scientific and systematic development and was articulated by scientists and self-styled 'progressive' politicians and agriculturists. It involved an augmentation of scientific and bureaucratic authority, which was not universally welcomed, and led to conflict between the protagonists of 'progress' and those who sought to reaffirm their economic autonomy by advocating an adherence to traditional ways. This paper looks more specifically at why silviculture was an important issue in the Cape after the South African War. It considers the growing influence of the Forest Department as an adjunct of the colonial state in the early twentieth century in terms of both rhetoric and authority. The Department underwent major reforms in order to improve its efficiency, inspired by a drive to make the

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Cape self-sufficient in timber. The paper also looks at the scientific debates which revolved around issues of forest conservation, and the methods used by silvicultural experts to try to make forestry a commercially sound and viable concern. In many respects conservation had close links with capitalist development and thus impacted on the economic and social autonomy of those who had traditionally worked silvatic resources, as well as on those who advanced customary or legal ownership of these domains.

THE IDEOLOGY OF STATE FOREST POLICY

In 1900 four conservancies covering the Western, Midland and Eastern Cape, and the Transkei administered the principal forests of the Cape. The Cape was not a densely wooded country and the paucity of timber was instrumental in promoting forest conservation. The forester Thomas Sim claimed that only 0.21 per cent of the Cape was forested, covering 613 square miles.⁵ Some of the largest areas of indigenous woodland were to be found in the Midlands, incorporating the George, Knysna and Tsitsikamma Forests, but woodcutters had vigorously exploited this area since the mid-eighteenth century.⁶ In the Western Conservancy extensive woodland was largely limited to the highly depleted, yet valuable, cedar stocks near Clanwilliam. The acquisition by the Department of the forests of East Griqualand and Tembuland in 1890, together with those of Pondoland in 1902, provided the Cape Government with prospectively the best silvatic resources in the Colony. The most verdant districts were to be found on the coastal mountains of Pondoland, around Lusikisiki, which due to its geographical location near Port St John's harbour, was promoted as providing opportunities for 'an extensive and lucrative forest industry'.⁷ By 1906, it was reported that there were 509,352 acres of demarcated forest within the entire Colony falling under state control. Of this only 50 per cent was forested yet this Department, pending future afforestation projects, also controlled the remainder.⁸

The establishment of the four conservancies in the 1880s was a result of growing publicity and concern, articulated since the mid-nineteenth century about the transience of timber supplies, concurrent with environmental debates about the salutary effect of forests on climate and rainfall.⁹ These ideas gained momentum with the introduction of Responsible Government in December 1872. Political leaders were now in a position to introduce legislation that could affect environmental policy. Foresters serving in the Indian Forest Department, in particular Joseph Lister and Ernest Hutchins, together with the French silvicultural expert De Vasselot de Regné, were by the 1880s attached to the Department of Crown Lands and Public Works. Their agenda was to inaugurate a policy of state controlled forests. Hutchins explained this rationale thus: 'State forests are the inalienable property of the State and the Country; private forests

are liable to be sold according to the necessities of the owner'.¹⁰ Demarcated forests, Hutchins reasoned, needed to be preserved for the nation for all time to provide vital timber for future generations. Private arboriculture could not fulfil this function, as the time it took for trees to mature defied the normal economic rules of supply and demand. Individuals aspired to obtaining immediate profits, whereas the state could afford to conserve and sustain a continuity of supply over the longer term.¹¹ Colin McNaughton, who managed the Knysna Forests, believed that the 'forests must be worked in the interests of the country, and not in the interests of the immediate population'.¹² Trees were to be regarded as a national asset, and the livelihood of communities who depended on forest produce for survival, was largely irrelevant in his approach to conservation.

It was De Vasselot's introduction of Franco-German principles of silviculture that formed the basis of forest management in the post bellum Cape. As Superintendent of the Crown Forests from 1881 to 1891, he introduced a programme of systematic management focusing on the regeneration of existing indigenous forests and the establishment of new plantations. However, in many respects, silviculture was still very much in its infancy at the turn of the century. De Vasselot was not replaced at the end of his contract in 1891.¹³ The argument was a lack of money. The attitude of the government however, suggests that timber was still not regarded as a remunerative resource. After 1891 the four conservancies operated almost independently of each other without any overall plan for national development. Reconnaissance was carried out, but by 1900 there were still many demarcated forests the arboreal contents of which had not been surveyed. The working of sections was applied haphazardly, and the quality and potential utility of Cape timbers had yet to be analysed. The 1888 Forest Act restricted access to these protected areas; however, as the critical report of the 1906 Select Committee into Crown Forests revealed, these regulations were largely ineffective as there were insufficient rangers to repel trespassers and poachers.¹⁴

Such criticisms were in part a response to the intense insecurity about future timber resources in the early twentieth century. There was a widely expressed fear that the exhaustion of world timber supplies was imminent.¹⁵ Conservators in the United States and Australia used such apocalyptic visions to try to persuade their governments of the need to allocate more funds and to pay more attention to forestry. By doing so they were advancing their own status as silvatic experts and increasing the influence of the scientific community over government policy, in particular promoting the significance of their own departments. The American chief forester, Gifford Pinchot, whom Hutchins claimed to know personally,¹⁶ argued that the United States would lose its position as the world's most prosperous nation if it did not adopt a policy of conserving its vital resources. Conservation, Pinchot emphasised 'stands for development' and it 'stands for the prevention of waste'. The 'inevitable result' of this conservation would be 'national efficiency'. Conservation was 'patriotism in action'.¹⁷ Pinchot was able to persuade the President, Theodore Roosevelt, of the need for

greater efficiency in forest management. In 1905 the Bureau of Forestry was set up as an independent government agency, more experts were recruited to regulate output and to scientifically survey and plan afforestation. Historians of the United States have labelled this period the 'Progressive Era', with conservation being one of the main strands of development constructed as progress.¹⁸

Similarities can be drawn between forestry in America and in the Cape after 1902. Like Pinchot, the Cape Conservators adopted a rhetoric of resource exhaustion, reflecting a shared scientific and cultural agenda that was being articulated throughout the anglophone 'New World'. Lister warned:

The world timber supply is rapidly diminishing, and the time is approaching when we shall be confronted by a timber famine. At this juncture, possible in twenty five years, the state will be compelled to take up the question of silviculture on a huge scale, and then the general regret will be that the step was so long delayed.¹⁹

Hutchins extended the argument and advocated that the Cape should work towards self-sufficiency in timber resources. His arguments resonated with the concerns of 'progressive' farmers who despaired of the amount of meat and dairy products the predominantly pastoral Cape had to import. Hutchins claimed that since the South African War there had been a greater demand for wood to build houses, railway carriages, sleepers and wagons. Imports had doubled since 1899. In 1902 about £500,000 worth of timber, particularly pine and teak, had come from abroad. By 1903 this figure had reached £727,501.²⁰ He suggested that £500,000 would be sufficient investment to 'settle the timber question in Cape Colony'.²¹ Hutchins' statements reflect contention between the government departments over the allocation of funding. He believed that the Forest Department should take priority over irrigation because it afforded a more secure return, and over railways since many of the proposed feeder lines were totally 'unproductive'. Government investment, he insisted, was essential as 'cheap timber and fuel are an absolute necessity for the development of the country, and one of the main items required to reduce the high cost of living'.²² Hutchins advocated the completion of large plantations to minimise costs, thereby maximising economies of scale, in the hope that this would lower the price of wood.²³

During the 1903/4 election campaign, Leander Starr Jameson's Progressive Party took up the idea of more plentiful and consequently cheaper goods. Their manifesto expressed a commitment to agricultural and conservation development, surprisingly perhaps given the close links between Jameson, De Beers and the Diamond Mines of Kimberley. However, the exhaustibility of other forms of wealth such as minerals was a frequently articulated perception in the aftermath of the South African War. The slump in the diamond trade during the first decade of the century exacerbated this fear.²⁴ The Colony suffered a severe and prolonged depression after the collapse of wartime commerce, which made the search for alternative sources of wealth all the more germane. The Cape was largely a rural economy; the question was how to make it operate more

effectively. Both farmers and Progressive politicians passionately advocated better agricultural management and the adoption of conservation techniques. The question of timber conservation can therefore be seen amidst a wider agenda, which included the conservation of scarce water supplies and the improvement of pastures for the valuable livestock industry.²⁵ Once in office, the Progressive Party sought to tackle the forestry issue, by calling for recommendations from a commission set up to examine the civil service, and by introducing a programme of administrative reform. The Agricultural Minister, Arthur Fuller, advised the House of Assembly that 'in order to make a success of the forests, they must start on some plan, and that plan had been wanting in the past, but he hoped that would now be remedied'.²⁶

The plan that emerged began with a reorganisation of the Forest Department. In 1905 the post of Chief Conservator of Forests was created to co-ordinate the work of the four conservancies and devise a uniform and national programme for forest conservation and resource management. Thomas Sim described this as the most important event in the history of Cape Forestry.²⁷ As in America, the Forestry Department had become an institution in its own right and was no longer an adjunct of the Department of Agriculture. This reflected the greater importance now attributed to timber as a valuable resource.

The first Chief Conservator was Joseph Lister. Lister immediately initiated the compilation of working plans to cover all the nationalised forests in the Colony. The model for such a project came from Germany, a country that had promoted silvicultural management since the mid-eighteenth century. A key reference book of this period was the five volume *Manual of Forestry*, produced by William Schlich, the German Professor of Forestry at the Royal Engineering College at Cooper's Hill, near London. Schlich argued:

Economic forestry to be successful, must be conducted on true silvicultural principles, and the yield must be so regulated, that, approximately the same quantity of material may be bought in the market every year; in other words, the principle of a sustained and well-regulated yield must be recognised. Then and then only, can adequate financial results be expected from forestry.²⁸

Schlich's guide explained how to calculate the size, the yield, and the incremental rate of forests by using special gauges and algebraic formulae. These mathematical measurements formed the basis of the working plans. From this statistical data, foresters could work out the optimal yield the forest could produce. Forests could then be valued and trees sold off annually in rotational sections to woodcutters or timber companies. Profits would be re-invested in the land and the process of regeneration begun. New trees should be selected according to their marketability and suitability for the environment. It was considered more economic to move towards arboreal monoculture than promote a diversity of species.

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To implement such a programme for the Cape Lister employed John Henkel, a former student of Schlich, to draw up the plans for the Western and Eastern Conservancies.²⁹ Those of the Midlands were devised by the Conservator Colin McNaughton, who also trained at Coopers Hill. From this information a picture of the Cape resources was compiled as a basis for national planning. Lister explained his long term wishes in his evidence before the 1906 Select Committee on the Crown Forests. He believed that the Cape should follow the French and German example and try to dedicate 25 per cent of the land to forestry.³⁰ He used this occasion to advertise what he perceived to be the best in silvicultural practice and successfully convinced politicians that forestry could only be developed if it were placed on a more secure financial footing. The post-war depression had led to a reduction in government funding for forestry from £63,357 in 1904 to £40,909 in 1906.³¹ Lister criticised the existing system of annual appropriations because it meant the Department could not plan long-term projects. 'We should grow plantations on borrowed money', he said, because 'it seems hardly reasonable that the present generation should grow trees which the future generations are to benefit by, and I thought it would be desirable to plant with borrowed capital. It is really an investment.'³²

The government agreed. The 1906 Loan Bill was passed by parliament, which granted the department £82,000 for afforestation. This financial endowment consolidated the centralisation of the forest service, which had first been suggested in the fifth report of the Civil Service Commission in 1905.³³ No longer did the individual conservators have the power to regulate their own budgets. Centralisation and uniformity were constructed as the hallmarks of progress. National plans for reforestation could now be worked out in the economic interests of the whole Colony, with regional interests and priorities taking second place.

An international model for forest management was thus being promoted – emanating from the European metropole and exported to the colonial periphery, where it was adapted to meet local conditions. The Cape was not a unique recipient of this transfer of technical knowledge. Ravi Rajan has written about the dissemination of German silvatic technology concentrating on India, where German silviculturists had been employed since the mid-nineteenth century to administer the teak forests, a valuable resource for the British navy at that time. From the Sub-Continent, the Colonial Office gradually introduced these programmes of management and control into West Africa and the Caribbean. Even in the United States German experts such as Pinchot's predecessor, Bernard Fernow, had contributed to the initial formulation of silvicultural policy. In all these countries, Rajan argued:

there was a strong commitment to building a regime of natural resource management that could cater efficiently to the industrial needs of the nation. The guiding principles underlying this commitment were minimum diversity, the balance-

sheet and sustained yield. Again, as in an attitude to nature, the agenda of British colonial forestry, like its Continental parent and American counterpart, was unambiguously utilitarian; conservationist as opposed to preservationist.³⁴

In the Cape there was little overall attempt to preserve indigenous species. Yellowwood, sneezewood and stinkwood were all unique to Southern Africa. De Vasselot believed that forests could be regenerated by the natural reproduction of native plants. However, by the early twentieth century these trees were found wanting. Based on the testimonies of the conservators, Thomas Theron reported on behalf of the 1906 Select Committee on Forestry that:

The indigenous trees are unsuitable for planting in the present exigencies on account of their very slow growth. The sole exception appears to be cedar, the most valuable of all our native trees, and maturing in about 60 years. Your Committee strongly recommend that special efforts be made to reforest with the cedar the whole area of the Cedarberg that is found to be suitable for the purpose.

Elsewhere however,

The trees to be planted should be exotic, such as pines, firs and larches, also, many kinds of gum and other Australian woods, – the object being to secure an ample supply of timber for railways, mines and domestic purposes.³⁵

The proliferation of new species was to alter the landscape dramatically. The commoditisation of the natural world involved its re-organisation and the promotion of those natural resources advocated by scientific experts as being of greatest commercial potential.

Hutchins was the most ardent proponent of sylvan acclimatisation. Policies of species transfer were not new, however; the Dutch East India Company had carried out a floral exchange since the founding of the Cape Botanical Gardens in 1694. Yet it was not until the 1890s that foreign seeds were planted in large quantities as a specific feature of reforestation. Exchange networks were established with anglophone settler states, based on perceived similarities in climate and topography. Hutchins was convinced that species from similar meteorological zones to those of the Cape could be introduced. Hence he engaged in extensive correspondence with natural scientists in Australia and California. In 1896, for instance, he forged links with Joseph Maiden, Director of the Botanical Gardens in Sydney and advisor to the New South Wales Government, who for the next ten years provided Hutchins with a variety of local seeds for the development of exotic plantations.³⁶ Eucalypts such as Karri and Jarrah from Western Australia, praised because of their rapid incremental rates and their resistance to drought, were introduced. Yellowwood growing at Knysna produced 50 per cent of the Cape's railway sleepers. The rest were imported, and it was hoped that eucalyptus would contribute to self-sufficiency within the railway industry.³⁷

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According to McNaughton, 90 per cent of Cape's timber imports in the aftermath of the South African War were pine.³⁸ The Cape Peninsula, with its mountains and winter rainfall, was considered the best area to carry out acclimatisation experiments using pines. Seeds from Europe and the United States were transported to plantations such as Tokai and Devils Peak. Hutchins commented that 'it is easy to imagine oneself in Germany as one walks for half a day over acre upon acre of young pines, stretching over the rolling flats as far as the eye can reach'.³⁹ Harold Witt, who has looked at the transfer of Cape silvatic practices to Natal, has argued that this policy was tantamount to recreating a 'Eurocentric landscape' on Table Mountain. Witt was critical of the botanic destruction of the natural landscape, but reflected on the fact that at the time people were not really concerned about the move towards monoculture or its impact on the ecological environment. It was only in the second decade of the twentieth century that the Forest Department of the Union of South Africa began to question the sagacity of this policy and mourn the loss of Table Mountain's unique flora.⁴⁰

The introduction of exotics and the statistical calculation of yields highlight the importance of science in forest management. Working for the forest department as a conservator, or district forest officer, required a scientific understanding of the silvatic environment. As Lister explained:

there can be no question that the future success of Silviculture in the colony will depend not alone on the enthusiasm and practical experience of the Department, but more especially upon their scientific knowledge which their practical experience will enable them to apply.⁴¹

To this end, Lister was a key proponent of the need to establish a school for forestry in the Cape. Until 1905 silvicultural education could be acquired in Europe and latterly the United States. Lister argued much of the training in Europe was 'inapplicable to the peculiar conditions of South Africa'.⁴² Three-year courses in Europe cost the Cape Treasury over £700. The solution he suggested was to set up a college run for students from throughout southern Africa with a variety of courses geared to suit different forestry grades and applicable to a specifically South African environment. Hutchins supported the scheme. He argued there were no such educational institutions within the Southern Hemisphere and that this was an opportunity to promote the Cape as a leading light in this part of the world, the college having the potential to attract students from Australia and elsewhere. In a letter to Jameson, he advised the government as to the range of compulsory subjects that should be taught, reflecting the complexity of scientific knowledge involved in forest management by the twentieth century. Foresters, he wrote, should study the principles of South African arboriculture as well as meteorology, botany, entomology, mycology, geology, pedology, surveying, mathematics, forest law and basic engineering. Access would evidently be restricted to an educated elite.⁴³

The outcome of these discussions was the setting up of a forest school at Tokai in the Western Cape, initially under Hutchin's direction. Tokai was chosen because its plantation ensured practical experience and lectures on forest management could operate in tandem. In the meantime, Peter Hahn, Professor of Chemistry at the South African College, taught the natural sciences. The course lasted three years, covered the wide range of subjects which Hutchins had suggested, and successful candidates were awarded a diploma. In 1906, seven students enrolled, five from the Cape and one each from the Transvaal and the Orange River Colony. Applications from outside the Cape were a result of the growing rapprochement between the four colonies, which were to become the Union of South Africa in 1910.⁴⁴ As part of his policy of Anglicisation, Alfred Milner had invited Lister and Hutchins to organise the establishment of forestry services in the Orange River Colony and Transvaal respectively. Cape foresters were subsequently employed to run these departments on the Cape model. Lister applauded, 'it is a matter for congratulation that the Department found itself in a position to supply experienced and competent forest officers for these posts, for it will mean a uniform system of sound forestry throughout South Africa'.⁴⁵

Despite the emphasis in the contemporary literature on the commercial and utilitarian value of forests, there were those who argued that reforestation was vital for the agricultural survival of the country. With the exception of the south-western coastal districts, much of the Cape is semi-arid by nature and consequently the conservation of water was a principal concern. From the 1850s botanists such as Ludwig Pappé and John Croumbie Brown had postulated a link between the extent of arboreal coverage and the Cape's rainfall.⁴⁶ This debate was continued into the 1900s. One question put forth was whether forests, especially those located in mountain areas, actually encouraged rainfall by ameliorating local temperature and moisture ratios in the atmosphere.⁴⁷ Other commentators were more sceptical as to whether trees attracted precipitating clouds, but proposed that trees played an important role in determining the way rainfall was absorbed into the ground. According to the historian Michael Williams, most American scientists had already dismissed the idea that trees increased precipitation.⁴⁸ In the Cape however, debate still raged. Unlike the United States, details as to meteorological conditions in Southern Africa were very sparse. There was no mechanism for systematically accumulating and recorded data in order to analyse climatic changes over a long period of time. According to Hutchins, even poorer countries allocated more funding to this branch of research: 'At present our meteorological organization is one of the worst in the world. We spend on it about one-tenth as much as does Mexico', he complained.⁴⁹

Both silviculturists and farmers aired opinions on the correlation between forests and precipitation. Defenders of state forests, to justify their creation in climatic terms, articulated the idea that trees encouraged rainfall. The testimony

before the 1906 Select Committee of Augustus Adendorff, the Member of the Legislative Assembly for Beaufort West, for example, described declining precipitation in the Stockenstroom District in these terms. He blamed black settlers for being allowed to collect fuelwood from the Katberg Mountains and white foresters for not replanting the slopes with trees. As a consequence, he claimed, riparian landowners had experienced a 50 per cent decline in water. To try to give his opinions greater credence he supported his statement with references to 'reliable authorities' and 'one of the foresters', an expert, who had endorsed his premonition that one-day this district 'will become a barren wilderness'.⁵⁰

Lister disagreed with Adendorff. The decline in water in Stockenstroom, he argued, was not due to deforestation but to 'the severe drought', which had affected the entire country. However, Lister did concede that forests played an important role in preventing erosion and could influence overall water levels.⁵¹ Scientific commentators, such as Thomas Sim and the Director of Irrigation, Francis Kanthack, argued that forests caused rain to fall more frequently and in manageable quantities, whereas in cases where land was denuded, the water tended to flow in heavy torrents, washing away fertile alluvial soils and flushing them out to sea. Woodlands could curb the process of erosion and sluiting. The crowns of trees and the humus layer on the ground reduced 'run-off' and encourage the absorption of water and its eventual percolation into perennial and intermittent streams. Meanwhile, the roots of trees helped to hold the soils together, curbing the extent of erosion. These technocrats, to reaffirm their statements, quoted statistics and details of international research projects. By promoting foreign practices engineers and silviculturists, who themselves had had international experience in India and Europe, were hoping to encourage farmers and politicians to adopt western notions of progressive technology in order to manage their environment in a more productive manner.⁵²

THE RECEPTION OF THESE POLICIES

Silvicultural regulations had an important impact on the people who lived in and worked the forests. Conservation and state management involved restricting access to these resources and was indicative of the growing powers of the colonial state. Rural populations from the Atlantic to the Umzimkulu protested about incursions from the Forestry Department. Kanthack summed up the hostility thus,

The enlightenment of the forest officers is naturally in advance of that of the public, who look upon the Forest Department as an insatiable ogre, which is ever seeking to grab more and more land, much of which is unsuitable for profitable tree growing.⁵³

Two distinctly different groups who were greatly affected by government legislation were the Xhosa communities in the Eastern Cape and Transkei and the self-employed woodcutters who eked out a living in the Knysna and Tsitsikamma forests.

In the East and the Transkei exclusion from demarcated woodlands was a very emotive issue. The forests had constituted a source of building materials, fuel, fruits and medicinal herbs, and provided browse and pasturage for livestock. Wild animals were hunted here for sport and for protein. Jacob Tropp has analysed the effects of colonial forest policy on the district of Tsolo in the Transkei. He has argued that the conservators acted as agents of the colonial state and adopted 'conservation paradigms previously articulated in the Cape ... for restructuring forest use in local African communities'.⁵⁴ The forests of the Transkei were to be conserved for the benefit of the white settler population residing in the Cape. Species considered valuable for commercial timber were placed on reserved lists and could not be removed by individuals. Prohibitions were imposed regarding the grazing of animals in the forests and licences costing 10s each were required for hunting in the open season. The laws pertaining to the gathering of firewood were particularly problematic. It was illegal to fell trees for fuel. Firewood could only be acquired from scattered branches on the ground. Tariffs were imposed on the use of sledges and wagons to remove the wood. The consequence of this was to place the burden of collecting fuel increasingly on to the heads of women, whose customary duty it was to provide for fires. The further away a community lived from the forests, the greater the toil for women.⁵⁵

To try to justify their policies, representatives of the state depicted Africans as wasteful and destructive of natural resources. They were blamed for causing many forest fires and accused of profligate use of timber in constructing their huts and kraals.⁵⁶ People fail to realise, Lister remonstrated, 'the irreparable injury which the country is suffering through the wholesale and reckless destruction of vegetation on native locations'.⁵⁷ Scientific hubris, incarnate in the rhetoric of the forestry experts, afforded slight regard for the rights of people and assumed the moral high ground on the basis that conservation was imperative for the Colony's economic survival. Policies were dictated by the conservators themselves and no provision was made by the Forest Department for a negotiated communal approach towards resource management.

The Africans, meanwhile, offered passive resistance to the licensed and controlled use of the forests. Men defied attempts to prevent hunting. P. Harran, the District Forest Officer at Keiskama Hoek in the Eastern Cape, for instance, described how a group of about 200 men, armed with guns and assegais and accompanied by nearly 300 dogs, were caught hunting without a licence at Rabulla. Meanwhile, a larger party of 400 hunters invaded the demarcated forest of the Lower Schwartzwald at Kopke.⁵⁸ On occasions there were violent confrontations between huntsmen and foresters. In September 1906, for example, two foresters were shot at and injured by black hunters near the Izelini forest

station in the Eastern Conservancy.⁵⁹ The Forest Department saw these incursions as a threat to their authority. Lister advised the Select Committee on Crown Forests of the difficulties he faced in prosecuting effectively. Faces were covered with clay making identification impossible. There was a lack of rangers to arrest poachers, and foresters had to rely on the will of headmen to report 'trespassers' for prosecution. He considered the fines too low to act as a real deterrent. Levied at between 10s and £1 per offender, the plaintiff could easily obtain the money to clear the impositions from his community. Lister also believed that magistrates were reluctant to pass convictions, and he advocated imprisonment as an alternative and more efficacious penalty and dehortation. For the magistrates, their agenda of keeping the peace and retaining the support of local chiefs and headmen was often more important than acquiring the gratitude of the Forest Department. Africans also defied the conservators by grazing their animals without the requisite permits. These licences were expensive and designed specifically to raise money for the government. In the Dontsah-Amatola Mountain region of the Eastern Cape, for example, pastoralists had to pay £50 a year to depasture their stock.⁶⁰ In this conservancy alone, 12,311 cattle were impounded for 'trespass' between 1902 and 1906.⁶¹ In the Transkei, the number of (unspecified) forest offences rose from 552 in 1902 to 884 in 1903. Arthur Heywood, Conservator of the Transkei, attributed this increase to the incorporation of the Mpondo forests in 1903, indicative of immediate resistance to colonial control of the woodlands.⁶² Lister also claimed that the Xhosa deliberately damaged trees. He wrote: 'a good deal of damage is done by Natives who enter the Forests to collect dry wood, and in localities frequented by them, trees are frequently found mutilated for no other reason than pure mischief or malicious intent'.⁶³ Africans therefore demonstrated that they were prepared to express their defiance of the colonial state by destroying the assets that the white government valued and had seized from them. Attacks on trees were symbolic of assaults on the 'property' of white settlers. Cumulatively, such evidence highlights underlying weaknesses in the Cape administration prior to Union. Tropp has postulated that the inability of Africans to control their forests demonstrated the growing power of the colonial state and the disempowerment of the indigenous people.⁶⁴ Yet in practice the conservators were not always able to effectively prevent unauthorised hunting, grazing and wood collecting, suggesting that popular opposition was ostensibly undermining their work. Africans were losing the right to access local resources but the powers of the state were not all-pervading.

Despite these incidents of confrontation, there is evidence that some Africans were prepared to work with the Forest Department. In Pondoland the Secretary to the Native Affairs Department, G. Cumming, described a meeting at Lusikisiki, at which chiefs voiced considerable support for conservation. About the Mpondo Paramount, Cumming wrote: 'Sigcau expressed himself as in favour of the better preservation of the Forests throughout Eastern Pondoland and added that before

the country was taken over, he had endeavoured to reduce the destruction that was going on.' Sigcau proposed that people should be made to replant any trees they felled and he promised to help the authorities preserve timber supplies.⁶⁵ Karl Carlson, the District Forest Officer at Butterworth, recalled how headmen often approached him for advice on how to set up their own forest reserves in their locations.⁶⁶ Carlson sought to endorse state policy by suggesting that there were Africans who accepted the ideology and methods of western conservation. They supported the policy of the Forest Department, which proposed that in order to save the natural forests for future generations, people should collect their building materials and firewood from the newly established plantations. In the Transkei, Heywood commented, 'all plantations in this conservancy are to a greater or less extent wattle plantations'.⁶⁷ The planting of acacia served two purposes. Firstly the dye tannin, produced in the bark, was an important by-product which could be exported to Europe or used by tanning factories in South Africa. Secondly, and more importantly, the acacia was intended to build huts and kraals for the Xhosa inhabitants. Acacia was cheap to reproduce and fast growing. Traditionally, however, the local population had used supple saplings of yellowwood, lemonwood, ironwood and sneezewood to construct their homesteads. According to Thomas Sim, there were about 1.5 million blacks in the Eastern Cape and Transkei of whom about 50 per cent lived in wattle and daub huts. He estimated that each hut used about 1,000 pieces of wood and that homes were renewed approximately every ten years. Without these plantations, he urged, thousands of saplings were being destroyed each year in the construction of huts and kraals.⁶⁸ The language of the colonial state was one of Victorian paternalism. The District Forest Officer, James Sim, for instance, described how people living in the Wodehouse area were suffering due to the exhaustion of local timber supplies. There was the implication that the Africans could not look after their environment and it was up to the Forest Department to see to their needs, by establishing plantations specifically designed to produce the types of wood the local population was told it required.⁶⁹

In his reminiscences, Carlson also assumed the credit for encouraging the Transkei Territories General Council, or Bunga, to set up their own plantations.⁷⁰ Whether this is true or not, the reports of the annual Council meetings provide some insight into notions of conservation as articulated amongst an educated, collaborative, African elite. In 1904 a debate was held as to whether the forests should be run by the Forest Department or by local headmen, under the supervision of Resident Magistrates. A resolution was passed upholding the authority of the Transkei Conservancy as the best means of protecting supplies, suggesting some support for state control of resources.⁷¹ At the same time, the Bunga was also prepared to finance artificial forests of its own. The Superintendent of the General Council Plantations, H. Caplen reported in 1906 on the success of the six acacia plantations already established in the Transkei. In the same year

the District Councils of Butterworth, Engcobo and Mquanduli applied for assistance in setting up their own wattle reserves. These plantations were managed along scientific lines and were intended to be profitable. In a sense this suggests that the Transkei elite had adopted the European principle of conservation through plantation. At the same time, by financing and organising the administration of these projects, the District Councils were able to uphold a measure of independence from the Forest Department over the control of natural resources. Caplen was eager to promote the popularity of Council-run plantations over those of the Conservancy. He was determined to show that Africans could look after their own timber supplies and claimed that as a consequence of this afforestation programme: 'The people have taken to the plantations, they have learnt how useful they are to them for many purposes.'⁷² Caplen's portrayal demonstrates that responses to state forestry were not homogenous. The role of the Bunga in promoting scientifically planned plantations can be contrasted with the defiance displayed by those who rejected attempts by the state to license hunting, grazing and felling. Individual, family and local histories, as well as expectations provide a diverse backdrop for a medley of responses to the new silvicultural practices.

A second group whose traditional interrelationship with the forests was altered was that of the woodcutters of the George, Knysna and Tsitsikamma Forests. In 1903 a Select Committee was formed to hear the grievances of men from Knysna. They complained that they were prohibited from being able to fell adequate wood to make a living. The system of economic management involved the division of the forest into sections. Two sections were opened for felling each year to enable the other areas to regenerate. Lumberjacks needed to have a licence to operate in the allocated sections. Large companies such as Thesens bought up many of these permits at the start of the season. Thesens employed some of the woodcutters, but others were deprived of their customary work.⁷³ Some supplemented forestry with transport riding or farming. Johannes Barnard explained that it was impossible to survive without this extra income. To farm, woodcutters had to defray 2s 6d for a permit but were not granted title to their land. Yet cultivation was difficult, soils were poor; there was a lack of manure and draught animals. Without legal tenure there was little opportunity or incentive to attempt to invest in the land. According to Barnard, woodcutters wanted to be independent of the merchant companies to whom many were in debt. Merchants were regarded as greedy speculators who deprived bona fide inhabitants of work, and employed cheap labour, for example unemployed fishermen who had migrated from the coast due to piscine shortages.⁷⁴ Some woodcutters, including Fred Darmant, had ceased felling because the work simply did not pay once the obligatory chopping in sections had been introduced.⁷⁵ Underlying the anxieties of the woodcutters was a resistance to proletarianisation. Albert Grundlingh has argued that despite the arduous nature

of their work, the damp climate, the danger of felling in kloofs and the poor ramshackle corrugated iron shacks they dwelt in, the people prized their economic independence above all else.⁷⁶

The conflict between individual woodcutters and big business mirrored similar changes in economic structures to those which had occurred on the Kimberley mines thirty years before. Rationalisation, the creed of economies of scale and of monopolies, concurrent with investment in costly machinery rather than manual labour, was a feature of the late nineteenth century economy. The largest company operating in Knysna, Thesens, had been founded in the 1870s. They owned the sawmills and the creosoting plants, bought up the sections and traded as merchants. Effectively they monopolised the timber of Knysna just as De Beers controlled the diamonds of Kimberley.⁷⁷ Further east, timber production in the Tsitsikamma Forest was dominated by the Mangold Bros. based at Storms River.⁷⁸ The conservators displayed very little sympathy with the plight of the woodcutters and supported capitalist modes of production. Lister stated, 'I don't see how they could earn more money from the forest, because I consider that the employment of modern machinery is bound to kill and entirely oust the small woodcutter.' He opposed the suggestion that the government should help the poor woodcutters by providing employment in a state-owned sleeper factory, 'I consider we cannot do it as cheaply as it can be done by private contractors.'⁷⁹

The views of the local conservator, McNaughton, showed Victorian interpretations of poverty continued in the Cape well into the twentieth century. By the early twentieth century political and social thinkers in Western Europe and the United States were prepared to accept that poverty was not necessarily the fault of the individual. McNaughton however attributed poverty to the Victorian anathemas of sloth and lack of thrift. The younger generation, he argued, should be forced out of the forests and made to work on neighbouring white farms where there was a great demand for labour. Coloured woodcutters, were prepared to work on the plantations and till the ground. However, he alleged, the idle whites would not engage in manual labour at all. He opposed the use of poor whites in the sleeper industry, describing it as 'a sort of government philanthropy'.⁸⁰ McNaughton believed that the timber industry should be managed on commercial lines and should not constitute a non-profit making public works scheme. His solution to poor whiteness was to limit felling to registered workers. To obtain the necessary permit the applicant should be a bona fide woodcutter who had lived in the forest for over three years. The number of licences issued would be restricted to ensure sustainable yields. Older men should be given priority over younger and companies would only be able to employ registered woodcutters. Like Lister, McNaughton supported capitalisation as sound business economics. The woodcutters would effectively lose their economic autonomy and become the 'servants' of large companies. By attempting to force out young men, he intended eventually to divide the utilisation of the forest between the scientific

management of the conservator and the commercial rationalisation of the companies.⁸¹

The government's response was to investigate new ways of developing the area. Poor communications inhibited the movement of timber and other goods to market. In 1904 the Minister of Public Works, Thomas Smartt, agreed to subsidise a private company that was planning to build a two-foot gauge railway connecting Knysna's harbour and forests with the hinterland.⁸² In the meantime the government agricultural advisor, Eric Nobbs, was sent to the area to examine its potential for agricultural development. His report provides an interesting insight into how these isolated communities were perceived to operate vis-à-vis the modern world. The inhabitants, Nobbs argued, were reluctant to change from forestry to agriculture even though the former rarely paid. Many were in debt and could not afford the initial outlay in developing fields and pastures. Along the coast sharecropping arrangements operated – a form of land holding he regarded as regressive, because it discouraged a capitalist approach to farming through investment in the soil. The area was plagued by ticks, and animals suffered from *lamziekte*. People were uneducated, many had never heard of the Agricultural Department or the work of its advisors. Opposition to scientific modernity was tangible, many farmers being suspicious of inoculation programmes for diseases such as redwater.⁸³ He recommended that the government address the situation by developing infrastructure, encouraging education and establishing experimental stations on the American model. A scientific approach was promoted as being able to transform a sterile landscape into a prosperous farming environment. The sourveld, he believed, could be rendered fertile if experiments were carried out to analyse the chemical composition of the soil, and to see which crops grew best in these conditions and which fertilisers encouraged growth. Nobbs saw education as being key to bringing about a change of attitudes amongst the young, the hope of the future. Agricultural demonstrations were proposed, to show people how to use ploughs, select crops and manures, create paddocks and rear healthy stock. Without the application of science, Nobbs concluded, development in this area was impossible.⁸⁴ An experimental station was set up in Knysna, and the outcomes of Nobbs' experiments were published in the *Agricultural Journal of the Cape of Good Hope*. The plight of the woodcutters, however, continued to be a major issue throughout this period, indicative of the determination of small entrepreneurs to resist capitalist modernity and outside challenges to their traditional way of life.

CONCLUSION

During the first decade of the twentieth century the Forest Department based its policies on initiatives that had been introduced in the 1880s. However, in the

aftermath of war, a rhetoric of impending ‘timber famine’ was used by the conservators to advance the importance of their Department and obtain government support for greater regulation and control. Jameson’s Progressive Government accepted the arguments of their silvatic experts and passed legislation which culminated in the centralisation of the forest service, the completion of working plans and greater investment in monoculture plantations in order to maximise and sustain future yields. The urgency to conserve indigenous forests brought the colonial state directly into the lives of people who, owing to their geographical isolation, had had little contact with government agents in the past. Cape silviculture did not operate within a cultural vacuum; it provided a backdrop for an inter-continental exchange of ideas between an anglophone scientific elite. Silvatic conservation was not democratic in its rationale or implementation. Management of the environment was increasingly taken away from local people and deposited in the hands of state-employed foresters, who claimed they could manage the environment for the national and, by implication, the greater good.

NOTES

¹ I would like to thank my supervisor, William Beinart, for his help and support and also the Beit Fund Committee for financing my research trip to South Africa.

² Cape Archives (hereafter CA), Records of the Eastern Conservancy: FCE 3/2/3, Lenye Forest.

³ CA, FCE 3/2/3, P. Harran, District Forest Office to Acting Assistant Conservator of Forests, J. Sim, 8 Feb. 1907.

⁴ CA, FCE 3/2/3, P. Harran to J. Sim 8 Feb. 1907; P. Harran to A. W. Heywood, then Conservator of the Eastern Cape, 22 Aug. 1907.

⁵ T. R. Sim, *The Forests and Forest Flora of the Colony of the Cape of Good Hope* (Aberdeen: Taylor & Henderson, 1907), 1.

⁶ See for example W. Immelman (ed.), *Our Green Heritage: The South African Book of Trees* (Cape Town: Tafelberg, 1973), chapters 3 and 4.

⁷ Cape Parliamentary Papers (hereafter CPP), Report of the Conservator of the Transkei, A. W. Heywood, G.55-1903, 141.

⁸ CPP, Report of Select Committee for Crown Forests, A.12-1906, iii.

⁹ See for examples the writings of John Croumbie Brown, *Hydrology of South Africa* (London: H. S. King & Co, 1875) and *Management of Crown Forests at the Cape of Good Hope Under the Old Regime and the New* (Edinburgh: Oliver & Boyd, 1887), together with R. Grove’s article ‘Scottish Missionaries, Evangelical Discourse and the Origins of Conservation Thinking in South Africa 1820–1900’, *Journal of Southern African Studies* (hereafter JSAS), vol. 15, no. 2, Jan. 1989.

¹⁰ D. E. Hutchins, ‘Extra Tropical Forestry’, *Agricultural Journal of the Cape of Good Hope* (hereafter AJCGH), vol. 26, Feb. 1905, 175.

¹¹ *Ibid.*, 172–176

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¹²CPP, Select Committee on Woodcutters Relief, A. 18-1903, Evidence of C. McNaughton, 22.

¹³Reports of the Superintendent of the Crown Forests are to be found in the published papers of the House of Assembly. For a contemporary comparison of the 'old' and 'new' systems of forestry see J. C. Brown, *Management of the Forests of the Cape of Good Hope*, part 3.

¹⁴CPP, A.12-1906.

¹⁵These fears were articulated for example by William Schlich, Professor of Forestry at Coopers Hill in his 5-volume *Manual of Forestry*, published between 1889 and 1896 (London: Bradbury Agnew & Co), and by the American forester, Gifford Pinchot, in his book *The Fight for Conservation* (New York: Doubleday, Page & Co, 1910).

¹⁶CA, Records of the Western Conservancy: FCW 2/1/4/8, D.E. Hutchins to the Under-Secretary for Agriculture, C. Currey, 15 Feb. 1901.

¹⁷G. Pinchot, *The Fight for Conservation*, chapters 4 and 8.

¹⁸See for example E. R. Richardson, *The Politics of Conservation: Crusades and Controversies 1897-1913* (University of California Press, 1962) chapter 2; H. K Steen, *The United States Forest Service - A History* (University of Washington Press, 1976), chapter 4; G. Mowry *The Progressive Movement 1900-1920: Recent Ideas and New Literature* (University of California Press, 1958); A. Ekirch *Progressivism in America: A Study of the Era from Theodore Roosevelt to Woodrow Wilson* (New York: New Viewpoints, 1974); S. P. Hay, *Conservation and the Gospel of Efficiency*, (Harvard University Press, 1959).

Information on Australia can be found in J. M. Powell, *Environmental Management in Australia 1788-1914* (Oxford University Press, 1976).

¹⁹CA, Records of the Agricultural Department: AGR 709, J.S. Lister to C. Currey, 27 Feb. 1902.

²⁰CPP, Report of the Conservator of the Western Cape, D.E. Hutchins, G.26-1904, 3.

²¹CPP, Report of the Conservator of the Western Cape, D.E. Hutchins, G.55-1903, 3.

²²Ibid.

²³D.E.Hutchins, 'Extra Tropical Forestry'.

²⁴The depression is covered in the epilogue of W. H. Worger, *South Africa's City of Diamonds: Mine Workers and Monopoly Capital in Kimberley 1867-95* (Yale University Press, 1987). Worger has argued that De Beers was losing its monopoly control over South African diamonds following the discovery of brilliants in Namibia and the founding of the rival Premier Diamond Company. In 1907 there was a global recession which depressed the diamond trade further.

²⁵Numerous articles in the *AJCGH* reflect farmers' concerns about environmental degradation and the need to conserve valuable resources.

²⁶Cape Hansard, 15 Aug. 1906, 597.

²⁷T. R Sim, *The Forests and Forest Flora*, 90.

²⁸W. Schlich, *Manual of Forestry*, vol. 3, preface vii.

²⁹CA, AGR 763, Eastern Conservancy, correspondence between J. Henkel and J. Lister.

³⁰CPP, A.12-1906, Evidence of J.S. Lister, 21.

³¹*Statistical Register of the Cape of Good Hope*, 'Expenditure Under Votes, 1907, Sub-vote 77 Crown Forests'.

³²CPP, A.12-1906, Evidence of J. S. Lister, 24.

³³CA, FCE 3/1/66, J.S. Lister to J. Sim, 28 Oct. 1905.

³⁴ S.R. Rajan, 'Imperial Environmentalism: The Agendas and Ideologies of Natural Resource Management in British Colonial Forestry 1800–1950' (D.Phil. Thesis, University of Oxford, 1994), 153.

³⁵ CPP, A.12-1906, iv.

³⁶ CA, AGR 722, D.E. Hutchins to C. Currey, 7 June 1905 and 13 June 1905.

³⁷ CA, AGR 709, C.B. McNaughton to C. Currey, 22 Jan. 1902.

³⁸ CPP, Report of the Midlands Conservator, C. McNaughton, G.55-1903, 58.

³⁹ D. E. Hutchins, 'Cape National Forests', *South African Philosophical Society Transactions*, vol. 11, 1900–1902, 53–66.

⁴⁰ H. Witt 'Trees, Forests and Plantations: An Economic, Social and Environmental Study of Tree Growing in Natal 1890–1960' (D.Phil. Thesis, University of Durban, 1998), chapter 3.

⁴¹ CA, FCE 2/2/9, J.S. Lister to C. Currey, 29 Nov. 1904.

⁴² CA, FCE 2/2/10, J.S. Lister to the Acting Chief Clerk to the Secretary for Agriculture, 31 July 1905.

⁴³ CA, Records of the Prime Minister's Office: PMO 198, file 125/05, D.E. Hutchins to L.S. Jameson, 26 Feb. 1905.

⁴⁴ CPP, Report of the Chief Conservator of Forests, J. S. Lister, G.39-1907, 2, and 'The Beginning of Forestry Education in South Africa', *Journal of the South African Forestry Association*, nos. 2–3, 1939.

⁴⁵ CPP, Report of the Eastern Conservator, J. S. Lister, G.26-1904, 76. In 1903 C. Legat and K. Carlson were transferred to run the Transvaal and Orange River Colony Forest Departments respectively.

⁴⁶ R. Grove, 'Scottish Missionaries'.

⁴⁷ For example, C.C. Robertson, 'Forestry and Climatic Influences', *AJCGH*, vol. 34, March 1909, 249–253.

⁴⁸ M. Williams, *Americans and Their Forests: A Historical Geography* (Cambridge University Press, 1989), 386. Drought struck America in the 1890s. Although there was a popular demand for reforestation, Williams argues that meteorological data suggested there was no real link between rainfall and forestation.

⁴⁹ D. E. Hutchins, 'The Rain Winds of South Africa', *AJCGH*, vol. 23, July 1903, 86.

⁵⁰ CPP, A.12-1906, Evidence of A. Adendorff, 57.

⁵¹ CPP, A.12-1906, Evidence of J. S. Lister, 8.

⁵² See for example, F. Kanthack, 'The Destruction of Mountain Vegetation: Its effects upon the Agricultural Conditions in the Valleys', *AJCGH*, vol. 33, August 1908, 194–204; C. C. Robertson, 'Forestry and Climatic Influences'; T. R. Sim, *The Forests and Forest Flora*, chapter 5; C. C. Henkel, *History, Resources and Products of the Country Between Cape Colony and Natal* (Hamburg: J.F. Richter, 1903), part 9.

⁵³ F. Kanthack, 'The Destruction of Mountain Vegetation', 196.

⁵⁴ J. Tropp 'Displaced People, Replaced Narratives: Forest Conflicts and Historical Perspectives in the Tsolo District, Transkei', unpublished paper 2000, 3.

⁵⁵ *Ibid.*, 9–10.

⁵⁶ See for example the evidence of Lister, Adendorff and Nieland before the Select Committee on Crown Forests.

⁵⁷ CA, FCE 2/2/10, J.S. Lister to C. Currey 27 June 1905.

⁵⁸ CA, FCE 3/1/50, memorandum of P.C. Harran, 8 Oct. 1907 and his letter of the same date to J. Henkel, Conservator of the Eastern Cape.

⁵⁹ CA, FCE 2/2/10, J. Henkel to J. Lister, 12 Sept. 1906.

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- ⁶⁰ CPP, A.12-1906, Evidence of J.S. Lister, 4, 17–18, 31, and CA, FCE 2/2/9, letter from J. Lister to C. Currey, 27 Oct. 1904.
- ⁶¹ CPP, Reports of the Conservators of the Eastern Cape, G.55-1903, G.26-1904, G.50-1906, G.39-1907.
- ⁶² CPP, Report of Conservator of the Transkei, A W. Heywood, G.26-1904, 134.
- ⁶³ CPP, Report of the Chief Conservator of Forests, J. S. Lister, G.39-1907, 9.
- ⁶⁴ J. Tropp, 'Displaced People'.
- ⁶⁵ CA, Records of the Transkei Conservancy: FCT 3/1/19, Demarcations in Pondoland 1902–15. Letter from G. Cumming to C. Currey, February 1903 and from J. Simpson, Resident Magistrate at Lusikisiki to W. Stanford, 9 March 1903. For an analysis of pre-colonial attitudes to arboreal conservation see K. Showers, 'Soil Erosion in the Kingdom of Lesotho: Origins and Colonial Response, 1830s–1950s', *JSAS*, vol. 15, no.2, Jan. 1989.
- ⁶⁶ K. A. Carlson, *Transplanted – Being the Adventures of a Pioneer Forester in South Africa* (Pretoria: Minerva Drukpers, 1947), 129.
- ⁶⁷ CPP, Report of the Conservator of the Transkei, A. Heywood, G.55-1903, 147.
- ⁶⁸ T. R. Sim, *The Forest and Forest Flora*, 22. Sim based his information on the 1891 report by the forester, P. Harran.
- ⁶⁹ CPP, Report by J. Sim on Communal Forests in the Eastern Conservancy, G.26-1904.
- ⁷⁰ K. A. Carlson, *Transplanted*, 127. The Bunga was set up as a consequence of the 1894 Glen Grey Act and gave some local autonomy, together with tax raising powers, to chiefs and headmen in the Transkei (excepting Pondoland).
- ⁷¹ Transkeian Territories General Council. Report of the Proceedings of the Annual Meeting 1904, 14.
- ⁷² Transkeian Territories General Council. Report of the Proceedings of the Annual Meeting 1906: Annual Reports of 1905 and Estimates of Revenue and Expenditure. Report by H. Caplen, 23–24.
- ⁷³ CPP, A.18-1903. Details of the management of the forest were provided by the MLA for George, Hendrik Van Huyssteen, 2–10.
- ⁷⁴ *Ibid.*, evidence of J. Barnard, 30–47.
- ⁷⁵ *Ibid.*, evidence of F. Darmant, 56–64. Sectioning had been introduced effectively in 1888. Before that date, woodcutters cut fell trees of their choice.
- ⁷⁶ A. Grundlingh 'Poor White Woodcutters in the Southern Cape Forest Area 1900–1930' in R. Morrell ed. *White But Poor. Essays on the History of Poor Whites in Southern Africa 1880–1940* (Pretoria: University of South Africa, 1992).
- ⁷⁷ For information on Thesens, see for example, A. Grundlingh 'Poor White Woodcutters'.
- ⁷⁸ CA, AGR 694, Petition and Correspondence involving the Tsitsikamma Woodcutters, 1904.
- ⁷⁹ CPP, A.18-1903, Evidence of J.S. Lister, 53.
- ⁸⁰ CPP, Report of the Midland Conservator, C. B McNaughton, G.50-1906, 54.
- ⁸¹ McNaughton's view is constantly reiterated in his evidence before the Select Committees of 1903 and 1906 and in his annual reports.
- ⁸² Cape Hansard, the South Western Railway Bill was passed by Parliament on 23 May 1904.
- ⁸³ Redwater was a tick borne cattle disease; *lamziekte* caused paralysis in animals and was at that time mistakenly attributed to a lack of phosphates in the ground.
- ⁸⁴ CA, AGR 762, E. Nobbs, Report on Conditions at Knysna, 12 July 1904.