Poorly funded though the colonial forest services may have been, their first constraint during and after reconstruction of the Southern African economies following the South African War was the shortage of properly educated forest scientists and managers. The responses to this shortage led to several lines of development. First, the short-lived South African College School of Forestry provided education in forest science. It was based at Tokai in southern Cape Town, a facility that after a hiatus of 20 years was succeeded by a new Department of Forestry at the University of Stellenbosch in 1932. Second, the School for Foresters—from 1911 housed at Tokai in the facilities vacated by closure of the South African College course, and then from 1932 at Saasveld—provided training in the management of the forest estate (a diploma program). Third, training in field forest management in the native territories (another diploma program, but for African candidates) was initiated in 1904 at what became the Swartkops College and, later, at Fort Cox in the then Transkei.

Between 1911 and 1932, a carefully directed program of government sponsorship created a small but crucial stream of new professionals with advanced degrees from overseas forestry schools, all of whom soon joined the leadership in South African forestry. Whether through design or exigency and luck, the combination of a brief injection of ‘Cape forestry’, and the drive to create a new balanced South African economy, produced a vigorous and innovative forest sector. A strong emphasis on the climatic and other environmental determinants of forest productivity, and a community of forceful, heterodox, clear-thinking, and scholarly figures, committed to forest protection and development, marked this dispensation. Key systems of forest management imported from Nancy and India (via Cooper’s Hill) were adapted to South African requirements and
then transmitted in the training of managers of the forest estate at the School for Foresters. The diaspora of aspirant South African foresters enabled the subsequent education of foresters in South Africa. These initiatives created a diverse corps of scientists and managers in a country with little forestry expertise. This group later took on the mission of forest protection and forest resource development with unusual innovation, and they guided the forest hydrology program needed to shape the pattern of afforestation that followed.

Though the Tokai degree course was short-lived, it served to crystallise thinking about policy for forest education in South Africa, thinking that influenced the direction of later investments in students sponsored by government, as well as creating the beginning of a corps of modern South African forest scientists who were closely attached to South Africa and who played leading parts in forestry policy and development. Tokai graduates, schooled through a curriculum designed for a creative engagement with South Africa's complex climates and landscapes, formed minds sympathetic to the country which would support the comprehensive program of forest science that developed over the succeeding decades. But an institution which contained the potential to become one of the world’s leading centres of forest science soon foundered on the twists and turns of South Africa’s politics, and closed in 1911. After the short life of the Tokai school, there followed a coherent program of sending promising South Africans to forestry schools overseas—chosen in the light of the education needed for South Africa’s conditions—who together with Tokai graduates created modern forestry in South Africa.

A ‘South African’ School of Forestry

The opening of South Africa’s first school of forestry in Cape Town and Tokai on 27 February 1906 was a significant day for local politicians and foresters. Five students from the Cape Colony, one student from the Transvaal, and another from the ORC enrolled for the first intake. During their first year, students studied at the South African College and in the second year they focused on practical and theoretical forestry at Tokai, a Crown forest just to the south of Cape Town, with an extensive plantation and arboretum. The South African College in Cape Town and the Cape Colony’s Forestry Department jointly managed the school.

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1 These elements included the hierarchical system of forest policy development, working plans, and annual plans of operations, and figures such as J. S. Henkel were instrumental in their transfer to South Africa.

2 This work uses ‘South Africa’ to refer both to the Union of South Africa from 1910–1961 and also to the general region of Southern Africa, including then Southern Rhodesia (Zimbabwe) and Basutoland (Lesotho). Foresters and officials often used these terms interchangeably to describe both geographies and political entities. Note that the government opened the Tokai School for Foresters in 1911, for the purpose of technical training in the management of forests, a school that did not offer a university-level qualification. This school transferred to Saasveld, near George, in 1932.
David Ernest Hutchins presided as the school’s Professor of Forestry. No one was happier about the school’s founding than him. Just less than a year earlier he argued passionately for the founding of the school because there was ‘no Forest School in the Southern Hemisphere, nor, in fact, any purely extra-tropical school of forestry, imparting its instruction in English’. The newly founded school of forestry was the first ever opened in South Africa and the southern hemisphere.

Foresters in South Africa such as Hutchins hoped that the school’s opening portended a healthy future for forestry education in South Africa. The school focused specifically on South African environmental conditions and had the support of governments in the Cape Colony, ORC, and Transvaal. Students from three of the four South African colonies attended, with the hope of more. Southern Rhodesia promised to send students once it founded a forestry department. But despite the initial burst of enthusiasm surrounding the school’s opening, it closed down only five years later in 1911, never to be reopened. The Union government started a school for the technical education of field forest managers at Tokai that year, but South Africa remained without a university school of forestry to train its officers until Stellenbosch University founded a Department of Forestry in 1932.

This chapter resuscitates the school’s history and explains its importance for the larger environmental histories of South Africa and the British Empire. The motive among leading South African politicians and foresters to create a school of forestry in the country was that they wanted a school where South Africa’s future forestry officers could gain practical and theoretical experience of forestry in local conditions rather than going to Britain, Europe, or India, where climates and environments differed. They wanted students to focus on local conditions because they believed that the subtropical indigenous forests of the country dictated an approach to silviculture that differed from the temperate forests of Europe. They recognised that the future of forestry in South Africa depended on the creation of plantations of exotic trees rather than on timber from existing indigenous forests, and that this required an ‘extra-tropical’ thrust to forestry education. The success of the plantations in the Cape Colony begun in the 1880s and 1890s was hardly assured as many of the early attempts failed. Instead of being able to look to Europe or even India for examples of how to grow plantations of exotics in Africa, foresters had to learn from trial and error. With the rapid growth of forestry departments in the other colonies, where climates and environmental conditions differed greatly from the Cape, officials wanted foresters with practical and theoretical experience of the country’s diverse conditions.

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This chapter shows how the school’s opening happened during the last years of the Cape Colony’s dominance over forestry in South Africa, whereas its closing exemplifies the migration of power from the Cape north to the Transvaal that happened just after Union in 1910. However, the school’s closure was not only caused by a larger national shift of power northward. The school faced serious problems beginning in its first year that handicapped its future. In 1907, Hutchins moved to Kenya to work for the Colonial Office, leaving the school without a professor. The academic leadership at the South African College became critical of the school because none of them were experts of forestry and they wanted the Cape government to provide money to hire a new professor. The lack of financial help from governments in Natal and the ORC made the school’s continuation an almost impossible proposition without increased support from the Cape Colony or the Transvaal. Eventually, the foresters in the Transvaal started to criticise the school. Without national, financial, or university support, the school closed its doors forever on a unique moment in South Africa’s environmental and scientific history.

The history of the Tokai school of forestry fits a broader pattern of conflict that surrounded the founding of new forestry schools in the British Empire. Starting and maintaining a new school of forestry proved difficult. It allowed for the expression of strong political, scientific, and ideological divisions. In the colonies, funding often proved divisive because schools usually received funds through complex interstate arrangements that depended upon consensus and goodwill, something often in short supply during tight fiscal periods. The first imperial arrangement to educate British forest trainees bound for India began in the late 1860s and ended in 1885 with the appointment of William Schlich as Professor of Forestry at the Royal Indian Engineering College at Cooper’s Hill. Many leading British foresters and Indian officials prompted this development because they wanted a national school to inculcate common British cultural values. This school closed in 1905 and the institution transferred to Oxford University. The same story is true in Australia. A school of forestry opened initially at the University of Adelaide in 1910 only to be shut down with the opening of the Australian Forestry School in 1927. The Australian Forestry School ran into continual conflict because its principal from 1927 to 1945, C. E. Lane Poole, battled with state foresters and officials who disliked his national and

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imperial bias, and strong personality.\(^8\) Despite following this general pattern, the South African school’s history is distinct from British world forestry schools because it opened with a unique local mission.

### The climate of forestry education in South Africa, 1880–1906

South Africa’s four colonies had no school of forestry for the training of officers before 1906. Forestry officers studied abroad or worked as assistants in nurseries, plantations, and gardens before becoming officers in the Cape, the only colony to have a continuous state forestry program from the early 1880s to Union in 1910. The Comte de Régné De Vasselot was the first professional forester to work in South Africa.\(^9\) De Vasselot, instead of advocating that the Cape Colony create a school of forestry to train foresters, an infeasible proposition given the paltry size and finances of the fledgling Cape forestry department at the time, asked the Parliament of the Cape Colony to import trained foresters into the colony.

During the 1880s and 1890s, the Cape Colony’s Department of Agriculture showed little interest in paying local students to study forestry abroad as a means of building up its forestry program. Records indicate that in 1892, the department sent C. B. McNaughton to Cooper’s Hill in England. This was an exception to the department’s rule of not giving financial assistance for students studying abroad. Charles Currie, the Undersecretary for the Cape’s Agricultural Department, refused an applicant in 1898, noting that ‘the aiding of Forest Officers going through a course of instruction at Cooper’s Hill is not a recognised practice’.\(^10\)

Though no formal system of education existed, the Cape model of forestry, marked by a coherent culture and unique practice of forestry, determined the curriculum for the future school of forestry. Of all Cape foresters, Hutchins, the future professor of the school, directed many of these climatic comparisons and experimental trials. Hutchins’s enthusiasm and boldness gained him both the admiration and criticism of foresters around the world. He saw himself as the *de facto* ‘conservator’ and leader of forestry in the Cape.\(^11\) Hutchins was widely

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\(^10\) For Henry Fourcade see file 935, Colonial Secretaries Office (CSO) 1181, National Archives South Africa Pietermaritzburg [NASA-PMB].

respected for his education and experience and became a natural choice to head the school when it opened in 1906. His erratic behaviour, though, endangered the school not long after it opened.

Debating a South African school of forestry

The expansion of state environmental scientific programs in South Africa during the early twentieth century was part of state reconstruction in the aftermath of the South African War. British reconstruction politicians who took over the governments of the former South African Republic and Orange Free State started to discuss the possibility of creating a school of forestry for the whole of South Africa with the governments of Natal and the Cape. Afforestation was one of the important political topics during the reconstruction period (see Chapter 2). This was because sparsely wooded grassland and savanna covered most of the former Transvaal and ORC. Alfred Milner and his British ‘Kindergarten’ of advisors argued for the extensive afforestation of the grasslands of South Africa. From his High Commissioner’s office in the city, Milner viewed the grasslands surrounding the city as future forests.

British elites in South Africa agreed widely about the need to create a centralised political union, something that a national school would help to achieve. But the relations between the colonies before the Union of South Africa in 1910 made coordination among colonies difficult. Each colony had its own government and Governor (the ORC and Transvaal had the same Governor from 1902 until 1907). Finances remained separate. Each colony had its own departmental structure and culture, with distinct local social, economic, linguistic, and ecological conditions.

The perceived future demand for trained forest officers prompted the first serious discussions about a school. Two reports by Joseph Storr Lister in 1903 brought the question of a national school to the attention of the ORC government and the British High Commission in Johannesburg. The first, a report on forestry in the ORC in 1903, contained his recommendations on how to develop a forestry department for the ORC. Lister discussed the scientific competence desirable for forestry officers required to staff the ORC forestry department in a letter of 29 November 1904. In this letter he re-emphasised the importance of scientific

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14 For Lister’s request to visit in 1902 and the correspondence related therein see F3659, AGR 701, NASA-CT.
training for the future of South African forestry. He believed that ‘[to] meet future requirements I submit the time has arrived for the establishment of a South African forest School or Training Depot’. A variety of suitable locations existed throughout the Cape Colony, such as the large plantations at Fort Cunynghame, Tokai, or Kluitjes Kraal. He also remained open to the idea of locating the school within an agricultural college in another colony of South Africa. He wanted the school located in South Africa because it offered ‘obvious’ advantages. It would provide access to ‘promising students’ who ‘could not afford to go abroad’. Locating the school in South Africa would also allow students to learn methods ‘applicable to the peculiar conditions of South Africa, which differ from those which prevail in Europe and America’.

The question of where to locate the school had a strong environmental dimension. Lister suggested that it should be located in the Cape Colony because it had the oldest and most advanced state plantations. Despite having existing managed forests, the environmental conditions of the Cape were actually less conducive to forests than elsewhere: much of its land received less rain than the subtropical climates of Natal and Transvaal, which were better suited to the commercial production of trees. Despite these advantages, foresters were still unsure about what species would grow best, and neither Natal nor the Transvaal had large plantations or extensive natural forests on which to base a school of forestry. The ORC never factored as an important location because few believed the environments there could support large-scale afforestation. Nevertheless, Lister preferred the Cape as the location for a training centre.

The government of the ORC contacted Milner in Johannesburg late in December 1904 regarding Lister’s suggestion. Milner forwarded the dispatch from the ORC to Sir Richard Solomon, the Lieutenant-Governor of the Transvaal, on 11 January 1905. Milner wrote that he ‘attached the greatest importance to the proposal to establish a School of Forestry in South Africa’. Milner noted that the Cape Colony, Natal, and Southern Rhodesia had also contacted him about the foundation of a school. The letter raised the possibility of founding the school in the Transvaal at an agricultural extension farm near Johannesburg called Frankenwald, which the wealthy mining magnate Alfred Beit had donated to the

16 Ibid.
17 Ibid.
18 Ibid.
20 See Carlson, Transplanted, Chapter 7, ‘Orange River Colony’.
22 Milner to R. Solomon, 11 January 1905, Transvaal No. 96/79, LTG 94, NASA-P.
23 Ibid.
colonial government. Frankenwald had few trees and was primarily grassland. (These grasslands later became a site where University of Witwatersrand researchers such as John Phillips and Eddie Roux studied grassland ecology.)

Charles Legat, the Conservator of Forests in the Transvaal, wrote to Frank Smith, the Transvaal’s Secretary of Agriculture, laying out his view that the foundation of a school in South Africa ‘is of the utmost importance’. However, he did not support the idea of making a ‘self-contained’ school of forestry. He recommended making forestry an adjunct to an existing university science program: ‘The Forest School site would therefore have to be wherever the teaching University is to be situated, probably Johannesburg’. The practical training would then take place at Frankenwald. But his letter left open the possibility of also locating the school in the Cape, subject to a meeting of all the country’s conservators who could decide the question together.

Smith agreed with Legat’s view that the school should be associated with an existing university science curriculum and indicated that the Frankenwald location would be eminently suitable. Smith wrote:

Schools of Forestry and Veterinary Science are Institutions which are urgently required in South Africa as there are so many problems connected with these subjects which are more or less peculiar to this Sub-Continent, and which can only be satisfactorily studied and investigated on the spot.

Smith suggested that all students study the same broad ‘scientific principles’ before studying their specialty, such as forestry.

The jockeying for the school’s location continued into early 1905. L. S. Jameson, the Progressive Party Prime Minister of the Cape Colony, transmitted a report written on 26 February by Hutchins, then the Conservator of the Cape’s Western Conservancy, on the possibility of founding a school of forestry in South Africa, and laying the outlines for a future school. Although Hutchins himself studied at Nancy, he strongly criticised the largely ‘impractical character of their instruction’. The high costs of travelling to and attending foreign schools also made any arrangement other than a South African school prohibitive. Only five students from the Cape Colony’s Forestry Department had attended foreign schools, and the one student then abroad at Yale was paying his own way.

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25 Ibid.
26 Ibid.
27 Smith to Jameson, 26 January 1905, Transvaal No. 96/79, LTG 94, NASA-P.
28 Ibid.
29 Ibid.
30 Jameson, Minute, 13 March 1905, Transvaal No. 96/79, LTG 94, NASA-P.
Hutchins believed that with the current and future size of forestry departments in South Africa, a school training upwards of 19 students would not produce too many foresters.

Hutchins again emphasised the unique climatic and environmental conditions that foresters in South Africa faced. Much of the country was marked by aridity, divergent patterns of rainfall seasonality, and ecological conditions vastly different than Britain, Europe, or India, the other leading centres of forestry. Hutchins envisaged the South African school as the beacon of forestry knowledge in the southern hemisphere and the English ‘extra-tropical’ world, i.e. regions with Mediterranean to subtropical climates. He noted, ‘[t]here is at present no Forest School in the Southern Hemisphere, nor, in fact, any purely extra-tropical forest school, imparting its instruction in English’. 32 He argued that no existing school could supply the blend of theory with the practical experience of South Africa’s unique conditions required for foresters in the region. A South African school would have to focus on the various ‘climatic conditions’ of the country because the ‘trees suited to each area differ widely’. 33 Hutchins concluded his report with an appeal for the school: ‘Such a Forest School would be the only English institution of its kind dealing with extra-tropical forestry, and as such could probably count on considerable private support not only in South Africa, but also from the Australian Colonies’. 34

Hutchins requested that the school be located in Cape Town. He discounted the Frankenwald location because it lacked the native forests and plantations needed to accommodate practical study. Johannesburg, he admitted, offered the best ‘endowments’. 35 As an investor in gold, Hutchins recognised that South Africa’s wealth and power was gravitating slowly to the north. 36 But the Frankenwald site left much to be desired. After visiting the location, Hutchins surmised, ‘that with every care and a liberal expenditure it could not, within half a century, offer the practical instruction and demonstration attainable at Tokai and Ceres Road’. 37 By contrast, forestry in the Cape ‘is a quarter of a century ahead of forestry in the Transvaal’. The South African College with the corresponding plantations and arboretum at Tokai ‘offer the best facilities’. 38

32 Ibid.
33 Ibid.
34 Ibid.
35 Ibid.
36 D. E. Hutchins to Fourcade, 2 February 1887, Fourcade Bequest, UCT.
37 Jameson, Minute, 13 March 1905, Transvaal No. 96/79, LTG 94, NASA-P.
38 Ibid.
Making a school at the Cape

The Cape Colony determined the fate of a future school of forestry by announcing in December 1905 that the Cape Colony’s forestry department and the South African College in Cape Town would support the opening of a school of forestry in Cape Town and Tokai. The scientific teaching facilities would be based at the South African College and the practical work in the plantations and arboretum at Tokai just a few miles to the south.⁹⁹ The school would educate forest officers through a two-year specialised course in forestry. For those without the requisite scientific background, the South African College offered an extra year of preliminary study. At Tokai, a newly created reading room and library catered to forestry students. The bulletin emphasised: ‘The Tokai arboretum which now comprises the largest collection of timber trees in South Africa, affords unique opportunities for practical instruction in silviculture’.⁴⁰ Students would gain practical experience around Cape Town by exposure not only to the forestry practices at Tokai but also the driftsand reclamation project in the Cape Flats and at the plantation and arboretum at Ceres Road. Students would also work in the indigenous forests near Knysna–George. At the end of this course, graduates would receive a certificate or diploma signed by the College and the Chief Conservator of Forests for the Cape Colony. In 1906, the school sought initially to enrol 10 resident students: five from the Cape and five from elsewhere in South Africa.

The curriculum reflected the long-standing interests and experience of Hutchins and other Cape foresters rather than the traditional continental education for foresters (see Box 1). It focused on subjects seen to have local applications, such as climatology, local geology, and silviculture for South African conditions. The courses emphasised climate to a greater extent than at Cooper’s Hill or elsewhere. This reflected the strong belief among Cape foresters in the primacy of climate and exotic silviculture. The course also featured a section in forest geography and history, a keen interest of Hutchins who often lectured publicly on the subject.

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⁹⁹ Cape Colony, *Department of Agriculture Bulletin*, No. 1383 (Cape Town, 1905).
⁴⁰ Ibid.
COURSE OF STUDY AT THE SOUTH AFRICAN COLLEGE AND TOKAI

First Year Forestry Courses
Botany (2 terms physiology, 2 terms mycology, 2 terms Forest Botany), 6 hours a week
Chemistry (soils and plants, 2 terms), 6 hours a week
Climatology and Meteorology (1 term), 3 hours a week
South African Geology (1 term), 3 hours a week
Survey and Elementary Engineering, 6 hours a week
Forestry (Lectures and Field Work), 6 hours a week

Second Year Forestry Courses
Forestry (Lectures and Field Work), 6 hours a week
South African Arboriculture and Silviculture, 4 hours a week
Climatic influence on forestry, 2 hours a week
Forest Entomology, 3 hours a week
Forest Law, 1 hour a week
Forest Geography and History, 1 hour a week

Box 1. Course of study at the South African College and Tokai.

The staff of the newly formed school of forestry included Hutchins as professor of forestry and lecturer in forestry geography and history; G. A. Wilmot, freshly returned from his study at Yale, as assistant lecturer and demonstrator in forestry and lecturer in forest management and forest law; L. Peringuey as lecturer in forest entomology; J. C. Beattie as professor of physics and lecturer in climatology and meteorology; and H. H. W. Pearson, as professor of botany. Other South African College professors served as teachers: P. D. Hahn (chemistry), H. Payne (engineering), Andrew Young (mineralogy and geology), W. S. Logeman (modern languages), and Lawrence Crawford (mathematics).

The Cape Colony government promoted the school’s case to the High Commissioner and the other colonies. In a letter dated 24 January 1906, Jameson, the Cape’s Prime Minister, requested that the High Commissioner forward information regarding the South African College Forestry Course at Tokai to the governments of the ORC, the Transvaal, Natal, and Southern Rhodesia.41 The Cape government supported the new program, Jameson wrote, in the hope that it ‘will serve the needs of all the States of South Africa’. He hoped for ‘co-operation’ from the other governments.42

Cooperation, however, could not be won so easily. Natal ministers did not support the idea of creating an independent school of forestry, although they supported the idea of creating a larger technical college, which taught forestry as one of

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41 Jameson to R. Selborne, 24 January 1906, Transvaal Agriculture Department (TAD), 540, No. G.1181/06, NASA-P.
42 Ibid.
its disciplines. The ORC did not plan on contributing to the scheme, although it later did send one student. It remained up to the Transvaal government to determine the viability of the Cape’s proposed program.

The High Commissioner queried the Transvaal government about whether it favoured the proposal by Hutchins or Milner. Whereas Milner supported the idea of a school at Frankenwald, Lord Selborne, the High Commissioner of South Africa (1905–1910) who replaced Milner, instead suggested that the Cape Colony offered a location where ‘better practical instruction and demonstration is obtainable’. After discussion, the Transvaal government leaned towards the Cape Town location. An internal government minute that recommended sending students to the college in Cape Town noted that the facilities at Tokai were ‘superior to any in the Southern Hemisphere available’. The Transvaal government wrote to the Imperial Secretary and High Commissioner in January, informing them that ‘there is only room for one Forest School in South Africa’. The Private Secretary informed the High Commission ‘that it is not proposed to consider further the proposal to establish a Forest School at Frankenwald’ as previously raised by Milner in January of 1905. On 27 March 1906, the Transvaal Department of Agriculture committed to sending one officer to undertake the two years of study.

The school commenced teaching on 27 February 1906 with six students. Only two students from outside of the Cape Colony attended: one each from the Transvaal and the ORC. The Director of Agriculture supported the school in a letter to the Prime Minister, noting ‘that it is deserving of all the support that can be accorded it by this Colony’. Jan Smuts, the Education and Colonial Secretary of the Transvaal government, offered his support to the Cape government for the school, even urging the Transvaal government to give more publicity to the school as requested by the Cape government.

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43 H. W. Hamilton Fowle to Solomon, 20 December 1905, No. G.II81/05, LTG 94, NASA-P.
44 Ibid.
45 Hamilton Fowle to H. E. Clark, 20 December 1905, No. G.II81/05, LTG 94, NASA-P.
46 Transvaal Department of Agriculture Minute Paper, 2 January 1906, No. G.II81/05, LTG 94, NASA-P.
47 Clark to Imperial Secretary, 31 January 1906, No. G.II81/05, LTG 94, NASA-P.
48 Ibid.
49 Lawley to Selborne, 27 March 1906, No. G.II81/05, LTG 94, NASA-P.
50 Smith to D. C. Malcom, 21 March 1907, No. G.II81/06, LTG 94, NASA-P.
51 Minute 45, 11 April 1907, No. G.II81/06, LTG 94, NASA-P.
Troubles with the school

The school ran into trouble in 1906 when Hutchins decided to take a Colonial Office appointment in East Africa to write a report on the forests of Kenya. This decision, prompted by his not being appointed by the Cape government as the Cape Colony’s Chief Conservator of Forests in 1905 (the Cape government chose Lister for the position), left the school without a professor of forestry. Foresters and government officials outside the Cape Colony, especially in the Transvaal, soon began to question the viability of the school. A lecturer, Wilmot, became the new head of the school in 1907.

In June – July 1908, the ministers of the Cape Colony tried to put the school ‘on a more permanent basis’ by integrating it with the forestry departments of the other South African colonies and attempting to hire a new professor of forestry. But, for this plan to work, all the colonies would need to offer more money and send more students. The Cape recommended appointing a professor of forestry who would work under the Board of Management, the governing body of the school comprised of representatives of the academe of the College and the colonial administration. Further, the professor of forestry was to be committed full time to teaching. The Cape would provide £499, Transvaal £299, ORC £199, Natal £199, Southern Rhodesia (Zimbabwe) £59, and Basutoland (Lesotho) £25—a total of £875. This proposal circulated to the colonial governments. Natal rejected the offer. The ORC also turned down the Cape’s plan and refused to send money. Southern Rhodesia agreed to fund the school but supplied no students. Basutoland approved the measures.

It was apparent that the school lacked the full support of Natal and the ORC, and it still had no professor. The Board of Management and faculty at the South African College started to question the viability of the school because of lack of adequate support. In a memorandum sent to the Governor in 1908, the board made

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52 For Hutchins’s discussions regarding his retirement see Correspondence Relating to Hutchins Retirement, FOR 1, NASA-P.
53 See Darrow, David Ernest Hutchins, 12–3. The selection of Lister by the Minister of Agriculture strongly affected Hutchins, who otherwise supported the Tokai school and saw it as a continuation of his work on extra-tropical forestry. But Hutchins was eccentric, outspoken against the Department of Agriculture, and was not considered as suitable for the position as Lister, a more diplomatic forester. Hutchins noted tactfully that with Lister ‘we shall obtain that share of the Ministerial ear which is so important to a minor Department in the struggle for existence’. See Hutchins to Fourcade, 10 October 1905, Fourcade Bequest, UCT.
54 Minute 1/330, 24 June 1908, 32/2/1908, GOV 1146, NASA-P; W. Hely-Hutchinson to Selborne, 2 July 1908.
55 Minute 7, Prime Minster Natal, 22 September 1908, 32/2/1908, GOV 1146, NASA-P; F.R. Moor – Minute No. 7 1908, 26 September 1908.
56 Minute 4144/08, Prime Minister’s Office Orange River Colony, 25 September 1908, 32/2/1908, GOV 1146, NASA-P.
57 Hamilton to Selborne, 10 August 1908, PM 809/08, CO 73, NASA-PMB.
58 Sloley to Selborne, 13 August 1908, PM 809/08, CO 73, NASA-PMB.
a number of suggestions for improvements. In it they ‘emphasised the South African Character’ of the college and asked the other colonial governments to share in the costs of running the school. This scheme envisioned contributions from all of the South African colonies and even £50 from British East Africa. They asked that extra monies be raised to hire a professor of forestry.

Officials in the Transvaal also began to openly question the school in late 1908 and early 1909. In a letter to Lister, Legat complimented the school on the high quality examination results of the 1908 cohort of students. But he asked about the staffing of the school: ‘I suppose you will get a very highly trained and experienced man for the post, as the prestige of the School will in the first instance rest mainly with the Professor of forestry’. Legat’s suggestion that the ‘prestige’ of the school rested on the professor of forestry, not the curriculum or the performance of the students, contradicted his praise of the high performance of the students at the beginning of his letter. As if to hint at the Transvaal’s lack of support, Legat ended the letter by asking the question: ‘Are you expecting Forest Students from Australia and New Zealand? Mr. Hutchins thought it quite likely those Colonies would send men to be trained’. Legat quietly hinted that all was not well with the school’s future.

Lister’s reply to Legat began by expressing his frustrations at the failure to find an ideal professor of forestry. He supported Wilmot, describing him as ‘a clever, good, all around fellow. He has gentlemanly manners, is popular with the students and is an excellent lecturer’. Instead of worrying about his lack of training, he privately worried that ‘we cannot expect him to retain the post permanently’. He ‘was at a loss’ to know what forester to select as the professor. He remained ‘a little nervous’ about bringing in a forester from India or Europe without adequate knowledge of South African conditions. Knowledge of South Africa remained of the highest priority owing to the unique conditions of the country and South Africa’s reliance on plantations of exotic trees, a science still in its infancy. Lister envisioned the future of forestry in South Africa as focusing on the ‘formation and management of plantations of exotic trees and, notwithstanding past experience, Forest Officers for many years will have to continue to more or less feel their way by constant and systematic experiments’.

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59 See discussions in the memorandum that was recirculated in 23 May 1910, No. G.II81/06, LTG 94, NASA-P.
60 Ibid.
61 Legat to Storr Lister, 23 December 1908, No. G.II81/06, LTG 94, NASA-P.
62 Ibid.
63 Storr Lister to Legat, 6 January 1909, No. G.II81/06, LTG 94, NASA-P.
64 Ibid.
65 Ibid.
66 Ibid.
67 Ibid.
Despite forebodings, the Cape government did not officially recognise any serious flaws in its School of Forestry as late as April 1909, three years after the school’s founding. In a minute sent to all governments, Walter Hely-Hutchinson noted happily that the Transvaal, Rhodesia, and Basutoland all supported the school, although Natal and the ORC did not offer financial assistance. In the letter, he supported Wilmot as the principal lecturer of the school, suggesting that it would be better to keep his services than to import a foreign forester. First, the Cape Colony could not afford to pay a large salary with the current funds provided by the other colonial governments. Second, the government considered that the ‘services of a local officer with experience of South African conditions will compensate for those of a Forest Officer from another country’. Locality trumped universal scientific study. Not only would Wilmot stay on as a lecturer, he would be given the ‘entire control and management’ of the School of Forestry. He would live at Tokai and work as a District Forest Officer, tending the plantations on top of his teaching duties. Thus he would have an ‘adequate salary’ and room to pursue his research. In closing, Hely-Hutchinson noted that ‘[m]inisters cannot too strongly reiterate the importance of maintaining the School of Forestry on its present satisfactory basis and trust that the general scheme proposed will be approved’.

A letter from Legat on 17 April 1909 still officially supported the school, asking the Director of Agriculture to provide money to send a student to the School of Forestry. But only a little over a week later on 25 April, Lionel Taylor, then acting Conservator of Forests for the Transvaal, wrote a letter of protest to the Director of Agriculture with the consent of Legat. Taylor offered a ‘strong protest against the appointment of Mr. Wilmot’ by offering his opinion ‘that it is most desirable to appoint a highly trained and experienced expert from Europe who can come to this country with unbiased views’. This turned the argument about the need for local experience on its head. Taylor blasted the Cape’s forest department, suggesting that they were 30 years old but ‘no nearer to the solution of many of their problems than they were when they started’. He inferred from Lister’s comments to Legat that South African forestry remained dogged by problems with exotic plantations, especially of Eucalyptus. Taylor recognised the ‘prejudice against getting a man with European experience only’, but he instead suggested ‘this is rather an advantage’ because they could ‘work on scientific principles without following the groove into which officers

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68 Minute No. 1/116, 3 April 1909, No. G.II81/06, LTG 94, NASA-P
69 Ibid.
70 Ibid.
71 Ibid.
72 Ibid.
73 Legat to Smith, 17 April 1909, No. G.II81/06, LTG 94, NASA-P
74 Taylor to Smith, 15 April 1909, No. G.II81/06, LTG 94, NASA-P
in the Cape Forestry Department have run for 30 years and which had led to no practical solution of vital problems’. 75 The South African College needed to appoint a leading forester ‘if the Cape Forest School is to become the training ground for Forest Officers from Australia, New Zealand and other Colonies as Mr. Hutchins intended it to be’. 76 He ended the letter by suggesting that the £299 contribution of the Transvaal gave it the right to discuss the management of the school. Taylor called the Transvaal’s support of the school into question.

The Transvaal government supported the school with £300 for the period 1 January 1909 to 30 June 1910. 77 Despite this outward show, the Department of Agriculture for the Transvaal drew upon Taylor’s letter to craft a detailed internal criticism of the new terms of agreement. Louis Botha and his ministry urged officially that the Cape government appoint a professor of forestry ‘who should have no duties beyond those relating to his office’. 78 The Transvaal administration sent its minute to the governments in Natal, the ORC, Rhodesia, and Basutoland. 79 At the same time, the Transvaal government asked the professor of botany at the South African College, H. H. W. Pearson, to serve as the Transvaal’s local representative on the Board of Management. 80 This opened up a direct channel of communication between the faculty at the South African College and the government of the Transvaal.

In a letter to Smith, Pearson noted that the faculty members who taught the program worried privately about the quality of the forestry lectures and fieldwork: ‘The Members of the Board actively engaged in teaching accessory subjects felt very strongly that the present arrangements are far from satisfactory and believe that Mr. Wilmot, the forestry lecturer, agrees with us’. 81 He noted that the South African College forestry staff, except for Wilmot, ‘know nothing about forestry as such’. 82 The college’s academic members felt that the school would not succeed unless an ‘expert’ forester, who taught full time and undertook no other duties, led the forestry program. In his letter, Pearson asked for the Transvaal’s advice on what type of expert forester they wanted to head the program, the salary required to hire such a person, and how much more money the Transvaal would provide to hire them.

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75 Ibid.
76 Ibid.
77 Director of Agriculture to the Colonial Treasurer, 23 September 1909, No. G.II81/06, LTG 94, NASA-P.
78 Minute No. 538, 31/1/1909, GOV 1200, NASA-P; Selborne to Hely-Hutchinson, 27 November 1909, 31/1/1909, GOV 1200, NASA-P.
79 Selborne to Governor of the Orange River Colony, 27 November 1909, 31/1/1909, GOV 1200, NASA-P; Selborne to Governor of Natal, 27 November 1909, 31/1/1909, GOV 1200, NASA-P.
80 Legat to Smith, 10 November 1909, No. G.II81/06, LTG 94, NASA-P; Smith to H. H. Pearson, 23 November 1909, No. G.II81/06, LTG 94, NASA-P.
81 Pearson to Smith, 8 March 1909, No. G.II81/06, LTG 94, NASA-P.
82 Ibid.
Smith’s reply included copies of two reports by Legat, which he asked Pearson ‘to treat as confidential’. Legat’s reports questioned the viability of the school in its current form, as well as Wilmot’s ability to lead the entire school with such a high workload and a relative lack of experience. He offered an analysis of the failings of the school and a possible solution to its problems from his point of view. Highlighting Wilmot’s lack of experience (he had had only two years of study at Yale), Legat wrote, ‘I venture to say that in no other Forest School in the world is the teaching of the principal subject left to the care of an inexperienced junior’. To remedy the current problem, he suggested hiring someone to work independently of the Cape’s Forestry Department with a salary of around £750 per year. Legat suggested the services of H. Meyer of Munich University, since Meyer had a broad background, including experience in Europe, Japan, and North America, in addition to being an expert on the cultivation of exotic trees. In conclusion, Legat suggested that Pearson raise these issues with the school’s board and the Cape government, if required. Smith agreed with Pearson’s desire to establish the school on a ‘more satisfactory basis’.

The South African College continued to worry about the quality of the school. On 3 May, the Registrar of the College sent a resolution from the Council and Senate of the College. Its first clause stated: ‘The provision for the teaching of Forestry in the South African School of Forestry is inadequate’. This set the stage for making changes to the program or for closing it down. The second clause stated: ‘The minimum of staff necessary for the proper teaching of the various branches of this subject is one Professor and one Lecturer’. Both of the teachers had to teach full time; they could not hold additional duties as forest officers.

The Registrar discussed in his letter the memorandum sent in 1908 from the academic staff to the Governor of the Cape Colony. This memorandum reminded the government that at least two teachers—one professor and one lecturer—were required to make the school of world standing, using examples from Europe, where schools had two to three professors, and Yale, with three professors and seven assistants. But the South African College employed only one lecturer who also worked as a District Forest Officer in charge of a large plantation. The Registrar suggested that the reputation of the school suffered badly from its mismanagement and the lack of a professor of forestry. Only four students graduated in 1909 and only four students had enrolled for 1910. The Transvaal
quit sending students in 1907, although it continued to contribute financially to the school. The Board noted open criticism of the school ‘by more than one authority in the Transvaal’. The memorandum painted a negative picture:

Being the only school of Forestry south of the Equator it was hoped that the S.A. [sic] School would attract students from Australia where the Forestal Problems are more akin to those presented in South Africa. But while the school has not sufficient standing to command confidence in South Africa itself it cannot hope to be recognised by other states. It is a serious reflection upon Cape Colony, the Forest Department and the South African College that we should pretend to run a School of Forestry in which such utterly inadequate provision is made for the training of students in the most important subjects of a Forestry curriculum.

Pearson continued to work as a liaison for the Transvaal on the board of the School of Forestry. He acted as the leader on the South African College’s resolution, previously discussed and passed unanimously by the Council and Senate. Pearson asked Smith whether he could raise this issue on behalf of the Transvaal at the next meeting of the School of Forestry Board of Management. The Board of Management of the South African School of Forestry decided to meet in the Chairman’s office in Cape Town on 30 May to discuss the resolution of the Senate. The Transvaal wired a letter to Pearson to encourage him to raise the Senate proceedings at the Board of Management meeting, calling for changes to the school or its closing. Pearson confirmed that he would speak for the Transvaal at the meeting.

Before the faculty could meet, the death knell of the school sounded when in October 1910 the Cape’s Government Gazette announced that the school would no longer accept applicants for the upper grade, effectively closing the school’s doors. This resulted from internal decisions by the Cape government in coordination with the other provinces. Forestry conservators met with the new government ministers shortly after the Union in 1910. There the conservators and government ministers decided to close down the school. The enthusiasm for the school that characterised the period from 1902 to 1908 had slowly dissipated. Political geography also helped to shape the decision to close the school. The centralisation of departments in Pretoria finally brought financial
and political power into the north and away from the Cape.\textsuperscript{97} The four forestry departments amalgamated, organised after the Cape’s structure, but with its new head office in Pretoria. Tokai, with its suitable plantations and arboretum, became the station for the School for Foresters until this facility moved to Saasveld, outside George, in 1932. The new South African government effectively ended its relationship with the South African College at the same time that the South African College and the school’s Board of Management turned against the school.\textsuperscript{98} So, ultimately, the school did not live up to Hutchins’s hope that it would flourish and provide a centre for forestry in the southern hemisphere.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure8.jpg}
\caption{The Tokai forestry graduates, 1911.}
\begin{flushleft}
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\textbf{Source:} George Museum; photographer unknown.
\end{figure}


The Internationalisation of South African Forestry Education: 1911–1932

The new Union-wide Forestry Department determined to recruit its upper-level forest officers from South African students who studied abroad, initially from Rhodes Scholars who studied for Oxford University’s diploma in forestry.99 Two Rhodes Scholars were already studying at Oxford in 1910, whereas no students from anywhere other than the Cape enrolled for the South African College’s 1911 session, a fact that helped to bolster the argument to close down the Cape Town school.100 The small size of the classes at the South African College made its closing easier. The buildings and arboretum at Tokai continued to provide non-officer foresters the experience of local conditions required to pursue the creation and tending of plantations of exotic species.

At the closing of Tokai, the government decided to send its future forestry researchers overseas to study at leading forestry centres before returning to work in South Africa. Would-be trainees applied to the Office of the Public Service in order to be accepted for sponsorship as trainees for the Forestry Department. The government supported both English and Afrikaans-speaking applicants. Many applicants already had received a Bachelor degree in science from South African universities, such as Stellenbosch or the University of Cape Town, but others had not received university-level education; in the latter case, the candidate needed to undertake government-sponsored study at a South African university before proceeding overseas on graduation. On the basis of an employment contract with the Forestry Department, trainees went overseas for advanced degrees in forestry. Students were required to study key subjects, such as silviculture and forest management, and were encouraged to read widely in foreign literature while pursuing novel theoretical and empirical research. They would spend at least a month per year in the field learning ‘practical’ skills. Postgraduate students had some freedom to choose their specific area of study, although it had to be approved by officials in Pretoria, who closely monitored students’ academic progress.

Importantly, the Forestry Department did not make a formal relationship with any single overseas institution. Rather, it created a highly flexible system that fostered intellectual innovation and offered a diversity of educational and environmental experiences. South African students studied at a variety of institutes, the three most important being Yale University, Oxford University, and Edinburgh University, but with some students at others, such as Tharandt and the University of Wageningen. The Forestry Department under the direction

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99  Ibid., 2.
of its research leader, Colin C. Robertson, consulted with overseas faculties and domestic foresters and students in order to select the best institution for each candidate. In this way the department was able to send students overseas to match training with the diverse problems of South Africa’s forest sector. On their return to South Africa, foresters were directed to locations where their education could be put to best use. This flexibility ensured that South Africa’s research officers could bring cutting-edge knowledge to bear on local problems, had personal contacts at leading institutions, and would stay abreast of new innovations internationally. Students studied in a variety of environmental, social, and intellectual contexts, which proved to be a significant factor shaping the research trajectories of research officers.

The department first looked to Oxford University, the host of Britain’s most distinguished forestry program. The Oxford forestry program, founded in 1905, was directed by esteemed Indian foresters: first William Schlich, and then from 1920, Robert Troup. In 1924, an Imperial Forestry Institute was opened at Oxford to train forestry recruits from different parts of the British Empire. Oxford teachers sought to act as the centre of a vast web of empire forestry. Oxford’s teaching staff trained foresters to manage a diverse variety of forests throughout the British Empire. A great focus was placed on learning European principles of silviculture and management as they had been developed in British India, where most of its staff had worked previously.101 Other influential Oxford teachers included R. A. Fisher and Sir Harry Champion, who had served in the Indian Forest Service from 1915 to 1939, primarily at the Forest Research Institute at Dehra Dun. The most influential South African trainee to study at Oxford was Christiaan Wicht, although other leading foresters such as W. E. Watt and C. E. Duff also qualified there.

The other British school of choice was Edinburgh University, where BSc forestry degrees were granted from 1907. Edward Percy Stebbings as Professor of Forestry in 1920 invigorated the school. Stebbings was the former Inspector General of India, author of the classic three-volume *History of Forestry in India*, and an advocate of massive tree-planting campaigns. Stebbings had a chequered career as a forester. He distinguished himself in India by coming to grips with the history of the subcontinent, but he marred his reputation by calling for an Anglo-French tree-planting effort in the Sahel to halt the Sahara desert, which he perceived to be encroaching into savanna. Stebbings was known for training students ‘of a more practically minded type’.102 At Edinburgh, students also

studied under Isaac Bayley Balfour and Frederick Orpen Brower, two of Britain's most influential botanists. Their perspectives, based on the Danish founder of the field of ecology, Eugenius Warming, proved inspirational for the forest ecologist John Phillips.

Yale was an equally important institution. Yale University's program focused primarily on North American conditions, but its professors had strong linkages to Europe, Southern Africa, and Asia. Yale's forestry program started in 1900 as a result of a generous endowment by the wealthy Pinchot family, becoming the flagship program for North American forestry. Its professors, deans, and graduates directed US Forest Service policies for much of the first half of the twentieth century. The faculty at Yale included James Toumey, the country's leading expert in forest botany and ecology of forest regeneration. Toumey acted as an important mentor for South Africans studying silviculture at Yale. Other leading silviculturists included Henry H. Chapman, an expert on the role of fire in the regeneration of southern pines. Foresters who studied under Toumey, along with other leading US foresters, included C. C. Robertson, Eardley Wilmot, Ian J. Craib, and J. J. Kotzé.103 As a result of their education, Yale-trained foresters contributed to new, often controversial silvicultural methods from the 1900s to the 1950s.

South African students who studied abroad played a guiding role in the evolution of research and forest policy from the 1930s to 1960s. Although Tokai graduate A. J. O'Connor made a fundamental contribution to silviculture through his design of the so-called CCT trials (see pp. 102–103), foreign-trained students had the most prominent influence on South African research agendas from the 1930s to the 1960s.104 Three foresters, in particular, shaped key understandings of ecology, silviculture, and hydrology that formed the basis of South Africa's broader forestry policy from the 1930s onward: John F. V. Phillips (BA in botany and forestry and PhD botany, Edinburgh), Ian J. Craib (BA and MSc, University of Cape Town; MSc and PhD forestry, Yale) and Wicht (BA geology and botany, Stellenbosch; MA forestry, Oxford; PhD forestry, Tharandt).

Their diverse experiences abroad shaped how they each responded to the local problems and national context which they faced on their return to South Africa in the 1920s and 1930s. Phillips was the first trained ecologist to be employed by the Forestry Department. His work in the Knysna forest led him to become a spirited critic of many Forestry Department policies, especially the formation of exotic timber plantations. Craib, working on the contrasting situation of

104 Others who had major influence were Nils B. Eckbo and J. M. Turnbull, recruited directly from overseas, who worked on wood properties.
plantation silviculture, helped to improve the growth-rate and yield of private wattle and government pine plantations during the 1930s. Rather than working in indigenous forests, as did Phillips, Craib worked to develop exotic forests. Wicht pioneered South Africa’s forest hydrology program at Jonkershoek from the mid-1930s to the 1960s. Wicht’s post-1935 research agenda grew directly out of the conflict that arose between critics of plantation forestry, such as Phillips, and advocates, such as Craib.

Conclusion

South African foresters opened the first school of forestry in Cape Town and Tokai in 1906 because they believed deeply in the importance of training officers in local environmental conditions. But the realities of inter-colonial funding and the migration of power away from the Cape towards the Transvaal after 1910 meant that these ideals could not sustain the day-to-day operations of the school. The Cape and its Anglo leadership no longer dominated South African forest policy and education after 1910. When Hutchins left the school, the South African College faculty started to complain about the leadership of the school. The criticism by foresters in the Transvaal and the withholding of students and monies by both the ORC and Natal relegated the school to a slow, steady decline. The creation of a single Forestry Department in Pretoria after 1910 provided the final blow to the Cape Town and Tokai School of Forestry. For the next 20 years, the Forestry Department drew many of its higher officer classes from the former graduates of Tokai, from students who worked their way up the ranks from being managers in the field (after studying at the practical course in Tokai), and from the small group of South Africans who studied abroad.

The closing of the school in 1911 highlighted South Africa’s unique political position as a nascent nation and a colony in the British Empire. Government ministers and leading foresters decided to rely upon a British world network, the Rhodes Scholarship, to educate many of its officer class. The Union-wide forestry department was still largely ‘British’ in the 1910s. But power slowly began to shift to the north. The Afrikaner political elite in the Transvaal had to support any forestry education program that hoped to survive. When a new school of forestry opened in South Africa in 1932 it was under the leadership of E. J. Neethling at a staunchly Afrikaner university, Stellenbosch University, and not at the Anglophone University of Cape Town. With the joining of the Department of Forestry into the joint Department of Agriculture and Forestry in 1934, South African forestry became even more integrated with Afrikaner

105 In 1918 the South African College moved and became the University of Cape Town (UCT). The original campus in Gardens still is a functional part of UCT’s campus.
agricultural politics. The closing of the school in Cape Town and Tokai signalled key shifts in power and geography that characterised the rest of the twentieth century—foresters in the Cape influenced, but did not direct, South Africa’s future forestry policies.

The School for Foresters that found its home in the Tokai facilities from 1911 to 1932, and then transferred to Saasveld (again, after lengthy wrangles among officials about a preferred location), provided the training for the field forest managers—foresters, as opposed to forest officers—who saw to the secure management of each state (or private) forest, i.e. the planning and execution of forest operations, law enforcement, and the management of employee welfare. Without this corps, little of the forest policy for South Africa would have been feasible. With the establishment of the Department of Forestry at the University of Stellenbosch in 1932, a relationship between the two institutions developed that saw many holders of forestry diplomas continue at Stellenbosch, to graduate and postgraduate levels, and assume key roles in South African forestry.

106 It was established, after several hesitant attempts by the university, through the efforts of F. E. Geldenhuys and on the direction of General J. C. Kemp, Minister of Agriculture and Forestry, following the recommendation of a consultative conference of government forest officers in Pretoria in 1931 and much debate in the University Senate: R. C. Bigalke, ‘Fakulteit van Bosbou 50 Jaar Oud’, Forestry News, 1/82 (1982), 1–3; Keet, 159.