The University of Cambridge, academic expertise and the British empire, 1885–1962

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Abstract
This paper examines how imperial travel of British academics shaped the production of knowledge and colonial policy from the 1880s to the 1960s. It employs an innovative, archive-based methodology that examines the changing geographies of all recorded academic travel from the University of Cambridge in conjunction with the extensive overseas journeys of Sir Frank Leonard Engledow, Drapers’ Professor of Agriculture from 1930 to 1957 and a key advisor to the Colonial Office on tropical agriculture. Drawing on recent work in geography and science studies, this study outlines how scientific expertise was increasingly sought by colonial governments at the eve of decolonisation due to a lack of scientific infrastructure and growing social upheavals in the colonies. The analysis discusses related geographical shifts in the engagement of British academics with the colonial world and identifies a profound deepening of the uneven integration of different areas of empire into academic networks after 1945. Based on Engledow’s contribution to the Moyne Commission on the West Indies (1938–1939) and ensuing colonial reform, it is argued that he represented, like many other late colonial British academic experts, a distinctively post-Victorian imperialist, whose strong belief in Christian faith, racial differences, colonial networks, humanitarianism, science and planning created an ambivalent positionality that explains why his expertise both supported and undermined colonial rule.

Keywords
Travel, expertise, geography, universities, British empire

Introduction
When Sir Frank Leonard Engledow (1890–1985), Drapers’ Professor of Agriculture in the University of Cambridge, travelled to Southern Rhodesia and South Africa from 13 May to 17 September 1948 to advise the British colonial government on agricultural development in Southern Rhodesia, he kept one of his neatly organised travel journals. The first pages contained the most recent pictures of his botanist wife Mildred (née Roper, 1896–1956) and their four daughters Margaret (aged 26), Catherine (24), Ruth (20) and Audrey (15). These images were followed by notes on his travel kit, itinerary, personal encounters,
correspondences, expenditures, field observations, to-do-lists and readings. At the end, he had noted a few biblical verses, including ‘Fear God & keep his commandments: for this is the whole duty of man (Eccles. [Chapter] 12. [Verse] 13).’

Engledow was a devoted Christian, who had a profound knowledge of the Bible, attended church regularly and served as a churchwarden (Bell, 1986). From a postcolonial perspective, his Christian beliefs stood in stark contrast to the prevailing racial discourses of scientific development work in the 1940s (Butlin, 2009; Tilley, 2011). At a meeting with Mr KM Goodenough, High Commissioner in the United Kingdom for Southern Rhodesia, at Rhodesia House on 6 November 1947, Engledow was told that the relationship between white settlers and local Africans would be rapidly changing due to ‘(a) Native betterment demanded by S. Rhodesian natives and by world opinion. (b) Ignorant natives useless to industry and may ruin land by erosion, etc. (c) Every member of the country’s small population must produce as much wealth as possible.’

This briefing by Goodenough provides a glimpse of colonial discourses about Africa in the mid-20th century that often still reinforced the stereotyping of an ‘inferior’ indigenous population. Powerfully exposed by Said’s (1978) seminal work Orientalism in 18th- and 19th-century British and French discourses, this process was inextricably linked to a feeling of European superiority and the desire of advancing commerce by ‘civilising’ indigenous peoples, even if the legitimising racist ideologies contradicted Christian principles. At the eve of decolonisation, this situation and growing economic challenges led to increasing competition and clashes between European settlers and indigenous populations over land, labour resources and cash crop market shares, which created a large demand for scientific expertise (e.g. Engledow, 1949, 1950) and eventually resulted in the replacement of colonial reform by a policy of decolonisation (Flint, 1983).

This essay aims to examine the complex role that university science and scholarship played for interactions between Britain and its colonies. The inquiry is guided by three research questions: To what extent and why did British university scientists and scholars travel to destinations within the British empire? How did the nature and geographies of imperial travel by British academics change over time? And in which ways did their expertise contribute to academic knowledge production and imperial interests? To answer these questions, this study situates travels of individual Cambridge academics within all documented imperial and international travel in the University of Cambridge from 1885–1886, the academic year in which leave of absence was first recorded, to 1954–1955, when looming decolonisation and new forms of travel, specifically by air, began to alter the nature of academic mobility.

The present paper builds on previous research that has used the unique longitudinal data set on leave of absence from the University of Cambridge to analyse the geographies of academic knowledge production by type of academic work (Jöns, 2008) and disciplinary identities (Heffernan and Jöns, 2013). The following analysis contributes a highly original perspective to this progressive research agenda by responding to four research desiderata in wider geographical and interdisciplinary debates about knowledge production, travel and imperialism, thereby providing a pioneering academic study of the extent to which British academics working across the sciences and the humanities contributed to British imperial governance.

Firstly, this research adds the dimension of empire to an emerging body of work that studies transnational linkages, circulations and networks of universities at the level of institutions rather than nation states (e.g. Charle, 2004; Heffernan and Jöns, 2007, 2013; Meusburger and Schuch, 2012; Pietsch, 2013; Taylor et al., 2008). Secondly, this paper aims to complement prevailing biographical studies of imperial scientific travellers (e.g. Driver,
2001; McEwan, 2000) by situating individual practices within collective academic travels and analysing how the former reproduced and changed patterns of academic engagement with different parts of the colonial world over seven decades.

Thirdly, this study speaks to a growing body of work on the contribution of academic expertise to colonial and postcolonial networks (e.g. Hodge, 2007; Stuchtey, 2005; Tilley, 2011) by comparing the origins, natures and geographies of personal and institutional, academic and governmental imperial knowledge networks. Fourthly, this essay charts novel territory by examining the involvement of Cambridge academics in imperial agendas because previous research has characterised the University of Oxford as an important arena within which British imperial ideology was formulated, whereas Cambridge has mostly been regarded as preoccupied with education and learning rather than theology and politics (Symonds, 1992). Overall, this paper argues that a profound understanding of the interplay between academic expertise and imperial governance requires an integrated analysis of macro-patterns and micro-perspectives.

**Knowing the empire**

This study is situated at the intersection of geographers’ engagement with the development, nature and critique of British imperialism (e.g. Bell et al., 1995; Butlin, 2009; Godlewska and Smith, 1994) and studies of exploration and travel for the production and circulation of scientific knowledge in imperial and international contexts (e.g. Driver, 2001; Heffernan, 1994; Jöns, 2008; Livingstone, 2003; McEwan, 2000). Both lines of inquiry are evoked in Said’s (1978) compelling argument that science, scholarship and empire have been mutually constituted projects since the 18th century. They have become popular international and interdisciplinary endeavours with converging interests in the spatiality of knowledge production and the conceptualisation of empire and science as networks linked by various circulations (e.g. Hodge, 2011; Lambert and Lester, 2006; Ogborn, 2000).

This paper’s first original approach to imperial travels of scientists and scholars relates to its *comparative disciplinary research perspective* that studies academics working across all disciplines. Venturing beyond the own disciplinary tradition of geography situates this paper within studies on the geographies of scientific knowledge that have examined the difference location has made for the supposedly universalist claims advanced in other disciplines (e.g. Livingstone and Withers, 2011; Meusburger et al., 2010). Drawing on Livingstone’s (2003) argument that the locations where scientific knowledge was generated, communicated and displayed profoundly shaped the development of science, this work has emphasised how European colonial empires were constituted by the circulation not only of traded commodities but also of ideas, theories, practices, objects and people; by acts of translation between different languages and cultures; and by a complex, scalar politics of exchange and authority (e.g. Ogborn, 2008; Raj, 2010).

Recent geographical studies of empire have also developed highly differentiated perspectives of a networked empire by emphasising multiple experiences in different national and imperial contexts (e.g. Lambert and Lester, 2006). This includes examinations of the role of previously underplayed factors such as race, class and gender for the creation, articulation and circulation of geographical knowledge (e.g. McEwan and Blunt, 2002) as well as circulations between imperial and colonial nodes with central and peripheral standing and the complex interactions of European and non-European knowledge producing practices within the colonial ‘periphery’ (e.g. Bravo, 1999; Driver, 2001; Ogborn, 2000; Raj, 2010).
This paper’s *comparative geographical research perspective* thus constitutes a second original approach to imperial academic travel because it accesses those multidimensional circulations by exploring how Cambridge academics contributed to the spaces of British imperial regulation, authority and control in *different parts* of the empire. By focusing on knowledge production through circular academic travel, this study complements Pietsch’s (2010) work on appointment practices of universities in different regions of Britain’s settler empire that has stressed the great extent to which academic careers focussed on imperial networks in the early 20th century. The question how the frequency, nature and geographies of imperial travel from the University of Cambridge changed in the context of early decolonisation also adds to a growing body of research about the wider impact of decolonisation on postcolonial relationships (e.g. Craggs, 2011; McEwan and Blunt, 2002).

Conceptually, the present study frames circular academic travel from the University of Cambridge as an integral part of systematic mobilisation processes in a scientific *‘centre of calculation’* (Latour, 1987). Such mobilisation processes have facilitated knowledge production at the home base through the accumulation and subsequent transformation of heterogeneous resources into new scientific and scholarly arguments (De Certeau, 1986). The notion *‘centre of calculation’* has been especially useful for geographical studies of knowledge production in modern institutions, such as the University of Cambridge, where circular academic travel generated important cumulative effects for the emergence of a modern research university and an Anglo-American academic hegemony (Jöns, 2008; for a government institution, see Barnes, 2006). The concept has also been of great value in different imperial contexts as mobilisation processes in centres of calculation have become inextricably linked to the global spread of European science, capitalism and imperialism (Jöns, 2011).

Based on this conceptualisation, this paper links individual and collective travel behaviour in the university by situating the *‘geographical biography’* (Livingstone, 2003: 182) of the plant scientist and agriculturalist Sir Frank Engledow within the changing nature and geographies of all recorded imperial and international travel by Cambridge academics in order to trace some of the origins, dynamics, diversities and impacts of related knowledge networks. This integrated comparative approach of macro- and micro-perspectives seeks to contribute new insights about the historical geographies of knowledge production to an emerging global history of science and scholarship that has hitherto prioritised biographical over structural accounts and rarely attempted a combination of both (for related debates, see Ogborn, 2000, 2008; Heffernan and Jöns, 2013; Taylor et al., 2008).

An integrated analysis of individual and collective academic travel also helps to assess the value of the archival data on all applications for leave of absence by Cambridge University Teaching Officers as they are recorded in the minute books of the university’s General Board from 1885–1886 to 1954–1955. These minutes contain information on each applicant and in most cases also on the reason, length and destination of the planned leave of absence. As Cambridge academics were free to travel during vacations, the data captures not all travels from Cambridge but those during full term time, research leaves of one to three terms and all travels of more than 3 months because this was the length of the longest vacation during the summer.

The plant scientist and agriculturalist Sir Frank Engledow was chosen as a biographical case study because his career in Cambridge was more than anyone else’s characterised by a close relationship between scientific research, imperial policy making and colonial development. Engledow’s academic career spanned more than seven decades, from his first enrolment at St. John’s College in 1910 until his death in 1985, and resulted in most granted leaves of absence of over 1 month from 1885–1886 to 1954–1955. He mainly used
these for inquiries on agriculture in the tropical empire, which included reporting to more than a dozen royal commissions (Bell, 1986). While his vital role for the renaissance of British agriculture has been discussed (Perkins, 1997), this study argues that Engledow is also an important but understudied figure in the British empire of knowledge production (Hodge, 2007).

Comparing the records on Sir Frank Engledow’s leaves of absence with all of his academic journeys documented in St. John’s College Library shows that 10 out of 11 overseas journeys during his employment at the university up until 1955, the end of data recording for this study, are listed in the minute books (plus two planned journeys – one was not approved, the other did not take place). The additional journey was a trip to Assam in the Christmas vacation 1953–1954, which lasted 1 month and was thus shorter than the other journeys of 1.5 to 4.5 months. The leave of absence data is thus reliable in regard to journeys of over 1 month, while shorter trips, especially to closer overseas destinations, of which Engledow did not undertake any due to his focus on the tropics, have most likely not been captured adequately. The historical geographies of academic travel discussed in this paper therefore focus on research leaves and overseas journeys of several months.

**Capitalising on the empire**

In the late 19th and early 20th centuries, the University of Cambridge underwent substantial changes through growing numbers of students and university academics, new scientific laboratories and research institutes, and the introduction of research-based PhD degrees (1920). These innovations were accompanied by three university reforms, launched by the Royal Commissions of 1852, 1874 and 1922, which gradually professionalised research, teaching and academic service and thus transformed the ancient centre of learning into a modern research university (Brooke, 1993).

From 1885 onwards, professors and readers were required to apply for leave of absence from the university during those periods that exceeded the strictly defined rules of residence throughout full term time. The resulting records show that the volume of academic travel from Cambridge remained relatively low until the periodic research leave, or sabbatical, was introduced in 1926, which raised the annual number of applications for leave of absence from consistently less than 10 to 31 in 1927–1928 (Jöns, 2008: 346). A similar reform had been pioneered by some American universities, where regular sabbatical leave had first been introduced at Harvard in 1880 (Eells, 1962). Almost 50 years later, Cambridge academics were now also entitled to devote one term for every six of normal service to their research, which encouraged university academics across all disciplines to travel for their research and thus elevated travel to the key research technique (Heffernan and Jöns, 2013).

The considerable increase in academic travel from Cambridge after 1926 ended abruptly with the outbreak of WWII, when many academics enrolled in war service, but after 1945, the rapidly expanding community of Cambridge academics became markedly more mobile as a consequence of commercial air travel and the growing significance of overseas travel in the research process. Within 10 years, the number of annual applications for academic leave rose steadily from 30 (1945–1946) to 96 (1954–1955) and thus at a faster rate than the number of university academics (Jöns, 2008). Three-fourths of those awarded academic leave from 1885–1886 to 1954–1955 travelled overseas and thus globalised academic knowledge production in Cambridge.

About one fifth of all recorded overseas travels by Cambridge academics in the period 1885–1886 to 1954–1955 involved destinations in the British empire (22%, or 167 out of 751 journeys), defined here as British dominions, colonies and other possessions at the height of
colonial expansion in 1914. Since most of these territories remained part of the Commonwealth of Nations after gaining independence, the following analysis sheds light on the changing meaning of the British overseas empire for academic travel in the early stages of decolonisation. 4

**Imperial travels until 1945**

Up until 1945, imperial travel followed the overall pattern of academically motivated overseas journeys from Cambridge. A slow but gradual increase of travels was followed by a steep rise after the introduction of the research leave scheme in 1926 and a slight reduction in the decade dominated by WWII. From 1906–1915 to 1936–1945 the British empire received fairly equal shares of 27% to 29%, which reveals a steady commitment to the imperial project. By that time, however, most academic travel from Cambridge was already directed to the United States, where emerging research universities had fostered transatlantic exchange through invited lectures since the turn of the century and through visiting appointments since the late 1920s, when regular research leaves allowed more Cambridge academics to accept these lucrative posts (Table 1). Mainland Europe received a similar proportion of academic travellers as the British empire, even if this varied considerably between the decade affected by WWI (1916–1925: 11% versus 29%) and the subsequent one, in which European interactions reached its peak due to a growing attractiveness of short-distance travel for conferences and lectures (1926–1935: 34% versus 27%).

Different parts of the empire played very different roles in academic travel from Cambridge as these were visited to a different extent and for very different reasons, both of which changed over time. In the two decades before the end of WWII, the relatively affluent Dominions and British India attracted not only most but also equal and growing shares of imperial travellers from Cambridge. Visits to British colonies in Africa, the West Indies and Southeast Asia were rare and mainly focussed on the decade 1926–1935 (Table 1). Imperial destinations were most often visited for research in the applied natural and technical sciences, for visiting posts and conferences and for the provision of scientific expertise to imperial organisations, but the integration of different parts of the empire into academic circles differed in similar ways as their role in imperial trade networks (Pietsch, 2010).

Research travellers mostly visited imperial destinations for scientific fieldwork, often in connection with larger expeditions. For example, James Alfred Steers, Lecturer in Geography, joined an expedition of the Royal Geographical Society to the Australian Great Barrier Reef in 1928, whereas Edward Nevill Willmer, Lecturer in Physiology, took part in the Cambridge expedition to British Guiana in 1933 to investigate the fauna of local rivers and swamps. 5 In contrast to these dispersed fieldwork destinations, the few laboratory and theoretical scientists, who visited research institutions in the empire during the 1930s and 1940s, mainly went to established centres in Canada, Australia and New Zealand that were able to afford the immense input of money, training, and machines required for highly specialised laboratory equipment and expertise.

Many fieldwork locations in the empire were easily accessible because of existing infrastructure or were required due to the thematic focus. Research travel thus rarely served specific imperial interests, an exception being the educational journey of Edward Granville Browne, the newly elected Sir Thomas Adams Professor of Arabic (1902), who went to Cairo in the Lent Term of 1903. Browne was keen to improve his Arabic language skills and ‘to obtain openings for some of our students who may be able to acquire a competent knowledge of Arabic’ because this would be taken into account in the
Table 1. Destinations of overseas academic leaves in the University of Cambridge (in per cent of overseas academic leaves with one or more destinations).

| Decade         | 1886–1895 | 1896–1905 | 1906–1915 | 1916–1925 | 1926–1935 | 1936–1945 | 1946–1955 | 1886–1955 N |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| (1) United States of America | 40 | 58 | 41 | 50 | 29 | 36 | 40 | 38 | 289 |
| (2) Continental Europe | 20 | 25 | 27 | 11 | 34 | 28 | 34 | 32 | 240 |
| (3) British Empire overseas (as of 1914) | 40 | 25 | 27 | 29 | 27 | 28 | 19 | 22 | 167 |
| (a) Dominions | 0 | 67 | 67 | 75 | 26 | 37 | 40 | 39 | 65 |
| (b) British India | 100 | 0 | 17 | 25 | 26 | 37 | 40 | 26 | 44 |
| (c) British Africa | 0 | 33 | 17 | 0 | 20 | 7 | 31 | 23 | 38 |
| (d) British West Indies | 0 | 0 | 0 | 0 | 20 | 19 | 5 | 10 | 16 |
| (e) British Southeast Asia | 0 | 0 | 0 | 0 | 14 | 4 | 2 | 5 | 8 |
| (4) Other places | 20 | 0 | 5 | 14 | 15 | 10 | 11 | 11 | 85 |
| Number of overseas academic leaves | 5 | 12 | 22 | 28 | 129 | 98 | 457 | 751 | 751 |

Sources: CUA, GB, Min III.1 to Min III.7 and GB, Box 301 to 308.
appointment to the London Civil Service. Imperial structures and networks were thus used for research travel if relevant to the research agenda in a particular field but rather than being determined by imperial ties and interests, research travel from Cambridge not only reached out beyond the confines of empire but also shifted its geographical focus from imperial destinations in the decade 1926–1935 (36%) to the United States in the decade 1936–1945 (57%).

Conference travel from Cambridge mainly focused on existing European centres of knowledge production that provided the infrastructure, funds and like-minded colleagues required for organising such socially and academically important gatherings, but it also targeted some of the more affluent regions of empire such as India, Australia and Canada, where large international conventions were either held by the British Association for the Advancement of Science or modelled after these meetings (Withers, 2010). Likewise, invited lectures by Cambridge academics concentrated on the Dominions and British India, while visiting posts were held at established institutions in different parts of the empire (e.g. Gleb Anrep, Cairo University, 1930; Max Born, Indian Institute of Science, Bangalore, 1935; W.A. Fell, Singapore Medical College, 1935).

In contrast to Symonds’ (1992) assumption about a prevailing disengagement with British politics, several Cambridge academics contributed to British imperial governance and economic revenue by providing their expertise in the context of mostly externally funded in situ inquiries that required academic travel. This analysis shows that from the 1920s onwards, Cambridge expertise was sought by colonial organisations to support the creation and maintenance of a network of imperial institutions and to advice on government and corporate policies. Almost three-fourth of all overseas advisory work by Cambridge academics from 1886 to 1945 was located in the British empire (Table 2). Largest demand was for academics working in agriculture and forestry and thus in disciplines that had been employed systematically for exploiting the resources of the colonies since the 18th century (Vessuri, 1994 cited in Butlin, 2009).

The 1930s did not only bring the Great Depression along but also strikes and riots throughout the empire and significant reforms of British colonial policy that Flint (1983: 394) regards as ‘the origins of decolonization.’ From this perspective, three events were directly responsible for the colonial reform movement that created a consensus for ‘state-managed colonial development’ (Hodge, 2007: 18) and thus increased the need for scientific expertise in the 1940s and 1950s. The first event was marked by widespread riots in the West Indies since the mid-1930s because these ‘destroyed the long held axiom that colonial territories must live off their own resources on laissez faire principles’ (Flint, 1983: 394). The second was the publication of Lord Hailey’s African Survey in 1938, which suggested that supporting the emergence of an English-speaking literate professional class of Africans through education would create a legitimate comprador strata that could eventually ‘inherit colonial sovereignty’ (Flint, 1983: 400). The third was the appointment of Malcolm Macdonald as Secretary of State for the Colonies from 1938 to 1940, who was determined to replace indirect rule with a consistent British colonial policy and to promote, for the first time, self-government as its central long-term goal:

Even amongst the most backward races of Africa our main effort is to teach those peoples to stand always a little more securely on their own feet... the trend is towards the ultimate establishment of the various colonial communities as self-supporting and self-reliant members of a great commonwealth of free peoples and nations. (Malcolm Macdonald addressing the summer school on colonial administration at Oxford University on 27th June 1938, cited in Flint, 1983: 398).
Table 2. Destinations of overseas academic leaves in the University of Cambridge by type of academic work (in per cent of overseas academic leaves with one or more destinations).

| Type of work | Research 1886–1945 | Research 1946–1955 | Visiting posts 1886–1945 | Visiting posts 1946–1955 | Lecturing 1886–1945 | Lecturing 1946–1955 | Conferences 1886–1945 | Conferences 1946–1955 | Advisory work 1886–1945 | Advisory work 1946–1955 | Total 1886–1945 | Total 1946–1955 |
|--------------|---------------------|---------------------|--------------------------|--------------------------|---------------------|---------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| (1) United States of America | 30 | 46 | 50 | 83 | 68 | 24 | 11 | 29 | 12 | 16 | 35 | 40 |
| (2) Continental Europe | 22 | 26 | 13 | 1 | 17 | 59 | 58 | 52 | 12 | 30 | 29 | 34 |
| (3) British Empire overseas (as of 1914) | 29 | 22 | 28 | 16 | 13 | 12 | 25 | 9 | 73 | 44 | 28 | 19 |
| (a) Dominions | 39 | 53 | 22 | 55 | 70 | 50 | 45 | 44 | 21 | 5 | 38 | 40 |
| (b) British India | 26 | 15 | 22 | 36 | 30 | 30 | 40 | 56 | 26 | 14 | 30 | 23 |
| (c) British Africa | 17 | 35 | 22 | 9 | 0 | 20 | 10 | 0 | 21 | 55 | 14 | 31 |
| (d) British West Indies | 17 | 0 | 22 | 0 | 0 | 0 | 10 | 0 | 21 | 18 | 15 | 5 |
| (e) British Southeast Asia | 9 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 16 | 9 | 7 | 2 |
| (4) Other places | 27 | 15 | 9 | 3 | 4 | 8 | 7 | 11 | 7 | 14 | 12 | 11 |
| Number of overseas academic leaves | 79 | 156 | 32 | 69 | 76 | 85 | 81 | 97 | 26 | 50 | 294 | 457 |

Sources: CUA, GB, Min III.1 to Min III.7 and GB, Box 301 to 308.
**Imperial travels after 1945**

The British colonial reform movement that flourished after the end of WWII exemplifies how scientific expertise was increasingly used at the eve of decolonisation to reform colonial policies in times of crises (Secretary of State for the Colonies, 1945). Accordingly, the first of three main trends in academic travel from Cambridge during the post-1945 decade was a geographical shift of imperial travels from British India to British Africa (Table 1). Supporting Tilley’s (2011: 5) observation that ‘the African Survey played a decisive role in shaping research priorities in both Britain and colonial Africa,’ this post-war shift affected advisory work and research inquiries, the latter mainly aiming to study ‘exotic’ flora and fauna in the African rain forest (Table 2).

Reflecting the new emphasis on African empowerment through education, scientific experts from Cambridge supported the founding of new institutions for research and higher education, served as trustees, chairmen and board members of existing institutions, gave invited lectures and acted as external examiners for London degrees. The contribution of Frank G Young, Sir William Dunn Professor of Biochemistry, to the commission on a higher college for Africans in the British Central African Territories in 1952, which subsequently became the University College of Rhodesia and Nyasaland, illustrates how Cambridge academics contributed to the new imperial agenda of local empowerment through the provision of tertiary education, even if this process, as Flint (1983: 403) pointed out, paradoxically provided the University of London with ‘an educational colonial empire as part of the road to decolonization.’

In the context of colonial reform planning, Cambridge expertise was employed for managing increasing conflicts and tensions in the African dependencies. This included Engledow’s official inquiry into the agricultural development of Southern Rhodesia in 1948, which was discussed at the beginning of this essay, and a range of other crisis interventions that Cambridge academics undertook for the Colonial Office. For example, Frank Debenham, Professor of Geography, reported on the water resources of Northern Rhodesia and Nyasaland in 1946, whereas Mr CW Guillebaud, Lecturer in Economics and Politics, served as an arbitrator in a dispute between the Copper Mining Companies of Northern Rhodesia and the Union of African Mine Workers in 1953.

All these imperial interventions after 1945 were an integral part of the ‘bi-partisan policy of colonial planning and reform [that] had emerged, and would remain in effect until it foundered in Central African problems in the 1950s’ (Flint, 1983: 409). According to Flint (1983), colonial reform eventually failed and had to be replaced by a policy of political decolonisation for four main reasons. First, the notion of planning was itself fundamentally imperialistic; second, the colonial service showed strong resistance towards the Africanisation of administration, which the government in London had not foreseen; third, related racism compromised any sensible cooperation with the educated elite; and fourth, post-war Britain lacked the financial resources that would have been necessary for implementing colonial empowerment in orderly evolutionary stages.

The second trend in the development of imperial travels from Cambridge in the post-1945 decade was a profound deepening of the uneven integration of different areas of empire into British academic networks. This resulted in a growing divide between the relatively affluent and well-connected Dominions and the resource-intensive but academically fairly disconnected colonies in Southeast Asia and the Caribbean (Table 2). After 1945, the Dominions attracted about half of the imperial travels from Cambridge for research, visiting posts and invited lectures respectively. This was encouraged by new research facilities and the availability of Commonwealth schemes and institutions that funded visiting academics from metropolitan centres of knowledge production in these prospering sites of empire.
Some of those Cambridge scientists, who were invited to Australia, New Zealand and Canada, conveniently visited family and friends along their routes, thus reflecting longstanding networks in the ‘British academic world’ (Pietsch, 2013), but more and more academic visitors in Canada combined their stays with touring attractive research facilities in the United States to keep up-to-date with latest developments in their fields. In sharp contrast to this, the new focus on Africa led to a very different kind of ‘empowerment’ in British Southeast Asia and the West Indies because these became, apart from only six inquiries for advisory purposes over 10 years, entirely disconnected from Cambridge academics’ post-war interactions (Table 2). Academic research and advisory work also shifted away from postcolonial British India, but the Indian subcontinent remained a preferred destination for conference travel, visiting posts and invited lectures because of its well established universities that ‘had existed for 90 years before Independence’ (Symonds, 1992: 292).

The third trend saw an overall decline in the significance of imperial destinations for academic travel from Cambridge after WWII because of two developments. The first was a growing Americanisation of research and visiting posts spearheaded by the expensive laboratory sciences that increasingly channelled academic flows towards powerful US research universities and national research laboratories. From 1946 to 1955, 40% of all overseas academic travel from Cambridge was directed to the United States. The second development was an Europeanisation of advisory work and invited lectures as a result of the high demand for expertise created by the reconstruction of a shattered post-war Europe. This new phase of European co-operation reduced the focus of advisory work on the British empire from 73% in the pre-1945 period to 44% in the post-1945 decade (Table 2).

Within the same time frame, the United States and mainland Europe raised their shares of Cambridge academic travellers from 35% to 40% and from 29% to 34% respectively, while the share of the British empire dropped from 28% to 19%. Visits to decolonised destinations differed from travels to colonised destinations through much less advisory work and visits by professors; fewer visits in the applied sciences with a complete retreat of the agricultural sciences; and slightly more visits for conferences, lecturing and visiting posts, thus indicating a transition from the use of Cambridge expertise for the support of imperial structures to the fostering of transnational academic exchange, as especially evident in the Dominions and British India. Despite the wider trend of withdrawal, most of the Dominions and those states that were independent by 1955 continued to mobilise expertise from Cambridge, but to a lesser extent.

Empowering the empire

The nature of imperial advisory work and the underlying personal connections and networking practices can be exemplified by the extensive overseas travels of the agriculturalist Sir Frank Engledow, whose academic career in Cambridge peaked during the very period in which overseas travels proliferated. Between the start of his lectureship in 1926 and his retirement in 1957, Engledow made 13 applications for academic leave of absence to the General Board, 12 of which were approved. He took thus more academic leaves of over 1 month and travelled more frequently to imperial destinations than any of his Cambridge peers. The following biographical analysis situates Engledow’s 19 overseas journeys from 1914 to 1962, each of which involved parts of the British empire, within the previously outlined collective travel patterns from the University of Cambridge to examine how he reinforced and changed these wider trends and contributed to imperial knowledge production.
Sir Frank Engledow was born on 20 August 1890 in Deptford, Kent, as the youngest of five children. Unlike most of his professorial colleagues at Cambridge, who were able to draw on private wealth, he came from a modest middle-class background. His father was a police sergeant, who had grown up in Norfolk, and his mother, who came from a farm in Essex, was in service before raising their five children (Bell, 1986). Engledow had attended Upland Council School, Bexleyheath, and Dartford School before his parents, who provided their children with educational opportunities they had lacked, supported his enrolment at University College London (UCL) in 1909 (Bell, 1986), when only 1.3% of an age cohort went to university (Jarausch, 1983).

After obtaining a BSc in mathematics with physics at UCL in 1910, Engledow entered St John’s College, Cambridge, where he received a BA in the natural sciences (1913) and subsequently started working at the Plant Breeding Institute (PBI) in the School of Agriculture with Professor Rowland Harry Biffen, Cambridge’s first Professor of Agricultural Botany (1908–1936) and the PBI’s founding director (1912–1936), who created a significant centre for plant genetics and agricultural research in Cambridge (Bell, 1986; Hodge, 2007). Engledow’s postgraduate studies led to three journal articles in 1914, one of which was co-authored by the British statistician Udny Yule, an important mentor and long-term friend, but this trajectory was interrupted by a 4.5-year-long overseas career in the military during WWI that subsequently shaped his academic career in profound ways.

Engledow sailed to India with The Queen’s Own 5th Royal West Kent Regiment (5th RWK) in October 1914. He spent the subsequent 3 years in the north of British India, where he suffered from Typhoid (1915) and Malaria (1917) but also began to document inquiries about agricultural production at the site of the British military headquarters in Rawalpindi (1916), especially in regard to wheat, sheep, dairy farms and daily rations of Indian troops. The 5th RKW Battalion sailed for Mesopotamia in December 1917, where Engledow became assistant director of agriculture to the Mesopotamian Expeditionary Force under the directorship of Geoffrey Evans (1918–1919). Geoffrey Evans’ post-war career included positions in the Empire Cotton Growing Corporation and the Imperial College of Tropical Agriculture in Trinidad (ICTA), both of which sought Engledow’s expertise in the subsequent decade.

In May 1919, Engledow returned to Cambridge, where he completed his MA in the natural sciences and became a Fellow of St John’s (1919–1985). On the invitation of Biffen, he returned to the PBI for research in crop breeding that sought to improve varieties of wheat and barley (Bell, 1986). Soon afterwards he met Mildred Roper, a postgraduate student in botany from South Africa, who had arrived at Newnham College in 1919 and ended her academic pursuits in Cambridge’s Botany School when marrying Engledow in March 1921 (Bell, 1986). Engledow’s university lectureship in 1926 was granted to him after a series of important publications and a formative journey through the United States and Canada. This journey for ‘the stimulus and education of foreign travel’ (Engledow, 1925: 1) was funded by a ‘Travelling Research Fellowship in Plant Genetics’ and resulted in a highly acclaimed report on North American agriculture for the British Ministry of Agriculture and Fisheries (Engledow, 1925).

Seven weeks of railway travel in the summer of 1924, leading from New York via Washington DC – Chicago IL – Minneapolis/St. Paul MN – Toronto – Guelph – Ithaca NY – Raleigh NC – Upper Wilmington MD and Washington DC back to New York, acquainted Engledow with the latest agricultural practices and technological developments in the world’s rising hegemonic power. He became conscious of ‘that close relation of American agricultural science to business which was everywhere noticeable’ (Engledow, 1925: 5) and attended the fortnight of meetings and excursions of the British Association
for the Advancement of Science in Toronto, appreciating that many ‘Dominion and American agriculturalists were present’ (Engledow, 1925: 8). Touring North America provided Engledow, as several other aspiring researchers from European universities in the 20th century, with the necessary expert knowledge, personal networks and intellectual credentials for a distinguished academic career.

After Engledow had been appointed University Lecturer in Agriculture in 1926, he gradually turned into a scientific advisor on agricultural policies in the tropical empire, where he aimed to implement economically viable and sustainable agricultural practices in regard to the three main cash export crops cotton, rubber and tea (Figure 1). This career change was most likely encouraged by his war-time companion Geoffrey Evans at a time when the Colonial Office, as Hodge (2007) discusses, built up a network of advisors, standing committees, central research stations and postgraduate training facilities. Engledow first travelled to Nigeria and Ghana for 2 months in 1927–1928 because he had been asked ‘to make proposals for the Empire Cotton Growing Corporation on cotton breeding and seeds supply for Nigeria’ (Bell, 1986: 215), which coincided with Geoffrey Evans’ employment at the Empire Cotton Growing Corporation. In 1929, he inspected the Cotton Research Institute and the ICTA in Trinidad for the Empire Marketing Board, when Geoffrey Evans served as the ICTA’s principal (1927–1938), which underlines the existence of closely knit, intersectoral imperial networks that in Engledow’s case can be traced back to his overseas military service in WWI.

Appointed Drapers’ Professor of Agriculture in 1930, Engledow undertook three important overseas journeys in the 1930s that cemented his role as one of the Colonial Office’s key advisors on tropical agriculture. He presided over two commissions of inquiry, one on the affairs of the Rubber Research Institute in Malaya (1933) and the other on the scientific development of the Indian Tea Association (1935–1936), and he was also a member of the Royal Commission on the West Indies (1938–1939). Engledow’s work for the Indian Tea Association entailed an extended tour of tea-growing areas in

Figure 1. Overseas journeys of Professor Sir Frank Leonard Engledow (1890–1985).
Source: Bell, 1986; CUA, GB, Min III.1 to Min III.7 and GB, Boxes 301 to 308; SJCL, Engledow papers (uncat.), blue diary.
Assam, Ceylon, Sumatra and Java that was marked by two innovations. The first was a visit to Batavia, a knowledge hub in Dutch-ruled Sumatra, which was most likely encouraged by his Dutch host, Professor J Boerema, and represented the only overseas location Engledow visited outside of British imperial territories after 1926 (Figure 1). The second innovation was Engledow’s first flight on 1 January 1936 that took him from Batavia to Palembang as part of a 3-day journey to Calcutta with multiple stops. Whilst in the air, he scribbled notes on the colourful KLM Royal Dutch Air Lines Routemap, commenting about the changing landscape and the pilot’s generous extra circles, one on starting in Medan ‘in honour of a former lady passenger who had turned up to see the plane’ and the other for an unsuccessful ‘elephant hunt.’

Two years after Engledow experienced these revolutionary changes in long-distance travel, he directly contributed to the imminent landmark shift in British colonial policy as a member of the Royal Commission on the West Indies chaired by Lord Moyne. The Moyne Commission was appointed on 5 August 1938 as the British government’s response to severe labour unrests and bloody disputes between workers and colonial forces in the West Indies (Witham, 2002). Consisting of ten expert members, seven men and three women, and two male secretaries, the commission toured the British West Indies with the twofold aim of reporting on the colonies’ economic and social conditions and formulating policy recommendations. Living and travelling between the islands on Lord Moyne’s motor yacht Rosaura for 5 months, the royal commissioners became a public sensation and were frequently greeted by large crowds (Figure 2). They heard formal evidence ‘in 26 centres from 370 witnesses or groups of witnesses,’ including sugar workers, trade unionists and representatives of various associations, and received 789 additional memoranda for consideration (Secretary of State for the Colonies, 1940: 8).

In their report, the commissioners revealed extremely poor living conditions for most Caribbeans that contrasted with the high living standards of European colonials (Figure 3). They exposed striking deficiencies in regard to voting rights, social services, private and public sector economies and criticised British colonial policy in the strongest terms (Lord Moyne, 1945). As an immediate response to this colonial critique, the British government increased the funds available for colonial development and launched the Colonial Development and Welfare Act of 1940, but the commissioners’ report of
December 1939 was not released to the public until after the end of WWII, in July 1945, because the British government feared that the Axis powers would use it for anti-British propaganda (Lapping, 1985). The publication of the Moyne Commission’s full report thus belatedly introduced a major change in British colonial expertise to other experts, policy makers and the wider public, which might explain why the impact of Lord Hailey’s *African Survey* on British colonial reform has hitherto received more scholarly attention.

The Moyne Commission’s work also confirms Tilley’s (2011: 25) argument that late colonial scientific advisors both undermined and supported the cause of empire ‘by introducing new concepts, new ways of knowing, and new methods of understanding’ because the royal commissioners strongly criticised the lack of public provision across all sectors of society in the West Indies, while at the same time supporting imperial rule and planning through efficiency-driven policy recommendations. Engledow’s expertise, for example, reoriented the emphasis of colonial agricultural policy from export-oriented production towards more diverse and self-sufficient local food supply, but it still encouraged increased productivity and thus demanded the replacement of indigenous shifting cultivation by more intensive mixed rotational farming practices, which often turned out to be impractical because of the only gradually recognised, rapidly declining soil fertility in the tropics (Hodge, 2007).

This paper therefore suggests that late colonial advisors such as Engledow represented a new generation of professional academic experts, who operated within the imperial agenda but were distinctively ‘post-Victorian imperialists’ because they were caught up in striking ambivalences. Engledow’s advisory work in the tropical empire, for example, was simultaneously based on a deep faith in a Christian God and a strong belief in the superiority of the Anglo-Saxon race; on humanitarian ethics that cared for ‘the peasant farmer living at subsistence level’ (Bell, 1986: 205–206) and scientific planning that sought to increase the economic revenue of plantation-owning white settlers; on closely knit interpersonal networks and a genuine desire to improve agricultural production throughout the empire by means of organisation, research, education and training.

During WWII, Sir Frank Engledow’s academic reputation continued to grow in Britain, where he took on a series of responsibilities in regard to domestic agricultural policy and strategy, such as the role of Ministry Liaison Officer of the War Agricultural Committee for the Midland counties in June 1940, the first time he advised on domestic agricultural

![Figure 3](image-url). Fieldwork of the Moyne Commission, 1938–1939. (a) Hut with family that answered Engledow’s food questions in Tortola. (b) The British overseer’s quarters at Blairmont Sugar Estate, British Guiana.

Source: SJCL, Engledow papers (uncat.), photo album on the West Indies, 1938–1939.
In 1943, he attended the United Nations Conference on Food and Agriculture in Hot Spring, VA, USA, as a UK delegate and became a Founder Trustee of the Nuffield Foundation. In return for his distinguished services, Engledow was knighted in 1944 and elected a Fellow of the Royal Society in 1946 (Bell, 1986).

Immediately after WWII, Engledow returned overseas and contributed, like other Cambridge academics, to African empowerment through both education and colonial reform. In 1946, he was involved in selecting the site for the new East African Agricultural and Forestry Research Organisation at Muguga near Nairobi during the delegation’s 2-month journey through Kenya, Uganda, Tanganyika and Zanzibar (Hodge, 2007). Almost a decade after his commissioned evaluation of Southern Rhodesian agriculture (Engledow, 1949, 1950), Engledow attended the 7th degree day of Gwebi College of Agriculture in Rhodesia on 17 October 1957, where he was honoured for his contribution to the institution’s foundation in 1950.

Engledow’s overseas journeys after 1945 mainly reinforced the wider geographical shift of academic expertise to Africa. At these advanced stages of his professorial career, he did not participate in the trend of increasing academic travels to the United States and continental Europe but kept moving within the highly selective and exclusionary imperial networks that linked the British worlds of governance and academia (Hodge, 2007; Pietsch, 2013). These post-war journeys contributed in some ways to the growing disparities between different parts of empire because Engledow returned seven times to Africa, three times to Malaya, twice to India and only once to the British West Indies. Following a recommendation of the Moyne Commission, Frank Stockdale had been appointed ‘first comptroller for the development and welfare in the West Indies’ in 1940 (Hodge, 2007: 193), which had reduced the need for British academic expertise. When travelling to the West Indies in 1954–1955, Engledow thus mainly visited the ICTA in Trinidad that he had first inspected in 1929, under the directorship of his war-time companion Geoffrey Evans, and on whose governing bodies he had served in London for many years (Bell, 1986).

Engledow’s post-war journeys also show that certain British colonial networks outlasted decolonisation at least for some time because he travelled to India, Ghana and Malaya after independence (Figure 1). In 1953–1954, he chaired a commission of the India Tea Association to re-do a small-scale version of the inquiry on the challenges of tea growing that he had undertaken under the auspices of the Colonial Office in 1935–1936 (Bell, 1986: 216). The important role of India’s long established institutions of higher education and research for the formation of lasting postcolonial academic networks can also be exemplified by Engledow’s PhD student, Benjamin Peary Pal, who had graduated from Rangoon University before undertaking doctoral research in Cambridge from 1929 to 1933. Pal later became a distinguished imperial economic botanist in India, who was appointed first director of the Indian Council of Agricultural Research in 1965 and elected a Fellow of the Royal Society in 1972 (Perkins, 1997).

Sir Frank Engledow became Emeritus Professor of Agriculture in 1957, 1 year after his wife died from cancer and decolonisation began in British colonial Africa (Bell, 1986). His role as a visiting lecturer at Kumasi College of Technology in Ghana in spring 1959 shows how colonial expertise was also remodelled for the support of higher education in postcolonial Africa. At the end of the same year, he undertook what appears to be a farewell tour through colonial agricultural institutions in Uganda, Tanganyika and Kenya. Engledow’s final two overseas journeys, in 1961 and 1962, brought him once more to India, for research on tea, and to independent Malaya, where he still served on the Coordinating Advisory Committee at the Rubber Research Institute in Kuala Lumpur (Bell, 1986). Diagnosed with hip arthritis in 1962, at the age of 72, Engledow stopped travelling
overseas just as decolonisation hit its prime time. After a final publication on tropical agriculture in the journal Nature (Engledow, 1961), he re-focused his work back on the British homeland for the two decades to come.

Conclusions

This essay has examined the role of imperial destinations for knowledge production in the University of Cambridge and the contributions of Cambridge academics to the governance and economic revenue of the British overseas empire from the 1920s to the 1960s. Whereas Symonds’ (1992: 302) remarked that ‘Cambridge appeared less interested in the Empire and its governance than Oxford,’ this study has illustrated how Cambridge academics across all disciplines, particularly in the applied natural and social sciences, used the British empire for mobilising resources for academic knowledge production and provided expertise to imperial governments and institutions through often externally funded advisory work. This was especially possible after the introduction of regular research leaves in 1926 because these allowed Cambridge academics to undertake extended overseas journeys, a process that was only formalised in Oxford after 1954 (Heffernan and Jöns, 2013).

This study contributes seven main findings to the literatures on knowledge production, travel and imperialism. Firstly, the analysis shows that circular imperial travels of Cambridge academics accounted for a similar share (1900–1930: 32%) as the imperial engagement of British academics who had undertaken study or work in the British empire prior to their professorial appointment at the University of Manchester (1900–1930: 30%; see Pietsch, 2010). As this also applies to imperial career mobility by Oxford matriculates from Balliol, Keble and St John’s Colleges, it appears that different forms of academic mobility were part of the same imperial networking practices (1918–1919 to 1937–1938: 19 versus 18%; the latter figure applies to jobs of at least 2 years, excluding military and diplomatic posts; see Symonds, 1992).

Secondly, this research has underlined that Cambridge expertise was of particular importance to imperial organisations at the eve of decolonisation because of a lack of scientific infrastructure and serious social conflicts in the colonies. Academic travels to both British India and British Africa peaked in the respective decade before decolonisation, which resulted in a geographical shift of post-1945 advisory work towards British Africa that was reinforced by the impact of Lord Hailey’s African Survey on a growing interest in African affairs (Tilley, 2011).

Thirdly, existing disparities in the integration of different areas of empire into British academic networks intensified after 1945 due to shifting types of academic work. Increased travel to the Dominions for laboratory research and visiting posts and to British Africa for field research and advisory work coincided with the attraction of British India changing from research and expertise to visiting posts and conferences, whereas imperial destinations in Southeast Asia and the West Indies were nearly abandoned by Cambridge academics. This reinforced asymmetric power-relations between different parts of empire and thus confirms the existence of multiple, geographically distinct imperial knowledge networks that changed over time (Lambert and Lester, 2006).

Fourthly, this study has revealed that despite an increase of imperial travels in the decade after WWII, the relative significance of imperial destinations for academic travel from Cambridge decreased because of a reduced need for British expertise in decolonised states, a growing Americanisation of research and visiting posts encouraged by powerful US laboratory sciences, and a Europeanisation of advisory work and invited lectures in the context of post-war reconstruction. This suggests that decolonisation was not merely the
withdrawal of British political and military presence but also led to an adjustment of academic work away from the former colonies, even if the Dominions and the first independent states continued to draw on Cambridge expertise to some extent.

Fifthly, the juxtaposition of collective and individual travel behaviour in the university confirmed that the growth of university-based science, research and travel in the first half of the 20th century gave rise to the figure of the modern academic expert (Hodge, 2007). This study has characterised senior colonial advisors in British universities such as the agriculturalist Professor Sir Frank Engledow as distinctively ‘post-Victorian imperialists,’ whose contributions were shaped by an ambivalent positionality in the intersection of personal faith, colonial friendship networks, prevailing racial discourses, humanitarian ethics, as well as scientific planning and training. These emerging modern academic experts took empire for granted while at the same time criticising some of its basic features, which explains why their contributions to the new colonial reform policy of local empowerment through education in post-WWII colonies, somewhat paradoxically, paved the way for decolonisation and national independence.

Sixthly, while previous studies stressed the pivotal role of the African Survey for a profound change of direction in British imperial policy after 1938 (Tilley, 2011), the interplay of macro- and micro-perspectives employed in this paper suggests that the Moyne Commission on the West Indies (1938–1939), of which Engledow was a member, played an equally important role for the new colonial reform movement but has most likely received less scholarly attention because the publication of its controversial findings was delayed until after WWII (see also Flint 1983). The historical geographies and impacts of the Moyne Commission therefore emerge as a fascinating subject for future research.

Finally, Professor Engledow’s extensive overseas travels have verified the large emphasis placed on the acquisition of local knowledge in imperial advisory work from the 1920s to the 1960s (Hodge, 2007; Tilley, 2011). However, the particularly high frequency of his travels made him an exception in the University of Cambridge. This can partly be explained by his modest background that prevented him, the son of a police sergeant, from feeling a sense of belonging to the elitist Cambridge academic community. His regular escapes from Cambridge also required a strong involvement with government work because in contrast to most of his academic peers, Engledow did not have the private means to finance such prolonged overseas travels himself (personal communication by Ruth Steketee, Eindhoven, 12 January 2013).

In conclusion, this paper therefore argues that Engledow’s largely government-funded, distinguished career as one of the Colonial Office’s key advisors on tropical agriculture seems to be the logical, if contingent, outcome of several biographical coincidences, including his humble origins, his growing concern with agricultural production in Cambridge at a time when this became an important means for colonial development, and the personal companionship of Geoffrey Evans since military service that most likely encouraged the new emphasis on imperial advisory work in Engledow’s early academic career. The important role that late colonial academic advisers such as Engledow played for imperial governance and the rise of a wider culture of expertise was very much indicative for the new professionalism of modern academic experts and is particularly evident in Hodge’s (2007) observation that their intellectual legacy resonates in international development discourses up until today.

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Notes

1. St. John’s College Library, University of Cambridge (subsequently SJCL), Engledow papers, Box 2, notebook, Southern Rhodesia & South Africa 1948, pp. 228–229.
2. SJCL, Engledow papers, Box 2, notebook, GI N-1 to N-18, Note 1, p. 4.
3. The Engledow papers include 17 travel journals, a number of notebooks and reports. His daughter Ruth Steketee (Eindhoven) kindly provided in-depth knowledge about her father’s life and access to further papers, including the ‘blue diary,’ an annual notebook on the weather; on political, professional and family events; and on his UK and overseas travels for the period 1909–1980. These private papers entered St John’s College Library in September 2014.
4. Relevant territorial changes include the Dominion status of Canada (1867), Australia (1901), New Zealand (1907), Newfoundland (1907) and South Africa (1910) and the independence of Afghanistan (1919), Egypt (1922), and the Indian subcontinent (India, 1947; Pakistan, 1947; Burma, 1948; Ceylon, 1948). The macroanalysis ends before decolonisation started in Africa (Sudan, 1956; Ghana, 1957), continued in Southeast Asia (Malaya, 1957) and peaked in the 1960s (Butlin, 2009).
5. Minute of 29 February 1928, CUA, GB, Min III.6, p. 35; and 8 February 1933, CUA, GB, Min III.7, p. 40.
6. Minute of 19 November 1902, CUA, GB, Min III.2, p. 20.
7. Minute of 21 May 1930, CUA, GB, Min III.6, p. 97; and 13 February 1935, CUA, GB, Min III.7, p. 83 (Born and Fell).
8. Minute of 8 October 1952, CUA, GB 160, Box 307, p. 9.
9. Minute of 31 October 1945, CUA, GB 160, Box 303, p. 32; 14 January 1953, CUA, GB 160, Box 307, p. 88.
10. SJCL, Engledow papers, Box 3, notebook, Rawalpindi 1916; Engledow papers (uncat.), blue diary.
11. SJCL, Engledow papers (uncat.), KLM routemap.
12. SJCL, Engledow papers (uncat.), blue diary.
13. SJCL, Engledow papers (uncat.), certificate awarded to Engledow by Gwebi College of Agriculture, 17 October 1957.

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