LSHTM and Colonialism

A Report on the Colonial History of the London School of Hygiene & Tropical Medicine (1899– c.1960)

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Executive Summary

Background

This report was commissioned in 2019 by the LSHTM Senior Leadership Team (now Executive Team) to conduct a time-limited piece of research on the School's colonial history (1899-1960). The Centre for History in Public Health was tasked with overseeing the research under the supervision of Professor Martin Gorsky and with additional advisory support by Dr John Manton. The researcher responsible for carrying out the research and writing the report was Dr Lioba Hirsch and funding was initially granted for one year with an additional two months funded from early March 2021. Due to the COVID-19 pandemic the project was interrupted for five months (May to October 2020) and access to the LSHTM archives was further interrupted during the UK's second and third lockdown. In September 2021, Dr Rebecca Martin was recruited for an additional nine months part-time on the project and initially tasked with extending and editing this report. The purpose of the research project was to provide an overview over the School's relationship with British colonialism.

This work was co-funded by LSHTM and the LSHTM/Wellcome Institutional Strategic Support Fund (grant reference 204928/Z/16/Z).

Methods

The research project and report explored the School's colonial history in relation to the following themes: 1) The colonial origins of LSHTM 2) LSHTM's governance structure and individual colonial interests, 3) student origins and destinations, 4) colonial links to research and teaching at LSHTM, 5) LSHTM's involvement in wars and 6) the work of specific individuals connected with the School. The analysis in this report relies on extensive archival research in the LSHTM repository, with additional research in the National Archives at Kew and the Wellcome Collection Archives.

Findings

LSHTM was set up as a colonial institution and benefitted from and contributed to British colonialism in a variety of ways between 1899 and 1960. The School was founded by the Colonial Office (the government ministry charged with the administration of British colonies and overseas territories). Funds for its establishment and to cover running costs were provided by the Colonial Office and by annual contributions from colonies themselves. The latter were derived from the exploitation of resources and labour in the colonies. Funding from colonial governments and companies with colonial interests continued to support the School until the 1960s. LSHTM's financial reliance on the Colonial Office, and later on colonial companies and industry, meant that research and teaching objectives were aligned with colonial interests. This meant that the School

embraced British colonialism and the notions of racism and white supremacy which accompanied it in its research, teaching and in public speeches and academic writing by its students and members of staff

This was also reflected in the membership of the School's governance committees, and especially its Court of Governors, which had representatives from government offices, international health bodies, and private industry. With the incorporation of the Ross Institute of Tropical Hygiene in 1934, the School further bolstered its ties with and interest in planting and mining industries in the colonies, ensuring the continued survival of British interests post-independence.

The School thus not only supported British colonialism through its cooperation with the government, it also carried out research that would strengthen British commercial interests in the colonies. With the addition of a Public Health wing to the School in 1929, following funding from the Rockefeller International Health Board, the School's singular focus on colonial medicine shifted to make way for research and teaching on British public health. However, links to the Colonial Office and to colonial industries persisted and continued to shape the way in which the School did research. The two streams – tropical medicine and public health – intersected at times and shaped each other. This became evident in the 1930s, when the School taught and employed several members of staff dedicated to eugenics and its potential to govern British and colonial public health. During both World Wars, the School was also instrumental in protecting British troops against tropical diseases and ensuring the protection of its imperial possessions.

LSHTM's global and colonial influence was, and continues to be, substantial; all Colonial Medical Officers desiring to take up a posting in the British Empire had to follow a course at either the London or the Liverpool School of Tropical Medicine. In order to create more jobs for graduates, the Colonial Office also paired the establishment of the School with the creation of a unified West African Medical Staff (WAMS). While the LSHTM attracted students from across the British Empire almost from its foundation in 1899, it became increasingly diverse in the post-Second World War period, as colonies prepared for independence.

However, while the School recruited widely from amidst its student body, a student-to-staff pipeline predominantly existed for white male students, most of them British. The latter travelled and conducted research on colonised populations across the Empire. Resultant knowledge was consolidated at the LSHTM in London, further cementing the School's future position as a leader in global public health research and amplifying the epistemic disconnect between the metropolis and its colonies.

Through its students and members of staff, the LSHTM became a node in an imperial network geared towards upholding British commercial and governmental interests abroad. It is largely to its role in British colonialism that the LSHTM owes its current power and position as a leader in health research and teaching.

1. Introduction

An increasing number of academic and research institutions, in the UK and globally, are responding to calls to decolonise the university. Early precursors appeared in the United States in 2002, as Emory and Yale universities grappled with their legacies of slavery, though it was Brown's *Slavery and Justice* report (2006) that set the benchmark of committee-led, funded research that numerous institutions followed (Harris, 2020; Brown University, 2006).

Starting at the University of Cape Town (UCT) in February 2015, the *Rhodes Must Fall* movement campaigned for the removal of Cecil Rhodes' campus statue, both as an offensive symbol of racism and as a rallying point for the broader transformation of faculty, curriculum, and student composition that was needed in South African higher education (Nyamnjoh, 2016). In October 2015, Harvard Law School began a *Royall Must Fall* campaign to remove the crest of a slaveholding donor from its seal, and more broadly to promote greater inclusivity (Johnson, Clayborne and Cuddihy, 2015). By April 2015 the Rhodes statue had fallen at UCT, and Harvard abandoned the Royall logo in 2016.

In Britain the *Rhodes Must Fall* movement had made its way to the University of Oxford by March 2015, focused on the statue at Oriel College. Here, the College decided to keep its statue in place in 2021, accompanied by an explanatory plaque in line with the Johnson government's 'retain and explain' policy (Hughes, 2021; Oriel College, 2021). More recently, in the summer of 2019, the University of Glasgow signed a historic agreement with the University of the West Indies acknowledging the former's historic links with slavery and setting out to raise and spend £20 million over the next 20 years on research and events highlighting the history of enslavement (University of Glasgow, 2019). In February 2020, University College London (UCL) published the results of an inquiry into UCL's role in, and financial benefit from, the British eugenics movement (Bressy et al., 2020). Meanwhile, since the LSHTM's Colonial History Project was instigated in 2019, a large number of other institutions have also begun working on their colonial past, including St John's College, Oxford, and Bristol Cathedral. These investigations crucially place an emphasis on 'decolonisation, not diversification' (RMFO, 2015); that is to say they demand in-depth engagement with the colonial and racist history that has and continues to shape knowledge production and institutional development at these universities, rather than the mere 'tokenistic' hiring of Black and Brown staff.

Medical courses and institutions have not been excluded from these processes. In 2018, the Wellcome Collection hosted a one-day symposium entitled 'Decolonising

Health' (Wellcome Collection, 2018). Also in 2018, UCL was host to a 'Decolonising the medical curriculum' event, which sought to highlight the disproportionate influence of 'white, male, heterosexual, western attitudes' (UCL, 2018) in medical curricula. In early 2019, students from Harvard's T.H. Chan School of Public Health organised a 'Decolonising Global Health' Conference in order to challenge the 'depoliticised, un-critical and ahistorical ways' in which global health is taught (Saha et al., 2019). Similar conferences ran in 2020 at Duke University and at the University of Edinburgh, the latter including criticism of the LSHTM from Professor Madhu Pai of McGill University as 'extremely colonial, even today, as we know' (Duke 2020; Edinburgh, 2020). LSHTM's then Director Professor Peter Piot also received criticism for his autobiographical account of the discovery of Ebola, which was seen as 'writing out of history' the prior role of Congolese microbiologist Dr Jean-Jacques Muyembe (Peralta, 2019; Edinburgh, 2020). Since 2020, some practical steps have been taken to decolonise medical teaching materials and imagery, focussing both on representation and the improvement of medical education and treatment, but this process is far from complete (Mukwende et al., 2020; Cascone, 2021).

At LSHTM, a Decolonising Global Health (DGH) group formed in March 2019 with the aim of creating a space to (self-) reflect and discuss how colonial legacies still shape global health internationally and at the School. One mobilising factor was a blog by an ex-staff member attacking the School's tokenistic use of minority staff on research projects (Erondu, 2019). Another was a Lancet article co-authored by two LSHTM staff members which demonstrated

statistically the entrenched gender and ethnic disparities in faculties of public health universities, including LSHTM (Khan et. Al., 2019). The DGH group placed particular focus on colonial legacies in research, career progression, and learning and teaching. These questions had particular salience in light of the LSHTM's 120th anniversary, which celebrated the School's founding by Sir Patrick Manson in 1899. Manson, then Chief Medical Officer to the Colonial Office, can be considered one of the most obvious links between LSHTM and Britain's colonial Empire. Following renewed Black Lives Matter (BLM) protests globally after the murder of George Floyd in the United States, the LSHTM-BLM group (now the FAIR Network) was formed in the summer of 2020.

In light of these parallel and interconnected developments at LSHTM, in British academia, and globally, the university's commitment to researching its colonial history is timely and necessary. As one of the leading public health universities in the world, and importantly, as a London-based institution with an explicit focus on research in formerly colonised countries, exploring LSHTM's colonial legacies has the potential to inform research, teaching, and working at the School. As such, this research project draws on and situates itself among wider calls and movements to decolonise the university as a site of Eurocentric knowledge production.

The project, hosted by LSHTM's Centre for History in Public Health, was commissioned by the then Director, Professor Peter Piot, and Deputy Director and Provost, Professor Anne Mills. The decision was taken to fund the salary of a Research Fellow for one year to undertake research into the School's colonial history. In consultation with the Centre for History in Public Health, project parameters were set and themes to be investigated by the researcher were determined, as follows:

1. Early funding and programmes
2. Student origins and trajectories
3. Staff origins and trajectories
4. Syllabus: tropical medicine
5. Research programmes and colonial interests/continuities
6. Relations with Colonial Office, Royal Society of Tropical Medicine, Indian Medical Corps, Royal Army Medical Corps
7. 1st and 2nd World War: LSHTM and conflict
8. Individuals, Publications

These pre-determined themes are reflected in the structure of this report. Additional analysis of the LSHTM's governance structures was requested and carried out in early 2020 and following the hiring of Dr Martin in 2021-22. In this report, the eight predetermined themes have been aggregated into six empirical chapters. The project builds on reflections and thought processes that emerged from the *Decolonising Global Health* group and the wider student and staff community.

Specifically, it draws on LSHTM's own archives to critically interrogate and explore the School's colonial entanglements between 1899 and 1960. The project aims to understand the consequences of LSHTM's engagement with the British Empire for research, teaching and the institutional development of the School.

Notes on terminology

A note about this word: entanglement. It is somewhat imprecise and vague, but for exactly this reason serves a very important purpose in describing the School's colonial history. Sarah Nuttall (2009, p.1) defines entanglement as the 'condition of being twisted together or entwined, involved with; it speaks of an intimacy gained, even if it was resisted, or ignored or uninvited'. The word is increasingly being used to describe the complexity of imperial politics and encounter (i.e., Ballantyne, 2015; Manjapra, 2014; Cañizares-Esguerra, 2018; Hecht, 2011) and can guide our overall understanding of imperial and colonial connection with regards to the LSHTM.

A further note about terminology, specifically the terms colonialism, white supremacy, and racism, the relationship between colonialism and imperialism and the term 'tropical'. This research project is concerned with the London School of Hygiene & Tropical Medicine's colonial history. However, as Aimé Césaire ([1950] 2000) has written, in Europe's imperial history, white supremacy, racism and colonialism were intricately linked[1]. It is therefore worth explaining the relationship between the three terms in the context of this report.

Colonialism refers to direct or indirect political rule by a foreign state/government often accompanied by control over a country's economic resources and means of production (Osterhammel, 1997; Cheeseman et al., 2019). For the most part, colonialism either took the form of settler colonies, such as Australia, Canada, or South Africa, or territories in which the local population and commercial interests were managed by a small number of temporary colonial officers (i.e., Ghana, Sri Lanka or many of the Pacific islands). In the case of the former, the influx of relatively high numbers of white civilians often led to the creation of more permanent health structures. Similarly, white control and domination over land, resources and ways of living was a higher priority in settler colonies than in extractive colonies. Cain and Hopkins (2016, third edition) have illustrated the economic motives for colonialism, bringing us the concept of gentlemanly capitalism (see also Dumett, 1999). This scholarship highlights the role of London financiers and their economic interests in the propagation and motivation for empire. In the case of the LSHTM, nowhere is the School's economic motive for the colonial project more evident than in the activities of the Ross Institute. The Institute's connection of the health of estates' populations with the "number of working days lost through sickness and/or attending to sick relatives", in their surveying of the estates under their care, demonstrates clearly the capitalist nature of this aspect of colonialism (LSHTM, LAORS – GB 0809 Ross Institute/ 06 and 08).

This economic colonialism has historically been justified by a belief in the invading country's ethnic, cultural, and intellectual superiority. Using the term white supremacy acknowledges that the belief in white peoples' biological, cultural and intellectual superiority, which underlay and accompanied colonial expansionism, is systematic and structural and not limited to personal beliefs and behaviours. As Aisha Beliso-de Jesus and Jemima Pierre (2020, p.4), drawing on Bonds and Inglewoods' 2016 paper argue:

'[…] global white supremacy points to a connected set of relations and logics that emerge at particular moments, in varying contexts, that persistently endure "through spectacular and mundane violences that reaffirm empire and the economic, social, cultural, and political power" while continuing to uphold, globally, the dominant position of whiteness.'

Using the example of (post)colonial Africa, Pierre (2013, p.2) further argues that in order to make sense of colonialism and its aftermaths, colonialism must be understood as relying on intricate processes of racialisation, which make African populations 'historically coeval (Fabian 1983) with Black

[1]There was disagreement about the use of the term white supremacy vs. white superiority between the researcher and project PI. In both the English translation and the original French, Aimé Césaire uses the term 'superiority', rather than supremacy. However, what he describes in *Discourse on Colonialism* and in his analysis of the writings of M. Caillois (2000, pp.70 – 74) in which he refers to the term 'superiority' in particular corresponds to a dictionary definition of white supremacy. Merriam Webster (n.d.) defines white supremacy as 'the belief that the white race is inherently superior to other races and that white people should have control over people of other races' and as 'the social, economic, and political systems that collectively enable white people to maintain power over people of other races.' The researcher made the decision to stick with the term white supremacy, because it speaks to a system of domination, but also to the obfuscation and silencing which continue to characterise epistemic, political and socio-economic hierarchies, which assume the superiority of white people over others.

communities in the diaspora rather than either as historically, politically, and culturally distinct.' As such, white supremacy can no longer be understood as a phenomenon merely applicable to the history of Black populations in the United States or South Africa, but must be analysed as a global structuring and enduring phenomenon.

In the context of British colonialism, white supremacy manifested as the belief in the superiority of white European civilisation. As a consequence, it was part and parcel of British colonialism even when framed as *mission civilisatrice*. This belief is visible in the archival materials reviewed. One such example is a speech given by William Osler, one of the founders of Johns Hopkins University in Baltimore. In a speech entitled 'The Double Burden of the white man', given when invited to the opening session of the LSTM on 26 October 1909, Osler began with the following (LSHTM, LAORS – GB 0809 Admin/11/13, 1909, p.7):

'It is no light burden for the white man to administer this vast trust. It is, indeed, a heavy task, but the responsibility of Empire has been the making of the race. In dealing with subject nations there are only two problems of the first rank – order and health. The first of these may be said to be a specialty of the Anglo-Saxon. Scarlet sins may be laid at his door – there are many pages in the story of his world – exodus which we would fain blot out; too often he has one forth in the spirit of the Old Testament crying "The sword of the Lord and of Gideon." But heap in one pan of the balance all the grievous tragedies of America and of Australasia, the wholesale destruction of native races, all the bloodshed of India, and the calamities of South Africa, and in the other pan just the one little word "order", which has everywhere followed the flag, and it alone makes the other kick the beam. Everywhere this has been the special and most successful feature of British rule. We are entering upon a phase in which the natural results of this stable government upon the subject races are shown. Just as at home the fate of the rich is indissolubly bound up with that of the poor, so in the dependencies the fate of the strong and the weak cannot be dissevered ; and whether he will bear or whether he will forbear, the brother's keeper doctrine of the strong, helpful brother must be preached to the white man.'

Anti-Asian, anti-Black, and anti-Indigenous racisms in the School's colonial history are most aptly described as a by-product of white supremacy. Racisms were present in the texts analysed, but the focus of scientists, School administrators, politicians, and heads of funding organisations on how the School's mission could enable the scientific progress necessary to improve Britain's colonial rule placed indigenous populations and colonised subjects at the margins. This is exemplified in Osler's focus on 'order' and the genocidal violence he sees as necessary to achieve it.

Given the nature of the topic under investigation, the report makes frequent reference to Britain's colonial Empire, British colonialism, or British imperialism. These terms may seem interchangeable at first glance. Osterhammel (1997, p.21) defines imperialism as 'the will and the ability of an imperial centre to define as imperial its own national interests and enforce them worldwide'. In his work, colonialism becomes a means of achieving imperialism by subjugating indigenous rulers to external formal control. He subsequently differentiates

between formal and informal empire. Formal empire (colonialism) is in this report generally referred to as colonial empire or Britain's colonial empire. A majority of analyses in this report refer to Britain's colonial Empire as British colonialism, as in Osterhammel's (1997) definition, the author considers colonialism to be an imperial tool of governance. If imperialism corresponds to the will to subjugate foreign countries and populations, then colonialism is the mode of governance to accomplish this ambition.

However, there are some mentions of Britain's informal Empire as well. Again, as with Osterhammel, informal Empire here refers to quasi-colonial forms of British governance in overseas territories or countries. An example is the context in which Patrick Manson started his career in tropical medicine in China, which, apart from Hong Kong, was never a formal British colony. However, the maritime customs service in which he served was under British and European control, deriving profits from and ensuring British commercial interests in China.

It is also useful throughout this report to consider the differences between settler colonies and non-settler colonies when considering the varied forms of colonialism in action even within Britain's formal Empire (see Belich, 2011). In settler colonies subjugation and white domination were prioritised, whilst in non-settler colonies population governance and the management of commercial interests played a greater role in defining the kind of colonialism used to maintain these parts of Britain's Empire.

Finally, Patrick Manson is known as the founder of tropical medicine, named after the regions in which the diseases it purportedly treated occurred. As Maryinez Lyons (1992) has shown, the term tropical needs to be considered carefully. She argued (1992, p.68) that 'many so-called 'tropical' diseases had occurred in previous ages in temperate climates' and that 'many diseases labelled 'tropical' are in reality diseases of poverty'. Moreover, the term 'tropical' homogenises a range of regions South of the equator, which don't necessarily share climatic and geographical characteristics. Because it was so prevalent at the period under investigation in the research project, it is reproduced in this report, with the caveat that it is not an accurate geographical, medical or political term. The terms tropical medicine and colonial medicine are used interchangeably here.

2. Literature Review

Historians began exploring how medicine became a tool of British colonialism and imperialism in the early to mid-1980s. In this early literature, India and South Asia dominated in terms of regional focus, with the study of colonial medicine in Africa and the Caribbean rising in prominence over the last twenty years. Several different approaches have been taken to the history of colonial medicine over this 40-year period.

From tropical medicine to global health

Medicine has been considered a "tool of Empire" in several ways (Headrick, 1981). Geographical analyses have long focused on how sanitation was used as a pretext for racial segregation and shaped the lives of colonised cities past independence (Bigon, 2012, 2014, 2016; Cole, 2015; Frenkel and Western, 1988; also Keller, 2006). Historians have also written about the longevity of discourses and practices of colonial medicine, the most important being the dissemination of biomedicine and the attempted suppression of other forms of medicine. Rather than being value-neutral, biomedical discourses conveyed ideas of European superiority and were used as a justification for imperial conquest (Chakrabarti, 2014; MacLeod and Lewis, 1988; Arnold, 1993). Colonial conquest, was in itself helped by advances in (tropical) medicine, which allowed imperial troops to better survive in and thus subjugate 'tropical' regions (Headrick, 1981). Colonial medicine thus became a tool in the colonial teleological drive towards Western-style 'civilisation'. It particularly intersected with and fuelled European notions of race and the racism that characterised British and other European colonialisms (Bashford, 2004, Ernst and Harris, 2002).

While the majority of historical texts have focused on colonial medical practice in the colonies, some authors have explored the consolidation of colonial medicine-related knowledge in imperial centres. The establishment of tropical medicine as a scientific and academic discipline is directly related to Europe's colonial expansionism into 'tropical climates' and the high mortality rate sustained by their imperial workforce (Farley, 2008; Manton, 2011; Lock and Nguyen, 2010). Indeed, Worboys (1988a) and Johnson (2010b) have argued that tropical medicine, with its focus on vector-borne diseases and infectious disease control, was specifically designed to support the expansion of European colonial Empires. The roots of tropical medicine can be found in European colonies, where colonial (medical) officers and missionaries were confronted with new disease patterns and where colonial subjects offered ample room for study. The lack of ethical guidelines in relation to human trials at the time, combined with racist attitudes towards the value of the lives of colonised subjects turned European colonies into 'living laboratories' (Tilley, 2011, 2016; Lock and Nguyen, 2010). Bruno Latour (1993) for instance describes how it was France's vast colonial empire (and its populations), which contributed to Pasteur's scientific innovations

(helped by the establishment of 'Pasteur Institutes in French colonies) (Sun, 2014; Monnais, 2006).

However, scholars have subsequently challenged both this 'dominance-resistance' framework and this concept of imperial centres within the history of tropical medicine (Kalusa, 2014; Anderson, 1998; Marks, 1997). While historical analyses of colonial medicine cover different regions, time periods, and diseases, they also challenge the idea of an all-powerful unitary colonial health system that was imposed on colonial societies. As Chakrabarti (2014), Kalusa (2014), Mavhunga (2018) and others point out, colonial medicine took, learnt, modified, and incorporated indigenous knowledge, ingredients, and healing practices. Some challenges to this dominance-resistance framework consider the role of colonial administrators when re-centring the peripheries. For example, Tomoko Akami's (2016) work demonstrating the role of the Far Eastern Association of Tropical Medicine in shaping global health policies of the League of Nations Health Organisations challenges the dominance-resistance narrative by presenting a more complex picture of negotiation, example, and inter-colonial administration. Others are re-balancing the contributions of colonial medicine to the development of global biomedical knowledge; Stephen Palmer (2009, 2010) blends these two approaches within his work, analysing co-operations between, Rockefeller experts, colonial administrators, and local experts in the treatment of hookworm, whilst Shinjini Das (2019) and Biswamoy Pati (2002) demonstrate the role of vernacular medicine in shaping both colonial interactions and biomedical development.

More recently, historians of tropical medicine have begun to reconsider the way in which we frame these histories, moving away from the centre-periphery binary and towards the concept of global health (Harrison, 2015). Work by scholars such as Deborah Neill (2012) consider the movement of medical knowledge within networks. This work has proliferated particularly as the field has moved to include more work on Africa by Melissa Graboyes (2014) and Mari Webel (2019) after Anna Crozier's (2007) and Wolfgang Eckart's (2002) earlier contributions on the Colonial Medical Service in East Africa and German Sleeping Sickness Campaigns in East Africa respectively. Anna Greenwood (neé Crozier) and Harshad Topiwala have also, in their work on *Indian Doctors in Kenya* (2015), considered how knowledge and expertise circulated within colonial networks, again complicating the traditional dominance-resistance narrative. However, this work also demonstrates the complicated hierarchy within colonial power, adding a more nuanced understanding to our approach to inter-colonial medical history.

Schools of Tropical Medicine

In the UK, Livingstone College, founded in 1893, was the first institution to prepare missionaries and colonial medical officers for their work in the colonies (Johnson, 2010b). The Liverpool and London Schools of Tropical Medicine emerged shortly afterwards with the Liverpool School opening in April 1899 and the London School in October of the same year. Both schools were founded on the initiative of Joseph Chamberlain, then Secretary of State for the Colonies in order to advance teaching and research on tropical medicine in Britain and to be better able to exploit Britain's vast colonial possessions (Worboys, 1988a).

There are few texts dedicated entirely to the history of the LSHTM, and even fewer which directly address the LSHTM's colonial entanglements. The most prominent history of the School is Douglas M. Haynes (2001) Imperial Medicine which provides a critical history of medicine's imperial uses through a discussion of Patrick Manson's life and so covers the School's early years. Haynes presents the founding of the LSHTM as a combination of Manson's professional ambition, his close links to the Colonial Office and Chamberlain's desire to improve the health of colonial service personnel. His work is decidedly the most critical monograph on the history of the School or on Manson. Worboys (1988a) offers a comparison between the development of the Liverpool and London Schools anchored in the rivalry between Patrick Manson and Ronald Ross. He (1988, p.25) describes the LSHTM as 'being widely regarded as the de facto medical department of the Colonial Office.'

The other extant studies of LSHTM attend more to institutional history. Acheson and Poole (1991) focus on the School's development in the interwar years and on the Rockefeller Foundation's interest in creating a School of Public Hygiene in London. This ultimately led to the School's development into the London School of Hygiene & Tropical Medicine. *Prevention and Cure* (Wilkinson and Hardy, 2001) offers an in-depth history of the School in the 20th century, although weighted heavily towards the period before 1960, and makes extensive use of the LSHTM archive. However, their analysis marginalises the colonial entanglements of the School and does not offer a critical post-colonial or decolonial perspective. G.C.Cook's (1992) monograph adopts a similarly uncritical approach to colonialism, although the author himself practised in Uganda and Zambia in the early postcolonial era, and was later a consultant physician at the Hospital for Tropical Diseases in London (1976-97). Concerned particularly with the politics of medical education, Cook advocated the physical integration of clinical tropical medicine with training in the basic sciences, and regarded the eventual separation of the School from its hospital base as 'the greatest disaster which was to befall this discipline' (Cook, 1990, 41).

To summarise, the existing historical literature provides a framing narrative which situates tropical medicine not just as pure scientific endeavour, but also as integral to the imperial project. This analysis encompasses the role of biomedicine in protecting the health of the officials, soldiers and settlers of colonial enclaves, and the use of Western structures of public health to manage the political economy of production and trade. It underscores the exploitative elements which treated empire as a 'living laboratory' stocked with subjects for research. It argues that Western science was promulgated as a universally applicable epistemology, thus largely marginalising indigenous healing and local knowledge. It provides a 'core-to-periphery' model by which medical science disseminated from the metropolitan centres to the colonies, while also complicating this model by tracing the emergence of global networks of experts and the circulation of ideas from South to North.

Within this framework, one powerful study of the LSHTM's inception historicises teaching and research in tropical medicine as an instrumental activity in London, at the heart of Empire. Yet while several other histories of the School exist, none has systematically taken forward Haynes' agenda of reading the School as a continuing imperial venture. It is this challenge which the remainder of the report takes up.

3. Methodology

This report is based on extensive research in the archives of the London School of Hygiene & Tropical Medicine. The analysis of the School's founding and the early period of LSHTM, also relies on archival research conducted in the UK's National Archives at Kew[2]; the analysis of the School's syllabus and research foci, on materials held by the Wellcome Archives.

The materials consulted span the period from the 1890s to the early 1960s. The archival material on which this analysis is based consists of the School's and its founding bodies' meeting and committee minutes, correspondence between various members of staff at the School and external organisations, and documents reflecting internal communication. The analysis also draws upon research and expedition reports, syllabi, annual reports, lectures, calendars, student registers, speeches and a variety of other documentation related to the history of the London School of Hygiene & Tropical Medicine and its colonial entanglements.

The School's history and the archival documentation which attest to it is made up of facts and dates, of written agreements between members of staff and senior officials at the Colonial Office in the UK or colonial governments. However, it is also made up of hesitations, of sentences deleted from a previous meeting's minutes, of contradictions in letters and reports, of pages missing in a department's collection. The colonial context is not always front and centre in the archival materials reviewed, yet it undoubtedly shaped discussions at the time. Much like it does today perhaps, it simmered in the background without being openly addressed, yet contributing to how these historical actors made sense of the everyday. Much like the historical documents analysed, this report is the product of a specific historical moment: an institutional concern with colonial and imperial legacies. Colonialism and the British Empire were the canvas on which the London School of Tropical Medicine was painted, a fact which enabled the subsequent expansion into the London School of Hygiene & Tropical Medicine. Yet, as is often the case with paintings, the canvas habitually disappears into the background. The term 'entanglement', as discussed in the notes on terminology above, also alludes to this: to the intimate historical constellations, power structures and hierarchies, which were taken for granted yet shaped the School and to the ensuing silences from which we need to deduce the political and societal effects, which make up history.

Research approach

The School's colonial history then, is sometimes straightforward and easily discerned and sometimes needs to be inferred from historical context and associations. One early member of staff, Italian mycologist Aldo Castellani for instance, was a friend of the Italian fascist leader Benito Mussolini and his family, and advised on Italy's sanitary strategy during the

[2]The National Archives are the United Kingdom's official government archives. One week's worth of research was conducted at the National Archives in February 2020.

second Italo-Ethiopian war. This is not visible in the archival material held by the London School, which focuses on Castellani's scientific endeavours. Yet, it speaks to the political environment in which work at the School was carried out. It also points to the ever-recurring question: can we separate science from politics? This report does not answer this question directly, but it shows how politics, specifically British imperialism and colonialism, created a fertile environment for men with racist views to pursue science and how their scientific practice in turn strengthened Britain's colonial Empire. As such, this report reinforces the notion, established widely within the history of science, that both science and our use of it are deeply political.

History is seldom straightforward and unilateral. It can be interpreted in a variety of ways and is at times misleading. Similarly, archives are always set up with a purpose (Ahmed, 2019; Anderson, 2002). Kent Anderson (2002, p.85) argues that 'the philosophy of [archival] stewardship made the future itself a sort of metaphysical customer'. Ronald Ross, for example, curated his collection (his assemblage of letters, reports, documents, and writings) before it was bequeathed to the Ross Institute of Tropical Hygiene. Ross wanted the future to read him in a particular light. The historians' task therefore, in consulting these archives, was only partly to discover new facts about the London School of Hygiene & Tropical Medicine or to unveil secrets hidden in the bowels of the School. It was also necessary to introduce doubt into the ways in which the men who produced these documents – and they were almost exclusively white men – wrote and understood the School's history and its relations with British colonialism.

This introduction of doubt speaks to a historian's responsibility. History is never neutral, despite at times being presented as such. Instead, it is always told from a specific point of view, focusing on, and in turn excluding, specific historical developments. Given the relative dearth of institutional histories that take a clear anti-colonial and anti-racist stance, it was important to centre marginalised perspectives: To quote Zimbabwean doctor J. Mozipo Maraire, 'Until the lion learns how to write, every story will glorify the hunter.' Most existing histories of the LSHTM have glorified the white Europeans who participated in the colonial medical endeavour. This report takes up the responsibility to view these accounts critically, to expose the harm and violence that were often a by-product of medical research in British colonies and to focus on the effects that the School's workings have historically had on people of colour in Britain and the colonies.

This report relies on archival resources from three archives: The archives of LSHTM, the National Archives, and the Wellcome Archives. All three archives have been catalogued to varying degrees. The archival material that is visible to visitors at the National Archives and the Wellcome Archives has been fully catalogued, meaning it is possible to refer to archival sources using the relevant archival reference number. A large part of the collections of the LSHTM archives have also been catalogued, but not all, and not to the same level of detail as collections at the National Archives. This means that a higher number of archival materials have the same reference number, which may make it more difficult for future scholars to locate the exact materials consulted herein. Throughout, this report aims to be as precise as possible

by providing all available contextual data (e.g., author, year, occasion). It should be noted, it is also impossible to know what is missing from these archives. Archival records are never complete, and we are only able to work from the material which has been preserved, which itself can reveal biases within collections.

Research analysis

Historians of European colonialism and its legacies use archival techniques to read colonial histories critically by reading archival material along and against the grain (Guha, 1983; Stoler, 2002, 2009, 2010). This means familiarising oneself with the language and discourses of power of the time of writing in order to be better able to critique them. It also means interpreting the silences and language of the archive productively. Indigenous stories and agency are often obscured and silenced in the archive, appearing only as deviance, dependency and absence. As described above, the biological and social worlds that made up the British Empire, were the canvas on which the School's members of staff and their students painted stories of success, scientific discoveries, and improvement. The colonies were there to be improved according to the tenets of European science, a principle, which still lingers residually today in the School's motto 'Improving Health Worldwide'. The belief in the superiority of European science, technology and civilisation is reflected in the archives, in that colonies and their inhabitants are seldom described except as problems to be overcome. One such example is taken from the Balfour collection, from a written transcript of an address entitled 'Malaria as an enemy of the British Empire' given at the Guildhouse on the 18th of November 1925. In this address Balfour (who was appointed LSHTM Director in 1924) stated:

'Malaria then is more closely associated with unhygienic and primitive states than with more climatic conditions, though the latter do play a part in its maintenance and spread. Malaria is par excellence a disease of uncivilised or comparatively uncivilised communities, using the word uncivilised in a broad sense, and it is because a vast area of the British Empire is to-day uncivilised from a sanitary point of view that one of its great enemies, malaria, grips it with a strong hold. This is not the language of rhetoric. It is plain and simple fact.'

Writings such as these, which abound in the archives, influence the stories we can write from them.

Writing the School's colonial history therefore became a task of interpreting what was said and what was not said in archival documents. The School's staff, from its foundation, was overwhelmingly white, despite the fact that apart from its very first research expedition, in 1900 to the Roman Campagna, a vast majority of its expeditions took place in British colonies in Asia, Africa and the Caribbean. While the majority of staff and students didn't concern themselves with the social lives of research subjects or the political conditions that British imperialism created in the colonies in their letters, reports or in archived meeting minutes, their fleeting references and discussions nevertheless reflect British colonialism's casual violence. Offensive language is used to describe colonised subjects, their culture and living conditions and descriptions of colonial territories are almost always condescending. This report mostly abstains from repetitions of such violent language, unless absolutely necessary. Instead, this report draws attention to the structural and subtle ways in which colonialism – and attendant beliefs around the superiority of white European

civilisation, bodies, thought, and practice – shaped research, teaching, and working at the School.

Archival materials were analysed with four basic questions in mind:

1. What does the document tell the historian?
2. What did its author intend the historian to see?
3. Why has the document survived in the archive?
4. What can historians perceive that the author did not intend?

The first is quite straightforward, the second involves a degree of inference. Inference here does not refer to reading racism or white supremacist thought into a document; of putting words into the mouths of dead scientists. Rather, it consists in putting the context in which these documents were produced and the context in which they were bequeathed to the LSHTM archives back into the analysis. At the same time, researching the colonial past also always necessitates a questioning of authority. To what extent do we trust the written accounts before us, knowing that the author's understanding of the world was shaped by white supremacy? As historian of tropical medicine John Manton has said:

'The archival record, in its production and preservation, indexes power relations and decision-making agency that depend upon and reinforce the colonial order (within and beyond London/Britain). By extension, they reproduce this order, including its white supremacist dimensions. The whole edifice was/is attuned to power vested in white bodies and networks, which require(d/s) ongoing and active work.'[3]

As such, it was important to be aware of the intrinsic way in which white supremacist thought was normalised and shaped discourses and politics at the time, even when this was not made explicit within the source materials. On the other hand, as Barbara Bush (1999), Caroline Bressey (2014) or Peter Linebaugh and Marcus Rediker (2013) have shown, resistance to racism and white supremacy have always existed alongside colonialism, enslavement and their aftermaths, both in Britain and across the Empire. Bloomsbury itself, where the LSHTM moved in 1929 was a hub of political thinking and activism. Thus, the lack of voices openly opposing colonialism, imperialism, racism and the white supremacy underlying them speaks to two possible realities: either those voices existed, and they were not preserved in the archive, or they did not exist. This itself speaks to the processes of archival selection and points to the fact that if those voices existed, they were not dominant and were therefore not deemed worthy of being archived. It is impossible to know what materials are missing from the archive, and therefore from this report, in this respect. The second possibility is that those voices did not exist or at least that they did not exist among those members of staff active in the running of the School. Anti-colonial voices were present in small numbers among students (see Chapter 6), but it seems not among those students favoured by those involved in the School's management or in charge of scholarships and prizes. Dr Hirsch read the minutes of every single management committee meeting between 1899 to 1960 and did not encounter notable anti-colonial or anti-racist voices. As a consequence, this report confronts the historical account that the archives provide and focusses on the small glimpses into the lives of colonised populations available within these archival

[3]Personal correspondence 21st April 2021

materials to counteract the overwhelming silence in which they threaten to disappear. The authors of these materials did not want us to think about them, but that is what we are here to do.

Limitations

The research project itself began in early November 2019. It was intended to conclude by early November 2020, however, because of the COVID-19 pandemic the project was suspended for five months between May and October 2020. Dr Hirsch visited the LSHTM archives between November 2019 and March 2020, when research was interrupted by the first COVID-19 lockdown. Dr Hirsch continued to review digitised archival materials in April 2020 and then returned to the archives to conduct research in person between lockdowns in October 2020 and in December 2020. When allowed, during the lockdown, the LSHTM archivists scanned documents for use at home. While this allowed research on the project to continue, it severely limited Dr Hirsch's ability to peruse documents herself. An additional 6 months' worth of funding were granted in February 2021, of which 1.5 months were used by Dr Hirsch. The remaining funding was used to employ Dr Rebecca Martin for 9 months (part-time) - enough time to fill only some of the archival research gaps created by the limitations of the pandemic, alongside research for a second, shorter report on the post-colonial period that Dr Martin was also tasked with. Tracing the School's colonial history was facilitated through the expert guidance of the School's archivists, Victoria Cranna and Claire Frankland, whose knowledge of relevant collections streamlined the research approach. However, in the space of a year, one disrupted by COVID-19 and successive lockdowns, which made access to the archives impossible for months at a time, the breadth of the task often came at the expense of its depth.

For those unfamiliar with the LSHTM archives, it is difficult to convey the breadth of the potential research that might be undertaken – far more than could be covered by a time-constrained review such as this. The Admin series alone (up to the present day) is constituted of approximately 23 metres of boxes, making up 62 boxes. The Departments series contains 33 boxes. Each box contains dozens of documents. These could not all be reviewed even in spite of the additional research that Dr Martin was able to add to this report on governance structures, committee members, and the School's museum, as well as additional literature reviewing and framing.

What this report does offer is a thorough account of the attitudes, underlying structures, and policies that governed the School's colonial relations between the School's founding in 1899 and the early 1960s, a period which saw a number of British colonies gain independence. It also gives a detailed overview over individuals working at the School, the politics of funding and research geographies in relation to Britain's colonial Empire. However, it necessarily does not account for every single aspect of the LSHTM's colonial history. As such, this report should not be seen as an exhaustive analysis of the LSHTM's colonial history. Rather, it is intended as a starting point for further research.

The COVID-19 lockdowns did mean that the earlier half of this period, the time before the Second World War, was researched more thoroughly than the latter part. This was

because, for example, the administrative series - the archival collection containing documents pertaining to the administration of the School, on which a majority of research in this report is based - has not been catalogued, which means it cannot be searched online. COVID-19 lockdowns also meant that Dr Hirsch was unable to finish research on some people related to the School whose collections are held by different archives. This was the case for L.W.G. Malcolm for instance, an Australian anthropologist who contributed teaching on a course entitled *Medical Statistics* and *Racial Hygiene in the Tropics* in the 1930s. Malcolm also worked at the Wellcome Library and the Horniman Museum. Dr Hirsch was able to view archival materials related to him in the Wellcome Library and Archives, but her visit to the Horniman Archives was cancelled due to the first COVID-19 lockdown. Continuing access issues and competing research priorities meant that Dr Martin was not able to follow up on this.

Other limitations of this report are a product of 'missing' archival content; that is to say content which is not present in the archives which we cannot be certain ever existed. Early on in the project Dr Hirsch was made aware of the existence of this aforementioned *Medical Statistics* and *Racial Hygiene* class, which took place at the School. Along with social hygiene, which focused on the perceived dangers of the reproduction of poor working-class people, racial hygiene was one of the main strands of eugenics, the theory and praxis of improving a nation's genetic quality through selective procreation. In Nazi Germany and among eugenicists in the UK and other European countries, racial hygiene was largely concerned with Jewish members of society, however, at LSHTM the subject seems to have been taught in connection with fears around sexual contacts between white settlers and indigenous populations in the colonies. Dr Hirsch could confirm that such a course had been offered at the School by the department of Vital Statistics and Epidemiology between 1932 and 1934 but neither she nor Dr Martin were able to find course materials or any other details related to the course or the people teaching it in the LSHTM archive. As above, it is not possible to know which materials about this course are missing from the archive, having not been collected, and which simply did not exist at all.

Drafting

Finally, a note on the drafting process of the report. The initial draft completed by Dr Hirsch in April 2021 was reviewed by the project's internal advisory committee and some minor amendments were made. It was then sent to two external reviewers with expertise in the history of medicine in colonial settings (India and Africa respectively) and in tropical medicine teaching and research. They provided detailed comments and suggestions in the autumn of 2021. It was also sent to the external advisory committee, and again detailed comments were received, as well as preliminary reflections on the report's implications for the School. The main task of editing and responding to the reviewers' and advisory committees' comments was undertaken by Dr Martin, following Dr Hirsch's departure from LSHTM to a permanent post at the University of Liverpool. Dr Hirsch made further amendments in January and April 2022, and approved Dr Martin's additions and editing[4].

[4]Martin Gorsky, who supervised the project, suggested several minor, mostly empirical, additions during earlier textual revisions. These appear on pages 11-13, 16, 47, 67, 78, 80, 97-100, and 134.

4. The Colonial Origins of LSHTM (1899-1914)

The founding of the London School of Tropical Medicine in 1899 and the early years of its existence were marked by close cooperation with the Colonial Office, the government ministry responsible for the administration of the colonies.[5]

Patrick Manson, the founder of the School and Joseph Chamberlain, then Secretary of State for the Colonies, respectively wanted to establish tropical medicine as a recognised specialisation in the medical field in Britain and make it a necessary qualification for men entering the colonial medical service. Manson predicted the rise of the discipline of tropical medicine and its teaching in 1897 when addressing medical students at St George's University in London. Looking back on 20 years of experience as a medical officer in British colonies in Asia, he saw the necessity of institutionalised teaching on tropical medicine 'because our country is the centre of a great and growing empire' (Manson, 1897). Similarly, Joseph Chamberlain, aware of the high mortality and sick rate of colonial staff and equally high costs associated with it, saw the institutionalisation of tropical medicine and the compulsory training of colonial medical officers in the new discipline as a way to reduce the costs associated with ruling an Empire (TNA – FO 2/890; Haynes, 2001; Wilkinson and Power, 1998).[6]

This chapter shows that the founding of the London School of Tropical Medicine (LSTM), as it was called before the addition of the London School of Hygiene (LSH) in 1924, was first and foremost a political solution to an imperial problem. Although Patrick Manson was undoubtedly motivated by his desire to establish tropical medicine as a legitimate branch of British medicine, his public framing of the School's mission and purpose outlined the School as a necessary player in Britain's imperial politics. This was also how it was seen by the Colonial Office, which organised funds for the establishment of the School and sanctioned its founding politically. Manson used the government's imperial interests to further his scientific and political ambitions and to see tropical medicine recognised within metropolitan British medicine.

Throughout, the chapter also shows that the way in which the School centralised health-related knowledge and expertise on the colonies in London, the heart of the British Empire, was both a product of and a contributor to the belief in the superiority of white European intellect and civilisation.

[5]India was administered separately through the India Office.

[6]TNA is the abbreviation for The National Archives, whereas LSHTM, LAORS denotes the archives of the London School of Hygiene and Tropical Medicine's Library, Archives, and Open Research Services.

Patrick Manson: An imperial doctor

Patrick Manson was born in Oldmeldrum, near Aberdeen in 1844. He studied medicine at Aberdeen University and shortly after obtaining his degree took up the post of port surgeon in the Chinese Imperial Maritime Customs Service, first in Takoa (Kaohsiung City) in Taiwan (1866 – 1871) and then in Amoy (Xiamen) (1871 – 1883) (Cook, 2008; Wilkinson and Hardy, 2001).[7] It is worth explaining Manson's decision to leave the UK and take up a post in the Empire in more detail. Although Scottish medical education was dominant until 1860, both "generally respected for its rigour" and as a key producer of authors of "fever literature" in reference to tropical medicine, and Scottish Medical qualifications were officially recognised as equal to English qualifications under the 1858 Medical Act, the London schools gained more prominence during the second half of the nineteenth century (Cook, 2008, p.7; Harrison, 1994, p.26; Peterson, 1978, p.66). As Anne Digby (1994) has explained, the Victorian medical market was highly competitive and private practitioners competed not only with one another, but also with home remedies, which were still widely used, over-the-counter medication available from chemists and new charitable hospitals.

With the growing centralisation of British medicine on London and a continued reliance on connections over ability in the procurement of positions, London-educated medical doctors were almost always prioritised for public appointments (Peterson, 1978, 80). Douglas Haynes has theorised that Manson saw the intensity of the competition for positions during a prolonged stay with his uncle in London, after finishing his medical degree but before he was legally allowed to practice (he was not yet 20 years old) and decided that his career prospects in Britain were limited (Haynes, 2001, p.16). Like many other British medical graduates, taking up a medical post in the Empire – with a contemporary reputation for attracting less able students – may have seemed a more reliable career path for Manson (Peterson, 1978, p.125).[8]

As a result of China's defeat in the First Opium War (1842-1843), the Chinese Imperial Maritime Customs Service (1854 – 1849), was a British-dominated foreign institution, regulating China's international trade (Brunero, 2006) and securing Western commercial interests in China. Described as 'Britain's imperial cornerstone in China' (ibid), the Customs Service relied on British, and later French and American officials, to collect customs revenue on the Emperor's behalf. Not limited to revenue collection, the service was responsible, among others, for the maintenance of port and postal infrastructures and quarantine measures (ibid, p.1). Although not part of Britain's formal Empire, Manson's career thus started in an imperial setting in which European interests superseded those of local populations. Alongside his duties as Port Surgeon, Manson busied himself with surgical and medical work and research in mission hospitals and, once settled in Xiamen, set up a dispensary in the Chinese part of the city as well as being in charge of a hospital for European seamen (Cook, 2007, pp.51-52).

[7]When place names have changed with the end of colonialism/imperialism, at the first mention the current name is indicated in parentheses after the name used in archives/historical writing. In subsequent mentions the place is referred to by its current name.

[8]Peterson directs readers to Richard Quain's *Observations on Medical Education* (London 1865) p. 33 which derides the quality of Irish medical education, which had not been offered the same parity as Scottish medical teaching in 1858, noting the number of Irish trained doctors employed in the Army Medical Service.

The marginal standing of and interest in tropical diseases in British metropolitan medicine would influence Manson's ability to conduct research on the health problems he encountered in China and to raise the status of tropical medicine in Britain. It was during his time in Xiamen that Manson's interest in filariasis research began. Confronted with a high number of cases of elephantiasis and lymph scrotum, Manson started taking an interest in the diseases' cause and transmission from pathogenic host to human (Haynes, 2001; Cook, 2007). While on leave in the UK between 1874 and 1875, Manson availed himself of the vast resources of the British Library to learn about the cause and transmission of elephantiasis (Haynes, 2001, p.30).

As Douglas M. Haynes (2001) has pointed out, Manson was, among British physicians, an outsider, by virtue both of his Scottish degree and of practicing in the Empire rather than at home. Although the 1858 Medical Act decreed that Scottish degrees were of the same standing as English ones, only members of the London-based Royal College of Physicians and the Royal College of Surgeons had access to these institutions' vast medical libraries (Haynes, 2001). If imperial doctors, such as Manson, wanted to further their understanding of the aetiology of so- called tropical diseases, they were best served by the British Museum's repository of research relating to the British Empire. At the British Museum, Manson enjoyed access to a variety of medical journals specifically concerned with problems of 'tropical medicine' in India, whereas the prestigious medical libraries of the Royal Colleges of Surgeons and Physicians, unsurprisingly, almost exclusively held publications related to domestic medical practice. This perceived irrelevance of tropical medicine within the British medical establishment may have deepened Manson's desire to see tropical medicine recognised in Britain. By reading the Indian Medical Gazette, Manson came across research conducted by Timothy R. Lewis on the existence of microfilariae in the blood and urine of patients infected with elephantiasis (ibid, pp.42-45). This confirmed Manson's belief that elephantiasis and lymph scrotum were not the consequence of malarial fever, a thesis widespread among colonial physicians at the time (ibid, p.44), and rather that they were linked to the existence of parasitic worms (helminths) in the human body. Upon his return to Xiamen at the end of 1875, Manson took this knowledge with him, seeking to apply it to his own medical practice and research.

Manson's research activities in the following years became greatly significant for contemporary understandings of disease transmission, both with regards to filariasis, but also because it lay the theoretical groundwork for later work on the transmission of malaria. Henceforth, he preoccupied himself chiefly with the question of how patients became infected with elephantiasis and lymph scrotum. Through his medical work at the Mission Hospital, the hospital for European seamen and the Chinese dispensary that he had set up, Manson had almost unlimited access to medical subjects to further his research. By 1877, Manson had examined the blood of 670 Chinese patients at the Xiamen Mission Hospital and detected a prevalence rate of microfilariae of 9.2 percent (Haynes, 2001, p.50). Through his pathological research Manson discovered that this prevalence increased to 58 percent in patients with elephantiasis and lymph scrotum. He therefore surmised that filariae caused elephantiasis (ibid). Building on the work of Lewis, Manson argued that microfilariae, needed to leave their human hosts in order to continue their evolution. He also suspected mosquitoes to be the

intermediary vector by ingesting microfilariae from the human body, then acting as parasitic host in their development into larvae inside the mosquito's gut and finally by retransmitting the adult worm into the human body. In order to prove his hypothesis, Manson set up an experiment on the 10th of August 1877 (Cook, 2007, p.54).

Manson commissioned the building of a mosquito-proof compartment or hut. He then placed Hin-Lo, his research subject, in the hut. Through previous research, Manson knew that Hin- Lo's blood showed a high concentration of microfilariae (Cook, 2007, p.54). The idea was simple. At night, once Hin-Lo had gone to sleep, a candle was placed next to him and the door of the hut opened for half an hour to attract mosquitoes. The door was then closed and the mosquitoes were allowed to feed on Hin-Lo while he slept. In the morning, Manson's assistant disabled the mosquitoes covering the hut's wall with a puff of tobacco smoke and transferred them to glass vials. Manson then staggered their dissection and studied the content of the mosquitoes' stomachs over the next few weeks. Manson's staggered dissection revealed the different stages in the life cycle of the nematode that take place inside the mosquito (Haynes, 2001, pp.51-54). Although flawed (the mosquitos Manson used were wild and could have imbibed microfilariae at a previous stage; he did not replicate his experiment: mosquitoes fed on Hin-Lo only once), his experiment was proof of the mosquito's role in transmitting a human pathogen.

Due to its scientific value and how it paved the way for Ronald Ross' proof of the transmission of malaria in 1898, much is known about Manson's experiment. Much less is known however about Hin-Lo, his research subject. The lack of knowledge and confusion over Hin-Lo's life, points to the imperial setting in which Manson's research took place. This setting was characterised by an important power differential between Patrick Manson, the European doctor, a representative of the powerful Chinese Imperial Maritime Customs Service and his Chinese patients and research subjects (Haynes, 2001). Specifically, accounts diverge in relation to Hin-Lo's status. In Haynes' (2001, p.51) account, which centres the imperial context of Manson's life and is the most critical, Hin-Lo is described as one of Manson's patients. Haynes writes that Manson 'appropriated the body of Hin-Lo, one of his patients' (emphasis added). Cook's (2007, p.54) account of tropical medicine's pioneers describes Hin-Lo as Manson's servant. Finally, in Goh and Phua's (1987, p.86) paper on the work of Manson, Hin- Lo is described as Manson's gardener and as 'his willing and cooperative subject.' Whether Hin-Lo was Manson's patient, servant or gardener and regardless of whether Manson 'appropriated' his body or whether Hin-Lo was 'his willing and cooperative' subject, no historical account has explicitly addressed Hin-Lo's perspective and the colonial power relations at play in the experiment.

As Haynes (2001) has described, an essential part of maintaining its vast workforce consisted in equipping colonial officers with socio-economic privileges and encouraging them to live their social lives secluded from the local population. This also had the added benefit of maintaining an air of exclusivity around European culture and society and worked to reinforce perceived cultural and racial hierarchies. In Xiamen, Manson was part of an elite club, made up of white Europeans tasked with maintaining Britain's commercial and imperial interests in East Asia and spreading European civilisation through missions. As such, whatever the professional relation between Manson and Hin-Lo, his recruitment as research subject

needs to be seen within the political context in which it occurred and its ethics questioned. Hin-Lo's perspective is missing, but the questionable power relations of the experiment were, unwittingly perhaps, depicted in Ernest Board's 1912 painting of the experiment (commissioned by Henry Wellcome for the Wellcome Picture Gallery), in which a tall, radiating Manson, dressed entirely in white stands next to the mosquito hut, containing the small sleeping figure of Hin-Lo (Wellcome Library no. 2087i). Manson also towers erect over his stooping research assistant, who remains unnamed, further contributing to a sense of European superiority.

Manson continued to work in the Chinese Imperial Maritime Customs Service until 1883, when he set up a private practice in Hong Kong. During this period Manson also became one of the co-founders of the Hong Kong College of Medicine for Chinese in 1887 (Cook, 2007, p.56). The Hong Kong College, which would later become the faculty of medicine of the University of Hong Kong, was the British colony's first medical School, teaching Western medicine. In opening the School, Manson ensured the spread of Western biomedicine in China. He decided to return to the UK in 1889 and, for financial reasons, settled in London, where he opened a private practice (Cook, 2007, p.56). In 1892 he was appointed physician to the Seamen's Hospital Society and its Branch hospital at the Royal Albert Dock in East London, followed by his appointment in 1897 as Medical Officer to the Colonial Office under Joseph Chamberlain (ibid). Through this appointment, Manson was

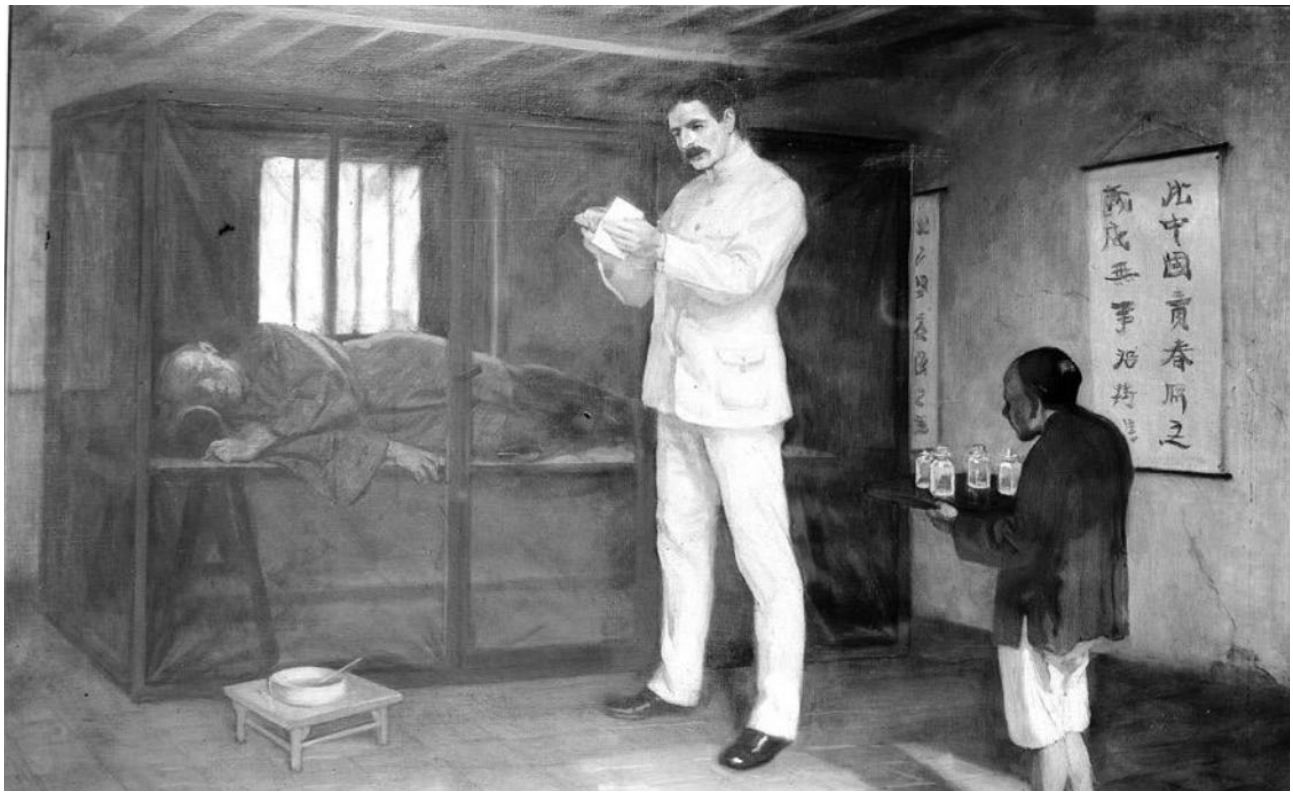


Figure 1: Patrick Manson experimenting with *filaria sanguinis-hominis* in Amoy (Xiamen), China, by E. Board, Oil on Canvas, Commissioned by Henry S. Wellcome for the Wellcome Gallery of Portraits, 1912 (Wellcome Library no. 2087i)

now in a position to use his experience as an imperial medical officer to shape the service in which he had worked and to turn tropical medicine from a peripheral discipline to one at the centre and shaping the British Empire itself.

The LSTM: A colonial solution to an imperial problem

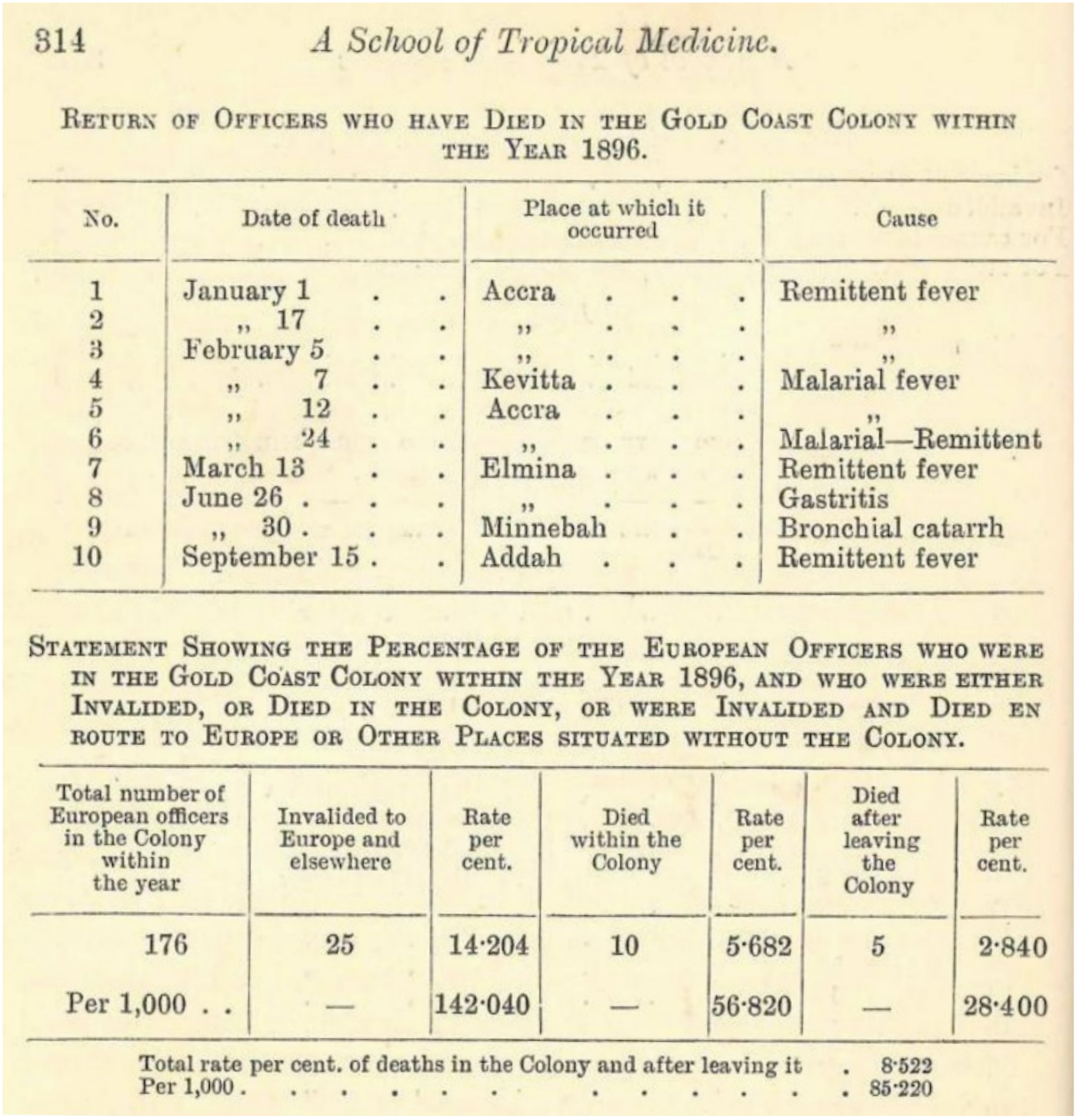
The founding of the LSTM in 1899 was framed as a solution to a problem afflicting the colonies: the high mortality rate of colonial officers and white settlers and the associated high costs to the Colonial Office and British government more generally. Tropical diseases, such as malaria, were perceived as causing a financial drain and both increased research and education were seen as a potential solution to this problem. While the problem plagued the British Empire at large, the solution, devised by Patrick Manson and Joseph Chamberlain, was a colonial one, with the founding of the LSTM tied to a change in governance in relation to colonial medical officers and their deployment.

An imperial problem

Manson was in many ways a pioneer. His years in the imperial medical service in China had alerted him to the importance of tropical medicine in the administration of Britain's Empire. However, upon his return to London, Manson found that apart from those directly concerned with imperial governance, like the Colonial Office, or those in immediate contact with tropical diseases, such as his colleagues at the Albert Dock Branch Hospital, the majority of British society and its medical establishment did not concern themselves with what was perceived to be a far-removed imperial problem. The empire, although an important resource, did not take up much space in British minds (Porter, 2021). Manson took it upon himself to change this and found useful and willing allies at the Colonial Office. Only once key stakeholders would recognise the threat tropical diseases posed to British colonial administration, would the path be paved for the opening of a School of tropical medicine.

From 1895 onwards, Manson used his position as lecturer in tropical diseases at St George's University in London to alert students, staff and the medical press of the importance of tropical medicine for the Empire (Manson, 1897). During a speech published in the proceedings of the Royal Colonial Institute in April 1900, a few months after the School's founding, he spoke at length of the need to study tropical diseases and of the suffering they cause both in indigenous and white populations (LSH - Admin/11/13, pp.309-325). Using a table prepared for him by the Colonial Office (Figure 2), Manson quantified the financial and personnel costs malaria, dysentery and other tropical diseases cause the Empire.

The table (Figure 2) shows the invalidity and mortality rates among European officers stationed in Ghana (Gold Coast) in 1896. Out of 176 European officers present in the colony in the year, 25 (14.2%) were invalided and either returned to Europe or elsewhere and 10 (5.7%) died in the colony, whereas 5 (2.8%) died after leaving the colony on their way back to Europe. Out of the 10 officers who died in the colony, 8 died of malaria or 'remittent fever', a term used broadly to describe a variety of diseases, but which often referred to yellow fever, and two of other illnesses.



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RETURN OF OFFICERS WHO HAVE DIED IN THE GOLD COAST COLONY WITHIN THE YEAR 1896.

No.	Date of death	Place at which it occurred	Cause
1	January 1	Accra	Remittent fever
2	,, 17	,,	,,
3	February 5	,,	,,
4	,, 7	Kevitta	Malarial fever
5	,, 12	Accra	,,
6	,, 24	,,	Malarial—Remittent
7	March 13	Elmina	Remittent fever
8	June 26	,,	Gastritis
9	,, 30	Minnebah	Bronchial catarrh
10	September 15	Addah	Remittent fever

STATEMENT SHOWING THE PERCENTAGE OF THE EUROPEAN OFFICERS WHO WERE IN THE GOLD COAST COLONY WITHIN THE YEAR 1896, AND WHO WERE EITHER INVALIDED, OR DIED IN THE COLONY, OR WERE INVALIDED AND DIED EN ROUTE TO EUROPE OR OTHER PLACES SITUATED WITHOUT THE COLONY.

Total number of European officers in the Colony within the year	Invalided to Europe and elsewhere	Rate per cent.	Died within the Colony	Rate per cent.	Died after leaving the Colony	Rate per cent.
176	25	14·204	10	5·682	5	2·840
Per 1,000 . .	—	142·040	—	56·820	—	28·400

Total rate per cent. of deaths in the Colony and after leaving it . 8·522
Per 1,000 . . . . . 85·220

Figure 2: Disease and death rates among European officers in Ghana (Gold Coast), 1896 (LSHTM, LAORS – GB 0809 Admin, 11/13, p.314)

Tables such as this one, explain the heavy emphasis on malaria and malaria research in colonial policy from the beginning of the 20th century. Manson (LSHTM, LAORS – GB 0809 Admin/11/13, pp.314- 315) drew the following conclusions from these figures:

'The Gold Coast is but an average specimen of our other tropical African Colonies and Protectorates. The figures which I have given mean that, what with death and invaliding and the necessity for frequent leaves of absence to Europe in order to avert disease,

in these Colonies two men have to be employed to do the work of one, and that to induce them to accept employment these two men have each to get double pay. It means that continuity of work and accumulation of personal experience which are so necessary for successful government and administration are almost impossible. It means that Government is robbed of many of its best servants just as they are becoming valuable. It means an enormous financial drain on a sorely handicapped community. In the face of these figures it is difficult to see how such Colonies can get along at all. Malaria is a rope around their necks, and the fact that they continue to exist, some of them to prosper even in spite of it, is testimony to their intrinsic value and eloquent testimony as to what might be made of them and what they would blossom into were this ever-floating cloud of malaria that hangs over them dispelled.'

Manson worked to convince his audience of the seriousness of the problem of tropical disease, of the burden it placed on the British taxpayer and on the way in which it undermined what could otherwise be a prosperous imperial resource. Such grievances and the need for investments were satirised in the below 1926 cartoon of Manson's protégé-turned-rival Ronald Ross, and the need for funds to make tropical industry profitable. As was so often the case

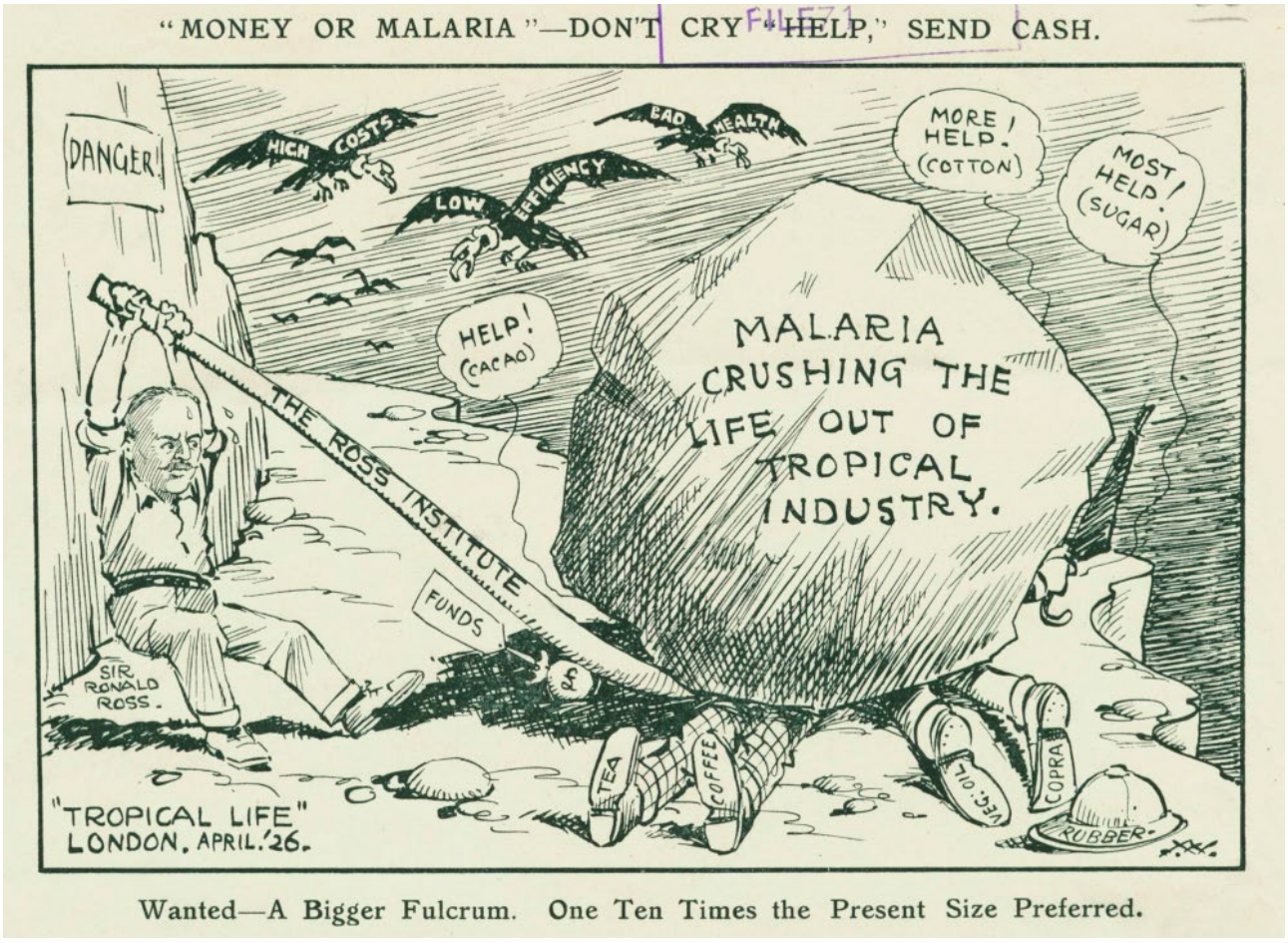


Figure 3: A cartoon depicting tropical industry being crushed under the burden of tropical disease in Tropical Life, 1926. (LSHTM, LAORS – GB 0809 Ross/161/06/169) The Ross Institute is discussed at length below

at the time, colonialism was not challenged in Manson's speech nor in the cartoon. Rather, it was seen as a political fact and responsibility. Although the cost of diseases was only calculated with regards to European officers, Manson's mention of the 'financial drain on a sorely handicapped community' can be interpreted to refer to indigenous Ghanaians too.

His emphasis on the costliness of colonial administration paints British colonies, and Ghana in this case, as unhealthy places, unfit for European habitation yet with the potential for economic exploitation. Manson's focus was not on the health of the indigenous population, and this is an important characteristic of early discourses around tropical medicine: it focused on the health of white Europeans in the tropics. The context here is important too. Manson presented these figures in a speech entitled 'A School of Tropical Medicine'. His aim in sharing data on the high mortality rate among European officers in Ghana was linked to a continuous publicity effort in relation to the London School of Hygiene. His speech continued (LSHTM, LAORS – GB 0809 Admin/11/13, p.315):

'Can this cloud by any practicable means be dissipated? My answer to this question and to the same question as regards all the other diseases I have enumerated is, emphatically, "Yes". "What!" I can imagine someone saying. "Disease arises from climate: can you change the climate of a continent?" My answer to that is "No. But disease does not arise from climate. […] Disease is caused by beasts and plants, and we have dominion over these. To compete successfully with beasts and plants all we require is knowledge, and the skills, the will, and the opportunity to apply it.'

Here, Manson repeated a common justification for colonialism and colonial governance; a perceived dominion over "beasts and plants". He presented knowledge of tropical diseases as the solution to problems of imperial governance by allowing white European colonial officials and their families to live in good health in the tropics. The foundation of the LSTM was going to remedy this problem.

A few years later, during a speech given in 1912, Patrick Manson again reflected on the circumstances, which gave rise to the creation of the LSTM 13 years earlier:

'In the eighties and nineties, just when the new era in tropical medicine was commencing, the British Empire was undergoing one of its periodical expansions – this time principally in Africa. Vast areas were being added to the Empire – Northern and Southern Nigeria, Uganda, British East Africa, Nyasaland, the huge territory included under the name Rhodesia, the Boer States, and, in a sense, the Egyptian Soudan. As a consequence of this expansion important problems in administration kept cropping up for our statesmen to grapple with; none more important than those entailed by the unhealthiness of many of the countries I have mentioned. Indeed, this matter of health was a very old problem in African administration, and one hither to unsolved.

'Tropical Africa, like so many tropical countries, though potentially rich is, under present conditions, a poor country. For this the unenterprising character of the native and the relatively scanty population may, in part, be responsible; but undoubtedly, the main reason is the unhealthiness of the climate. (LSHTM, LAORS – GB 0809 Admin/11/13, p.11)'

In his speech, Manson outlined a problem that was plaguing British government officials at the time: the perceived 'unhealthiness' of British colonies, especially in Africa and the economic costs for British and colonial taxpayers that ensued (Wilkinson & Hardy, 2001). In years to come this belief would be more widely accepted in British society, as suggested by this 1913 cartoon by Jack Walker, picturing fund-raising for the School (Figure 4).

In the left-hand panel is Joseph Chamberlain, whose role in the creation of the School is discussed below, drumming up financial support for the institution. He is addressing 'John Bull', a pictorial archetype much used to represent the British public, with its stolid, common-sense values. On the right-hand panel, a white male settler in typical colonial clothing is depicted, with a pith helmet lying on the porch behind him. One giant mosquito and a tsetse fly are shown flying over him and looking down, poised to bite. The names of tropical diseases are written on their wings, sleeping sickness, on the wings of the tsetse fly and malaria and yellow fever on the wings of the mosquito. Behind the lethargic man on the porch another house is depicted with a sign in front of it that states: 'To be sold owner

Figure 4: Jack Walker, 'London School of Hygiene and Tropical Medicine Fund: A Further £50,000 Wanted', Tropical Life, 9, 1913

dead'. The cartoon shows a satirical depiction of life in the tropics, blighted by tropical disease and resulting in white men's deaths and lethargy, which hinders economic development. There could be no clearer statement of the School's purpose in supporting the colonial economy.

The 'problem' of tropical medicine was indeed one of particular interest to Joseph Chamberlain, as the Secretary of State for the Colonies (1895-1903) (Wilkinson and Power, 1998). In a communication about the LSTM to his successor at the Colonial Office, Lord Harcourt, in 1912, Chamberlain wrote 'the success of our tropical colonies depends largely upon the research which is being carried on […]' (LSH - Admin/11/13, p.6). Chamberlain and Manson had been working closely together since Patrick Manson had become the Colonial Office's Chief Medical Advisor in 1897 (Haynes, 2001). As Secretary of State for the Colonies, Chamberlain was an ardent supporter of British imperialism. Similarly to Manson, Chamberlain used his role as Secretary of State for the Colonies to make imperial concerns matter to Britain's metropolitan population (Cook, 2007). Peter Marsh (1994, p.414) has argued that Chamberlain 'took up the cause of research and education in tropical diseases because of the assistance it offered to the imperial cause.' Indeed, tropical diseases were costing the Empire a lot and were diminishing public and parliamentary support for Britain's imperial enterprise.

Britain had long advocated a policy of fiscal 'colonial self-sufficiency' and had achieved this by the beginning of the 20th century (Gardner, 2012). Colonial governments were heavily encouraged to rely in their budgets and expenditure on revenues raised in the colonies, from taxing individual or companies. Tropical diseases, and the costs in personnel replacement, convalescence and health care threatened this policy. As Marsh (1994, p.415) has also explained, the mortality rate of British colonial officers especially in West Africa was such that a Commons committee called for British withdrawal from Sierra Leone in 1865. Furthermore, British insurance companies declined to issue life insurance policies to colonial officers sent to serve in West Africa.

Chamberlain saw advances in tropical medicine as a way to reinvigorate the Empire and reduce its costs to British taxpayers and colonial governments (TNA – FO 2/890). Even more so, he viewed the founding of the LSTM as 'a discharge of a duty owed by this country to its representatives in our tropical dependencies and as a necessary step towards the agricultural and commercial development of those territories' (TNA – CO 323/645, p.372). Indeed, from 1898 onwards, Joseph Chamberlain and his staff at the Colonial Office had been actively working with Patrick Manson to make the LSTM a reality.

A colonial solution

The early period of the LSTM's existence is recorded in the meeting minutes of its parent body, the Seamen's Hospital Society, which governed the School until its reconstitution as the London School of Hygiene and Tropical Medicine in 1924.[9] The minutes start on the 5th of July 1899, four months before the School's official opening in October 1899. Manson's personal career heavily influenced the way in which the School was set up. His professional connection to the Seamen's Hospital Society and the Colonial Office meant that the School was set up as part

of the Society's Albert Dock Seamen's Hospital, which allowed students to study tropical diseases in sailors who were being treated there. The hospital was favoured over another contender to host the new school: the military academy at Netley Hospital, which housed the Royal Army Medical School (Haynes, 2001; TNA – FO 2/890, p.39). Netley's administration fell under the authority of the Ministry of War and Manson feared that LSTM students would not receive the appropriate amount of attention there (ibid).

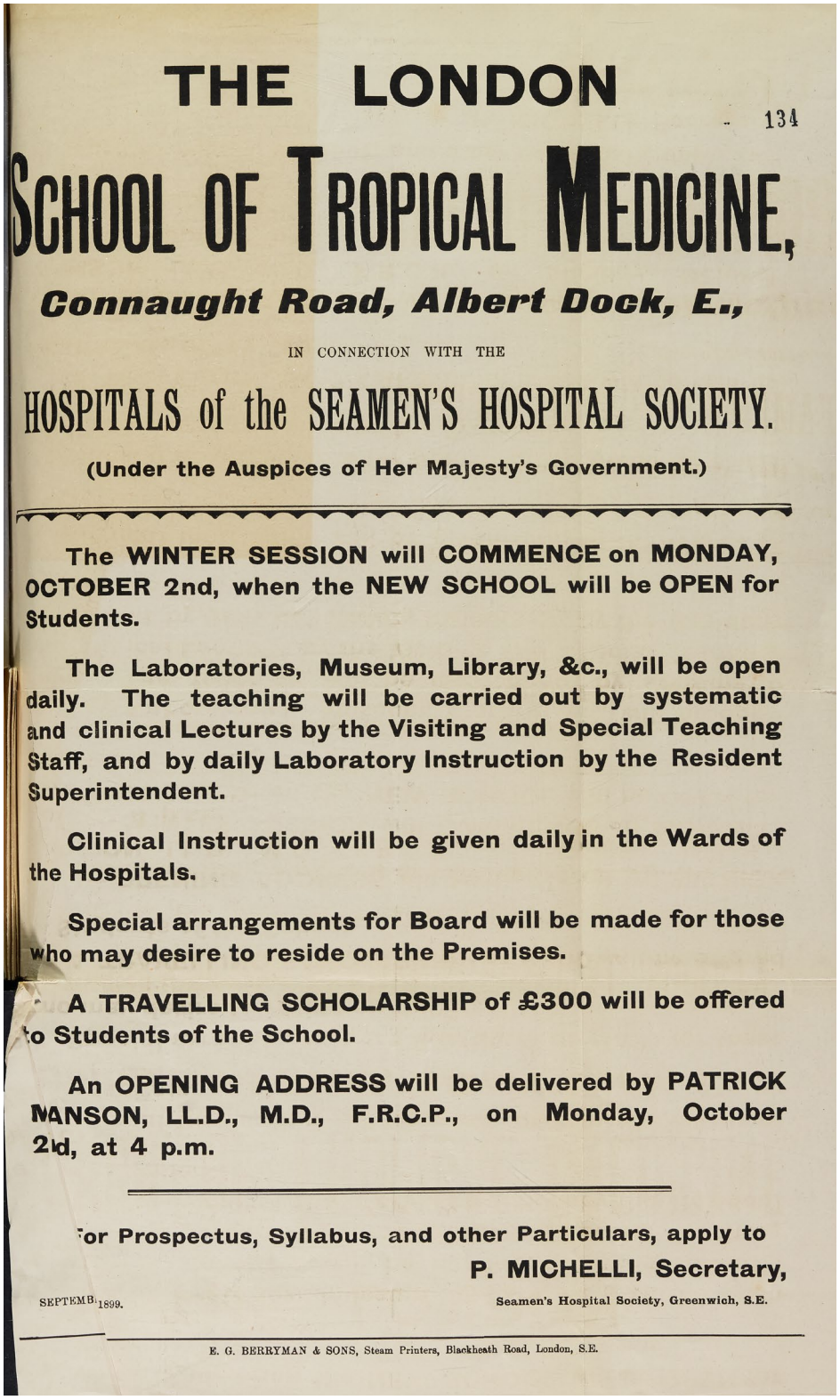
Concurring with Manson, Herbert Read, Chamberlain's private secretary argued in favour of the Colonial Medical Service having 'a place of its own', by which he meant the LSTM (ibid, p.142). In its first two teaching sessions (Winter 1899 and Spring 1900), 11 out of 19 students were referred by the Colonial Office for training before taking up their posting as medical officers across the British Empire (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 1, November 17, 1899). Manson welcomed the first cohort of students on the 2nd of October 1899 with the following words (LSHTM, LAORS – GB 0809 Admin/11/13, p.7):

'You are welcome for many reasons, but more especially because you are the first instalment of what we hope will grow in the course of years into a numerous and important band; a band that shall not only leave its mark in the history of tropical medicine, but shall exercise an influence for good in the development of the empire.'

From the first day of teaching, the 'development of the Empire' and the development of tropical medicine as a scientific discipline were linked. Manson's address would not have come as a surprise to students who enrolled in the School in 1899. As stated above, a majority of them were referred and their fees were subsidised by the Colonial Office (Haynes, 2001, p.142). The School was, as intended by Manson and the Colonial Office, the Colonial Medical Service's official training academy (Haynes, 2001, 141). However, the Colonial Office itself did not have the funds to pay for the establishment of the School, nor did the Seamen's Hospital Society. Chamberlain initially approached the Treasury to ask for financial support. However, the Treasury argued that the costs for the establishment of the School should be borne by colonies directly. Colonial governments in Africa, which reported to Chamberlain, were thus solicited for funds, with the exception of the Niger Coast Protectorate, which was administered by the Foreign Office. Initially named Oil River Protectorate, after the palm oil resources the British were trying to exploit, the Niger Coast Protectorate was amalgamated into the Protectorate of Southern Nigeria in 1899 and its management handed over to the Colonial Office (Anene, 1956; Falola & Heaton, 2008).

In a letter from Lord Salisbury, Foreign Secretary at the time, to Chamberlain, it was agreed that the Niger Coast Protectorate would pay £1000 for the initial set up of the School (TNA – FO 2/890). Herbert Read, discussed the establishment of the LSTM in a memorandum to the Treasury in June 1898 (TNA- FO 2/890, p.42). In a subsequent memorandum apart from the purpose of the proposed School and its usefulness, especially to African colonies, the question of who would pay for the new School was discussed at length:

[9]The Seamen's Hospital Society had been founded in 1821 to support and treat ill seafarers first on a hospital ship, the Dreadnought, and then from the 1870s in two hospitals in Greenwich and the Docklands (Seafarers Hospital Society, 2021).



THE LONDON

134

SCHOOL OF TROPICAL MEDICINE,

Connaught Road, Albert Dock, E.,

IN CONNECTION WITH THE

HOSPITALS of the SEAMEN'S HOSPITAL SOCIETY.

(Under the Auspices of Her Majesty's Government.)

The WINTER SESSION will COMMENCE on MONDAY, OCTOBER 2nd, when the NEW SCHOOL will be OPEN for Students.

The Laboratories, Museum, Library, &c., will be open daily. The teaching will be carried out by systematic and clinical Lectures by the Visiting and Special Teaching Staff, and by daily Laboratory Instruction by the Resident Superintendent.

Clinical Instruction will be given daily in the Wards of the Hospitals.

Special arrangements for Board will be made for those who may desire to reside on the Premises.

A TRAVELLING SCHOLARSHIP of £300 will be offered to Students of the School.

An OPENING ADDRESS will be delivered by PATRICK MANSON, LL.D., M.D., F.R.C.P., on Monday, October 2nd, at 4 p.m.

For Prospectus, Syllabus, and other Particulars, apply to

P. MICHELLI, Secretary,

Seamen's Hospital Society, Greenwich, S.E.

SEPTEMBER 1899.

E. G. BERRYMAN & SONS, Steam Printers, Blackheath Road, London, S.E.

Figure 5: Poster announcing the opening of the LSTM (TNA - FO 2/890, p.134)

'The initial contribution of £3,550 must be defrayed by the Colonies and Protectorates concerned with the assistance of the Home Government, and as the scheme is mainly intended for the benefit of Africa so upon Africa the bulk of the expense will fall. […]

'But although the new system cannot be so thoroughly applied in their [non-African colonies] case as in the case of the African colonies and Protectorates, Mr Chamberlain proposes to introduce it as far as possible in their case by giving the preference, whenever he is asked to select candidates, to those men who have been trained at the Seamen's Hospital, by pointing out the benefits of the scheme to the Colonies concerned and urging them to avail themselves of it as far as possible and by inviting initial contributions to the capital sum already mentioned.'

Here, Africa, is presented as the beneficiary of the establishment of a School of Tropical Medicine in London, as are other colonies and Read argues that they should therefore be liable to pay for the School. However, in the remainder of the memorandum, he also lays out how beneficial the establishment of the School would be for the Imperial (Home) government in Whitehall. Specifically, Read argues (TNA – FO 2/890, pp.43-45) that the West African Frontier Force, paid for by the Imperial government in London and tasked with protecting West African colonies 'against foreign encroachments', would benefit from a pool of well-trained colonial medical officers and doctors.

'It would be of the greatest service to the Home Government to be able to obtain assistance from a well trained Colonial Medical Department. The same argument also applies and will apply with increasing force to the Crown Colonies outside Africa where Imperial Troops are employed. In these circumstances and bearing in mind that the Imperial Government is ultimately responsible for the Crown Colonies and Protectorates of the Empire and therefore is strongly interested in any measures for maintaining the health and efficiency of the administrative staff, it is hoped that the Lords of the Treasury will consent to sanction a contribution from Imperial funds of a moiety of the initial cost, say from £1,500 to £2000 leaving the balance to be divided among the Crown Colonies. (TNA – FO 2/890, p.44)'

The West African Frontier Force and other 'imperial troops' were mainly tasked with securing British possessions and interests against those of other imperial powers and in West Africa especially against those of France. As such, the creation of the LSTM was presented here as directly beneficial not only to the civic administration of West African colonies, but also to Britain's imperial military power.

The establishment of the LSTM was thus framed as benefitting British colonies and colonial industry. However, that alone seems not to have been enough to convince metropolitan interests to contribute to funding the School. Herbert Read next had to make a point of how the School would benefit white settlers and colonial officers to obtain the necessary funds. Despite Read's emphasis on African colonies having to pay for the establishment of the LSTM because they were its biggest beneficiaries, what may have swayed the Treasury was his presentation of the scheme's many benefits

for white Europeans. In the same memorandum on the creation of the LSTM sent to the Treasury, he laid out the case for the foundation of the LSTM and Chamberlain's and Manson's support of it. Describing the 'unhealthiness' of the West African colonies, Read drew special attention to the high mortality rate of white European officers as well as the unknown, but possibly equally high mortality rate of the 'non-official white population' (FO 2/980, p.37-39). Here white Europeans were described as the prime beneficiaries of the founding of the LSTM:

'Dr Patrick Manson, the present Medical Adviser to the Colonial Office, who has had Colonial experiences and has made a special study of tropical disease on which he is now one of the leading authorities, has expressed a strong opinion to the effect that many lives could be saved among the white residents in these unhealthy climates, if the Colonial Medical Officers were required, prior to appointment, to study tropical medicine on a regular system.'

While Read laid out the benefits for white residents quite plainly here, his justifications, as detailed above, change a few pages later, when he argued that 'upon Africa the bulk of the expense will fall.' In effect, and as subsequent chapters in the report will show, the LSTM's teaching was first and foremost designed to improve the health of white Europeans in the tropical colonies with the expenses met by colonial governments in Africa. Read went on to write:

'His view is that natives, equally with Europeans, will benefit by greater technical knowledge and skill on the part of those who have charge of the Hospitals and Dispensaries in the various Colonies and Protectorates.'

The native population in Read's exposition was an afterthought. As Porter (2021, p.20) has argued, the Treasury was reluctant to spend British taxpayers' money, especially on a far-flung Empire. Read's focus on the profits for white Europeans in the colonies of the School's establishment, was thus a clever move.

However, it also aligned with Chamberlain's overall imperial vision and his ideas for who should reap the benefits of tropical medicine (Marsh, 1994). As Peter Marsh (1994, p.415) has shown Chamberlain's attitude was one of racial superiority. He viewed the creation of the Colonial Nursing Association in 1896 as a means to save those otherwise 'left almost entirely to the tender mercies of dirty and indifferent and ignorant natives'. Marsh (ibid) also argues that it was this belief that influenced colonial public health policy under Chamberlain. This resulted most notably in the racial segregation of officials' living quarters in tropical colonies and actively limited career opportunities in the Colonial Medical Service for indigenous doctors. This was especially the case in the West African Medical Staff, which barred those of non-European descent from applying (Johnson, 2010a) and whose creation was intrinsically linked to the founding of the LSTM (TNA – FO 2/890, pp.14-20, p.40). By making a diploma from the LSTM a necessary condition for those wishing to join the Colonial Medical Service in Africa (ibid, p.180), Herbert Read and Joseph Chamberlain guaranteed a steady stream of students for the School and also ensured that colonial medical officers would receive specialised training in tropical medicine, which had not been the case previously. However, they also created the expectation of employment for those taking the course.

By amalgamating the West African colonies into one conjoined medical service, Read created additional jobs and employment opportunities for graduates of the LSTM. He argued:

'In a large service, again, such as will thus be constituted it may be assumed that vacancies will occur at frequent and fairly regular intervals. It will therefore be possible, taking an average, to train a certain number of young Doctors in advance of the vacancies which may be counted upon by or shortly after the end of their course. (TNA – FO 2/890, pp.14-20, p.40'

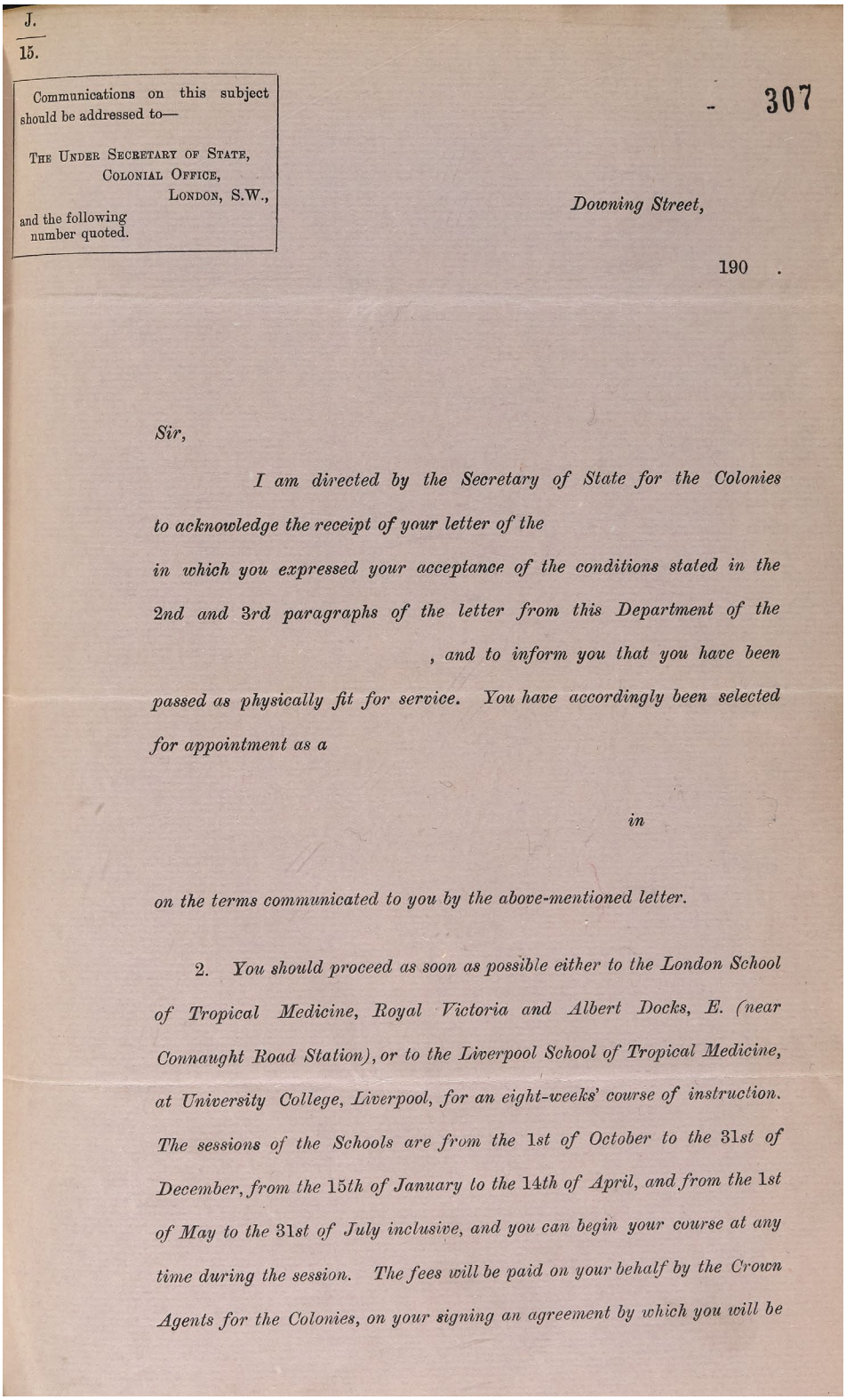
The West African Medical Staff that Read proposed here in 1898 came to fruition in 1902 (Johnson, 2010a). Ryan Johnson (2010a) has argued that its colour-bar, which made it the first openly racist department in the British Empire, was put in place to ensure career opportunities for white British doctors on an increasingly saturated domestic and imperial medical market. It also ensured that white settlers would be assured of being treated by white doctors in the colonies. This aligns with Read's plans for the School as a pipeline into the colonial medical service in West Africa. While anyone could apply to study at the School, from 1902, only those of European descent could apply to work in the West African Medical Staff, which had been created explicitly to offer jobs to the School's graduates (TNA – FO 2/890, pp.14-16).

Following the Treasury's assent to Read's plan in June 1898 (TNA – FO 2/890, p.46), Joseph Chamberlain sent out a circular to all colonial governments on August 19th 1898 (TNA – CO 323/608, p.103). In his circular, Chamberlain presented the proposed founding of the LSTM as a 'matter[s] of great importance to the tropical Colonies' (ibid). The importance of instruction in tropical medicine was such that Chamberlain made compulsory the course at the LSTM and at the Liverpool School of Tropical Medicine, which opened its doors in May 1899. In order to subsidise the costs of a now compulsory degree to all those wishing to enter the colonial medical service, Chamberlain proposed the following in November 1899 (TNA – FO 2/890, pp.180-181):

'All colonial medical officers, who may in future be selected by the Secretary of State, will be required to undergo a course of instruction for two months at the School.

'The cost of the Tuition Fees and also the Fees for Board and Residence during the above period will be borne by the Colonial Government under which the Officer is about to be employed, each Officer being required to sign an Agreement with the Crown Agents for the Colonies by which he will be bound to repay to the Colonial Government the total amount of these Fees in the event of his relinquishing his appointment within three years from the date of his arrival in the Colony for any other reason than mental or physical infirmity.

'In the case of Medical Officers already in the service of the Colony who may desire or who may be required to undergo a course of instruction in tropic medicine when they are on leave in this country, the Tuition Fees, but not the Fees for Board and Residence, will be paid by the Colony.'



J.
15.

Communications on this subject should be addressed to—

THE UNDER SECRETARY OF STATE,
COLONIAL OFFICE,
LONDON, S.W.,

and the following number quoted.

307

Downing Street,

190 .

Sir,

I am directed by the Secretary of State for the Colonies to acknowledge the receipt of your letter of the

in which you expressed your acceptance of the conditions stated in the 2nd and 3rd paragraphs of the letter from this Department of the

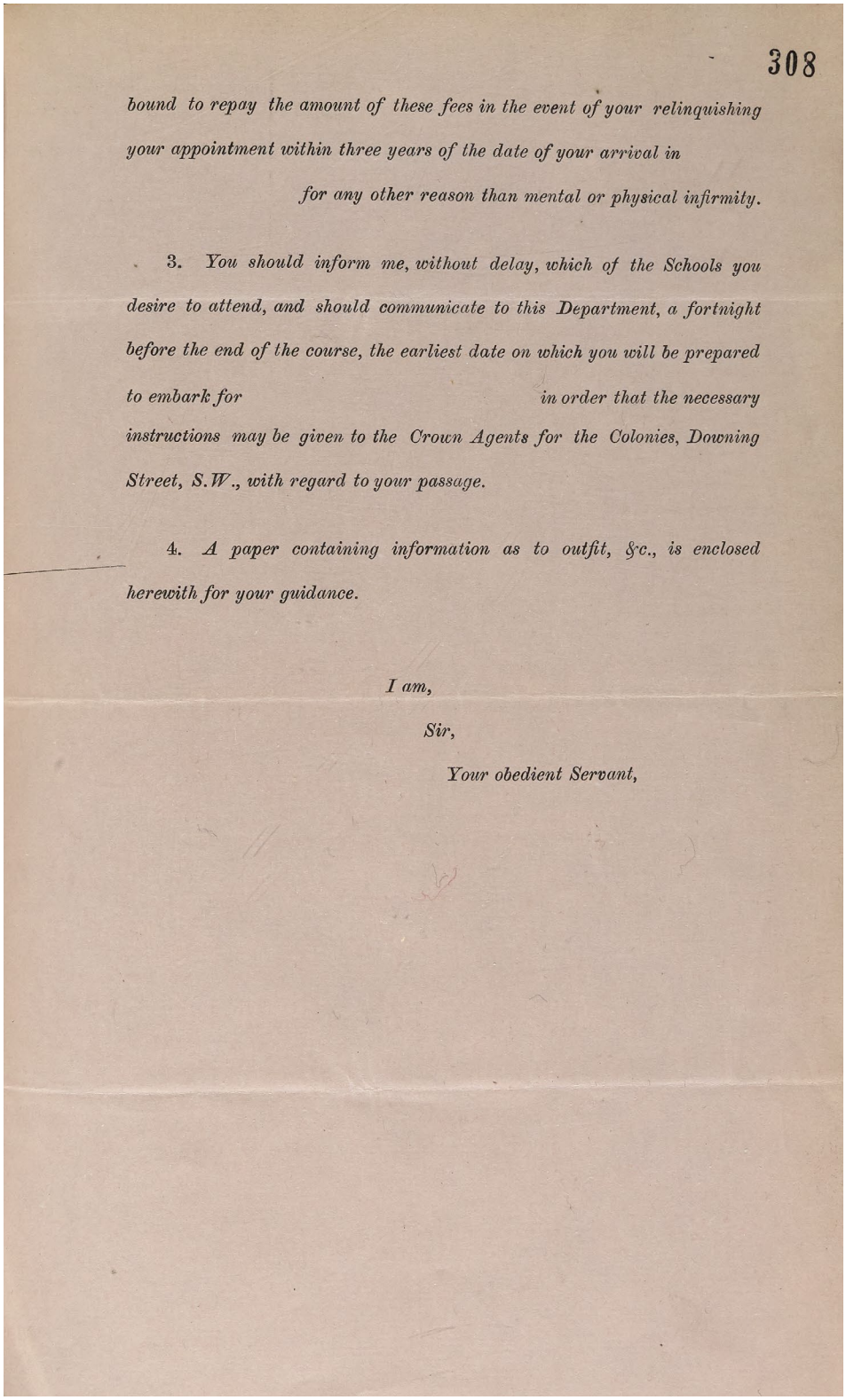
, and to inform you that you have been passed as physically fit for service. You have accordingly been selected for appointment as a

in

on the terms communicated to you by the above-mentioned letter.

2. *You should proceed as soon as possible either to the London School of Tropical Medicine, Royal Victoria and Albert Docks, E. (near Connaught Road Station), or to the Liverpool School of Tropical Medicine, at University College, Liverpool, for an eight-weeks' course of instruction. The sessions of the Schools are from the 1st of October to the 31st of December, from the 15th of January to the 14th of April, and from the 1st of May to the 31st of July inclusive, and you can begin your course at any time during the session. The fees will be paid on your behalf by the Crown Agents for the Colonies, on your signing an agreement by which you will be*

Figure 6a: First part of a standard appointment letter for colonial medical service with instructions to 'proceed as soon as possible to the London School of Tropical Medicine' (TNA – FO 2/890, pp.307 - 308)



308

bound to repay the amount of these fees in the event of your relinquishing your appointment within three years of the date of your arrival in for any other reason than mental or physical infirmity.

3. *You should inform me, without delay, which of the Schools you desire to attend, and should communicate to this Department, a fortnight before the end of the course, the earliest date on which you will be prepared to embark for in order that the necessary instructions may be given to the Crown Agents for the Colonies, Downing Street, S.W., with regard to your passage.*

4. *A paper containing information as to outfit, &c., is enclosed herewith for your guidance.*

I am,

Sir,

Your obedient Servant,

Figure 6b: Second part of a standard appointment letter for colonial medical service with instructions to 'proceed as soon as possible to the London School of Tropical Medicine (TNA – FO 2/890, pp.307 - 308)

The School thus seemed set to become the official place of instruction for colonial medical officers, sponsored by colonial governments, which were disproportionately situated in Africa.

The case was slightly different for the Liverpool School of Tropical Medicine, which was largely funded by Liverpudlian ship-owner and merchant, Alfred Jones. However, the Seamen's Hospital Society suggested in a letter to Joseph Chamberlain on the 16th of April 1898 that the School should 'admit […] students other than those sent by the Colonial Office, as it is believed that Missionary Societies and other bodies would wish to give their Medical Officers the advantage of training in the School' (TNA – FO 2/890, p.33). The Colonial Office agreed to this and students from missionary societies, foreign governments and private individuals joined the colonial office students at the LSTM.

Apart from asking the colonies for money for the setting up of the School, the Colonial Office also solicited them for annual contributions to keep the School running. In exchange, contributing colonies were allowed to send a limited number of students to the School free of charge (TNA - CO 129/536/3). Colonised populations were almost always taxed against their will, and taxation encountered local resistance and rebellion (Fyfe, 1962). Thus, the School's creation did two things: Firstly, it diverted funds from the colonies to set up a school of tropical medicine in London. Apart from a simple political choice, this would often have consequences for the availability and quality of medical education, primary healthcare, and public health interventions in the colonies themselves, as remarked on (although unapologetically) by Chamberlain's successor at the Colonial Office, Lord Harcourt, in 1911 (LSHTM, LAORS – GB 0809 Admin/11/13, p.7). Reflecting on the money the School continued to receive from the colonies, he stated the following:

'There is also, I am happy to say, a contribution of nearly £900 a year from some of the Crown Colonies which have often little enough to spare for their own medical needs, but which realise the immense benefit of this training of the students by whose attainments they ultimately profit.'

The education of predominantly white colonial medical officers in London was thus prioritised over investments in healthcare systems in the colonies.

Secondly, it also made the School itself an imperial research centre, allowing, as was Chamberlain's and Manson's ambition, for the study of a variety of tropical diseases in London, rather than the colonies. This centralisation effort is important because it consolidated the epistemic power of the Empire at the expense of the colonies. This was not an inevitable outcome. Indeed, several years earlier in 1895, the Colonial Office had considered a proposal by John Farrell Easmon, Chief Medical Officer in the Gold Coast. Easmon, a Sierra Leonean doctor was at the time the highest-ranking West African in the entire colonial medical service (Haynes, 2001, p.138). Easmon approached Manson's predecessor as Medical Advisor to the Colonial Office, Dr Charles Gage-Brown with the idea of expanding on the informal instruction in tropical medicine that he was providing to medical officers in Accra. Easmon, like Chamberlain and Manson, was aware that a majority of medical officers dispatched to the colonies did not have the skills and specified knowledge required to

recognise and treat most tropical diseases (ibid). He thus proposed to create a training centre in Accra, a West African version of what was to become the LSTM. Gage-Brown supported Easmon's proposal in a memorandum to Joseph Chamberlain (ibid, p.139). The proposal remained alive for two years, during which Herbert Read solicited views from other West African colonies.

Ultimately the proposal was rejected, in part because the Colonial Office feared inter-colonial competition, should such a programme be sanctioned in one of the West African colonies (ibid, pp.139- 140). As Chapter six will show, this first decision not to offer specialised training in West Africa and the Colonial Office's subsequent decision to centralise teaching on tropical medicine in London would affect the lives of many doctors practicing medicine in the tropical colonies, among them Easmon's own son. The failure to establish a school or provide for instruction in tropical medicine in respective colonies centralised imperial medical knowledge in London. It also underscored the idea that London, and white British people held the solution to the 'problem' of the unhealthy tropics.

As Chapter six will also show, an increasingly diverse student body passed through the LSTM's Greenwich campus in the years after its establishment. Manson and Chamberlain had achieved their goals of instituting and standardising the training of tropical medicine in London. Their dedication to tropical medical research had the desired effect of reducing the mortality rate among European colonial officers working in Africa and other tropical colonies. However, the funds that were provided to establish and keep the LSTM running further stripped colonial governments of revenue to set up effective health systems in the colonies themselves. The founding and financing of the LSTM thereby actively contributed to widening the gap in medical science research, health infrastructures, and health outcomes between London, where the LSTM was situated, and the colonies it was established to serve.

This section has illustrated the close cooperation and the joint interests of Patrick Manson and high-ranking members of the Colonial Office in the founding of the LSTM. It also shows that from the very beginning, the School was devised as an integral part in the management and expansion of Britain's colonial endeavour and that its role as training ground for British colonial medical officers quickly became entangled with administrative racism. In the LSTM, colonial medicine had found its place in British medical education.

5. Governing LSHTM (1928-1960)

LSHTM's shifting governance composition allows further insights into the School's colonial history and its overall relationship to British and international public health institutions.

The archives allow for more detailed insights into the governance structure for the period 1928 to 1960. For this period the composition of various boards and committees is listed in the School's Annual Reports. Here, the report details how the composition of the School's governance bodies reflected its increasing orientation towards British public health, while still continuing to maintain its ties with and cater to commercial and governmental colonial interests.

There were numerous changes to both the location and composition of the School in the period 1899-1960 which are key to our understanding of the School's colonial history. In November 1920, and following a donation of surplus funds from the British Red Cross in 1919 (Wilkinson & Hardy, 2001), the School purchased a building in Endsleigh Gardens (Bloomsbury) to contain both the School and a hospital of tropical diseases. In 1924 a donation of over $2 million by the Rockefeller foundation allowed the School to include public health and hygiene within its remit, re-instantiating itself as the London School of Hygiene & Tropical Medicine. The International Health Board of the Rockefeller Foundation was interested in establishing a school of public health in Europe. The grant allowed the School to purchase a plot and build a new building at Keppel Street in Bloomsbury, which still houses the School today. The School moved into this building in 1929. Finally, in 1934, the School incorporated the Ross Institute of Tropical Hygiene, a hitherto independent research institute located in Putney and founded by Patrick Manson's former disciple-turned-rival, Sir Ronald Ross, the discoverer of mosquito transmission of malaria.

The composition of the School's governance committees and structures reflected its institutional growth and affiliations (see timeline below). With time, these affiliations would change.[10] Although the Rockefeller funding meant that a strong British Public Health component was added to the School's research and teaching, its ties with the Colonial Office and with colonial industries and interests remained strong until the 1960s.

The structure of management

Between 1899 and 1924 the School was governed by a management committee under the auspice of the Seamen's Hospital Society. The School's original committee consisted of Sir Perceval Nairne, who was both Chairman of the Society and secretary of the School's management committee, Sir Herbert Read, who represented the Colonial Office, Sir Patrick Manson, and a selection of teachers, including the medical tutor. Nairne, a solicitor, had been on the management committee of the Seamen's Hospital Society since 1869 and its chairman since 1898. He remained its chairman until his death in 1921. The care of injured and sick seamen remained one of his

[10]For a detailed timeline of the School's broader history visit www.lshtm.ac.uk/research/research- action/lshtm-120/historical-timeline

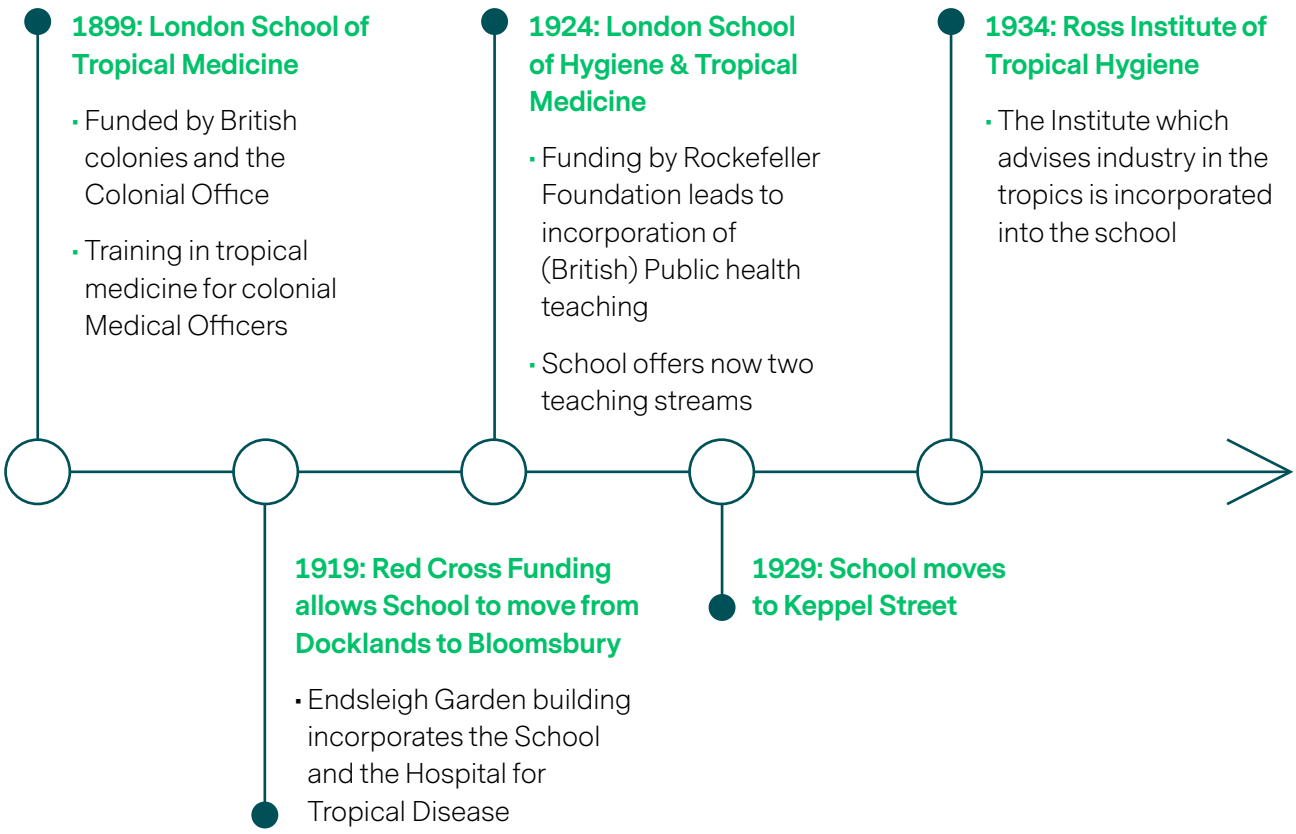


Figure 7: An abbreviated timeline of the LSHTM

main concerns throughout his life and he undoubtedly saw the development of the LSTM as beneficial to improving such care. His obituary in the *Hospital Health Review* quoted him as saying the following shortly before his death (Anonymous, 1922):

'The Dreadnought [the Seamen's Hospital Society Hospital for sailors] stands as a record of voluntary effort for our Merchant Seamen. It is for this and the next generation to secure that the benefits of rapidly-advancing medical and surgical science are freely placed at the disposal of those whose courage and skill have stood the Empire in good stead in time of peril.'

Here, Sir Perceval Nairne reflected on Britain's imperial interests. Sir Herbert Read, on the other hand, represented Britain's colonial interests on the management committee in his dual role as a senior member of the Colonial Office.

Between 1928 and 1935, the School was governed solely by a Board of Management whose members represented a cross section of individuals with ties to private industry in Britain's colonial Empire, the UK's newly emerging public health scene, and the University of London. 1932 saw the creation of a School Council, chaired by the Dean. The School Council assembled the professors and readers of the university, the Director and

Deputy Director of the Division of Clinical Tropical Medicine, the Warden of Studies, recognised teachers, the librarian, from 1934 the Director of the Ross Institute of Tropical Hygiene and from 1947 the Assistant Dean. The School Council reported to the Board of Management, making recommendations on staffing, equipment, and estates questions. Although incorporated into the School in 1934, the Ross Institute also continued to have its own Standing Committee, composed largely of corporate representatives.

To what extent was colonial representation diluted as the School's remit broadened? The composition of the Board of Management, from its formation in 1928, reflected the push towards British public health, instituted in 1924 when the School became the London School of Hygiene & Tropical Medicine. The management board reflected this diversification of teaching and research and the new orientation of the School by initially allotting a greater number of seats to representatives from the Ministry of Health than from the Colonial Office. In 1935 two important changes occurred: the composition of the Board of Management changed and a Court of Governors was created. The Board of Management still held overall say on decisions made at the School, with the Court of Governors appearing to take a more nominal advisory role. Unfortunately, the minutes of the Court of Governors meetings are not held in the School's archives, and so it is difficult to define the exact division of labour. Many members served time on both committees.

These changes seem to have consolidated a 'tropical'/'public health' balance during the 1930s, although this would go on to shift slightly more to tropical medicine during the Second World War. Members of the Board of Management were now appointed by eight different bodies under the leadership of a chairman who also acted as ex-officio Chairman of the Court of Governors. This system, allowing outside institutions to nominate representatives to serve on the LSHTM's governance bodies would continue until the 1960s. The first two chairmen of the modified Board of Management were Sir Austen Chamberlain (1936) and Neville Chamberlain (1937-1939), his brother and Prime Minister at the time. The eight bodies with the power to nominate members to the Board of Management were the Senate of the University of London, the Minister of Health, the Court of Governors, the Seamen's Hospital Society, the Secretary of State for the Colonies, the School Council, the Ross Institute (from 1947) and, in the case of several co-opted members, the Board of Management itself.

The School decided during the Second World War that the number of members on the Board of Management appointed by the Colonial Office should be increased from one to two, in order to ensure greater representation (LSH - Admin 01/03/01), as the Ministry of Health had been appointing three representatives to the Board of Management since 1935. However, at the same time as increasing the number of members appointed by the Secretary of State for the Colonies to the Board of Management, the Board also added one by the Ross Institute of Tropical Hygiene which would speak to both aspects of the School's work. They also prevented or revoked appointments to the Court of Governors by the Health Committee of the League of Nations, the Board of Management of the Metropolitan Asylums District and the Royal Institute of Public Health, thus signalling an appreciation of the need to maintain balance in the numbers of representatives of both hygiene and tropical medicine within the governance structures of the school (ibid).

A similar balance was maintained in the newly formed Court of Governors, in which the chairman of the Board of Management also acted as chair. Members of the Court of Governors were elected for a period of three years, the first term of office ending in December 1935. The Court of Governors was composed of representatives from 27 public entities, both national and international and was thus considerably bigger than the Board of Management, which was tasked with running the School. The importance accorded to some bodies was such that they were represented on both the Board of Management and the Court of Governors. This was the case of the Ministry of Health, the Senate of the University of London, the School Council, the Seamen's Hospital Society and the Secretary of State for the Colonies (represented between 1935 and 1939 by Austen and Neville Chamberlain subsequently).

The other institutions and organisations represented only on the Court of Governors were: the Secretary of State for the Home Department, the Secretary of State for War, the Secretary of State for India (until Indian independence in 1947, when no replacement or substitute member was appointed), the Secretary of State for Air, the Board of Admiralty, the President of the Board of Education, the Minister of Agriculture and Fisheries, the Secretary of State for Scotland, the Medical Research Council, the Royal Society, the Health Committee of the League of Nations (also until 1947, after which it was replaced by the World Health Organisation), the London County Council, the County Councils Association, the Municipal Corporations Association, the Lister Institute (today named the Lister Institute of Preventive Medicine), the Royal Sanitary Institute, the Royal Institute of Public Health (until 1939), the British Medical Association, the Society of Medical Officers of Health, and several co-opted members.

This pattern of influence continued into the post-war period when formal decolonisation began. From 1954 the Secretary of State for Commonwealth Relations, and from 1959 the Minister of Labour and National Service, were also represented on the Court of Governors. Therefore, starting in 1954, the School's colonial and post-colonial interests were represented, on the Court of Governors at least, by both the Secretary of State for the Colonies and the Secretary of State for Commonwealth Relations. Interestingly, although Indian independence seems to have impacted the composition of the School's governance in 1947, with the removal of the Secretary of State for India, this political upheaval does not seem to have had a huge impact on the actual work of the School. For example, the Ross Institute's India Branch is merely renamed the India & Pakistan Branch and is seen to continue to function as normal, with only a tiny mention of the political change in their annual reports to the School.

This adaptation of the Ross Institute's India Branch provides an early example of LSHTM's response to decolonisation. Staff at the branch perceived an increase in support from the new Indian government, with newly appointed officials participating in the Ross Jubilee celebrations in 1948 (LSHTM, LAORS – GB 0809 Admin/11/01, 1947-8). Changes to the work and focus of the Ross Institute branch in India at this time instead can be seen to be a result of Dr G. MacDonald's visit in 1946. MacDonald recommended that "the scope of the Institute should be widened to include the prevention of all the major diseases affecting the tea industry and not malaria alone". In response, the institute stated that it had "no intention to restrict the organisation to plantation districts only and that everything which could be done to help other subscribing industries should continue to be carried out" (LSHTM, LAORS – GB 0809 Ross Institute/07/04/01). This affirmation

of the Institute's commitments was designed to allay the fears of the other subscribing industries that work in response to MacDonald's recommendations would focus on improving the health of tea plantations at the expense of other industries. These internal machinations seem to have been wholly disconnected from the process of Indian independence, which itself appears to have had little impact on the working and research of the school.

The composition of the Court of Governors shows which national and international bodies the School wanted to be in conversation with. Again, represented institutions show LSHTM's dual orientation towards British public health on the one hand and towards colonial and tropical medicine and the British Empire on the other. Britain's colonial interests were embodied on the Court of Governors by the Secretary of State for the Colonies and the Secretary of State for India. However, the country's military interests represented through the Secretary of State for War, the Secretary of State for Air, which was in charge of the Royal Air Force and the Board of the Admiralty, cannot be discounted. The biggest representation was possibly accorded to other administrative and research institutions concerned with medicine and public health and to municipal government in London and the UK, such as the Medical Research Council, the London County Council, the Royal Sanitary Institute and the Municipal Corporations Association. Municipal and local governments had been in charge of public health measures in the UK since the middle of the 19th century and still played an important role in the 1930s (Gorsky et al., 2014).

However, when considering the links between LSHTM and colonialism, it is equally important to consider the roles played by members of the School on external councils and committees, as well as the composition of internal bodies. Take for example the Colonial Medical Research Committee (CMRC), formed in 1945 through the joint efforts of the Medical Research Council and the Colonial Office. This committee included members of LSHTM staff; in the first instance Prof P. A. Buxton and Dr B. S. Platt. However, it also included a number of members, external to the School, who either simultaneously or subsequently sat on the LSHTM's Board of Management and Court of Governors, such as Sir Edward Mellanby, Dr W. H. Kauntze, Dr (later Sir) A. N. Drury, and Brigadier (later Sir) N. Hamilton Fairley (Anon., 1945). Further analysis of the impact of the CMRC on the School's research agenda will be conducted in chapter Seven.

Public and private colonial interests: biographical vignettes

This section will present some biographical details of several individuals who served in the School's governing bodies to illuminate the nature of colonial entanglements in the decades prior to formal decolonisation. By way of background, this was the period in which the policy discourse of 'development' became firmly established. It arose in part as self-interested state intervention to develop markets, as originally promulgated by Joseph Chamberlain, in part as a reaction to the rise of nationalist independence movements across the empire, and in part as a response to moral qualms about exploitation. (Constantine, 1984, 10-11, 181, 188, 205, 217-19, 259; Porter, 2021, 180-84, 221-24, 245) Continuing colonial rule would therefore

be legitimised and aided by conferring the benefits of modernity, with public health an integral part. The British government passed a Colonial Development Act in 1929 which made available grants in aid 'for the purpose of aiding and developing agriculture and industry' as well as 'the promotion of public health' (Morgan, 1964, 14-15). It was followed in 1940 and 1945 by further Colonial Development and Welfare Acts, which increased the grant sums available and now emphasized social expenditure and 'constructive trusteeship' (Constantine, 1984, 259). Public health accounted for 16% of all such grants up to 1940, then about 10% in the period 1946-59 (Morgan, 1964, 29, 57). Applications for funds needed to show evidence of planning to match provision to need and demonstrate that expenditure would be responsible (Morgan, 1964, 34-5). Technocratic expertise in international health of the sort cultivated by LSHTM therefore consolidated its role in the development project.

This was the context in which those members of the Board, Court, and Standing Committee appointed by the Colonial Office and other colonial institutions were working. Between 1942 and 1949 the member of the School's Board of Management appointed by the Secretary of State for the Colonies was Sir Charles Jeffries. Sir Charles Jeffries had served as the Colonial Office's sole representative until 1947 when he was joined by A.H. Poynton. Jeffries had entered the Colonial Office in 1917 upon being permanently discharged from the Army (Baker, 2004b). At the Colonial Office, Jeffries was intimately involved in the reorganisation and unification of the Colonial Service in order to make it more efficient and more attractive for potential employees. Prior to the Second World War he was, among other things, in charge of setting up a unified colonial medical service. Recruits would still be paid by individual colonial governments, but the new cohesive structure was thought to facilitate promotions across the Empire (ibid). Jeffries remained committed to the Colonial Civil Service throughout his lifetime. His career was marked by the political and administrative changes of the independence era, which from the late 1940s and 50s resulted in decreasing numbers of applicants to colonial service posts. This was largely caused by rising political tensions between local colonial elites striving for independence and British administrators trying to preserve the status quo (ibid). Jeffries tried to counteract this tendency by recommending that the British government be responsible for securing favourable terms for British expatriate staff in the colonies, but the government did not act on this recommendation.

Between 1950 and 1960, one of the Colonial Office representatives on the Court of Governors was Sir Arthur Charles (Cosmo) Parkinson. Having entered the Colonial Office in 1909 as secretary of the tropical African entomology research committee, in 1920, Parkinson was put in charge of its East Africa department. Later that year he was made private secretary to the secretary of state before being appointed assistant secretary in the Dominions Office in 1924 (Poynton, 2004). In his various roles at the Colonial Office, he travelled extensively throughout the Empire and visited many of Britain's colonies. In 1947 he published a book entitled *The Colonial Office From Within*. He also became the chairman of the Court of Governors between 1951 and 1960, ensuring that the School's colonial interests and links were firmly represented during the final years of Britain's formal colonial Empire.

Biographical vignettes also allow glimpses of how colonial links were manifested through personal colonial interests, rather than simply the involvement of the Colonial Office. For example, one of the co-opted members from 1937 to 1945 was Alfred (A.) Chester Beatty, an American- born British mining magnate. Beatty had started his career in mining in Colorado before working for the Guggenheim Exploration Company for whom he set up mines in the US, Mexico and the Belgian Congo (Prain, 2004). In 1913 he moved to the UK from where he continued to build his international mining business in Eastern and North-Eastern Europe and Africa. Most notably, Beatty played an important role in setting up mines in Zambia's Copperbelt, then part of Northern Rhodesia, a British colony.

Another example of a Board member with significant personal colonial interests was Sir Dougal Orme Malcolm, who served as a co-opted member of the Board of Management for five years from 1939 to 1943 inclusive, overlapping with Beatty. Malcolm, described by the Dictionary of National Biography as a 'colonial administrator and company director', joined the Colonial Office during the South African War (Darwin, 2009). In 1913, he left the civil service, joining the board of the British South African Company, where he later served as a director and was subsequently appointed the company's president/executive chairman in 1937. The British South Africa Company was founded by Cecil Rhodes in 1889 and was involved in both mining and governance within the region. After governance had been taken over by the Colonial Office and settler self-government, for North and South Rhodesia respectively, the company worked with the Chester Beatty Group's Anglo-American Company – of which Malcolm was also a director – in the mineral exploitation of South Africa. Malcolm was also a director of De Beers Consolidated and the British North Borneo Company, and described by contemporaries as running Rhodesia, showing the extent of his personal and financial investment in colonial endeavours in this geographical region (ibid).

Sir Harry Goschen was Chairman of the Board of Management from 1930 to 1934 and continued to sit on the board as a member until 1939, appointed by the Minister of Health after the structural changes to the board in 1936. Goschen is an example of Cain and Hopkins' gentlemanly capitalism which supported and motivated British imperialism and colonialism (Cain & Hopkins, 2016; Anonymous, 1945a). His family were merchant bankers, and Goschen established his own firm in 1920. His financial entanglement with the imperial project came primarily through his role as a director of the Chartered Bank of India, Australia, and China, which was influential in the development of British colonial trade (Anon., 2003). However, Goschen was also director of a number of insurance companies which backed colonial ventures, including the Ocean Marine Insurance Co., Sun Insurance Office, and Sun Life Assurance Society.

Although Goschen was appointed Chairman, Beatty and Malcolm were both merely co-opted members of the Board. The Deans and Directors of LSHTM, may instead, by some, be considered the individuals with the most influence over the direction of the School.[11] Of the eight Deans and Directors of LSHTM between 1903, when Sir Francis Lovell was appointed the first Dean of the School, and 1960, the four who presided prior to 1939 were the longest serving (see Figure 8). Whilst there is little to suggest that these individuals held private financial interests in the colonial endeavour,

three out of four of these longest serving Deans had careers in the Colonial Medical Service prior to appointment including Lovell, Charles, and Balfour. The same can equally be said of other management committee members including for example Sir David Munro, who served in the Indian Medical Service and on the LSHTM's Board of Management from 1930 to 1946 and concurrently was a member of the Court of Governors from 1936 to 1944, inclusive. Other Deans had less clear-cut colonial connections: Andrew Topping, for example, was based in Gallipoli and Mesopotamia during the First World War as part of the Royal Army Medical Corps and then spent three years as Senior Medical Officer for the Anglo-Persian Oil Company from 1919 to 1922 but does not appear to have maintained a connection with the company, financial or otherwise. More on Andrew Balfour's justifications for colonialism and on Austin Bradford Hill's statistical teaching on eugenics can be found in Chapters 9 and 7, respectively.

Date	Appointee
1899-1903	Sir Patrick Manson
1903-1916	Sir Francis Lovell (Dean)
1916-1923	Sir Havelock Charles (Dean)
1923-1931	Sir Andrew Balfour (Director)
1931-1940	Sir William Wilson Jameson (Dean)
1940-1945	*Multiple changes of leadership during wartime*
1945-1950	Professor James Mackintosh (Dean)
1950-1955	Dr Andrew Topping (Dean)
1955-1957	Sir Austin Bradford Hill (Dean)
1957-1960	Sir James Kilpatrick (Dean)

Figure 8: List of Deans and Directors of the LSHTM, 1899-1960

[11]The name of the School's Dean changed briefly to Director between 1924 and 1931, during the tenure of Andrew Balfour and immediately following the LSTM's reconfiguration as LSHTM. The reason that this title seems to have changed back to Dean with Balfour's successors is unclear from the School's records.

However, individual board members, although working within larger institutional frameworks, may have been able to have a significant impact on School policy over time. An analysis of the members of the Board of Management between 1928 and 1960 shows that roughly a third of board members served for over 10 years, with a second third serving for between 5 and 10 years (see below). As such, it is important not to underestimate the impact of the individual financial colonial interests of these members. Alfred Chester Beatty served on the Board for nine years, longer than six out of eight Deans, whilst Sir Dougal Orme Malcolm served for five.

Years served	Number of members
20 or more	1
15 ≤ x < 20	5
10 ≤ x < 15	15
5 ≤ x < 10	26
Less than 5	21

Figure 9: Number of years served by members of the Board of Management on both the board and council (compiled from LSHTM, LAORS – GB 0809 Admin/11/01)

As such, a number of other individuals with colonial interests on the Board and Court are likely to have been equally influential on the direction of LSHTM. Sir Eric Macfadyen is another example of a long-serving Board member, sitting on the Board of Management for nine years, from 1946 to 1958 inclusive, as a co-opted member in his first year and then appointed by the Ross Institute for the rest of his tenure. Macfadyen was a key player in the development of tropical agriculture; a road construction contractor, the second largest shareholder in the New Crocodile River Rubber (Selangor) Company Ltd, and founder and partner of Macfadyen, Wilde & Co. (planting advisers), all in Malaya. He was also a founding member of the Planter's Association of Malaya and a member of the federal council of the Federated Malay States in 1911-16 and 1919–20. After the First World War he joined Harrisons and Crosfield Ltd, primarily colonial merchants in East India, eventually becoming director. He also held directorships of a number of companies within the Harrisons and Crosfield group, including London Asiatic, Golden Hope, and Straits Plantations. He was knighted for his services to tropical agriculture in the colonial empire in 1943. Macfadyen therefore demonstrates the multiple ways in which just one board member might be entangled with British colonialism.

These private and commercial colonial interests, which made up a large part of Britain's informal Empire and would endure beyond the political and administrative processes of formal decolonisation, were therefore continuously represented at the School. This was not only by co-opted Board members like Beatty and appointed members like Macfadyen, but also through the entire Standing Committee of the Ross Institute of Tropical Hygiene, which became part of the London School in 1934. Between 1934 and 1954 the members of the standing committee were a mixture of members of staff of the London School, such as Professor Leiper or Professor Jameson, of Colonial Office representatives, such as Charles Jeffries, or representatives of the University of London, such as Edwin (E.) Cooper Perry. From 1955 to 1960, the Ross Institute's Standing Committee members were formally nominated by a number of private associations, although in practice many

of the representatives listed for these associations had already been members of the Standing Committee before 1955. The private associations which nominated members of the committee were the Rubber Grower's Association, the Ceylon Association, the India Tea Association, the South Indian Association in London, the Sisal Growers Committee and the Tanganyika Sisal Grower Association, and the British Overseas Mining Association. This composition reflected the industrial and commercial advisory work that the Ross Institute had engaged in since the 1930s; "The original function of the London School of Hygiene and Tropical Medicine is teaching, but it has been decided that through the Ross Institute it should give help to industry abroad" (LSHTM, LAORS – GB 0809 Ross Institute/01).

While the London School mostly cooperated with governmental agencies and institutions, the Ross Institute therefore sought connections and generated funds from private commercial companies and interest groups. The Ross Institute encouraged a lot of funding from private colonial interests. In 1940-41, 225 individual rubber companies alone made donations to the School, of which only 49 were paying an annual subscription (LSHTM, LAORS – GB 0809 Admin/11/01). This sheer volume of donations to the school shows the support they were perceived to offer to these industries and the depth of the School's colonial entanglement in this area. These persisted in the post-colonial period. Ceylon (Sri Lanka) for instance, became independent in 1948, yet private British interests continued to be present on the island beyond that date. Indeed, a representative of The Ceylon Association was appointed to the Ross Institute Standing Committee right up until 1960 and beyond. From 1959 Lord Twining became the Committee's Chairman. Twining had been governor of Tanganyika (Tanzania) between 1949 and 1959 and was made a life peer as Baron Twining of Tanganyika in 1959 upon retiring from the colonial service (Fletcher-Cooke, 2004). As governor, Twining was instrumental in leading the preparations for Tanzania's independence in 1961. Whilst the example of India above also shows the continuation of Ross Institutes colonial interests in the post-colonial period.

The School's governance structures reflect its association with governmental and non-governmental institutions and its firm commitment to both public health and British colonialism, not just in its early days, but until the end of the period under investigation in 1960. The predominance of male representatives on its varying governance committees was largely in line with the position of women in society in the first half of the 20th century. However, the School failed to diversify its governance structure even after the Second World War, when a large number of women entered the workforce. 1954 was the first year in which a woman served on the Court of Governors: Dame Mary G. Smieton. She had entered the civil service in 1925, the first year in which women were allowed to join. Between 1946 and 1948 Smieton had been seconded to the United Nations as their director for personnel. She returned to the UK civil service and became an under-secretary in the Ministry of Labour. However, Smieton only served on the Court of Governors for a year, representing the Home Department, and was replaced by H.F. Rosetti in 1955. All other members appointed to the School Council, the Board of Management, the Court of Governors, and the Ross Institute Standing Committee were white, British men, many of them with careers built on Britain's colonial Empire. They guided the School and ensured it remained aligned with contemporary political directions and Britain's colonial and commercial interests and public health politics in the UK.

6. Student Origins and Destinations (1899-1914)

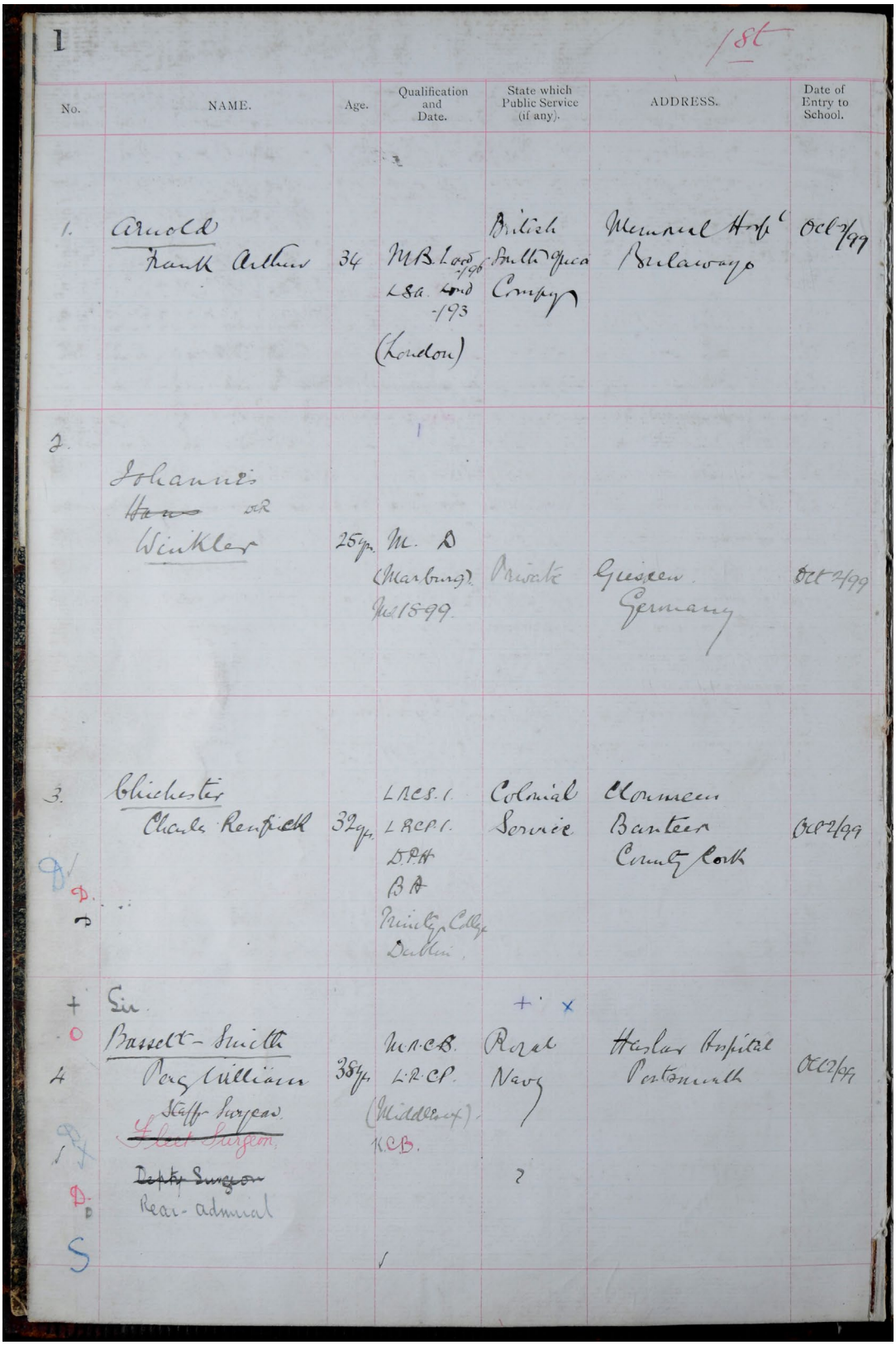
LSHTM was first and foremost a research and teaching institution and tracing the trajectories of some of its students and members of staff provides insights into the School's geographical reach, its political impact and the way imperial entanglements shaped student careers.

This chapter shows that imperial and colonial interests motivated a high number of students to study at the LSTM. These students and the trajectories they were already on, reinforced the association between the School and Britain's Empire. They also reinforce the fact that the School was a colonial institution, not only in theory, but also in practice. The earlier discussion showed that Manson used the interests and goals of the Colonial Office to set up a school of tropical medicine, and that the School's colonial mission was partly instrumental in cementing tropical medicine as an equal branch of medicine in metropolitan Britain. The preceding chapter then drew attention to the influence of individuals engaged with the political economy of empire and in the School's governance. This chapter extends that discussion, exploring how the School's colonial entanglements were supported and furthered through the people shaping the institution.

In accordance with the aims of the Colonial Office, the School started out with a student body predominantly made up of Colonial Medical Service recruits. However, as envisaged by the Seamen's Hospital Society, which wanted to ensure that an education in tropical medicine was available to anyone who might benefit from it, with time more and more private students entered the School. The chapter also analyses the geographies of the School's teaching and its impact. As may be expected, those geographies largely cohere with the British Empire, both in its formal and informal constitution (colonial governments and private companies). While the chapter focuses largely on student origin, it also highlights the careers of some of the School's staff as they relate to British colonialism. It closes with an in-depth look at the composition of the LSTM's 'classroom' and the imperial dynamics animating it.

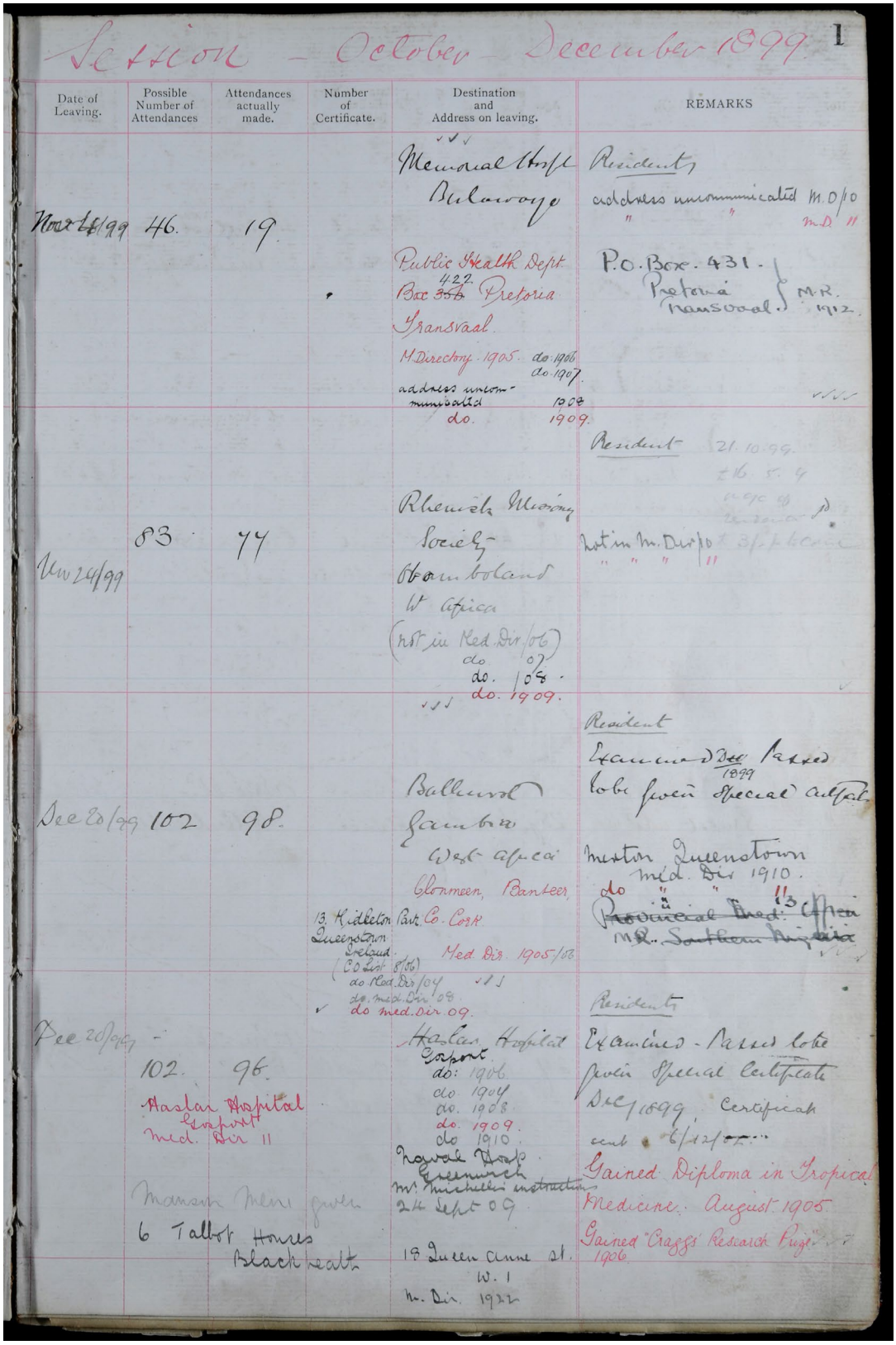
The LSHTM Archives have digitised versions of student registers up until 1924, when the London School of Tropical Medicine became the new London School of Hygiene & Tropical Medicine. As such, this chapter focuses on the early period of the LSTM's existence.

The pages in the student registers mostly look like the example in Figure 10. It is important to note that the descriptions in the student register change with time and that they are not always coherent. As the next section will show, the summaries at the end of each teaching session do not necessarily correspond to the descriptions of students listed in the register. This means that the categories on which the analysis in this chapter relies, are not 100% reliable. The following data were recorded for each student, if available: origin (professional affiliation or country), destination (country), professional service (this referred mostly to the



No.	NAME.	Age.	Qualification and Date.	State which Public Service (if any).	ADDRESS.	Date of Entry to School.
1.	Arnold Frank Arthur	34	M.B. Lond. 1896 L.S.A. Lond. 1893 (London)	British South Africa Company	Memorial Hosp. Bulawayo	Oct 2/99
2.	Johannes ~~Hans~~ or Winkler	25yr.	M. D (Marburg) Jan 1899.	Private	Giessen Germany	Oct 2/99
3.	Chichester Charles Renfield	32yr.	L.R.C.S.I. L.R.C.P.I. D.P.H. B.A. Trinity College Dublin	Colonial Service	Clonmeen Banteer County Cork	Oct 2/99
4	Sir Bassett-Smith Percy William ~~Staff Surgeon~~ ~~Fleet Surgeon~~ ~~Deputy Surgeon~~ Rear-admiral	38yr.	M.R.C.S. L.R.C.P. (Middlesex) K.C.B.	Royal Navy ?	Haslar Hospital Portsmouth	Oct 2/99

Figure 10a: A page in the LSTM's student register (LSHTM, LAORS – GB 0809 Staff and Students/05)



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Date of Leaving.	Possible Number of Attendances	Attendances actually made.	Number of Certificate.	Destination and Address on leaving.	REMARKS
				Memorial Hosp Bulawayo	Resident; address uncommunicated M.D/0 " " M.D. "
Nov 14/99	46.	19.		Public Health Dept. Box 422 Pretoria Transvaal. M. Directory 1905. do. 1906 do. 1907. address uncommunicated 1908 do. 1909.	P.O. Box. 431. Pretoria Transvaal. } M.R. 1912.
					Resident 21.10.99. £16 5. 4
Nov 24/99	83.	77		Rhenish Missionary Society Okombolands W. Africa (not in Med. Dir/06) do. 07 do. 08. do. 1909.	not in M. Dir/0 " " " "
					Resident
Dec 20/99	102.	98.	13 Middleton Queenstown Ireland (20 List 8/06) do Med. Dir/04 do. med. Dir 08 do med. dir 09.	Ballurd Gambia West Africa Glenmeen, Banteer Co. Cork Med. Dir. 1905/07.	Examined Dec 1899 Passed to be given Special Certificate Weston Queenstown Mid. Dir 1910. do " " " 13 Provincial Med. Officer M.R. Southern Nigeria
					Resident
Dec 20/99	102.	96.		Haslar Hospital Gosport do: 1906 do. 1904 do. 1908 do. 1909. do 1910. Royal Naval Hosp. Greenwich Mr. Mitchell's instruction 24 Sept 09	Examined - Passed to be given Special Certificate Dec/1899 Certificate sent 6/12/99 Gained Diploma in Tropical Medicine. August 1905. Gained "Craggs" Research Prize 1906.
	Haslar Hospital Gosport Med. Dir 11				
	Mansion House given				
	6 Talbot Houses Blackheath			19 Queen Anne St. W. 1 M. Dir. 1922	

Figure 10b: A page in the LSTM's student register (LSHTM, LAORS – GB 0809 Staff and Students/05)

government department, missionary society, or private company a student worked for upon leaving the School). Some additional data, such as address upon leaving or general remarks were also recorded but are less important for this discussion. The analysis in this chapter is based on the work of a small number of Library and Archive Service staff who transcribed hundreds of handwritten entries in the student registers into an Excel sheet. They transcribed student registers covering the period 1899 to 1914, the first fifteen years of the School's existence. The data generated were then collated and organised according to the professional service to which students belonged and where they went to work upon leaving the School. Some additional observations were made while reading through the student registers themselves. The chapter also provides additional comparative data based on scoping for the year 1924. From 1924 onwards, data analysed in this chapter are based on student data collated by LSHTM itself, printed in the yearly *Reports on the Work of the School* (LSHTM, LAORS – GB 0809 Admin/11/01). The categories used by the School allow for a less in-depth analysis of LSHTM's student body and its links to British colonialism, because it does not explicitly link existing data to the geographies of Empire. Some information shared in this chapter relies on previous research conducted by the LSHTM Archives team for Black History Month 2015.

Imperial affiliations – the early cohorts

The LSTM opened its doors to students on the 2nd of October 1899. According to the School's register, 27 students attended this first session. Not all students attended the first session for its entirety. This had been anticipated by Herbert Read in his memorandum on the foundation of the LSTM in 1898 (TNA – FO 2/890). Students might be called to take up appointments in the Colonial Medical Service at any moment, depending on the schedule of vacancies. As a consequence, some students only attended the School for a few weeks, in which case they were usually issued with a certificate of attendance. In this first session, only two students attended classes for the entirety of the session from October 1899 to December 1899. Eight students were registered at the School for two months and 14 for one month or less. Hence, although Manson had succeeded in making an education in tropical medicine compulsory for all those wishing to enter the Colonial Medical Service, in the School's early years a majority of prospective colonial medical officers did not receive the comprehensive education that Manson and his colleagues had designed and desired.

The first cohort of students was entirely made up of those doing colonial or imperial work. Within this initial cohort, 14 students were sent to the School from the Colonial Office, two from the Indian Medical Service, one from the Royal Navy, one from a foreign government and a further nine private students. These categories do not always match those used to classify individual students. As such, there is no 'foreign government' student listed as having attended the School as part of the first session. The two students who could possibly fall into this category were either Frank Arthur Arnold or Johannes Winkler, the two first entries in the student register. Arnold was sent to the School by the British South Africa Company, the private entity governing large parts of South Africa, Zimbabwe, Botswana and Zambia at the time, which had only been founded in the previous year, by among others, Cecil Rhodes. Winkler is listed

as a private student from Giessen in Germany whose forwarding address is the Rheinische Mission Society in West Africa.

One student in the first session whose career would closely align with the LSTM was George Carmichael Low. He entered the School at the age of 27 and was registered as a private student. He had previously completed his medical studies at the University of Edinburgh in 1897. Upon finishing his session at the LSTM in 1900, Low, accompanied Louis Sambon and Amedeo Terzi to Italy to take part in Manson's mosquito hut experiment in the Roman Campagna. The Colonial Office had commissioned Sambon to carry out the experiment (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 1) and both Manson and the Colonial Office were intent on showing that it was possible for white Europeans to live in regions in which malaria was endemic. To prove this hypothesis, Low and Sambon spent three months living in a mosquito-proof hut in Italy. While they were free to spend the days outdoors, they returned to the hut each day at sunset. Neither of the inhabitants developed malaria during their stay. As the BMJ wrote in Low's obituary in 1952, the experiment 'pointed the way to badly needed anti-mosquito measures on the West Coast of Africa and elsewhere' (BMJ, 1952, p.341). In years to come, Low would remain an integral part of the LSTM's staff. He was awarded the Craggs research prize in May 1900 and left for the British Caribbean

to study filariae in British Guiana between 1900 and 1902 (LSHTM, LOARS, Seamen's Hospital Society loan – LSTM Minutes Book 1).

Low is one of a few examples in which students were recruited to posts in the School and stayed on for years to come.

Other examples were Aldo Castellani, who studied at the School in 1902 and was awarded the Craggs research prize for his work on sleeping sickness. Upon leaving the LSTM, he joined the Sleeping Sickness Commission in Uganda. He later worked in the School's mycology department. Andrew Balfour, the first director of the London School of Hygiene & Tropical Medicine in 1924 is listed as having received the Craggs research prize in 1905, although he is listed as a student in the School's 10th session from October to December 1902. Robert Leiper, who was to become the School's leading helminthologist and Charles Morley Wenyon, who was hired as the School's protozoologist, also studied at the School in 1905 (Student Register Volume 2). The LSTM, as many universities do, recruited some of their best students to become teachers and researchers.

Throughout the School's early period, it was a thoroughly colonial institution. In the first 15 years of its existence 40% of the 1,528 students registered for any length of time, were either sent by or went on to work for the Colonial Service. While the majority of these students enrolled at the School as part of their job training before taking up posts in the colonial medical service across the British Empire, some enrolled as private students and were offered work by the Colonial Office while studying at the School. Colonial Office students thus made up the biggest single group within the entire student body. A majority of Colonial Office students took up appointments in West Africa, but the Federated Malay States and India also attracted a relatively high number of students (see Figure 12 below). Given the School's early history and the political conditions of its foundation, the fact that Colonial Office students made up the single largest category of students is not surprising. Apart from

the Colonial Office, other government departments also made use of the School's teaching. Indian Medical Service students constituted 8% of all students in this early period. The Indian Medical Service was the oldest state medical department in the Empire, created in 1764, although the British Crown and the East India Company had been recruiting and sending medical practitioners to India since 1600 (Crawford, 1907; McDonald, 1955). The bias towards colonial appointments is demonstrated by the fact that at its closure in 1947 with Indian and Pakistani independence, out of 6,932 doctors and surgeons 410 had been from the subcontinent (ibid). Finally, the Royal Navy, the Royal Army Medical Corps and the Foreign Office each sent a small number of students to the LSTM (see Figure 11). Royal Navy students were sent to serve in British Africa and British Asia, while the Foreign Office's entirely took up posts in British Africa. The Royal Army Medical Corps' students' notes in the register suggests that they mostly were recruited to posts in the UK.

The second biggest group (30%) were students who were registered as private students. 'Private' was a somewhat miscellaneous category in that it contained private citizens, often spouses of colonial medical officers who wanted to study at the School in preparation for a move to 'the tropics', or students on whom the registers

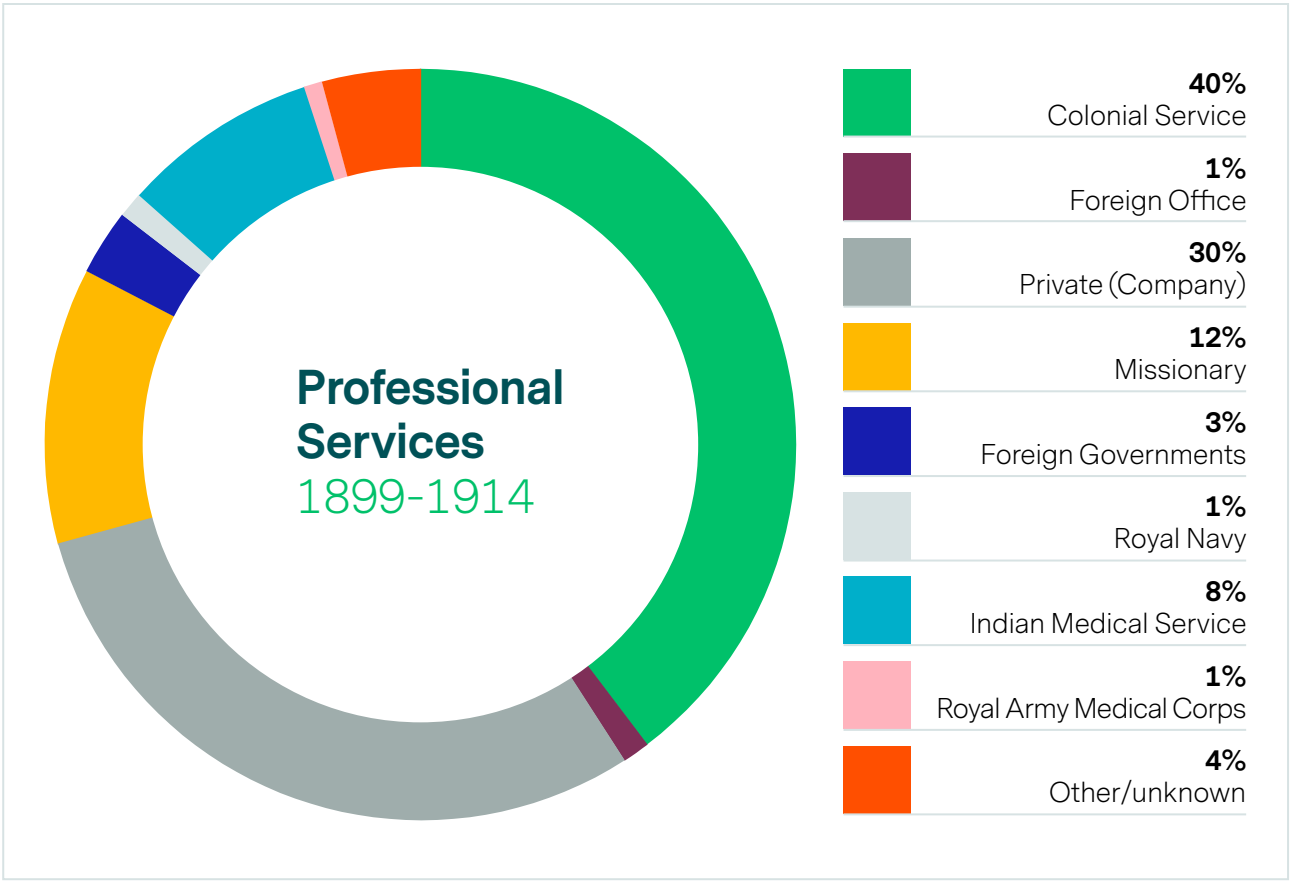


Figure 11: Professional destination and affiliations 1899 – 1914 (compiled from LSHTM, LAORS – GB 0809 Staff and Students/05)

held little information. A large proportion of students registered as private however, were sent by companies with substantial stakes in the British Empire. In 1905, H.B. Waters attended the School for a session having been sent by the East India Railway and upon leaving the School travelled to Kolkata to work for the company. In 1914, Miss E.H.M. Rose, who attended the School's 44th session and was registered as a private student stated her destination upon leaving as 'Imperial Bank, Tehran PERSIA'. In 1912, H.G.F. Spurrell, who had gained his Bachelor of Medicine at the University of Oxford in 1907 registered as a private student. His notes in the student register state: 'Passed school exam 61%. Obtained appointment in Colombia. January 1913 Anglo-Colombian Development Company' (LSHTM, LAORS – GB 0809 Staff and Students/05/05).
In a legal case from 1927, the Anglo-Colombian Development Company is described as 'a subsidiary of the Consolidated Goldfields of South Africa Limited […] formed for the purpose of acquiring land, options over mining rights and mining concessions, in Colombia, South America, and for operating the same especially for gold and platinum […] (ACDC v. Stapleton, 1927).

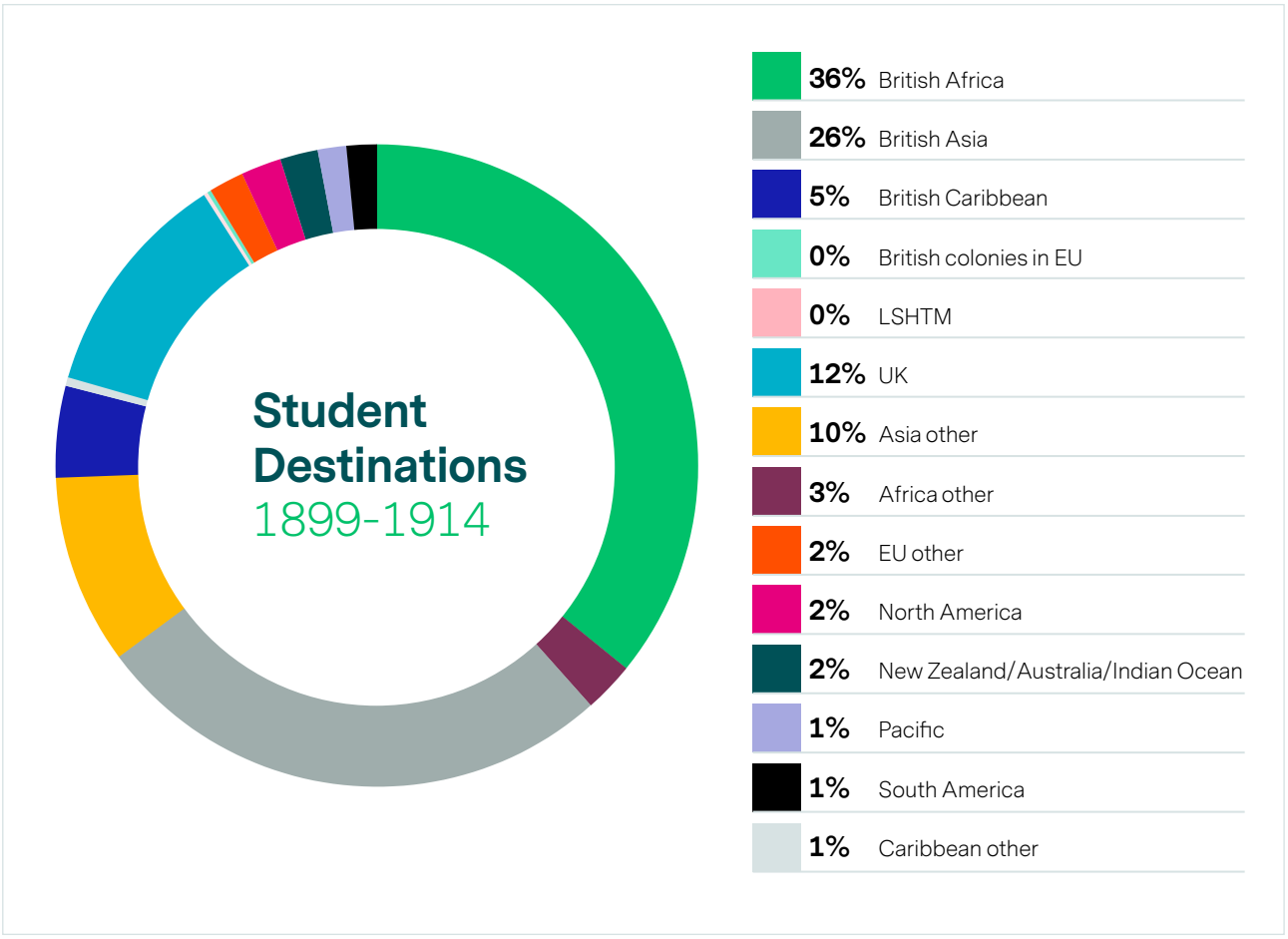


Figure 12: Geographic distribution of Student Destinations 1899 - 1914 (compiled from LSHTM, LAORS – GB 0809 Staff and Students/05)

The third biggest group of students was missionaries from Mission Societies in the UK, North America and Europe, making up 12% of the total student body between 1899-1914. The Church Mission Society, the Wesleyan Mission and a number of Scottish Missions appear frequently in the student registers. Missionaries had long been involved in health care and health education across the British and other European empires, especially in rural areas (Hardiman, 2006; Manton, 2012). Similarly to colonial medical officers, prior to the opening of the LSTM, missionaries did not have to attend courses in tropical medicine. Most went on to join mission societies and hospitals in Asia, with some traveling to India, and a large number going on to work in China. Interestingly, a large proportion of this group of students did not go on to work in the British Empire upon leaving. Out of 181 students registered as missionaries at the School between 1899 and 1914, 78 went on to work in China and other non-British Asian colonies.

Foreign governments also at times sent students to the School. In 1909, Motoi Kumagawa attended the School's 30th session while working for the Japanese Navy. In 1908, the Transvaal Government Service sent Leonard Bostock to take a class at the School. Between 1899 and 1914, 4% of students are classified as 'other'.

Students' professional destinations and affiliations reveal the complexity of the British Empire, its private, commercial, and governmental branches and the ways in which all of them were relying on the newfound opportunity to train their staff in tropical medicine. The variety of students' professional affiliations also shows how the British Empire has always been more than a governmental enterprise and that the LSTM, while having been set up to strengthen the UK's colonial officers, served British and European imperialism more broadly.

The School's imperial geographies

After a discussion of the professional affiliations of LSTM students between 1899 to 1914, the chapter now turns to the School's imperial geographies. The geography of student destinations after completing their course at the LSTM overlaps with the geography of the British Empire. As the graph in Figure 12 shows, the biggest proportion of students who attended the School in this early period went on to take up posts in British colonies in Africa (36%). British colonies in Asia, where 26% of students went after completing their studies at the LSTM, made up the second biggest student destination. In Africa, a majority of students took up posts in Britain's West African colonies, namely Sierra Leone, the Gold Coast (Ghana) and Nigeria. After the creation of the West African Medical Staff (WAMS) in 1900 the category WAMS replaces that of Colonial Office in the register entries of those students employed in West Africa. This is in line with Herbert Read's plans to amalgamate the West African health services in order to create more posts for incoming colonial medical officers. It is also indicative of the regions of the British Empire was perceived to be most in need of health interventions due to the high mortality rate of Europeans, as was shown in the previous chapter.

However, the School was not able to offer the same career prospects to all of its students. It was constrained by and abided by the racist politics of the Colonial Office and the Colonial Medical Service. This is illustrated in the story

of one student listed in the School's student register in January 1913 as M.C.F. Easmon (Figure 13) and whose destination upon leaving is recorded as 'Thornton House, 2a Pademba Road, Freetown, West Africa' in Sierra Leone. The son of John Farrell Easmon, Chief Medical Officer in the Gold Coast in the 1890s, McCormack Charles Farrell Easmon, attended the School's 41st session. He had obtained his MD BS in London and his MRCS LRCP in 1912. As detailed in chapter four, M.C.F. Easmon's father had appealed to the Colonial Office to fund a training school for colonial medical officers in 1895 (Haynes, 2001). Had his plan succeeded, his son may have been able to stay in Accra to receive his education in tropical medicine. After studying medicine in England and Ireland, his father had climbed the ranks of the Colonial Medical Service in West Africa to become the highest-ranking West African in the Colonial Service between 1893 and 1896 (Patton Jr, 1988).

However, by the turn of the century, theories around race and notably the racial superiority of white Europeans were becoming increasingly popular and this put an end to John Farrell Easmon's career (Browne-Davies, 2014). By the time his son passed his course at the LSTM in 1913 with 73% (a high mark), the Colonial Medical Service's colour bar had come into effect (Patton Jr, 1988). The West African Medical Staff to which McCormack Easmon applied in order to work in West Africa had been barred to medical practitioners of non- European descent since 1902 (Johnson, 2010a) and he was rejected. Easmon's classmates D. Brit and G.P.G. Beckett who passed their exams with 64% and 62% respectively, both took up posts in the West African Medical Staff in Nigeria. They were white. After successfully applying for the WAMS post of 'Native Medical Officer', Easmon dedicated his life to campaigning against racism in medicine.

Similarly, W.E. (William Elliott) Lewis, who in the photograph below, Figure 13, was standing on Easmon's left, was registered as a private student. The Guianese student who had obtained a degree from Edinburgh University in 1912 passed his exam with 50%. His destination upon leaving the School is listed as British Guiana. The Guiana Medical Service, although not explicitly racist, had an unofficial policy of only hiring white European doctors (de Barros, 2003). This only changed in the late 1910s, when the First World War and the increase of associated medical posts in the UK made the recruitment of white doctors more and more difficult (ibid).

Figure 13: 41st Session, 1913. M.C.F. Easmon is in the middle row, second from the left. On his right is G.P.G. Beckett who went on to serve in the West African Medical Staff. On Easmon's left is W.E. Lewis. E.P. Aserappa is standing in the back row, second from the right (LSHTM, LAORS – GB 0809 Admin/11/01)

In Asia, students were predominantly destined for either India (as part of the Indian Medical Service), Sri Lanka (Ceylon) or the Federated Malay States (Malaysia), which included Singapore. Not all colonial medical service departments were enforcing a colour bar. E P Aserappa, belonged to the Ceylon Medical Service and attended the same session as M.C.F. Easmon, D. Brit and G.P.G Beckett. He is recorded as having returned to Sri Lanka upon completion of his studies.

Overall, the vast majority of LSTM students in the time period under investigation went on to serve in the formal British Empire, that is to say in British colonies (see Figure 14).

These numbers include both students who went on to take up government posts in the Colonial Office, the India Medical Service or the armed forces, but also private individuals who worked for companies representing Britain's commercial interests in the colonies. The biggest student group unaffiliated with the British Empire was missionaries joining missions in China and the Belgian Congo. British colonialism was not the only area which benefitted from the School's teaching and research. After gaining full political independence in 1910 and 1942, the governments of the former settler colonies of South Africa and Australia sent students to the School to be trained

LSHTM's imperial geographies 1899-1914

Figure 14: The LSHTM's imperial geographies – student destinations 1899 – 1914 (compiled from LSHTM, LAORS – GB 0809 Admin/11/01)

in tropical medicine. Even before that the South African Transvaal Government sent a small but regular number of students to the School. Similarly, a few Australian government students were trained at the School and then sent to Borneo or other countries under Australian mandate in the Indian Ocean. In 1905, E.R. Stiff, a U.S. Navy officer attended a session at the School, before taking up a post in the Philippines, which was an American colony between 1898 and 1946. In 1906, B.H. Dulcher, another U.S. Navy student attended a course at the School before also going on to work in the Philippines.

These geographies did not change in the early period of the School and were not significantly disrupted by the First World War (1914-1918), as Figure 15 shows. Although the total number of students destined for the colonies remained roughly the same, there was a shift in the parts of the Empire students were sent to. In the early years, West Africa attracted the highest number of LSTM graduates. In 1914, an equal number of students (33) was sent to British possessions in Africa and in Asia. In 1924, British colonies in Asia received 44 graduates, whereas British colonies in Africa only received 22.

Comparison of student destinations 1904, 1914, 1924

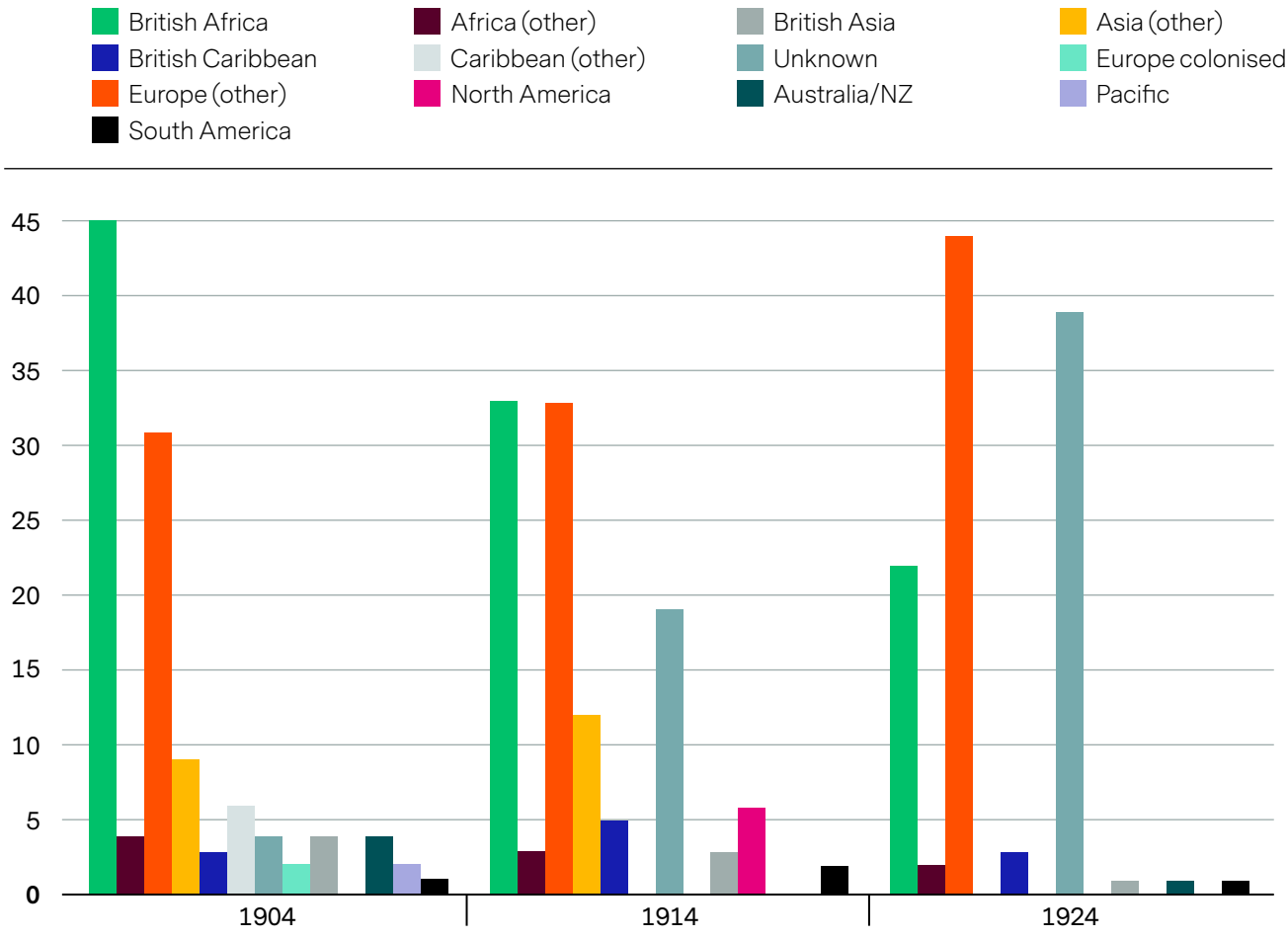


Figure 15: Comparison of student destinations 1904, 1914, 1924 (compiled from LSHTM, LAORS – GB 0809 Admin/11/01)

An imperial classroom

The LSTM's close connections to the Colonial Office and the School's imperial reach meant that from early on it was host to students from a wide variety of national backgrounds. On the model of the earlier analysis of the School's 41st session, this section traces more of the students' backgrounds to argue that at the LSTM, the winners and losers of British imperialism were learning side by side.

The vast majority of students were British or subjects of the British Empire. While the early period of the School's existence mostly saw white British subjects study at the School, M.C.F. Easmon, W.E. Lewis or E.P. Aserappa, are just a few examples of students of colour who have been part of the School's student body since the beginning. There is no robust way of assessing student diversity on the basis of the student register and class photographs. Not all students listed

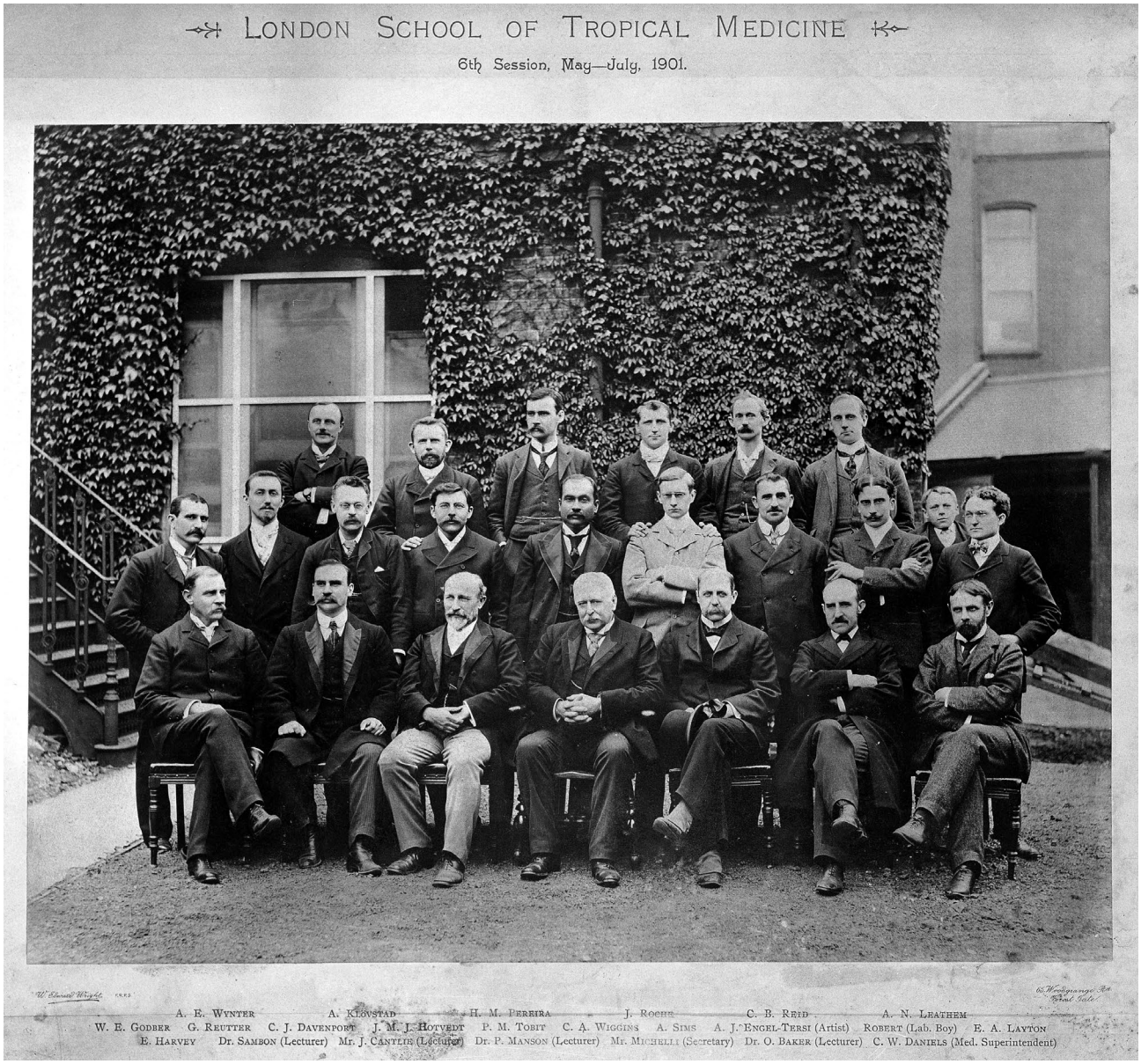


Figure 16: 6th Session, May to July 1901. Purbew Mahon Tobit is standing in the middle of the second row behind Patrick Manson (LSHTM, LAORS – GB 0809 Admin/11/01)

in the register are present on class photographs. Nonetheless, a small-scale scoping exercise using and matching student photographs and registers for the 6th and 63rd session, which took place from May to July 1901 and May to July 1920 respectively, can give some insight.

The register for the 6th session indicates that 28 students attended the course during this session. 11 were private students, six had been sent by other governments, five students belonged to the Colonial Office, four were missionaries and two had been sent by the Foreign Office. Purbew Mahon Tobit, depicted standing in the middle row in Figure 16, fifth from the left behind Patrick Manson, may have been the only student of colour during this session. He may well have been the School's first student of colour, as there are no photos for previous sessions. Upon completing his course, Tobit took up the post of Assistant Colonial Surgeon in the Gold Coast. The following year would see him acting as Principal Medical Officer in a punitive expedition to suppress raiding by locals in the Tiansi region of Ghana, one of its gold-mining areas (Mercer et. al., 1917, p.687; Colonial Reports, 1903, p.54; Renne, 2014). Out of the 28 students only 15 are depicted here, making further identification of diverse ethnic backgrounds and nationalities difficult.

As the 41st School session, discussed above shows, by 1913, the LSTM was host to a slightly more diverse student body. Things further changed in the following years and the 63rd session in 1920 was even more diverse than the 41st. Standing out in the photograph below, Figure 17, are the Gore sisters, dressed in light colours and seated on the far left in the second row. A. S. Gore and M. S. Gore had both obtained previous medical degrees in Bombay (Mumbai) in 1917 and L. M. licenses in midwifery in Dublin in 1920. Upon completion of their studies, they returned to India, where A. S. Gore was recorded in 1929 as 'Medical Woman in Charge' of the Coronation Memorial Zenana in Jungadh, Bombay States (NASMAWWI, 1929, p.70). Zenanas were the women's hospitals established in India by the British philanthropic association the Countess of Dufferin's Fund, also an early source of scholarships for training female medical professionals (Sehrawat, 2014). Although small in number, the LSTM hosted several women students of colour in its early period.

The Gore sisters were not the only women in their session. D. E. Lockwood, a member of the Church of England Zenana Missionary Society attended the School at the same time as the Gore sisters, even though she is not depicted in the session photograph. Upon finishing her four weeks 'Practitioners' course she travelled to work in the Church of England Zenana Mission Hospital in Bangalore. Dorothy M. Scott, who is seated third from the right in the same row as A. S. and M. S. Gore, also belonged to a mission society, although her register does not indicate which one. She travelled to Delhi after leaving the LSTM. To the left of Dorothy Scott sat Elizabeth J. O'Driscoll. Recorded on leaving as from Queenstown, Ireland, O'Driscoll passed her School exam with distinction and a grade of 77% and was the only woman in this session to gain the Diploma in Tropical Medicine. A majority of her classmates left the School with a simple School certificate.

This session also had two Maltese students, Joseph Glavina and V. E. Critien. Critien is sitting on the far left in the front row, next to K. Sinha who failed his School exam. Glavina is standing in the middle of the third row. Malta was a British Crown Colony at the time and one of a few British colonies in Europe. On the far right of the front row sits J. P. De Silva who

gained his Diploma in Tropical Medicine in London in 1921 and went on to work in Singapore. Khalik M. K. Abdel, an Egyptian student not depicted in the photo, was sent by the Egyptian government service and returned to Egypt afterwards.

Although heavily dominated by white British students, the LSTM's role as the centre for learning and teaching on tropical medicine in the British Empire attracted a high number from Britain's colonial possessions. Although the majority of flows were directed outward, from London, the imperial centre, to the colonies, small reverse flows meant colonised subjects did at times study alongside the white British men and women who would administer their health services back home. Although international students attended the School from the very beginning, their career trajectories were notably different from, and were more constrained, than those of their white counterparts. Students of colour were not retained by the School as members of staff, nor were they sent on research expeditions or seem to have been recipients of the School's prizes.

Figure 17: 63rd School Session, 1920. The Gore sisters are seated in the second row on the far left (LSHTM, LAORS – GB 0809 Admin/11/01)

7. Research and Teaching at LSHTM (1899-1960)

As the last chapter has shown, the School operated in an environment in which colonial exploitation and white European racial superiority in medical practice in the colonies was not only accepted, but also encouraged by the Colonial Office (i.e., WAMS colour bar).

The Colonial Office played a crucial part in the foundation and running of the School. But what was its relationship with the School with regards to research? And how did these relations, and the power dynamics and hierarchies that they entailed, impact the School's teaching? This chapter takes a more explicit look at the School's formal relationship with the Colonial Office and its influence on research and teaching. As we will see, the Colonial Office and the people associated with it campaigned for funds on behalf of the School and supported it financially. In return, the School carried out research at the request of the Colonial Office. In the case of tropical medicine, disciplinary research emerged out of the colonial encounter in Asia, Africa, and the Caribbean. Concurrently, the School's role as a training centre for the Colonial Medical Service meant that teaching at the School reflected the practical need to prepare students for work related to administering the Empire and the framing of course content showed how the colonies and their populations were seen and conceptualised in British society.

The School's museum reveals how this content was disseminated both to students and to wider educational audiences, including those then serving in the Colonial Medical Service. The contents of the museum raise questions about the colonial power dynamics involved in not just the direction of research or the delivery of teaching but also the collection of specimens used to support the teaching and research funded by the Colonial Office.

The School's research funding and locations

The LSTM, although it had been set up with the support of the Colonial Office, was for the majority of the period under investigation (1899-1960) on an insecure financial footing, necessitating frequent interventions from government officials, private foundations, and a steady stream of financial contributions from colonial governments. Before the School's incorporation of the London School of Hygiene, and especially before the First World War, its survival and its ability to expand largely depended on the Colonial Office and such contributions.

Joseph Chamberlain, as Secretary of State for the Colonies used his personal and political influence to benefit the School and ensure its financial viability through staff appointments and fundraising. In 1899, he hosted a fundraising dinner for the benefit of the School in order to ensure sufficient operational funds were available. He repeated this gesture in 1905. The combined yield from both dinners amounted to £23,000 (Wilkinson and Hardy, 2001). Sir Herbert

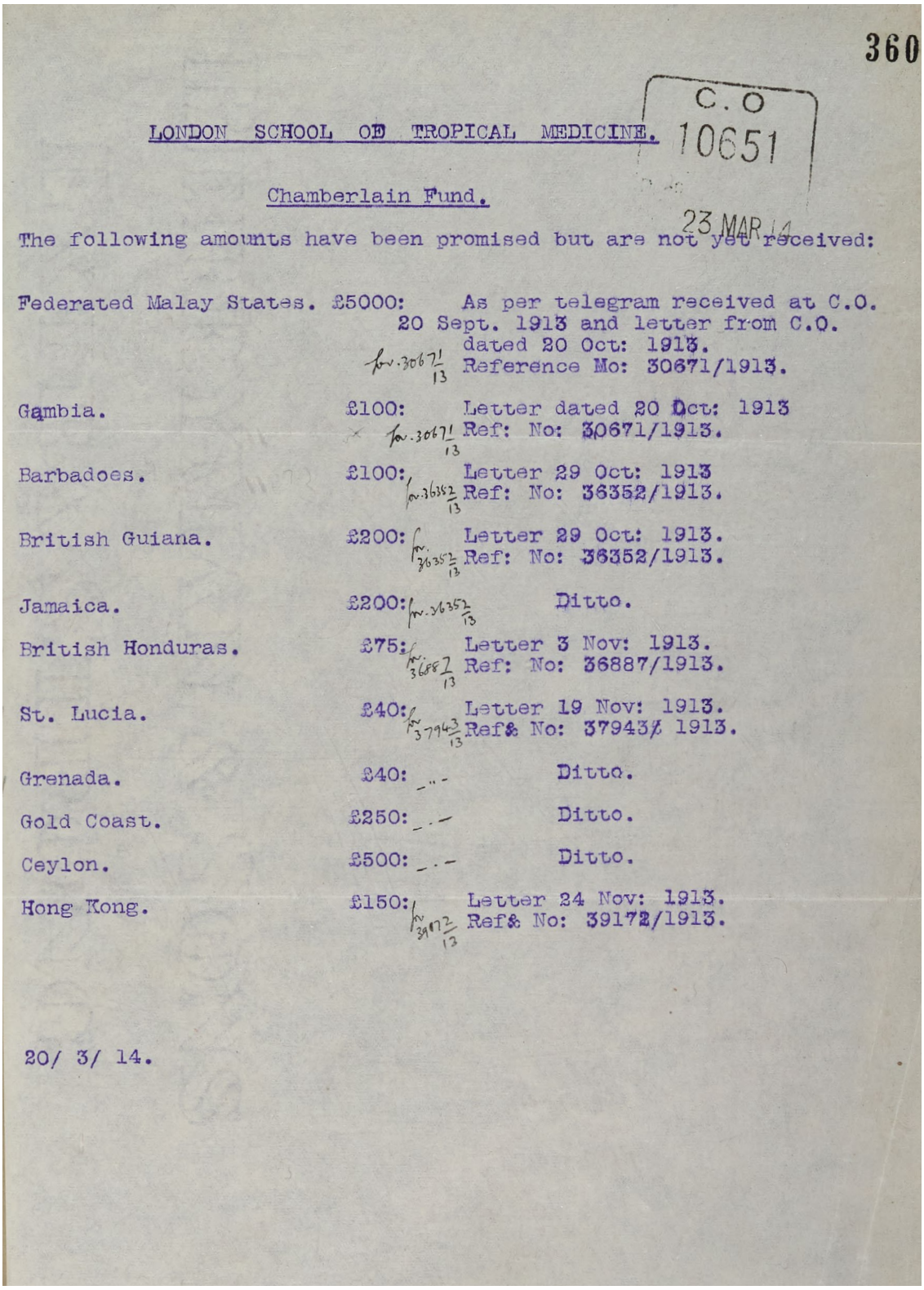
Read, Chamberlain's personal secretary at the Colonial Office had been a member of the LSTM's Board of Management since 1899. Chamberlain also used his influence as Secretary of State for the Colonies to benefit the School by sending the School's syllabus out to all British colonies, advising them that 'surgeons entering the Colonial Service should take out a course of study at the London School of Tropical Medicine, and that Surgeons already in the Service should take out a course of study either at the London School or at the Liverpool School.' (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 1). This guaranteed a continuous influx of students and their fees.

In 1902, Chamberlain deputised Sir Francis Lovell, formerly surgeon-general in Trinidad, to undertake a fundraising mission across British colonies in order to appeal to governmental and private entities for funds for the School (ibid; Anonymous, 1902). Sir Francis Lovell went on five such fundraising tours to the colonies in 1902, 1905, 1908, 1909, and 1910 each time returning with varying amounts of money. The first stop on his first tour was Bombay (Mumbai). There he 'received £7131.14.0, including a lakh of rupees from Mr Bomanjee Dinshaw Petit' (ibid).[12] The meeting minutes also record that Sir Francis Lovell had expensed £10 as a wedding present to Miss Nariman, daughter of Dr Nariman who had introduced Lovell to Mr Petit (ibid). After his first tour, and as a gesture of gratitude for the £8,362 he had collected on behalf of the School ('further contributions were anticipated') he was made Dean of the School (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Books 1 and 2). At the beginning of the First World War, in 1914, Chamberlain died. In his honour, the School unveiled two bronze reliefs of him and his son, Austen Chamberlain, who would replace his father as high-level campaigner on the School's behalf. A ward in the Albert Dock Hospital, which was run by the Seamen's Hospital Society but used by the School for teaching purposes, was also named the Joseph Chamberlain Ward (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 1).

As discussed in Chapter Four, the Colonial Office ensured that colonies, which contributed annually to the running of the School, would benefit from free courses for medical officers (TNA - CO 129/536/3). The School also directly referred students to a list of vacancies advertised by the Colonial Office. In the early years, students were appointed district representatives of the School in the respective colonies in which they were serving and were tasked with sharing the School's syllabus locally (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 1). In 1912, the Colonial Office offered the management committee of the School to hold their monthly meetings at their premises (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 3, 1912). Prior to this, meetings had been held at Patrick Manson's house on Queen Anne Street in London.

After the end of the First World War, in a period of increasing nationalism and independence movements in the colonies, Chamberlain's son Austen, who had followed his father into politics, continued to campaign on the School's behalf. Although he did not occupy the post of Secretary of State for the Colonies, he was Secretary of State for India (1915-1917) and Foreign Secretary (1924-

[12]FA lakh of rupees corresponds to 100,000 rupees



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C.O 10651 23 MAR 14

LONDON SCHOOL OF TROPICAL MEDICINE.

Chamberlain Fund.

The following amounts have been promised but are not yet received:

Federated Malay States.	£5000:	As per telegram received at C.O. 20 Sept. 1913 and letter from C.O. dated 20 Oct: 1913. For. 30671/13 Reference No: 30671/1913.
Gambia.	£100:	Letter dated 20 Oct: 1913 For. 30671/13 Ref: No: 30671/1913.
Barbadoes.	£100:	Letter 29 Oct: 1913 For. 36352/13 Ref: No: 36352/1913.
British Guiana.	£200:	Letter 29 Oct: 1913. For. 36352/13 Ref: No: 36352/1913.
Jamaica.	£200:	For. 36352/13 Ditto.
British Honduras.	£75:	Letter 3 Nov: 1913. For. 36887/13 Ref: No: 36887/1913.
St. Lucia.	£40:	Letter 19 Nov: 1913. For. 37943/13 Ref& No: 37943/ 1913.
Grenada.	£40:	Ditto.
Gold Coast.	£250:	Ditto.
Ceylon.	£500:	Ditto.
Hong Kong.	£150:	Letter 24 Nov: 1913. For. 39172/13 Ref& No: 39172/1913.

20/ 3/ 14.

Figure 18: The Chamberlain Appeal: List of promised colonial contribution (TNA – CO 323/645)

1929 and also an ardent Irish Unionist. He can thus be seen as having similar imperial ambitions as his father. He launched an appeal on behalf of the School in 1914, which generated £73,475 (TNA - CO 323/806, see also Figure 18). After the First World War, the School's governing committee decided that it would benefit from moving into the city centre to facilitate and increase access to students desirous of studying there (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 7). Both Austen Chamberlain and Lord Alfred Milner, the then Secretary of State for the Colonies (1919-1921) and previous High Commissioner to South Africa and Governor of the Transvaal (1897-1905), were approached with a view to launching an appeal for funds to enable the purchase of the Endsleigh Garden Palace Hotel, near Euston (ibid). As Colonial Secretary, Lord Milner was a keen imperialist himself. In his (1913) published collection of speeches entitled *Empire and the Nation* he wrote:

'And now, gentlemen, without more ado, let me say that I have come to break a lance in favour of that school of thought which holds that the maintenance and consolidation of what we call the British Empire should be the first and the highest of all political objects for every subject of the Crown. […]

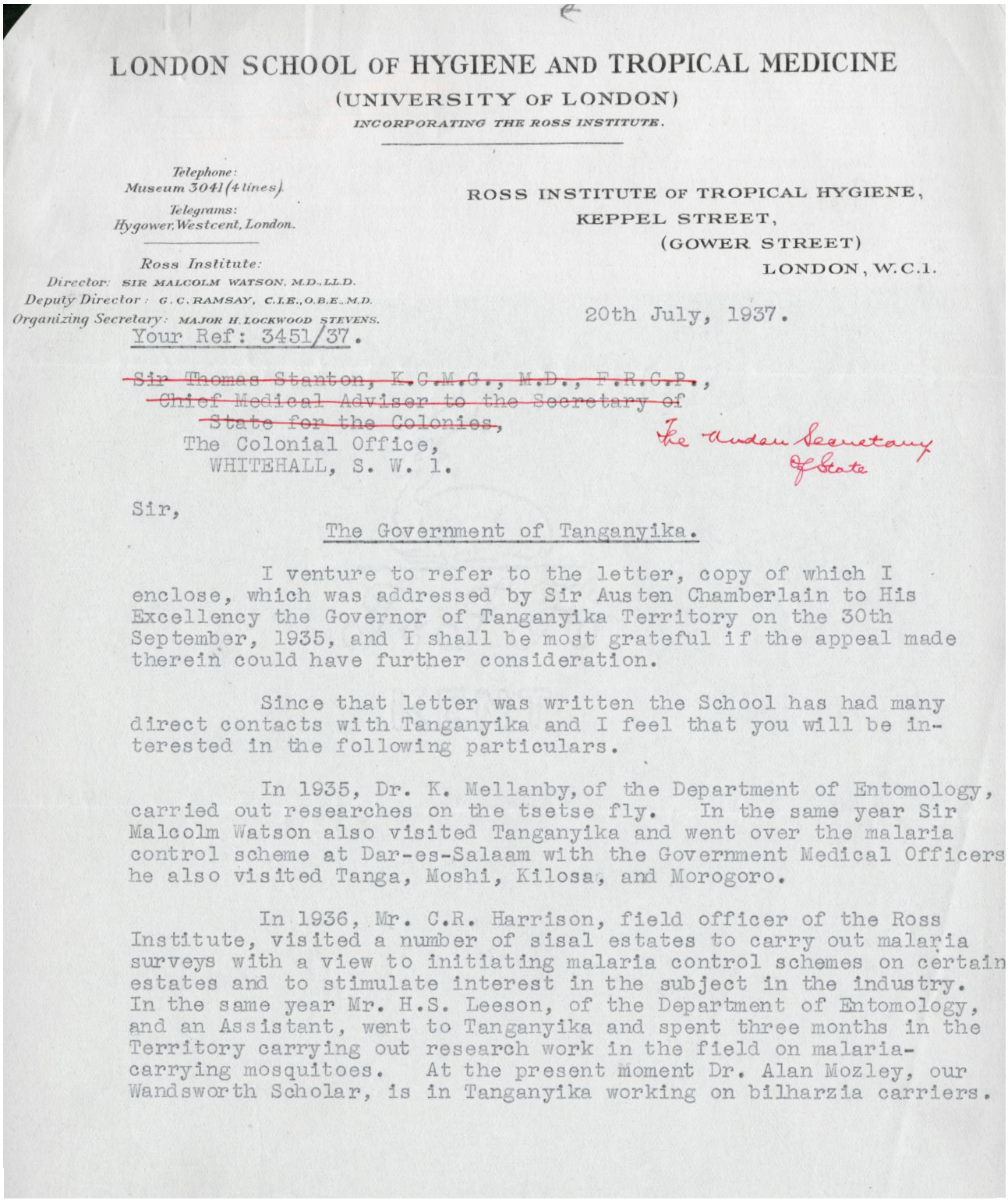
'How are you going to sustain this vast fabric of the Empire? No single class can sustain it. It needs the strength of the whole people. You must have soundness at the core – health, intelligence, industry; and these cannot be general without a fair average standard of material well-being. (Milner, 1913, pp.138-140).'

As Porter (2021) has argued, for Milner, imperialism was tied to the survival of the British race both at home and abroad, a fact which had become clear in his advocacy for a British war against Afrikaner nationalism in South Africa at the beginning of the century.

Milner took up the challenge of collecting additional funds for the School. By October 1920, his appeal had resulted in contributions to the sum of £99,833. In 1935 and shortly before his death, Austen Chamberlain launched a further appeal for funds for the School with colonial governments. Using the LSHTM letterhead, he addressed colonial governors and argued that:

'The British Government shows its appreciation of the Imperial importance of our work by making to the School a grant through the University Grants Committee, of an annual sum of £40,000 and the City of London and certain private individuals have given us generous supports, but very little support comes from overseas. The work we do in training men for the Colonial Medical Service and especially the fact that medical men already in that Service come to the School to take special courses when home on leave gives us, I submit, a real claim upon the support of Colonial Governments which receive the benefit of our labours. (TNA - CO 323/1464/14)'

Thus, both LSHTM and the Colonial Office tied the School's teaching and research, to appeals for funds from colonial governments (see also Figure 18). Their contributions were also tied to the work the School did for commercial interests in the colonies. In future fundraising and lobbying the School's financial pitch was based on its role in sustaining imperial production, an important part of the British economy especially under the spectre of war with Germany. When Chamberlain died in 1937, the School renewed its appeal and addressed concerned governments directly. LSHTM was now assured the support of another member



LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE

(UNIVERSITY OF LONDON)

INCORPORATING THE ROSS INSTITUTE.

Telephone:
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Telegrams:
Hygower, Westcent, London.

Ross Institute:
Director: SIR MALCOLM WATSON, M.D., LL.D.
Deputy Director: G. C. RAMSAY, C.I.E., O.B.E., M.D.
Organizing Secretary: MAJOR H. LOCKWOOD STEVENS.

ROSS INSTITUTE OF TROPICAL HYGIENE,
KEPPEL STREET,
(GOWER STREET)
LONDON, W.C.1.

20th July, 1937.

Your Ref: 3451/37.

~~Sir Thomas Stanton, K.C.M.G., M.D., F.R.C.P.,~~
~~Chief Medical Adviser to the Secretary of~~
~~State for the Colonies,~~
The Colonial Office,
WHITEHALL, S. W. 1.

The Under Secretary of State

Sir,

The Government of Tanganyika.

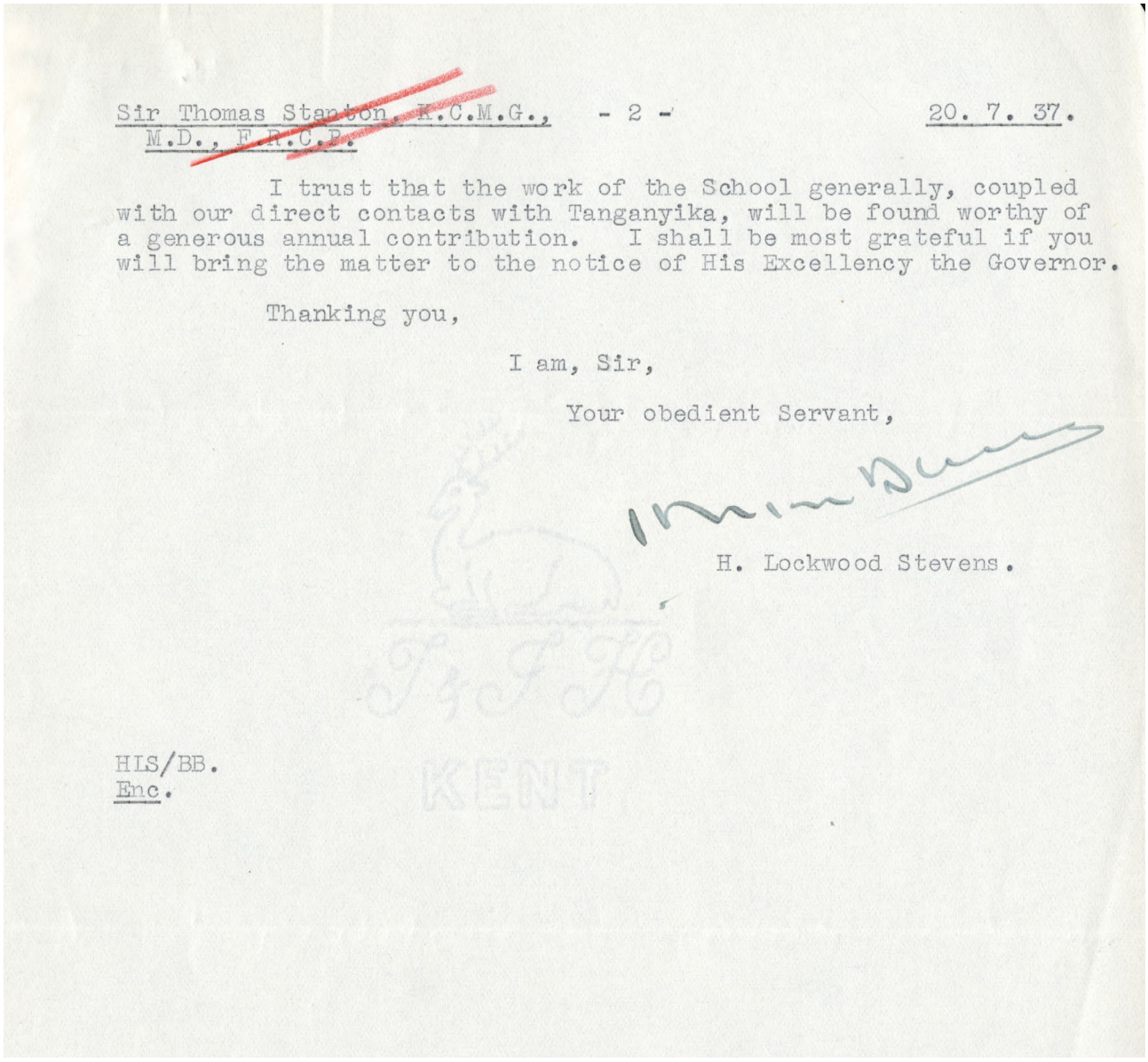
I venture to refer to the letter, copy of which I enclose, which was addressed by Sir Austen Chamberlain to His Excellency the Governor of Tanganyika Territory on the 30th September, 1935, and I shall be most grateful if the appeal made therein could have further consideration.

Since that letter was written the School has had many direct contacts with Tanganyika and I feel that you will be interested in the following particulars.

In 1935, Dr. K. Mellanby, of the Department of Entomology, carried out researches on the tsetse fly. In the same year Sir Malcolm Watson also visited Tanganyika and went over the malaria control scheme at Dar-es-Salaam with the Government Medical Officers he also visited Tanga, Moshi, Kilosa, and Morogoro.

In 1936, Mr. C.R. Harrison, field officer of the Ross Institute, visited a number of sisal estates to carry out malaria surveys with a view to initiating malaria control schemes on certain estates and to stimulate interest in the subject in the industry. In the same year Mr. H.S. Leeson, of the Department of Entomology, and an Assistant, went to Tanganyika and spent three months in the Territory carrying out research work in the field on malaria-carrying mosquitoes. At the present moment Dr. Alan Mozley, our Wandsworth Scholar, is in Tanganyika working on bilharzia carriers.

Figure 19a: First part of letter from the LSHTM to the Governor of Tanganyika appealing for funds (TNA – CO 323/1464/14)



Sir Thomas Stanton, K.C.M.G., M.D., F.R.C.P. - 2 - 20. 7. 37.

I trust that the work of the School generally, coupled with our direct contacts with Tanganyika, will be found worthy of a generous annual contribution. I shall be most grateful if you will bring the matter to the notice of His Excellency the Governor.

Thanking you,

I am, Sir,

Your obedient Servant,

H. Lockwood Stevens.

HLS/BB.
Enc.

Figure 19b: Second part of letter from the LSHTM to the Governor of Tanganyika appealing for funds (TNA – CO 323/1464/14)

of the Chamberlain family, Neville, who had become chairman of the Board of Governors and member of the Board of Management upon his brother's death and who took up these responsibilities despite being Prime Minister at the time until his death in 1940 (LSHTM, LAORS – GB 0809 Admin/03/01 1940-1942).

Figure 19 illustrates such direct funding appeals. Tanganyika (present-day Tanzania) had been a German colony until the end of the First World War, when German East Africa (which also included Rwanda and Burundi) had been ceded to the victorious powers. It was then administered as a mandate of the League of Nations by Britain, which

benefitted from the widespread agricultural production of sisal, a plant whose fibres are used to produce rope and twine, but which are also component parts in the production of rubber and cement. The letter shown above, sent by the School to the colonial government of Tanganyika mentions the anti- malarial measures introduced by a member of the School staff, Mr G.R. Harrison on several sisal plantations in the country.

In a similar letter from 1937, from Major Lockwood Stevens, Organising Secretary of the Ross Institute of Tropical Hygiene, to Sir Thomas Stanton at the Colonial Office, Stevens went through the contributions made by colonial governments assessing who should pay more. The following are two examples (TNA - CO 323/1464/14, 1937):

Malaya (Malaysia)

'I know you are familiar with the history of contributions from Malaya and the Straits settlements and we feel that their contributions should be larger. We keep in close touch with the mining and planting Companies and during the past few years we sent out Dr G.C. Ramsay and Dr. V.B. Wigglesworth. Dr. Buckley of the department of Helminthology has been there for the last two years […].'

East Africa

'I know that for some time the finances of the East African Dependencies have not been stable, but I believe that the position is improving, and I think you will agree that we have some claim for recognition from them, as during the last few years we have had many direct contacts with the various governments and industries there. We sent a man at short notice by air, to clean up malaria in one of the early mines; Sir Malcolm Watson has visited the whole country from Southern Rhodesia [Zimbabwe]; Mr C.R. Harrison went in connection with the Zambesi Bridge and Nyasaland Railways, and again to promote interest and advise on malaria control measures on Sisal estates; at different times the department of Entomology has sent two men; Mr. Mellanby and Mr. Leeson, then Dr. Gordon Thomson went to investigate blackwater fever and immunity there; and our Wandsworth scholar, Dr Moxeley is there now. We also arranged for Dr. Svensson to visit the tea growing acres in Nyasaland [Malawi] to try and interest the planters in maintaining a medical officer in the same way as is done in India and elsewhere. He carried out certain surveys there, but found that the planters are not, at the moment, sufficiently public health minded to enter into the scheme.'

In Stevens' letter, research is brought in direct relation to the commercial and governmental success of British colonialism. The School's research in the early period was funded by the Colonial Office and by commercial interests in the colonies. In effect, the School functioned as the Colonial Office's research body and several posts were paid with money from the Tropical Diseases Research Fund (TNA - CO 927/825). When the Colonial Office wanted a health problem investigated, the School did their utmost to send one of their staff on an expedition, which was either paid by the Colonial Office or private industry directly, or was financed by research funds, which the School had received through private bequests. The table below gives an overview over the School's research expeditions up to 1923 as recorded in its Annual Reports.

Colonial Office Grant 1900	Dr L. W. Sambon and Dr G. C. Low proceeded to the Roman Campagna to study Malaria, and to live in a mosquito-proof house to demonstrate the mosquito malaria theory.
Craggs Scholarship	Dr G. C. Low visits the West Indies to investigate Filarial and other Tropical Diseases
Colonial Office Grant, 1901	Christmas Island Expedition, re: Beri-Beri
Foreign Office and Royal Society, 1902	Dr G. C. Low and Dr Castellani went to Uganda to study sleeping sickness (First sleeping sickness Commission).
Colonial Office Grant, 1902	Dr R. T. Leiper carried out investigations in regard to Guinea Worm in West Africa
Ditto, 1906	Dr C. M. Wenyon to study at the Institut Pasteur under Professor Mesnil in Paris; also to Khartoum to Protozoological Research in the Sudan
Egyptian Government, 1907	Dr Leiper proceeds to East Africa on an Expedition to the regions between Lake Victoria Nyanza and Lake Albert, thence to Gondokoro.
Stanley Fund, 1909	Dr H. Bayon carries out investigations in regard to Sleeping Sickness
Ditto, 1909	Dr Philip Bahr proceeds to Fiji to study the cause and prevention of Dysentery
Colonial Office Grant, 1910	Dr C. M. Wenyon proceeds to Bagdad to investigate the subject of “Oriental Sore”.

Figure 20a: The LSHTM’s research expeditions – colonial funding and geographies (LSHTM, LAORS – GB 0809 Admin/11/01)

Ceylon Government Grant, 1912	Dr Philip Bahr proceeds to Ceylon to study Sprue.
Wandsworth Scholarship, 1913	Dr Leiper visits Lagos in regard to the alleged occurrence of Ankylostomes in wells, and Southern Nigeria for an investigation into Filaria Loa.
Stanley Fund, 1913	Dr Wenyon proceeds to Malta in regard to "Oriental Sore"
Wandsworth Scholarship, 1914	Dr Leiper accompanied by Surgeon E. L. Atkinson, R. N., left for the far East in the early part of the year and was engaged on Research in regard to Trematode Infections until the outbreak of war
Colonial Office Grant, 1915-16	Dr Leiper carries out investigations in regard to Bilharzia transmission and prevention in Egypt.
Wandsworth Scholarship, 1919	Dr F. W. O'Connor to the Western Pacific to carry out investigations on Filariasis
Milner Research Fund, 1921	Prof R. T. Leiper, accompanied by Drs J. Anderson, G. M. Ververs, M. Khalil and C. U. Lee, to British and Dutch Guiana and the West Indies for Helminthological Investigations.
British South Africa Co., 1922	Dr J. G. Thomson to Rhodesia, to carry out investigations on Blackwater Fever.
Milner Research Fund, 1923	Dr H. B. Newham to British Honduras to investigate the "Undiagnosed Fevers" there.
Wandsworth Scholarship, 1923	Dr C. Cook. Investigation on Leprosy in Australia

Figure 20b: The LSHTM's research expeditions – colonial funding and geographies (LSHTM, LAORS – GB 0809 Admin/11/01)

In this time period, out of 19 expeditions recorded in the annual reports (more were undertaken, but are not listed), six were funded directly by the Colonial Office, one by the Foreign Office and the Royal Society, three by colonial or protectorate governments or private companies in charge of a colony or protectorate and nine by research funds set up for the School by private individuals and their bequests. One was funded by money made available through an appeal by the Secretary of State for the Colonies. Several of these expeditions need unpacking in order to understand the true scale of involvement in the School's research by the Colonial Office, which in some cases was also commissioner but not direct funder. The 'Wandsworth Scholarship' of £370 per annum was founded with a bequest of £10,000 from Lord Wandsworth, Sydney Stern (1844-1912). A Liberal MP and philanthropist, Stern was a financier with Stern Brothers Bank, which had interests in the Ottoman Empire and connections with the Imperial Bank (Anon., nd.; Jacobs and Lipkind, 1906). It was placed at the disposal of the LSTM by Sir William Bennet, K.C.V.O., F.R.C.S., to whom it had been bequeathed for purposes of Medical Research (LSHTM, LAORS – GB 0809 Admin/11/01).

Examples of expeditions requested by the Colonial Office, which were paid for by private funds or funds which the School had obtained through its help, were the expeditions of Dr O'Connor and Dr Leiper respectively in 1919 and 1921. The meeting minutes of the Seamen's Hospital Society, the School's governing body at the time provide more information about O'Connor's research. Lord Milner, who was the Secretary of State for the Colonies at the time, approached the School through the Medical Officer, Dr McNaughton to further investigate a problem of filariasis in the Gilbert and Ellice Islands (Kiribati and Tuvalu). These Pacific Islands had recently changed status from a Protectorate to a Crown Colony, and expropriation of land to make way for phosphate mining was then in full swing (MacDonald, 2001). Dr Francis O'Connor, an Irish entomologist, who had studied at and subsequently been employed by the School, was selected and departed for the Pacific in October 1919. The following is a summary of letters sent by O'Connor to the School reporting on the progress of his research expeditions printed and discussed in the School's management body meeting minutes (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 7, pp.53-67):

'After preliminary investigations extending over three months Dr. O'Connor finds that the statements of Dr. McNaughton, upon which the expedition was inaugurated, are inaccurate and unverifiable. He states moreover, that the results of some of Dr. McNaughton's treatment of intramuscular injections have so terrified the natives of Funafuti that the population is almost invincibly prejudiced against any sort of injection by needle.'

'Dr. O'Connor further complains of insufficient official recognition. His communications of the High Commissioner of the W. Pacific (the successor in office to the gentleman who desired our cooperation) have elicited only brief perfunctory response. The local District Officer has no official knowledge of him, and is not very willing to risk the consequences of assuming responsibility for him. As a result Dr O'Connor can only approach the population through the courtesy of native practitioners of medicine.'

Dr O'Connor's reports and their summary in the meeting minutes reveal a variety of things. Firstly, although the expedition is listed in the School's Annual Report as one financed by a Wandsworth Scholarship, it was commissioned by the Colonial Office. Secondly, although the Colonial Office commissioned the research, their research infrastructure and communication did not make it necessarily easier for members of the School to carry out research across the British Empire. The intentions and directions of the Colonial Office did not automatically translate into research facilitation on the ground. O'Connor's account is also interesting because it points to some of the dynamics of colonial research encounters more generally. Not only does his letter possibly hint at one of the ways in which colonial medical interventions could contribute to distrust amidst indigenous populations, they also show how colonial medical practitioners and those doing research on their behalf had to rely on indigenous brokers in order to get access to indigenous communities at all.

The recorded meeting minutes then offer renewed insights into the relationship between the School and the Colonial Office in terms of research:

'The Secretary reported that at the request of Sir Herbert Read he had an interview with Mr. Green of the Colonial Office who expressed much regret that Dr. O'Connor had experienced difficulty in prosecuting his research. Mr. Green states that the administrator was now in England that he would be communicated with and that a telegram would be sent to the Acting Administrator asking him to render assistance to Dr. O'Connor.'

Though Dr O'Connor's research seems to have had a bad start, the workings of the empire and specifically the fact that colonial officers were granted regular leave in the UK, allowed the School, through its close ties with the Colonial Office, to intervene on his behalf. Herbert Read, as Chamberlain's former private secretary, had excellent connections at the Colonial Office and used these to ensure that the School's research could be carried out successfully.

In the case of Professor Leiper's expedition to the West Indies, the Colonial office approached the School with a view to sending a researcher to investigate a helminthological problem. In this instance, the School communicated to the Colonial Office that they were unable to comply with the request, only to change their mind later on, when the Colonial Office renewed its request. Lord Milner's assurance 'that he would be prepared to ask the Colonies concerned to contribute to the cost thereof' might have swayed the School's management. However, the main funds to pay for this research expedition seem to have come from the considerable funds, which had previously been generated by Lord Milner's appeal (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 7, p.77; p.131).

Some of the School's research however was directly funded by the Colonial Office. One such case was the research of C.M. Wenyon and R.T. Leiper at the beginning of the 20th century. From 1905 the Colonial Office financed the research and teaching of a helminthologist (Robert Leiper), a protozoologist (Charles Morley Wenyon) and from 1907 an entomologist (Colonel A. Alcock). Their posts were paid by the Tropical Diseases Research Fund, which had been set

up at the beginning of the century. Because they were directly funded by the Colonial Office, they had to submit half-yearly reports on the progress of their research through the School to the Colonial Office. Below is an excerpt from one such report, submitted to the School by Robert Leiper (TNA - CO 323/806, 555-556):

'With funds provided partly by the Tropical Diseases Research Committee of the Colonial Office and partly by the London School of Tropical Medicine I was afforded the opportunity of undertaking further research work in the field and early in February preceded to China for the purpose of studying the mode of spread of Trematode infection of man, especially Bilharziasis. In view of the importance of Asiatic Schistosomiasis to the Navy it was thought that the Admiralty might assist in these investigations and they were pleased to second Surgeon Atkinson R.N. for the work.'

This research expedition too, is simply marked as 'Wandsworth Scholarship' in the School's annual reports and thus obscures the very close relationship between the School and the Colonial Office in terms of research and research expeditions. However, with regards to research the School's relationship with the Colonial Office exceeded a purely financial one. The School heavily relied, in its research, on the existing geographies and trading relationships of Britain and the British Empire. The research undertaken was either directly commissioned by or concerned with health in the colonies, and as such, largely took place within the geographical confines of the UK's formal and informal Empire.

Research and 'Development'

As noted above, by the mid 20th century the colonial funding framework changed as government policy was increasingly shaped by the concept of 'development', with grants provisioned by the Colonial Development Act of 1929, then the Colonial Development and Welfare (C.D.W.) Acts of 1940 and 1945. Broadly designed to support the economic development of the colonies, these also provided funds for British research in the colonies and were guided by white colonial interest. However, they also bureaucratised the administration of public health within the British Empire, requiring colonial administrators to plan, cost, and evaluate projects in hitherto unknown ways; ways which would have been more familiar to those at LSHTM who ended up receiving C.D.W. funding. Through the C.D.W., the School's research also benefitted indirectly from its association with the Colonial Office. Specifically, School officials played an important part in shaping the direction of medical research across the Empire. In 1927, the then director of LSHTM, Professor Andrew Balfour and Dr Manson- Bahr, Patrick Manson's son-in-law, were appointed to the new Colonial Medical Research Committee (C.M.R.C.), which had been set up by the Colonial Office and the Medical Research Council. Professor Robert Leiper had been appointed as a member of the Colonial Veterinary Research Committee in the same year. The Colonial Medical Research Committee oversaw medical research in the colonies. According to an internal memorandum from 1952 entitled 'Medical Research in the Tropics' and prepared by the Colonial Office, the Colonial Medical Research Committee held sway over 'the way in which C.D.W. medical research funds are

used. Nor is there any difficulty in arranging quite speedily for home-based workers from the M.R.C. or from Universities to study aspects of their work in a colonial territory, if the C.M.R.C. so recommends' (TNA - CO 927/289). The Colonial Medical Research Committee's terms of reference included the following:

'To advise (a) the secretary of state for the colonies through the medical research council on all medical research in or for the colonies financed from colonial development and welfare funds; (b) the medical research council on all medical research in or for the independent commonwealth financed from the United Kingdom exchequer; (c) the medical research council on all medical research in or for tropical or sub-tropical countries financed from their own budget.'

The committee also oversaw the 'promotion of visits abroad by experts' (ibid). By having several senior members of staff appointed to the Committee, the School played an important role not only in shaping the country's medical research in the colonies, but also in setting up the research relation between the UK and newly independent countries. Indeed, in the late 1950s, as colonies were moving towards independence, the School's involvement with the CMRC was still strong. Several members of LSHTM were part of the CMRC and the newly formed Tropical Medical Research Committee, as it was called from 1960, among them Professor Garnham, Professor B. S. Platt, Professor E. T. C. Spooner and Professor A. W. Woodruff.

The following are two examples of the School's close relationship with and influence at the Colonial Office in later years, after the School became the London School of Hygiene & Tropical Medicine. Although British public health teaching and research subsequently played an increasingly big role at the School, it is important not simply to see the two strands of teaching and research in tropical medicine and domestic public health, as entirely separate. As the second part of this chapter will show, the two strands overlapped and were in conversation with one another. One good example of the symbiosis of both aspects of medical education at LSHTM occurred in April 1940, when the Permanent Undersecretary of State for the Colonies approached the School to invite Sir Wilson Jameson, the School's Dean and first Professor of Public Health (since 1929) (Wilkinson & Hardy, 2001), to take up the role of Chief Medical Advisor to the Colonial Office (LSHTM, LAORS – GB 0809 Admin/01/03/01, 1940-1942). The letter read:

'If you are willing to accept the appointment it will be understood that your work in the Colonial Office will be concerned with the broader questions of policy affecting public health in the Colonial empire and the organisation of the Colonial Medical Service.'

The School reacted positively to this invitation. The 1939 Annual Report on the Works of the School states (LSHTM, LAORS – GB 0809 Admin/11/01, p.9):

'The appointment of the Dean in May 1940, as Medical Adviser to the Secretary of State for the Colonies was welcomed by the Board, and it was arranged that sufficient assistance should be given him in the School to enable him to retain the chair of Public Health in the University and the office of Dean in the School. This appointment should serve to strengthen the ties that have

united for so many years the Colonial Office and the School.'

Thus, the following analysis of the School's syllabus shows how British public health practice influenced the administration of health in the colonies (Ncube, 2012).

Benjamin Platt's Applied Nutrition Unit is one final example of how LSHTM's research reflected the School's relationship with the Colonial Office and British colonialism more broadly. As with other research projects related to health in the colonies, one of the aims of the Colonial Office with regards to the nutrition unit was the centralisation of knowledge in the United Kingdom, and specifically London, to allow Colonial Medical Officers on leave to receive training and improve the effectiveness of their work in administering the Empire. Critical histories of nutrition science have recently illuminated the implications of this 'colonial construction' underlying the field of nutrition science in the mid 20th century (Nott, 2021, 555; Worboys, 1988b). One key argument is that culturally inappropriate assumptions about the importance of animal protein in infant nutrition guided early work, in contrast to the later emphasis on breast-feeding. Another is that undernutrition and food insecurity was too easily attributed to behavioural differences between African colonial subjects and the 'civilised communities' (Nott, 2018, 772; Nott, 2021, 560). Little attention was paid to the disruptions which imperial production had imposed on patterns of labour and agricultural ecology. Such social determinants were largely neglected in favour of a focus on individual nutrients, and technical solutions in the form of dietary supplements (Nott, 2018, 772-5)

The School's Nutrition Unit which was born out of the 1937 Economic Advisory Council Committee on Nutrition in the Colonial Empire was first funded by the Medical Research Council from 1944. In 1945, the Department of Nutrition was created under the direction of Professor Platt who had been working with the Colonial Office and the Medical Research Council since the 1930 to address nutritional problems in the colonies (LSHTM, LAORS - GB 0809 Admin/11/01, 1945-6, p.20; Nutrition). During the war, colonial nutrition problems had been attended to by Nutrition Assistants, working at the Colonial Office under the direction of Professor Platt. The creation of a Department of Nutrition at the School was thus a logical consequence of a ten-year-old collaboration between the Medical Research Council, the Colonial Office and the School. This collaboration extended beyond research: Professor Platt's annual report for the LSHTM Department of Human Nutrition in 1947 reveals that advice on curriculum content from the CMRC was highly influential on the syllabus of the Department (LSHTM, LAORS – GB 0809 Admin/11/01). In 1952 the Colonial Office incorporated their Applied Nutrition Unit into the LSHTM, which was to administer it on behalf of the Colonial Office (LSHTM, LAORS – GB 0809 Nutrition/05/01). The unit was funded by a Colonial Development and Welfare grant between 1952 and 1956 in order to address issues of nutrition, which were increasingly perceived to be a colonial problem. A memorandum describing the units set up, described it thus:

'The Unit is a joint venture which will be organised and managed in collaboration between the Colonial Office and the School. It represents an effect of pooling of staff and resources to form a central focus for practical nutrition work, which on the one hand will

strengthen the facilities available to the school and on the other create a "technical extension" of the Colonial Office upon which Colonial Governments may draw for expert guidance and help. The unit will be administered by the school on behalf of the Colonial Office and, while not itself concerned with fundamental research, will have close links with the Medical Research Council's Human Nutrition Research Unit in London and with the Field Research Station in the Gambia.'

The work of the Applied Nutrition Unit, as well as a majority of research units and projects carried out by the School on behalf of the Colonial Office, opened the colonies and their populations up to the scientific scrutiny and politics of imperial Britain. In the case of the unit and the colonial development and welfare grants that were financing it, measures were taken to continue the financing of the unit beyond the expiry of a second grant in 1960. The unit was set up by the Colonial Office to be 'a central organisation to deal with technical aspects of nutrition work in, and in relation to, the colonial territories' (LSHTM, LAORS – GB 0809 Nutrition/05/01).

Here as in other areas then, the London School of Hygiene & Tropical Medicine's research, centralised knowledge in London and it did so on behalf of and with the help of the Colonial Office and its wide-reaching network of staff. The School's research up to the 1960s would not have been possible without its links to the Colonial Office and the private and government funds that it mobilised on the School's behalf. At the same time, the centralisation of knowledge relevant to health in the colonies allowed the School to become a destination for students and a centre of expertise.

The Syllabus

The changes in the School's syllabus between 1899 and 1960 reveal the evolution of metropolitan views on colonial territories and their population. The early syllabus focused largely on clinical and pathological work. This translates into an understanding of the colonies, which largely excluded colonised populations and prioritised the health of white settlers and their workforce. The colonies were treated as environments in which medical science could and should intervene to eliminate disease vectors and ease European colonisation. In the LSTM's later period, a focus on hygiene (prior to the School's transition to the London School of Hygiene & Tropical Medicine) showcased an increasing focus on the colonised population. Whereas the School's early period had largely disregarded 'the native question' and notions of biological and behavioural racial difference it entailed, it became increasingly central in the School's teaching, culminating in a class on racial hygiene in the tropics.

At the beginning, the School's teaching mainly built on the medical training students had received in their previous education. Only qualified medical practitioners were admitted to the School, although the School Committee reserved the right to admit students without the necessary qualifications in special circumstances (LSHTM, LAORS – GB 0809 Admin/11/11 -1/2). Each session lasted three months and 'hours of study' were organised as follows:

- From 10 – 11 am students undertook 'ward work with note taking' at the nearby hospital of the Seamen's Hospital Society, where they could study tropical diseases in patients.

- 11 – 1 pm was dedicated to 'systematic instruction by the medical superintendent', followed by a lunch break.
- The afternoon similarly combined practical and theoretical work. Between 2 and 4 pm, students would engage in pathological work and would receive clinical instruction in the wards and out-patient department.
- This would be followed by lectures from 4-5pm on pathological work.

In line with the schedule, lectures and demonstrations honed students' clinical and microbiological skills. As such, lectures focused on microscopical work, but also included practical knowledge on conducting research using a microscope in the tropics, such as the 'deterioration of lenses and glass in the tropics', 'necessity for cleanliness' or how to detect anomalies in human and animal blood. Various tropical diseases were taught with a special focus on their clinical feature, geographical distribution, mode of infection and transmission and disease vectors. Particular attention was hereby paid to malaria, which as Chapter Four has shown, was the tropical disease that most concerned government officials, due to its high death toll among colonial officers. Students were also instructed in 'hygiene in the tropics'. This included personal hygiene, for example 'the influence of hygienic surroundings and of habitation; general hygiene including water and sanitation and urban sanitation especially with regards to industry ('plantations', 'lunatic asylums' or 'pilgrim, festival or holiday gatherings'). Mark Harrison (1992) has shown that Muslim pilgrimages to and from Mecca and Medina especially were an important concern of colonial administrators with regards to the potential spread of infectious diseases, such as cholera. The LSTM's syllabus was thus geared to colonial practice and concerns. Students were also taught about hospital administration and from 1907 about epidemics and how to detect and prevent them, meteorology, skin and eye diseases and oral hygiene. In 1902, the examination included the following questions:

1. *Describe the mosquito cycle of the malarial parasite (aestivo-autumnal). How do you distinguish the Culex from the Anopheles?*
2. *Give the points of distinction between the different filaria embryos*
3. *You have a patient with a liver abscess which has ruptured through the lung. Under what circumstances would you operate in such a case?*
4. *What are the methods of purifying water on the march? State what method you would consider.*

The practical examination included the following:

1. *Stain the Blood film given you with a stain suitable for demonstrating the malarial parasite. Describe in detail every abnormality you find in the specimen, and give a diagnosis.*
2. *Name the microscopical specimens numbered 1 to 6*

Classes, examinations, and the way in which early sessions were structured point to both a purely technical understanding of medical practice and to a predominant disregard for the political environments in which said practice was designed to take place, with the possible exception of the existence of armed forces or armed conflicts alluded to in question IV of the 1902 exam paper. Here, the phrase 'on the march' possibly referred to troops on the move. Only the hygiene aspects of the early syllabus hint at the social

world in which students would soon intervene and the political conditions which shaped it. The syllabus conveyed a general vision of the colonies as spaces shaped by hostile invisible disease vectors, which science could only reveal under the microscope. This scalar focus was also facilitated by racist beliefs in the inability of indigenous populations in colonial settings to care for their own health, possess medical knowledge or participate in public health campaigns (Packard, 2016). Manson's (and others') views of 'the unenterprising nature of the native' were to be blamed for poor health outcomes of Europeans and indigenous populations alike. As such, the goal of Europeans living in the tropics, circumvented indigenous knowledges and peoples altogether and focused on microbes and mosquitos.

The turn of the 20th century saw an increased focus across the British Empire on questions of race, which also influenced how tropical medicine was taught and how medical interventions were viewed. The School's 1909 exam reflected this by including the following question by Dr Sambon, the Anglo-Italian physician who had taken part in the mosquito hut experiment in Italy in 1900 (see chapter six):

'In view of the fact that already the majority of Tropical diseases have been shown to be parasitic diseases. State your views with regards to the possibility of the white man becoming acclimatised in Tropical lands. (LSHTM, LAORS – GB 0809 Admin 11/11 – 1/2)'

Dr Sambon had long been interested in the question of 'acclimatisation' of white Europeans in the tropics. In 1898 he gave a speech at the Royal Geographical Society on the topic in which he argued that microbes, not climate were causing excess mortality rates among European colonial officers (Sambon, 1898). While this question, which had justified the very foundation of the LSTM had not been directly reflected in the early syllabus, it was undoubtedly present (in speeches given to students, newspaper articles, etc.) and became part of the syllabus by 1909. While the early syllabus envisioned students as scientists, fighting for European colonisation using microscopes, the early 20th century saw an increased focus on their role as colonial administrators. Lectures on hygiene had so far predominantly focused on personal hygiene and environmental hygiene with regards to urban sanitation and planning. The syllabus in the early 1910s expanded to include lectures on 'public health administration in Tropics', 'Insanitary areas and houses unfit for human habitation' or 'town planning'. The latter included teachings on town 'division into different zones, quarters for different races and tribes; neutral belt' and how to deal with 'floating population and its housing' (LSHTM, LAORS – GB 0809 Admin/11/11 -1/2, 1907-1925). Race and the administration of racial others became a more pronounced part of the School's syllabus, such as in lectures on 'the influence of race on diseases of the eye' which instructed students in 'differences in the external and internal appearances of the eye in different races', 'the relative frequency of certain eye conditions' and 'the results of delay in seeking for relief of eye conditions'. At the same time, the late 1910s saw the inclusion of a lecture on 'Native remedies for various forms of eye disease and their dangers'. The description of topics included in the syllabus points to a discussion of both native methods of treatment for cataract and their 'advantages and disadvantages', parasitic diseases and insect bites. It is unclear whether the class warned students of the dangers of native

remedies for various forms of eye disease or instructed them in native remedies and the dangers of various forms of eye disease.

In addition to the standard course in tropical medicine, which allowed students to sit for the examination of the Diploma in Tropical Medicine, the 1920s saw an expansion of the syllabus with advanced courses on protozoology and entomology for both medical and veterinary students if a sufficient number of students signed up (LSHTM, LAORS – GB 0809 Admin/11/11 -1/2, 1907-1925).

The changes in LSHTM's governance and teaching focus in the mid-1920s brought changes in the School's syllabus with them. In 1924, funds from the Rockefeller Foundation allowed the School to start construction of a new building on Keppel Street and to include hygiene and public health within the work of the School. A result of the Athlone Commission, which had been created by the newly formed Ministry of Health in January 1921 and was tasked with investigating 'the problem of postgraduate medical education' in London, the LSTM's incorporation of this new school of state medicine was a product of the collaboration between the Ministry of Health and the Colonial Office (LSHTM, LAORS – GB 0809 Admin/01/03/01). The incorporation of the 'School of Hygiene' marked the end of the School's single focus on tropical medicine and it started offering courses in public health, which were directed at practitioners wanting to work in Britain and Europe. The two parts of the School, the old and the new, remained distinct, with little overlap at first. The tropical medicine stream continued its close cooperation with the Colonial Office. The public health stream was built on close cooperation with sanitary departments, local government, the Ministry of Health and hospitals in London and the country. Based on improving public health in the UK, it was less closely tied to the interests of Britain's Empire, however, ties persisted.

Indeed, certain aspects of the public health course reflect the subtle ways in which the British Empire influenced science in the metropolis. One example of this impact of empire on British medicine is the use of malarial infection to treat mental illness in British hospitals. From 1926 onwards, students studying towards the Diploma in Public Health benefitted from research visits to the Horton Mental Asylum in Essex, where patients were infected with malaria to cure their mental illness (LSHTM, LAORS – GB 0809 Admin/0/01). Specifically, the Annual Report on the Works of the School for the year 1926 states the following (LSHTM, LAORS – GB 0809 Admin/11/01):

'Thanks to the kindness of Lieut.-Col. S.P. James of the Ministry of Health, students when attending the School, had an opportunity of seeing the interesting work with anopheline mosquitoes which is being carried out at Horton Asylum, Epsom, in connection with the malaria treatment of general paralysis of the insane.'

General paralysis of the insane was the term used to describe end-stage syphilis and constituted one of a number of increasingly interventionist therapies used in psychiatric treatments before the adoption of chlorpromazine, an antipsychotic drug. Similarly invasive treatments were insulin therapy, lobotomies or electroconvulsive therapy (electroshock therapy). A laboratory, which had been established at the Horton Mental Hospital under the authority of the London County Council in 1925, was tasked

with 'preparing and maintaining a suitable strain of malaria parasite in mosquitoes'.

However, the association between the Horton Mental Hospital and its malaria lab and the new LSHTM would continue for years to come. A memorandum by the LSHTM's Dean on this lab in 1935 describes the lab as being 'attached to wards occupied by patients suffering from general paralysis of the insane in whom malaria was to be induced as a means of treatment' (LSH - Admin 01/03/01, 1935). It further discusses the School taking over the management of the Horton Malaria Laboratory. The memorandum reads:

'The primary concern of the Ministry is obviously the provision of suitable treatment for persons suffering from general paralysis of the insane but it is realised that the wards and laboratories at Horton Mental Hospital offer unrivalled opportunities for carrying out research on malaria and its treatment. […] In the wards cases of malaria can be observed throughout the whole of their attack and a careful study can be made of the use of variety of drugs in cutting short the infection.'

In the School's work with the Horton Mental Hospital and its Malaria Lab, the domestic other, in this case people suffering from psychoses, were made research objects for the School's staff, as had been the case with colonised populations in years previously. In the same memorandum, the School accepted the offer of the Ministry of Health to be put in charge of the Laboratory. This cooperation became official from the 1st of February 1936 (LSH - Admin 01/03/01, 1935). The School's work with the Horton Mental Hospital signifies a coming together of its tropical medical and public health work in the 1920s and 1930s.

Another aspect of the public health course which is important when considering LSHTM's colonial entanglements is the inclusion of eugenic teaching about race. This entanglement, instead of demonstrating a periphery to centre impact of empire on British medical teaching, illustrates a centre to periphery transfer of public health knowledge based on eugenic principles (Campbell, 2013; see also Paul et al., 2018). The 1930s were a decade in the LSHTM's teaching and research characterised by eugenic thinking and scholarly production. As with colonialism, in the case of eugenics, the School mirrored broader societal trends without critically opposing or questioning them. Although British eugenics was, in this period, largely concerned with the concept of class, rather than race, in the School's teachings statistical methods and racial pseudoscience came together and were taught by lecturers with clear links to the eugenics movement. These ideas, based on preconceived notions of racial hierarchy, may have been transferred indirectly into the management of empire through students' future careers.

In 1933, the Heath Clark lecture series at the School was given by Cyril Burt, a British psychologist with a special interest the heritability of intelligence. Burt lectured on the topic of 'The normal and the subnormal mind'. He was the first one in a series of permanent or guest lecturers at the School who subscribed to and propagated eugenic ideas. A couple of years later the School appointed Karl Pearson as its Heath Clark lecturer for 1935. Pearson had held the UK's first Chair in Eugenics at University College London from 1911. Pearson's lecture series was composed of five lectures on the topic of 'Heredity as a factor in preventive medicine' (LSH - Admin 01/03/01, 1934). The contents

of Pearson's lectures are unclear. However, in his (1901, p.21) book *National Life from the standpoint of science,* Pearson had broached the topic of heredity:

'I want you to see selection as something which renders the inexorable law of heredity a source of progress, which produces the good through suffering, an in- finitely greater good which far outbalances the very obvious pain and evil. Let us suppose the alternative were possible. Let us suppose we could prevent the white man, if we liked, from going to lands of which the agricultural and mineral resources are not worked to the full ; then I should say a thousand times better for him that he should not go than that he should settle down and live alongside the inferior race. The only healthy alternative is that he should go, and completely drive out the inferior race. That is practically what the white man has done in North America.'

In his account, and alongside eugenicists more generally, Pearson used laws of heredity as a tool to advocate for 'selection'. Selection was one of the founding blocks of eugenics and referred to engineered social reproduction by forbidding or preventing people of 'bad stock' from 'breeding' or 'interbreeding' with people from 'higher stock'. In the above quote, selection is presented by Pearson as a consequence of colonialism and what he saw as the inherent risks of white people living 'alongside the inferior race' (1901, p.21). Although Pearson's eugenics related to Britain and were concerned with the upkeep of white Britons as a superior race, which must be safeguarded against 'pollution' from 'inferior races', his writing also shows that his understanding of health and race were influenced by British colonialism and imperialism. According to Pearson, only 'driving out the inferior race' would ensure the health and purity of the white British race across the British Empire.[13]

This material was taught to students through the department of Epidemiology and Vital Statistics, which had been incorporated into the School in 1927 under the leadership of Major Greenwood, and was the institutional home of eugenics and eugenicists at the LSHTM. Greenwood, a medical graduate with an interest in and talent for statistics, had come to the School from his position at the Ministry of Health (LSH - GB0809 Greenwood/01). He had previously studied and worked under Karl Pearson at UCL and was keen to maintain friendly relations with him, when invited to create the department of Epidemiology and Vital Statistics in 1927 (ibid). Greenwood brought with him several people who had worked under him at the Ministry of Health, among them Austin Bradford Hill. Through Bradford Hill, Greenwood, and the Department of Epidemiology and Vital Statistics, the School deepened its association with eugenics which was largely, although not exclusively, concerned with studies of demography and class in Britain at this time (Sear, 2021). Greenwood published widely in the *Eugenics Review*, the journal published by the Eugenics Education Society (later the Eugenics Society, now the Galton Institute), in 1920 for instance on' The fertility of the English Middle Classes' (LSHTM, LAORS – GB 0809 Greenwood/01). Bradford Hill, who taught at the School on medical statistics, was also a member of the Eugenics

[13]There was disagreement between the researcher and PI on the interpretation of Pearson's phrase 'driving out the inferior race'. The researcher maintained that this spoke to Pearson's acceptance of genocidal methods to make North America habitable for white settlers, which would be in line with Pearson's other writings in the same volume and later sympathies with Adolf Hitler (Cain, 2019).

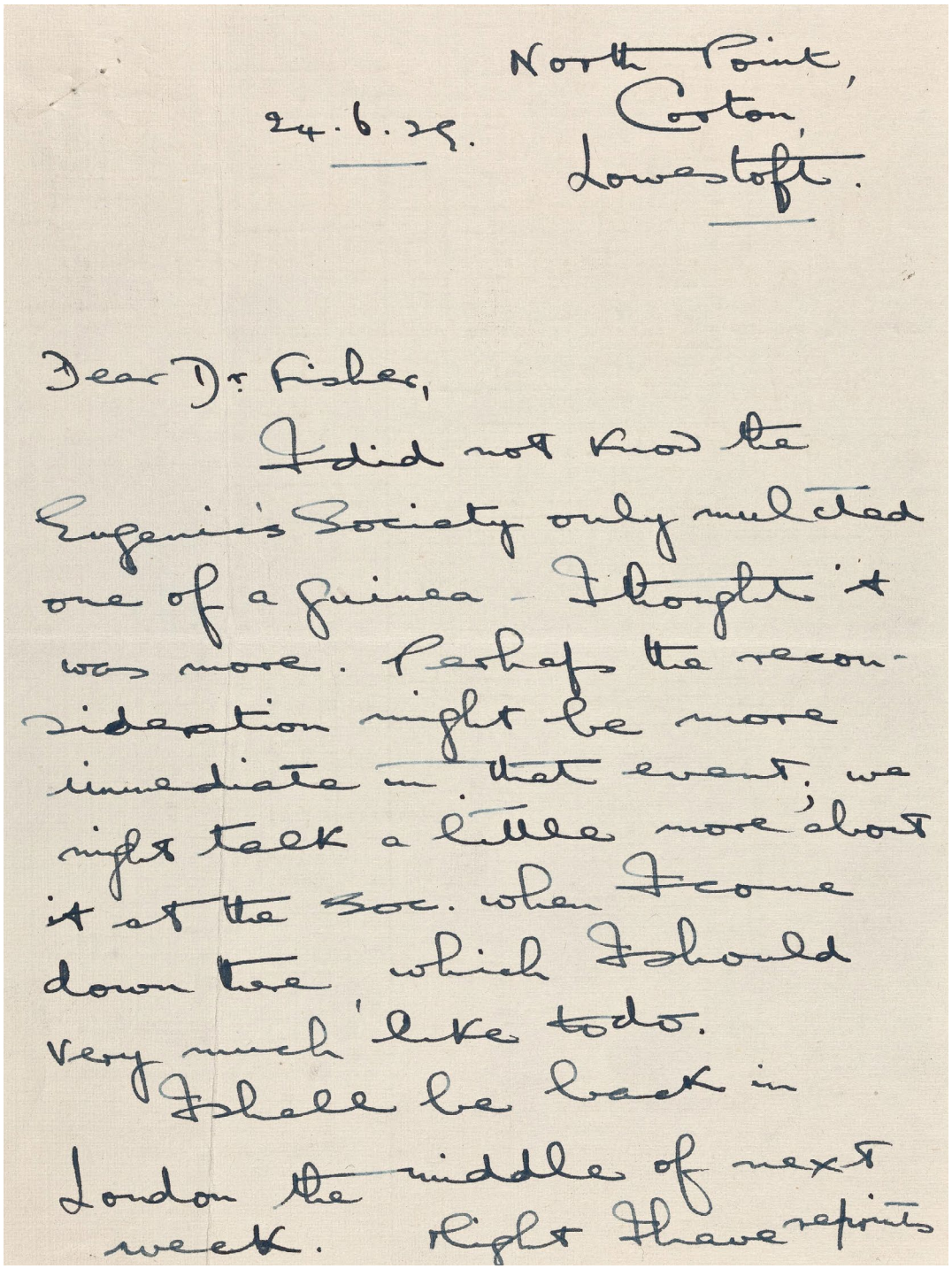
Education Society between 1931 and 1939, when he relinquished his membership for want of time, not however, because he did not agree with the goals of the society anymore (WC - SA/EUG/C.152; Figure 21).

However, founded in 1907 by Francis Galton, the Society was until the 1960s chiefly concerned with advocating for eugenics legislation in Britain, including a push for voluntary sterilisation (Mazumdar, 2000). It is therefore important to consider what these eugenic connections mean specifically for the LSHTM's colonial involvement within the purview of this report.

The department's statistical and epidemiological skills, founded on these eugenic principles, were used to better administer the Empire. Between 1932 and 1934 the department offered a course called 'Medical Statistics and Racial Hygiene in Tropical Countries', which was taught by Major P.G. Edge and Mr L.W.G. Malcolm, an Australian anthropologist. The course offered a combination of medical statistics, such as 'census taking and vital registration in sparsely populated areas or among primitive or illiterate peoples' and 'general principles of anthropology as applied to native races' (LSH - Admin/11/04, 1932, p.36). By 1934, the last year the course was taught, Major Greenwood had taken over the teaching and the course description was slightly altered from 'anthropology as applied to native races' to 'elementary cultural anthropology' (LSHTM, LAORS – GB 0809 Admin/11/04/1934). This course demonstrates not only that eugenic statistical methods and concepts of racial hygiene were being taught in tandem to students of the LSHTM at this time, but also that they explicitly focussed on the colonial applications of these ideas for students to take forwards into their careers.

Ideas around racial, mental, and class-based hierarchies continued to pervade teaching and research at the School until the 1940s. A letter written to Professor Sir Wilson Jameson, the School's Dean, in 1940 shows that the close cooperation between the Seamen's Hospital Society and the LSHTM continued after the School's incorporation of the School of Hygiene and its removal of the Seamen Hospital Society as its managing body in 1924. Clinical teaching continued to rely on patients in the Seamen Hospital Society's hospital in the Albert Docks and Greenwich and the Hospital for Tropical Diseases in Endsleigh Gardens after the School moved to Bloomsbury. Upon a formal request from Dr Manson-Bahr, the hospital made 'native patients' available for teaching purposes on the 5th of March 1940 (LSHTM, LAORS – GB 0809 Departments/04/04, 1940). Although, in reality, this practice had been ongoing for some time. On October 14th, 1937, several members of the clinical tropical medicine course at the School took students into the Manson Ward at the Albert Dock Hospital. The patients they used to demonstrate clinical practice in tropical disease cases are listed in Figure 23.

The focus on racial differences, illustrated by the descriptors of patients and emphasis on comparison in Figure 23, was an integral part of clinical and public health teaching at the School in the first half of the 20th century. While 'native patients' in the general ward seem to have regularly been used for teaching purposes, an undated memorandum of 'Suggestions for Clinical Teaching' in the same file (probably from the 1930-40s) offers insights into issues



North Point,
Corton,
Lowestoft.

24.6.39.

Dear Dr Fisher,

I did not know the Eugenics Society only published one of a guinea – I thought it was more. Perhaps the reconsideration might be more immediate in that event. We might talk a little more about it at the Soc. when I come down there which I should very much like to do.

I shall be back in London the middle of next week. Might I have reprints

Figure 21a: First part of letter from A Bradford Hill to Eugenics Education Society, 1939 (Dr A. Bradford Hill, Wellcome Collection – SA/EUG/C.152)

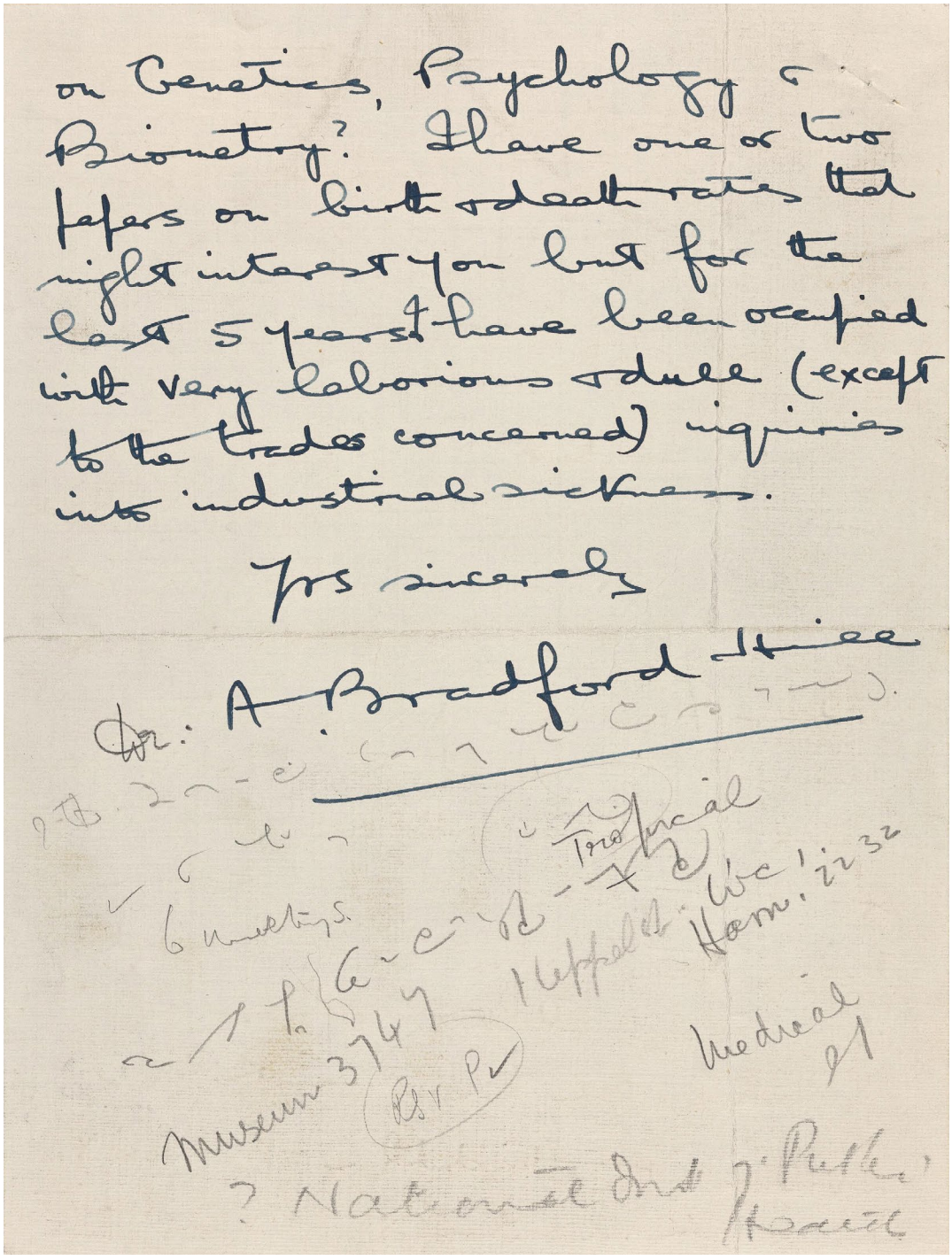


Figure 21b: Second part of letter from A Bradford Hill to Eugenics Education Society, 1939 (Dr A. Bradford Hill, Wellcome Collection – SA/EUG/C.152)

MEDICAL STATISTICS AND RACIAL HYGIENE IN TROPICAL COUNTRIES

PROF. M. GREENWOOD.

MAJ. P. G. EDGE.

This course, comprising lectures, practical exercises, and demonstrations, will discuss the uses and scope of vital records and racial hygiene in tropical countries. The syllabus covers the following topics :—

Sources of vital data.

Methods of treatment of raw data, principles of tabulation, graphs, charts, etc.

Census taking and vital registration in sparsely populated areas or among primitive or illiterate peoples.

Intercensal estimates of population, calculation of the more important rates—factors influencing mortality—rates adjusted for purposes of comparison, etc.

Present census and registration systems in the tropics—difficulties facing workers in tropical areas—possible methods of approach.

Medico-statistical enquiries and elementary cultural anthropology; importance of some knowledge of native customs, beliefs, superstitions, social organisation of particular people, etc., native conceptions of births, deaths, disease, etc., and difficulties associated with collection of these data.

Figure 22: Description in 1932 prospectus for Medical Statistics and Racial Hygiene Course (LSHTM, LAORS – GB 0809 Admin/11/04,1932, p.36)

ALBERT DOCK HOSPITAL,

CONNAUGHT ROAD, E.16.

Station:
CONNAUGHT RD., L. & N.E.R.
(From Fenchurch Street Station.)

Telephone:
ALBERT DOCK 1533.

Manson Ward.

List of cases for demonstration on Thursday

October 14th.,1937.

Dr. P. Manson-Bahr. H.S. Dr. J. McConkey.

Hussein. Indian. aet 32. Ankylostomiasis, asthma, bronchitis.
Meah. Indian. aet 34. Ascites. W.R. positive.
Tsu Din Jung. Chinese. Atypical typhoid.
Mr. Mann. English. Treated leprosy.

Dr. Murgatroyd. H.S. Dr.S.Samuels.

Nishikata. Japanese. aet. 29. Sub-acute beri-beri. ? abdominal anuerism.

Da Costa. Goanese. aet 48. Poradenitis inguinale. Bubo excised Aug. 30th.,1937, now healing well. Positive Frei test. (This case was under Dr. Hanschell now transferred to Dr. Murgatroyd.)

Dr. Hanschell.

Syphilitic osteitis in an Indian.
Healing rupia in a Goanese.
Jaundice caused by arsenobenzine in a white man.

A.H.Walters

Comparative demonstration of Wassermann and Kahn tests.

Please give me back this sheet after use

A.H.W.
11/10/37.

Figure 23: Patient cases for examination on clinical tropical medicine course, LSHTM, 1937 (LSHTM, LAORS – GB 0809 Departments/04/03)

of consent. Patients from private wards, according to the file, had to consent to be included in teaching cases. Given the general practice in teaching hospitals of using patients in teaching without their consent, it is unlikely that patients on the general ward were extended the same courtesy. The memorandum also includes the following paragraph, which was later crossed out, though it is unclear by whom and at which point. After a discussion of the likelihood of private patients making themselves available for teaching purposes on consecutive days the author states the following:

'Are the sections of the class to be mixed into white and pigmented, or are all the whites to be in one and all the pigmented in another? This might obviate part of the difficulty of the colour question, as some of the patients do object to being examined by Indians. They would then only be seen by the pigmented doctors in the second clinic of the week as the white class should be taken first. This, however, might lead to even greater trouble as the accusation that patients were being shown to the white class and not to the pigmented ones, - a question which might easily arise if patients refused to show themselves on the second day. (LSHTM, LAORS – GB 0809 Departments/04/04)'

The race question, discussed in the previous chapter with regards to medical practice in the colonies, can therefore also be seen to have influenced the organisation of teaching at the LSHTM in London. The racial hierarchies revealed by the juxtaposition of these two pieces of archival documentation point to two things. On the one hand, the School encouraged a clinical interest in studying tropical diseases in non-white populations by a group of majority white British doctors. On the other hand, they supported the refusal of white patients at the Albert Dock Hospital to be attended by Indian doctors. As a consequence, the interests of white student doctors and patients seems to have been put above that of 'racial others', either patients or doctors. This presents a dynamic in which 'native' others were made suitable study objects, but not doctors. These practices reinforced the white colonial gaze and are revealing of the racial othering and white supremacy presented to future colonial doctors at the LSHTM.

The Museum

LSHTM established a museum for extra-curricular teaching and external visitors in 1899, which was redesigned in 1929 when the School moved to Keppel Street, with the collections redistributed to departments in the 1960s. Although no longer extant today, the few surviving records of the museum reveal not just the contents of the museum cabinets but also the theoretical aims of the space. An anonymous pamphlet, *Notes on the Organisation of the Museum*, describes both of these facets of the museum (LSHTM, LAORS – GB 0809 Depts/22/03). Here we can learn that the museum displays included *"maps, charts, illustrations, specimens, and models"* and that, perhaps unsurprisingly, the museum was designed primarily *'to supplement the education of the student by illustrating the work carried out at the School.'* This included the potential for *'a 'geographical' section… showing at a glance the disease incidence in various Colonies'*, space permitting, demonstrating the kind of colonial narrative of disease causation and incidence attached to this material. Other narratives present within the museum space, according to the museum's curator Dr H. B. Newham,

Figure 24: Amoebiasis display in the LSHTM Museum c. 1930s (LSHTM, LAORS – GB 0809 Ross/04/02/01/18)

included *'an exhibit illustrating the more important facts in the subject of Eugenics'* and an exhibit on *'the problem of the unmarried mother'*. Both of these exhibits demonstrate hierarchical discussions of class and fitness within these spaces, which suggests that the narrative of hierarchy was extended to the colonial material within this space used as an education tool for LSHTM students.

The visitor book for the LSHTM museum reveals both the reach of the School's influence and the international appeal of the collections displayed. Indeed, the hope that the museum would 'be of interest to the general public, medical officers returning from abroad, and managers of estates and mines' is clearly expressed therein (LSHTM, LAORS – GB 0809 Depts/22). The book seemingly recorded only visitors who were not members of the School, as there are no staff or students listed in its pages. However, these records of external visitors are more useful in helping us to understand the position and influence of the School in shaping ideas about tropical medicine, the colonial enterprise, and racial hierarchy.

In 1930 alone the following 31 locations were recorded in the 'foreign address' column of the visitor book, several appearing more than

once: India, Kenya, Egypt, Uganda, Japan, Malaya, Iraq, West Africa, Burma, Italy, Zanzibar, Nigeria, Pretoria, the Gambia, Baghdad, China, New York, Tokyo, Rhodesia, Romania, Washington, Trinidad, Munich, Zululand, Palestine, Canada, Assam, Antigua, Johannesburg, the Bahamas, and Sweden. The first page of the book also records visits from representatives of the War Office and the Army School of Hygiene. This geographical diversity and visits from those at important and connected institutions continues throughout the entire record and demonstrates the huge range of visitors to the museum. The sheer number of international visitors to the museum illustrates the central role of LSHTM in the production and dissemination of ideas about tropical medicine. Whilst visitors from the army and colonial office suggest that these institutions held the work of the School in high regard. When considering this information in conjunction with the ways in which race was presented and colonial bodies/ specimens objectified within the museum space, we can see the extent of the role of LSHTM in propagating these ideas amongst the political and international communities.

Medical Museums have been explored extensively with respect to concerns about colonial power dynamics and relationships (Lynch & Alberti, 2010). Helen MacDonald (2005) has explored not only the questionable nature of bone collecting practices, but also the role of this so-called collection in the creation of narratives around racial hierarchy and difference in the nineteenth century. Samuel Redman (2016) has explored how these collections have evolved over time to display different narratives. Meanwhile, Sam Alberti (2011) has demonstrated how human tissue samples are gradually dehumanised through exhibition and exchange within museum networks, to name just a small selection of scholars in this area. This literature shows that medical museum spaces have been contentious not only because of the origins of the materials displayed but also because of the ways in which these materials are presented, including their use in supporting ideas around race and racial hierarchy (Martin, 2020). Although situated in a later time-period, the LSHTM's museum is no exception to this, repeating colonial power dynamics of collection and display seen in earlier museum spaces.

The *Notes on the Organisation of the Museum* pamphlet reveals that specimens for the LSHTM's museum were acquired through the international networks evident in the visitor book by writing to c.500 medical officers, health officers, schools and institutes in the Colonies and at Institutes of Tropical Medicine across Europe, America, and other nation's colonies. Joseph Chamberlain also asked medical officers in the colonies to supply the School with 'pathological specimens, photographs, parasites, and any material likely to be of value for teaching purposes' (TNA – CO 323/608, p.104). His despatch went on to state that 'specimens of organs from fatal cases of Malarial Fever are particularly desired' and instructed colonial medical officers that '[t]he organs should be cut up into cubes of 1 c.m. and placed in alcohol' (ibid). It is however unclear if these requested morbid specimens were displayed in the museum. Although most of the kinds of human tissue specimens present in the LSHTM museum are unlikely to have been collected without the patient's knowledge – blood samples, parasites, and 'eyes removed by operation' (LSHTM, LAORS – GB 0809 Depts/22/03) – the common collecting practices associated with them have been highlighted as problematic

because of the disjuncture between patients' and doctors' understandings of the purpose of the sample collecting. For example, it is difficult to know whether a patient undergoing eye removal surgery was aware that their eye would be turned into a specimen for this or any museum; they may have requested the body part be returned and were denied, they may have assumed that it would be destroyed, they may have been told it was being kept for study but not understood what this might mean (given that they were unlikely to have visited similar spaces themselves).

It is not possible, using the surviving archival materials, to trace the origins of the specimens displayed in the museum between 1929 and the early 1960s. However, wider literature on the collection of specimens suggests that colonial power dynamics would have been leveraged to obtain this material by those acting on behalf of the School. Whilst wax replicas were used to demonstrate skin conditions such as leprosy and smallpox, these kinds of museum items are also not without contention. Wax replicas were often produced from casts taken directly from ailing patients. This could be an uncomfortable process with no treatment application, the purpose of which may not have been made clear to the patient. Wax dermatological models can almost be considered human tissue samples as many skin conditions – particularly flaky ones – could leave residue in the plaster casts which may have transferred to the wax (Fend, 2018). This is of course not to mention the likeness of the patient that would be reproduced in facial models. These seemingly innocuous items therefore also raise questions about the misuse of colonial power dynamics in both their production and subsequent display.

Postcolonial directions

This final section uses some particularly rich textual and visual sources to illuminate the changing direction of School policy towards research and teaching at the end of the Second World War, just as the postcolonial era was beginning to dawn. They come from an addition to the School's 1947/48 annual report titled 'Tropical Medicine, 1899-1949', which outlined the history of tropical medicine on the occasion of the School's half-century jubilee (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8). The six panels displayed in Figures 25 to 28 were scattered throughout the piece, and were:

'intended to be considered not merely individually but as a consecutive series leading from the unbalanced economies of the first through an explanation and steps in remedy to the aim of that prosperity in the tropics which is needed for the welfare of all parts of the world.' (Ibid., p. 24)

Taken together with the accompanying text, these images give a helpful insight into the ideas that informed LSHTM's role, between the high colonial period when it was founded, and the era of 'colonial development and welfare' that marked its transition at the end of empire.

The written text addresses the perceived continuity of the issues around tropical medicine, displayed panel 1 (Figure 25), despite 'fifty years' of rapid and fruitful advance in our knowledge of the subject' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8, p.27). It notes that this is largely a result of focussing 'the fruits of aetiological and therapeutic research' (Ibid., p.33) on industrial labour forces, towns, and armies and not on 'the general population of whole

countries' (Ibid., p.34). Here, effectively, was an acknowledgement that colonial enclavism and use of biomedicine to support the political economy of empire had limited the welfare potential of public health. Next it outlines the recent advances in pathology, both of individual diseases and of conditions, as a 'later change' on which new advancements in tropical public health could build. It then goes on to recognise collaboration with other disciplines (engineering, agriculture, and sociology) as critical for effective work moving forwards with the tropical public health work started in 1945. This argument was very much in line with the ideas of interwar social medicine, nurtured particularly by European thinkers like Andrija Stampar, and expounded by the League of Nations Health Organisation (Borowy, 2009). Its Bandung Conference of 1937 was the first articulation of this holistic vision, in which 'development' would proceed with public health alongside farming, sanitation and schooling in an integrated approach (Brown & Fee, 2008).

The anonymous author links this new appreciation of the importance of international public health to the global nature of the second world war (the LSHTM's role in which will be discussed in Chapter Eight), which they claim revealed 'the material interdependence of tropical and non-tropical worlds' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8, p.39). They also reference the institutional developments occurring externally to the school, including the foundation of the World Health Organisation amongst other international health collaborations, which they claim aimed to tackle problems which are 'beyond the scope of any one institution' (Ibid., p.39). In doing so, the author links developments in research at the LSHTM outlined in the previous section with wider disciplinary developments and changes in international health management and objectives.

However, despite awareness of all these developments, the language and visual motifs also demonstrate the continued power of imperial economic considerations over the direction of tropical medicine as a discipline. Before analysing the imagery more closely, it is helpful to know that the artist, John Hull Grundy, was in fact a LSHTM alumnus. Grundy initially studied anatomy at Kings College, then art at Chelsea Art School, and later trained in entomology at the School. A conscientious objector during the Second World War, he was appointed Lecturer in Entomology at the Royal Army Medical College in 1942, where he remained at the time of this publication (Burgess, 1984; Mohr and Seville, 2021). At LSHTM he had studied under Patrick Buxton, Head of Entomology from 1927, who had steered the department towards a focus on insect physiology and ecology, notably lice, tse-tse flies and mosquitos, and the use of insecticides in control programmes (Wilkinson and Hardy, 2001, 253-61, pp.333-4). Grundy's artwork was known for its pointillistic stippling technique, observable here, and as well as illustrating his major books (*Medical Zoology for Travellers, Human Structure and Shape, Arthropods of Medical Importance*) his prints also were donated to various museums and hospitals. At some point he had taught overseas and colonial subjects became one of his themes (Mohr and Seville, 2021, p.290).

In Panel 1 (Figure 25) the globe is presented so that 'the tropics' is synonymous with Africa, and an unequal symmetry is depicted between North and South. In both panels Africans are rendered as supplicants, the boy's needy expression in Panel 1 contrasting

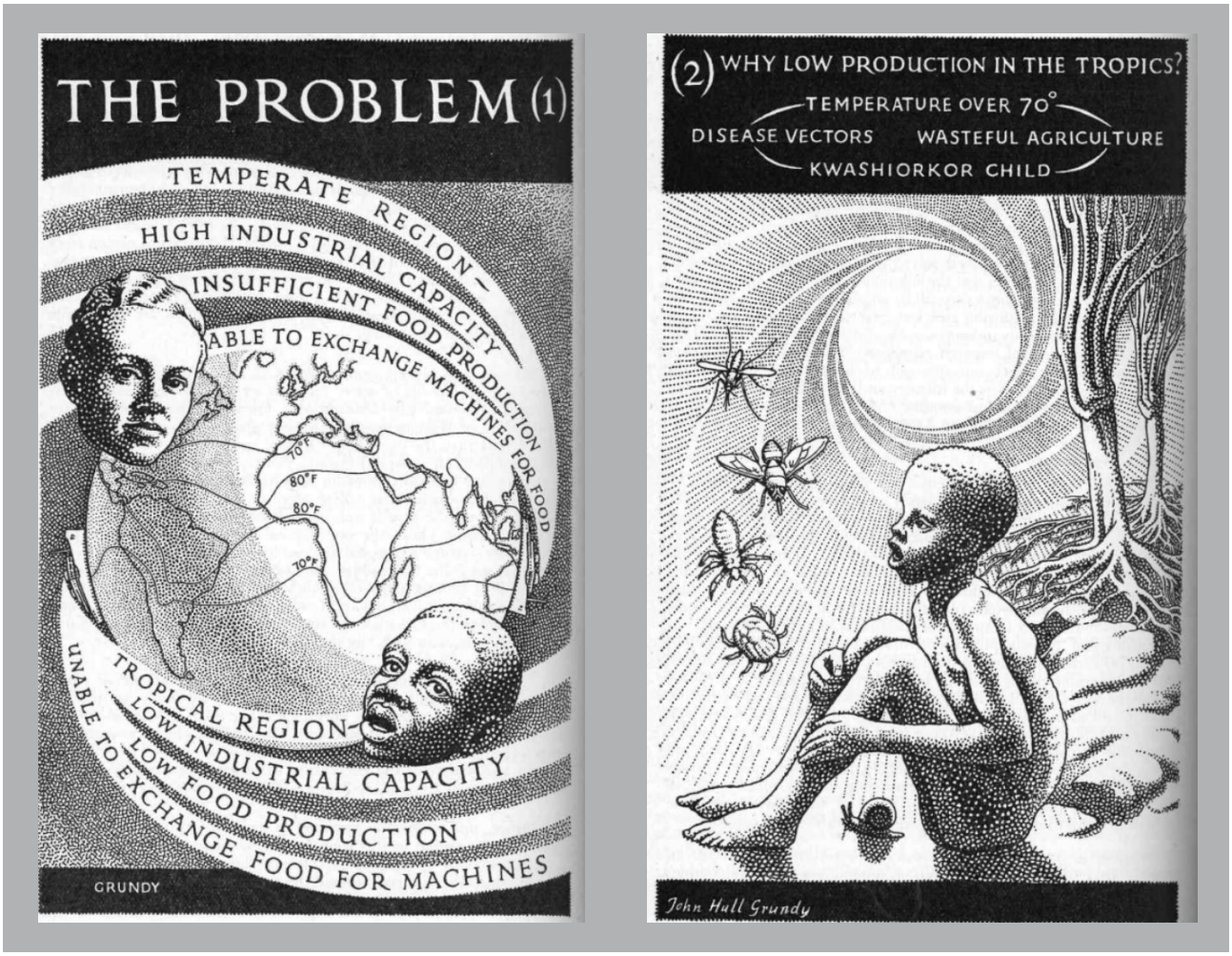


Figure 25: Panels 1 and 2, John Hull Grundy, 'The Problem (1)', 'The Problem (2)' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8)

to the serene confidence of the white Westerner above. In Panel 2 (also Figure 25), surely intended to express compassion, the child is nonetheless naked, helpless and disempowered, beset by insect vectors of communicable diseases and malnourished. His hunger is explained through the trope of 'wasteful agriculture', an aspect, as noted above, of the cultural assumptions about African farming then espoused by academic nutritionists.

Panels 3 and 4 (Figures 26 and 27, respectively) move to outline the 'Remedy' to this developmental 'Problem' and the School's place within it. Both images represent the 'core to periphery' mindset so central to cultural imperialism. The map, panel 4, shows London, at the centre of the world gathering in and sending out students across the continents. The message is that metropolitan knowledge and technical expertise, 'Remedy 2', is of universal application. It is notable, incidentally, that the origin data below the map show that at least 40% of the School's students, 1945-48, were now from Africa, Asia or Latin America. Panel 3 elaborates LSHTM's place within this

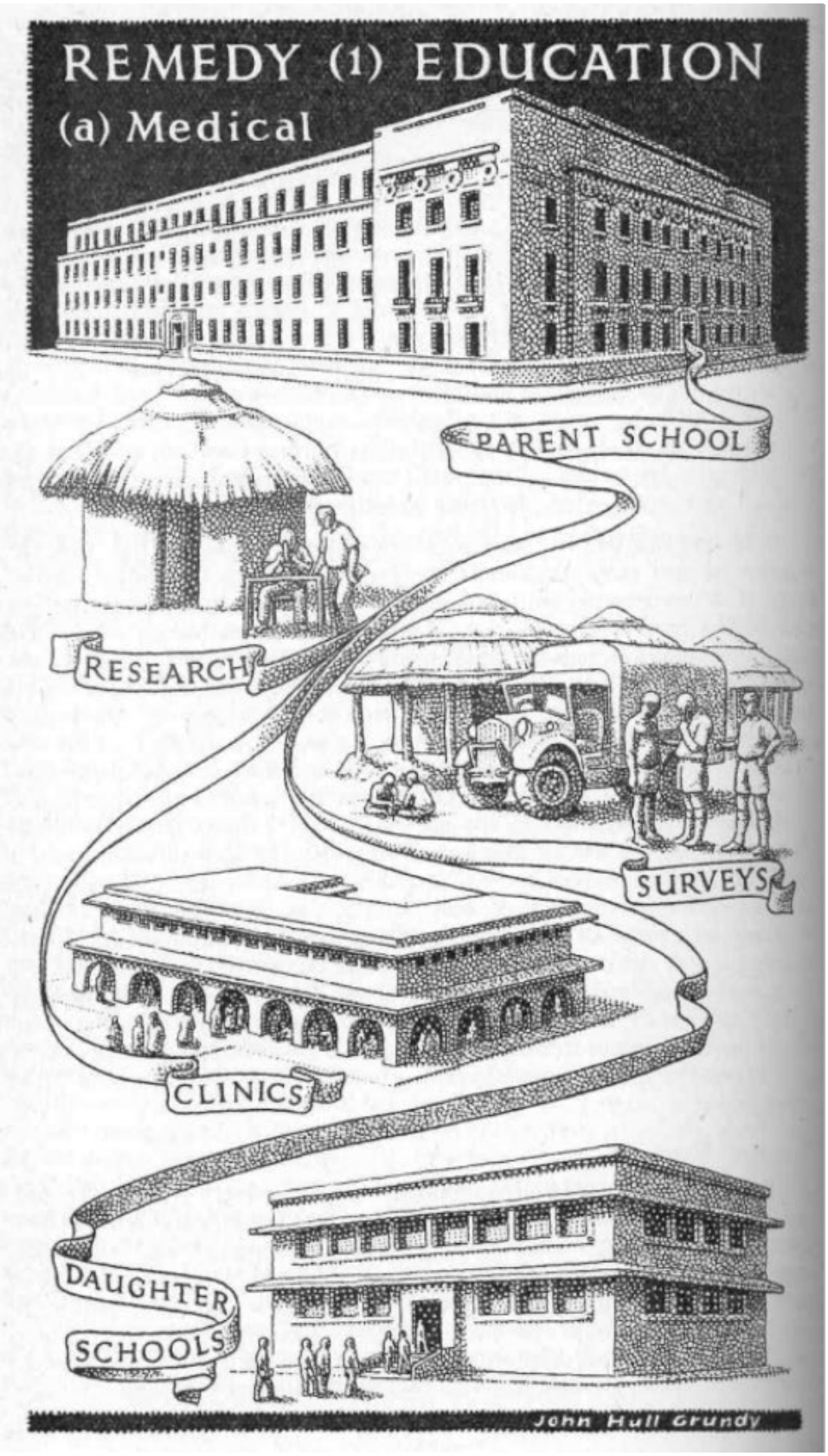


Figure 26: Panel 3, John Hull Grundy, 'Remedy (1) Education (a) Medical' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8)

network of expertise. The surface meaning is that the School will furnish the technical medical and public health skills, both through training in London and leading field interventions on behalf of local people. These will take the form of surveys, whether epidemiological or environmental, and other medical research to determine need, which will be met by affiliated clinics and schools, through which Western biomedical knowledge is diffused.

Digging below the surface though, other meanings emerge from Panel 3 (Figure 26). The textual labels reify the underlying paternalism through the 'parent-daughter' filiation. The ordering of the pictorial elements clearly bespeaks hierarchy, with a distinction drawn between the bold modernity of LSHTM's Keppel Street building and the 'primitive' mud and thatched huts below, a dichotomy underscored by the clothing of the Western researchers against the semi-naked African. Though orientalised, the buildings housing the clinics and daughter schools are also in a firmly subsidiary position, their squat architecture echoing in miniature that of the 'father'.

A similar compound of humanitarian intent, paternalism, and confidence in Western developmentalism is visible in Panels 5 and 6

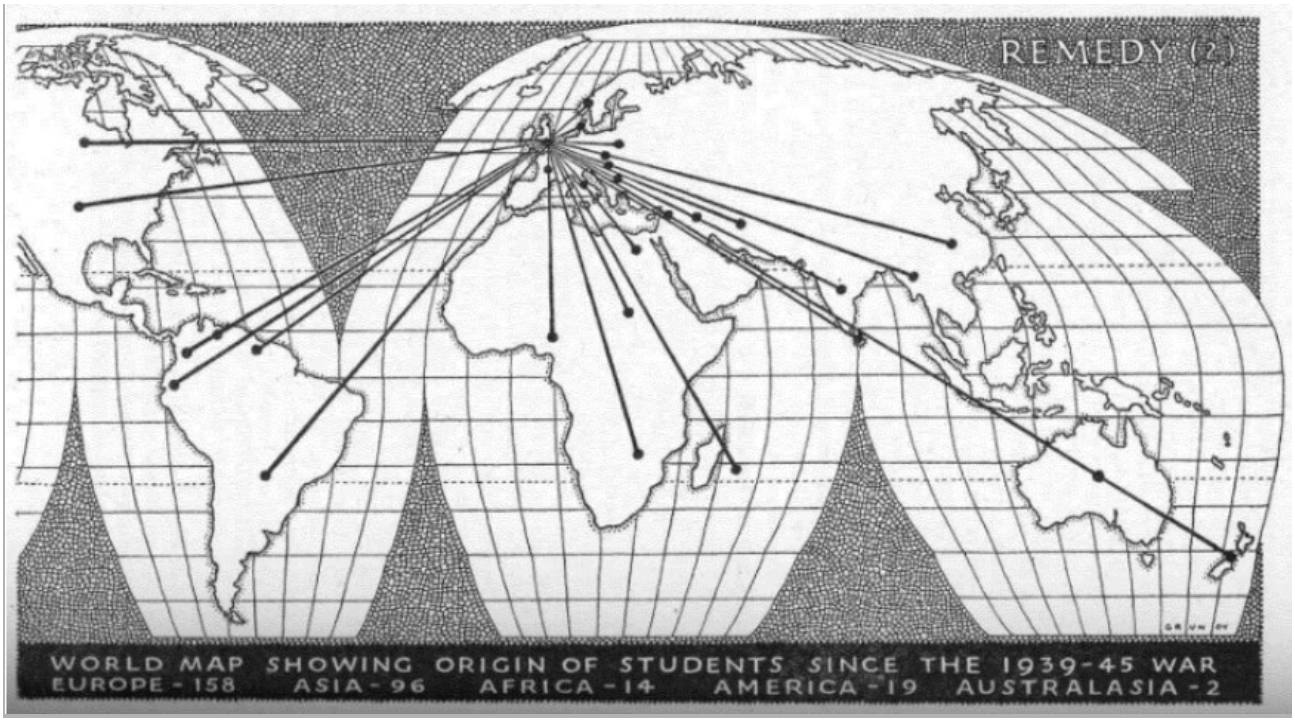


Figure 27: Panel 4, John Hull Grundy, 'Remedy (2)' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8)

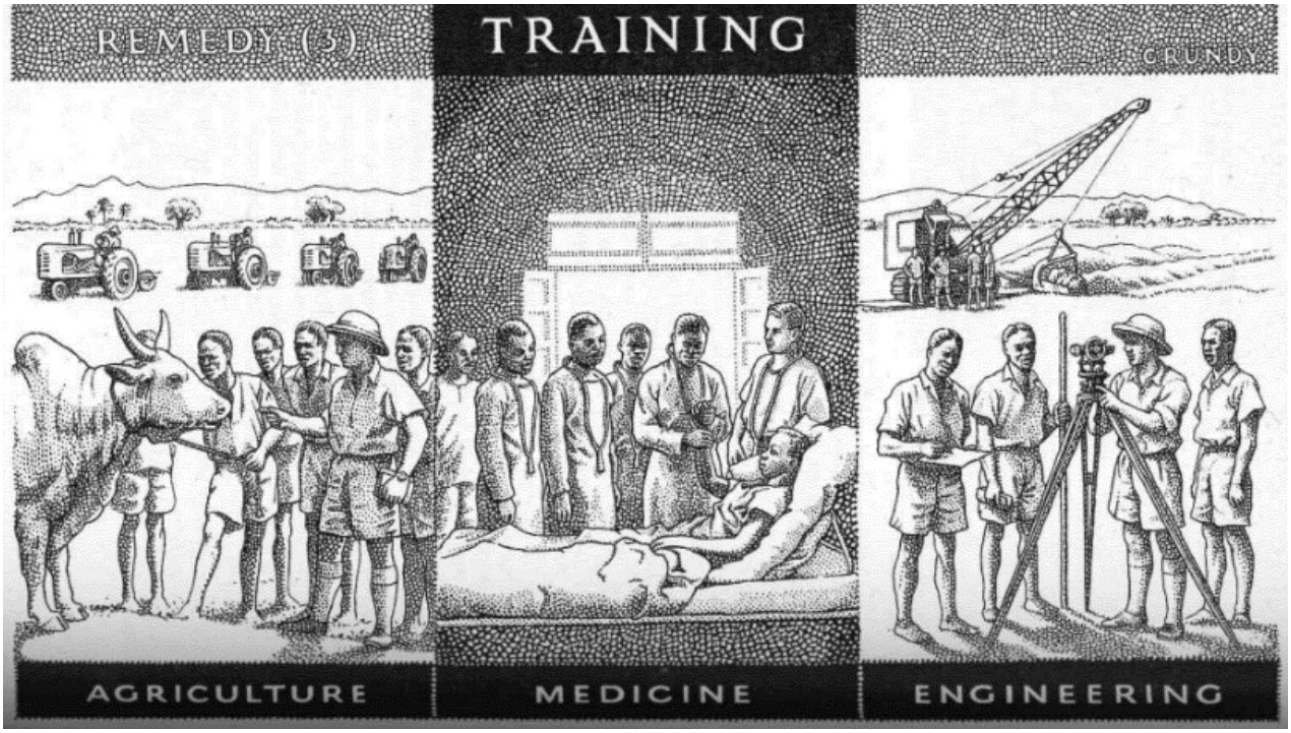


Figure 28: Panel 5, John Hull Grundy, 'Remedy (3) Training' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8)

(Figures 28 and 29, respectively). On the one hand these depict the benign aspirations of modernisation, in which medicine forms a central part of economic progress. Each image in the 'Remedy 3' tryptic represents training as African adaptation to Western norms. Knowledge transfer takers the form of didactic teaching about animal husbandry and mechanised crop sowing, clinical apprenticeship at the bedside, and instruction in surveying and industrial machinery. The learners' clothing and postures mimics those of their white tutors, minus the pith helmets, again to indicate that modernity equates to Westernisation. The final panel presents the planners' ideal vision of integrated development in which healthy and literate human capital, armed with new technical skills in model settlements, achieves the agricultural productivity that will fuel industrial take-off.

As in Panel 1 (Figure 25), the problem of tropical medicine, despite many years of aetiological work, was still framed around the production capacity of supposedly fertile lands, as espoused by Alexander von Humboldt as early as 1805 (Humboldt, 1805). Here we see the problems faced in tropical regions reduced to the inability to purchase machinery from countries in the global north. This point is reiterated in Panel 6 (Figure 29), which also includes 'markets' amongst the seven aims for an 'organised settlement'.

Meanwhile within the text, the anonymous author lamented that developments in trypanosomiasis treatment had been restricted to humans as they considered cattle to be 'more important to the African economy than the human' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8, p.31). This piece therefore illustrates how imperial ideas continued to attach themselves to tropical medicine even during the mid-century refocus of the discipline towards public health.

These images were produced just as the first grand failure of British developmentalism, the famous Tanganyikan groundnut scheme, was getting underway. This would soon reveal the hubris of planning schemes that did not attend to African environmental and cultural realities, and could end in expensive and embarrassing disaster (Westcott, 2020). Yet many features of this transition from imperialism to developmentalism would remain. Grundy's visual representations capture the confident, good intentions which the School had as tropical medicine reoriented for the postcolonial world. It is a sobering exercise though, to reflect on how much of this remained anchored in colonial mentalities. Mentalities which, as this chapter has shown, ran through research and teaching at the School since its early days.

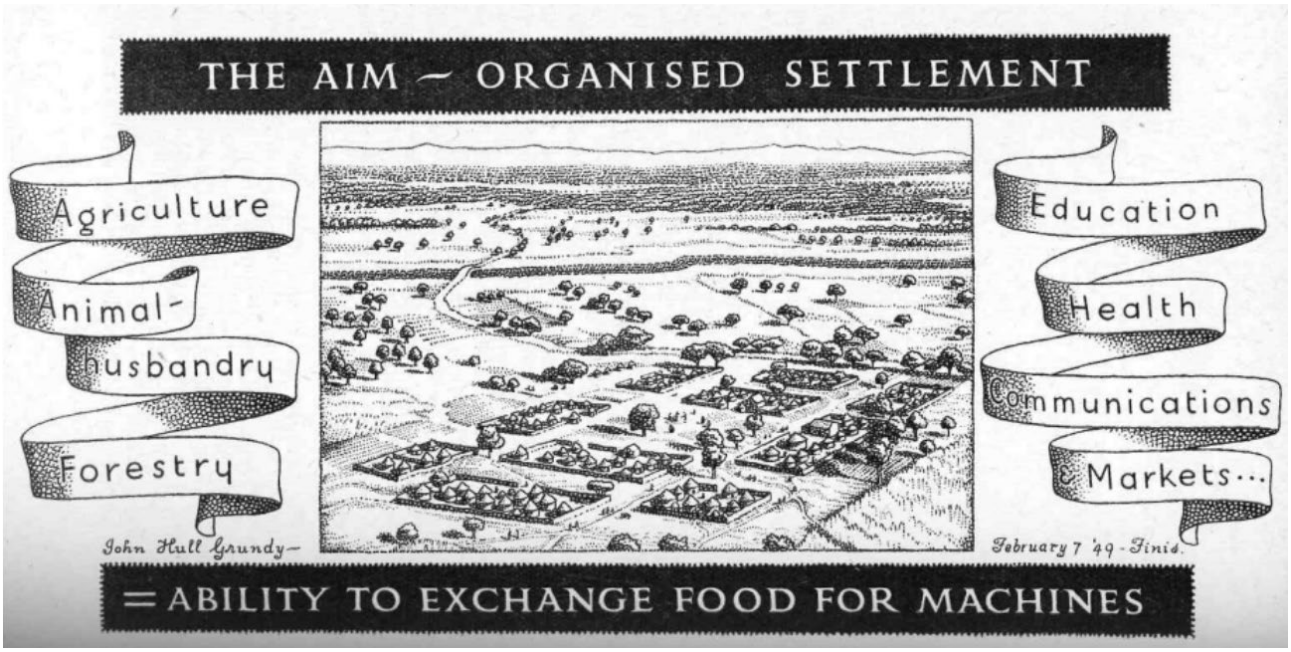


Figure 29: Panel 6, John Hull Grundy, 'The Aim – Organised Settlement' (LSHTM, LAORS – GB 0809 Admin/11/01, 1947/8)

8. LSHTM's Involvement in Warfare (1899-1945)

This chapter examines the School's involvement in the Second South African War and the First and Second World Wars.

Although the imperial nature of the First and Second World Wars is contested within the literature, the colonial dimensions of these wars and LSHTM's involvement in them need to be considered in this report on the School's colonial entanglements because of both the theatres in which these conflicts were fought and the troops that were used to fight these wars (Gerwarth and Manela, 2014, p.788). Such conflicts played an important part in securing British interests abroad, as well as helping to ultimately destabilise British colonial rule (Manela, 2007). The military tactics used in the Second South African War necessitated the input of medical professionals to ensure that these tactics remained efficient. The LSHTM's expertise in tropical medicine was utilised in this conflict to maintain the health of civilians placed in concentration camps to help maintain the strategic position of holding these populations. Meanwhile, the World Wars, with their scale, duration, and toll, necessarily impacted the work of the School and the people associated with it. The colonial dimensions of these two wars meant that the LSHTM's expertise in tropical medicine was useful in ensuring the safety of British and Allied troops. Due to its close cooperation with government entities and the all-encompassing nature of the warfare, the School was drawn into and contributed to the Empire's military effort. This chapter shows that further to the involvement of select members of staff, who used their knowledge of tropical diseases to improve the health of British troops, the LSHTM's management body also considered the School's contributions as a patriotic act. As such, the LSHTM's involvement in these three conflicts demonstrates some novel elements of the School's imperial and colonial entanglements.

The Second South African War

In the early years of the School's existence, as previous chapters have shown, the School's works were intricately linked to Patrick Manson's person and networks. Manson had been Chief Medical Officer to the Colonial Office since 1897. Part of this role consisted of medically examining Colonial Office recruits as to their suitability for jobs in the tropical regions of the Empire. These exams, destined to ascertain a recruit's physical fitness, were an important step in obtaining a Colonial Office posting. If recruits had previously suffered from a tropical disease, they were generally rejected from serving in a tropical region again (LSHTM, LAORS – GB 0809 Manson/09/05). In his role as chief medical advisor, the recruits that Manson examined and either accepted or rejected for a posting in the Colonial Medical Service, depended on the Colonial Office's broader imperial politics.

During the School's first session, the minutes of the Seamen's Hospital Society reveal the extent of the School's and its managing organisation's involvement with Britain's imperial conflicts, starting with the South African (Boer) wars. The LSHTM was specifically involved in the Second South

African War, beginning in 1899. In order to combat the guerrilla tactics of Boer soldiers, Lord Milner, South Africa's High Commissioner at the time, set up a number of concentration camps across central and Northern South Africa in which Boer civilians were interned. This was just one measure which formed part of Britain's approach to undercutting support for Boer troops, which also included a 'Scorched Earth' policy which consisted of burning Boer farms and crops and starving the civilian population. African and Boer populations were interned in separate concentration camps. The death toll in Boer and African concentration camps was exceedingly high (Pretorius, 2019). In total, 28,000 Boer prisoners and 20,000 African prisoners died in British camps across South Africa.

Nurses and matrons were desperately needed to curb the high mortality rate, not only of Boer prisoners of war, but also especially of Boer women and children (Adams, 2018). The war also came at a pivotal moment for the internationalisation of British nursing following the establishment of the Colonial Nursing Association in 1896. This was affiliated to the Colonial Office for which it 'effectively operated as a recruitment agency' (Rafferty, 2005, 6). Colonial nursing had hitherto been part of missionary medicine, but now opportunities were opening for 'secular, middle-class' single women dedicated to empire's 'civilising mission' (Rafferty 2005, 7). The war would significantly expand these opportunities, leading to a more structured role for military nursing, as well as enhancing nurses' claims to professional recognition and validating women's claims to the suffrage through imperial service (Dale, 2015).

It was in this context that the School's involvement in this conflict began. In 1901, British campaigner Emily Hobhouse alerted the public to the deadly conditions in Boer camps. She did not visit African camps but requested that this be done. Overall, the plight of indigenous populations was largely left unnoticed, with the exception of black servants taken into the Boer camps by those they served who seem to have received better treatment than their counterparts in African camps (Kessler, 2012, p. 184; SAHO, 2017). In response to Hobhouse's visits and public campaign, the UK government began recruiting nurses and matrons for service in the Boer camps, notably halting recruitment after Boer camps were catered for and without any provision for African camps (Kessler, 2012, pp. 200-201).[14] The meeting minutes of the School's management committee meeting from Friday, 6th December 1901 attest to this process (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 1):

'The secretary also reported that the Colonial Office had again invited the Seamen's Hospital Society to select a matron and few nurses for service in the Transvaal Concentration Camps. The Society has now selected over 30 nurses for service in South Africa.'

[14]Stowell Kessler (2012) has discussed in great depth the colonial attitudes surrounding the sporadic treatment of infectious diseases in African camps- demonstrating governmental concern that these diseases might spread to Boer camps and white military personnel- and the relative lack of other treatment provided in a much longer work on the black concentration camps, based on his doctoral dissertation.

The involvement of the Seamen's Hospital Society directly implicates the London School of Tropical Medicine, which, as shown above, was founded under the auspices of the Colonial Office and remained under its management until 1924. There is not much more information about this process in the meeting minutes. A month later another minute records that the Seamen's Hospital Society 'had selected over eighty nurses for the concentration camps in South Africa.' (ibid) However, these British nurses did not speak Afrikaans and the medical care received by internees was subject both to a dearth of medical infrastructure and to the pro-British partisanship of nurses and doctors (SAHO, 2019). Although the Colonial Office approached the Seamen's Hospital Society directly to recruit nurses and matrons to serve in the camps, the School's involvement is evident from the fact that members of its management committee held overlapping roles. Perceval Nairne, the chairman of said committee, was also the chairman of the management committee of the Seamen's Hospital Society. Patrick Manson, of course, still acted as Chief Medical Officer to the Colonial Office. As such, the close association between the Colonial Office, the Seamen's Hospital Society and the LSTM naturally meant that the LSTM was involved in this aspect of Britain's imperial war in South Africa.

The First World War

The First World War disrupted the normal working of the School, even though in comparison to the South African war, and due to the European theatre of combat, it was not approached directly to support the war efforts. However, its staff profile made avoiding involvement in the war nearly impossible. The School's teaching staff at the time was composed almost entirely of middle-aged men, many of whom could, or volunteered to, serve. Given their expertise in tropical medicine and diseases, their contributions were particularly important in the colonies. Although the First World War is, in Europe, mostly remembered for its protracted trench battles across Belgium and France, European colonies played an important role in two ways: Firstly, possession and extension of European empires in Asia and Africa were a direct cause for the war (Hobsbawm, 1987, 314-27). All involved countries were also colonial powers and ensuring and defending their imperial dominance against that of their opponents (especially in Africa) had led to increasing tensions between European powers and fighting across Africa, Asia and the Pacific. Secondly and relatedly, the two opposed coalitions drew on the colonised populations under their rule to increase the manpower of their armed forces and keep up military and economic production during the war.

Several members of LSHTM staff were called to serve in the armed forces, among them, Dr H. B. Wedd, a bacteriologist, Dr O'Connor, an entomologist, who worked as demonstrator at the time and Dr R.O. Sibley, another demonstrator. As a consequence of Dr Wedd's absence, the course in tropical hygiene was abandoned. Despite this and decreasing student numbers, the School remained open for the time being.

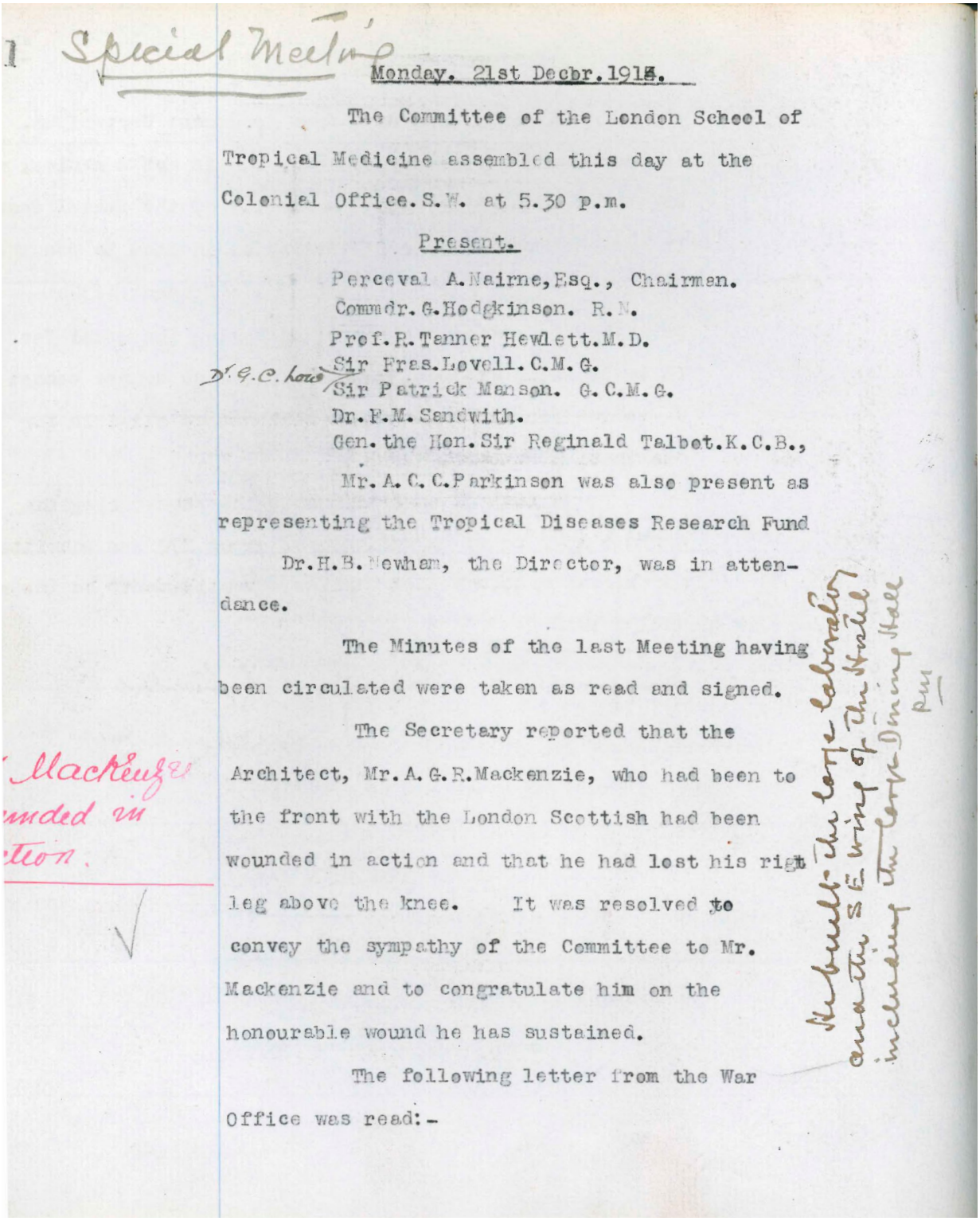
The letter below, written from the War Office and directed to the LSTM in December 1914, requested the services of Drs. Leiper, Thomson and Cockin to investigate bilharzia (schistosomiasis) in British troops in Egypt. The letter explicitly links their request to

'military operations in Egypt', which at the time was administered by a British colonial government. It also states that 'the prevention of bilharzia disease among the troops in that country is of great importance (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 7, p.22). As Jennifer Derr (2014) has pointed out, bilharzia, which is transmitted through bodily contact with freshwater geographies, spread in Egypt under British rule. The gradual industrialisation of agriculture and the building of the Aswan Dam in 1902 changed the geography of the river Nile and other freshwater reservoirs, agricultural practice and the ways in which Egyptians came into contact with the disease (ibid). For the War Office, schistosomiasis presented both a financial and a strategic threat. On the one hand, widespread disease among British troops would increase costs associated with medical care. On the other, it would weaken the British position in North Africa, which was important to defend Europe against an attack of German troops from the South.

The School agreed to the War Office's request and sent Drs Leiper, Thomson and Cockin to Egypt. It also decided to offer School equipment to the War Office in order to ease the carrying out of research. Dr Leiper, who was in charge of the expedition, was tasked with sending interim progress reports, which were then published in the name of the School. In order to facilitate the work, Dr Leiper was appointed at the rank of Lieutenant Colonel and Drs Thomson and Cockin at that of Officer Lieutenant in the Royal Army Medical Corps (R.A.M.C.). They left for Egypt in February 1915 (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 7, pp.23- 26). While working for the British army all men received their full LSTM salaries.

Colonel Alcock, another of the School's entomologists, who was affiliated with the Indian Medical Service, was called up for service shortly thereafter to work in the 'Hospital for Indian Troops' in Brighton (ibid, p.27), as was Dr Sandwith, who was called for service in Egypt in December 1915. He was given the rank of Colonel R.A.M.C (ibid, p.53). While an increasing number of staff were supporting British troops in the war, the School offered to treat officers suffering from tropical diseases in the Albert Dock hospital and to house them in the School's hostel (ibid, p.39). Over the remainder of the war, the War Office made use of this offer and a number of naval ratings (junior members of the Navy) and afflicted officers were housed at the School. Members of the British armed forces working with the expeditionary force in Southern Europe were especially prevalent among the hospital's patients at this time. In 1916 alone, it admitted 40 naval ratings and four military officers (ibid, pp.76-77).

Student numbers continued to dwindle as the war progressed and more and more staff were called up to the front. Dr Sandwith, who was serving in Egypt, encouraged the School to close in order to redirect its work towards the war effort. In response, the management committee sent him a list of staff members' involvement with the British armed forces. The list survives in the Minutes of the School's management committee from 1917. Under the heading 'War Work of Staff' it detailed that out of 22 members of staff, 15 were doing work related to the First World War, with a majority directly serving as part of the Royal Army Medical Service. The two laboratory



Special Meeting

Monday. 21st Decbr. 1915.

The Committee of the London School of Tropical Medicine assembled this day at the Colonial Office. S.W. at 5.30 p.m.

Present.

Perceval A. Nairne, Esq., Chairman.
Commdr. G. Hodgkinson. R.N.
Prof. R. Tanner Hewlett. M.D.
Sir Fras. Lovell. C.M.G.
Dr. G.C. Low
Sir Patrick Manson. G.C.M.G.
Dr. F.M. Sandwith.
Gen. the Hon. Sir Reginald Talbot. K.C.B.,

Mr. A.C.C. Parkinson was also present as representing the Tropical Diseases Research Fund

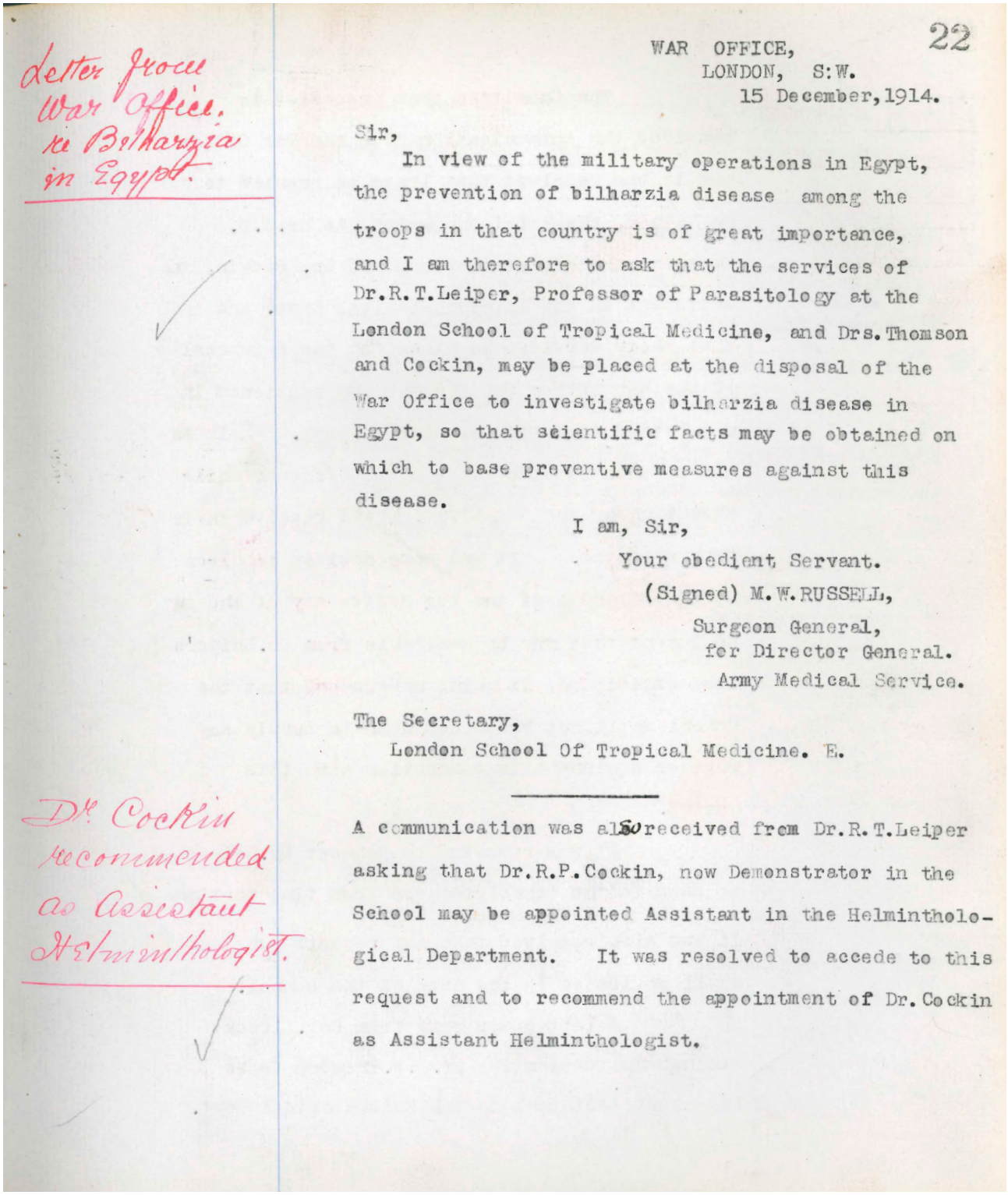
Dr. H.B. Newham, the Director, was in attendance.

The Minutes of the last Meeting having been circulated were taken as read and signed.

The Secretary reported that the Architect, Mr. A.G.R. Mackenzie, who had been to the front with the London Scottish had been wounded in action and that he had lost his right leg above the knee. It was resolved to convey the sympathy of the Committee to Mr. Mackenzie and to congratulate him on the honourable wound he has sustained.

The following letter from the War Office was read:-

Figure 30a: First part of letter from War Office requesting the service of Dr Leiper in investigating bilharziasis in British troops in Egypt (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 6, p.22)



Letter from War Office. re Bilharzia in Egypt.

22

WAR OFFICE,
LONDON, S:W.
15 December, 1914.

Sir,

In view of the military operations in Egypt, the prevention of bilharzia disease among the troops in that country is of great importance, and I am therefore to ask that the services of Dr.R.T.Leiper, Professor of Parasitology at the London School of Tropical Medicine, and Drs.Thomson and Cockin, may be placed at the disposal of the War Office to investigate bilharzia disease in Egypt, so that scientific facts may be obtained on which to base preventive measures against this disease.

I am, Sir,
Your obedient Servant.
(Signed) M.W.RUSSELL,
Surgeon General,
for Director General.
Army Medical Service.

The Secretary,
London School Of Tropical Medicine. E.

Dr. Cockin recommended as Assistant Helminthologist.

A communication was also received from Dr.R.T.Leiper asking that Dr.R.P.Cockin, now Demonstrator in the School may be appointed Assistant in the Helmintholo-gical Department. It was resolved to accede to this request and to recommend the appointment of Dr.Cockin as Assistant Helminthologist.

Figure 30b: Second part of letter from War Office requesting the service of Dr Leiper in investigating bilharziasis in British troops in Egypt (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 6, p.22)

assistants Warren and Robert were liable to be conscripted at any moment (ibid, pp. 88-89). The list concluded: 'From this Dr. Sandwith will understand that there can be no suggestion of a lack of energy or activity on the part of the School or the staff, in the interests of the country during this war' (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 7, p.90)

Due to several members of staff being seconded to the RAMC, the School entered into regular communication with Sir Alfred Keogh, the Medical Director General of the Army. Dr Simpson, who was treating tropical diseases with the Serbian Red Cross in Macedonia in 1917 encouraged the School to deploy researchers to fight malaria on behalf of the Red Cross. The School's Dean, Sir Havelock Charles approached Keogh to see whether this was a possibility. He related Keogh's response to the management committee (ibid, p.117):

'Sir Alfred Keogh, the Medical Director General of the Army, [who] replied that there can be only one decision in regard to a question of this sort at the present time, and that is that Great Britain needs every one of its doctors in her service and that in his opinion the duty of British Doctors is empathically to serve with the British Forces. It was Sir Alfred Keogh's opinion that Medical graduates could not be spared for such purposes as were suggested by Professor Simpson.'

Thus, although individual members of staff were allowed to participate in the war in the way they deemed best, the School followed the guidance of the Armed Forces and their overall strategy of prioritising the health of British troops in Europe and Africa. Indeed, in late 1917, Dr Newham was invited by the War Office to act as consultant in tropical diseases to the armed forces in British East Africa. The minutes continue as follows:

'In these circumstances it was moved by the Dean and seconded by Dr. Low, that seeing the need that exists for experts in Tropical Disease being at the service of the State this committee approves of arrangements being made to enable those members of the staff who can be spared from the duty of the hospital to place their services at the disposal of the war office provided that the medical director general can utilise them wholly for the purpose of combating or treating tropical disease at home or abroad. If these services are accepted the committee approved of the school being closed at the end of the present session. In submitting this resolution the dean expressed the view that this was a matter that had to do with the honour of the school. The committee approving of it, would do its part, then it would lie with each individual to act subsequently as he considered himself bound by honour and his country's needs. The resolution was put and carried unanimously.'

In line with Keogh's directive, the management committee debated closing the School. This was broadly in line with the general sentiment of the British public and war propaganda, which encouraged participation in the war service and support of the war. However, in making this offer the School tried to stick closely to its area of expertise and mandate. While the War Office was appreciative of the School's offer, their response states that tropical medicine was not a main concern towards the end of the war. The School remained open until the end of the war, although traditional sessions were

paused due to extremely low student numbers. Thus, although the School did not take up an official role in the First World War, it was still instrumental to the British war effort through the work and research of its various members of staff.

The First World War had positive outcomes for the LSTM. Towards the end of the conflict and finding themselves with a surplus of funds, the British Red Cross bought the Endsleigh Palace Hotel in Central London, allowing the School to move from the Docklands to Bloomsbury. One of the reasons for this was an influx in students immediately after the First World War wanting to study tropical diseases. The building, which also incorporated the Hospital for Tropical Diseases, allowed for study on live cases, while also facilitating access to the School, by relocating to central London. One of the reasons for this generous financial support was the School's role in supporting the health of British troops in tropical regions during the war. The minutes of the management committee state that the Endsleigh Palace Hotel was purchased 'in recognition of the services rendered to the Empire by sailors in the Great War, for the purpose of providing medical and surgical treatment for sailors and soldiers who have contracted tropical diseases while on active service, and ultimately, when this need has been met, for the benefit of sailors. (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 7, p.38).

Thus, although not directly commissioned to recruit medical staff for the war effort, as had been the case during the South African War, the School's association with the Seamen's Hospital Society, which had been founded in support of sailors and seamen more generally, allowed the School to take up premises in central London. The School remained in this location until 1929, when the building in Keppel Street was finished. During the Second World War, the School would be based in Keppel Street.

The Second World War

'It will be seen, therefore, that the School tended more and more, during the pre-war decade, to become the recognised Empire centre of teaching, research and friendly contact not only for specialists in hygiene and tropical medicine, but for a large number of workers in many spheres of activity, and for laymen going abroad, to whom it was privileged to afford assistance. (LSHTM, LAORS- GB 0809 Admin/11/01, 1945-46, p.16)'

At the beginning of the Second World War, as the above quote illustrates, the School had built on its earlier close collaborations with colonial governments across the Empire and the Colonial Office in London to become 'the recognised Empire centre of teaching, research and friendly contact'. The reference to 'friendly contact' especially points towards the School's formal and informal colonial and imperial relations and the importance attributed, with the incorporation of the Ross Institute in the School in 1934, to relations with private and commercial imperial interests. With the beginning of the war a majority of, but not all, research work in the Empire was put on hold, as was the teaching in the D.P.H and D.T.M.H. The 1939- 1940 report on the work of the School starts thus (LSHTM, LAORS – GB 0809 Admin/11/01/, p.9):

'Although the School has been seriously affected by the War, it is a matter of satisfaction that most of the departments

have been able to remain in the School building, and not only continue their programmes of research but also carry out a limited amount of teaching.'

By 1940, 13 members of staff were called up for national service. Some, such as Lieutenant Colonel Sinton, were conscripted at the very beginning of the war and sent to serve in India (ibid, p.11). An additional sixteen members of staff were deployed to the Emergency Public Health Laboratory Service to which the School had also lent laboratory equipment in preparation for the war (ibid). At the beginning of the war, the School suspended its regular classes in favour of special short courses 'for persons about to undertake service in the tropics' (ibid, p.12). As such, the School continued very much in the vein of the First World War in which its specialised expertise was used to support military personnel fighting for Great Britain in tropical regions. To cater to this demand, the School organised two short courses on tropical medicine and hygiene as well as a short course of instruction for labour officers, in collaboration with the Colonial Office. The School also instructed 60 R.A.M.C. officers who were about to be deployed to Africa and or the Middle East (ibid). Throughout the duration of the war 2,259 people followed the School's short courses designed for service people deployed to the British Empire (LSHTM, LAORS- GB 0809 Admin/11/01, 1945-6, p.16). Regular classes in the division of public health and the division of tropical medicine restarted in early 1946.

Figure 31 shows one of the classes, which attended a special short course at the School during the Second World War. The School's teaching, in this time period, was almost exclusively focused on supporting medical military personnel serving in Southern Europe (malaria was still prevalent in Italy and Greece at the time) and across the Empire to equip them with basic skills related to the diagnosis and treatment of tropical diseases. Apart from School representatives all persons depicted on the photo are in active military service.

While government ministries were preoccupied with the war, commercial interests in the application of tropical medicine to industrial and agricultural problems in the colonies persisted. Malcolm Watson, the Director of the Ross Institute for Tropical Hygiene travelled to Malaysia and the Middle East to advise planters and mining companies on overcoming problems of tropical diseases. With the outbreak of war in Asia in 1941, the activities of the Ross Institute and its branches in Asia were severely hindered. According to the Ross Institute's Annual Report for 1940-41, the Japanese occupation of Malaysia put an end to malaria control measures and investigations by researchers associated with the Institute. In Ceylon (Sri Lanka), Dr Svensson, who had been working with the colonial government and tea estates to curb the spread of malaria and its mosquito vectors, continued throughout most of 1941. In December 1941 and with the intensification of fighting in Asia, Dr Svensson's services were offered to the local Military Authorities (ibid, p.21). The Ross Institute also responded to the war-induced shortages in oil, one of the main ingredients used to fight against mosquito larvae. In 1941, Sir Malcolm Watson published a pamphlet entitled "Some Emergency Anti-Malarial Measures". When Watson retired in 1942, it was decided that his successor Dr George Macdonald would work to integrate the Institute even further into the School, and that it would support the Institute's work overseas (LSHTM, LAORS - GB 0809 Admin/01/03/01, 1942- 44).

Figure 31: Special Course in Tropical Medicine and Parasitology for service men and women, 1941 (LSHTM, LAORS – GB 0809 Admin/11/01, 1940-41)

In 1940, LSHTM was approached by the Royal College of Medicine, Iraq to participate in a scheme to place Iraqi doctors in medical schools in the United Kingdom (LSHTM, LAORS – GB 0809 Admin/01/03/01). The School's governing body saw this scheme favourably but argued that it should wait until after the war. Indeed, the war was seen as a crucial factor in favour of the realisation of such a scheme:

'Then too the social devastation of the war to our tropical empire, together with probably additional medical responsibilities in other tropical countries placed under British control, would render such a scheme of vital importance. It would be appropriate that it should be developed in Iraq where facilities already exist and where, in the future, there may be one of the most important air junctions of the world.

'In view of the potential importance of the scheme to the teaching of tropical medicine and its value in extending British influence and promoting good relations it is felt that no matter how great the difficulties they should be surmounted.'

The war, in this memo, was presented as heightening the need for tropical medical education in the colonies due to the 'social devastation' caused by it. The memo also shows that even during the Second World

War, the concerns of the British Empire remained an important consideration for the School. Even during the war, the Empire continued to be the main justification for the existence and work of the tropical division of the LSHTM. Two years later, in 1942, the scheme had evolved further, the idea being that the Royal College of Medicine in Iraq would become a department of a British medical school (ibid). The reasoning given in the 1942 memorandum was that 'the teaching of tropical medicine in Britain suffers from a shortage of clinical material. The teaching of medicine in Iraq suffers from a shortage of well- trained staff and from the interference of politicians and patronage'. In exchange for a wealth of clinical materials from patients at the Royal Hospital in Baghdad, the school would be placed under the control of a British medical school, which would be in charge of all staffing decisions, teaching and the overall governance of the school. Thus, although the proposed cooperation signalled a federalisation of the teaching of tropical medicine across the British Empire and a departure of its centralisation in London, it was also symbolic of the epistemic and financial hierarchies that continued to characterise the teaching of tropical medicine across the Empire during this time period. The proposed scheme was presented as being advantageous for Iraqi medical students , but the memorandum was also very clear about the benefits to UK medical schools and to the UK more broadly by allowing them to extend 'British influence' across the Empire.

Existing British influence across the Empire was also ensured by members of staff specifically deployed to safeguard the health of troops overseas. Dr Lumsden, was placed in charge of a Malarial Field Laboratory in the Middle East and India during the war (LSHTM, LAORS – GB 0809 Admin/11/01, 1945-46, p.27), as was Dr Leeson, one of the School's entomologists. As part of the British Armed Forces, Leeson carried out several anopheline surveys for a Malaria field laboratory between June 1941 and November 1943 across Syria and Lebanon. Apart from research Leeson and his assistants also taught 'the principles of malaria prevention to medical and other officers' as well as to members of the British and allied forces attached to malaria control units (LSHTM, LAORS- GB 0809 Leeson/01-02). As well as providing an overview of the prevalence of mosquitos and their breeding grounds in the region to support the British Army's military strategies, the survey was also put to use to support the movements and safety of British and allied troops. In his survey report Leeson wrote:

'Another use to which the malaria survey maps was put was that, by consulting them, it was possible to settle the sites for the erection of signposts along most of the roads of Syria and Lebanon, informing troops on the move where they could safely camp for the night should they be overtaken by darkness. These signs were of special value to drivers of vehicles either singly or in convoy. "Safe" camping places were indicated by green boards baring the words in white paint : "Malaria. Camping permitted for…miles. Use Nets"; the blank space being filled in by the local malaria control officer with a figure to say how far the safe area extended. "Unsafe" areas were preceded by boards painted red; on these were the words in white lettering: "Malaria. Camping forbidden.' Next camp site… miles. Use Nets."

Leeson's work and that of malaria officers across the Empire directly impacted the movements of allied troops across Syria

and Lebanon and contributed to preventing soldiers' infection with malaria. Leeson also noted that due to the military nature of the work and the haste with which it had to be carried out, it was not up to the same scientific standard as work carried out in peacetime conditions (ibid). Leeson's work is one example of how the School's expertise was used by the British Armed Forces to ensure the health of their troops across the British Empire.

The post-Second World War period saw a further extension of the School with the creation of the department of Nutrition. In 1946, the School also received an endowment from the Wellcome Trust in order to create a chair of clinical tropical medicine, which was taken up by Brigadier Hamilton Fairley. Finally, in order to further the integration of the Ross Institute of Tropical Hygiene into the School, LSHTM created an academic chair in tropical hygiene.

LSHTM's involvement in the UK government's wars was in some respects on par with that of other institutions at this time, in line with the wider mass mobilisation of British industry and the population at large. Yet in other respects the School's involvement was directly related to its geographical focus and the extent to which staff at the School could mobilise their expertise to support British armed forces. In the case of the South African War, the government drew on the School and the Seamen's Hospital Society to provide medical care to civilian and military prisoners in their Boer concentration camps. Alongside actively supporting troop health (Dale, 2015), the work done by the nurses and matrons sent to work in said camps, enabled the camps to run more efficiently and ultimately enabled British forces to win the war against the Boer Republics. Although the quality of treatment provided in Boer camps was questionable, illustrated by the high death rate amongst the confined, the fact that no medical personnel were deployed directly to African camps for the segregated black population is symptomatic of wider colonial attitudes (Kessler, 2012).

During the First and Second World Wars, the School mainly worked to ensure the health of troops deployed to tropical regions of the empire or fighting therein. Its work helps to shed light on the importance attributed to maintaining power over colonial territories and defending them against German (and Allied) aggressions. Although the School's work was interrupted by the outbreak of war, the post-Second World War period saw a renewal and an expansion of the School and its research activities in the colonies. The inception of the Department of Nutrition signalled a new, close post-war collaboration with the Colonial Office.

9. Colonial Mentalities: Individuals Connected to LSHTM (1899-1960)

This final chapter takes a closer look at some individuals associated with LSHTM throughout its history. It examines through a small number of case studies how their professional trajectories, research approaches and opinions reflected or were a product of Britain's colonial Empire.

It also links these attitudes to the racist hierarchies that sustained British imperialism. In doing so, this chapter examines the wider entanglement of the School with imperial ideas and colonial practices, suggesting the possible influence of the School on the views of its staff and students, and vice versa. Thousands of students attended the School during the period under investigation and this selection is not necessarily representative of the School's broader student and staff body, their work, and trajectories. It does however provide illustration of how the School became an imperial node in terms of attitudes, politics, and discourses. These politics and discourses on colonialism, racism and white supremacy flowed through the School and impacted the framing of research in publications and public speeches. As the chapter on research and teaching highlighted, the School employed and furthered the careers of researchers dedicated to eugenics in the 1930s, when eugenicist discourses and research influenced public health thinking and practice. As such, it is not surprising, that a school as closely associated with colonialism and the politics of health in the 20th century would produce research that reflected the period's problematic views.

This chapter reproduces racist language and language that is offensive towards Black, African, Asian, and Indigenous people across the British Empire. It does so here in order to establish the normality of such views among graduates of and staff at the School and in order to show medicine's historical entanglements with racism and colonialism. Notably, references to 'mixed-race' people, in the context of Cecil Cook's work in Australia, do not presume the existence of pure biological races. Rather, these references point to a historical understanding thereof and should not be seen as an endorsement of theories around the existence of distinct races.

The choice of individuals within this chapter has been made to display the views on race expressed by individuals connected with the School in multiple different ways. Some of these individuals are integral to the School's history, whilst others are students or temporarily members of staff. These examples are not intended to provide a complete picture of either the influence of School alumni or the views of academic contributors to the School. However, they may be taken as prosopographical, to allow wider conclusions to be drawn about the School within this period. It is intended to illustrate some of the many ways in which the School's colonial entanglements can be drawn out through the research and trajectories of individuals. The focus of this chapter is on the following four men and one woman, presented

in chronological order of their first employment or educational entry at the School:

- Cuthbert Christy (1863 – 1932)
- Cecil Cook (1897 – 1985)
- Andrew Balfour (1873 – 1931)
- Cicely Williams (1893 - 1992)
- L.W.G. Malcolm (1885 – 1946)

Varying levels of previous research on these individuals exist and the LSHTM archives do not always offer a lot more. As a consequence, the accounts presented here are of differing lengths. In the case of Cuthbert Christy, for instance, there are just three entries in the LSHTM Archive catalogue. There are no entries at all for Cecil Cook, but he appears in the School's Meeting Minutes in the 1920s. Similarly, L.W.G. Malcolm (Louis William Gordon Malcolm, born Ludwig William Gunter Büchner), does not appear on the catalogue. He is only listed in the School's syllabus as having taught on the 'Vital Statistics and Racial Hygiene in Tropical Countries' course the School offered between 1932 and 1934. The archives hold a lot more material about Andrew Balfour, who became the School's director in 1923. The careers of two of these men, L.W.G. Malcolm and Andrew Balfour also illustrate the close connections between the School and the Wellcome Trust, which continue to this day. In the case of Cicely Williams, the chapter recaps and analyses elements of her writing which have previously been identified as racist. The predominance of male scholars under investigation here is a result of the general predominance of men at the LSHTM, and in tropical medicine more broadly, in the period under investigation.

Cuthbert Christy (1863 – 1932)

Cuthbert Christy attended the School's 8th session in 1902 (LSHTM, LAORS – GB 0809 Staff and Students/05/02). His entry in the student register shows no professional affiliation. However, between 1898 and 1900 he had served as senior medical officer in the West African Frontier Forces' Second Battalion in northern Nigeria (British Museum, N.D). After his course, Christy was part of the Sleeping Sickness Commission to Uganda (Nature, 1932, p.85) together with Aldo Castellani and George Carmichael Low from the LSTM. Throughout his career, Christy travelled widely across the Empire and contributed to the collection of scientific specimens for the Natural History Museum in London. His obituary in *Nature* described him as a collector (ibid):

'Between 1903 and 1910, Dr. Christy visited Ceylon and various parts of East and West Africa, all the time collecting such specimens for the Natural History Museum as came his way. From 1911 until 1914 he was engaged in scientific exploration work in the Congo, and during this period he obtained many specimens for the Museum collections.'

Dan Hicks (2020) and Alice Procter (2020) have both written about how colonialism facilitated the theft of cultural and scientific artefacts for British museums. Christy's career is an example of the license with which colonial officers accessed indigenous lands, goods and - in the case of medical research – people. LSHTM was involved in this trade, not in terms of cultural artefacts, but with regards to clinical and zoological specimens for research, teaching and the LSHTM museum, which was set up in 1899. In 1927, for instance, the School's Annual report notes the following in relation to the Clinical Tropical Medicine class (LHS – Admin/11/01, 1927, p.11):

'Material: The provision of a sufficiency of good teaching material for the class is always a matter that needs constant care and attention, as with such large classes as we are having a large supply is necessary.

'Thanks, however, to various past students of the School situated in different parts of the world, who have been most assiduous in endeavouring to supply our needs and to the kindness of the Physicians of the Hospital here […] we have always been able to give our students a good assortment of representative material to illustrate the teaching.

'Our best thanks are especially due to Mrs Le Sueur of Sarawak (Malaysia), and Dr. Scharff of Singapore, both of whom have constantly sent us consignments of valuable blood films, and to Dr. Robinson of West Africa, who has contributed two unique specimens of preserved human livers. These have been handed over to the Museum.'

Tropical medicine training relied on former students, such as Dr. Robinson or Cuthbert Christy to supply them with study material. While there is no evidence of Christy having collected specimens or artefacts on behalf of the School, the British Museum still holds at least 20 items that were collected by him (British Museum, N.D.).

Christy also wrote for scientific publications. His paper 'White settlements in tropical Africa' was published in the *Journal of the Royal African Society* in 1928, made the case against white settlement in sub-Saharan Africa, not because Christy was an opponent of colonialism, but because of the financial and health risks involved:

'Apart from the ordinary risks of climate which dominate all farming, the success of each undertaking and the comfort of every European is here dependent upon exigencies of native labour conditions far more than in the highlands. Moreover, periodical change of climate is essential for the well-being of the white man. Is a 500-acre farmer with little or no surplus capital, even if he knows something about agriculture to begin with, likely under these circumstances to be able to rear a family or to make sufficient to enable him or them to proceed to Europe every two or three years? (Christy, 1928, p.339)'

Christy lays out the cost for white settlers of living comfortably in sub-Saharan Africa. Here, as in much other literature about the living conditions of white people in the colonies, 'the white man' is essentialised and race is given a biological dimension. Christy also makes mention of 'the exigencies of native labour conditions'. In tropical regions, so the author argued, the white man is more dependent on subservient native labour in order to make the profits necessary for a comfortable life. Christy compares this to the Kenyan highlands, which have a cooler climate and are thus more agreeable for white settlement. He clarifies his stance on colonialism further:

'The study of tropical diseases has done much and will do more, but it will never bring about colonisation or even successful settlement by Britishers in the lower parts of these regions. The lowlands of Tropical Africa are mainly for the black man. Their development is up to him, under the tuition and by the guidance of the European no doubt, and largely for this immediate benefit, but also to the great advancement of the native. Things in Africa cannot now stand still, and the problem of the moment is in what direction is it best for us to influence them. The password to development, in the opinion of those who

know, is not settlers; it is "education". […] Barbarian perhaps, but he is no longer a savage. […] Are not our Tropical African Dependencies branch businesses – valuable concessions – to be fostered or starved by the National business? […] The misdirected insistence upon the cry for settlers for regions where only a certain type with sufficient capital is required can but lead to white disappointment and black trouble. (ibid, pp.340-341)'

Christy's perspective is notably different from the perspectives that have so far been presented in this report. Rather than seeing tropical medicine as the panacea to high European mortality rates, Christy asserts that even tropical medicine won't make certain regions of sub-Saharan Africa inhabitable. The above excerpt also shows Christy's attitudes towards indigenous Africans and to British colonies in Africa overall. Education, which as the remainder of this chapter will show, became a crucial tool of colonial development, once again points to the widespread white supremacy that characterised this era and the discourses prevalent in scientific journals. The 'development' from savage to barbarian that Christy describes may have been positive in his eyes. Such an interpretation is only possible however, if the bar for African intellectual, cultural and social development is set extremely low. While Christy's stance on settler colonialism may have been unusual, his vision of Britain's African colonies as 'branch businesses' was entirely typical for the time. Christy's writing is an example of the colonial paternalism, which can be interpreted as benevolent, but which speaks to racial hierarchies, which placed white Europeans at the top and saw the African continent as a material and labour resource to be exploited by the UK.

Most notably, Cuthbert Christy was the chairman of the 1929 League of Nations commission of enquiry into the use of slavery and forced labour in Liberia, also called the Christy Commission (Christy et al., 1930). Christy had spent previous years researching rubber in the Belgian Congo and thus made a good candidate to represent Europe and the League of Nations in the commission. He was one of three main investigators alongside African-American sociologist Charles Johnson and the former President of Liberia, Arthur Barclay (Sundiata, 2004). The commission was the result of American suspicions of the use of forced labour and working conditions resembling enslavement between Liberia and the island of Fernando Po (Bioko, now part of Equatorial Guinea), then a Spanish possession (Christy et al., 1930). After bilateral negotiations between Liberia, an independent African Republic, founded on land purchased by the American Colonisation Society to resettle formerly enslaved African- Americans, Liberia agreed to an independent League of Nations inquiry (Sundiata, 2004). The enquiry resulted in the following findings (Christy et al., 1930):

- That 'inter and intra-tribal domestic slavery' persisted,
- that American-Liberians were using indigenous Liberians as pawns, that is to say as collateral against debt (Lovejoy, 2014)
- that government officials were using forced labour to construct public infrastructure and shipping forced labour abroad to Fernando Po (Bioko).

It resulted in the resignation of Liberia's President C.D.B. King and Vice-President Allen Yancy (ibid). It also resulted in the Liberian government's reorganisation of the administration of the interior of the country,

where most cases of domestic enslavement had been recorded, the appointment of two US government commissioners to help in this task and the 'introduction of the policy of "the open door " ; abolition of the barriers between civilised and uncivilised citizens, and institution of absolute freedom of trade' (Christy et al., 1930, p. III). The last point is especially important, because it allowed US (and other) businesses greater access to Liberian markets and pointed to the underlying agenda of the commission of enquiry that Christy was chairing.

This was anchored in the broader imperial politics of the time. As Ibrahim Sundiata (2004) has laid out, American criticism of working conditions reminiscent of enslavement in Liberia were entangled with American private interests in the West African country. Firestone, an American rubber company, which still owns a rubber plantation in Liberia today, had taken a foothold in Liberia at the beginning of the 20th century. This was among other reasons, due to Britain restricting the production of rubber in their colonies. Britain's imperial policies forced Firestone to look for rubber elsewhere and after an independent government investigation, Liberia was proposed as a suitable place. Rich in rubber plants, and politically close to the United States, Liberia constituted a perfect location for Firestone's investments. However, in wanting to expand their commercial interests, Firestone encountered legal limitations. The Liberian constitution, which had been written by people who had experienced enslavement first-hand, forbade land ownership by non-Black people. The commission enquiry into forced labour and slavery in Liberia was a way for the US to undermine the Liberian government and national elite, push for an end of formal or informal Liberian independence and thereby hopefully expand the possibilities of land ownership and white owned-business interests in Liberia (ibid). Christy and Johnson disagreed in the commission's findings. Christy argued that enslavement and conditions similar to it were widely used. Johnson disagreed. Sundiata (2004, p.133-134) writes:

'The two men disagreed on how best to alleviate the problems found in Liberia; Johnson noted that "after mutual agreement on corruption and lack of standards, he [Christy] ventured it was a situation that could not correct itself now by American Negroes, because they could not have the standards." Christy favoured administration by white men; Johnson thought black self-rule should not be imperilled and that American blacks might play a significant role in rehabilitation.'

Christy's position in the commission, of which he was the senior member, is reminiscent of his earlier writings on African development and the need for Africans to be guided by Europeans. Sundiata's analysis also shows that Christy's opinions on the inferiority of Africans were not geographical, they were racist and extended to people of African descent in America. Johnson argued that Black Americans could play a guiding role in correcting labour practices in Liberia, whereas Christy argued that Liberia should be placed under white administration and that Black self-governance had failed (ibid). In the end, Johnson convinced Christy of the continued possibility of Black self-governance. The commission's final report, shows that the question of race and particularly the possibility of Black self-governance informed its position and its approach to the inquiry from the beginning (Christy et al., 1930).

Cecil Cook (1897 – 1985)

Dr Cecil Cook, an English-born Australian medical graduate from the University of Sydney, studied at the LSTM in 1923 (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 8, p.3). After passing his DTMH with distinction, he applied for and was awarded the Wandsworth Scholarship, the School's most generous and prestigious scholarship at the time, which allowed the holder to conduct up to three years of research into tropical diseases and medicine overseas (ibid). Cook had planned on conducting research on granuloma venereum and leprosy; their modes of infection, aetiology and treatment in Northern Australia, Rabaul and New Guinea more generally (the town of Rabaul had become part of the British Empire and was administered by Australia under a League of Nations mandate after Germany lost its colonial possessions during the First World War). As was so often the case, Cook's clinical research was framed by the politics of the time. In his application, Cook proposed to make a special study of leprosy and its effects on the white population in Northern Australia (ibid, pp.3-4):

'Leprosy. Its incidence amongst the white population of the North; the likelihood of its directly or indirectly menacing the white settlement of Tropical Australia; with special reference to:

a. *Modes of infection: - the possibility of an arthropod vector.*

b. *Prophylaxis: the measures recommend for its eradication and the prevention of further introduction*

c. *Treatment: including isolation and the "'leper colony" system. Specific treatment.'*

Cook's research thus explicitly contributed to the School's mission of making white settlement of the tropics possible and preserving the health of white Europeans in the process. The School agreed with Cook's plans, with the proviso that 'he should include the study of the incidence of Leprosy among the black population as well as the white' (ibid, p.4) and that he include, if possible, research on filariasis in New Guinea (Papua New Guinea). The School's annual reports 1925-27 (LSHTM, LAORS – GB 0809 Admin/11/01) mention the progress of Cook's work but provide little detail. The School came to the conclusion (ibid 1926, p. 14) that 'his work possesses local rather than general interest, but that there is no doubt it has been carefully prosecuted and will be useful to the Public Health Department of the Commonwealth'. While the School may not have found much 'general interest' in Cook's work, it was the springboard for his career in Australia. Indeed, Cook approached Dr. Cumpston, the Commonwealth's Director General of Health to ask how he may best use his Wandsworth scholarship to serve Australian public health (Leithhead, 2019). According to Barry Leithhead (2019), Cook's son-in-law, it was Cumpston who suggested Cook study leprosy, in addition to the study of lymphogranuloma venereum, which had been Cook's idea. The survey of leprosy undertaken as part of his Wandsworth scholarship was published by Australia's Commonwealth Department of Health services in 1927 as *The Epidemiology of Leprosy in Australia. Being the Report of an Investigation in Australia during the Years 1923-1925 under the terms of the Wandsworth Research Scholarship of the London School of Tropical Medicine*. In it, Cook made recommendations as to the treatment of leprosy. In his recommendations Cook differentiated between the treatment of leprosy in white and Black (aboriginal) patients (Leithhead, 2019, p.25): 'Whites who

report regularly, carry out instructions and do not test positive to *B. lepra* should be permitted liberty until they do test positive.' Leithhead contrasts this with Cook's recommended treatment for Aboriginal Australians (ibid):

'In the case of the Aboriginal, whose careless and irresponsible habits render it impossible to keep him under observation, or submit him to a course of treatment unless he is under restraint, all cases should be isolated to the lazaret without recourse to bacteriological examination [i.e. whether positive or not]. In this way the danger of a leper who gives a negative smear at the time of first examination, disappearing subsequently in the 'bush', and becoming a menace to others during a series of exacerbations will be avoided.'

Cook's views on Aboriginal Australians are made abundantly clear in his report. They also foreshadow a period in Cook's career in which his racism and his medical expertise would place him in a position of great authority over Aboriginal Australians, their lives and their health.

Between 1927 and 1939, Cecil Cook was the Chief Protector of Aboriginal Affairs in Australia's Northern Territory, where he had conducted some of his research as Wandsworth scholar (Austin, 1990). In this role, Cook was in charge of the rules and regulations dictating the lives of Aboriginal Australians in the Northern Territory. The 1910 Aborigines Act had differentiated between degrees of indigeneity and whiteness and assigned different legal rights and entitlements to mixed-race Aboriginal Australians, i.e. those who had a white European or Asian parent and those who did not. Boys with one Aboriginal and one white/Asian parent and who had grown up in 'a civilised home' could gain close to full citizenship rights (they were however not allowed to drink alcohol), girls remained under the guardianship of the state for their entire lives (ibid).

Cecil Cook, as Chief Protector, saw mixed-race Aboriginal Australians placed under his guardianship. The reasons for this system of guardianship and the exclusion of Aboriginal peoples was the belief, widespread among white Australians and people of European descent more generally, that non-white races were intellectually inferior to people belonging to the white race. Cook, as Austin (1990) and Martinez (2000) have shown, shared these views and subscribed to eugenicist ideas too. However, he thought that mixed-race Aboriginal peoples, who in the opinion of eugenicists and race scientists possessed a proportion of European 'blood', would be able to become more civilised (Martinez, 2000). In his role of Chief Protector, Cook instituted the following policies: Mixed-race Aboriginal peoples were placed in government schools in order to remove them from the Aboriginal communities to which they belonged. This was seen as the best way to 'civilise' them. Cook was also worried that the higher birth rates of Aboriginal peoples and people of Asian descent in Australia's Northern Territory would lead to white Australians becoming a minority. As such, he encouraged 'interbreeding' between mixed-race Aboriginal girls who had undergone the 'civilising' government school system with white residents. In doing so, Cook did not share the views of those eugenicists who were radically opposed to the idea of miscegenation. Cook encouraged it, in certain, carefully considered cases, with the aim of 'breeding out the colour' (Rowse, 2007). He argued (AHRC, 2010, p.84):

'Generally by the fifth and invariably by the sixth generation, all native characteristics of the Australian aborigine are eradicated. The problem of our half- castes will quickly be eliminated by the complete disappearance of the black race, and the swift submergence of their progeny in the white.'

Cook, regulated the lives of Aboriginal peoples in Australia's Northern Territory during his time as Chief Protector. He forbade unsolicited visits to Aboriginal reservations by white settlers and in turn forbade Aboriginal peoples from visiting towns. Rowse (2007) and Leithhead (2019) have argued that Cook's intentions were to protect Aboriginal peoples from what he perceived to be the dangers of white society. Cook's policies no doubt differed from those of many European and Australian eugenicists who were opposed to assimilationist and integrationist approaches to managing Aboriginal peoples in Australia and broke with previous traditions of confining Aboriginal peoples to missions (Martinez, 2000; AHRC, 2010). However, Cook's policies (he allowed well-educated mixed-race Aboriginal girls to work as domestic labour in white households, for instance) were ultimately motivated by his belief in the racial difference and inferiority of Aboriginal peoples in Australia.

Andrew Balfour (1873 – 1931)

Andrew Balfour was appointed as the Director of the new London School of Hygiene & Tropical Medicine in 1924, shortly after the School's expansion of its remit to include hygiene and public health. At this point in his life, Balfour had an exemplary career in tropical and colonial medicine, mainly in Africa. During the Second South African War (1899 – 1902), he had served as a civilian surgeon in various British concentration camps (MacNalty, 2009; Angloboerwar.com, 2010). After the war, he became the Director of the Wellcome Tropical Research Laboratories at the Gordon Memorial College Khartoum. The research laboratory had been a gift of Henry Wellcome to the government of Sudan, which had been captured by British forces in 1899 and placed under joint British (and to a certain extent Egyptian) control. The laboratory was intended, among other purposes, for the following (Balfour, 1904, p.7):

a. *'To promote technical education*

b. *To promote the study, bacteriologically and physiologically, of tropical disorders, especially the infective diseases of both man and best peculiar to the Sudan, and to render assistance to the officers of health, and to the clinics of the civil and military hospitals*

c. *To aid experimental investigations in poisoning cases by the detection and experimental determination of toxic agents, particularly the obscure potent substances employed by the natives*

d. *To carry out such chemical and bacteriological tests in connection with water, food stuffs, and health and sanitary matters as may be found desirable*

e. *To undertake the testing and assaying of agricultural, mineral and other substances of practical interest in the industrial development of the Sudan.'*

As with a majority of tropical medical education, the Wellcome laboratory sought to develop Sudan for British and colonial industries. The laboratory was also made available to colonial medical officers for laboratory work (ibid, p.11). Balfour worked for the Wellcome Laboratory in Khartoum

until 1912, when he returned to the UK to become the Director of the Wellcome Bureau of Scientific Research (MacNalty, 2009). His long experience in Africa, and the tropics more generally, imbued him with firm opinions about tropical medicine, the development of British colonies in warm regions and ideas around racial difference. Balfour published widely in top medical journals and, once he assumed the directorship of the LSHTM, used his position to give speeches about the London School and the topics most important to him: the acclimatisation and health of white men in tropical countries and the importance of tropical medicine to the development of Britain's colonial Empire. In a paper entitled 'Medical Science as a Factor in Imperial Development 1871 – 1921' (LSHTM, LAORS – GB 0809 Balfour/01/26, p.11), he offered a definition of imperial diseases, using the example of amoebic dysentery. An imperial disease, so Balfour wrote, is defined as 'an important communicable malady which exercises a markedly deleterious effect on the resources of the Empire'. In his opinion, the School could offer scientific remedies against imperial diseases through research and teaching (LSHTM, LAORS – Balfour/01/26, p.37). Hence, although Balfour was the first director of the joint LSHTM, his credentials marked him as an imperial researcher and avowed believer in the political value of tropical medicine for the Empire. For him, the success of the British Empire depended on the ability of white settlers to live healthily in tropical countries and among indigenous, non-white populations.

'I would ask you to think of the tropics with these complicating disabilities removed. They can be removed, they are being removed, in some fortunate places they even have been removed. What we have to ask ourselves is, can white men live and work and breed and, in the true sense, colonise the tropics if these regions are freed from disease? In other words, do tropical climatic conditions and what we may call the general conditions of life in the tropics present an insuperable barrier to the white man making a permanent home therein and to his descendants exhibiting that bodily and mental vigour which, at the present day, is a special characteristic, a hall-mark, as it were, of the Caucasian races? (LSHTM, LAORS – GB 0908 Balfour/01/08, p.4')

The weather or climate of countries close to the equator constituted, in Balfour's opinion an impediment to the health of European white settlers. According to him and many of his contemporaries, hot weather produced particular health conditions in the white colonial population. Neurasthenia was one such condition. Neurasthenia or tropical neurasthenia, as Anna Greenwood (2009) has explained, was an umbrella term used to describe various mental and physical ailments afflicting white men in tropical countries. Symptoms ranged from fatigue, to languor, and loss of energy. It only afflicted white populations in the tropics, who were deemed too civilised for the harsh living conditions, the heat and other environmental stressors absent in the UK. Tropical neurasthenia was a pseudo-clinical manifestation of 'white superiority' (Greenwood, 2009, 533). Balfour discussed neurasthenia on several occasions and warned of its impact on white colonial populations. In 1928 he wrote: 'Here some reference must be made to sexual hygiene, for it plays an important part in this acclimatisation question, more especially in connection with the onset of neurasthenia' (LSHTM, LAORS – GB 0809 Balfour/01/21, p.5). The issue of sexual hygiene, in particular in relation to interracial relations occupied colonial officers, scientists and practitioners of tropical medicine and in Balfour's case

seems to have been associated with neurasthenia.

In Balfour's writing, as in that of the other researchers presented in this chapter, his opinions on the inferiority of indigenous populations are made clear. In. January 1928, he published a short series of papers in *The Lancet* on the topic of educating medical officers for colonial service. One paper focused on tropical medicine and one on tropical hygiene. In the latter, Balfour explained how the inferiority of 'native races' made an impact on public hygiene and sanitation in the colonies:

'Again, the populations which have to be served and handled, even if not primitive, are usually devoid, both of a sanitary sense and a sanitary conscience, and measures tried and proved amongst educated communities fail lamentably when introduced amongst races which are backward from the hygienic standpoint. Yet again, there are custom and prejudices, religious and otherwise, which have to be overcome and which may prove insuperable barriers. […]

'Something, I think, should also be said about handling native races. It is of course, not easy to formulate a set of rules generally applicable, but there are certain cardinal principles which can and should be enunciated and will be found of value to the tyro. The subject of the white man in the tropics is an easier one though it is a difficult task to deal with adequately and to advantage with the vexed question of racial acclimatisation. (LSHTM, LAORS – GB 0809 Balfour/01/21, pp.2-5)'

Balfour's views are illustrative of white supremacy. In his account, indigenous populations of Britain's colonies are devoid of agency and need to be carefully managed. Balfour's argument, that indigenous populations were unclean and lacking 'sanitary conscience' was not unique at the time. Packard (2016), Anderson (2006) and others have shown that framing local populations as unclean was an important strategy in subsequently excluding these populations from shaping public health policies. In Balfour's writing, indigenous populations and their culture are problems to be overcome. Although he admits to the heterogeneity of 'native races' by arguing that rules cannot be universally applicable, his suggestion of useful principles to manage 'natives' points to minimal differences. Here Balfour also begins a discussion of the topic of 'the white man in the tropics', a recurring subject in his writing. For Balfour, the health of the white man and his ability to survive – and thrive – in tropical regions of the Empire, was closely linked to the behaviour and management of unsanitary native subjects (for a discussion of contemporary racialisation and 'unsanitary subjects' see Briggs, 2003).

'Not only the care of the body but the care of the living quarters, including methods for mitigating heat and glare, should be dealt with, from the humble hut to the storied house, and on no account must the lecturer omit the important question of native servants. A little knowledge may be a dangerous thing, and while it may be admitted that to know the curious, often disgusting and not infrequently dangerous habits of the native servant thoroughly would necessitate donning his pigmented skin and viewing the world through his eyes, "forewarned is forearmed" and the potential risks which the native servant represents should be impressed upon the class in a

general way and illustrated by a few striking examples such as the cholera carrier, the ejector of saliva upon laundry material, the user of filthy kitchen cloth.

Of equal importance is the matter of the housing of native servants and the need of frequent inspection of their quarters as well as of the kitchen where the cook and his myrmidons, often masters of their trade, may inadvertently add death to the pot. (LSHTM, LAORS – GB 0809 Balfour/01/21, p.7)'

In Balfour's description, 'the native', unwittingly perhaps, presents a danger to white settlement of the tropics through his lack of knowledge and insanitary ways. Indigenous people become the carriers of disease who need to be supervised and whose habits need to be controlled, if not for their own, then for the white settlers' safety. Balfour's views of the biological difference between the races and the mental, cultural and intellectual inferiority of non-white races is visible in a majority of his writing. Balfour held these views and spoke and published about them widely while being the Director of LSHTM.

Balfour, alongside Ronald Ross incidentally, was also a keen writer of fiction. Many of his novels drew on his own experiences of being a medical doctor, on his upbringing in Scotland or on his experiences in Africa. One novel in particular, *The Golden Kingdom* published in 1903, reflects on Balfour's experience of working in South Africa during the Second South African War. The novel is based on a fictional manuscript of Dr. Henry Mortimer, a surgeon during the war 'found' by Balfour 'in the boards of a Boer Bible' (Balfour, 1903). Balfour's style resembles that of H. Rider Haggard's adventure novels, set in far away, exotic locations. This genre of fiction, exoticized Africa and the British Empire further and valorised the person of the fearless white European explorer. Balfour's scientific views were made clear in his published writing and speeches. His novels, and *The Golden Kingdom* in particular, possibly allow insights into his personal experiences and more private views. In the novel, Dr. Mortimer travels aboard a slave ship:

'Now there be many who say the negro has no soul, who class him with the brutes that perish, and rank him as a beast of burden and a creature only fit to labour for the white man without wage or reward. I, Doctor Henry Mortimer, hold no brief for any son of Ham. I know his faults and deficiencies, I am aware he is low in the human scale, not to be pampered, and to be kept in subjection, but I submit that he is a fellow mortal and should be treated as such, and not as though he were some vile and stinking beetle. His woes and sufferings had not touched me before I sailed up the river Ogobo, I knew nothing of what passed in far-away comers of the earth, I was ignorant of the horrors of the slave march, of the hideous holds of slave ships, of the appalling cruelties perpetrated by men who call themselves Christians. Slavery is no doubt right and fitting, but for God's sake let it be merciful, and not a curse and blot upon civilisation. (Balfour, 1903, p.139)'

The passage, although fictional, may cast light on Balfour's general position vis-à-vis Black people he encountered in his work as medical doctor skilled in tropical medicine. Balfour and his contemporaries, in comparison to the vast majority of the domestic British population, had experience with the geography, climates and societies of places far away from the UK. Balfour was well- travelled and as a medical doctor, saw

himself as a proponent of values of shared humanity, as did Dr Mortimer, his protagonist. However, Balfour's and Dr. Mortimer's encounter with Black people and indigenous populations in Africa only ever happened through the lens of colonial structures and the racial hierarchies that accompanied it. While Balfour may not have considered himself a racist and may have been appalled by the horrors of the trade in enslaved Africans he describes in *The Golden Kingdom*, the views he penned for Dr. Mortimer in the passage above were still racist. Their encounter and engagement with indigenous Africans was always selective and always tinged by a belief in their inferiority and deservedly lower position in life.

Cicely Williams (1893 – 1992)

Cicely Williams entered the School in 1928 and sat for a Diploma in Tropical Medicine and Hygiene (Baker, 2004a). She also returned to the LSHTM as a lecturer in nutrition in the 1950s. As Stanton (2012) shows, Williams' position as a woman doctor in the first half of the 20th century was made difficult due to prevailing patriarchy and sexism. The vast majority of Colonial Office jobs were reserved for men, which also explains the disproportionate number of male students at LSHTM in the first 60 years of its existence. Upon finishing her degree, Williams took up one of the few colonial medical officer posts reserved for women: as a Woman Medical Officer specialising on maternal and child health in the Gold Coast (ibid). She worked in the Gold Coast (Ghana) from 1929 until 1936, when she was reassigned to a post in Singapore, due to professional differences between her and her supervisor, Dr. Percy Selwyn Selwyn-Clarke (ibid). Selwyn-Clarke, a colonial medical officer in the Gold Coast between 1919 and 1929, had himself been a student of the London School of Tropical Medicine in 1924-25, when he won the Langley Memorial Prize for a paper entitled 'Smallpox in the Negro and Negroid Tribes of British West Africa, with special reference to the Gold Coast Colony' (LSHTM, LAORS – GB 0809 Admin/11/01, 1925, p.7). The Langley Prize was funded by friends of the late Dr Langley, Principal Medical Officer of Southern Nigeria, open to competition among past and present officers of the West African Medical Staff (LSHTM, LAORS, Seamen's Hospital Society loan – LSTM Minutes Book 8, pp.35-37). After finishing his studies, Selwyn-Clarke returned to the Gold Coast (with a short posting in Malaya) from 1929 where he became Deputy Director of the Gold Coast Health Service in 1933. It was in this period, that Williams' work fell under his supervision.

During her work there, Williams treated a high number of children and became acquainted with early childhood and maternal health from a clinical, but also a cultural point of view. Most notably she identified *kwashiorkor*, a nutritional deficiency present in children between the ages of two and four, which contributed to the high infant mortality rate in the Gold Coast at the time. Her identification of *kwashiorkor* was badly received by the medical establishment in the UK, which maintained that the cases Williams was presenting were cases of infant pellagra (Stanton, 2012). Not until after the war did Williams receive recognition for her work. Her use of the indigenous *Ga* word to describe the disease possibly did not make its acceptance by the British medical establishment any easier. In doing so, she showed an acknowledgment for *Ga* epistemologies, which must have differentiated her from many of her contemporaries. Williams is generally credited with the discovery of *kwashiorkor*. However, her adoption of the *Ga* word, which translates

to 'disease of the deposed child' (Stanton, 2012), points to the familiarity of the disease among *Ga* communities in Ghana at the time.

Williams' works, and her work on *kwashiorkor* in Ghana in the 1930s in particular, display the prevalence of racist attitudes at the time. In a 1938 paper in *The Lancet*, in which Williams presented some of the findings from her MD, she writes the following:

'Although the mothers are fond of their children they are quite incredibly careless with them; like all primitive people they are lacking in imagination. The baby may be left to a small girl who drops him. He is left near a fire and is horribly burned before anyone notices his screams. As soon as he becomes mobile he is allowed to crawl all over the compound. He stuffs his mouth with all sorts of dirt and rubbish. When one considers that the compound is full of other children and animals with insanitary habits – not to mention the expectorating adults – the results can be imagined. It is no wonder that that average child of 18 months weighs no more than he did at 9 months, that he is pot-bellied and spindle-legged, peevish, helminthic, and in constant abdominal discomfort. The idea that the "simple savage" has instinctive knowledge in caring for her children is without foundation. She is as foolish as the most sophisticated mondaine and he is less educable. (Williams, 1938, p.99)'

Rather than being used to describe the culture as backwards, in William's writings the extent to which racist attitudes bled into the clinicians and researchers' medical understanding of 'tropical diseases' becomes evident. In this example, childhood diseases and problems of malnutrition especially are tightly linked to cultural deficiencies and wrongdoings. Worboys (1988b) and Stanton (2012) rightly point out that William's framing of *kwashiorkor* as a disease linked to maternal and cultural practices and the assertion that the Gold Coast was a wealthy colony, served the purposes of divorcing it from bigger socio-economic problems brought about by colonialism, such as forced changes in agriculture and farming for commercial, rather than subsistence purposes or the imposition of colonial taxes on the local population. By focusing on the behaviour of the parents, the colonial governments did not have to assume responsibility for high child mortality rates. Indeed, this is reinforced in Williams' conclusion in which she provides recommendations (quite progressively these involved both preventative and acute medicine) for the treatment of malnutrition and maternal and child health in the Gold Coast (Williams, 1938, p.101). Williams wrote:

'The function of a government medical department is to raise the standard of living rather than to supply orthodox medical attention to the individual. After working in West Africa for seven years the following credo seems to assert itself with clarion emphasis:

1. *The greater part of the ill health is preventable.*
2. *The care of children in the toddler stage is of supreme importance.*
3. *Improvement can only be effected by health education for the population and by the training of efficient health visitors.*
4. *Continuity of policy and of personnel is essential to success. An African will take a bottle of medicine from a stranger but he will not take advice. He may listen to his instructions but he will not ask questions.*

5. *Preventive work must go hand in hand with curative in order to obtain the confidence of the people, adequate care of individual children, and the efficiency of the health workers and the medical services as a whole.*

6. *Maternity and gynaecological work are needed. By themselves they are of limited value. In spite of their popularity they should not be allowed to overshadow the importance of the other aspects of welfare work.*

7. *Cooperation with the agricultural, the animal health, the education departments, and with the political administration is necessary to teach the population what to grow, how to prepare it, and how to spend their money and conduct their families with the greatest contentment.'*

Despite Williams' progressive views on preventative medicine, on the role of political entities (she mentioned both the cooperation with agricultural and political departments as well as the importance of a medical department to attend to issues of public health), her overall tone and attitude is one of benevolent colonial paternalism and ignores the detrimental economic restructuring brought about by colonialism. The broader socio-economic dynamics that shaped empire, disturbed indigenous forms of agriculture and farming and resulted in famines and malnutrition, are not touched upon by Williams. Her views on 'the African' are even more explicit in an earlier passage in the same paper:

'Compared with the white races he seems to lack initiative and constructive ideas, although he may be a shrewd judge of the attainments of others. He has a childlike gift for distinguishing the sincere from the false, the shepherd from the hireling. He is almost invariably dishonest. He wishes to attain his wealth without expending too much energy. […] These aberrations will have to be considered seriously when education is better organised, to enable the African to take any high place in the economy of nations. […] As long as the courts deal leniently with false statements, the administrators with dishonesty and incompetence, as long as the "humanitarians" go on handing out ill-considered bouquets to mediocre performers, so long will Africa have a real cause for complaining of her treatment at the hands of the "civilised" community. (Williams, 1938, p.100)'

Her racist views, and the white racial superiority which underlie them, were certainly no exception at the time. However, they need to be seriously considered when taking account of Williams' career. Williams was herself a child of Empire. Brought up in Jamaica in a family of landowners, Williams' will have been familiar with white supremacist justifications for Empire and white land ownership to the detriment of the Black Jamaican population, themselves the descendants of enslaved Africans. Williams did not consider Africans to be her equal. Instead, she considered them subjects to be guided towards improvement. Worse than that, she specifically thought badly of them, as is illustrated in the following quote:

'To the transient white man the African is a worthless baboon. To the static neighbour he is a good friend. When we have learned more from the African mentality I believe we shall be nearer achieving that most difficult objective – discipline without frustration. (ibid, p.100).'

Here, Africans are described as worthless to "transient" white people and as only possessing worth in relation to "static" others. The racial hierarchies apparent in Williams' thinking directly relate to her practice as a medical officer and as someone in charge of maternal and child health. While Stanton's (2012) piece argues that Williams was 'listening to the *Ga*', it needs to be considered that her relatively progressive views did not diminish her racism. A pioneer of women's attainment in tropical medicine, Williams is a typical example of white supremacy and a progressive vision for medical practice coexisting seamlessly in one researcher, their work and their politics. The fact that her writings were published in a journal as prestigious as *The Lancet*, points to the ubiquity of racist views in (colonial) medical practice and research at the time.

L.W.G. Malcolm (1888 – 1946)

Malcolm served as lecturer on the LSHTM's Vital Statistics and Racial Hygiene in Tropical Climates course between 1932 and 1933. He was born in Australia as Ludwig William Gunter Büchner and would only adopt his mother's maiden name of Malcolm at the beginning of the First World War due to widespread anti-German sentiments. After a degree in geology and mining, he studied physical anthropology at the University of Melbourne under Professor Berry, a Scottish anthropologist, who also held the chair of anatomy at the university. Through Berry, Malcolm became deeply influenced by eugenics and held a Victoria Government Research Scholarship whilst working under him. As Clark (2016) has shown, Malcolm's interest lay, as was not uncommon for eugenicists, in the correlation between skull size and intelligence particularly in indigenous Australians and white Australians convicted of crimes (i.e. The Argus, 06/11/1912, p.10). On a research visit to Coranderrk, a government reserve for Aboriginal Australians between 1863 and 1924 (ibid), Malcolm, measured the skulls and fingers of Aboriginal Australians (ibid). Later that year, he presented research carried out on Cape Barren Island, an Island just North of Tasmania. In his paper, Büchner argued that the sexual relationships between Aboriginal peoples and white settlers resulted in 'degenerate children' and that 'the islanders, for the most part, were very listless and indolent, and were extremely improvident' (*The Mercury* 17/01/1913, p.4). Through his research, which was situated at the intersection of anthropology, and the pseudosciences of craniology and race science, Malcolm was in high demand among eugenicists and spoke directly to those concerned with and in favour of the 'white Australia' policy, which sought to restrict immigration of non- white populations to Australia at the beginning of the 20th century. Malcolm's work was thus a product of colonial and scientific racism and white supremacy.

With the beginning of the First World War, Malcolm enlisted with the Royal Field Artillery and was deployed with the West African Frontier Force in both Nigeria and Cameroon, where he undertook further research (Clark, 2016). After completing a master's degree in anthropology at Cambridge, Malcolm first joined the Bristol Museum and then the Wellcome Historical Medical Museum where he worked as curator of the museum between 1926 and 1937, when he became the curator of the Horniman Museum in Forest Hill (Skinner, 1986; Anonymous, 1937).
At Wellcome, Malcolm was tasked with reorganising the museum. Malcolm organised the Museum's artefacts into six new sections: Prehistoric archaeology, Classical

archaeology, Antiquities, Folklore, Ethnology and Racial Development with Physical Anthropology (Skinner, 1986, p.398). It is the last section especially, which may have made Malcolm a suitable candidate for the teaching of the Vital Statistics and Racial Hygiene in Tropical Countries course at LSHTM in 1936. Taught alongside Major P. G. Edge, a statistician, Malcolm would have provided the anthropological aspects of the lecture series, specifically the teaching of 'general aspects of anthropology as applied to native races' (LSH - Admin/11/04, 1932, p.36). Malcolm only seems to have taught on the course for a year and the course description presented in chapter six is the only fragment of information available in the archives about both the course and his time at the LSHTM. However, given Malcolm's past, and the statistical expertise of P.G. Edge, who remained at the School for several years, it is likely that Malcolm drew on his experience in physical anthropology, his knowledge of 'primitive medicine' (Skinner, 1986), which was a major focus of his work at the Wellcome museum and his knowledge of eugenics and race science, to contribute teaching on this course. Malcolm's career and the fact that he was employed by LSHTM, the Wellcome Museum and later the Horniman Museum, which owns a large anthropological collection, shows how closely the interests of those institutions aligned. It also shows that towards the middle of the 20th century race science had a place in all three institutions.

This chapter has given an overview of some of the people associated with the School in the first 61 years of its existence, including their views and publications. This focus on individuals within the School demonstrates its wider colonial entanglements, through both the inclusion of staff members with particular views on race and colonialism, furthering their careers, and through the education of those who would later go on to hold significant colonial positions. Although not in any way intended as representative of all the School's staff and students, the selection is indicative, as it contains both well and less well-known members of the LSHTM community. All of these individuals practiced medicine for the good of the Empire, for the good of the Empire's white population and, in the cases of Cecil Cook and Cicely Williams, explicitly for what they perceived to be the good of indigenous populations. However, even in the cases in which individuals broke with existing traditions, confronted the medical establishment of the time, or adopted unorthodox research methods or public health practice, these practices continued to be underlined by beliefs in the inherent inferiority of colonised non-white populations and the biological existence and superiority of the white race.

10. Conclusion

It is difficult to summarise roughly 61 years of institutional history in one report. Perhaps even more difficult is to distil a relatively small number of main findings out of thousands of pages of archival documentation, which reveal hundreds of events, meetings, and decisions which influenced the School's history and shaped its relation to British colonialism.

As such, this report is intended as a starting point, an initial foray into the history of LSHTM's colonial entanglements. The celebration of LSHTM's 120th anniversary in 2019/20 was a moment to take stock of all that this institution has achieved in terms of its contributions to global public health. The LSHTM is, and has been since its foundation, an important player in health research and teaching. It has produced notable alumni and shaped the health institutions, which govern both British and world health. However, as this report shows, the School owes its entire existence to British colonialism.

This report points to the overall structures and political environment in which the School operated throughout the first half of its existence. The context, this report argues, which allowed the School to build its reputation, is as important as the School's achievements themselves. Other histories of the School have been written before, although none have taken an explicit focus on the School's relationship to colonialism. Philip Manson-Bahr's (1956) *History of the School of Tropical Medicine in London, 1899 – 1949* was written during a time in which colonialism was coming to an end but was still very much shaping power relations in the world. It was also written by someone, who had exceedingly benefitted from British imperialism, in his scientific career, and from the patronage of his father-in-law and School founder, Patrick Manson. More recently, Anne Hardy and Lise Wilkinson's (2001) *Prevention and Cure* presents a more detached history of the School, yet also one which ultimately falls short of critically confronting the way in which the subjugation of other countries and peoples, and the racist discourses inherent to that subjugation, benefitted LSHTM. This report then, rather than providing a complete history of this institution, should be seen as both complementary to and a critique of existing histories, which were told from positions of power and uphold existing power dynamics: Manson-Bahr's work by glorifying Empire, Wilkinson and Hardy's work by obscuring the role imperialism played in cementing LSHTM's post-colonial position in the world.

This report too is a product of its time. Were it not for increasing demands – formulated by critical historians, social scientists, activists, and an increasing number of Black and Brown people taking up space in academic and global public health organisations – that institutions stop celebrating and instead reveal, and confront their colonial histories, this report may not have been commissioned. How we view and tell history, and which histories we tell, always depends upon the present moment.

LSHTM's colonial history does not merely refer to the School's history during Britain's late-colonial period. Rather, it can be taken to denote LSHTM's role as an active agent in and conduit for British colonialism. The School was founded as a colonial institution in 1899 and remained one for the entirety of the period under investigation in this report (1899-1960). This is reflected by the School's close collaboration with the Colonial Office in London in its administration, research work, and teaching, as well as in its alignment with the proclaimed aims of British imperialism. It is also evident from its financing: funds made available to create the School and keep it running were levied from colonial governments (whose budgets, in turn, consisted of taxes extracted from colonised populations) and the Colonial Office itself. Set up as the government's de facto teaching agency for colonial medical officers and its research agency for tropical medicine, LSHTM constituted an important political and epistemic node in propagating, instrumentalising, and maintaining Britain's Empire. As this report has shown, tropical medicine – in practice and as an academic discipline – was conceived as, and geared towards, facilitating white settlement in and administration of the colonies. The discipline's political uses and its concern with white survival were made explicit by members of the School in their speeches and writing. LSHTM became a pioneer in teaching and researching tropical medicine and further amplified the association between the discipline and the politics and practice of British colonialism through its overwhelming recruitment of staff with experience in the colonial service.

The LSTM/LSHTM benefitted from and was complicit in British colonialism in a variety of ways. However, the relationship between the School and British colonialism/imperialism is a complex and multi-faceted one. The following sections summarise how the School benefitted from and was complicit in British colonialism, as well as how it became both an agent thereof and a conduit for the modes of thinking associated with it:

1. LSHTM directly benefitted from the exploitation and subjugation of colonised subjects

Colonialism was a deeply exploitative and violent process, which relied on the subjugation of indigenous populations. Even though LSHTM was not involved in the colonisation of hitherto independent countries, it played an important role in facilitating colonial administration, thereby strengthening and stabilising British imperialism.

As is still the case today, the School was founded and existed throughout Britain's colonial period without a stable source of income. In the early years (1899-1929), it relied entirely on the Colonial Office to secure funds both for the establishment and the running of the School. The funds which the Colonial Office procured came from two sources: 1) money taken from the Colonial Office's central budget and 2) monetary contributions from individual colonies themselves. In addition, Joseph Chamberlain, his son Austen, and his successors as Secretary of State for the Colonies Lord Harcourt and Lord Milner, used their personal and professional connections to fundraise on the School's behalf. The most consistent source of School funds, at least until 1945, however continued to come from colonies contributing annual payments in exchange for free education of their colonial medical officers. These colonial contributions were

taken from colonial funds, which in turn were made up of taxes and levies extracted from the colonised population against their will.

LSHTM benefitted directly from the exploitation of colonised populations in non-financial ways. Firstly, Joseph Chamberlain encouraged medical officers stationed in the colonies to send pathological specimens, materials and parasites and photographs thereof to the School for teaching and research purposes. The transfer of pathological specimens from the colonies to LSHTM occurred in a clinical and political environment in which patient consent was not always sought. Given the perceived inferiority of colonised populations, it seems reasonable to infer that these specimens were taken and shipped without the patients' consent, as has been amply recorded in other museum histories (MacDonald, 2005). Secondly, and more indirectly perhaps, the School's close connection to the Colonial Office meant that research conducted in British colonies could usually count on the facilitation and intervention of local colonial administrators. These administrators paved the way for the LSHTM's access to countries, natural resources, and populations and intervened when colonial populations rebelled against their involvement in research or treatment.

2. LSHTM conducted research and teaching to support the colonial endeavour

In carrying out research projects linked to British industry across the Empire, the School ensured greater efficiency in the economic exploitation of the natural and human resources of the colonies. This, rather than the medical care for colonised populations was the main concern of colonial governments and is reflected in the School's syllabus, the staff hired, and the research conducted. In identifying so-called tropical diseases, their aetiology, transmission, and environmental, sanitary, and personal treatments, members of LSHTM reduced the mortality rate of white settlers and colonial officers and sought to increase the perceived low productivity of indigenous labourers working for the imperial economy. The School's existence directly contributed to making British colonial rule more efficient and cost-effective. As Clapperton Mavhunga (2018) has shown, tropical diseases and their vectors slowed European colonisation of the African continent. LSHTM's work was designed to counteract this slowing process. In the early days of the School's existence, research projects were largely undertaken upon request by the Colonial Office or British companies directly. From the late 1930s and with the School's increasing shift to British public health, the Ross Institute of Tropical Hygiene adopted a consultancy-style approach for private industry in colonies and formerly colonised countries, especially focusing on British mining and planting.

Teaching too was, from the School's inception, oriented towards the colonial endeavour. The Colonial Office outsourced the compulsory training for medical officers to the School and set up LSHTM, under the leadership of Patrick Manson, as the government's official training centre for tropical/colonial medicine. This meant that early teaching had a strong clinical and pathological focus, which did not question Britain's right to rule. Rather, it prepared students to take up posts in the service of the colonial Empire or, in the case of missionaries or students working for private companies, broader imperial interests. The archives did not always contain a great deal of detail relating to course material. However, based on the public speeches and academic papers published by members of staff, it can be

inferred that the condescension with which they viewed 'native' populations and their concerns about the reproduction of white civilisation in the colonies – and later on in Britain itself – made their way into teaching and course materials too (see Martin, 2020).

Within teaching, the idea of *race* was most explicitly dealt with in relation to non-white, colonised populations or the ability of white populations to live among them. Students at the School learnt about the properties of indigenous *races*, how diseases manifested in them and about treating illnesses in native populations. This was especially the case in relation to eye health. The teaching of other races and their inherent properties took its most prominent form in conjunction with medical statistics on the Vital Statistics and Racial Hygiene in Tropical Countries course, which was offered at the School between 1934 and 1936. Taught in its first year by L.W.G. Malcolm, an Australian eugenicist and phrenologist, the course combined medical statistics and anthropological elements. In this form, anthropology relied on pseudoscientific ideas around the existence of various biological races and was used to both justify European colonialism and support the perceived superiority of white people.

However, aside from the presence of racist thought in course materials, perceived racial hierarchies also impacted how students, a majority of whom had a medical background, could interact with and/or treat patients at the Dreadnought Hospital, effectively an extension of LSHTM's classroom. Concerns around non-white students, a majority of whom came from Britain's colonies in Asia and Africa, treating and learning about tropical diseases on white patients were raised and discussed by senior members of staff at the School in the late 1920s. This is yet another illustration of the LSHTM as a conduit through which racism and white supremacy, which existed in their most comprehensive forms in the (settler) colonies of the British Empire, shaped the experience of students of colour at the School back in Britain. A great number of staff at the LSHTM were recruited from among its student body, however until the late 1940s and 50s this never included students of colour. LSHTM remained a professional environment almost exclusively reserved for white men. The segregation of white and non-white students in clinical settings and the racially discriminatory pipeline were paralleled by diminished career opportunities for students of colour outside the School. Linked to the creation of the LSTM, the Colonial Office's newly formed West African Medical Staff, which had been set up as a career pipeline for student from LSHTM, excluded applicants of non-European origin.

3. Staff at LSHTM propagated ideas of racial hierarchy

Relatedly, and especially in the pre-Second War period, members of staff at the School also treated racial differences as biologically and genetically grounded. This becomes apparent in the research they conducted, the papers they wrote, and the speeches they gave. Ideas around racial difference and the inherent superiority of white Europeans were often used to justify the School's existence. Whiteness was explicitly associated with mental efficiency, productivity, objectivity, and scientific rigour and seen as a necessary factor in the social and economic development of the colonies. Senior members of staff argued publicly that colonised populations were inferior, both physiologically and mentally, to white Europeans.

Then, as in the earlier periods of LSHTM's work, environmental disease factors and vectors were analysed in conjunction with biological conceptions of colonised populations as *racial others*. These racial others both biologically and by virtue of the 'diseased climates' in which they lived, were seen as demonstrating lower levels of productivity than white people. Tropical medicine was seen as a potential remedy to this 'problem'. Rather than seen as an anti-colonial strategy, both low productivity and the avoidance or boycotting of labour on the part of indigenous populations forcefully integrated into the political economy of Empire were seen as biological traits of non-white races. With time, biological understandings of race gave way to cultural interpretations and a focus on behavioural change. This became especially apparent with the advent of nutrition as a scientific discipline and its inclusion in the School's research and teaching schedule in the 1940s. The idea that colonised or newly independent populations needed to undergo behavioural change to achieve better health and the notion that *races* are biologically or genetically grounded continues to pervade health thinking in the present (see for instance Saini, 2019).

Racism and a belief in white supremacy – the inherent and biological superiority of white people and the creation of an inferior racial other – were common traits of both colonial and medical officials and practitioners at the beginning and in the first half of the 20th century. These beliefs circulated through the School and, by way of the School's role as a training ground for colonial medical officers, circulated through the British Empire. LSHTM was not the birthplace of medical racism, nor did it invent eugenics, but at a time when anti-colonial sentiments gained traction both in the colonies and in London itself, it did nothing to counteract the damaging effects of colonialism and white supremacy on the health and living conditions of colonised populations. On the contrary, the School's management, from its creation in 1899 to at least the end of the Second World War, embraced these discourses and gave them a platform. The School was uncritical in its encounter with racist pseudoscience and, when fashionable, integrated them into their teaching and research. In doing so, it belied its own commitment to scientific objectivity and made room for the politicisation of medical sciences. At LSHTM, medical sciences and health sciences more generally have always been linked to political motifs and have been used to further the government's agenda. This conformist attitude benefitted LSHTM throughout the colonial period, but also made it complicit in colonial exploitation, the violent subjugation of colonised populations, and the entanglement of medicine with racism and social hygiene.

This report offers a glimpse into the complex and varied ways in which the School has profited from and furthered British colonialism. However, it needs to be understood as exactly that: a glimpse, not a complete account of the School's colonial history. Such an account would take much more time and resources than were afforded to this project. The power of transformation and the ways in which subtle language changes work to obscure historical continuities with the present is just one area deserving of further attention and research. What this report does is establish an important baseline for future research. It reveals the importance of historical consciousness for an understanding of the present and elucidates the power of past injustices in shaping the present-day. History rarely simply rests in the past. It shapes how we understand and experience the present and holds us accountable if we listen carefully. For an institution such as the LSHTM, this means confronting the continuity of colonial dynamics and hierarchies and the ways in which they shape the workings of the School today.

11. Acknowledgements

We would like to express our sincere gratitude to the Advisory Committee for the advice, encouragement and support they gave to the authors, both during the early planning stages of the report and in their reviews of the first draft. We also sincerely thank our two anonymous peer reviewers for their detailed reports on that draft. Responsibility for the final text rests with the authors.

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We would also like to thank the Internal Advisory Group for the support they have provided throughout the conduct of the work, including reviewing and commenting on multiple drafts.

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GB 0809 Admin/05/01	Photographs of LSHTM School Association's annual dinner 1952-1953
GB 0809 Admin/06/03-14	Material regarding legacies left to the School: papers of wills, bequests, trusts and a register of bequests.
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GB 0809 Balfour/01	Balfour, Sir Andrew (1873-1931): Lectures, addresses, manuscripts, papers and speeches on tropical disease and hygiene and related topics 1916-30s
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GB 0809 Depts/25/05	Correspondence and papers regarding the acquisition and maintenance of archival material held within the School library.
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