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An education in empire: Tropical medicine, Australia and the making of a worldly doctor

When Raphael Cilento was a student at the London School of Tropical Medicine in 1922, his classmates included British colonial officers, indigenous members of the Indian Medical Service, missionaries and doctors from Europe and the United States. In August of the previous year, he had represented Australia at the Far Eastern Association of Tropical Medicine (FEATM) in Batavia, where delegates from across Asia gathered to share and discuss medical research and public health practice in the region. His presence there came after the nascent Commonwealth Department of Health (CDH) had offered him a position in Australia while he was working as a medical officer in the British colonial service in the Federated Malay States. His work there was the fruit of his own initiative, having responded to vacancies for medical officers advertised in medical journals such as *The Lancet*. Cilento's introduction to tropical medicine and the cultivation of his professional identity thus depended on a network of British colonies and imperial institutions. It also illustrates how individuals could travel across these connections in many different ways.

A wide variety of people participated in these imperial exchanges, but Cilento's mobility reflected and sharpened his sense of emerging Australian nationhood. After gaining a medical degree in 1918, his first experience of tropical health practice came in the former German colony

of New Guinea, which Australian forces had occupied since 1914. These new colonial responsibilities in the Pacific and Australia's relationship to Asia became central to Cilento's nationalism. World War I seemed to have shattered impressions of European superiority, amplifying old fears about population growth and anticolonial agitation in Asia.¹ This was highly relevant to Australia, where the settlement and development of the tropical north had been slow and, to some, remained impossible with white labour. Local and international observers argued that if white Australians could not make progress in the tropics, it was immoral for racial immigration restrictions to prevent the redistribution of people from areas of high density to the less populous spaces of the globe. War, in fact, would, in their view, be the inevitable outcome of restrictions such as the White Australia Policy.² Cilento was well aware of these discourses as he travelled the world for his studies. In contrast to pacifist calls for a redistribution of population, Cilento embraced the opposing determination to maintain global white supremacy and preserve settler societies as white men's countries.³ In this way, Cilento presented tropical hygiene as one of the foundations of a white Australia.

An Italian–Australian patriot

One of the earliest entries in Raphael Cilento's medical school diary consisted of verses submitted to a national song competition, which he might have seen reported in Adelaide's *The Advertiser*.⁴ Held in 1913 under the auspices of the Musical Association of New South Wales, the competition offered £100 to the winner and ultimately received 722 entries. Professor Thomas G. Tucker from the University of Melbourne and Mungo William McCallum of the University of Sydney acted as

1 See, for example, Lothrop Stoddard, *The Rising Tide of Color Against White World-supremacy* (New York: Charles Scribner's Sons, 1921), p. 16. See also Michael Adas, 'Contested Hegemony: The Great War and the Afro-Asian Assault on the Civilizing Mission,' *Journal of World History*, 15(1), 2004, pp. 31–63; Mazower, *No Enchanted Palace*, pp. 34–6.

2 Sean Brawley, *The White Peril: Foreign Relations and Asian Immigration to Australasia and North America 1919–1978* (Sydney: UNSW Press, 1995), p. 12; Alison Bashford, 'Nation, Empire, Globe: The Spaces of Population Debate in the Interwar Years,' *Comparative Studies in Society and History*, 49(1), 2006, pp. 173–5; Alison Bashford, 'World Population and Australian Land: Demography and Sovereignty in the Twentieth Century,' *Australian Historical Studies*, 38(130), 2007, pp. 217–20.

3 See especially J. W. Gregory, *The Menace of Colour* (London: Seeley Service & Co. Ltd, 1925), pp. 150–60.

4 *The Advertiser*, [Adelaide], 1 August 1913, p. 8.

judges.⁵ The winning entry was submitted by Sydney resident Arthur H. Adams and described the land as ‘God’s demesne’—a ‘vast ... heritage ... splashed with sun and wattle gold’. To achieve its potential and secure it for ‘our race’, Adams wrote, required courage.⁶ Adams was actually born in New Zealand, studied in Otago and served as a war correspondent during the Boxer rebellion in China.⁷ Racial subjectivities thus tended to spill over national political boundaries in the British Empire.

The promise and beauty of the land were nevertheless prominent themes in Australian cultural nationalism. Sun and wattle were common symbols of the nation’s health and wealth. It was important, wrote one *Herald* correspondent, that the winning song ‘awaken patriotic fervour, and become the national air’.⁸ A spokesman for the Musical Association acknowledged that, insofar as Australia was a part of the British Empire, there was already a national anthem, but he argued that there was still a need for an ‘Australian song, vital with hope, exhortation, and patriotism’ that would reflect ‘the energy of new ideas and new enthusiasms that may lead this youngest of nations to a great and glorious future’.⁹ Youth, health, energy and progress were thus all central to a nationalism that many expected and desired in Australia.

Much like Adams’s, Cilento’s verses evoked the promise of the land, the progressive work of the rural pioneer and the imagined classlessness of Australian society. In lines that echo the present national anthem, he celebrated Australia as ‘Neptune’s dimpled daughter fair/By azure oceans all embraced’ and blessed with a ‘thousand novel beauties’. The squatters ‘riding through their fields’ and the miners in their ‘clayey claims’, both of whom were striving to colonise and develop this land, were ‘brothers, when abreast they stand/to guard their fair Australian land’. These twin themes of national development and defence, and the relationship of the people to the nation-state, would become central to Cilento’s work in public health. Referencing Henry Parkes, he proclaimed that the ‘crimson thread of kinship’ bound ‘Australia’s welfare unto all’, from bushmen to statesmen.¹⁰ One might suppose, given his pennilessness at the time, that

5 *Sydney Morning Herald*, 2 August 1913, p. 13.

6 *The Argus*, 20 November 1913, p. 8.

7 *The Advertiser*, [Adelaide], 20 November 1913, p. 15.

8 *Sydney Morning Herald*, 21 November 1913, p. 11.

9 *Sydney Morning Herald*, 13 September 1913, p. 7.

10 Raphael Cilento, Diary: Medical School, September 1913 – October 1914, 30 September 1913, Cilento Papers, UQFL44, Box 11, Item 16.

he may have entered the competition simply in the hope of winning the prize money. Yet Cilento's diary betrays the real fervour of his nationalism. Travelling by rail to work as a fruit picker in Renmark near the Victorian border, he described the sunset:

From one dark cloud the beams fell on the quiet earth gently as a benison, and those long golden fingers seemed to touch with tender hope the face of this new and virgin land.¹¹

Richard Waterhouse has noted that representations of the bush in the twentieth century similarly eschewed an earlier nostalgia and willingness to recognise the history of Indigenous dispossession in favour of a more triumphal emphasis on potential and progress that elided social stratification. Waves of strikes and labour militancy had marked the 1890s and persisted well after federation of the colonies. The creation of a new Commonwealth and the establishment of a legal framework to harmonise relations between labour and capital belied entrenched class-consciousness.¹² The Australia that Cilento imagined in his song was thus emptied of Indigenous voices and of class struggle.

The song competition was one small manifestation of nation-building among all the social legislation, economic development and cultural production in the years after Federation in 1901. As prime minister, Alfred Deakin committed the Commonwealth to constructing an Australian navy and instituting compulsory military training.¹³ Federal parliaments produced a raft of progressive social legislation, including old-age and invalid pensions and a maternity allowance. The Commonwealth Arbitration Court, created under the supervision of liberal political figures such as Deakin, Charles Kingston and High Court Justice H. B. Higgins, was designed to determine a living wage and arbitrate in industrial disputes.¹⁴ The state also took a prominent role in developing industries, as in the case of the Newcastle steelworks of Broken Hill Proprietary Company Limited (BHP).¹⁵ All these measures in economic

11 Cilento, Diary: Medical School, 24 December 1913, Cilento Papers, UQFL44, Box 11, Item 16.

12 Richard Waterhouse, *The Vision Splendid: A Social and Cultural History of Rural Australia* (Fremantle, WA: Curtin University Press, 2005), pp. 90–2.

13 Richard White, *Inventing Australia: Images and Identity, 1688–1980* (Sydney: Allen & Unwin, 1981), p. 114; Evans, “Pigmentia,” p. 106.

14 Stuart Macintyre, *The Oxford History of Australia: The Succeeding Age, 1901–1942. Volume 4* (Melbourne: Oxford University Press, 1986), pp. 101–2; Stuart MacIntyre, *A Concise History of Australia* (Cambridge: Cambridge University Press, 1999), pp. 150–1.

15 White, *Inventing Australia*, p. 115.

development, security and social welfare were part of a largely middle-class, liberal project of creating a progressive nation-state that obscured persistent class-consciousness and conflict in Australia.¹⁶ Beyond legislative and industrial measures, a cultural nationalism rooted in the middle class flourished in this time, drawing especially on environmental and Aboriginal imagery. Native flowers and animals, as well as boomerangs and the call of ‘Cooee’, for example, featured prominently in literature, art and advertising. Depictions of the land emphasised its beauty, fecundity and wholesomeness and thus the promise of Australia—exemplified in articles and images published in *The Bulletin* and *Lone Hand*, and in social movements such as the Wattle Day Leagues that emerged after 1909.¹⁷

Progressive Australian nationhood was ideologically conditional on racial purity and improvement, but in ways that underscore an emerging sense of transnational racial kinship binding white settler nations in solidarity.¹⁸ The arrival of Chinese migrants in the western United States and Australia in the 1840s and 1850s led to sustained agitation for immigration restrictions from the labour movement, academia, the media and politicians on both sides of the Pacific. The goldfields were the primary attraction for immigrants, but Chinese merchants also established businesses, married local women and aspired to residence. This was a tiny fraction of a much larger story of migration in the nineteenth century, when 50 million Chinese and 30 million Indians travelled for work, business or education. Most of these people went to South-East Asia through imperial systems of indentured labour, but many travelled freely to North America and Australia within the framework of the British Empire or international treaty obligations.¹⁹ The surge in Chinese migration to California and Victoria in the 1850s, however, was met with growing hostility that manifested in discriminatory taxes on miners and mob violence.²⁰

16 *ibid.*, p. 114.

17 *ibid.*, pp. 117–23.

18 *ibid.*, pp. 112–14; Michael Roe, *Nine Australian Progressives: Vitalism in Bourgeois Social Thought, 1890–1960* (Brisbane: University of Queensland Press, 1984), p. 19; Helen Irving, *To Constitute a Nation: A Cultural History of Australia's Constitution* (Cambridge: Cambridge University Press, 1997), p. 100.

19 Patrick Manning, *Migration in World History* (New York: Routledge, 2005), pp. 146–9; Lake and Reynolds, *Drawing the Global Colour Line*, pp. 20–30; McKeown, *Melancholy Order*, pp. 48–58.

20 Charles A. Price, *The Great White Walls Are Built: Restrictive Immigration to North America and Australasia 1836–1888* (Canberra: Australian Institute of International Affairs/Australian National University Press, 1974), pp. 61–9.

This was an important moment in the emergence of new and explicit racial identities and assertions of national sovereignty. As Marilyn Lake and Henry Reynolds have shown, the commitment to freedom of movement embodied in British and American treaty arrangements with China clashed with a powerful sense of national democratic sovereignty emerging in white settler-colonial societies such as the United States and the Australian colonies.²¹ Governments and newspapers in California and the Australian colonies observed each other closely for precedents and inspiration in the ideology and legislative practice of immigration restriction. Migration, moreover, encouraged the emergence of ‘white’ as an explicit transnational subjectivity, in which assumptions about the racial basis of the capacity for self-determination implied an inalienable national sovereignty. Labour movements in the United States and elsewhere were beginning to reimagine work in terms of rights and individual self-rule. Asians, it was said in both California and Australia, were collectivist, servile and accepted wages and working conditions that undermined white livelihoods.²² Whiteness, in other words, came to mean independence and the capacity to participate in representative democracy.

Liberal political discourse similarly saw racial unity as the condition for peaceful democracy, and the architects of the legal, social and cultural frameworks of Australia were a part of this tradition. Academic and political proponents of this view in Britain, America and Australia cultivated strong personal connections and shared ideas about the racial foundations of democratic self-determination and its institutions. Oxford fellow James Bryce had strong ties to the United States and was prominent in identifying the roots of social problems and conflict in racial heterogeneity.²³ Deakin and Higgins shared similar personal connections and identified strongly with American democracy and republicanism.²⁴ These were powerful influences on the men who did much to shape the political, legal and social character of post-Federation Australia. In the 1880s and 1890s, the Australian colonies passed legislation that explicitly restricted Chinese entry, while there had been similar efforts in the United States and Natal. Australian colonial legislation was sometimes explicitly racial, such the Alien Restriction Bill introduced to New South Wales in 1896.

21 Lake and Reynolds, *Drawing the Global Colour Line*, pp. 26–7.

22 McKeown, *Melancholy Order*, pp. 69–72.

23 *ibid.*, p. 54.

24 *ibid.*, pp. 41–2.

The Colonial Office in Britain was uneasy with the explicit racism of this legislation, being anxious to protect commercial interests in China and honour the Anglo–Japanese treaty of 1895. They also remained committed to ideals of free movement within the empire. In 1896, a proposed US Immigration Restriction Act failed to pass, while another such Bill became law in Natal. Both of these relied on the mechanism of a literacy test, which required immigrants to write out a passage in a given language to demonstrate their desirability or otherwise. This mechanism appealed to the Colonial Office, since the literacy criteria avoided the explicitly racial discrimination that angered China and Japan while still satisfying settler interests.²⁵ The New South Wales Alien Restriction Bill, now based on the Natal literacy test at the suggestion of the Colonial Office, was passed in 1897 as the *Coloured Races Restriction and Regulation Act*.²⁶ By the time of Australian Federation, the principles and strategies of racial exclusion had thus been refined.

Immigration restrictions and the deportation of Pacific Islanders were high priorities in the early sessions of the Commonwealth Parliament. Higgins, while debating the Pacific Island Labourers Act as a Commonwealth Member of Parliament (MP), claimed: ‘There are no conditions under which degeneracy of race is so great as those which exist when a superior race and an inferior race are brought into close contact.’²⁷ In this he echoed Bryce’s observations on the United States and, like Deakin, warned of the need to protect Australian democracy against the supposedly degrading influence of multiracial societies.²⁸ The White Australia Policy, embodied particularly in the *Immigration Restriction Act* (1901) and the *Pacific Island Labourers Act* (1901), became the dominant ideology across the political spectrum, and remained so until the 1960s.²⁹

Cilento’s subjectivity was more complex than the typical Protestant, imperial and Anglo-Saxon loyalties inscribed in the texts of Australian nationalism.³⁰ His grandfather Salvatore Cilento arrived in Adelaide in 1855, having taken part in revolts against King Ferdinand II in 1848. This familial connection to Italian language and history was an emotionally

25 *ibid.*, pp. 129–31.

26 Walker, *Anxious Nation*, p. 75.

27 H. B. Higgins quoted in Marilyn Lake, ‘White Man’s Country: The Transnational History of a National Project,’ *Australian Historical Studies*, 34(122), 2003, p. 360.

28 See also Lake and Reynolds, *Drawing the Global Colour Line*, pp. 142–52.

29 See Brawley, *The White Peril*, pp. 297–8.

30 White, *Inventing Australia*, p. 112.

powerful one that sometimes served to compensate for his social marginalisation. In his second year in medical school, Cilento confessed to feeling that his once friendly classmates now regarded him, 'in the cheap delirium of 1st year success', as a 'parvenu'.³¹ As if to reassure himself, he imagined a patrician Etruscan lineage that he must honour in Australia:

[H]ere our name is now implanted. Mine let it be to enwreath it with glory! Mine let it be to hand on to my children (if I am so blessed) brilliant with achievement, resplendent with honours.

On the death of his grandfather, Cilento lamented how his passing cut 'the bond that united us to Italy' and, noting his father's impending overseas journey, prophesied: 'So will I one of these days leave my adopted land to walk on the soil of my Etruscan ancestors.' This identification put Cilento at odds with the more extreme expressions of the White Australia Policy. The British Immigration League, for example, opposed the migration of Southern European labourers, and Cilento himself was well aware in later years of prejudice against Italians in north Queensland.³² That Cilento would remain one of the most vociferous advocates of the ideal of white Australia shows he was able to accommodate his Italian identity within a predominantly Anglo-Saxon racialist nationalism.

Tropical medicine and the circuits of empire

As dominant as the white Australia ideology was, centuries of experience elsewhere in the tropics seemed to rule out permanent European settlement in the north of the country. British colonisation in the Caribbean, India and West Africa from the mid-eighteenth century generated a corpus of medical knowledge about sickness and health in warm climates. According to naval surgeons, soldiers, explorers and traders, anyone displaced from the climate that had shaped their constitution would likely fall ill. This view rested on ancient Hippocratic and Galenic theories in which health depended on the correct balance of bodily fluids, or humours, as well as the knowledge that the tropics were home to all manner of influences that

31 Cilento, *Diary: Medical School*, 6 March 1914, Cilento Papers, UQFL44, Box 11, Item 16.

32 Walker, *Anxious Nation*, pp. 116–17. See Raphael Cilento to Phyllis Cilento, 7 July 1929 and 12 July 1929, Cilento Papers, UQFL44, Box 11, Item 21. It is also worth noting that Italians and other southern and eastern European people were the chief objects of late nineteenth- and twentieth-century immigration restriction legislation in the United States; see Lake and Reynolds, *Drawing the Global Colour Line*, p. 129.

might upset this balance. Increased sweating in the heat might disorder certain organs, while the abundance of plant life and swamps produced sickly vapours, or miasmas. The injunction to build European outposts on high ground away from swamps and in cooler temperatures became a universal mantra of the texts on hot-climate medicine.³³

The experience of tropical settlement in Australia seemed to confirm this conventional wisdom. Dysentery and unspecified fevers forced the abandonment of three separate military outposts on the Cobourg Peninsula and Melville Islands between 1827 and 1849. The settlement at Moreton Bay also struggled with disease in the late 1820s. Physicians attributed these outbreaks to climate for the most part, although cultivation of the land at Moreton Bay seemed to promise healthier conditions if settlers could overcome the initial fever shock. Yet even after squatters moved their sheep on to the Darling Downs and Brisbane attracted more free settlers in the 1840s, climate still seemed a barrier to the settlement of a large working population.³⁴ Visitors to Queensland after its separation from New South Wales in 1859 declared that white occupation and development of the colony would depend on non-white workers. The Queensland sugar industry indeed began importing indentured labourers from the Pacific Islands. These workers, numbering nearly one-third of the Queensland population, had established more than 24,000 hectares of sugar cane by 1900.³⁵ Even as medical thought drifted away from older climatic theories, doctors, travellers and residents continued to represent the tropics as having a distinctive, racially attuned pathology.³⁶ Although many in the Australian tropics were alert to the presence of bacteria and parasites after 1890, they were convinced the tropical climate had cultivated a unique community of pathogens to which settlers would be especially vulnerable.³⁷

33 James Lind, *An Essay on Diseases Incidental to Europeans in Hot Climates: With the Method of Preventing their Fatal Consequence*, 5th edn (London: J. Murray, 1792); James Johnson, *The Influence of Tropical Climates on European Constitutions*, 2nd edn (London: T. & G. Underwood, 1818). See also Philip D. Curtin, "'The White Man's Grave': Image and Reality, 1780–1850," *The Journal of British Studies*, 1(1), 1961, pp. 94–110; Mark Harrison, *Climates and Constitutions: Health, Race, Environment and British Imperialism in India, 1600–1850* (Delhi: Oxford University Press, 1999); Ryan Johnson, 'European Cloth and "Tropical" Skin: Clothing Material and British Ideas of Health and Hygiene in Tropical Climates,' *Bulletin of the History of Medicine*, 83(3), 2009, pp. 536–8.

34 Anderson, *The Cultivation of Whiteness*, pp. 76–8.

35 *ibid.*, p. 79.

36 *ibid.*, pp. 73–5.

37 *ibid.*, pp. 83–4.

The growing dominance of germ theories of disease nevertheless meant that nationalist public health officials could begin to argue that there were no climatic barriers to white Australia. J. S. C. Elkington, the Public Health Commissioner in Tasmania, declared in a 1905 polemic that all previous warnings about tropical climate, sickness and deterioration were unfounded. Around the words 'tropical' and 'climate', he wrote, had been 'woven a tissue of incorrect inferences, of superstitions, and of prejudices'.³⁸ Instead of inevitable degeneration, permanent settlement of the tropics was possible with the careful design and application of sanitary regulations, improved infrastructure and hygiene education. Improvements in army sanitation were a clear example, Elkington argued, of how 'the formulation and observation of sanitary laws, and the adoption of a more reasonable manner of living' could ensure health anywhere.³⁹ James Barrett, a prominent figure in the Melbourne medical community, asserted in 1918:

The people of Australia are ... realising that the proper use of their northern possessions is vital to national existence, since we are quite unable to keep a valuable part of the earth's surface idle.⁴⁰

Like Elkington, Barrett claimed that the primary cause of sickness among Europeans in the tropics was not climate but infectious diseases, 'which may be almost completely suppressed if certain precautions are taken'.⁴¹ The emphasis here on legislation and individual knowledge and behaviour reflects how a shift in medical discourse from climate to microbe and hygiene made health a matter of 'modern citizenship'.⁴² Barrett's and Elkington's comments exemplify this shift, not least in the latter's suggestion that alcoholism was a more important factor in sickness in the tropics than climate.⁴³

Elkington was one of many who called for more direct scientific investigation of white health in the tropics. The deportation of indentured labourers under the *Pacific Island Labourers Act* (1901) had necessitated

38 J. S. C. Elkington, *Tropical Australia: Is It Suitable for a Working White Race?* (Melbourne: Commonwealth of Australia, 1905), p. 4.

39 *ibid.*, p. 4.

40 James W. Barrett, *The Twin Ideals: An Educated Commonwealth. Volume II* (London: H. K. Lewis & Co., 1918), p. 283.

41 *ibid.*, p. 281.

42 Warwick Anderson, 'Geography, Race and Nation: Remapping "Tropical" Australia, 1890–1930,' *Historical Records of Australian Science*, 11(4), 1997, p. 458.

43 Elkington, *Tropical Australia*, p. 5.

white labourers in sugar production when doubts still lingered over whether they could do such work in the tropics.⁴⁴ The establishment of the Australian Institute of Tropical Medicine (AITM) in 1910 was a response to these doubts. Initially administered by the University of Sydney, the institute had financial support from the Commonwealth and Queensland governments and the endorsement of the universities of Melbourne and Adelaide. In his first survey report as the AITM's director, Dr Anton Breinl, formerly of the Liverpool School of Tropical Medicine, reiterated the fundamental question: 'Is the white man able to stand the strain of cutting cane in the tropical parts of North Queensland without having his health permanently injured?' It was, he wrote, a question of 'vital importance for the development of the sugar industry in North Queensland' and for the 'White Australia question generally'.⁴⁵

The imperative of claiming the newly defined and bounded space of the nation through white settlement shaped the work of the institute for the rest of its existence, although its technical work shifted over time.⁴⁶ Breinl and his staff focused on two broad research agendas: studies of the common parasites and insects of northern Australia and investigation of the effect of climate on the physiology and physical development of white people in the tropics. The latter included measurement of the body temperature of Queensland dockworkers and the blood composition of white schoolchildren.⁴⁷ The 1911 Australasian Medical Congress had resolved to review the results of the institute's research at its next meeting in Brisbane, which did not occur until 1920.⁴⁸ With the weight of the institute's positive research results and wartime statistics on the fitness of Queensland recruits behind them, nationalist health officials at the 1920 congress seized the moment to assert that there were no inherent barriers to 'the permanent occupation of tropical Australia by a healthy indigenous white race'.⁴⁹

44 Lorraine Harloe, 'Anton Breinl and the Australian Institute of Tropical Medicine,' in Roy MacLeod and Donald Denoon (eds), *Health and Healing in Tropical Australia and Papua New Guinea* (Townsville, QLD: James Cook University, 1991), p. 35.

45 Anton Breinl, *Tropical Diseases: Report by Dr Breinl, Director of the Australian Institute of Tropical Medicine, Townsville, on the Results of his Journey to the Northern Ports of Queensland* (Melbourne: Commonwealth of Australia, 1910), p. 2.

46 Bashford, "'Is White Australia Possible?'" pp. 253–4.

47 Australian Institute of Tropical Medicine, *Collected Papers* (Townsville, QLD: Australian Institute of Tropical Medicine, 1914–30). See also Anderson, *The Cultivation of Whiteness*, pp. 117–18.

48 *Transactions of the Australasian Medical Congress*, 9, 1911, p. 122.

49 *Transactions of the Australasian Medical Congress*, 11, 1920, p. 45.

This official declaration belied the continuing—and now dissenting—belief among local practitioners that the climate of the Australian tropics was unhealthy for white settlers, particularly women and children.⁵⁰ Dr Richard Arthur accused the subcommittee that drafted the congress resolutions of being overly committed to the political ideal of racial purity.⁵¹ When the Yale University geographer Ellsworth Huntington visited north Queensland in 1923, he heard the ‘chorus of praise’ for the health of the Australian tropics, but saw in the poor condition of some homes an ‘undertone’ telling of the effect of the tropics on the standards of the community.⁵² These criticisms did not dent the confidence of the nationalist cohort. J. H. L. Cumpston, the Director of the Commonwealth Quarantine Service and future Director-General of the CDH, argued that high rates of infestation by filarial worms in Queensland were what impeded economic development in the Australian tropics. ‘It is all very well to have a white Australia,’ he cautioned, ‘but it must be kept white. There must be immaculate cleanliness.’⁵³ As Anderson has noted, the promoters of tropical settlement demanded not only the exclusion of contaminating aliens, but also the positive cultivation of a fit white race behind the *cordon sanitaire*.⁵⁴ In this way, health officials positioned hygiene as a key element in racial and national fitness.

As director of the AITM in the 1920s, after it had come under the control of the CDH, Cilento became the most vocal evangelist for tropical settlement and the fulfilment of a white Australia. His 1926 book, *The White Man in the Tropics*, outlined a complete hygiene program for white settlement, ranging from housing to food, clothing, exercise and leisure.⁵⁵ Australian tropical medicine was thus engaged in a national social project. Yet Cilento’s introduction to tropical medicine, and his articulation of Australian nationhood, took place within larger imperial contexts. His formal training came through an international network of imperial medical institutions that had developed since the late nineteenth century. His experience of Australian colonial government in New Guinea

50 *ibid.*, pp. 54–8.

51 *ibid.*, p. 60.

52 Ellsworth Huntington, *West of the Pacific* (New York: Charles Scribner’s Sons, 1925), pp. 340–1.

53 *Transactions of the Australasian Medical Congress*, 11, 1920, p. 49.

54 Anderson, *The Cultivation of Whiteness*, p. 94.

55 Yarwood, ‘Sir Raphael Cilento and *The White Man in the Tropics*,’ pp. 47–63; Bashford, ‘“Is White Australia Possible?”,’ pp. 248–71; Anderson, *The Cultivation of Whiteness*, pp. 135–52.

also played a crucial role in the way he formulated the agenda of tropical medicine. For Cilento, the national significance of tropical hygiene for Australia indeed derived from political and social transformations across empires in Asia and the Pacific.

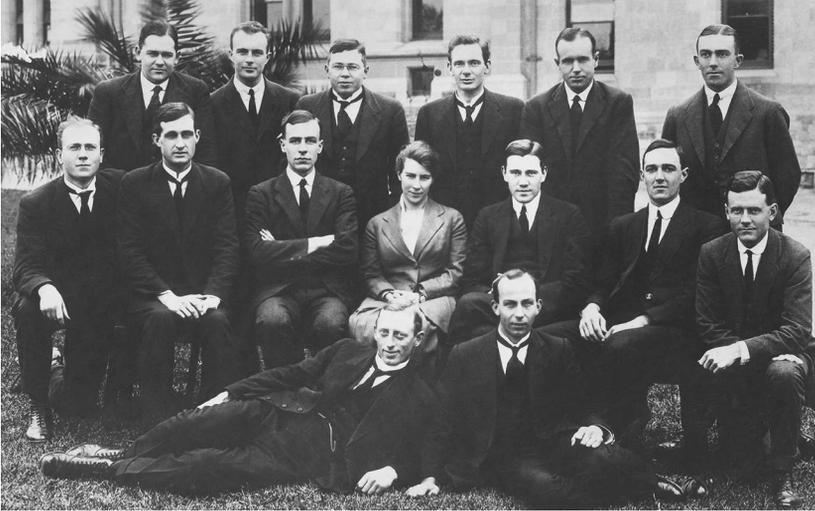


Plate 1.1 Raphael Cilento and other graduates from the Faculty of Medicine, University of Adelaide, 1918

Cilento is third from the right in the back row. Phyllis McGlew, his future wife, is in the centre of the picture.

Source: Courtesy of the University of Adelaide Archives, Series 1151, No. 196.

There was little indication in Cilento's early education that tropical medicine would define him. He studied for his medical degree at the University of Adelaide, where his lack of prerequisite science subjects made admission a real challenge. His father, who had encouraged him to do law, refused to fund a medical education, forcing Cilento to work as a trainee teacher, fruit picker and newspaper writer while studying for exams. He was fortunate to win a state bursary for his first year, when academic success led to a scholarship that funded the rest of his studies.⁵⁶ The curriculum was a basic one, covering anatomy and bacteriology, the

⁵⁶ 'Interview with Sir Raphael Cilento, Tropical Medicine Specialist,' Interview by Mel Pratt, Transcript, 7 March 1971, pp. 7–8, National Library of Australia [hereinafter NLA], Canberra. See also Fisher, *Raphael Cilento*, pp. 7–10; Mark Finnane, 'Cilento, Sir Raphael West (Ray) (1893–1985),' Australian Dictionary of Biography. Online Edition (Canberra: The Australian National University, 2006), available from: www.adb.online.anu.edu.au/biogs/A170212b.htm.

preparation of slides, the use of microscopes and drawing.⁵⁷ It was thus a world away from the colonial administration and social medicine that were to become his career and professional identity.⁵⁸

Historians often trace tropical medicine as a distinct academic and professional discipline to about 1898 with the founding of schools of tropical medicine in London and Liverpool and the start of American territorial expansion in the Philippines, Cuba and Puerto Rico. The rush of bacteriological and parasitological discoveries after the 1870s, including the identification of insect vectors, led imperial governments to invest more in medical knowledge and trained personnel at the turn of the century. There were thus new career opportunities for young doctors. Much of the knowledge of bacteria and parasites had in fact developed in colonial contexts before major institutions of tropical medicine existed. Patrick Manson, the founding head of the London School of Tropical Medicine, conducted his research on the transmission of filarial worms at the Chinese treaty port of Amoy while a member of the Imperial Maritime Customs Service in the 1860s and 1870s.⁵⁹ Alphonse Laveran identified the malaria parasite *Plasmodium* in French Algeria in 1880.⁶⁰ Ronald Ross discovered the mosquito vector of the malaria parasite in India after consulting with Manson on a return visit to England in the 1890s. Mark Harrison has suggested that tropical medicine in India actually developed separately from the wider British Empire through local responses to plague epidemics in the 1890s.⁶¹

The eventual establishment of the schools of tropical medicine in Liverpool and London reflected growth of research across the British Empire. The London school trained students from a wide variety of backgrounds, not just those destined for colonial service.⁶² The second cohort of students at the London school included three missionary women heading to India and China. In fact, missionaries continued to make up a proportion of the

57 Medical School Notes, Cilento Papers, UQFL44, Box 11, Item 16.

58 'Interview with Sir Raphael Cilento,' p. 11.

59 Douglas M. Haynes, *Imperial Medicine: Patrick Manson and the Conquest of Tropical Disease* (Philadelphia: University of Pennsylvania Press, 2001), pp. 18–20.

60 Warboys, 'Manson, Ross, and Colonial Medical Policy,' p. 24.

61 Harrison, *Public Health in British India*, p. 150.

62 Heather Bell, *Frontiers of Medicine in the Anglo-Egyptian Sudan 1899–1940* (Oxford: Clarendon Press, 1999); Michael Worboys, 'The Colonial World as Mission and Mandate: Leprosy and Empire, 1900–1940,' *Osiris*, 15, 2000, pp. 207–18.

student body.⁶³ A significant number of Indian students also studied at the school, as the Indian Medical Service increasingly included indigenous personnel in public health work and laboratory research.⁶⁴

American tropical medicine at first developed within the US Army during the Spanish–American war and subsequent conflict with indigenous guerilla forces in the Philippines, Cuba and Puerto Rico.⁶⁵ As in previous conflicts, yellow fever and malaria contributed significantly to mortality among American troops. Yellow fever killed 15 soldiers a day during July 1898 in Santiago, Cuba.⁶⁶ In the Philippines, 700 soldiers died of disease between 1898 and 1900; 100 more than were killed in battle.⁶⁷ In response to these losses, the US Army’s surgeon general George Sternberg set up a number of research commissions for tropical diseases.⁶⁸ These studies fed back into public health campaigns aimed at cementing regional economic and cultural dominance, most famously in William Gorgas’s work in maintaining the health of workers building the Panama Canal. Research on yellow fever in Cuba had demonstrated that mosquitoes were responsible for transmitting the virus, and Gorgas subsequently deployed preventive measures in the canal zone based on those developed in Havana.⁶⁹ Interest and expertise in tropical medicine quickly spread beyond the Army Medical Corps. Doctors in Philadelphia founded the American Society of Tropical Medicine in 1903, and a few years later private funding helped to establish the School of Tropical Medicine at Tulane University in Louisiana.⁷⁰

As states began to recognise the value of medicine and hygiene, private contributions to imperial tropical medicine were also increasingly important. Indeed, much of the agenda, finances and institutions of colonial medicine and international health came from the health branch of the Rockefeller Foundation. The foundation’s International Health Commission, established in 1913, and successively renamed the International Health Board (IHB) and the International Health Division, had grown out of hookworm programs in the American South. John D.

63 Lise Wilkinson and Anne Hardy, *Prevention and Cure: The London School of Hygiene and Tropical Medicine—A 20th Century Quest for Global Public Health* (London: Kegan Paul, 2001), p. 10.

64 Harrison, *Public Health in British India*, p. 163.

65 Farley, *Bilharzia*, p. 31; Stern, ‘Yellow Fever Crusade,’ pp. 41–3.

66 Farley, *Bilharzia*, p. 36.

67 Anderson, *Colonial Pathologies*, p. 14.

68 Farley, *Bilharzia*, pp. 40–1.

69 Stern, ‘Yellow Fever Crusade,’ pp. 45–9.

70 Farley, *Bilharzia*, p. 43.

Rockefeller, Snr, had wanted to do philanthropic work since the 1890s and, in 1909, having already founded a research institute in New York, he established the Rockefeller Foundation. Its ambitious aims were to:

Promote the well-being and to advance the civilization of the peoples of the United States and its territories and possessions and of foreign lands in the acquisition and dissemination of knowledge, in the prevention and relief of suffering, and in the promotion of any and all of the elements of human progress.⁷¹

National, imperial and global spaces were thus all brought into the potential ambit of the foundation's aims.

Under the influence of Rockefeller's advisor Frederick Gates, medical research and public health became a special focus. The Sanitary Commission, created in 1909 under the direction of Wickliffe Rose to tackle hookworm in the southern United States, established a model public health campaign. It aimed to not only eradicate the disease in local areas, but also educate local authorities, general practitioners and the public in preventive hygiene through special lectures and exhibitions.⁷² In this way, they hoped to leave behind a health consciousness that would translate into more active public health activities and institutions. When Rose became the first director of the International Health Commission, he sought to export this model, especially throughout the British Empire. After dining with Colonial Office officials in London in 1913, Rose received permission to initiate projects in British Guiana, and was later invited to consider campaigns in Egypt, Ceylon and the Malay States.⁷³ British colonies were expected to be self-sufficient on tight budgets and so were reluctant to conduct significant public health campaigns on their own. Colonial medical officers thus tended to welcome Rockefeller funding as an opportunity to do something more ambitious.

As its policies developed, the commission's emphasis on education shifted towards establishing schools of medicine and hygiene around the world. After visiting potential locations at Harvard and Columbia, the commission selected Johns Hopkins Medical School as the site for its new School of Hygiene and Public Health. Although the prospective

71 John Farley, *To Cast Out Disease: A History of the International Health Division of the Rockefeller Foundation (1913–1951)* (Oxford: Oxford University Press, 2004), p. 3.

72 *ibid.*, p. 29.

73 *ibid.*, pp. 61–2.

school was supposed to train public health officers for America as a whole, tropical disease experience was clearly an important criterion.⁷⁴ The Johns Hopkins school became a model the Rockefeller Foundation exported to the rest of the world. In 1909, for example, the Oriental Education Commission stressed the need for a modern medical school in China, leading to Rockefeller funding and supervision of the Peking Union Medical College in 1915.⁷⁵ Rockefeller funding was also crucial in establishing the London School of Hygiene and Tropical Medicine in 1929.

Cilento eventually joined the flow of medical students and personnel through these institutional networks, yet only after he had experienced the tropics himself through Australia's occupation of New Guinea. Cilento recorded in his diary the ferment that gripped the medical school at Adelaide during World War I. 'Feverish activity characterises all', he wrote on 5 August 1914 after the British declaration of war: 'The medical students enthusiastically sang the "National Anthem" in the middle of a practical chem lecture. Excitement prevails.'⁷⁶ Cilento was a member of a rifle club at the time and received a notice of mobilisation, yet it was not until 1916 that he enlisted. Medical students were held back until the completion of their studies, however, and he only served for 45 days at a training camp at Murray Bridge, east of Adelaide. He again enlisted after completing his degree in 1918 and was posted as a captain with the Australian Naval and Military Expeditionary Force, a separate volunteer force that had occupied German New Guinea since 1914.⁷⁷ Cilento's first work as a qualified medical practitioner was thus as an army medical officer in what was to become an Australian colonial territory.

Cilento's first impressions of New Guinea excited his love of amateur ethnography and the blunt racism that was to shape his dealings with indigenous people in Melanesia and Australia. When Cilento's boat arrived at Rabaul, the German-built capital, in late December 1918, '[h]alf a dozen native boys, some copper coloured boys from New Guinea some jet black Buka boys, came aboard like big monkeys'. He recorded the clothes, the beaded and feathered decorations and hairstyles of these young men with fascination, before writing: 'Their faces are amiably murderous and their

74 Farley, *Bilharzia*, pp. 82–3.

75 *ibid.*, pp. 89–91.

76 Cilento, *Diary: Medical School*, 4 August 1914, UQFL44, Box 11, Item 16.

77 Australian Imperial Force Enlistment Form, 17 June 1918; Australian Imperial Force Enlistment Form, 13 December 1918, NAA: B2455, CILENTO R W.

mental development is about that of a child of 10.⁷⁸ In a fashion typical of New Guinea officials and residents, Cilento represented indigenous people as violent and lacking in Christian sympathy or kindness:

The natives are disgusting sometimes. This poor sick thing trembling here like a St. Vitus dance victim was an object of joy to the rest who nicknamed her 'gooria' (earthquake) and crowded around mimicking, laughing, pushing or spitefully teasing her.

In another story, a young boy of eight killed his ageing mother because she was a burden, leading Cilento to observe that 'filial love is not very obvious'.⁷⁹ His claims about indigenous inferiority thus swung between assertions of intellectual simplicity and inherent capacity for violence.

Violence was an official and casual feature of Australian military occupation in New Guinea, to which Cilento was sympathetic. By the time he arrived, however, officials in Canberra had begun to reform administration of the territory to ensure Australia avoided international censure.⁸⁰ Cilento was especially critical of a ban on flogging that took effect in 1919:

The natives are children of 10 years of age and they do not feel any punishment but a corporal one—the idea of putting them in prison (calaboose) is a farcical one.⁸¹

All that the ban achieved, he argued, was to drive violence on to the plantations, where planters would flog their employees 'viciously and secretly'.⁸² The sanctimony of Australian officials who wished to present an image of enlightened 'native administration' to the world was thus, he claimed, undermining the effective government and development of New Guinea. 'Heaven help New Guinea if we ever get the ruling of it', he wrote. 'Everyone here prays earnestly that any nation from Greenland to Timbuctoo shall get it rather than that Australia shall add it to her museum of wasted opportunities.'⁸³ For Cilento—developing a belief that was to run through his career—progressive government lay less in recognition and observance of rights than in authoritarian and disciplinary paternalism.

78 Raphael Cilento, *Diary: New Guinea*, 28 December 1918, pp. 9–10, UQFL44, Box 11, Item 17.

79 Cilento, *Diary: New Guinea*, 23 April 1919, p. 41, UQFL44, Box 11, Item 17.

80 Pedersen, *The Guardians*, pp. 135–6.

81 Cilento, *Diary: New Guinea*, 22 April 1919, p. 38, UQFL44, Box 11, Item 17.

82 *ibid.*, p. 39.

83 *ibid.*, p. 40.

Besides a handful of Europeans, Rabaul was home to significant Chinese, Japanese and Malay communities. The German New Guinea Company, which administered the colony until the German imperial government took control, had brought the Chinese to the territory as plantation labourers. By the time of the Australian occupation, many had worked as overseers, merchants, restaurateurs or businessmen for over a decade.⁸⁴ In colonial discourse, however, ‘coloured’ people were not all equal. The Ambonese living in the Chinese quarter, Cilento wrote, were ‘the best class of coloured people here and are well educated ... All are more or less skilled musicians, lighter skinned than the natives and many speak English, German, Dutch and Malay’.⁸⁵ Cilento thus assumed, as colonial discourse had elsewhere, racial hierarchies that distinguished between different ‘Asiatic’ peoples as well as between Europeans and others.

Europeans typically represented Chinese communities as especially unclean, and their bodies, dwellings and businesses as reservoirs of disease. The threat of contagion was often entwined with the degraded morality of opium dens and gambling. In Rabaul, Cilento would sometimes eschew the company of the officers to visit Chinatown. ‘Hollow-cheeked and hollow-eyed’, the denizens of one such establishment ‘lay about inert, only moving now and then to add another particle of the filthy treacle to the flame. The Gov. intends soon to stop the trade’. Asian businesses and social gatherings were not all loathsome, although Cilento took his racism everywhere. On one occasion, he dismissed an officers’ social gathering as a ‘cask-emptying’ stunt and instead visited a Japanese restaurant with a civilian acquaintance. Dinner was followed with a visit to a Malay dance, where the women were free to choose a partner:

You can easily imagine my feeling then when a black-eyed coquette danced up to me who all unsuspecting was enjoying the fun. Your poor Raphael revolved in the mazy waltz with a brown skinned fling! There was no escape.⁸⁶

The mixed society of a colonial town such as Rabaul was thus both grotesque and fascinating to the young man.

84 See Peter Cahill, ‘Chinese in Rabaul—1921 to 1942: Normal Practices, or Containing the Yellow Peril?’, *The Journal of Pacific History*, 31(1), 1996, pp. 72–3.

85 Cilento, *Diary: New Guinea*, 30 December 1918, p. 15, UQFL44, Box 11, Item 17.

86 Cilento, *Diary: New Guinea*, 31 December 1918, p. 17, UQFL44, Box 11, Item 17.

Cilento's responsibilities as an army medical officer were broad, including hospital work, examination of labourers and routine patrols. On Cilento's first full day, the principal medical officer showed him a few slides of the malaria parasite. For the rest of his stay in Rabaul, Cilento was confined to treating minor ailments in hospital and felt he was missing out on more interesting tropical diseases.⁸⁷ In March 1919, however, he was dispatched to Kavieng on New Ireland, which presented a much more interesting environment. At the hospital there, he treated cases of gonorrhoea, granuloma, syphilis, leprosy and goitre. He visited missions and local plantations to inoculate hundreds of indigenous labourers against influenza.⁸⁸ Medical officers also accompanied district officers on patrols that allowed some medical surveillance. Cilento noted in March that malaria would intensify and that 'many attempts at sanitation loom in my mental future'.⁸⁹ Years later, Cilento would reflect that this first fortuitous experience of working in medicine and public health in the tropics 'had set a pattern that was to govern my whole later life'.⁹⁰

Cilento left New Guinea in 1919 to marry his fiancée, Phyllis McGlew, who had studied medicine in his class at Adelaide. Phyllis later recalled that her aunt had died in the Solomon Islands and that her father, through his connections in the Commonwealth Government, managed to block any immediate return to New Guinea.⁹¹ Cilento's developing taste for tropical health work, however, drove him to try again for a colonial post. He was struggling to maintain a private practice in Adelaide, and both he and Phyllis chafed against the boredom of suburban life. An opportunity to go abroad again soon presented itself. The Federated Malay States was suffering from a shortage of medical officers and advertised positions in *The Lancet* and the *British Medical Journal*. Although imperial postings often provided the beginnings of a career away from the competition of private practice in Britain, colonial officials in Malaya struggled to attract applicants. They thus insisted that advertisements emphasise that medical officers would be in charge of a hospital.⁹² The advertisements also specified that applicants must have qualifications from a British medical

87 Cilento, Diary: New Guinea, 1–3 January 1919, pp. 18–19, UQFL44, Box 11, Item 17.

88 Cilento, Diary: New Guinea, 5 April 1919, p. 31, UQFL44, Box 11, Item 17.

89 Cilento, Diary: New Guinea, 29 March 1919, p. 30, UQFL44, Box 11, Item 17.

90 Fisher, *Raphael Cilento*, p. 15.

91 Phyllis Cilento, *My Life* (Sydney: Methuen Haynes, 1987), p. 41.

92 L. N. Guillemard, High Commissioner, Malay States, to Secretary of State for the Colonies, 31 March 1920, pp. 1–2, United Kingdom National Archives, CO 717/1.

school and take a course at either the London or the Liverpool school of medicine. By September, however, the colonial government loosened its requirements to offer Cilento, who had no such qualifications, a position as a medical officer at Teluk Anson in Lower Perak.⁹³

Cilento's work in Malaya was much the same as it had been in New Guinea. He was responsible for a hospital and for the Malay villages, or *kampongs*, in his district, while the rubber plantations employing indentured Chinese and Indian labourers had their own medical facilities.⁹⁴ As in other colonial territories in Asia and Africa, infant mortality was high. In 1921, the rate was 183 deaths per 1,000 births.⁹⁵ Malaria was the most significant cause of mortality and, in 1919, made up over 40 per cent of the hospital admissions among indentured labourers.⁹⁶ In 1919, the principal medical officer noted a slight reduction in malaria, reporting:

[I]f we had only enough staff of doctors and engineers to deal with this, the most serious drawback in Malaya, the mortality would have been still less—every effort must be made to get the men required.⁹⁷

The most important causes of mortality besides malaria were pneumonia and tuberculosis—not commonly thought of as colonial diseases. There were, however, occasional outbreaks of infectious diseases more closely associated with tropical Asia. An outbreak of smallpox near Teluk Anson in 1921 reached 76 cases before being 'stamped out' by the 'energetic action of the Medical and Health authorities'.⁹⁸

Aside from the limited supply of medical officers and sanitary inspectors, colonial discourse typically identified the beliefs and habits of indigenous peoples as the greatest obstacle to progress. British authorities blamed the 1921 smallpox outbreak on Malays who 'had managed to avoid vaccination'.⁹⁹ The principal medical officer reported that infant mortality was 'chiefly due to the ignorance and carelessness of the native women'.¹⁰⁰

93 High Commissioner of the Malay States to Secretary of State for the Colonies, 10 September 1920, United Kingdom National Archives, CO 717/4.

94 Cilento, *My Life*, p. 48.

95 Federated Malay States, *Medical Report for the Year 1921* (Kuala Lumpur: Federated Malay States, 1922), p. 2.

96 Federated Malay States, *Medical Report for the Year 1919* (Kuala Lumpur: Federated Malay States, 1920), p. 4.

97 *ibid.*, p. 2.

98 Federated Malay States, *Medical Report for the Year 1921*, p. 3.

99 *ibid.*, p. 3.

100 *ibid.*, p. 2.

If medical officers could not associate tuberculosis with the tropics as they could with malaria, they could still blame the supposedly inherent unhygienic behaviour of ‘coloured people’:

Overcrowding, ignorance and dirty habits, with complete disregard of the simplest rules of ventilation, are the main causes of this disease. It is not difficult to design well ventilated houses, but it is impossible to prevent people closing their air entrances.¹⁰¹

Phyllis Cilento, appointed Lady Medical Officer in 1921, recalled:

It was difficult persuading these secluded people bound in tradition to accept western medicine in any form and he [Raphael] found that they would rather die than submit to surgery.¹⁰²

While medical expertise had acquired a more prominent place in colonial government and imperial policy, health departments were often chronically understaffed and underfunded and only too aware of the questionable efficacy of their work.

Domestic life in Cilento’s hospital compound was a familiar colonial tableau. The Cilentos employed cooks, a head ‘houseboy’, a driver, an *amah* or nurse and even someone to wave a fan at dinner. Cilento continued to indulge in amateur ethnography and developed a lasting fascination with Malaya, especially the waves of migration shaping its history and culture.¹⁰³ As in New Guinea, he tended to avoid the European club and instead wore sarongs or headdresses, learned Malay, listened to elders tell stories and undertook expeditions into the forests in the hope of meeting indigenous Semang people.¹⁰⁴

A few months before the end of Cilento’s appointment, J. S. C. Elkington, now a senior officer in the new CDH, visited him in Malaya with an offer of employment in the Division of Tropical Hygiene. An international study tour, including attendance at conferences and enrolment at the London School of Tropical Medicine, was a condition of accepting the job. Cilento was also to observe public health practices in Asia, North America and Panama that Commonwealth and state agencies could

101 *ibid.*, p. 4.

102 Cilento, *My Life*, p. 48. For Phyllis Cilento’s appointment, see Federated Malay States, *Medical Report for the Year 1921*, p. 8.

103 Raphael Cilento, ‘Malaya,’ Address to Constitutional Club, 13 November 1941, Cilento Papers, UQFL44, Box 17, Item 81.

104 Cilento, *My Life*, p. 49.

implement in the development of tropical Australia.¹⁰⁵ The department itself had its origins in the interplay of empire, international organisations and regional interests. The director of the Quarantine Service, J. H. L. Cumpston, had long advocated an enlarged federal health department and it took the 1919 global influenza pandemic to convince the majority of Australian public health officials that a federal health department was necessary. By 1921, the prospect of increased colonial responsibilities in the Pacific Islands had added weight to the proposition. The centralisation of public health had meanwhile become a global trend, with Britain establishing the national Ministry of Health in 1919. Cumpston made explicit calls for such a department at the 1920 Australasian Medical Congress in Brisbane, but international support proved important. Victor Heiser, the IHB's Director of the East, was especially influential, offering the IHB's expert personnel for special disease campaigns and funding for the training of Australian personnel in overseas institutions.¹⁰⁶

Cilento accepted the position, stopping first on his world tour at the 1921 Congress of the FEATM in Batavia. The FEATM had emerged from a 1908 meeting in Manila, including British, French, Dutch and American colonial medical officers and health officials and academics from China and Japan.¹⁰⁷ The journal *Science* hailed its creation as bringing together 'English-speaking scientific workers' in the region 'for mutual social and scientific improvement'.¹⁰⁸ Unlike some of the intergovernmental health agencies that emerged in the early twentieth century, such as the Office International d'Hygiène Publique (OIHP), the FEATM was meant to create a network of researchers and health officials with specifically regional concerns. Although it was one of the few international organisations that allowed Asian people to participate, the FEATM was, for the most part, an exercise in regional cooperation between colonial administrations.¹⁰⁹

105 J. H. L. Cumpston, 'The Australian Institute of Tropical Medicine,' *The Medical Journal of Australia*, 1(15), 1923, p. 399.

106 Roe, 'The Establishment of the Australian Department of Health,' p. 180; Anthea Hyslop, 'A Question of Identity: J. H. L. Cumpston and Spanish Influenza, 1918–1919,' *ACH: The Journal of the History of Culture in Australia*, 16, 1997, pp. 60–76.

107 *British Medical Journal*, 1(2470), 1908, p. 1061.

108 *Science*, 31(792), 1910, p. 343.

109 David Arnold, *Tropical Governance: Managing Health in Monsoon Asia, 1908–1938*, Working Paper No. 116 (Singapore: Asia Research Institute Seminar Series, 2009), pp. 12–21; Tomoko Akami, 'A Quest to be Global: The League of Nations Health Organization and Inter-colonial Regional Governing Agendas of the Far Eastern Association of Tropical Medicine 1910–25,' *The International History Review*, 38(1), 2015, pp. 2–3.

At the 1912 meeting in Hong Kong, governor Sir Frederick Lugard described colonies in Asia as ‘lands held in trust for civilization’. Colonial development, he argued:

Can be raised above the sordid level of more material benefit by the recognition of responsibility towards the people of the tropics, to whom in return for material products we should bring higher standards of material comfort, and above all higher standards of morality, and the benefits which science has conferred on humanity.¹¹⁰

Lugard, anticipating the language of trusteeship later codified by the League of Nations and the United Nations, shows how international health organisations in the early twentieth century participated in discourses and practices of colonial development in which knowledge was to flow from a collectively ‘civilised’ portion of the world to an underdeveloped one.

Cilento’s professional and intellectual development took shape within this array of institutions, networks and forums of medical research and training. After resigning his post in the Malay States, Cilento toured Malaya for the CDH before leaving for Batavia. Phyllis had given birth to the pair’s first child, Raphael Frederic, nicknamed ‘Raffles’, and returned to Australia.¹¹¹ Arriving in London after stopping at Ceylon and Port Said, Cilento joined the School of Tropical Medicine’s 68th session, running from January to March 1922. The Rockefeller Foundation had by this time promised funding for a new and more comprehensive London School of Hygiene and Tropical Medicine, into which Patrick Manson’s original institution would eventually be absorbed.¹¹² Cilento, however, studied in the original school, which had been housed in the Endsleigh Palace Hotel in central London, near University College, since 1919. A diverse group of students joined Cilento in his course, including British medical officers from India, West Africa and the Straits Settlements, indigenous members of the Indian and Kashmir medical services, US Army medical officers, missionaries bound for China, West Africa and India, and Japanese and Egyptian public health officials. Most of the students were private practitioners, some of whom had Indian or Egyptian qualifications.¹¹³ Cilento’s lecturers included some of the luminaries and notorious figures

110 Far Eastern Association of Tropical Medicine, *Transactions of the Second Biennial Congress, Held at Hong Kong, 1912* (Hong Kong: Noronha & Co., 1914), pp. 3–4.

111 Fisher, *Raphael Cilento*, pp. 25–33.

112 Wilkinson and Hardy, *Prevention and Cure*, p. 65; Farley, *To Cast Out Disease*, pp. 217–20.

113 Register No. 7, Records of the London School of Hygiene and Tropical Medicine, pp. 73–90.

of tropical medicine, such as Philip Manson-Bahr, Louis Westenra Sambon, Aldo Castellani and Robert Leiper. Lectures focused heavily on parasitology and zoology, although there were lecture series on sanitation, water purification, waste disposal and quarantine.¹¹⁴

Cilento's training in tropical medicine was thus conventional in its primary concern with specific diseases, such as malaria, trypanosomiasis, yellow fever, filariasis, cholera, plague, bilharzia, hookworm and leprosy, and the technical means of controlling them. Several scholars have critically analysed how these biomedical priorities of tropical medicine led to neglect of the social aspects of health and the basic public health benefits of clean water supplies, effective sewerage and town planning.¹¹⁵ As shown in subsequent chapters, however, these disciplinary preoccupations would not monopolise Cilento's approach to public health, either in New Guinea or in Australia. Indeed, it was New Guinea that shaped his increasingly positive and social approach to health.

World order: Race, empire and civilisation

As Cilento moved through these larger networks, he was at the same time considering Australia's own relationship with an imperial and racialised world order. In a 1922 graduate thesis submitted to the University of Adelaide, he set out an agenda for tropical medicine that foregrounded Australia's postwar responsibilities in New Guinea and the 'intricate problems of international politics' in which it was enmeshed.¹¹⁶ The most important development in this regard was the League of Nations. Germany's defeat in World War I left in doubt the future of its colonies, including New Guinea. At the Paris Peace Conference, US president Woodrow Wilson—already known for his wartime speeches on self-determination—proposed an international system of trusteeship.¹¹⁷ Australian prime minister William Morris (Billy) Hughes, on the other hand, pushed for New Guinea's outright annexation as an Australian colony.¹¹⁸ The eventual compromise, to which the British prime minister

114 London School of Tropical Medicine, *Prospectus* (London: E. G. Berryman & Sons, 1921), pp. 13–24.

115 Denoon, *Public Health in Papua New Guinea*, pp. 20–1; Farley, *Bilharzia*, p. 81.

116 Cilento, 'A Correlation of Some Features of Tropical Preventive Medicine,' p. i.

117 Manela, *The Wilsonian Moment*, pp. 19–25.

118 Hermann Hiery, *The Neglected War: The German South Pacific and the Influence of World War I* (Honolulu: University of Hawai'i Press, 1995), pp. 205–6.

Lloyd George acceded, would involve a system of mandates under the authority of the League of Nations.¹¹⁹ As resolved at the Paris conference, the league assigned a mandate to specific countries to administer former Ottoman and German territories. In principle, this made those countries responsible to the international community for the governance and development of those territories.¹²⁰ It seemed that Australia was destined to receive the mandate for New Guinea and, importantly, Japan would receive that of the Marshall, Marianne and Caroline islands.

It was this international development in the imperial world order that preoccupied Cilento in his graduate thesis. ‘The war revolutionised our social and political environment’, he wrote. The British dominions now expected greater independence and had in fact won recognition as distinct nation-states in the League of Nations General Assembly. Moreover, the league had entrusted Australia with New Guinea—a sign that Australia had ‘come of age’.¹²¹ ‘A few years ago,’ Cilento wrote, ‘Australia was a distant outpost of an empire: today she is recognized as a nation with the responsibilities of government, and with colonies and outposts of her own.’¹²² The best way for Australia to justify the trust placed in it, Cilento argued, was to make medicine and the protection of indigenous health the foundations of a progressive course of governance. ‘The outstanding feature of the responsibility we have accepted’, he wrote, ‘is the seriousness of the native problem, and our national honour demands that we attack it without delay.’¹²³ Only in preventing disease and restoring ‘physical constitutions’ was there any hope, Cilento argued, of avoiding the extinction of these peoples. In ‘medicine and a rational education’, the Australian administration in New Guinea thus had the ideal ‘point of contact’ through which it could:

build up their institutions on our lines to our level, rather than confront them with the impassable gulf that seems to lie between the height of our attainment and the low level of their own.¹²⁴

119 See Kevin Grant, ‘Human Rights and Sovereign Abolitions of Slavery, c. 1885–1956,’ in Kevin Grant, Philippa Levine and Frank Trentmann (eds), *Beyond Sovereignty: Britain, Empire and Transnationalism, c. 1880–1950* (Basingstoke, UK: Palgrave Macmillan, 2007), p. 87.

120 Susan Pedersen, ‘Back to the League of Nations,’ *American Historical Review*, 112(4), 2007, p. 1103.

121 Cilento, ‘A Correlation of Some Features of Tropical Preventive Medicine,’ p. ii.

122 *ibid.*, p. i.

123 *ibid.*, p. vii.

124 *ibid.*, pp. vi–vii.

Cilento was in this regard fairly typical of colonial officials in this period, insisting on gradual social and cultural transformation, the completion of which lay in the very distant future, if ever.¹²⁵

Cilento also saw the larger geopolitical significance of Australia's colonial commitments in the Pacific. His training in tropical medicine had coincided with a renewed anxiety about Asian challenges to white global dominance. For many politicians and academics, World War I had shattered white solidarity and prestige. As biologists and social scientists issued warnings about the dangers of population growth in Asia, a wave of anticolonial uprisings in India, Egypt and China followed the failure of the Paris Peace Conference to support self-determination.¹²⁶ Concepts of race and 'civilisation' remained central to the visions of world order expressed in European and settler-colonial societies.¹²⁷ Popular and political responses to a Japanese proposal for racial equality clauses in the League of Nations Covenant were deeply hostile in Australia and the United States, putting American and British delegates in Paris in a difficult diplomatic position. The Australian delegation, however, led by Hughes, was unapologetic in its opposition.¹²⁸ Key figures in postwar internationalism and the League of Nations also insisted on the preservation of a paternal relationship between the 'civilised' powers and the peoples of colonised territories. Wilson, whose wartime invocation of a universal right to self-determination had raised the hopes of many nationalists in Asia and Africa, ultimately reaffirmed the imperial character of world order.¹²⁹

Fear about the challenge of Asia to 'civilisation' had been around for some time. Charles Pearson's 1893 book, *National Life and Character: A Forecast*, was a particularly influential expression of these concerns and enjoyed a significant readership in the United States and Britain.¹³⁰ Pearson pessimistically foretold a time when the peoples of Asia and Africa would muscle white men out of the tropics and threaten refugees of 'white'

125 See Anderson, *Colonial Pathologies*, p. 183.

126 Manela, *The Wilsonian Moment*, pp. 6–9.

127 Geulen, 'The Common Grounds of Conflict,' pp. 69–72; Mazower, *No Enchanted Palace*, pp. 13–14.

128 Brawley, *The White Peril*, pp. 12–16; Manela, *The Wilsonian Moment*, pp. 181–2; Lake and Reynolds, *Drawing the Global Colour Line*, pp. 284–97.

129 Manela, *The Wilsonian Moment*, pp. 4–5, 19–25.

130 Lake and Reynolds, *Drawing the Global Colour Line*, pp. 75–7.

civilisation in Australia and the United States. The Australian policy of excluding non-European peoples was not merely a national imperative, but also a global one:

We know that coloured and white labour cannot exist side by side; we are well aware that China can swamp us with a single year's surplus of population; and we know that if national existence is sacrificed to the working of a few mines and sugar plantations, it is not the Englishmen in Australia alone, but the whole civilised world, that will be the losers.¹³¹

One could seek to preserve the whiteness of the settler nations, but it was likely, Pearson argued, that the white man would lose his grip on those parts of the world that maintained large indigenous populations, whose elimination neither humanity nor reality could permit:

The day will come, and perhaps is not far distant, when the European observer will look round to see the globe girdled with a continuous zone of the black and yellow races, no longer too weak for aggression or under tutelage, but independent, or practically so, in government, monopolising the trade of their own regions, and circumscribing the industry of the European.¹³²

For Pearson, this was the almost inevitable outcome of European expansion carrying the benefits of civilisation out into the world. Law and order, roads, communication, health and concepts of self-determination had all stirred 'coloured' peoples to challenge white hegemony.

This discourse found its way into Australian discussions of tropical medicine before the war. In his presidential address at the 1911 Australasian Medical Congress in Sydney, Dr F. Antill Pockley spoke of how the great medical discoveries of the past 20 years were:

threatening not only to revolutionise the practice of medicine, but, within limits which inexorable Nature ever ordains, to profoundly alter the inter-racial relationships of man and influence his distribution on the face of the globe.¹³³

131 Charles Pearson, *National Life and Character: A Forecast* (London: Macmillan & Co., 1894), p. 17.

132 *ibid.*, p. 89.

133 F. Antill Pockley, 'Presidential Address,' *Transactions of the Australasian Medical Congress*, 9th Session, 1911, p. 83.

The eradication of diseases such as hookworm and malaria, to which could be ascribed much of the perceived lethargy of non-European peoples, would benefit the ‘dark races’, as well as open up territories to commerce. With greater freedom from disease, the population of these peoples would likely increase faster than that of Europeans and become ‘more formidable competitors than heretofore for the possession of their ancestral domains’.¹³⁴ At the same session of the congress, Dr A. Wallace Weißen argued that while non-Anglo-Saxon peoples were very well suited to survival, they were not necessarily suited to anything else, such as participation in democracy and the maintenance of the institutions of civilisation: ‘In these days of eugenics we must recognise that, apart from education, any attempt to improve race-stocks are limited to two main directions’—namely, internal segregation and ‘refusing entrance to undesirables from without’.¹³⁵ The national questions of immigration restriction and whether white men could settle the tropics thus always drew their urgency from a larger understanding of a changing world order.¹³⁶

Popular texts that emerged during and after World War I maintained these themes. Madison Grant’s *The Passing of the Great Race*, published in 1917, was particularly influential among biologists, geneticists and social scientists agitating for greater immigration restrictions in the 1920s. Grant’s book and others were premised on the same themes as those in *National Life and Character*, although they eschewed Pearson’s pessimism in favour of an obstinate determination to control any future global transformations. As Lake and Reynolds have shown, a sense of racial kinship and solidarity between Australian and American advocates of immigration restriction persisted into the 1920s.¹³⁷ Grant wrote:

The bitter opposition of the Australians and Californians to the admission of Chinese coolies and Japanese farmers is due primarily to a blind but absolutely justified determination to keep those lands as white man’s countries.¹³⁸

134 *ibid.*, p. 91.

135 A. Wallace Weißen, ‘The Medical Inspection of Immigrants to Australia,’ *Transactions of the Australasian Medical Congress*, 9th Session, 1911, p. 635–6.

136 Bashford, *Imperial Hygiene*, pp. 137–40.

137 Lake and Reynolds, *Drawing the Global Colour Line*, pp. 312–14.

138 Madison Grant, *The Passing of the Great Race, or the Racial Basis of European History* (London: G. Bell & Sons, 1917), pp. 70–1.

The exclusion of non-white people was thus, as Pearson had argued, instinctive.

Grant was followed by a number of other academic observers whose popular books were widely read. Lothrop Stoddard, an American political scientist, published *The Rising Tide of Color Against White World-Supremacy* in 1921. Like Pearson, Stoddard noted that European law and sanitation had fostered population growth, especially in Asia: ‘Wherever the white man goes he attempts to impose the bases of his ordered civilization.’ The increase in population resulting from the cessation of tribal warfare and the prevention of famine and disease in colonised territories could only result in ‘a tremendous and steadily augmenting outward thrust of surplus colored men from overcrowded colored homelands’.¹³⁹ Where once a white race drawn together internationally by instinct may have been resisted, now the war had torn any solidarity apart.¹⁴⁰

Stoddard resigned himself to the inevitable loss of white dominance in those countries with large indigenous populations. Asians, he wrote, were ‘gifted peoples who have profoundly influenced human progress in the past and who undoubtedly will contribute much to world-civilization’. They were adopting Western methods in the cultivation of a modernist nationalism: ‘That this profound Asiatic renaissance will eventually result in the substantial elimination of white political control from Anatolia to the Philippines is as natural as it is inevitable.’¹⁴¹ In contrast, the white settler communities in Australia, New Zealand, the United States and Canada had to be defended at all costs. The loss of white dominance elsewhere was acceptable since social and biological divisions between races would remain. In a mixed-race society, however, the danger of diluting the blood of the white race would always be present. Race and blood were the foundations of civilised society and its legal and political institutions:

It is clean, virile, genius-bearing blood, streaming down the ages through the unerring action of heredity, which, in anything like a favourable environment, will multiply itself, solve our problems, and sweep us on to higher and nobler destinies.¹⁴²

139 Stoddard, *The Rising Tide of Color Against White World-supremacy*, pp. 8–9.

140 *ibid.*, pp. 198–206.

141 *ibid.*, p. 229.

142 *ibid.*, p. 305.

Prescott Hall was thus correct, Stoddard argued, in stating that immigration restriction was not merely a national project, but also a method of maintaining a ‘civilised’ world order through ‘segregation on a large scale’.¹⁴³ The enforcement of segregation would ultimately be one part of a larger program for the gradual transformation of empire that would preserve ‘civilisation’.

Cilento’s brief for tropical medicine, including his emphasis on the importance of Australia’s responsibility for indigenous health and welfare in New Guinea, was shaped by these transnational anxieties about the political and demographic challenges of Asia. If Australia could not prevent the extinction of indigenous people in New Guinea, it would be forced to import indentured labourers from India or China and thus suffer from ‘the menace of their politics, the one imbued with the non-cooperation ideas of Ghandi [sic], the other our “yellow peril”’.¹⁴⁴ Besides the ‘swarming masses of the Orient’, the increasingly ambitious imperial interests of Japan compounded the threat of war in the Pacific. Japan had become ‘a menacing figure in the very heart of the Chinese commercial realm, with an organized and powerful government and a highly developed industrial system’.¹⁴⁵ In addition to earlier annexations in Asia, the League of Nations had entrusted Japan with the Marshall, Marianne and Caroline islands—‘a belt right across the Pacific’.¹⁴⁶ The league mandates thus became a geopolitical concern in the Pacific. It was vital, Cilento argued, that Australia develop Rabaul, the administrative capital of New Guinea and a ‘half-way house’ for commerce in the region, into an ‘asset to the whole of Australia’. The terms of the mandate for New Guinea forbade fortification of the territory:

but the necessity to occupy it and develop its resources is obvious, if we wish to retain it, or (which is as important and, indeed equivalent,) to attract the share of tropical trade that is our right.¹⁴⁷

Ideally, the government would use indigenous labour for this purpose, making the economic development of New Guinea for the benefit of Australia inseparable from the cultivation of industrious habits that was an obligation of enlightened colonial government.

¹⁴³ *ibid.*, p. 259.

¹⁴⁴ Cilento, ‘A Correlation of Some Features of Tropical Preventive Medicine,’ pp. v–vi.

¹⁴⁵ *ibid.*, p. ix.

¹⁴⁶ *ibid.*, p. x.

¹⁴⁷ *ibid.*, p. xi.

Cilento never allowed internationalism to supersede national interests. All the evidence of China's population growth and Japan's territorial expansion pointed to future conflict, which would likely drift towards the underdeveloped Australian tropics. It was therefore crucial that Australia should settle and develop the north in this period of economic competition between nations:

We have been granted nationhood and it is our bounden duty to accept the proud responsibility and to strengthen our frontiers. Neither arms, nor warships, fortresses, nor squadrons of aeroplanes, can compare in defensive value with the importance of a population rooted in the soil.¹⁴⁸

In describing nationhood as having been granted to Australia and coinciding with territorial expansion in the Pacific, Cilento's thesis underlines the mutual constitution of the national, the imperial and the global in this period.¹⁴⁹ In Cilento's mind, imperialism and its increasing internationalisation were crucial in defining national problems, priorities and responsibilities.

After gaining his Diploma of Tropical Medicine and Hygiene, Cilento toured the United States and finally visited Panama. By the time he arrived back in Australia to take up his duties with the CDH in October 1922, he had come up with a working ideological framework for tropical medicine that folded together his nationalism and imperialism, as well as some sense of the globalisation of economic and social life. Cilento became part of a global circulation of medical students, public health officials and missionaries. Beyond the official circuits of Anglo-American imperial institutions there were also voluntary and accidental aspects to Cilento's mobility that intersected with them. His posts in occupied New Guinea and British Malaya arose in fortuitous circumstances—a combination of Australian military prerogatives on the one hand and the needs of the British colonial government on the other.

This was an education in empire, but not one in which Cilento simply passed through a global apparatus designed to reproduce and disseminate models of imperial tropical medicine and public health. His graduate thesis invested his formal training in London with national significance drawn from his early experience of Australian imperialism in the Pacific.

¹⁴⁸ *ibid.*, p. xiii.

¹⁴⁹ For liberal versions of this entanglement, see Sluga, *Internationalism in the Age of Nationalism*, pp. 3–17.

Despite initial misgivings, the Commonwealth's new responsibilities in New Guinea became essential to Cilento's agenda for Australian tropical medicine. The nationalist imperatives of racial homogeneity and development were fundamental to the institutionalisation of tropical medicine in Australia, yet they were entangled in imperial ambition.

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