

Making Health Public: English Language Newspapers and the Medical Sciences in Colonial Malaya (1840s–1941)

Khiun Kai Liew

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Abstract The print and broadcast media are traditionally vital vehicles for both the transmission of information and framing of discussion on health, medicine, and diseases. However, their roles have been largely peripheral in medical historiography. In this respect, this paper explores the position of English language newspapers in colonial Malaya in identifying and disseminating epidemiological data as well as commentaries on public health issues and policies. These discussions provided a crucial platform in linking public health discourses to a more literate and influential lay public and adding to broader debates on the governance of the colony. Collectively, the articles and editorials of the print media in British Malaya were not only indicative of the extent of involvement of colonial civil society in public health. Their narratives also reflected underlying tensions between state and society in addition to sociocultural anxieties over the fluid labor and capital flows of the colonial political economy.

Keywords British Malaya · Newspapers · Colonial science and medicine · Health communications

So far as we are concerned, we shall be delighted to abandon drains, water supply, plague quarantine and tuberculosis and turn to high politics and the higher criticism as soon as there is some indication that the proper authorities are moving in the matter and that discussion has given way to practical work. Until then: we proposed to discuss sanitation ad nauseam.

Editorial in *Penang Gazette* 29 December 1907

K. K. Liew (✉)

Blk 134 Potong Pasir Ave 3, 09-186, Singapore 350134, Singapore

e-mail: liewkk56@hotmail.com

1 Introduction: Discussing Sanitation Ad Nauseam

From their beginnings of disseminating government gazettes and shipping timetables in the 1820s, newspapers in British Malaya had evolved into highly opinionated mouthpieces and watchdogs. Prior to the Japanese occupation in 1942, Malaya witnessed the publication of approximately 200 English and other vernacular newspapers, many short-lived, but some still in circulation today.¹ Starting out as information portals for shipping and commercial news, the function of these papers evolved into more lively avenues for social commentaries. As seen from official epidemiological reports, medical opinions, and debates, among the more prominently featured in the English language papers in the colony was that of public health.

Substantial attention given by the newspapers to these issues in the British colony underpins the historical role of non-state players in propagating and popularizing the understanding of the modern notions of public health. The historiographical directions of the development of science and technology have been flagged chronologically on the evolution of public institutions, leading personalities, discoveries, and programs. As this article will indicate, the use of the media in historicizing the sociocultural discourses of science in Malaya is less neatly traceable than that of the institutional milestones colonial medical departments. In contrast to the narratives of either the seemingly disinterested quests for scientific breakthroughs in laboratories or the invention of new machines, the emphasis here is on the process of the appropriation and utilization of modern biomedical discourses. From rabies to malaria, venereal diseases, and narcotic addiction, the subsequent sections will show the extent in which these English language newspapers deployed medical sciences in monitoring public health policies and platforming social agendas. It would, however, be difficult to cover every newspaper in the colony given the extensive publications in different languages. As such, it is intended here to extract the samples of five prominent English language papers based in the main urban centers in Malaya. They are *The Straits Times* and *Singapore Free Press* based in Singapore, *Malay Mail*, *The Times of Malaya*, as well as the *Penang Gazette*.²

The selection of the newspapers has been based on both their coverage in topics on public health and medical sciences as well as their public prominence in British Malaya, as demonstrated by the volume and length of their circulation in the territory. One difficulty in this research has been the general absence of administrative records from either the newsrooms or the Colonial Office that would have been crucial in unearthing the interactions behind the text by uncovering more subtle agendas and tensions. Without such correspondences, minutes of meetings, and memorandums, it is not feasible to assess the influence of the papers in either being used merely as mouthpieces of their owners or in

¹ Chen (1967, p. 5). For the establishment of newspapers, see Kanayson (1958), Khoo (1984), Lim (1993), Turnbull (1995), and Kenley (2003), pp. 75–96.

² I have consulted these newspapers mostly through microfiche formats at the British Library's Newspaper Collection at Colindale as well as the National Library and the National University of Singapore's Central Library in Singapore.

shaping official opinions and policies. However, based on the published texts alone, particularly from the critics of not just the colonial administration but also the elite, one can sense a certain degree of autonomy from the editors and reporters.

Increasingly treated distinctively within the social study of science and technology, colonial science has been critical in the project of imperialism. From biomedicine to botany and engineering, colonial sciences have been associated simultaneously with the intensification of European imperialism and for acceleration of the modernization in the non-Western world. In other words, scientific enterprises in the European colonies entailed a multilayered process of systematic knowledge acquisition “for the purpose of rendering the subjects and the objects of power” (Baber 2001, p. 40). In fact, to Philips, colonialism should be central to nineteenth century science, without which the appreciation of its philosophical and institutional legacies would not be completed (Philip 1998, p. 301).

For the case of British Malaya, the historiography of colonial sciences has often been identified through public health, botany, education, and railways.³ While one cannot deny the presence of the state in this enterprise, this (almost)singular attention creates the impression of the unilateral imposition and scripting of official narratives on passive subjects. This approach, however, does not adequately detect the presence of a more complex colonial civil society in autonomously engaging, appropriating, and propagating scientific knowledge. In the case of British Malaya, the newspapers, in particular the English language dailies, were such agents in this historical equation. As the vast majority of the colonial populace was largely unfamiliar with the English language, the readership for these newspapers was probably confined to the European/British residents as well as the Anglicized indigenous and migrant (ethnic Chinese and Indian) comprador elites. Therefore, while not being entirely “popular” or devoted to mass readership, they are nevertheless important in providing invaluable insights into the ideological worldview of Malaya’s colonial civil society, a worldview that, as the discussion would show, were also intimately linked with the interests of the colonial state.

To a large extent, the focus on the media is considered to be linked to what Magnusson describes as “first and foremost on big systems,” along the lines promulgated by Max Weber as the “civil society.” This is regarded as the common forum between the otherwise binary oppositions between the state and the individual. Magnusson terms the media as the theater where the actual struggle between the different forces in society takes place (Magnusson 2003, p. 714). The development of civil society in each state varies with public institutions playing a dominant role in one and a subordinate in another. Claiming the importance of a micro-historical approach, Giovanni Levi urges for further scrutiny of players in civil society in order to expose the undercurrent dynamics of “big systems.” This dynamics could in turn be reflected from these players in their routinely disputing concepts and definitions and molding agreements and compromises.⁴ In this respect, the English language newspapers, with their roles of staging and mediating public debates, could be closer to the official mechanisms from government-appointed

³ See Kaur (1985, pp. 38, 45), Manderson (1996), and Hazim Shah (2007).

⁴ Ibid.

committees to local legislatures in gauging the pulse of colonial society. In particular, these dailies also offer more novel perspective of framing a more public interest in the field of public health.

1.1 Laying Bare to the Eyes

Once dominated by the Portuguese, and subsequently the Dutch, British presence in Malaya became prominent only in the late eighteenth century with the establishment of the trading settlement in the island of Penang in the northern tip of the Malayan Peninsula. By the Anglo-Dutch Treaty of 1824, the British had gained possession of two additional outposts of Singapore and Malacca before expanding further into several Malay sultanates in the mainland in the Treaty of Pangkor in 1874. The final expansion of British Malaya came with the ceding of the four northern Malay states by Siam in the Treaty of Bangkok in 1909. Commercial trading interests, and subsequently tin mining and rubber plantations, largely motivated British imperial expansion into Southeast Asia. Keenly championing free trade, merchants and planters expected the relatively small body of colonial administrators to provide a low tax regime, politically stable and also a physically healthy place for commerce to flourish. As would be demonstrated later, these standards were broadly internalized by the newspapers which were predominantly established and funded by merchant groups.

Starting as broadsheets, the first newspapers appeared long before colonial institutions took root. The *Prince of Wales Island Gazette* was recorded as the first paper to publicize local gazettes in Penang in 1805, while the *Singapore Chronicle* and the *Malaccan Observer* started circulating during the 1820s. Nonetheless, these weeklies subsequently gave way to the *Singapore Free Press* (1835), the *Straits Times* (1845), and the *Penang Gazette* (1838). From the late 1890s, with the expansion of British presence and the general population in British Malaya, more entrants came to challenge the domination of the existing papers. In Penang and Singapore, the *Straits Echo* (1903) and the *Malaya Tribune* (1915) were competed strongly for readership from the more venerable *Penang Gazette* and *Straits Times*. Established by mainly non-European Chinese merchants, these two papers claimed to carry more reformist ideals of representing the voices of the non-European colonial subjects.⁵ In the Malayan Peninsula, the more prominent English language dailies that appeared included the *Malay Mail* established in 1896 at the Federal capital of Kuala Lumpur by John H.M. Robson and the *Times of Malaya* in 1904 in Ipoh, the provincial capital of the state of Perak.⁶

Generally, these English language dailies had the strong financial backing of the European and Asian merchant communities in Malaya. Initially edited by the more learned personalities in the colony like William Napier of the *Singapore Free Press* and Mr. R.C Woods, both lawyers, the papers had subsequently employed pressmen

⁵ See Burns (1956). Lewis saw the *Straits Echo* as a “child of empire. Quintessentially British notions of “fair play”, Fabian/socialist ideals harbored by British-schooled editors[...]By using the language and ideals of the colonizer, the paper justified its existence as a means by which the various communities of the Straits Settlements could raise their concerns in a fair and democratic manner” (Lin Lewis 2006, pp. 238–239).

⁶ See Makepeace (1921, pp. 278–294).

from the United Kingdom.⁷ Similarly, James Logan, the founder and editor of the *Penang Gazette*, was considered more of a “scientific writer” of ethnology and geology in Asia rather than a journalist by training.⁸ At the same time, contributions from the public on a range of subjects from politics to leisure and literature became more extensive.⁹ Similarly, *The Times of Malaya* was started by Perak-based tin mining proprietor Douglas Osborne and lawyer A.M. Gibbs as well as R. Young. In the first 2 years of operation, the paper was under the editorship of Dr. R.M. Connolly who retired from his post as District Surgeon for the position. Subsequently, the position was assumed by J.A.S Jennings who remained as editor for the next three decades.¹⁰

Accompanying and underpinning the evolution of the colonial newspaper was also that of developments in printing and communicative technologies. The opening of the Suez Canal and the expansion of railways, the telegraphic network, the rotary printing machines, and the camera created the revolutionary conditions for the accelerated production and delivery of information. These global trends were in turn reflected in British Malaya. From the early beginnings of just four pages for their weeklies of a few hundred copies in the early nineteenth century, the English language papers alone saw their productions ballooned. With the purchase of new printing machines, the *Straits Times* was eventually printing 24-page dailies at the rate of 30,000 copies per hour by the 1920s. Subscriptions of these papers were also increasing not just from the European and Eurasian populace but also the increasingly prominent Anglicized segments of the comprador elite. The *Straits Times* boasted of a circulation of 15,000 copies per day, while its rival, *Malayan Tribune*, recorded the sale of 10,000 copies a day in Singapore and 13,500 in the Malayan Peninsula. Not confined to Malaya, these English language papers had evidently a larger transnational circulation. Writing in 1893, the *Straits Times* editorial proclaimed the daily as the “largest circulation of any newspaper in Asia, British India excepted,” with copies reaching other parts of Southeast Asia.¹¹ The growing prominence of the press was further encouraged by the reduction in prices by almost half from ten to five cents per copy as the various agencies competed for readership (Burns 1956, pp. 35–52).

Growth in information and readership in turn led to the proliferation of newspaper contents in British Malaya. From a few pages of public notices, advertisements, and editorials in the early nineteenth century, the daily editions by the 1890s included a host of international, regional, and local events in addition to coverage of lifestyle, sports, and entertainment. Gradually, the colonial press became vital in the transmission of not just public policies but also publicizing reports and minutes of meetings on corporate and public meetings from corporate annual general meetings to town hall gatherings (Gillies 2005, pp. 37–40).

⁷ Ibid. pp. 283–284.

⁸ Darwin Correspondence Project. <http://www.darwinproject.ac.uk/darwinletters/namedefs/namedef-2976.html>. Last accessed 28 February 2009.

⁹ Ibid. pp. 286–288.

¹⁰ “The Times of Malaya: Ipoh’s first newspaper.” *Ipohyear: Saving Yesterday for tomorrow*. <http://www.ipohworld.org/blog/?p=494> (last accessed 24 July 2009).

¹¹ *S.T.* 4 July 1893.

Scholarly research into the relationship between media, communications, and empire has generally recognized the significance of the modern newspaper and radio in creating, mediating, and sustaining the evolution of the Imperial experience. The communicative infrastructure had not only bound the bureaucracy of empire by an information network of political, military, and commercial intelligence. It became a critical tool for the transmission of ideas and values globally, linking metropolis and periphery more intimately and dynamically (Kaul 2003, p. 3). Culturally, the colonial newspaper is considered to be instrumental in not just propagating dominant discourses but also for penetrating new frontiers through extending the news gathering network.¹² Nonetheless, the “diffuseness, belatedness, openness and availability for copying” of newspapers have permitted a “complex symbiosis with the techniques of public communication and political agency” that was apparent in colonial America prior to the Revolution (Warner 2005, p. 340). Within colonial South and Southeast Asia, the introduction of the press has been regarded to be significant in establishing public opinions, identities, and communities that were potentially subversive to the colonial regimes (Hagen 1997).

In retrospect, the entrenchment of these values in colonial Malayan society has been critical in the evolution of civil society in the post-colonial contexts of both Singapore and Malaysia. Some of the papers, like the *Malay Mail* and *Straits Times* (*New Straits Times*) continue to be in business today, albeit under comparatively far more official scrutiny from the contemporary officialdoms. While its tone can be considered to be more politically subdued compared to the pre-1945 versions (particularly for Singapore), the papers are still seen to be an important interactive space between state and society in the two countries. Nevertheless, rather than being celebrated as a tool of emancipation, as would be demonstrated in the case of health and medical issues, the legacy of the colonial media is much more contentious, especially when it concerned the fundamentals of British imperialism.

This emphasis on more autonomous expression was first promulgated by the domiciled European population in the 1840s who remained suspicious of the powers of the colonial authorities. Having been restricted by the “Gagging Act” which was rescinded in 1835, the burgeoning diasporic British merchant community no longer tolerated any attempts at censorship.¹³ As highlighted boldly in the first article of *Straits Times* in 1845, “A knowledge of the fact that the press is free serves to deepen the conviction that its end is fulfilled so long as it upholds fearlessly the intensity of national institutions laying bare to the eye whatever abuses springs up or exists, and by its faithful advocacy of public rights secured to the governed protection against the innovation or misrule of the governing.”¹⁴ An early edition of the *Malay Mail* had also seen itself as the watchdog against state power. As its editorial stated in 1904, “In principle we want more publicity and a proper channel for conveyance of ideas between the government and people in practice.”¹⁵ It was perhaps the *Times of Malaya* that made the most direct alliance between commercial interests of the planters and the press when it changed its name to *The Times of*

¹² See Desbordes (2008) and Knudson (2001).

¹³ See Makepeace (1921, p. 280).

¹⁴ *Straits Times* (henceforth known as *S.T.*) 15 July 1845.

¹⁵ *Malay Mail* (henceforth known as *M.M.*) 27 April 1904.

Malaya and the Miners' and Planters' Gazette on 1st July 1907. Like the other papers, it had also given itself the moral responsibility of being the spokesperson for the public in the colony as the “right arm of defence of the people”.¹⁶

While censorship laws were in existence and deployed during extraordinary incidents during the two World Wars, the colonial administration was normally reticent in light of even the harshest criticisms and accusations of its policies. Whether the comments of the newspapers were either ignored or privately responded to remains to be seen. A rare statement which reflected the perception of the government of the newspapers was seen from the Colonial Secretary's, A.S Haynes to the Malayan newspapers where “We must not forget that the press is an introduction from the west and what is understood and discounted there by the sturdy commonsense of the people accustomed to it for generations may be totally misunderstood here.”¹⁷ Nevertheless, it was not the Colonial Secretary's admonishment of “sturdy commonsense” but concerns over anonymity that became the restraining factor for those eager to express their views in the newspapers. As pointed out by the editor of the *Penang Gazette* in 1907, “the disadvantages under which newspaper work is done in a small place like Penang are obvious, where everybody knows the writer who vainly attempts to hide his personality under the “editorial” we. It is not expected that his utterance on public affairs will change the same weight as when anonymity can be presented.”¹⁸ Thus, editors and reporters in the newspapers of the English language dailies had tended not to identify themselves with their editorials and reports. In the same respect, authors of published letters in the newspapers had also generally preferred to use pseudonyms.

However, what the governors could not effectively steer were the discourse and debates on public health in the colonial newspapers. The latter were able to provide the latest trends and information pertaining to the field of modern medical discourses through local and international sources, including proceedings of international medical conferences, new bacteriological findings, and epidemiological flows. Correspondingly, from Penang to Singapore, the pressmen were also keen to devote entire pages to annual medical reports, minutes of meetings of the local medical fraternity, as well as countless commentaries, debates, and editorials pertaining to the modern biomedical sciences. More importantly, as mentioned earlier, the development of newspapers as separate commercial news agencies also gave the colonial media greater autonomy from not just the state but also the direct influence of merchant groups. And, with the growing competition among the different papers, the interests of the readers rather than the specific agendas of the financiers were given greater priority. The public interest placed in the medical sciences by the colonial elite and civil society was heavily underpinned by broader socioeconomic stakes linked to the politics of public health.

¹⁶ *The Times of Malaya* (henceforth known as *T.M.*) 4 November 1907.

¹⁷ *Penang Gazette* (henceforth known as *P.G.*) 8 December 1933.

¹⁸ *P.G.* 25 March 1907.

1.2 Relieving the Miseries of the Destitute

Public health in the colony became one of the first topics in which newspapers tried to put the founding ideals of free trade into practice with minimal state interference and taxation. Nonetheless, a healthy trading environment is a premise upon a healthy (disease-free) environment for commerce and labor to take place, a responsibility to be assumed predominantly by the state. To begin with, British colonial settlements in Malaya were first established on very rudimentary grounds with minimal health care infrastructure. The state public health apparatus had gradually expanded and was also supplemented by private and community organizations. Nevertheless, its medical institutions could not keep pace with the rapid expansion of population and industry, first within the urban areas and subsequently extending beyond municipal limits to the rural heartlands and agricultural plantations. The authorities were faced with high disease and mortality rates from the malaria-infested plantations, congested urban settlements with poor drainage and sanitation, seemingly unhygienic social customs, and unqualified medical practices as well as opium addicts and syphilitic patients. Inevitably, even with the best intentions, oversights, negligence, or simply conflict of interests in public policies manifested, resulting in significantly public backlashes, manifested most prominently in the colonial media. They were expected to make adequate public health provisions without at the same time incurring excessive financial burdens or obstructing both the movement of labor and capital. Protesting at what is seen as “over legislation” of port health regulations on vessels as stifling to commerce, the *Straits Times* editorial warned “By free trade, we live and prosper, each and all of us. Anything therefore interfering with this cardinal principle must be uncompromisingly opposed.”¹⁹ The same suspicion against government interference in free trade was shared by the *Penang Gazette* in one of its editorials on the matters of labor health:

It is preposterous absurdity for the government, which is harassing estate owners with all sorts fancy rules and regulations for the preservation of health, to be killing off the laborers in scores by its own parsimony and lack of organization[...]There are somethings over which a government may blunder without much harm resulting, but labour supply is not one of them, and labour supply will fail if Malaya gets a death trap reputation.²⁰

In turn, these comments reflected the ideological position of the colonial English language newspapers which public commitment to the defense of the principles of free trade was similar to that of the merchant community.

One of the very first articles in the *Straits Times* was devoted to lamenting the unacceptable conditions of public health in Singapore. Stating from police reports of an annual of about 6,000 starving immigrants and 100 deaths a year, it lamented:

It is now more than twenty five years since the first formation of the settlement [...]but still up to this hour, no provision is made for the poor, no asylum is provided for the sick, no refuge exists for the destitute. The heart still by

¹⁹ *S.T.* 14 August 1875.

²⁰ *P.G.* 30 October 1911.

trappings of prosperity may sit at ease regardless of the misery by which it is surrounded, unless impressed by number and frequency of the cases which are formed upon the attention, to prevent such scenes of wretchedness, a provision must be made to relieve the miseries of the destitute.²¹

Graphical portrayals of highly diseased environments and unhealthy conditions became an enduring function of the colonial press. In fact, one former editor of the *Penang Gazette*, J.Y. Kennedy, was described as being particularly “interested in estimates and dustbins”, as seen from his complaints in the paper on the “heaps of decaying refuse lying out in the streets all day[...]” (City Council of Georgetown 1966, p. 34) The paper also prided itself in monitoring the standards of medical provisions in Penang, and one of its more pertinent news stories was the exposure of the poor standards of medical care in the hospitals of Penang where in one facility, only five nurses were attending to an estimated 250 patients. Claiming that it had been highlighting such appalling cases for the past two decades, the paper wrote in its editorial “We have no desire to hurt his Excellency’s feelings or to aggravate the indignation of the public, which has been suppressed too long. But unless the press keeps this matter before the public and urges the authorities to action, it will fail in its duty which is to see a grievous wrong right without any further delay.”²²

Effectively, the “filthy streets” provided the newspapers the opportunity to accuse the municipal authorities of negligence that would potentially wreck the prosperity of the colony. The concern with public health in the urban settlements coincided with the constant disputes between the colonial authorities and the Municipal Commissioners comprising European and Asian rate payers. The civic institution was charged with increasingly pervasive duties and authority ranging from tax collection to sanitary inspection. With significant vested interests involved, disputes between the Commissioners and the authorities and among its own members surfaced during meetings that were assiduously reported by the newspapers. Among the heated topics was public health where to Yeoh (1995), the crux of the contestations pertained to competing visions of urban life between the European and Asian communities. While they were possibly not compelled to take sides, in this arena, the English language papers were not bystanders to the debates but took an active interest in supporting a vision of a public health, one that seemed stridently opposed to the everyday vernacular practices of the colonial subjects.

Such depictions of the appalling state of health were in turn instrumental in inspiring the press to urge for the implementation and enforcement of what was regarded as Western-based public health practices to foster more decent and hygienic environment for the colony. Aside from highlighting instances of state negligence in providing health services, the newspapers were keen to keep the authorities on their toes in their relentless emphasis on the Chadwickian ideals of public sanitation. This entailed the provision of fresh piped water and the expansion of networks of sewers and drains. More than the colony’s medical reports, the press had also displayed a persistent passion in segregating human settlement from livestock which were considered the main reservoirs of diseases, especially in the main cities.²³

²¹ Ibid. 18 September 1845.

²² *P.G.* 13 November 1927.

²³ *P.G.* 9 January 1889.

Away from the towns, the newspapers were also keenly involved in disseminating the latest understanding of infectious diseases, which they felt had the largest potential to harm the territory. Reports on both regional epidemics and general pandemics, also with features of model health systems, served as admonishments and lessons for the local government. These included that of cholera, plague, influenza, and malaria with elaborations on their epidemiologies and containment. Among the events that garnered significant attention were the plague pandemic in the 1890s, the influenza of 1918, and the regional malaria epidemic in Ceylon.²⁴ In the meantime, the papers had also lobbied for what was thought to be the latest scientific measures to combat these infections.

The news stories of malaria in the rubber industry in Malaya ranged from the technical to the popular. Detailed publications on the species of mosquitoes, mathematical recommendations of widening drains, the types of oiling to be used for stagnant water were accompanied by more straightforward reminders on the use of mosquito nets during bedtime and restrain from clearing jungles indiscriminately.²⁵ The interest generated by the industry was spread to the rest of the colonial society with constant attention by the media of malaria within Malaya and around the region.²⁶

Malariologists like Malcolm Watson were also keen to preserve the interest and, more importantly, the priority given to malaria by the lucrative rubber industry.²⁷ With the support of the Malayan newspapers, he personally appealed to the local business community for donations for the Ronald Ross Fund to support the retirement of the latter as well as the maintenance of the Ross Institute.²⁸ In both Watson's statements and newspaper editorials, the planters were told to be grateful to Ross's contributions to Malaya's prosperity. As mentioned by the *Singapore Free Press*:

If we had dropped all methods of preventing malaria devised as a result of Sir Ronald Ross's discovery, it would shut down the naval base, it would [have led] to appalling death rates in Singapore, Kuala Lumpur and other towns and it would paralyze half the rubber estates in the colony."²⁹[...]We built up a knowledge of the prevention of malaria based on scientific discoveries, without which it would have been totally impossible to create the prosperous Malaya we see today.³⁰

Most articles on malaria, for example, were based on the anxieties of high rates of infections of Indian migrant labor brought in to work in the burgeoning rubber

²⁴ For the role of newspapers during the influenza of 1918 in Malaya, see Liew (2007).

²⁵ For articles in the Malayan Medical Journals, see Hariharam (1924), Macaulay (1924), and M. Hariharam. "Prevention of Malaria," *Ibid.* pp. 12–15.

²⁶ Malaria became part of the health talks on radio programs from the Singapore-based British Malayan Broadcasting Corporation by the late 1930s. See *S.F.P.* 30 March 1939.

²⁷ See Watson (1932). His main contribution to the study was Watson (1921).

²⁸ Through the publicity of the local newspapers, Watson managed to raise a total of \$30,000 from readers in British Malaya for the retirement of Ross who "in spite of a life, or perhaps a life devoted to the welfare of his fellow men, was a poor man, and for ten years before he died, he was seriously worried by the fact his widow would have been very ill provided for in the event of his death." *S.F.P.* 18 November 1937.

²⁹ *S.F.P.* 18 November 1937.

³⁰ *Ibid.*

plantations in the colony. The scourges of nature, including the mosquito breeding grounds, and bacteria-infested drinking water were the main sources of fear. What was thought as the correct and sustained application of biomedical knowledge would therefore serve as an important shield for commerce to take place. In effect, through reporting on these data and at the same time supporting the medical expertise like Watson, the English language press in Malaya became instrumental in promoting modern concepts of disease and bacteriology. Bacteria and mosquitoes aside, what was more troubling, however, to the newsmen were the unhygienic, ignorant, and anachronistic practices of the non-European populace in the colony.

1.3 Stopping the Dangerous Habits of the Natives

Placing themselves generally as mouthpieces of progress, the English language press was keen to use biomedical scientific discourses to frame their racial-cultural prejudices. Beginning with the cultural disdain of what reporters witnessed as the mess and swirl of the bustling bazaars, the repulsions were quickly pathologized along cultural and ethno-bacteriological terms. Among the list of such concerns were the apparent absence of systematic vernacular healing practices, the seemingly irrational fear of the indigenous populace over Western medicine, as well as unhygienic Dickensian lifestyles of the non-European migrant and indigenous residents.

Early dissatisfactions were expressed in *Straits Times* in 1859 on the difficulties in collecting accurate census from the transient immigrant populace. Describing it as “something like a maze of perplexity,” the paper claimed that non-European residents were attended by their own doctors who made “no distinction in anatomy between arteries and veins” and suggested for the mandatory certification of death solely by an English medical practitioner.³¹ The English language newspapers were also keen in furnishing prescriptive advice and public education on what was deemed the modern and appropriate in health care and medicine. Perceiving the existence of what it considered as superstitious traditional local practices that worsened mortality figures, it called for greater supervision of the medical market through more comprehensive licensing regimes on food and drugs. In the debates over the legislations on the control of morphine, some papers favored restrictive regulations against what they considered as unscientific folk Chinese and Malay medical practitioners.

The *Times of Malaya* was wary that the use of morphine might be abused by unlicensed Asian healers, whereby “in the East, any man who has found himself in failure in every walk of life seems to be quite competent to take up the health art, just as nearly two to three decades ago in the West where schools were asylum for the mentally unfit.”³² It strongly advocated for legislative measures to stop the “dangerous habits of natives who were ignorant of the speciality of poisonous drugs.”³³ As the *Penang Gazette* emphasized, “Not only do the native system of

³¹ *S.T.* 22 October 1859.

³² *T.M.* 7 Oct 1902.

³³ *Ibid.*

therapeutics according to Indian, Chinese and other Asiatic method “kill a great many more patients than they ever cure, but particularly nullifying the previous useful legislation designed for purpose of suppressing quackery.”³⁴

The paper also clamored for compulsory vaccination for what it portrayed as the stubborn, superstitious, and uncooperative Malay villagers. Its editorial noted sarcastically that “Malay Parents [have] allowed their children to indulge in their fondness for dirt and unwholesome establishes till they become quite loathsome and vulnerable to coetaneous diseases[...]We suspect that the compulsory use of soap by Malays would do more good than vaccination.”³⁵ A similar scorn by the *Times of Malaya* was also used on the migrant coolie population. Compared to the English miners who “merely die industrially” of occupational accidents, the Indian coolies were of the weakest stock comprising those who were not able to “feed themselves and build good stamina,” which marks him as “a creature of densest ignorance of all sanitary laws, and almost incapable of being taught them. When suffering from the slightest illness, he will be as cunning as a monkey in evasion of capable medical advice and would destroy medicine given, taking in palace some fiendish native concoctions and charms”.³⁶

Like the Malay counterparts, most newspapers had felt the need for imposing more paternal legislation on reforming the alcoholic habits of the Indian coolies:

There are many who dismiss as chimerical the idea of resorting to legislation to reduce drinking, approvingly quoting the charge that it is impossible to make a man sober by act of parliament, forgetting that it is easy for the individual to do right and difficult to do wrong and that certain classes of the population who are weak, ignorant, and easily tempted to excess need to be specially protected and safeguarded even to an extent that may even be considered to encroach on the liberty of the subject.³⁷

When it came to food, other papers had consistently emphasized the need for the proper handling of pasteurized milk in lamenting the supposedly unclean packaging and delivery of milk by ethnic Indian milkmen. Similar advice was also given to the consumption of water in which the press had repeatedly called for the use of pipe over well water or water that had been stored in exposed containers. Blame for diseased milk was also attributed to the supposedly unwholesome practices of Indian milkmen. As the *Penang Gazette* observed:

We have noticed again and again, the Indian retailer plunging his hand fearlessly into the milk where measuring it out from one vessel to another, the very hand which he would but a moment later, arrange his hair or quickly adjust his clothing. We have also seen Indian retailer’s milk packs standing openly beside the road, on which scores of passing rikshas were probably churning poisonous germs in thousands.³⁸

³⁴ *P.G.* 14 May 1907

³⁵ *P.G.* 18 September 1869.

³⁶ *T.M.* 4 July 1910.

³⁷ *T.M.* 29 June 1912.

³⁸ *P.G.* 3 August 1897.

The newspaper also suspected from the case of the outbreak of enteric fever in Hong Kong that milk derived from Chinese dairies were equally liable to contamination owing to the common practice of diluting the contents with water.³⁹ The solution, it felt, should be one of either careful supervision of milkmen through the extension of the Infectious Diseases Ordinance or to obtain milk from dairies of good reputation.⁴⁰ As the paper concluded, “To hope that an Asiatic purveyor who wishes to add water to his milk will take the trouble and neglect the tempting offer at the nearest poll or to see that additional liquid is wholesome, would prove to be too extremely sanguine.”⁴¹ By the mid-1880s, using the persistent complaints of poor sanitation and hygiene among “native” quarters, the *Penang Gazette* recommended that the public health inspectors be authorized with the “summary power to order detention, destruction, withholding and cleaning of houses and destruction of unfit articles of food.”⁴²

Aside from scoffing at local traditions, the newspapers also played the role of reinforcing Eurocentric exclusivity in modern public health institution and practices. In a row over the demands of the Chinese merchants to manage their own labor quarantine camps, the *Penang Gazette* feared that such ownership would compromise the standards of the public health institutions. It asserted:

We are pleased to see that the Municipal commissioners are taking the question of the Chinese quarantine camp seriously, and they are not inclined to let it be run on Chinese lines with no qualified medical supervisor. We have every consideration for our Chinese fellow colonist, but at the same time, we think that they ought to be given to understand that in sanitary questions they should conform to European ideas[...] We believed that Straits Chinese are far ahead of their compatriots residents in China in all ways and we think that they should try to set an example of enlightenment by paying more attention to sanitary matters and offering less puerile opposition to all reforms. Besides they ought to remember that the Straits Settlements are not specially created for them.⁴³

Burke and Prochaska (2007, p. 136) argue the importance of the deeply power-infused colonial representations as instrumental in shaping the culture worlds inhabited by colonizers and the colonized. Layering such contestations has been that of Western science in painting a primitive and pestilential colonial world in need of external guidance of the white man (Arnold 2000). Closer to the Malayan context, Malay society had been framed as medieval and therefore requiring modernization and development (Goh 2007, pp. 324–325). Similarly, with its association with the claims of modern biomedicine, the colonial newspapers managed to position themselves as watchdogs of modernity and civilization against the non-European lands. By its negative and disdainful portrayal of the indigenous societies, these papers became part of the hegemonic process in entrenching the sociocultural hierarchies between the European elite and their apparently infantilized Asian

³⁹ *P.G.* 4 September 1897.

⁴⁰ *P.G.* 3 August 1897.

⁴¹ *Ibid.*

⁴² *Ibid.* 19 September 1885.

⁴³ *P.G.* 2 March 1902.

subjects that needed proper instructions in the medical sciences. As part of the balance of power between the emerging colonial civil society and the state, the English language newspapers seemed to be in consensus that their colonial possessions were to be defined along the primacy of modern European notions of healing and health. Nonetheless, in a significant twist, as the next section will demonstrate, even as the British presence in the Malayan Peninsula had already surpassed a century, the colonial newspapers still wanted to see its territory as an “Eastern” colony incapable of internalizing Western sciences.

1.4 Rejecting the “Corpus Vile Experiments”: Opium and Social Hygiene

While championing scientific rationality as the panacea to the ills of colonial society, the same English language newspapers made an ironic turn when it came to diseases of vice, particularly opium and venereal diseases. Unlike “unhygienic” food handling methods and “filthy” and congested living conditions, narcotic addiction and sexually transmitted diseases were not only deeply embedded with seemingly strongly immutable oriental cultural traits. It also concerned the more obvious commercial and geo-strategic interests in maintaining opium revenues and keeping male soldiers and workers healthy. This was reflected in the more tolerant regulatory mechanisms aimed more at controlling vice as a medico-economic phenomenon rather than a moral aberration. Endorsed generally by the colonial English language papers, this measure was indicative of a more morally “pragmatic” approach towards the colonial subjects, one that would be able to address public health needs without being seen to be offending the cultural sensibilities of the indigenous people, however morally unacceptable by metropolitan standards.

Nonetheless, from the 1860s, both medical and public opinions were turning against the practice of “toleration.” Temperance and abolitionist groups, many represented by women, considered such compulsory examinations as not only humiliating for the female sex but also medically counterproductive, only “making sex clean for men.” By contrast, these groups argued that more emphasis should be given to sex education, leading particularly to abstinence rather than regulation. Correspondingly, the views of temperance groups gained momentum over the universal narcotization of opium culture and, in the case of Chinese nationalistic sentiments, threatened the Middle Kingdom. Science it seemed was moving toward the politics of abolition and temperance as expert medical opinion were both co-opted and appropriated by activists and lobbyists and eventually legitimized by the various committees on venereal diseases and opium by the Health Organisation of the League of Nations.⁴⁴

In opium and social hygiene (venereal diseases), the colonial English press became the most vociferous defenders of the status quo. The opinions of the papers reflected increasingly the anxieties of the local colonial elite, including senior public health officers, medical doctors, administrators, and merchants. To them, opium and prostitution were significant sources of revenue in the colony, especially because of the armies of male migrant workers. Although the state had taken steps to reduce the

⁴⁴ For venereal diseases, see Davidson and Hall (2001), Jordan and Sharp (2003), Levine (2003), and Levine (1998, pp. 675–705). For opium, see Trocki (1999).

excesses of the narcotic and vice trade through a more systematic regime of regulation, these measures fell short of abolition. To the local authorities and mercantile groups, opium was seen as a harmless indulgence as long as it was taken in moderation. While they had reluctantly agreed to gradually surrender the opium industry to a state monopoly by the 1930s, they found a total ban to be untenable (Chen 1961).

The same ideas applied in the case of prostitution; it was felt that the problem of venereal diseases and the trafficking of women could be more effectively contained by constant checks by officials from the Health Departments and the Chinese Protectorate. Any move to close down these brothels as lobbied by the social hygiene groups, they opined, would be detrimental to public order as it would drive vice activities underground and prostitutes onto the streets. Without adequate regulations, venereal diseases would flourish. Against their most ardent protests, however, the Malayan authorities were unable to prevent London from imposing new legislative requirements demanded by European public opinion and social reform movements which took harsher lines towards social vices. In this respect, the Malayan English language press assumed the role in countering what they saw as the moral crusades waged by puritanical groups against the well-being of the colony.

It was the newspapers who had however placed the debates on a new footing. They had generally recognized in principle the moral arguments of the abolition groups of the effects of social evils that were felt to be both un-Christian and uncivilized in the eyes of the European public. However, the pressmen were also quick to point out that Malaya was still a largely “Asiatic” society, albeit being under British flag, and appealed to the logic of cultural relativism and political expediency. Such was seen in the case of the *Penang Gazette*'s editorial on the appointment of a Royal Commission to investigate on venereal diseases in the Federated Malay States as not just as indications of “more stringent control by Downing Street,[...] increasing the interference by imperial authorities to local matters,”⁴⁵ but

Nothing would give the gentry greater pleasure than to be allowed to use the Federated Malay States as a corpus vile for their legislative experiments. The utopian rights of man would make a pretty program for an Asian colony and the goodbye to the prosperity of British Malaya[...] Trade unionism, state socialism, the policy of pampering of the working classes, interference with private enterprise and other innumerable evils of government by catchwords are already sapping the foundations of Great Britain and would simply wreck havoc in this country.⁴⁶

Citing the apparent permissiveness of Oriental societies, the newspapers argued that opium should be tolerated in the colony in the same manner as alcohol in Britain. It also found the concept of women's emancipation of little appeal to the Asian women who were accustomed to subservience. Seemingly furthering the case on behalf of the local colonial administrators, the press reminded its readers that the British presence in Southeast Asia was numerically tiny enough to maintain social order rather than effecting profound social changes. Some commentaries also

⁴⁵ *P.G.* 3 March 1908.

⁴⁶ *Ibid.*

explicitly targeted locally based abolitionists, particularly the anti-opium societies that had sprung up in different states in the Malayan Peninsula in the early period of the twentieth century. From guarded optimism about the first anti-opium society meetings in 1907, the *Times of Malaya* became opposed to the calls of some factions of the total suppression of the drug as being hasty and impractical. As stated in its editorial:

As England we have the rabid prohibitionist party as well as temperance body, so here in the Federated Malay States we have extremists who would abolish altogether the traffic in opium, its consumption and we have a large body of broadminded men and women who while working towards eradication of an admitted evil, prefer to travel along the line which native buys down[...] reducing to minimum when it is obviously apparent that total eradication is impossible.⁴⁷

The newspapers had, however, also turned the debates over the public health concerns of opium and venereal diseases into a more binary opposition between the “local and London.” In the eyes of the dailies, those with deep interest in British Malaya as merchants and administrators recognized the colony’s prosperity arising from laissez faire economics and governance. The Colonial Office at the imperial capital, however, was thought to be swayed by naïve social movements and international organizations like the League of Nations into implementing idealistic but unworkable legislations across the empire.

This paradox of the English language newspapers over the social position of the biomedical sciences mirrors Anderson’s observation of the molding of American cultural identities in The Philippines of the early twentieth century. Among the bureaucrats, on one hand, the anxieties of the Americans reinforced sociocultural boundaries had made corporeal differences more threatening, leading to a more pressing need for effecting bodily reform and behavioral changes. On the other hand, they harbored a sentiment that any attempts of change for these natives along the single track toward western modernity would only remain a civilizing mission instead of realizable ambition (Anderson 2002).

Nonetheless, the English language press had also given prominent space for its detractors to make their case. Speeches and remarks by visiting or resident social hygiene activists were often fully reported in the main newspapers. The presence of the voices of purity campaigners in these local papers also reflected the increasing globalization of the temperance movement in its ability to identity in the press, channels of influence, and linkages (Philips 2006). The opinions of lay readers supporting the abolition cause were also accepted for publication in these newspapers. Early coverage of the development of the abolitionist movement included that of the establishment of the anti-opium societies across British Malaya in the early twentieth century which coincided with the visit of prominent British abolitionist, Robert Laidlaw in 1907⁴⁸ and climaxing with the visit of the Straits Settlement delegation to London to present their petition.⁴⁹ Prominent coverage was

⁴⁷ *T.M.* 20 January 1909.

⁴⁸ *S.T.* 20 December 1907.

⁴⁹ *Ibid.* 1 October 1907.

also given to the female activists who opposed the portion of the Contagious Disease Ordinance which called for the compulsory examination of prostitute for venereal diseases. This included Grace Human in the 1915 and Catherine Dixon in her international tour in 1919–1921 as well as Sarah Nicolle-Jones towards the eve of the Second World War. Other local and international inquiries on these two subjects were also given newspaper attention, particularly the proceedings of the Commission of Inquiry into Venereal Diseases in 1923 as well as the fact finding missions of the League of Nations Opium and Venereal Diseases Committee (Royal Commission on Opium 1899; Straits Settlements 1908; Straits Settlements 1928; League of Nations 1934).

Debates over the opinions of the editorials, commentaries, and statements were also unreservedly published. For letters to the papers, most if not all were hidden behind pen names and pseudonyms. Abolitionists, for example, called for greater public education and anti-vice enforcement. In arguing the case for abolition in her visit to Singapore in 1919, Dixon mentioned in the *Straits Times* that “the existence of a recognized class of women in recognized houses is injustice to women, however necessary it may seem to men. Prostitutes are not born, they are made, trade with vested interests at the back of it and pressure is constantly being brought to bear upon those least fitted to resist it. We are fighting for those who cannot fight for themselves.”⁵⁰ Last but not least, sustaining this momentum of lobbying against regulation was a writer with the pseudonym of MEDICO to the *Straits Times* in 1941:

If the prostitutes are to be medically examined, it is but reasonable that their clients also should be medically examined and certified free from disease before they can enter any house. Why should the clients be protected and not the women? If people should ask for licensed brothels for the protection of men, I appeal to the manhood and womanhood of this city to rise up and demand the same protection for their unfortunate and inarticulate sisters. This control of prostitutes is one sided and absolutely unfair, unjust and cruel.⁵¹

The similarity of the rhetoric published elsewhere by women social hygiene reformers and that printed in anonymous contributions to the newspaper suggest that female activists may indeed have authored some of these critiques.⁵² Parallel

⁵⁰ *S.T.* 15 March 1919. For details of Catherine Dixon’s visit to Singapore, see also *Monthly Paper of Saint Andrew’s Cathedral*. Singapore, April 1919 (WL. 3AMS/5/13, Malaya 1888–1924).

⁵¹ *S.T.* 7 March 1941.

⁵² Strong support from the Straits Chinese community was shown to the Singapore Bishop’s attempts to defend the repeal of the Communicable Disease Ordinance (CDO) in 1924. A public meeting of prominent Chinese leaders, several of them Western-trained doctors, took place in March to protest against the colonial administration’s exclusion of the representation of the Bishop in the 1923 Committee on Venereal Diseases which called for the CDO’s resumption. *The Malayan Saturday Post*. 29 March 1924 (taken from Women’s Library collections: WL. Malaya: 1888–1924: 3AMS/5/13. Box: FL062). The support was sustained by prominent Chinese individuals like Dr Chen Su Lan. Speaking at the Rotary Club in 1941, Chen criticized the local regulations for unjustly criminalizing street soliciting. He suggested instead the provision of shelters for prostitutes and called for better facilities for the treatment and cure of venereal diseases. *S.T.* 20 February 1941. The Bishop of Singapore lent his support for the abolitionists with calls for Christians to abide by their religious duties of abstinence from sin and greater public education for the rest of the population. He also lamented the fallacies of compulsory medical examinations, a practice he considered only as “guarantee for the first client.” *S.T.* 17 January 1941.

patterns could be observed for the contributions of letters and commentaries by the Anglicized Chinese community in the colonial print media as well. Some of the more prominent letter writers and contributors from the latter was that of Dr. Lim Boon Keng, a socially influential community leader who had been keen in using the media to put forward his agenda for the total suppression of opium in the colony. One of his more memorable contributions on this subject was to the *Straits Times* on 7 January 1825 where he illustrated graphically the sufferings of opium addicts, which he felt that their moral denigration from its consumption was more serious than the physical deterioration. Unreservedly blaming the government and merchants for wanting to preserve the revenue and profits from opium sales, Lim urged “nothing short of state interference and international control was needed.”⁵³

Even as these newspapers echoed the discourses of the colonial elite, they were still accessible to dissident voices. Nonetheless, the tolerance of the editors toward these views in effect reflected not just the upholding of the principles of media freedoms but also recognition of the more diverse social background of its readers. However, its trepidation over the temperance movement also showed a deeper fear for the colonial newspapers over the potential of mass politics brought about unwittingly by the changing trends in biomedical sciences that might no longer support the colonial status quo.

2 Conclusion

Media historian James Curran has grouped the historical development of the media along the categories of liberal, feminist, and populist. Based on the British experience of challenging state authority, each classification entailed differing and overlapping degrees of both political empowerment and cultural democratization (Curran 2002). But he has also recognized the limitations of these models in being able to concretely account for the evolution of media histories. Rather, “instead of telling a story of things getting better or worse, it offers a more contingent view of ebb and flow, opening and closure, advances in some areas and reversals in others. The contextualization of media history dissolves linear narratives—whether of progress or regress.”⁵⁴ Within the context of the relationship between media and imperialism, the fundamental question asks to what extent the burgeoning newspapers and radio reinforced or subverted the tentacles of empire.

Examining the medical politics in the English language newspapers in British Malaya facilitates the assessment of the circulation and contextualization of knowledge in the colonial context, one that may not be adequately reflected in official records. By persistently placing biomedical discourses in the public limelight, the colonial English language newspapers widened the audience base beyond that of the health authorities. In turn, this equipped the colonial civil society comprising predominantly of European and Asian mercantile communities both the technical expertise and ideological capital to engage the colonial state along the changing languages of science. In addition, the media culture had also enabled new

⁵³ *S.T.* 7 January 1925.

⁵⁴ *Ibid.* p. 51.

entrants like the women and ethnic Chinese-based temperance movements into the political arena even as their views differed from the local mainstream. For observers of the tightly government-monitored media contemporary Malaysia and Singapore, the self-professed watchdog role as well as the unrestrained critiques of officialdom is indicative of the tightening grip of the postcolonial nation-states on civil society.

Even as the space of the colonial civil society was socially malleable as seen in the more pluralized and autonomous newspaper discussions, its agenda were generally convinced of the primacy of the modern medical sciences. The editors and reporters seemed almost unanimously hostile towards the healing cultures and lifestyles of the indigenous subjects of peasants and migrant workers. Abhorring the apparently filthy habits, pathetic living conditions, and predatory quacks, the newspapers had little confidence in the health of the colonial subjects. In this respect, it was felt that the paternalistic authority of the colonial state was needed to save these natives from themselves through the uncompromising application of scientific biomedical principles.

This belief, however, met its contradiction. The newspapers ardently argued against the universalization of Western progressive scientific principles towards the issues of opium addiction and venereal diseases on the pretext that the Oriental populations were not ready for such new ideals. Underlying the plea that the presence of the colonial state was too insignificant to execute the ideals of the abolition of the compulsory examination of prostitutes for venereal diseases, and the total criminalization of opium, was the fear of the introduction of radical politics and political interference from London.

In sum, what this article shows is the need to link the historiography of sciences in Southeast Asia along broader historical agents rather than a chronological development of an apparently disinterested undertaking. The case of the newspapers in British Malaya has revealed the process in which the medical sciences seeped into the everyday political contestations between the colonial state and civil society, among the different factions of the latter, and between the emerging colonial bourgeoisie and the indigenous masses. Effectively, science, or at least its appropriation in the English language newspapers in British Malaya, had become the marker of colonial hierarchy as much as it was an instrument by which colonial civil society could counterbalance state authority.

References

- Anderson, W. (2002). Going through the motions: American public health and colonial “mimicry”. *American Literary History*, 14(4), 686–719.
- Arnold, D. (2000). Illusory riches: Representations of the tropical world, 1840–1950. *Singapore Journal of Tropical Geography*, 21(1), 6–18.
- Baber, Z. (2001). Colonizing nature: Scientific knowledge, colonial power and the incorporation of India into the modern world-system. *British Journal of Sociology*, 52(1), 37–58.
- Burke, E., III, & Prochaska, D. (2007). Rethinking the historical genealogy of Orientalism. *History and Anthropology*, 18(2), 135–51.
- Burns, P. L. (1956). *The English Language Newspapers in Singapore (1915–51)*. (pp. 35–52). Hons Thesis: National University of Singapore
- Chen, U-W (1961). Opium in the Straits Settlements. In K. G. Tregonning (Ed). *Journal of Southeast Asian History*, 2.

- Chen, M. H. (1967). *The early Chinese newspapers of Singapore, 1881–1912* (p. 5). University of Malaya Press: Singapore.
- City Council of Georgetown. (1966). *Penang: Past & present, 1786–1963* (p. 34). Malaysia: Ganesh Printing Press.
- Curren, J. (2002). *Media and power* (p. 40). London: Routledge.
- Davidson, R., & Hall, L. A. (eds). (2001). *Sex, sin and suffering: Venereal disease and European society since 1870*. New York: Routledge.
- Desbordes, R. (2008). Representing “Informal Empire” in the 19th century. *Media History*, 14(2), 121–39.
- Goh, D. (2007). Orientalism and the medieval natives: The Malay images in Anglo-American travelogues and colonialism in Malaya and The Philippines. *International Journal of Cultural Studies*, 10(3), 323–341.
- Gillies, E. K. (2005). *Singapore civil society & British power* (pp. 37–40). Singapore: Talisman.
- Hagen, J. (1997). Read all about it: The press and the rise of national consciousness in early 20th century Dutch East Indies societies. *Anthropological Quarterly*, 70(3), 107–126.
- Hariharam, M. (1924). Malaria, gonorrhoea. *Malayan Medical Journal*, 1, 8–10.
- Hazim Shah, M. (2007). Historicising rationality: The transmission of rationality and science to the Malay states under British rule. *Asian Journal of Social Science*, 35, 216–241.
- Jordan, J., & Sharp, I. (eds). (2003). *Josephine Butler’s and the prostitution campaigns: Diseases of the body politic*. London: Routledge.
- Kaul, C. (2003). *Reporting the Raj: The British Press & India, 1880–1922* (p. 3). Manchester: Manchester University Press.
- Kaur, A. (1985). *Bridge and barrier: Transport and communications in Colonial Malaya, 1870–1957*. Singapore: Oxford University Press. pp. 38, 45.
- Kanayson, A. (1958). *The newspapers of Singapore, 1824–1914. Honours thesis*. Singapore: University of Malaya.
- Kenley, D. (2003). *New culture in a new world: The May fourth movement and the Chinese diaspora in Singapore, 1919–1932* (pp. 75–96). London: Routledge.
- Khoo, K. K. (1984). *Malay newspapers and periodicals as historical sources*. Kuala Lumpur: Perpustakaan Universiti Malaya.
- Knudson, J. (2001). The Mexican herald: Outpost of empire, 1895–1915. *International Communication Gazette*, 63, 387–398.
- League of Nations (1934). *Commission of Enquiry into the Control of Opium Smoking in the Far East*, Vol. 2. Geneva
- Levine, P. (1998). Modernity, medicine, and colonialism: The contagious diseases ordinances in Hong Kong and the Straits Settlements. *Positions*, 6(31), 675–705.
- Levine, P. (2003). *Prostitution, race and politics: Policing venereal disease in the british empire*. New York: Routledge.
- Liew, K. K. (2007). Terribly severe but mercifully short: The episode of the 1918 influenza in British Malaya. *Modern Asian Studies*, 41(2), 221–52.
- Lim, J. K. (1993). *Our 70 years 1923–1993: History of leading Chinese newspapers in Singapore*. Singapore: Singapore Press Holdings.
- Lin Lewis, S. (2006). Echoes of cosmopolitanism: Colonial Penang’s ‘indigenous’ English press. In C. Kaul (Ed.), *Media & the British Empire* (pp. 238–239). UK: Palgrave Macmillan.
- Manderson, L. (1996). *Sickness and the state: Health and illness in colonial Malaya, 1870–1940*. Cambridge: Cambridge University Press.
- Magnusson, G. (2003). The singularisation of history: Social history and micro-history within the postmodern state of knowledge. *Journal of Social History*, 36(3), 714.
- Makepeace, W. (1921). *One hundred years of Singapore*, vol. 2 (pp. 278–294). London: John Murray.
- Macaulay, T. S. (1924). Inside view of estate health: Smouldering malaria. *Malaya Medical Journal*, 2, 11–12.
- Philip, K. (1998). English mud: Towards a critical studies of colonial science. *Cultural Studies*, 12(3), 300–331.
- Philips, R. (2006). *Sex politics and empire: A postcolonial geography* (pp. 26–56). Manchester: Manchester University Press.
- Royal Commission on Opium. (1899). *Straits Settlements and Federated Malay States Opium Commission. Proceedings of the Commission appointed to inquire into matters relating to the use of opium in the Straits Settlements and the Federated Malay States*. London: Eyre & Spottiswoode.
- Straits Settlements (1908). *First Report of the Advisory Committee on Social Hygiene, 1925*
- Straits Settlements. (1928). *Report of Opium Revenue Replacement and Taxation Committee*. Singapore: National University of Singapore, Central Library.

- Trocki, C. (1999). *Opium, empire and the global political economy: A study of the Asian Opium Trade, 1750–1950*. London: Routledge.
- Turnbull, M. (1995). *Dateline Singapore: 150 years of the straits times*. Singapore: Singapore Press Holdings.
- Warner, W. (2005). Communicating liberty: The newspapers of the British empire as a matrix for the american revolution. *ELH*, 72, 339–361.
- Watson, M. (1921). *The prevention of malaria in the Federated Malay States: Twenty years of progress*. London: J. Murray.
- Watson, M. (1932). Sir Ronald Ross and Malaya, *British Malaya*. pp. 133–134.
- Yeoh, B. (1995). *Contesting space: Power relations and the urban built environment in colonial Singapore* (pp. 26–78). Oxford: Oxford University Press.