CHAPTER 12

From Heroic Exploration to Careful Control: Mobility, Health, and Medicine in the British African Empire

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> [P]oor old Livingstone […] used to protest against settlement on the low ground and advocated the high land and then he waded about in mud and water till he died!
>
> (Waller to Laws 1886)

Questions of mobility, when and how to move healthily, lay at the heart of nineteenth-century medicine and hygiene in Africa.[1] Such questions had long been important for travellers (whether African, Arab, Indian, or European). David Livingstone and other British explorers arrived in a world that was already mobile, dynamic, and pluralistic in its medical cultures. Specific medicines for travellers were known in several African medical traditions,[2] and specialist healer-diviners, *waganga*, were part of

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Nyamwezi caravan groups in East Africa during the second half of the nineteenth century, for instance (Rockel 2006, 73).

This chapter explores the connections and interplay between mobility and medical ideas, ideals, and practices, including hygiene as preventive medicine, as perceived by British travellers and colonialists in tropical Africa from the mid- to the late nineteenth century. For professionals and laypeople, medicine and hygiene could be conceptually and practically associated with specific forms of mobility such as modes of travel, bodily movement, and exercise or their absence. Though few in number, the late Victorian travellers in tropical Africa were enthusiastic and relatively prolific writers, whose many texts shaped and reshaped contemporary perceptions of the region and have been analysed by historians, geographers, anthropologists, and literary scholars (e.g. Brantlinger 1988; Livingstone 1992; Kennedy 2013). Questions of health and mobility recur throughout these texts, which include travel books, health advice pamphlets, newspapers, periodicals, and correspondence. While highly selective by necessity, the works discussed in this chapter were authored not only by famous explorers, such as Livingstone (*Narrative of an Expedition to the Zambesi and Its Tributaries*) and Mary Kingsley (*Travels in West Africa*) but also by lesser-known figures, such as Horace Waller (*Health Hints for Central Africa*) and John Buchanan (*The Shire Highlands*). Furthermore, they are largely concerned with regions that were regarded as particularly dangerous to health in South-Central and West Africa. Notably during the late nineteenth century, parts of Southern Africa were increasingly seen as healthy for Europeans, particularly for those suffering from tuberculosis, and a moderate "health tourism" to Cape Colony was promoted by steamship companies and sanatoriums (Zangel 2017).[3] This idea of African sites as health resorts stood in sharp contrast to older images of "the white man's grave" (based on high mortality on the West African coast) and the colonial tradition of "sensationalising Africa" as a continent of dangerous diseases, wild beasts, and heroic male white explorers, scientists, and doctors (Curtin 1989; Crozier 2007; Rankin 2015). In addition to examining texts from the period of British exploration and early contacts into the formal colonial conquest of the 1880s and the 1890s, this chapter draws on the historiography of health and medicine in colonial Africa, particularly the seminal works of Philip Curtin. My case studies focus on the British in South-Central Africa (present-day Malawi, Mozambique, and Zambia) and, in the case of Kingsley, on the West African coast and the interior of Congo and Cameroon regions.

Travelling in the Shadow of Fever

"Fevers" had been a major obstacle to exploration. Famously, Livingstone used quinine as prophylaxis against fever during his transcontinental journey across Southern Africa in the 1850s. As interest in the African continent grew, explorers became celebrated heroes across Europe—particularly those who survived and were able to publish bestselling accounts of their travels (Jeal 1974; Brantlinger 1988). However, while quinine had reduced European mortality in the tropics, it was not always effective, and there were doubts about how the drug actually worked (Fabian 2000, 65; Hokkanen 2017, 186).

There was, of course, little consensus about the causes or nature of malaria and other "African fevers". Nineteenth-century medical thought and practice were in considerable flux, with older ideas about humours, miasmas, "climates and constitutions" still persisting alongside newer conceptions of bacteria, contagion, nerves, and parasites (Worboys 1993, 1996; Harrison 1999). Walter Elmslie, a Scottish missionary doctor in Central Africa, noted to a recently arrived colleague who had suffered several bouts of malaria: "I see you are bilious like me; well, never mind, bilious folk live long" (quoted in MacAlpine n.d., 3). Old ideas about temperaments and constitutions were still evident in doctors' parlance in the 1890s, and this was even more the case among laypeople. Some of the more influential Victorians who wrote about health and survival in tropical Africa were not medical professionals, including Henry Morton Stanley (Jeal 2007), Kingsley (Birkett 1992; Nambula 2020), Waller, and Harry Johnston, the first Commissioner of British Central Africa, later Nyasaland and now Malawi (Hokkanen 2017, 54–56).

European explorers were seen as epitomising some ideals of Victorian masculinity. They were portrayed as heroic figures in the service of science, civilisation, and Christianity.[4] Facing the dangers of tropical climate, potentially hostile peoples, wild beasts, and numerous hardships, they had to be brave, energetic, strong, controlled, enduring, and even ready to die for their mission. In their public images, the explorers' African allies and associates, who actually enabled much of the exploring, were frequently airbrushed out of their narratives (Brantlinger 1988; Fabian 2000, 36; Hokkanen 2017, 67–68). As Anna Crozier has noted, the tradition of depicting European doctors as lonely heroes in tropical Africa was a recurrent theme in popular medical discourse about the continent from the 1890s to the 1930s at least (2007, 395–399; see also Bashford 2004).

This can be seen as a continuation of the earlier explorer tradition, which, in turn, was influenced by early modern nautical exploration. Dane Kennedy has argued that the British nineteenth-century explorers of Africa and Australia approached the "blank" continents very much like uncharted waters, which complicated their engagement with indigenous inhabitants and local knowledge (2013, 6–16).

For Waller, Livingstone was "the hardest man that ever entered Africa" (1893, 46), arguing that his celebrated constitution enabled him to endure malaria, various intestinal illnesses, repeatedly being drenched through and living on scarce supplies year in year out in conditions that would have quickly killed most men (46). In addition to a strong constitution, the mobile explorer-hero had to demonstrate his willpower. Samuel Baker held that nothing "in this world has power to resist a determined will, as long as health and life remain" and that as someone who was from his youth "inured to hardships and endurance in wild sports in tropical climate" (1886, Chap. 1), he was particularly suited to exploration in Africa. Baker stated that alone he would have been quite ready to die "upon the untrodden path", had he not been accompanied by his wife Florence, who provided him with comfort, care, and concern. He describes Florence's unusual will to travel to dangerous places with him as "woman's constancy and devotion", comparing her to Ruth in the Old Testament (Chap. 19).

Exploration, like medicine, was usually portrayed as a masculine form of activity: the African interior was generally not seen as suitable for European women. However, this characterisation took little account of women such as Mary Livingstone and Dr. Jane Waterston in Central Africa, Florence von Sass-Baker in Abyssinia, and Mary Slessor in West Africa, or of Kingsley, who became a bestselling female explorer-author with her classic studies of West Africa (Birkett 1992; McKenzie 2012; Nambula 2020). Nevertheless, as Casey Blanton has noted, the public reception of female explorers was mixed. Despite the popularity of her work, Kingsley (like Isabella Bird) was also a figure of ridicule in the contemporary popular press, with a cartoon portrayal of her "precariously perched" in a canoe, "out of place" in a dress and a bonnet surrounded by Africans (2002, 45–46).

Mobility as Prophylaxis and Cure

Samuel and Florence Baker seem to have favoured walking or riding, rather than being carried, during their journey from Egypt to Central Africa. When struck by illness in early 1864, Samuel tried to continue to ride on his ox until he was completely exhausted (Baker 1886, Chap. 19). There were practical reasons for continuing the journey rather than resting en route, of course: food, drink, shelter, and treatment would all be better available in settlements than relying on potentially dwindling supplies at an improvised rest stop.[5]

"It is only by moving about and living an active life that one can be kept alive in the lowlands" (1863, n. pag.), Livingstone wrote to Sir Thomas Maclear, one of his influential supporters, in May 1863 as the Zambesi expedition was wrapping up after almost five years. The expedition and the Oxford and Cambridge Universities' mission that followed it were withdrawing from the interior after several deaths, including that of Mary Livingstone (Hokkanen 2017, 54).[6]

The notion that activity and mobility could secure health was apparent in discussions about the efficacy of quinine. While exploring the Shire River in 1859, Livingstone and Dr. John Kirk, the expedition's first medical officer, stopped taking prophylactic quinine probably due to its side effects and extremely bitter taste. Instead, they advocated a good diet and the benefits of physical activity (in the form of energetic work or being on the move), noting that Portuguese residents on the Zambesi shared their views in this respect (Livingstone and Livingstone 1865, 309–314). Later, however, British imperial travellers often chose to sweepingly dismiss the Portuguese, who had experience of living in the Zambesi region since the seventeenth century, as lazy, immoral, and lacking in energy (Elton 1879, 149–156; Buchanan 1885, 52).

Former naval officer E. D. Young, who led an expedition in search of Livingstone in the 1860s and a pioneer mission party to Malawi in 1875, expressed his firm opinion that remaining "idle on one spot" was particularly dangerous to health (Young 1877, 43). For Young, mobility was therapeutic as well as prophylactic, and he advised those who experienced symptoms of the dreaded fever to get up and move about. One of the effects of the malarial "fever poison" was that it turned its victims "languid and indisposed to bestir themselves", but a suitable amount of "excitement" was nevertheless required to aid recovery (186). Although hunting, botanising, walking, and paddling were all deemed healthy activities,

they could leave travellers susceptible to perceived causes of fever, including becoming wet, chilled, or exposed to malarious miasma, and a number of writers acknowledged the need to find a balance in this respect (Livingstone and Livingstone 1865; Buchanan 1885; Waller 1893).[7] Of course, travellers were not simply free to move whenever and wherever they pleased. In the pre-conquest period, explorers usually required permission from African rulers, who would also often provide crucial support in the form of carriers, guides, and food (Fabian 2000, 34–35; Kennedy 2013, 222–223). However, decisions to allow, support, prevent, or delay travellers may not always have been made by kings or chiefs alone. John Speke described with disdain the influence that could be exerted in the kings' courts by East African diviner-healers, claiming that their predictions of calamities befalling the land were an effective strategy to obstruct travellers for their own purposes (1969, 7). A less contemptuous interpretation might suggest that in such cases, European explorers' mobility could be blocked or slowed by African ideas about communal health, as well as by political calculations or because negotiations failed. The question of whether, or to what extent, Europeans could become acclimatised to the conditions of tropical Africa was central to plans for commercial trading, the founding of mission stations, and the establishment of formal colonisation (Livingstone 1992, 232–241; Hokkanen 2017, 56). Explorers were primarily concerned with surviving their travels, but given that expeditions could last for several years, the difference between exploration and settlement was not always clear cut.

Frederick Elton, a naval officer and British consul in Mozambique in the 1870s, was an adventuring explorer who emphasised mobility and hard work as being essential to living healthily in Central Africa. Elton believed that European acclimatisation in the region was possible but was adamant that the difficulties encountered by the Portuguese were partly due to what he dismissed as their laziness and sedentary lifestyle (1879, 149–156). Elton himself, however, was to succumb to illness during his longest journey, a thousand-mile land trek from Livingstonia to Zanzibar.

Another British lay advocate of the health benefits of activity and mobility in the Zambesi and Shire regions was Buchanan, a Scottish mission horticulturalist who had been expelled from the Blantyre Mission for his violent treatment of Africans and became the first British planter in Malawi. In 1885, he published *The Shire Highlands as Colony and Mission*, in which he considered the economic and colonial potential of the area (then still under African rule). By this time, Buchanan had lived in the region for

almost ten years, which afforded him the status of a lay authority on travel. In his discussion, he focused on his experience of the river route on the Zambesi and the Shire from the Portuguese town of Quelimane on the coast up to the Shire Highlands, a journey that, in 1885, could take anything between 17 days and 4 weeks (Buchanan 1885, 2–11; Hokkanen 2017, 62–63).

Buchanan maintained that "a melancholy person, or one of choleric temperament" (1885, 2–11) was especially vulnerable during long river journeys. The use of canoes required travellers to spend extended periods in a cramped position with only limited opportunities to land on the muddy riverbanks, a situation that could cause some to worry excessively to the point of depression after which, according to Buchanan, fever would often follow (2–11). Healthy exertion was advocated as a preventative measure, with Buchanan stating that travellers ought to paddle "vigorously till the sweat pours out", but not during the worst heat of the tropical sun, another source of colonial fear (20–24).

A certain kind of fatalism ran through Buchanan's health advice. While he considered carelessness to be outright dangerous folly, a journey was ultimately always a test of one's individual constitution: no matter how prepared, travel through malarious zones might prove to be fatal (24–25). Buchanan's own continued survival made him a rare British pioneer by the mid-1890s when much of the area was incorporated into British Central Africa Protectorate under Commissioner Johnston (McCracken 2012, 57).

Buchanan embarked on his last trip down river with some trepidation: he had not been well and had been afraid of travelling. He never made it to Quelimane. He was the second of the three Buchanan brothers to die: four years earlier, in 1892, David had died of blackwater fever, while Robert was to outlive John by only a few months. The loss of these brothers who had been hailed as energetic pioneer planters, strong men in the prime of their lives, was felt keenly in the British Central Africa Protectorate. The high levels of morbidity and mortality suffered by the relatively small group of colonialists (less than 300 planters, missionaries, and officials in total) led to ongoing and strongly contested discussions about the rules for healthy living (Hokkanen 2017, 64, 71).

The three or four days it took to paddle through the Elephant Marsh were considered some of the deadliest of the Shire journey. The anxieties associated with lowlands, marshes, and river journeys eased during the ascent to the Shire Highlands, with many travellers describing the climb as exciting, exhilarating, and energising (Buchanan 1885, 34–37; Hokkanen

2017, 63). Walking could be mentally as well as physically stimulating. Waterston described the experience of an ideal "African March" on foot from Blantyre to Matope. The group of African carriers and three Europeans set out from the highlands in the afternoon, stopped for a rest in the evening, and continued walking in the moonlight after one in the morning. Waterston "soon gave up to be carried, it was such a glorious night" (quoted in Bean and van Heyningen 1983, 160), clearly feeling uplifted by the physical exertion of walking. Writing to James Stewart on 10 November 1879, Waterston recounted that the march had restored "the Glamour" of African travel that she had first felt during her steamboat journey up the Shire, a sensation that had been lost during her demoralised time at the mission station in Blantyre (160).

The healthiness of travel was often associated with particular seasons. Travellers brought with them the common belief that getting wet could predispose or contribute to fever. When applied to malarial fevers, this meant that the rainy season from November to April in South-Central Africa was considered unhealthy by many. On the other hand, the colder dry season (June and July were the coldest months) and the hot dry season in September to October were also believed to have their dangers. Young held that April and May were the unhealthiest months: at the end of the rainy season, the nights suddenly got colder, and evaporation increased. For those fearing miasma, moist fog and morning dew were deemed especially dangerous, and some travellers used mosquito nets in part to keep miasma out (Young 1877, 153; see also Dobson 1883; Buchanan 1885).

The gradual compilation of meteorological and European morbidity and mortality statistics (generally African health was not considered a colonial concern until the 1900s) seemed to support the idea that the rainy season was particularly unhealthy for travelling. Although this was a widespread view by the early 1890s, Commissioner Johnston nevertheless believed that in fact May and June were the most dangerous months for resident colonialists and that the rainy season was only dangerous for those travellers who allowed themselves to get wet and catch a cold (Hokkanen 2017, 64).

British ideas about healthy moving and living in Africa were influenced by the earlier experiences of explorers and officials who had spent time or served in India (Curtin 1992, 235–238).[8] One example was the idea of healthy hill stations, which served as sites of European recuperation and retreat during the hottest months. Well established in India by Livingstone's

time, hill stations were built wherever possible; however, for logistical reasons, the first mission and trade stations in Central Africa usually had to be situated alongside waterways. In time both the commercial and administrative centres of colonial Malawi, Blantyre, and Zomba, respectively, were purposely built on higher ground (Hokkanen 2017, 37–39). Further afield, Kirk, by the 1890s, a senior advisor for British interests in tropical Africa, was one among a number of influential figures to advocate for the value of the highlands of colonial Zimbabwe and Kenya, partly because of their perceived healthiness (Hokkanen 2014, 80–81). In West Africa, there were plans to elevate headquarters in the 1880s and 1890s, but the altitudes reached could be modest: in Lagos, just 50 feet could be gained (Curtin 1992, 236).

Regimes of Care in British Central Africa

> The men who die, as a rule, are those who think that to rough it as much as possible is the correct thing. (Waller 1893, 48)

In his slim guidebook to health in Central Africa (published in several editions in the 1890s), Waller outlined a regime detailing how to live and move carefully within the region. Although he was neither a qualified doctor nor had he been back to the area since 1864, he nevertheless skilfully leveraged his personal experience, his close association with Livingstone, and deferential reference to British doctors who had practised in Central Africa to establish his status as a credible health authority. While most of the medical authorities he referred to were dead, correspondence with Robert Laws, who had even more experience than Buchanan, played an important role in Waller's book. Waller's book drew heavily on Laws's experience and advocation of careful travel (1893, 7–8). Laws had buried many missionaries (including medical colleagues), treated countless cases of fever and other illnesses, and had himself suffered from several serious bouts of malaria. He trusted in quinine as a prophylaxis and cure for fevers and believed that careful and regulated hard work was the cornerstone of health (Livingstone 1921; Hokkanen 2009).

For both men, mobility was preferable to "staying idle" (Waller 1893, 12–13), but only when travel was planned meticulously and undertaken as slowly and comfortably as possible.[9] The guidebook recommended hunting and botanising as healthy activities, emphasising that travellers ought to keep both mind and body active (12–15). Malaria was thought to cause

and be worsened by psychological factors such as worry, fears, and irritation, and Waller explicitly warned that quarrels among European travellers could be a sign of malarial poison taking hold (43–57).

Wet feet were considered very dangerous, too, and Waller held Laws up as a model with his claim that the missionary had managed to keep his feet dry for at least seven years while travelling thousands of miles by land and waterways. The contrast between the careful Laws and the mud-wading Livingstone is notable, even though Waller chose not to make an explicit comparison in his pamphlet. Moist malarial emanations from the soil were also seen as harmful: sleeping on the ground was condemned as fatal practice. Instead, travellers were advised to bring tents, mattresses, and preferably "light iron folding bedsteads", instructions that would of course necessitate the employment of more African workers (43–57).

It should be clear by now that more careful mobility, particularly overland, was dependent upon a large number of African workers carrying sufficient supplies and materials, as well as (in most cases) shouldering the weight of European travellers. The *machila* was a hammock slung between two poles designed for this purpose, which was most likely used in East and Central Africa by coastal Swahili-speaking traders and the Portuguese long before Livingstone's time. It was eagerly adopted by the British in the 1880s and 1890s and became a mainstay of careful travel. Without *machila* carriers repeatedly wading across rivers, streams, and swamps, Laws could not possibly have kept his own feet dry (Hokkanen 2017, 66–67).

An increase in comfort required an increase in African labour. Securing sufficient labour became easier after the colonial conquest, when indigenous rulers and healers could no longer exert much control over European mobility. A longer trip would require 16 men per *machila*, working in four teams of four. In the late 1890s, the African Lakes Company and other transport businesses employed thousands of men between the coast and the Shire Highlands. In 1900, the African Lakes Company had 64,000 men working for them, of whom 1603 were specialised *machila* men. These seasoned and fit men could move at speeds of up to six miles per hour, it was estimated (Mandala 2006; Hokkanen 2017, 66–67).

Machila work was generally resented and was later singled out as a particularly hated colonial practice. Those employed as carriers suffered from various illnesses: jigger infestations (caused by a skin-burrowing sandflea that spread to Malawi in the 1890s) were common as were colds, coughs, and lung ailments believed to be the result of becoming chilled while in

the highlands. Protests and strikes by these men were not unknown, and in at least one report, a missionary was deliberately dropped onto a rock (Chiume 1982, 83; Hokkanen 2017, 66–67). While Europeans were very worried about getting wet or cold, health advice (like Waller's handbooks) typically made little or no reference to the health of Africans employed to facilitate European travel. Waller's suggestion that carriers should be vaccinated was an exception that was grounded in the danger that smallpox could pose to European travellers (1893, 56). Overwhelmingly, the men employed as carriers seem to have been taken for granted (Hokkanen 2017, 62, 67). The same was true of the usually nameless boatmen who manned small canoes as well as crewing steel riverboats. However, because personal servants were absolutely crucial workers for early colonialists, first-hand accounts were more likely to mention these (often young) men. British official R. C. F. Maugham wrote approvingly about a servant who acted as cook, steward, valet, and personal attendant: at 13 or 14 years of age, he was able to authoritatively organise a kitchen in a steel boat during Maugham's first trip "up country" (1929, 94). Africans who travelled as associates would also frequently look after sick European travellers. Laws, in one of his earlier journeys, was allegedly saved from the consequences of suicidal delirium during a malaria attack, thanks to his companion's calm refusal to provide the raving doctor with his revolver (Livingstone 1921, 110–112, 224).

Not all Europeans approved of the *machila*: a healthy man being carried in a hammock was a poor fit with the earlier image of the heroic, muscular explorer. Neither could such a form of travel be portrayed and justified as a healthy exercise. Both Dr. William Affleck Scott (Blantyre Mission) and Maugham condemned the *machila*, preferring and advocating for brisk walking instead. Others simply found travelling by *machila* an unpleasant or discomforting experience. However, Scott's death from blackwater fever in 1895 prompted criticism of his fearless muscular Christian habits, particularly the suggestion that he had swum across the river to treat an African patient (Rankine 1896). By the late 1890s, proponents of the earlier energetic explorer-tradition were fewer in number, with some having died of the dreaded fever. As the colonialist population of the Malawi region and elsewhere grew, careful and comfortable mobility became increasingly desirable and possible. Johnston certainly appreciated comfort when travelling. As Commissioner, he sought to improve conditions of travel on the steamers, complaining to the Foreign Office

that the poor accommodation on the Zambesi steamers was a "considerable danger" to health (Hokkanen 2017, 65, 78–79).

Large-scale European conquest and colonisation in Africa elevated the perceived importance of increased permanent settlement of European families. In the 1890s, African regions were generally considered to fall into one of three categories: regions considered suitable for permanent, large-scale European colonisation (including South Africa, large parts of today's Zimbabwe, and the highlands of Kenya), areas deemed unsuitable for colonisation (the majority of the continent, including notably West Africa), and debatable zones (Curtin 1992; Hokkanen 2014). Belonging to the third category, the Shire Highlands of Malawi were generally considered to be healthy, but the journey to reach them was particularly difficult. In 1895, the editor of the *Central African Planter*, a settler newspaper published in Blantyre, made the case that because European women were now living comparably safely in the area, the protectorate could be considered healthy (Gelfand 1964, 235). However, this view was not universally shared; it seems that the prevailing opinion of the mid-1890s was that British Central Africa could not be "white man's country" like southern parts of Rhodesia (Hokkanen 2017, 70–71).

Large numbers of men died of malaria and blackwater fever in South-Central Africa, and these losses prompted official investigations at the turn of the century (193–199). European mortality rates in the region gradually began to decrease in the early years of the twentieth century, with the recognition of the mosquito as a malarial vector and the more systematic and regulated use of quinine. Additionally, medical services became more available, travel connections became faster, and housing and living conditions improved. By contrast, African health conditions were probably deteriorating due to the spread of epidemic diseases such as tuberculosis, introduced by migrant workers returning from South African mines (Worboys 1993, 512–520; Hokkanen 2017, 38–39).[10] While quicker and more regular routes and communication made it easier for sick Europeans to be evacuated to South Africa or Europe, the same routes also enabled more rapid transmission of diseases to more vulnerable populations. As such, the urban mobility of Africans eventually became a matter of concern for colonial health authorities. As Curtin and others have argued, hygienic ideas generally, and attempts at malaria control in particular, were to contribute to policies of sanitary segregation between Africans, Europeans, and Asians in colonial towns and cities (Curtin 1992).[11]

Female Explorer-Hero in West Africa: Mary Kingsley on Mobility and Health

Kingsley undertook her journeys at the same time as the British protectorates and colonies in South-Central and East Africa were being established. By contrast, West Africa, as Kingsley noted, was not, and would not be, a "white man's country". However, British commercial interests required a presence in the region, and this led to inevitable losses among officials and company agents (Kingsley 2007, 396–397). Kingsley observed that the flags in fronts of factories in Bonny were frequently flown at half mast, as someone was "dead again" (47). She also quoted an "old Coaster" who, although defensive when Kingsley referred to a river as "Styx", told her about a yellow fever epidemic that had killed "nine [white] men out of resident eleven" (47–48). Kingsley, herself a doctor's daughter, did not spare her readers and informed them that an estimated 85 per cent of "West Coasters" would die or "return home with their health permanently wrecked" (395).

She described "the old Coasters" as men of the type "who goes to his death with a joke in his teeth" (39). Similarly, her own writing is suffused with dark, dry humour about living and travelling under a constant shadow of death, and she adopts a sceptical tone when describing those who present themselves as fever experts:

> You will always find lots of people ready to give advice on fever, particularly how to avoid getting it, and you will find the most dogmatic of these are people who have been singularly unlucky in the matter, or people who know nothing of local conditions. They tell you, truly enough no doubt, that malaria is in the air, in the exhalations from the ground, which are greatest about sunrise and sunset, and in the drinking water, and that you must avoid chill, excessive mental and bodily exertion, that you must never get anxious, or excited, or lose your temper. (389)

The practical impossibility of fully implementing most of these kinds of precautions was not lost on Kingsley, whose exasperation was evident: "[H]ow are you to do without air from 6:30 PM to 6:30 AM? or what other air there is but night air, heavy with malarious exhalations, available then?" (390).

Nevertheless, she recommended the use of robust preventative measures as much as realistically possible (390–394). She would boil her

drinking water "hard for ten minutes at least and then instantly pour it into a jar with a narrow neck, which plug up with a wad of fresh cotton-wool—not a cork" (394). Like Waller and Laws, Kingsley was a strong advocate for the use of prophylactic quinine, recommending a daily dose of five grams in malarious districts to be supplemented with an extra dose when chilled or overtired. Likewise, she had found calomel, alcohol, and opium useful in some circumstances. However, she did warn against taking large, uncontrolled doses of quinine and arsenic without medical advice (394–395).

While noting that the comparative study of diseases in West Africa could be a major scientific research subject, Kingsley acknowledged that it would require the collection of massive amounts of data as well as the survival of a male medical scientist (391). Arguably, writing as a laywoman traveller, she was able to take a somewhat ironic outsider position, while not being unsympathetic to the plight of the resident men. It was on a sombre note that she acknowledged in her introduction to *Travels in West Africa* that by 1897, many of the official and traders who had assisted her were dead (n. pag.).

Kingsley stated that "[t]ravel in West Africa is very hard work, and very unhealthy" (346). Nevertheless, she was constantly on the move and travelled by canoe through mangrove swamps that would be considered extremely dangerous according to prevailing medical opinion. Like Buchanan, she would sometimes paddle a canoe herself (96–97). Kingsley's exploration was in some ways more reminiscent of Livingstone than Laws: she certainly got drenched in the mountains of Cameroon and while travelling by canoe (337–338). As Blanton has noted, "wild travel" is prominent in Kingsley's text, particularly her journeys along West African rivers (2002, 49–50). Danger and risk were arguably part of the "charm" of West Africa to Kingsley (2007, Preface, n. pag.), and certain risk-taking was part of Kingsley's self-fashioning as author and explorer.

Kingsley clearly favoured a more careful approach when securing safe drinking water and medication. She also used mosquito nets whenever possible as a means of "avoiding night air" (71–73, 390). Although she mentions the discomfort caused by mosquitoes and other insects repeatedly (e.g. 45, 53–54, 118–119), Kingsley was writing just before it was determined that mosquitoes carried malaria. Insects, for her, were a real discomfort but were not seen as potentially deadly.

Kingsley's descriptions of colonial outposts and trading stations where small white communities could be decimated by sweeping disease

outbreaks make her own constant mobility seem healthy by comparison.[12] The value of mobility as exercise and activity for health is clear in the discussion of disease in West Africa that concludes her book: "The great thing in West Africa is to keep up your health to a good level, that will enable you to resist fever, and it is exceedingly difficult for most people to do this, because of the difficulty of getting exercise and good food" (395). As was the case in Central Africa, explorers and colonialists in West Africa usually relied on African servants to prepare their food. In Kingsley's view, there was a social dimension to healthy mobility. She recommended that for reasons of practicality and health, it was wise for travellers to try to get on well with others, including African carriers and associates. Kingsley herself travelled without any European companions, and she named some of the African agents who enabled her exploration, including Obanjo ("Captain Johnson") and interpreter Ngouta (194). In her introduction, she also thanked a number of "cultured men and women" who had helped her: Charles Owoo, Mbo, Sanga Glass, Jane Harrington, "and her sister" (n. pag.). Despite her ironic tone when commenting on the health advice of certain experts, Kingsley nevertheless subscribed to the principle that losing one's temper in tropical conditions could be downright dangerous.

Comparable to Buchanan, Kingsley placed considerable emphasis on individual constitution: she claimed that some were immune to malaria, others had strong "powers of resistance" which could be "renewed from time to time in a European climate" (396), but a proportion would succumb to malarial poisoning sooner or later. Kingsley believed that the strength of a constitution could not really be determined in advance, but she advocated that prospective British "West Coasters" should assume that they belonged to the first two groups and then "take every care short of getting frightened", as fear was "as deadly as taking no care at all" (396). She maintained that constitutional and psychological factors played an important part in survival, speculating that "full-bodied, corpulent and vigorous" men who would get into "funk" would probably die, but "energetic, spare, nervous but light-hearted" might stand a better chance (390). A mobile, active, and fearless lifestyle along with suitable health precautions (above all quinine prophylaxis and careful boiling of drinking water) was Kingsley's recipe for survival for the British in the West Coast.

Conclusion: From Transit to Settlement and Back Again—Mobilities, Contacts, and Colonial Health

Mobility offers certain kinds of power through kinetic energies to individuals, as Tony Ballantyne and Antoinette Burton have noted (2009, 336). As this chapter has shown, writers such as Livingstone, Kingsley, Buchanan, Young, and Waterston provide insights into the appeal of mobility and vigorous movement in Africa. Despite the risks, drawbacks, and periods of inertia, in their accounts, travel itself seems more healthily energising than enervating. These Victorians were willing to take notable risks partly, I would argue, because moving about in Africa gave them exhilarating feelings of being alive and in their full powers. Quite possibly, a sense of risk and danger augmented these feelings. Moreover, when causes of malaria were unclear and the subject of considerable debate, survival was often seen as a question of fate, providence, or simply luck of the draw.

In addition, healthy mobility while travelling had a social component. Waller and Kingsley both highlighted the need for harmonious relations with fellow travellers for health as well as social reasons. While interpersonal conflict, fear, and loss of self-control could be an indication of ill health, they were also seen as very real threats that could, in some circumstances, even contribute to life-threatening illness. Afro-European relations were usually not explicitly mentioned in the discourse of healthy travel, but they underpinned it. However, the traces of those African agents who enabled much of exploration, missionary, and colonial activity need to be teased out from ethnocentric and biased European written sources, and historians have still much to do to uncover their agency and perceptions. In the early period of heroic exploration, Europeans were more vulnerable and dependent on their African allies and associates than they were often prepared to admit.

The demands and conditions of colonial settlement reduced the necessity for exploratory travel: in one sense, mobility as a mode of being (as embodied by explorers) gave way to a more functional mobility in the form of regimented exercise and necessary travel. At the same time, the revelation that the mosquito bite was the one thing to be most scared of increasingly led the British in Africa to turn inwards, feeling most secure in small, segregated enclaves. In this context, Africans and their mobilities, particularly in urban settings, increasingly became a concern of colonial hygiene. Improvements in transport and hygienic precautions enabled the

British to travel faster and more safely (using mosquito nets and regular quinine prophylaxis). The mobility of early twentieth-century colonialists was more likely to take the form of movement on tennis courts or golf courses than arduous travel by canoe or trekking.

European colonisation of tropical Africa was arguably a comparably short-lived failure as far as European settlement and direct political rule was concerned. Modern independent Africa again became a zone of transit rather than settlement for most Europeans. Systematic medication for air travellers was such by the late 1940s that Laurens van der Post could complain that he "had already inside me all the medicine that I could ever need" when he flew from Britain to Malawi, going on to nostalgically hark back to the older era of explorer-travellers (1953, 23–24). By this time, Africa was "a night's fly away" from the West, close yet still frequently portrayed as the "Dark Continent" marked by disease, poverty, and war (Dowden 2008, 1–9). Twenty-first-century Westerners in tropical Africa can be seen to continue some of colonial hygienic traditions. In 2020, the COVID-19 pandemic upturned at least briefly some colonial era patterns: Europeans, alongside Chinese, were explicitly seen as potential carriers of a new disease, and the very hubs and nodes of transnational mobility that connect Africa, Europe, and global mobile networks became danger zones and hotbeds of disease, rather than safe enclaves for mobile, privileged travellers.

Notes

1. This chapter is based, in part, on my monograph *Medicine, Mobility and the Empire: Nyasaland Networks, 1859–1960* (Manchester University Press 2017), especially Chap. 2. I remain grateful to Manchester University Press for the kind permission to republish these sections in a revised form. The open-access publication of this chapter has been supported by the Academy of Finland research project "Mobile healers, politics and development in sub-Saharan Africa" (project. no. 324388). I would like to thank the editors of this collection. Many thanks also go to Liz Eastcott, as well as the group of health historians at the University of Oulu.
2. For medical traditions in South-Central Africa, see Hokkanen (2017). For the use of Koranic verses as medicines and medicinal "talismans" brought by pilgrims from Mecca to the Abyssinian border, see Baker (1886, Chap. 4). On West African travellers' divinations for good fortune on the road in the 1790s, see Park (2005, 53, 79). On travelling and canoeing "charms" in West African coast in the 1890s, see Kingsley (2007, 220–221).

3. Besides medical tourism in Cape Colony, lengthy sea travels to Australia were also increasingly promoted by medical authorities, as Sally Shuttleworth demonstrates in her chapter of this volume.
4. On gender and empire, see Levine (2004). For norms of bodily movement, posture, and masculinity, see also Monika Class's analysis of Tom Tulliver in George Eliot's *The Mill on the Floss* in this volume.
5. On practicalities and logistics of caravan travel, see Fabian (2000, 39–51).
6. See also Chadwick (1959) and Jeal (1974).
7. Ursula Kluwick's chapter in this volume discusses how bodily contact with aquatic matter resulted in fevers and how such processes were represented in nineteenth-century fiction. For a discussion of Max Nordau's related concept of "feverish restlessness", see Chap. 8 by Stefanie John.
8. For example, Speke, Burton, and later Frederick Lugard had all been officers in India.
9. For the concept of idleness, slow mobility, and health tourism, see also Chap. 5 by Heidi Lucja Liedke.
10. See also King and King (1997).
11. On Cape Colony, see Deacon (2000).
12. On West Coast mortality in trading stations, see Kingsley (2007, 40–41).

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