

Inherently Diseased and Insanitary? The Health Status of the Gold Coast [Ghana] from the 18th to the late 19th Century

Akwasi Kwarteng Amoako-Gyampah
Department of History, University of Johannesburg, South Africa
akwasikwarteng_amoakogyampah@yahoo.com

Abstract

Until the end of the 19th century, many European accounts represented the West African Coast as the “White man’s grave.” This representation was borne out by the high morbidity and mortality rate of European sojourners who were exposed to the Guinea Coast. This article reviews European accounts of the health status of the Gold Coast during the 18th and 19th centuries. I examine European accounts that characterised the climatic conditions of the Gold Coast as insalubrious and its social and physical environments as unwholesome –conditions that were held to be responsible for the high mortality and morbidity rates of Europeans who visited the region. I suggest that while there appeared to be formidable health challenges, especially, in the coastal settlements, the linear narrative that privileges the insanitary conditions and unwholesomeness of the region during the period under consideration could be quite misleading. I demonstrate that even though these European accounts, mostly blame the habits of the indigenous population and their social and physical environmental conditions for the unwholesome and insalubrious conditions that caused ill-health and death, the presence of Europeans on the Gold Coast littoral was itself implicated in the insanitary and depressing health conditions that the region was associated with.

Keywords: Health, Insanitary conditions, Sanitation, Unhealthy Climate, Gold Coast, Ghana, Environment, Diseases.

Bio-sketch

Akwasi K. Amoako-Gyampah [previously known and called Samuel Amoako] is a Doctoral candidate in the Department of History, University of Johannesburg, South Africa. He is taking time out from his full-time employment as a lecturer at the University of Education, Winneba, Ghana, to complete his PhD. His publications have appeared in the *International Journal of African Historical Studies* (2014), *Ghana Studies* (2014), *Journal of Asian and African Studies* (2013), *Contemporary Journal of African Studies* (2014), and *African Review of Economics and Finance* (2015). His interests in African studies spans political economy, comparative labour history, economic history, and social history of medicine and public health. His current research focuses on sanitation and public hygiene in colonial and post-colonial Ghana.

Introduction¹

There does not exist any account of the health profile of the Gold Coast before European contact.² Any account, therefore, of the health status of the Gold Coast are those anecdotal and patchy narratives provided by European explorers, adventurers, merchants and later, colonisers. Therefore, as so often happens, in accounting for the health profile of the Gold

¹ I would like to express my profound gratitude to Professor Natasha Erlank, my thesis supervisor for her direction, advice, encouragement and comments on an earlier draft of this paper. I am also grateful to Professor Sjaak van der Geest of the University of Amsterdam and Joseph Fosu-Ankrah, PhD candidate, Utrecht University for their comments on earlier draft versions of this paper. Finally, I thank the two anonymous reviewers of this journal for their very riveting comments. I am however, solely responsible for any omission or inaccurate interpretation if any may be found.

² European contact with the Gold Coast began in the late 15th century following the arrival of the Portuguese on its coastal settlements. By the end of the 16th century other European nations had arrived on the Gold Coast to cash in on a thriving trade, first in Gold and such other items as was found, and later in slaves. Prominent European nations whose activities on the Gold Coast were visible included, the Dutch who were the second to arrive on the Gold Coast in 1596 and managed to outstrip the Portuguese of their possession along the southern coast by 1637. The Danes, the Swedes and the English also established trading contacts with the Gold Coast. However, by the close of the 18th century, the British had become the most formidable force on the coast, having made alliances with the local people and exercising some limited power over the people living within the immediate precincts of their forts and castles. After several vacillating attempts during the 18th century, particularly, between the 1830s and the 1870s over whether to assume direct control over the Gold Coast or leave it to be administered by the British Merchants, the British crown decided finally, in 1874 to declare the southern part of the Gold Coast a crown colony. This development was partly influenced by their successful expedition against the Asante, the most dominant power then, who was given to an incessant invasion of the coastal chiefdoms for most part of the 18th and 19th centuries.

Coast, we must do so obliquely through the surviving written records that were left by Europeans, and partly through other scholarly narratives that are themselves based, mostly, on these European records. Just like other West African territories, the coastal settlements of the Gold Coast shared in the unenviable reputation of possessing an insalubrious climate and environment, a noxious air, and a host to numerous diseases and many microbial and multicellular parasites. Its coastal settlements were presented as lacking basic sanitary facilities, and its inhabitants as negligent of any sanitary precaution. There was no proper town planning and what appeared to be streets were merely some narrow-crooked paths that were strewn with rubbish that was left to be scavenged by animals (Gale 1995). The Gold Coast's coastal settlements, together with other West African coastal towns were, in short, until the end of the 19th represented by Europeans as the 'White Man's grave' (Curtin 1961; 1990).

Such narratives, were fed by the Euro-Western thought that associated contacts and conquest in the tropical regions of Africa and perhaps the New World with disease and death (Quinlan 1996). They reflected the Euro-Western aetiological thought which attributed the causes of ill-health and death to the presence of miasma. Fundamentally, the miasmatic theory held that air could cause diseases if it became contaminated with poisonous vapours emitted by decaying organic matter (Arnold 1997; Karamanou, Panayiotakopoulos, Tsoucalas, Kousoulis, Androustos 2012). This be-

lief in miasma as the cause of diseases derived from popular and Hippocratic notions of environmental determinism, which to borrow from Mark Harrison, had ‘reached a high stage of sophistication’ during the 18th century (Harrison 1996, 74). The Hippocratic notion of environmental determinism was the belief that the environment played a critical role not only in the determination of human health, but also in the constitution of physiological characteristics. The Hippocratic doctrine assumed that seasonal changes in climate had a direct influence on the physical constitution of the human body and its diseases’ aetiology (Miller 1962: 130–31; Harrison 1996: 74).

The Hippocratic doctrine of aetiology was redeployed in diverse historical context across time and space to explain the relationship between humans and their environment (Bashford and Tracy 2012). Charles E. Rosenberg (2012) has argued that environmentalism remained key to conceiving and understanding the world, as climate and local conditions remained central to aetiological thought even beyond the 18th century. Environmentalism was central to the evolution of the 19th century medical concept of acclimatisation and the rise of ‘specialist medicine of warm climates,’ which became known as tropical medicine (Osborne 2000: 135; Arnold 1997: 307). Essentially acclimatisation theory came to signify ways by which Europeans sought to adapt to the temperature and the influence of climatic conditions in the tropical regions of the world. And this was intimately connected not only to the rise of the 19th century

imperialist proclivities but also with the ‘marginalisation and alteration of indigenous ecosystems and peoples’ (Osborne 2000: 135). Acclimatisation theory was, thus, central to both British and French imperialist discourses on politics, settlement patterns, regulations on hygiene as well as the length of duty of European armies in their overseas territories (Osborne 2000: 135).

In a similar vein, the emergence of tropical medicine reflected one of the principal ways in which the negative perception of the tropics found expression in European consciousness. Yet, it was the popularity of the Hippocratic doctrine that lent credence to the notion that the ‘great heat, humidity and pungency of the tropics’ did result in the extraordinary dangers of tropical airs, waters and localities (Arnold 1997: 307). 18th century aetiological thought invoked and redeployed the environmental determinist notions of disease inherent in the Hippocratic doctrine to explain how the heat, humidity and putrefying organic matter of the tropics produced deadly miasma that threatened and endangered the lives of Europeans. It was held that the heat and moisture of the tropics acted directly on the physical constitution of unacclimatised Europeans, causing them to be weakened and exposed to varying kinds of diseases (Arnold 1997: 309). Thus, the aetiology of all diseases in the tropics were attributed to the climate and environmental conditions, and the survival of Europeans, thus, relied on their adjustment to these novel localised circumstances – a phenomenon that was referred to as seasoning

(Rosenberg 2012: 664). The environmentalist aetiology of disease and the notion of epidemiology of localities, would thus, remain influential in how Europeans characterised and explained aetiology in tropical regions, including the Gold Coast and other parts of the Guinea Coast before the late 19th century.

Despite increasing interest in the historical examination of health in pre-colonial Africa, the period in West Africa before formal colonisation marked by intensive European commercial interaction, still lacks a comprehensive study. Recent scholarship has focused on the impact of European presence on African healing practices, and the interaction between European surgeons and African healers. Jonathan Roberts's recent study on health in pre-colonial Gold Coast for example, examined the medical exchanges between Europeans and Africans during the 17th and 18th centuries. Despite the intensive commercial interaction of the period, Roberts argue that the diseased environment of the Gold Coast coupled with the chauvinism of European surgeons and African healers inhibited exchanges in medical ideas, healing practices and medical material culture between European physicians and African healers (Roberts 2011). In contrast, John Rankin (2015) argues in his recent monograph on health and healing in British West African territories, that changed conditions during the first half of the 19th century accommodated the sharing of medical knowledge and cultural exchanges between British surgeons and African healers. Kalala Ngalamulume (2012) focusing on St. Louis-du-Senegal during the mid-

19th and early 20th centuries, has examined not only how the French colonists sought to deal with the diseased environments they were confronted with, but also, how they constructed the causes of epidemic outbreaks, mainly plague and yellow fever. He argues that the French colonialist construction of the aetiology of yellow fevers and plagues reflected not only the miasmatic theory of aetiology, but also the perceptions the French had of African societies, environments and cultures. Kalala's observation is consistent with how Europeans who were exposed to the Gold Coast described disease aetiology. Together, these studies provide useful insights about health and medicine in precolonial West Africa, which the present work will contribute to.

However, in this article, I redirect the focus of discussion away from interactions between European surgeons and African healers, to evaluate how European merchants, travellers, soldiers, surgeons, among others, perceived and presented the sanitary conditions of the Gold Coast. This allows me to question the linear narratives that privileges the insalubrity and unwholesomeness of the Gold Coast and to examine in what ways the presence of Europeans on the Gold Coast was itself implicated in the dire insanitary and health conditions that were presented in European accounts. I suggest that the establishment of European forts and castles along the coastal stretch and the concomitant attempts to impose some form of control over the local people especially, by the British from about the 18th century onward contributed to the dire in-

sanitary and health conditions. While the British control over coastal towns remained tenuous until the late 19th century when colonial rule was formalised, it undermined the powers of the local rulers who were responsible for organising works for clearing bushes, sweeping streets, erecting toilets and other related municipal functions. Yet, in the interior region that were yet to experience any sustained interaction with Europeans, the sanitary conditions there remained better managed.

Of Climate, Environment, and Diseases

Some early European records are replete with depressing statistics on European mortality and ill-health on the coastal regions of the Gold Coast. Jean Barbot a French Calvinist slave trader, who was in the employment of the *Compagnie du Sénégal*, observed in his late 17th and early 18th century account of the Gold Coast that ‘out of every ten Whites who arrive on the coast in good health, six fell ill in less than a month, and invariably two or three of them die shortly afterwards’ (Barbot 1992: 575). Drawing on the records of the Dutch West India Company, Harvey, M. Feinberg, noted that at least, one of every five Europeans who were in the employment of the company died annually on the coast between 1719 and 1760 (Feinberg 1974: 367). Daniel Headrick reckons that two thirds of all Europeans who landed on the Gold Coast between 1823 and 1827 perished. For instance, in 1824 alone, 221 of 224 Europeans died on the Gold Coast

(Headrick 1981: 62). Similarly, between 1830 and 1840, six successive Danish Governors of the Christiansborg perished. It has been suggested that it was partly due to their high mortality rate that the Danes decided to abandon the Gold Coast and subsequently sold their possessions on the coast to the British in 1850 (Addae 1997: 10). Raymond Dumett notes that the death of European officials in the Gold Coast was as high as 75.8 per thousand between 1881 and 1897 and for Missionaries, traders and miners, mortality rate stood at an average of 81.48 per thousand per year between 1879 and 1888 (Dumett 1968: 115). European trading companies were never able to maintain large garrisons on the Gold Coast due partly to the ‘staggeringly high mortality rate’ of soldiers sent there (Roberts 2011: 490).

It has been suggested that the likely cause of death in most of these instances was yellow fever and or malaria (Addae 1997). Yet, initially, the cause of ill-health and of high morbidity and mortality rates among Europeans on the Gold Coast, in keeping with the environmentalist determinist notion of disease aetiology was attributed to the insalubrious climatic and environmental conditions and the presence of some noxious air on the Gold Coast. Willem Bosman, a leading Dutch merchant, and a slave dealer, commenting on the health status of the Gold Coast from the experience of fourteen years’ residence, attributed the insalubrious nature of Ghana’s coastal regions to two factors. Firstly, was what he observed as the abrupt transition in temperature – that is the acute heat during day time and the

coolness of the night. This condition according to him, induced in European sojourners on the Coast, contrary effects, which caused them to be ill, particularly, those who were not accustomed to withstanding more heat than cold. Secondly, he observed that the several mountains that surrounded the coastal settlements and the valleys in-between them produced, 'every morning a thick, stinking, and sulphurous damp or mist', especially, around waterlogged areas or rivers. This poisoned mist, according to him, rose and fell on the soil and induced an infection that was impossible to escape, which killed Europeans, but not Africans (Bosman 1705: 105–6).

Bosman observed that the African population suffered less casualty to this 'corrupt and infectious air' and did not suffer 'any distempers, because being born in that unhealthy air, and bred up in sloth, and that stench, those things little affect them' (Bosman 1705: 108). Bosman is implying that the local population were immune to these unhealthy conditions because of their long association with it; quite the contrary for the European who needed time to acclimatise. The import of this condition was aptly captured in the 1800s by H.C. Monrad, a Danish Chaplain who wrote that, 'Europeans never grow very old in Africa and I know of none who have reached an age of much over 50 years. The climate and the way of life work against them. The Negroes, however, can grow very old, perhaps, over 100' (Monrad 2009: 266).

Bosman further claimed that some insanitary habits and practices of the African

population on the Coast contributed to the noxious air, and more broadly, the unhealthy environmental conditions. 'The stench of this unwholesome mist' he wrote:

is very much augmented by the negroes' pernicious custom of laying their fish for five or six days to putrify(sic) before they eat it, and their easing of their bodies around their houses, and all over their towns; and if this odious mixture of noysome(sic) stench very much affects the state of health here, it is not to be wondered since 'tis next to impossibility, not only for new comers, but those have long continued here, to preserve themselves extremely from its malign effects (Bosman 1705: 105–6).

Bosman's claim is not surprising. The belief that some social practices and customs of Africans contributed to the unhealthy environments and ill-health of coastal towns was a standard explanation of disease aetiology among Europeans who were exposed to Africa. For example, when yellow fever epidemics broke out in St. Louis-du-Senegal in the mid-1800s, French officials did not only attribute the causes of the epidemic to noxious miasma but also, to the insanitary habits of the African population (see Ngalamulume 2004: 188–89).

Yet, Bosman's observation, requires some qualifications. Firstly, his assertion that the local population was accustomed to leave

their fish in the open for it to rot before it was consumed is a misrepresentation based on a misunderstanding of one of the methods by which the people processed and preserved fish for future consumption. What Bosman observed was the ‘sun-drying’ of fish which was a common and simple but effective method of curing fish for preservation. This was often done in combination with salting or fermentation. The fish was usually, washed, spread on the ground [on the beach] or on mats, and allowed to dry for between three to five days. This method is still used in most fishing communities along the coast of modern day Ghana (see Pace, Plahar, and Lu 1989). Secondly, his assumption that the local population blatantly disregarded any sanitary precaution cannot be accepted without qualification. Sjaak van der Geest has suggested for example, that the Akan people – the dominant population along the Gold Coast littoral, who Europeans often encountered and wrote about – were often keenly concerned with environmental cleanliness. However, it was, according to him, their method of getting rid of faecal matter which appeared inefficient, thus leaving them to be confronted with what they might have detested – filth, particularly, faeces (Van Der Geest 1998). It was thus, probably, not correct, that the people were giving to deliberate indiscriminate defecation in their townships, but rather, it was their crude method of disposing human excreta that might have created the situation that Bosman may have witnessed and written about.

Nevertheless, such views as expressed

by Bosman and others held sway as the standard explanation of the health status of the Gold Coast well beyond the 18th century. Writing in 1820, Joseph Dupuis, an English official corroborated these earlier assertions of the Gold Coast’s unhealthy climate and environment. He noted that, ‘As regards climate or atmosphere, the Gold Coast and places adjacent to the settlements [on the coast] are more or less known to be unhealthy’ (Dupuis 1824: 84). However, comparing the coastal regions to the interior parts of the Gold Coast, Dupuis noted that, ‘...But I will hazard an opinion that the countries inland are infinitely salubrious, the aire (sic) more pure, and the soil less humid and vaporous than at any station on the coast...’ (Dupuis 1824: 84). Yet, it is obvious, that these observations and commentaries, in spite of being presented as observable facts, had no real scientific grounding. Instead, they evoked the miasmatic and environmentalist determinist theory of diseases which held that the bad air of tropical climates and related ecological conditions were the cause of diseases. Malaria and yellow fever – the greatest cause of European mortality on the Gold Coast and other regions of the Guinea Coast were, thus, said to be caused by poisonous miasma emanating from decaying organic substances, stagnant pools and stinking fog (Roberts 2011: 492). Indeed, the word malaria itself derives from the Italian word for swamp, *mal’aria* – which translates literally as ‘bad air’.

The representation of the Gold Coast littoral as characterised by unwholesome climatic and environmental conditions and as the

abode of deadly diseases that killed swiftly received high publicity in Europe, causing fear, panic, and psychological traumas amongst future travellers. And in this, other West African territories, such as Lagos shared similar status with the Gold Coast. Referring generally to the Guinea Coast, Henry Meredith wrote in 1812 that the region had gained notoriety in Europe about its fatality to the health of European expatriates (Meredith 1812: 39). An anecdote recorded by Meredith is revealing:

In 1807, one of His Majesty's ships was ordered to the coast of Guinea; which caused such depression of spirits in the Captain, that he acquainted his particular friends he was bound to a part of the globe, whence he did not expect to return. He made his will, and in other respects arranged his affairs. After touching at Goree and Sierra Leone, the ship anchored at Cape Coast. The Captain visited the Governor, dined and slept on shore: on the following day, he complained of being unwell, went on board, took to his bed, and resigned himself to that lowness of spirits which he had given way to on sailing from England; and in a very few days after, was buried on shore (Meredith 1812: 39–40).

Certainly, what caused the high mortality rate of Europeans in the Gold Coast had little to do with noxious air and the abrupt transitions in

temperature or the supposed insalubrity of the climate. Rather, Europeans died from diseases that were endemic to this region. The physical environment of the Gold Coast predisposed it to many diseases that Europeans who visited its coastal regions had no immunity and which the barber surgeons who accompanied them had no skill in treating. As Bosman observed European barbers on the coast were 'unskilled physicians' who out of their ignorance endangered the lives of many (Bosman 1705: 106). It was, thus, likely that many of the Europeans died of one or another of the common diseases that the region was predisposed to, but chiefly malaria and yellow fever. It is now common knowledge that West Africa has been home to the most virulent form of malaria [*Plasmodium falciparum*] which is transmitted by the mosquito, *Anopheles gambiae* and also yellow fever which is carried by the *Aedes aegypti*, another specie of mosquito (Akyeampong 2006). And as Patterson notes 'malaria was holoendemic throughout the Gold Coast,' emphasising the existence of conditions that facilitated the breeding of the *Anopheles gambiae* (Patterson 1981: 2).

European writers such as Bosman, Henry Meredith, Brodie Cruikshank, Edward Bowdich and Joseph Dupuis, among others variously, recorded contemporary accounts of some of the commonest diseases that they observed in the Gold Coast. The commonest amongst them are listed by Patterson and they include, ascaris, filaria, hookworms, Guinea worm, schistosomiasis, yaws, leprosy, yellow fever, dengue, pneumonia, tropical ulcer,

amoebic and bacillary dysentery (Patterson 1981: 2). However, while it is true that many parts of the region were predisposed to several diseases, it is also true that most diseases were introduced from outside. Patterson notes that the Gold Coast's participation in the long-distance trade that connected Sub-Saharan Africa to the Northern part of Africa, dating as far back as the 1200 CE, had exposed the people to other diseases of other regions of the African continent which they did not have immunity. But also 'the European ships and castles' that lined the coast from the 15th century onward 'were the foci for the diffusion of diseases like small pox and syphilis' (Patterson 1981). Significantly, then, the arrival of Europeans on the Gold Coast during the 15th century further inclined the region to new diseases which complicated the region's disease ecology (Patterson 1981).

'Dirty Inhabitants, Squalid Dwellings, and Ugly Townships?'

Yet, it has been reckoned that the manners, customs, and habits of the African population contributed to the insalubrity of the environment and predisposed the population to diseases. Their buildings were said to be of, generally, low quality, lacking enough ventilation; and their dwellings were described as filthy and full of pungent smells. Jean Barbot observed that:

Generally, their houses are dirty,

uncomfortable, and for the most part stinking, particularly, those which have privy huts [huttes de commodites], for which great heat causes a very foul air to spread abroad, and this the land wind carries even to the vessels in the roadstead (Barbot 1992: 511)

About two centuries later, Richard Burton echoed Barbot's observation, noting that the African population lived in dark, damp, ill-ventilated rooms, sharing space with pieces of decayed fish and meat, scattered everywhere on the ground (Burton 1863: 85).

The coastal towns were described as containing the unhealthiest features, poorly planned, slovenly, and stinking; and their streets, narrow and crooked. Charles Alexander Gordon, a British Deputy Surgeon-General sent to the Gold Coast in 1847 noted that in Cape Coast,

The part of the town occupied by the poorer classes consist of houses terribly huddled together, along the opposite faces of what is a deep valley, along which in the rainy season, a considerable torrent runs, and where, during the dry, all kinds of filth, the most abominable accumulate. From this ravine offshoots extend in various directions among the houses; myriads of frogs domesticate themselves (Gordon 1874: 4).

Writing about three years after Gordon, Brodie Cruikshank noted that in Cape Coast, 'African houses were huddled together in the most crowded manner, and without the slightest regard to light, or air or the convenience of approach' (Cruikshank 1853: 23). Another contemporary observer, an African, and a staff assistant surgeon in the service of the British West African Forces, Africanus B. Horton, wrote generally of the coastal towns, noting that 'the native huts were huddled together, pell-mell, without any plan; there are scarcely any streets or proper lanes, but as a whole, only crooked by-paths' (Horton 1867: 132). It was reckoned that almost all the townships along the coast contained swamps and ponds that produced very awful smell and harboured mosquitoes; they had no drainages, no public or private latrines and had to rely on animals to scavenge the refuse-strewn townships. There was no potable drinking water and most of the people relied on water which they drew from 'brackish pounds or swamps' (Gale 1972; Horton 1867; Burton 1863).

Only the parts in the townships occupied by European merchants and officials, and rarely some wealthy Africans, were said to be in some good condition. In Cape Coast, Gordon observed that, 'in the parts of the town where Europeans merchants or wealthy natives reside, the houses are of superior kind, being composed of brick, flat-roofed, and well white-washed. The two principal streets are wide like boulevards...' (Gordon 1874: 4). Even so, Cape Coast was a poor excep-

tion. It was, partly, because of its unhealthy environment and insanitary status that the colonial government relocated its headquarters from there to Accra in 1877. Yet, it did not seem that Accra was any better, except for what appeared to be the absence of 'swamped land in its immediate neighbourhood' (Gale 1972: 64). Burton wrote in the 1860s that Accra rarely had anything that could be called a street, and that the township was dirty, slovenly, and unswept, relying on pigs to scavenge the refuse-strewn walk-ways (Burton 1863: 141). Indeed, British officials admitted that the township of Accra was badly built, with narrow and crooked streets, and that the inhabitants rarely observed any form of sanitary precautions. The effect being that it was full of foul smells. Yet, the official view was that Accra was healthier for European residents than any other part of the Gold Coast littoral (Gale 1972: 64).

Be that as it may, it would seem that the sanitation and health status of the coastal settlements remained appalling and by the 1870s, the situation had reached alarming proportions. Gale writes that the health status of Cape Coast, for example, seemed hopelessly irredeemable that, it was reported that 'No sanitary[sic] work would materially diminish the unhealthiness of the place for Europeans' (Gale 1972: 62). The death toll, though, of the Europeans on the coast had begun to decline steadily. But this was not because of improved sanitation, but rather because of the discovery of quinine as a prophylactic against malaria and its sustained use amongst European expa-

triatres on the coast.³ Even so, European death rate on the coast remained relatively high. And British officials hesitated in accepting posting as Governors of the forts and castles in the Gold Coast because of its health status.

Dumett writes that following the British expedition against Asante in 1874, in which British soldiers succumbed to diseases rather than fell in battle, three senior British officials declined offers as Governors of the Gold Coast and justifiably so, because the fourth official who accepted, died few months on arrival, and the cause was malaria (Dumett 1968: 157). There had been no improvement in the settlement patterns of the coastal towns, the towns remained poorly drained, and the swamps remained polluted, open defecation was common and the streets were still strewn with refuse (Dumett 1968; Addae 1997). In 1871, Ferdinand Fitzgerald, the London editor of the *African Times*, described Cape Coast as 'one vast public privy and a dunghill' (Quoted in Gale 1972: 54). Before Fitzgerald, Dr James Africanus B. Horton, had in 1867 lamented that observers had been erroneously blaming the death of Europeans on the coast on climate, when the real problem was the absence of any form of sanitary system (see Gale 1972). It was on account of some of these scathing criticisms and of the recognition by the newly constituted colonial administration of its responsibility to provide sanitary amenities as a *sine qua non* for ending the unnecessary loss of European lives, that after 1874

³ For information on the relationship between the prophylactic use of quine against malaria and mortality rate of Europeans on the coast, (see Headrick 1981: 69–70).

some concrete attempts would be made to contain the insanitary situation in the Gold Coast which crystallised in the passing of the first public health law, the *Towns, Police and Public Health Ordinance* of 1878.

It must be remarked, however, that how much truth there may be in the fore-going accounts written by the Europeans, it is impossible to say. There could be a high possibility that most of these accounts may have been overly exaggerated and others, tainted with prejudice. Indeed, in later years, some British colonial officials would admit to the mischief that was intended in sustaining a bad reputation of the Gold Coast. An extract from an 1887 report by Dr C. H. Eyles, an Assistant Colonial Surgeon who was stationed in Axim, a coastal town located to the western part of the country is revealing:

As I have frequently remarked in my official reports, this Colony is overshadowed by a curse, the curse of a bad name. It would serve no useful purpose 'to waste the time yet ours, in trampling on thistles because they have yielded no figs,' it is useless lamenting the fact that to preserve the monopoly of an extraordinarily lucrative trade, merchants have dammed the place by giving it a bad name, and thus crippled all attempts at developing the resources of the Colony. We can at least serve one useful purpose, we can show that we enjoy no monopoly of any one pecu-

liarly fatal and malignant disease; that even malaria we cannot claim pre-eminence, for the 'pernicious comatose' form of malarial fever in which after a single paroxysm the patient dies in coma (Government of the Gold Coast 1887: 24).

In 1912, the Senior Sanitary Officer, Thos C. Rice, quoted fully Eyles's observation and commented as follows: 'There can be no doubt that in the past, officials as well as merchants have caballed to keep up the evil reputation of the colony' (Government of the Gold Coast 1913: 101). Notwithstanding these possible exaggerations, and the potential mischief that may have been intended in some of the writings, however, some of the accounts were nevertheless, probably, fairly correct. What is difficult to admit however, is whether the descriptions written of the 18th century and beyond could fit the situation before European contact. This will be a difficult question to answer and doing so would mean to merely speculate. Yet given that these were contemporary accounts, most of them having been written almost two and half centuries after the Europeans had made contact with the Gold Coast, the picture painted in the 18th century and beyond cannot be assumed to be true of the preceding centuries. Many of the settlements before European contact were most likely small enough, so that nature's scavengers and the sun were most likely sufficient to have disposed their sewerage and refuse.

What is clear, however, which is mostly

unaccounted for in these European accounts is that most of the squalor which characterised the coastal towns from the 18th century and beyond, and which the European writers described so well, was itself, partly a function of the arrival and settlement of the Europeans on the coast. The presence of Europeans along the coast stimulated a steady growth in trade and redirected pre-existing trade traffic from trade routes that extended from the interior to the Northern part of the Gold Coast and beyond, towards the coast, attracting African new comers who were enthralled by the commercial exploits of these coastal towns. The obvious implication of this development was increased population and expansion of the coastal towns. One must, however, be cautious not to overemphasise a single causal link in the clustering and expansion of populations along the Gold Coast littoral. As Joseph Miller has shown, in Africa, climate-linked historical events and tendencies, such as starvation, outbreaks of epidemics, and drought could cause populations to migrate and or to cluster around more favoured, albeit, sometimes isolated areas. Such population movements often resulted in increasing existing populations or the founding of new settlements in unoccupied areas (Miller 1982). And as Norman Klein has demonstrated, evidence of such demographic developments implied by Miller could be found in the Gold Coast, especially, among the Akan in the interior region during the 15th and the late 17th century (Klein 1996).

Yet, the preponderance of evidence for population expansion and urbanising proclivi-

ties on the Gold Coast littoral aligns more favourably with the incidence of Euro-African trade dating from about the mid-15th century. As Emmanuel Akyeampong has noted, ‘...the European presence on Gold Coast from the late 15th century ...witnessed a progressively southward shift in economic activities. Fishing villages like Cape Coast and Elmina... expanded through coastal trade to become independent and outshone their parent states in wealth and prominence’ (Akyeampong 2000: 222-223). Akyeampong’s insightful comment corroborates Walton Claridge who first made this observation. Writing on 18th century developments on the Gold Coast, Claridge observed that at the beginning of the 18th century:

The seaboard was still divided into practically the same kingdoms as those that existed when the Portuguese settled on the coast; but the centres of trade with Europeans had increased the importance of the coast towns and raised them from the position of tiny fishing villages to that of prosperous trading centres, which either became the capital of their respective kingdoms or rivalled the capital in importance (Claridge 1915: 115).

This somewhat early urbanising processes extended beyond the 18th century, and as these towns continued to expand and their populations increased, new fishing villages began to

emerge around them. And these developments were accompanied with sanitary challenges (see Kimble 1963). Thus, the effect of Euro-African trade and the concomitant development of some primordial processes of urbanisation had series of repercussions on the coastal settlements; the depressing insanitary conditions being one of such repercussions intimately connected to these processes.

In the meantime, the European merchants and officials’ residing on the coast had already began to exercise some form of authority over the African population residing within the precincts of their forts and castles, particularly, during the mid-18th century. This was particularly true of the British. In 1821, the British sphere in the Gold Coast which had been under the administration of the Royal African Company or its successors since 1752 was brought under the control of the British Crown. It was subsequently placed under the governor of Sierra Leone. In 1844, representatives of the Crown signed a bond with some prominent chiefs in the coast and some few others in the interior in which the African chiefs ceded some of their judicial powers to the British crown. Yet the British colonial administrators could hardly compel the African population to maintain any form of sanitation during this phase of limited colonial imposition. The problem, as noted by David Kimble, was that, ‘the forts tended to over-shadow and depress the power of the chiefs, who yet retained sufficient authority to hamper direct control’ by the European administrators (Kimble 1963: 142)

Yet, the power of the chiefs to compel their people to perform such municipal functions as cleaning and sweeping within their communities was somewhat impaired, and this had negative consequences on the management of sanitation in the coastal settlements. And yet, the British administrators were also helpless about compelling the people to adhere to 'proper' sanitary practices without the support of their chiefs. Governor Pine, during the 1850s, complained about his frustration over his inability to persuade the inhabitants of Cape Coast to clean up and reorganise their township (Kimble 1963: 142). The culpability of European officials living on the Gold Coast littoral to the insanitary conditions there was not altogether lost on some European observers. Ferdinand Fitzgerald, for example, remarked in 1871 that European officials could 'enjoy their mistresses and drink their brandy and champagne upon a dung heap, provided they may occupy the highest position on the stinking mess' (Quoted in Gale 1995: 187). This stricture must, however, be qualified. It is doubtful that the British officials, during this period, had the needed funds or the requisite legal backing which would have enabled them to sanction the kind of sanitary amenities that was necessary to keep the settlements sanitised and healthy.

Yet, in pre-European Gold Coast, there seem to have existed in some parts of the region a system of municipal government that ensured the sanitation of the towns. Casely Hayford, wrote that in the pre-European period, 'Each important township' had 'its sani-

tary board, arrangements for the carrying out of public works, and other necessary provisions for the due and proper regulations of the internal government of the little community' (Hayford 1970: 110). The local chiefs had a council which comprised the various wards of the towns represented by their Asafuhene⁴. The chief relied on this council for such municipal functions as cleaning and clearing of bushes. A description of the functions of the Chief's council by Cruikshank, as he observed during the mid-19th century, is instructive: 'their duty [chief's council], properly speaking, is to look after the police of the town, to suppress nuisances in the street, to clean the parts and roads in its neighbourhood, and to promulgate the edicts of the chiefs and his counsellors, as well as any other notice which it is necessary to make to the public' (Cruikshank 1853: 250). He however noted that '...whatever might have been the efficiency of their service on their first appointment, they are now totally worthless. Inefficient as police, and totally regardless of the state of their streets' (Cruikshank 1853: 250). What Cruikshank failed to observe was that, it was partly, due to the presence of the Europeans on the Coast and their attempts at various points to impose their authority on the African population that had impaired the initiatives of the African chiefs

⁴ The Asafuhene was the head of the Asafu company. He could be regarded more or less as a Captain-General. The Asafu is essentially a warrior group and it is the term used to refer to all male adults organised for the purpose of war. According to De Graft-Johnson, the term Asafu can also be used in a broader sense to delineate a "socio-politico-military organisation" that has within its ranks, both male and female, including chiefs and other members of the political elite. (see De Graft-Johnson, 1932).

and their Councils in such matters. Casely Hayford lamented that:

The effect of intercourse with Europeans on the part of the people of the coast towns has been to disorganise their own formal municipal arrangements, and to throw them back upon such haphazard provisions as the government has felt inclined to make. It is like the case of the dog in the manger. The Government will do nothing effective, and they neutralise the influence of the native Chiefs who would otherwise carry out necessary sanitary arrangements (Hayford 1970: 111).

Some European officials admitted to their negative influence on native authority on the Gold Coast. In 1865, Sir Benjamin Pine, appearing before the Parliamentary Select Committee on West Africa, admitted that ‘the native municipality in Cape Coast does not work at all, but in the interior, where there has been no interference with native government it works very well. They keep their towns in order and clean’ (Quoted in Pachai 1965: 132). He explained further that the interior was better managed than the coast because ‘...the Chief and people on the coast rely upon us and we rely upon them and between the two there is no government at all’ (Pachai 1965: 132).

Elsewhere in the interior part of the Gold Coast where no sustained contact had been made with Europeans, the situation was very

different. The Asante, in particular, were regarded to be favourably disposed to cleanly manners and habits, as they observed sound and practical sanitary arrangements and practices. Maier has attributed the relatively healthy conditions in the interior region to ecological and cultural factors. She observes that the regular pattern of rainfall in the forest region of Asante combined with the less extreme fluctuations in temperature contributed to the relative health of the region’s inhabitants. According to her, regular rainfall in the interior did not only clean the air, soil and dwelling areas, but also, encouraged regular bathing. And whilst regular bathing contributed to the absence of tick, louse and related diseases (Maier 1979: 64–65), it did not imply that the region did not experience infectious and non-infectious diseases (see Klein 1996). Rather, it is to suggest, as Maier argues, that confronted with myriad of forest-related diseases, the Asante may have ‘given time and thought to seeking remedies and preventions’ (Maier 1979: 65). The result was the development of elaborate sanitary measures which remained intact for most of the period under discussion.

Thomas Edward Bowdich’s account of his visit to Kumase, the capital of the Asante people in 1817 is revealing:

What surprised me most and is not the least of the many circumstances deciding their great superiority over the generality of Negroes, was the discovery that every house had its

cloacae, besides the common ones for the lower orders without the town. They were generally situated under a small archway in the most retired angle of the building, but not unfrequently up-stairs, within a separate room like a small closet, where the large hollow pillar also assists to support the upper story: the holes are of a small circumference, but dug to a surprising depth, and boiling water is daily poured down, which effectually prevents the least offence. The rubbish and offal of each house was burnt every morning at the back of the street, and they were as nice and cleanly in their dwellings as in their persons (Bowdich 1873: 256)

William Hutton, an acting Consul to Asante and an official in the service of the English African Company wrote in 1820 affirming Bowdich's assertion. He stated that, 'Mr Bowdich's observations regarding the houses with cloacae, and the general cleanliness of the Ashantees [sic], are correct; and there can be no doubt that in the arrangement of their dwellings, they are superior to many of their neighbours' (Hutton 1821: 237). In the same year, another British Consul to Asante, Joseph Dupuis, observed that in Asante:

Both men and women are particularly clean in their persons, the latter washing themselves, and the former being washed by them daily on ris-

ing, from head to foot, with warm water and Portuguese soap, using afterwards the vegetable grease or butter which is a fine cosmetic. Their cloths, which are beetled are always scrupulously clean (Dupuis 1824: 266).

It would seem from these accounts that the Asante people maintained a strict regime of sanitation and hygiene which invariably resulted in what has been described as their relatively good health and salubrious environment (see Maier 1979). Indeed, the cleaning of streets in the suburbs of Kumase and the maintenance of sanitation and hygiene was organised and bureaucratised under a structure – that could be characterised as a public works department, headed by a chief who occupied the *Akwammfo stool*⁵. Workers for the department were dispatched daily to clean the streets and to instruct people to clean their own compounds when it was deemed necessary (Maier 1979). Frederick Boyle, a correspondent to the *Daily Telegraph* in the United Kingdom who was sent to report on the British expedition against Asante in 1874, remarked that, '...sanitary arrangements ... are equally strict and decent in all Ashantee [sic] dwellings... the smells of Coomassie [sic] are never those of sewage' (Boyle 1874: 352). It has been reckoned that the Asante people also maintained wide streets adorned with beautiful shade trees. This was captured by Capt. Hen-

⁵ This will translate literally as "stool in charge of road maintenance" and the occupant of the stool as the "Superintendent of Roads."

ry Brackenbury and Capt. George Lightfoot Huyshe⁶ who observed in 1874 that the streets of Asante ‘are generally very broad and clean, and ornamented with many beautiful banyan-trees affording grateful shade from the powerful rays of the sun’ (Brackenbury and Huyshe 1873: 118).

The evidence presented up to this point demonstrates that as much as the coastal settlements appeared to share the unenviable label of a ‘grave yard and a dunghill’, the interior region, as the case of the Asante demonstrate, were relatively clean and salubrious, having kept intact their indigenous sanitary arrangements – a development that was possible because of the limited European influence on their traditional institutions. As a late nineteenth century observer, Moloney-Kimberley noted, ‘...but the sanitary systems in the coastal settlements were inferior to those in the African towns in the interior where contact with civilisation had not yet destroyed their primitive but practical sanitary arrangements’ (Quoted in Gale 1972: 48).⁷ On the strength of this evidence, I am inclined to suggest that the European intercourse with the African population on the Gold Coast had negative consequences on the health status of the coastal settlements. Admittedly, the sanitation and health of the Gold Coast littoral did not seem to be

in good shape, yet the presence and activities of European residents did not help to improve the situation either, at least, prior to the 20th century.

Conclusion

The European narratives of the Gold Coast during the 18th and 19th centuries highlighted the unanimity of the insalubrity of the coastal environment, its unhealthy climate, and the poor state of sanitation in the coastal settlements. These conditions were held to be responsible for the high morbidity and mortality rate of European sojourners in the Gold Coast. Yet, I have demonstrated that whereas the health and sanitary conditions in the coastal towns remained dire, some towns and villages in the interior region, especially those of the Asante adhered to strict regimes of sanitation and hygienic practices and their environment was salubrious and healthy. I have, therefore suggested that the European presence on the Gold Coast littoral was itself implicated in the steady deterioration in the sanitary and health conditions in the settlements there. The steady inflow of traders to the coast and the consequent growth in population and the expansion in the size of the African settlements contributed to the insanitary conditions that were captured in European accounts. But, also the impact of European presence on chiefly rule crippled the local rulers in the coastal settlements who could no longer enforce their sanitary norms. Yet, the European administrators

⁶ Brackenbury was an assistant secretary to the leader of the British expedition in 1874, Major-General Garnet Wolseley, and a former professor of military history at the Royal Military Academy of Woolwich, and Capt. George Lightfoot Huyshe was a deputy-assistant Quartermaster-General who was also part of the Wolseley expedition.

⁷ I suppose by “civilisation”, he meant European influence.

on the coast could hardly compel the African population to adhere to proper sanitation standards because of the transient nature of their authority prior to formal colonisation of the Gold Coast during the late 19th century. Thus, by late 19th century, when the Gold Coast was officially colonised the health status of the coastal settlements and their sanitation, per the reckonings of the European accounts, remained extremely depressing.

References

- Addae, S. K. 1997.
The evolution of modern medicine in a developing country: Ghana 1880-1960. Edinburgh; Durham USA: Durham Academic Press.
- Akyeampong, E.K. 2000.
'Wo pe tam won pe ba' ('You like cloth but you don't want children') Urbanisation, Individualism and Gender Relations in Colonial Ghana, c. 1900-39. In *Africa's Urban Past*, Danie M. Anderson & Richard Rathbone (ed.) pp. 222 – 234. Oxford: James Curry Publishers.
- Akyeampong, E. K. 2006.
Disease in West African History, In *Themes in West Africa's History*, Emmanuel K. Akyeampong(ed.), pp 186 – 207. Oxford: James Currey Publishers.
- Arnold, D. 1997.
The place of "the tropics" in Western medical ideas since 1750. **Tropical Medicine and International Health** 2(4): 303–313.
- Barbot, J. 1992.
Barbot on Guinea: The Writings of Jean Barbot on West Africa 1678-1712, Vol. II. Edited by P. Hair. Adam Jones & Robin Law, London: Hakluyt Society.
- Bashford, A. and Tracy, S. W. 2012.
Introduction: Modern Airs, Waters, and Places. **Bulletin of the History of Medicine** 86(4): 495–514.
- Bosman, W. 1705.
A New and Accurate Description of the Coast of Guinea, Divided into the Gold, the Slave, and the Ivory Coasts. Sir Alfred Jones.
- Bowdich, T. E. 1873.
Mission from Cape Coast Castle to Ashantee: With a Descriptive Account of that Kingdom. New Edition. London: Griffith & Farran.
- Boyle, F. 1874.
Through Fanteeland to Coomassie, a diary of the Ashantee expedition. London: Chapman and Hall. <https://ia801401.us.archive.org/17/items/throughfanteelan00boyl/throughfanteelan00boyl.pdf> (Accessed: 3 May 2017).
- Brackenbury, H. and Huyshe, G. L. 1873.
Fanti and Ashanti, three papers read on board the S. S. Ambriz on the voyage to the Gold coast. Edinburgh and London: W. Blackwood and Sons. <http://archive.org/details/FantiAshanti00Brac> (Accessed: 2 May 2017).

Burton, R. F. 1863.

Wanderings in West Africa from Liverpool to Fernando Po. London: Tinsley brothers. <http://archive.org/details/wanderingsinwest02burtiala> (Accessed: 5 May 2017).

Claridge, W. W. 1915.

A history of the Gold Coast and Ashanti from the earliest times to the commencement of the twentieth century, Vol. 1. London: J. Murray.

Cruickshank, B. 1853.

Eighteen Years on the Gold Coast of Africa: Including an Account of the Native Tribes, and Their Intercourse with Europeans, Vol 1. London: Hurst and Blackett.

Curtin, P. D. 1961.

“The White Man’s Grave:” *Image and Reality, 1780-1850*. **The Journal of British Studies** 1(1): 94–110.

Curtin, P. D. 1990.

‘The End of the “White Man’s Grave”?’ *Nineteenth-Century Mortality in West Africa*. **Journal of Interdisciplinary History** 21(1): 63 – 88.

De Graft Johnson, J.C. 1932.

The Fanti Asafu. **Journal of the International African Institute** 5(3): 307- 322.

Dumett, R. E. 1968.

The Campaign against Malaria and the Expansion of Scientific Medical and Sanitary Services in British West Africa, 1898 – 1910. **African Historical Studies** 1(2): 153–197.

Dupuis, J. 1824.

Journal of a Residence in Ashantee, Comprising Notes and Researches Relative to the Gold Coast and the Interior of Western Africa. London: Henry Colburn.

Feinberg, H. M. 1974.

New data on European mortality in West Africa: the Dutch on the Gold Coast, 1719–1760. **The Journal of African History** 15(03): 357–371.

Gale, T. S. 1972.

Official Medical Policy in British West Africa. PhD. thesis, University of London, School of Oriental and African Studies.

Gale, T. S. 1995.

The Struggle against Disease in the Gold Coast: Early Attempts at Urban Sanitary Reform. **Transactions of the Historical Society of Ghana** (New Series) 16(2): 185–203.

Gordon, C. A. 1874.

Life on the Gold Coast. London: Baillière, Tindall, & Cox.

Government of the Gold Coast 1887.

Sanitary and Medical Reports, June 1887. London: Her Majesty's Stationary Office. <https://boa.microform.digital/documents/7342/sanitary-and-medical-1886-1910> (Accessed: 25 June 2017).

Government of the Gold Coast 1913.

Medical and Sanitary Report for the Year 1912. London: Waterlow & Sons Limited, Printers, London Wall. <https://microform.digital/boa/documents/7343/sanitary-and-medical-1911-1919> (Accessed: 25 June 2017).

Harrison, M. 1996.

"The Tender Frame of Man": Disease, Climate, and Racial Difference in India and the West Indies, 1760–1860. **Bulletin of the History of Medicine** 70(1): 68–93.

Hayford, J. E. C. 1970.

Gold Coast native institutions: With thoughts upon a healthy imperial policy for the Gold Coast and Ashanti. Frank Cass & Co. Ltd.

Headrick, D. R. 1981.

The Tools of Empire: Technology and European Imperialism in the Nineteenth Century. 1 edition. Oxford: Oxford University Press.

Hutton, W. 1821.

A voyage to Africa: including a narrative of an embassy to one of the interior kingdoms, in the year 1820; with remarks on the course and termination of the Niger, and other principal rivers in that country. London: Longman, Hurst, Rees, Orme, and Brown.

Horton, J. A. B. 1867.

Physical and medical climate and meteorology of the west coast of Africa: With Valuable Hints to Europeans for the Preservation of Health in the Tropics. London: John Churchill & Sons.

Karamanou, M., Panayiotakopoulos, G., Tsoucalas, G., Kousoulis, A. A., Androutsos, G. 2012.

From miasmas to germs: a historical approach to theories of infectious disease transmission. **Le Infezioni in Medicina**, 20(1): 58–62. https://www.infezmed.it/media/journal/Vol_20_1_2012_9.pdf (Accessed: 17 June 2018).

Kimble, D. 1963.

A political History of Ghana: The Rise of Gold Coast Nationalism, 1850-1925. Oxford: Oxford University Press.

Klein, N. 1996.

Towards a New Understanding of Akan Origins' Africa: **Journal of the International African Institute** 66(2): 248–273.

- Maier, D. 1979.
Nineteenth-century asante medical practices. **Comparative studies in Society and History** 21(01): 63–81.
- Meredith, H. 1812.
An Account of the Gold Coast of Africa with a Brief History of the African Company. London: Longman, Hurst, Rees, ORME and Brown, Paternoster Row.
- Miller, G. 1962.
“Airs, Waters, and Places” in History. **Journal of the History of Medicine and Allied Sciences**, 17(1):129–140.
- Miller, J. C. 1982.
The Significance of Drought, Disease and Famine in the Agriculturally Marginal Zones of West-Central Africa. **Journal of African History** 23(1): 17–61.
- Monrad, H. C. 2009.
Two Views from Christiansborg Castle Vol II. A Description of the Guinea Coast and its Inhabitants. Translated by S. A. Winsnes. Legon, Accra, Ghana: Sub-Saharan Publishers.
- Ngalamulume, K. 2004.
Keeping the city totally clean: Yellow fever and the politics of prevention in colonial Saint-Louis-du-Sènegal, 1850–1914. **The Journal of African History** 45(02): 183–202.
- Osborne, M. A. 2000.
Acclimatizing the World: A History of the Paradigmatic Colonial Science, **Osiris** 15: 135–151.
- Pace, R. D., Plahar, W. A. and Lu, J. Y. 1989.
Status of Traditional Food Preservation Methods for Selected Ghanaian Foods. **Food Reviews International** 5(1): 1–12.
- Pachai, B. 1965.
An outline of the History of Municipal Government at Cape Coast. **Transactions of the Historical Society of Ghana** 8: 130–160.
- Patterson, D. K. 1981.
Health in Colonial Ghana: Disease, Medicine and Socio-Economic Change, 1900-1955. Waltham, MA: Cross Roads Press
- Quinlan, S. 1996.
Colonial Encounters: Colonial Bodies, Hygiene and Abolitionist Politics in Eighteenth-Century France. **History Workshop Journal** 42(Autumn): 106–125.

Rankin, J. 2015.

Healing the African Body: British Medicine in West Africa, 1800-1860. Columbia: University of Missouri.

Roberts, J. 2011.

Medical Exchange on the Gold Coast during the Seventeenth and Eighteenth Centuries. **Canadian Journal of African Studies / Revue canadienne des études africaines** 45(3): 480–523.

Rosenberg, C. E. 2012.

Epilogue: Airs, Waters, Places. A Status Report. **Bulletin of the History of Medicine** 86(4): 661–670.

Van Der Geest, S. 1998.

Akan Shit: Getting rid of dirt in Ghana. **Anthropology Today** 14(3): 8–12.