Plague, Quarantines and Geopolitics in the Ottoman Empire
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CHAPTER
6
PLAGUE AND QUARANTINES IN THE
COLONIAL ERA

INTRODUCTION
Hamdan’s belief that the internationalisation of the Ottoman quarantine in 1838 signalled capitulation to the British was ill-founded. From its inception, various interests clashed at the Constantinople Superior Health Council. Austrian physicians may have run the Constantinople Superior Health Council for a short time, but it was soon headed once again by an Ottoman president, whose administrative staff were often in conflict with the foreign members of the Council.1

Muhammad Ali (1769–1849), who started a process of modernising reform in Egypt in a bid to take over the empire itself, established a separate quarantine in Alexandria and other public health institutions in order to combat plague, cholera and other epidemic diseases. Like the Ottomans, Muhammad Ali gave in to European pressure and allowed international representatives to help run the Alexandria quarantine. The Europeans frequently lauded Muhammad Ali for his efforts; often claiming that Muhammad Ali’s French appointees to supervise the quarantine, such as Antoine Clot (1793–1868) and Louis Aubert-Roche (1818–74), were much more successful than the Ottomans in preventing the outbreak of disease.

European criticism that the newly established Ottoman public health authorities needlessly inhibited trade and the free flow of overseas traffic by imposing a ten- to fifteen-day quarantine on all traffic passing through the Straits motivated Clot (also known as Clot-Bey) and Aubert-Roche to complete a new study of the plague in Egypt in 1846. They found that Egypt’s most recent plague outbreaks could be explained by environmental factors rather than contagious ones. In their opinion, the muddy banks of the Nile and the unsanitary living conditions of its
inhabitants caused periodic outbreaks of the disease. Improving water supply, hygiene and building codes could prevent disease, not isolating patients and their families, or quarantining suspected boats. Soon, this new infectionist perspective would dominate public health discourse, particularly the International Sanitary Conferences, held first in Paris in 1851.

The Ottomans were reluctant to give up contagionist notions of epidemic disease, and wished to maintain their quarantine of foreign ships and even cities. They sought to tax naval traffic and even merchandise. This led to international protests – mainly from the British. British intervention was decisive during the Crimean War in protecting the Ottomans from Russian encroachment. But Ottoman protectionist measures arguably soured relations with London’s commercial interests, particularly those involved with cotton exports – still central to the British textile industry. This led in part to British plans to develop cotton as a cash crop along the Nile, and, eventually to support the Suez Canal, as it was outside of Ottoman control. Such developments led in turn to the colonisation of Egypt. The Ottomans may have relaxed trade restrictions later, but they were also forced to acknowledge the loss of Egypt and the Suez Canal. In addition, the Europeans accused the Ottomans of neglecting the annual pilgrimage after cholera spread from Mecca to Europe in 1865. These issues culminated in the 1894 and 1897 International Sanitary Conferences, which finalised quarantines in the Suez and on the Red Sea coasts; developments that forced the Ottomans to revise their understanding of plague and the institutions necessary to prevent it.

The following chapter will explore the contours of this debate between Ottoman contagionists and British and French infectionists from 1838 to the 1890s about the definition and nature of plague, where the disease was endemic, who would control the Council, and how preventative measures like the quarantine could be implemented along the major sea lanes and the pilgrimage routes.

CONTAGIONISM VERSUS INFECTIONISM

Official British and French support for Clot-Bey’s and Aubert-Roche’s revised understanding of plague as infectious dated back to protests of the Ottoman quarantine in 1838. Lord Posonsby, the British Ambassador to the Sublime Porte, complained to the Prime Minister:

With reference to the proposed [Ottoman quarantine] regulations, I have to instruct your Excellency to endeavour strongly to impress upon the Turkish government that they would more effectually prevent the breaking out and spreading
of the plague by introducing cleanliness and ventilation in the city and suburbs of Constantinople, than by any such violent interference as is proposed with the domestic arrangements of families. It is quite certain that the plague is much aggravated, if not actually generated, by the wants of cleanliness in the streets, by the want of sufficient ventilation in houses, and by the want of proper drainage in places contiguous to habitation; and, if the Turkish government would, in the first instance, apply vigorous measures to correct these evils, they would strike at once at the causes of the disease; whereas the measures, which they have now in contemplation, will only be productive of inconvenience and suffering to numerous individuals.²

The French suggested that the best way to counter the Ottomans was to help to promote ‘the formation of a general congress of delegates [from] the various European states having ports in the Mediterranean, for the purpose of agreeing on some uniform system of quarantine regulations to be adopted by all’.³ Soon there were statements by British officials based in Malta, Syria, Erzurum and Bursa lending support for a general congress that complained of the Ottoman contagionist understanding of the disease. Mr Robert, a supervisor of British hospitals in Syria, commented:

[In regards to this frightful disease], I beg to state that the results of all my experience leads me to believe that the disease originates in local causes, and that it is endemic in Syria and Egypt; that it is not of a highly contagious nature; and that, if ever so at all, some other concurrent circumstances are necessary to render itself. Extreme and exclusive [Ottoman] opinions on the doctrine of contagion are hardly warranted by this present state of our knowledge.⁴

Lord Aberdeen, the chief official of the British quarantine, tried in 1843 to convene the first International Sanitary Conference on the subject, and readily gained French support for his proposal. However, the Austrians viewed the conference as premature until competent medical men determined both the standard duration of a quarantine for people and goods and the best way to disinfect objects ‘susceptible to contagion’.⁵ As a result of this concern, the French Royal Academy of Medicine appointed Clot-Bey and Aubert-Roche to answer ‘all the very questions connected with the plague and with quarantines’.⁶

Clot-Bey’s and Aubert-Roche’s findings, based on personal observation and lengthy interviews with medical personnel and patients in Egypt from 1831 until 1846, generally endorsed the infectionist position. In their opinion, the pestiferous atmosphere of Lower Egypt was caused by the extreme ‘destitution, filth and misery’ of the poor ‘inhabitants of the Delta’:
Their wretched hovels are so horribly disgusting as almost to defy description; they are not only surrounded by, but are actually receptacles of heaps of ordure and putrid matters. Not infrequently are the dead buried immediately under the mud floors of these dwellings of the living; and many of the graves in the cemeteries (which are always within the villages), being left open, are continually exhaling a stench that is utterly intolerable to any stranger. Then, again, the food of the Fellah is always of the worst description, and often too of the most scanty supply. Rotten cheese, decayed vegetables, semi-putrid flesh or fish; such are the articles that he lives upon. The very water that he drinks is filthy and impure. And then think of his mental and moral condition; the brutish degradation of all his faculties and affections, his hopeless servitude, his blank unmitigated wretchedness.\textsuperscript{7}

To them, the urban centres of Lower Egypt were also in peril:

Cairo, with its 200,000 inhabitants, is a very hot bed of the most disgusting and pestiferous impurities. From the canal, which traverses it, there is constantly streaming forth a cloud of intolerable offence; and yet this is the supply of water for the use of its people! There are no fewer than thirty-five cemeteries, of which twenty-five are within its walls. In the Coptic quarter of the town, the dead are buried under the floors of the houses; and nothing but a few boards separate the living from the putrid bodies of the deceased. From eighty to ninety corpses have been known to be huddled together in these horrible sub-domal receptacles. Can we therefore wonder that Cairo should be a generating focus of the pestilential disease?\textsuperscript{8}

Geographical factors were also important to Clot-Bey and Aubert-Roche. They claimed that the plague never occurred above the first cataract of the Nile, which was less densely inhabited, less humid and had more flowing water and better soil. The answer, therefore, was to improve living conditions for those living in Lower Egypt by implementing modern building codes, sewage systems, and regulating food, water supply and burial of the dead. The French authorities posited that they had already done this in Algeria, where the ‘present administration’ had abolished quarantine and instead rebuilt towns and villages on the slopes of the hills to make sure that they were spacious enough not to be ‘over-peopled’. Gavin Milroy, a prominent British critic of the quarantine system, believed that Algeria ‘may become as seldom the theatre of the pestilence as almost any of the countries of Europe’.\textsuperscript{9}

Thus, the French and British could use sanitation measures to justify a colonial agenda for Egypt. Neither the French nor the British were willing to admit
that the ‘natives’ themselves were capable of the implementing hygienic reform necessary to free their societies of plague or other life-threatening epidemic diseases.

Moreover, Clot-Bey led an experiment by a team of European doctors to test whether or not the blood of plague patients could infect other human beings in 1835. The subjects of the experiment were five criminals who had earlier been condemned to death. Each of the five was injected with the blood of a plague patient. Only one of the five was affected. He came down with a mild case of plague three days after the injection. Clot-Bey argued that the single mild case of plague could be explained by the patient’s exposure not only to the ‘epidemic atmospheric influences then existing in Cairo’, but also the fact that he had lived in a plague hospital – ‘a focus of pestilential infection’ – three days before the experiment. Clot-Bey’s beliefs were confirmed when he had injected himself six times with the blood of a plague patient without any ill effects. He followed this up with an injection of puss from a bubo and this resulted in ‘a slight indisposition, which he attributed to the absorption of the purulent matter, which bore no resemblance to the symptoms of plague’.

Clot-Bey and the European doctors were obviously willing to dehumanise patients in order to biologically define the disease. The doctors, armed with the knowledge of modern medicine, were allowed to experiment on marginalised others – in this case non-European criminals – in order to disprove the theory that plague was contagious through human blood. Their findings were then disseminated by medical doctors like Milroy who shared the same privileges and convictions. One could also extrapolate that other marginal populations – poor or non-European colonials – could be subjected to such measures in the future. The moral right to choose whether or not to be a subject was only limited to Clot-Bey himself, his colleagues and possibly other Europeans of good social standing.

Clot-Bey and Aubert-Roche also did not hesitate to use ethnic categories to measure the impact of the plague. They drew up a table of mortality rates during the plague outbreak in Alexandria in 1835. They concluded that 14 per cent of the city’s Greek population died in the outbreak, as well as 12 per cent of the Jews, Armenians and Copts, 11 per cent of the Turks, 7 per cent of the Italians and other southern Europeans, and 5 per cent of the French, British, Russians and Germans. They contrasted this sharply with those who died, including 84 per cent of the city’s blacks, 61 per cent of the Malays and 55 per cent of non-elite Arabs. The great difference in mortality rates, they claimed, was based on the assumption that ‘the attacks of the pestilence among all classes of the population, native or stranger, is almost uniformly observed to be inversely proportionate to their cleanliness, good living and general comfort’.

This ethnic interpretation of disease often led to denials that Europe could
Once again be infected with plague. Milroy exemplified this trend in 1846 when he asked:

Is there reason to believe that the plague, when imported from the east into any European port, may be communicated to a sufficiently large number of persons to give rise to a pestilential epidemic? The medical men of Egypt answer this query in the negative. Their opinion is based on the often observed fact that, when plague patients are transported to places not subject to the pestilential constitution, they die or recover without transmitting their disease to anyone. If the infected, as we have seen, cannot communicate the disease to the inhabitants of certain places in Upper Egypt, how can we believe that, when transported from Egypt to France, it will possess a power of transmission so strong as to occasion an epidemic?

Thus, Milroy inferred from Clot-Bey’s and Aubert-Roche’s report that ‘vessels arriving from infected ports’ carrying plague patients should be allowed to disembark ‘at any place not subject to the epidemic pestilential influence’. Milroy ridiculed those who argued that European ports should retain quarantine procedures out of undue caution.

Other British writers came to similar conclusions. Netten Radcliffe (1826–84), a contemporary of Milroy, posited in 1843 that it would be ‘almost impossible for plague to get a serious hold upon’ Britain, given its outstanding sanitary condition. Those extremely rare cases that were imported should be regarded as mere ‘pathological curiosities’. An anonymous British writer attributed this success to a 1848 public health law that enabled his government’s ‘sanitary authorities’ to limit overcrowding, ensure adequate ventilation, and remove ‘putrescent animal and vegetable matters’ from homes, buildings and streets.

The general consensus was that ‘the disease has disappeared before civilisation’. The flip side of this argument was that plague ‘has returned with a country’s decline and barbarism’. Milroy specifically targeted the Ottoman Empire: ‘Wherever the Ottoman dominion has prevailed, civilisation and social improvements have retrograded rather than advanced.’ He further claimed that ‘pestilential epidemics’ were bound to recur in ‘Syria, of Turkey in Europe and Asia, and of the Barbary states’, as their hygienic condition remained poor. This was particularly true for the ‘residents upon marshy alluvial soils near the Mediterranean or near certain rivers, as the Nile, Euphrates and Danube; the dwellings being low, crowded and badly ventilated; a warm moist atmosphere; the action of putrescent animal and vegetable matters, unwholesome and insufficient food; and great physical and moral wretchedness’. Others would point to the Libyan Merdj highlands around Benghazi and Derna, particularly among the local
To Milroy, 'the recently instituted Board of Health at Constantinople' should not believe the illusion that they saved Istanbul from 'an invasion of the plague for some years past exclusively and entirely to the establishment of lazaretto's and quarantine restrictions there'. Rather, they should take to heart the warning Lord Posonsby had given them at the beginning of their efforts.

The Ottomans remained committed to a contagionist programme of preventing plague. After its establishment in 1838, the Ottoman Quarantine Administration stopped all boats going through the Straits to check if they came from a contagious port. If the boat in question did, they would have to spend the requisite time in quarantine. Questions of whether or not there was a case of plague on board or in the port of origin were thus more important than the boat’s hygienic or sanitary situation. The Ottoman authorities would also take other contagionist measures to protect Istanbul from outbreaks in the countryside. In February 1839, for example, ‘the Sublime Porte sent an imperial edict to the judges, notables, and dignitaries of Anatolia’, which stated that a land cordon would be set up around the six districts surrounding the Ottoman capital on its Anatolian side. The decree also instructed local judges, notables and dignitaries to respect the institution, and to obey its police, engineers and other officials. This followed the example of the Habsburg Empire, which had established a permanent land cordon along its southern border with the Ottoman Empire to prevent plague and cholera in the late eighteenth century.

The Ottomans were also largely in control of both the Constantinople Superior Health Council and the Quarantine Administration. The Constantinople Superior Health Council, which agreed to take on foreign members, was almost always chaired by an Ottoman. The minutes of the Council itself were written in Ottoman Turkish, with only a small French summary at the end of each session. Ottoman subjects dominated the Quarantine Administration leadership, including the General Secretary, the Supervisor of Military Affairs and the Chief of the Domestic Sanitary Police. The Ottoman authorities selected and trained lower-ranking Quarantine Administration officials, who were sent out to smaller stations at Beirut, Smyrna, Crete, Erzurum and Trablusgarp (Libya) for further training. The Ottomans also recruited Europeans for the Administration, but they were subject to the same rules and regulations as their Ottoman counterparts.

The Ottomans did not hesitate to use these institutions in order to project their power internationally. In 1846, the Istanbul quarantine ‘successfully implemented precautionary measures’ to protect itself from a plague outbreak in ‘Egypt, Syria, Benghazi, Tripoli, Marseilles and southern Italy’. During the outbreak, Muhammad Ali, the great moderniser of Egypt, came to Istanbul to pay homage to the sultan. Ahmed Midhat Efendi (1844–1912), a renowned
Ottoman scholar and later head of the Ottoman Quarantine Administration (1894–1908), related in his history of the Ottoman quarantine that Muhammad Ali also came by boat ‘in order to see the importance the Sultan gave to public health’. Ironically, the Ottoman Quarantine Administration stopped his boat in Smyrna. Officials there considered the boat suspect, as it had come from ‘plague-ridden Egypt’. Muhammad Ali waited in the city eight days before quarantine officials from Istanbul arrived to inspect and disinfect the boat. The fact that a widely acknowledged international dignitary who had threatened to take over the Ottoman state himself over the past twenty-odd years had to await ‘disinfection’ helped the Ottoman quarantine gain broader respect from a domestic audience used to a seemingly endless stream of defeats; from the French invasion of Egypt in 1798, to the Greek rebellion of 1821–9, and Muhammad Ali’s Syrian campaigns of 1833–8.

The Ottoman Quarantine Administration sought to bolster this support further when it declared that, contrary to Clot-Bey’s and Aubert-Roche’s findings, ‘the incidents of plague that did occur in Syria, Anatolia, and elsewhere in the Empire always came from the outside’. Thus, ‘plague was not endemic in . . . any of the Imperial Ottoman domains’. Ahmed Midhat further ridiculed Clot-Bey’s and Aubert-Roche’s focus on ‘prophylactics – a peculiar science – which ignored the truth about effectively implementing quarantines’.

The Ottomans would face their first great challenge after the Clot-Bey and Aubert-Roche report in 1858–9, with the outbreak of plague among the nomads of Benghazi. Foreign observers, such as Radcliffe and the French scholar Joseph-Désiré Tholozan (1820–97), claimed that the outbreak infected 10,000 in fifteen months, 4,000 of whom perished. Dr Bartoletti, an Ottoman member of the Constantinople Superior Health Council and long-time Imperial representative to the International Sanitary Conferences, was dispatched to the province on 3 June 1858 ‘to help local officials stop the spread of the disease’. He found that only 200 had contracted the disease, and thirty had died. He further stated that the outbreak was spontaneous and of a contagious nature, and should not be blamed on the Bedouin’s nomadic lifestyle, their dwellings, burial customs or even peculiarities of the soil. To him, the plague was connected to a famine that had weakened the resistance of the local population to the disease, and had nothing to do with the climate per se. Why, he asked, should one ‘ever pretend that the plague originated from the Sahara, the Libyan desert, or the Sudan, for to my knowledge the high temperature in that region appears to be an insurmountable natural obstacle to the disease [just like it is] . . . in Upper Egypt’.

The measures Bartoletti and other local quarantine officials implemented also contradicted Clot-Bey’s and Aubert-Roche’s infectionist views. The province of
Benghazi was declared from the beginning of the epidemic to be under a foul bill of health, and was placed under strict quarantine to prevent maritime contact with other ports: ‘The strictest surveillance was exercised on deliveries from suspected vessels [from the Libyan coast] to the Dardanelles in order to guarantee the capital of the Empire.’ Bartoletti complained that the foreign councils in Benghazi and Tripoli tried to interfere with these measures, and he brought up the matter at the Constantinople Superior Health Council upon his return: ‘In that meeting they decided that the assembly would be the sole authority for public health affairs when it came to the provinces and that consuls did not have the right to intervene . . . The Sublime Porte has the sole power to confirm and implement the assembly’s decisions.’

Dr Laval, a French doctor, and Dr L. Arnaud, a Frenchman in the Ottoman Quarantine Administration, challenged Bartoletti when they investigated a later outbreak of plague in Benghazi in 1874. They found that the disease was in fact endemic among the nomadic population of the region. They attributed the outbreak to their poor hygiene, the burial of their dead and, above all, to the pestiferous nature of the soil when dampened after years of drought. Laval formed an ad hoc committee including the American Consul General in Tripoli as well as two Maltese doctors and several notables from Benghazi. After writing a letter to the Ottoman governor of Benghazi begging for greater hygienic measures, Laval fell ill and died from plague, prompting Arnaud to follow up his efforts. Arnauld established sanitation camps for the afflicted, fed and clothed the patients and had them go through a decontamination process. He praised the Ottomans for trying to alleviate the population from the famine, but drew attention to the inadequate measures they had taken. In effect, he called for a belated embrace of infection as the cause of plague and for an end of Ottoman denials that the disease was endemic in parts to the area.

QUARANTINES AND COMMERCE

Such differences of opinion can also be seen in relation to the transport of goods through quarantines. Ahmed Midhat mentioned: ‘Quarantines were involved in commercial competition for a while. Some states would implement quarantines needlessly and this hindered international trade. The merchant marines of each country complained about this.’ He and other Ottoman Quarantine Administration officials claimed that the system could be implemented without inhibiting free trade. Bartoletti took a similar line at the first International Sanitary Conference in 1851 that: ‘[Europe] should adopt as extensive a quarantine system as possible to protect public health, but not disrupt international commerce. The Turkish quarantine is an example of how this may be done.’
The British, the Ottoman Empire’s leading commercial partner until the 1880s, disagreed profoundly with these views. Dr John Simon wrote in 1865 that a quarantine was ‘a mere irrational derangement of commerce’. To him, a quarantine subordinated commercial to political interests, and ensured that ‘a community lives apart from the great highways and emporia of commerce’. Sir Arthur Helps, the Chief Administrator of the British Quarantine Administration in 1869 wrote despairingly:

It might be advisable to keep up regulations as regards quarantine which you could not at all justify medically, but which you could justify commercially and internationally, seeing that our commercial marine would be smitten by most severe regulations in other countries if we did not keep up quarantine here.

Milroy focused on the role of cotton, the chief British export from Egypt during the nineteenth century. Unsurprisingly, he cited the Clot-Bey and Aubert-Roche report. He posited that while a plague ‘epidemic raged at Alexandria [in 1835] among the servants and employees living in the magazines of the Egyptian government’, roughly 100,000 bales of cotton were exported to Europe without any ill effects. Plague may have been on board eight of the sixteen British vessels laden with 31,709 bales of cotton, ‘yet their cargoes did not prove more dangerous than those of the non-infected vessels’. No person was ‘infected in consequence’ even though there were no precautionary measures to disinfect ‘this immense quantity of an article that has always been deemed highly susceptible of retaining the infectious effluvia’. This case proved Clot-Bey’s and Aubert-Roche’s conclusion that ‘there is nothing to prove articles of merchandise can transport the disease beyond epidemic foci’.

These anti-contagionist arguments resonated in the International Sanitary Conference of 1851. Dr P. Segur-Dupeyron, a member of the French Royal Academy of Medicine and French Consul in Damascus submitted a report on the subject of plague and merchandise after conducting exhaustive archival research and inspections of Mediterranean quarantine facilities. He found only ‘a single event where plague was transmitted through goods’: a case in Istanbul where ‘a porter named Mehmet Huseyin caught it from infected luggage in the lazaretto of Kuleli’. He concluded ‘that there was no positive evidence that plague was transmitted by infected merchandise . . . especially cotton’. The British and French delegates supported these findings.

They were in the minority, however. Dr Rosenberger, a member of the St Petersburg Superior Health Council was the first to weigh in on the side of the Ottomans:
A third of my honourable colleagues agree with the British who are not afraid that the plague would be spread by vegetable or animal matter. But are not you who oppose contagion imposing another theory on us that is to the detriment of public health? The majority of physicians believes in contagion and denounces the new theory. There are a number of cases where vegetable and animal matter transmitted plague. I have seen this myself in Odessa in 1837 and in Sevastopol in 1829 and 1830. Dr Bartoletti who has the most personal experience of us all will tell you that vegetable as well as animal matter can pass the plague and that it is impossible to recognise whether or not it came from an infected place. These experiences prove that prudent measures are in order. I trust the older regulations – drawn up after centuries of experience and detailed registration – far more than the people today who make false arguments. As seen recently in Turkey, the adoption of stringent quarantine regulations was a brilliant success.\(^\text{32}\)

Bartoletti then successfully proposed that a ship laden with cotton, flax and hemp with a poor bill of health begin quarantine ‘only after the cargo is completely unloaded’.\(^\text{33}\) As a result, the conference final report categorised cotton, hemp and linen as liable to possible quarantine. The majority of participants also dismissed ‘the findings of Segur-Dupeyron since he did not physically observe the lazarettos nor properly inspect the cotton bales’.\(^\text{34}\)

The prospects for the British and French improved once the construction of the Suez Canal began in earnest in the 1860s. Although the issue was not resolved in the International Sanitary Conference of 1866, most observers quickly realised the enormous amount of traffic that would go through the Canal and that the Zone – although internationally run – could possibly be subject to quarantine as well. The next International Sanitary Conference in Vienna in 1874 specifically broached this topic. The majority of participants accepted that each country could choose between ‘quarantine’ and ‘medical inspection’ as a precautionary measure to prevent plague or cholera. Those that maintained contagionist quarantine practices – like the Ottoman Empire – promised to ‘diminish its stringency as heretofore practiced’.\(^\text{35}\) Henceforth, the British adopted ‘the state of health of those on board . . . [as their] guiding principle . . . [and not] the arrival of a ship from an infected country’. To them, quarantines were outmoded as ‘the period of incubation of this sickness onboard became the standard or limit of the duration of detention’.\(^\text{36}\) This meant in effect that the British and the anti-contagionist majority on the Suez Canal International Sanitary Board could ensure the free flow of traffic by adopting ‘medical inspection’ instead of ‘quarantine’ procedures.
Ottoman quarantine officials continued to face a number of challenges to their authority. One of the most profound was the controversy over how to fund the institution. When Mustafa Reşid Pasha, one of the chief architects of the Ottoman reform movement, met in 1840 with the foreign powers to discuss how the Ottoman quarantine could be internationalised, he reached an agreement about taxation: ‘Foreign states would have the right to send one delegate a piece to the quarantine assembly . . . [but] foreign boats [like Ottoman ones] would pay a special public health tax.’ The rate was fixed at 40 piastres per boat regardless of size or number of passengers. But as early as 1842, Ottoman officials worried that this tax alone could not pay for their quarantine system. Baki Efendi, the chief financial official for the Ottoman quarantine wrote a memorandum to the Sublime Porte that the 5,660 piastres raised between March 1840 and February 1841 could not pay for even one-tenth of the total expenses. He feared that ‘they would shut down public health stations inside the Ottoman dominions – including coastal stations’. He proposed that passengers on ships – including foreign vessels – pay 1 piastre each as a public health tax.

The Ottomans raised this issue again at the 1851 International Sanitary Conference in Paris. After arguing that the uniform tax of 40 piastres per boat was too low for commercial vessels Bartoletti persuaded the participants that:

The taxes the authorities took from commercial boats were not sufficient to cover public health expenses. The conference decided that the authorities should receive a suitable amount of revenue and that the taxes should be levied according to the tonnage size of each boat instead of small amounts based on official receipts.

The Conference agreed in theory that foreign boats above 50 tons would pay 3 piastres per ton and Ottoman boats in the same category would pay 2 piastres per ton. Any boat weighing 50 tons or less would pay 1 piastre per ton, and smaller incidental taxes on passengers and their goods would also be allowed. The foreign participants asked for five months’ delay to get their respective countries consent, but did not respond.

By September 1862 the Ottomans proposed to reduce the tax:

They suggested that two liras be taken from boats up to fifty tons; five liras from boats between fifty-one and 200 tons; and ten liras from boats larger than 200 tons; twelve liras from steamers regardless of tonnage if they were penalised.
If the boats came from contagious locations without a bill of health they should undergo quarantine twice.\textsuperscript{41}

The British – who had the largest tonnage of commercial vessels in the Ottoman waters – complained in 1866 that the Ottoman quarantine was overstaffed, overpaid and could reduce the number of its offices. Nonetheless, the Ottomans did eventually implement a renegotiated rate in 1872: ‘Every boat 500 tons or below would pay 20 piastres as a base rate. Others would pay additional fees beyond the 20 piastre base rate; 12 piastres additionally for those above 500 tons; and 8 piastres from those above 1,000 tons’. The Ottomans and the foreign powers also agreed to form a ‘mixed committee’ to discuss any changes to the rates.\textsuperscript{42}

The Ottoman quarantine officials also had to struggle with the British and the French during two significant outbreaks of cholera. The first case occurred during the Crimean War, when the British, French and Sardinians sent their fleets to Istanbul. The French Marshal Saint Arnauld refused to undergo quarantine and British complained that public health regulations caused military delays. The Ottomans retorted that ‘even battleships should be subjected to quarantine’, but in April 1855 they allowed 15,000–20,000 French Imperial Guards to camp at the Davut Pasha Barracks.\textsuperscript{43} ‘Cholera soon broke out among them . . . [and] a severe epidemic followed’. Cholera spread from the camp to ‘Pera and to those villages on the Bosporus the nearest to the cholera focus’.\textsuperscript{44} The Constantinople Superior Health Council met multiple times during the next ten months, quarantining the soldiers to limit the outbreak. They also constructed separate foreign cemeteries for the French and British, and implemented new burial and butcher shop regulations. Some of the foreign officers continued to disrespect the Ottoman authorities, ‘arguing that they came from disease-free countries’.\textsuperscript{45}

A new cholera outbreak in 1865 spread throughout the major ports of the Ottoman Empire. Bartoletti, the representative of the Ottoman quarantine authorities, spoke at the International Sanitary Conference convened in Istanbul in 1866 to discuss the outbreak. He found that the cause of the epidemic could be traced to Egypt in at least two cases. Infected passengers from the Egyptian frigate \textit{Moukhibe Sourur} spread the disease in Istanbul after the captain falsely declared that there was no case on board. In Smyrna, a vessel arrived from Alexandria with a foul bill of health, and cholera spread to the city after a patient was brought to the lazaretto. Bartoletti also claimed that the Ottomans were proactive in handling the disease, as they quarantined over 25,000 people at various stations throughout the eastern Mediterranean and Black Sea. There were only 480 confirmed cases of cholera, 238 of whom had died.\textsuperscript{46}

Others were highly critical of Bartoletti’s account. An international inquiry about the case questioned the low number of cholera cases in the Ottoman
lazarettos, and claimed on the basis of foreign consular reports that there were many more unreported deaths in the towns and surrounding villages. They posited that 2,500 died from cholera in Smyrna, while only nine died in the city’s lazaretto. Similarly, nearly 350 died in the villages surrounding the Dardanelles and only fifteen died in their lazaretto. They suspected that the lazarettos themselves helped to spread the disease:

See how things happened at the Dardanelles. From the beginning of July, many cases of cholera had been admitted to or developed in the lazaretto, when on the twelfth, a soldier of the guards, at the gate of the establishment, was attacked by the disease. He was transported to the neighbouring hospital, where he rapidly sank. On the next day, eight cases of cholera occurred; namely, two among the soldiers of the guard at the gate of the lazaretto, three in the garrison of the fort adjoining the establishment, one in the town, distant an hour’s walk by land, but much nearer [to] the sea, in the person of a garde de sante, who had left the lazaretto two days before, one in another quarter of the town in an individual who went every day to the lazaretto to sell cakes, and finally one in the person of a boatman of the Health Office. This was the point of departure of the epidemic which developed itself in the town, and did much mischief there.47

This case led to further questions about how the Ottomans might have been covering up the actual extent of the epidemic:

It would be a matter of the greatest interest to be able to say precisely in what matter things have happened at each [of the Ottoman ports]; but the want of precise information does not permit this. It is easy to understand, also, how many interests are opposed, in most of these cases, to the exact truth being known.48

This point leads to the conclusion that the Ottomans needed to open up their quarantine to greater foreign scrutiny. Despite this criticism, the Ottomans refused to surrender authority over ports on their own sovereign territory.

Criticisms of the Ottoman quarantine regarding plague also continued throughout the second half of the nineteenth century. Dr Armedee Latour, a member of the French Consultative Committee on Public Hygiene complained in 1878 that the Ottoman quarantine officials lacked the training and resources to carry out the task:

The reports by the Central Administration of sanitary doctors along its coast and provinces are largely incomplete, and show a lack of competence and concern. One doubts that the sanitary doctors are qualified for such a mission. It is difficult
to obtain qualified people in such remote countries, as they have very little resources. [The Ottomans] were forced to assign individuals who are not trained or certified. The quality of their medical personnel has gradually improved in recent years, but the majority of the Ottoman Administration is very narrow-minded, believing that they are carrying out their task when they show that the disease does not exist.  

To Latour, fighting the plague effectively meant implementing sanitation measures throughout the Empire, and not limiting their efforts to maritime quarantines stations: ‘The Sanitation Administration in the Ottoman Empire . . . should be such that the plague cannot escape the vigilance of their agents in the smallest village’. Dr J. D. Tholozan, a member of the Epidemiological Society of London and the Medical Academy of Paris likewise judged:

Even if we accept the hypothesis that we can eliminate plague germs by establishing sanitary cordons and quarantines, it is feasible only in theory. In practice it is not so as seen in Cyranique [Benghazi]. Can one disinfect the nomads of Benghazi? The Ottoman Empire simply does not have the means to carry out such a task . . . It does not have the army, police, and financial resources to do so.

These critics were also bitter that the Germans had begun to support the Ottoman Quarantine Administration – just like the Austrians and Russians did. Dr Adrien Proust (1834–1903), a long-time French participant at the International Sanitary Councils, claimed a German colleague delegate to Constantinople Superior Health Council supported an Ottoman protest that increasing foreign pressure exposed ‘the country to disease’. Tholozan was similarly disgruntled about Dr A. Hirsch, a German representative to the 1874 International Sanitary Conference who discounted the Benghazi outbreak, and claimed that the last plague epidemic in the Ottoman Empire occurred in Constantinople in 1842. Dr A. Fauvel, long-time Inspector General of the French Sanitary Service feared that it was impossible for the European powers to develop a unified policy towards the Orient, ‘as they are divided by antagonism, jealousy and struggles over influence’.

Proust suggested in 1897 that the European governments should try to use their influence to reassert control over the Constantinople Superior Health Council: ‘The foreign consulates should dominate, and have a commensurate number of representatives. This is especially urgent in . . . Constantinople, as a lack of action would result in serious disadvantages.’ Without foreign domination, ‘the Council is bound to remain, like the Ottoman government, ultra-quarantine in doctrine’.

To him, the Europeans should try to accomplish what they had already done in Alexandria:
Alexandria’s Council underwent a fortunate change in 1892, since the number of Egyptian members outside of the President have been reduced to three. They are appointed by the government and do not have a right to vote in the event of a tie in the committee. Beforehand it was composed of nine Egyptian members. Now the Council has become an international body since the local element has been reduced. Additionally, a Permanent Committee has been substituted for the President when urgent decisions need to be made. No one attached to the Egyptian government or Maritime Company has been considered.\textsuperscript{57}

In contrast, he accused the Ottomans of unfairly ‘possessing effective supremacy in a council that should be international’:

In short, Ottoman civil servants have successfully attacked the Sanitary Council of Constantinople every day and weakened its authority. The Council represents sanitary interests of the first order and its ruin might affect the health of Europe’s trade and navigation. The Turkish government would determine all sanitary measures if that were the case.\textsuperscript{58}

In his opinion, the Ottomans had an effective majority in Council, as eight of the twenty-one voting members represented the Sublime Porte, and four to six more were non-Muslim Ottoman subjects, who voted with their countrymen even though they were appointed to represent other foreign governments. He called a reorganisation of the Council:

By reducing the number of Ottoman members from eight to four and make the American, Persian, Dutch, Spanish, Belgian, Swedish and Norwegian governments send their own citizens. Without it, the Council is bound to remain, like the Ottoman government, ultra-quarantine in doctrine.\textsuperscript{59}

The Ottoman government, however, successfully avoided Proust’s plot in 1897 and continued to hold sway in the Council, much as it did from the 1840s onwards. Thus, the Ottomans were able to assert authority in the face of political threats, financial crisis and the outbreak of epidemic disease. Seemingly nothing could force them to re-evaluate their contagious emphasis on quarantines, lazarettos and governmental control of their coastline.

THE SUEZ AND THE HAJJ

It is therefore quite striking that the British, French and other European powers should succeed in radically changing international rules concerning quarantines
and plague in the 1890s. They continued to see plague and other epidemic
diseases as primarily infectious, but they now acknowledged the need to hold
infected and infectious people and cargo in quarantine when need be – as some-
times was the case if they came from a non-European country. This development
primarily involved establishing quarantines stations around the Suez Canal,
which the British de facto controlled as part of the protectorate it had declared
in 1882. The British, French and Dutch successfully petitioned during the
International Sanitary Conferences to develop more stringent policies regarding
the Hajj pilgrims – all in the name of preventing outbreaks of plague and cholera.
These policies also coincided with imperialist interests as they were already
attentive to anti-colonialist movements in Egypt, India and Java. The colonial
powers were very concerned that the pan-Islamic Ottoman Sultan Abdul Hamid
II (1876–1909) might use the annual Muslim pilgrimage to Mecca and Medina
to mobilise this opposition for his own political purposes.

Although there were serious concerns raised about the pilgrimage to the Hijaz
during the cholera outbreak of 1865, quarantines along the Suez Canal Zone
were not finalised until the 1892 International Sanitary Conference in Venice.
Thereafter, large British-dominated quarantines were authorised at Moses Wells
by the Mediterranean entrance to the Canal to deal with southbound vessels, and
at Djebel Tor at the opposite end in the Red Sea for northbound boats, along
with smaller satellites at Abou-Saad, Abou-Ali and Vasta. While the Ottomans
had also established stations at Kamaran for boats headed to Jeddah, and Bab-
el-Mandeb for pilgrims from the Indian Ocean heading towards the Red Sea, the
Suez quarantines were more important as all maritime traffic passing between
the Mediterranean and Red Sea were under its jurisdiction.

In the International Sanitary Conferences of 1894 and 1897 a series of
new regulations about cholera and plague were implemented about the Suez.
European vessels that had a clean bill of health were given immediate pratique
without any restrictions or requirements. Other European vessels were to be
placed under a five-day observation after passing through the Suez as long as
none of their third-class passengers disembarked and the boat had a disinfection
chamber and adequate medical staff. Non-European vessels – even those going
to the pilgrimage – could be granted similar terms if the country that owned the
boat adhered to the convention. The Suez Quarantine Authority, however, had
the ability to detain any non-European vessel if there were cases of plague or
cholera in the Hijaz that year and make them go through a special disinfection
procedure:

The pilgrims shall be landed; they shall take a shower bath or bathe in the sea;
their soiled linen and any portion of their personal effects or their baggage, open,
in the opinion of the sanitary authority, to suspicion, shall be disinfected. The duration of these operations, including disembarkation and embarkation, must not exceed seventy-two hours.\textsuperscript{60}

The pilgrims would then be dealt with by the quarantine authorities, who often gave inoculations of anti-plague or anti-cholera serum. The Haffkine anti-plague vaccination produced high fever in the patient within hours of the shot; and, as Ottoman quarantine official Besim Ömer related, sometimes up to 5–10 per cent of those vaccinated died in the process.\textsuperscript{61}

Other regulations were targeted towards ‘risk groups’. Poorer pilgrims were heavily discouraged from making the journey, and were prohibited from boarding a pilgrimage vessel without a return ticket. First- and second-class passengers were given more lenient treatment, especially if the boat carried few or no people in third-class. Third-class passengers would also face greater restrictions and surveillance when in quarantine. Those ship-owners who could not provide adequate steamboats, food, water, medical equipment and staff would not be allowed to make the journey. Those that did would be subject to additional scrutiny from the port of embarkation.

Disinfection procedures were extended to medical inspection and fumigation for rats and rodents in 1897, but it did not lead to a fundamental reworking of the 1894 regulations, which were first drawn up before Alexander Yersin’s discovery of bubonic bacilli in Hong Kong.

Critics of Ottoman contagionist measures were delighted with the new procedures. Proust lauded the new surveillance facilities and procedures:

\begin{quote}
The Suez Canal is of immense importance to maritime relations throughout the Mediterranean basin. The pilgrim must be subjected there to complete disinfection before arriving in Mecca . . . The disinfection methods they practice are necessary given what happens on board the pilgrim ships. As Dr Ferrari, the director of the Suez Health Service, makes the authoritative judgement that ‘pilgrims are always transported in rundown ships’. Pilgrims excessively crowd the boats, and there is no free space left. They always number more than the bill of health indicates for the sanitary authorities of the Hijaz. A number of times the ships have lacked tents to shelter the pilgrims on the bridge, meaning that they are exposed to sunshine all day long. Water and food are also insufficient and very expensive. The information the captains and doctors give about the ships are often very inaccurate. Ferrari adds: ‘I have often received certificates from the captain and the border officials saying that the pilgrims are in perfect health. But when I pay them a medical visit I notice the sick dying in the middle of filth without any medical assistance from the doctor or the border officials.’\textsuperscript{62}
\end{quote}
The Ottomans had no easy answer to these developments. They initially stood by their own contagionist rules and regulations, but they, the Greeks, the Serbs and the Portuguese, were the only participants to the 1897 International Sanitary Conference not to agree to the new convention. They also would not be able to internationally licence their doctors or provide adequate disinfection chambers unless they adopted ‘medical inspection’ and other prophylactic methods. Continued Ottoman intransigence would marginalise their influence in international sanitary policies and threaten their maritime links with the distant province of Hijaz. The Constantinople Superior Health Council soon called on new hygienic measures to survey the pilgrimage in the light of these new realities.

Muslim dissatisfaction with the Suez quarantines grew, however. İbrahim Rifat Paşa (1857–1936), an Egyptian general who helped lead the annual sultan’s procession to Mecca and Medina in 1903 complained of his treatment at Djebel-Tur on his return journey. He and the entire procession were forced to undergo quarantine there for sixteen days because one of the pilgrims who accompanied him allegedly caught the plague. Their ‘medical inspection’ was brutal:

A group of Christian Greeks were responsible for the inspection. Some treated our possessions well, but others turned over all our pots and poured out the contents, and then threw them on the ground. The majority [of the items] were perfume bottles and delicate silver pots, most of which were damaged . . . A lot of things, especially the expensive and valuable ones were stolen . . . They [then] forced us to go into the bath houses, and made us wear dark, loose cotton clothes without buttons. We left the bath houses with bare heads and feet and waited in the heat of the sun and musty air . . . We caught diseases, and had head colds and chest pains during this time . . . They gave us tin pots to use both for drinking water and for cleaning the toilets . . . The toilets were not cleaned every day and the flies gathered horribly. How is this healthy?

Rifat Paşa protested to the Egyptian Interior Minister, but he was told that he and the other members of the procession had no choice but to comply.

**CONCLUSION**

Istanbul was also hard-pressed by such complaints. The Empire’s quarantine officials could not do very much about maritime passage through the Suez, as their sovereignty over Egypt and the Canal Zone was practically non-existent. Ottoman access to the Hijaz was also largely limited to sea traffic, as pilgrims
much preferred steamers to the old caravan routes. Those who did take a caravan were vulnerable to robbery from local Bedouins. Muslim pilgrims, particularly Arabs from Egypt, Palestine, Syria and Iraq voiced their opposition to British domination, but also sensed the pending colonisation of the region.

The construction of the Hijaz Railway, inaugurated in 1903, partially solved this problem. Pilgrims from the Empire, Europe and western Russia would have a viable alternative to using the sea lanes after its completion. This would also take the pressure off the Ottoman government to fully give in to international pressure, since they would exercise their own sovereignty over the routes. Yet the Ottomans would not abandon their newly found faith in prophylactics and medical inspection, as this could be used to help further consolidate their control over the distant province. The government could indeed implement public health reform by increasing its policing powers to regulate buildings, sanitation, water supply and medical facilities. There would be growing opposition to such measures by local interests who wished to limit this intrusion. The Bedouins would resist such efforts, vandalising newly constructed waterways in much the same way they tried to sabotage the new railway.

The Ottomans had come nearly full circle. When they established the quarantine in 1838, they followed standard European practices. Their action, however, provoked the European powers – particularly the British and the French – to declare that sanitary measures, which did not interfere with free trade by implementing government control, were far more effective in combating plague. These measures allowed the British and French to consolidate their economic and political hold on Egypt, which transformed over the nineteenth century from an Ottoman province to a European colony. This is best symbolised by the European takeover of the Suez Canal in 1869. Some thirteen years later, after the declaration of the country as a British protectorate, the Europeans were able to take over Egypt’s public health institutions. By the 1890s, the British and other European powers, increasingly aware of an anti-colonialist backlash against them in Egypt and elsewhere in the Islamic world, decided to use the quarantine facilities established at the Suez to regulate those Muslims going through the Canal Zone on their way to the annual pilgrimage to Mecca. The result was a series of rules and regulations which discriminated against the pilgrims, defining Europeans as hygienic and civilised, and Muslims as poor and unsanitary. Some Muslims believed that they were being humiliated much in the same way as the poor captive patients who Clot-Bey and Aubert-Roche had subjected to experiments for their seminal 1846 study that had defined infectionism in the first place. The Ottoman quarantine authorities now sought to embrace these same infectionist methods but use them for their own ends.
NOTES

3. Milroy, Quarantine and the Plague, p. 12.
6. Milroy, Quarantine and the Plague, p. 15.
7. Milroy, Quarantine and the Plague, p. 22.
10. Milroy, Quarantine and the Plague, p. 38.
11. Milroy, Quarantine and the Plague, pp. 31–2.
12. Milroy, Quarantine and the Plague, p. 57.
13. Milroy, Quarantine and the Plague, p. 57.
30. Milroy, Quarantine and the Plague, pp. 52–3.
44. International Sanitary Conference, Report to the International Sanitary Conference from
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a Commission from that Body to which were Referred Questions Relative to the Origin, Transmissibility and Propagation of Asiatic Cholera, pp. 76–7.
51. Tholozan, La Peste en Turquie, p. 205.
52. Adrien Proust, La Défense de Europe Contre la Peste et la Conférence de Venise de 1897, p. 265.
54. Tholozan, La Peste en Turquie, p. 196.
55. Proust, La Défense de Europe Contre la Peste, p. 264.
56. Proust, La Défense de Europe Contre la Peste, p. 266.
57. Proust, La Défense de Europe Contre la Peste, p. 263.
58. Proust, La Défense de Europe Contre la Peste, pp. 265–6.
59. Proust, La Défense de Europe Contre la Peste, p. 266.
60. League of Nations, Report of Commission to Inquire into International Arrangements regarding Epidemic Disease Prevention in Certain Areas of the Near East (Basin of the Eastern Mediterranean and Black Sea) and in Connection with the Mecca Pilgrimage, pp. 34–5.
63. Proust, La Défense de Europe Contre la Peste, pp. 267–8.
64. Ibrahim Rifat Paşa, Mir’atü’l Harameyn bir Generalin Hac Notları, pp. 449–51.