

Victorian Plague Town: Quarantines, Hospitals, and the Political Birth of Isolation

Dr. Edward Seaton, the former medical officer for Nottingham and Chelsea and then the top health official for the County of Surrey, delivered the prestigious Milroy Lectures in 1896 on “The Value of Isolation and Its Difficulties.” He could not help but start with an historical survey of the separation of infectious disease, including the Levitical injunctions on lepers, who later became the pathetic objects of “superstitious horror” in the Middle Ages and were subjected to a “strict social ban” and a life apart. Seaton places this alongside those “quasi-military defences and precautions” going by the name of *quarantine*, which had their origins in the Black Death and were subsequently developed throughout the European world in response to “ordinary Levantine plague.” This history also encompassed the shutting-up of houses, cordons sanitaires, and similarly draconian measures taken up by plague-stricken towns in previous centuries that Seaton believed must be considered “equivalent to quarantine.” The spirit of banishment, which Seaton states was still present in some countries’ quarantine restrictions, was “in reality, though not intentionally, exceedingly cruel,” and he warns that at any time the “old spirit” might be revived to the great peril of a free people. Not only did strict exclusionary measures have effects opposite to those intended (owing to the panic, defiance, concealment, and flight they inspired), they represented an intolerable control over individuals incompatible with modern English liberties.¹ For its nineteenth-century critics, quarantine was more a political tactic than a medical one. It was the means to prescribe sovereign territory, smacking

of a despotic desire to control everything and to forcibly determine outcomes.

As for his main topic—isolation as practiced in Britain at the time—Seaton goes on to insist that it bore almost no resemblance to earlier practices of medical imprisonment and that it reflected fundamentally different scientific *and political* principles. He took great pains to starkly delineate the historical relationship between isolation and quarantine and to divide their respective places in the spatial governance of public health. In the end though, Seaton admitted, that part of quarantine consisting of “intelligent isolation, kindly and thoughtfully carried out” must be a crucial part of any well-organized sanitary system. Quarantine, therefore, on the one hand represents everything opposed to the proper political organization of health, but on the other hand it also contains the kernel for a principle of separation that might be differently politically organized. It is in this context that Seaton goes on to observe the work done by hundreds of municipal fever and smallpox hospitals created over the previous three decades, especially in London. At these establishments every “hygienic advantage” was extended to patients as well as to the public. Most importantly, they did not promote the spirit of ostracism and banishment, for at them the patient may expect “company rather than solitude.” Indeed, according to Seaton, the first tenet of modern preventive hospitalization was that it should be “carried out in the spirit of tender care for the sick person and their friends” before any action that “savours rather of persecution.”² One might infer that for Seaton the main difference between quarantine and isolation was a matter of *cruelty* (which he lavishly ascribed to the former), but we should perhaps be open to the likelihood that for him and his colleagues, *cruelty* was primarily a political quality. Moreover, recognizing this fact had become a matter of medical pragmatism. In any case, the public health at the end of the nineteenth century had been completely reshaped by the quick and efficient isolation of dangerously infectious persons and Seaton encouraged his listeners to cheer the fact that towns across Britain now possessed the capability to separate sufferers in ways far more pervasive, detailed, complete, and unquestioned than any previous system of quarantine.

How did it come about that this perspective on isolation (of which Seaton is simply one of the most prominent voices) needed to be precisely juxtaposed against quarantine? Victorian commentators tended to condemn earlier forms of medical detention in the harshest language

possible while at the same time to enthusiastically praise the new institutions of urban hospital sequestration. Where we might look for similarities in the two practices, the very architects of isolation chose to stress their differences. (And it should be noted that contemporaries did not think that the distinction between exogenous and indigenous disease was an important difference.) We are confronted with something of a paradox: plague in the nineteenth century had essentially disappeared as an epidemic threat in Britain and quarantine was effectively abandoned, but a new system for isolation had arisen to deal with the ordinary prevalence of deadly infectious disease. Might we conclude that this rationalization of epidemic containment was itself a political development as much as a medical one? Furthermore, should we see this as an instance of spatial politics—in other words, a question of how medicine and the state could organize space for health?

The historiography of public health is not much help in recognizing, much less explaining, this apparent paradox. Isolation has simply not been examined in any sustained manner, and has been largely relegated to the margins of the history of British public health. The quick rise and expansion of isolation hospitals after the 1860s is often explained (almost too neatly) as a practically inevitable and *natural* outcome of germ theory and its specific appreciation of contagion; to wit, bacteriology legitimated “exclusive measures” of prevention and therefore isolation hospitals sprung up.³ The dubiousness of this explanation is suggested in the fact that Seaton’s commentary had absolutely nothing to say about laboratory knowledge. Another conclusion drawn by some historians is that isolation emerged as a variation upon quarantine, or a reconciliation with it, which was begrudgingly accepted by liberal governments. This idea of isolation being part of a lesser, kinder, updated version of quarantine appears in Peter Baldwin’s term, “neoquarantine,” which frames hospital treatment as a concession to the more forceful methods of suppression following upon the reassertion of contagion in medical thought.⁴

This chapter suggests that such approaches simply will not suffice. It argues that the paradox can be best addressed by reference not to abstract philosophies of government but to the mentalities of governance—the techniques and rationales, the spaces and forces, that constitute *governmentalities*. In this regard, Krista Maglen’s thesis on the relationship between sanitationism and quarantine in Britain is commendable.⁵ She argues that the abandonment of quarantine per se was

related to the emergence of the “English System” of epidemic prevention. What this involved was the replacement of Georgian-era “sanitary laws,” which pertained to policing the nation’s border for disease, with legislation that treated the space of the nation itself as a “sanitary zone” but one that had the ability to expand beyond the bounds of the formal nation. This had the effect of accentuating the medical monitoring of the national border (with the establishment of Port Sanitary Authorities), but with the aim of supporting the medical management of health within the territory, not just at its littoral points of entrance. Maglen shows why the governing mentality should not be construed as “neoquarantinism” but rather a significantly new approach to how the spaces of containment could be politically arranged. A drawback to Maglen’s book is its failure to recognize the extent to which the model of urban isolation hospitals prefaced and significantly molded the activities of the port authorities. At the end of the century Seaton called the latter “coast isolation,” and credited the network of municipal hospitals as one reason why “it seems we can afford to let certain kinds of infectious disease be imported within our midst, if not with impunity, at any rate with definitely less danger than in former days.”⁶

This chapter seeks to locate the political birth of isolation over the course of the nineteenth century. It suggests that in order to witness this emergence we should look less to national policy and more toward metropolitan reformers, medical charities, and municipal boards—especially in London. Hospital treatment eventually came to be considered a key component of English Sanitationism, although this was fraught with controversy and difficulty. In the first place, preventive hospitalization was burdened by the imprint of the lazaretto and other Victorian imaginings of the “plague town.” This ensured an uncertain and ambiguous role for hospitals within the mid-century movement for urban governance and sanitary reforms. As a term to describe a public health strategy, “isolation” was not fully accepted until the 1880s. This chapter starts with a consideration of the early nineteenth-century fever hospital movement, in particular the London Fever Hospital (LFH). It notes that early “houses of recovery” (as they were also called) were arranged for the health of the patient apart from society. The idea of an “isolation hospital” had just started to develop in the 1860s, and described a space arranged for the health of patients as part of an urban social system.

An important aim of this chapter is to sketch some of the general ways that isolation represents a key intersection of public health and political

modernity—an argument that is developed more thematically in subsequent chapters. One central concern in the formation of British public health was the deep unease over the political meaning of contagion. Epidemics caused by filth might be remedied and prevented by indirect means of sanitation, but a truly contagious epidemic seemed to imply and even beckon extraordinary, police-like powers seeking to take direct charge of the body. As with quarantine, the political history of isolation is inseparable from the dangers that *contagion* posed to the program of liberal government. The crucial question therefore is, why did contagion come to be rearticulated as the justifiable domain of *liberal* governance? And how is it that the spaces for separating, enclosing, and disciplining sick persons (previously associated with emergency measures, the marking of sovereign territory, and arbitrary and oppressive government) were remade into sites for calculated, measured, and self-limited state power?

SPATIALIZING THE FEVERS

Typhus fever was by no means an unfamiliar disease at the beginning of the nineteenth century, but during this time it did take on substantially new medical and political meanings. The natural ecology of typhus is intimately related to conditions of malnourishment, infrequent change of clothes, and crowded habitations. This much had long been generally understood, although we now also know that typhus is caused by a germ transmitted by the body louse. For many early nineteenth-century medical thinkers typhus was simply a synonym for “fever,” a disease type rather than a symptom of disease. The boundaries of what constituted typhus (and its place within the category of “continued fevers”⁷) were nonetheless contested and nebulous; it was not differentiated from typhoid fever or relapsing fever until the mid-1800s. Meanwhile there were intense debates over the meaning of “epidemic typhus,” debates that played a crucial role in the development of English public health. To many, the disease seemed inseparable from the stresses of modern life found in the new industrial towns and in the metropolis. As later with cholera, typhus illustrates the generally ambivalent attitude and approach toward contagion that took root in British medicine and government. Indeed, an abiding hallmark of mid-century sanitary reform was its reticence toward contagion as a knowable and governable factor in the health of the population. The turn-of-the century fever hospital movement had previously drawn upon and emulated the intrusive state

measures traditionally arrayed against plague invasions. Controversies, however, quickly set in over what powers were commensurate with the perennial problem of urban fever and whether the logic of quarantine was appropriate.

It is commonly agreed that the movement for fever hospitals in Britain started with Dr. John Haygarth, who in 1783 persuaded the Chester Infirmary to set up special wards for the reception of town residents suffering from contagious fever. (The practice at most hospitals had been to rigorously exclude typhus and even immediately discharge all patients if it were to ever break out inside.) The theory and treatment of fevers—widely considered a “dark and abstruse subject”⁸—was clearly in a state of transition that brought doctors to focus on the hazards of enclosed, confined spaces.⁹ Haygarth was motivated by the teachings of John Pringle on “gaol fever” and James Lind on “ship fever,” and his experiment reflects rising general interest in spatial arrangements that might stymie the generation and spread of typhus. Haygarth laid down stringent rules for his fever wards: segregation from the rest of the hospital, provision of clean linen and clothes, immediate removal of patient discharges, systematic airing of blankets and clothes, constant ventilation by means of open windows, and so on. The fever ward was to be a realm of exceptional order, cleanliness, and restriction of movement.¹⁰ Haygarth saw it as practically analogous to a lazaretto, and dependent upon the application of the type of police powers concentrated and developed in penal and naval situations.¹¹ He was the first to apply this machinery to the problem of fevers in the civil population, remarking on “the necessity of taking poor patients out of their small, close, and dirty dwellings, into spacious, airy, and clean apartments.”¹²

Haygarth’s audacious fever plan bore many similarities to his even more remarkable proposal for the extirpation of natural smallpox by rigorous surveillance, inoculation, and sequestration. A version was put on trial in Chester starting in 1778. The local Smallpox Society rewarded informants who could provide news about the existence of the disease. The society’s inspector then visited the infected house and distributed a set of “rules of prevention,” with a sum paid to families who followed the rules and a further reward to those which suffered no further infections.¹³ In 1793 Haygarth sketched out a far more widespread and compulsory system of smallpox suppression in which he contended that inoculation must not only be encouraged but systematically “injoined.” What was commonly provided through benevolence, Haygarth reasoned,

“the law might require to be universally performed.”¹⁴ Plague after all had been “exterminated” from Britain by the force of civil regulations.¹⁵ Considerable rewards might most often effectively “secure the perfect obedience of the poor people,”¹⁶ but he now suggested also fining those who transgressed the rules of prevention and publishing their names in the nearest newspaper (indigent offenders could be placed in a pillory for public humiliation).¹⁷ Haygarth proposed a central Smallpox Commission, with ramifications for the entire country and a large staff of inspectors and officers having the power to enforce separation of the sick and erect pest-houses where needed. The plan echoes the humanitarian tone of prison reformers like John Howard, but in other ways owes more to Bentham’s radical proposal for a national inspectorate of Panopticon penitentiary houses published two years earlier. Indeed, Haygarth envisioned extending the disciplinary machinery of the classical plague town over the entire nation and to periods of normal disease prevalence. His audacious proposal prompted much discussion amongst medical writers, but garnered practically no legislative traction (even less than Bentham’s Panopticon). There was the no small matter of its frighteningly “despotic” measures of surveillance and intrusion. Perhaps just as important was the advent of vaccination at the turn of the century, which provided a relatively simple alternative to aggressive state controls. One of Haygarth’s correspondents praised the plan, but observed that it would have “require[d] the assistance of government, and government is not in the habit of attending to such objects.”¹⁸ Endemic, indigenous scourges like smallpox and fevers were not (yet) objects of state reason in the same way as epidemic and exogenous plague invasions.

The “medical policing” of towns was at this time almost entirely a local responsibility of civil society. In 1795 a group of citizens and physicians formed a “committee for regulating the police of the towns of Manchester and Salford.” This resulted in the establishment of a Board of Health that raised funds from public subscription and opened a “House of Recovery” adjacent to the Manchester Infirmary—the first stand-alone building for the exclusive reception of fever patients.¹⁹ This institution operated under quasi-public authority, but was essentially a voluntary body that employed an informant and reward system to encourage notifications and removals. It provided the model upon which a number of similar hospitals were created, many of them growing out of established medical charities (such as at Liverpool, Norwich, Hull,

Dublin, Cork, and Waterford). The nascent fever hospital movement was a confident expression of civic self-governance, but nonetheless invited comparisons to the conventional sovereign institutions of quarantine. For instance, facing opposition from frightened neighbors who believed the fever hospital should be placed far outside Manchester, the directors replied that practically all lazarettos in the Mediterranean were situated within or adjoining towns.²⁰ As Kevin Siena, the historian of the medical theory of plague argues, both proponents of these new institutions as well as fearful neighbors employed the language of the lazaretto and lazar-house. The fever hospitals clearly had their antecedents in the old “plague hospitals” and “pest houses” that had fallen into disuse in the 1700s.²¹ The Royal Infirmary of Glasgow’s permanent fever-house grew to become a key part of its operations. In 1833 the directors proclaimed: “Our Institution is not merely an Infirmary for the diseased poor; it has become *an establishment of Medical Police—a Lazaretto for the seclusion of an infectious disease.*”²²

The most important and influential charity of this type was undoubtedly the London Fever Hospital, established by the Society for Bettering the Condition of the Poor in 1802. Originally located at Gray’s Inn Lane, the “House of Recovery” moved into substantially larger accommodation alongside the Smallpox Hospital at King’s Cross in 1815 and erected a new building at the Liverpool Road in Islington in 1849. The originators were a group of nonconformist and evangelical reformers, well-versed in a humanitarian discourse disparaging the moral and physical corruption of towns.²³ An early pamphlet in support of the charity by Christopher Stanger, a physician connected with the London Dispensary, described typhus as a constant specter that “originates, lurks, or rages” in “the districts of filth, vice, and misery.” The contagion “must be sought in its source, traced in its secret channels, pursued in its lurking retreats, and exterminated wherever detected.” It meant a “strict and perfect inquisition” to gain intimate knowledge of the poor. Stanger entreated parishes to employ inspectors to collect intelligence from jails, hospitals, dispensaries, workhouses, and private charities and to scour information about infected households from doctors, magistrates, clergymen, schoolmasters, tax collectors, and others.²⁴ Stanger assured the hospital’s benefactors that dislocating the contagious propensity of urban fever would lead it to be “extinguished” in London.²⁵

The belief was that infectious fevers invariably arose from the accumulation of “human effluvia” in “confined, crowd[ed] [*sic*], contaminated,

and disturbed dwellings.”²⁶ This represents a continuation of the long-standing centrality of the “putrid” body, which was rigorously classed as one belonging to the lower orders.²⁷ Thomas Bateman, chief physician at the LFH from 1804 to 1818, believed it was “among the poor and uncleanly that epidemic pestilence principally spreads, and always begins.”²⁸ The hospital’s main objective was to disrupt those spatial conditions and to prevent cross-class infection, which itself essentially defined epidemics.²⁹ In its early years the LFH organized crews tasked with whitewashing and purifying fever-affected dwellings. Sick persons meanwhile were removed to its “lofty” and “abundant” rooms, which had beds spaced several feet apart and large windows to ensure the maximum dilution of malicious atmosphere.³⁰ Although gathered under one roof, fever in this way was not *concentrated*.³¹ Bateman proclaimed that bathing the patient in abundant air and light had the ability to subdue the most violent fever “without any medicine whatsoever.”³² “Contagion” in this view was a substance or quality transferred from the sick to the healthy; but it also described a spatial milieu of “closeness” that, being the converse of cleanliness and ventilation, necessarily gave rise to a derangement of manners, morals, and health that could spread to all susceptible persons sharing the same crowded state. The fever ward therefore represented the antithesis and antidote of typhus contagion—it allowed the sick poor to be taken from their indigenous environment of disorder and corruption and to be *re-placed* into a specially arranged, essentially artificial, and constructed environment of recuperation. This form of distancing fed from a common assumption that fever would otherwise always make its way to the rich. Indeed, this became the stock-in-trade of the charity’s perennial appeal to wealthy subscribers. One annual report bluntly referenced self-preservation as an incentive to support the charity and portrayed the hospital as a public good “benefiting the poor directly, the opulent indirectly.”³³ This attitude probably had something to do with the additional financial support the fever charity received from Parliament (£3000 granted in 1804 and another £1000 in 1818). Official patronage at this level was highly unusual, and suggests that government authorities recognized an important state interest in the hospital’s activities.

The London Fever Hospital had originated with the intention of reaching deeply into the metropolis, surveilling its murky regions, and actively policing the disordered bodies and abodes found there. In reality, the task of whitewashing the homes of the affected poor fell away

relatively quickly as a routine part of the LFH's work. The more passive work of bringing the sick into the hospital came to take priority instead (a distinct reversal of the Dispensary Movement model of treating the poor in their own homes). In reality though, relatively few LFH inmates came directly from the houses of the poor. The 1807 *Annual Report* proclaimed that the hospital afforded "the higher ranks an open receptacle for their domestics, when attacked with contagious fever, and likely to endanger the whole family."³⁴ In 1815 the hospital began admitting cases of scarlet fever—a deadly childhood ailment considered especially dangerous in "Private Families" when introduced "through the medium of Servants."³⁵ The hospital was thereby positioned as an aid to the governance of middle-class homes. In subsequent years the number of these servants was eclipsed by paupers sent from workhouses and patients transferred from general hospitals.³⁶ Instead of policing the slums, the hospital more often operated as a means of regulating the contagions of other institutions and of private households. The hospital's officers clearly found it difficult to actually penetrate and reform the haunts of disease. Moreover, it was entirely unclear what sort of overall effect the hospital (which maintained less than 40 beds prior to 1815 and only 60 afterwards) might have had on the prevalence of fever generally.

While frequently praised as an indispensable charity, the fever hospital also came under attack by prominent "anticontagionist" doctors and political opponents of quarantine. Bateman recalled that during the effort to relocate to King's Cross the directors were harassed "with great industry, and at considerable expense" by Dr. Charles Maclean, who evinced "all the zeal, and, I must add, the extravagance of an enthusiast" in maintaining that epidemic disease could only be caused by atmospheric corruptions, not contagions.³⁷ The notion would not have been unfamiliar—it echoed earlier debates over the usefulness of maritime plague quarantines and had become a centerpiece of partisan political bickering in America following the turmoil of yellow fever.³⁸ Maclean was the flamboyant and controversial figurehead of anticontagionism in England. Questioning the doctrine of contagion aligned perfectly with his personal vendetta against the "Old Corruption" pervading the medical colleges (which he incidentally blamed for dashing his professional prospects). The proposition remained eccentric and heretical until taken up with fervor by leaders of powerful trading companies, who funded an effort to persuade Parliament to revoke British participation in the

European system of quarantines, lazarettos, and bills of health built up over the previous three centuries.³⁹

Erwin Ackerknecht's classic essay on anticontagionism outlines how contagion in the first half of the nineteenth century would, "through its associations with the old bureaucratic powers, be suspect to all liberals, trying to reduce state interference to a minimum."⁴⁰ Although undoubtedly a self-interested position in many respects, anticontagionism crystallized a new "biopolitical" critique of outdated governmentality, which it linked to the horrors of quarantine and the "plague town." At its most extreme (and many anticontagionists were prone to extremes), the entire idea of contagion simply propped up despotic authority and autocratic powers. Maclean declared contagion nothing else than mystical "dogmata" that had its origins in a secret "papal stratagem" for sustaining unassailable monarchical rule by sanitary cordons and other dubious boundary-making practices.⁴¹ For those less prone to conspiratorial thought, there was an assemblage of other related and reinforcing objections: quarantine placed travelers in dangerously confined spaces, it slowed their journeys and subjected them to graft and corruption, it restrained the profitability of commerce and the expansion of civilization. To be sure, doctrinaire anticontagionism (if one may call it that) never gained a significant following in Britain.⁴² Nonetheless, as historians of quarantine have shown, complaints and doubts about quarantine gradually occupied the very center of official British policy and medical thought.⁴³ Moreover, and close to the purpose of this chapter, the perceived illiberalism of quarantine laws came to cast doubt over the idea of suppressing urban typhus by means of hospital treatment. It is in this way that the governability of metropolitan fever intersected with debates over border quarantine. The LFH played an important role here—but not one which might be expected.

Remarkably, two of the foremost English anticontagionists were principal physicians at the LFH. The first, John Armstrong, attained this post in 1819 through influential Quaker associates, who convinced the board of governors to rescind a requirement that chief officers be licentiates of the London College of Physicians. The year prior to his appointment Armstrong failed the examination for admittance to the College (although he already had been practicing medicine for 11 years) and henceforth railed against the "wanton power" held by elite professional bodies.⁴⁴ His position at the LFH elevated Armstrong as a leading authority on fevers, but it was also during this time that he abandoned

previous beliefs about epidemic disease arising from human contagion. Armstrong's very popular clinical lectures lent greater respectability to the ideas of the inexorable Dr. Maclean. He now taught that all forms of typhus derived from "marsh effluvia."⁴⁵ The doctrine of contagion, he railed, caused typhus patients to be needlessly deserted by friends and "perish in crowds"—exactly as when plague victims had been pitilessly shut up in their homes. The selfish fear of contagion, Armstrong remonstrated, "entirely excludes humanity and sensibility from the hearts of men. It is the most cold, the most cruel, the most calculating doctrine that was ever advanced." Echoing Maclean, Armstrong identified plague restrictions as the means by which Napoleon imposed a tyranny in Spain "more baneful, more withering, and more detestable than the most deadly pestilence."⁴⁶ Anti-quarantine thought on plague linked up with a theory of urban fevers, which in turn placed the LFH in a critical light. Despite his "great respect" for its officials, Armstrong declared that the fever hospital had achieved "no good whatever in point of prevention" and the views of its founders were "entirely mistaken with regard to its preventive powers." He added that typhus had persisted in certain districts, "limited as it were by a law of nature to certain spots, in defiance of their hospital," and it would "prevail in London as long as the doctrine of contagion holds its place in the minds of those individuals who preside over it."⁴⁷ Armstrong resigned his position at the fever hospital in 1824.

Upon Armstrong's departure, the LFH governors selected two new physicians: Alexander Tweedie and Thomas Southwood Smith. Tweedie held more conventional attitudes toward typhus and contagion, for example citing the heavy toll that typhus extracted among the fever hospital staff.⁴⁸ A much more peculiar thinker, Smith would go on to become a pivotal figure in London sanitary reform. He was already a middle-aged Unitarian minister and a close friend of Jeremy Bentham. Shortly following his appointment at the LFH Smith authored two articles in *The Westminster Review* criticizing the logic of the quarantine laws.⁴⁹ Although Smith's specific views on the nature of fevers were somewhat eclectic, he nonetheless captured the general appreciation that the problem of urban fever was inseparable from the question of maritime quarantine. As Smith put it, typhus was plague modified by the climate of Britain; plague was nothing other than typhus modified by the climate of the Levant.⁵⁰ Neither disease was capable of being imported from one place to another, but instead arose individually from

indigenous conditions. Smith claimed the appearance of typhus was always strictly local—a line could be drawn around its seat of habitation in London as one marks a parish from its neighbor. He furthermore asserted that typhus never spread from fever hospitals and, in contrast to Tweedie, denied that fever hospital doctors suffered from the disease more often than others.⁵¹ In fact, Smith went to great lengths denying that typhus shared any of the primary characteristics of contagion. He did allow, however, that an unusual concentration of a typhus patient's effluvia could generate the disease in another person—a property that he preferred to call “contaminative” in contrast to “contagious” (others used the term “contingent contagiousness”).⁵² He therefore still upheld the utility of cleansing the poor's homes and removing the stricken to fever hospitals.

Smith's *Treatise on Fever* offers a well-known passage uniting the natural sources of typhus in London and plague in the Orient. “The room of a fever patient, in a small and heated apartment in London, with no perflation [*sic*] of fresh air,” Smith maintained, “is perfectly analogous to a stagnant pool in Ethiopia, full of the bodies of dead locusts” following a famine. The cause of general pestilence was the same in both cases: undiluted decomposition of animal matter amidst privation:

Nature, with her burning sun, her stilled and pent-up wind, her stagnant and teeming marsh, manufactures plague on a large and fearful scale: poverty in her hut, covered with her rags, surrounded with her filth, striving with all her might, to keep out the pure air, and to increase the heat, imitates nature but too successfully.⁵³

Fever afflicted the depraved metropolitan poor with the same predictable *naturalness* as plague struck at primitive colonial subjects. Whereas eighteenth-century thinkers thought of typhus as an inevitable product of constricted, constructed spaces (ships, jails, and hospitals), Smith proposed that there was an a priori naturalness to fever, which, although not a specific poison like smallpox, could be accentuated or aggravated into epidemic form in towns by social conditions and filth.⁵⁴ Infectious disease in other words obeyed its own natural laws, and society could no more exterminate fever than it could eliminate poverty (both, in Smith's necessitarian philosophy, were part of God's benevolent revelation of right living).⁵⁵ Man could aspire to more favorable results, but not to perfection, and certainly not without suffering painful lessons.

Consequently, it was not the objective of the fever hospital, in Smith's view, to alter, amend, or obstruct this beneficial naturalness. Instead, it offered a model of cleanliness, airiness, and orderliness, temporarily restoring to the sick body a healthy atmosphere and disposition, and thereby instructing the poor in the proper government of the self. Smith did not denigrate the fever hospital in the same way as Armstrong before him; however, he did suggest the charity was limited because it confronted a domain of natural sickness that possessed its own norms.

Although Smith questioned the LFH's benefit to the social body, he was far from alone in unambiguously affirming its medical utility and its power to produce knowledge about the "species body." Without a doubt, the fever hospital was far more effectively "medicalized" than the great metropolitan hospitals. A substantial portion of general patients still claimed the right to treatment by a governor's letter or subscriber's ticket, but admission to the fever hospital depended upon a specific diagnosis of fever. Tweedie and Smith transformed the LFH into a leading site for clinical investigation and teaching. They made morbid examinations routine, and in 1830 separately published major treatises based on hundreds of detailed clinical histories. The fever hospital facilitated their uninterrupted inspection of bodies across life and death and intersected with the intense controversies over making "the bodies of the dead useful to those of the living" that led to the Anatomy Act of 1832.⁵⁶ Generally, most doctors tended to believe that losing possession of the corpse was a way the poor could discharge the debt they owed for hospital treatment.⁵⁷ LFH rules in fact never required patients to consent to post-mortem examination, but the fever hospital physicians did not seem to consider permission necessary and they enjoyed unusually unhampered access to corpses. Visitors were generally barred from the grounds and burial after death from fever was usually performed quickly in sealed coffins stuffed with charcoal, which concealed visual evidence of anatomy. The 1843 Annual Report mentions 134 postmortems out of 187 hospital deaths.⁵⁸ These did not take place without the occasional protest. Authorities of the Great Synagogue complained to the LFH in 1838 that opening corpses went contrary to Jewish religion and informed the House Committee that, although it had instructed physicians "to consult the feelings of the friends as much as possible," this had not been rigorously observed.⁵⁹

At the LFH, clinical examination and post-mortem study were of great importance for impounding the individual body, grasping it as an

object of knowledge, and compelling medical attention inward. The LFH became a prominent model of the new “hospital medicine.” For decades “the continued fevers” had provided a rambling battleground for speculation in topics as abstruse and infertile as whether it was a localized or general affliction, an inflammation or debility, a result of excitation or depression, a single disease or many.⁶⁰ The form of clinical medicine emerging in Paris at the end of the eighteenth century and springing up in British institutions promised to cut to the heart of such debates with ruthless empiricism. It consisted of what Michel Foucault famously called the “anatomo-clinical gaze”—a semiotics of the body and disease and a system of clinical signs that once learned would uncover physiologically concealed truths.⁶¹ The essence of this gaze consisted of matching the external symptoms seen in the hospital ward with the internal appearances uncovered on the post-mortem slab. Permitted a large field of observation and steady record-keeping over several years, Southwood Smith wrote,

we acquire in the end the power of ascertaining, with a high degree of probability, the presence of an event which we cannot see, by the presence of its sign which we can see ... In proportion as our knowledge becomes perfect, we are thus enabled, during life, and at the bed-side of the patient to see what is going on within his brain, within his lungs, and within his intestines, with as much distinctness and certainty as we could were the cases in which these organs are enclosed, and the organs themselves transparent.⁶²

This cool, calculative, penetrating “geography of the corpse” gained a crucial institutional form when coupled with the rituals of bedside medical education.⁶³ The fever hospital, like other hospitals, offered up an indispensable menagerie of constantly renewing clinical material for the doctor to study and to demonstrate to students. Tweedie flatly stated that the LFH should be valued as much for supporting his tutoring as for “relieving fellow creatures from a contagious disease.”⁶⁴ Without a doubt, nineteenth-century hospital medicine tilted the doctor–patient relationship to the advantage of physicians and impersonalized the scene of interaction.⁶⁵ It allowed the hospital physicians to position bodies, to arrange a series of cases, and to render disease observable in ways impossible in the outside world. It also created a key institutional context for the production of knowledge about the fevered body. Tweedie’s protégé,

William Jenner, studied nearly 2000 cases at the LFH, enabling him in 1849 to establish (contrary to most British medical opinion, including Southwood Smith) the clinical distinction between typhoid and typhus fevers. London was unique amongst European cities in having roughly equal amounts of typhoid and typhus; thus the LFH provided an indispensable site of clinical inquiry, “collecting within its walls cases of continued fever from all parts of the great metropolis, [and] offer[ing] peculiar facilities for its study,” Jenner wrote.⁶⁶

SANITATION AGAINST CONFINEMENT

In an important essay, the late John Pickstone argues for the centrality of fevers to mid-century sanitary reform and for the indispensability of fever hospitals (the LFH in particular) in constructing a medical theory of disease amenable to the small but influential group of “ultra-sanitacionists” allied with Edwin Chadwick.⁶⁷ One irony of this development is that this was an eclectic version of fevers that effectively demoted the status of medicine within the political strategy of sanitary reform. Another irony is that the doctrine of fever developed at the LFH, while underpinning the Chadwickean agenda, ended up undermining the hospital’s own place in that program. Pickstone notes that it was not always the case, but that the new view of fever “*could* ... involve a concentration on environmental sanitation and a rejection of fever hospitals as preventive agencies.”⁶⁸

Southwood Smith was again an unusually important figure here. His groundbreaking 1838 study of fever in East London for the Poor Law Commission described the physical causes of preventable mortality among the poor. This was a pivotal text establishing the new lexicon of “sanitary conditions.”⁶⁹ In line with his writings on quarantine and plague, Smith framed urban fever as a matter entirely dependent upon *local influences*. “The records of the London Fever Hospital,” he wrote, “prove indubitably that there are certain localities in the metropolis and its vicinity, which are the constant seats of fever, from which this disease is never absent.”⁷⁰ Over the years these places had become “as familiar to the physicians of the Fever Hospital as their own names.”⁷¹ Smith’s descriptions correspond to the emergence of a powerful literary trope: the urban “fever dens” or “fever nests.” These were condensed, stagnant thickets of immorality and ill-health to which constant references occur throughout Chadwick’s monumental 1842 *Report on the Sanitary Condition of the Labouring Classes*. If not in an active state of

diseasedness, these “fever manufactories” were nonetheless seen as the hearths of impending pestilence—ones that must be thoroughly cleaned out, paved, and drained, or else completely cleared out. This focus on the remediable environment, signaled by the formation in 1844 of the Health of Towns Association, tended to divert attention from individual bodies. Two of its leading members were Chadwick and Smith. Another, Dr. William Guy, reflected the change from the days of Haygarth. He declared that

[fever] loves the banks of rivers, the borders of marshes, the edges of stagnant pools. It makes itself at home in the neighborhood of cess-pools, and badly-constructed drains, and takes especial delight in the incense of gully-holes. It has a perfect horror of fresh air, soap and whitewash, but when left to itself will linger for years amid scenes of filth and corruption, and fold in its deadly embrace all human beings who have the same depraved taste, or are so unfortunate as to be thrown into its company.⁷²

A thinly veiled form of anticontagionism molded many of the central precepts of this great civic movement for sanitation. Thomas Osborne argues that the urban environmentalism of this era, rather than savoring the powers of conventional medical police, was overwhelmingly guided by liberal principles of *economy* and remained attracted to measures of security and forms of governance that “saved on interventions and costs in other sectors of the social order.”⁷³ Even Chadwick maintained great diffidence toward the state intruding upon and controlling essentially private matters or the self-regulating properties of the economy. Christopher Hamlin shows how the fixation on localizing impurities allowed Chadwick to reframe the issue of “predisposing causes” in fevers (long considered a matter of poverty and deprivation) as a simple issue of disease-producing filth. Under this radical new materialist explanation, the state could attend to suppressing obvious nuisances without substantially treading on issues of low wages, exorbitant rents, and insufficient diets.⁷⁴ Toilets and sewers, street cleansing, and water provision would take precedence over any larger attempt to attack poverty itself. As far as governing individuals was concerned, sanitationism meant erecting an infrastructure that individuals could take advantage of, but were not forced to, and then could be blamed for their failure to do so. Moreover, it meant the sensitive topic of fever’s *contagiousness* could be kept at arm’s length. The state prepared for epidemics by facilitating

cleanliness—definitely not an exterminatory approach, and not one founded in measures of detention and blockade. This “English system” of epidemic prevention (disallowing disease to take root in home soil) aimed in essence to maintain the integrity of natural phenomena while also establishing the need for well-regulated, self-limited, and rationalized interventions upon them. Chadwick may have spoken in a lax manner about “medical police,” but his basic rationale was a program for reversing the growth of government and for preserving on balance the greatest amount of *laissez-faire*.⁷⁵

Many of the leading sanitationists remained decidedly unenthusiastic, if not outright hostile, toward employing hospitals as instruments of sanitary governance. Chadwick described fever hospital work as a mere “service of alleviation.” Although it was laudable to take patients from filthy homes and mend them in a pure atmosphere, “the service of prevention” would always be a higher and more practical project. The truest philanthropy was to assail “the *habitat* of typhus.”⁷⁶ Chadwick considered it a “dreary prospect” for doctors to feel content treating “endless streams of cases” and supporting fever hospitals “interminably without any further thought or action for drainage, or the removal of the nuisance whence the disease originate[s].”⁷⁷ The ever-cantankerous William Guy pressed the point. “If the governors of the London Fever Hospital were imbued with the true spirit of the coming era,” he wrote, “they would expend the large funds at their disposal in destroying the fever nests of the metropolis” and replacing them with decent dwellings available at moderate rents for the poor. Such an approach would “soon prevent more fever cases than the hospital can possibly accommodate within its wards.”⁷⁸

A similar attitude shaped the general disinclination toward the use of hospitals for cholera, although this proved somewhat more controversial. Ultra-sanitarians often declined to consider cholera an imported epidemic and, as another epidemic of the disease loomed in 1848, the Metropolitan Sanitary Commission and the General Board of Health (both directed by Chadwick and Southwood Smith) declared that hospitalization had not proved successful in previous outbreaks. Instead of the “indiscriminate removal of the sick,” they recommended local authorities institute house-to-house inspections and facilitate domestic cleanliness.⁷⁹ The only safeguard against cholera (as in fever) was sanitary arrangements, the Commission declared, not the separation of the sick.⁸⁰ The Board of Health used this same logic the following year in a report,

written mainly by Smith, recommending the abolishment of quarantine.⁸¹ Here, as well as elsewhere, Smith seems to have been trying to straddle the uncomfortable space between two positions: denying hospitals' place in the true sanitary armament but also acknowledging their humanitarian value in relieving the afflicted. The tension of this stance played out in wider debates over whether cholera should be excluded from general hospitals.⁸² The barring of cholera patients from hospitals greatly irritated the renowned editor of *The Lancet*, Thomas Wakley, who derided the General Board of Health's cholera recommendations as impractical, inconsistent, and dangerous and chided Smith for his role in the policy.⁸³ The return of cholera to London in 1854 was marked by a more positive official stance toward hospitals, but went to show that the debate was far from settled.⁸⁴

Despite disagreements, a common thread through the 1840s and 1850s was general pessimism about the wider sanitary utility of hospitals for either special epidemics or ordinary urban fevers. The most that Southwood Smith could admit to was the ability of the LFH to exert a localized benefit at times. Given this cautiousness, the need to relocate the fever hospital (the site was wanted for the King's Cross rail terminus) resulted in a painful episode in 1848 that laid bare its uncertain status among health reformers and the public.⁸⁵ A committee of alarmed Islington residents argued that placing the fever hospital "in the centre of a highly respectable and densely populated neighbourhood" would endanger their lives and injure property.⁸⁶ Letters in the London press denounced the hospital as "a house of contagion."⁸⁷ A memorial signed by influential local gentlemen remonstrated that such establishments were "usually denominated pest houses" and "should be always erected at a distance from all dwellings."⁸⁸ This row demonstrates the true malleability of the term contagion. Hospital opponents shrewdly cited Smith's recent testimony to magistrates seeking to suppress a pile of rubbish in St. Luke's parish. Were the "vapours arising from a patient suffering under fever," they demanded, "of a less deleterious nature than those which Dr. Smith asserts arise from a dust heap?"⁸⁹ They had no difficulty finding doctors eager to give the opinion that "all Fever Hospitals are bad, they concentrate a poison which ought to be diluted."⁹⁰ Thomas Wakley, who was then an MP, took a particular interest in the controversy and supported the opposition with great verve (no doubt in part motivated by his long-standing enmity to Smith). Wakley brought about a clause in the 1848 Nuisances Removal and Diseases Prevention Act

requiring the General Board of Health to certify to the safety of any hospital proposed to receive infectious patients.⁹¹ In the end, this uproar over the LFH compelled the government to finally agree to appoint a medical man to the General Board of Health—to Wakely's disgust, this turned out to be Dr. Southwood Smith.⁹²

The LFH's new purpose-built structure became a key reference point in the movement for "hospital hygiene" in the 1850s. In many ways an offshoot of urban sanitationism, this movement was sparked by the medical scandals of the Crimean campaign, with Florence Nightingale and her circle of influential friends playing a crucial role. Fresh upon her celebrity from Scutari, Nightingale in *Notes on Hospitals* (1859) proposed that a system of architectural order and moral discipline itself could reduce deaths from diseases always rampant in hospitals. She provided a raft of statistics in support, arguing that hospital sickness exhibited a constant ratio to the density of bodies. Hospital mortality, she added, possessed a constant but modifiable relationship to deficiencies of ventilation and light, poor locations and soil drainage, defective ward layout and construction, inadequate laundry facilities, and insufficient discipline of nurses.⁹³ Nightingale's critique of specific institutions gave rise to an animated debate over whether urban hospitals suffered higher mortality compared to rural hospitals, and large versus small ones (a notion that fueled an unsuccessful campaign to have St. Thomas's Hospital rebuilt on a suburban site⁹⁴). These debates reveal that the spread of fevers had become the "great sanitary test" not only of urban districts, but also of institutions like workhouses, barracks, tenements, and of course hospitals.⁹⁵ However, like the urban sanitationists, the hospital hygienists largely concluded that "contagion" itself was mainly a spatial quality. Typhus was not dangerous per se, but became so within enclosed spaces "vitiating" by emanations from a crowd of patients. A number of physicians began to conclude that the accumulation of fever patients in separate wards tended to "render the disease more severe, and the contagious miasmata more intense."⁹⁶ They expressed confidence that fevers could be "safely mingled" in a properly ventilated and clean general ward as long as they were evenly dispersed and did not exceed a certain proportion (no more than one fever case to five others, it was suggested).⁹⁷ As a result, many also came to believe there was "no particular advantage in fever hospitals" and by the 1850s the great London hospitals regularly admitted small numbers of fever cases.⁹⁸ Nightingale initially had declared the LFH one of the best-constructed hospitals in London, but

eventually came to argue there was no reason why any hospital could not be arranged to safely treat all fever cases.⁹⁹

Hostility and ambivalence toward the LFH reached a peak in 1860. That year *The Lancet* and *The British Medical Journal* launched a concerted campaign against the proliferation of specialist hospitals in London. Included on the list of offending institutions, alongside eye hospitals and lying-in institutions, was the fever hospital. Although recognized for advancing the science of fevers, the LFH was now attacked as sequestering this knowledge from the rest of the profession and depriving students of opportunities to become fully familiar with a certain class of disease. *The Lancet* editorialist took the opportunity to argue that the LFH had originated from an obsolete understanding of contagion and, as with the Lock Hospital, “partook more of the nature of *cordons sanitaires*, or quarantine establishments, than of the modern hospital.” The best policy of fever treatment was “scattering” it amongst medical patients, and thus fever hospitals and fever wards could be “be abolished with safety and advantage.”¹⁰⁰ A report on the sanitary state of British hospitals conducted by the Privy Council came to similar conclusions. It found that the spread of typhus and scarlet fever in a general hospital was simply evidence of a defective sanitary state; it also observed that typhus had a tendency to poison the entire hospital when gathered together in a separate ward.¹⁰¹ Aggregation itself was therefore a sanitary defect, and it was one that had proved “extremely dangerous” to doctors and nurses. This report found that attendants in fever wards ran a far higher risk of contracting and dying from typhus than medical patients amongst whom fever patients were sprinkled.¹⁰² Some of the ultra-sanitarians now advocated disbanding the LFH as a sanitary measure and contended that fever hospitals and fever wards were “a crime against humanity and a disgrace to the age in which we live.”¹⁰³ These criticisms set the stage for an attempt by the LFH’s own president, Lord Monteaule (treasurer of the Nightingale Fund and close associate of Nightingale herself), to convert the charity into a general hospital and institution for training nurses. In a special memorandum, he cited the steadily declining admissions over the previous decade (from 1152 in 1854 to only 593 in 1859) as evidence of the charity’s “diminished power of usefulness” and the cause of its dismal ability to attract public contributions.¹⁰⁴ Monteaule’s plan was successfully opposed by the hospital’s physicians (including Southwood Smith, who pressed the necessity

of fever hospitals), but the episode further underscores the precarious status of the LFH at this time.¹⁰⁵

CONTAINMENT AND URBAN CRISIS

In the 1860s *contagion*—as distinguished from the sort of *infectious* diseases associated with insanitation—reappeared as a serious public concern around issues of urban reform and also generally became a less divisive topic in medical theory. The reasons for this are complex, but the result was a reappraisal and a renewed appreciation of separate and special hospitals. This is immediately hinted at in the operation of the infamous Contagious Diseases Acts and in the rethinking of the etiology of cholera and allied “filth diseases” like typhoid fever. The reappraisal may be seen even more forcefully in responses to the multi-year typhus epidemic that afflicted London and to the rising alarm over scarlet fever. As one editorial in the *Cornhill Magazine* noted, these two diseases alone constituted the “modern pestilences” of the metropolis. They steadily decimated the population and evidently had not yet yielded to the labors of “practical sanitarians” who for years had waged “successful war upon dirt, overcrowding, and foul air.” Their theories had put to sleep the fear of contagion and banished the precautions that used to bar the entry of epidemics to cities and dwellings. “Quarantine was abolished, and pest-houses were allowed to go to ruin, and now the extreme *laissez aller* prevails amongst the people as regards contagious disorders.” The best means of perfecting sanitary practice, according to this author, was to be found in “the careful segregation of the sick in proper houses of reception.”¹⁰⁶

The typhus epidemic that struck London starting in 1862 demonstrated in no uncertain terms that the policy of scattering these patients in general hospitals had been a dreadful mistake. House physicians were alarmed by the deadly contrast of this “true” or “British” typhus with the more familiar typhoid fever. Typhus tore through the ordinary wards, sickening at least 150 fellow inmates and killing a high portion of them.¹⁰⁷ It also “ravaged” practically every metropolitan workhouse.¹⁰⁸ The LFH struggled to cope with an influx of typhus patients. From only twenty-five in 1860, annual numbers rose to 1827 in 1862 and 2497 in 1864; nearly 14,000 in total were admitted in 1862–1869. Another wing for 70 additional patients was hurriedly erected at the LFH in 1864.

Dr. Charles Murchison succeeded to the post of senior physician at the LFH in 1861 and from this position quickly became the highest recognized authority on continued fevers. Mainly as a means of ensuring orderly administration, in 1862 he began placing typhus, typhoid, and scarlet fever patients in different wards. Murchison was in fact the first to employ the term “isolation” for this practice. To his mind, this meant maintaining an internal spatial distinction and classification for the different infections instead of “diluting” them through intermixture.¹⁰⁹ This innovation was widely praised, and Murchison took every opportunity to contrast its results with the doleful outcomes of sprinkling fevers amongst ordinary patients at the general hospitals. (For the first six months of 1862 one LFH patient contracted typhus for every 40 typhus cases admitted and one died of this added infection to each 135 patients. By contrast, at six general hospitals one patient contracted typhus for every 3.8 cases placed in their wards and one died to each 12.9 ward patients.¹¹⁰) It was “barbarous,” Murchison concluded, to bring a general hospital patient suffering some trifling disease into risk of contracting a deadly form of typhus or scarlet fever.¹¹¹ *The Lancet* agreed that the “most terrible results” had already followed from this course of action (but was less than forthright in admitting its own role advocating it in the first place).¹¹² Soon it was generally considered a “crime against humanity” to intersperse typhus through ordinary wards,¹¹³ and by 1864 the London hospitals once more strictly excluded fever patients showing typhus characteristics.¹¹⁴

The high toll of contagion on LFH staff was also placed in a new light. Nine out of twenty-eight nurses died of typhus in 1862, and another five died in 1863.¹¹⁵ The assistant medical officer (Dr. Wyber) was struck down in 1866. A long and admiring article in *All the Year Round*, Charles Dickens’s very popular magazine, placed these losses amongst a long procession of sacrifice made by those engaged in a “sacred service.”¹¹⁶ A subsequent article, written in the form of a classic Dickensian morality tale, told readers about doctors and nurses “at peril of their own lives ... engaged in mortal struggle with a disease that smites the poor and ignorant for neglects of the rich.” The historian Michael Brown has drawn attention to the reshaping of “medical masculinities” after the Crimean War, during which the “active, intrepid, and warlike languages of courage and bravery” were often combined with “more passive languages of self-sacrifice, victimhood, and martyrdom.”¹¹⁷ In the case of the fever hospital, the trope spoke to hospital

physicians' open-eyed and *calculative* pluck. "Surely there are no men-at-arms who fight more truly and heroically the battles of their country than the hard-pressed medical officers" of the LFH, the *All the Year Round* article assures readers. The risk of hospital contagion "is real, and known; and it is met deliberately, as a soldier meets the risk of battle." Furthermore, the "special risk" of contagion they assume substitutes for the "greater and general risk" to the community if typhus had been left to fester outside the hospital.¹¹⁸

Martyrdom aside, what this also hints at is how a more precise understanding of contagion within enclosed spaces was giving rise to more precise internal strategies of containment and risk reduction. Indeed, the probability of contracting a contagious disease within the delimited space of the hospital was coming to be seen as measurable and manageable in entirely new ways. Rules posted in the fever hospital in 1829 instructed staff to avoid the patient's breath, stand on the side of the ward where air enters, and avoid swallowing their own spittle (also making sure to clear their mouth and nostrils upon exiting).¹¹⁹ These vague personal precautions, although still somewhat adhered to, were joined in the 1860s with more universal techniques of institutional management derived from hospital statistics. For instance, these showed that staff rarely suffered a second attack of typhus. Also, chances of recovery were great in young and tolerably healthy patients but very small in persons past a certain age and weakened by previous ill-health and fatigue. Consequently, no woman over the age of 45 or 50 (Murchison recommended 30) should be allowed to nurse typhus unless "seasoned" by previous illness, and senior physicians ought to be relieved by junior colleagues from the obligation to see fever patients. The well-known commentator on urban health, Francis Anstie, argued that these measures could be uniformly applied only at a fever hospital. Additionally, the odds of contracting disease and the circumstances that governed these odds could only have come to be known by congregating fever patients in fever hospitals. Alongside the LFH rising as a special place for the production of new etiological knowledge, Anstie believed, the main lesson was that "typhus may be absolutely shut within the typhus wards."¹²⁰

Perhaps even more so than cholera, typhus in the 1860s was the disease that both epitomized urban crisis and also served as a cipher for understanding the misgovernment of outcast London. It came forward as a powerful reminder of the metropolis's precarious sanitary state *despite* improvements of sewerage. "Typhus fever," according to one

writer, was “the curse of our large, overcrowded cities, as typhoid is of our primitive, innocent hamlets, and our gossiping, ill-drained, country towns.”¹²¹ Perhaps most depressingly, typhus seemed to follow precisely the tracks of metropolitan “improvements” like railway projects and boulevard construction. These had advanced slum clearance as a sanitary side-project, but almost without exception the destruction of slum property actually compounded the overcrowding of adjacent areas and played a large role in producing fresh dens of destitution and fever. The disease had long been linked with poverty and deprivation, but the consensus was now that the unhappy “fever manufactories” of modern towns were themselves manufactured by unbridled greed and poor governance. A related apprehension was how disease bred in these conditions might no longer be confined to poor, but spill out and “extend its ravages to all classes of the community in our crowded cities.”¹²² In 1866 *The Times* expressed palpable unease that typhus might fully engulf all of London like the depopulating epidemics of the past, and it was in this attitude that it almost welcomed a repeat of the Great Fire of 1666 (which by popular legend had rid London of the plague)—“anything that would sweep away those execrable fever nests.”¹²³

One of *The Times*’s favored correspondents on London’s fever nests was Horace Jeaffreson, Resident Medical Officer of the LFH from 1863–1865. He authored a number of blistering letters in which he presented the fever hospital as the ideal perch from which to comprehend London’s dire state of local government. Typhus was now once again excluded from general hospitals. But many penny-pinching parishes, seeking to avoid paying the LFH’s admission fee, had chosen to simply stockpile these cases in the workhouses, to the great danger of other inmates. St. Giles’s parish, for example, apparently never sent pauper fever patients to the LFH, despite the disease’s relentless toll in that district.¹²⁴ Jeaffreson lodged this specific charge at the beginning of a spate of scandals over the treatment of workhouse paupers, which would eventually result in the establishment of the MAB (as explained in Chap. 3). In the meantime, Jeaffreson contended that this state of affairs could not be separated from the entire issue of London’s discombobulated system of governance. He explained that the bulk of LFH patients derived from a relatively small number of specific nests of infection—some few streets and courts had become as familiar to him as “household words.” Draper’s Place and Ashby Street in the St. Pancras district for example contributed “an almost continuous string of fever patients.”¹²⁵ The

register books of the fever hospital were full of crucial facts like these, including the upsetting conclusion that typhus was increasingly found outside its traditional haunts. The charity's annual report drew attention to "the singular way in which the typhus epidemic had wandered, in 1865, beyond its customary limits, and had appeared in districts where there are few of the destitute and filthy class."¹²⁶

The typhus epidemic put to rest (at least for a while) calls for the LFH to be converted to a general hospital. It also contributed to a great deal of new thinking about the fever hospital's place within a natural ecosystem of urban typhus. In a significant change from previous decades, the charity's annual reports started to unambiguously tout its ability to remove centers of infection from their "hotbeds" and thereby "protect the public from the spread of contagion."¹²⁷ In some ways this represents a return to the founding ideals of the fever hospital. But the LFH was also increasingly seen as a means of modifying urban disease never contemplated by its originators. For decades the LFH had constructed a specialized, clinical understanding of fever as well as supported a general understanding of the metropolitan topography of illness. But not until the 1860s was it looked upon as a central site for extracting detailed, measurable knowledge of the London population.

This new usefulness of the fever hospital corresponds largely with the career of Dr. George Buchanan, who was installed as the LFH's Resident Medical Officer in 1854 and elevated to Senior Physician upon Southwood Smith's death in 1861. Buchanan also served from 1856 to 1866 as the Medical Officer of Health to the notorious St. Giles's district Vestry, where he frequently tussled with his parochial employers. He left the fever hospital in 1869 to become a full-time medical inspector for the Medical Department of the Privy Council under John Simon. This led to appointments as Assistant Medical Officer of the LGB from 1871 to 1880 and Chief Medical Officer from 1880 to 1892.¹²⁸ Buchanan rose to the very pinnacle of the English public health bureaucracy as a recognized expert in typhus and typhoid fevers. Their clinical separation (established in part by research at the LFH, it should be remembered) supported the conclusion that the cause of each was also separate and distinct: typhus a barometer of overcrowding and contagion, typhoid of defective drainage and polluted drinking water. It was only in 1869 that the two diseases were distinguished in official mortality statistics, and until then the LFH served as the only statistical weathervane of London's fever-geography. Its record books were "the best,

if not the only index of the degree of prevalence of different forms of fever in the metropolis.”¹²⁹ Buchanan took this a step further and proposed that admission records allowed him to probe this geography with great spatial precision and to discern the specific sanitary needs of certain districts: “For it is certainly known that epidemic typhus fever depends mainly upon the huddling together of uncleanly people upon too limited area, and into too confined rooms, and that where enteric [typhoid] fever exists, these defects of drainage and foulness of water are to be sought.”¹³⁰ The fever hospital was in this way like an urban observatory, permitting close study of the city’s uneven pathological terrain. This vantage point brought into view *the population* as the natural field of contagion and pointed the way for the hospital to become allied with techniques of metropolitan statistics and mapping. It should be noted that the hospital’s external epidemiological work arose at the same time as it was taking on the goal of internally separating, arranging, and distributing the bodies of fever patients to illuminate the problems of hospital contagion. In both cases, having brought into view certain patterns and norms, the hospital could enable the identification of factors that modified these norms.

It was in this way that the LFH contributed to naturalizing the urban spaces of fever. There were on the one hand the notorious spots of urban decay and desperation where fever made its “nest.” There was also the LFH: a wholesome “fever nest kept ready for the healing of the smitten poor,” maintained the unsigned *All the Year Round* author (perhaps Dickens himself). The fever wards of that hospital, he continues, constituted “a nest which anybody born to wholesome things and wholesome thoughts might some day be not sorry to have helped in feathering.”¹³¹ This metaphorical connection between fever nest and fever hospital steadily multiplied, and can be seen in the conventions for describing London’s fever-geography that arose in the 1860s. A series of reports on the “Old Cholera Haunts and Modern Fever Nests of London” in *The Lancet* states, without qualification, that with cholera imminent, the first step of prevention is to determine the localities where typhoid fever ordinarily prevails. *The Lancet*’s “photographic sketch” of one notorious “centre of infection”—the “St. Giles’s Fever Preserve” along Drury Lane—repeatedly dwells upon its natural correspondence with the fever hospital.¹³² The doors, walls, bedding, and clothes of a family in which the daughter had been stricken with typhus “distilled the penetrating odor of a pent-up fever ward.”¹³³ Taking up the language of the

Registrar General relating to the chief “cholera fields” in south London, the reporter next decamped to St. George’s Southwark and remarked how it had also provided “one of the richest fields” in the “annual fever harvest.” He had learned this from examining the records of the “fever granary at Islington” (the LFH of course).¹³⁴ The existence of fever nests was in part made known from the fever hospital. Just so, the fever hospital would not exist if not for the fever nests. The fever ward was therefore no longer simply a *contrast* or *counterpart* to the den of fever, but its natural *compliment*. Each was the other’s “other space.” The result was a naturalization of the connection between the two and a new sense of the hospital’s relationship to the urban terrain and its governance. To be sure, the hospital was less regarded as a space that squashed fever’s nature and more seen as a place where disease could be regulated according to its naturalness by knowing its natural properties. It housed and arranged conditions so as to neutralize undesirable qualities, but did not itself negatively suppress or expunge disease. Most importantly, the fever hospital could be an effective means of improving public health *because* it was an extension of fever’s natural urban habitat. In this way the hospital came forward as an institution that could be tasked with the positive management of metropolitan health, not simply the amelioration of suffering either at the margins or in individual instances.

Similar ideas were also staring to be applied to scarlet fever—the other main disease accommodated at the LFH. Here was another infection that was illuminated but also problematized by hospital practice. In 1864 Murchison published a short treatise on scarlet fever based on his observations at the LFH. He concluded that the disease, to which little attention had been given for decades but nonetheless exacted an appalling annual mortality, was certainly the result of a specific poison and could not be attributed to the insanitary conditions of dwellings. Any physician with actual experience in a fever hospital, he wrote, “can but smile at the dictum of certain modern sanitary reformers, that the contagion of scarlet fever is a myth.” Murchison showed that at the LFH the separation of scarlet fever patients had brought to an end its common occurrence amongst other patients. Isolation that worked in a clinical setting must also be effective on a societal scale.¹³⁵ Buchanan’s colleague at the Privy Council, J. N. Radcliffe, upheld these conclusions in a paper to the Epidemiological Society. Death certifications revealed “districts of inordinate mortality,” which could be considered the nation’s “*scarlatina fields*.” This localization, however, provided lessons for the limitation and

prevention of the disease. Radcliffe proposed that the prevalence and distribution of scarlet fever would be significantly affected by a “strict system of isolation” at hospitals provided by the state for those who could not affect adequate isolation in their homes. Such a system would allow cases to be “weeded out of densely packed houses as they occur.”¹³⁶ This conclusion was strongly endorsed at the Privy Council by John Simon, who pleaded that isolation of the sick was the only real means of modifying scarlet fever’s “uncontrollable contagiousness.”¹³⁷

It was also during this time that the hospital treatment of cholera almost completely disappeared as a contentious matter. During the 1866 London outbreak, temporary cholera hospitals were deployed on a larger scale than ever before and one of the only debates regarded to what extent these should be considered institutions of *confinement and sequestration*. The government remained reluctant to impose any true restrictions on foreign travel and commerce, but recommended that special wards be set up to receive sick persons at ports of entry. The Metropolitan Medical Officers of Health agreed, stressing the importance of cities being prepared for the first cholera cases and having them “as perfectly isolated as possible.”¹³⁸ The Council of the Epidemiological Society weighed in with a report surveying the opinions of dozens of leading medical authorities. This revealed disagreement over the best form of “separate treatment”—whether cholera patients should be interspersed in the general hospitals, placed in dedicated cholera wards, or congregated in completely distinct hospitals. Respondents did not think the problem was one of “direct contagion,” but rather of the panic caused by the proximity of cholera victims. “Such a spectacle of suffering,” one respondent claimed, would “prove offensive to the sight and the sensibilities of the surrounding patients and attendants,” and simply would “not be endured by the public.” Safely managing cholera patients therefore now also meant managing community sentiment and feelings.¹³⁹ The general consensus was that cholera needed to be treated in special spaces and *separately* from other patients. This separation itself made the disease more manageable. And thus the entire issue of cholera hospitals avoided being dragged into debates over quarantine. Health officials principally framed cholera preparedness as a matter of managing urban residents, not controlling borders. This was a model made possible in large part by the remarkable transformation of attitudes toward the fever hospital in that decade.

THE BIRTH OF ISOLATION

In an 1868 essay Sir James Young Simpson, professor of medicine at the University of Edinburgh, proposed it was possible to “stamp out” smallpox and other contagious diseases. He restated the importance of strictly enforcing smallpox vaccination, but put new stress on gaining hold of the first cases of sickness and isolating them in order to deprive the disease of bodies in which to propagate. Smallpox could thus be effectively “extirpated” in Britain within six months or a year—a prospect that would apply nearly equally to scarlet fever, measles, whooping cough and typhus.¹⁴⁰ As noticed at the time, Simpson’s system rehearsed many of the principles and arguments behind Haygarth’s proposal from nearly 80 years earlier.¹⁴¹ Yet it is significant that no similar exterminatory program had been seriously voiced for decades. Many historians have taken Simpson’s startling proposal as evidence for a revitalization of quarantinist thought and link it to how new germ etiologies would transform public health.¹⁴² Others have pointed to Simpson’s essay as embodying the logic for the sprouting-up of municipal isolation hospitals over the next few decades. In fact, Simpson made no reference to “living germ” hypotheses to support his position, but he did draw explicitly on the experience of the devastating cattle plague (rinderpest) epidemic of 1865–1867. The term “stamping out” came from the government’s draconian policy of culling whole herds that showed the slightest appearance of this epizootic and forbidding the movement of cattle from suspected districts. The apparent success of this scheme allowed Simpson to round the bend on the logic of “containment” and proceed directly to the language of “extermination.” He wrote of the cattle plague being “lately banished out of England”¹⁴³ and simply suggested a slight adjustment in methods in dealing with humans: “The poleaxe was the chief and leading measure required to stamp out rinderpest. ISOLATION is the chief and leading measure required to stamp out small-pox.”¹⁴⁴ Michael Worboys argues that the cattle plague played a key role in prompting a re-evaluation of contagion in medical theory.¹⁴⁵ Simpson’s landmark essay itself actually dwells very little on the scientific basis of contagion, and rather amounts to an extended justification of intrusive government measures of disease suppression.

The notion of “stamping out” epidemics was taken up and extended by others, most notably by Dr. William Budd. Budd was already famous for vigorously pushing his theory that typhoid fever originated in all

cases in a specific poison emitted by sufferers. His speech to the National Association of the Promotion of Social Science in 1869 almost dogmatically declared all infectious ailments to be similarly “self-propagating” and made the confident assertion that “in all fundamental points the law of the propagation of these diseases is perfectly made out” (a claim that would astonish most of his contemporaries). His next proposition was that it was simply a matter of recognizing which diseases pass from the sick to the healthy in order to equip society with the means to bring about their “extinction” (a claim that was equally difficult for most to accept).¹⁴⁶ Demonstrating how novel and uncertain the language of “isolation” still was, Budd called for the “insulation of the sick.”¹⁴⁷ Furthermore, neither Simpson nor Budd called specifically for hospital isolation (Simpson in fact held deep reservations toward aggregating disease in one place). Budd was nonetheless unequivocal about the necessity of direct state interference. As with many of his contemporaries, Budd believed that a contagious epidemic *naturally* called forth emergency powers far more sharp and aggressive than those pertaining to epidemics arising from insanitary conditions. Indeed, he suggested that the justification for this was “found in the very essence of [personal] infection itself.” Should the task of obstructing contagion be left to “volunteers,” “individual effort,” and independent “municipalities”? For Budd, there could “be no hesitation as to the answer”; the “striking and terrible characteristics” of contagious disease placed it “at once within the sphere of State action.”¹⁴⁸ Moreover, suppressing contagion was an action of the national government essentially analogous to its authority and ability for making war:

By beating down these plagues wherever they appear, by crushing them in their small beginnings, by pursuing them into their strongholds, and rooting them out, by making every advantage gained the ground of new reprisals, by carrying on incessant, implacable, internecine war against them, as against our direst enemies ... [we would] gradually pave the way to their extermination. No doubt, to many, such an idea as this will seem in the highest degree utopian; but to have any other is surely to take a very limited view of the power of the human mind, and to be strangely blind to the lessons its triumphs in other fields are every day teaching us.¹⁴⁹

Although he offers echoes of a Darwinian struggle for survival, Budd pairs this with conventional language of the march of mind. “Stamping

out” is envisioned as an activity in which it is the *naturalness* of contagious disease that would be subdued. Stopping epidemics entirely was within reach, Budd insisted, but it involved the “subjection of the powers of nature to our will” and “the putting of the plagues of nature under our feet.”¹⁵⁰ In subsequent years, the development of “living germ” models for disease had the effect of encouraging similar exterminatory dreams, which almost always were connected with justifications of extraordinary police powers and the subduing of contagious bodies. The principle that infections do not arise spontaneously and have no other source but prior sickness (the contagious proposition of germ theory) was taken to the logical conclusion that different species of disease were liable to extinction. They were “not merely preventable, in the ordinary sense of the word, but extinguishable, or abolishable diseases ... Like the extinct species of plants and animals, and only the memory of them would remain to posterity.”¹⁵¹ In this case, it would be a natural characteristic of contagion (the dependence upon reproduction and propagation of its own seeds) that could be used against it. All that was necessary were stringent laws to affect the systematic isolation of sufferers, sanitary cordoning of affected places, and quarantine of contacts. This emerging vision of extermination was almost necessarily also a political dream and was often filled with images of the lazaretto and the classical plague town.

At the center of the “stamping out” model were mechanisms for *compulsorily isolating* patients, with additional powers for *compulsorily notifying* disease and *compulsorily disinfecting* homes. A number of contemporaries believed it to pertain to measures exactly similar to the expulsion of lepers under Abrahamic law. *The Times*, acknowledging Budd’s proposal, ascertained the intention as “a kind of internal quarantine” and believed the principle was to “draw a cordon around each patient.” It had more in common with the operation of the Contagious Diseases Acts than it did with ordinary border quarantine.¹⁵² This of course was undoubtedly its source of appeal amongst many medical men, as well as its most objectionable quality for others. (The same conference at which Budd presented his proposal descended into “positively wild” debate over that intensely controversial legislation.¹⁵³) It was one thing to bring strong powers down upon prostitutes and other social outcasts, but a true system of *stamping out* would have the authorities reaching into every home to ensure precautions were followed by all (as in Haygarth’s Benthamite architecture for the “extirpation” of

smallpox). While impressed with Simpson's confidence in the eventual demise of smallpox, *The Times* editorialist believed that "nothing short of [a] universal sanitary despotism would enable us to indulge the idea of 'extinguishing' it."¹⁵⁴ Another editorial noticed that the government had hardly succeeded in making vaccination truly compulsory. Furthermore, "When Mr. Budd calls for a 'standing army, well trained and ably commanded to garrison the land,' he will too certainly alarm all but these soldiers, in other words, our doctors, themselves."¹⁵⁵

In fact, doctors and health officials were often apprehensive about the powers that might be placed in their hands. *The Lancet* considered it unwise to repeat the punitive sanitary laws of the sixteenth century. "Our notions as to individual liberty of action have, for better or for worse, undergone some modifications—on the whole, doubtless, much for the better." Although recent science had revived the "old-fashioned doctrines of contagion," *The British Medical Journal* editorialist continued, "we cannot resort to any stamping-out measures as were found efficacious in the cattle plague; nor dare we even think of returning to the old laws and customs" of shutting-up houses or banishing the sick from towns altogether. "Our measures for the prevention of the spread of small-pox, typhus fever, cholera, scarlet fever, and the like, must be such as are suitable to human beings and to the most advanced conception of individual freedom."¹⁵⁶ Dr. William Stewart Trench, the Liverpool MOH, similarly dismissed Budd's call for greater sanitary intervention and declared himself astonished, and more than a little frightened, by the powers given to him by the Sanitary Act. It allowed him to invade the "sacred recesses of Englishmen's homes" and order any number of changes and punishments, including the confiscation of infected clothing. This was "government interference with a vengeance," and he did not believe it would be "tolerated for a moment except among a people who were convinced of its necessity." The first task then, according to Trench, should be to "educate the people for further interference" so that they would want to give assistance in the government of health.¹⁵⁷

A prominent strain of liberal opinion held that the liberty of the subject was in all cases a crucial precondition for the success of health regulations. Sir Charles Hastings clarified the issue, stating "the law is always less powerful than public opinion in such matters."¹⁵⁸ According to this train of governmental thought, which would have been familiar to all involved in the problems of public health, government needed to prepare the "popular mind" and place the actual work of governing with the

governed themselves. In 1870 Mr. George Gibbs of Darlington asked: “Now, were the people prepared for isolation? If one of a man’s children were seized with scarlet fever, must the law step in and take that child out of his house? Would its mother permit such a proceeding? No, certainly not.” Legislation on this topic would never be successful, Gibbs contended, “until the people were educated to such a point that they would willingly receive it, and then they would no longer need legislation, because, by that time ... the head of every household in the kingdom would be a medical officer of health.”¹⁵⁹ James Russell, the first full-time MOH of Glasgow and future chief health officer for Scotland (and at the time the medical superintendent of Glasgow’s municipal fever hospital), did not mince his words. “No process of ‘stamping out,’ though elaborate and perfect in print, and much to be desired in fact,” he wrote, “can be prosecuted with success” as long as the people remained dull and apathetic:

Indeed any appearance of compulsory power of removal, or of the interference of authority, even in the way of enquiry, is always found to render discovery [of disease] more difficult, and to increase the effort to conceal, even from the neighbours, who are generally ready to tell from selfish motives. ‘Stamping out’ therefore would result practically in stamping-in; and so would the original process as applied to cattle, had they only as much power of combined action, and as much to say in the disposition of their own affairs, as human beings, and especially the British, have.¹⁶⁰

“Stamping out” did become general shorthand for disease *suppression*, even though the term itself always held a troublingly imprecise meaning in the lexicon of preventive medicine and public health. The common mantra was notification, isolation, and disinfection. Each of these suggested a greater amount of *direct, intrusive control* over infected persons than the sanitationist program of ensuring environmental cleanliness. Furthermore, “stamping out” implied some sort of spatial and temporal delimitation—it referred to a specific course of action that initiated wherever and whenever contagious disease presented, and then held it back. The term was thus reactive as well as preventive. It also implied that the boot of government would always be at the ready to pounce and perform the stamping. Metaphorically, it referenced the act of “extinguishing” a nascent fire, tamping down a flame so as to prevent the embers of disease from coming

together and raging into an epidemic. “Stamping out” described a forceful, even aggressive, gesture—one that suggested masculine force and determination. It was analogous to the “uprooting” or “clearing” of fever dens, but was directed primarily at bodies instead of places.

Paradoxically, to say the least, the rhetoric and logic of “stamping out” was fervently taken up by some of the leading opponents of mandated vaccination. For example, leading anti-compulsionist and vaccine skeptic Dr. Edgar Crookshank praised Simpson’s “stamping out” scheme and felt it simply revived the main tenets of Haygarth’s admirable proposal for smallpox police. There was great significance in the fact that the cattle plague had been completely suppressed without a vaccine. “Although slaughter is the most complete form of isolation,” he wrote, “considerable success has been obtained without going as far as slaughter.”¹⁶¹ By the 1880s it was not uncommon for activists like Crookshank to consider isolation *the less intrusive* (and more scientifically sound) alternative to vaccination.¹⁶² The idea received something close to a practical trial in the notorious anti-vaccination stronghold of Leicester, where the health authorities bowed to public pressure and instituted a system for rooting out cases of smallpox and directing them to the smallpox hospital. More stringent measures (referred to as “quarantine regulations”) were put in place during an epidemic in 1892–1893, and required persons in contact with the sick to stay in their homes. Edward Seaton found it significant (and odd) that the word “quarantine,” officially discarded in Britain in practically all other contexts, had come into use again at Leicester as a means of avoiding compulsory vaccination. The “amount of surveillance, domestic intrusion, and interference with personal liberty,” he wrote, “bears some resemblance to the system of which was possible at the time of the plague.”¹⁶³ Seaton marveled at the irony of the Leicester system of smallpox control, but he absolutely did not recommend it.

Some historians have taken the “stamping out” concept as virtually *the* defining principle of Victorian public health in the last three decades of the nineteenth century. Tom Crook, however, persuasively argues that, as a program, it was actually always contested and malleable. The program to stamp out disease was “assembled and legitimated as a system” by the “antagonisms and tensions” arising from the fact that it had no unifying or directing authority and was ramified in various forms through a complex range of national and local agencies and actors.¹⁶⁴ Crook suggests

that the program be seen less as an example of the growing agency of the modern state and more “of a piece with an emerging culture of governance”—a culture that placed more importance on developing an art of logistics to manage overall risks than on deploying juridical commands to neutralize specific dangers.

In fact, in regard to isolation, medical officers tended to seek ways for it to be made *indirect and systematic* as opposed to heavy-handed and targeted. A key concern was to distance fever and smallpox hospitals from the idiom of quarantine and to find ways they could be portrayed as extensions of conventional sanitary work. A key example of this is the 1874 report prepared for the LGB by George Buchanan, formerly of the London Fever Hospital. He surveyed the smallpox epidemic of 1870–1871 in various English towns, noting the degree and fluctuation of local mortality and correlating this to the amount of public hospital accommodation for separate treatment. This led him to conclude that smallpox and other infections were “capable of being wonderfully limited by isolation in hospital.” Moreover, the amount of provision for such isolation “may be expected to affect materially the rate at which an epidemic of small-pox becomes extinguished.”¹⁶⁵ That is, the amount of accommodation, measured as a portion of the population, had a statistical relationship to the behavior of epidemic disease. This all assumed, Buchanan stipulated, that the hospital isolation was in place before the first cases of an epidemic. He recommended that hospitals be planned and constructed in non-epidemic times, since they could never be satisfactorily secured during the panic of an emergency. If this were done, the hospital would have the most beneficial effect of lessening or even forestalling epidemic *crises*. A central part of Buchanan’s report was his suggestion that towns maintain ten isolation beds for every 10,000 of the population—a ratio accepted as the standard rule of thumb well into the next century.¹⁶⁶

Buchanan was careful in his choice of words to avoid the rhetoric of overt, direct interventionism. He argued that the systematic and timely provision of isolation accommodation on a sufficient scale had shown the ability to exert an “arresting influence” on epidemics.¹⁶⁷ He thus shifted the focus of action from seizing the sick person to grasping and adjusting the natural event. Others were less equivocal. As one MOH stated: “Like the queen wasp in a garden, the first case of infection must be got hold of, whatever the cost.”¹⁶⁸ Still, the interest was primarily focused in intervening upon the epidemic at its own level and

understanding it upon the scale of its occurrence. Of course the strategy depended upon successfully breaking individual links in the chain of infection, but Buchanan seemed to feel that isolation as a program would be politically legitimated by its overall outcomes. His primarily statistical mode of understanding the effects of hospitals supported a primarily statistical concept of action. The task was to examine the norms of epidemics and look for ways to affect these norms *at the level of the norms*. A policy of isolation, therefore, would not seek to negate an epidemic's essential nature, but rather preserve it and modify it in order to create more favorable averages. One could not compel an epidemic to behave in a certain way, but it could be guided. In almost the exact same sense, Buchanan felt that applying strong compulsory measures to the sick themselves was unnecessary. He suggested shaping and encouraging new social conventions, or in other words normalizing hospital treatment for those people likely to take advantage of such hospitals. His report predicted that providing infectious hospitals on a large scale would cause them to become accepted and even popular—again, in essence locating the governance of contagion with the people as much as possible.¹⁶⁹ Simply constructing a “standing supply” of hospitals would obviate the need for a “standing army” of officials to thrust persons into them. The local authority's key function, in Buchanan's view, was simply to ensure a sufficient amount of isolation and to not stand in the way; when accommodation became properly proportionate to population, the people's conduct would be changed.

Buchanan and others were involved in the process of transforming the age-old question of hospital sanitation and hygiene into a new possibility: the hospital as an agent of societal sanitation and hygiene. This is laid out clearly in Buchanan's annual oration to the Medical Society of London in 1875, in which he considered how hospitals for infectious disease might serve as key *bulwarks* against epidemics. One day soon, he predicted, an “organized system of sanitary hospitals” could be considered “a standing part of the sanitary defences of the country.”¹⁷⁰ Isolation obviously supposed a spatial strategy at the level of the hospital itself, but it could also imply some sort of broader spatial fortification or barrier in a similar way to how the “English System” of good sanitary government was talked of as forming a “sanitary wall” around the country. Showing how this could be conceived on both local as well as national scales, one hospital architect declared that isolation hospitals

formed “a most important feature in the ‘defences’ of a sanitary district against invasion by infectious diseases.”¹⁷¹

It was in this way that isolation came to be seen as necessitating a constant state of alert and preparedness. Hospitals had to become the permanent infrastructure lying in wait, ready to spring into action at the moment required. This would entail investment in continuous, expensive upkeep. It also meant that the dream of exterminating epidemic disease must be diminished or dispelled altogether. Intellectually, this conception of the powers of isolation owes far more to epidemiology than to bacteriology. And as such, “stamping out” would be as much or more a biopolitics of the population than the anatomo-politics of contagion conceived by Simpson and Budd. The notion of stamping out epidemics that eventually came to prevail in Britain placed a great deal more emphasis on *managing* infectious disease than *abolishing* it altogether. The most common analogy was to the utility of fire suppression. A paper delivered to the Social Science Association in 1878 recalled the “vivid picture” one magazine recently provided of the Fire Marshall in London,

... surrounded by wires which communicated with every part of the metropolis; men, horses, and engines ready to dash off at a instant’s notice to extinguish the first outburst of flame; and I could not [help] wishing as I read, that a parallel sketch might some day be possible of the officers presiding over the health of that great city, sitting with ambulances and staff in attendance for the first telegraphic intimation of a case of typhus or small-pox, ready to convey it to a place of safety and to stamp out all traces of the disease.¹⁷²

The analogy was telling: fires will always occur, and they will always need a system to bring about their *extinguishment*. This attitude toward stamping out, which framed it essentially as an art of logistics, is explored in subsequent chapters of this book. As a culture of governance, this was both politically more palatable and also medically more realistic than the version of stamping out framed by the juridical powers of quarantine and police. Finally, this statistical and probabilistic conception of isolation significantly shaped public health objectives. As the MOH for St. Pancras explained, the aim was “not so much to annihilate infectious disease as to prevent endemic infectious disease from becoming epidemic, and to enable us to control it before, and not after it has assumed epidemic

proportions. We are not so utopian as to expect to eradicate infectious disease in a twinkling.”¹⁷³

By the end of the 1860s it was widely agreed that the task of isolating the sick could not be sufficiently accomplished by voluntary institutions alone. In places such as Newcastle and Carlisle, charitable infectious hospitals were transferred to the local sanitary authorities. At others, notably Manchester, municipal government subsidized the continuance of a private fever hospital. The ability of local authorities to provide hospital accommodation was encouraged by the 1866 Sanitary Act, but it was permissive instead of obligatory and the creation of hospitals was therefore neither smoothly nor consistently implemented. Some cities such as Glasgow went all in for hospital construction, but others did not. Edinburgh did not open its City Hospital for infectious diseases until 1885. Many towns took no action until faced with an emergency like a smallpox outbreak. Certainly by the mid-1880s it was generally assumed that any sanitary authority that neglected to provide hospital isolation had “failed to fulfil one of the great purposes for which it was instituted.”¹⁷⁴ Interestingly (as seen in subsequent chapters) this was also one of the main difficulties in London, which lacked a unified sanitary government. The metropolis’s three-dozen independent sanitary districts essentially either ignored or abandoned the difficult job of establishing hospitals. The Poor Law (Metropolitan) Reform Act of 1867 created the Metropolitan Asylums Board for the sole purpose of providing “asylums” for sick paupers—*not* sanitary hospitals for the benefit of the public health. The MAB managers nonetheless from their very commencement expressed interest in working to stamp out disease. In 1871, one suggested they should not “rest content with dealing with epidemics as they arise,” but rather “deal with epidemics before they made themselves felt.”¹⁷⁵ The London Fever Hospital, meanwhile, felt a loss of purpose after the creation of the MAB. It eventually refashioned itself into a charity for the treatment of the class above paupers and a comfortable pay-hospital for the middle-classes.¹⁷⁶

The term, “Isolation” Hospital, had not yet fully lost its inverted commas in the 1880s.¹⁷⁷ There continued to be some debate over whether they should be called “Infectious Hospitals” or renamed “Epidemic Hospitals” or something else.¹⁷⁸ Some preferred “Isolation-Home,” thinking this would excite less public prejudice.¹⁷⁹ In 1884 the MAB decided that its institutions not receiving smallpox would be called “Fever Hospitals.” This is only some indication of the large variety of

Table 2.1 Isolation hospital accommodation as rate per population

	<i>Beds per 10,000 population</i>					
	<i>1882</i>			<i>1910</i>		
	<i>Fever</i>	<i>Smallpox</i>	<i>Combined</i>	<i>Fever</i>	<i>Smallpox</i>	<i>Combined</i>
London	1.4	2.4	3.8	14.8	4.2	19
Liverpool	0	0	0	13.9	2.1	16
Manchester	*	*	7.3†	8.1	0.9	9
Leeds	2.5	1.9	4.4	10	4	14
Edinburgh	*	*	16.8	15.4	1.3	16.7
Glasgow	*	*	12.6	10.5	2.5	13
Dundee	*	*	4	7.4	1.2	8.6
Aberdeen	*	*	12.4	9.8	*	9.8
Sheffield	0	0	0.2	10.3	0.7	11
Birmingham	0	0	0	10	2.1	12

Alexander Collic, *RCFSH*, 139; *Report of the Medical Officer of Health of the City of Glasgow, 1910* (Glasgow: Glasgow Corporation: 1911), 71.

*Fever and Small-Pox accommodation not differentiated

†For 1893

names, plans, styles, and sizes of isolation hospitals that arose nationwide between 1870 and 1900. In 1879, only 296 out of 1593 sanitary authorities in England and Wales claimed to provide a hospital for infectious diseases, and some of these were of the very rudest description.¹⁸⁰ By 1891 that number had risen to about 400. Isolation Hospitals Acts were passed in 1893 and 1901, which resulted in at least 755 fever hospitals and 363 smallpox hospitals by the beginning of the Great War.¹⁸¹ Although *the hospitals* demonstrated a tremendous variety in size and quality, health officials' most common and agreed-upon measurement of *the method of isolation* was the standard of accommodation per portion of population (Table 2.1). Viewed as a technology of governance, the isolation hospital was meant to affirm and prove the necessity of the well-proportioned sanitary intervention.

Edward Seaton gave another prestigious address at the end of his career, this time the Chadwick Lectures in 1911. On this occasion he again dwelt mainly on the effects of hospital isolation as a general public health measure, and he took special pains to delineate how the objectives

had changed. "The phrase *stamping out*, as applied to infectious diseases," he regretted to say, "was far too commonly used" four decades earlier and no doubt it had contributed to the false hope that scarlet fever and other diseases would be eliminated by strict isolation and disinfection.¹⁸² This had clearly not occurred, but thankfully the expectation of eradication had "given place to a feeling of satisfaction when large numbers of cases are brought within the benefits of hospital treatment at the public expense." Moreover, the success of the system was regarded as a question of preventing these diseases from assuming epidemic proportions.¹⁸³ This is what was now meant by "extinguishing" epidemics.

Seaton's comments neatly demonstrate some of the ways that hospital treatment of the infectious sick had been integrated into the British model of sanitation, where it had previously been held at arm's length as reminiscent of quarantine. Over the course of the nineteenth century the hospital moved from representing the site of exclusion and negative power and toward functioning as an instrument for the positive government of urban space and the urban population. This occurred, it is important to note, while British health officials held close to the idea that quarantine, in its essential aspects, was a spatial practice of simple and backward people. One American writer captured the British position succinctly. He allowed that isolation was "essentially local or sporadic quarantine," but insisted that "in highly civilized countries [it was] more perfect and successful on the whole, than the wholesale or frontier quarantine." Isolation in fact differed in every important respect from the blunt quarantines practiced by poorly governed people and still sadly clung to by "less civilized nations."¹⁸⁴ Over roughly one hundred years contagion fell away and then re-emerged as a critical project of modern urban government, although under a significantly different mode of governmentality. The management of contagious disease diminished as a direct, intrusive power (as in quarantine and the "plague town") and enlarged as part of a general strategy of indirect and probabilistic government. Subsequent chapters explore how the isolation system in London presented both challenges and opportunities for reconciling liberal government with the desire to *stamp out* epidemics. In the end, though, we can be certain that the Victorians were just as anxious to avoid the classical "plague town" as they were to avert contagious diseases.

NOTES

1. Edward Seaton, "The Value of Isolation and Its Difficulties," *The Lancet*, 7 March 1896, 601–10. See also *The Lancet*, 14 March 1896, 698–702.
2. Seaton, "The Value of Isolation...", 603–4.
3. See for example George Rosen, *A History of Public Health* (New York: M.D. Publications, 1958). This is not exactly the position of Michael Worboys, but he does come close to it in *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865–1900* (Cambridge: Cambridge University Press, 2000).
4. Baldwin, Peter. *Contagion and the State in Europe, 1830–1930* (New York: Cambridge University Press, 2005), 139–64. For Baldwin the mere establishment of a hospital during an epidemic is evidence of a "quarantinist bent" (135).
5. Krista Maglen, *The English System: Quarantine, Immigration and the Making of a Port Sanitary Zone* (New York: Manchester University Press, 2014).
6. Seaton, "The Value of Isolation...", 603.
7. In medical terminology, the general term, "fever" (or simply "typhus"), represented a larger group of common fevers (continued, intermittent, typhus-like or *Typhoid*, etc.) that stood apart from the "distinct exanthema" denoting skin eruptions like smallpox, scarlet fever, and measles.
8. James Lind, *Two Papers on Fevers and Infection. Which were read before the Philosophical and Medical Society, in Edinburgh* (London: D. Wilson, 1763), 1.
9. W. F. Bynum, "Cullen and the Study of Fevers in Britain, 1760–1820," *Medical History, Supplement no. 1* (1981), 135–147.
10. John Haygarth, *A Letter to Dr. Percival on the Prevention of Infectious Fevers* (London: Cadell and Davies, 1801), 105–07, 125.
11. A favorable description of Haygarth's scheme was included in John Howard's monumental book on lazarettos, and this work was frequently cited as justification for the fever wards' arrangement of cleanliness, ventilation, and separation. See John Howard, *An Account of the Principal Lazarettos in Europe, 2nd Edition* (London: Johnson, Dilly and Cadell, 1791), 208–09; *Cowdroy's Manchester Gazette, and Weekly Advertiser*, 30 April 1796, 3.
12. Haygarth, *A Letter to Dr. Percival*, 95.
13. Francis M. Lobo, "John Haygarth, Smallpox and Religious Dissent in Eighteenth-Century England," in *The Medical Enlightenment of the Eighteenth Century*, edited by Andrew Cunningham and Roger French (New York: Cambridge University Press, 1990), 217–53; Arthur Boylston, *Defying Providence: Smallpox and the Forgotten 18th Century*

- Medical Revolution* (North Charleston, South Carolina: CreateSpace Independent Publishing, 2012), 193–202; M. C. Buer, *Health, Wealth and Population in the Early Days of the Industrial Revolution* (New York: Howard Fertig, 1968 [1926]), 185–86.
14. John Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain; and to Introduce General Inoculation, v. I* (London: J. Johnson, 1793), 128.
 15. Haygarth, *A Sketch of a Plan*, 155.
 16. Haygarth, *A Sketch of a Plan*, 183.
 17. Haygarth, *A Sketch of a Plan*, 116–17.
 18. Dr. James Currie, in *A Sketch of a Plan to Exterminate the Casual Smallpox from Great Britain, v. II*, 449. See also Edgar M. Crookshank, *The Prevention of Small-Pox, with Special Reference to the Origin and Development of the Stamping-Out System* (London: H. K. Lewis, 1894), 26–27.
 19. M. C. Buer, *Health, Wealth and Population in the Early Days of the Industrial Revolution* (London: Routledge, 1926), especially Chap. 15; John Pickstone, *Medicine and Industrial Society: A History of Hospital Development in Manchester and Its Region, 1752–1946* (Manchester: Manchester University Press, 1985).
 20. Cowdroy's *Manchester Gazette, and Weekly Advertiser*, 16 April 1796, 3.
 21. Kevin Siena, *Rotten Bodies: Class and Contagion in Eighteenth-Century Britain* (New Haven: Yale University Press, forthcoming).
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 25. Stanger, *Remarks on the Necessity*, 35.
 26. Stanger, *Remarks on the Necessity*, 23–24, 11.
 27. Siena, *Rotten Bodies*.
 28. Bateman, *A Succinct Account*, 157.
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30. Bateman, House of Commons, *Report from the Select Committee on Contagious Fever in London* (London, 20 May 1818) (RSCCFL), 12.
31. Bateman, RSCCFL, 14.
32. Thomas Bateman, *A Succinct Account of the Contagious Fever of this Country* (London: Longman, Hurst, Rees, Orme, and Brown, 1818), 104. Matthew L. Newsom Kerr, "Fevered Metropolis: Epidemic Disease and Isolation in Victorian London" (Ph.D. diss., University of Southern California, 2007), 40–7.
33. *LFHAR* for 1834.
34. *LFHCM*. From the Annual Report presented to Annual General Meeting May 1, 1807.
35. *LFHCM*, from the 12th Annual Report presented to Annual General Meeting April 29, 1814. Practically all promotional literature subsequently referenced the numbers of domestic servants received, the humane treatment meted out, and the thankfulness of young families "relieved from the apprehension of suffering by the spreading of the disease." *LFHAR* for 1833. See also *LFHCM*, 26 October 1827.
36. Newsom Kerr, "Fevered Metropolis," 66–73.
37. Bateman, *A Succinct Account*, 11–12.
38. Simon Finger, *Contagious City: The Politics of Public Health in Early Philadelphia* (Ithaca: Cornell University Press, 2012).
39. Maclean himself was certainly an abrasive and divisive figure, accused by his many detractors of harboring a delusional monomania. [See "Fever—Contagion—Quarantine," *Medico-Chirurgical Review* 6 (January 1825), 18.] Maclean played an important role at two Parliamentary inquiries considering reform of the quarantine laws in 1819 and 1824. Catherine Kelly, "'Not from the College, but Through the Public and the Legislature': Charles Maclean and the Relocation of Medical Debate in the Early Nineteenth Century," *Bulletin of the History of Medicine* 82 (2008), 545–69.
40. Erwin Ackerknecht, "Anticontagionism between 1821 and 1867," *Bulletin of the History of Medicine* 22 (1948), 567.
41. Charles Maclean, *Suggestions for the Prevention and Mitigation of Epidemic and Pestilential Diseases* (London, 1817).
42. Pelling refutes the idea that anticontagionism was even a cohesive movement, apart from some fanatics like Maclean. Margaret Pelling, *Cholera, Fever and English Medicine, 1825–1865* (New York: Oxford University Press, 1978).
43. Maglen, *The English System*.
44. Francis Boott, *Memoir of the Life and Medical Opinions of John Armstrong, M.D.* (London: Baldwin and Cradock, 1833), 29–31. See also John V. Pickstone, "Dearth, Dirt and Fever Epidemics: Rewriting the History of

- British 'Public Health', 1780–1850," in *Epidemics and Ideas: Essays on the Historical Perception of Pestilence*, edited by Terence Ranger and Paul Slack (New York: Cambridge University Press, 1992), 140–42.
45. John Armstrong, *Lectures on the Morbid Anatomy, Nature, and Treatment of Acute and Chronic Diseases; Delivered at the Theatre of Anatomy, Webb Street*. Edited by Joseph Rix (London: Baldwin and Cradock, 1834), 531.
 46. Armstrong, *Lectures on the Morbid Anatomy*, 547–48.
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 48. According to Tweedie, every physician except one connected with the LFH had contracted fever, and three out of eight had died; every single resident medical officer, nurse, matron, porter, laundress, and servant had also sickened. Alexander Tweedie, *Clinical Illustrations of Fever* (London: Whittaker, Treacher & Co., 1830), 88–90.
 49. "Contagion and Sanitary Laws," *Westminster Review* 3 (January 1825), 134–67; "Plague—Typhus Fever—Quarantine," *Westminster Review* 3 (April 1825), 499–530. *The Lancet* accused Smith of filching many of his views from Armstrong's lectures—a charge he indignantly denied. *The Lancet*, 4 June 1825, 280–81.
 50. "Plague—Typhus Fever—Quarantine," 514.
 51. "Plague—Typhus Fever—Quarantine," 514–18.
 52. "Plague—Typhus Fever—Quarantine," 519–21. The distinction in terms was a hazy one at best, but nonetheless fueled animated debates in the 1830s and 1840s. E. W. Goodall, *William Budd: The Bristol Physician and Epidemiologist* (Bristol: Arrowsmith, 1936); Pelling, *Cholera, Fever and English Medicine*.
 53. [Thomas] Southwood Smith, *A Treatise on Fever* (London: Longman, 1830), 362–64.
 54. Pickstone, "Dearth, Dirt and Fever Epidemics," 145.
 55. Michael Brown, "From Foetid Air to Filth: The Cultural Transformation of British Epidemiological Thought, ca. 1780–1848," *Bulletin of the History of Medicine* 82 (2008), 515–44.
 56. Southwood Smith authored the unsigned article, "The Use of the Dead to the Living," in the Benthamite *Westminster Review* in 1824. Smith also famously preached a philosophical sermon over the body of his friend Jeremy Bentham during a public autopsy in 1832. Less well known is that Armstrong also donated his body for anatomization and that he enjoyed the same fate in the same operating theater. See T. Southwood Smith, *A Lecture Delivered Over the Remains of Jeremy Bentham in the Webb-Street School of Anatomy and Medicine, On the 9th of June, 1832* (London: Eftingham Wilson, 1832); Boott, *Memoir of the Life and Medical Opinions of John Armstrong*, 102.

57. Ruth Richardson, *Death, Dissection and the Destitute*, 2nd edition (Chicago: University of Chicago Press, 2000).
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60. Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick: Britain, 1800–1854* (New York: Cambridge University Press, 1998); Pickstone, "Dearth, Dirt and Fever Epidemics."
61. Michel Foucault, *The Birth of the Clinic: An Archeology of Medical Perception*, trans. A. M. Sheridan Smith (New York: Vintage, 1994).
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