From Foetid Air to Filth: 
The Cultural Transformation of 
British Epidemiological Thought, 
ca. 1780–1848

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SUMMARY: Eighteenth- and early nineteenth-century ideas about the occurrence and spread of epidemic disease were complex and contested. Although many thought that diseases such as plague, typhus, and cholera were contagious and were communicated from person to person or via the medium of goods, others believed that they were the product of atmospheric change. Moreover, as historians have emphasized, the early nineteenth century saw a move from a multifactoral, climatic etiology toward one that prioritized specific local corruption of the atmosphere caused by putrefying animal and vegetable matter. In this paper, I extend this analysis by linking to recent literature on dirt and disgust and exploring the importance of theologies. I examine the work of two key figures in the history of British epidemiology, Charles Maclean and Thomas Southwood Smith, and demonstrate how the latter’s increasing emphasis upon the causal agency of filth was structured by his Unitarian faith and his belief in a universally benevolent God.

KEYWORDS: public health, epidemiology, anticontagionism, miasma, climate, filth, sanitation, Unitarianism

The character of Pestilence which gave it its great power and terror—that it walketh in darkness,—is its character no longer. Its veil is fallen, and with it its strength—A clear and steady light now marks its course from commencement to its end; and that

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Early Victorian Britain, as every good schoolchild knows, was filthy, or parts of it were. While the hearth and home of the middle classes, that great site of “bourgeois domesticity,” were kept scrupulously clean, the urban industrial slums of the working classes overflowed with filth, especially human excrement. Until 1848, that is, when Edwin Chadwick and his Benthamite associates secured the passage of the Public Health Act, establishing a centralized General Board of Health and initiating a sanitary “revolution” with the construction of sewage systems for the disposal of human and animal waste. The poor were thus redeemed from their own squalor and saved from the scourge of epidemic diseases like cholera and typhus.

Such triumphalist narratives of Victorian public health live on in the public imagination and are recapitulated in the British school curriculum and in popular history books and television programs.¹ Our contemporary obsession with cleanliness, structured by postbacteriological notions of disease, allows the drawing of a teleological line from them to us. Such accounts thus tend to gloss over the complex and contested conceptions of environment and disease that informed nineteenth-century public health discourses. In recent decades, medical historians have sought to overturn such assumptions. Christopher Hamlin and John Pickstone have demonstrated that there was nothing “natural” about the associations between filth and disease sanctioned by the Public Health Act. In fact, Chadwick and his associates were confounding majority opinion when they asserted the primacy of filth in the production not only of disease but also of poverty itself. This relationship, they argue, was calculated to break the

¹ George V. Poore, *London (Ancient and Modern) From the Sanitary and Medical Point of View* (London: Cassell, 1889); Henry L. Jephson, *The Sanitary Evolution of London* (London: T. F. Unwin, 1907); B. L. Hutchins, *The Public Health Agitation, 1833–1848* (London: A. C. Fitfield, 1909); Malcolm Morris, *The Story of English Public Health* (London: Cassell, 1919); Dorsey D. Jones, *Edwin Chadwick and the Early Public Health Movement in England* (Iowa: Iowa University Press, 1931); John H. H. Williams, *A Century of Public Health in Britain, 1832–1929* (London: A & C Black, 1932); Arthur S. MacNalty, *The History of State Medicine in England* (London: Royal Institute of Public Health and Hygiene, 1948); Stephen Halliday, *The Great Stink of London: Sir Joseph Bazalgette and the Cleansing of the Victorian Metropolis* (London: Sutton, 1999); Judy Allen, *The Blue Death* (London: Hodder Children’s Books, 2001).
complex feedback loop between poverty and illness and to imagine the eradication of pauperism without interference in the free market.  

One could hardly wish for a more comprehensive study of Victorian public health than these scholars provide, and my intention is not to critique this material so much as to expand upon it. Hamlin is principally concerned with demonstrating how a Chadwickian discourse that insisted that noxious exhalations emanating from putrefying animal and vegetable matter were the single most important cause of disease and social deprivation came to supersede alternative discourses that stressed the primacy of poverty and social conditions. He is less concerned with how and why filth came to dominate environmental conceptions of epidemic disease in the first place. After all, just as there was nothing “natural” about the idea that disease caused poverty, it was not “natural” that filth caused disease. Within late eighteenth- and early nineteenth-century medical consciousness, the environment, especially the air, provided an almost limitless range of pestilential possibilities: so why filth? Why not temperature, moisture, or the winds?

Building upon a body of scholarship stretching back to Erwin Ackerknecht’s seminal 1948 lecture, published in this journal, in this article, I examine the transformation of “anticontagionist” epidemiology from the neo-Hippocratic traditions of eighteenth-century climatic medicine to the filth-centered sanitarianism of the mid-nineteenth century.

2. Christopher Hamlin, Public Health and Social Justice in the Age of Chadwick: Britain, 1800–1854 (Cambridge: Cambridge University Press, 1998); Hamlin, “Predisposing Causes and Public Health in Early Nineteenth-Century Medical Thought,” Soc. Hist. Med., 1992, 5: 43–70; 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, ed. Terrance Ranger and Paul Slack (Cambridge: Cambridge University Press, 1992); Christopher Hamlin, “State Medicine in Great Britain,” in The History of Public Health and the Modern State, ed. Dorothy Porter, Clio Medica, no. 26. Wellcome Series in the History of Medicine (Amsterdam: Rodopi, 1994); Hamlin, “Finding a Function for Public Health: Disease Theory or Political Philosophy?,” J. Health Polit., Policy & Law, 1995, 20: 1025–31; Hamlin, “Could You Starve to Death in England in 1839? The Chadwick-Farr Controversy and the Loss of the ‘Social’ in Public Health,” Amer. J. Public Health, 1995, 85: 856–66; Hamlin, “Edwin Chadwick, ‘Mutton Medicine’ and the Fever Question,” Bull. Hist. Med., 1996, 70: 233–65; Hamlin, “William Pulteney Alison, the Scottish Philosophy and the Making of a Political Medicine,” J. Hist. Med. All. Sci., 2006, 61: 144–86.

3. Erwin Ackerknecht, “Anticontagionism Between 1821 and 1867,” Bull. Hist. Med., 1948, 22: 562–93; Gail P. Parsons, “The British Medical Profession and Contagion Theory: Puerperal Fever as a Case Study, 1830–1860,” Med. Hist., 1978, 22: 138–50; Margaret Pelling, Cholera, Fever and English Medicine, 1825–1865 (Oxford: Oxford University Press, 1978); Roger Cooter, “Anticontagionism and History’s Medical Record,” in The Problem of Medical Knowledge: Examining the Social Construction of Medicine, ed. Peter Wright and Andrew
I do so through a study of two of its most important theorists, Charles Maclean and Thomas Southwood Smith. Of the two, Southwood Smith is the best known. A close associate of Edwin Chadwick and the only medically qualified member of the first General Board of Health, he is often credited with providing the theoretical basis for sanitary reform. Maclean is a more shadowy figure. Despite Ackerknecht’s emphasis on him and the fact that he is generally recognized as “the person mainly responsible for the introduction of anticontagionism into Britain,” he is subject to comparatively little study. I therefore open this article by considering Maclean’s contribution to British epidemiology before moving on to discuss the early writings of Southwood Smith. Southwood Smith, as will become clear, drew heavily upon Maclean’s work. However, a careful intertextual analysis sheds light on a pivotal moment in the development of anticontagionist thought, a subtle but highly significant shift in emphasis away from the idea that epidemic diseases were produced by climatic conditions and toward the idea that they derived from specific local corruptions of the atmosphere caused by putrefying matter.

More than simply highlighting this shift from climate to filth, I want to offer an explanation for it, at least within the context of Southwood Smith’s work. The second half of this article is therefore concerned with the intellectual roots of Southwood Smith’s increasingly dogmatic

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4. Cooter, “Anticontagionism” (n. 3), p. 96. See also Charles F. Mullett, “Politics, Economics and Medicine: Charles Maclean and Anticontagion in England,” Osiris, 1952, 10: 224–51.
sanitarianism. In particular, I demonstrate the central role of religion in structuring his epidemiological ideas. By examining Southwood Smith’s Unitarian faith and his adherence to the doctrine of “universal restoration,” we shall see how he formulated a cosmological link between the sin of filth and the punishment of pestilence. Hamlin has examined relations between “providence and putrefaction” for a later period; yet few have explored the earlier incarnations of such thought and/or their impact on the 1848 Public Health Act.⁵

Despite the continued centrality of spiritual concerns within Southwood Smith’s work, his later writings suggest other factors that may have fed his veritable obsession with filth. In the penultimate section, I therefore draw upon the scholarship on dirt and disgust to examine how Southwood Smith’s filth-centered view of epidemic disease and his increasingly dehumanizing representation of its victims can be understood as a product of the sociopsychic trauma of urban-industrial modernity. I then conclude by answering some potential objections to my argument before considering how Southwood Smith’s ideas translated into state-sanctioned Chadwickian sanitarianism.

Charles Maclean and the Origins of Anticontagionism

Little is known about the early life of Charles Maclean, but it seems that he trained as a surgeon, and although he did not take a degree at Edinburgh University, he is listed as having been present for the 1784–85 and 1785–86 sessions.⁶ Despite being introduced to the ideas of that giant of late eighteenth-century medical theory, William Cullen, he was more attracted to the reductive medical radicalism of John Brown, who was then teaching extramurally.⁷ By the early 1790s he had “obtained a slight knowledge of the Brunonian doctrine” and obviously taken to the man he described as “the Hippocrates of the eighteenth century.”⁸ His earli-

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5. Christopher Hamlin, “Providence and Putrefaction: Victorian Sanitarians and the Natural Theology of Health and Disease,” *Vic. Stud.*, 1985, 28: 381–411.

6. Edinburgh University Library Special Collections, Matriculation Records, DA 34. For a general account of Maclean’s life and works, see Mark Harrison, “Maclean, Charles (fl. 1788–1824),” in *Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004).

7. Harrison, “Maclean, Charles” (n. 6). Brunonianism maintained that the vast majority of diseases were the result of constitutional debility and could be cured only by the application of stimulant remedies: William F. Bynum and Roy Porter, eds., “Brunonianism in Britain and Europe,” *Med. Hist.*, 1988 (Suppl. 8): S48–S52.

8. Charles Maclean, “A Treatise on the Action of Mercury Upon Living Bodies and its Application for the Cure of Diseases of Indirect Debility,” in *A View of the Science of Life; On the
est medical work, *A View of the Science of Life* (1797), co-written with his colleague, William Yates, was calculated to prove the validity of Brown’s theories, which informed his practice for the rest of his career.

Maclean’s disdain for the established medical order was commensurate with an opposition to the ruling political hegemony. He has been described as anti-authoritarian, even Jacobin, and his political works justify such epithets. Following the “Peterloo Massacre” of 1819, for example, he published *Specimens of Systematic Misrule* (1820), viciously attacking the Tory government and ruling oligarchy of the country.9

Maclean’s radicalism was fueled by his experiences on the peripheries of both medical practice and British society. Like many Edinburgh-trained surgeons, he sought work in Britain’s commercial and colonial companies. In the 1780s, he served on East India Company ships, undertaking voyages to the Indian subcontinent and the Caribbean. By the early 1790s he had settled in Calcutta and was working in the hospital there. However, he was later deported from India for libel against a local magistrate and spent several peripatetic years on the continent.10 Gaining an M.D. from Marischal College, Aberdeen, he served with the medical staff of the British army but deserted after little more than a year of service.11

Despite his deportation, in 1809 the East India Company appointed him as a senior lecturer on the diseases of hot climates at their new college in Addiscombe, Surrey.12 Thereafter, he joined the Levant Company and spent 1815 to 1817 traveling around the Mediterranean. He returned to England in 1818 before making one last trip abroad in 1821, as part of a contingent of foreign doctors invited by the Spanish court to investigate an outbreak of plague in Barcelona.

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9. Charles Maclean, *Specimens of Systematic Misrule* (London: H. Hay, 1820).

10. In 1805, Wellesley was himself recalled, facing impeachment in the Commons over his handling of the Maratha wars. In the end nothing serious came of it, other than Wellesley losing his position as governor general, but in 1806 Maclean added his own voice to the opposition with *The Affairs of Asia Considered in Their Effects on the Liberties of Britain* (London: Printed for the Author, 1806), an account of his own experience of Indian “oppression.”

11. Harrison, “Maclean, Charles” (n. 6); Charles Maclean, *An Analytical View of the Medical Department of the British Army* (London: J. J. Stockdale, 1810).

12. This was a good turn he would not forget. In 1813, for example, he wrote a pamphlet defending the East India Company’s monopoly of trade titled *A View of the Consequences of Laying Open the Trade to India to Private Ships* (London: The Pamphleteer, 1815).
Maclean’s interest in epidemic disease was shaped by his experiences in commercial service. Not only did he enjoy a greater freedom of inquiry than he might have experienced elsewhere, but he was also able to gain firsthand knowledge of diseases such as plague. As Mark Harrison has noted, his service in India and the Levant exposed him to the measures taken against plague by those indigenous to countries in which it was endemic. Maclean maintained that in such areas, the absence of a belief in contagion had spared the population from a high degree of mortality, whereas Christian communities had suffered considerably as a result of placing the infected in lazarettos and of erecting cordons sanitaires.

These experiences confirmed Maclean’s suspicion, aroused on reading Benjamin Rush’s account of the 1793 Philadelphia yellow fever epidemic, that such diseases were not contagious. However, if contagion offered a reasonably comprehensible explanation for the spread of disease, Maclean’s system was more diffuse and complex. Scarcity and hunger could deplete the bodily constitution, but the single most important cause of epidemic disease was the vicissitudes of the atmosphere. Following John Pringle and the eudiometric research of Priestlian gas chemists, Maclean identified marshes and damp low-lying areas as sources of dangerous effluvia, which could corrupt the air. On the whole, however,

13. Christopher Lawrence has shown that in the late eighteenth century, many medical men in overseas service were abandoning the mechanistic concepts of the body so characteristic of orthodox Enlightenment thought and employing radical new methodologies such as “meteorology, gas chemistry, and the study of aerial and electrical powers” in order to construct new ideas about the relationship between environment and disease: Christopher Lawrence, “Disciplining Disease: Scurvy, the Navy and Imperial Expansion, 1750–1825,” in Visions of Empire: Voyages, Botany and Representations of Nature, ed. David P. Miller and Peter H. Reil (Cambridge: Cambridge University Press, 1996), p. 81. Such was the case with Maclean, who, in 1817, commented in a dedication to the Chairman and Deputy of the East India Company that “[t]he entire independence, in the treatment of diseases, enjoyed by practitioners in your service . . . affords facilities to investigation, unknown in any other public service” and that “[e]ncouraged by conditions so favourable to free enquiry . . . I was first led to attempt the innovations, which in a less imperfect form, I now offer as important professional improvements”: Maclean, Results, vol. 1 (n. 8), pp. v–vi.

14. Mark Harrison, Public Health in British India: Anglo-Indian Preventative Medicine, 1859–1914 (Cambridge: Cambridge University Press, 1994), p. 42.

15. Maclean, Results, vol. 1 (n. 8), p. 21.

16. Charles Maclean, Dissertation on the Source of Epidemic and Pestilential Diseases (Philadelphia: William Young, 1797), p. 2.

17. Maclean, Results, vol. 1 (n. 8), p. 258.

18. Maclean, Dissertation (n. 16), p. 35; Maclean, Results, vol. 1 (n. 8), p. 263; vol. 2, pp. 383–84, 482. For more on the medical applications of eudiometric chemistry, see Corbin, Foul and the Fragrant (n. 3); Riley, Eighteenth-Century Campaign (n. 3); Schaffer, “Measuring Virtue” (n. 3); Golinski, Science as Public Culture (n. 3); Rusnock, Vital Accounts (n. 3).
his conception of atmospheric change was climatic in nature. “Every country,” he argued, “has its unhealthy season, corresponding with some particular period of the year, at which diseases, peculiar to that country, are more general and severe than at earlier times.” It was at such times of year, particularly the “spring and autumn,” when the vicissitudes of the atmosphere were at their most “extreme,” and when the body was liable to lose its excitatory power, that epidemic disease was produced. Maclean was unspecific about the exact nature of this etiological mechanism. He wrote about the influence of moisture and temperature, but these appear to have been symptomatic of general atmospheric change, not specific causal factors. Rather, Maclean believed that in certain seasons of the year, the air itself became pestilential and exerted a pathological influence on the human body.

As Roger Cooter has suggested, it was precisely this diffusiveness and lack of causal specificity that allowed Maclean to undermine the “supra-concrete reality of the old nature of things” and assert his conceptual sophistication against the vulgar “superstition” of contagion. Additionally, the numerous combinations of atmospheric circumstance allowed him to account for the wide variety of epidemic diseases and the idiosyncratic nature of their propagation: “[t]he air, constantly and diffusively applied to the living body, and indispensable to its existence, never oper-

19. Maclean, *Dissertation* (n. 16), pp. 4, 20–25; Maclean, *Results*, vol. 1 (n. 8), p. 149; vol. 2, pp. 471–72.
20. “Towards producing an epidemic, or pestilential disease, to the diminished exciting power of the atmosphere, are always superadded, in their various combinations or degrees, the influence of heat and moisture, soil and situation, food and water, corporeal labour, the passions and emotions of the mind, and in Christian countries, the consequence of the belief in contagion”: Maclean, *Results*, vol. 1 (n. 8), p. 148.
21. The slipperiness of Maclean’s theories is perhaps best exemplified by his discussion of the winds. Maclean regarded the winds as a major factor in the generation of disease. However, the exact nature of their operation remained uncertain. At certain points in his argument they appear to act as a direct pathological influence, according to their “degrees of impulsion”: Maclean, *Results*, vol. 2 (n. 8), p. 483. At other times, however, he conceived of them as spreading a more general atmospheric pestilence: ibid., p. 332.
22. Cooter, “Anticontagionism” (n. 3), p. 97.
23. “When people are seized in a certain secession; when the number of the affected becomes considerable, and the terror spreads, the mind revolts from the task of accounting for this succession, by the operation of natural causes; and what the superstition of former ages imputed to the anger of the gods, has, in modern times, been attributed, by a superstition still more degrading, to a specific contagion, propagated from the persons affected, to those in health. And, it may be remarked as curious, that, whilst, of the former superstition, physicians did not participate, in the latter they have taken the lead”: Maclean, *Results*, vol. 1 (n. 8), p. 156.
ates, for any length of time, upon the same, or upon different individuals, with uniform intensity.” 24 Hence, “[e]pidemic diseases, in all countries . . . occur in some districts, in some towns of the same district, in some quarters of the same town, in some streets of the same quarter, in some houses of the same street, in some rooms of the same house, and even in some quarters of the same room, more frequently than others.” 25

Maclean’s opposition to contagion did not stop at literary admonition. His status as the father of British anticontagionism owes much to the zeal with which he sought to extend a medical debate into the realm of parliamentary politics. Toward the end of the 1810s, he initiated a discussion on the etiology of plague that led, in 1819, to a Parliamentary Select Committee investigating the “Validity of the Doctrine of Contagion in the Plague.” Although the Committee remained convinced of its validity, Maclean was not deterred, and in 1824 he petitioned Parliament on the same matter. This time he was more successful and, with the support of some liberal and radical members of Parliament, managed to instigate a full parliamentary debate. These “plague debates,” which prefigured later discussions of cholera, sustain Ackerknecht’s arguments about the link between anticontagionism and economic interest, for they were concerned as much with the practice of quarantine as they were with the etiology of plague. For Maclean and his parliamentary supporters, the “forty-day farce” of quarantine was injurious to freedom of trade and Britain’s commercial interests. One can see Maclean’s objections to quarantine in the context of his service with two major trading companies, but his hatred of the practice did not derive solely from economic interest. According to Maclean, the measures of “plague police establishments”—impounding cargo and ships’ crews, erecting cordons sanitaires, and “shutting up” victims of contagious disease in their houses—were not merely absurd, in that they were founded upon erroneous knowledge, or simply an inconvenient restriction of the liberties of the individual. Rather, by maintaining plague victims in a pestilential atmosphere and restricting the movement of the unaffected, they were positively tyrannical:

It follows, no less clearly, that the continuance of persons in an air viciously disposed, must be one of the most effectual means of rendering the healthy sick, and the diseases of the sick, mortal. And to detain them in it upon compulsion, which is the effect of all the usual measures of plague police, is . . . little short of willful murder. 26

24. Maclean, Results, vol. 1 (n. 8), p. 240.
25. Ibid., p. 259.
26. Charles Maclean, Suggestions for the Prevention and Mitigation of Epidemic and Pestilential Diseases (London: Thomas and George Underwood, 1817), p. 459.
These plague debates represented something of a victory for Maclean, for in late 1825, Parliament voted in favor of a quarantine bill significantly mitigating the severity of existing measures. However, this did not constitute legislative approval for Maclean’s ideas. George Canning made it clear that “the House should understand that the doctrine of non-contagion had not received any countenance from His Majesty’s Ministers,” and he “hoped that the disciples of the damaging doctrine would keep such opinions a little more to themselves.”

Maclean was unaffected by such comments, for he had already died at some point in late 1824 or early 1825. Yet his theories about the role of the atmosphere in the production of epidemic disease were not to die. On the contrary, their greatest moment was yet to come.

Thomas Southwood Smith: The Decline of Climate and the Rise of Filth

In the year that Parliament revised the Quarantine Act, two articles on the subject appeared in the Benthamite Westminster Review. Their author is known to have been Thomas Southwood Smith, a thirty-seven-year-old Edinburgh-educated physician. Originally from Martock in Somerset, Southwood Smith had moved to London from Yeovil five years earlier and was physician to the Eastern Dispensary, Jews’ Hospital, and London Fever Hospital. Shortly after his arrival in London, Southwood Smith was initiated into the utilitarian circle of the elderly Jeremy Bentham. By 1825, he had already contributed articles to the fledgling Review, which had been founded the previous year. One was a criticism of established educational practices, and the other was a defense of pathological anatomy and a call for the greater availability of cadavers to medical students and practitioners. However, it was his two articles on contagion and quarantine that signaled an interest in epidemiology that would dominate his, like Maclean’s, professional career.

In his articles for the Review, Southwood Smith sought to prove that, although diseases such as smallpox and measles were contagious, in that

27. Hansard Parliamentary Debates, 2d ser., vol. 12 (1824), p. 1036.
28. Robert K. Webb, “Smith, (Thomas) Southwood (1788–1861),” in Oxford Dictionary of National Biography (Oxford: Oxford University Press, 2004); Frederick N. L. Poynter, “Thomas Southwood Smith—The Man (1788–1861),” Proceedings of the Royal Society of Medicine, 1962, 55: 381–92; Pelling, Cholera (n. 3), pp. 8–9; Robert K. Webb, “Southwood Smith: The Intellectual Sources of Public Service,” in Doctors, Politics and Society: Historical Essays, ed. Dorothy Porter and Roy Porter, Clio Medica, no. 23. Wellcome Series in the History of Medicine (Amsterdam: Rodopi, 1993); Hamlin, Public Health and Social Justice (n. 2), pp. 112–13.
they “depend upon a particular animal poison, and . . . are propagated by the communication of that poison from person to person,” fevers, including plague, typhus, and cholera, were *epidemic*, in that they derived from “a certain condition of the air.”

For Southwood Smith, who distrusted medical orthodoxy, the issue of contagion was not a matter for abstruse debate: it was “a question of science, to be decided by facts which everyone can understand; a question of testimony, to be determined by evidence which everyone can appreciate.” This was because it was “intimately connected with the life or death of millions of the human race” and “interwoven with the commercial interests of this country in particular; and the whole system of quarantine laws is dependent upon it.” Southwood Smith was scathingly critical of the quarantine laws and, in his second article, argued that the system was not only an impediment to free trade but was despotic in its operation and, by exposing people to the prolonged effects of a pestilential atmosphere, positively genocidal.

If this seems familiar, it should hardly be surprising. Southwood Smith’s articles were ostensibly a review of contemporary literature, including three of Maclean’s books. Moreover, Southwood Smith was an avowed admirer of Maclean, calling him “one of those extraordinary men who is capable of concentrating all the faculties of his mind, and of devoting the best years of his life, to the accomplishment of one great and benevolent object.” Even observers were moved to comment on their similarities. One member of Parliament referred to Southwood Smith as “the most zealous of the doctor’s [Maclean’s] coadjutors,” and a correspondent to the conservative *Quarterly Review* dismissed him as “the anonymous expositor of Dr M’Lean’s whims.” Reading Southwood Smith’s articles alongside Maclean’s writings, it is clear that most of his arguments and many of his examples are identical. Indeed, as Margaret Pelling suggests, Southwood Smith’s text is so similar to Maclean’s that it appears, at first sight, to be little more than plagiarism. For example, in 1817, Maclean wrote:

29. Thomas Southwood Smith, “Contagion and Sanitary Laws,” *Westminster Rev.*, 1825, 3: 134–67, pp. 134–35.
30. Ibid., pp. 136–37.
31. Thomas Southwood Smith, “Plague—Typhus Fever—Quarantine,” *Westminster Rev.*, 1825, 3: 499–530.
32. Southwood Smith, “Contagion and Sanitary Laws” (n. 29), p. 152.
33. *Hansard*, vol. 12 (n. 27), p. 1322; *Quarterly Review*, 1825–26, 33: p. 250.
34. Pelling, *Cholera* (n. 3), p. 9.
In every pestilence, some particular quarter of a town, or even a district, is first and principally affected; whilst the others are attacked, not in regular succession, according to their proximity to that quarter, or to the intercourse of their inhabitants. The inhabitants of other quarters . . . will be affected, not in the degree of the intercourse of the first quarter affected with them, but in the degree of their intercourse with the air of the quarter first affected.\textsuperscript{35}

Compare this with a passage from Southwood Smith’s article of 1825:

They arise, for example, in a particular quarter of town, or in some district. They do not proceed to attack other places in regular succession, according to their proximity to the quarter first affected; but they break out, at once, in the most distant, and in the most opposite directions. People are attacked, not in proportion as the inhabitants of the affected place mix with those of the unaffected places; but in proportion as the inhabitants of unaffected, expose themselves to the air of affected places.\textsuperscript{36}

Likewise, Maclean had claimed that

The diseases, which the air is capable of producing, are . . . from its diffusible operation, and from the great variety of degrees in which it may be deteriorated, of almost infinite variety, both in respect to phenomena and intensity. This is exemplified in the diversity of affections, which may take place, from the head-ache, which is produced by the air of a crowded play-house, to the mortal disease . . . which is the effect of a more adulterated atmosphere, as that of the grotto del Can[e], or the black hole of Calcutta.\textsuperscript{37}

Whereas Southwood Smith wrote:

[F]ever is capable of being produced by . . . a peculiar constitution of the air, which, for the sake of distinguishing it from its other states, and of expressing the fact that it is the cause of epidemic diseases, may be termed its epidemic constitution; it is commonly called a pestilential constitution but fever is capable of being produced by another, and a totally different condition of the air, namely the corruption of it. This corruption may take place in various ways, and exist in various degrees of intensity, and its effects will vary accordingly from the head-ache, produced by a crowded theatre, to the mortal fever occasioned by such a corruption of it as occurred in the black-hole of Calcutta, or such a state of it as exits naturally in the Grotto del Cane.\textsuperscript{38}

But wait: let us look at the last two passages again, for although they suggest a superficial syntactical similarity, a closer reading reveals a subtle,

\textsuperscript{35} Maclean, \textit{Results}, vol. 1 (n. 8), p. 311.
\textsuperscript{36} Southwood Smith, “Contagion and Sanitary Laws” (n. 29), p. 145.
\textsuperscript{37} Maclean, \textit{Results}, vol. 1 (n. 8), p. 155.
\textsuperscript{38} Southwood Smith, “Contagion and Sanitary Laws” (n. 29), p. 148.
but highly significant, difference in content. When Maclean discussed
the action of the air in epidemic diseases, he was talking about an atmo-
sphere that was per se pestilential. However, although Southwood Smith
acknowledged the importance of this “epidemic constitution,” which,
like Maclean, he conceived as climatic in origin, he added another fac-
tor to the equation, namely “the corruption of it.” This is not an isolated
example. Throughout his text, Southwood Smith referred to a general
epidemic constitution of the air, while at the same time prioritizing a spe-
cific corruption of the atmosphere caused by “morbid exhalations of the
human body” or, perhaps more importantly, “exhalations arising from the
putrefaction of dead animal and vegetable matter.”

By prioritizing filth at the expense of climate, Southwood Smith
appears, subtextually, if not explicitly, to have realized that he was moving
beyond Maclean’s model. Thus, following a discussion of the influence
of climatic factors, such as “heat, cold, moisture, dryness, and electrical
state,” he added this coda: “In assigning certain conditions of the air as
the cause of epidemic diseases, we are able to advance one step. The air,
it is certain, is often charged with noxious exhalations arising from the
putrefaction of animal and vegetable matter . . . these exhalations exert
a most important agency in the production of epidemic diseases.”

By assigning such an important role to filth, Southwood Smith was
indeed diverging from Maclean. Maclean did recognize filth as a poten-
tial source of pestilence. For example, one factor he identified in the
susceptibility of Levantine servants to plague was their exposure to
“putrid vegetable exhalation, and the offals of animals” and to “effluvia
from dirty lanes and ditches.” However, such considerations always
remained subservient to climatic influences such as “sharp currents of air”
or “great vicissitudes of temperature.” Maclean even suggested that they
were a symptom, rather than a cause, of atmospheric corruption. Thus,
in reference to Benjamin Rush’s assertion that the Philadelphian yellow
fever epidemic could be traced to a heap of damaged coffee on a wharf,
Maclean claimed that, although

There cannot be a doubt that putrid vegetable exhalation is a power capable
of producing disease, in its immediate neighbourhood . . . it is equally certain,
that it never can occasion an epidemic or pestilential disease, over a whole
country, or city. The putridity of vegetables, and the epidemic diseases of ani-
mals, are probably occasioned by the same power, viz. a certain state or certain
vicissitudes of the atmosphere. That kind of weather, or that disposition of the

39. Ibid., p. 149.
40. Ibid. (n. 29), p. 142. Emphasis added.
41. Maclean, Results, vol. 1 (n. 8), pp. 263–64.
surrounding elements, which occasions an uncommon mortality among animals and vegetables, will also produce an uncommon degree of putrefaction, among these substances, in their dead state.\textsuperscript{42}

How might we account for this transformation? One explanation could be the different geographical contexts in which each operated, with Maclean a colonial medical practitioner concerned with climate and Southwood Smith a London-based physician working amid the squalid conditions of the metropolis. However, as we shall see, Southwood Smith’s social and spatial location may have influenced his later writings but was barely evident in his articles for the \textit{Review}, which drew, almost exclusively, from literature on the diseases of hot climates.\textsuperscript{43} Another could be motivation. Maclean, writing in the early nineteenth century, was concerned with demolishing the established belief in contagion, rather than constructing an elaborate system of environmental medicine in its place.\textsuperscript{44} Southwood Smith, it could be argued, was pursuing a different agenda. By identifying specific sources of pestilence, he was able to elucidate a far more comprehensible etiology of disease than was possible with climatic factors, whose operation he regarded as largely unknowable.\textsuperscript{45} This poses some problems, however. After all, in 1825, Southwood Smith was similarly loath to propose a precise mechanism of disease propagation, claiming that “[t]o give a non-entity a name is at once to convert it, in most men’s imaginations, into a substance.”\textsuperscript{46} Moreover, there is no reason to suppose that filth offered the basis for a more workable epidemiological model than did the weather. On the contrary, the latter would have entailed a naturalization of humans’ relationship with the environment that was in keeping with Southwood Smith’s intellectual program.

In order to fully understand Southwood Smith’s prioritization of filth, it is necessary to consider how his medical knowledge was structured by

\textsuperscript{42} Maclean, \textit{Dissertation} (n. 16), p. 27.
\textsuperscript{43} David Arnold, “Medical Practice and Priorities in Nineteenth-Century British India,” \textit{South Asia Research}, 1985, 2: 167–83; Arnold, \textit{Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India} (Berkeley: University of California Press, 1993); Arnold, \textit{The Problem of Nature: Environment, Culture and European Expansion} (Oxford: Blackwell, 1996); Mark Harrison, “‘The Tender Frame of Man’: Disease, Climate and Racial Difference in India and the West Indies, 1760–1860,” \textit{Bull. Hist. Med.}, 1996, 70: 68–93; Harrison, \textit{Climates and Constitutions: Health, Race, Environment and British Imperialism in India, 1600–1850} (Oxford: Oxford University Press, 1999).
\textsuperscript{44} As he claimed in 1797, “[i]n endeavouring to promote knowledge, it may sometimes be useful to correct ancient errors as to promulgate new discoveries”: Maclean, \textit{Dissertation} (n. 16), p. 1.
\textsuperscript{45} Southwood Smith, “Contagion and Sanitary Laws” (n. 29), pp. 141–42.
\textsuperscript{46} Ibid., p. 142.
wider perceptions of the social, even cosmological, totality. Because of his associations with Bentham and Chadwick, Southwood Smith is generally regarded as a utilitarian, and he certainly was one. He clearly shared many of Bentham’s concerns about the maximization of happiness, the importance of knowledge, and the application of expertise. Indeed, it was Southwood Smith who dissected Bentham’s corpse and transformed it into the famous “Auto Icon.” Despite this, however, Southwood Smith was not a “product” of utilitarianism. Reading his works, one is struck by how little they owe to the unflinching rationalism of Benthamite thought and by the extent to which they are grounded in the spiritual. This should hardly be surprising. As R. K. Webb has shown, the overwhelming influence in Southwood Smith’s life was not utilitarianism but Unitarianism. In fact, Southwood Smith was probably attracted to utilitarianism not because it told him anything new but because it confirmed what he already held to be divine truth. To establish the intellectual and philosophical roots of his emphasis on filth, it is to his religious beliefs that we must turn.

Southwood Smith’s Unitarianism and the Doctrine of “Universal Restoration”

Southwood Smith’s earliest religious education was in the strict Calvinism of his Baptist parents but, encouraged by his tutor, William Blake, he converted to Unitarianism and in 1808 left the Bristol Baptist academy to which he had been sent, a rejection of his parents’ faith that resulted in lifelong estrangement. In 1812 he moved to Edinburgh. Although he studied medicine there, his principal duty was to minister to the city’s fledgling Unitarian congregation. This combination of preaching and practicing medicine continued when he moved to Yeovil in 1816. If anything, medicine was a second choice career for Southwood Smith, who would, ideally, have dedicated himself entirely to his ministerial duties. However, he was unable to support his family in this way, and medicine necessarily took priority. Yet Southwood Smith continued to play an active

47. Will of Jeremy Bentham, 21 June 1832, National Archives, PROB 11/1801; Thomas Southwood Smith, A Lecture Delivered Over the Remains of Jeremy Bentham, Esq. in the Webb Street School of Anatomy and Medicine, on the 9th of June, 1832 . . . (London: E. Wilson, 1832); Charles F. A. Marmoy, “The ‘Auto Icon’ of Jeremy Bentham at University College, London,” Med. Hist., 1958, 2: 77–86.
48. Webb, “Southwood Smith” (n. 28).
49. Webb, “Smith, (Thomas) Southwood” (n. 28); Poynter, “Thomas Southwood Smith” (n. 28), pp. 382–84; Webb, “Southwood Smith” (n. 28), pp. 53–54.
role in the Unitarian community and preached on numerous occasions throughout his life.\\footnote{50}{Webb, “Smith, (Thomas) Southwood” (n. 28); Poynter, “Thomas Southwood Smith” (n. 28), pp. 384–88; Webb, “Southwood Smith” (n. 28), pp. 54–57.}

Unitarianism was thus central to Southwood Smith’s intellectual and social identity.\\footnote{51}{Indeed, Southwood Smith had this to say of his former Unitarian tutor, William Blake: “How can I measure the degree, how can I estimate the value of the influence which that revered instructor exercised over my mind, who first imbued it with the principles of wisdom and rectitude? How many of the sensations which cheer my heart at this hour are the result of an influence which commenced at that distant period! How much of my present character is wholly dependent on that influence!” Thomas Southwood Smith, \textit{Illustrations of Divine Government; Tending to Shew that Everything is Under the Direction of Infinite Wisdom and Goodness, and Will Terminate in the Production of Universal Purity and Happiness} (London: G. Smallfield, 1817), p. 49.}

However, although scholars have pointed to his faith in explaining his commitment to public service, few have considered its role in structuring his medical ideas.\\footnote{52}{For example, see Webb, “Southwood Smith” (n. 28).}

Yet if we are to consider the two roles as inextricably related, we can gain suggestive insights into the roots of his epidemiological theories.

Southwood Smith’s understanding of Unitarian theology is best elucidated in his \textit{Illustrations of Divine Government} (1817), written during his time as minister at Yeovil. Like many Unitarians, Southwood Smith adhered to Joseph Priestley’s doctrine of “universal restoration.” Conceived in opposition to the capriciousness of Calvinist theology, it suggested that the universe functioned according to rational principles ordained by a universally benevolent God. Unlike Calvinism, it also maintained that the \textit{whole} of humankind would ultimately “be restored from sin, and from the present and future misery which is its consequence, to a state of purity and happiness.”\\footnote{53}{Southwood Smith, \textit{Illustrations of Divine Government} (n. 51), pp. 59–60.}

According to Southwood Smith, happiness was the divinely ordained state for all sentient creatures, an idea that would segue into his positivistic reading of Benthamite philosophy. It was thus axiomatic that God would “suffer no event to happen which can prevent or impair the happiness he determines to bestow.”\\footnote{54}{Ibid., p. 16.}

However, although happiness may have been the natural state for God’s creation in its \textit{ultimate realization}, there was still hardship and misery in the \textit{present}. Although, according to Southwood Smith, “there is much less evil in the world, and much less misery among human beings, than we are accustomed to imagine,” people clearly suffered.\\footnote{55}{Ibid., p. 76.} Indeed, given the “afflictive” nature of life, Southwood Smith...
was sympathetic to those who found God’s universal benevolence hard to countenance.\textsuperscript{56} How then to explain this apparent contradiction? Why would God let his children suffer so?\textsuperscript{2}

To explain human suffering, Southwood Smith argued, one needed to consider the ultimate significance of those laws that governed the universe. The idea that misery, including disease, was divinely ordained might have appeared to undermine the idea of an intrinsically benevolent deity. But, of course, this could not be. As Southwood Smith argued, “[n]o one can believe that the Deity has chosen evil for its own sake. Were this the case he would not be good: were he to cause the least degree of suffering, merely for the sake of producing pain, it would be utterly incompatible with benevolence.”\textsuperscript{57} The significance of suffering and pain thus lay not in its immediate sensation but in what it compelled human beings to do. For Southwood Smith, earthly suffering was the means by which God endeavored, through the medium of natural laws, to turn humans away from sin and encourage them to remedy those evils that prevented them from realizing the divinely ordained state of purity and happiness. This was not divine punishment as Calvinists knew it. In this conception, Southwood Smith maintained, punishment was “the infliction of pain, in consequence of the neglect or violation of duty.” To divest his understanding of such vengeful associations, Southwood Smith defined divine punishment as “the infliction of pain, in consequence of the neglect or violation of duty WITH A VIEW TO CORRECT THE EVIL.”\textsuperscript{58} By violating God’s will, in the form of natural laws, human beings invoked divine chastisement. However, this meant that all earthly afflictions were remediable, for God would never chastise without the possibility of redress. The imperative duty of humankind was to rid the world of suffering by removing the sin that caused it, for as Southwood Smith proclaimed, “[w]hat can be improved must be improved and will be improved until man in society reflects the benevolent purposes of the Almighty.”\textsuperscript{59}

Given Southwood Smith’s beliefs, his divergence from Maclean on the causes of epidemic disease is of little surprise. After all, Maclean’s etiology was deeply fatalistic. Within his system, epidemics were produced by seasonal and climatic changes in the atmosphere. Although one could predict pestilence, the measures one could take were necessarily limited. For Maclean, the best course of action was to allow people to be removed

\textsuperscript{56} Ibid., p. 26.
\textsuperscript{57} Ibid., p. 56.
\textsuperscript{58} Ibid., pp. 133–34.
\textsuperscript{59} Ibid., p. 95.
from areas in which a pestilential atmosphere prevailed. Failing this, the afflicted should be allowed to seek the services of a Brunonian physician, who would be able, through the application of stimulant remedies, to maintain the body’s excitatory powers at a level conducive to health for as long as the atmosphere remained in a pestilential state. However, although these measures might mitigate mortality, they did not allow the ultimate prevention of epidemic disease, for the winds and the weather were beyond human control.

In contrast, by emphasizing a local corruption of the atmosphere caused by decaying matter, Southwood Smith allowed for the direct intervention of public authorities in the prevention of epidemic disease. Epidemics were a human creation, borne of the sin of filth, and God had provided for their redress: by removing putrefying matter from the streets and “cleansing the filthy habitations of the poor,” humankind could rid itself of the burden of pestilence. Such theological concerns, I contend, informed Southwood Smith’s substantive transformation of anticontagionist thought and allow us to see more clearly the embedded assumptions that inform the following passage from his Review article:

There is this evident difference between an epidemic constitution of the air, and a corruption of it. We know nothing whatever of the change of properties of the air which renders it capable of producing pestilential fever: [yet] often we are able to ascertain completely both the nature and the source of that corruption of the air which produces common fever . . . In point of fact these causes are among the most common and powerful agents in producing fever, and their operation can often be accurately traced.

The Lure of Filth: Southwood Smith and the “Sanitary Idea”

Southwood Smith’s later writings on fever and his activities as one of Edwin Chadwick’s principal “ultra-sanitarian” associates seem to confirm the link between his religious convictions and medical ideas. However, the increasing centrality of filth within Southwood Smith’s epidemiological model cannot entirely be explained in this way. From the late 1820s onward there were subtle, yet noticeable, shifts in his conceptualization of the pathological action of filth and in his representations of its social and physiological impact. This did not signify a complete rupture in his

60. Maclean, Results, vol. 2 (n. 8), p. 487.
61. Southwood Smith “Plague—Typhus Fever—Quarantine” (n. 31), p. 522.
62. Southwood Smith, “Contagion and Sanitary Laws” (n. 29), pp. 148–49.
cosmology but does suggest that other factors fed into Southwood Smith’s increasingly dogmatic sanitarianism, factors rooted in the social and psychological challenges of urban-industrial modernity.

In 1830, Southwood Smith published *A Treatise on Fever*, which was, perhaps, his most important medical text. Drawing on his experience at the London Fever Hospital, it dealt with the nature and treatment of a range of analogous afflictions, including plague and typhus. It also marked a hardening of his views on the cause of epidemic disease. In his articles for the *Review*, he had proposed putrefying exhalations as the most important and identifiable source of pestilence, while also allowing for the agency of climatic variation. By 1830, however, he had restructured his theories, assimilating climate into his causal mechanism and yet rendering it more remote. “The immediate, or exciting cause of fever,” he argued, “is a poison formed by the corruption or the decomposition of organic matter. Vegetable and animal matter, during the process of putrefaction, give off a principle, or give origin to a new compound, which, when applied to the human body, produces the phenomena constituting fever.”

Factors such as heat and moisture were mentioned but were relegated to providing a catalyst for putrefaction or, like anxiety and fear, weakening bodily constitution and encouraging a predisposition to disease. In a complete inversion of Maclean’s theories, filth had now become the only necessary cause, the sine qua non, of fever. Thus, Southwood Smith argued, in a potent expression of the “sanitary idea,” “[t]he more closely the localities are examined of every situation in which the plague prevails, the more abundant the sources of putrefying animal matter will appear, and the more manifest it will become, not only that such matter must be present, but that it must abound.”

It is possible to view Southwood Smith’s work on fever as a relatively seamless development of ideas sketched out in his *Review* articles. However, although it is true that filth had indeed become central to his understanding of pestilential disease, a closer reading suggests a subtle shift in the ways in which he conceived of its pathological operation.

Looking again at the above passage, we see that fever is caused by “a poison formed by the corruption or the decomposition of organic matter.” Notwithstanding Pelling’s assertion that Southwood Smith’s *Treatise* was “wholly practical” and calculated to avoid theoretical speculation, this

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63. Thomas Southwood Smith, *A Treatise on Fever* (London: Longman, Rees, Orme, Brown, and Green, 1830), pp. 348–49.
64. Southwood Smith, *Treatise on Fever* (n. 63), pp. 349, 374.
65. Ibid., p. 360.
is far more definitive than anything he had proposed in 1825.\textsuperscript{66} We have
seen that in his articles for the\textit{Review}, Southwood Smith was loath to attrib-
ute a specific causal mechanism to the operations of epidemic disease,
save to say that it was produced by a corruption of the atmosphere. What
the product of that corruption was, or how it affected the human consti-
tution, was a subject on which he remained conspicuously silent. Yet by
1830 Southwood Smith was claiming that the cause of epidemic disease
was a specific “poison,” a term he had previously reserved for\textit{contagious}
diseases. Pelling maintains that this assertion was a priori and founded
on the basis that “the effects [of fever] on the nervous system were analo-
gous to those produced by poisons.”\textsuperscript{67} Meanwhile, Pickstone suggests that
Southwood Smith’s poison model constituted, at an ontological level, a
fundamental naturalization of disease.\textsuperscript{68} This is highly suggestive. Citing
the passage in the\textit{Treatise} in which Southwood Smith suggests that “the
room of a fever patient in a small and heated apartment in London . . .
is perfectly analogous to a stagnant pool in Ethiopia, full of the bodies
of dead locusts,” Pickstone argues that the physico-chemical concept of
“poison” allowed Southwood Smith to collapse human beings into their
environment and to imagine poverty (a\textit{social} phenomenon) as imitating
“the malign aspects of non-human nature.”\textsuperscript{69} This is true; what remains
unexplained is why, by 1830, Southwood Smith would choose to conflate
humankind and its natural/social environment in a manner different
from that of his previous writings.

An answer to this question can be provided by a consideration of South-
wood Smith’s professional and psychological development. By the time of
his\textit{Review} articles, he had been resident in London for five years and had
been appointed to the Eastern Dispensary. But it was only in 1824 that he
became physician to the Fever Hospital. It is therefore of little surprise
that the problems of urban poverty and disease should have contributed
so little to his early articles. Aside from the occasional reference, almost
all of his examples were drawn from accounts of plague in Asia and the
Mediterranean. By 1830, however, Southwood Smith had accrued consid-
erable experience of epidemic disease among the urban poor, and it was
this experience that provided the empirical substance for the\textit{Treatise}.

In his analogy between the pool of dead locusts and the London tenen-
tment, we can thus detect a conceptual bridge between his earlier interest
in the diseases of hot climates and his more recent exposure to the prob-

\textsuperscript{66} Pelling,\textit{Cholera} (n. 3), pp. 17–18.
\textsuperscript{67} Ibid., p. 21.
\textsuperscript{68} Pickstone, “Dearth, Dirt and Fever Epidemics” (n. 2), pp. 144–46.
\textsuperscript{69} Ibid., pp. 144–45.
lems of the modern urban environment. There is more to it than this, however. The *Treatise* did not represent a seamless fusion of two bodies of medical knowledge. Comparing it with Southwood Smith’s earlier publications, one is struck by how the whole tenor of his writing had changed, particularly as it related to his estimation of human character.

In his religious tract of 1817, Southwood Smith had written about nature with near rapturous felicity:

> What a scene of enjoyment does the tribe of insects, of fishes, of all the inferior animals, exhibit from the beginning to the end of life... how delighted they are to run, fly, to leap, to swim; how incessantly are they gliding from place to place, without any apparent object, deriving gratification from the very exercise of their limbs! Those which delight in rest, how happy are they in the loneliness of the shade; in basking in the sun or grazing in the field?

However, he then attached this coda: “It is by fixing the attention on the squalid and disgusting objects, which we sometimes meet in the streets of a crowded city, and by considering these as a specimen of what life in general is, that a person is commonly first led to question the benevolence of the Parent of all things.”

By the 1830s, with his immersion in the social conditions of East London, it was this more dispirited tone that saturated Southwood Smith’s writing. The happy insects had become dead locusts, and it was disgust and repulsion that now formed his principal lexicon for describing the natural/social environment of his practice.

It is this confrontation of the problems of urban-industrial modernity that might account for Southwood Smith’s identification of “poison” as the mechanism by which filth injured the human constitution. After all, this “poison” model does not square easily with Southwood Smith’s belief in an ultimately benevolent deity. To suggest that rotting animal and vegetable matter might produce unfavorable local atmospheric conditions was one thing; to suggest that they gave off a *poison* suggested something other than benevolence, especially in a period in which criminal poisoning was becoming an object of increasing concern.

This dispirited view of the relationship between humans and nature is powerfully evident in Southwood Smith’s later sanitarian research. Starting in the early 1830s, Southwood Smith developed an intimate, if uneasy,

70. Southwood Smith, *Illustrations of Divine Government* (n. 51), p. 74.
71. Ibid., p. 76.
72. Katherine Watson, *Poisoned Lives: English Poisoners and their Victims* (London: Hambleton, 2004); Ian Burney, *Poison, Detection and the Victorian Imagination* (Manchester: Manchester University Press, 2006).
working relationship with Edwin Chadwick. In an effort to secure legislative action on sanitary reform, Southwood Smith produced two reports on the health of the poor in Bethnal Green and Whitechapel for Chadwick’s Poor Law Commission (1838–39) and contributed personal testimony to the Select Committee (1840) and subsequent Royal Commission (1844) on the Health of Towns. Reading these reports, one is stuck by the preponderance of filth: it is literally everywhere.

It appears that the streets, courts, alleys and houses in which fever first breaks out, and in which it becomes most prevalent and fatal, are invariably those in the immediate neighbourhood of uncovered sewers, stagnant ditches and ponds, gutters always full of putrefying matter, nightmen’s yards and privies, the soil of which lies openly exposed, and is seldom or never removed. It is not possible for any language to convey an adequate conception of the poisonous condition in which large portions of . . . these districts always remain . . . from the masses of putrefying matter which are allowed to accumulate.  

What is notable about Southwood Smith’s later rendering of filth is not simply its centrality but also its significance. In his earlier work, he had considered filth a physiopathological problem. By the 1840s, however, he had a much wider conception of its social impact. Filth did not simply make the poor sick; it made them morally corrupt, with tendencies toward criminality, drug usage, alcoholism, and incest. Ultimately, it even robbed them of their humanity. Imagining a situation in which “men of high station and authority” could appreciate the living conditions of the urban poor, Southwood Smith proposed they visit the “Zoological Gardens” and

[O]bserve the state of society in that large room which is appointed to every class of animals, where every want is relieved, and every appetite and passion gratified in full view of the whole community. In the filthy and crowded streets in our large towns and cities you see human faces retrograding, sinking down to the level of these brute tribes, and you will find manners appropriate to the degradation. Can any one wonder that there is among these classes of the people so little intelligence,—so slight an approach to humanity, so total an absence of domestic affection, and of moral and religious feeling?

One can read such statements as rhetorical, calculated to appeal to the concerns of governmental authority. However, for a more sophisticated understanding of the psychological “substance” of Southwood Smith’s

73. Quoted in *First Report of the Commissioners for Inquiring into the State of Large Towns and Populous Districts*, vol. 1 (1844), p. 3.

74. *First Report* (n. 73), p. 32.
obsession with filth, we must look to that body of scholarship that has addressed the varied cultural meanings of dirt and disgust.

As William Cohen notes in his review of the subject, it has long been recognized that crude dichotomies of clean/dirty and notions of dirt as mere abjection grossly simplify the complexities of meaning inherent in the cultural construction of filth. In her pioneering anthropological study, *Purity and Danger* (1966), Mary Douglas suggested that concepts of filth and disgust are not inherent to objects or processes but arise from a confusion of categories, from the violation of an imagined natural/social order. Significantly, she recognized that such violations are not simply anathematic but can be objects of fascination and even the basis for cultural production.

In the last few decades, a number of scholars have extended Douglas’s work into the fields of history and literary theory, often combining them with the ideas of Norbert Elias, Sigmund Freud, and Karl Marx. Two examples include Dominique Laporte’s *History of Shit* (1978, trans. 2000) and Peter Stallybrass and Allon White’s *Politics and Poetics of Transgression* (1986). Both employ Freudian models and see an obsession with filth as peculiar to modern bourgeois society. As societies mature, they suggest, they reject their previous cultural attachment to the baser aspects of human functionality, particularly feces, regarding these things as shameful and disgusting. However, as with individuals, the repressive capacities of the collective social psyche are limited, and so these deep attachments often resurface in the form of fetish and compulsive repulsion/fascination.

For these authors, this approach allows us to account for the centrality of filth within the Victorian imagination. Moreover, it also allows us to understand why the urban poor were so intimately linked to it. As Stallybrass and White suggest, the fetishization of filth in the nineteenth century constituted a “transcoding” of the “bodily lower stratum” onto the lower social strata, as the poor became contiguous with their filthy habitations and with the baser animals, such as pigs and rats, that inhabited them.

75. William A. Cohen, “Introduction,” in *Filth: Dirt, Disgust, and Modern Life*, ed. William A. Cohen and Ryan Johnson (Minneapolis: University of Minnesota Press, 2005), pp. vii–xxxvii.

76. Mary Douglas, *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo* (London: Routledge, 1966).

77. Peter Stallybrass and Allon White, *The Politics and Poetics of Transgression* (London: Methuen, 1986), pp. 125–48. See also David L. Pike, “Sewage Treatments: Vertical Space and Waste in Nineteenth-Century Paris and London,” in Cohen and Johnson, *Filth* (n. 75), pp. 51–77.
Southwood Smith’s later statements invite such readings. As his zoological analogy implies, the impact of filth and disease on the poor was essentially dehumanizing. In the same interview, he claimed that disease was not only physically debilitating but psychologically degrading: “physical wretchedness has done its worse on the human sufferer, for it has destroyed his mind . . . [it] annihilates the mental faculties—the faculties distinctive of the human being.” Moreover, this process took place as the poor were subsumed into their physical environment. In his account to the commissioners, Southwood Smith described how he had been standing in a yard in which “the open gutter [was] the most common receptacle for the filth from the houses.” Also standing there was a recent immigrant to the city, her country origins evident from her “ruddy cheeks”: “‘Five times this very day, Sir’, said she to me, ‘have I swept this place as clean as I possibly could; but you can see the state in which it is again. It is no use to try to keep it clean’ . . . in a few days she would naturally give up her hopeless attempt . . . and if she remain must necessarily sink into the state of squalor and filth so general amongst her neighbours.”

Despite such apparent fatalism, however, Southwood Smith, like many Victorian commentators, was loath to see such problems as intractable. Indeed, as David Trotter has recently suggested, following Heidegger, such understandings could transform an amorphous angst at the Dasein of modernity into the psychologically more manageable fear of filth. One way to achieve this was to couch filth within a systemization of the natural and social worlds. As Pamela Gilbert has shown, medical mapping allowed Victorians to figure the city as a system analogous to, even contiguous with, the human body. As cholera disrupted the functioning of the digestive system on the microcosmic human level, it did the same for the sanitary functioning of the macrocosmic city. Thus, as Southwood Smith blamed epidemic disease on the failure to remove filth from the streets, his understanding of the physiopathology of fever was likewise grounded in systemic malfunction. The direct causes of disease, he argued, were those that “accumulate noxious matters within the system, by impairing the action of the excretry or depurating organs whose office it is to maintain the blood in a state of purity, by removing out of

78. First Report (n. 73), p. 11.
79. Ibid., pp. 14–15.
80. David Trotter, “The New Historicism and the Psychopathology of Everyday Modern Life,” in Cohen and Johnson, Filth (n. 75), pp. 30–50.
81. Pamela Gilbert, “Medical Mapping: The Thames, the Body, and ‘Our Mutual Friend,’” in Cohen and Johnson, Filth (n. 75), pp. 78–102. See also Pamela Gilbert, Mapping the Victorian Social Body (Albany: State University of New York Press, 2004).
the system substances which having served their purpose have become useless and pernicious.  

It is essential to remember that in their natural state, such systems were perfect. In his multivolume *Philosophy of Health* (1836), Southwood Smith waxed lyrical about the process of excretion, and in 1861 a disappointed George Elliot (who had hoped to see James Martineau), heard Southwood Smith lecture on the beauty of the digestive system. What is significant about these examples is that in both cases, Southwood Smith made the link between a healthy body and a sure knowledge of God’s universal love. Thus, although his later writings betray an obsession with filth that suggests a subconscious reaction to the psychic trauma of urban modernity, it was his faith in divine benevolence that continued to underpin his medical cosmology. He always retained his belief that disease and degradation could be eradicated and his conviction that such measures were not simply efficacious but a spiritual imperative. For Southwood Smith, the accumulation of filth in the streets of Britain’s towns and cities was a human-made phenomenon, the product of inexact attention to God’s laws. Thus humankind disrupted a natural theological cycle of production and consumption through which “waste” realized its inherent value:

> [T]he very refuse of the materials which have served as food and clothing to the inhabitants of the crowded city and which, if allowed to accumulate there, invariably and inevitably taint the air, and render it pestilential—promptly removed and spread out on the surface of the surrounding country, not only give it healthfulness, but clothe it with verdure and endue it with inexhaustible fertility. These are the great laws of nature which are now well known to us; a due conformity with which would bring us health, plenty, and happiness, but which we cannot disregard any more than we can disregard any other physical law without suffering, and perhaps destruction.

In *The Common Nature of Epidemics* (1866), Southwood Smith expanded this synchronic model into a diachronic narrative of Western civilization in which epochs were judged by their relative attention to hygiene. “The human family have now lived together in communities for more than six thousand years,” he claimed, “yet they have not learnt to make their habitations clean.” Defining civilization in nineteenth-century liberal
terms as a society governed by the rule of law, reason, and the “principles of religion and morality,” he couched the history of disease prevention within a teleological narrative of social, cultural, and moral progress. Thus, the Middle Ages were not only characterized by “narrow, unpaved, undrained, uncleaned and unlighted” streets but by the “national vice” of “intemperance.” Likewise, in relation to the Black Death, he asserted that these “fearful forms of pestilence were accompanied by moral epidemics more appalling than the physical.” 86 Though the Renaissance signaled “intellectual and spiritual renovation” and the “commencement of physical improvement,” with the tearing down of city walls and widening of streets, it was the Enlightenment that marked an upward trajectory in human civilization:

The spirit of improvement thus awakened exerted itself with increased effect during the whole of the eighteenth century. Agriculture, which was now rapidly advancing, had created a demand for town refuse, the fertilizing property of which began to be perceived; so that all manner of offensive substances were regularly carried away to the fields, to the great increase of the cleanliness of the streets. 87

Southwood Smith similarly praised the industrial and commercial revolutions that had defined the British nineteenth century. Characterizing the political economic cycles of production and consumption as one of “Nature’s beautiful adaptations,” he announced that human happiness must “necessarily continue to increase because the main conditions on which life and health depend have experienced, during the whole of the present century, an expansion and improvement, on which no former age presents a parallel.” 88 And yet the uncontrolled expansion of the urban environment meant that, in terms of hygiene, humankind had fallen behind. “We still have epidemics—and why?” he asked. “Because in all our towns there are large portions of the people who live in a state essentially the same as that which existed in the middle ages. The conditions are similar; the results are similar.” 89

At the metanarrative level, this account of the civilizing process did not simply tell of social and intellectual progress. Rather, it traced the spiritual course of humankind’s progress toward earthly redemption. Sounding a triumphant and optimistic tone that reflected the depth of his religious convictions, Southwood Smith concluded thus:

86. Ibid., pp. 35–39.
87. Ibid., p. 43.
88. Ibid., pp. 45–49.
89. Ibid., pp. 50, 53.
We see that Epidemics are not made by a Divine law the necessary condition of man’s existence upon earth. The boon of life is not marred with this penalty. The great laws of nature, which are God’s ordinances in their regular course and appointed operation, do form and give off around us, products which are injurious to us; but He has given us senses to perceive them, and reason to devise the means of avoiding them. . . . Epidemics are under our control; we may promote the spread, we may prevent it. We may secure ourselves from them. We have done so. We have banished the most formidable. Those that remain are not so difficult to be conquered as those that have been vanquished . . . in proportion to our conformity in our public and private life to the spirit of these divine principles, advancement in civilization is certain; relapse into barbarism is impossible.  

Conclusion

In this article, I have examined an important moment in the history of British epidemiology, which saw a move away from an eighteenth-century concern with climate and toward a nineteenth-century emphasis upon filth. This I have done by comparing the works of Charles Maclean and Thomas Southwood Smith. In demonstrating the debt that Southwood Smith owed to Maclean’s work and to the eighteenth-century tradition of which he was part, I have shown how he differed in his prioritization of filth as the key factor in the production of epidemic disease. Furthermore, I have suggested that this change of emphasis was structured by Southwood Smith’s belief in a universally benevolent God. In making this argument, however, I am aware of potential objections. In the conclusion, I therefore want to anticipate some of these and formulate a response before relating my argument to the historiographical issue with which I opened this article, namely, the relationship among filth, disease, and poverty in nineteenth-century sanitarianism.

The first potential objection to my argument concerns the wider context of environmental medicine and the originality of Southwood Smith’s ideas. One could suggest that the works of Maclean and Southwood Smith represent only one strand of contemporary epidemiology. One could also argue that Southwood Smith was far from the first person to identify putrefying animal and vegetable matter as a source of epidemic disease and that it was common for eighteenth-century observers to regard dung heaps, human excrement, or other such forms of filth as potentially pestilential. One might add that for Priestley, who underpinned much later eighteenth-century thinking about the salubrity of the environment,
putrefaction played a key role in diminution of “common air” and in
the production of irrespirable “vitiated air.”91 These points are valid, and
clarification is necessary. Maclean and Southwood Smith were not the
only authors who wrote about the relationship between atmosphere and
epidemic disease in the late eighteenth and early nineteenth centuries.
However, given Southwood Smith’s importance within the sanitary move-
ment, a close reading of his works and a consideration of his intellectual
ancestry are of historical value. Moreover, the transformation evident
within Southwood Smith’s writings is indicative of wider patterns. After all,
although it is true that a number of eighteenth-century practitioners saw
putrefying matter as dangerous to health, their conception of its opera-
tion and its importance was markedly different than Southwood Smith’s.
Looking at the work of figures like Priestley, John Pringle, William White,
and Maclean himself, one finds mention of filth, but only as part of a
multifactorial nexus that included bodily constitution, topography, tem-
perature, moisture, and the winds.92 For Southwood Smith, by contrast,
such factors were gradually marginalized to the extent that, by the 1830s,
his etiology of fever could support Chadwick’s assertion that “all smell is
disease.”93 This is not to say that nineteenth-century disease theory was
uniform or lacked causal complexity. The decades before germ theory saw
the elaboration of a range of different etiological mechanisms explaining
the incidence of epidemic disease.94 And yet it is also clear that within each
of these mechanisms there was, as K. Codell Carter has demonstrated,
an increasing emphasis upon causal specificity and, in many cases, upon
putrefaction.95 In this sense they were quite different than the neo-Hip-
pocratic or eudiometric models which preceded them.

Even if we accept the nature of this transformation, then my explana-
tion for it, at least in Southwood Smith’s case, can still be questioned. I
have already outlined some of the possible explanations for Southwood
Smith’s increasing emphasis upon filth. However, the issue of his ideologi-

91. Joseph Priestley, Experiments and Observations on Different Kinds of Air, 3 vols. (Birming-
ham: Thomas Pearson, 1790), vol. 2, pp. 223–26; vol. 3, pp. 264–82.
92. John Pringle, Observations on the Diseases of the Army (London: A. Miller and D. Wilson,
1752); William White, “Experiments Upon Air, and the Effects of Different Kinds of Effluvia
Upon It; Made at York,” Philos. Trans. R. Soc., 1778, 68: 194–220; White, “Observations on
the Bills of Mortality at York,” Philos. Trans. R. Soc., 1782, 72: 35–43.
93. Parliamentary Papers, 1846, vol. 10, p. 651; Hamlin, “Predisposing Causes and Public
Health” (n. 2).
94. Pelling, Cholera (n. 3); Michael Worboys, Spreading Germs: Disease Theories and Medical
Practice in Britain 1865–1900 (Cambridge: Cambridge University Press, 2000), pp. 20–43.
95. K. Codell Carter, The Rise of Causal Concepts of Disease: Case Histories (Aldershot: Ash-
gate, 2003); Carter, “The Development of Pasteur’s Concept of Disease Causation and the
Emergence of Specific Causes in Nineteenth-Century Medicine,” Bull. Hist. Med., 1991,
65: 528–48.
cal motivation remains. One of the cardinal tenets of utilitarianism was the imperative duty of the state to intervene in cases in which its actions might maximize the aggregate happiness of the community.\textsuperscript{96} One might therefore suggest that Southwood Smith’s emphasis upon filth as an identifiable source of putrefaction makes as much sense within an explicitly utilitarian framework as it does within a theological one. This is true. We have addressed Southwood Smith’s utilitarian credentials but have also seen how his Unitarianism was a priori, whereas his adherence to utilitarianism was consequential. His faith was the structuring influence in his intellectual life. This much is evident in his works. Although he often employed the principle of the greatest good for the greatest number, he did so not within the archly rationalist framework of “act” or “rule” utilitarianism but within an intensely spiritual ideology of universal love.\textsuperscript{97}

Southwood Smith’s natural theological economy was not the only possible framework within which one could make sense of modernity’s maladies. His colleague and contemporary, James Phillips Kay, understood the wretched living conditions of the Manchester poor as the effect of industrialization and urbanization having severed the paternalistic relationship between the upper and lower orders, cutting the latter socially and morally adrift.\textsuperscript{98} Nevertheless, Southwood Smith’s ideas had a broad conceptual appeal and, as Hamlin has shown, would play a key role in structuring later nineteenth-century attitudes toward the meanings and uses of sewerage.\textsuperscript{99} Thus, although one might argue, in the spirit of Mary Poovey, that Southwood Smith’s spiritual cosmology was symptomatic of the persistence of anachronistic ideologies in the face of the abstracting and economizing rationale of epistemological modernity,\textsuperscript{100} Southwood Smith’s work testifies to the continued importance of religious belief in determining Victorian understandings of society and its afflictions.\textsuperscript{101}

Such concerns bring us back to where we started. When the General Board of Health was first instituted in 1848, it consisted of just two mem-

\textsuperscript{96} Michael James, “Public Interest and Majority Rule in Bentham’s Democratic Theory,” \textit{Polit. Theory}, 1981, 9(1): 49–64; Herbert L. A. Hart, “Sovereignty and Legally Limited Government,” in \textit{Essays on Bentham} (Oxford: Clarendon, 1982); Frederick Rosen, \textit{Bentham, Byron, and Greece: Constitutionalism, Nationalism, and Early Liberal Political Thought} (Oxford: Clarendon, 1992).

\textsuperscript{97} Southwood Smith, \textit{Common Nature of Epidemics} (n. 82), p. 59.

\textsuperscript{98} Lauren M. E. Goodlad, “‘Making the Working Man Like Me’: Charity, Pastorship, and Middle-Class Identity in Nineteenth-Century Britain; Thomas Chalmers and Dr. James Phillips Kay,” \textit{Vic. Stud.}, 2001, 43(4): 591–617.

\textsuperscript{99} Hamlin, “Providence and Putrefaction” (n. 5).

\textsuperscript{100} Mary Poovey, \textit{Making a Social Body: British Cultural Formations, 1830–1864} (Chicago: University of Chicago Press, 1995), pp. 25–55.

\textsuperscript{101} For a classic account of this position, see Boyd Hilton, \textit{The Age of Atonement: The Influence of Evangelicalism on Social and Economic Thought, 1795–1865} (Oxford: Oxford University Press, 1988).
bers, Edwin Chadwick and Lord Ashley. Soon they were to be joined by Southwood Smith, appointed and retained under a series of provisions until the Board’s collapse in 1854. Although he has traditionally been overshadowed by Chadwick, it was Southwood Smith who was primarily responsible for formulating the “sanitary idea,” as Chadwick had little knowledge of, or interest in, medicine. But if it was Southwood Smith who formulated the idea that filth caused disease, what of the second part of the Chadwickian maxim, that disease caused poverty? Southwood Smith’s theories allowed for this, and Chadwick certainly used Southwood Smith’s investigations, along with those of James Kay and Neil Arnott, as the basis for this assertion in his Sanitary Report of 1842. But we must be careful not to conflate application and motivation. Although Chadwick may have used Southwood Smith’s etiology to allow for state intervention that promised to eliminate poverty while maintaining the freedom of the market and the viability of the Poor Law, this was not necessarily Southwood Smith’s original intention. Rather, by adapting Maclean’s ideas in such a way as to establish filth as the principal cause of epidemic disease, Southwood Smith was identifying the sin that provoked the punishment of pestilence. In promoting sanitarianism, he was preaching a fundamentally religious vision—of salvation through sewerage.

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102. Michael J. Cullen, “The Making of the Civil Registration Act of 1836,” J. Ecclesiast. Hist., 1974, 25: 55–56.
103. In response to a question from the Health of Towns Commissioners on whether “the power of the humble classes of getting their bread and maintaining their families is extremely diminished by the neglect of sewage, draining and cleansing that exists in those localities,” for example, Southwood Smith replied that “[t]here is a special reason why it must be so”: First Report (n. 73), p. 5.