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Black Death and the Silver Lining: Meaning, Continuity, and Revolutionary Change in Histories of Medieval Plague

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Humanity can rest assured that no disaster, however terrible, is without redeeming social content. At least this is what one supermarket tabloid would have us believe. A headline in point: "Even though 55 million died, Black Death that Wiped out Europe Had a Good Side!" The accompanying article began, "The horrifying Black Death wiped out more than 55 million people in Europe during the Middle Ages — but the catastrophe changed the world forever by giving birth to the Renaissance." According to an interview with a much-published medievalist, famous authorities agree that the Black Death not only reduced Europe's population from 75 million to 20 million, but it also put an end to those dismal Middle Ages and "nurtured geniuses like Michelangelo and Leonardo da Vinci." The piece ends with the comforting observation that this awesome slaughter indeed had "a silver lining."¹ One shudders to contemplate the death of 55 million people as a recipe for social renewal. But the thesis that the article presents, wedged though it may be between advertisements for secret good-luck charms and miracle diet pills, has an undeniable appeal. History, like a novel, ought to make sense, and how could the death of most of the population of Europe have happened for no good reason?

It is undeniable that interest in various disasters ebbs and flows with the times. We no longer share Voltaire's fixation on the meaning of the Lisbon earthquake,² nor does the huge mortality of the influenza epidemic of 1918 stir writers into somber contemplation of last things.³ But interest in the Black Death

1. *National Enquirer*, May 6, 1986.

2. Voltaire made the Lisbon earthquake of 1755 the focus point of *Candide* (1759).

seems almost perennial. The subject must possess the largest bibliography of any single epidemic in history,⁴ and it is the only disease whose six hundredth anniversary (in 1948) has been celebrated with the delivery and publication of papers in tribute to its awesome power.⁵ No microorganism has ever achieved this level of superstardom.⁶

The Great Plague of the fourteenth century provoked written comment from those who lived through it, and after it, as had no other natural event in the medieval West. This amount of documentation for the pandemic has spawned a Black Death industry, which began during the early nineteenth century alongside the science of epidemiology itself. Early nineteenth-century German scientists in particular not only saw in medieval accounts of the Black Death a laboratory for their own speculation on nature and epidemic disease, but also saw evidence for man's progress toward a new age, the Renaissance, which was born after a horrible cataclysm just as the world was renewed after the Great Flood. This Romantic — or, as will be argued, gothic — construction of the Black Death remains a powerful theme in the history of epidemiology today. But since at least the 1960s another, competing interpretation of the Black Death has been offered, especially by historians of the *Annales* school. Rather than being impressed by the apocalyptic accounts of medieval plague chroniclers, these historians, using for the most part municipal records, see in the Black Death evidence for the enduring nature of medieval social and intellectual institutions. The gothic interpretation of the Black Death comprises themes of teleology, individual

Introduction to the Study of Epidemiology (New York: Arno Press, 1935; reprint, 1977), remarked with considerable insight that "one may easily demonstrate that in India in 1918 influenza destroyed in a few weeks far more lives than plague consumed in as many years, but the word 'influenza' is emotionally colourless, while to all of us the mere name of that sickness which, scorning any adjectival qualification, is so emphatically *the* plague, brings a faint thrill" (p. 289).

4. See especially Neithard Bulst, "Der schwarze Tod: Demographische, wirtschafts- und kulturgeschichtliche Aspekte der Pestkatastrophe von 1347–1352; Bilanz der neueren Forschung," *Saeculum*, 30 (1979), 45–67.

5. The exchange of papers is outlined by Élisabeth Carpentier, "Autour de la peste noire: Famines et épidémies dans l'histoire du xiv^e siècle," *Ann. Econ. Soc. Civ.*, 17 (1962), 1062–92.

6. Sinclair Lewis made plague the subject of his novel of heroic American virtue, *Arrowsmith* (1925). The novel's physician/publicist Dr. A. DeWitt Tubbs admonished the young Dr. Arrowsmith that scientific experimentation was "mere lettering and vanity." "Do something big," Tubbs said, "Go cure the plague!"

heroism, abrupt change, death, and, most notably, a dialectic between opposing forces. The *annalistes* find in the plague continuity, the ordinary, gradual change, and the collective experience of large groups of everyday people simply getting on with their lives. Both points of view show how a changing cultural climate affects the way in which historical evidence is interpreted, and a study of these contrasting interpretations of the Black Death throws light on many of the unspoken assumptions of historical and scientific writing.

MEDIEVAL ACCOUNTS OF PLAGUE

The Four Horsemen of the Apocalypse were pestilence, war, famine, and death, and it was this biblical framework, taken especially from the Book of Revelation, that provided the matrix for medieval Christian understanding of the Black Death. Medieval people were far from agreement on whether the onset of this terrible disease was a sign that the "day of the Lord," the heroic return of Christ to rule the earth for a thousand years, indeed was at hand. But the huge mortalities, weird beasts, earthquakes, fire, wars, terrors from the East, poisoned waters, fraudulent Jews, prideful women, and, above all, buckets and buckets of blood of the Book of Revelation, then as now, gave the faithful and the worried boundless material for rumination.⁷

According to the celebrated narrative of Gabriel de Musis, a notary from Piacenza who died in 1356, plague came to western Europe from Asia Minor. Gabriel related that in 1346 a street fight between Tartar soldiers and Genoese merchants caused the Genoese to flee and take refuge behind the walls of their trading outpost in the Crimean city of Caffa, on the Black Sea. While the Tartars were besieging the city, their army was struck down by what Gabriel called a "disease both sudden and unexplainable." The Tartars were forced to abandon the siege — but before they did, they catapulted the bodies of dead plague victims over the walls of the city, with the hope of spreading the disease. The Genoese fled the city by sea, and by October 1347 they had carried the plague to Messina in Sicily.⁸ By January 1348 it had

7. Natural disturbances said by medieval people to have accompanied plague included a rise in miscarriages caused by women's peculiar sensitivity to corrupt air, frogs that sat around ponds in heaps, mad dogs, multitudes of badgers, crop failures, animal disease, and strange-looking insects; see Dominick Palazzotto, "The Black Death and Medicine: A Report and Analysis of the Tractates Written between 1348 and 1350," Ph.D. diss., University of Michigan, 1972, pp. 21–22.

been spread to Marseilles, whose harbor, by one account, was filled with ships manned only by the dead. Later that same year the plague was in England, and by 1349 it had entered the Low Countries, Vienna, Germany, and Scandinavia.⁹

The Italian poet Boccaccio, in his *Decameron*, described the plague of Florence in 1348.¹⁰ According to Boccaccio, the disease "began both in men and women with certain swellings in the groin or under the armpit. . . . In a short space of time these swellings spread . . . all over the body. Soon after this the symptoms changed and black or purple spots appeared on the arms or thighs. . . . Very few recovered; most people died within about three days of the appearance of the swellings."¹¹ As a result of the plague, he continued, people behaved like animals.¹² "Brother abandoned brother, . . . and very often the wife her husband. What is even worse and nearly incredible is that fathers and mothers refused to see and tend their children, as if they had not been theirs."¹³ The poor fared especially badly, since they had no one to care for them. "Many ended their lives in the streets . . . and many others who died in their houses were known to be dead because the neighbors smelled their decaying bodies. Dead bodies filled every corner."¹⁴ Proper mourning and burial customs were

der Medizin und der epidemischen Krankheiten, 3rd ed., vol. II: *Geschichte der epidemischen Krankheiten* (Jena, 1882), pp. 157–161. English summaries appear in a number of secondary sources, including Philip Ziegler, *The Black Death* (New York: Harper Torchbook, 1969), pp. 15–16.

9. Geoffrey Marks, *The Medieval Plague: The Black Death of the Middle Ages* (New York: Doubleday, 1971), pp. 62–75. A map of the spread of medieval plague is in Jean-Noël Biraben, *Les hommes et la peste en France et dans les pays européens et méditerranéens* (Paris: Mouton, 1975–76), I, 62.

10. Boccaccio's wealthy young storytellers viewed corpses of the plague dead before fleeing the city to attend a lengthy house party. According to the Book of Revelation, "corpses will lie in the street of the great city. . . . For three days and a half men . . . gaze upon their corpses and refuse them burial. All men on earth gloat over them, make merry, and exchange presents" (Rev. 11:8–10).

11. *The Decameron of Giovanni Boccaccio*, trans. Richard Aldington (New York: Dell, 1930), p. 31 (I have modified the translation slightly in the light of the Italian original). See also Aldo S. Bernardo, "The Plague as Key to Meaning in Boccaccio's 'Decameron,'" in *The Black Death: The Impact of the Fourteenth-Century Plague*, ed. Daniel Williman (Binghamton, N.Y.: Medieval and Renaissance Texts and Studies 13, 1982), pp. 38–64.

12. Boccaccio, *Decameron*, p. 35.

13. *Ibid.*, p. 33.

14. *Ibid.*, p. 34. Glending Olson argues that Boccaccio, in juxtaposing jollity with terrible death, was taking advantage of medieval poetry's therapeutic value. Poems like Boccaccio's *Decameron* and Guillaume de Machaut's *Jugement dou*

not observed: "People cared no more for dead men than we care for dead goats." The cemeteries were full and huge trenches had to be dug for the bodies: "Here they stowed them away like bales in the hold of a ship and covered them with a little earth until the whole trench was full."¹⁵ "Between March and July," Boccaccio said, "more than one hundred thousand persons died within the walls of Florence."¹⁶

Henry Knighton, a canon of St Mary's Abbey in Leicester, reported that in England immediately after the plague, farm animals wandered loose because there was no one to care for them.¹⁷ Crops rotted in the fields, and there was, in his words, "a great cheapness of all things, owing to the general fear of death." Servants became scarce, and noble households were in disarray because there was no one left who knew how to run them.¹⁸ There were labor shortages, and rising wages had to be held down to pre-plague levels by royal order. Villages were depopulated. Food and necessities were scarce. There were not even enough priests to perform the sacraments.¹⁹

Agnolo di Tura, who survived the plague in Siena, related that more than 80 percent of the Sieneese people perished. "I buried my five children with my own hands," he said; "and there were also those who were so sparsely covered with earth that the dogs dragged them forth and devoured many bodies throughout the city."²⁰

The Black Death returned to western Europe many times

pleasure"; a literary work's "affirmation of secular order in the face of the Black Death is a moral and therapeutic response in itself" (*Literature as Recreation in the Later Middle Ages* [Ithaca, N.Y.: Cornell University Press, 1982], pp. 164–165, 191).

15. Boccaccio, *Decameron*, p. 35.

16. *Ibid.*, p. 36.

17. An English translation of part of Knighton's chronicle is found in *The Peasants' Revolt of 1381*, ed. R. B. Dobson (London: Macmillan, 1970), pp. 59–63.

18. *Ibid.*, p. 60. Cf. Rev. 18:11–19: "The merchants of the earth also will weep and mourn for her [Babylon], because no one any longer buys their cargoes. . . . The traders in all these wares, who gained their wealth from her, will stand at a distance for horror at her torment, weeping and mourning and saying 'Alas, alas for the great city, that was clothed in fine linen and purple and scarlet, bedizened with gold and jewels and pearls! Alas that in one hour so much wealth should be laid waste!'"

19. Dobson, *Peasants' Revolt*, p. 61.

20. Part of Agnolo's chronicle is translated in *The Black Death: A Turning Point in History?* ed. William M. Bowsky (New York: Holt, Rinehart and

throughout the late Middle Ages, and it did not disappear from there until the early eighteenth century. The number of people it killed has been estimated in the tens of millions.²¹ Medieval society permitted a number of different and sometimes contradictory explanations for this catastrophe, most of which emphasized plague's cause and its meaning. These explanations cut across various levels of society and leapt over national borders.

Medieval thinkers understood that the meaning of the Bible could be explained on a number of levels: the literal, the allegorical, the moral, and the mystical.²² The meaning of the Black Death was understood on many levels too: it could be interpreted as a medical event, an astrological misfortune, or a sign of God's displeasure — and these interpretations could be offered all at the same time and without contradiction. A large number of learned treatises on the causes of plague appeared throughout the late Middle Ages.²³ The most famous was written by forty-nine medical masters at the University of Paris in October 1348; known to historians as the Paris *consilium*, the work was composed at the request of King Philip VI of France.²⁴ The Paris masters began by admitting that the ultimate cause of the plague would never be known — the truth of that matter was beyond human grasp.²⁵ But as natural philosophers, they were able to look back on recent terrestrial and celestial signs to determine why plague had attacked when it did. The plague, they continued, had two causes, one distant and celestial, the other proximate and terrestrial.²⁶ The celestial cause came from a conjunction of Saturn, Jupiter, and Mars, under the moist sign of Aquarius, that took place in 1345, following both solar and lunar eclipses.

21. Social and economic historians continue to dispute the toll of repeated plague epidemics on western Europe. A summary of scholarly debate on the European situation in general, and England in particular, is John Hatcher, *Plague, Population and the English Economy 1348–1530* (London: Macmillan, 1977).

22. See "Exegesis," in *The Oxford Dictionary of the Christian Church*, 2nd ed., ed. F. L. Cross and E. A. Livingstone (London: Oxford University Press, 1974), pp. 490–491.

23. See Palazzotto, *Black Death and Medicine* (above, n. 7). Useful, if dated, are Anna Montgomery Campbell, *The Black Death and Men of Learning* (New York: Columbia University Press, 1931); and Dorothea Waley Singer, "Some Plague Tractates (Fourteenth and Fifteenth Centuries)," *Proc. Roy. Soc. Med.*, 9 (1916), 159–212.

24. In Latin in *Documents inédits sur la grande peste de 1348*, ed. L.-A. Joseph Michon (Paris, 1860), pp. 49–81.

25. *Ibid.*, p. 50.

According to Aristotle, they said, the conjunction of Saturn and Jupiter brings disaster. According to Albert the Great, a conjunction of Jupiter and Mars would bring plague. Jupiter, the sanguine planet, was hot and moist, the two qualities that led to rotting or putrefaction; this putrefaction in turn led to the plague.²⁷

The terrestrial or proximate cause of the plague was poisoned air, from noxious gases released during earthquakes. Evil constellations compounded the problem by encouraging thunder, rain, and moist south winds, dispersing poisonous vapors caused by carcasses rotting in swamps. This poisoned air entered the body and went to the heart, which, according to medieval thinking, was an organ of respiration naturally containing air; the air then contaminated the body's vital spirit and caused its organs to rot. Plague did not kill everyone because only certain individuals, by their bodily constitutions, were predisposed to it. Even after the disease initially disappeared, it remained lurking in certain musty corners, waiting for predisposing influences to release it again.²⁸

The intellectual foundations for the Paris masters' explanation of plague derived for the most part from their understanding of ancient sources. The presence of ideas taken from the Hippocratic text *Epidemics* is unmistakable. The *Epidemics* stressed the importance of astrology to medical practice, and insisted that a knowledge of the unique characteristics of geographical location was vital to an understanding of disease.²⁹ Aristotle's *Meteorology* was another influential text. The *Meteorology* concerned more than just the weather: it also discussed other atmospheric phenomena, such as comets and meteors, as well as earthquakes — but most of all, it explained putrefaction, the process of rotting that underlay medieval thinking about the nature of illness, and especially of fevers.³⁰ The Paris masters also made use of a Latin translation of the *Canon* of the Persian physician Avicenna (Ibn Sina), Book 4, Fen 1, tractate 4, on the nature of pestilential fever.³¹

As important as these intellectual explanations of plague were, their social underpinning is even more interesting. Plague tractates

27. *Ibid.*, pp. 52–53.

28. *Ibid.*, pp. 55–58.

29. *Epidemics*, Books I and III, appear in *Hippocratic Writings*, ed. G. E. R. Lloyd (London: Penguin Books, 1978), pp. 87–138.

30. See Aristoteles, *Meteorologica*, trans. H. D. P. Lee (Cambridge, Mass.: Loeb Classical Library, 1952).

31. Avicenna, *Liber Canonis* (Venice, 1507; reprint ed., Hildesheim: Georg

were rather long on causes and prevention but short on cures.³² This has led many to stress the apparent helplessness of medieval physicians before the plague, and their superstitious predilection for the pseudoscience of astrology. But understood in a social context, these plague tractates can be seen as rational strategies to reassure people, from the king of France on down, that plague did not "just happen." Nor was it in any way "predestined." Such ideas were abhorrent, in any case, to the medieval way of thinking. The tractates offered their audiences explanations for the natural causes of plague. Nature herself gave signs of the catastrophe to come, and the learned person in search for meaning could read these signs, even in retrospect. Plague did not occur for no reason at all; it was a natural event, and by implication a part of God's plan for humankind.³³

The earliest known plague tractate is the regimen of James of Agramont, written in 1348 by a physician — not for other physicians, but for the common people of the Spanish city of Lerida. Unlike the Paris *consilium*, which was in Latin, James's tractate was written in vernacular Catalan, and for that reason it gives some idea of the more popular perceptions of the nature of plague. James emphasized the importance of pure air in the prevention of the disease. Corrupt and stinking air, which could come from unburied corpses after battle, not only facilitated the plague, but made itself known by the noisome beasts it generated, including mice and snakes. For this reason, James continued, there are neither snakes nor plague in Ireland, the air being too pure to allow such products of putrefaction to occur.³⁴

32. James of Agramont, in his plague tractate of 1348, remarks that "no one should wonder that in this treatise I only present the regimen of prevention, and that I do not discuss the cure of diseases. . . . Everybody can make use of the regimen of prevention presented in the present tractate without a physician and without danger. But the regimen of treatment properly belongs to the physician, since in this anybody without the art of medicine could easily err, and in order to avoid this, no mention of treatment is made here" ("*Regiment de preservacio a epidimia o pestilencia e mortaldats*," trans. M. L. Duran-Reynals and C.-E. A. Winslow, *Bull. Hist. Med.*, 23 [1949], 57–89; quotation on p. 58).

33. Medical literature was not alone in supplying a framework for coping with plague. Robert E. Lerner says of medieval prophecies arising from the Black Death that "present disasters might be tolerated better if they could be viewed in terms of a coherent divine plan. . . . [These prophecies] intended to give comfort by providing certainties in the face of uncertainty and must have helped frightened Europeans get about their work" ("*The Black Death and Western European Eschatological Mentalities*," *Amer. Hist. Rev.*, 86 [1981], 533–552).

James called attention to one of the most marvelous properties of plague: it killed master and servant alike, and even physician and confessor; this distinguished it from other diseases, which were peculiar to individuals. Even more remarkable, he said, was how the heavens had foretold the coming plague with certain bad conjunctions.³⁵ For James, as for others, these conjunctions were not only prognostic signs, but an important cause of plague at the same time.

James also introduced a strong scriptural element into his tractate. He cited Deuteronomy 24, in which God promised prosperity to those who keep his commandments, and plague to those who do not. He also took note of other biblical passages on pestilence, especially those in which plague was a punishment for pride.³⁶ Chapter 24 of 2 Kings (also called 2 Samuel) was one of the most popular passages, especially in sermon literature. Remember that King David in his pride defied God and took a census of the people of Israel. God was angry, and gave David the choice of famine, war, or three days of pestilence as punishment. David chose three days of pestilence, which killed seventy thousand people and was only stayed by his building an altar on a threshing floor.

With the exacerbations and remissions of plague that took place repeatedly throughout the medieval period, arguments about its cause became more and more complex, prompting the German physician Henry Lamme to remark in 1411, "it is better to say that the epidemic comes from God than to repeat all the opinions one hears."³⁷ And opinions there were. The aforementioned Henry Knighton blamed the onset of natural disasters on the mores of his day, citing for especial condemnation the hordes of prideful women who, "dressed in a vanity of the most sumptuous male costumes," appeared at jousts and tournaments as if they themselves were going to participate; about them, Henry said, God knew what to do.³⁸ For Henry, as for so many others, plague was at once both natural and supernatural — natural in that it arose from natural causes: corrupt air, earthquakes, or malign planetary conjunctions; and supernatural, in that it was God's awful remedy for sinful behavior. What is more, sinful — or, as

35. *Ibid.*, pp. 71–72.

36. *Ibid.*, p. 65.

37. Quoted in Séraphine Guerschberg, "The Controversy over the Alleged Sowers of the Black Death in the Contemporary Treatises on Plague," in *Change in Medieval Society*, ed. Sylvia L. Thrupp (New York: Appleton-Century-Crofts, 1964), p. 213.

Boccaccio would have it, bestial — behavior could be both the cause and the effect of plague. Remember how, against nature, parents abandoned their children, and wives their husbands, after the plague hit Florence. And also how, against nature, women dressed up like men and helped cause disaster.

The question of whether the sinfulness of humanity caused or was caused by the plague was taken up directly by the Regensburg chronicler Konrad von Megenburg. He wrote in 1350 that disruptions in logic surrounding the nominalist controversies had helped bring down the Black Death. Konrad depicted his world as existing in a time of crisis. For him, the meaning of the Black Death did not lie in its social impact; rather, it was the case that society itself had caused the plague by its sinful behavior.³⁹ Other medieval thinkers expressed similar sentiments: that plague was caused by the wickedness of humanity, and that this wickedness was manifested by an assault on the universals that held society together. The English poet William Langland, writing about thirty years after Konrad, showed a similar concern for the fraying of the universal social fabric when he assigned an episode to plague in his famous dream allegory *Piers the Ploughman*. In Langland's poem the dreamer has a vision of the coming of the Antichrist and his siege of the Castle of Unity, which is the fortress of the Church Universal. The defender of Unity is Nature, who sends plague against the forces of Antichrist. But as soon as the plague ceases, Antichrist's followers return to him, and the siege of Unity resumes.⁴⁰ For Konrad, Langland, and others who followed after them, change in society was plague's cause and not its effect. Plague was the result of man's assault on universals; the disease was, in effect, a cure for social fragmentation and sin.

BLACK DEATH AND THE RISE OF EPIDEMIOLOGY

Discussions of the meaning and impact of the medieval plague are rare in learned sources after 1500 and before the nineteenth century. Enlightenment thinkers attached little importance to the fourteenth-century plague. The *Encyclopédie* of 1757 devotes

39. Konrad von Megenburg, *De moralitate in Alamannia*, cited by Thomas Rahe, "Demographisch und geistig-soziale Auswirkungen der Pest von 1348–1350," *Gesch. Wiss. Unterr.*, 35 (1984), 125–144; esp. p. 132. Oxford Franciscan and arch-nominalist William of Occam, who fled to Germany in 1328, seems himself to have perished in the first onset of plague: see "William of Occam," in *Oxford Dictionary of the Christian Church* (above, n. 22), pp. 1483–84.

40. William Langland, *Piers the Ploughman*, trans. J. F. Goodridge (London:

scarcely a quarter column to the Black Death, which is described as dwarfing previous epidemics, as compared to nearly two columns on the plague of Athens in 431 B.C.⁴¹ A turning point for Black Death scholarship came, however, with the great cholera epidemic of the early 1830s, and it was accompanied by the rise of epidemiology in Germany.

Most notable among the early epidemiologists to interpret the Black Death was Justin Hecker, whose *Der schwarze Tod im vierzehnten Jahrhundert* (The black death in the fourteenth century) was published in 1832. Hecker was a physician at the new Friedrich Wilhelm University in Berlin, and was the author of a popular history of medicine. His book on plague obviously struck a responsive chord in nineteenth-century society. It spread at lightning speed into English by 1833, and subsequently into Italian, Dutch, and French. By 1834 the English version was in its second edition, and it was last printed in 1972. An edition for the Sydenham Society was prepared in 1844, and this was reprinted several times along with others of Hecker's shorter works.⁴²

The history of epidemics was for Hecker what class struggle was to be for Marx and Engels: a hitherto unnoticed force for historical change and progress. Epidemics, he argued, had a much greater influence on the course of world history than did wars or politics. And yet, their study was still in its infancy. In an address to German physicians that was often printed with *Der schwarze Tod*, Hecker asserted that French and English universities refused to devote themselves to the history of epidemiology. It was therefore the special calling of German universities to remedy this omission.⁴³

Ours is a new age, Hecker told the German physicians, and the history of epidemiology is a science worthy of it.⁴⁴ If a natural

41. *Encyclopédie*, compact ed. (New York: Readex Microprint, 1969), pp. 1354–55 (456–457).

42. Justin Hecker's history of medicine is *Geschichte der Heilkunde* (Berlin, 1829). For his works in German and in translation, see A. Pauly, *Bibliographie des sciences médicales* (London: Derek Verschoyle, 1954). The most recent printing of his work is *The Black Death* (Lawrence, Kan.: Coronado Press, 1972), which reproduces Babington's 1844 Sydenham Society edition.

43. J. F. C. Hecker, "Address to the Physicians of Germany," in *The Epidemics of the Middle Ages*, trans. B. G. Babington, 3rd ed. (London, 1859), pp. xiii–xiv.

44. *Ibid.*, p. viii. Underlying much of Hecker's argument is his belief in the need to use history to discover how plague and other epidemic diseases like cholera were spread. For background to this debate, the classic source is Erwin H. Ackerknecht, "Anticontagionism between 1821 and 1867," *Bull. Hist. Med.*

historian tried to describe plants or animals without resort to allied genera, he would be censured, and yet "an analogous ignorance of epidemics, in those who nevertheless discussed their nature," is all too common. We cannot possibly understand the diseases of our own time unless we compare them with those of the past, he argued, and only the history of epidemics will allow us to do that.⁴⁵ We must study "the diseases of nations, and of the whole human race," and not just individual outbreaks, so that we can comprehend the whole of nature herself.⁴⁶ Hecker declared that "the very stones have a language, and the inscriptions are yet legible which, before the creation of man, were engraved by organic life on eternal tablets. . . . Epidemics leave no corporeal traces, whence their history is perhaps more intellectual than the science of the Geologist, who, on his side, possesses the advantage of dealing with subjects which strike the senses."⁴⁷

For Hecker, plague was much less something that happened to human beings than it was a natural event, caused by "mighty revolutions in the organism of the earth," as he put it.⁴⁸ The Black Death was a demonstration of the power and glory of Nature, so overwhelming in its universality and its terror as to defeat the best efforts of mere science to define it. At time of plague, "the powers of creation come into violent collision, the sultry dryness of the atmosphere; the subterraneous thunders; the mist of overflowing waters."⁴⁹

The miasma of plague was in Hecker both literally and figuratively atmospheric. It rolled like a fog out of the mysterious East,⁵⁰ a crawling miasma exhaled by earthquakes and volcanoes,

45. Hecker, "Address," p. xiii. Hecker was one of several German physicians who called for a "universal" or historical approach to the study of pathology; see Johanna Blecker, "Die Idee einer historischen Entwicklung der Krankheiten des Menschengeschlechts und ihre Bedeutung für die empirische Medizin des frühen 19. Jahrhunderts," *Ber. Wissenschaftsgesch.*, 8 (1985), 195–204.

46. Hecker, "Address," p. ix.

47. *Ibid.*, p. xi.

48. Justin Hecker, *The Black Death in the Fourteenth Century*, trans. B. G. Babington (London: 1833), p. 28.

49. *Ibid.*, p. 1.

50. The danger and seduction of the Orient penetrated deeply into the literature on epidemiology. Whenever plague threatened to spread to western Europe, physicians blamed the oriental religion and lifestyle for "breeding" the disease. A physician entering into the debate about whether or not the plague was contagious noted that "plague commonly reigns in dirty countries," by which he meant Turkey and Egypt (*Lancet* [1834–35], 1, 275); while physicians experienced in colonial India remarked on the difficulty of imposing European

by the rotting dead in graveyards and battlefields, by decaying matter in marshes and swamps. Plague leveled all those who stood before it and spared no person. It seeped into churches, castles, and cottages. There was no escape. Nature herself spoke of the coming disaster. Comets, earthquakes, and volcanoes shattered man's complacency. A pillar of fire appeared over the papal palace at Avignon. Plants and animals behaved in a bizarre manner. The very heavens rained disaster.⁵¹

Hecker's heroic narrative was worthy of a painting by Turner or a symphony by Beethoven. The magnitude of the crisis was beyond the grasp of puny mortals: they "vainly thought to comprehend the whole in the individual, and perceived not the universal spirit which, in intimate union with the mighty powers of nature, animates the movements of all existence, and permits not any phenomenon to originate from isolated causes."⁵² "These revolutions," he declared, "are performed in vast cycles, which the spirit of man, limited as it is, to a narrow circle of perception, is unable to explore. . . . By annihilations they awaken new life, and when the tumult above and below the earth is past, nature is renovated, and the mind awakens from torpor and depression to the consciousness of an intellectual existence."⁵³

In the end, then, conflict was resolved and all was for the best. But the new age did not begin at once. The Black Death excited humanity to extremes of behavior: "Unbridled demoniacal passions" unfolded side by side with the noblest and most courageous behavior.⁵⁴ In Hecker's words, "all that exists in man, whether good or evil, is rendered conspicuous by the presence of great danger."⁵⁵ What is more, after the plague "a greater fecundity in women was everywhere remarkable," which proved, to Hecker at

together, between Eastern ignorance, caste-tradition, and prejudices, and the methods adopted by Western civilization . . . in regard to sanitation and the repression of epidemic disease" (*Lancet* [1897], 2, 206). Another physician who observed the plague in Egypt remarked that "the Turks and Moors are known to be predestinarians; they believe the hour of a man's death is so immutably fixed, that nothing can either advance or retard it an instant"; thus their reluctance to observe quarantine (*Lancet*, 11 [1827], 703).

51. Hecker, *Black Death* (above, n. 48), pp. 34–40. Hecker's familiarity with medieval apocalyptic plague chronicles was very thorough, and his attraction to the heroic return of Christ at the Last Judgment is unmistakable.

52. *Ibid.*, p. 43.

53. *Ibid.*, pp. 1–2. Hecker seems to have believed that his age, like the medieval period, was on the verge of a renaissance, heralded by the cholera epidemic.

54. *Ibid.*, p. ix.

least, "the prevalence of a higher power in the direction of general organic life."⁵⁶

Hecker's contribution to the history of epidemiology went beyond the Romantic notion that the synthesis of science and history should ultimately take place; he also gave to the medieval plague the legacy it retains even today by defining the Black Death's social impact. Not surprisingly, perhaps, he fixed on two of the most bizarre and repellent phenomena of the late Middle Ages: the processions of Flagellants who roamed from town to town scourging themselves and prophesying the end of the world, and the hideous pogroms that were launched against more than three hundred Jewish communities, whose members were said to have brought about the plague by poisoning the wells. In the case of the persecution of the Jews, Hecker flew in the face of medieval opinion and insisted that the Jews, rather than being part of the cause of the plague as some medieval people suggested, instead were part of its effect or social impact: they became the indirect victims of plague rather than its cause. So potent were Hecker's definitions of these twin social impacts that the pair dominate medieval Black Death scholarship even today.⁵⁷

Brought together in Hecker's treatise are what might be called the seeds of subsequent histories of the fourteenth-century plague, which are only now beginning to dissipate. First is the idea that the fourteenth-century plague marked the beginning of a new age, a break with a decadent past and the ushering in of a more vigorous time. The second is the concept of the Black Death as a natural phenomenon somehow beyond human comprehension: terrible, seductive, and marvelous. It was an event in nature and human history like no other, in which man was but an insignificant

56. *Ibid.*, p. 79. The impact of Hegelian natural philosophy and dialectic is unmistakable throughout Hecker's work. Georg Wilhelm Friedrich Hegel, like William of Occam (mentioned above), died in a great epidemic — in Hegel's case, cholera. He was, like Hecker, a professor in Berlin. Hegel's philosophical and religious thought are outlined in "Hegel" and "Hegelianism" in *The Encyclopedia of Philosophy*, ed. Paul Edwards et al. (New York: Macmillan, 1967), III, 435–451, 451–459.

57. See Hecker, *Black Death*, chap. 5: "Moral Effects." For the Flagellants, see Lerner, "Eschatological Mentalities" (above, n. 33). For the persecution of the Jews, see Bulst, "Der Schwarze Tod" (above, n. 4); Rahe, "Demographisch ... Auswirkungen der Pest" (above, n. 39); and Guerschberg, "Sowers" (above, n. 37), pp. 208–224. Hecker also wrote a piece on the so-called Dancing Mania, which he regarded, like plague and flagellation, as yet another outbreak of "world-sickness": J. F. C. Hecker, *Die Tanzwuth, eine Volkskrankheit im Mittelalter* (Berlin: 1832). It was translated into English, French, and Italian; see Pauly,

pawn on Nature's chessboard. The third is the idea that the Black Death was, like Charles Dickens's French Revolution, both the best and the worst of times. The Black Death represented a war of opposites, whose result was the Renaissance. The fourth is Hecker's emphasis on the disease's decisive social impact, especially on the more bizarre and morbid aspects.

I would like to refer to this particular group of factors by the term "gothic epidemiology," in the sense of "gothic" used by literary historians, because it would appear that the essential elements of what is usually called the gothic sensibility are present in Hecker's writings. The term "gothic" was first applied to medieval Teutonic and Germanic tribes, but by the eighteenth century it had come to mean almost anything that offended Enlightenment sensibilities, especially the so-called gothic architecture from the late Middle Ages.⁵⁸ Modern readers are most familiar with how the English Romantic poets reveled in what might be called essential elements of gothic sensibility: an interest in distant and exotic places and times, especially in the Middle Ages and the Orient; the celebration of the power of nature and the ineffability of nature's essence; the unity of disparate elements — of good and evil, the hideous and the beautiful, the dead and the living; the seduction of the primitive and wild in nature, of the bizarre; the insignificance of human beings against nature; the existence of geniuses; the importance of individual experience; and finally the emphasis on suffering, death, and redemption.⁵⁹

Mary Shelley's *Frankenstein, or A Modern Prometheus*, with its suffering and repentant physician/hero, is the prototype of what is now called the gothic novel. *Frankenstein* was preceded by the

58. See *Oxford English Dictionary*, s.v. "Gothic," which argues that the English language took the term over from French in the nineteenth century. For an overview of the meanings and uses of the term "gothic," see "Concept of Gothic," in *Dictionary of the History of Ideas*, ed. Philip P. Wiener et al. (New York: Charles Scribner's Sons, 1973), II, 366–374; and the various entries on Romanticism in *ibid.*, IV, 187–211.

59. William Blake (1757–1827) wrote "The Sick Rose" and "A Poison Tree," and also composed and illustrated "The Marriage of Heaven and Hell." He was fascinated with the genius of Isaac Newton. William Wordsworth (1770–1850) longed for the spontaneity of childhood and the life of wonder enjoyed by primitive man. In "The Tables Turned," he exhorted his readers "Up! up! my friend, and quit your books; . . . Let Nature be your teacher. . . . Sweet is the lore which Nature Brings; / Our meddling intellect / Misshapes the beautiful forms of things — We murder to dissect." Samuel Taylor Coleridge (1772–1834) put his dream vision, "Kubla Khan," in the oriental Xanadu; while George Gordon, Lord Byron (1788–1824), wrote a melancholy truseloque

creaking hinges and dank staircases of Horace Walpole's *Castle of Otranto* and the famous *Mysteries of Udolpho* by Anne Radcliffe, so deftly satirized by Jane Austen in *Northanger Abbey*. And for the French, as well as for the Americans, it was the writings of Edgar Allan Poe that epitomized gothic sensibility.⁶⁰ Gothic elements reveal themselves even today, especially in science fiction. But the gothic found its true immortality in what critics have called the Byronic hero, better exemplified by Emily Brontë's brooding and mysterious Heathcliff than by Lord Byron himself. Heathcliff's character unites the bad and the good, the seductive and the forbidding, the occidental and the oriental, and is the very marrow of the modern "antihero." And of course, the reluctant god of the Romantic movement was the German poet Goethe, whose *Faust* reeks with gothic atmosphere: medievalism, death, and most of all, the awesome power of nature, which can either lead one to higher consciousness or unleash uncontrollable fury.

Hecker's fame as the founder of Black Death epidemiology has enjoyed an unbroken tradition. Alfonso Corradi, professor of pathology at the University of Palermo, credited him with this in his monumental statistical survey *Annali delle epidemie*.⁶¹ In 1893, in his history of German epidemiology, the great epidemiologist August Hirsch called Hecker one of the first and greatest of his kind, and he was joined in this by Max Neuburger and Julius Pagel.⁶² Nearer to our own time Philip Ziegler, Stuart Jenks, and Nancy Siriasi have all drawn attention to Hecker's pioneering effort.⁶³

This is not to say that the historians mentioned above can be thought of as enthusiastic proponents of gothic epidemiology. Indeed, some might argue that Hecker as collector of useful facts must be separated from Hecker as weird epidemiologist — but such separations have seldom been made. If Hecker and his gothic epidemiology seem to us, now, a curious aberration, a detour along the road to us, they did not seem so to previous generations.

60. A standard source on gothic and romantic sensibility in literature is M. H. Abrams, *Natural Supernaturalism* (New York: Norton, 1971).

61. Alfonso Corradi, *Annali della epidemie* (Bologna, 1863–70), I, 483.

62. August Hirsch, *Geschichte der medizinischen Wissenschaften in Deutschland* (New York: Johnson Reprint, 1966), 704–705; Max Neuburger and Julius Pagel, *Handbuch der Geschichte der Medizin* (Jena: Gustav Fischer, 1902), I, 747.

63. Ziegler, *Black Death* (above, n. 8), p. 281; Stuart Jenks, "The Black Death at Würzburg," Ph.D. diss., Yale University, 1976, p. 1; Nancy Siriasi, *The Black Death in Würzburg* (above, n. 11), p. 19.

Hecker's gothic epidemiology joined a chorus of similar creepy observations on the nature of plague. A French physician writing just before Hecker demonstrated "by statistical calculations" that the ancient Egyptians made mummies of their dead, not for religious reasons, but to prevent plague.⁶⁴ Neuburger and Pagel attributed to the Black Death the rise of werewolves.⁶⁵ But the most notable gothic element to enter into the history of plague was the image of the Black Death as a kind of Byronic hero — "mad, bad, and dangerous to know," as was said about Byron himself.⁶⁶ The Black Death was the ultimate conqueror, a bacterial Napoleon (or Bismarck), unifying suffering mankind under his terrible yoke. Jean-Noël Biraben, in his monumental *Les hommes et la peste*, related with considerable awe how plague had deposed mighty kings and thrown entire armies into retreat.⁶⁷ James Westfall Thompson, writing in 1921, compared the plague to the Great War, and attributed to the Black Death effects such as, in his words, "shell shock."⁶⁸

Even more remarkable is how plague has joined the ranks of what can only be called the undead. Like Nosferatu the vampire, plague came to be represented as an immortal sleeping terror, awaiting the right conditions to awake and unleash its fury on mankind. Hans Zinsser, in *Rats, Lice, and History*, first published in 1934, found it irresistible to write about infectious diseases as "individuals which have lived through centuries," which can "be treated biographically."⁶⁹ Geoffrey Marks saw how the Vietnam War had "awakened plague," which could be a thousand times worse than even the Black Death; "the prospect," he concluded, "is not a pretty one."⁷⁰

64. "On the Origin of the Plague," quoting M. Pariset in *Revue Médicale, Lancet* (1827–28), 2, 807; commented on by M. Clot-Bey in *Lancet* (1839–40), 2, 417.

65. Neuburger and Pagel, *Handbuch*, p. 747.

66. The quotation is attributed to Lady Caroline Lamb, who wrote it of Byron in her diary the first day they met.

67. Biraben, *Les hommes et la peste* (above, n. 9), II, 184.

68. James Westfall Thompson, "The Plague and World War: Parallels and Comparisons," in Bowsky, *Turning Point?* (above, n. 20), pp. 19–24; quotation on p. 23. Thompson also called attention to how, at a time of plague, people showed "fevered gaiety, . . . proneness to debauchery, . . . gluttony," and an attraction to amateurism and pseudoscience. Flagellation and other forms of religious and sexual perversion sprang up, he said, and "the phenomena of the Freudian complex are vividly presented" (*ibid.*).

69. Hans Zinsser, *Rats, Lice, and History* (reprint ed., Boston: Little, Brown, 1963), p. vii.

70. Marks, *Medieval Plague* (above, n. 9), p. 142. Marks also noted that

If gothic epidemiology had a Ninth Symphony, it must have been the *Kulturgeschichte der Neuzeit* (Cultural history of the modern world) of Egon Friedell, written in 1927 and dedicated to George Bernard Shaw.⁷¹ Friedell, like Hecker, reacted against the application of scientific methodology to history as being far too reductionist, and attacked the concept of historical objectivity as both impossible and boring.⁷² The Black Death was for him the crisis of the European soul, and 1348 "was the year in which modern man was conceived."⁷³ "The world that had been, that strange world of the Middle Ages, so limited and so luminous, pure and depraved, soaring and fettered, foundered in misery and thundered into the depths of time and eternity, never to return."⁷⁴

Also as with Hecker, for Friedell illness was the gateway to spiritual growth. But he had an advantage over Hecker in that he could bolster his arguments with those made by Friedrich Nietzsche, who suggested that illness was indeed vital for a culture to develop. "Every age makes its own illnesses," Friedell declared; returning to his birth metaphor, he added: "the Black Death is no more the cause of modernity than pregnancy is the cause of a new organism. . . . The new spirit [of the age] generated a sort of development-sickness in European humanity, a general psychosis; and . . . the most prominent of the forms of this sickness was the Black Death."⁷⁵ He then proceeded to name a number of species

proponent of the "silver lining," called the Black Death "a thorough house-cleaning" (p. 138), and "a blessing in disguise to the lower classes" in that it overthrew the manorial system (p. 134).

71. Egon Friedell, *Kulturgeschichte der Neuzeit*, vol. I, trans. Charles Francis Atkinson (New York: Knopf, 1933). Friedell has been cited with admiration by a number of historians of epidemiology, most notably Anna Montgomery Campbell, in *Black Death and Men of Learning* (above, n. 23), where his opinions appear alongside those of Hilaire Belloc (p. 4).

72. "To this day no single historical work has achieved objectivity. . . . Should any mortal prove capable of such a triumph of impartiality, it would be extremely difficult to establish the fact; for that would entail finding a second mortal equal to the exertion of reading anything so dull" (Friedell, *Kulturgeschichte*, p. 10). Friedell argued that the best historian is a poet; history has an artistic and moral side and therefore cannot be scientific in character (p. 3).

73. *Ibid.*, p. 54.

74. *Ibid.*, p. 86.

75. *Ibid.*, p. 82. The use of Freudian psychoanalytical terminology both preceded and followed Friedell; see Thompson, "Plague and World War" (above, n. 68). William L. Langer, in an address to the American Historical Association, explained extremes of behavior after the Black Death by saying that psychologists assert that during the Black Death medieval people experienced a conversion reaction (although he does not use the term): they repressed "unbearable

of mental illness generated by the Black Death, most notably the processions of Flagellants and the persecution of the Jews.⁷⁶ A reference to William of Occam and his nominalism, which we have not heard of since Konrad of Meigenburg, concludes Friedell's argument. Friedell, unlike Konrad, hailed Occam and the destruction of universals as yet another sign that a wonderful new age had begun.⁷⁷

OBJECTIONS TO GOTHIC EPIDEMIOLOGY

The attack on gothic epidemiology began in earnest after World War II, and paralleled the tendency among historians to fall away from condemnations of the Middle Ages as those bad old days. Critics of the notion that the Black Death marked the birth of a new age and a significant break with the past have in general focused their attention much less on the immediate social impact of plague and much more on what historians have called the *longue durée* — that is, the resiliency — of medieval institutions, which enabled them to endure repeated crises and indeed to recover from them.

If the Black Death as Grand Guignol best expresses the essential nature of gothic epidemiology, then it is the Black Death as an existential event that provides a literary parallel for these revisionist historians. Existentialism took on many forms in the mid-twentieth century, but the existentialist writer Albert Camus made plague itself the subject of his popular novel *La peste* (1948). Camus, writing shortly after the Allied defeat of fascism, saw the devastation created when ideas like those of Friedell were carried to their logical extreme. For Camus, who survived the war, as for historians like Marc Bloch who did not,⁷⁸ the experience of everyday people, simply doing their jobs and carrying on, was the essence of heroism. As one of Camus's characters remarks, "All those folks are saying: It was plague. We've had the plague here. You'd almost think they expected to be given medals for it. But what does that mean — plague? Just life, no more than that."⁷⁹

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76. Friedell, *Kulturgeschichte*, p. 84. See Langer, "Next Assignment," p. 295.

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78. A collection of some of Bloch's most important essays, introduced by F. R. H. Du Boulay, is Marc Bloch, *Land and Work in Medieval Europe* (New York: Harper Torchbooks, 1966).

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The plague, like war, never went away; it would return again and again when people least expected it. And yet, as terrible as that might be, Camus's message was a humanistic one. He concluded, "what we learn in a time of pestilence [is] that there are more things to admire in men than to despise."⁸⁰

A desire to chronicle (and to admire) the continuing experience of ordinary people has helped lead economic and social historians to attack the notion that the plague caused a huge and sudden drop in population, which led to crop failures, labor shortages, the end of feudalism, and the growth of a mercantile culture. Many have noticed that the plague returned time and again in what are usually called "echo epidemics," and it should not be thought of as having had a sudden impact on population.⁸¹ Paul Weindling has noted the disproportionate attention that medical historians have given to mortality crises from acute disease, at the expense of chronic disease and morbidity. He urges social historians to remember that chronic disease afflicted the poor especially; further, if historians want to understand the social impact of illness or injury on any society, they should remember that "not only did the mortality from chronic diseases often exceed the mortality from epidemics, but many conditions resulting in disease due to malnutrition, overcrowding and overwork were not reflected in the mortality rates." The social impact of a deadly plague might be much greater on a generally healthy society like our own than on one whose members were already suffering from a number of chronic debilities. The historian must be wary of reasoning backward from what would be modern perceptions of a mortality crisis.⁸²

Historical demographers have questioned the sudden-population-drop thesis by demonstrating that the population of western Europe in general, and of England in particular, was already falling by the time the Black Death struck. Scholars like M. M. Postan have suggested that more attention ought to be paid to declining economic prosperity at the end of the thirteenth century

80. *Ibid.*, p. 278.

81. One of the most influential attacks on the thesis that the 1348 epidemic must have had a sudden impact on European culture came from the Soviet historian Evgenii Alekseevich Kosminskii, "The Plague Deemphasized" (1957) (printed in Bowsky, *Turning Point?* [above, n. 20], pp. 38-46). See also Carpentier, "Autour de la peste noire" (above, n. 5), which is translated in part by Bowsky under the title "The Plague as a Recurrent Phenomenon" (*Turning Point*, pp. 35-37).

82. Paul Weindling, "Medicine and Modernization: The Social History of

and to the effects of the Europe-wide famine of 1314-1317. If there was a demographic crisis of the second half of the fourteenth century that continued into the fifteenth, many have argued, then it began some thirty years before 1348 and endured longer than could be accounted for by plague alone.⁸³ Localized studies of single communities, like Richard Emery's study of Perpignan, Élisabeth Carpentier's of Orvieto, and William Bowsky's of Siena, have all urged great caution in attributing to the Black Death the apocalyptic social impact associated with gothic epidemiology.⁸⁴

Art historians have adopted many aspects of gothic epidemiology to explain the cause of what was seen as a profound shift, especially in Italian painting, after the medieval plague. Millard Meiss argued in 1951 that the post-plague period marked "a period of crisis, the first crisis of what we may call, in its larger sense, humanism."⁸⁵ Meiss saw in post-plague art and literature a kind of Cold War between medievalism and modernism, and he attributed to plague the late-medieval obsession with macabre themes. Against this thesis, Joseph Polzer argued that the medieval obsession with death and decay preceded 1348. He used for his example the gigantic Triumph of Death paintings in the Campo Santo in Pisa, which were models for many later depictions of the *dance macabre* or "dance of death" paintings of the fifteenth century. The Triumph of Death, with its yawning graves and rotting corpses, has been offered as a prime example of the effect of the Black Death on Italian painting. But Polzer demonstrated that the Triumph preceded, rather than followed, the plague in Pisa.⁸⁶

A similar iconoclasm has marked the scholarship of biologists who have turned their attention to the Black Death. The discovery of the plague bacillus in 1894, and of its transmission from infected rats to humans via fleas, soon led scientists and historians to diagnose medieval plague, too, as due to the plague bacillus

83. See M. M. Postan, "Some Economic Evidence of Declining Population in the Late Middle Ages," *Econ. Hist. Rev.*, 2nd ser., 2 (1950), 221-246. See also Wilhelm Abel, *Die Wüstungen des ausgehenden Mittelalters* (Stuttgart: G. Fischer, 1955).

84. Richard W. Emery, "The Black Death of 1348 in Perpignan," *Speculum*, 42 (1967), 611-623; Élisabeth Carpentier, *Une ville devant la peste: Orvieto et la peste noire de 1348* (Paris: S.E.V.P.E.N., 1962); William M. Bowsky, "The Impact of the Black Death upon Siennese Government and Society," *Speculum*, 39 (1964), 1-34.

85. Millard Meiss, *Painting in Florence and Siena after the Black Death* (New York: Harper and Row, 1951), p. 165.

86. Joseph Polzer, "Aspects of the Fourteenth-Century Iconography of

Yersinia pestis.⁸⁷ Zoologist David Davis suggested that the lack of reports of black rats in medieval chronicles — rats that are a necessary part of plague transmission — should call into question the assumption that medieval plague must have been the same as modern bubonic plague.⁸⁸ The bacteriologist J. F. D. Shrewsbury in 1970 dispensed with the rat problem addressed by Davis, by suggesting that the peculiar structure of thatched roofs allowed the rats to die concealed from the gaze of medieval chroniclers.⁸⁹ Zoologist Graham Twigg unsettled the consensus even further by pointing out that the progress and symptoms of medieval plague were incompatible with the modern disease model, but matched the behavior of anthrax.⁹⁰

The most concerted assault on gothic epidemiology has come from historians of *mentalités*. These historians are interested in recovering and exploring historical modes of thought, and in the case of the impact of the Black Death, they have tended to refrain from gothic interpretations — preferring instead to emphasize the enduring nature of medieval modes of thought and institutions, and to minimize the more horrific aspects of plague as being transitory rather than pivotal. Notable among these historians of *mentalités* is Robert Lerner, who questioned whether the Black Death caused medieval people to think that the end of the world and the Last Judgment were at hand. Lerner noted a number of prophecies that did indeed predict that such a time was coming — but he also pointed out that these prophecies were old ones that preceded the fourteenth-century plague and that were, in his words, “resurrected with new dates” and made to fit the situation

87. The last major historical work promoting the theory that plague was transmitted by miasma or “bad air” was Charles Creighton, *A History of Epidemics in Britain*, 2 vols. (1891, 1894; reprint ed., London: Frank Cass, 1965). F. A. Gasquet revised his *Black Death of 1348 and 1349*, first written in 1893, in the light of new scientific discoveries. That the medieval plague was the same disease as the outbreak in Hong Kong from which the bacillus was first isolated is assumed in an article entitled “Plague in Athens, England, and Hong-Kong,” *Lancet* (1895), 1, 1387. A complete account of the rat/flea/human transmission written by Charles J. Martin was printed with extensive bibliography in the *Lancet* (1913), 1, 81–89.

88. David Davis, “The Scarcity of Rats and the Black Death: An Ecological History,” *J. Interdisc. Hist.*, 16 (1986), 455–470. Davis gives a summary of the scientific background to debates about the bacteriological nature of medieval plague.

89. J. F. D. Shrewsbury, *A History of Bubonic Plague in the British Isles* (Cambridge: Cambridge University Press, 1970), p. 4.

90. Graham Twigg, *The Black Death: A Biological Reappraisal* (New York:

at hand.⁹¹ Lerner did not deny that the Black Death made people think about what had happened in relationship to the future, but nevertheless he found that the prophetic mentality was useful to medieval people in that it “helped many of fathom the unfathomable.”⁹² Predictions of the end of the world “were manifestations of a basically unchanging medieval prophetic structure”; “Mentalities,” Lerner concluded, “like sailing routes, support life.”⁹³

One of the most effective assaults on the gothic mentality with regard to the Black Death has come from French historian Élisabeth Carpentier. With what might be called an Enlightenment stoicism, Carpentier called the plague “one catastrophe amid others,”⁹⁴ one that lasted only about six months in any given place. “What is six months to the story of a century?” she asked.⁹⁵ In her study of the plague at Orvieto she used municipal records, and not apocalyptic medieval chronicles, in order to conclude: “we have not found any revolutionary change or permanent destruction in the different sectors that we have studied so far.” With regard to economic stability, she said, “the plague aggravated a preexisting situation; it did not cause a profound change.”⁹⁶ Religious life, rather than assuming bizarre aspects as Hecker had suggested, continued on as before. “The epidemic,” Carpentier concluded, “attacked individuals and not their institutions.”⁹⁷

Richard Emery, in his study of the Black Death at Perpignan, reached similar conclusions, also using municipal records: “The evidence for panic, terror, and general demoralization is entirely lacking; the evidence for a considerable degree of resiliency, and for people simply carrying on, is . . . reasonably strong. The social organization would seem to have remained cohesive, intact, and functioning.”⁹⁸

The twin pillars of Hecker’s social impact argument have begun to tremble under the assault of French scholars, especially. As a reminder, Hecker asserted that the Black Death caused massive persecution of the Jews and processions of Flagellants, who roamed Europe scourging themselves and predicting the end of

91. Lerner, “Eschatological Mentalities” (above, n. 33), p. 91.

92. *Ibid.*, p. 92.

93. *Ibid.*, p. 94.

94. Carpentier, “Autour de la peste noire” (above, n. 5), p. 1084.

95. *Ibid.*, p. 1074.

96. Élisabeth Carpentier, “Orvieto: Institutional Stability and Moral Change,” in Bowsky, *Turing Point?* (above, n. 20), pp. 108–113 (Bowsky’s translation from Carpentier, *Orvieto et la peste* [above, n. 84]); quotation on p. 108.

97. *Ibid.*, p. 113.

the world. Séraphine Guerschberg noted that western Europe had a long history of persecution of the Jews: they were expelled altogether from England in the thirteenth century. Europe also had a long history of associating Jews with the secret administering of poison.⁹⁹ In short, there was nothing particularly new about singling out one social group for blame when a dangerous disease struck. In this, we are no wiser than were medieval people.¹⁰⁰ The egregious nature of the Flagellants has been demolished in a similar way: Robert Lerner has called attention to the existence of such processions before the Black Death; he places them not in the camp of the bizarre, but rather in a respectable tradition of medieval prophecy.¹⁰¹

CONCLUSION

The tension between the advocates of the Black Death as the herald of a new age, and those who see plague as proof of the resiliency of medieval mentalities, is rapidly dissolving. The conflict/resolution model, with its overtones of teleology, progress, and *Naturphilosophie*, is proving less useful to historians of epidemiology than one emphasizing continuity, gradual change, and the stoicism of the ordinary person. Historians of the plague are gravitating more and more to an intensive study of the local impact of the Black Death. Such local studies reveal diversity — in economic and demographic impact, in the availability of historical sources, and in the interpretation these sources allow. The Black Death still retains its "silver lining," but even that is changing: from proof of the awesome power of nature to level mankind and transform history, to proof of humanity's ability to endure even the worst crisis, to rebuild, and to start again.

Acknowledgments

A version of this paper was first presented at a symposium on

99. Guerschberg, "Sowers" (above, n. 37); esp. p. 221.

100. See especially Dorothy Nelkin and Sander L. Gilman, "Placing Blame for Devastating Disease," *Soc. Res.*, 55 (1988), 361–378. In placing blame, "people try to create their own order and to reduce their own sense of vulnerability. In effect, placing blame defines the normal, establishes the boundaries of healthy behavior and appropriate social relationships, and distinguishes the observer from the cause of fear." Blame, the authors suggest, "is in effect a social construct" (p. 362).

101. Lerner, "Eschatological Mentalities" (above, n. 33); esp. pp. 534–537.

the social impact of epidemic disease, in memory of Bill Coleman, held at the University of Wisconsin—Madison and subsequently at the annual meeting of the Medieval Society of America in Madison, also in 1989. Another version was delivered to the Department of History at Leiden University in 1990. I am grateful for comments from the audience: Harm Beukers and the staff of Metamedica at Leiden, where the final version of this paper was prepared. Several versions were offered at various stages of my research by James P. Blockmans, Harold Cook, Charles Rosenberg, Nanda van Heteren, and Godelieve van Heteren. Any errors that remain are my own. Research for this paper was supported through the grant from the National Endowment for the Humanities. The Library of the Wellcome Institute for the History of Medicine in London was an invaluable resource for this study. Harold Cook, as always, provided wisdom and much-needed support. Louise Coleman provided a number of books from her late husband's library, which I used for my education in themselves and for which I thank her. This paper is dedicated to Bill Coleman's memory. His enthusiasm for the history of biology, his humanity, and his humor will be contagious.