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INTRODUCTION

Carole Rawcliffe and Claire Weeda

As urban communities in Western Europe mushroomed from the twelfth century onward, authorities promptly responded with a plethora of regulations to facilitate, at least in theory, the orderly cohabitation of dwellers within the city walls. Many of these rules concerned public health matters, such as the disposal of waste, the protection of water supplies, and the sale of wholesome foodstuffs. In some cases, sanitary regulations drew from Ancient Greek and especially Galenic medical theory, which stressed the importance of a hygienic environment in safeguarding the urban body from disease. The effective execution of such measures relied in part on the active engagement and compliance of the population. Shared assumptions regarding physical and spiritual well-being, social cohesion, neighbourliness, and economic prosperity, as well as the pursuit of ideals of urbanity, fed into communal efforts to police the environment, the behaviour of others, and the conduct of the self. Nonetheless, conflicting interests and contradictory impulses abounded, and official bodies might wield the disciplinary stick when their efforts met with apathy, confusion, resistance, or evasion. This volume explores attempts to enforce rules and recommendations for the improvement of public health and sanitation in premodern Western Europe, while also seeking to establish how urban populations may have reacted to them. To this end, it draws upon a wide range of source material, including bylaws, court rulings, and official injunctions, together with the evidence of judicial inquiries, administrative records, urban chronicles, panegyrics, and medical texts. And in so doing it comprehensively challenges a lingering tendency on the part of historians writing for the academic as well as the popular market to employ the word ‘medieval’ as a synonym for ignorance, superstition, and indifference to squalor.

Policing the environment and the politics of health

As a form of ‘social disciplining’, policing involves the regulation of behaviour in social and physical spaces.¹ Primarily, it is a political act, for it concerns the intervention by authorities in the lives and conduct of individuals and groups with the stated objective of promoting order and security. The word ‘police’ derives from the Latin *politia*, which in turn comes from the

¹ The term ‘social disciplining’ was first coined by Oestreich, *Geist und Gestalt*, pp. 179-197, in the 1960s and implied intervention by the early modern state to impose a well-ordered government and capitalist economy. See also Ogilvie, ‘Social Disciplining in Early Modern Bohemia’, p. 43.

Greek *politeia*, meaning variously the state, public administration, politics, or public life. Its inseparable connection to these concepts, as well as to questions of civic morality, is reflected in the three meanings attributed to ‘*politia*’ in the Latin dictionary compiled in the 1670s by Charles Du Cange: 1. ‘the *res publica*, the cohabitation of men in the same city’ (*respublica, hominum in eadem urbe simul habitatio*); 2. ‘government, administration’ (*regimen, administratio*); and 3. ‘urbanity, elegance of manners’ (*urbanitas morum elegantia*), or *politesse*.² In the late Middle Ages ‘*politia*’ consequently came to represent the ideal of good order – in German *gute Policey*, in French *bonne police* – only subsequently assuming the more institutional meaning which it has today.³

Until recently, the ways in which late medieval governments and people policed the environment, each other, and themselves have been largely neglected by urban historians. With a few occasional exceptions, the topic lay more or less dormant, despite the wealth of relevant documentation on the shelves of city archives, and notwithstanding the pioneering work of Lynn Thorndike in the 1920s and the three substantial articles on sanitary measures in late medieval London published by Ernest Sabine a few years later.⁴ Beginning tentatively in the 1970s and gaining momentum over the past decade, a series of mostly regional case studies has now appeared, notably regarding public health in English and Italian cities.⁵ This renewed interest is partly a result of the development of socio-cultural approaches to medical history, which place an increasing emphasis upon preventative as well as curative medicine and upon the religious, cultural, and gendered aspects of health and well-being.⁶

To compound the problem, previous generations of historians have frequently identified the emergence of scientific medicine, public health concerns, and the police services as an early modern phenomenon tied to the rise of the modern state and the growth of capitalism. It was, apparently, only then that royal, seigniorial, and urban bodies began to

² Du Cange, *Glossarium mediæ et infimæ latinitatis*, ed. Favre: ‘*Politia*’. Kotkas, *Royal Police Ordinances*, pp. 1-2; Nitschke, ‘Von der Politeia zur Polizei’, p. 5.

³ For the origins of the term ‘*politia*’, see Nitschke, ‘Von der Politeia zur Polizei’, pp. 2-4, 12.

⁴ Sabine, ‘Butchering in Mediaeval London’; Sabine, ‘City Cleaning’; Sabine, ‘Latrines and Cesspools’; Thorndike, ‘Sanitation, Baths and Street-Cleaning’.

⁵ For instance, Bocchi, ‘Regulation of the Urban Environment’; Balestracci, ‘Regulation of Public Health’; Geltner, ‘Healthscaping a Medieval City’; Rawcliffe, *Urban Bodies*. A regularly updated ‘Bibliography of the History of Public Health in Pre-Industrial Societies’ can be accessed at

<https://premodernhealthscaping.hcommons.org/documents/>, last consulted 15 January 2019.

⁶ Forerunners of this new approach are, for instance, Monica Green and John Henderson.

formulate and pursue a coherent set of regulations pertaining to matters of health, social welfare and security, religious conformity, sexual offences, the environment, and food safety.⁷ Yet, as this volume makes clear, both the term ‘politia’ and a preoccupation with the very same roster of sanitary issues significantly predate the ‘early modern’ era, thereby challenging a dominant interpretation of what is meant by the term ‘modern’. Indeed, the word ‘politia’ was already being used by thirteenth-century intellectuals in discussions of Aristotelian politics as an alternative to *civilitas*; and the bulk of what in early modernity have been termed ‘policing regulations’ may be identified in urban and royal ordinances from the twelfth century onward. Concern for the maintenance of communal welfare, peace, and justice, for the enforcement of high moral standards, and for the regulation of human interactions with the natural environment can, in fact, boast a remarkably long pedigree.⁸ For instance, political debates held during meetings of the thirteenth- and fourteenth-century city council of Siena, sometimes based upon citizens’ petitions and addressing the necessity of imposing sanitary regulations, are rubricated ‘*pro sanitate et securitate*’, indicating an early acknowledgement that the health and safety of the urban body and its decision-making processes were shared, communal concerns.⁹ And in other late medieval sources, potentially coercive policing powers are often justified in collective terms as being designed for the benefit of the entire community (*pro bono commune*).¹⁰ One of the oldest surviving regimes of police, produced in the Low Countries in the fifteenth century by Denis the Carthusian, claims that access to an abundance of life-sustaining goods, including medication, helped to promote the foundation of cities, where artisans, *magistri*, and officials safeguarded the spiritual and physical health of citizens and the exchange of goods.¹¹

⁷ For public health as an early modern phenomenon see, for example, Cipolla, *Public Health and the Medical Profession*. For early modern French police ordinances: Napoli, *Naissance de la police moderne*; Iseli, “*Bonne Police*”: *Frühneuzeitliches Verständnis*. For early modern Germany: Simon, “*Gute Policey*”: *Ordnungsleitbilder und Zielvorstellungen*. General studies: *Policey in Europa der Frühen Neuzeit*, ed. Härter and others; *Gute Policey als Politik*, ed. Blickle and others; Härter, “Security and “*Gute Policey*””, p. 42; Kotkas, *Royal Police Ordinances*, p. 3.

⁸ Rigaudière, *Penser et construire l’État*, pp. 285-341, discusses statutes and ‘police ordinances’ from the thirteenth century onward concerning sanitation, among other matters.

⁹ Siena, Archivio di Stato, Consiglio Generale 92, fol. 44r, 7 July 1319; Bowsky, *A Medieval Italian Commune*, p. 89; Kucher, *The Water Supply System of Siena*.

¹⁰ See the various contributions to *De Bono Communi*, ed. Lecuppre-Desjardin and Van Bruaene.

¹¹ Denis the Carthusian, *De regimine politiae*, I, p. 11.

This begs the question to what extent policing can still be viewed as the product of an early modern ‘rationalization’ of behaviour associated with state formation processes, whereby societies were transformed into ‘orderly, market-oriented modern cultures’, as, for example, Gerhard Oestreich once maintained.¹² Such a top-down approach has sparked criticism for its emphasis on the all-encompassing impact of market-driven incentives by the state or city government at the expense of intervention from below, by concerned householders, artisans, clergy, and others.¹³ It has also invited some scholars to ask how far all these regulations were observed, as most of the sources hitherto discussed have been normative or prescriptive rather than documents that record the daily realities of practice.¹⁴ Writing in the specific context of Ancient Rome, Mark Bradley provides a timely reminder that ‘dirt, cleanliness, pollution and purity have been flexible, negotiable and hotly contested topics for well over two thousand years of western history’.¹⁵ The following chapters furnish many examples of official compromise in the face of commercial and industrial interests, population growth, and the demands of public finance.

Drawing on the most recent research, this collection of essays explores the enforcement of sanitary regulations, and the circumstances prompting practical interventions, such as the provision of infrastructure for the promotion of urban health, at a communal level in the period before the emergence of centralized police institutions and state power. In other words, to use a Foucauldian term, it sets out to discover if a form of ‘bio-power’ emerged in premodern times, by which ruling authorities incorporated knowledge about health and the biological life of their subjects into politics, and applied it as a disciplinary and organizational tool.¹⁶ As the nine contributions to this volume attest, the legal and administrative documents,

¹² Oestreich, *Geist und Gestalt*, pp. 179-197.

¹³ See, for example, McIntosh, *Controlling Misbehavior*, Chapters one, three, and five.

¹⁴ See Ogilvie, ‘Social Disciplining in Early Modern Bohemia’, pp. 43-44, for an account of these approaches and attendant criticism. For instance, Weber, ‘Disziplinierung und Widerstand’, argues that Early Modern Silesian serfs mostly ignored or resisted attempts at regulation. Kotkas, *Royal Police Ordinances*, p. 6.

¹⁵ Bradley, ‘Approaches to Pollution and Propriety’, p. 39. The divide between precept and practice has preoccupied historians of Antiquity in light of the ongoing debate about the relative cleanliness of Ancient Rome. See, for instance, Morley, ‘The Salubrity of the Roman City’. His conclusion, that however filthy Rome may have been it was ‘still a long way removed from the squalor of a typical medieval or early modern city’ (p. 203), confirms how entrenched this unfortunate stereotype has become.

¹⁶ Rabinow and Rose, ‘Biopolitics Today’, p. 8; and pp. 98, 124 below. McCleery, ‘Medical Licensing’, pp. 210-214, convincingly argues for early evidence of ‘bio-political awareness’ in Portugal.

treatises on the regulation of the natural environment, and urban panegyrics produced across Western Europe reveal a remarkable degree of contingency when it came to negotiations over cleanliness and wellbeing, which involved not only royal and civic authorities but also guilds, the Church and private individuals. Ordinances, often issued in response to practical concerns articulated in petitions and neighbourhood disputes, structured sanitary practices, oversaw food supply and safety, and laid down rules for the appropriate use and upkeep of infrastructure. Particular emphasis was placed upon such pressing issues as the quality of the air and the water supply and the elimination of nuisances caused by the metabolic residuum of the civic community and its various industries.¹⁷ Bylaws sought to control the activities of butchers, dyers, laundresses, and tanners; to curtail the freedom of wandering animals such as dogs and pigs; and to reduce levels of noise pollution at night. Evidence that these ordinances were no empty threat, but were in fact enforced – and resisted – is apparent from the activities of various specially appointed officers and the records of court proceedings for the implementation of public health measures, which were sometimes initiated by concerned neighbours. Long before the centralized organization of police services, municipal officials, such as the Bolognese *fango*, the ward constables of London and Norwich, and Ghent's *coninc der ribauden*, were already walking their beat in the thirteenth century. They supervised health and safety, while shaping and conserving, with various degrees of success, a material, spatial, and social reality in accordance with government policy.¹⁸

From at least the twelfth century, the languages of power and health drew from the same reservoir of natural metaphors, following the influx of knowledge about Classical and Muslim medicine (explained further below). Both took an organic view of the relationship between people, environment, and society, which depended upon the smooth working of specific metabolic processes. The discourse on these topics merged on two levels. Firstly, the metaphor of the body politic gained cogency through the appearance of treatises reflecting a physiological or anatomical concept of society and politics.¹⁹ Secondly, regimens and mirrors – such as the twelfth-century *Regimen sanitatis Salernitanum*, archbishop Giles of Rome's thirteenth-century *De regimine principum*, legal scholar Bartolus de Saxoferrato's fourteenth-

¹⁷ Hoffmann, 'Footprint Metaphor and Metabolic Realities'.

¹⁸ Geltner, 'Finding Matter Out of Place'; Coomans, 'In Pursuit of a Healthy City'. See Napoli, *Naissance de la police moderne*, pp. 287-301, and Kotkas, *Royal Police Ordinances*, p. 8, for the role of police in this regard, as well as for preserving order.

¹⁹ Kaye, *History of Balance*; Nederman, *Medieval Political Theory*.

century *De regimine civitatis*, and Denis the Carthusian's fifteenth-century *De regimine politiae* – presented advice on how to regulate the physical and political body, encouraging householders, magistrates, and monarchs actively to conserve their own health and that of society.²⁰ These organic metaphors spilled over into discussions about the 'health' of royal and urban government, in which the blood of the communal body was likened to political provision and its sinews to laws, while conflict and war might be envisaged as a type of disease, or corruption of the collective humours.²¹ Guilds often served as intermediaries between civic and domestic regimes, as Bert De Munck has recently argued, since their members represented the body politic collectively through their commercial and political activities and individually as heads of households. Their status as citizens rested upon concepts of virtue and trustworthiness, which in turn guaranteed the intrinsic quality of the goods and services that shaped civic identity.²²

Certainly, these metaphorical blueprints for rulership evoked an ideal world far removed from the quotidian challenge of policing a busy, noisome environment, haunted by the spectre of epidemic disease and natural disasters, such as fires and floods. Nonetheless, the challenges that evolving communities faced inspired new forms of political debate and organization, which in turn gave rise to a raft of legislative and administrative developments. Overall, there were several overlapping configurations or categories in which the policing of people and the environment occurred. Firstly, human behaviour was policed in order to safeguard the material goods or bodies of others from real or perceived harm (as in cases of theft or violence). Secondly, people's conduct with regard to the natural environment was policed to protect it from pollution and similar hazards. Additionally, the natural environment could itself be the focus of policing, as the creation of clean, orderly living conditions might encourage residents to take better care of their homes and possessions and also pay greater attention to the welfare of others. In this way, a safe and sanitary environment invited self-policing and might potentially reduce crime and other social problems. The natural environment could, moreover, be the focus of policing for reasons of health and safety, as for instance, through the draining of marshes or building of dykes, or the imposition of controls on animals. Fifthly, people might police their own bodies and behaviour by following

²⁰ See pp. 57-59 below.

²¹ An image used in the fifteenth century by Sir John Fortescue in *De laudibus legum Anglie*, ed. Chrimes, XIII, p. 30.

²² De Munck, *Guilds, Labour and the Urban Body Politic*, pp. 13-16.

practices of health and hygiene, both material and moral. And, finally, they could police the bodies of others by introducing quarantine regulations, sequestering certain occupations in particular areas, creating sanitary corridors, and demanding the removal of sick residents, such as lepers, from cities. The educational text *Livre des metiers*, written in the 1370s to help tradesmen learn French and Dutch, thus expounds the commonplace (not invariably observed in practice) that suspects, upon being ‘pronounced leprous, dwell amidst the sick and never will cohabit with healthy persons, because of the danger they pose’.²³ These interventions not only focused on the reduction of harm through the threat of punitive or preventive measures, but also sought to regulate the flow of waste and goods, as well as controlling the quality of merchandise, food, and drink.

As we can see from the following chapters, urban governments – in Italy, France, the Low Countries, England, and the Imperial German territories – often did their utmost to ensure that a remarkably consistent range of sanitary measures was adopted, if not always uniformly or effectively enforced. Property owners were responsible for cleaning and sometimes paving the streets next to their homes and workplaces. Gutters and cesspits had to be regularly cleared in order to ward off miasmatic stench and facilitate the uninterrupted flow of waste matter - a vital precaution in cities prone to flooding, such as Dordrecht and Montpellier, the focus respectively of chapters by Naaktgeboren and Dubé and Dumas. Particular attention was paid to the layout and cleanliness of market spaces and the quality of consumables. Indeed, as Rawcliffe, Coomans, and Kinzelbach point out, designated officials might be charged with the task of inspecting flesh and fish on a daily basis to prevent the sale of contaminated foodstuffs. Policing also extended to the formal examination of individuals suspected of having contracted leprosy, although Demaitre’s essay reveals that the outcome could be far less harsh and coercive than might be supposed, not least because of the charitable imperatives that existed alongside an increasingly medicalized approach to segregation.

Medicine for urban bodies

²³ *Het Brugsche Livre des mestiers*, ed. Gessler, pp. 45-46: ‘Est jugiés comme meseaus; il demeure a le maladerie, et n’oise mais habiter entre les saines gens, pour les perils qui en porroient venir’ and ‘es ghevonnest beziect: hi woend ten zieken lieden, ende ne dar nemmeer habiteren onder die ghesonde lieden, omme de vreesen diere af mochte comen’.

The many decrees and regulatory bodies described in these chapters did not fall unbidden from the sky upon an ignorant population. As noted above, the arrival in Western Europe of a rapidly growing body of medical texts translated from Greek, Hebrew, and Arabic gave an impetus to the production of a specific type of advice literature, known as the *regimen sanitatis*, about the best way to remain healthy.²⁴ Initially composed by court physicians for their royal or aristocratic patrons, these guides soon found a more popular market, circulating in a modified and accessible format among members of the urban community. Their audience grew appreciably after the Black Death, fuelled by a demand for practical guidance about avoiding now regular outbreaks of plague. The *regimen*, a genre that helped to define and shape urban health norms, owed much of its appeal to the fact that it could easily be adapted to fit the requirements of an entire community as well as those of the individual citizen. It focussed upon the management of six factors external to the human body (the ‘non-naturals’), each of which had a crucial effect upon personal wellbeing.²⁵ Health was to a significant extent determined by diet, ‘the first instrument of medicine’, since the effectiveness of every physical and mental process depended from the start upon what one ate. Having been cooked in the stomach, partially digested food was conveyed to the liver, where it was converted into humoral matter: blood (hot and wet), phlegm (cold and wet), black bile (cold and dry), and yellow bile (hot and dry). Unlike their first parents, Adam and Eve, whose humours had been perfectly balanced before their expulsion from paradise, ordinary mortals had to pay constant heed to the proportions of heat, cold, moisture, and dryness within their bodies.²⁶ In a healthy person, any surplus would be excreted, leaving a slight imbalance in favour of the particular humour that determined his or her temperament. A marked excess or deficiency of one humour or more could, however, prove devastating, leading to sickness and eventually death, the ultimate legacy of Original Sin.

From the liver, the blood and other humoral matter, which together constituted the natural spirit, were transported in the veins to the organs and extremities, providing the nourishment essential for survival and growth. (Being unaware of the concept of

²⁴ Gil Sotres, ‘The Regimens of Health’, pp. 291-318.

²⁵ They were diet, the environment, sleep and waking, retention and evacuation (through such procedures as blood-letting and the use of laxatives), exercise and rest, and accidents of the soul (involving the reduction of levels of anxiety and other intense emotions): Rather, ‘The Six Things Non-Natural’, pp. 337-347; Gil Sotres, ‘The Regimens of Health’, pp. 291-318; Carrera, ‘Anger and the Mind-Body Connection’, pp. 116-128.

²⁶ Rawcliffe, ‘The Concept of Health’, pp. 318-322.

circulation, Galen of Pergamum (d. 216) and the physicians who followed him compared the veins and arteries to irrigation canals.) Some of this blood passed directly to the heart, the source of warmth and life. Flowing through the septum, from right to left, it then mingled with air from the lungs and entered the arterial system as a warm frothy substance, known appropriately as vital spirit, which carried heat to the rest of the body, thereby keeping it alive. The vital spirit that travelled to the brain was, according to Galen, filtered through a network at the top of the spinal cord called the *rete mirabile*. Once mixed with air from the nostrils this purified blood assumed the power not only to activate the nervous system but also to mediate between sense perception and those parts of the brain responsible for imagination, reason, and memory.²⁷ Now converted into animal spirit, it quite literally *animated* both body and mind, influencing attitudes and behaviour in keeping with the individual's personal temperament. As the Arab physician Haly Abbas (al-Majusi, d. 994) explained, this entire process depended upon humoral balance, 'which cannot be fully maintained without the rule (*regimen*) of the art of medicine'.²⁸ Whereas the natural spirit could be modified through diet and manual procedures such as phlebotomy, the vital and animal spirits were more responsive to the quality of the air and environment, as well as the avoidance of anger, anxiety, and fear.²⁹

Concerns about environmental issues increased exponentially during epidemics because of the entrenched belief that pestilence arose from miasmatic or contaminated air, which carried it from person to person. Long before the Black Death, an influential passage in Avicenna's *Canon*, the bedrock of the late medieval medical syllabus, described the toxic effect of these exhalations upon the human body, providing a rationale for campaigns to clean the streets, markets, and conduits of European towns and cities:

Vapours and fumes rise [into the air] and spread in it, and putrefy it with their debilitating warmth. And when air of this kind reaches the heart, it corrupts the complexion of the [vital] spirit that dwells within it; and, surrounding the heart, it then putrefies it with humidity. And there arises an unnatural heat; and it spreads

²⁷ Harvey, *The Inward Wits*, pp. 4-30.

²⁸ Haly Abbas, *Liber medicinae*, Liber I, theorice, cap. 3, sig. aiiij.

²⁹ Rawcliffe, 'The Concept of Health', pp. 322-327. See also, Pender, 'Subventing Disease', pp. 193-218.

throughout the body, as a result of which pestilential fever will occur, and will spread to a multitude of men who likewise have vulnerable dispositions.³⁰

Although few urban magistrates would have possessed this work, or been able to cope with the demanding Latin text, they could hardly claim ignorance of its underlying message, especially if, like the consuls of Montpellier, they could draw upon the collective expertise of a distinguished faculty of medicine.³¹ Vernacular *regimina* and plague tracts, such as that composed in 1348 by the Catalan physician, Jacme d'Agramont, specifically for 'the common and public utility' of the residents of Lerida, stressed the dangers posed by polluted water and other sources of toxic air.³² If, as was the case in England, magistrates did not customarily retain their own medical advisors, a stream of orders, writs, and other directives from crown or parliament would provide the necessary information.³³ The widespread deployment of heralds, town criers, and other officers charged with the task of proclaiming regulations through the streets of European cities in language that everyone could understand served further to warn against risky or antisocial behaviour.³⁴

We have already seen that sanitary policing focussed heavily upon the regulation of food markets, especially with regard to the quality of the goods on offer. At a basic level, attempts by urban magistrates to prevent the sale of bread, meat, and fish that seemed unfit for human consumption reflect a pragmatic awareness that they would make people sick and, quite possibly, foment popular unrest. But they were also prompted by contemporary medical beliefs about the transmission of epidemic disease, which was frequently associated with poor diet or rotten food contaminating the air. Responding in October 1348 to a royal commission of inquiry into the causes of the plague then sweeping through Europe, members of the medical faculty of the University of Paris noted that 'major pestilential illnesses' were often

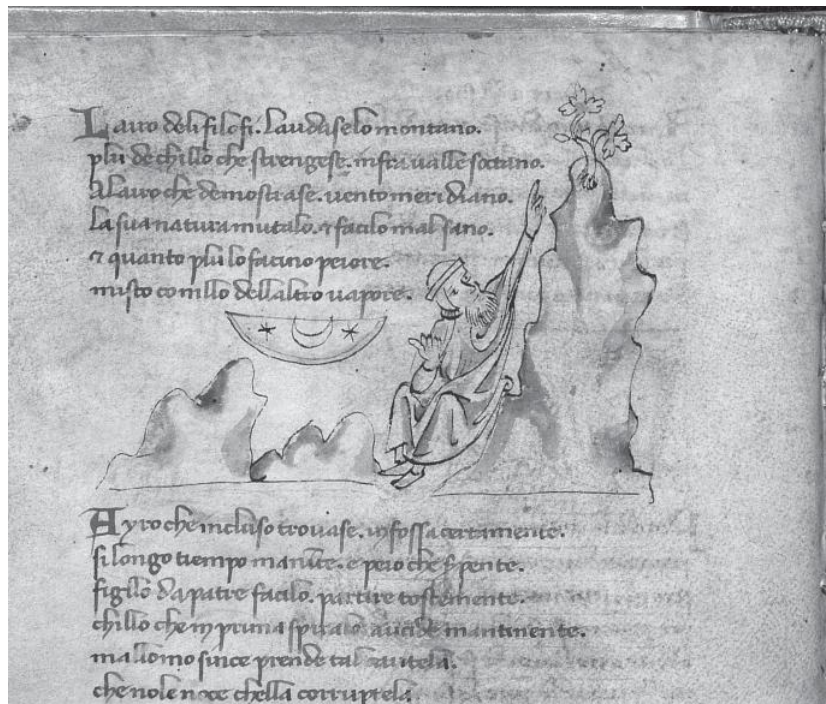
³⁰ Avicenna, *Liber canonis medicine*, book IV, fol. 329r. This passage appears almost verbatim in one of the earliest printed vernacular English plague tracts, *A Litill Boke Necessarye and Behouefull agenst the Pestilence*, n.p.

³¹ See pp. 181-182 below.

³² Jacme d'Agramont, *Regiment de preservació de pestilència*, p. 57; Arrizabalaga, 'Facing the Black Death', pp. 244-250; Demaitre, *Medieval Medicine*, pp. 60-66.

³³ See pp. 71, 74 below.

³⁴ See pp. 80, 100, 153, 188 below.



1. The value of mountain air illustrated in a fourteenth-century vernacular *regimen sanitatis*

caused by contaminated food, especially during famines. Indeed, although in this instance corrupt air was identified as the principal culprit, anyone who failed to eat properly would become more vulnerable to infection, just as dry kindling was more likely to catch fire during a conflagration.³⁵ This was partly because the digestion of heavy or unwholesome food would generate a dangerous level of heat, opening the pores to venomous air. A body already suffused with corrupt matter would, moreover, be unable to resist any invading toxins, being likely to surrender without a fight.³⁶

Nor was this all. Contaminated foodstuffs seemed particularly dangerous because they so often smelt badly, releasing miasmatic vapours and thus posing a double threat to communal health. General anxiety on this score can be traced from an early date, but it became especially acute during epidemics. One of the very first measures instituted by the rulers of Venice when plague struck in 1348 was to order the incineration of infected pork ‘which creates a great stench and attendant putrefaction that corrupts the air’.³⁷ A century and a half later the city’s Health Commissioners reiterated the same concerns, with a warning that

³⁵ *The Black Death*, ed. Horrox, p. 163.

³⁶ Rawcliffe, *Urban Bodies*, pp. 233-238.

³⁷ Cipolla, *Public Health and the Medical Profession*, p. 15.

rotten meat would spread ‘pestilential disease’ and should be immediately destroyed.³⁸

Anxieties of this kind were common, as we can see from Cooman’s examination of market regulations in the late medieval Low Countries and their repeated emphasis upon food hygiene.

That objections to festering dung heaps and overflowing privies so often refer to their unpleasant *appearance* as well as their disgusting smell was more than a simple matter of aesthetics or affronted sensibilities.³⁹ Urban magistrates were certainly keen to present their cities to the best advantage, banishing offensive activities from public spaces, especially when (as in the case of St Mark’s Square in Venice) judgemental visitors might encounter ‘something foul and shameful’ on their first arrival.⁴⁰ Powerful medical reasons also lay behind initiatives, such as those described below by Weeda, Naaktgeboren, and Brenner, to create a good impression. As the rulers of Siena observed during a campaign to improve the inner city in the 1450s, the spectacle of butchers slaughtering livestock in busy thoroughfares was not only incompatible with their drive for ‘beautification and ornamentation’, but also a serious risk to health.⁴¹ Indeed, during the plague of 1368-1369 the ‘abominable’ and ‘loathsome’ *sight* of the carrion deposited in the streets by London butchers caused as much alarm as did the ensuing ‘corruption and grievous stench’, and resulted in the threat of imprisonment and a massive fine for offenders.⁴² Once again, we can detect an awareness of theories developed by Ancient Greek and Muslim physicians, in this instance with regard to the working of the human eye. According to the Islamic authorities who transmitted Aristotelian ideas about optics to the West, the eye was a passive organ which absorbed the impressions, ‘forms’, ‘virtues’, or ‘similitudes’ that radiated outwards in a continuous stream of multiple images from all visible objects.⁴³ The *aspectus*, or appearance, of visually disturbing nuisances such as lepers, piles of excrement, and rotting carrion consequently presented a potential source of infection. The ‘species’ of disease or physical decay could easily enter the body of anyone who stared at them, spreading poison throughout the entire

³⁸ Wheeler, ‘Stench in Sixteenth-Century Venice’, pp. 27-28.

³⁹ As assumed, for example, by Ciecieznski, ‘Stench of Disease’, p. 97.

⁴⁰ Wheeler, ‘Stench in Sixteenth-Century Venice’, p. 29.

⁴¹ Nevola, *Siena*, pp. 97-98.

⁴² *Calendar of Plea and Memoranda Rolls of the City of London, 1364-1381*, ed. Thomas, p. 93.

⁴³ Stearns, *Infectious Ideas*, pp. 93-96.

venous system in the same way as rancid meat or toxic air.⁴⁴ Furthermore, as the beliefs outlined above make plain, unpleasant sights easily perturbed the animal spirits, leading them to flee in terror to the sanctuary of the heart and further destabilize the body's defences. At this point the Church seemed to offer the best medicine, for the most effective antidote to fear was widely regarded as confession, prayer, and repentance.⁴⁵

Spiritual hygiene

Before addressing the dangers of stagnant water and infected air, the Norman physician, Thomas Forestier, began his tract on the sweating sickness of 1485 with a solemn exhortation that the reader should 'leve welle and mende hys evyl lyf'. Like Jacme d'Agramont and countless others, he was at pains to stress that his professional recommendations would prove useless without a preliminary dose of spiritual prophylaxis. Indeed, the 'best and most profytable medicine to al the realme' was 'to go a pylgremage and do almesse, leve sweryng, detraccions, coveting of the flesshe and manslaughter, [to] love God and thy neybourghs, and kepe faithfully the commandementes of the lawe'.⁴⁶ From this perspective, bad behaviour disseminated the foul miasmas of sin, while those who performed charitable deeds and showed consideration for others helped to create a better and purer environment. This was quite literally the case when penitents sought to invest in such valuable items of civic infrastructure as drains, fountains, and refuse carts. Emphasis upon the Seven Comfortable Works (Matthew 25: vv. 32-36) as means to salvation was as old as the Gospel itself, and prompted many affluent (and not so affluent) individuals to underwrite communal health measures long before the Black Death. As Brenner observes, the provision of pure water supplies had long resonated with spiritual overtones, as well as following the dictates of Hippocratic medicine.⁴⁷ By the fifteenth century, however, public works in general had assumed a recognized spiritual dimension. The wealthy merchant and former mayor of London, Richard Whittington (d. 1423), left generous bequests in his will for sanitary improvements, such as the construction of a large public lavatory for both men and women

⁴⁴ Rawcliffe, *Leprosy in Medieval England*, pp. 93-95. Significantly, however, as Demaitre points out, premodern German sources tend to focus upon aesthetics rather than the risk of contagion that appearances posed: pp. 299-301 below.

⁴⁵ Wear, 'Fear, Anxiety and the Plague', pp. 339-363.

⁴⁶ British Library, Additional MS 27, 582, p. 71.

⁴⁷ See pp. 209, 215, 224 below.

over the tidal waters of the Thames. From a contemporary viewpoint, initiatives of this kind performed the multiple function of improving communal health and decorum, securing the donor's salvation and creating a lasting memorial to his (or her) sense of civic pride.⁴⁸

Even so, acts of charity and good neighbourliness were not enough. An overwhelming conviction that epidemic disease was, in the first instance, a mark of divine displeasure, prompted an outpouring of prayers, pilgrimages, masses, and other attempts, both individual and collective, to assuage the wrath of God.⁴⁹ At the same time, behaviour that, to a modern reader, has little, if any, connection with environmental issues, seemed to pose a threat to survival and had thus to be carefully policed. Forestier's emphasis upon swearing, for example, reflects the common belief that harmful, particularly blasphemous, speech invited retribution. Whereas confession cleansed the soul and calmed the animal spirits, oaths (especially involving the body or wounds of Christ) spread pollution. Compared to both a city without walls and an unsealed barrel whose contents lay exposed to dirt and vermin, an idle or uncontrolled tongue seemed even more dangerous than a heap of rotting offal.⁵⁰ For this reason, as many contributors to this volume observe, campaigns against suspicious or immoral activities cannot be divorced from more apparently conventional sanitary measures, since they performed exactly the same function.⁵¹ The beadles who patrolled London's wards during the fourteenth and fifteenth centuries were not only responsible for maintaining order and removing rubbish from the streets but also for policing the moral conduct of residents. Indeed, as the emphasis upon 'clennesse' in private as well as public life intensified after the Black Death, the struggle to eliminate deviancy became something of a crusade against 'stynkyng and horrible synne'.⁵² We should, therefore, hardly be surprised to learn from Kinzelbach that the physician Joachim Strupp (d. 1606) offered his readers in Frankfurt a range of spiritual remedies, along with more pragmatic suggestions for the improvement of

⁴⁸ Rawcliffe, *Urban Bodies*, pp. 224-225.

⁴⁹ *The Black Death*, ed. Horrox, Chapter three.

⁵⁰ Veldhuizen, *Sins of the Tongue*, pp. 31-32, 64-65.

⁵¹ See, for example, pp. 56, 90, 140, 165, 219, 239, 290 below.

⁵² Rexroth, *Deviance and Power*, pp. 6-7, 60-67, 96, 152, 286-290. Steps by the civic authorities in 1440 to disperse the miasmas of heresy by replacing the impromptu shrine that had grown up in Smithfield to a Lollard 'martyr' with a communal dung heap underscore the fact that some stench seemed far more lethal than others: Thomson, *Later Lollards*, p. 151.

their city, under the title of ‘Valuable Reformation for Good Health and Christian Order’. He was following a long-established medieval tradition.⁵³

The symbiotic relationship between physical and spiritual health was inescapable, even at the most mundane level. Sharing his fellow-citizens’ animus towards their rivals in Florence, St Bernardino of Siena (d. 1444) attacked as sacrilegious the latter’s habit of inscribing crosses on public buildings in order to dissuade people from urinating in major thoroughfares.⁵⁴ Almost a century later, the more cynical Thomas Arthur reflected that ‘the multitude of crosses set up against the walls in London that men should not piss there’ had only limited effect because their ubiquity tended to defeat the initial purpose of protecting specific ‘high status’ sites.⁵⁵ These comments serve as yet another valuable reminder that, contrary to widespread assumptions, premodern magistrates were far from indifferent to questions of waste management,⁵⁶ and that a variety of strategies, including recourse to people’s religious sensibilities, might be employed to contain and police unacceptable behaviour. It is, however, important to reiterate that a society steeped in religious belief did not lack ‘scientific’ explanations for disease. Nor, as some historians still maintain, did ‘the absence of a bacterial model of illness’ preclude the adoption of sanitary measures based upon coherent and rational theories about human physiology.⁵⁷

Individuals and communities, theory and practice

Given that ideas about politics, health, and the environment were circulating, so to speak, in the air and in the water, we may reasonably ask how far public health initiatives were informed by medical theory. From an early date specialist knowledge spread by means of texts and images in regimens, mirrors, conduct books, encyclopaedias, and urban regulations (proclaimed, as we have seen, in public by town-criers). Clergy, too, played their part, not only by preaching medically-informed sermons, such as those of Denis the Carthusian, but also through the medium of the confessional, when advice about spiritual health must often

⁵³ See pp. 237-238 below.

⁵⁴ Trexler, *Public Life in Renaissance Florence*, pp. 9-10, 54. Bernardino believed that the plague was divine punishment for the toleration of sodomy, against which he regularly preached.

⁵⁵ Aston, *England’s Iconoclasts*, p. 26.

⁵⁶ As assumed, for example, by Inglis, ‘Sewers and Sensibilities’, pp. 109-110.

⁵⁷ Bayless, *Sin and Filth in Medieval Culture*, p. 31. The belief that a society ignorant of germ theory must *ipso facto* lack any sense of hygiene is tenacious: Rawcliffe, *Urban Bodies*, pp. 19-22.

have strayed into the realm of humoral management.⁵⁸ Individual citizens as well as magistrates might draw directly upon Galenic theory when compiling or citing regulations or engaging in legal conflicts, as for instance, was the case in Pistoia in 1296, King's Lynn in 1426, and Frankfurt in 1621.⁵⁹ There can be little doubt that at least some officials, such as the *medicus* Giovanni di Maestro Pello, who served as city notary in Siena in the 1320s and 1330s, were themselves well acquainted with the theory of the non-naturals.⁶⁰ It is also important to note that surgeons and physicians intermittently feature in civic account rolls from at least the thirteenth century and that the authorities, such as those of Augsburg, might attempt to attract leading practitioners with tempting offers of fees and accommodation.⁶¹ And although the remit of surgeons was in the first place curative, treating the wounded in urban conflicts, they also adopted advisory roles, serving as forensic experts in criminal cases, and offering guidance in plague time.⁶² As Demaitre observes, however, even the best-qualified experts in the diagnosis of leprosy did not go unchallenged, notably by those who actually lived with the disease. Nor should we forget that interventions could also spring from basic common sense, empirical observation, and knowledge of best practices employed in other towns and cities. The sharing of specialist expertise, as illustrated, for example, by Dubé and Dumas in the case of Montpellier's complex hydraulic system, is a topic that merits further investigation.⁶³

The premise that the Black Death was a watershed moment in the formulation of public health policies, sparking the first real efforts to sanitize the environment, has already been challenged by Arrizabalaga, Geltner, and others.⁶⁴ As this volume clearly demonstrates, a significant corpus of legislation predates the late 1340s, although such measures gained in intensity and increased in number once magistrates recognized that plague had become a regular visitor to European towns and cities. Even so, these initiatives were not underpinned by medical arguments alone; besides the ubiquitous religious considerations noted above, they were also influenced by questions of status and respect. A reputation for good health, in both

⁵⁸ See, for example, Rawcliffe, *Leprosy in Medieval England*, pp. 179-184.

⁵⁹ See pp. 77, 101, 254 below.

⁶⁰ Bowsky, *A Medieval Italian Commune*, p. 95.

⁶¹ See generally, the essays in *The Town and State Physician*, ed. Russell; and p. 250 below.

⁶² See, for example, McVaugh, *Medicine before the Plague*, pp. 190-225; and Murphy, 'Plague Ordinances', pp. 146-150.

⁶³ See p. 183 below.

⁶⁴ Arrizabalaga, 'Facing the Black Death'; Geltner, 'Public Health and the Pre-Modern City'.

moral and physical terms, was an important form of social capital, especially when sickness could so often be linked to prostitution, vagrancy, and disorder, as is apparent in the context of leprosy. Partly for this reason, the observance of sanitary regulations contributed to the sense of civic pride that constituted such a prominent feature of late medieval urban life. The desire to advertise collective fame was especially apparent on festive and ceremonial occasions celebrated in streets that (as in Dordrecht) had been thoroughly cleansed of both physical and moral pollution.⁶⁵ If the foul smells arising from offensive deposits of butchers' waste appeared to *disparage* the reputation of one community (Great Yarmouth), it followed naturally that a clean and well-ordered meat market would underscore the *honesty* and *goodness* of another (Haarlem).⁶⁶ As the rulers of Frankfurt warned in 1481, herds of wandering swine did little to enhance its stature as an *honourable* Imperial city, celebrated for *respectability* as well as health.⁶⁷

As noted above, probity and trustworthiness seemed especially desirable among guild members, whose status was closely linked to the concept of urbanity. Weeda begins this collection by explaining how civic ideals, set out in regimens and panegyrics, emphasized the importance of creating an environment where urbanity might be translated into action and performed, particularly through the medium of good works. The latter, in turn, would enhance both the moral calibre and physical and political health of the entire community, in such a way that the *prudentes*, or wise men educated to lead 'civilized', healthy lives, participated in the regulation and government of the body politic by issuing bylaws and instituting policies. To this end, conduct manuals established rules of urbane behaviour, inviting self-policing, which might be further encouraged by peer pressure. Adherence to these rules reflected the virtues of obedience and self-control, while demonstrating the more tangible attributes associated with elevated social status. Finally, physical hygiene served increasingly as a prerequisite for the achievement of inner 'clennesse', as is attested in Rouen by the construction of fountains in front of churches so that worshippers could wash before entering a sacred space.⁶⁸ This combination of bodily and spiritual purity mirrored the aesthetic ideal of the salubrious, beautiful city, whose many sensory delights would energize the vital spirits.

⁶⁵ See, for example, p. 164 below.

⁶⁶ See pp. 86, 128 below.

⁶⁷ See p. 242 below.

⁶⁸ See p. 217 below.

Compliance with these noble aspirations was, however, harder to achieve, as subsequent chapters reveal. In some instances, magistrates themselves were to blame, either through inertia, negligence, or reluctance to intervene in less salubrious districts where poor people lived and unpleasant trades were already practised. Significantly, local residents were more than ready to draw attention to official shortcomings, and to campaign for better living conditions.⁶⁹ Economic considerations and the demands of vital industries could, however, undermine the best-intentioned sanitary measures. In 1315, for example, inhabitants of the contrade of St Pellegrino and St Antonio complained to the city council of Siena that the putrid hides (*pellas putridas*) of leather workers were polluting the area with their stench, making it an unhealthy place to dwell.⁷⁰ In response to orders prohibiting them from curing their leather near the famous Fontebranda fountain or from working in front of their shops, the artisans countered that such measures would benefit only a few people rather than *the common good*, which would suffer if they had to leave the city and leather items became more expensive. Persuaded by the economic logic of this argument, the authorities relented; and it was only in 1337 that the bylaw was finally enacted.⁷¹ A similar clash of interests arose in London later in the century, when the city's butchers became embroiled in a longstanding conflict over the slaughtering of beasts and disposal of waste. Demands by the crown and parliament that such potentially lethal activities should take place in the distant suburbs led to a rise in prices, the attendant threat of popular unrest and (of particular concern in plague time) some flagrant breaches of existing legislation. Eventually, after 30 years of negotiation, a solution was reached, again reflecting the complex issues involved.⁷²

As Coomans observes in chapter four, the voices of men and women who resisted authority are usually silent; and their reasons for doing so are now rarely apparent.⁷³ It seems, however, from the many cases documented throughout this volume that, alongside the inevitable instances of ignorance, obduracy, and outright profiteering, financial pressures loomed large. The prior of La Madelaine in Rouen who broke the law in 1513 by selling the goods of plague victims without first having them washed was as desperate for funds as the

⁶⁹ See pp. 78-82, 254-255 below.

⁷⁰ Siena, Archivio di Stato, Consiglio Generale 86, fols. 58r-61v (14 August 1315), 132r-4v (17 October 1315); 113, fols. 41r-3r (27 February 1333).

⁷¹ 'Statuti del Comune di Siena 26, 1337', ed. Rocchigiani, pp. 397-399; Bowsky, *A Medieval Italian Commune*, pp. 214-215.

⁷² Rawcliffe "Great Stenches, Horrible Sights and Deadly Abominations".

⁷³ See p. 142 below.

poor people who bought them were for cheap clothes and bedding.⁷⁴ Perhaps because they had little alternative, the rulers of premodern cities proved flexible in response to external crises, as, for instance, when food shortages made the keeping of pigs temporarily unavoidable in urban areas, or population pressure created an increased demand for latrines in hitherto prohibited places.⁷⁵ Conversely, however, overt defiance, especially in the face of officialdom, met with harsh treatment, since it undermined the established order and threatened the cohesion of the urban body. The sentence of imprisonment and heavy damages passed in 1364 upon a London woman for depositing filth in the street was less a reflection of the sanitary nuisance that she had caused than the fact that she reputedly called the alderman who upbraided her ‘a false thief and broken down old yokel’.⁷⁶

Penalties for the violation of public health measures were sometimes ingenious and often diverse, ranging from fines to public acts of contrition, such as penitential pilgrimages and even exile. As Thomas Forestier urged in his tract of 1485, punishments of this kind would not only safeguard the good of the community, the *bonum commune*, but also deflect further displays of divine wrath. An element of theatre, designed both to deter other potential offenders and to highlight the concern of officialdom for ordinary working people, also played its part. Serious transgressions, often involving the sale of unwholesome food, or unrepentant recidivism could lead to naming and shaming on the pillory or in the stocks in front of a hostile crowd. In some cases, as recorded by Coomans in the Netherlands, magistrates ordered miscreants to donate stones for the maintenance of city walls, thereby helping to defend the people whose survival they had put at risk. More often than not, however, penalties were pecuniary, the amounts often varying in accordance with the accused’s personal circumstances and relative culpability.

Who was charged with the responsibility of policing? Officials such as London’s ward constables, Lucca’s *viarius*, Ghent’s above-mentioned *coninc der ribauden*, and the ‘*Bauherren*’ of German cities oversaw the enforcement of regulations, supported by an army of menials.⁷⁷ Market officials in particular occupied a prominent position, overseeing the sale of goods and upkeep of the market square or hall. Although they might wear a formal livery

⁷⁴ See pp. 219-220 below.

⁷⁵ See pp. 240-243 below.

⁷⁶ ‘Falsum latronem et rusticum veterem’: *Calendar of Plea and Memoranda Rolls of the City of London, 1364-81*, ed. Thomas, p. 15.

⁷⁷ See pp. 107-109, 244-248 below.

or uniform, most of these men collected their salaries from whatever fines they could levy and were not remunerated directly from civic funds. Routine offenders were either fined on the spot or tried before local courts, such as the English leets or the aldermen's court in Leiden, whereas those who wilfully endangered life or limb might be forced to appear before a higher authority, as was the case in England and France.⁷⁸ Neighbours could benefit directly from this system, taking a small cut of any fines if they informed the authorities about transgressors. Yet besides such an obvious financial incentive, a sense of collective responsibility and ownership (as well, no doubt, as fear of disease) contributed to the enforcement of sanitary measures.

It is difficult - and in some respects anachronistic - to deconstruct the multifaceted relationship between self-policing and public policing, and by extension the private and the public, especially in a premodern context. On the face of things, the two terms demarcate spatially between acts performed in the open and those that take place behind closed doors, in the privacy of the home, although the distinction was, in practice, rarely so straightforward. Ubiquitous in urban bylaws, while also featuring as a flashpoint between neighbours, was the need to conceal domestic cesspits, sewers, and gutters from public view, in order to contain the unpleasant, miasmatic smells and unseemly sights deemed detrimental to both individual and *collective* health. Conversely, reputable artisans made a point of working in places where people could easily see that they were using authentic materials and following accepted procedures.⁷⁹ For similar reasons, the sale of goods, and particularly of perishable foodstuffs, outside the marketplace or after dark was widely prohibited. It seems, therefore, that we can best define the concept of the public and the private in terms of the constantly shifting remit of the 'public sphere', and of the delicate balance between personal freedom, on the one hand, and communal welfare and prosperity on the other. A striking number of bylaws promulgated in Italy, the Low Countries, England, and France concern the responsibility of individual householders for cleaning the gutters and streets adjacent to their dwellings, as well as for undertaking 'public works', such as the regular cleaning of rivers and canals, and in Dordrecht even the harbours.⁸⁰ These ordinances suggest that property owners bore a significant share of the burden of maintaining and safeguarding neighbourhood infrastructures, which were seldom financed entirely through communal taxation.

⁷⁸ See pp. 71-72, 85-87, 137 below.

⁷⁹ De Munck, *Guilds, Labour and the Urban Body Politic*, p. 151.

⁸⁰ See p. 160 below.

Private contributions in the form of charitable donations and the money raised by selling indulgences also funded public amenities such as fresh water supplies, which, as Dubé and Dumas point out, required a substantial (and ongoing) investment.⁸¹ Moreover, in a period when the private merged so seamlessly with the public, urban bylaws were frequently the product of consensus reached between residents, craft guilds, and authorities in the aftermath of conflicts about the distribution of communal funds or the negotiation of demands concerning common resources made in petitions and complaints.⁸² Policing the environment was demonstrably a collective affair in which many different interests and agendas merged. The public sphere further extended to the control and exchange of information about the self and ‘the other’, which could protect, enhance, or (in the case of public shaming) damage the reputations of individual citizens, rendering them either ‘urbane’ or ‘uncivilized’ members of (or even outcasts from) the community. Self-policing may, in this respect, be regarded as an attempt to align private aspirations with public expectations.

Another complication arises from the fact that the private and public spheres of policing were gendered domains, since women frequented domestic spaces, common privies, wells, watercourses, and markets, yet policing at home and in the streets mostly happened in a world of men. These distinctions are clearly reflected in the prosecution of sanitary offences, women being generally far less in evidence as defendants than men, but more likely to face charges relating to the sale of food and drink and the illicit disposal of domestic waste.⁸³ Even confirmations of leprosy varied according to gender, for although female suspects were more likely to be pronounced ‘clean’ (a telling word) by expert judges, far fewer received an inconclusive diagnosis, which would have allowed them to remain under observation in society. As Demaitre explains in chapter nine, such discrepancies were not simply due to epidemiological factors, but also reflect the more circumscribed role played by women in commercial and political life. Prostitutes were, significantly, an exception, being natural

⁸¹ See pp. 189-190 below.

⁸² The relationship between the promulgation of bylaws, the presentation of petitions, and urban conflicts in the late medieval Low Countries is discussed in Haemers, ‘Governing and Gathering’, p. 160; and Dumolyn, ‘Economic Discourses in Fifteenth-Century Bruges’, pp. 375-377. For petitions demanding public health initiatives in late medieval Saint-Omer, see Dumolyn and Papin, ‘Y avait-il des “révoltes fiscales”’.

⁸³ See pp. 77, 109, 113-114, 139-140 below.

targets for suspicion, as were laundresses, whose freedom to congregate in public places suggested, if it did not confirm, that they used their work as a cover for soliciting.⁸⁴

It remains briefly to describe the layout of the rest of this volume. Following on from Weeda's discussion of advice literature and urban panegyrics, Rawcliffe examines the ways in which local courts were used in late medieval England to enforce environmental regulations, while also disseminating vital medical information to the unlettered. Her survey confirms that participants enjoyed a remarkable degree of agency and were often the instigators of change, freely criticizing negligent officials and indifferent property owners. The misleading belief that England lagged centuries behind Italy in matters of public health is in part due to the wealth of archival material available to scholars of 'healthscaping' in the Italian peninsula. As Geltner reveals in chapter three, the records of cities such as Bologna and Lucca provide a fascinating and detailed picture of sanitary policing as it took place day by day on the ground. Moving northwards again, the next two chapters, by Coomans and Naaktgeboren, respectively, document efforts to promote communal health and prosperity in the Low Countries. We have seen that the regulation of food markets and the punishment of offenders had powerful religious and social, as well as medical, implications, since the working people who consumed the goods on offer formed the feet, legs and arms upon which the body politic depended for survival. Through a detailed analysis of fines and other penalties Coomans explores the struggle to convert precept into practice in the streets and markets of Ghent, Leiden, and Ypres. Since, unlike many contemporary cities, fifteenth-century Dordrecht experienced successive phases of expansion, Naaktgeboren focusses upon the environmental problems encountered by its growing population. Neighbourhood disputes often sprang from overcrowding and required sensitive solutions, which arbitration – an important, but generally neglected, aspect of urban policing – could most readily supply.

Magistrates faced a particular challenge with regard to the management of water, being obliged to provide reliable supplies that were fit for both domestic and industrial use, while protecting residents against floods and the noxious air arising from pools of stagnant waste. Chapters by Brenner on Rouen and Dubé and Dumas on Montpellier explore these interconnected problems, revealing how two very different communities sought to exploit and contain the water sources at their disposal. Adopting a broad perspective across the towns and

⁸⁴ See pp. 90, 165, 219, 275-276, 279-281, 283-288 below.

cities of Imperial Germany, Kinzelbach considers the limitations as well as the hitherto untapped potential of the surviving records, stressing how difficult it could be to balance the conflicting demands of health, commerce, and politics. Our collection concludes with Demaitre's analysis of the complex and ambivalent objectives of the *visitatio leprosororum*, an increasingly mandatory procedure for the examination of suspect lepers. Extensive evidence from France, Germany, and the Netherlands from a period of over five hundred years reveals that many factors besides fear of contagion influenced the outcome of these deliberations, often in response to specific local circumstances. The desire to alleviate poverty and maintain order went hand in hand with less clear-cut issues relating to morality and social status, as well as distrust of outsiders, who were not members of the urban body and therefore seemed less deserving of institutional support. Such divergent responses once again throw into relief the many ways in which environmental health might be defined and policed in premodern society.

Despite the wide geographical remit of this volume, the striking discrepancies in size and wealth between the communities considered in it, and the different political and administrative structures within which their rulers operated, a number of common themes emerge from the nine chapters that follow. All of them challenge still entrenched assumptions about the squalor of premodern cities, the alleged indifference of ordinary residents to matters of public health, and the fatalistic acceptance of disease (and especially epidemic disease) as a supernatural phenomenon beyond human control.⁸⁵ On the contrary, as we shall see, the profoundly held belief that sickness came ultimately as a punishment from God was entirely compatible with a keen awareness (derived from the Ancient Greeks) that more immediate and potentially rectifiable environmental problems were also to blame. Measures for the containment of such ubiquitous nuisances as blocked drains, industrial pollution, and the sale of corrupt food were underpinned by contemporary medical theory, which provided the rationale behind a remarkably similar raft of sanitary measures promulgated across Western Europe. Yet although the number and urgency of these regulations, and the desire for more effective enforcement, may have increased after the Black Death, it is clearly apparent that urban communities had accepted (if not always welcomed) the need for sanitary policing long before pestilence first struck. From at least the thirteenth century we can identify a number of officials charged with this task and trace the development of judicial machinery for the punishment of offenders, usually by means of fines, but sometimes in more imaginative ways.

⁸⁵ As maintained, for example, by Benedictow, 'New Perspectives', p. 33.

The symbiotic relationship between Galenic medical theory and Christian theology meant, however, that premodern approaches to public health differed in many respects from our own. At a basic level, attempts to improve the quality of urban life draw heavily upon ideas about humoral balance, miasmatic air, and the physical impact of sights and sounds upon the spirits. Concepts of neighbourliness, morality, and order served to broaden definitions of potentially hazardous behaviour, while the conviction that society as a whole functioned in exactly the same way as the human body prioritized the need for concord and compromise, at least in theory. The proliferation of vernacular advice literature, along with the spread of information through proclamations, sermons, and the very public punishment of recidivists, increased popular understanding of these issues. It also placed a particular premium upon such personal attributes as cleanliness, self-discipline, and good manners, which were increasingly defined in the context of *urbanity*. For the premodern magistrate, the creation of a peaceful and salubrious environment was as much a spiritual as a physical goal, which would bring him and his community one step nearer the shining streets of the New Jerusalem.

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