

The Medieval Sense of Smell, Stench and Sanitation

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Smell is uncontainable. Odour wafts over boundaries reaching those who had no part in their creation. The smeller will find some odours desirable and others detestable. The smeller's reaction to a smell is not a given: the rejection of certain odours is related to cultural notions of both disease and disgust. Stench is in the nose of the smeller.

In this article, I investigate how the rejection of certain odours because of concerns about disease and disgust motivated early urban sanitation efforts in the medieval period. Using English and Scandinavian court records from the fourteenth through sixteenth-centuries, I examine reactions to and attempts at controlling smells from human and animal wastes in urban sanitation regulation in order to uncover how medieval city dwellers responded to offensive smells in their midst. C.M. Woolgar has previously discussed the moral implications of smell in this period – that smell could represent holiness or sinfulness – and thus individuals attempted to control smell through personal hygiene¹. Susan Signe Morrison has likewise analysed the social context of faeces through literature of the period². Here, I will focus not on the moral, religious or social implications of odours, but rather on the practical legal efforts to control contamination from foul smelling waste. We will see that in the medieval era, there was concern for the foul and the fragrant because smell had the ability to make people both literally sick and sick to their stomachs.

The complaints about waste handling in this article deal with biological waste – manure, human faeces, and animal corpses – which give off strong

1 Woolgar C.M., *The senses in late medieval England*, New Haven, Yale University Press, 2006.

2 Morrison Susan Signe, *Excrement in the Middle Ages: sacred filth and Chaucer's feco-poetics*, New York, Palgrave Macmillan, 2008.

odours as they decompose. Researchers have found that there is a fairly consistent dislike of odours from bodily fluids across cultural boundaries, and concluded that this may be an evolutionary response linked to avoiding disease³. One reaction to unacceptable environmental contamination is the creation of taboos, as proposed by Mary Douglas, in which certain practices are labelled as dangerous as a way to create order at the larger communal level⁴. In the case of environmental pollution, medieval city government officials labelled biological wastes as dangerous because of their odours, but that danger may have been linked to both disease and disgust.

On the one hand, inhabitants of medieval cities associated foul smells with disease. Medieval miasmatic theory attributed disease to the corruption of air, which could be visible (like a fog) or invisible. Miasmatic theory has been widely embraced as the root of these sanitation measures in the West; Martin Melosi even periodises American sanitation history by the prevailing scientific disease transmission theory, calling the earliest stage the « Age of Miasmas⁵ ». Medicinal tracts from the Middle Ages, particularly those written about plague prevention in Southern Europe, highlight the role of miasmas, but generally, the tracts do not link waste and the smell of waste to the disease. One exception might be the foul smell of dead bodies, which was the subject of pestilence regulation: Pistoia's « Ordinances for Sanitation in a Time of Mortality » from 1348 required particularly deep graves for corpses of plague victims to « avoid the foul stench which the bodies of the dead give off » and forbade butchers from having a shop near any kind of tavern, shop, stable, or pen that « give off a putrid smell⁶ ». A papal decree issued to the Bishop of Wells (England) in 1412 noted that it had been difficult to find men to carry dead bodies from the leper house to the distant church « on account of the smell⁷ ». In those cases, the smell of decaying corpses was objectionable because of the potential disease it carried.

3 Curtis Valerie, Birna Adam, « Dirt, disgust, and disease: is hygiene in our genes? », *Perspectives in Biology and Medicine*, 44, 2001, p. 17-31.

4 Douglas Mary, *Purity and danger: an analysis of the concepts of pollution and taboo*, London, Routledge & Kegan Paul, 2nd impression with corrections, 1969 (1966), p. 39-40.

5 Melosi Martin, *The sanitary city: urban infrastructure in America from colonial times to the present*, Baltimore, Johns Hopkins University Press, 2000. See also Melosi Martin, *Garbage in the cities: refuse, reform, and the environment, 1880-1980*, College Station, Texas, Texas A&M University Press, 1981, for discussion of the aesthetic issues tied to the public health movement in the early twentieth-century.

6 Text translated by Duane Osheim and available online <http://www3.iath.virginia.edu/osheim/pistoia.html> (accessed November 14, 2011). The Pistoia ordinances also forbid butchers from having a shop near any kind of tavern, shop, stable, or pen that « will give off a putrid smell ».

7 Bliss W.H., Twemlow J.A. (ed.), « Lateran regesta 152: 1411-1412 », *Calendar of Papal*

In historical analyses of modern sanitation, odour is an important component of Western public health movements. For example, scientific investigations dominate Alain Corbin's analysis of changing conceptions of smell and disease in France in *The foul and the fragrant*. Corbin traces what he calls a « hypersensitivity to odours » in eighteenth-century France arguing that an emphasis on phenomena of the air, specifically odours, within chemistry and medicine at the time can be linked to growing elite interest in public sanitation and deodorisation; only at that time do we finally notice a « reduced threshold of tolerance » for the smell emanating from decomposing corpses and cesspools⁸. Although Corbin sees a qualitative difference in the awareness of smell in the eighteenth-century, other research has definitively extended the link between smells and public health concerns back to the early modern period when the olfactory sense drove street cleaning, plague prevention measures, and other prescriptions for disease prevention and treatment⁹. This article extends this even further back to the medieval period.

On the other hand, odours may have just as often been the subject of medieval complaints because of repulsive reactions to strong waste smells rather than fear of disease. Although smell is a biological function common to all humans, reactions to particular smells are culturally learned behaviours. Research on the development of odour preferences in infants and children shows that the meanings of smells are associated to the physical, social, emotional, or semantic context of the odour. Many odour preferences are not hard-wired, but rather formed through stimuli and cultural context¹⁰. Societies set tolerable levels of environmental contamination based on cultural ideas of cleanliness and knowledge of disease transmission¹¹. We have to keep in mind that some people in the Middle Ages may have reacted to waste odours because they considered them disgusting rather than disease-ridden.

registers relating to Great Britain and Ireland, vol. 6, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=104235>.

- 8 Corbin Alain, *The foul and the fragrant: odor and the French social imagination*, trans. Miriam Kochan, Leamington Spa, UK, Berg, 1986.
- 9 Cockayne Emily, *Hubbub: filth, noise and stench in England, 1600-1770*, New Haven (Conn.), Yale University Press, 2007; Dobson Mary J., *Contours of death and disease in early modern England*, Cambridge, Cambridge University Press, 1997; Jenner Mark S.R., « Civilization and deodorization? Smell in early modern English culture », in *Civil histories*, ed. by P. Burke, B. Harrison, P. Slack, Oxford, Oxford University Press, 2000, p. 127-144.
- 10 Herz Rachel S., « I know what I like: understanding odor preferences », in *The smell culture reader*, ed. by J. Drobnick, Oxford, Berg, 2006, p. 190-203.
- 11 Cohen Erik, « The broken cycle: smell in a Bangkok lane », in *The smell culture reader*, *op. cit.*, p. 118-127.

In combination, the stench of waste was a threat within the context of the prevailing theories about miasmatic disease transmission as well as cultural ideas of smell acceptability; and thus exposure to it needed to be limited. Early sanitation measures can be directly linked to the medieval sense of smell and interpretation of odours. Smell thus has a large role to play in the urban environmental history of the medieval city.

NOT IN MY BACKYARD... OR MY NEIGHBOUR'S

Smell, unlike physical waste itself, moves invisibly. It drifts from the location of the waste to affect people passing near by. Waste was thus dangerous when it was left in place where its smell during decomposition would affect members of the public – muckhills in the street, accumulated waste in the river, waste piles at the market cross.

People living in the late Middle Ages sometimes made a direct connection between waste disposal and the creation of harmful disease-carrying odours. In 1380, some people lodging at the Coventry priory complained to the English king that « certain evildoers » had repeatedly thrown animal wastes into the river Sherbourne, corrupting the water that flowed into the priory mill and « infecting the air ». The king responded by issuing a commission of inquiry, although the results of the inquiry are not known. The list of wastes – bones, hides, and offal of oxen, swine, and sheep – in the complaint indicates that the likely perpetrators were butchers and tanners¹². One hundred years later, the Prior of Coventry complained to the city council that the city dwellers daily threw their dung, filth, and sweepings into the river such that a stench, or an « evell eyre » as he called it, made « he, his Brethern & all other ffolkes there be hurte¹³ ». The Prior argued that waste disposal of that sort was against the law. The Mayor and council made an official reply to the Prior's complaint, noting that the council was doing everything in its power to identify and punish waste disposal violations like the one the Prior brought forward. Although the council was working with great diligence to find people throwing filth into the river, few offenders could be identified. Each time the court-leet met in the city, it included inquiries about waste disposal in the river. In addition, the aldermen of each ward made

12 *Calendar of Patent Rolls preserved in the Public Record Office: Richard II*, vol. 1, London, HMSO, 1895, p. 579.

13 Harris Mary Dormer (ed.), *Coventry Leet Book: or Mayor's register, containing the records of the City Court Leet or view of frankpledge, A.D. 1420-1555, with divers other matters*, 4 parts, London, Kegan Paul, Trench, Trübner & Co, 1907-1913, part 2, p. 445.

a daily search of the property adjoining the river to find violators¹⁴. This reply shows us how seriously the Coventry local government tried to control urban waste disposal practices in order to limit odours considered harmful.

Similar to waste thrown into rivers, street gutters used as waste disposal routes could clog up and stagnate, causing putrefying smells. Such was the case in Cambridge in 1393. Complaints were brought to King Richard III about gutters filled with trash that was poisoning the air. The king ordered the local authorities to scour the gutters and keep them clean in the future¹⁵. Henry IV made a similar order about the gutters and streets of Calais in 1401¹⁶. In both of these cases, waste accumulated in the gutters was considered dangerous because of its decaying stench and thus the city governments were ordered to clear the material¹⁷.

The smell of latrines could likewise make them a public nuisance. Standard latrine construction in the Middle Ages was simple: a privy pit in the ground with some kind of seat and shelter above it. The pits were either emptied by hand or new pits had to be dug when one was filled up. In either case, medieval latrines emitted strong faecal odours as the waste decomposed, and these odours led to complaints. For example, the London Assize of Nuisance investigated odours entering the house of a woman named Isabel from her neighbour's cesspit in 1341, and a latrine cesspit that « emits so great a stench that the plaintiffs can have no profit from their stable » in 1372¹⁸. The smell of faeces had an economic and social cost. In coastal cities, like those in Scandinavia, the waterlogged nature of the soils could mean that the liquids might not be readily absorbed. In 1487 when the city of Malmö was granted privileges as a Danish town, the law stated that latrines had to be dug into the ground so that wastes did not flow out and spread a « bad smell » over the streets and neighbouring

14 Harris M. D. (ed.), *Coventry Leet Book...*, *op. cit.*, part 2, p. 455.

15 *Calendar of Close Rolls preserved in the Public Record Office: Richard II*, vol. 5, London, HMSO, 1925, p. 63-64.

16 *Calendar of Close Rolls preserved in the Public Record Office: Henry IV*, vol. 1, London, HMSO, 1927, p. 252-253.

17 For a more thorough discussion of the role of streets and gutters in waste disposal and sanitation in late medieval towns, see Jørgensen Dolly, « Cooperative sanitation: managing streets and gutters in late medieval England and Scandinavia », *Technology and Culture*, 49, 2008, p. 547-567.

18 Chew Helena M., Kellaway William (eds.), « Misc. Roll DD: 5 Nov 1339 – 15 Dec 1346 (n^{os} 349-399) », *London assize of nuisance 1301-1431: a calendar*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=35976>; Chew Helena M., Kellaway William (ed.), « Misc. Roll. FF: 16 Feb 1369 – 5 May 1374 (n^{os} 550-599) », *London assize of nuisance 1301-1431: a calendar*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=35981>.

plots¹⁹. The Oslo city council likewise forbade the placement of latrines next to the street in 1595 because of the « uncleanliness, bad smell, and stench²⁰ ».

Smells from latrines and other household waste was considered a source of disease. This is apparent in a text describing the degraded state of the ditch surrounding the Fleet Prison in London as of 1355: filth from no less than eleven latrines and several tanneries had been thrown into the river, and the resulting obstructions were causing an infection of the air and « abominable stench » in the Fleet Prison. The odours were blamed for « various diseases and grievous maladies » affecting the prisoners²¹. Latrine smell even motivated John Harington to propose the first water-flushed toilets in England in 1596. In his treatise *A new discourse of a stale subject, called the metamorphosis of Ajax*, Harington advocated his flush toilets specifically as an odour-control measure and explicitly tied his new invention to the control of miasmatic diseases²².

Complaints about smells created by improper waste disposal were taken to the highest levels of civic and even regal authority. In Nottingham in 1530, a complaint about waste disposal near Saint Mary's Church specified that muck thrown there was causing « perilous air », that is, making the air dangerous²³. The complaint asked the Mayor to find a remedy for the problem. The responsibility for dealing with waste and smell thus rested with the highest levels of city administration²⁴. If the city government failed to act in cases like those,

19 Danmarks gamle Købstadslovgivning IV Malmö 26 §55, cited in Andrén Anders, « I städernas under värld », in Andrén Anders *et al.* (eds.), *Medeltiden och arkeologin: Festskrift till Erik Cinthio*, Lund, Lund University, 1986, p. 265.

20 Torstenson Inge, *Fra natthmann til renholdsverk: Avfall og renovasjon i Oslo gjennom tusen år*, Oslo, ProArk, 1997, p. 23.

21 Riley H.T. (ed.), « Memorials: 1355 », *Memorials of London and London life: in the 13th, 14th and 15th-centuries*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=57696>. Only one year before, butchery waste in the Fleet was also blamed for an odour harming the health of the prisoners. See Sharpe Reginald R. (ed.), « Folios xx1-xxx: Sept 1354 », *Calendar of letter-books of the city of London: G: 1352-1374*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=33493>.

22 Jørgensen Dolly, « *The metamorphosis of Ajax*, Jakes, and early modern urban sanitation », *Early English Studies*, 3, 2010, <http://www.uta.edu/english/ees/fulltext/jorgensen3.html>. Gun Westholm argues that Visby's latrine system that involved sewered latrines from the houses by the 1100s was also designed to reduce smells: « Två städer: Sanitär infrastruktur i Visby och Tallinn », in Andrén Anders, Ersgård Lars, Wienberg Jes (eds.), *Från stad till land. En medeltidsarkeologisk resa tillägnad Hans Andersson*, Stockholm, Almqvist & Wiksell, 2001, p. 253-262.

23 *Records of the borough of Nottingham*, vol. 3, London, Bernard Quarich, 1885, p. 365.

24 I have discussed the delegation of sanitation responsibilities in late medieval governments more thoroughly in Jørgensen Dolly, « "All good rule of the citee": Sanitation and civic government in England, 1400-1600 », *Journal of Urban History*, 36, 2010, p. 300-315.

people affected by smell could appeal to the king. King Edward III appears to have been regularly asked to intervene in sanitation matters based on smell. In 1354, when the Prior of the Hospital of St. John of Jerusalem failed to get an adequate reply from London's Mayor to his complaint about butchery waste causing a stench « so bad as to be injurious to the health of the inhabitants of the free prison of the Flete and neighbourhood », he took his complaint to the King²⁵. Likewise, the King got involved in cleaning up Tower Hill in London. Edward III issued a writ in 1372 demanding that the Mayor and Sheriffs of London clean up all accumulated waste on Tower Hill because the air was « tainted... and that great danger is acknowledged to arise therein²⁶ ». The city government responded by holding an inquest; they discovered hundreds of people had carted waste to Tower Hill²⁷.

Because odours were not confined to one's own property, they affected neighbours and passers-by. The medieval records show us that urban inhabitants sometimes complained about these wafting odours and that legal restrictions on the use of property sometimes resulted. Smell was not a private matter, but a public concern; it became a transgression of private space and personal boundaries.

THE CITY'S FOUR-FOOTED FIENDS

Medieval urban spaces transcended the boundary between « agricultural » and « urban », being much more filled with farm animals than modern ones. This created odours associated with animal life, yet urbanites in the late medieval period raised objections about animal odours as part of their sanitation concerns. For example, in 1563 the Stockholm city council discussed the « strong and evil stench » (« swåre och onde stanck ») coming from pigs living in the city and which caused « summer sicknesses ». The council agreed that the pigs should be taken out of the city and sold to pay for poor relief²⁸. In a

25 Sharpe Reginald R. (ed.), « Folios XXI-XXX: Sept 1354 », *Calendar of letter-books of the city of London: G: 1352-1374*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=33493>.

26 *Calendar of Close Rolls preserved in the Public Record Office: Edward III*, vol. 13, London, HMSO, 1911, p. 365.

27 Thomas A.H. (ed.), « Roll A 17: 1371-72 », *Calendar of the plea and memoranda rolls of the city of London*, vol. 2, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=36681>.

28 Almquist Joh. Ax. (ed.), *Stockholm Tänkeböcker 1553-1567*, Stockholm, City of Stockholm, 1939, p. 224.

1557 letter King Gustav wrote to the city government, he made it clear that no one was permitted to have herds (cows, pigs, or others) within the city walls²⁹. This case clearly links smell to sickness, although the complaint may be as much about the nauseating smell of the pigsties in the hot summer as it is about actual disease.

The smell of animal manure could be particularly problematic. In 1332, when King Edward III was preparing for a parliament meeting in York, he wrote a letter to the mayor and bailiffs of the city. He lamented the odorous conditions in York:

The king, detesting the abominable smell abounding in the said city more than in any other city of the realm from dung and manure and other filth and dirt wherewith the streets and lanes are tilled and obstructed, and wishing to provide for the protection of the health of the inhabitants and of those coming to the present parliament, orders them to cause all the streets and lanes of the city to be cleansed from such filth...³⁰

The king singled out the smell from dung and manure as particularly dangerous to the health of the residents and visitors to the city. Thus, he ordered the city government to clean up the city streets prior to the parliamentary meeting.

Manure heaps stank as they decomposed, thus conflicts over their placement appeared. For example, in November 1372, King Edward III commanded the local government of Gloucester to keep an area near the castle door free from dung heaps. The presence of dung and other refuse had been having drastic effects: « the air is so corrupted and infected that the constable and his household and other passers by are assailed by an abominable stench, the advantage of fresh air is prevented, the condition of the men is harmed...³¹ ». By May 1373, the town had still not done anything about the dung heap which « corrupted and infected » the air, so the King reissued his order³². In 1381, the situation was still unresolved, and King Richard II ordered a commission to investigate whether or not the Gloucester residents had a right to use the piece of land near the castle gate as a disposal ground because it was still cau-

29 Nygren Ernst (ed.), *Privilegier, resolutioner och förordningar för Sveriges städer*, vol. 2, 1523-1560, Stockholm, Stadshistoriska Institutet, 1932, p. 352.

30 *Calendar of Close Rolls preserved in the Public Record Office: Edward III*, vol. 2, London, HMSO, 1898, p. 610.

31 *Calendar of Close Rolls preserved in the Public Record Office: Edward III*, vol. 15, London, HMSO, 1914, p. 243.

32 *Calendar of Patent Rolls: Edward III*, *op. cit.*, vol. 15, p. 293.

sing « a horrible stench³³ ». We can find many such examples of repeated attempts to deal with the same types of waste in the same location. This reveals the difficulties of dealing with waste in preindustrial cities – finding appropriate workable alternatives for waste handling and disposal was a challenge. Medieval city governments resolved those issues with varying degrees of success, but their genuine concern is evident in the sources.

Perhaps worse than the smell of dung were the smells of hides and rotting flesh. A few examples bear this out. First, in 1338, Edward III ordered the city of Oxford to clean up the dung from city streets and ban butchery in the town because « much sickness is caused by the abominable stench arising from the slaughter and filth³⁴ ». Next, the clergy at the hospital of St. John the Baptist in Basingstoke complained to the King of England in 1380 that local men had dug pits near the hospital for the disposal of « fetid hides and other filth », resulting in a strong stench that kept the clergy from celebrating church services³⁵. Finally, in an incident in 1390, a fishmonger had been throwing rotten fish into a well near London and « great a stench arose that the people passing there were greatly offended thereby ». When the city officials identified the culprit and found an additional 12 barrels of rotten fish at the perpetrator's house, the council agreed that the fish « should be taken out of the City and buried in some place under ground, lest the air might become infected through the stench arising there from³⁶ ». The choice of waste disposal location and method was dictated by the offensive olfactory nature of the waste. In all of those cases, the waste was characterized as odoriferous and the smell was linked to illness and infection. Thus particular sanitation measures were required to control the odour source.

Butchers were probably the worst culprits creating smelly medieval cities. First, there is the smell itself of butchered meat and blood. Second, and more importantly, the practice of butchery necessarily creates waste from the unusable parts and dung in the intestines at the time of slaughter, which is named offal. The offal requires disposal, whether on land or in water, and will smell strongly as it decomposes. Although some butchery odours may have been an acceptable urban condition in medieval times, two examples can show that

33 *Calendar of Close Rolls preserved in the Public Record Office: Richard II*, vol. 2, London, HMSO, 1897, p. 22.

34 *Calendar of Close Rolls preserved in the Public Record Office: Edward III*, vol. 4, London, HMSO, 1895, p. 186.

35 *Calendar of Close Rolls preserved in the Public Record Office: Richard II*, vol. 1, London: HMSO, 1895, p. 516.

36 Riley H.T. (ed.), « Memorials: 1390 », in *Memorials of London and London life: In the 13th, 14th and 15th-centuries*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=57730>.

urban residents complained about odours that exceeded the normal levels and officials implemented new practices to control them.

Our first example is one of the incidents involving London's butchery trade³⁷. In 1368, the Mayor and Aldermen of London held an inquest into the disposal of butchery waste in the Thames « whereby the water was rendered corrupt and generated fetid smells ». The jury found that the butchers of St. Nicholas Shambles were to blame, since they disposed of waste in the Thames, and it therefore recommended that slaughtering be relocated outside of the city walls.³⁸ The King confirmed that solution in 1369³⁹. Two years later the butchery problem had not yet been resolved. In April, the King ordered London's mayor to remove the « Butchers' Bridge » where the butchers regularly threw offal into the Thames. He based his decision on « the corruption, the grievous stench and the loathsome sight » of the butchers' waste disposal practices in the river and streets⁴⁰. In September, he sent the mayor and sheriffs of London another letter outlining complaints against the city's butchers. He began by laying out the butchers' unsanitary practices and the related smell:

Whereas of late, by reason of the slaughtering of great beasts in the city aforesaid, from the putrefied blood of which running in the streets, and the entrails thereof thrown into the water of Thames, the air in the same city has been greatly corrupted and infected, and whereby the worst of abominations and stench have been generated, and sicknesses and many other maladies have befallen persons dwelling in the same city...

The odour of the entrails and blood infected the air, which in turn caused illness. The solution to that problem was to relocate the slaughterhouses to out-lying villages, but although the King had ordered that move two years before, it had still not occurred. Butchers continued to dispose of blood and entrails in the city, causing « abominations and stench, and the air infected thereby ». The King re-issued his order for the relocation of the butchers⁴¹. Although the London government would continue to struggle with the butchers, by the

37 Sabine Ernest L., « Butchering in mediaeval London », *Speculum*, 8, 1933, p. 335-353, traces the development of sanitary controls on medieval butchery in the capital city.

38 Thomas A.H. (ed.), « Roll A 13: 1367-1368 », *Calendar of the plea and memoranda rolls of the city of London*, vol. 2, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=36677>

39 *Calendar of Close Rolls: Edward III*, *op. cit.*, vol. 13, p. 32.

40 *Ibid.*, p. 178.

41 Riley H.T. (ed.), « Memorials: 1371 », *Memorials of London and London life: in the 13th, 14th and 15th-centuries*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=57711>.

end of the fourteenth-century an arrangement had been reached that allowed butchery within the city as long as boats or piers were used to dispose of offal directly into the middle of the river Thames. The impetus for this long-lasting sanitation struggle was smell.

In a second case, at roughly the same time, a struggle over butchery odours was also brewing in York. In 1371, the York council prohibited butchers from casting refuse or offal between the Ouse Bridge and the Friars Minor⁴². It appears that the council's action came in response to complaints from the friars, because when the command failed to deter the butchers, the friars appealed to the king. Industrial and agricultural practices were a necessary part of the medieval city, and their waste products could not be avoided, but the friars demanded that the waste be handled away from the city centre.

King Edward III sent a letter to the mayor and bailiffs of the city on May 10th, 1372, in response to the friars' complaint. The friars claimed that the butchers had recently started throwing waste near their walls and gates as well as into the River Ouse. According to the letter, there were dire physical consequences of the waste disposal practices: « the air in their church is poisoned by the stench there generated as well around the altars where the Lord's body is daily ministered as in other their houses, and flies and other vermin are thereby bred and enter their church and houses ». The result was that the people of the city and country who used to go to the friars' church to hear mass and pray « are withdrawing themselves because of the stench and the horrible sights ». The friars also feared that « sickness and manifold other harm » would arise if the King did not order a change in the practices. In response, the King commanded the city officials to make the butchers dispose of offal, blood, dung, and ordure « in the places where they used to be laid and cast of old time » or the city should appoint a new disposal place where the waste could be « covered up⁴³ ». In this letter, we see that the smell of the waste – the stench and the flies and vermin it attracted – is the grounds for the complaint. The stench was poisoning the air and causing illness. Thus, more sanitary disposal methods had to be found. Disposal pits where the waste could be covered up to control the smell were required.

The local authorities eventually responded to the King's request. Five years later in 1377, the mayor and council passed a law saying that if any butcher or his servant threw offal or refuse on the Ouse Bridge, into the River Ouse, into the streets of the city or elsewhere except « in the place assigned to them by

42 Sellers Maud (ed.), *York Memorandum Book, lettered A/Y in the Guildhall Muniment Room*, 2 parts, Durham, Andrews & C^o, 1912 and 1915, part 1, p. 15.

43 *Calendar of Close Rolls preserved in the Public Record Office: Edward III*, vol. 13, London, HMSO, 1911, p. 438.

the mayor of the said city », the butcher would be fined and forfeit the vessel carrying the waste⁴⁴. Although the issue came up again in 1380, it appears that the butchers shortly thereafter quit throwing waste around the Friars Minor because no further complaints from them are recorded⁴⁵.

However, in 1409 Thomas Haxey, Canon-residentiary, heard complaints from parishioners of St. John Baptist Hungate that the butchers of the Shambles were dumping offal near the southern churchyard wall. The parishioners were disgusted by the waste as well as the unclean birds and dogs that flocked to the spot causing « such a vile smell that only with difficulty did the priest manage to get through the service ». Bones were scattered about the churchyard, and the roof of the church had been damaged by the birds. In 1411 a complaint was made again about the offal heap⁴⁶. Although the canon recorded the complaints, the records do not show that they were brought up directly to the York city council. Rather than relating the waste smell to disease, that complaint specifically mentioned revulsion and disgust at the stench as the problems.

Animals in the city created strong odours both when alive (manure) and when dead (butchery waste), and those smells were consistently interpreted as dangerous – they caused disease, sickness, and disgust. In order to ensure the health of the urban inhabitants, the sources of such stench needed to be controlled and removed. Smell and the disease that came along with it thus significantly motivated regulations related to animal keeping and butchery practices.

SMELL AS MOTIVATION FOR SANITATION

The medieval city may have been a more odoriferous place than the modern city because of urban livestock, back-alley latrines, and neighbourhood craft shops, but that does not mean that the residents did not notice it when something smelled out of the ordinary or dangerous. The examples above reveal how the smell of organic wastes – things that would putrefy and give off strong odours – motivated medieval urbanites to complain about unsanitary practices and attempt to control them. Although organic smells may have been a routine part of medieval life, they were culturally acceptable only to a certain extent. Both social tolerance for the smell of decaying matter and the miasmatic theory that stressed airborne transmission of diseases limited the acceptability

44 Sellers M. (ed.), *York Memorandum Book*, *op. cit.*, part 1, p. 17–18.

45 *Calendar of Patent Rolls: Richard II*, *op. cit.*, vol. 1, p. 524.

46 Raine Angelo, *Mediaeval York: a topographical survey based on original sources*, London, John Murray, 1955, p. 83.

of disposal practices for odoriferous waste in medieval Europe. There were no appreciable differences in the way the English and Scandinavian inhabitants responded to urban organic smells, which may indicate that there was a common medieval way of thinking about odours. In many instances, the stench of the waste was said to corrupt the air and make it unhealthy. According to the sources, the smell of decomposing waste also brought about feelings of disgust and revulsion, indicating the smell's physical and cultural unacceptability. The presence of those complaints does not mean that exceptional odours were present all of the time in the medieval city – quite the opposite, it was because they were exceptional that those smells came before the courts and legislators⁴⁷.

In response to concerns about the detrimental effects of smelly waste, medieval governments instituted controls such as designing waste disposal sites away from the populated areas, requiring wastes to be covered by soil, moving latrines away from property boundaries, and even forcing butchers out of town in order to limit odours perceived as dangerous. The records show involvement from both town governments and royal authorities in maintaining less pungent urban spaces in both England and Scandinavia. The options were technologically limited, but the city people did the best they could to respond to the smells in their midst. This shows that although interest in sanitation escalated in the modern era, actions to combat odours considered unhealthy or dangerous were certainly not absent in medieval times. Stench and sanitation went hand-in-hand.

47 See Thorndike Lynn, « Sanitation, baths, and street-cleaning in the Middle Ages and Renaissance », *Speculum*, 3, 1928, p. 192-203 for a more extended argument along these lines.