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CHAPTER FIVE

Policing the Environment of Late Medieval Dordrecht¹

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Abstract

An important Dutch trading centre, Dordrecht experienced considerable population growth and many environmental challenges during the later Middle Ages. Surviving administrative, financial, and legal records help us to establish which bylaws were implemented, and the extent to which conflicts reached the courts. We can document official policies regarding urban space, sanitation, and nuisances, while also determining the responsibilities of residents in matters of public health. Magistrates often reissued regulations concerning the construction of buildings, the disposal of rubbish and offal, and public morality and safety, while a variety of officials monitored compliance, imposing on-the-spot fines when necessary. Since Dordrecht's wealth derived from trade, disturbances, dirt, and the diseases, fires, and floods that suggested divine displeasure could threaten its prosperity.

Key words: environment; Dordrecht; infrastructure; sanitation; litigation

¹ This chapter is based on my unpublished MA thesis, “Hoe dichterbij Dordt, hoe *heerlijker* het wordt.” Ruimte, geur en geluid in laatmiddeleeuws Dordrecht’ (Leiden University, 2015). I would like to thank L.H.J. Sicking for his constructive feedback and the editors of this volume for their help in converting my thesis into a publication.

As Dordrecht and other cities in the Low Countries obtained civic rights (*stadsrecht*) and became densely populated in the later Middle Ages, the need arose to formalize customary rules by recording them in books and introducing new bylaws. These urban bylaws addressed multiple issues that were related to the organization of daily life, including the regulation of the environment and public health, alongside economic, social, and political affairs. As legislators, city governments, such as that of Dordrecht, thereby obtained the judicial and legislative means to police the urban environment, in a bid to shape and improve it.²

In today's popular culture, as we can see in many films and books, late medieval societies are still often portrayed as superstitious and backward. From this perspective, city governments would have been incapable of establishing efficient sanitation and waste disposal systems, the absence of which would have resulted in filthy living conditions. Henk 't Jong has deconstructed these misconceptions in the context of several late medieval cities in Holland, including Dordrecht. Following Thorndike and Sabine, he has argued that, when analysing bylaws, it is important to consider the process through which customary law evolved into more formal collections of regulations. However, he maintains that there are relatively few entries concerning environmental bylaws and violations thereof in the administrative sources from Holland. Public hygiene was apparently not one of the main legislative concerns of late medieval city governments.³ Nonetheless, Dutch and Flemish environmental studies of the early modern period (1500-1800) have demonstrated that sanitation and the organization of waste disposal were further professionalized as a result of increasing population density, thereby continuing a development that had actually begun much earlier.⁴ It is also important to bear in mind that definitions of precisely what constituted a threat to public health were far broader in the fourteenth and fifteenth centuries than they are today. Replicating the need for harmony and balance within the human body, good relations between neighbours were, for example, evidence of communal wellbeing, while discord over such issues as property boundaries and shared facilities undermined the social as well as the physical fabric of the city.⁵ For this reason, the process of mediation, described below,

² Bocchi, 'Regulation of the Urban Environment', pp. 63-78; Balestracci, 'Regulation of Public Health', pp. 345-57; Porter, *Health, Civilization and the State*, pp. 1-4; Rawcliffe, *Urban Bodies*, Chapter three.

³ Thorndike, 'Sanitation, Baths and Street-Cleaning', pp. 200-201; Sabine, 'City Cleaning', p. 19; 't Jong, 'De mythe van de vuilnisbelt', pp. 68-91.

⁴ Hulshof, "'Om het gemeyne welvaren behoeff'"; Poulussen, *Van burenlust tot milieuhinder*.

⁵ Rawcliffe, *Urban Bodies*, pp. 88-89.

performed a vital prophylactic function, as well as containing the spread of insanitary nuisances and keeping the peace.

In recent years, the emphasis in medieval public health studies has shifted from researching health hazards *per se* to examining preventive strategies, or, in other words, the relationship between the protection of the urban environment and the care for residents' health and well-being. Guy Geltner, for example, has argued that the Black Death did not cause the government of Lucca to begin regulating the urban environment, but rather that many relevant bylaws had already been issued and an 'environmental board' (*Curia viarum*) established before the outbreak of the first plague epidemic in 1347.⁶ Cities in the Low Countries experienced the same environmental challenges and developments. In this chapter, Dordrecht, which was the most important trading centre in late medieval Holland, will serve as a case study. Through an analysis of its late medieval statutes and court records, I shall attempt to establish which environmental bylaws were issued by the city government, what factors influenced its decisions, and how these bylaws were implemented or enforced in daily life. To provide some insight into different aspects of the urban environment, I will first offer a short description of the government's administrative structure, the relevant sources, and the process of urbanization. This will be followed by an analysis of the authorities' environmental policies and the methods adopted for enforcing them. In these sections, the emphasis will lie on regulations issued during the period from about 1400 to 1510. Because of the large amount of unpublished material in these records, I will focus on three decades (1400-1410, 1445-1455, and 1500-1510), which allows me to examine the various rulings in context, making it possible to trace developments and changes over a period of more than a century. In addition, I will analyse the surviving books of bylaws kept by individual guilds and some ledgers of official civic accounts (*stadsrekeningen*). Unfortunately, however, most ledgers from the fifteenth century have been lost, which severely hampers a systematic study of the city's expenditure on public health.

Dordrecht's administrative structure and the surviving sources⁷

In about 1200, Dordrecht acquired independent rights from the count of Holland, allowing the city government to determine its own bylaws in council meetings. Before a new regulation

⁶ Geltner, 'Public Health and the Pre-Modern City', pp. 231-245; Geltner, 'Healthscaping a Medieval City', pp. 395-414; and see p. 000 (GELTNER) above.

⁷ The following two paragraphs are based on Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 102-123; Horsman, *Abuysen en desordien*, pp. 33-56; and Hendriks and Koonings, *Van der stede muere*, pp. 11-13.

could take effect, it had to be approved by the *landsheer* (ruler). The *schout*, *schepenen* (aldermen) and *raden* (advisors), all of whom were appointed by the *landsheer*, constituted the main administrative body, the *gerecht* or *camere*, which exercised legislative as well as judicial powers. Whereas the *schout* was responsible for detaining and prosecuting criminals, the *schepenen* passed sentence in accordance with the *raden*'s advice. Consequently, as chairman of the local court, it was the duty of the *schout*, whose main concern was safety and public order, to ensure that any verdict was implemented. The oldest known document mentioning *schepenen* (*scabini*) is a charter issued in 1200. Another of 1282 shows that there were nine *schepenen* and five *raden*, enabling us to reconstruct the composition of Dordrecht's ruling body. After their term of office ended, former *schepenen en raden* (*oudschepenen* and *oudraden*) remained involved in the business of government by giving advice on urgent matters and on the creation and adaptation of bylaws. As demonstrated by a bylaw issued in 1467, this administrative advisory board was known as the *Oudraad*, which would become the city's main administrative body in the early modern period.

With the introduction of more specialized appointments, the government grew increasingly complex over the course of the later Middle Ages. The earliest record of *burgemeesters* appears in an account ledger of 1285. Initially, their principal task concerned the management of the city's finances, but, over the decades, their responsibilities evolved to become largely administrative, giving them a more prominent position in the *gerecht* and thus a greater say in matters of governance. In the fifteenth century, there were two *burgemeesters*, one of whom was appointed by the *landsheer* (*burgemeester van 's herenwege*), while the other (*burgemeester van gemeentewege*) was chosen by the College van Achten (College of Eight), a board on which the various craft and trade guilds were represented. The first *burgemeester* was also a *schepen* and, owing to his training in law, he became the *gerecht*'s chairman, while the other *burgemeester*, who might also be a *schepen*, was responsible for safeguarding the city's privileges. One major consequence of this change in the duties of the *burgemeesters* was the appointment of a *thesaurier* (city treasurer). At the beginning of the sixteenth century, probably between 1522 and 1527, the government decided to reorganize the way in which its account ledgers were compiled. From that point on, there were two *thesauriers*, one of whom was accountable for the income and expenditure of the *Groot Comptoir* (Main Office, wages and loan repayments), the other being answerable for the *Klein Comptoir* (Lower Office, public works and maintenance). Finally, the above-mentioned College van Achten was an assembly in which representatives from the guilds could discuss their activities with the *gerecht*. The opening sentences of many bylaws reveal that, in

addition to the *gerecht*, *burgemeesters*, and *Oudraad*, this body was also involved in the process of compiling new regulations.⁸

The city government was concerned with all sorts of issues, such as safety, security, and the preservation of the urban environment. During the thirteenth and fourteenth centuries, new bylaws appear to have been recorded in the same register. At the beginning of the fifteenth century, however, the government decided that a new copy of this register should be produced, because frequent alterations had made it difficult to interpret the rules correctly and to enforce them in daily life. Consequently, in 1401, the *keurboek* came into being, which ten years later was supplemented with additional articles. The *klepboeken*, a register that was created at the end of the fourteenth century, and in which only judgments were originally recorded, was also used for registering new bylaws from around 1403 onward. The word *klep* (clapper) refers to the sounding of a bell in front of the city hall when the authorities wanted to proclaim new regulations or pronounce sentences (*actum per campanam*). Finally, also from 1403, the rulings of the local court, which dealt with numerous conflicts, were registered in the *aktenboeken* (court records).⁹

Dordrecht's natural environment

The river delta, which marked the confluence of many rivers, including the Lek, Meuse (Maas), Merwede, and Waal, had a major impact on the structure of the landscape and on the economic development of settlements in the Low Countries. Several floods in the twelfth century proved especially beneficial for Dordrecht, bestowing upon it a central position in the river and toll network, creating a faster shipping route to Flanders, and allowing it to develop from a village into a trading centre for the trans-shipment of goods in the thirteenth and fourteenth centuries. In 1299 and 1355, the count of Holland conferred staple rights (*stapelrecht en Maasrecht*) on Dordrecht, stipulating that merchants had to offer their goods for sale at the local market. The difference between the *stapelrecht* and *Maasrecht* hinged upon the number of rivers involved. Whereas the first privilege only pertained to merchandise travelling along the Lek and Merwede, Dordrecht's staple rights were later extended to the Rhine, the Meuse, the Waal, and the Hollandsche IJssel. Such a notable increase in trading

⁸ Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 102-123; Horsman, *Abuysen en desordiën*, pp. 33-56.

⁹ *Klepboeken* for only the years 1383-1474, 1483-1487, and 1509-1510 have survived. The *aktenboeken*, which are still complete, are divided into three parts (1403-1425, 1425-1469, and 1469-1532). A substantial proportion of the entries has been edited by Jacobus Fruin: *De oudste rechten*, I, pp. i-xvii, 1-2; Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 131-134; and Horsman, *Abuysen en desordiën*, pp. 107-110.

activities with Dutch, Flemish, and German cities enabled Dordrecht to flourish as a commercial centre in the later Middle Ages.¹⁰

5.1. Map of the river delta

¹⁰ Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 79-88; Sarfatij, *Archeologie van een deltastad*, pp. 35-45, 295-299.

As a consequence of successive phases of expansion, the map of Dordrecht changed drastically over this period. The Oude Haven, the central harbour, divided the city into two parts, namely the Poortzijde (harbour side) and the Landzijde (land side). The main streets, the Wijnstraat and the Voorstraat, were located on either side of the Oude Haven and this small strip of land remains one of the oldest areas of the city. In addition, from the thirteenth century, ships could moor on the waterfront, which was located north west of the city centre.

5.2. Map of Dordrecht in c. 1600.

In 1410, the Nieuwe Haven was created through the construction of an embankment between the waterfront and a nearby sandbank, thereby protecting these ships from dangerous weather conditions. The government also had to deal with the consequences of soil erosion on the Poortzijde, which meant that some embankments had to be raised by five or six metres and that the earth needed to be reinforced with wooden constructions, clay, rubbish, and construction debris. Two major floods, occurring in 1421 and 1424 (St. Elisabethsvloeden), curtailed Dordrecht's further development in the following decades. Nevertheless, the population steadily increased, reaching approximately 11,000 inhabitants in about 1560, a growth which inevitably affected the urban landscape. We can conclude from Figure 5.2 that, in comparison to other cities, Dordrecht's high population density had already prompted its magistrates to take steps to protect the urban environment at an early stage.¹¹

¹¹ Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 245-24; Sarfatij, *Archeologie van een deltastad*, pp. 45, 72-86, 253-280, 297-298; Van Oosten, *De stad, het vuil en de beerput*, pp. 165-168, 310.

The interacting processes of urbanization and commercialization meant that many late medieval cities began to experience exponential growth. Feeling such pressure acutely, the government of Dordrecht had to accommodate the residents' need for living space at a time when the city was becoming overpopulated. The demand for space could lead to complaints and social tensions related to housing and property boundaries, eventually resulting in legal disputes. The magistrates tried to prevent conflict at all costs, since, as acknowledged in a bylaw of 1457 based upon earlier rulings (subsequently reissued and amended in 1594), they were regarded as a waste of money, time, and effort, and, above all, could cause 'great

Figure 5.1: Urban development of Dordrecht

(based on Van Oosten, *De stad, het vuil en de beerput*, p. 165) Legenda: A: ca. 1200; B: ca. 1250; C: ca. 1300 (A+B+C = 16 ha); D: ca. 1350 (56 ha); E: ca. 1500-1525 (+ 3,5 ha); F: 1550 (+ 3 ha); G: ca. 1575-1600 (+ 1,5 ha); H: ca. 1700-1725

Figure 5.2: Population density (estimated population and hectares)

	1300	1400	In around 1575
Dordrecht	383 (5,940; 16)	149 (8,320; 56)	191 (11,830; 62)
Leiden	89 (1,900; 21)	54 (5,250; 97)	129 (12,456; 97)
Den Bosch	X	125 (14,526; 116)	148 (17,120; 116)

(based on Van Oosten, *De stad, het vuil en de beerput*, pp. 308, 311)

hostility and irreconcilable hatred'.¹² Since divisions in the urban body were to be avoided at all costs, a well thought-out environmental policy through which the duties and rights of the residents could be clearly established was essential to prevent nuisances escalating into outright confrontation.¹³ The following sections describe the policies of containment pursued by the government of Dordrecht with respect to urban planning, public health, and communal safety.

Construction policy

A charter of 1293 shows that the city government was already concerned with the occupation of urban space by the late thirteenth century, in this case the area between the Visbrug and the Grote or Onze-Lieve-Vrouwe Kerk (Church of Our Lady) on the Landzijde. The building of houses in this part of the city was forbidden, and existing ones had to be demolished. The construction of a Franciscan convent (*minderbroedersklooster*), which was located at the other side of the Visbrug, precluded any further expansion in that area, too. The underlying reasons for this ruling are not explicitly stated, but the charter indicates that the government was committed to developing the Landzijde.¹⁴ In any event, archaeological research has revealed that the process of (re)division of land parcels, the development of a street plan, and the introduction of a building line to limit incursions into the main streets changed the city's infrastructure. Consequently, the concentration and height of houses in the now more crowded streets would increase, while the land parcels would become narrower, allowing public and private space to be utilized more effectively.¹⁵

The *keurboek* contains six articles relating to the construction of houses. It should be emphasised that these normative rules do not necessarily reflect actual enforcement practices. However, in this case, they indicate that the government was concerned with two major issues. First, great attention was paid to the conservation and use of building materials, a

¹² '[T]ot voorcominge ende verhoedinge van veelderhande questien, processen ende geschillen [...] onder den burgers en ingesetenen [...] ende naer vele costen, moyten en versuymenisse van tijt, neringe ende welvaeren, causeren ende veroersaeken groote onvrienscap ende onversoenlijcken haet ende nijt.' *De oudste rechten*, ed. Fruin, I, p. 200.

¹³ Poulussen, 'Alles heeft een prijs', p. 224.

¹⁴ *Oorkondenboek van Holland en Zeeland*, ed. Dijkhof and Kruisheer, pp. 340-341.

¹⁵ Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 77-78; Sarfatij, *Archeologie van een deltastad*, pp. 259-264, 268-271.

development that probably followed the devastating city fires of 1332 and 1338.¹⁶ Home-owners were now prohibited from dismantling stone walls and removing the stone for reuse in another town. Furthermore, residents wishing to build a new house within 100 feet (31 metres) of the two main streets were obliged to adopt slate roofs, which were less combustible than thatch. Beyond this range, reed roofing was only permitted when clay had been employed as a building material and when the height of a house did not exceed *anderhalf staedze* (one and a half floors). A slate roof was mandatory for taller houses. Indeed, a fine of ten pounds could be imposed if existing tiles were replaced by thatch, a notorious fire hazard. Secondly, other bylaws sought to organize and regulate public space. Thus, for example, the poles in the Oude Haven and the Oude Gracht, a canal between the Oude Haven and Spuihaven, were not to be used for the construction of ‘additions’ without official approval.¹⁷ From the scale of the fines – in this case ten pounds payable by the carpenter and sixty by the owner – we can infer that the harbour passageway was vital for the access of merchants’ ships to the city centre and had therefore to remain free of obstructions.¹⁸

At the beginning of the fifteenth century, two *reetrekkers* (land surveyors) were assigned the task of ascertaining whether the residents adhered to building regulations and respected property boundaries. In cases of infringement, they were authorized to fine trespassers. Their instructions and judgments were binding in matters such as the construction of a revetment (*stabboem*) or in disagreements about the erection and the load-bearing capacity of separating walls. In addition, they gave advice to the government about the structural condition of domestic buildings. If an edifice seemed in danger of collapsing, the owner would be forced either to pull it down or to rebuild it safely.¹⁹ A verdict of August 1403 shows that the *reetrekkers* were also employed by the *schepenen* to provide expert evidence in disputes relating to boundaries and the construction of new houses. In this case, a

¹⁶ For English comparisons, see Rawcliffe, *Urban Bodies*, pp. 168-175.

¹⁷ It is unclear from this bylaw what function the poles (in Middle Dutch *pinnen* = *palen*) may have performed in the first place. For a discussion about the city walls and the names and locations of the canals, see: Hendriks and Koonings, *Van der stede muere*, pp. 103-109.

¹⁸ *De oudste rechten*, ed. Fruin, I, pp. 22-24; Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 164-165.

Because many *stadsrekeningen* have not been preserved, it is unknown what workers earned around 1400. At the end of the fifteenth century, carpenters and bricklayers earned approximately 5 *stuivers* a day, but rates were dependent on many different factors, such as the availability of seasonal work and their personal expertise. Noordergraaf and Schoenmakers, *Daglonen in Holland*, pp. 118-122; Noordergraaf, *Hollands welvaren?*, pp. 52-95.

¹⁹ Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 225-233; *De oudste rechten*, ed. Fruin, II, p. 80.

reetrekker confirmed that Yde van Rijnemburch had built a house at the harbour on her neighbours' property. The court ruled that the owner of the new dwelling would have to buy the land in question from them.²⁰

After the deadly fire of 1457, which destroyed much of the city centre, it was decided that *all* thatched roofs throughout the entire city should be removed and replaced with tile.²¹ In contrast to the authorities of Leiden and Utrecht, who subsidized the conversion to slate roofs by providing home-owners with specific sums of money, Dordrecht's magistrates proved less open handed.²² Indeed, on the advice of the *reetrekkers*, they issued another new bylaw at this time regarding the construction of houses and walls. Compared to the rulings in the *keurboek*, this bylaw is more detailed, which suggests that it may have been influenced by recent developments in jurisprudence. Significantly, earlier testimonies provided by the *reetrekkers* and previous verdicts based upon them were integrated into this new set of regulations. The first four articles are concerned with land parcels, stipulating that neighbours had to reach an agreement regarding the position and height of party walls and the drainage of rainwater. When disputes occurred, the initiator was at liberty to build a wall on his side of the property line. However, if the counterparty (his neighbour) changed his mind at a later stage and decided to erect a higher building or wall, he would become responsible for drainage in order to ensure that the original initiator did not experience flooding and the attendant threat of miasmatic air. Two more articles, which explicitly mention the two main streets of Dordrecht, specified the minimum width of the space that should remain between houses (*druipruimte* or *drop*) because of its importance for drainage and the building of extensions (*loeve*). Anyone who extended his property had likewise to take appropriate precautions against flooding, which, as other chapters of this volume testify, could prove a major urban hazard. No doubt for this reason, neighbours were also obliged to come to terms over the *druipruimte*. Finally, the last article decreed that woodwork should be replaced when the timber became rotten.²³

In addition to domestic premises, the city government was also concerned with the construction and upkeep of streets and harbours. The oldest surviving account ledgers (1283-1287) reveal that road workers (*calsidemaker*) were hired to carry out repairs on some of the

²⁰ Regionaal Archief Dordrecht [hereafter RAD], Archief 1, inv. no. 13, fol. 1r.

²¹ *De oudste rechten*, ed. Fruin, I, pp. 310-311.

²² *Keurboeken van de stad Leiden*, ed. Hamaker, pp. 5, 136-137, 143-145; *Rechtsbronnen der stad Utrecht*, ed. Muller, I, pp. 20, 90, 96, 199, 221, 231.

²³ *De oudste rechten*, ed. Fruin, I, pp. 308-309.

cobbled streets at this time.²⁴ As a preventive measure, in 1465, carts or wagons were specifically banned from these streets because their wheels might damage the carefully paved surface, making them harder to sweep clean and keep free of refuse.²⁵ The harbours posed a far greater challenge, as they had to be periodically deepened in order to counteract natural phenomena such as sedimentation. For this purpose, the government appointed five *havenmeesters* (harbour overseers), who were in charge of the maintenance works and were held accountable for the budget.²⁶ The construction of revetments also helped to maintain the desirable depth of the harbours. In September 1411, for example, people living nearby were ordered to repair the *stabboemen* or build new ones before the beginning of the annual market, which took place in October, under threat of a substantial fine of three pounds.²⁷ In 1448, when the government announced that the eastern side of the Oude Gracht was going to be dug out, house-owners in that area were offered a financial incentive to erect a wooden *stabboem*. If they contacted the *reetrekkers* before Easter and followed their instructions, they could reclaim their expenses. At the same time, it was decreed that privies (*privaat, stillen, heymelicheit*) on the Oude Gracht should be located inside the *stabboem* and not above the harbour, where they not only presented a greater nuisance and hindrance for ships, but also in terms of the generation of miasmatic vapours and filth.²⁸ House-owners had to remove any offending constructions immediately.²⁹ In 1495, the *grachtmeesters* (canal overseers) were held responsible for determining whether the *stabboemen* were being built according to the appropriate regulations. In case of any shortcomings, the government would contract the work to a third party and recover the costs from the negligent citizen.³⁰ As we shall see below, by the early sixteenth century a direct connection was being made in official pronouncements between the state of the harbour and the quality of the city's air, but such concerns were hardly new.

Sanitation and the removal of refuse

²⁴ *De oudste stadsrekeningen*, ed. Burgers and Dijkhof, pp. 46, 57.

²⁵ *De oudste rechten*, ed. Fruin, I, p. 327; Rawcliffe, *Urban Bodies*, pp. 139-140.

²⁶ Two *havenmeestersrekeningen* (ledgers of civic accounts, harbour overseers) survive for 1452 and 1461/1462 respectively: Denessen, 'Twee havenuitdiepingsprojecten', pp. 10-12, 15-21.

²⁷ *De oudste rechten*, ed. Fruin, I, p. 256.

²⁸ See pp. 00 (INTRODUCTION) above for similar concerns in Venice.

²⁹ RAD, Archief 1, inv. no. 6, fol. 41v.

³⁰ *De oudste rechten*, ed. Fruin, II, pp. 187-189.

The government endeavoured to keep waste matter out of sight.³¹ Archaeological research in Dordrecht has revealed that wooden and brick cesspits were widely used for the collection of faeces. Herbert Sarfatij has analysed the position of these facilities in houses in the Groenmarkt and Wijnstraat and the smaller side street known as Tolbrugstraat-Waterzijde on the Poortzijde. Most houses in the Wijnstraat had a cesspit that was located at some distance from the main buildings at the back of the plot in question, while at other dwellings in the Tolbrugstraat the remains of privies have been found inside the houses. This difference can be explained from both a spatial and social perspective, as most wealthy citizens owned a backyard.³² Roos Van Oosten's work on cesspits in Dordrecht draws on additional archaeological data. Her analysis shows that approximately three-quarters of all the cesspits included were made of wood in the thirteenth and fourteenth century (58 in total), as well as in the fifteenth and sixteenth century (103 in total). This high percentage of timber constructions over brick probably reflects the dangers of shifting peat soil caused by digging. Moreover, trading activities ensured that a copious supply of wood and barrels was constantly available, which meant that these materials were far cheaper than bricks. Roos van Oosten has argued that there is a direct correlation between the number of cesspits and population density, as the former rose directly in response to population growth. In the seventeenth century, this relationship no longer held good because cesspits were slowly being replaced by sewers (*secreetgoten*).³³

The archaeological findings can be supplemented with written sources.³⁴ According to 't Jong, only six out of 234 bylaws (*keurboek* 1401) related to insanitary nuisances (his definition: '*hinderkeuren*') in the public space. For example, two bylaws recorded in the *keurboek* are concerned with the disposal of waste, offal, and mud, which was not to be thrown from bridges or houses into the harbour. As an additional sanitary measure, handmaids (*joncwiven*) had to sweep the streets in front of their masters' houses every Saturday; and all residents living on the Oude Gracht were expected to clean their waterfront (part of the canal).³⁵ Whereas the provisions in the *keurboek* are generic, regulations noted in the

³¹ For the concept of dirt as 'matter out of place, see Douglas, *Purity and Danger*, p. 35.

³² Sarfatij, *Archeologie van een deltastad*, pp. 184-186.

³³ Van Oosten, *De stad, het vuil en de beerput*, pp. 70-76, 168-169, 198-201.

³⁴ Jørgensen, 'Cooperative Sanitation', pp. 558-561.

³⁵ 't Jong, 'De mythe van de vuilnisbelt', pp. 68, 75-79, 82-83; *De oudste rechten*, ed. Fruin, I, pp. 71, 73; The same Middle Dutch words relating to refuse and the nuisance caused by stench are used repeatedly in the *klepboeken*: *vuyt* or *vuylnisse* (decomposing corpses and carrion, or rotten food and beverages); *onreinicheyt*

klepboeken and in court rolls mention specific locations, such as a jetty (Rotterdamsche stegher) (1441) and the Roedermont crane in the Nieuwe Haven (1455).³⁶ Entries in the *klepboeken* reveal that these bylaws (*'hinderkeuren'*) were regularly reiterated over the course of a single year. These reminders might have been prompted by an urgent matter, such as a forthcoming event, or a complaint, but might also have served as a means of periodically refreshing the residents' memory of the rules.³⁷ As another preventive measure, wooden or brick *kajuten* (sheds) where refuse could be disposed of ready for removal were erected in public spaces for communal use. On the other hand, if anyone had attached one of these sheds to his house, causing an obstruction on the street, he was obliged to remove it within three days. Not surprisingly in view of the fire hazard, it was forbidden to burn refuse inside the city walls and throw the smouldering material into a *kajuut*.³⁸

The government appointed refuse collectors for the removal and disposal of waste from at least some parts of the city. As we can see from a civic account book of 1490, a man named Willem van Loven received a small fee for this work, which he probably regarded as a supplementary source of income, and in return for which he had to clean an area on the Poortzijde. What exactly had to be done with the refuse is not stated, but he probably either dumped it in the river or sold it to other parties.³⁹ In contrast to their peers in Dordrecht, lower status residents of Utrecht known as *slijkburgers* could earn rights of temporary citizenship by cleaning and maintaining a central location in the city that was associated with trade, such as a bridge or market. They were also authorized to fine offenders and keep a share of the money. However, if the magistrates found that their performance was unsatisfactory, these privileges could be withdrawn.⁴⁰

(animal faeces and manure); *slijck* (mud); and *afval* (remains of products, such as wood splinters and offal): *Middelnederlandsch Handwoordenboek*, ed. Verdam, pp. 30, 417, 547, 672 (<http://gtb.inl.nl/>). For an overview of the attitude towards smell and stench in late medieval society, see Jørgensen, 'The Medieval Sense of Smell', pp. 301-3; Woolgar, *The Senses in Late Medieval England*, pp. 115-146.

³⁶ RAD, Archief 1, inv. no. 6, fol. 18v; Archief 9, inv. no. 222, fol. 8r.

³⁷ 't Jong, 'De mythe van de vuilnisbelt', pp. 89-90.

³⁸ RAD, Archief 9, inv. no. 222, fols. 13v, 16r; *De oudste rechten*, ed. Fruin, I, p. 310; 't Jong, 'De mythe van de vuilnisbelt', p. 88.

³⁹ RAD, Archief 1, inv. no. 438, fol. 401r.

⁴⁰ Kwakman, 'Slijkburgers in Utrecht', pp. 167-171.

When, according to documentary sources, the first outbreak of plague reached Dordrecht in 1450, the government's environmental policy became more stringent.⁴¹ For instance, in 1451, people living in the Vleeshouwersstraat (Butcher Street) or at the Nieuwe Haven were ordered to clean the streets within three days. A year later, residents were reminded that offal could only be deposited in the river Merwede; and that it was strictly forbidden to throw it into a *kajuut*.⁴² In 1509, fear of plague was one of the main reasons for the government to deepen the harbours in order 'to prevent death from pestilence, which is usually caused by bad smells and stench that comes from [them]'.⁴³ This explanation clearly invokes Hippocratic and Galenic miasma theory regarding the transmission of disease, which maintained that noxious vapours could contaminate a person's vital spirit and spread corruption throughout the body. To minimize the likelihood of an epidemic, airborne pollution in cities had to be contained.⁴⁴

It was also understood at this time that plague might be transmitted by direct contact between human beings.⁴⁵ The government of Dordrecht issued multiple bylaws in the fifteenth century and at the beginning of the sixteenth in response to the dual threats of contagion and miasma. In 1450, it was decreed that the dead should be buried instantly. During later plague outbreaks, as in 1458 and 1509, it was forbidden to enter the house of plague victims for a period of six weeks after their demise. Straw on which the patient had slept had, meanwhile, to be safely deposited outside the city walls. Furthermore, barbers who had purged any blood from their patients through phlebotomy had to bury it in the ground. The prohibition imposed on the dumping of these noxious waste products and offal into the

⁴¹ It is unclear to what extent cities in the Low Countries were struck by plague epidemics in the period 1347-1450: De Boer, *Graaf en grafiek*, pp. 30-39. For a chronological overview, see Noordergraaf and Valk, *De gave Gods*, pp. 225-234. Appendix 1 to Curtis and Roosen, 'The Sex-selective Impact of the Black Death', provides a survey of possible plague outbreaks in the Low Countries (1349-1499), including the Northern Netherlands. Dordrecht is mentioned from 1450 onward. However, it seems implausible that the government did not have to deal with visitations of plague before then, because administrative records and several peak flows in mortality rates indicate that nearby towns in Holland, such as Gorinchem and Leiden, were probably affected between 1349 and 1450.

⁴² RAD, Archief 1, inv. no. 6, fols. 69r, 77r.

⁴³ *De oudste rechten*, ed. Fruin, I, p. 347: 'Ende oeck om te verhoeden sterfte van pestilentie, die gemeenlicke coemt van quaden luchten ende stanken, die uut die graften comen mochten.'

⁴⁴ Rawcliffe, 'The Concept of Health', pp. 320-327; Gil Sotres, 'The Regimens of Health', pp. 300-314; and see p. 00 (INTRODUCTION) above.

⁴⁵ Carmichael, *Plague and the Poor*, pp. 96-126; Kinzelbach, 'Infection', pp. 370-384; Porter, *Health, Civilization and the State*, pp. 26-39.

harbour was primarily intended to combat the spread of noisome air, but other measures addressed the dangers of personal contact and its prevention. Plague victims were, for example, forced to stay in plague houses or in separate rooms in the guest-houses commandeered for their use. Significantly, the *cellebroeders* (Alexian brothers) and the *cellezusters* (Franciscan sisters) who looked after them were prohibited from attending public meetings, and had to avoid mixing with other people.⁴⁶

Public health and morality

The detrimental effect of plague on society was not only explained in medical terms, but was also regarded as a mark of divine punishment.⁴⁷ Urban communities hoped that, by undertaking charitable works and organizing religious ceremonies, they could persuade God to protect them from disease and warfare.⁴⁸ Two processions, the *Grote Ommegang* (on the first Sunday after the feast of St. Mary Magdalen, the ultimate repentant sinner, on 22 July) and the *Kleine Ommegang* (on the first Sunday after the feast of Saints Peter and Paul on 29 June), commemorated the miraculous survival of treasured relics. One was the *heilig sacrament* (holy sacrament) in its Heilig Sacramentsgasthuis (in the reliquary chapel at the hospital of the Holy Sacrament) (1338) and the other the *heilig hout* (a fragment of the true cross) in the Grote Kerk (1457). There were some doubts concerning the authenticity of the *heilig hout*, but, after its escape from the fire of 1457, throngs of people who were looking for physical or mental relief came to Dordrecht to visit the church and venerate it. The

⁴⁶ *De oudste rechten*, ed. Fruin, I, pp. 294, 313-314, 341-342; Kool-Blokland, *Van Heilig Sacramentsgasthuis*, pp. 98-99; Noordergraaf and Valk, *De gave Gods*, pp. 193-211. The *cellebroeders* and *cellezusters* were also known as the *grauwbroeders* and *grauwzusters* because of their grey habits. It is unknown when they arrived in Dordrecht, but their names appear in the ledgers from the 1330s and 1340s. Both congregations initially followed the rule of St Augustine, but they received permission from the bishop of Utrecht to join the Third Order of the Franciscans, the *cellebroeders* in 1463 and the *cellezusters* in 1464. Administrative sources indicate that the *cellebroeders* had a convent in the Suikerstraat and the *cellezusters* in the Raamstraat, also known as Bethlehem convent, where they took care of sick people and begged for alms: *Geschiedenis van Dordrecht*, pp. 347-350.

⁴⁷ Noordergraaf and Valk, *De gave Gods*, pp. 110-15; Horden, 'Ritual and Public Health', pp. 18-30; Rawcliffe, *Urban Bodies*, pp. 89-97.

⁴⁸ RAD, Archief 1, inv. no. 11, p. 14: 'Ende oeck devotelick te bidden dat God almachtich will behoeden ende bescermen dese lande van alle plaghe ende verdriet, bysonder van pestilentie ende oerloghe.' See also p. 00 (INTRODUCTION) above.

mirakelboek of Dordrecht records many stories in which people suffering from various disabilities and diseases, such as blindness and tumours, were healed.⁴⁹

On 28 July 1509, the city government issued a bylaw stipulating that residents had to clean the streets in which they lived on the eve of these important religious events, thereby ensuring an appropriate level of physical as well as spiritual hygiene. The beginning of a procession was announced by the pealing of church bells, after which the magistrates, the craftsmen, and all the other participants followed a fixed route and various stories from the Old and New Testaments were enacted or recited. People were convinced that evil spirits, and thus, by extension, the miasmas of plague, could be expelled by singing, praying, and ringing hand bells. The authorities invested in the production of lavish decorations for these ceremonies, which attracted large crowds to the city centre.⁵⁰

Noise levels and public order had to be regulated on other days as well. The government could determine when bells were sounded, an important factor in establishing the rhythm of daily life. Magistrates exercised this prerogative to manage the utilization of public space (such as markets) more effectively, to prevent disorder, and to avoid nocturnal disturbances, as well as to preserve the *status quo*.⁵¹ The bells in the Wijnkoperskapel rang at 9 p.m., heralding the night curfew and warning people to stay indoors. Those returning to their homes were expected to carry a lantern, which would reassure others of their good intentions. This particular peal was also known as the *ruymstrate* (meaning ‘clear or vacate the street’). Tavern keepers had to close their doors one hour later at 10 p.m.⁵² Other measures which clearly reflect the same combination of sanitary, social, and moral concerns, related to the removal of prostitutes from the city centre in a bid to exercise moral zoning. Brothel keepers and their employees were supposed to reside near the city wall, on the other side of the Oude Gracht. In this way, magistrates hoped to ‘protect’ residents and visitors from members of a ‘morally reprehensible’ group, whom they ranked among the principal vectors

⁴⁹ Verhoeven, ‘Het mirakelboek’, pp. 104-136; Verhoeven, ‘De cultus van het heilig hout’, pp. 200-223; Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 166-171.

⁵⁰ *De oudste rechten*, ed. Fruin, I, pp. 343-345; II, pp. 191-192; Kool-Blokland, *Van heilig sacramentgasthuis*, pp. 18-19; Woolgar, *The Senses in Late Medieval England*, pp. 70-73.

⁵¹ Garrioch, ‘Sounds of the City’, pp. 15-20; Kotkas, *Royal Police Ordinances*, pp. 21-23; Van Uytven, *De zinnelijke middeleeuwen*, pp. 203-209.

⁵² *De oudste rechten*, ed. Fruin, I, pp. 148-153, 272.

of diseases such as plague and leprosy.⁵³ Unruly children and adolescents could also ‘disturb’ public order. In 1449, on St. Martin’s eve (10 November), several young men were held responsible for damaging the interior of the Grote Kerk, for assaulting young women, and for removing wood from houses and subsequently using it to start fires in the streets. Their parents were made financially accountable for the damage and were warned to ensure that repeat offences did not occur.⁵⁴

At night-time, the headmen (*hoofdmannen*), each of whom was charged with keeping order in a number of city streets, had to make sure that the areas under their surveillance remained quiet and safe. They were accompanied by guards (*wakers*), who had to carry a lantern. In 1455, the authorities were forced to intervene because some *wakers* were sleeping in the guardhouse instead of walking their beat. This dereliction of duty led to a ruling that the *wakers* would henceforward be subordinate to the *hoofdmannen* and should behave accordingly. In the event of an emergency, residents had to follow the instructions of the local *hoofdman*. For instance, they were obliged to hang burning lanterns outside their homes if a criminal was on the run. In matters of public safety and order, the *klokwachter* also had some important tasks to perform. He announced the opening and the closing of the city gates by playing a tune on a wind instrument. When he noticed a fire, he used cymbals to alert the *wakers*, who could then rouse the townspeople so that it could be extinguished.⁵⁵

The sounding of the bells marked the beginning and the end of the working day for labourers and artisans. Guild bylaws, such as those of the Carpenters and the Shipwrights, do not provide any information about working hours, although craftsmen were not permitted to work on holy days as a mark of reverence and because they were expected to join in the festivities.⁵⁶ Most of them lived on the Landzijde of the city. A bylaw of March 1486 reveals that the Shipwrights’ guild had requested the city government to find another place for their activities. A move to the Dwarsdijk was suggested; and from June they were not allowed to work at the previous location, which lay between the Grote Kerk and the Baljuwstraat, because of the fire hazard that they presented. Shipwrights who did not adhere to this rule

⁵³ *De oudste rechten*, ed. Fruin, I, pp. 16-17, 266, 293, 337; Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 134-136; Van Baarsel, *Van Aardappelmarkt tot Zwijndrechts Veerhoofd*, pp. 86-87; Rawcliffe, *Urban Bodies*, pp. 104-115; Coomans and Geltner, ‘On the Street’, p. 71.

⁵⁴ *De oudste rechten*, ed. Fruin, I, pp. 292-293, 336.

⁵⁵ RAD, Archief 1, inv. no. 11, pp. 15-20; inv. no. 434, fol. 57v; *De oudste rechten*, ed. Fruin, I, pp. 149-152.

⁵⁶ Van Vollenhoven, *Ambachten en neringen*, pp. 102, 108, 120.

then faced an official fine.⁵⁷ Another bylaw, issued in January 1489, confirms that neighbours had complained about the noise caused by shipwrights working and quarrelling during the night. In addition, because highly inflammable pitch was being employed by candlelight for the caulking of ships, there was an even more serious risk of fire damage than usual. As a result, the authorities stipulated that pitch was only to be used in daylight. This example clearly demonstrates that residents were concerned with safety issues and that complaints could initiate new regulations.⁵⁸ We should also note that, from a late medieval medical perspective, noise pollution (especially at night) posed a serious threat to health, since it agitated the animal spirits, while also preventing sleep and thus the effective conversion of food into humoral matter.⁵⁹ Fear of nocturnal crime and disorder, too, could take a heavy toll in this respect. In 1299, the French physician, Bernard Gordon, urged his students to enquire about any disturbances caused by industrial activities, barking dogs, loud drunks, and similar drawbacks of urban life when making a diagnosis. Not surprisingly, some practitioners advised their patients to decamp to the countryside, where it was quieter, but this option was clearly not available to ordinary people, who relied upon the ruling elite to act on their behalf.⁶⁰

The presence of animals, sometimes in unacceptable numbers, was also subject to regulation. In 1449, citizens and foreign merchants complained about the large number of pigs in the streets, which gave rise to filth and disease.⁶¹ Consequently, the authorities reiterated a bylaw issued three years earlier, in which detailed rules concerning the keeping of pigs had first been established. For instance, they had to remain securely in a pigsty in the owner's backyard and be well looked after. Informants who reported to the local magistrates that a household owned more pigs than permitted would be rewarded with a third part of the dead animal(s), while the *landsheer* and the government retained the other two. The monitoring of one's fellow citizens was thus incentivized by the prospect of financial gain. In addition to pigs, dogs that ran untethered in the streets also caused problems because they intimidated children and adults alike. For instance, in both 1446 and 1509, the government ordered the owners of such animals to bring them to a ship, for removal to an unknown destination. As a

⁵⁷ RAD, Archief 1, inv. no. 8, fol. 11r.

⁵⁸ *Rekeningen van de gilden*, ed. Overvoorde, pp. 211-212.

⁵⁹ See pp. 00-00 (INTRODUCTION) above and 000 (KINZELBACH) below.

⁶⁰ Rawcliffe, *Urban Bodies*, pp. 164, 167-168.

⁶¹ RAD, Archief 1, inv. no. 6, fol. 49r: 'Dat van quader gewoonte veel vareken opter straten vuyt ende onnut gaen.'

further deterrent, *hondenslayers* or *kreeften* (dogcatchers or dog-beaters) were required to collect and remove stray dogs from the city. Sometimes a thief was obliged to perform this invidious task as part of his punishment.⁶²

Finally, the government took responsibility for organizing the weekly *beestenmarkten* (livestock markets). Traders could only sell their animals at specifically designated locations, and, when the market in question closed for the day, offal and dung had to be disposed of in the river Merwede.⁶³ The inhabitants of the area around the Heilig Sacramentsgasthuis took offence at the presence of the fish market situated next to their homes. The noise, the smell, and the refuse that was left behind by the stallholders at the walls led them to submit numerous complaints to the authorities, who duly insisted that the nuisance should be minimized.⁶⁴

In my analysis of Dordrecht's environmental policy, the emphasis has so far been placed on the composition of bylaws aimed at improving the urban environment and protecting the city from threats to its survival, such as social unrest, fire, and epidemics. Because Dordrecht's wealth was based on trade, the government paid considerable attention to the maintenance of the city centre's infrastructure, its facilities for waste disposal, and the enforcement of public order. After all, economic prosperity could be seriously undermined by negligence in this respect.⁶⁵ Moreover, from a cultural perspective, the city and its inhabitants derived their identity and their financial and political status from the material features of the urban landscape. For this reason, it was essential that the city centre appeared well-organized and carefully planned in spatial and aesthetic terms. By promulgating rules to which the residents had to adhere, and imposing social and ethical norms upon them, magistrates tried to influence both collective and individual behaviour. Nevertheless, their negotiation with members of the community over the use of public space proved to be a long-term process.⁶⁶

With regard to the implementation of bylaws, it became increasingly necessary to appoint reliable officials who could carry out inspections and collect fines. The tasks and responsibilities of the *reetrekkers*, rubbish collectors, and other civic employees have already

⁶² *De oudste rechten*, ed. Fruin, I, pp. 287-288, 298-299, 339-340, 351; Van Herwaarden, *Geschiedenis van Dordrecht*, p. 106; 't Jong, 'De mythe van de vuilnisbelt', pp. 85-86; Camphuijsen and Coomans, 'De middeleeuwse stad', pp. 141-146.

⁶³ RAD, Archief 1, inv. no. 11, pp. 25-26.

⁶⁴ RAD, Archief 1, inv. no. 6, fol. 42v; Kool-Blokland, *Van heilig sacramentsgasthuis*, pp. 22-23.

⁶⁵ Davis, 'The English Medieval Urban Environment', pp. 75-78.

⁶⁶ Howell, 'The Spaces of Medieval Urbanity', pp. 17-19.

been discussed, but, since many of Dordrecht's medieval ledger books have been lost, it is impossible to determine exactly when these officials first appeared. However, by analogy with many English cities, which also faced the same environmental challenges, it is safe to assume that the number of specialist appointments grew in Dordrecht during the late Middle Ages.⁶⁷ In the next and final section, Dordrecht's law enforcement policy and the relationship between its magistrates and officials and the rest of the community will be further examined.

Fines and court cases

The *klepboeken* and *aktenboeken* provide valuable information on how environmental bylaws were enforced in practice and how environmental problems were addressed. By imposing fines upon offenders, the government tried to police the use of public space and thereby modify the behaviour of residents and visitors alike. Indeed, trespassers who were caught illegally dumping refuse had to pay a penalty on the spot (*sonder verdrach*). In 1455, for instance, a man called Adryaen Danckertssoen was ordered to fine people who disposed of their waste at the Vuilpoort, which had just been cleared. Residents were, moreover, warned not to hinder him in the performance of his duties.⁶⁸ Although the written sources do not tell us if Adryaen was allowed to keep any of the money, or had to hand all of it over to the authorities, examples from other urban centres, such as Bologna in Italy and the German free cities, confirm that such revenues were often shared between the officials in question and the authorities.⁶⁹ Compared to disputes involving other types of nuisance, hardly any cases of the illicit disposal of refuse are recorded in the *klep- en aktenboeken*, which suggests that policing these offences was probably not one of the main priorities of the local magistrates, and that disagreements would often have been settled at a lower level without their intervention.⁷⁰ Most of the relevant court cases found in the *aktenboeken* relate to the use and maintenance of privies. For instance, in 1521, Jan van Driel Pieterszoen (a member of the ruling elite) and Gherit Boegaert (licentiate in law), who lived near the Visbrug and shared a *privaat*, disagreed about who should next empty it. The *reetrekkers* looked into the situation and concluded that this time Gherit was to be responsible for clearing the cesspit and disposing of its contents. A man of his social status would have hired someone to perform this unpleasant task, which could prove expensive, and it is interesting to note that future maintenance costs

⁶⁷ Jørgensen, “‘All Good Rule of the Citee’”, p. 302.

⁶⁸ RAD, Archief 1, inv. no. 6, fol. 92v.

⁶⁹ See p. 00 (GELTNER) above and p. 000 (KINZELBACH) below.

⁷⁰ 't Jong, ‘De mythe van de vuilnisbelt’, p. 8.

were to be shared between both parties. Although it remains unclear why Gherit was found liable on this occasion, the case demonstrates that *privaten* were emptied regularly.⁷¹

Other comparable conflicts between neighbours are described in the *aktenboeken*. These court cases arose over such contentious matters as the location and height of party walls, the drainage of rainwater, obstructions to natural daylight, and access to property. In them the judicial concept of easement or service (*servitus*), or in other words of the rights and obligations legally binding between neighbours, which already existed in Roman law and became an integral part of the *Codex Justinianus*, is clearly apparent. In the context of a densely populated urban environment, rights of easement generally related to the negotiation of property boundaries so that people could enter and leave their homes unhindered. For instance, an agreement might be reached about the use of a path on one neighbour's land so that another neighbour could enjoy unimpeded access to his back door.⁷²

In 1450, a dispute arose between some people living in the Wijngaardstraat and the churchwardens (*kerkmeesters*) of the Nieuwe Kerk over the use of the adjoining graveyard as a back entrance to certain properties. The local magistrates decided that the householders should pay a fee to the churchwardens if they wanted to continue using the graveyard in this way or to erect buildings against the perimeter wall in future. However, they were forbidden to locate pigsties and privies within a certain distance of the wall lest such an obvious source of miasmatic air should cause a nuisance to the church and its congregation.⁷³ In the same year, the Magdalena convent (Magdalenaklooster) and Dirc Aertsoen fell out about the use of the wall that separated their properties. The final verdict was that Dirc could build against it, but was not to insert a window in it. In this way, the sisters' private space was guaranteed and their vows of seclusion respected.⁷⁴ One is struck when studying the *aktenboeken* by the fact that litigation of this type constituted only a fraction of the total number of cases dealt with by local magistrates. Before people decided to invoke the law, lengthy negotiations between the two parties had probably already taken place. Thus, it can be assumed that most conflicts were solved at an early stage by an informal process of compromise in keeping with the ideals of good neighbourliness that maintained the health of the urban body.⁷⁵

⁷¹ *De oudste rechten*, ed. Fruin, II, pp. 215-216.

⁷² Van Acht, *Burenrecht*, pp. 27-43; De ruysscher, 'Ter minster schade', pp. 86-89.

⁷³ RAD, archief 1, inv. no. 14, fol. 239r.

⁷⁴ *De oudste rechten*, ed. Fruin, II, pp. 113-114.

⁷⁵ Bogaers, *Aards, betrokken en zelfbewust*, pp. 85-86; Dinges, 'The Uses of Justice', pp. 159-162. See also pp. 00 (INTRODUCTION), 00 (RAWCLIFFE), 00 (GELTNER), 000 (COOMANS), above.

Many of the verdicts recorded in the *klepboeken* concern disturbances involving noise produced at unreasonable hours.⁷⁶ Residents who violated public order during the night, perhaps as a result of drunkenness or loud disputes, were punished accordingly with either a fine or a period of community service.⁷⁷ In addition, the *secular* authorities adopted harsh measures against people who used ‘improper words’ in church. This response can partly be explained from a religious and sociocultural perspective. As noted in the Introduction to this volume, magistrates feared that blasphemy would incite the wrath of God, most notably in the form of fire, famine, or epidemic disease, and consequently offenders were heavily fined and sometimes even expelled from the city and obliged to go on a pilgrimage. In the *klepboeken* issued in the fourteenth century, these punishments are mentioned quite frequently, but after 1400 they were only rarely imposed because it was uncertain whether they had the desirable effect on the spiritual health of penitents. Furthermore, the absence of workers or craftsmen for long periods could potentially cause economic problems for the city.⁷⁸

This short overview of Dordrecht’s approach to the enforcement of bylaws reveals that the government generally tried to implement these rulings in practice and daily life. The selection of regulations and verdicts presented here suggests that its environmental policy was efficiently managed, but in the fifteenth century, as the result of natural disasters and the growth of other Dutch commercial centres, such as Amsterdam and Rotterdam, the city experienced an economic downturn. Consequently, investments in public services were postponed and official appointments reduced to a minimum. In this respect, the authorities were dependent on loans and the goodwill of the citizens. It can, indeed, be argued that the process of bureaucratization and specialization was precarious in the later Middle Ages, although the government’s organizational structure was robust enough to adapt to new challenges in the early modern period when the population increased as a result of land reclamation.⁷⁹

Conclusion

⁷⁶ Bailey, ‘Breaking the Sound Barrier’, p. 50; Cockayne, *Hubbub*, pp. 112-113.

⁷⁷ For example, RAD, Archief 1, inv. no. 4, fol. 34r; inv. no. 6, fols. 47r, 57r, 58r.

⁷⁸ For example, RAD, Archief 1, inv. no. 6, fols. 65v-66r; Van Herwaarden, *Opgelegde bedevaarten*, pp. 297-308; Veldhuizen, *De ongetemde tong*, pp. 114-132. See also pp. 000-00 (COOMANS) above.

⁷⁹ Van Herwaarden, *Geschiedenis van Dordrecht*, pp. 182-185; Denessen, ‘Twee havenuitdiepingsprojecten’, p. 20; Van der Heijden, *Civic Duty*, p. 50; *Oude Dordtse lijfrenten*, pp. 7-19, 130-132; Jørgensen, “‘All good rule of the citee’”, pp. 301-307.

This chapter has argued that the governors of Dordrecht pursued an environmental policy in which rules were imposed from above on the inhabitants, but in which input from below at a local level formed part of the decision-making process. A state of equilibrium had to be maintained between the acceptable use of public spaces, which had to be managed as efficiently and in as hygienic a manner as possible, and the community's daily needs and activities. Originally, bylaws derived predominantly from customary law, but, as a consequence of the city's growth, of the change from an oral to a written culture, and of developments in the reception of Roman law and jurisprudence, new decrees were regularly issued and existing rules rephrased. As a result, several officials were appointed by the authorities to monitor people's compliance, and some of them were assigned, when necessary, to settle disputes and to fine offenders. Additionally, the government appealed to Christian ethics in its bid to exercise social control. In this sense, regulations can be regarded as guidelines that structured society and laid down the boundaries which residents had to observe.

The government's attitude and rationale may be understood from three different perspectives. Firstly, from a commercial point of view, it was vital that the city centre and other important public spaces should remain easily accessible and attractive to tradesmen and visitors. For this reason, the main harbours were regularly deepened and the principal streets, which might be compared to the city's veins or arteries, were cleaned (through the urban equivalent of phlebotomy). Secondly, Dordrecht's economic prosperity was not only threatened by natural disasters, but also by outbreaks of disease and fires, shocks that could disrupt the pattern of life severely. Through the proclamation of additional bylaws, attempts were made either to prevent these unexpected events or to minimize their possible consequences. In other words, the government did whatever it could to create an environment in which communal health and well-being could be preserved. Thirdly, the teachings of the Church, especially with regard to the consequences of sin, proved extremely influential; considerable attention was, for example, paid to the organization of processions, designed to protect the city from divine punishment. Yet, as in the case of measures for the removal of prostitutes from the centre, it is not always easy (or historically desirable) to distinguish between the moral and sanitary imperatives involved.

In general, magistrates sprang into action when the city's well-being seemed at risk from a variety of internal and external environmental factors. Drawing upon current medical knowledge, they pursued a coherent policy that tried to stabilize and, where possible, improve the urban environment. The many bylaws that were (re)issued confirm that the authorities

were concerned with this problem and that they discussed it regularly in council meetings. From a comparative standpoint, the conclusions presented here are similar to the findings of studies of English, Italian, Dutch, and Flemish cities. However, the main difference between Dordrecht and, for instance, Lucca is that some urban governments, especially in Italy, established designated health boards, whereas Dordrecht relied solely upon a variety of officials with little independent authority. Nevertheless, during the late Middle Ages, Dordrecht enjoyed unprecedented prosperity, as a result of which the foundations of the bustling city centre were laid and measures introduced for its upkeep as a clean and attractive public space.

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