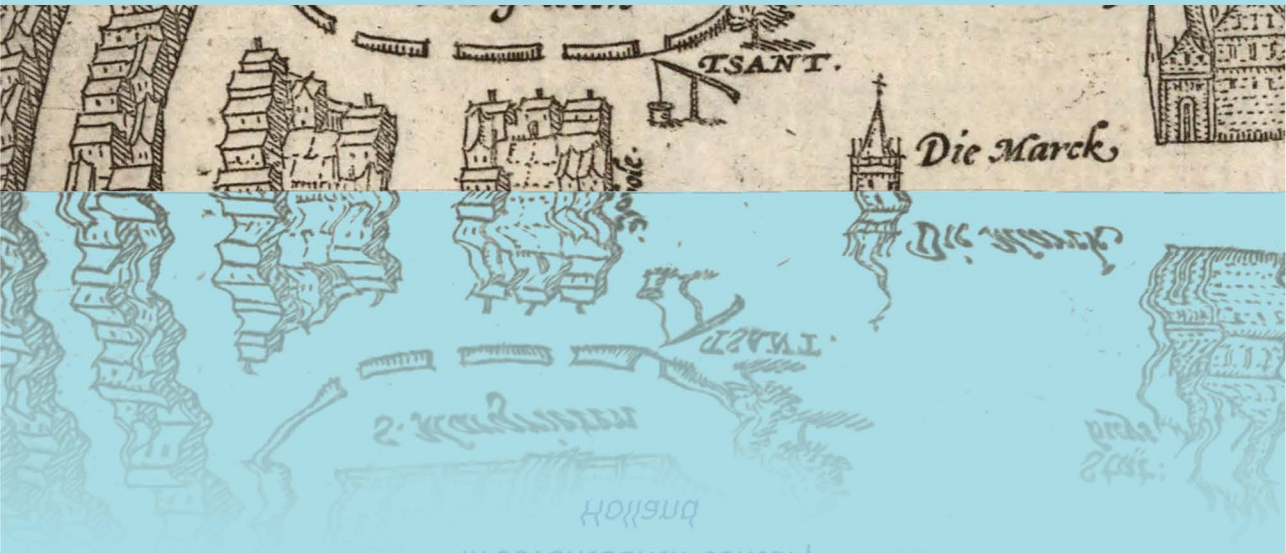


Water's worth

Urban society and subsidiarity
in seventeenth-century
Holland



Marianne Foncke

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Krommenie 2020

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The underlying dataset, consisting of the transcriptions of archival sources in plain text and a statistical overview of gender aspects, the representation of groups and individuals, professional occupations, dates, locations, and addressed topics is deposited in the EASY online archiving system: DOI [10.17026/dans-2x2-5vn2](https://doi.org/10.17026/dans-2x2-5vn2).

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Water's worth. Urban society and subsidiarity in seventeenth-century Holland

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Abbreviations

ANT	Actor-Network Theory
ELO	Erfgoed Leiden en Omstreken
HGA	Haags Gemeentearchief
HaNA	Nationaal Archief (of The Netherlands)
HS	Handschriften
NotA	Notarieel Archief
NHA	Noord-Hollands Archief
OA	Oud Archief
ONA	Oud Notarieel Archief
ORA	Oud Rechterlijke Archieven
OSA	Oud Stadsarchief
RAA	Regionaal Archief Alkmaar
SA	Stadsachief
SP	Stadspublicaties
SvH	Staten van Holland
SAR	Stadsarchief Rotterdam
WNT	Woordenboek der Nederlandse Taal

Acknowledgements

“Look before you leap” always seemed like sound advice to me. However, had I known what lay ahead of me – facing various challenges, trying to live up to the expectations, stretching the limits time and again – I am not sure if I would have dared to take the first step. And yet, I am glad that I plunged ahead as a self-funded PhD student. Apart from bringing satisfaction, the efforts of the past four years have taught me a good many things.

The one who went along with me from the moment I set out, was my promotor Guy Geltner. He gave me the chance to prepare a dissertation in the first place. Moreover, he guided me past the pitfalls that every PhD student encounters, emboldened me to accelerate my abilities and endured the circuitous paths I sometimes took. I am convinced that his eye for detail has made me not only a better historian, but also a better author.

The second one who set forth with me was Geert Janssen, until a busy schedule forced him to stand down. During one and a half years he pulled me through the demanding first stage, especially when it came to closing the knowledge gap that the eighteen-year absence from Academia had left. I am pleased I will meet him again as an opponent in the doctorate committee. He will probably not recognize much of the final thesis, but can be certain that his contribution is at the core of it.

Geert also made sure I was left in the hands of a competent and companionable co-promotor, Djoeke van Netten. Like Guy, she provided me with an abundance of good reads. Moreover, when reading through the many texts I sent, she showed a talent for posing unexpected, but apt questions. Besides all that, I much enjoyed our discussions about our research, academic affairs and the world beyond over a cup of coffee.

My sincere gratitude also goes out to those who have agreed to spend time and effort on my behalf as members of the doctorate committee for this thesis; not in the least Petra van Dam who already assessed my pilot study and gave the wise counsel to limit the scope of the research.

Conducting research can sometimes be a lonesome affair. If only therefore, I liked to participate in the early modern AIO club. It was a pleasure to share ideas, tips and tricks in a very sociable atmosphere. I also much appreciated the opportunity to present some preliminary results at The Home in History workshop, organized by Richard Bates and his team from the University of Nottingham. In particular, I keep fond memories of the discussions with Matt Pawelski and Molly-Claire Gillet.

Turning attention to my personal acquaintances, I want to express my thanks to Jaap and Anemoon van Harlingen. Both being geographers, they first made me aware of the reciprocal relationship between human behaviour and the physical features of a region. In addition to that, they were the driving forces behind the publication of *Leven langs de liniedijk. Het noordwestfront van de Stelling van Amsterdam*, which ultimately lured me back towards scientific research.

Obviously, I would never have dreamed of doing research at all, but for the big-heartedness of my parents. They supported me in every way when I went to university in 1994, even though it meant that their little girl entered a world that was quite unfamiliar to them. For that, and for much more besides, I thank them profoundly.

I credit both of my parents-in-law with their unwavering enthusiasm, showing interest at every stage. Even in her burdensome last months, my mother-in-law remained curious about every single detail, as was her wont. She would have dearly loved to see the completed work. This book is dedicated to her.

The last words of this section are to both my 'boys', who had to put up with an increasingly distracted housemate. I hope I have demonstrated to Casper that it may be fruitful to take a new turn every now and then. I wish he will continue to sculpt a path through life of his own volition. Finally, to David: even though you loathe water – especially when seeping into our home – we have managed to knock about together for quite some time now. Your unconditional support has been important to me throughout. I hope there lies an even longer road ahead of us yet.

Preliminary notes

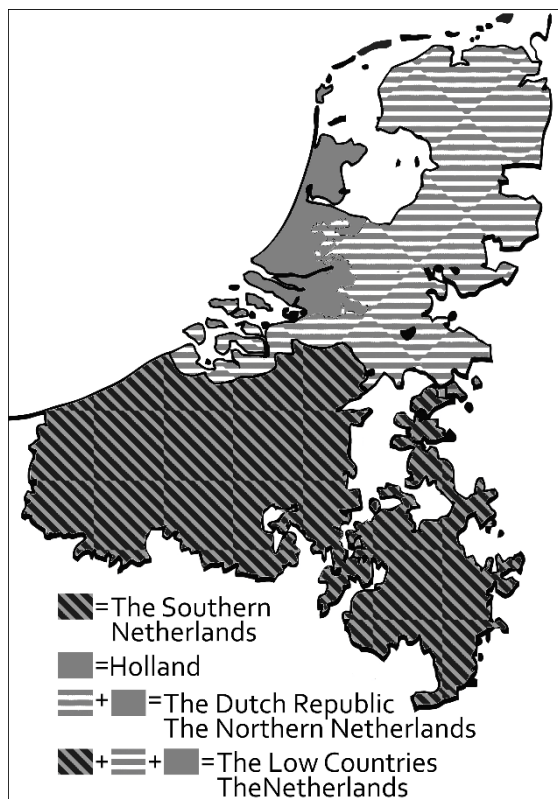


Fig. 1. Map of The Netherlands (situation of 1648).

The region broadly covering modern-day Belgium and The Netherlands has gone through many name changes. In this study, the terms The Low Countries and The Netherlands indicate the entire region. Thus, they encompass the Southern Netherlands – which is roughly modern-day Belgium – and the Northern Netherlands. The latter name is, along with the term the Dutch Republic, used for the area which is nowadays covered by the sovereign state known as The Netherlands. The name of Holland, although often used as a *pars pro toto* for the entire country, exclusively designates the county of Holland, being one of the seven provinces making up the Dutch Republic. Maps of Holland and

the cities of Alkmaar, Haarlem, The Hague and Rotterdam are provided in appendix 2.

Place names are written in the current English form, if applicable. In the absence of an English nomenclature, the modern Dutch spelling is prevalent. When writing about streets whose name still exists, I use that name as it is nowadays known locally. Streets that perished or whose name has changed are indicated with a name that stays close to its appearance in the sources. In Dutch citations in the footnote, the original spelling is given.

The spelling of the Dutch language was not standardized in the seventeenth century. Wherever I use an (early) modern Dutch word in the body of the text, it is in the form recorded in the *Woordenboek der Nederlandse Taal* (WNT), the historical dictionary of the Dutch language. In citations, the original form is

included. For instance, the municipal organizations which oversaw and executed public works and managed the necessary tools and resources, are mentioned in the sources as *fabryck*, *fabrycq*, *fabrijck*, *fabrijcq*, *fabriecq* and *fabrick*. Instead, I use the WNT-form *fabriek*. The single exception to this rule is the word *burgher* for a citizen. The actual WNT-form is *burger*, yet the term *burgher* is commonplace among historians writing in English about citizens from the Low Countries. Citations are translated into English, with the original text in a footnote, normalized in accordance with the critical-normalizing method.¹

For the conversion of premodern units of measurement into metric measures the local system of units is used. For example, a foot was 0,279 meter in Alkmaar; 0,276 in Haarlem; 0,314 in The Hague; and 0,312 in Rotterdam.²

The currency of the Dutch Republic was the guilder, indicated as the *gulden* or *carolusgulden*. It was divided into twenty *stuivers*. A *stuiver* was divided into sixteen *penningen*. Around 1630 the average summer wages were about 13 *stuivers* per day for a carrier, 16 *stuivers* for an unskilled labourer and 23 *stuivers* for a master. In winter, when daylight lasts shorter, employees got paid one-fifth to a quarter less than in summer.³

¹ Beekelaar et al., *Richtlijnen*.

² Verhoeff, *De drinkwatervoorziening*.

³ Vries, de & Van der Woude, *The First Modern Economy*, 610, 615.

Introduction

The undersigned neighbours, living in the Nieuwe Vogelenzang in this city, make known with all due respect that the streets and gutters in front of their respective houses are lying so low and unevenly, that these are submerged by common rainfall both in summer and winter. ... So much indeed, that it is to be feared that the situation will engender major accidents.¹

Appeal to the burgomasters and regents of Rotterdam, 1658.

In the fall of 1658, twelve inhabitants from a street in the heart of Rotterdam took the initiative to make a plea to the magistrates of the city. The condition of the street they lived in, known as the Vogelenzang, Nieuwe Vogelenzang or Stinksloot, bothered them.² In the appeal cited above they made two requests. First, they sought the magistrates' authorization for the raising and evening out of the road surface. Secondly, they asked the municipal administration to reconstruct the timeworn sewer that used to drain any surplus water from the street to a nearby ditch. From the moment they started preparations to submit the appeal, the concerned inhabitants of the Vogelenzang set off a chain of activities. Although we do not have direct evidence for it, they supposedly had discussed the matter informally among themselves, frowning upon the street's disrepair and the incidents it caused. Then they organized themselves, gathered supporters, went to a notary to draw up the appeal and submitted the document to the burgomasters and regents. What is more, this sequence of activities likely triggered a counter-action by another group of residents of the Vogelenzang. For which we do in fact have evidence, since they lodged a counter-appeal with the magistrates, pleading to withhold their permission to raise the street. Confronted with two conflicting

¹ *Geven reverentelijck te kennen de ondergeschreve gebuijren wonende in de Nieuwe Vogelsanck binnen deser stede, hoe dat de straten en de goten voor heurluijder respectie huijsingen soo laag ende ongelijck sijn leggende, dat deselve bij somer ende wintertijden door een gemeenen regen onderleggen. ... Ja soodanich, dat te duchten staat groote ongelucken daar uijt sullen resulteren, SAR OSA 2626 (Rotterdam, 1658). For the location of the Vogelenzang, see map 5:C2; Rotterdam, see map 1:B5.*

² Although it is tempting to assume that the inhabitants made up the name Stinksloot (stinking ditch) for the occasion, in order to engender sympathy, this was not the case. The street got its name from a former ditch that had been filled in. It was used in records throughout the sixteenth to eighteenth century.

requests, the urban governors held an inquiry among the inhabitants of the street to gauge the general mood.³

The example of just one street in seventeenth-century Rotterdam demonstrates that a description of seemingly unremarkable circumstances can tell much about affiliations within the urban community. The occurrence of puddles during rainy weather, an event that sounds quite ordinary, induced people to take action. The written accounts these actions left, reveal that city dwellers formed ad hoc associations to address their needs; that they consulted the people living in the vicinity; that they were at liberty to point out the administration's competence or negligence; that they acknowledged the magistrates' authority to decide on infrastructural works; and that the magistrates, in their turn, felt obliged to examine the interests of all stakeholders. In other words, water and its infrastructure offer a very local view of events and negotiations, which were typical of urban life.

In this study I seek out the ordinary and extraordinary confrontations of Holland's townspeople with water in the first six decades of the seventeenth century. The study of everyday human encounters with basic elements like water is most beneficial to reveal the distribution of responsibilities within the city. In the case of seventeenth-century Holland, the encounters indicate that society was highly subsidiary, which means that responsibilities were in principle allocated at the lowest possible level. Individuals had much autonomy to make decisions about their immediate environment, seeking help from neighbours, civil organizations and the pertinent magistracy. In a similar way, neighbours and professional colleagues – not necessarily neighbourhood organizations and guilds – bore considerable local responsibilities. Indeed, the practice to enter ad hoc alliances was so common that it is reasonable to question the tendency among the region's historians to focus on the central organizational levels. Closely considering water and its management thus exposes the tensions within society and the intensity with which they were handled at each level.

Water is an environmental given: everybody needs it and no one can escape it. Moreover, in its presence or absence it has the force to threaten people and their possessions. It is also a depletable resource: utilization restricts its advantageousness to others, either in a quantitative or a qualitative sense.⁴ In short, water affects every single member of communities, rural and urban alike.⁵

³ For the full text of the appeal, the counter-appeal and inquiry, see appendix 1. Their contents are discussed in chapter 1.

⁴ Ewert, 'Water, Public Hygiene and Fire Control'; Ostrom, 'The Challenge of Common-Pool Resources'.

⁵ Fagan, *Elixir*.

By watching society through a substance that touches everybody, one comes as near to watching a cross-section of society as one can get.⁶ This angle enables us to see Holland's society afresh, nuancing existing ideas about the organization of its urban communities in general and the role of civil organizations and occasional groups, as well as the development of a notion of privacy in particular. Because water is everywhere and unavoidable, environmental historian Terje Tvedt saw the study of water systems as a perfect method for analysing societies. He coined the term complex and multi-functional water system, henceforth shortened to water system. He defined it as the combination of water's physical appearance, the relation between water and humans, and the meaning people give to the substance.⁷ People can transform the water system, for instance by making changes to the environment or changing the meaning they attribute to water. Conversely, as we will see in this thesis, the ubiquity of water also sometimes forced people into action, thereby impacting the way people lived together.

The aforementioned aspects of water come with a couple of advantages. First, the versatility of the substance offers a variety of opportunities to peek at society at several levels, from the petty negotiations between individual households to the eventual interconnection between guilds and both urban and regional administrations. Moreover, because of water's multifarious applications, people had to work out a way of dealing with conflicting interests. Because of the friction they expected or experienced, some of them were inclined to record their agreements, providing the evidence we need to reconstruct their accomplishments.

The relationship of Holland's inhabitants with water has been subject to research for a long time and from different perspectives. Historians including Petra van Dam, Milja van Tielhof and Diederik Aten conducted several studies on environmental challenges, water management institutions and water-related developments in the countryside of Holland.⁸ Archaeologist and historian Roos van Oosten mainly focussed on infrastructural arrangements in cities.⁹ Along the same lines, historians Cor Smit and Jurjen Vis discussed how Holland's inhabitants used water as a means to get rid of urban waste.¹⁰ Historian Simon Schama used the proverbial Dutch cleanliness and the continuous struggle against water

⁶ About the representativeness of the sources, see further in this section under the header Chronology, sources and methods.

⁷ Tvedt, 'Water Systems', 147.

⁸ Dam, van, 'Sinking Peat Bogs'; Tielhof, van & Van Dam, *Waterstaat in stedenland*; Aten, 'Een afgerond geheel'; Tielhof, van, 'Betrokken bij de waterstaat'; Aten, *Stormenderland*; Dam, van, 'An Amphibious Culture'; Tielhof, van, 'Het college van hoofdingelanden'.

⁹ Oosten, van, 'The Great Sanitary Awakening'; Oosten, van, 'The Dutch Great Stink'.

¹⁰ Smit, *Leiden met een luchtje*; Vis, 'Van vulliscuyl tot Huisvuilcentrale'.

eloquently but also quite elusively to make some sweeping statements about the nature of the Dutch people.¹¹ As yet, however, no one explored Hollanders' communications about water systematically with the question in mind what that can tell us about the organization of duties and responsibilities in Holland's urban communities. Here is a lacuna to be filled, providing a more inclusive image of society than historians' usual focus on designated groups within that society.

With an eye toward this aim, the core of this dissertation consists of three chapters. The first presents the encounters with water that the inhabitants of Alkmaar, Haarlem, The Hague and Rotterdam reported in appeals to the urban magistrates, patent applications and notarial records. It argues that a microhistorical approach, especially using a ubiquitous element such as water as a prism, illuminates social and material relationships within a city in general and the allocation of responsibilities in particular. The second chapter is dedicated to the concept of subsidiarity, which is the principle that authorities should refrain from exercising power on matters that can be handled at a more local level. Its main argument is that Holland was a highly subsidiary society in the seventeenth century and that civil organizations played a less decisive role in everyday negotiations than historians tend to assume. Expanding on the findings of chapter 2, the final chapter focusses on the eventual boundary between several public and private spheres. It shows that, consequent upon the haphazard allocation of tasks, there was no clearly defined boundary between these realms. Nevertheless, it also traces clear signs that a notion of privacy was emerging among ordinary city dwellers, alongside a recognition of shared interests.

The remainder of this introduction summarizes the primary topics addressed by the dissertation, laying down both its premises and hypotheses. The underlying historiographical significance takes centre stage in the next section, providing a detailed breakdown of the main theses and debates. Subsequently, I explain the choices made concerning the chronology, sources, as well as methods of research and analysis. The introduction ends with the environmental and geographical background that is essential to understand the threats to and potential changes in seventeenth-century urban Holland, including an introduction of the four cities highlighted in this study.

Theses and debates

In her inaugural lecture as professor of water- and environmental history, Petra van Dam drew attention to the amphibious culture of the low-lying parts of The

¹¹ Schama, *The Embarrassment of Riches*.

Netherlands, including Holland.¹² Applying Greg Bankoff's coping mechanisms of a risk society to the Netherlands, Van Dam listed the various ways by which Dutch communities used to limit the material consequences caused by flooding: dividing low-lying land into compartments; living on and organizing relief aid from elevated places, which were mainly towns; and the availability of waterborne transportation aimed at evacuation.¹³ In other words, Dutch society was prepared for extraordinary disasters, at least where it concerned floods. In my opinion, there is a strong argument for calling the early modern culture of the Low Countries amphibious, but not only because people living in the delta along the North Sea were able to cope with the recurring submersion of their habitat. A focus on floods is a logical result of the application of Bankoff's theory, yet there is much more to explore beyond the disaster-centred approach. This dissertation highlights how coping with water and managing its risks were a routine part of life. So much indeed, that historians can use water as a spyglass for observing local society and politics.

By utilizing this instrument, I engage in several historiographical debates, which are presented next. First, I discuss the merits of a microhistorical approach and the relation to the field of history of everyday life. Then follows an explanation of the concept of subsidiarity, calling attention to various debates about the role of governments, civil organizations and individual residents in urban communities. Consecutively, I discuss the implications of subsidiarity on the division of public and private spheres.

Historians Sarah Pennell and Frank Trentmann demonstrated that the study of common objects, and matter in general, can tell us much about how people actually lived.¹⁴ In the same vein, the study of a ubiquitous substance like water, with which people deal daily whether they like it or not, illuminating basic conventions of society. I argue that observing the quotidian reveals how people lived together on a daily basis, and thus how society functioned. Since sociologists like Norbert Elias and Henri Lefebvre put the ordinary on the historians' agenda in the first half of the twentieth century, the meaning of the term 'history of everyday life' and its German counterpart *Alltagsgeschichte* has taken off in several directions. One of the most successful connotations is that of 'history from below', the narrative of the labourers, the destitute, the oppressed or the nameless mass,

¹² Dam, van, *De amfibische cultuur*. See also Dam, van, 'Denken over natuurrampen'; Dam, van, 'An Amphibious Culture'.

¹³ Bankoff, 'The English Lowlands', 19; Dam, van, *De amfibische cultuur*, 7-12; Dam, van, 'An Amphibious Culture', 81-88.

¹⁴ Pennell, 'Material Culture'; Trentmann, 'The Politics of Everyday Life', 544.

in contrast to the history seen from the viewpoint of the ruling classes.¹⁵ An exclusive bottom-up focus is not the approach taken in this dissertation, however, which instead opts to incorporate the elite, the underprivileged, and all those community members between them.

Another widespread understanding of history of everyday life, and the one I use in this thesis, is the description of the habitual, as distinct from exceptional events. These activities seldom received a documentary record, especially in premodern times.¹⁶ With the connotation of the habitual in mind, the history of the everyday is related to the domain of microhistory. Microhistorian Giovanni Levi suggested that observing the minute details of history provides an opportunity to look afresh at reputedly well-known episodes.¹⁷ Likewise, the stories of objects and materials encountered on a daily basis can be generalized and extrapolated to a bigger picture. Thus, seemingly trivial stories about water in all its appearances put together an image of the organization of entire communities.

Thus, the everyday, in the sense of the ordinary and uneventful, does not necessarily refer to privileged or underprivileged groups. Nor has it anything to do with the division between the authentic and the artificial, or between public and private realms.¹⁸ Habits are kept by rich and poor alike, can be either unpretentious or highly refined, and can take place publicly as well as in absolute solitude. Trentmann suggested to regard the everyday as a phenomenon 'in between' instead of something ruled from above or coming up from below; a sphere "where the infra- and extraordinary meet and, sometimes, collide."¹⁹ Although the word extraordinary is a bit infelicitous – the exceptional is as uncommon as it can get – it conjures up a convenient dichotomy: the everyday as an area of interchange between the elite and commoners, the authentic and the artificial, public and private realms.

At the same time, Trentmann's proposition leaves ample room for the notion that even daily habits are dynamic, for instance under the influence of a changing water system. The premise of this study is that the urban communities in the province of Holland endured a multitude of stressors in the seventeenth century. The inhabitants had to deal with, in no particular order, population growth, political turmoil, warfare, mass migration, economic expansion, religions competing for prevalence, as well as ecological changes. Some of these had or

¹⁵ Moran, 'History, Memory and the Everyday', 51-52; Trentmann, 'The Politics of Everyday Life', 523.

¹⁶ Moran, 'History, Memory and the Everyday', 66; Trentmann, 'The Politics of Everyday Life', 522.

¹⁷ Levi, 'On Microhistory', 97-98.

¹⁸ Cf. Trentmann, 'The Politics of Everyday Life', 522-523.

¹⁹ Trentmann, 'The Politics of Everyday Life', 524.

could have had an impact on the use of and ideas about water among the townsfolk. However, this dissertation will demonstrate that there was continuity rather than change between 1600 and 1660, both regarding the ways people dealt with water and regarding the organizational structure of the urban communities.

The idea of subsidiarity has earned relatively little attention from historians so far. This neglect is decidedly remarkable considering how well the notion fits the organizational structure of Holland, at least in the seventeenth century. Stakeholders, be they individuals, loose associations or official organizations, generally took up responsibilities themselves, seeking assistance whenever they needed it. Regarding the urban communities at a microhistorical scale, subsidiarity is evident from the large share of residents participating in everyday politics, as well as from the wide range of formations involved in water politics. Moreover, a view that does not take corporations' centrality in this process for granted, indicates that civil organizations, specifically guilds, played a less important role in urban society than historians tend to assume. Indeed, the assembly of records about confrontations with water indicates that the involvement of occasional associations was at least as widespread as the contribution to urban politics by civil organizations like guilds and neighbourhood organizations.

Reflecting on a potential research agenda concerning public services, historian Karel Davids proposed to study the evolution of ideas about subsidiarity. He pointed to the kinship of this concept with notions about citizenship and the common good, that is, the principles around which a community is structured.²⁰ The allotment of responsibilities is at the core of an understanding of subsidiarity. Examining water politics is perfectly suitable for the study of contemporary ideas about the allocation of responsibilities within cities, since water was needed daily by everyone, could be used in numerous ways, provided opportunities and posed threats at the same time.

The concept of subsidiarity, dealt with by modern and premodern federalists alike,²¹ comes straight from the work of the Dominican friar Thomas Aquinas (1225-74).²² For his part, Aquinas drew on the ideas of Aristotle (384-322 BCE), especially concerning the relation between the household (*oikos*) and the city (*polis*). According to Aquinas, a society was composed of several self-sufficient entities. Each had its own responsibilities, in accordance with its capabilities. Consequently, he imagined a tiered society consisting of units that are increasingly

²⁰ Davids, 'Public Services', 389.

²¹ Subsidiarity is one of the leading principles of European Union law, laid down in article 3b:3 of the 2007 *Treaty of Lisbon*.

²² Finnis, 'Subsidiarity's Roots', 138.

more self-sufficient: from the household, via the neighbourhood to the city, and even further to the province. The ruler of each stage had the obligation to care for his domain like a good housefather.²³ The idea of subsidiarity entails that it is unjust for an authority to usurp responsibilities that can be borne by entities operating on a smaller scale, which can be either groups, families or individuals.²⁴

However, if a unit cannot bear the responsibility alone, aid (*subsidium*) from other communities or a governing body is appropriate.²⁵ The purpose of Aquinas' idealized municipal government was to serve the needs of the citizens, yet only if they needed its assistance. In northwestern Europe, both Aquinas' notion that rulers should serve their subjects and his image of a tiered society influenced ideas about the allocation of responsibilities within communities. The philosopher Johannes Althusius (c. 1563-1638), for instance, saw the city as a composite of voluntary alliances of families, households and corporations, which could only be managed by consent of the individual members.²⁶ According to Althusius, the ultimate task of leaders was to maintain the stability within the interdependent associations. Governments should not merely lend a helping hand in need, but act as the citizen's "super-servant," as sociologist Ringo Ossewaarde called it.²⁷ In the Netherlands, people like the jack-of-all-trades Simon Stevin (1548-1620) and the political thinker Pieter de la Court (1618-85) had ideas similar to those of Althusius.²⁸

In his volume about citizenship, economic and social historian Maarten Prak argued that historians have long underrated the influence that ordinary people had on decision-making in their home towns.²⁹ He identified two mechanisms through which Dutch city dwellers restrained the urban government. The first was ideological: both rulers and ruled trusted that the magistrates truly acted on the citizens' behalf. The second was the formation of diverse civil organizations, which brought the interests of their members under the magistrates' attention. By way of explanation, Prak pointed to eighteenth-century appeals that corporations like guilds and civic militias submitted to the urban authorities.³⁰ Appeals were a noteworthy way of lobbying, yet I am not convinced that in the seventeenth century this instrument was used nearly exclusively by corporations. The role of

²³ Aroney, 'Subsidiarity', 165-184.

²⁴ Finnis, 'Subsidiarity's Roots', 134.

²⁵ Aroney, 'Subsidiarity', 163.

²⁶ Black, *Guilds and Civil Society*, 132, 139; Blicke, 'Die "Consociatio" bei Johannes Althusius', 231-232.

²⁷ Ossewaarde, 'Three Rival Versions of Political Enquiry', 113.

²⁸ Boer, den & Fleurkens, *Secrets*, 190-192; Secretan, 'Simon Stevin's Vita Politica', 9; Weststeijn, *Commercial Republicanism*, 137-138.

²⁹ Prak, *Citizens without nations*, 5.

³⁰ Prak, *Citizens without nations*, 203.

individual residents and voluntary associations has to be considered as well. Based upon the evidence gathered from water-related appeals, I propose to add a third mechanism that gave people political leverage, namely the opportunity to express their opinion directly. Implicitly, Prak recognized this mechanism as well, but he linked it emphatically to the citizens' influence through civil organizations.

Of all corporations that played a role in the cities of Holland, guilds are the most widely examined. Historians writing about craft guilds seem to agree that their political impact in England, the Low Countries and especially Holland was limited.³¹ Nevertheless, from studies dedicated to the guilds and their activities, one gets the impression that they were of great consequence within the cities, not only regulating labour and market conditions, but also keeping the peace, collecting taxes, participating in the urban administration and providing charity, education and all kinds of public services.³² Prak, for instance, repeatedly stressed the guilds' importance as a channel between the citizens and the urban authorities.³³ Regarding society from a different angle, city dwellers' dealings with water in this case, reveals that in some aspects of urban life ad hoc associations were far more important than guilds or other corporations.

One of the implications of loosely allocating tasks in a given society is the difficulty to draw a clear line between public and private realms. The potential existence of public-private dichotomies is the common theme of the final chapter. Several historians see the fluidity of the boundaries between the public and the private sphere as a typical feature of premodern European societies.³⁴ Cultural historian Michael McKeon saw the explicit detachment of the public and the private sphere as one of the benchmarks of modernity.³⁵ He compared the partition of the public and the private sphere to the distinction between work and labour, a subject covered by philosopher Hannah Arendt.³⁶ According to McKeon, an implied segregation between the two existed in premodern times. He argued that the conscious designation of the spheres, by which they were palpably separated in the minds of people, is what marks modernity.³⁷ Signs that Holland's urban

³¹ Lis & Soly, 'Craft guilds', 13; Prak, 'De Nederlandse stadsrepublieken', 76-78; Ogilvie, 'The Economics of Guilds', 172; Prak, *Citizens without nations*, 57.

³² Cf. Deceulaer, 'Guilds and Litigation'; Bos, 'A tradition of giving and receiving'; Dumolyn, 'I Thought of It at Work', 402-404; Prak, *Citizens without nations*, 115.

³³ Prak, 'Corporate politics', 103-104; Prak, *Citizens without nations*, 47.

³⁴ Burg, van der, 'The rise of public facilities', 10-11; Heijden, van der, *Civic Duty*, 23; Cf. Trentmann, 'The Politics of Everyday Life', 524, 543.

³⁵ McKeon, *The Secret History of Domesticity*, xix-xx.

³⁶ Arendt, *The Human Condition*, 7.

³⁷ McKeon, *The Secret History of Domesticity*, xix.

dwellers by the seventeenth century had started to define inclusion and exclusion zones are discussed in chapter 3.

The heterogenous manifestation of water in everyday life, as well as its multifarious meaning for the users, offers historians a broad look on society. It allows us to investigate if and how seventeenth-century people perceived boundaries between public and private realms, because it illuminates the encounters, expectations, liaisons and frictions between individuals, corporations and governing bodies. Chapter 3 accordingly discusses three different but interrelated public-private dichotomies. Drawing on Habermasian ideas about the emergence of a public sphere, it first explores the ways Holland's city dwellers discussed everyday issues among themselves and with the authorities. Subsequently, it attends to the arbitrary boundary between public and private spaces and finally to the pursuit of the common good.

The discussion of public-private divisions is inextricably linked to the Habermasian concept of public and private spheres and the emergence of a rational and critical discourse. In his much-debated volume *Strukturwandel der Öffentlichkeit*, sociologist Jürgen Habermas reasoned that the process of people meeting and discussing politics in shared spaces, such as coffee houses, market places and the sites of public wells, was essential to the rise of a bourgeois civil society in Europe. Thus, according to Habermas, a "public sphere" emerged in various European societies from the eighteenth century onward, marking a watershed between the *Ancien Régime* and modernity.³⁸ Many historians have argued that, in a sense, divisions between a public and a private sphere had appeared long before the eighteenth century.³⁹ Regarding the Dutch Republic, they drew attention to the existence of a "discussion culture" in the seventeenth century, referring to the practice of consultation of the citizens by the authorities.⁴⁰ Thus, there is little to be gained by challenging Habermas once more in an attempt to predate the emergence of the public sphere. By now, that point has been made convincingly. When substantiating their argument about the premodern public domain, historians usually refer to means of communication that were intended beyond doubt for public dialogue, like ritualized ceremonies,

³⁸ Habermas, *Strukturwandel der Öffentlichkeit*, 46-52. The work was translated into English in the 1980s and published as *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (Cambridge MA 1989).

³⁹ See, for instance, Pettegree, 'A Provincial News Community'; Pollmann & Spicer, *Public Opinion and Changing Identities*, 1-9; Symes, *A common stage*; Deen, *Publiek debat en propaganda*; Geltner, *Roads to Health* 41 ff.

⁴⁰ Frijhoff & Spies, 1650, 68; Aerts, 'Civil Society or Democracy?', 218; Prak & Van Zanden, *Nederland en het poldermodel*, 9-10; Helmers, 'Popular Participation', 124.

stage plays and broadsheets.⁴¹ Yet, with the exception of several studies about petitions, microhistorical approaches to this topic have so far been scarce.⁴² Instead of trying to adapt the Habermasian notion of the public sphere to expand its applicability, I propose to seek contemporary ideas of public and private realms. Looking at a microhistorical scale at the responsibilities taken by and granted to individual residents, civil organizations and governing bodies enables us to establish whether and where seventeenth-century city dwellers perceived any boundaries between their respective spheres of influence.

First, I will assess the scope of the existing discussion culture. Therefore, I explore how seventeenth-century city dwellers in Holland could influence decisions to be made by the authorities. The studies written about lobbying in the Northern Netherlands so far – predominantly about petitioning – focused mainly on the grand topics of history, like religious strife, matters of state and trading interests.⁴³ As a consequence, they analyse people's leverage on highly contentious political matters. A focus on water brings us closer to practical discussions about topics that bothered city dwellers in everyday life. The pleas they made, either by personal contact, appeals or even through mobilizing public opinion, were not in the first place meant to change society. Their aim was rather to reach workable solutions for mainly unexceptional problems they encountered. This does not mean that petitioning was uncomplicated. By presenting their difficulties, petitioners implicitly and sometimes explicitly commented on the municipal government. Moreover, the fact that townspeople took liberties to criticize the establishment on commonplace matters can be seen as a prerequisite for a critical discourse on more contentious issues. Scholars writing in the Habermasian tradition have argued that discussions in salons, coffee houses, guilds as well as during incidental meetings on the street, prepared people for political participation.⁴⁴ If we conceive of these instances as figurative schools, teaching residents the art of political

⁴¹ Frijhoff & Spies, *1650*, 107; Symes, *A common stage*; Stein, 'An Urban Network', 48-58; Dumolyn & Haemers, 'Let Each Man Carry on'.

⁴² Sarah Rees Jones' article on Chaucer and the regulation of nuisance in London is a notable exception: Rees Jones, 'The word on the street'.

⁴³ Harline, *Pamphlets*; Schilling, *Religion, Political Culture*, 416 ff; Harms, *De uitvinding van de publieke opinie*, 114; Reinders, *Gedrukte chaos*; Yasuhira, 'Confessional Coexistence', 10; Tol, van den, 'Kondschapen'. A notable exception is Henk van Nierop's investigation of eighteenth-century petitions filed in the city of Amsterdam: Nierop, van, 'Popular Participation'.

⁴⁴ Habermas, *Strukturwandel der Öffentlichkeit*, 46 ff; Black, *Guilds and Civil Society*, 126; Lynch, *Individuals, Families and Communities*, 220; Bohman, 'Expanding dialogue', 133; Prak, 'Corporate politics', 102; Aerts, 'Civil Society or Democracy?', 218-219; Van Dijck, 'Democracy and Civil Society', 72-73; Helmers, 'Popular Participation', 124. Cf. Arendt, *The Human Condition*, 12-17.

participation, the act of submitting petitions about down-to-earth matters may be seen as practical training. The inhabitants of the Vogelenzang in Rotterdam, cited at the opening of this introduction, had probably gone through a political process already before they submitted their appeal to the magistrates: shaping their ideas, discussing them within the neighbourhood, drafting the appeal and collecting signatures.⁴⁵ Here I discern the everyday as a phenomenon hovering between the public and the private sphere that Trentmann points out.⁴⁶

Subsequently, the attention shifts to the eventual division between public and private spaces. As mentioned before, historians regard an unclear boundary between public and private realms as one of the characteristics of premodern European societies.⁴⁷ A close look at water-related negotiations within the urban communities reveals that the mutability of spatial public-private borders continued well into the seventeenth century. In the second section of chapter 3 I retrace these liminal areas, discussing coeval ideas about inclusion and exclusion, as well as the associated ideas about the authority to make decisions. Furthermore, I will claim that a notion of privacy emerged earlier in the cities of Holland than scholars have assumed. Its emergence was probably connected with the densification of the urban fabric during the late sixteenth and seventeenth century, attributable to population growth.

Finally, the possible gap between public and private interests takes centre stage. Philosophers Francis Schweigert and John Finnis regarded solidarity, that is, selfless behaviour for the benefit of others or for the common good, as virtually irreconcilable with subsidiarity.⁴⁸ Instead, historian Janna Coomans drew attention to the ambiguity of the common good. On the one hand, people may say they pursue the common good because they are genuinely concerned. Yet they can also use the phrase to strengthen a claim they make chiefly in pursuit of their own interests.⁴⁹ Looking at the motivation that seventeenth-century city dwellers gave for their engagement in water politics, this study reveals that they acted predominantly out of self-interest. Moreover, they did this candidly. In a subsidiary society like Holland's, there was nothing dishonourable about fending for oneself openly, as the following chapters show.

Nevertheless, townspeople throughout Europe expected each other to behave with consideration towards their fellow residents. The inhabitants of London, for

⁴⁵ SAR ONA 2626 (Rotterdam 1658). See further chapter 3 about this process.

⁴⁶ Trentmann, 'The Politics of Everyday Life', 524.

⁴⁷ McKeon, *The Secret History of Domesticity*, xix-xx; Burg, van der, 'The rise of public facilities', 10-11; Heijden, van der, *Civic Duty*, 23. Cf. Trentmann, 'The Politics of Everyday Life', 524, 543.

⁴⁸ Schweigert, 'Solidarity and Subsidiarity', 33-36; Finnis, 'Subsidiarity's Roots', 137-138.

⁴⁹ Coomans, *In Pursuit of a Healthy City*, 38-39.

example, were explicitly proud of their companionship, harmony and, reputedly, their eye for the common weal.⁵⁰ Historian of political thought Antony Black pointed out that German and Dutch cities, many of which emerged in the thirteenth and fourteenth century, derived their vocabulary concerning communal values from guilds and religious confraternities, speaking of “friendship,” “partnership” and “common, loving and friendly ways.”⁵¹ In other parts of Europe, premodern municipal authorities also defended their actions with reference to “the benefit and health of all.”⁵² Arrangements meant to serve a large audience are associated with the provision of public services like charity, healthcare, sanitation and the erection of public buildings. In premodern European cities, these services were not public in the sense that they were exclusively in the hands of public bodies. Governments as well as guilds, religious institutions, neighbourhood organizations, wealthy families as well as charitable individuals took the kind of initiatives that are nowadays in the hands of public agencies, at least in The Netherlands.⁵³ Neither were these services public in the sense that they were accessible to all. Especially poor relief was segmented, discriminating between citizens and non-citizens, members of certain guilds or adherents of a specified belief.⁵⁴

To avoid semantic confusion about services being ‘public’ or not, I will henceforth use the term “urban services,” defined by archaeologist Michael E. Smith and others as “activit[ies] performed or provided by a government, institution, group, or individual to the benefit of urban residents ... whose primary use pertains to more than one household.”⁵⁵ Regarding different communications about water, I look into the tension between the need to provide urban services, the tendency to look after one’s own interests, and the perceived role of several groups in urban communities.

Chronology, sources and methods

This dissertation concerns Holland in the first six decades of the seventeenth century. It was an era of development in many fields – demographic, economic, political, climatologic and geographical – which might have affected either the water system(s) or the way urban communities were organized. The start of the

⁵⁰ Archer, *The pursuit of stability*, 50-51.

⁵¹ Black, *Guilds and Civil Society*, 69-78.

⁵² Geltner, *Roads to Health*, 6, 68. Cf. Eibach & Esser, ‘Urban stability’, 7.

⁵³ Colson & Van Steensel, *Cities and Solidarities*, 5; Ewert, ‘Water, Public Hygiene and Fire Control’, 234; Haemers & Ryckbosch, ‘A targeted public’, 205-206.

⁵⁴ Prak, ‘Corporate politics’, 104; Nederveen Meerkerk, van, ‘Professionalization of Public Service’, 352; Boele, *De stad als sociaal lichaam*, 148-149; Heijden, van der, *Civic Duty*, 138.

⁵⁵ Smith et al., ‘Conceptual approaches to service provision’, 1576.

period under survey is chosen for practical reasons: series of notarial archives are available in all of the selected cities from 1600 onward. By then, the battles of the Dutch War of Independence (1568-1648) on Holland's soil were some years past. Although not known at the time, the battleground had definitively moved to the southern and eastern provinces and to the sea.⁵⁶ Partly because of the wars in other regions, immigrants swarmed into Holland's cities, leading to an immense population growth. An economic boom increased the demand for commodities, including water, as well as the pressure on the environment.⁵⁷ The end of the investigated period has to do with the first signs of an economic turning point between 1650 and 1660. Annual wages stabilized while food prices increased, the flow of immigrants into Holland decreased, economic growth stagnated and some sectors even went into decline.⁵⁸ Given the scale of the available documentation, a period of sixty years is short enough to apprehend at once, while giving due attention to specificity, continuity and change. In particular, it is suitable for detecting eventual changes in people's attitudes towards water or power relationships in the towns.

The first half of the seventeenth century was an era in which the number of records, especially those made by notaries, swelled to enormous proportions. Hence, it is impossible to look at every notarial deed recorded in the selected cities between 1600 and 1660. To overcome this difficulty, I chose four sample periods: 1600-02, 1625-26, 1634-35 and 1649-50. The years 1600-02 were selected on the grounds that as of 1600 notarial archives were available in all four cities. Because of the small amount of records handed down from the early 1600s, this sample period consists of three consecutive years. Except for a couple of harsh winters, these were quite unremarkable years, in the sense that no game-changing events took place in Holland.⁵⁹ In the second sample period, in 1625, large parts of Holland suffered a storm surge. Villages along the North Sea and Zuiderzee coast and almost the entire area between the IJ and the Rhine submerged and several cities were afflicted as well. Both in 1625-26 and 1634-35 the plague was rampant in Holland's cities.⁶⁰ Considering that according to popular belief there was a connection between stagnant or smelling water and disease, it is feasible that the epidemics provoked inhabitants to engage in water politics. This is all the more

⁵⁶ The last encounter of the Dutch War of Independence on Holland's soil was the battle of Geertruidenberg in 1593. For the location of Geertruidenberg, see map 1:C6.

⁵⁷ Lucassen, *Immigranten in Holland*, 8, 25-31; Prak, *Het raadsel van de Republiek*, 120.

⁵⁸ Hart, 't, 'The Dutch Republic', 77; Lucassen, 'Labour and early modern economic development', 391; Noordegraaf & Van Zanden, 'Early modern economic growth', 411-413.

⁵⁹ All weather information in the next paragraphs is derived from Buisman & Van Engelen, *Duizend jaar weer 4 1575-1675*. About floods, see Gottschalk, *Stormvloed en rivieroverstromingen*, III.

⁶⁰ Noordegraaf & Valk, *De Gave Gods*, 43.

likely in 1634-35, when droughts led to stinking canals in the cities. By then, entrepreneurs had started the drainage of the Schermer Lake that had been important for the navigation to and from Alkmaar. The enterprise that changed the regional water system was completed in 1635. The years 1649-50 were different in another way. The Dutch War of Independence was over. This meant that governments needed to spend less on defence, releasing funds for other purposes, such as investments in water infrastructure. In 1650, a struggle for power between the States of Holland and the States General may have influenced the power relationships within the cities as well. I used the aforementioned sample periods for the selection of notarial records only. The documents from other archives, like petitions, patents and records from the municipal *fabriek*, originate from several years between 1600 and 1660.

Two types of primary sources form the fundament of this study: appeals presented to the urban authorities and notarial deeds. I supplemented these with patents and patent applications submitted to the States of Holland, title deeds, municipal regulations, minutes of city councils, measurement reports and tender documents from the municipal bricklayers' and carpenters' yard wherever available. To put the data into perspective, I also made use of pamphlets and treatises, maps, a collection of rules of Dutch law and travelogues. Below I will explain the selection process and the challenges these documents present.

The inhabitants of Holland had the possibility to appeal to the urban magistrates on all kinds of issues by presenting a *request*, which translates roughly as a petition, appeal or written request. The topics addressed in premodern appeals vary from pleas to change of infrastructural arrangements on the one hand to demands for reconstitution of the magistracy on the other. It is in the former category that the occurrence of water-related appeals is the most likely. A petition was a direct way of communicating between inhabitants and magistrates, leaving traces in both municipal and notarial archives. These shed light on the structuring of the community and eventual private-public dichotomies. A petition had to be presented on a standard-sized sheet and provided with an official stamp, which cost a small sum.⁶¹ Since most petitioners also sought the help of a clerk to draw up the appeal properly, it is doubtful whether the poorest city dwellers were able to present a petition.⁶² Historian Griet Vermeesch demonstrated that those who submitted appeals in the eighteenth century included the poor, who used this

⁶¹ Nierop, van, 'Popular Participation', 284.

⁶² Reinders, *Gedrukte chaos*, 82-83; Tol, van den, 'Hendrick Haecxs: amateuristisch lobbyen', 48. Cf. Vermeesch, 'Miserabele personen' about the petitions filed *pro bono* in eighteenth-century Antwerp. Vermeesch explained the relatively small number of *pro bono* petitions by the high cost involved in drawing up the text.

means to ask for financial aid on a pro bono basis.⁶³ It is unlikely, however, that seventeenth-century organizations would give free legal aid for non-charitable purposes. So, although petitioning in theory was everyone's right, including those who were foreigners in the town, the group of petitioners does probably not mirror the urban stratification proportionately. This means that in spite of the microhistorical approach of this study, the story of the poorest residents cannot be told comprehensively.

The writer of a petition stated clearly by who and to whom the appeal was made, what the request contained and often a substantiation as well, making it an excellent source to trace what citizens expected from the municipal government. However, clerks did not always file – let alone save – the petitions systematically. The Hague's municipal archives retain the magistrates' verdicts concerning petitions presented since 1615.⁶⁴ Of the verdicts recorded between 1615 and 1659, eighty-five refer in some way to water in the city and were selected consequently. Since the clerks on duty copied a mere fraction of the original appeals into the register, the exact wording is not always known to us. Therefore, the substantiation of many of The Hague's petitions is lost. Moreover, it is my impression that only the petitions that were granted have been filed. Rejected appeals only show up among The Hague's magistral verdicts when more than one appeal was made in a single petition, of which only a part was granted. In other cities besides The Hague, petitions were filed even more haphazardly in the seventeenth century. The specimens used are found either in the municipal archives or the archives of the notaries who drew them up. From the available instances, all those were selected that had to do with water within the city's jurisdiction in one way or another. This way, twelve supplementary appeals from Rotterdam and four from Haarlem were added to the selection and none from Alkmaar.

According to historian Michel Reinders, petitions were typically delivered to the authorities by groups.⁶⁵ This may be the case with the politically sensitive petitions that Reinders investigated, yet the petitions concerning water-related issues present a mixed picture. Of the twelve water-related petitions found in Rotterdam, for instance, every single one was submitted by a group. However, within the selection of petitions from The Hague less than fifteen percent originated from a group. The difference of the parties involved in the presentation of an appeal can be easily explained by the nature of the requests, about which more later.⁶⁶

⁶³ Vermeesch, 'Miserabele personen'.

⁶⁴ HGA OA 120, 121-141 (The Hague 1615-1660).

⁶⁵ Reinders, *Gedrukte chaos*, 82.

⁶⁶ See the last section of chapter 2.

Throughout Europe and west Asia, petitions are known for their deferential language.⁶⁷ Granting that one cannot know whether true deference was meant, historians Joris van den Tol and David Coast and sociologist David Zaret drew attention to the fact that the sole act of submitting an appeal confirmed the authority of the addressee.⁶⁸ McKeon suggested that the inhabitants of seventeenth-century England saw appeals as a form of private communication between the petitioner and the sovereign.⁶⁹ According to Zaret, this changed during the English Revolution (1642-60), when lobbyists started to appeal to the public as well. In the same period, the first petitions appeared in print, thus seeking to mobilize public opinion. Zaret indicated that similar developments took place elsewhere in Europe from 1700 onwards.⁷⁰ Yet there are indications, even looking at water-related appeals, that a shift from unilateral petitioning towards invoking public opinion was also forthcoming in seventeenth-century Holland. Moreover, it is most likely that when a group submitted an appeal, the petitioners had discussed its contents beforehand with a larger audience. This was particularly the case when inhabitants joined together for the occasion: the initiator of the appeal must have gone around to drum up support and gather signatures.⁷¹ This is probably what happened among the inhabitants of the Vogelenzang in Rotterdam, cited at the start of the introduction. When the initiators canvassed for signing their appeal, they likely prompted some of their neighbours to draft a counter-appeal unintentionally.⁷²

A second type of source are statements and deeds recorded by notaries, mounting to nearly fourteen hundred water-related specimens from the four selected cities. Since 1907 historical notarial archives are stored in the respective Dutch municipal archives, but in principle seventeenth-century notaries worked independently from the municipal administration.⁷³ The notary demanded a fee for every copy he made. Thus, also through the notarial records the voice of the poorest inhabitants remains unheard. Historian Douglas Catterall pointed out that notarial records were not in the first place written for an official audience. Hence, their tone of voice is more informal than, for instance, that of petitions. In particular, they oftentimes quoted the signatories verbatim.⁷⁴ Yet, in the end they were meant to

⁶⁷ Tol, van den, 'Kondschappen', 442; Zaret, 'Petition-and-Response', 436-437.

⁶⁸ Tol, van den, 'Kondschappen', 442; Zaret, 'Petition-and-Response', 437; Coast, 'Speaking for the People', 52.

⁶⁹ McKeon, *The Secret History of Domesticity*, 69.

⁷⁰ Zaret, 'Petition-and-Response', 443-444.

⁷¹ Cf. Tol, van den, 'Kondschappen', 448.

⁷² SAR OSA 2626 (Rotterdam 1658).

⁷³ Staatsblad 1907:237; Pitlo, *De zeventiende en achttiende eeuwse notarisboeken*, 193-197.

⁷⁴ Catterall, 'Drawing Lives', 652, 660.

disclose information when needed. Therefore, it is to be expected that both the notary and the supplicants kept a public audience in mind when writing, shaping the narrative convincingly for future reference.⁷⁵ In my opinion, this places notarial deeds closer to official records such as appeals and patent applications than to informal texts such as letters and ego documents.

Notaries drafted all kinds of documents, traditionally divided into three categories: contracts, wills and documents concerning civil procedures.⁷⁶ Contracts, among which sales- and rental deeds, are important to establish what kind of water-related arrangements Holland's city dwellers made. They are helpful for detecting who negotiated with whom, and thus the organization of the urban community. They also shed some light on the problems that Holland's city dwellers encountered and the ways they tried to solve them. Notarial documents regarding civil procedures provide a glimpse into conflicts within the urban community and its disciplining practices. They tell us something about the perceived boundary between the public and the private, the role of the common good and the way people organized themselves to live together within a confined area.

The employed procedure-related documents are known as statement of contentions and protest (*insinuatie, protestatie*), testimony and questioning (*attestatie, verklaring, interrogatie*), and arbitration and verdict (*arbitratie, uitspraak*). Statements of contentions and protests were official notifications conveyed to the addressee by the notary in person. They usually contained a complaint, a demand and, in the case of a *protestatie*, an estimate of the loss suffered to date. Notaries used to write down the first reaction of the addressee next to the statement of contentions. *Insinuaties* and *protestaties* were seldom about water-related issues. By contrast, testimonies referring to water were quite common. Like statements of contentions, they provide insight into city dwellers' negotiations on a micro level and the frictions that arose between them.

The recording of testimonies and the much rarer questionings formed an important stage in preparation of a civil law suit. Historians assume that people used these accounts regularly as a pressure tactic. The threat that the preparation of a lawsuit had started in earnest, could be enough to reach a compromise or force the adversary to accept mediation.⁷⁷ This means that testimonies about water provide a glimpse of water-related issues within the city and thus on the reasons that urged city dwellers to start a negotiation process. Historian Daniel Smail found that in medieval France an official body of mason-assessors used to

⁷⁵ Cf. Davis, *Fiction in the Archives*.

⁷⁶ Pitlo, *De zeventiende en achttiende eeuwse notarisboeken*, 246

⁷⁷ Smail, *The Consumption of Justice*, 13; Meeteren, van, *Op hoop van akkoord*, 172-173.

settle disputes about drains, walls and the like.⁷⁸ In the seventeenth-century notarial archives of Holland, masons appear often as mediators, along with other experts and clerical functionaries like notaries. The *arbitratie* was the account of the mediation process. When the parties involved could not come to an agreement, the mediators handed down a verdict (*uitspraak*) or passed the case on to a higher authority.

The main difficulty of working with notarial archives is that they show a scattered image. Some people took the initiative to record the result of their negotiations or to draw up an eyewitness account, others did not. There is no way to figure out the ratio between those arrangements that were made orally and the agreements that were recorded. Moreover, we often get an incomplete and biased story through the notarial archives. This is particularly the case with testimonies, interrogations, statements of contentions and protests, which were drafted at the request of one party. They give an impression of the events that took place, yet we have to bear in mind that they might give a one-sided account. Besides, not every testimony was an eyewitness account in the legal sense: attestors recurrently declared that they had acquired their knowledge by hearsay.⁷⁹

Patents issued by the States of Holland and the States General might have been the third type of source to be examined exhaustively. Karel Davids observed that a huge number of patents granted by these institutions between 1580 and 1720 refer to inventions of hydraulic equipment, like pumps, dredging apparatus, and sluices.⁸⁰ Since these inventions most probably addressed some specific needs, they reveal something about the solutions people tried out in reaction to the challenges they faced. At close inspection, however, it appears that both the patents and the patent applications provide scant information about the inventors' motivations to try something new. Besides, the link between the inventions and the urban community is weak. Although a vast majority of the applicants originated from towns and cities in Holland, it remains unclear whether they aimed to serve the needs of the inhabitants of their town. There is a clue that at least some of them tried to tackle problems their fellow citizens encountered in daily life. Residents from Schiedam and Enkhuizen came up with solutions to remove shallows from a channel, for instance.⁸¹ They both lived in towns at the confluence of fresh water streams and salt water, which has the natural tendency to form

⁷⁸ Smail, *The Consumption of Justice*, 41-42.

⁷⁹ NHA ONA 54:23r-v (Haarlem 1602); SAR ONA 45:147-148 (Rotterdam 1602); RAA NotA 56:314r-v (Alkmaar 1625).

⁸⁰ Davids, 'Patents and patentees', 265.

⁸¹ HaNA SvH 370:402r-403r (1607); NHA SA 7323 (Haarlem 1645). For the location of Schiedam, see map 1:A5; Enkhuizen, map 1:C2.

sandbanks.⁸² Likewise, it was a representative of the budding merchant city of Amsterdam who invented a mechanism for raising bridges without slowing down ships.⁸³ A resident of Naarden contrived a new way of milling out water from a lake and demonstrated his invention at the banks of the Naardermeer, later to be drained.⁸⁴

Because of the limited value of these types of sources, I decided to include the patents requested from and issued by the States of Holland, but to waste no time on the patents issued by the States General. Thus, 38 water-related patents granted between 1600 and 1660 were selected. More than half of them concern inventions aimed at facilitating the drainage of small or large stretches of water.

Whereas the water-related appeals, notarial deeds and patents were picked systematically by scouring over three hundred volumes, the additional corpus was compiled intermittently. The selection of these documents depended heavily on their accessibility through the online inventories of the four municipal archives, the Universal Short Title Catalogue (USTC), the Short Title Catalogue Netherlands (STCN) and the Digitale Bibliotheek voor de Nederlandse Letteren (DBNL). Entering a range of keywords, I searched for documents whose description seemed sufficiently relevant to warrant a closer look. This way, I came across the archives of the municipal *fabriek* of Rotterdam and Haarlem; twoscore of title deeds complementing the notarial records; both drafts and printed versions of municipal regulations; as well as the reports of several events wherein the skippers' and brewers' guilds of Haarlem cooperated with the burgomasters and regents. I also selected sixteen pamphlets and three treatises in which water played a role, the description of the Dutch common law by the lawyer Hugo Grotius (1583-1645) and the famous travel log of the English diplomat William Temple (1628-99). Since the collection of these sources was more or less fortuitous, they are by no means representative of entire urban communities. They do add, however, to our understanding of the water-related issues that bothered city dwellers in the seventeenth century and thus of the way the urban communities were organized.

For the purpose of explaining why people made certain pleas or took certain measures I also included coeval maps of the cities under examination. The book series of *Historische plattegronden van Nederlandse steden* (Historical maps of Dutch towns) proved valuable for the selection of the most reliable maps. Thus, I chose Cornelis Drebbel's map from 1597 for Alkmaar, the 1628 map by Willem Akersloot and Pieter Saenredam for Haarlem, the 1616 map by Cornelis Bos and

⁸² Geyer, 'Where Rivers Meet the Sea'.

⁸³ HaNA SvH 1591 (1616).

⁸⁴ HaNA SvH 1591 (1618). For the location of Naarden, see map 1:C2; Naardermeer, map 1:B3-C3.

Jurifaes van Harn for The Hague and Joan Blaeu's map of Rotterdam, which was published in 1640. The maps are provided in appendix 2. These four cities were chosen to represent the urban regions of Holland, where towns had started to emerge in the twelfth century. By 1300 about twenty of them had obtained town charters. In the fourteenth century urbanisation speeded up.⁸⁵ At the turn of the sixteenth century, approximately 270.000 people lived in Holland, nearly half of them in settlements of over 10.000 inhabitants.⁸⁶ At that time, the cities in the coastal area of the Southern Netherlands were economically dominant over those in the north. This was to change at the end of the sixteenth century, mainly due to the hostilities in the aftermath of the rebellion of the Dutch provinces against their overlord (1558-81).⁸⁷ By then, Holland's population had nearly doubled to 530.000 souls.⁸⁸

Acknowledging that the definitional boundary between towns and cities is an arbitrary one, a city is defined in this study as a settlement with at least 15.000 inhabitants at some time between 1600 and 1650.⁸⁹ This means that The Hague, with around 18.000 inhabitants in 1650, is considered a city in spite of its lack of a town charter, along with Alkmaar, Gouda, Hoorn, Dordrecht, Delft, Rotterdam, Enkhuizen, Haarlem, Leiden and Amsterdam.⁹⁰ Although frequently occurring epidemics would temporarily set back numbers in urban areas, the population of Amsterdam, Leiden and Rotterdam more than doubled during the first half of the seventeenth century. Because of the negative birth rate, the increase was mainly due to migration. In the same period, The Hague added eighty percent to its population, Alkmaar fifty, Delft forty and Dordrecht, Hoorn, Haarlem and Enkhuizen about thirty percent. Only the small city of Gouda grew slowly, from 13.000 to 15.000 inhabitants (fifteen percent) within fifty years.⁹¹ The selection of the four cities was made to maximize the variance between their geological, demographic and economic background, allowing for the fact that some relevant data on Amsterdam, Leiden and Delft are known already due to the earlier work of historians and historical geographers.⁹² The cities under examination are

⁸⁵ Blockmans, *Metropolen aan de Noordzee*, 77, 282-283; Lourens & Lucassen, *Inwonertallen*, 100-123.

⁸⁶ Woude, van der, 'Population developments', 56; Vries, de, *European urbanization*, 39.

⁸⁷ Blockmans, *Metropolen aan de Noordzee*, 544-545; 623-624.

⁸⁸ Woude, van der, 'Population developments', 56; Vries, de, *European urbanization*, 39.

⁸⁹ Population figures based on Lucassen, *Immigranten in Holland*.

⁹⁰ For the location of The Hague, see map 1:A5; Gouda, map 1:B5; Hoorn, map 1:B2; Dordrecht, map 1:B6; Enkhuizen, map 1:C1.

⁹¹ Lucassen, *Immigranten in Holland*, 8, 25-31; Prak, *Het raadsel van de Republiek*, 120.

⁹² Bont, de, *Delfts water*; Smit, *Leiden met een luchtje*; Abrahamse, *De grote uitleg*; Tielhof, van & Van Dam, *Waterstaat in stedenland*.

presented in detail in the section about environmental and geographical backgrounds.

In order to reconstruct and analyse how the urban communities of seventeenth-century Holland dealt with water, I regarded the traces those dealings left in written accounts. Looking at water is merely a contrivance to compose a diversified image of the urban community, since the substance affects every human being. Thus, the study encompasses not only the endeavours of the authorities or certain associations like guilds, but a group as representative of the entire population as is possible within the limits of the available sources. To decide whether records had to do with water or not, I began by conducting a word search within an approximate semantic field. Clerks seldom noted down the word 'water' itself. Even if people did use the word literally, the record in question did not always secure a place in the selection: phrasal verbs like *water maken* (urinating) and terms such as *gedestilleerd* or *sterk water* (ardent spirits) were left out, since their relation with water is weak. Records that made it into the selection contain references to waterways and associated constructions like bridges, drainage infrastructure, amenities to store or draw water, the acts of washing, scrubbing, rinsing or dousing fires, precipitation and of course the substance of water itself. With some hesitation, references to houses being *vloer-, glas- en dakdicht* (floor, glass and roof tight) were considered as well.⁹³ A couple of references to homes that were not roof tight, and therefore liable to flooding, established the link between water and this common phrase.⁹⁴ It was not essential, however, that water was the main topic of a record. An intermittent remark about a woman earning a living by washing clothes, for instance, was enough to make the selection.

I also relied on the wording used in the records to establish whether there was a relation between the records and the cities under examination. Documents referring to places inside the ring canal, or beyond the ring canal but within the jurisdiction (*ambacht, vrijdom, vrijheid*) of the city were taken into account. In case of doubt about the location, they were left out. The disadvantage of this approach is that some events that were important to city dwellers, like struggles about ferries between cities or disputes about the use of out-of-town sluices, remain out of sight. Although I do not deny the potential importance of these events, for the sake of clarity a line was drawn at the city's boundaries. The alternative would have been to consider water-related arrangements from all over the world,

⁹³ SAR ONA 178:184 (Rotterdam 1626); RAA NotA 181:178 (Alkmaar 1650).

⁹⁴ HGA NotA 11:271r (The Hague 1626); HGA NotA 160:46r (The Hague 1649).

including overseas trading contracts and city dwellers' interests in land reclaiming projects.

Even leaving aside testaments and inventories, only about one percent of the entries in the notarial archives concern water in one way or another. Sales and rental deeds are more likely to contain references to water than testimonies, interrogations, statements of contentions and protests. Arbitrations are somewhere in between. Among the collections of petitions, nearly ten percent of the records is water-related. No less than two thirds of the patents issued by the States of Holland between 1600 and 1660 have to do with water. All in all, the corpus consists of 101 petitions, 1.385 entries from notarial archives and 40 additional title deeds, 38 patents, 14 pamphlets, 4 maps and nearly 50 miscellaneous documents. Transcriptions of the archival sources are deposited in the EASY online archiving system.⁹⁵

The collection assembled this way was scrutinized, noting which parties were involved and what opinions, wishes and promises they expressed. Thus, I traced both the responsibilities that the different actors appropriated and the mutual expectations of individuals, representatives of civil organizations and governmental bodies. Again, the exact phrasing of the texts was important. The drawback of such an emic approach is the difficulty to decode the hidden meaning behind the words. The *Woordenboek der Nederlandse Taal* (WNT), the comprehensive historical dictionary of the Dutch language, was a valuable auxiliary for finding meanings of words that have been altered or sunk into oblivion. Still, we have to be aware that we do not always know what was meant but not mentioned. We may have an idea what the problem was, for instance, when neighbours from The Hague complained that the "linen hanging in their attics and the rainwater running from the tiles is utterly spoilt by the smoke and venom of the aforesaid brass casting."⁹⁶ However, they did not actually state that the linen was blackened with soot and the rainwater caught in the cistern tasted sulphurous. We cannot be absolutely sure that this is what they meant. So, although it is worthwhile to note how city dwellers referred to their daily struggles themselves, I hold it is rewarding to step back as well. This way, we are able to detect processes that contemporaries did not, by comparing the recorded cases with each other, with municipal reports, with processes taking place in other cities and our current knowledge about geophysical processes.

⁹⁵ <http://doi.org/10.17026/dans-2x2-5vn2>, embargoed until 1 November 2020.

⁹⁶ *Dat henluiden linden hangende op haer solders ende t'regenwaeter vande pannen affcoomende, als anders t'eenmael vanden roock ende fenijnnchede vant voorseide geelgieten was bedervende*, HGA NotA 180:340r-v (The Hague 1649).

In order to identify the stakeholders involved in water politics, as well as the ways they perceived the substance of water, I occasionally employed the methodology called Actor-Network Theory (ANT). It was developed by sociologist Bruno Latour and other representatives of science and technology studies. Latour readily admitted that ANT is no theory, but rather an armamentarium to describe social activity by tracing constantly shifting associations. When using ANT, one takes into account the role of humans and non-humans, material and non-material entities in social actions.⁹⁷ A river flowing into a city, for instance, can be perceived as a transport way, a source of commodities, a conveyor of waste, a health threat, a weak point in the city's defence. The sluicekeeper admitting the water into the city has a role in navigation, collecting revenues for the municipality, directing foreigners, supervising the visitor flow and controlling the waterflow. Apart from being a vulnerable piece of paper, the legislation dictating the sluice's opening and closing hours is a means of protection, a nuisance to latecomers and a time-table influencing the working pace within the city. Thus, the river, the sluicekeeper and the municipal ordinance book are interconnected in an infinite and ever-changing accumulation of associations. In the words of Latour, they form the links in a chain.⁹⁸ According to sociologist Michael Callon, the chain is not necessarily entirely visible, since actors sometimes operate on behalf of others.⁹⁹ If the actors induce a change by making new groups, procedures or concepts, thereby leaving a trace, they are reckoned to be an agency worthy to be taken into account within ANT.¹⁰⁰ The plan of action the actors pursue is called a program(me) in Latourian terms. Eventual counter-movements form one or more anti-programmes, no matter whether they are planned or unintentional.¹⁰¹

Latour pleaded to merely record actors and their actions, instead of moulding them into an explanatory model. Moreover, he advocated depending on the descriptions made by the actors themselves to do this recording.¹⁰² Critics of ANT have pointed out that the process of recording in itself is an intervention, which changes the subject in its own right.¹⁰³ This disadvantage is less salient in historical studies than in disciplines studying processes that are not yet concluded, such as sociology, anthropology or political sciences. We have to bear in mind, though, that the choices made during the investigation are among the factors shaping the result, adding to the need to be transparent about them. More challenging, from

⁹⁷ Latour, *Reassembling the Social*, 10.

⁹⁸ Latour, 'Technology is Society', 110.

⁹⁹ Callon, 'Actor-network theory', 214-215.

¹⁰⁰ Latour, 'On recalling ANT'; Latour, *Reassembling the Social*, 31-35.

¹⁰¹ Latour, 'Technology is Society', 105.

¹⁰² Latour, *Reassembling the Social*, 31-33.

¹⁰³ López-Gómez, 'What if ANT wouldn't pursue agnosticism', 4.

the historian's point of view, is the mere recording of the actors' actions and networks. This may be a beneficial approach when studying the actions of people still living, but it poses some problems for the scholar who already lacks a comprehensive set of unambiguous sources. Moreover, as stated above, we cannot know what remained unspoken.

During the evolution of ANT in the last thirty years, the latter point has been forestalled by taking into account frictional situations, just like Trentmann proposed for the study of everyday life.¹⁰⁴ If we seek out antagonisms as well as liminal situations, we can trace eventual divergences between what people say and what people do. It is the combination of occurring events, people's actions concerning these events and their justification that provides important information. Infrastructure studies expert Brit Winthereik and others saw the establishment of relationships as one of the fundamentals of ANT. According to her, scholars should not only identify human and non-human actors, but also trace their actions in several ways.¹⁰⁵ Historians have to be aware that they cannot see events happening themselves, but only reported through the eyes of others, or sometimes through geological or archaeological surveys. Nevertheless, it is worth considering the role of both human and non-human entities in the choices people make and the significance they attribute to a substance like water. It is, after all, human association that gives water its meaning as a transport way, cleansing agent or threat to our constructions.

Obviously, ANT is no panacea, resolving every difficulty of historical research. One of its downsides is that it lacks an incentive to measure the eventual differences between findings. I was bent on making a comparison of choices concerning water that were made by residents of cities with different geographical characteristics. Moreover, I wanted to be able to detect eventual developments over time of the city dwellers' attitude towards either water or the allocation of responsibilities. In order to do so, each source was disaggregated and categorized, noting name, gender and profession of the human actors, the reported place of action, the type of document, its relation to water, as well as a summary of its objective. The results are presented in chapter 2. Thus, both similarities and differences between the cities become apparent. Moreover, this approach reveals that, regarding water, the attitude of the townspeople of Holland did not change in a perceptible way, despite the fact that some of the cities had more than doubled in size between 1600 and 1660.

¹⁰⁴ López-Gómez, 'What if ANT wouldn't pursue agnosticism', 7; Trentmann, 'The Politics of Everyday Life', 524.

¹⁰⁵ Winthereik, 'Is ANT's radical empiricism ethnographic?', 30.

Close reading of the sources, which is also needed for ANT, exposes how the inhabitants of urban Holland perceived each other and tried to direct the power relations between them. It also divulges moral standards and the way people saw private, shared and public spaces. In brief, by taking apart the reports about encounters with water in everyday urban life, we come to recognize seventeenth-century Holland as a subsidiary society.

Environmental and geographical background

Water is not only an inevitable substance, it also influences the choices people make, including the ways they structure their communities. Societies in areas prone to flooding, for instance, have different needs from those struggling to find and conserve water in an arid environment. These differences affect organizational structures.¹⁰⁶

Several historians have stressed that the relationship between societies and their environments is a reciprocal one: people's actions shape their environment, but the environment also affects human decisions.¹⁰⁷ Hence, it is useful to take environmental and geographical aspects into account in historical research, and particularly so when water politics is its main topic. In this section, I first sketch the environmental framework of the province of Holland, insofar as it impacted the water-related choices that seventeenth-century city dwellers made. Subsequently, I present the cities' most important features that relate in some way to water and are of importance in this study.

Holland is a meeting place for water and land. Its soil was formed by the deposit of clay and sand by the numerous and constantly shifting branches of the rivers nowadays known as Rhine and Meuse. This formation process, which is typical of a delta, accounts for the nearly absent elevation in the region that makes the construction of viaducts useless.¹⁰⁸ After the formation of a protective barrier of wind dunes, about ten thousand years ago, vegetation gradually gained a hold on the mud flat. Due to lack of oxygen in the soaked underground, vegetative matter barely decayed. Instead, layer piled upon layer of semi-decomposed plant material, forming peat cushions of several metres in height. These were steeped in acidic ground water.¹⁰⁹ The unfavourable ground water conditions account for the

¹⁰⁶ Reuss, 'Introduction to the special issue on water management', 4-5; Cruyningen, van, 'From disaster to sustainability'; Bavel et al., 'Economic inequality'.

¹⁰⁷ For instance, Dunlap & Catton, 'A new ecological paradigm'; Hughes, 'Three Dimensions of Environmental History', 322; Tielhof, van & Van Dam, 'Repliek'; Tvedt, 'Water Systems'.

¹⁰⁸ For the location of the Rhine, see map 1:A4-C4; Meuse, map 1:A6-C6.

¹⁰⁹ Reh et al., *Zee van land*, 44-47; Groenewoudt, 'History continuous', 226.

fact that the premodern inhabitants of Holland could barely rely on wells to obtain fresh water.

The fact that geophysical processes and human action are inextricably linked is something the inhabitants of Holland have experienced many times since they started draining the peat-bogs or fens around 1000 CE. The peat cushions began to subside, up to five meters lower.¹¹⁰ The lower the land sank, the more liable it became to flooding, especially in combination with a slightly rising sea level.¹¹¹ Around 800 CE, breaches in the once protective barrier of sand dunes had formed an inland sea, the Zuiderzee.¹¹² Every storm enlarged the sea, at the expense of the unprotected and low-lying bog land. In the twelfth century the sea washed into the area nowadays known as Holland, enlarging natural bog streams like the IJ and turning some of them into lakes, such as the Schermer and Haarlemmermeer. Human activities like the extraction of peat rendered the land even more vulnerable, aggravating the effect of storm surges.¹¹³ By the turn of the seventeenth century, the lakes were both threatening and advantageous to the cities. The fact that they grew with every storm was a reason for concern. At the same time, the lakes provided excellent transport routes, and thus trade opportunities. It fell to the urban authorities to weigh the conflicting interests of the inhabitants. In the end, only the city of Alkmaar decided to drain the nearby lake.¹¹⁴ As we will see, this was one of the occasions in which city dwellers carped the urban governors openly, appealing to public opinion. In Amsterdam, Haarlem and Leiden the commercial argument prevailed, putting off the draining of the Haarlemmermeer until the nineteenth century.¹¹⁵

Whereas the regions near the Zuiderzee were vulnerable to flooding, the area near the North Sea was, and still is, well protected. A strip of young dunes, a few dozen meters in height, separate the land from the sea. Parallel to the young dunes lay some ridges of older dunes, the remnants of the protective barrier behind which Holland's soil could form. These are much lower than the young dunes. The old dune-ridges proved to be suitable dwelling places for Holland's first

¹¹⁰ Pioneering studies on this topic were Linden, van der, *Cope*; and Borger, 'De ontwatering'. The Old-English word 'fen' is closely related to the Dutch word 'veen', meaning peat. Cf. Merriam-Webster, lemma Fen and WNT, lemma Veen.

¹¹¹ Reh et al., *Zee van land*, 46.

¹¹² For the location of the Zuiderzee, see map 1:B1-C3.

¹¹³ Bulte, 'De oostelijke oever van het Spaarne', 68. For the location of the IJ, see map 1:A3-B3; Schermer, map 1:B2; Haarlemmermeer, map 1:A3-B4.

¹¹⁴ For the location of Alkmaar, see map 1:A1-B1.

¹¹⁵ Vries, de & Van der Woude, *The First Modern Economy*, 31; Reh et al., *Zee van land*; Tielhof, van & Van Dam, *Waterstaat in stedenland*, 167; Tielhof, van, 'Betrokken bij de waterstaat', 89; Price, 'Water and land', 35. For the location of Amsterdam, see map 1:B3; Haarlem, map 1:A3; Leiden, map 1:A4.

settlers.¹¹⁶ Among the hamlets that evolved into villages and towns were The Hague, Haarlem and Alkmaar. Geophysical features had impact on the economic development of the settlements as well. Cities along sea arms and navigable rivers had the best chances as trading centres.¹¹⁷ The fastest-growing harbour towns of the seventeenth century, Amsterdam and Rotterdam, lay relatively sheltered along a sea arm, with direct access to the sea. Both cities exploited the tendency of the IJ and the Merwede to silt up. On the one hand, the shallows and islets at the cities' doorstep provided an opportunity to create new town quarters.¹¹⁸ At the same time, they caused strife due to the divergent needs of water users. The cities of Leiden and Delft were right in the middle of the fenland. They were both built on the relatively firm deposits of former river beds. Hence, their surface sank at a lower rate than the surrounding peatland, which caused water supply problems.¹¹⁹ Variances between the local water systems account for diverging choices townspeople made, even though their residential cities lay close to each other.

Since peaty soils are already soaked with acidic water, they are barely able to absorb precipitation. As a result, Holland's groundwater is brackish almost everywhere.¹²⁰ Only people living in the immediate vicinity of the dunes could rely on wells to draw fresh water. In the absence of hills within the delta, conducting fresh water by aqueducts was not a viable option. Hence, many city dwellers had to rely on surface water, rainwater tanks or buy water shipped from the dunes or the hillocks in the Utrecht-Holland border region.¹²¹ The number of cisterns in towns increased rapidly in the course of the sixteenth century. Since a solid roof is a prerequisite for capturing rain water, the spread of rainwater tanks ran in parallel with the petrification of town buildings.¹²² The latter process was a result of the growing awareness of fire prevention, increased prosperity, and the possibility of building continuous rows of houses in stone.¹²³ Access to fresh water was essential for all city dwellers. Hence, water management was a likely source of friction, providing us with sources to disclose organizational structures within the cities.

¹¹⁶ Ven, van de, *Leefbaar laagland*, 18-19; Reh et al., *Zee van land* 44-48.

¹¹⁷ Blockmans, *Metropolen aan de Noordzee*, 77; Blussé van Oud Alblas, *Aan de oevers van de grote rivieren*, 6.

¹¹⁸ Ravesteyn, van, *Rotterdam*, 79; Abrahamse, *De grote uitleg*, 126. For the location of the Merwede, see map 1:A6-B5.

¹¹⁹ Bont, de, *Delfts water*, 74; Dam, van, 'Frühmoderne Städte', 96. For the location of Delft, see map 1:A5.

¹²⁰ Vogelzang, *De drinkwatervoorziening*, 11-13; Huisman & Buiten, 'Het zoete nat', 383, 409.

¹²¹ Groen 1987:19; Huisman & Buiten, 'Het zoete nat', 387-389; Oosten, van, *De stad, het vuil en de beerput*, 99-103; Tielhof, van, 'Drinkwater en geschiedenis'.

¹²² Vogelzang, *De drinkwatervoorziening*, 34-35; Groenewoudt & Benders, 'Private and shared water facilities', 254.

¹²³ Huijbers, 'Verklaring van kenmerken van stedelijke huisplattegronden', 317.

The next paragraphs are dedicated to the four cities and their key characteristics – geographical features, population growth, industries that either required or polluted water, occurring epidemics and town fires – that affected the residents' approaches to the local water system, or forced the inhabitants into action. The cities are presented from north to south: Alkmaar, Haarlem, The Hague and Rotterdam. Maps of these cities are provided in appendix 2.

Like many old settlements in Holland, Alkmaar (map 2) was built on the rim of the peatland. Bronze Age settlers chose the spur of an old dune to found a hamlet. About three millennia later, in the tenth century, a town would emerge around the first church built at that spot.¹²⁴ The settlement, granted a town charter in 1254, lay near the spot where the Rekere river branched off from the Schermer bog stream.¹²⁵ From the twelfth century onward, a series of floods washed away the peaty banks of the streams in the area, forcing the inhabitants to build dikes and dams to protect the subsiding land. In the fifteenth century, Alkmaar expanded eastward along the Rekere, into the adjacent peatland. The differences between the dry and slightly raised old town in the west and the swampier parts in the east were still palpable in the seventeenth century. By then, about twenty percent of the town was lying on the old dune-ridge. Due to the sandy conditions, residents of that quarter had the best chances of drawing fresh water from a well. Eighty percent of the city, east from the Baanstraat, Hoogstraat and Doelenstraat, lay on peat.¹²⁶ The wetter east also accommodated the bustling harbour quarter in the archipelago nicknamed after Venice, with names like Fnidsen and Veneetse Eiland.¹²⁷ On market days, the quays were so busy that people quarrelled about mooring rights. I will demonstrate that the townsfolk usually succeeded in resolving these and other disputes without the intervention of the government or civil organizations.

Alkmaar's harbours had direct access to the shipping route across northern Holland: the Rekere had been transformed into the Hondsbossche or Nieuwe Vaart in 1531.¹²⁸ The Schermer provided excellent shipping routes towards the dairy regions to the south and east, as well as towards the cities of Haarlem and Amsterdam. The city became a regional market centre.¹²⁹ By draining the

¹²⁴ Bitter, 'Nederzetting op het zand', 18-19.

¹²⁵ For the location of the Rekere, see map 1:A2.

¹²⁶ For the location of the Baanstraat, see map 2:B3; Hoogstraat, map 2:B2; Doelenstraat, map 2:B1-B2.

¹²⁷ Wortel, *Straatnamenlijst van de gemeente Alkmaar*; Bitter, 'Ommuurd, volgebouwd en uitgelegd', 77. For the location of the Fnidsen, see map 2:C2; Veneetse Eiland, map 2:D2.

¹²⁸ Reh et al. *Zee van land*, 73-74. For the location of the Nieuwe Vaart, see map 2:C1.

¹²⁹ Kaptein, 'Kaasstad van Holland', 248.

Beemster (1612) and Huigenwaard (1630), which transformed vast lakes into farmland, Alkmaar succeeded in enlarging its market share of the regional trade at the cost of its rival Hoorn, twenty kilometres to the east.¹³⁰ Opinions on the anticipated drainage of the nearby Schermer divided the city, however. On the one hand, the ever-growing lake posed a threat, already covering an area of 4.500 hectares at less than two kilometres from the town. On the other hand, drainage would reduce the sailing opportunities from the eastern farming villages to the city of Alkmaar. Confronted with conflicting interests among the inhabitants, the burgomasters and regents of the town meddled deeply with the decision-making process of the drainage project, which was carried out in 1633-35. They stipulated the construction of a wide ring canal around the drained Schermer as well as a direct shipping route to the IJ through a new canal, the Nauernasche Vaart.¹³¹

With its focus on regional produce, Alkmaar was at a disadvantage when a long-lasting agrarian recession occurred in the 1650s, inducing the city's economic decline.¹³² In the seventeenth century, Alkmaar was among the smallest of Holland's cities. Its population had grown from about 4.000 inhabitants in 1500 to 8.000 in 1573 and 12.000 in 1625. In 1650 the population reached a new peak at 15.000 souls, a number that would not be equalled until the nineteenth century.¹³³

Like Alkmaar, Haarlem (map 3) was built at the transition point of the peatland and the old dunes, at the banks of the river Spaarne, a bog stream draining the hinterland.¹³⁴ The medieval town lay 2,5 kilometres from a rather wide strip of young dunes that separate the area from the North Sea.¹³⁵ A brook, simply called the Beek, ran through the core of the city, discharging into the Spaarne. The brook provided the town with fresh dune water. The Spaarne, in its turn, discharged into the IJ, which connected to the Zuiderzee. After the land started to subside due to the digging of ditches around 1000 CE, seawater gained access to the area through the IJ. Repeated floods enlarged and interconnected streams and lakes, a process that was probably worsened by the digging and dredging of peat to sell as fuel.¹³⁶ In the mid-1200s the Spaarndam, built to the north of Haarlem, closed the direct connection to the IJ. There is archaeological evidence that shortly thereafter, the

¹³⁰ For the location of the Beemster, see map 1:B2; Huigenwaard, map 1:B2.

¹³¹ Aten, 'Stedelijke handelspolitiek'; Aten, *Als het gewelt comt*; Zwet, van, *Lofwaerdighe dijkagies*. For the location of the Nauernasche Vaart, see map 1:B2-B3.

¹³² Hart, 't, 'The Dutch Republic', 77; Kaptein, 'Kaasstad van Holland', 229.

¹³³ Lucassen, *Immigranten in Holland*; Bitter, 'Ommuurd, volgebouwd en uitgelegd', 77.

¹³⁴ For the location of the Spaarne, see map 1:A3 and map 3:D1-D4.

¹³⁵ For the location of the North Sea: see map 1:A1-A6.

¹³⁶ Speet, *Historische Atlas van Haarlem*.

inhabitants of Haarlem narrowed the river, partly filling in its shallow shores with mud, providing more building space for themselves.¹³⁷

The presence of navigable water was profitable for the inhabitants of Haarlem. Medieval merchants sailing to and from the German Hanseatic towns preferred the safe, inland route via the IJ, Haarlemmermeer and several rivers toward Brabant and Flanders, instead of risking a voyage across the North Sea. Haarlem lay conveniently near the crossing of the Spaarndam sluice complex.¹³⁸ Road travellers on the north-south route could barely avoid the narrow stretch of land near Haarlem, the only remaining overland connection between north and south. The developing town obtained a town charter in 1245. In the fourteenth century, the urban authorities constructed a defence line of town walls surrounded by a ring canal. Apart from a transport hub and a market town, Haarlem became a place where shipyards, breweries and the cloth industry flourished. All of the mentioned industries required water, each for its own reason. Shipbuilders wanted access to navigable water; breweries needed pure water as a resource; fullers, bleachers and dyers needed water, but also accounted for the polluting of streams and canals. In the second half of the sixteenth century, the bleachers and the brewers of Haarlem clashed a few times about the use of water.¹³⁹ As will appear from the records used in this study, both industries continued to petition the magistrates. They went a step further than invoking the *subsidiem* of the municipal government. Haarlem's neighbourhood organizations were apparently not involved in water management. In this regard, the individual households could fend for themselves. In the event that city dwellers could not solve their quarrels among them, the neighbourhood organizations sometimes helped to restore the peace in the vicinity.

In the seventeenth century, roughly half of Haarlem's built-up area lay on the old dune-ridge, which was low in comparison with the nearby young dunes, but higher and drier than other parts of the town. Apart from a small strip on the plain between the old and young dunes, the other half of the city occupied the much swampier peatland on both sides of the river Spaarne. Dikes and dams like the one in Spaarndam could not prevent occasional floods. In 1647, one big lake of approximately 14.400 hectares covered the area between the cities of Haarlem, Amsterdam and Leiden: the Haarlemmermeer. By then, human activity and dike bursts were no longer needed to enlarge the lake: storms whipped up the waves, which wolfed down the shores. Forty years later, the interplay of wind and water that had been dubbed the water wolf had expanded the Haarlemmermeer to

¹³⁷ Jong, de, 'Ontstaan en geschiedenis van het Spaarne', 13.

¹³⁸ Tielhof, van & Van Dam, *Waterstaat in stedenland*, 46; Prak & Van Zanden, *Nederland en het poldermodel*, 53.

¹³⁹ Oosten, van, 'The Dutch Great Stink', 15.

about 15.400 hectares.¹⁴⁰ As we will see, the recurrent floods worried the townspeople and the representatives of the leading industries, but not enough to demand the drainage of the lake.

Haarlem's population grew from 7.500 people in 1400 to over 12.000 in 1514. The city suffered much from the hostilities of the Dutch Revolt in 1572-73. To make matters worse, an unrelenting town fire devastated hundreds of houses in October 1576. In an attempt to overcome the effects of both siege and fire, Haarlem begged some privileges from the States General. The favourable conditions attracted numerous craftsmen, many of them skilled cloth workers. The population grew from 18.000 people in the 1570s to nearly 40.000 in 1622. The burnt quarters and the plots of monasteries, dissolved in 1581, were built up within two decades. In 1603 the burgomasters and regents promulgated a by-law prohibiting building beyond the ring canal, which suggests that Haarlem by then had started to brim over its former boundaries. The regulations had little success. In 1640 the urban sprawl north of the walled city contained about four hundred houses. The new quarters within the ring canal were built denser than ever, increasing the demand of commodities and putting more strain at the city's water system.¹⁴¹

Compared to the other cities of Holland, The Hague (map 4) was atypical in several ways. Whereas Alkmaar and Haarlem lie at the transition point between the dunes and the fenland, The Hague is in the midst of old dunes.¹⁴² Only a narrow plain of about 500 metres separates the city from the young dunes to the west, while there are no lakes or rivers in its environment. Nevertheless, the freshwater conditions in the city are good, due to its sandy surroundings. The digging of a well in The Hague would more likely yield favourable results than anywhere else in Holland. In the thirteenth or fourteenth century, the count of Holland dug a small canal, called the Beek (brook) from the dunes to his residence in the settlement. The inhabitants constructed another canal, the Spui, or Haagse Vaart, to drain off surplus water through the peat-covered plain to the southeast. It was broad enough for navigation and connected the city with the thoroughfare to Leiden, Delft and beyond.¹⁴³ Around 1400 The Hague's residents spurred off some harbours from the Spui, expanding the town into the more humid peatland of the

¹⁴⁰ Estimated in the early 1700s by surveyor Melchior Bolstra of the water board of Rijnland, based on eyewitness accounts and older written sources.

¹⁴¹ Temminck, *Haarlem door de eeuwen heen*; Speet, *Historische Atlas van Haarlem*.

¹⁴² Ven, van de, *Leefbaar laagland*, 19.

¹⁴³ Schuppen, *Historische Atlas van Den Haag*.

interdune plains.¹⁴⁴ The south-east of the town became a bustling harbour area and an attractive location for all kinds of craftsmen.

In contrast to Alkmaar, Haarlem and Rotterdam, The Hague never obtained a town charter. Concomitantly, it had no city walls and only developed a ring canal in 1610, at the order of stadtholder Maurice of Orange (1567-1625). His brother and successor Frederick Henry (1584-1647), concerned about the protection of the administrative centre growing around his residency, added some defence works in the 1630s. Even so, the defensive force of water did not play a significant role in the everyday life of The Hague's residents. Judging by the recordings of their negotiations, they saw the ring canal rather as a convenient transport route or as an obstacle blocking their path. Like in Haarlem, peacekeeping was formally one of the tasks of The Hague's neighbourhood organizations. Besides, these civil organizations acquired a role in the sanitation of the city and possibly in firefighting as well. Nevertheless, the image emerges from the sources that the neighbourhood organizations performed a limited task regarding water. Many responsibilities were left to the individual city dwellers.

The presence of several administrative bodies accounts for another difference. Whereas many inhabitants of other cities made a living as merchants and craftsmen, The Hague was also a city of clerks, advocates, courtiers and transitory ambassadors. Many representatives who travelled to and from other cities, provinces and countries, maintained a grand house in The Hague, making it a relatively spacious city with many green areas.¹⁴⁵ Contemporaries described The Hague as a settlement with urban and rural elements thrown together.¹⁴⁶ When the stadtholder constructed the ring canal, it was by no means a tight belt around the city, as is demonstrated on map 4 in appendix 2. It was not until the second half of the nineteenth century that the area within the ring canal finally was built up.¹⁴⁷ Some seventeenth-century quarters were more densely built than others, however. The harbour areas east and west of the Spui canal were relatively crowded.¹⁴⁸ It was in this part of the city that inhabitants sought authorization to build over water courses, just like their fellow city dwellers in the populous city of Amsterdam.¹⁴⁹

The Hague was also different from the other cities due to the unusual co-existence of manorial and municipal governors. This was due to the fact that The

¹⁴⁴ www.haagsekaart.nl, retrieved on 20 March 2019.

¹⁴⁵ Schuppen, *Historische Atlas van Den Haag*.

¹⁴⁶ Polkowski, 'Non urbs, tamen urbibus', 51.

¹⁴⁷ www.haagsekaart.nl, retrieved on 20 March 2019.

¹⁴⁸ Schuppen, *Historische Atlas van Den Haag*, 16; Groenveld et al., *Historische plattegronden*, 10, *Den Haag*, 16. For the location of the Spui, see map 4:C3-C4.

¹⁴⁹ Cf. Abrahamse, *De grote uitleg*, 38, 266.

Hague had no official status as a town. From the fourteenth century onward, a tripartite administrative structure had evolved, consisting of the burgomasters, the municipal council and the steward-general of North Holland. The latter was the honorary title of the official who governed both the count's court and his manor, also acting as The Hague's bailiff.¹⁵⁰ Whereas the corpus of The Hague – that is, the town council and the burgomasters combined – acted increasingly as urban magistrates, similar to those in the other cities of Holland, the steward-general exercised the manorial rights of the count of Holland. The comital administration retained the jurisdiction over all buildings with some relation to the court.¹⁵¹ Needless to say, the interests of the city and the representatives of the court collided repeatedly, complicating the allocation of tasks within the city.

Because the city accommodated less people per square footage than the other cities of Holland, the pressure on the water system might have been relatively low. However, the influx of surface water was also modest, in the absence of lakes and rivers. The Hague remained relatively small until 1585, when the States General chose the town as its new meeting-place. In its wake the town's population grew, from about 5.000 people in 1570 to 10.000 in 1600 and 18.000 in 1650, putting more pressure on the local resources.¹⁵²

The settlement of Rotterdam (map 5) emerged at the silty right bank of the Merwede river, near the tributary bog stream called Rotte.¹⁵³ The tidal Merwede discharged into the North Sea through the Meuse sea arm and was, confusingly, sometimes called the Meuse itself. Like almost anywhere in Holland, an attempt to obtain arable land by digging ditches in the vast peatland resulted in soil subsidence. To protect the inhabited areas from the rivers, the counts of Holland started to build dikes, dams and sluices in the thirteenth century. The mouth of the Rotte was dammed and provided with a wooden sluice. About fifty years later, in 1340, Rotterdam obtained a town charter. Within two decades, the magistrates protected the town by a ring canal and walls. A new canal, the Rotterdamse Schie, connected the town to Delft, inducing a long-lasting strife for economic primacy between the two towns.¹⁵⁴ In the second half of the fifteenth century the inhabitants took advantage of the mud flats that had accreted in front of the town: these became the quays of the *waterstad* (water town), the newly built harbour

¹⁵⁰ Wagenaar, *Dat de regeringe niet en bestaet*, 14.

¹⁵¹ Wagenaar, *Dat de regeringe niet en bestaet*, 33-35.

¹⁵² Lucassen, *Immigranten in Holland*.

¹⁵³ For the location of the Merwede, see map 1:A6-B5 and map 5:A4-D4; Rotte, map 1:B5 and map 5:C1-C2.

¹⁵⁴ For the location of the Schie, see map 1:A5 and map 5:B1.

area south of the Steiger and the Grote Markt.¹⁵⁵ About a century later, the city expanded into the river again, more than doubling the area of the *waterstad*. At low tide, the residents along the Merwede needed stairs, jetties or platforms to reach the water, since there was a tidal range of over a metre. As we will see, the surface water in the *waterstad* area acted as a harbour, a fresh water source and an obstacle at the same time. The conflicting interests prompted the stakeholders to make arrangements; sometimes among themselves, sometimes with the help of the urban magistracy.

During the fifteenth and sixteenth century the herring industry flourished in Rotterdam. In the wake of the herring fleet, craftsmen started to specialize in ships' equipment: sail-, rope- and pulley-makers, tanners, coopers and shipbuilders set up their thriving businesses. Starting with the profitable herring trade, Rotterdam became an international staple market. In the early 1600s the city council considered the wine trade of the utmost importance for the city. For this reason, they built a dedicated wine harbour, appropriately called the Wijnhaven, in the expanded *waterstad*.¹⁵⁶ At the same time, the trade with the east Indies was emerging. In 1602 Rotterdam became one of the seats of the newly founded VOC, the Dutch East India Company. The Dutch West India Company (WIC) followed suit in 1622. In the course of the seventeenth century Rotterdam became Holland's second most important merchant city measured in trade volume, behind Amsterdam.¹⁵⁷ Thus, many Rotterdam inhabitants were professionally linked to water. Although there were several guilds in Rotterdam, craftsmen and merchants tended to associate on an ad hoc basis in order to defend their interests.

Until the early 1500s Rotterdam had been a small town, with an estimated population of 7.000 in 1514. By 1600 it had almost doubled to 13.000, growing to a population of 19.500 in 1622 and 30.000 in 1650.¹⁵⁸ A major town fire took place in 1563. The fire started in a cooper's shop near the Grote Markt. Due to fierce westerly winds, the entire eastern half of the landward city was devastated.¹⁵⁹ The city grew in spite of plague epidemics occurring in the years 1624-26, 1635-36 and 1655-57. Archivist G. Mentink and historian Ad van der Woude estimated that the mortality of the plague was relatively low in Rotterdam. About eight percent of the city's population died of the disease in 1624-26 and 1634-35 and less than two percent in 1655-57.¹⁶⁰

¹⁵⁵ For the location of the Steiger, see map 5:B2-D3; Grote Markt, map 5:B2-B3.

¹⁵⁶ For the location of the Wijnhaven, see map 5:B3-C3.

¹⁵⁷ Ravesteyn, van, *Rotterdam*; Laar, van de & Van Jaarsveld, *Historische Atlas van Rotterdam*.

¹⁵⁸ Mentink & Van der Woude, *De demografische ontwikkeling*; Lucassen, *Immigranten in Holland*.

¹⁵⁹ Laar, van de & Van Jaarsveld, *Historische Atlas van Rotterdam*.

¹⁶⁰ Mentink & Van der Woude, *De demografische ontwikkeling*, 53-55.

Both these water-related characteristics of the province of Holland and the town-specific features help us to understand the rationale of the choices that the urban dwellers made during the first six decades of the seventeenth century. By looking at encounters with water at as many levels of society as possible, we build up a fairly comprehensive image of the allocation of tasks and responsibilities within the cities. It shows that Holland was a highly subsidiary society. The concept of subsidiarity is discussed exhaustively in the next chapter.

1 The meaning of water in urban Holland

Presenting with all due respect ... that the ground level of their houses and yards lack sufficient height to allow the raising of the drain's crown (for the benefit of the common neighbours) above the level indicated by the marker pegs driven into the ground for this purpose.¹⁶¹

*Counter-appeal to the burgomasters
and regents of Rotterdam, 1658.*

Alarmed by the actions of their neighbours, who had lodged an appeal with the urban administration, eleven inhabitants of the Vogelenzang in Rotterdam decided to draw up a counter-appeal in the fall of 1658. The eleven residents had in common that their premises lay relatively low. Hence, they feared submersion if the magistrates granted their neighbours' request to raise the street and its drain. The first appeal from the Vogelenzang, the counter-appeal, and the inquiry that the municipal officials subsequently held illustrate several important points that introduce my discussion of the meaning of water in the cities of premodern Holland. In the first place, they confirm that water sometimes forced people into action. The inhabitants who triggered the chain of activities wanted to get rid of an unpleasant situation. They aimed at keeping their feet dry and the street passable after a spell of rain. The counter-petitioners, on the other hand, were concerned about the destructive force of water, fearing damage to their properties. Either way, the case illustrates the main argument of this chapter, namely that the quotidian communications about events, irrespective of whether these were ordinary or extraordinary, supports the detection of the relationships and the perceived task allocation within the city. I show this by categorizing the roles that Holland's city dwellers attributed to water explicitly and implicitly. In the case of the Vogelenzang, water was a nuisance, a threat, an inescapable substance that needed to be drained and a potential financial burden as well. This chapter builds up an image of why water mattered to the city, which actors were involved in water politics and in what ways they made – or claimed to make – a contribution to the urban community.

¹⁶¹ *Geven reverentelijck te kennen ... hoedat haer supplianten voorschreve hujsinge ende erven soodanige hoogte van gronden niet en sijn hebbende, omme te cunnen verdragen dat de watersloop (ten dienste vande gemeene gebuijren) mette kruijn hooger werde geleijt als de palen ten dien aensien voor desen geslagen, SAR OSA 2626 (Rotterdam, 1658). For the location of the Vogelenzang, see map 5:C2; Rotterdam, map 1:B5.*

Ideas derived from Actor-Network Theory (ANT, see Introduction) are at the core of this chapter. In order to explain how ANT influences its contents, as well as to display the method's merits to those who are less familiar with it, I deconstruct the entire Vogelenzang case in a manner inspired by ANT. In the rest of the chapter the role of ANT is demonstrated less explicitly, yet the insights were gained by following the same process.

The report of the Vogelenzang case consists of three documents, preserved in the municipal archives of Rotterdam: an appeal from a group of residents, a counter-appeal from another group of residents and an inquiry conducted by the municipal administration.¹⁶² A multitude of actors make their appearance throughout the case, both human and non-human. The first coming into view were the burgomasters and regents of Rotterdam (lines 1-3, 80-82). They were the addressees of both appeals and probably the ones who gave the order to hold an inquiry. These magistrates were not merely the individuals who held important offices in Rotterdam's government. A figurative chain linked them to the stakeholders within the city, whom they represented. Thus, the burgomasters and regents claimed to embody the entire urban community. This applies to both the petitions and the inquiry, but to the latter in a slightly different way: the urban authorities still represented the community as a whole, but the community of residents of the Vogelenzang in particular, being the "interested owners" (line 148).

These common neighbours of the Vogelenzang also appear as an actor in their own right. They were the ones who had to foot part of the bill if the first group of petitioners got their way (lines 48-49). Moreover, they were the interviewees of the inquiry (lines 148). Two more groups of residents can be counted as separate actors: those who initiated the whole process by submitting the first appeal (line 4) and those who drew up a counter-appeal in response to the first (lines 91-93). It is possible that, like the burgomasters and regents, the petitioners were at the end of a longer chain, representing a larger group of owner-occupiers. They did not claim to speak on behalf of unnamed others, though.

Two of the non-human actors were the combination of the street and its gutters (line 7, 100 ff., 154 ff.), as well as the municipal sewer (line 26). It was due to the anticipated consequences of their poor condition that people put the sequence of actions in motion. It is important to note that the street and gutters appear in two forms, because different groups assigned different meanings to them. The original group of appellants saw the uneven street and the decaying gutters as a nuisance, as well as a potential cause of accidents. For the second group of

¹⁶² For the full text of these three documents, see appendix 1. The lines mentioned in the text refer to the line numbers in the appendix.

appellants the gutter in its future form, if it were raised, posed an immediate threat to their premises. They may have seen the current condition of the street and gutters as a nuisance as well, but the alternative was far worse. A combination of precipitation and gravity was a third non-human actor playing a role (line 10-11). Rain aggravated a situation that was already bad, according to the inhabitants.

Another four actors played either a minor or a potential part in the case. In order of appearance, these are indicated as the citizens, the foremen of the *fabriek*, the city, and the marker pegs. The latter (line 103, 123) together formed a passive actor, merely marking the height of the street surface. Nonetheless, in the eyes of the counter-appellants the pegs made a difference, since those drew a line at a level that kept their premises unburdened. The citizens mentioned by the first group of petitioners (line 15) were possibly not all citizens of Rotterdam, but that subsection of city dwellers that walked or drove through the Vogelenzang, taking the risk to have an accident. The city (line 51), which according to the appellants should pay for the reparation of the sewer, definitely embodied the entire urban community. In this regard, the city as an actor can be equated with the burgomasters and regents discussed at the beginning of this analysis.

If the magistrates decided to take the first appeal under advisement, they would engage the bosses of the *fabriek* (line 42-44). They had to examine the residents' request and, upon recognition that repairs were needed, either carry out or commission the reconstruction work. This was the course of action that the first group of appellants wished for (line 40-51). In ANT lexis, this was the desired programme of action. All movements frustrating the programme of action, including the absence of activity, are included under the heading anti-programme. Habitually anti-programmes remained unspoken, for the counter-actions were often performed implicitly, subconsciously or even unwillingly. Yet in this case the anti-programme presents itself clearly in the words of the authors of the counter-appeal: they requested the magistrates not to authorize the raising of the street. Obviously, the number of possible anti-programmes is almost endless. The magistrates could decline to consider the residents' request, for instance. The officials of the *fabriek* might conclude that the condition of the street was fine, neighbours might refuse to pay for the reconstruction beforehand or, rather far-fetched, a disaster like a deluge, epidemic or siege could change the local situation drastically. These and other anti-programmes do not appear from this case, however, and are therefore excluded.

By disassembling the elements constituting the Vogelenzang case, we have learned several things. First, we have taken a close look at the stakeholders in the case and considered on whose behalf they operated. The collection of agents that

made or could make a difference in this case did not only include active human actors, but also the non-human and passive ones. The information thus gathered comes in useful in chapter 2 about the decision-making structures within the cities. The quality of ANT that matters in this chapter, is that it helps to detect the different meanings people assign to objects, substances or situations. As we have seen, a gutter can be perceived as a drainage facility if it functions properly, a nuisance when it is broken or a threat when lying too high. It almost goes without saying that a substance as omnipresent and versatile as water has many more connotations. Looking through an ANT prism at the corpus of sources, the rest of this chapter discusses the range of denotations that the urban dwellers of Holland attached to water in the seventeenth century. Together, the objects that mattered to them demonstrate how the urban communities were organized and functioned on a daily basis.

Uncontainable force

Before anything else, water was a substance that was simply there, without giving people pause for thought. To some extent, the inhabitants of seventeenth-century Holland saw water as an unruly force, coming and retreating unbidden, sometimes playing tricks on people. If an area fell victim to a flood, heavy rainfall or a drought, people were rather acquiescent about it in the sources I studied. They did not habitually blame themselves or their neighbours for immoral behaviour, which might invoke the wrath of God. Writing about resilience in the face of catastrophes, historian Raingard Esser argued that the custom of explaining calamities as a divine punishment went in decline in Germany and The Netherlands in the second half of the sixteenth century. Instead, the authors referred to disasters as recurring events, sometimes blaming the people whose negligence had caused or worsened the tragedy.¹⁶³

As Esser pointed out, almost exclusively theologians continued to attribute the occurrence of calamities to God's will, Protestants and Catholics alike.¹⁶⁴ An anonymous pamphleteer, for instance, wrote about a storm surge in September 1621, which had breached dikes near Medemblik as well as between Haarlem and Amsterdam. S/he described the water as a peril and a means of chastising sinners, damaging buildings and killing cattle and people.¹⁶⁵ Leaving aside the religiously inspired pamphlets, in the other records used for this study the name of God was mentioned a few times by way of incantation averting mishap: "In the event of fire

¹⁶³ Esser, 'Ofter gheen water'.

¹⁶⁴ Esser, 'Ofter gheen water', 98-99.

¹⁶⁵ *Waerachtige Beschrijvinge* 1621:A. For the location of Medemblik, see map 1:B1; Haarlem, map 1:A3; Amsterdam, map 1:B3.

or other calamities (God forbid).¹⁶⁶ Apart from that, the writers left open whether they thought of disasters being God-induced, man-made or just happening without a clear cause. When Otto vander Houve from Delft submitted a patent apply for a kind of screw pump in 1660, he motivated his invention like this: "Seeing that these lands are subject to many perils of inundation through high tides, ice drift and the like."¹⁶⁷ In the same vein, the inhabitants of Haarlem described floods as events that simply befell them every now and then. At the instigation of the town's brewers, the burgomasters wrote in 1614 that, "due to the squatness and the insecurity of the Velserdijk, it happens regularly that the same dike is breached in the summer and early fall."¹⁶⁸ Eleven years later, the vegetable farmers from the town and its jurisdiction used similar words, blaming storms and bad weather.¹⁶⁹ Like modern-day ANT scholars they attributed agency to non-human – and non-divine – actors.

Like an overabundance of water, a drought was also an event that ostensibly came upon people. It was something the inhabitants of Holland associated with the summer. The skippers and fishermen of Haarlem and the nearby village of Spaarndam had a notion about the average water level in the Spaarne in summertime. They could point it out at the blue stone sluice portal in Spaarndam. Around 1611 they attested "that the same water now stood lower than the summer water would, deviating two measures of a foot deep."¹⁷⁰

The engineer Jan Adriaansz Leeghwater (1575-1650), who proposed to drain the Haarlemmermeer, anticipated the criticism of his opponents and wrote a full vindication of his plan. Countering the comment that the water level in the ring canal of the drained lake would be too low in summer, he pointed out that this would not change the current situation. During a dry summer, he wrote, there is never much water in the polders, nor in the lake.¹⁷¹ Notwithstanding Leeghwater's precautions, the expected criticism came. The land surveyor of the Leiden and the Rijnland water board, Claes Arentsz Colevelt, listed what kind of problems were to be expected when the water level got too low. By the "drawing up of droplets and

¹⁶⁶ *Bij brandt ofte andere ongelucken (die Godt verhoede wil)*, NHA ONA 231:56r-v (Haarlem 1650).

¹⁶⁷ *Siende dat dese landen veel perikels waren onderworpen van inundatien soo door hooge vloeden, ijsgangen en diergelijcke*, HaNA SvH 1613 (1660). Cf. HaNA SvH 1603 (1645). For the location of Delft, see map 1:A5.

¹⁶⁸ *Overmits de laechte ende swaricheijt van de Velsendyck dicwils gebeurt, dat deselve dijcke inden somer ende inden voorherfste ... inbreeck[t]*, NHA SA 7278 (Haarlem 1614).

¹⁶⁹ NHA ONA 125:182r (Haarlem 1625).

¹⁷⁰ *Dat tselve water nu lager soude wesen als tsomer water soude mogen, verschelende twee diepten van een voet*, NHA SA 7296 (Haarlem, c. 1611). Spaarndam is located at the site where the Spaarne discharged into the IJ, see map 1:B3.

¹⁷¹ Leeghwater, *Haarlemmer-Meer-Boeck*, 18-19 (1641). For the location of the Haarlemmermeer, see map 1:A3-B4.

the heat of the sun” the water level would decrease, leaving too little to be fruitful for the pastures where the cattle grazed. Such a drought would force farmers to extract water from the ditches, to the benefit of the fields. Then, there would barely be water left to feed the navigable waters around Leiden, “like happened several times in the last year, when one could hardly use the Vliet and other canals with laden ships.”¹⁷² So, just like floods, the lack of water was seen as a nuisance or even a threat to the cities’ well-being. That there was more than just economic reasoning to this, will become clear later in this chapter.

Even if they saw water as an unmanageable actor, city dwellers had to remain vigilant. Instead of suffering the power of water submissively, they could prepare for future incidents, a mechanism called transformative resilience by ecological historians.¹⁷³ The aforementioned inventor Otto vander Houve submitted his patent apply with the aim that his fellow countrymen could overcome the impact of floods as soon as possible.¹⁷⁴ His colleagues Abraham and Isaack Spijck from Amsterdam invented some sort of ice-breaking apparatus to prevent the yearly occurring ice thrift breaching dams and dikes.¹⁷⁵ The municipal officials who gathered testimonies about the squatness of the Velserdijk and the recurring floods near Haarlem in 1614, did so to request the water board of Rijnland to rebuild the dike as sturdy as they had elsewhere along the IJ.¹⁷⁶ In 1625 it was the water board itself who ordered the recording of eyewitness accounts about the two floods that had occurred during the previous winter.¹⁷⁷ They probably needed the evidence to present the Amstelland water board with the bill: this time Rijnland’s dikes had remained intact, while a couple of dikes east of Amsterdam burst.¹⁷⁸

The people of Holland knew very well that water sometimes showed an unpredictable and disruptive face. They chose not to sit back and count their losses, but to brace themselves against future hazards. In the words of geographers Markus Keck and Patrick Sakdapolrak, who categorized the different forms of resilience: they did not only show persistability, but also

¹⁷² *Door 't optrecken ende hitte der sonne ... Gelijck het verscheyden reysen in 't voorleden jaer gheschiet is, datmen de Vliedt ende meer andere canalen, qualick met eenighe geladen schepen, heeft kunnen ghebruycken*, Colevelt, *Bedenckingen*, 13. For the location of Rijnland, see map 1:A3-B5; Leiden, map 1:A4; Vliet, map 1:A4-A5.

¹⁷³ Keck & Sakdapolrak, ‘What is Social Resilience?’, 9; Soens, ‘Resilient societies’, 146.

¹⁷⁴ HaNA SvH 1613 (1660).

¹⁷⁵ HaNA SvH 1603 (1646).

¹⁷⁶ NHA SA 7278 (Haarlem 1614).

¹⁷⁷ NHA ONA 125:179r-182r (Haarlem 1625).

¹⁷⁸ Gottschalk, *Stormvloed en rivieroverstromingen*, III 90-91. For the location of Amstelland, see map 1:B3-B4.

transformability.¹⁷⁹ In modern-day terminology, the latter would be called sustainability. This was by no means a new development. The inhabitants on the east coast of the North Sea have adapted their environment to reduce threats at least since they started building artificial dwelling mounds in the sixth century BCE.¹⁸⁰ People were prepared for the worse, yet we should beware of exaggerating the purport of floods and droughts. Environmental historian Tim Soens pointed out that even the worst North Sea floods had merely local impact, barely affecting regional economic developments and not inducing institutional change.¹⁸¹ On a local scale, the impact of the storm surge of 1625 must have been huge. More than half of Holland's acreage north of the Rhine submerged, which was at least a setback for the land reclamation projects of the Wormer, the Diemer- and Watergraafsmeer and the Naardermeer.¹⁸² Nevertheless, the image Soens sketched is reflected in the attitude of the seventeenth-century city dwellers of Holland towards water-related calamities. As we have seen, stakeholders negotiated with the authorities about the prevention of future incidents, thereby confirming the existing power structures. Others, like the inventor Vander Houve and the engineer Leeghwater, made use of the sixteenth- and seventeenth-century technological developments to improve the precautionary measures. They turned to the authorities as well, addressing topics that were apparently too large to leave to individuals. I will return to this point later.

Commodity

Since water was – and often still is – an ordinary part of the scenery in Holland's towns, many people saw it as a substance that was simply there to be used by anyone who felt the need, apparently without giving it a thought. As a consequence, the significance they attached to the substance was an implicit one, seldom put into words. Nevertheless, the easy availability of water shaped people's lives.

To begin with, the inhabitants of Holland used it for consumption. Contrary to popular belief, premodern folks did drink water pure and unprocessed.¹⁸³ A testimony from The Hague relates the story of three women who went out to drink a few pints of wine. One of them, called Lijsbeth Leenderts, fainted. The innkeeper

¹⁷⁹ Keck & Sakdapolrak, 'What is Social Resilience?', 6-7.

¹⁸⁰ Dam, van, 'An Amphibious Culture', 82-83.

¹⁸¹ Soens, 'Resilient societies', 152-159.

¹⁸² Gottschalk, *Stormvloed en rivieroverstromingen*, III 90-91. For the location of the Rhine, see map 1:A4-C5; Wormer, map 1:B2-B3; Diemer- and Watergraafsmeer, map 1:B3; Naardermeer, map 1:B3-C3.

¹⁸³ Tielhof, van, 'Drinkwater en geschiedenis'. Cf. Coomans, *In Pursuit of a Healthy City*, 129.

brought some vinegar to aid her regain consciousness and asked if she would like a glass of small beer. "To which Lijsbeth replied 'no, but fetch me a glass of water'. And therefore, the aforesaid Cathalijntge Gillis went to the pump at the back to fetch a glass of water."¹⁸⁴

For brewers, pure water was indispensable to produce a potable product. It had to be of the right chemical composition, not acidic nor too alkaline.¹⁸⁵ This means that non-human factors impacted the choices people made. Brewers living on Holland's acidic peaty soils were worse off than colleagues who had the advantage of sandy ground nearby, such as the dunes along the North Sea or the hillocks of the Utrecht-Holland border region. The former had to contemplate importing water for their trade. Several inventors of pump mechanisms explicitly mentioned that their discoveries would be beneficial to conduct water into breweries.¹⁸⁶ The brewers of Amsterdam employed water barges and even an ice-breaker to ensure the continuous supply of fresh water from the river Vecht.¹⁸⁷ The brewers of Leiden, Haarlem and Alkmaar owned water barges as well, even though the latter two operated in cities where dune water flowed right through the town.¹⁸⁸ Jan Adriaansz Leeghwater, the engineer, used the improvement of the water quality for the benefit of the brewers as an argument to promote his plan to drain the Haarlemmermeer. "There will be none but clear rain water ... milled into the ring canal," he posited. This clear water would be complemented with dune water flowing in from the west side of the drained lake. According to Leeghwater, the resulting concoction would be pure enough to satisfy the brewers of Leiden and Haarlem, who "will find little or no differences compared to the water they nowadays have to collect with difficulty and at a high price."¹⁸⁹ The brewers were the first ones who suffered when the water was tainted. Representing the most important trade in the town, Haarlem's brewers worked closely together with the urban magistrates. In this sense, they were the exception to the subsidiary rule. They did not merely invoke the magistrates' help, but worked hand in glove with

¹⁸⁴ *Daer op sij Lijsbeth antwoorde, neen, maer haelt mijn een glas met water. Zoo is de voorschreven Cathalijntge Gillis naer achteren aen de pomp gegaen om een glas water te haellen*, HGA NotA 181:50r (The Hague 1650).

¹⁸⁵ Vries, de & Van der Woude, *The First Modern Economy*, 44-45; Oosten, van, *De stad, het vuil en de beerput*, 111; Oosten, van, 'The Dutch Great Stink', 15.

¹⁸⁶ HaNA SvH 1591 (1618); HaNA SvH 1604 (1647).

¹⁸⁷ Vries, de & Van der Woude, *The First Modern Economy*, 45; Huisman & Buiters, 'Het zoete nat', 388; Tielhof, van, 'Drinkwater en geschiedenis'. For the location of the Vecht, see map 1:B3-C4.

¹⁸⁸ Colevelt, *Bedenckingen*, 12 (1642); NHA SA 4041 (Haarlem, 1632); RAA NotA 263:92r-v (Alkmaar 1668). For the location of Alkmaar, see map 1:A2.

¹⁸⁹ *En zal daer ander gheen water in de Meer komen als klaer reghen water ... ende weynich ofte geen veranderinghe en sullen vinden tegen het water dat sy nu met groote onkosten ende moeyten moeten halen*, Leeghwater, *Haerlemmer-Meer-Boeck*, 18 (1641).

them. Thus, they formed a powerful bloc to confront the representatives of other industries in the town and external parties like the Rijnland water board.¹⁹⁰ However, the brewers' and skippers' guilds in Haarlem held an exceptional position, as I will demonstrate further on in this thesis, in the sense that they used their power as an organization to get their way.

Another important, but barely remarked function of water in towns was that of a cleansing agent for clothes and other textiles. On a household scale, people washed their clothes themselves, hired a washerwoman or payed a dedicated bleachery to do the job.¹⁹¹ Tenants sometimes stipulated that the landlord would take care of the laundry.¹⁹² The washing of clothes at home required some amenities that were typically set in backyards: a well or cistern to draw water, one or more sinks and preferably a facility to heat the water as well.¹⁹³ Since several households sometimes shared these amenities, they were subject of discussion – both in quarrels and in proper negotiations. Once washed, the laundry had to be dried. Various houses had a dedicated “clothes' garret” for this purpose.¹⁹⁴ These provide a fine example of how natural circumstances helped to determine both infrastructural arrangements and domestic practices. Due to the wet Dutch climate, people needed to make provisions to dry their clothes, for instance by inducing a programme of action to section off a room under the eaves. Moreover, they made arrangements about its use, thus providing us with the records needed to observe the relationships within urban communities.

The material qualities of water were not always a decisive factor in the choices people made. A testimony from 1637 shows that the infrastructure needed for washing was highly versatile. The successive inhabitants of a house in the Kapelsteeg in Alkmaar declared that nobody had ever made an objection when they drained off the waste water from their sink through the common alley.¹⁹⁵ The first interviewed inhabitant had used the sink in the cellar for washing clothes. The second, a tanner, utilized it for pounding leather in winter. In 1635, the house had transformed into an inn. Since then, the sink had been used as a container for all kinds of discarded liquids.¹⁹⁶ The fact that the current owner wanted to record these testimonies, suggests that some conflict about filthy water running through

¹⁹⁰ NHA SA 4041 (Haarlem 1621, 1632).

¹⁹¹ NHA ONA 72:98r (Haarlem 1601); RAA NotA 32:161v (Alkmaar 1602); SAR ONA 287:126 (Rotterdam 1634).

¹⁹² SAR ONA 273:186/312:75 (Rotterdam 1650).

¹⁹³ RAA NotA 32:161v (Alkmaar 1602); SAR ONA 420:214 (Rotterdam 1649); HGA NotA 44:204r (The Hague 1650).

¹⁹⁴ *Cleersolder*, HGA NotA 47:213 (The Hague 1635). Cf. HGA NotA 180:340v (The Hague 1649); HGA NotA 44:232r (The Hague 1650); HGA NotA 60:14r (The Hague 1650).

¹⁹⁵ For the location of the Kapelsteeg, see map 2:C2.

¹⁹⁶ RAA NotA 113:64v-65r (Alkmaar 1637).

the common alley had arisen. The owner took the initiative to go to the notary, in order to prove he stood in his right. Water as a cleansing agent was used at an industrial scale as well. In 1645, the yarn bleachers of Haarlem sent an appeal to the urban magistrates, pleading to deny a fuller access to the ditch where the bleachers did their trade. They argued that they needed clean water just as much as the brewers of the town, in order to boil and rinse the yarn. A fulling mill, they said, would spoil the water they needed so dearly.¹⁹⁷ Whereas the brewers of Haarlem communicated through the guild, the yarn bleachers organized themselves on a temporary basis to challenge the burgomasters and regents. The group claimed not only to represent the members of their own trade, but the entire cloth industry.¹⁹⁸ This way, they utilized the invisible links in the figurative chain to reinforce their plea. The example indicates that craftsmen organized themselves without turning to their guild for help.

Furthermore, people used water to clean floors, furniture and crockery. Like doing the laundry, these activities were a potential source of friction, thus providing us a sight into the relationships within urban neighbourhoods. A 79-year-old woman from Alkmaar testified in 1639 that she used to wash the dishes in a house in the Huigbrouwersteeg, where she was employed as a seamstress. She knew well that she had drained the water through a common gully running along the alley.¹⁹⁹ Some twenty-five years later, the housemaid Trijn Nannings washed the crockery right in the alley. By then, the gully that had once served the seamstress was also used to drain off water spilled at a common pump. Nannings remembered "that she had oftentimes swept water through the alley from one end to the other, without ever hearing any objections or words about it from the neighbours."²⁰⁰ A beer tax collector in Rotterdam was put in his place in 1649, after he had tried to overtax a woman, counting the barrels in her cellar. It took the authority of the bailiff's minions to settle the dispute that followed. The woman managed to convince them that one of the barrels merely contained water, meant "to rinse my house."²⁰¹ The inhabitants of Rotterdam, or at least the brewers among them, did not need wells, pumps or barrelled water to clean their utensils. Twice, brewers of the town required the recording of testimonies in which the rinsing of barrels in the water of the harbour played a role.²⁰²

¹⁹⁷ NHA SA 3964 (Haarlem 1645).

¹⁹⁸ I will return to the point of guilds and ad hoc associations in chapter 2.

¹⁹⁹ RAA NotA 114:90r (Alkmaar 1639). For the location of the Huigbrouwersteeg, see map 2:B2.

²⁰⁰ *Dat sij dickwils het water inde steech van het eene endt tot het ander heeft geveacht sonder dat sij oijt daer over eenige woorden off tegenseggen van de buijren heeft gehoort*, RAA NotA 114:94f (Alkmaar 1639).

²⁰¹ *Om mijn hujs te spoelen*, SAR ONA 474:634 (Rotterdam 1649).

²⁰² SAR ONA 142:150 (Rotterdam 1635); SAR ONA 323:296 (Rotterdam 1635).

Several foreigners travelling through the Low Countries in the sixteenth and seventeenth century remarked upon the cleanliness of its cities.²⁰³ Economic historians Bas van Bavel and Oscar Gelderblom suggested that this had to do with the hygiene needed for the dairy trade, not only in rural but also in urban areas.²⁰⁴ In this regard, references to the cleaning of the stoop and other public displays of cleanliness are conspicuously absent in the sources. This could mean that the inhabitants were not as neat as the travellers claimed. In that case, the cleanliness of the Hollanders was a mere trope. An equally plausible explanation is that like the use of water at large, the cleansing of stoops was so common, that it was not frequently discussed in the kind of records I used. In that case, people hardly thought about it, almost ignoring the precious water they needed for their chores.

The act of firefighting was mentioned even less, and all the more parenthetically. A sales deed of a residence from The Hague stated in 1634 that the firefighting equipment was part of the deal: the seller would deliver it to the buyer in due time.²⁰⁵ In 1659, the urban administration of Rotterdam commissioned the painting of thirty-six signboards that were meant to designate at which locations the firefighting equipment was stored.²⁰⁶ The prevention of fires was typically a task that the urban magistracy appropriated, as will become clear in chapter 2. The magistrates of The Hague stipulated in several building permits, that the house owners had to make sure that water remained publicly accessible "in case of fire (God forbid)."²⁰⁷ Urban authorities throughout Europe had taken similar measures at least since the 1200s.²⁰⁸ Many European towns delegated the supervision of the firefighting equipment and the organization of the firefighting itself to dedicated neighbourhood organizations.²⁰⁹ Kees Walle suggested that such an arrangement existed in Leiden, but that it ceased in the sixteenth century.²¹⁰ Possibly, a similar arrangement still existed in seventeenth-century The Hague. In general, however, it seems that the individual households and the municipal administration shared the task between them. Such a shared responsibility was no exception concerning assignments that served the common good, as will be elucidated in chapter 3.

²⁰³ Temple, *Observations upon the United Provinces*, chapter 3 (1673); Schama, *The Embarrassment of Riches*, 375.

²⁰⁴ Bavel, van & Gelderblom, 'The economic origins of cleanliness', 42-46.

²⁰⁵ HGA NotA 47:160 (The Hague 1634).

²⁰⁶ SAR OSA 4888:28v (Rotterdam 1659).

²⁰⁷ *In tijde van brandt (twelck Godt verhoede)*, HGA OA 122:172 (The Hague 1624). Cf. HGA OA 121:223 (The Hague 1621); HGA OA 123:39 (The Hague 1627); HGA OA 124:39 (The Hague 1635).

²⁰⁸ Garrioch, 'Towards a fire history', 220.

²⁰⁹ Walle, *Buurthouden*, 7; Schmidt-Voges, 'Das Haus und seine Nachbarschaft', 421.

²¹⁰ Walle, *Buurthouden*, 15-16.

As to the social relationships in the cities, the gender aspect is noteworthy. Domestic cleaning was a task typically done by women. The people appearing in the records doing the laundry, washing the dishes and scrubbing the floors were invariably female.²¹¹ Conversely, washing was also the most common profession that women entered, that is, if they specified their occupation at all. The few women who provided other jobs were maidservant, seamstress or tailoress, midwife, one female brewer and a barrow-woman who removed soil from the Schermer land reclamation project. The latter was hardly deemed respectable, although people had probably more objections against the fact that she got pregnant from a migrant worker than against her job.²¹² Taking in clothes to wash them for a fee or hiring yourself out for domestic chores was seen as a respectable way for women to earn a living. A resident of The Hague declared that the widow Hendrickje Abels “conducted herself always as piously and industriously as any woman could or might. Yes, she has washed and starched by night and by day ... to get by honourably.”²¹³ While doing the laundry and sweeping water through the alley, women acted as the eyes and ears of the neighbourhood. Hence, they made excellent witnesses for fellow city dwellers who wanted to record attestations about, for instance, infrastructural arrangements, the commitments people made or the culpable conduct of others.²¹⁴ As stated before, however, they apparently did not think much about the water they used.

Taking into consideration that the groundwater is brackish almost everywhere in Holland, and thus a possible source of friction between its consumers, it is worth considering how city dwellers obtained usable water. According to archaeologist Roos van Oosten, the inhabitants of Leiden used surface water for their daily needs until the sixteenth century. Somewhere between 1500 and 1700 the water became too polluted for consumption, probably due to a combination of population growth and changing waste dumping practices.²¹⁵ In cities like London, water carriers brought down spring water from the surrounding hills, offering it for sale in the town.²¹⁶ In like manner, fresh water shipped from the river Vecht was

²¹¹ Cf. Schmidt, ‘Labour Ideologies’, 53-54.

²¹² RAA NotA 107 (Alkmaar 1634). For the location of the Schermer, see map 1:B2.

²¹³ *Haar eerlijck vroom ende naerstich gedragen heeft, als een eerlijcke vroupersoon soude kunnen ofte mogen doen. Jae, nacht ende dach ... gewasschen ende gesteven heeft om met eeren door de werelt te geraecken*, HGA NotA 246a:70 (The Hague 1649).

²¹⁴ SAR ONA 287:126 (Rotterdam 1634); RAA NotA 114:94r-v (Alkmaar 1639); SAR ONA 392:569 (Rotterdam 1650).

²¹⁵ Oosten, van, ‘The Dutch Great Stink’, 11.

²¹⁶ Gottfried, ‘Plague, Public Health and Medicine’, 357; Jenner, ‘From conduit community to commercial network?’, 250; Rawcliffe, *Urban bodies*, 171.

sold in Amsterdam.²¹⁷ Meanwhile, there is no evidence that water importation for direct sale was common practice in other cities in Holland. A few water barges appeared in the records I have seen, yet they were all property of one or more breweries.²¹⁸ Apparently, there were people who stored fresh water in a barrel in their house, like the woman who made a laughingstock of the beer tax collector, mentioned before. However, she can be linked to the brewers' trade as well, her husband being a journeyman in a brewery. The fact that the tax-collector mistook the water in the barrel for beer, suggests that it was quite uncommon to store water that way.²¹⁹ Another indicative detail is that although the cities taxed even the most common consumables, like beer, cereals and peat, they did not levy water impost. So, I assume that the use of water sold by the pint or by the barrel was not widespread in Holland, with the possible exception of Amsterdam.

That it is important to take in local circumstances or non-human actors to explain people's behaviour is demonstrated by the different ways the inhabitants of various regions in Holland tried to obtain fresh water. Due to the typically unfavourable groundwater conditions, it was difficult to get fresh water from wells dug to this aim. That the inhabitants saw this as a problem is shown by a testimony recorded in 1602. One Pieter Pietersz bade three farmers, one of them living in Haarlem, the others further to the east, to attest that he had invented a technique for "all wells containing harmful and stinking water, also those being dry with little water. To serve them by drilling with a certain instrument, so that these wells provide fresh, good and much water."²²⁰

Several city dwellers mentioned the existence of wells on their premises. A few of them, one from Haarlem and five from The Hague, used the word *bornput*, which suggests that they meant a spring-well, contrary to a construction tapping a cistern.²²¹ We cannot be sure, however: according to the WNT the term was used habitually but not exclusively for spring-wells.²²² Nevertheless, a look at sixteenth- and seventeenth-century maps suggests that (spring-)wells were far more common in The Hague than in Haarlem, while they were barely present in Alkmaar (see figure 2). On maps depicting Rotterdam, wells are nowhere to be seen. It is conspicuous that all wells represented on the maps of Alkmaar and Haarlem –

²¹⁷ Vries, de & Van der Woude, *The First Modern Economy*, 45; Huisman & Buiters, 'Het zoete nat', 388; Tielhof, van, 'Drinkwater en geschiedenis'.

²¹⁸ NHA SA 4041 (Haarlem, 1632); RAA NotA 263:92r-v (Alkmaar 1668).

²¹⁹ SAR ONA 474:634 (Rotterdam 1649).

²²⁰ *Omme alle waterputten hebbende quaet ende stinckende water, oock wesende van weynich water ende drooch. Alsoo te maecken, helpen, ende met zeecker instrument te booren, dat de zelve putten versch, goet ende veel waters opgaven*, NHA ONA 41:175v (Haarlem 1602).

²²¹ NHA ONA 16:151r (Haarlem 1601); HGA OA 123:158 (The Hague 1630); HGA NotA 15:4 (The Hague 1635).

²²² WNT lemma Bornput.

although few in number – are located on the old dune ridges instead of in the peat land.²²³ In The Hague, a few wells near the Spui may have stood on peat, but the vast majority was situated on soil with less acidic features.²²⁴ It is likely that most of these wells provided fresh water, in contrast to those that the aforementioned farmers east of Haarlem had to put up with.²²⁵ Whereas most wells in Haarlem were located in market squares and near churches, one of the two wells in Alkmaar and numerous ones in The Hague stood in backyards and other enclosed spaces. As will become clear in chapter 2, this does not necessarily mean these were meant for private use. The area could be either publicly accessible or shared among several households. In both cases, individuals and sometimes governments had to make arrangements about their use. In other words, most city dwellers could fend for themselves.

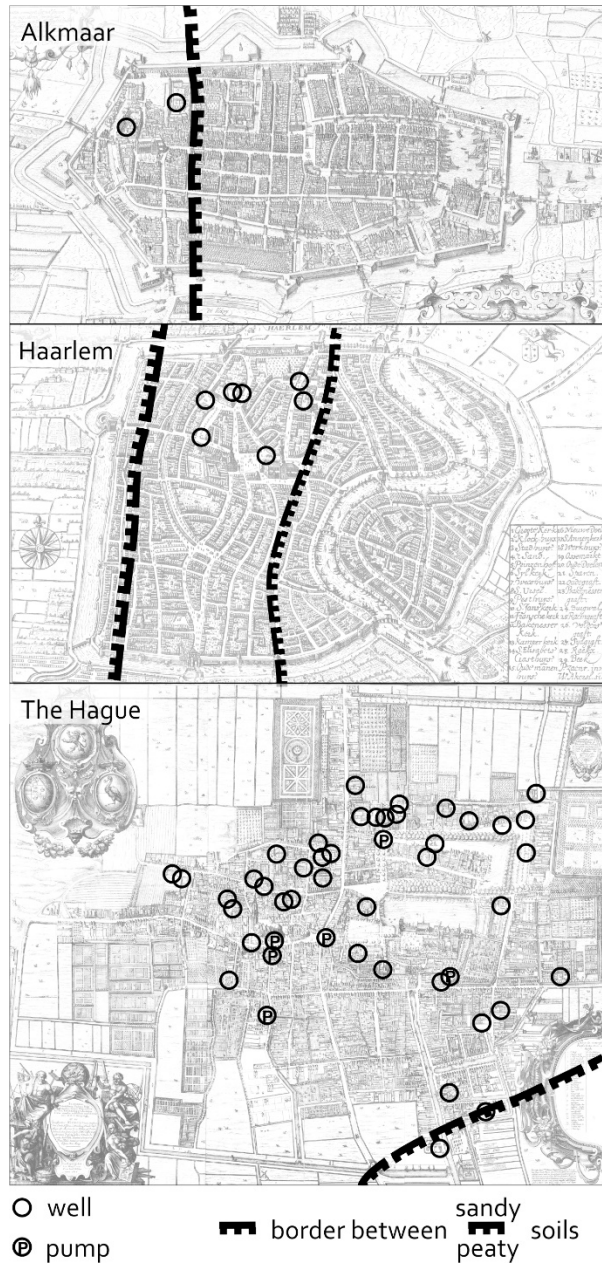


Fig. 2. Distribution of wells and pumps on the maps of Drebbel (Alkmaar 1579), Akersloot & Saenredam (Haarlem 1628), Bos & Van Harn (The Hague 1616).

²²³ For an explanation about old dunes and peat, see the introduction, under the header Environmental and geographical background.

²²⁴ For the location of the Spui, see map 4:C3-C4.

²²⁵ NHA ONA 41:175v (Haarlem 1602).

Even though it is far from certain that the map makers have depicted every single well, it is very likely that the majority of city dwellers had no access to wells.²²⁶ They had to rely on rain water tanks. These cisterns contained water that had dripped from the roof. Twice, records from The Hague mention the capacity of cisterns belonging to the premises of a house. One could contain ten tons, the other twenty. Assuming that they measured in beer tons, the cisterns' capacity was approximately 1.500 and 3.000 litres respectively. A hard roof surface, in the absence of slate in Holland usually tiles, was a prerequisite for a well-functioning rain water tank.²²⁷ The vast roofs of churches and other public buildings were very appropriate to feed a cistern, accounting for the habit to fit public pumps to this kind of buildings.²²⁸ Most tanks were situated in backyards, however. Neighbouring house owners, landlords and tenants frequently made arrangement about them.²²⁹ Sometimes they were subject to negotiation between inhabitants and the urban magistrates as well.²³⁰

In addition to buying measures of water, or drawing it from a well or cistern, people could hoist buckets of water from rivers and canals. As mentioned before, the brewers of Rotterdam had no qualms about using harbour water to clean their barrels. Probably the residents of Rotterdam used surface water for their domestic chores as well. In 1650 a brewer's widow sold the site of the former malt house to the neighbouring Remonstrant church. She granted the church permission "to construct and maintain a pipe for a pump, in order to draw water from the harbour to the sold plot at will."²³¹ Strictly speaking, she did not exercise the right of disposal of the harbour water; that was merely a passive actor, ready for use by the Remonstrant community. Nevertheless, the case is a prime example of subsidiarity. The seller and the buyer made an arrangement that included the use of common water among them, without the intervention of a higher authority.

²²⁶ The maps by Drebbel, Akersloot & Saenredam and Bos & Van Harn were chosen because experts consider them to be the truest to the real situation. See Beenakker, *Historische plattegronden 5 Hollands Noorderkwartier*; Clement-Van Alkemade et al., *Historische plattegronden 6 Haarlem*; Groenveld et al., *Historische plattegronden 10 Den Haag*. On the map of Akersloot & Saenredam the southernmost well indicated here is missing. Since it appears on most coeval maps (Thomaszoon 1578, Braun & Hogenberg 1597, Guicciardini 1612) I decided to mark it nonetheless.

²²⁷ Vogelzang, *De drinkwatervoorziening*, 52; Groenewoudt & Benders, 'Private and shared water facilities', 254.

²²⁸ Huisman & Buiten, 'Het zoete nat', 387-388.

²²⁹ NHA SA 4305 (Haarlem 1608); NHA ONA 97:88r (Haarlem 1626); SAR ONA 323:51 (Rotterdam 1635); HGA NotA 60:14r (The Hague 1650).

²³⁰ HGA OA 121:31 (The Hague 1616); HGA OA 120 (The Hague 1621).

²³¹ *Mogen trecken ende houden pyp tot een pompe, omme daermede vande haeven tot aen het vercofte water te mogen trecken tot des geliefte*, SAR ONA 367:546 (Rotterdam 1650).

Inhabitants of the Schiedamsedijk in Rotterdam used surface water to cook with.²³² In 1635, they lodged a complaint with the magistrates about the water quality in the ring canal, which forced them to draw water outside the city walls in summertime.²³³ At least twice, different inhabitants of Rotterdam's *waterstad* organized themselves in order to plead with the magistrates to facilitate them drawing water from the harbour.²³⁴ It is feasible that while the custom of using surface water went into decline in Leiden in the 1600s, the practice continued to exist in Rotterdam. Maybe the conjunction of the peatland rivers Schie and Rotte and the slightly salty Merwede river provided a cocktail of sufficiently fresh water, which was kept constantly moving by the tides.²³⁵

Once they had obtained a source of fresh water they needed for consumption and their daily chores, city dwellers wanted to preserve its quality. In a sales deed from 1620, the widow Hillegont van Foreest sold a part of her property, retaining the house where she herself lived. She explicitly stipulated that the buyer could not build a privy within six feet (1,7 metres) of her well.²³⁶ Although she gave no reason for this condition, it is likely that she was not prepared to take the chance that her utilization water would be tainted. In a similar case, the widow Margariete de Roij alienated part of her premises in 1650, aligning the new property line on the existing walls. Since it was difficult to discern on which plot the well stood, the latter became shared property. The neighbours would use and maintain the well together and "if the same well would be contaminated the same will be sanitized and resealed to common costs."²³⁷ The municipal administration of The Hague granted the owner of a house along the Spui permission to direct a sewer to the canal. In order to prevent the discharge of dirt, they conditioned that the sewer mouth was to be fitted with a grate and it would never be connected to a privy.²³⁸

In 1658, the canal masters of Haarlem outsourced the cleaning and deepening of some canals within the city. They drew up some tendering documents, in which they specified the work to be done. First, the contractors were obliged to clean the canal thoroughly. They had to make sure that they took away all rubbish that had accumulated underneath the bridges. Besides, they were to clean one rod (3,8 metres) of all sewers and drains discharging into the canals. To prevent pollution in

²³² For the location of the Schiedamsedijk, see map 5:A4-B4.

²³³ SAR ONA 258:89 (Rotterdam 1635).

²³⁴ SAR ONA 353:137 (Rotterdam 1637); SAR ONA 353:483 (Rotterdam 1636-44).

²³⁵ For the location of the Schie, see map 1:A5-B5; Rotte, map 1:B5; Merwede, map 1:A6-C5.

²³⁶ RAA SA 1533 (Alkmaar 1620).

²³⁷ *Indien d'selve put mochte comen te vervuilen sal t'selve tot gemeene costen schoon gemaect ende weder toegeleijt werden*, HGA NotA 160:148r (The Hague 1650).

²³⁸ HGA OA 124:95 (The Hague 1637). Cf. HGA OA 125:67r, 69r (The Hague 1664).

the nearby future, Haarlem's *grachtmeesters* (canal masters) expected the contractors to leave the site clean when the job was done. They had to clear the banks, at least three feet (94 centimetres) wide, "so that no sand, sludge nor other dirt may drop or tumble into the water anew."²³⁹ The inclination to keep the waterways in the city clean was not unique for Haarlem. In Amsterdam, municipal architect Daniel Stalpaert (1615-76) wrote a water refreshment plan. He suggested to increase the number of circulation mills in the city and to add ebb-gates to the sluices. The latter could be closed at low tide as well as by night, preventing the water from draining immediately into the IJ. At the closing of the gates, the circulation mills would start their work. The movement they brought about would break up the "filthy slimy grounds" of the canals, which could be discharged with the water at daybreak.²⁴⁰

The idea that the force of water could be used to refresh the same water was not new. In 1591 the municipal secretary of Leiden, Jan van Hout (1542-1609) drew up a plan to cleanse the canals of the city. He proposed to use a horse-driven paddle wheel, invented shortly before by Simon Fransz van der Merwen (1548-1610).²⁴¹ Several seventeenth-century inventors of paddle wheels, whose main function was to drain polders, mentioned that their contraptions were suitable to scour river beds, stir up currents and refresh stagnant water.²⁴² Land surveyor Claes Arentsz Colevelt argued against the drainage of the Haarlemmermeer by reminding his audience that since the drainage of the Zoetermeerse Meer (1614) the water in Leiden's canals had come to a standstill. This was harmful, wrote Colevelt, because the many dirty and greasy industries of Leiden needed the waters for their trade. These were essential for the city's well-being, making it rich and populous. Only storms that whipped up the waves made the water in Leiden's canals flow, which was needed to remove the contamination from the city.²⁴³ Stirring the water to ease the pollution and prevent epidemics was also the aim of an ad hoc association of neighbours from The Hague, who sent an appeal to the magistrates in 1630. They wanted to deploy a paddle wheel invented by Cornelis Eeuwoutsz Proot, a solution quite similar to those of Van Hout in Leiden and Stalpaert in Amsterdam.²⁴⁴ The totality of the foregone examples illustrates that

²³⁹ *Op dat het sant, uutschot, noch eenige andere vuylicheijt niet wederomme inde voorscreven graft en commen te rollen ende vallen*, NHA SA 6623 (Haarlem 1658). Cf. NHA SP 54 (Haarlem 1641).

²⁴⁰ *Vuyte slijmerige gronden*, Stalpaertd, *Voorslagh Tot 't reynigen*, 2-3 (1653).

²⁴¹ Doorman, *Octrooien*, 82.

²⁴² HaNA SvH 1600 and 1604 (1643, 1647, 1648).

²⁴³ Colevelt, *Bedenckingen*, 11-13 (1642). For the location of the Zoetermeerse Meer, see map 1:A5.

²⁴⁴ HGA OA 5345 (The Hague 1630). Cornelis Eeuwoutsz Proot and Simon Fransz van der Merwen knew each other. Together, they submitted a patent apply for a pumping

both governing bodies and private city dwellers took initiatives for water-related measures, whereas civil organizations got barely involved. Besides, they show the continuity of problems that bothered the city dwellers in a time when the urban environment changed quickly.

In addition to urban administrations and inhabitants, the industries of Haarlem pursued the availability of clean water as well. The yarn bleachers reminded the urban magistrates that they needed untainted water as badly as the brewers. Moreover, they reasoned, there was a chain of producers who depended on the quality of their semi-manufactured product. In other words, not only the yarn bleachers would suffer if the water was soiled by an anticipated fulling mill; the entire cloth industry of Haarlem was at stake.²⁴⁵ The brewers of Haarlem were most active when it came to obtaining untainted resources. In 1614, they encouraged the burgomasters and regents of the town to submit an appeal to the Rijnland water board. In the appeal, the magistrates indicated that due to recurring dike breaches the water in the area, and consequentially the beer made from it, was “brackish and poisonous.”²⁴⁶ Seven years later, the brewers sent a letter to the water board themselves, making a suggestion to compartmentalize the lands to the southwest of Haarlem, so that pure dune water and salt sea water would remain separated in the event of a dike breach.²⁴⁷ The brewers also worked closely together with the burgomasters and regents of the town to avert all potential harmful activities from the environment of the Brouwersvaart, the canal they used to gather fresh water near the dunes.²⁴⁸

Conveyor

Due to its fluidity, water is an adequate medium to carry away all kinds of filth to a new sink. This principle applies on a small scale – say, the scrubbing of a floor – as well as on a large scale, for instance the dumping of waste into a river. In a similar way as Holland’s city dwellers perceived water as a commodity, they did scarcely give a thought to the water that washed away their dirt. They just used it, without explicitly giving meaning to the substance.

In premodern and modern times alike, people watched filthy matter anxiously. Regarding the seventeenth century, this apprehension was linked directly to water. Since antiquity, people saw *miasma* or bad air as a major cause of diseases.

mechanism for a fountain in 1584. In the same year, both patented a paddle wheel independently as well. See Doorman, *Octrooien*.

²⁴⁵ NHA SA 3964 (Haarlem 1645).

²⁴⁶ *Brack ende giftich*, NHA SA 7278 (Haarlem 1614).

²⁴⁷ NHA SA 4041 (Haarlem 1621). Cf. Dam, van, ‘An Amphibious Culture’, 82.

²⁴⁸ NHA SP 12 (Haarlem 1620); NHA SA 4041 (Haarlem 1632).

They associated *miasmas* with anything odoriferous, such as corpses, dunghills and latrines, but also gutters and stagnant water. In the seventeenth century, Holland was hit recurrently by epidemics that decimated the urban populace time and again. Among the studied documents, explicit references to contagious diseases were few. However, when people addressed this topic, they argued in a more forceful way than was usual at that time, as will become clear in chapter 3.

A group of inhabitants of The Hague clamoured in 1630 that they had complained for years about the stench caused by the pollution of the brook near their houses. Now that they experienced unhealthy times, they urged the magistracy to help them get rid of this peril.²⁴⁹ In a similar case, residents from Rotterdam established a link between the summer heat, stinking water and potential health risks, namely “that in summertime with hot weather, while there is no proper flow in the aforesaid Binnenvest, they are burdened with such stench that it is unbearable and might cause the great pestilence.”²⁵⁰ The reference to the pest is quite understandable. When the inhabitants made their request in 1635, Rotterdam went through one of the worst plague epidemics in its history.²⁵¹ Anxiety moved the urban dwellers to seek methods to remove the health risk from their doorstep. It was probably no coincidence that they took their concerns to the municipal government: this problem was too large to resolve by themselves. Other city dwellers anticipated the fear of stagnant water. The inventors Pieter Janssen Cramer from Haarlem and Jasper Ammerig from Amsterdam submitted a patent application to the States of Holland in 1647. They requested a patent for several inventions: a device for draining and deepening canals, a pump without pistons, but first and foremost an improvement to the drainage mill. According to the inventors, the upgraded mill was also suitable to provide cities with fresh water, “with which bad air could be removed and many diseases forestalled.”²⁵²

Across Europe, and beyond, urban magistrates in premodern times took measures to ban stinking matter from streets and watercourses.²⁵³ Anthropologist Mary Douglas drew attention to the cultural component of trash. According to her,

²⁴⁹ HGA OA 5345 (The Hague 1630).

²⁵⁰ *Dat mede sij supplianten op somers getijde bij heet weder door dien inde voorseide Binnen vest geen bequaem door tocht en is, met soodanige stanck gequelt sijn dat het selve niet te verdragen en is, ende oorsaecke soude connen zijn van de groote peste*, SAR ONA 258:89 (Rotterdam 1635). For the location of the Binnenvest, see A3-B1.

²⁵¹ Mentink & Van der Woude, *De demografische ontwikkeling*, 54-55.

²⁵² *Daer mede de quade lucht weg genomen ende vele sieckten vermijnt soudon worden*, HaNA SvH 1604 (1647).

²⁵³ Chance et al., ‘Public Services’, 353; Reid, *Paris Sewers*, 11; Cockayne, *Hubbub*, 212; Curtis, ‘Dirt, disgust and disease’, 662; Coudert, ‘Sewers, Cesspools, and Privies’, 715; Oosten, van, ‘The Dutch Great Stink’, 10; Coomans, *In Pursuit of a Healthy City*, 36-37, 52; Geltner, *Roads to Health*, 2-3.

filth does not exist in an absolute sense. It is rather a value endowed to some matter like excrement or, as we will see, soapsuds. Hence, Douglas defined dirt as a political fact, as “matter out of place.”²⁵⁴ Seen from this angle, which is in line with the ANT approach, it hardly comes as a surprise that the use of water as a waste conveyor led to tensions among neighbours, between industries competing for resources, as well as between cities that burdened each other with their dirt. However, they did not blame the water for being a conveyor of waste. It was the filth itself they rejected.

The prevention of pollution of the immediate environment was certainly a point of contention within the urban neighbourhoods. Residents set up programmes to avert trash and mounted anti-programmes when others tried to channel contaminants in their direction. Throughout the seventeenth century, house owners and tenants frequently made arrangements regarding this topic. People granted others to drain their waste water through an alley, for instance, under the condition that they put a grid at the place where a private spur connected to a shared drain. Some stipulated the use of an iron plate instead of a grid, “with holes the size of a bean” and sometimes an additional settling tank as well.²⁵⁵ Obviously, the aim of these measures was to prevent twigs, stones and other large particles to accumulate in the drain. Some people, like The Hague’s alderman Splinter, managed to mess up beyond compare. Apparently bothered by clogging, his neighbours had the communal culvert opened in 1649. The mason who did the job, found the obstruction right in front of Splinter’s house, where the drain “was utterly blocked by rags, floor cloths, scrubbing brushes, hand brushes and other junk.” To avoid recurrence, the mason installed a grid in the culvert, only to find a short time afterwards that it had been pushed aside with great force.²⁵⁶ Splinter’s neighbours probably recorded the events to gather evidence for a future lawsuit, in case he failed to do better. That is to say, they took the matter in their own hands, without the interference of civil organizations or governing bodies. Once a grid or iron barrier was installed, some city dwellers were quite indifferent to the substances that their fellow inhabitants emptied into the drain. When Henrick Willems the wicker bought a house in 1634, he was explicitly granted the right to use his sewer “to drain dishwater, soapsuds, piss and other incommodious

²⁵⁴ Douglas, *Purity and Danger* (2008):43-46.

²⁵⁵ *Een sinckputge, met een ijsere plaet met gaetgis, een boon groot*, SAR ONA 244:225 (Rotterdam 1650). Cf. HGA NotA 33:354 (The Hague 1635); HGA NotA 189:147r (The Hague 1649); NHA ONA 150:340v (Haarlem 1649).

²⁵⁶ *Alwaer de zelve met oude doucke, dweijlen, schrobbers, hantboenders ende andere vuylicheijt t'eenemale was verstoet*, HGA NotA 189:147r-v (The Hague 1649).

water.”²⁵⁷ Not everyone was so dispassionate about dirt: several city dwellers denied their neighbours permission to drain filthy water, or complained bitterly when someone did.²⁵⁸

The ones who showed concern about the waste transmission qualities of water unambiguously, were the representatives of the brewers, bleachers and the skippers in Haarlem. They were anxious about the water quality for different reasons. The brewers needed fresh water to obtain a potable product. Since 1549 they had to comply with the municipal by-law that banned brackish-tasting beer.²⁵⁹ Their close cooperation with the magistracy resulted in 1620 in a decree on the pollution of the Brouwersvaart. One of the subclauses forbade the bleachers and similar craftsmen to discharge washing water, soapsuds or lye into the canal.²⁶⁰ It is striking how much the bleachers' motive to plead against the use of water as a waste carrier in 1645 resembled that of the brewers. They thought it was a bad idea if a fulling mill “should discharge all its foul matter” in the ditch they used themselves, “in the sense that the same assembled contaminations should flow past their homesteads and workshops.”²⁶¹ The skippers had different worries. They feared that the river Spaarne might become too shallow for business. In 1613 they appealed to the urban magistrates to regulate the shifting of waste to and from the river banks, probably referring to the household residues that farmers bought to use as a fertilizer. “It happens thus,” they stated, “that over time, the garbage falling there is driven through the entire city (because the streams float from the south through this city).”²⁶² Thus, these businessmen were probably among the few who acknowledged water as an actor, in ANT phraseology, which they needed for their daily trade.

Hollanders called upon water as a conveyer in another way as well, making good use of its buoyant qualities. To them, water was an actor that connected towns with each other and with the hinterland. The English diplomat William Temple (1628-99), who travelled the Low Countries, remarked upon this feature of

²⁵⁷ *Om vaetwater, seepsop, pisse, ende andere incommodieus water daer door te losen*, SAR ONA 132:712 (Rotterdam 1634).

²⁵⁸ HGA NotA 33:354 (The Hague 1635); SAR ONA 257:525 (Rotterdam 1635); SAR ONA 258:102 (Rotterdam 1635).

²⁵⁹ Oosten, van, ‘The Dutch Great Stink’, 15.

²⁶⁰ NHA SP 12 (Haarlem 1620). For the location of the Brouwersvaart, see map 3:A2.

²⁶¹ *Dat de selve volmolen alle haere vuylicheijt soude moeten losen ... in voegen dat alle de selve vuylicheijt alle te samen voor bij der supplianten wooningen ende werckplaetsen soude moeten passereren*, NHA SA 3964 (Haarlem 1645).

²⁶² *Alsoot geschapen is, dat de vuylnissen aldaer vallende, metter tijt (voor de stroomen die vuyt des suijden door dese stadt zijn vliettende) doorde geheele stadt sullen werden gedreven*, NHA SA 5279 (Haarlem 1631).

Holland: "consider the great rivers, and the strange number of canals that are found in this province, and do not only lead to every great town, but almost to every village, and every farm-house in the countrey." Temple linked the ubiquity of water to the prosperous commercial towns and the high level of employment.²⁶³ The inhabitants of Holland would probably agree with him. Around 1635, a pamphleteer from Alkmaar reasoned that "landbound cities prosper nowhere so well, nor are so lively or so mercantile as those that are situated at the waterfront."²⁶⁴ Especially in Haarlem the sailors guarded their life line with the rest of the world jealously. At least once a year, the local skippers' guild joined with the urban officials to gauge the river's depth, from its origin in the Haarlemmermeer to the sluice at Spaarndam where it discharged into the IJ.²⁶⁵ Apparently, the magistracy's engagement did not go unnoticed. In 1645, the burgomasters of Haarlem received a missive from one Willem Willemsz Coppenol. Born in Haarlem, he had become a book seller in Enkhuizen. Because he had learned that the city wanted to deepen the Spaarne, Coppenol recommended the services of one of his fellow residents of Enkhuizen, whose father had invented a technique to remove shallows from harbours and rivers.²⁶⁶ The inventor from Enkhuizen was not the only one who tried to tackle the clogging of rivers and canals. Between 1600 and 1660 at least four inventors obtained a patent for a deepening device from the States of Holland and twenty-two from the States General.²⁶⁷ There were probably more, because the inventor from Enkhuizen was not among them, although Coppenol asserted that he had been granted a patent.²⁶⁸ Keeping the channels of waterways navigable was clearly an important seventeenth-century theme.

The depth was not the only feature of waterways that towns watched closely. The aphorism 'time is money' did also apply to the merchant sailors of seventeenth-century Holland. The presence of a sluice or an overland boat ramp called an *overtoom* could make a huge difference. The passage through a sluice took time, yet it was not nearly as time consuming as the passage over an *overtoom*, which meant hauling the ship over a dam using a couple of treadwheels. Therefore, the city of Alkmaar prevented the advance of its rival Hoorn by blocking the replacement of the *overtoom* in the Naamsloot with a sluice.²⁶⁹ In a similar

²⁶³ Temple, *Observations upon the United Provinces*, chapter 3 (1673).

²⁶⁴ *Dat de landt-steden nerghens na soo wel en varen, soo levendich van volck en soo neringh-achtich zijn als die aan 't water legghen*, Schermer-bedyckinge (c. 1635).

²⁶⁵ NHA SA 7296 (1611-15); NHA SA 7313 (Haarlem 1607, 1616); NHA ONA 162:54r-v (Haarlem 1632).

²⁶⁶ NHA SA 7323 (Haarlem 1645). For the location of Enkhuizen, see map 1:C1.

²⁶⁷ HaNA SvH 370:402v (1607); SvH 372 (1608); SvH 1602 (1645); SvH 1604 (1647); Doorman, *Octrooien*.

²⁶⁸ NHA SA 7323 (Haarlem 1645).

²⁶⁹ Aten, *Als het gewelt comt*, 43-46. For the location of the Naamsloot, see map 1:B2.

way, the Rijnland water board denied Amsterdam a convenient southbound transport route. They managed to postpone the construction of a sluice instead of the existing *overtoom* in the Schinkel until the nineteenth century.²⁷⁰ These examples show that the urban authorities defended the interests of their urban communities. As we will see, it was something the residents expected from them.

The rivalry between the cities of Delft and The Hague led to disagreement about the Haagse Vliet. The lawyer Johan Geul from The Hague addressed the matter in a pamphlet that was printed in 1644. While the Hague tried to attract more farmers from the neighbouring countryside, Delft literally barred their way by building a low bridge over the canal. Mentioning the example of London, where the surrounding towns cooperated with the city, Geul argued that the advance of The Hague needed not to be disadvantageous to Delft. Instead of being subject to strife, the canal should bring the two cities closer, Geul concluded.²⁷¹

Waterways were not only an actor making a difference regarding the navigation between towns and villages. Within the cities they were of consequence as well.²⁷² The inhabitants shipped all kinds of goods through the canals, particularly bulk cargo like soil, mud and manure. The owners of twelve gardens along the Oostwagenstraat in Rotterdam ensured in 1602 that they could keep several ways to enter their premises. In a sales deed of the thirteenth garden they stipulated that the new owner would maintain both a carriageway and a canal of twelve feet (3,4 metres) wide.²⁷³ In June 1645 the associated residents of the newly built Herderstraat area in The Hague requested if the temporary canal from the southern ring canal to the construction site could remain a while longer. That way, they could easily ship soil to their premises, in order to raise them. The burgomasters gave their assent, conditioning that the inhabitants maintained the canal shoring at their own expense and that they kept the canal at navigable depth as well.²⁷⁴ It appears that inhabitants of several cities faced similar challenges and came up with comparable solutions throughout the period under investigation.

Every now and then, the deepening of canals and navigable ditches recurred in the communications between individuals as well as between inhabitants and the urban administration. In a lease deed from 1650, for instance, the landlord stipulated that the tenant would take care of the deepening of his part of The

²⁷⁰ Tielhof, van & Van Dam, *Waterstaat in stedenland*, 280-281. For the location of the Schinkel, see map 1:B3; Rijnland, map 1:A4-B5.

²⁷¹ Geul, *Delfs-Haeghsche Twee-dracht* (1644). For the location of the Haagse Vliet, see map 1:A5; The Hague and Delft, map 1:A5.

²⁷² Cf. Dam, van, 'An Amphibious Culture', 85.

²⁷³ SAR ONA 45:149 (Rotterdam 1602). Cf. SAR ONA 181:152 (Rotterdam 1634); SAR ONA 257:243 (Rotterdam 1634). For the location of the Oostwagenstraat, see map 5:C2-C3.

²⁷⁴ HGA OA 124:279 (The Hague 1645). For the location of the Herderstraat, see map 4:B4.

Hague's Spui, running in front of the house.²⁷⁵ The maintenance of the Spui was something the magistrates of The Hague assigned to the owners and tenants of the adjoining buildings.²⁷⁶ Meanwhile, the urban officials responsible for the canals of Haarlem took the tendering of the dredging of the Oude Gracht and the Raaks into their own hands.²⁷⁷ This is not necessarily a different approach, as I will explain in the last section of chapter 2.

In addition to keeping waterways at a certain depth, people had also to secure sufficient height to enable the passage of ships. Around 1610, the city of Alkmaar bought a piece of land near the Nieuwlander Poort from a family of bleachers. The latter could continue to use the bridge that had been there already, "provided they would raise it at their own expense to accommodate the hay barges and other ships."²⁷⁸ Others had to make sure that the bridges they built could be pulled up or removed.²⁷⁹ Inventors tried to ease the drawing of bridges. Shortly before 1600, the famous Amsterdam architect Hendrick de Keyser (1565-1621) invented a device by which a mast raised a bridge deck without human intervention. Twenty years later his fellow townsman Davidt Jacobsz de Wildt (c. 1576-1638) submitted a patent application, aiming at eliminating the "perils and daily accidents" occurring on drawbridges.²⁸⁰ It was virtually impossible to avoid the hindrance of transport routes crossing each other, but the town dwellers used their creativity to minimize loss of time.

Burden

Irrespective of its origin – precipitation, ground water, sea water from beyond a dike or the discharge of a negligent neighbour – water has the power to damage constructions and take lives. At a small scale it quickens the decay of perishable materials like wood. On a large scale, it may spoil fields and wash away entire buildings. The seventeenth-century city dwellers recognized this force. Stirred into action by this perilous manifestation of water, people at every level of society took measures to keep their possessions away from harm. Once damage was done, they sometimes tried to shift both the blame and the cost on to others.

²⁷⁵ HGA NotA 262:19r (The Hague 1650).

²⁷⁶ HGA OA 125:32v (The Hague 1656).

²⁷⁷ NHA SP 165 (Haarlem 1658). For the location of the Oude Gracht, see map 3:B2-B3; Raaks, map 3:A2-B2.

²⁷⁸ *Mits tselve tot commoditeit vande hoijsghuijten ende anderen tot haren costen optrecken*, RAA SA 1600 (Alkmaar c. 1610). For the location of the Nieuwlander Poort, see map 2:C3.

²⁷⁹ SAR ONA 353:483 (Rotterdam 1636-44); HGA OA 124:283 (The Hague 1645); HGA OA 125:14r (The Hague 1651).

²⁸⁰ HaNA SvH 1591 (1616).

There were many city dwellers who launched programmes and anti-programmes for the prevention of water damage among them, through a combination of architectural and behavioural interventions. Neighbours went to the notary together to record the conditions. They did this in particular when one or both of them wanted to make changes to their premises or when property changed hands. In Alkmaar, the buyer of a house was “obliged to withdraw her roof tiles so far that the rain water does not flow against the south wall of the seller’s house.”²⁸¹ In an arbitration case from 1650, mediators in Haarlem decreed that Jacob Jonasz the cobbler ought to capture and drain the water falling from the roof of Dirck Lambertsz’ house. Yet if Lambertsz ever should reconstruct his house, he had to take up the responsibility for the water on his own roof.²⁸² This kind of arrangements was common in Holland’s towns and can be seen in many records filed between 1600 and 1660.

When things went wrong, townspeople sought out the knowhow of carpenters and other witnesses to investigate the damage and eventually to make a statement that shifted the responsibility elsewhere. In June 1625, for instance, The Hague’s resident Jan van Mil summoned the bailiff’s aide. The latter was to examine a disruption caused by an overabundance of water in Van Mil’s yard. How unwelcome the investigation was to Van Mil’s neighbours, is shown by their reaction. They started to rail at Van Mil and the bailiff’s assistant.²⁸³ Ten years later, the shopkeeper Salomon Laurensz asked a tarr-twister and a hat maker to attest that his wall was spoiled. Laurensz’ neighbour had made some alterations to his house. As a result, rainwater from the roof splashed onto Laurensz’ house, “so that the wall and window are completely wet and water is streaming down from them.”²⁸⁴ Evidently, laying the blame on another was the main reason to record the testimonies.

A common clause of a seventeenth-century rental deed was that the landlord would deliver the dwelling “glass, floor and roof tight” and that the tenant would restore the property in the same condition at the end of the lease term.²⁸⁵ What could happen if windows, roofs or floors were not securely tight becomes clear from several accounts. Two witnesses declared that they had seen with their own eyes why a weaver from Haarlem could not use his home: the floors were covered

²⁸¹ *Sall oock gehouden zijn, haeren pannen zoo verre in te haelen, dat het regenwater niet tegens de zijder mujr van des vercopersses hujsen aen loopt*, RAA SA 1533 (Alkmaar 1620).

²⁸² NHA ONA 225:21v (Haarlem 1650).

²⁸³ HGA NotA 11:189 (The Hague 1625).

²⁸⁴ *Dat deselve muier ende licht gants nadt daer van waert ende twater daer by neder liep*, SAR ONA 323:74 (Rotterdam 1635).

²⁸⁵ *Glas, dack ende vloerdicht*, SAR ONA 273:312/312:75 (Rotterdam 1650). Cf. HGA NotA 11:271 (The Hague 1626); SAR ONA 150:147 (Rotterdam 1634); NHA ONA 231:133v-134r (Haarlem 1650).

with puddles, water streamed from the walls and the lathing under the roof tiles had gone rotten.²⁸⁶ Two inhabitants of Rotterdam stated that the grain and wheat of Aert Francs had been soaked repeatedly “because the roof was so thoroughly permeable that it (principally after heavy rain) floated through the attic.” Francs’ housemaid remembered that water from the attic trickled right down to the ground floor. One of her jobs was to put buckets and tubs beneath the leaks and evacuate the bedding from threatened locations.²⁸⁷ In the latter case it is unclear who took the rap. The baker who reported a similar case in 1635 made clear whom he accused. Twice, he had summoned a mason who had tried to restore the roof tiles’ glazing, but still his wheat was wet after every shower.²⁸⁸ As far as we know, none of the stakeholders mentioned above sought the assistance of governments or civil organizations. They could fend for themselves.

The inhabitants of the Vogelenzang in Rotterdam, cited earlier in this thesis, also feared the destructive power of water. This is most apparent in the counter-appeal that a group of dwellers sent as a reaction to an earlier appeal made by their neighbours. They pointed out that the original appellants would be untroubled by the requested raising of the street, since their premises were above the ordinary street level. Their own plots, however, would suffer considerable damage if the magistrates gave in to the first appeal.²⁸⁹ The owners of the low-lying premises did not specify the degeneration they apprehended. The praise of two carpenters in a testimony on the account of Afarius Nuytens from Haarlem provides an impression of the spectre. According to the witnesses, Nuytens had greatly improved a piece of land in the Houttuinstraat near the Burgwal.²⁹⁰ When he bought it, it was “the most despicable place” of Haarlem, “soggy and swamp-like and smelling vilely.” Nuytens had raised and enclosed the ground and constructed an alley to drain the terrain before parceling it out into eight separated plots.²⁹¹

Raising the ground with soil and household waste was a conventional method to prepare a site for use.²⁹² Scholars assume that the people of Holland did so to

²⁸⁶ NHA ONA 164:84r (Haarlem 1635).

²⁸⁷ *Overmits het dack so gheheel ondicht was dat het (ende principalijcke als het sterck gheregent hadde) over de solder dreeff*, SAR ONA 29a:38 (Rotterdam 1601). Cf. SAR ONA 78:527 (Rotterdam 1625).

²⁸⁸ NHA ONA 164:139r (Haarlem 1635).

²⁸⁹ SAR ONA 2626 (Rotterdam 1658).

²⁹⁰ For the location of the Houttuinstraat, see map 3:D3, Burgwal map 3:D2-D4.

²⁹¹ *Wel de verachtster plaetse ... dras ende als een morasch ende vuyjl stinck*, NHA ONA 125:126r (Haarlem 1625).

²⁹² Smit, *Leiden met een luchtje*, 30; Tielhof, van & Van Dam, *Waterstaat in stedenland*, 130-131; Abrahamse, *De grote uitleg*, 68, 162, 178. Cf. HGA OA 124:279 (The Hague 1645); SAR ONA 311:340 (Rotterdam 1649); HGA OA 125:38r (The Hague 1657).

prevent their premises from flooding.²⁹³ This is certainly one aspect of the explanation. Amsterdam's municipal engineer Jan Heimansz Coeck (1591-1667), for instance, proposed in 1651 to raise the most low-lying parts of the city. His aim was to open up the opportunity to let in water from the IJ into the city canals, eliminating the recurring problem of smelly water. Since the plots in the Jordaan area in the west of the city lay lower than the common IJ level, their grounds had to be raised first to keep them from submersion.²⁹⁴ Historians also point to the role of added soil as a fertilizer.²⁹⁵ The gardeners of both Rotterdam and The Hague likely aimed at enhancing the fertility when they raised their fields.²⁹⁶ Decidedly, the city of The Hague was barely prone to flooding, so that the raising of grounds was not needed on that score.

The eulogy of Afarius Nuytens' accomplishments in Haarlem's Houttuinstraat suggests that there was a third reason for raising the ground. Apart from being vulnerable and scarcely fertile, low-lying grounds were noxiously water-logged. Nuytens transformed a swampy terrain into a residential area where the inhabitants enjoyed dry conditions on a daily basis. The inclination to build on naturally or artificially formed firm ground instead of directly on peat, is not limited to the subsiding parts of Holland and started before floods became a serious problem.²⁹⁷ The application of a layer of soil, rubble or manure reduced the soggy nature of the place, both for health reasons and to create firm building ground. Implicitly, the example exposes the reciprocal relationship between human beings and their environment. The humidity of the area encouraged people to raise the ground before putting it into use. The efforts of the human actors, in their turn, altered the course of water on a local scale.

Some inhabitants of Holland described less occurring but more pervasive encounters with the destructive force of water: floods. In addition to floods due to breached river dikes, which occurred predominantly in the aftermath of a harsh winter, the low-lying lands near the Zuiderzee were particularly vulnerable to floods.²⁹⁸ Both the water boards north and immediately south of the IJ gathered testimonies about the major floods in the winter of 1624-25. Especially the flood of 8 March 1625 was severe. A combination of spring tide and a storm resulted in the

²⁹³ Abrahamse, *De grote uitleg*, 178; Dam, van, 'An Amphibious Culture', 82-83.

²⁹⁴ Reid, *Paris Sewers*, 10-11; Classen, *Urban Space*, 716; Abrahamse, *De grote uitleg*, 301-304.

²⁹⁵ Tielhof, van & Van Dam, *Waterstaat in stedenland*, 131.

²⁹⁶ HGA OA 124:279 (The Hague 1645); SAR ONA 311:340 (Rotterdam 1649); HGA OA 125:38r (The Hague 1657).

²⁹⁷ Bult, *Midden-Delfland*, 23; Bos, *Harmonie in Holland*, 51-52; Groenewoudt & Benders, 'Private and shared water facilities', 245.

²⁹⁸ Gottschalk, *Stormvloed en rivieroverstromingen*, III 157-158. Cf. HaNA SvH 1603 (1645). For the location of the Zuiderzee, see map 1:B1-C3.

submersion of the entire area between Muiden, Woerden, Leiden and Haarlem.²⁹⁹ North of the IJ, a wide area around Purmerend was flooded.³⁰⁰ At the request of the water board of Kennemerland and West-Friesland three carpenters related what had happened in Alkmaar after the dike breach east of the Zaan river.³⁰¹ Since the Schermer lay at the same level as the IJ due to the breach, the burgomasters of Alkmaar had decided to construct a temporary dam in the Hondsbosschevaart near the Friese poort, in order to “preserve themselves from the water coming through the sea dike.” Nevertheless, the water flowed very quickly from the Hondsbosschevaart, through the ring canal, towards the Schermer.³⁰²

The Rijnland water board collected seven separate eyewitness accounts from farmers, gardeners and brewers in and around Haarlem. They recounted that there had been two consecutive floods: one in November 1624, the other in March 1625. The vegetable gardeners in the jurisdiction of Haarlem had suffered much from the first flood, since their grounds had been submerged all winter long. By the time repair works became possible, a combination of bad weather and a storm from the northwest caused a second flood.³⁰³ The latter had been devastating for the brewers, “because by the force of the water, which came plentiful into their houses and breweries, some had their gyle tans floating up from the ground, others had their grain, being on the malt floor, washed away, a third one had the meal that was standing in the brewery soaked and spoiled, and so on.”³⁰⁴ The interviewees estimated their losses, no doubt at the request of the water board. The vegetable gardeners added that if they were to face such floods regularly, they would be forced to abandon their lands, in order to avert their total ruination.³⁰⁵

Water could be a nuisance to people even without being destructive. About two decades before the Vogelenzang case was recorded, the inhabitants of the Torenstraat in Rotterdam complained about the condition of their street in quite a

²⁹⁹ For the location of Muiden, see map 1:B3; Woerden, map 1:B4; Leiden, map 1:A4.

³⁰⁰ Gottschalk, *Stormvloed en rivieroverstromingen*, III 87-92; Buisman & Van Engelen, *Duizend jaar weer 4 1575-1675*, 374-376. For the location of Purmerend, see map 1:B2.

³⁰¹ For the location of Kennemerland, see map 1:A2-A3; West-Friesland, map 1:B1-B2; Zaan, map 1:B3.

³⁰² *Om hen daermede te preserveren vant water comende door de seedijck*, RAA NotA 103:99v (Alkmaar 1625). For the location of the Hondsbosschevaart or Nieuwe Vaart see map 1:A2 or map 2:C1; Friese poort, map 2:C1.

³⁰³ NHA ONA 125:182r (Haarlem 1625).

³⁰⁴ *Wijle door de cracht vant water t'welck met menichte, in heure huijsingen ende brouwerije gecomen, eenige haere gijlcuijpen uijte aerde sijn opgedreven, andere haere graan, die op de moutvloer stonden, wechgespoelt, de derde haer meel, t'welck inde brouwerije stondt nat geworden, bedorven ende soo voorts*, NHA ONA 125:179v (Haarlem 1625).

³⁰⁵ NHA ONA 125:179v (Haarlem 1625); NHA ONA 125:182r (Haarlem 1625).

similar way, invoking the help of the urban authorities. When it rained, large puddles formed in the environment of the Torenstraat, "in such way that one cannot cross dry-shod." Notably on market days the situation was intolerable. Both the buyers and sellers who frequented the vegetable market could not but splash through the street, because the dry patches were usually occupied by beer wagons standing in front of the toll house. The inhabitants required the magistrates to reconstruct the street and the drains in the vicinity.³⁰⁶

A singular case, at least among the studied documents, was recorded in 1635. The cobbler Eduard Schaeden and his spouse testified that the wife of Jan Robberts, an English tailor, had given birth in the cellar where she lived with her husband. At that moment, the floor of the cellar had been flooded to such extent that the water blocked the passage. The Schaeden family got the mother-to-be to safety by bearing her over planks and through a window. Together, the witnesses declared that the cellar was uninhabitable, since water poured in recurrently.³⁰⁷ However rare, the fact that some landlords exposed their tenants to the elements was not unique. In 1626, a wine merchant in The Hague had recorded that the house he rented was not glass or roof tight at all. While there were no panes in the windows, the house was "like a barn where the wind blows and the rain falls everywhere."³⁰⁸ In the same vein, the landlord of Juriaen Zweeckert failed to fit the windows with panes. Zweeckert, who was probably a merchant or a craftsman, could not set out his wares in bad weather. When he complained to the landlord, threatening to withhold the rent, he was rebuked.³⁰⁹

Every now and then, ill-humoured city dwellers took advantage of the vexatious aspect of water. They used the substance deliberately to harm or humiliate the people they quarrelled with, taking the law into their own hands. In Alkmaar, a woman tried to drop linseed cakes in the water, in The Hague a couple of planks were sent floating and in Rotterdam this happened to a cleaning brush: people who got angry tried to hurt others by throwing their belongings into the water. Troublemakers sometimes threatened to go further than that. In July 1626, the widow Isabelle Jans was making a terrible racket near the door of a fellow resident. She did not only threaten to pelt the door with stones, but also challenged the inhabitant to come outdoors, so that she could throw her into the water.³¹⁰ In The Hague, one Adam Willeboortsz had an encounter with the dog of

³⁰⁶ *Zulcx dat men daer droog voets aldan nyet can over gaen*, SAR ONA 347:123 (Rotterdam c. 1639). For the location of the Torenstraat, see map 5:B1-B2.

³⁰⁷ SAR ONA 125:142 (Rotterdam 1643).

³⁰⁸ *Gelijk een schuijre daer den wint ende regen tot allen plaetsen deурvalt ende in waijt*, HGA NotA 11:271 (The Hague 1626).

³⁰⁹ HGA NotA 160:46r (The Hague 1649).

³¹⁰ SAR ONA 78:845 (Rotterdam 1626).

Anthonij Mortier. Willeboortsz used his yard stick to fend off the dog. This infuriated Mortier, who said "if you had touched the dog, I would have smashed you into the water." Demonstrating what he meant, he grabbed Willeboortz at the throat and gave him a shove towards the water. Only then, or so the witnesses declared, Willeboortsz used his yard stick to hit his attacker.³¹¹ Usually, these incidents went no further than threats, but this was not always the case. In Haarlem, for instance, a witness related that he had seen how a tax collector got furious when a woman tried to run away with two full tankards. He threw her forcefully into the water of the Bakenessergracht. She hit the bow of a ship badly and ended up half in the water. The two witnesses got her out of the canal.³¹²

As set out in the section about water as a commodity, city dwellers of Holland did not lack water to perform their everyday duties in the seventeenth century. At the domestic level the most common type of water-related negotiation was about the disposal of water, not about the right to retain it. This goes for both wet and dry years and did not change noticeably when the demographic pressure increased. This suggests that the ways the Hollanders harvested rain water in relatively small towns still sufficed when cities grew larger and denser. With the common negotiations in mind, we can assume that the Hollanders saw water as a matter that was present in abundance, although they did not put it into words themselves. They launched programmes to get rid of the surplus. They did this predominantly in consultation with their neighbours, without the intervention of a governing body or civil organization. The default option was that every house owner took care of the water fallen on their roof or emerging on their premises.³¹³ In this context, dividing walls between premises gained importance as a place to mount a gutter to get rid of surplus water. This could be a corollary of the advancing petrification of the urban environment. At a time when houses had thatched roofs and walls of wood or wattle and daub, an empty strip of land where the roof could drip freely was indispensable. The width of these eavesdrops, called the *osendrop* or simply *drop*, varied from several centimetres up to nearly two metres.³¹⁴ In his description of common Dutch law, Grotius (1583-1645) mentioned that a *drop* of five thumbs (c. 14 centimetres) wide should remain unbuilt, "or so

³¹¹ *Hadt ghij mijn hondt geraeckt ick hadt u int water gebruijt*, HGA NotA 47:188 (The Hague 1635).

³¹² NHA ONA 164:221r (Haarlem 1635). For the location of the Bakenessergracht, see map 3:C1-D2.

³¹³ Grotius 1583:34:11. Cf. NHA ONA 127:97r (Haarlem 1626); SAR ONA 45:286 (Rotterdam 1626); HGA NotA 180:352v (The Hague 1649).

³¹⁴ Grijzenhout, 'Het straatje van Vermeer', 6.

much more or less according to the local custom or by-laws.”³¹⁵ The tendency to use less destructible materials like brick and tiles had lessened the importance of the *drop*.³¹⁶ Townsfolk could still not prevent the natural process of water falling on their roof, but the need to project it far beyond the walls lessened. They started to build right up to the property line. Therefore, they had to work out with their neighbours who had to pay for the water ending up on the boundary. Typically, the house owners agreed to split the cost equally, unless one of them built higher than the other.³¹⁷

Sometimes neighbours agreed that one of them would capture the water fallen on the roof of the other. A common reason was that one house owner wanted to expand his buildings upwards, exposing the adjacent constructions to water that till then had fallen onto his own premises. In the same vein, four arbitrators settled a dispute between two residents of The Hague in 1650. They ordained that the draper Johan vande Cloot had the right to take up the gutter he shared with his neighbour, Jacob vander Does the barrister. This was needed because Vande Cloot wanted to enlarge his house. The parties agreed that the draper would pay for a new gutter. Moreover, the wall between their premises would remain a common wall, even if it were higher than before. This meant that the barrister and his descendants were entitled to use the wall freely. As from the moment that he also aggrandized his home upwards, the neighbours would bear the cost of the gutter evenly again.³¹⁸

Among around one hundred and fifty records about the drainage of water from private premises, less than a handful referred to the storage of water for further use. In 1608, the burgomasters and regents of Haarlem granted a glass merchant permission to appropriate a small square between his house and the municipal meat hall. The merchant was required to drain off the water dripping from the meat hall onto the square. The magistrates explicitly stated that they approved of the glass merchant taking advantage of the surplus water to fill his rainwater tank.³¹⁹ At first sight, an accord between The Hague’s neighbours Verburch and Cadril seems to be about the right to retain water: “Verburch has mounted a wooden gutter against the facade to capture the water to his convenience, which he was not allowed to do, since it is hanging entirely over Cadril’s yard.” The

³¹⁵ *Of zoo veel meer ofte min als des plaets gewoonte ofte keuren medebrengen*, Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 34:10-13 (1629).

³¹⁶ Huijbers, ‘Verklaring van kenmerken van stedelijke huisplattegronden’, 317.

³¹⁷ RAA SA 1533 (Alkmaar 1620); SAR ONA 323:360 (Rotterdam 1635); HGA NotA 80:262 (The Hague 1650). Cf. *Generale Keure*, 340 (Rotterdam).

³¹⁸ HGA NotA 60:207r-v (The Hague 1650). Cf. SAR ONA 322:118 (Rotterdam 1634); SAR ONA 402:66 (Rotterdam 1635); NHA ONA 225:21v (Haarlem 1650).

³¹⁹ NHA SA 4305 (Haarlem 1608).

problem, however, was not that Verburch captured the water that was intended for Cadril. Instead, the placement of the gutter restricted Cadril's rebuilding opportunities. Therefore, the two men agreed in a neighbourly manner that if the latter wanted to make alterations at any time, Verburch would remove the gutter at once.³²⁰ As will become clear in chapter 2, the awaited neighbourly behaviour was one of the lubricants of urban society.

The single record that directed a city dweller explicitly to convey the water from a common gutter into his neighbour's rainwater tank, was recorded in 1650 in The Hague. In it, the goldsmith Martin Bougée from the Spuistraat agreed to the rebuilding scheme of the surgeon Arendt de Wilde, who lived on the Kapelbrug.³²¹ He granted his neighbour permission to make an annex to the division wall they shared. Any damage done during the reconstruction work would be repaired at the expense of Bougée. A further condition was that Bougée would pay for "an adequate lead gutter, which he, Bougée, will have to conduct with a pipe towards De Wilde's rainwater tank."³²² With only one in so many documents referring to the obligation to fill a cistern, we can safely conclude that there was no struggle for fresh water in the cities on a domestic level. Nevertheless, at some times city dwellers did become aware that water was a depletable source. In July 1635, two women had a quarrel about the drawing of water from a pump, which ended in shouting and railing. The squabble began after one said to the other that she could "no longer spare any water to scrub, the pumps being so dry."³²³ Yet this was an exception to the general rule.

On a larger scale people wanted to get rid of surplus water as well, albeit in a different way. Whereas people associated droughts and low water levels with the summer, they connected an overabundance of water with the winter. The anonymous pamphleteer who criticized the drainage of the Schermer around 1635 formulated it as follows: "The houses standing at the waterfront will discover what it means if the Schermer is drained and the combination of dune water and other waterways, mostly intruding from the north into the city, invades them."³²⁴ In the

³²⁰ *Bij Verburch tot sijne gerieve tegen de selve ... gevel heeft doen leggen een houtte goote om sijne water te vangen, twelck hij nijet vermochte, want die in geheel over sijns Cadrils erve is hangende*, HGA NotA 11:258 (The Hague 1626).

³²¹ For the location of the Spuistraat and the Kapelbrug, see map 4:C3.

³²² *Een suffisante looden goote die hij Bougée sal hebben te leijden met een buijse tot inde Wilders regenback*, HGA NotA 262a:183r-v (The Hague 1650).

³²³ *Ick mach geen water meer missen omme te schrobben door de droochte vande pompen*, NHA ONA 158:49r (Haarlem 1635).

³²⁴ *De huijsen die aan het water staan sullen dan wel ghewaar werden wat het is de Schermer bedijckt te sien, en die nevens het duynval en andere op de stadt aanwarssende wateren, die noch veel uyt den Noorden comen, tot haar indringen*, Schermer-bedyckinge 1635:C (Alkmaar, c. 1635).

countryside it was common practice to leave surplus water on the fields during the winter. This was a measure born of necessity. Winter was generally the wettest season and the sea arms, rivers, streams and canals could simply not cope with the amount of water.³²⁵ Since urban and rural areas at least materially shared the same water system, it is striking how little incidents of high water city dwellers reported.

As becomes clear, people were drawn or indeed forced into all kinds of actions related to water, either by the water itself, by pre-existing material circumstances, or by the deeds of other people. Often, this meant they had to spend money on it. The most common water-related arrangements among individual city dwellers show how neighbours divided the costs of draining water, preventing decay and cleaning the facilities they shared. This kind of bilateral agreements provides the strongest evidence for subsidiarity. A by-law from Rotterdam decreed that neighbours who shared a gutter lying on the division wall between their premises, had to share the cost as well, unless one of them built the construction discharging into the gutter higher.³²⁶ As we have seen, this was common practice in other cities as well.³²⁷ Although they made these kind of arrangements, city dwellers did not call water a financial burden explicitly.

Sometimes the urban authorities took the initiative to maintain or improve the publicly used infrastructure of the town. Yet this did not always mean that the entire urban community bore the cost. The accounts of road works in the 1650s in Haarlem indicate that the inhabitants paid according to the width of their premises. The share payable by the city was accounted in the same manner: the town paid according to the width of public buildings, bridges and public roads crossing the reconstructed street.³²⁸ This suggests that some of the costs were borne by the entire community. When Daniel Stalpaert drew up his plan to enhance the water quality in the city of Amsterdam, he proposed to make an addition to the street- and bucket tax, namely a gutter tax. This would increase the existing tax for infrastructural maintenance and fire prevention by half. Aside from that, the house owners who had drains discharging into the city's canals paid a separate fee.³²⁹

³²⁵ Reh et al., *Zee van land*, 51; Aten, 'Alle winters onder waetter'; Tielhof, van & Van Dam, *Waterstaat in stedenland*, 139.

³²⁶ *Generale Keure*, 640 (Rotterdam).

³²⁷ RAA SA 1533 (Alkmaar 1620); NHA ONA 193:51v-52r (Haarlem 1950); HGA NotA 80:262 (The Hague 1650).

³²⁸ NHA SA 6742 (Haarlem 1651-60).

³²⁹ Stalpaert, *Voorslag Tot 't reynigen*, 5 (1653).

In the few cases when city dwellers protested against the expenditure the urban administration imposed on them, they organized themselves in ad hoc associations. In 1611, some inhabitants of the Zijlstraat in Haarlem thought that it was unfair that the tax they paid would be doubled to cover the costs of the deepening of the Oude Gracht. They argued that they had always drained their surplus water in the Beek. Therefore, it would be unjustified to ask them to contribute to the deepening in full. The burgomasters went along with the argument. They introduced three different tax rates for this project, which depended on the local draining arrangements: exclusively through the Beek, directly into the Oude Gracht or a combination of the two.³³⁰

In 1626 the magistracy of The Hague sent a patent application to the States of Holland, seeking authorization to tax the adjoining land owners to pay for the maintenance of the ring canal, which had been built only ten years earlier. The magistrates argued that the canal had been constructed at a high price for defence purposes. The city lacked sufficient funds for its upkeep, and therefore wanted to charge the plot owners who also benefited from the canal for other reasons.³³¹ In subsidiary Holland, people did not only look after their own needs, they also paid for the measures that were taken to their own advantage. I will return to this point in chapter 2.

Spatial connotations

A stream that is an apt transport route for one group of people, or even just a drainage, may be an obstacle for another. In ANT terms, it is a common link in conflicting programmes. Waterways are difficult to move, since water flows to the lowest point. Hence, a watercourse is often an actor that forces into action those people who have to go across. In the case of a navigable stretch of water, this cannot be done without taking the interests of other parties into account. A testimony from 1649 demonstrates how much value city dwellers attributed to the proximity of a bridge. The lawyer Luduwicus Chimaer declared that he had rented a house from the late Commijs vanden Broeck, on condition that the latter would repair the rickety bridge in front of it. Even after repeated reminders, Vanden Broeck failed to meet the condition. Consequentially, Chimaer “desired to occupy the aforesaid house no longer, because of the inconvenience he was burdened

³³⁰ NHA SA 6623 (Haarlem 1611). For the location of the Zijlstraat, see map 3:A2-B2; Oude Gracht, map 3:B2-C3. The Brook ran from the Raaks (A2-B2), across the Prinsenhof (B2), Grote Markt (B2-C2) and Damsteeg (C2) towards the Spaarne.

³³¹ HaNA SvH 1594 (1626). For the location of the Brouwersvaart, see map 3:A2.

with by the absence of the aforesaid bridge and the opportunity to traverse.”³³² In the end, lawyer Chimaer decided to cut the rent unilaterally.³³³

The urban authorities often got involved when fixed crossings had to be built. In the fast-growing city of Amsterdam, the municipal administration took care of the construction of the most essential bridges.³³⁴ In The Hague, Melchior Kemiels asked in 1657 permission to spur off a temporary course from the ring canal, in order to facilitate the raising of the field he wanted to employ as a vegetable garden. The burgomasters of the city gave their permission, but conditioned that Kemiels would build a temporary bridge over his spur, strong enough to take the weight of a horse cart. Moreover, he had to fill in the temporary canal and remove the bridge after the job was done.³³⁵ Mostly, it was the other way around: residents sought the authorization from the urban magistrates to build a bridge themselves or they appealed to the municipal administration to construct a bridge.³³⁶ The shared responsibility of the construction and maintenance of water-related infrastructure in the public space is characteristic for seventeenth-century Holland. That this is perfectly explicable becomes apparent in the second section of chapter 3.

The hindrance of small waterways called for small-scale measures. Land owners who were separated from a thoroughfare by a ditch often provided themselves or their tenants with a *vlonder*, a removable foot bridge, often merely a plank. The negotiations about these constructions mostly took place among the individual stakeholders, in contrast to the communications about fixed bridges.³³⁷ Property owners frequently granted access from one field to another by way of a mobile footbridge as an easement. This is in line with a custom Grotius recorded in his description of the Dutch common law: all lands lacking direct access to a public or shared road should be granted right of way. This was an inalienable right.³³⁸ The arrangements concerning this topic show up either as the recording of the easement’s terms or as a dispute about its conditions.³³⁹ In a couple of documents notaries mentioned provisional arrangements, which were usually not recorded

³³² *Hij deposant begeerde tvoorseide huijs niet langer te bewoonen, aengesien het groot ongerieeff tgunst hij door het ontbrecken van dvoorseide brugge ende zijne passagie daerover was lijdende*, HGA NotA 21:335r (The Hague 1649).

³³³ HGA NotA 21:335r-v (The Hague 1649).

³³⁴ Abrahamse, *De grote uitleg*, 222, 246, 267, 272.

³³⁵ HGA OA 125:38r (The Hague 1657).

³³⁶ HGA OA 122:195 (The Hague 1625); SAR ONA 353:493 (Rotterdam 1636-44); HGA OA 124:283 (The Hague 1645); HGA OA 125:44r (The Hague 1659).

³³⁷ For communications about removable foot bridges, see HGA OA 124:165 (The Hague 1639); HGA OA 125:14r (The Hague 1651).

³³⁸ Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 35:8-12 (1629).

³³⁹ NHA ONA 58:391r (Haarlem 1625); RAA NotA 57:92r (Alkmaar 1626); HGA NotA 102:292r (The Hague 1649); SAR ONA 367:559 (Rotterdam 1650).

because of their impermanent character. One was recorded in 1634, when fruit thieves used a ladder to set up a makeshift bridge across a ditch towards a garden.³⁴⁰ The other exposes the amphibious character of Holland in full. When one Claes Jansz wanted to show treasurer Jacob Goltius his cattle pasturing beyond the ring canal of Alkmaar, they hired a boy with a rowboat to ferry them across.³⁴¹ I assume that these kinds of arrangements were quite common in urban and rural areas, although they did not often make it into the archives.

The people of Holland did not only perceive a stretch of water as an obstacle, they also made use of it deliberately. In 1651, the magistracy of The Hague published an ordinance on the opening and closing of the barrier at the Westeinde bridge. It consisted of a schedule with seven distinct opening- and closing times, more or less following the shift of daylight hours through the year. From May to July, bridgekeepers removed the barrier at three o'clock in the morning and replaced it at nine in the evening. In November, December and January, passage was enabled between seven and six.³⁴² Bridgekeepers kept rather strictly to these schedules, as becomes clear from an eyewitness account recorded in 1625. When a woman from Rotterdam took the risk to arrive late at the drawbridge of the Goudsepoort, her friends ran forward to inform the gatekeepers. These did not heed their pleas. Being a dark night, the woman drowned in Rotterdam's ring canal.³⁴³ The city of The Hague fitted some of its bridges with barriers to control the in- and outbound traffic. Two witnesses testified in 1649 that quite some years before, the entrances to the city near the Koekamp and the Lamgroen could be closed off by a pole.³⁴⁴ One of the witnesses, who owned fields beyond the city canal, declared that the magistrates had given him a key to the barriers, so that he could drive to and from his lands freely. Three or four years before 1649, the magistrates had either opened or removed the barriers.³⁴⁵

In a similar way, officials of the urban administration could close off the entrance to the city's waterways. Except at sluices, it was not essential to stop the waterflow. The construction of floating poles or chains sufficed to impede water transport. One of Haarlem's canals, the Raaks, even got its name from the chain that barred its entrance.³⁴⁶ At the southwest entrance of Haarlem, the floating barriers of the Leidse Boom controlled the traffic over the river Spaarne, and thus

³⁴⁰ SAR ONA 248:69 (Rotterdam 1634).

³⁴¹ RAA NotA 41:259r-v (Alkmaar 1626).

³⁴² *Keuren en Ordonnantien*, 47 (The Hague 1651). For the location of the Westeinde, see map 4:A2-B3.

³⁴³ SAR ONA 53:996 (Rotterdam 1625). For the location of the Goudsepoort, see map 5:C2.

³⁴⁴ For the location of the Koekamp, see map 4:D1-D2; Lamgroen, map 4:C4-D4.

³⁴⁵ HGA NotA 102:298r (The Hague 1649).

³⁴⁶ See WNT, lemma Raaks. For the location of the Raaks, see map 3:A2-B2.

the city's tax revenues. Like gate-, bridge- and sluicekeepers elsewhere, the *boomsluiters* (literally: pole closer) determined the pace of the ships entering and exiting the jurisdiction of the town by the river. In 1635 he got into a discussion with the captain of the ferry to Leiden, after he fined the latter for sailing in before he gave permission.³⁴⁷ Such disputes were probably quite common. The notarial archives of Alkmaar contain several eyewitness accounts of quarrels between local sailors and the sluicekeepers of both the Zaan and the Nauernasche Vaart.³⁴⁸ In 1620, the magistrates of The Hague ordered that henceforth, the skippers sailing through the Bierkade should pay the bridgekeeper's fee without demur or abuse. In return, the bridgekeeper had to do his job both by day and night, if needed.³⁴⁹

Even sluices and bridges that were not meant primarily as boundaries could be utilized as such. The notary Jacob Duyfhuysen delivered an official notice to two separate bridgekeepers in Rotterdam. In it, the aldermen of the city charged the bridgekeepers to deny passage to the ship of one Thomas Crauw, because it was to be held under arrest. The bridgekeepers were not keen to interrupt the ship. One of them refused to take the notice from the notary at all. At the other bridge, the bridgekeeper's wife consented to the aldermen's request, at the same time asking for a recompense of her three *stuivers* fee.³⁵⁰

When the urban fabric densified in the fast-growing cities of seventeenth-century Holland, inhabitants found ways to overcome water as an obstacle for the expansion they needed. Seen in two dimensions, like on a map, waterways are a barely shiftable actor, taking up space that cannot be used in other ways. In the growing cities of seventeenth-century Holland people increasingly made use of a third dimension, building over the water. In this sense, people assigned a similar meaning to waterways as to squares, backyards and wasteland: these were unbuilt areas to be used in times of land scarcity. In 1616, for instance, a rope maker got permission from The Hague's burgomasters to build an extension to his house, protruding over the brook. The burgomasters imposed the same conditions as they did in similar cases: the overhang should not be larger than any protrusion in the neighbouring area and the supporting arch had to be high enough to provide access to cleaning parties.³⁵¹ The Hague's burgomasters set an extraordinary condition in 1622, reacting to an appeal of a woman who wanted to overarch a stretch of the Spui behind her house. The magistrates were sympathetic to her

³⁴⁷ NHA ONA 133:447v (Haarlem 1635). For the location of the Leidse Boom, see map 3:D4.

³⁴⁸ RAA NotA 114:24v-25v, 31v, 35v-36r (Alkmaar 1638); RAA NotA 263:76r (Alkmaar 1668). For the location of the Zaan, see map 1:B3, Nauernasche Vaart, map 1:B2-B3.

³⁴⁹ HGA OA 121:182-183 (The Hague 1620). For the location of the Bierkade, see map 4:C4.

³⁵⁰ SAR ONA 251:42 (Rotterdam 1650).

³⁵¹ HGA OA 121:42 (The Hague 1616); Cf. HGA OA 121:65 (The Hague 1618).

appeal, but disclosed that her neighbours had made a similar request, too. Therefore, they stipulated that the competitive parties should work out the division of the available space together.³⁵² Here we can see why the city dwellers were sometimes obliged to seek the involvement of the municipal administration. The urban body had to consider the interests of the entire community. In the mid-1600s the city of Amsterdam tried the same tactic to ease the strain on the available space. In 1652, the city council authorized the digging of two new canals, giving out beforehand that these would be overbuilt once the construction was finished.³⁵³

Another opportunity to gain exploitable space was to fill in waterways. In 1620, a goldsmith, a confectioner and the widow of a counsellor sought permission to fill in a ditch behind their homes. They substantiated their plea by pointing out that “nobody will suffer or become worse, yet [the space gained] will be beneficial to The Hague and at service to the neighbours.”³⁵⁴ In Rotterdam, plot owners negotiated among themselves the partial or complete damming up of ditches, especially those between gardens or fields.³⁵⁵ Two of them agreed to fill in a ditch, provided that one should help the other “eternally to carry manure, soil, sand and hay ... over his land.”³⁵⁶ Evidently, the reverse also occurred: land that was made into a drain or a waterway. In Haarlem, for instance, witnesses testified that Jan Willemsz the gardener had accepted a rent reduction of fourteen guilders as of the moment his landlord dug a new ditch through his field.³⁵⁷

The example of the rope maker who had to construct his overhanging extension high enough to admit cleaning parties shows that people sometimes needed access to water to avert vexing situations. Likewise, accessibility was a prerequisite for the use of water as a consumer good or a conveyor. Hence, the transitional zone from water to land and vice versa had to be either suitable or adapted to be used by humans. Around 1640, a group of residents from Rotterdam’s *waterstad* joined together. They appealed to the magistrates to construct a stairwell climbing down to the waterline, so that “they could obtain their daily needed water more or

³⁵² HGA OA 122:64 (The Hague 1622).

³⁵³ Abrahamse, *De grote uitleg*, 266.

³⁵⁴ *Waerbij niemant geen schade off prejuditie en sal comen te lijden, maer sauw strecken ter benefice vanden Hage ende dienstbaerheit vande gebuijren*, HGA OA 54:12 (The Hague 1620).

³⁵⁵ SAR ONA 181:152 (Rotterdam 1634); SAR ONA 257:243 (Rotterdam 1634); SAR ONA 150:459 (Rotterdam 1635).

³⁵⁶ *Zall bij staen eeuwichlijck zijn misse, aerde, sant ende hoij al op zijn lant ... daerover te brengen*, SAR ONA 258:183 (Rotterdam 1635).

³⁵⁷ NHA ONA 133:372v (Haarlem 1634).

less decently.”³⁵⁸ Two buyers of dwelling houses in Alkmaar’s Heiligland acquired the right to cross the adjoining shipyard to the nearby lake, provided that “the buyers would not hinder or hamper the execution of the ship builder’s trade.”³⁵⁹ Access to water was also something the urban magistracy took into account when they received a request to change wells or cisterns. In 1621, for instance, Henrick Stevens van Duijbroeck got permission to demolish the well in his yard, provided he erected a stout pump for the benefit of his neighbours. Moreover, he had to make a trapdoor to the water tank in his cellar, which was to be accessible at all times in case of an emergency.³⁶⁰

Many ships, particularly the larger ones, needed jetties to load and unload their cargo. One gets the impression that these berths were much in demand. In 1635, four attestants declared to have witnessed a quarrel between Aerijen Jansz and Wentel Dircx. According to the witnesses, the dispute had started when Dircx jumped the line with his barge, trying to reach a certain jetty before Jansz. This was against the wish of Jansz, because the latter had already “been waiting far too many days with the barge to pass the sluice.”³⁶¹ A few years later, the harbour of Alkmaar was so overcrowded during Bartholomew’s market day, that there were not enough jetties available. A carrier of linseed cakes felt obliged to bring his cargo ashore at a random spot in town. The owner of the plot he chose was not very happy, fearing that the linen she had hung out there would be soiled. She threatened to dump the linseed cakes into the water.³⁶² Especially flat-bottomed barges did not always need a jetty to have access to a quay. There are several cases known in which people laid soil or manure on a water bank, awaiting the bargeman who took it away.³⁶³ The written records these events yielded illustrate that the opponents of these practices took initiatives to avert bothering situations themselves.

³⁵⁸ *Dat sijlieden eenichsints gevoechelijck aen water conden geraken t welck sijlieden dagelijcx van noode sijn hebbende*, SAR ONA 353:483 (Rotterdam 1636-44). Cf. SAR ONA 353:371 (Rotterdam 1637).

³⁵⁹ *Dat de copers hem int doen ende exerceren vande sloopmaeckers neeringe geen hinder ofte belett ter contrarie zal mogen doen*, RAA SA 1561 (Alkmaar 1635). For the location of the Heiligland, see map 2:D1-D2.

³⁶⁰ HGA OA 121:222-224 (The Hague 1621).

³⁶¹ *Alsoo hij veel te veel dage aldaer met den aelman hadde leggen wachten om door de spuy te geraken*, SAR ONA 287:204 (Rotterdam 1635).

³⁶² RAA NotA 115:13r (Alkmaar 1642).

³⁶³ HaNA SvH 1594 (The Hague 1626); NHA SA 4041 (Haarlem 1632); SAR ONA 311:78 (Rotterdam 1649).

The underexposed meanings of water

Whereas ANT has been helpful to reveal the significance people assigned to the substance of water, it does not accommodate the recognition of those aspects that people neglected. Here, I shift the attention to the features that city dwellers hardly mentioned in the records I have seen, either because these did not bother them or because they were so normal that nobody took note.

The first category that got little attention from the urban dwellers was the produce yielded from the water, from fish and fowl to river weeds and reeds. Several urban authorities issued by-laws prohibiting fishing in the ring canal.³⁶⁴ There were some struggles about the jurisdiction regarding fishing rights as well. Throughout the seventeenth century, the fishermen of Spaarndam, to the north of Haarlem, kept reminding both the bailiff of Kennemerland and the burgomasters of Haarlem of their customary right to fish in the Spaarne without explicit consent.³⁶⁵ In The Hague, the lord of nearby Wassenaar required witnesses to declare that the waters east of the Haagse Vliet were his to lease out.³⁶⁶ The latter case gives a clue why reports about fishing, fowling and reed cutting are underrepresented in the urban files. Apparently, these activities took place predominantly in the countryside. A couple of testimonies about events that took place beyond the urban jurisdiction affirm this point. In 1627, one Garbrant Janss testified that the water level of the Schermer had not changed due to the drainage of the Beemster, Purmer and Wormer. He knew this, because he went fowl trapping along the shores of the Schermer regularly.³⁶⁷ In 1650, a man was taken in custody for the alleged use of a shotgun in the fields west of The Hague. According to a witness, however, he had been out in the fields fishing eels. His eel spear had been mistaken for a shotgun.³⁶⁸ It seems that as a rule, townspeople did not fish themselves. They merely bought the yield of fish hawkers.³⁶⁹

Another topic that bothered rural rather than urban communities was land reclamation projects. It is likely that the burgomasters of Alkmaar recorded the abovementioned testimony of Garbrant Janss the fowler in order to forestall the objection that the anticipated drainage of the Schermer would compromise the water level in the region.³⁷⁰ Nearly three years after burgomaster Oudesteijn of

³⁶⁴ NHA OA 4534 (Haarlem 1645); NHA SP 151 (Haarlem 1656); *Generale Keure*, 265 (Rotterdam).

³⁶⁵ NHA OA 4536 (Haarlem 1601-57); NHA OA 4532 (Haarlem 1607-60).

³⁶⁶ HGA NotA 167:223r (The Hague 1649).

³⁶⁷ RAA NotA 95:7r-v (Alkmaar 1627). For the location of the Beemster, see map 1:B2; Purmer and Wormer, map 1:B2-B3.

³⁶⁸ HGA NotA 181:133r (The Hague 1650).

³⁶⁹ Cf. RAA NotA 109:133r (Alkmaar 1634); SAR ONA 353:477-478 (Rotterdam 1636-44); NHA SP 143:XIII (Haarlem 1655).

³⁷⁰ RAA NotA 95:7r-v (Alkmaar 1627).

Alkmaar had required Janss' testimony he presented a favourable report on the prevised drainage of the Schermer to the city council.³⁷¹ The pamphleteer who criticized the drainage of the Schermer around 1635, touched upon the reduction of the water reservoir, which could result in water shortage in summer and floods in winter. His main argument had nothing to do with water, however. He stated that abundant non-residents accumulated vast riches, excluding the inhabitants from any profit to be made.³⁷² Apart from that, land reclamation did not disturb everyday urban life. Neither did the problem of getting surplus water as quick as possible from the fields, especially after a wet winter. Although there were many inventors who sought patents from the States of Holland for new or improved drainage contraptions, city dwellers barely discussed the topic in the notarial archives or in their communications with the urban magistracy. Possibly, the fact that people raised the ground slightly before building helped them to keep their feet dry under ordinary circumstances.

The use of water to defend areas was also mentioned merely in passing. The inhabitants supposedly knew why the city had a ring canal and usually put up with the enforced schedules of closing and opening the gates, without wasting words on it. The only cities who had possibly to deal with the results of a new defence line within the studied period were Gouda and Amsterdam. Engineers and military strategists designed a liquid defensive barrier not far from these cities, in the Utrecht-Holland border region. Much against the will of farmers and the government of Gouda, they tried out the system in 1629, when Spanish troops approached Holland. The Dutch army inundated a stretch of about twenty running kilometres. In the end, the army neutralized the threat.³⁷³ In the cities farther away from Holland's border, the people apparently did not make a fuss about the defensive qualities of water.

As we have already seen, people did but seldom discuss the lack of water needed for their daily chores. Instead, they made arrangements about its discharge. If they made complaints, it was rather about the accessibility or the quality of the water than about its quantity. It is noteworthy that they only debated water as a cleansing agent in the literal sense. No word was written about spiritual cleansing in the form of baptism. That ritual was presumably so well established, that it needed not to be discussed.

The use of water as a power source was not mentioned at all among the documents I have studied. This is hardly surprising. Water wheels using the natural drop of streams have been scarce in the province of Holland, due to the lack of

³⁷¹ RAA SA 44:10v-11r (Alkmaar 1630).

³⁷² *Schermer-Bedyckinghe* (c. 1635).

³⁷³ Klinkert, 'Water in oorlog', 466-472.

elevation. Tide mills were only a feasible option where the branches of the Meuse met the sea. Only two cities in seventeenth-century Holland boasted a tide mill: Dordrecht and the harbour of Delft.³⁷⁴

Looking through the prism of ANT, this chapter has demonstrated the many ways in which water stirred the inhabitants of Holland into action. In compliance with the ideas of Sarah Pennell, Frank Trentmann and Giovanni Levi, the study of everyday events and encounters provides a glance into society at various levels.³⁷⁵ In a manner of speaking, we have made our acquaintance with the housemaid washing the dishes, house owners worrying about the durability of their assets, ad hoc lobby groups of several trades and urban magistracies taking the responsibility for infrastructural works. We have seen the millers, wickers, merchants, widows, surgeons, tailors, sailors, masons and clerks who together constituted the urban community. This is not to say that the entire community is represented in the sources. As we will see in chapter 2, both women and unskilled workers are underrepresented. While a view through an ordinary phenomenon ensures a large diversity of actors, the versatility of water accounts for a variety of actions. The examples cited above illustrate how private city dwellers communicated both among themselves and with the authorities. Moreover, they show what people expected from each other, the municipal government, neighbourhood organizations and other corporations. In short, this angle provides not only an insight into the significance of water to the townspeople, but also into the explicit and implicit allocation of tasks and responsibilities within the city. This thought will be elaborated further in the next chapter.

³⁷⁴ <http://www.molendatabase.org>, retrieved at 8 October 2018.

³⁷⁵ Levi, 'On Microhistory', 97-98; Pennell, 'Material Culture'; Trentmann, 'The Politics of Everyday Life', 544.

2 Subsidiarity

Jan Heindrickxe said: restore it. Jacob Simonse said: I have nothing against it, unless the street level would be too much above mine. Errenst the brazier said: I have nothing against it, but I can only speak on behalf of the alley. Pieter Reijnierse, owning two houses, said: restore it. Maertgen Claes said: my pavement is fine. Ot van Oeveren, owning two houses, said: my pavement is fine. Pieter Kirreberg said: I hope that it remains the way it is. Claes Janse said: I would lose my draining opportunity completely if the street were raised. Trintge Frericx said: I would have to pay for three houses and I have plenty to do to earn a living for my children. Johannis van Oppine said: I prefer it to remain this way, rather than take on this burden. Arij Harmanse the whitesmith said: no matter how the gentlemen decide, I will approve.¹

*Inquiry among inhabitants of the
Vogelenzang, Rotterdam 1658.*

In the third act of the 1658 negotiation process among the inhabitants of the Vogelenzang, the government took action. Two groups of residents had sought the governors' aid already. Now, the time had come to investigate which of these groups voiced the general opinion. The municipal authorities held a survey on the desirability of raising the street by interviewing the inhabitants. Together with the other documents describing these negotiations, the inquiry epitomizes the main themes of this chapter: neighbourliness, how communities are organized, the role of corporations and ad hoc associations and, above all, the concept of subsidiarity. In this chapter, I aim to advance the awareness of this relatively unknown concept among historians, which fits strikingly well with the way Holland's society was organized in the seventeenth century.

¹ *Jan Heindrickxe seijde van maken. Jacob Simonse seijde: ick heb daer niet tegen als sij mijn niet alte veel onder hoogen. Errenst de koperslager seijde: ick heb daer niet tegen, maer ick heb maer voor de gange te seggen. Pieter Reijnierse voor 2 huijse seijde van maken. Maertgen Claes seijde: mijn straet is goet. Ot van Oeveren voor 2 huijse seijde: mijn straet is goet. Pieter Kirreberg seijde: ick mach wel liden dat sij blijft leggen soo als sij is. Claes Janse seijde: al mijn water loop sou ick daer mede verliesen als de straet gehoocht werde. Trintgen Frericx seijde: ick sou voor 3 huijse moeten betalen ende ick heb genoch te doen dat ick voor mijn kinderen de kost vijn. Johannis van Oppine seijde: ick heb liever dat sij blijft leggen als dat ick er mede geintreseert sou sijn. Arij Harmanse witwercker seijde: soo het de heere verstaen ist mijn wel, SAR OSA 2626 (Rotterdam 1658). For the location of the Vogelenzang, see map 5:C2; Rotterdam, map 1:B5.*

In the previous chapter I explored in what ways water made a difference to urban dwellers. Now, the focus shifts to the people to whom water mattered and the relationships between them, laying bare the task division and power relations within the urban communities. The key argument of this chapter is that, on matters concerning water politics, responsibilities were usually lodged directly with the stakeholders, whether they were individuals, occasional groups or official bodies. The first section reconstructs the large group of city dwellers who participated in everyday politics, including citizens, non-citizen residents and visiting foreigners. Women were underrepresented, but by no means excluded, as is illustrated by the Vogelenzang case. Eight of the thirty-two interviewees in the inquiry were female. Four of them had already signed the counter-appeal that probably triggered the urban magistrates to make an inquiry. The other point the inquiry fortuitously shows is the absence of menial workers, as far as the occupation of the interviewees is known. This is also typical of many of the sources used for this study.

In the second section of this chapter the focus shifts to civil society, inquiring what kind of tasks the corporations of the towns took on. It argues that guilds and neighbourhood organizations were not as pre-eminent in urban life as some historians assume, but formed a mere subsection from the many stakeholders in town. This point becomes even clearer in the third section, which is dedicated to ad hoc associations of city dwellers. It presents the view that, on average, city dwellers fended for themselves without the aid of corporations. In the Vogelenzang, the residents joined forces to take care of their vicinity. The first group of interested residents asked the municipal administration to make infrastructural improvements at the expense of the neighbours, an arrangement that was quite common in seventeenth-century Holland. Inhabitants who wanted to express that they had conflicting interests formed a second short-term alliance. This complicated matters for the urban magistrates: the first appeal was no longer a simple request for a building permit. They started a kind of arbitration process, by making an investigation among the inhabitants of the Vogelenzang. Arbitration is the main topic of the fourth section, which argues that peace keeping was de facto the responsibility of all members of the urban community. The last section is dedicated to the allocation of responsibilities, demonstrating that there was no fixed task division between the government and individual city dwellers. This section sets the scene for chapter 3, which covers the fluidity of the boundaries between the public and the private sphere.

Negotiation: actors and programmes

As demonstrated in chapter 1, ideas derived from the ANT toolbox are useful for the analysis of the sources. Whereas the focus in the previous chapter was on the significance people accorded to water, it now shifts to the question who the actors were and on whose behalf they claimed to act. Since it is my aim to observe the dealings and negotiations of everyday urban life, it is pertinent to establish to what extent the studied records show a cross-section of the entire community. In the second half of this section I zoom in on the programmes and counter-programmes these people mounted. The central question is how they tried to reach their goals: who negotiated with whom. This offers us a first sight of where the responsibilities in the city lay, before turning our attention to several sub-sections of the urban communities.

At the end of the nineteenth century, sociologist Ferdinand Tönnies reasoned that proximity forced people to act together in small communities like villages and towns. In larger cities and states, cooperation became instrumental, turning communities into societies.² Social historian Katherine Lynch challenged Tönnies' assumption that the association of people living side by side was a kind of natural and inevitable process, which historical evidence does not support. Lynch proposed to regard a community as a series of networks of individuals, as well as to use the fiction of collective actors, who pursue objectives they all share.³ This way of observing groups of people may sometimes be convenient, yet we should not forget that a community in reality is a coincidence of individuals. This coincidence was not an entirely accidental one, as historian Marc Boone and others stated, for all those individuals influenced each other's behaviour.⁴ Moreover, people sometimes act inadvertently or driven by their subconscious value system, as economic historian Sheila Ogilvie observed.⁵ In fact, the urban community was not singular, according to historians Willem Frijhoff, Justin Colson and Arie van Steensel, but a multifaceted "web of networks and solidarities."⁶ It is accordingly useful to look closely at the contemporary accounts of negotiations in order to see who were the actors, on behalf of whom they claimed to act and who had the power to make decisions.⁷

When zooming into the microhistorical level of notarial deeds and people's appeals, the aggregate of groups and individuals resembles Colson and Van

² Tönnies, *Gemeinschaft und Gesellschaft*.

³ Lynch, *Individuals, Families and Communities*, 14-15.

⁴ Boone et al., 'Citizenship', 3.

⁵ Ogilvie, 'Whatever is, is right?', 658-659.

⁶ Frijhoff, 'Historische antropologie', 34; Colson & Van Steensel, *Cities and Solidarities*, 2.

⁷ Cf. Geevers & Vermeesch, *Politieke belangenbehartiging*, 5.

Steensel's web of networks: people entering temporarily into partnerships to get the things done they longed for. In order to observe the background of the human actors who entered water-related negotiations, I noted the gender and the occupation of the signatories. The latter were the people who, for instance, made an appeal to the magistrates, recorded the agreements they had reached with their neighbours, or gave testimony before a notary. After the clerk had drafted and read out loud the requested manuscript, they signed the text that reflected their words. Then, the document was signed by at least three more persons: the notary and two independent witnesses, often the notary's apprentice and someone living nearby or passing by. Since their role was documentary rather than substantive, I did not count these three people among the signatories. Put together, the list of actors does not represent the urban population evenly. Women, for instance, are underrepresented in the files, as can be seen in figure 3.

	Rotterdam notarial (n=840)	Haarlem notarial (n=217)	Alkmaar notarial (n=65)	The Hague notarial (n=263)	The Hague petitions (n=75)	Total (n=1460)
male	85%	83%	86%	84%	91%	85%
female	15%	17%	14%	16%	9%	15%

Fig. 3. The signatories of the selected notarial records and petitions, divided by gender.

Women appear as signatories in less than one sixth of the water-related records. In the appeals to The Hague's magistrates they barely represented ten percent of all petitioners. Moreover, nearly forty-five percent of those who did so in Alkmaar, Haarlem and The Hague were listed as widows.⁸ This suggests that if their husbands had been alive, many of them would not have engaged in water politics. Although the share of female signatories in Rotterdam equals that in other cities, the women from the harbour town seem to have acted more independently than their peers. Nearly sixty percent of them were listed as widows. More important, the professions some of them reported were less traditionally female than those we encounter in the other cities: they did not only earn money by being laundresses, maidservants or midwives, but also as tailoresses and brewers.⁹ It may well be that the sheer number of records from Rotterdam accounts for the variety of female occupations. There is also a possibility, however, that independent female activity was more accepted in harbour towns than elsewhere. Even before they were widowed, women had to care for themselves and their

⁸ For the location of Alkmaar, see map 1:A2; Haarlem, map 1:A3; The Hague, map 1:A5.

⁹ SAR ONA 569:81, 97, 182 & 204 (Rotterdam 1649-50).

children during the absence of their husbands. In any case, respectable townswomen of Holland could and did participate in everyday politics, albeit less than their male counterparts.

It regularly occurred that a male relative, or sometimes a neighbour, recorded and signed notarial documents on behalf of a woman. Husbands habitually represented their wives when the inheritance of her parents had to be divided. Adult sons spoke for their mothers and uncles stood for orphans, male and female alike.¹⁰ As a rule, the signatories of petitions acted on their own account. Only one of the subscribers of the first appeal from the inhabitants of the Vogelenzang to the magistrates of Rotterdam claimed to sign both for himself and on behalf of his sister. In the inquiry that followed she was asked for her opinion herself, but refused to take sides.¹¹ On rare occasions women represented men. Two instances were found in the sources. In 1649, for instance, one Machtelt Jans, wife of Willem Baltens van Capenburch, sold a warehouse on behalf of her husband, retaining the right to drain water through a common alley.¹²

Of about half of the signatories, almost all male, it is known how they earned a living. Figure 4 shows their occupational groups, the percentages referring only to the subsection whose profession is known.

	Rotterdam notarial (n=840)	Haarlem notarial (n=217)	Alkmaar notarial (n=65)	The Hague notarial (n=263)	The Hague petitions (n=75)	Total (n=1460)
crafts (skilled)	55%	49%	49%	53%	50%	53%
menial work	6%	4%	3%	3%	3%	5%
commerce	14%	8%	14%	8%	13%	12%
logistics	8%	7%	6%	2%	-	6%
administration	10%	9%	23%	17%	20%	12%
military	1%	1%	-	9%	10%	3%
agrarian	1%	12%	3%	2%	-	3%
other	4%	10%	3%	6%	3%	5%
unknown	461	102	30	138	45	776

Fig. 4. The signatories of the selected notarial records and petitions, divided by occupation.

¹⁰ HGA NotA 47:163 (The Hague 1634); NHA ONA 133:372r-v (Haarlem 1634); SAR ONA 295:165-166 (Rotterdam 1634).

¹¹ SAR OSA 2626 (Rotterdam 1658). For the entire text, see appendix 1.

¹² SAR ONA 127:107 (Rotterdam 1649). Cf. HGA NotA 11:258 (The Hague 1626).

The number of menial workers signing a notarial deed nowhere exceeds six percent. This means that the data do not reflect the entire urban population proportionately: the group of unskilled labourers is grossly underrepresented.¹³ There is a possibility that a vast majority of the signatories whose profession is unknown were in fact menial workers. It is not very likely, though. Notaries simply did not always put down people's line of business. We know this, because some signatories appeared more than once before a notary. Sometimes, their occupation was noted, sometimes not. When Cornelis Pauwelsz van Oppersent sold one of his houses in 1634, for instance, the notary only mentioned that he was a citizen of Rotterdam.¹⁴ At another sale, which took place a year later, a different notary recorded that Van Oppersent was a carpenter in Rotterdam.¹⁵ So, chances are small that a vast majority of those with an unknown profession consists of servers and handymen.

To explain the absence of manual workers by supposing they had too little education or could not afford the notary's fee is unwarranted. This would account only for the accords, petitions, protests and statements of contentions, which were paid for by the *comparanten*, the people who made the statement and signed it. Yet attestations were made at the request of another party. It would be reasonable to assume that in that case the applicant paid the bill, not the witness. Either the force of menial workers is hidden in the nearly fifty percent whose occupations were not stated, or they were not deemed respectable enough to appear before a notary, since they represented the rabble of the town, about which later in this section. Even this statement seems too simplistic. Menial work, especially as a man- or maidservant residing in a household, was not necessarily disrespectful.¹⁶ Besides, doing the laundry for other people was most likely a decent way for women to provide for themselves, as demonstrated in chapter 1.¹⁷ Possibly, when people needed likely witnesses, they sought at first among their peers, in order to strengthen their case, only turning to simple folk in the second place.

Another effect contributing to the labourers' underrepresentation, may be that the mass incorporated many migrant workers: unmarried day labourers without

¹³ Historians estimate that about half of London's workforce around 1600 consisted of servants or apprentices. There is no reason to assume an entirely different figure in Holland. The underrepresentation of common labourers is in line with Daniel Smail's observations on litigants present in late medieval civil courts in southern France. Smail, *The Consumption of Justice*, 43; Sandidge 'Urban Space', 600.

¹⁴ SAR ONA 132:699-700 (Rotterdam 1634).

¹⁵ SAR ONA 244:141-143 (Rotterdam 1635).

¹⁶ Lilley, *Urban Life*, 215.

¹⁷ Cf. SAR ONA 150:351 (Rotterdam 1634); RAA NotA 114:94r (Alkmaar 1639); HGA NotA 246A:74 (The Hague 1649).

much of a network, too busy with their daily struggle for life to think of anything else. Foreigners were not entirely absent in the studied files. A "sailor from Medemblik," for instance, a "Frenchman," an "Englishman and a former enemy soldier" were occasionally in attendance in the notary's office, both as witnesses and as stake holding parties.¹⁸ Again, the harbour town of Rotterdam stands out among the other cities. Here, twelve out of thirty-two merchants were explicitly listed as Englishmen. Nevertheless, the references to foreigners are too scarce to apprehend the status of outsiders within the urban community.

In the seventeenth century, the governing bodies of Holland's cities were meant to represent all citizens, who were called *burghers* or *poorters*. These were the inhabitants who were officially registered and sworn into the city, a group predominantly but not exclusively male. In reality they probably also represented the settled inhabitants (*ingezetenen*), who had no civil rights but were usually considered to be members of the urban community.¹⁹ There are indications that, by and large, residents enjoyed benefits that were quite similar to those of the *burghers*, with the exception of formal political rights. Many newcomers, even successful ones, did not even bother to apply for civil rights. Advancing their business was their main preoccupation, rather than pursuing formal rights.²⁰ Philosopher Hans Blom pointed out that the seventeenth-century political thinker Pieter de la Court identified citizens as all inhabitants or community members. De la Court juxtaposed this group of respectable residents to foreigners.²¹ Whereas there existed, at least in theory, barely a difference in standing between citizens and other settled inhabitants, there was a sharp contrast between the privileged groups of residents and the rabble (*grauw*). These were the masses consisting of poor day labourers who had virtually no rights at all.²²

The clerks of the studied documents made no clear distinction between citizens and non-citizens, which confirms the image that both citizens and settled inhabitants were seen as full members of the urban community. Less than half of the records mentioned whether the signatories were *burghers* (citizens) or *ingezetenen* (inhabitants) of the city. On the scarce occasions that the notary listed one of the signatories as a citizen and the other as an inhabitant, he made the

¹⁸ *Schipper van Memelick*, NHA ONA 157:240r-v (Haarlem 1634); *Fransman*, SAR ONA 420:213 (Rotterdam 1649); *Engelsman ende geweest soldaet aen s'vijands rije*, HGA NotA 8:177r (The Hague 1634). For the location of Medemblik, see map 1:B1.

¹⁹ Blockmans, 'The impact of cities', 277-278; Reinders, *Gedrukte chaos*, 20; Prak & Van Zanden, *Nederland en het poldermodel*, 9-10; Prak, *Citizens without nations*, 191.

²⁰ Prak, *Citizens without nations*, 7, 36.

²¹ Blom, 'Burger en Belang', 101. Cf. Reinders, *Gedrukte chaos*, 20-21.

²² Blockmans, 'The impact of cities', 278; Reinders, *Gedrukte chaos*, 20.

reference in a non-emphatic manner: "Gerrit Janss bricklayer, citizen of this city ... has avowed he sold ... to Claes Smeynders, sailor, also living in this city."²³ Ostensibly, the distinction between ordinary residents and full citizens was not overly important.

Setting aside the underrepresentation of women and unskilled workers, it is a reasonable assumption that the aggregation of signatories mirrors the urban community of male, esteemed residents. The distribution of occupational categories shows the particularities of the cities that could be expected. In the harbour city of Rotterdam nearly twenty percent of the signatories were engaged in either commerce or transport. The large seafaring community in the city can also account for the considerable share of craftsmen, since the ships had to be built, rigged and stocked. The Hague was a city of governors, ambassadors and civil servants, due to the residence of the States of Holland, the States General and related institutions. The presence of the prince of Orange as *stadhouder* (steward of Holland and Zeeland) attracted many soldiers, some from the staff of the prince, others waiting for a commission or reporting on their activities. Haarlem was as a regional market and transport hub, with a large share of local farmers engaging in water politics and skippers defending their interests. The relatively small number of craftsmen appearing in the notarial deeds seems somewhat odd, however, in a town that was known for its breweries and cloth industry.

The number of corporations represented in the appeals and notarial records is strikingly low. Among the notarial deeds, guilds were only twice one of the interested parties.²⁴ The representatives of a neighbourhood organization submitted two appeals to the municipal administration within the period considered.²⁵ They appeared just once as signatories at the notary's office to record a water-related issue.²⁶ Besides, they were mentioned a few times by other appellants. It may be that they communicated with the urban authorities through other means, thus remaining undetected in the sources used for this study. However, the image emerging by focussing on water in the seventeenth century is entirely different from the one found in a research of eighteenth-century appeals lodged with the magistrates of Amsterdam. Historian Henk van Nierop found that three quarters of the petitions in his sample originated from craft guilds and trade organizations. The difference is that he focussed on the petitions asking for the creation or amendment of by-laws.²⁷ I will return to this point in the next section.

²³ *Gerrit Janss metselaer, burger deser stede ... bekende verkoft te hebben ... aen Claes Smeynders varendeman, mede inwoonder deser stede ...*, SAR ONA 132:47 (Rotterdam 1625).

²⁴ SAR ONA 143:158 (Rotterdam 1625); HGA NotA 11:325r (The Hague 1626).

²⁵ HGA OA 125:10v (The Hague 1651); HGA OA 125:39r (The Hague 1658).

²⁶ HGA NotA 80:139r (The Hague 1650).

²⁷ Nierop, van, 'Popular Participation', 286-287.

Turning our attention to people's objectives and the ways they accomplished them, figure 5 shows that deeds in the notarial archives focus mainly on people's backyards. Reminiscing chapter 1, they predominantly concern water as a consumer good, a conveyor of waste, a nuisance or a destructive force. Arrangements about gutters, drains and water dripping from the roofs were most common, as they had been since houses were built of timber, wattle and daub.²⁸ These were typically bilateral agreements between the owners of neighbouring premises or the users of a communal alley or yard. Seen through an ANT prism, this means that the archetypical actors were two interested human parties, the water, a receptacle like a drain, and a private or shared space, usually leading to a public space, such as a street or a ditch. From these records an image arises of urban dwellers constantly changing the constructions on their premises, putting up sheds, making attachments, raising houses, shifting privies and chimneys and dividing buildings to accommodate more people. If these changes affected the properties of others, for example when a new attachment discharged rainwater over a communal wall, neighbours would enter a negotiation process, which they sometimes recorded in a notarial deed.²⁹ Residents of a city only needed consent from the urban administration if their construction work affected thoroughfares, as will be elucidated in the last section of this chapter, as well as in chapter 3. Therefore, drains, gutters and eavesdrops feature far less in the appeals to the magistrates than in the notarial archives. Individuals usually took care of the case among them.

	Rotterdam notarial (n=376)	Haarlem notarial (n=84)	Alkmaar notarial (n=36)	The Hague notarial (n=127)	The Hague petitions (n=85)	Total (n=708)
cistern, well, pump	4%	15%	19%	25%	20%	12%
drain, gutter, eavesdrop	45%	45%	47%	55%	24%	44%
bridge, quay, jetty, vault	3%	6%	14%	6%	42%	9%
boundary	32%	-	1%	6%	2%	18%
flooding	2%	14%	11%	6%	1%	5%

Fig. 5. Most common objects in the selected notarial records (sample years only) and petitions.

²⁸ Magnusson, 'Public and Private Urban Hydrology', 174; Coomans, *In Pursuit of a Healthy City*, 142-146.

²⁹ NHA ONA 16:5r (Haarlem 1601); SAR ONA 183:111 (Rotterdam 1626); HGA NotA 180:386r (The Hague 1649).

The second most popular water-related topic among the notarial records in Haarlem, Alkmaar and The Hague were cisterns, wells and the gear needed to draw water from them. Like the gutters and drains mentioned before, these were often structures found in backyards and alleys that neighbours shared. They had to arrange the use of the facilities. A disproportionate number of arrangements concerning cisterns were recorded as part of a lease contract: property owners and the tenants set out unambiguously which facilities were part of the deal and which were not.³⁰

There are a few plausible explanations why the notaries of Rotterdam recorded less documents regarding cisterns and wells than those in the other cities. It might have to do with Rotterdam's by-law which prescribed that "neighbours are obliged to fence off their property, as far as their yards lay side by side."³¹ It is possible that this ordinance served to discourage the use of communal facilities, which in the other cities lay often in yards and alleys that were not public, nor private, but shared among several neighbours. As long as people did not share amenities, they had no need to negotiate their terms of use. Another possibility is that a larger share of Rotterdam's population drew its water for daily use from the omnipresent surface water in the city. As discussed in chapter 1, there are several records suggesting that inhabitants climbed down to the harbours and canals to fetch water "to cook with" and to use it for other domestic chores.³² Even the brewers of the town, for whom cleanliness was essential in order to attain a potable product, had no concerns about using harbour water to rinse their barrels.³³

The inhabitants of The Hague relatively often mentioned bridges, quays, jetties and vaults in their appeals to the magistrates. These structures overcame the problem of water being an obstacle and provided building space at a time when that was much in demand, because of the urban densification. In contrast to gutters, drains and cisterns, which people chiefly referred to in notarial deeds, these constructions often lay in locations that were accessible to all. Therefore, the inhabitants turned to the urban administration if they wanted to alter the existing situation.³⁴ When inhabitants negotiated about bridges among themselves, it was often about the means of getting to vegetable gardens or bleach fields. Apparently, these habitually lay behind built up areas, often on either side of the

³⁰ SAR ONA 150:25 (Rotterdam 1634); HGA NotA 47:213r (The Hague 1635). Cf. NHA ONA 190:119r (Haarlem 1649).

³¹ *De gebuyren zijn gehouden malkanderen te bevryden, soo verre hunne erven aen malkanderen gestrekt leggen, Generale Keure*, 628 (Rotterdam).

³² *Water (om mede te coocken)*, SAR ONA 258:89 (Rotterdam 1635). Cf. SAR ONA 353:371 (Rotterdam 1637); SAR ONA 353:483 (Rotterdam 1636-44).

³³ SAR ONA 142:150, 154 (Rotterdam 1635); SAR ONA 323:296 (Rotterdam 1635).

³⁴ See further the last section of this chapter.

city's ring canal. Two notaries from Haarlem and The Hague recorded strikingly similar cases about new owners who restricted the access to neighbouring plots over their property. The unhappy tenants of the plots asked for a multitude of testimonies to prove both the customary right of way and their inability to get there otherwise.³⁵ This was indeed a breach of the common law: in his collection of Dutch laws Grotius asserted that all farmlands lacking direct access to a public road must be granted right of way through the fields belonging to another party.³⁶

Records regarding canals and ditches usually concerned the width or depth needed to use them for navigation. Especially the tenants of garden plots and pasture within or at the fringe of the city used small boats to carry commodities, produce and refuse to and from them. They were inclined to protest when their preferred transport route was filled in, narrowed or badly maintained.³⁷ The observation that the inhabitants of Haarlem produced the most records about both waterways and flooding is easily explained. The river Spaarne runs right through the middle of the city. It was economically beneficial to merchants, sailors and other residents of the city, but was also a source of concern. Haarlem's skippers' guild monitored the river's shallows minutely, with the support of the municipal administration. Together, they kept an eye on the economic interest of the city and made a stand against actors that spoiled the river's navigation.

The water-related topics that city dwellers hardly addressed in notarial archives and appeals, mentioned in the last section of the previous chapter, suggest that these were not a prominent part of quotidian urban life. References to water pollution, for instance, were rare, despite of the frequent occurrence of infectious diseases that people associated with bad air coming from stagnant water.³⁸ However scarce, there were two types of remarks on water pollution. On a macro scale, city dwellers stipulated the placement of a grating at places where individual spurs connected to the common drain.³⁹ These were regularly bilateral arrangements. However, if inhabitants wanted to avert the pollution of a larger stretch of water, for instance an entire ditch or canal, they tended to seek the assistance of the urban magistrates. As will be expounded in the last section of this chapter, scale is the main explanatory value on these divergent perceived task

³⁵ NHA ONA 58:374r, 390r, 391r, 126:16r (Haarlem 1625); HGA NotA 102:292r, 296r (The Hague 1649).

³⁶ Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 35:7-8 (1629).

³⁷ HGA OA 124:279 (The Hague 1645); SAR ONA 181:152 (Rotterdam 1634).

³⁸ Chance et al., 'Public Services', 353; Reid, *Paris Sewers*, 11; Cockayne, *Hubbub*, 212; Curtis, 'Dirt, disgust and disease', 662; Coudert, 'Sewers, Cesspools, and Privies', 715; Oosten, van, 'The Dutch Great Stink', 10; Coomans, *In Pursuit of a Healthy City*, 36-37, 52; Geltner, *Roads to Health*, 2-3.

³⁹ HGA NotA 1a:12-13 (The Hague 1601); SAR ONA 132:711-716 (Rotterdam 1634); RAA NotA 181:162 (Alkmaar 1649).

divisions. Other than pollution, tales of fires or the drowning of people or livestock were no reason to start a lawsuit or to cry for preventive measures. Apparently, these were seen as individual or local accidents, not something to record with a notary or a reason to appeal to the authorities.

The negotiation process itself is but fragmentarily seen among the deeds in the notarial archives and petitions to the urban authorities. Appeals, attestations, statements of contentions and protests can be considered as part of the process. According to historian Daniel Smail, documents derived from the notarial archives were the most important source of evidence in premodern civil lawsuits.⁴⁰ Since these processes were both time-consuming and costly, it is likely that people used the recording of testimonies not only as a way of gathering evidence for future lawsuits, but also to put the opponents under pressure. The fact that a rival had started to collect evidence could urge people to give in, saving both parties a lot of effort.

Not everybody was to be intimidated, though. This was probably what happened in in 1634-35 in Rotterdam, when Jop Danen Vissenburch mounted an anti-programme, to put it in ANT terms. He reacted to a series of eyewitness accounts taken down at the request of Vissenburch's neighbour Gerrit Anthonisz. On 14 October 1634 and, nearly a year later, between 28 August and 7 September 1635, the latter took six witnesses to the notary's office. They declared that Anthonisz had granted Vissenburch the use of an alley between their houses to drain his surplus water, but that he could revoke the permission at any time. This he did, according to the witnesses, after Vissenburch enlarged the gap in the fence leading to the drainage alley and started to drain all kinds of filth.⁴¹ On 11 September 1635 Vissenburch fought back. His five witnesses stated that the rental of his house included the unhindered use of the alley in question. A former tenant of the house he lived in affirmed that she had used the alley in the same way as Vissenburch did.⁴²

In contrast to testimonies, accords were the result of a negotiation process. In this type of deed, two or more parties declared that they had "come to an accord amicably" either with or without the intervention of a third party.⁴³ In a few cases individuals recorded their intentions unilaterally. Gerrit Christiaans Snijder, for instance, stated in 1641 that he had granted his neighbour Pieter Adriaans Trompers to span a drainage beneath Snijder's roof. Trompers was no party in the

⁴⁰ Smail, *The Consumption of Justice*, 52-53.

⁴¹ SAR ONA 94:48 (Rotterdam 1634); SAR ONA 258:102-103, 106-108, 111-112 (Rotterdam 1635).

⁴² SAR ONA 142:168 (Rotterdam 1635).

⁴³ *Verclaren vruntelicken metten anderen geaccordeert te zyn*, NHA ONA 15:65r (Haarlem 1600).

deed, although Snijder required him to meet some specified conditions, like not fastening anything to the wall and removing the drainage promptly if Snijder withdrew his permission at any time.⁴⁴ This suggests the proposition started as a verbal agreement between the two neighbours, which Snijder had recorded just to make sure he would not be caught out later. This is one of the points where the use of ANT pays off. While Trompers had a passive role in this case, and thus could have remained undetected, he certainly was one of the substantial actors.

There are other indications that oral contracts were quite common, so that the written records found in the archives are only the tip of the agreements' iceberg. In 1625, for instance, a basket-weaver declared he had sold a house with a yard to Maerten Cornelis the confectioner. Only after Cornelis had died, the basket-weaver drafted the sales deed officially, to hand over the property rights to Cornelis' son Aeriaen.⁴⁵ The statement of a freewoman of Alkmaar was even clearer, as she expressed her wish to confirm in writing a sales agreement that had been reached a year before.⁴⁶ An implicit understanding also lay at the root of the testimonies required by a market gardener in Haarlem. At his request, a multitude of witnesses stated that his predecessor and he had used a neighbouring field to access his garden for at least thirty years, until the new owners stopped him.⁴⁷ Only then he felt the need to record what the former owners had tacitly granted for decades.

In sum, just about anyone could and did participate in water politics within Holland's towns. Although women were underrepresented, they make regular appearances in the sources. Like established male inhabitants, they too were deemed respectable members of the urban community. The same goes for foreigners. Strictly speaking they were not community members, but they did take part in urban pleading and bargaining processes. It remains unclear whether the relative invisibility of menial workers is due to a lack of participation or because their actions were not recorded as such. Taking into account the petty negotiations about drains and gutters, it is probable that Holland's city dwellers were nearly continuously engaged in water politics – only occasionally recording the outcome. Regarding the question of who negotiated with whom, we can conclude that the inhabitants arranged many things among themselves, without the mediation of a government or civil organization. Meanwhile, they turned to the burgomasters and regents when their plans affected the public space. Whereas

⁴⁴ SAR HS 2867 (Rotterdam 1641). Cf. NHA ONA 180:385r (Haarlem 1649); NHA ONA 224:516r (Haarlem 1649).

⁴⁵ RAA SA 1534 (Alkmaar 1625).

⁴⁶ RAA SA 1682 (Alkmaar 1600).

⁴⁷ NHA ONA 58:374r-375r, 390r-v, 391r, 126:13r, 16r (Haarlem 1625).

minor differences can be seen between the four cities – originating from distinct geophysical, demographical and legislative aspects – the kind of pleas and bargains made by the city dwellers remained fairly steady within the studied period. This is despite the fact that these cities faced an enormous population growth and other stressors. To delve deeper into the concept of subsidiarity, we have to separate the individual actors from the corporations and the ad hoc alliances. In the next section I go into the role of civil society, particularly craft guilds and neighbourhood organizations. Subsequently, the provisional associations of townspeople are discussed.

Civil society

One way by which citizens could influence local policy was through their involvement in corporations like civil militias, guilds and neighbourhood organizations. Paraphrasing Maarten Prak, the *burghers'* power to affect change was largest where it signified most to them, that is, in local organizations.⁴⁸ Social historian Jürgen Kocka described civil society as those practices aimed at discourse and compromise in the public sphere; based on individual autonomy and collective self-organization; accepting differences and resulting tensions; being accomplished non-violently; and meant for general causes.⁴⁹ Historians Heinz Schilling and Peter Blickle perceived some medieval and early modern forms of collective self-organization within small communities. They observed that neighbours in rural areas sometimes acted together to defend their common interest against or at least apart from their overlord.⁵⁰ Both Katherine Lynch and Prak applied these analyses to late medieval and early modern urban societies. According to them civil society, that is guilds, civic guards, charitable and neighbourhood organizations, acted as communities of interest apart from or in addition to the municipal government.⁵¹ In these organizations city dwellers formally bonded on the basis of profession (guilds) or geographical location (neighbourhood organizations). Both kinds of organization were known in cities across Europe.⁵²

Like subsidiarity, the concept of civil society has its roots in the ideas of Aristotle. His thinking about the active engagement of citizens in the city's politics,

⁴⁸ Prak, *Citizens without nations*, 5.

⁴⁹ Kocka, 'Civil Society', 40.

⁵⁰ Blickle, *Kommunalismus*; Schilling, *Religion, Political Culture*.

⁵¹ Prak, 'The Dutch Republic'; Lynch, *Individuals, Families and Communities*, 15-16.

⁵² Lis & Soly, 'Neighbourhood social change'; Garrioch & Peel, 'The social history of urban neighbourhoods'; Rosenthal, 'Big Pietro: Claiming Neighbourhood'; Burke, 'Visualizing neighbourhood'; Deceulaer, 'Implications of the street'; Heijden, van der, *Civic Duty*, 65.

handed down through the Dominican friars William of Moerbeke (c. 1215-1286) and Aquinas, underwent massive changes in the fifteenth century. Philosophers saw civil society more and more as a sphere independent from the governing bodies.⁵³ Thus, it is justifiable to bring corporations like guilds, civic militias and neighbourhood organizations under the umbrella of civil society, although there are a few provisos to be made. It is questionable whether citizens were sufficiently autonomous to opt out of their membership of these organizations. In theory, one joined a guild on a voluntary basis, but the only feasible alternative to membership was seeking another craft.⁵⁴ For male citizens, participation in a civil militia was compulsory, although they could purchase an exemption. Affiliation with a neighbourhood organization was certainly not optional. The wardens of the organization had to register all newcomers who settled or even stayed in the area for more than a few days.⁵⁵ Membership was inescapable. A second proviso has to do with the question to what extent the corporations were independent from the urban authorities. There are indications that at least the neighbourhood organizations and the guilds were interlinked with the municipal government, as we will also see in this section.⁵⁶

The presence of these civil organizations is relatively scarce among the studied documents. The search, with its narrow, water-related scope, did not yield a single reference to civil militias. Charitable or religious organizations made less than a handful of appearances, always in the role of property-owners making arrangements with their neighbours.⁵⁷ Guilds and neighbourhood organizations did occasionally engage in water politics within their town of origin. Even if we accept that these corporations may have used other channels of communication than petitions and notarial deeds, the near absence of them among these records is conspicuous. Had these organizations really been embedded in numerous aspects of urban life, they should have shown up more often, if only providing witnesses testifying about events that took place during their activities; or using the prestige of the corporations' rulers to back the negotiations of their members. By all appearances, scholars researching corporations have inadvertently exaggerated the role of corporations in the urban communities. The occasions wherein the civil organizations were involved in water politics are discussed in the next few paragraphs, beginning with those of the neighbourhood organizations.

⁵³ Van Dijck et al., 'Relocating Civil Society', 5-6.

⁵⁴ Cf. Van Dijck et al., 'Relocating Civil Society', 12.

⁵⁵ Walle, *Buurthouden*, 35.

⁵⁶ Aerts, 'Civil Society or Democracy?', 215, 218.

⁵⁷ HGA OA 121:44-45 (The Hague 1617); HGA OA 123:79-81 (The Hague 1628).

Formal neighbourhood organizations are undocumented for Alkmaar. Both Haarlem and The Hague had scores of them, each covering a moderate street with its back alleys.⁵⁸ They were official bodies with their own regulations, which dealt mainly with mutual assistance, the reconciliation of petty conflicts and sometimes infrastructure or the supervision of firefighting equipment.⁵⁹ Much is unclear about the presence and role of neighbourhood organizations in Rotterdam. Historian G. Pieck appears to have investigated them, but could not publish his findings before his death in the 1980s.⁶⁰ A glance at the online inventory of the notarial records stored in Rotterdam's municipal archives reveals that at least two neighbourhood organizations existed between 1619 and 1660.⁶¹ In several regions of northwest Europe, neighbourhood organizations were linked directly to water: towns in Guelders, Westphalia and Limburg were divided into well communities, each responsible for the public wells in their own area.⁶² Ghent's neighbourhoods were responsible for the cleaning of adjacent rivers, quays and streets.⁶³ As we will see, however, it is hard to establish a link between Holland's neighbourhood organizations and this kind of organized water management.

In Haarlem, the 1649 'General ordinance on the neighbourhoods' specifies the tasks allotted to these organizations. According to the description of the ordinance it contained the regulations "such as they are nowadays or in the course of time ... will be established."⁶⁴ This implies that the authorities, in this case the urban court, meant to lay down the standards that had already been applicable for some time. According to the ordinance, the board of each neighbourhood organization consisted of a deacon (*deken*), two or three inspectors (*vinders*) and a small council (*raad*). The functionaries were elected from "the most qualified of the neighbourhood," following the principle that the inspectors and council chose the deacon, council and deacon chose the inspectors, and deacon and inspectors chose the members of the council.⁶⁵

The election of the deacon, the only functionary who was appointed for life, had to be ratified by the city's mayors. There are similarities between the

⁵⁸ Dorren, 'Communities within the community'; Walle, *Buurthouden*; Meeteren, van, *Op hoop van akkoord*, 27-30.

⁵⁹ Deceulaer, 'Implicaties van de straat', 123-127; Dorren, 'Communities within the community', 180; Walle, *Buurthouden*, 15-17, 35-38; Meeteren, van, *Op hoop van akkoord*, 27-29.

⁶⁰ Cf. Pieck, 'Jan van Hout en de Leidse buurten', 37.

⁶¹ SAR ONA 50:165-167 (Rotterdam 1619); SAR ONA 459:334-335 (Rotterdam 1658); SAR ONA 459:341-342 (Rotterdam 1660).

⁶² Benders & De Boer, 'Putten uit bronnen', 157-158; Oosten, van, 'The Great Sanitary Awakening', 108.

⁶³ Coomans, *In Pursuit of a Healthy City*, 131.

⁶⁴ *Sulcx die jegenwoordich zijn off metter tijt ... sullen werden gestelt*, HGA OA 5134 (The Hague 1649).

⁶⁵ *Vande gequalificeerste der gebuijrtte*, NHA SA 5134 (Haarlem 1649).

organizational structure of the neighbourhood organizations and the city government. The city council was put together from the *burghers*, predominantly their economic elite, by a system of co-optation.⁶⁶ Like the city, neighbourhoods hired assistants for running errands. Preferably, they lived in the neighbourhood themselves, but if this condition could not be met, the neighbourhood organization would employ an inhabitant of an adjacent area.⁶⁷ Since the structure of neighbourhood organizations was similar to that of the urban administration, one can assume that the underlying principles of consultation and representation were also similar.⁶⁸ In that case, both the members and the rulers held on to the idea that the latter acted on behalf of the former, defending their shared interests as best they could. In ANT terms this would mean that both the neighbourhood organization and its leaders were the discernible link of the metaphorical chain representing the residents of the neighbourhood.

The ordinance from 1649 laid out the tasks of Haarlem's neighbourhood organizations. The deacon had to register every person lodging in the neighbourhood and to keep an eye on them, lest someone would perish due to poverty. The organization had a small task to perform in the case of a marriage, and a narrowly defined set of duties when one of the inhabitants passed away. These responsibilities were congruent with those of similar organizations in other parts of The Netherlands.⁶⁹ Another important task of the established organizations was to ensure that the residents "live together peacefully and in civil unity, and that all irritation will be avoided and prevented in time."⁷⁰ If a conflict arose within the neighbourhood, the deacon and his council had to do their utmost best to settle it amicably. They had the right to fine any party that tried to evade amicable mediation. The plaintiffs were not allowed to take their grievances to court before they had attempted neighbourly arbitration.⁷¹

We can see neighbourhood arbitration at work in 1650, when some inhabitants of the Papestraat in The Hague quarrelled about the use of a communal gutter. One of them asked the officials of the neighbourhood organization to mediate between the opposing parties. The deacon and the council of the Papestraat neighbourhood examined the perceived problems *in situ*, found an intolerable

⁶⁶ Groenveld, *Evidente factiën*, 56-61; Nierop, van, 'Popular Participation', 276-277.

⁶⁷ NHA SA 5134 (Haarlem 1649).

⁶⁸ Cf. Frijhoff & Spies, 1650, 68; Aerts, 'Civil Society or Democracy?', 218; Prak & Van Zanden, *Nederland en het poldermodel*, 9-10; Helmers, 'Popular Participation', 124.

⁶⁹ Deceulaer, 'Implicaties van de straat', 123-127; Walle, *Buurthouden*, 15-17, 35-38; Meeteren, van, *Op hoop van akkoord*, 27-29.

⁷⁰ *Toe te sien dat die in goeder vreedem ende borgerlijcke eenicheijt metten anderen leven ende verkeeren, ende dat alle argenisse gemijt ende bij tijts verhoet werden*, NHA SA 5134 (Haarlem 1649).

⁷¹ NHA SA 5134 (Haarlem 1649).

situation and tried to call the culprit to account. Their efforts were in vain. The offender refused to heed the deacon's writ and insulted the neighbourhood's errand runner who summoned him.⁷² The fact that the neighbourhood arbitration remained fruitless, may well account for its recording. Other cases of intercession by neighbourhood organizations were not found among the studied records, despite peace-keeping being one of their designated responsibilities. It is probable that either the officials of the Papestraat neighbourhood wanted to fine the evasive denizen, or an alliance of neighbours was preparing to take the case to court, and therefore had the events recorded. This suggests that the intercession of a neighbourhood organization usually took place orally, and stayed within the neighbourhood. It is something to take into account when considering the representativity of the sources. Probably more water-related dealings took place than emerges from the records, but we cannot know if and how these change the overall picture.

From the scarce references to Rotterdam's neighbourhood organizations one gets the impression that peace-keeping was their main task as well. Twice, the officials of the neighbourhood called Meloxe in de Nieuwpoort had to give a judgement at the request of some neighbours who could not solve their disagreements themselves. The possibility of submitting disputes to the authorities of the neighbourhood organization was laid down in its regulations.⁷³ Apparently, the Hoogeveen neighbourhood in Rotterdam even had a dedicated tribunal for settling disputes. Two quibbling neighbours declared that they submitted themselves beforehand to the verdict of six men, mentioned by name, who were "all seniors of the neighbourhood court."⁷⁴ In this sense, Rotterdam's neighbourhood organizations resemble the wardmote courts of premodern London. These bodies, organized on the level of the parish, consisted of occupants residing in the area. Apart from being in charge of the maintenance of public streets, they judged and arbitrated between their fellows who had offended the common well-being in their immediate vicinity.⁷⁵ Mediating between neighbours was not a charge allotted solely to neighbourhood organizations, however, a topic to be dealt with in the section about arbitration.

It was no official task of Haarlem's neighbourhood organizations to engage in infrastructural arrangements within their area and there is no evidence that they did. Nor were they well-communities like their counterparts in the eastern provinces of the Dutch Republic. The water-related records from The Hague

⁷² HGA NotA 80:139f-v (The Hague 1650). For the location of the Papestraat, see map 4:C2.

⁷³ SAR ONA 459:334 (Rotterdam 1658); Cf. SAR ONA 459:341-342 (Rotterdam 1660). The location of Rotterdam's neighbourhood organizations is no longer known.

⁷⁴ *Alle eerste vant gebuijrecht*, SAR ONA 50:165-166 (Rotterdam 1619).

⁷⁵ Rees Jones, 'The word on the street', 105.

featuring neighbourhood organizations show a slightly different picture. The Hague's neighbourhood organizations were actively engaged in the sanitation of the streets. They employed trashmen, who both cleaned the streets and collected ash and garbage. One of the records indicates that each neighbourhood had its own waste remover: in 1658 The Hague's magistrates received the request to pension off Jan Arents as the trashman of the Raamstraat neighbourhood and to hire another man instead. Arents would keep one third of his allowance for his sustenance. Cornelis Reijnen, the man who wished to succeed Arents, drew up the request and "the majority of the inhabitants" of the Raamstraat signed it.⁷⁶ Other records divulge that the mayors of The Hague endorsed the collection of *vuilnisgeld* (garbage tax) by the officials of neighbourhood organizations. They set a weekly contribution of half a *stuiver*, payable by each household residing in the Katerstraat neighbourhood in 1651. The neighbourhood's assistant could count on the support of a city's non-commissioned officer when he had to persuade reluctant payers.⁷⁷ In other words, the urban administration relied on the officials of the Katerstraat neighbourhood to exercise power over the inhabitants, only serving as a backup if needed. Since the urban magistrates left the initiative primarily with the neighbourhood, it is a good example of subsidiarity.

Apart from caring for street sanitation, The Hague's neighbourhood organizations apparently had a role to play in the prevention and fighting of fires as well. In 1636 the deacon and council of the Veerkade neighbourhood appealed to the bailiff, burgomasters and regents to sanction a certain protocol on fire equipment, whose content is no longer known. They also asked to take the protocol into account during the city's next fire risk assessment.⁷⁸

Neighbourhood organizations in Holland thus got involved in a limited range of activities that were either defined by ordinance or by custom. Although they might have evolved into lobby groups or joint purchasing organizations, they apparently did not. It could have been a neighbourhood organization in The Hague, for instance, that hired a paver in 1650. Instead, the "common neighbours" of three streets signed an agreement with him.⁷⁹ In his book about the neighbourhood organizations of Leiden, Walle was quite ambiguous about whether infrastructural improvements in the late sixteenth and early seventeenth century were initiated by the neighbourhood officials or rather by some enterprising neighbours. The book's structure suggests it concerns the institutionalization of the neighbourhood

⁷⁶ HGA OA 125:40v (The Hague 1658). For the location of the Raamstraat, see map 4:B3.

⁷⁷ HGA OA 125:10v (The Hague 1651). Cf. HGA OA 125:39r (The Hague 1658). For the location of the Katerstraat, see map 4:B4.

⁷⁸ HGA OA 124:70-71 (The Hague 1636). For the location of the (Amsterdamse) Veerkade, see map 4:C4.

⁷⁹ HGA NotA 59:356r (The Hague 1649).

organizations. The examples Walle quoted mostly concern loose assemblies of inhabitants rather than official bodies, however.⁸⁰ After surveying the records he used, I conclude that only in a handful of cases did the *gebuurte* or neighbourhood organization play an active role.⁸¹ A large majority of the appeals was made by the “common neighbours,” “a few neighbours,” “tenants of houses and yards” or by some individuals “in the name of their fellow tenants.”⁸² These phrases are similar to those used in Alkmaar, where official neighbourhood organizations, as far as we know, did not exist.⁸³

Only two entries among the said files were found wherein Leiden’s neighbourhood organizations seem to have used their influence. One concerned a burial, one of the tasks officially assigned to neighbourhood organizations.⁸⁴ In the other, the ‘count’ of the Pryelgen neighbourhood requested the exclusive use of the well standing at St. Peter’s churchyard by the inhabitants of his ‘county’, since they also paid exclusively for its maintenance.⁸⁵ Another record recounts how the residents along the Oude Sint Jacobsgracht in Leiden had sought permission from the magistrates of the municipal court to gather under the guidance of the neighbourhood’s deacon to gauge the mood about certain infrastructural works. The purpose of this gathering was to send in an appeal that was backed by the majority of inhabitants.⁸⁶ In this case, the petitioners merely used the organizational structure of the neighbourhood organization, while the initiative came from and stayed with the inhabitants.

Residents who wanted to get something done, would sometimes take advantage from the stature of the neighbourhood’s officials. This standing is not so much evident from the honorific names – the officials of Rotterdam’s Meloxe inde Nieuwpoort were known as the emperor, prince, mayors and aldermen of the neighbourhood – for these could have been ironic names. Their importance follows rather from the mentioning of some of their occupations, like ex-mayor and captain of the civil militia.⁸⁷ When in 1644 the inhabitants along the Spaarne

⁸⁰ Walle, *Buurthouden*.

⁸¹ ELO SA II, 47:241v-242r (Leiden 1595); ELO SA II 47: 242v-243v (Leiden 1595); ELO SA II 52:267r-268v (Leiden 1617); ELO SA 53:42v-44v (Leiden 1619). For the location of Leiden, see map 1:A4.

⁸² *Gemeene gebuyren*, for instance: ELO SA II 45:291v (Leiden 1590); ELO SA II 53:42v (Leiden 1619); *eenige gebuyren*, ELO SA II 52:29v (Leiden 1613); ELO SA II 52:263v (Leiden 1617); *gehuysden ende geerffden*, ELO SA II 52:153r (Leiden 1615); ELO SA II 53:43v (Leiden 1619); *uut de naeme van heure mede gehuysden*, ELO SA II 45:70v (Leiden 1588).

⁸³ Cf. RAA NotA 33:161r (Alkmaar 1602); RAA NotA 181:277 (Alkmaar 1650).

⁸⁴ ELO SA II 47:242r-242v (Leiden 1595). Cf. Deceulaer, ‘Implicaties van de straat’, 123; Walle, *Buurthouden*, 18-20; Van Meeteren, van, *Op hoop van akkoord*, 29.

⁸⁵ ELO SA II 47:242v (Leiden 1595).

⁸⁶ ELO SA II 53:43v-44v (Leiden 1619).

⁸⁷ SAR ONA 459:334 (Rotterdam 1658).

disagreed with those of the Kleine Houtstraat in Haarlem about the course of a culvert, they put forward their deacon to deliver a presentation “for himself and also in the name and on behalf of the other neighbours of the aforesaid neighbourhood.”⁸⁸ Concisely, he did not claim to act in his capacity of neighbourhood official, but rather as one of his fellow neighbours. His standing as *primus inter pares* that was customary of elected officials probably helped to strengthen the request. Yet there is no evidence that he or other neighbourhood officials tried to extend their scope. At least when it came to water, the neighbourhood organizations mainly stuck to their roles of social lubricant, with a few minor sorties into the viability of the physical environment. For the rest, the inhabitants took care of themselves.

Civil organizations had their own place within the subsidiary society. Guilds, by far the best studied civil organizations, certainly had influence in the cities, making a contribution to issues concerning product quality control, taxes and education. Yet as a rule, their interventions sprang directly from their core business: maintaining their economic sector within the town. Neither did neighbourhood organizations, civil militias, religious or charitable organizations try to expand their influence. On the contrary, the initiative to plead for a habitable, clean and healthy environment was often left with individual city dwellers.

Guilds were organizations aimed at the defence of the interests of certain crafts or an entire economic branch. They controlled the local market, safeguarded quality control, oversaw the labour market and organized mutual assistance.⁸⁹ Guilds seldom emerged among the studied records in Rotterdam and The Hague and not at all in Alkmaar. The single guild involved in a water-related case in Rotterdam merely played the role of a private landowner, quarrelling about a bilateral arrangement.⁹⁰ In The Hague, the sole record found reflects the performance of the guild’s duties, namely quality assurance. The deacon of the bricklayers’ guild drew up a list of culpable shortcomings.⁹¹ His attestation was probably meant to discipline the guild member who had failed to construct certain water infrastructure as required.

In Haarlem, meanwhile, both the brewers’ guild and the skippers’ guild proved to be active in water politics, regularly joining forces with the city’s magistrates.

⁸⁸ *Voor haer selve, ende oock uijttte naem ende van wegen d'andere gebuijren vande voorscreven gebuijrtte*, NHA SA 6739 (Haarlem 1644). For the location of the Kleine Houtstraat, see map 3:C2-C4.

⁸⁹ Lucassen, ‘Labour and early modern economic development’, 396; Lis & Soly, ‘Craft guilds’, 19; Bos, ‘A tradition of giving and receiving’; Epstein & Prak, *Guilds, Innovation*, 53.

⁹⁰ SAR ONA 143:158 (Rotterdam 1625).

⁹¹ HGA NotA 11:325r (The Hague 1626).

The aim of the guilds was clearly to defend the economic interests of their members. The written records of their activities expose something of the negotiation process, the parties involved and the balancing of interests within the city. With respect to water, the main interest of the brewers' guild was to secure its continuous supply and fresh condition. Haarlem's brewers obtained this resource from the nearby dunes through the Rampenvaart, a natural stream that had been converted into a canal by sand extraction entrepreneurs at the end of the sixteenth century. Since the brewers of Haarlem risked a fine if their beer tasted brackish,⁹² they jealously guarded the canal's water quality, often in league with the burgomasters and regents of the city. A letter written in 1591 by the lord of nearby Brederode indicates that the city of Haarlem promulgated a by-law against swimming and bathing in the canal almost immediately after the Rampenvaart's construction, "for the convenience of the brewers' trade."⁹³

Regarding the brewers' guild as an actor in water politics, it is remarkable to see how closely interwoven it was with Haarlem's magistracy. In theory, the municipal governors and the guild were separate actors. When they joined forces, they de facto became one and the same actor. There were at least two reasons for the close relationship. Not only was the brewers trade the most prosperous industry of the town, but its captains also formed an important faction in the city council. Leading brewers got recurrently appointed as burgomasters.⁹⁴ In 1601 the magistrates prohibited the pollution of the Rampenvaart in any way.⁹⁵ Together, the mayors of Haarlem and the deacon and inspectors of the brewers' guild mounted a programme of action in 1632, with the aim of preserving the quality of the water flowing towards the city from the dunes. In unity, they inspected the canal, which by then was also known by the name of Brouwersvaart or brewers' canal. They recorded minutely all possible threats to the water quality, such as dung heaps lying at the waterside and gutters discharging into the canal. The mayors, who explicitly spoke on behalf of the brewers as well, directed sand extractor Dirck Ramp to demolish all cottages and sheds along the canal, to remove any dung and garbage from the banks and to prevent the creation of dung heaps in the future. By way of justification the mayors mentioned that they wished to "avert all infection, pollution, decay and fouling of the aforesaid canal and of its

⁹² Oosten, van, 'The Dutch Great Stink', 15.

⁹³ *Alsoe die gemeene brouwers der stad Haerlem mijn hebben laten weeten dat by uwer Edelen tot geryf der selver neringe ...*, NHA SA 4041 (Haarlem 1591).

⁹⁴ Dorren, *Eenheid en verscheidenheid*, 25; Dekken, van, *Brouwen, branden & bedienen*, 70, 99-100.

⁹⁵ NHA SA 6516 (overview of by-laws compiled during the 17th c.). For the location of the Rampenvaart, see map 3:A2.

waters.”⁹⁶ These finds are consistent with those made by Roos van Oosten, who concluded that Haarlem’s brewers were vigilant when water quality was at stake.⁹⁷ Preservation of the water quality was not the only aim of the concerted action of brewers and city governors. They also prohibited Ramp to float empty sand barges in the canal, “in order not to hinder or restrain the passage of the water carriers.”⁹⁸

The activities undertaken in the immediate environment of the Rampenvaart were not the only threat to the pure water the brewers needed. An influx of salt or brackish water from the IJ would be devastating to the water quality. For this reason, the mayors and regents of Haarlem lent their authority to the brewers’ guild in 1614, by sending an appeal to the Rijnland water board. On behalf of the brewers, they requested the construction of a sleeper dike, a secondary dike meant to prevent the flooding of a large area if the IJ rose above the primary Velserdijk. According to the petitioners this happened often in the summer or early fall, due to the squat nature of the dike. Haarlem’s magistrates claimed that the city suffered considerably from the floods, because brewing was its principal trade “and all waters surrounding the aforesaid city become brackish and poisoned by the aforesaid flood, so that the beer ends up brackish as well.”⁹⁹ Unfortunately, nothing is known about the communication between the urban magistrates and the brewers that led to the 1614 appeal.

In 1621, the brewers’ guild took the matter into its own hands. It started constructing a protective earthwork to the west of the city, probably not far from the Rampenvaart. This was much against the will of the lord of Brederode, who sent the brewers’ guild a statement of contentions and protest through his bailiff. This time the guild’s deacon and inspectors addressed the Rijnland water board without the intervention of the urban authorities, to seek support for their enterprise. This can also be seen as an example of subsidiarity: corporations managed their own affair, seeking help when and from whom they needed it. The brewers argued that in the event of a malfunctioning Velserdijk, both the water within the city of Haarlem and the water seeping from the dunes would be grossly tainted. Consequently, they would have no choice but to discontinue their trade.¹⁰⁰ Whether the appeal was decisive or other means of leverage were needed is unknown. In the end, the lord of Brederode gave his consent, assuring the involved

⁹⁶ *Tweeren van alle infectie, vervuylinge, bederff ende versmeeringe inde vaertte voorschreeven ende den watere vandien*, NHA SA 4041 (Haarlem 1632).

⁹⁷ Oosten, van, ‘The Dutch Great Stink’, 15.

⁹⁸ *Omme den waterhaelders int doorvaeren geene verhingeringe nocte beleth te doen*, NHA SA 4041 (Haarlem 1632).

⁹⁹ *Deur de voorschreven inbreeckinge alle de wateren omtrent de voerschreven stede wesende brack ende giftich worden, soe dat de bieren daer deure oeck zeer brack vallen*, NHA SA 7278 (Haarlem 1614). For the location of the IJ, see map 1:A3-B3; Rijnland, map 1:A3-B5.

¹⁰⁰ NHA SA 4041 (Haarlem 1621).

parties that he would accept the construction of an embankment, provided his jurisdiction remained unscathed.

The web of networks and solidarities of Haarlem's skippers' guild clearly encompassed the city's burgomasters and regents. Like the brewers, they maintained close ties with each other, although the skippers had no footing in the city council. Their main concern was the navigability of the main shipping routes in and around the city. The Spaarne river was notorious for its shallows, especially in the stretch running north of the city towards the sluice complex of Spaarndam, which provided access to the IJ estuary. Like their colleagues in the brewers' guild, the deacon and inspectors of the skippers' guild operated frequently in union with the mayors of Haarlem. Every summer the skippers' guild fathomed the depth of the river's channel. Sometimes the urban magistrates sent representatives to attend the surveys, but at least they ordered or authorized them.¹⁰¹ Guild members from Haarlem, occasionally assisted by fishermen from Spaarndam, would carry out the actual fathoming. The urban authorities in their turn would communicate the findings to the water board of Rijnland. The latter had kept an eye on the river's navigability at least since 1441 and promulgated a by-law to keep its channel at a certain depth in 1597.¹⁰²

The urban administration did more than merely authorize and attend the measurements of the Spaarne. In 1604 the mayors summoned a handful of old sailors, aged 66 to 86, to take their statements on the former and present condition of the channel. To all appearances, they chose their witnesses indiscriminately, resulting in conflicting statements. Apparently, the magistrates simply recorded the observations of these veterans, no matter what they were, rather than to come to a forgone conclusion. If their purpose had been to use the compilation of accounts as a lever to demand action from the water board, they made a mess of it. The testimonies include some scorning declarations indicating that the Spaarne "had been always and of old a meagre water for sailing" and "that the sailors, concerning their navigation at the present time, should not complain about depths."¹⁰³

One of the conditions of the 1597 by-law on the Spaarne issued by the Rijnland water board, was that the spilling of sand and soil into the river had to be

¹⁰¹ NHA SA 7296 (Haarlem 1589-1615); NHA SA 7313 (Haarlem 1607); NHA ONA 162:54r-v (Haarlem 1632).

¹⁰² NHA SA 7296 (Haarlem 1589-1615); NHA SA 7311 (Haarlem 1605); NHA SA 6516 (Haarlem 17th c.). Cf. Sloof, 'Rijnland en het Spaarne', 24-25.

¹⁰³ *Altyts van ouden tyden es geweest een mager seylwater ... dat de scippers in heurlieder seylage over de diepte voor desen tyt niet en souden hebben te clagen*, NHA SA 7308 (Haarlem 1604). For the location of the Spaarne, see map 1:A3 or map 3:D1-D4.

prevented. It forbade sand extractors to tranship their cargoes near the Spaarne channel. Instead, they were obliged to use dedicated inlets along the river. Moreover, they had to span cloth over any gap during the transfer, to prevent sand spilling into the water.¹⁰⁴ The threat of sand and other lost cargoes clogging the river also had the attention of the skippers' guild. In 1631 its deacon and inspectors appealed to the urban magistrates to improve the surveillance on the handling of *vuilnis* (garbage) along the river. According to the skippers, there was daily traffic of refuse on the southern banks of the city, between the Leidse Boom and the Langebrug. Occasionally, some would fall into the river during transhipment. Because the current ran from south to north, the skippers argued, the refuse would float through the entire city and cause extensive shallows "to the destruction of the blissful passage through this city." Therefore, they requested the mayors to forbid any transfer of garbage at that location, on penalty of stiff fines.¹⁰⁵ The officials of the skippers' guild repeated the request for better supervision on the transfer of cargoes in 1648, complaining about the irresponsible manners of the workmen shifting sand in the harbours.¹⁰⁶ Through the decades, the shallows of the Spaarne, which threatened the exercise of their core business after all, kept concerning the town's skippers and, through the guild, the burgomasters and regents as well.

From a water politics perspective, the guilds were not all-important in seventeenth-century Holland. The activities they employed stemmed directly from their economic responsibilities. Although the image may emerge that, at least in Haarlem, the town's guilds would always act as mediators between its members and the city authorities, this was not the case. So far, only the brewers' and the skippers' guild have been seen to take on this role. It could have been the clothier's guild, for instance, that sent an appeal to the mayors and regents of Haarlem in 1645. Instead, it was a loose assembly of people involved in the cloth industry that pleaded not to admit a fulling mill to the northwest of the city.¹⁰⁷ Quite similarly, "all master shipbuilders at the Boompjes and the merchants" of Rotterdam signed a petition to restore a demolished drawbridge over the Scheepmakershaven, rather than the city's shipbuilder's and merchants' guilds.¹⁰⁸ The initiative was left

¹⁰⁴ NHA SA 7302 (Haarlem c. 1600).

¹⁰⁵ *Tot verderff vande heerlicke deurvaert deser stadt*, NHA SA 5279 (Haarlem 1631). For the location of the Leidse Boom and Langebrug, see map 3:D4.

¹⁰⁶ NHA SA 8207 (Haarlem 1631).

¹⁰⁷ NHA SA 3964 (Haarlem 1645).

¹⁰⁸ *Verthoonen met behoorlijke eerbiedinge Uedelen dienstwillig, alle meesters scheeptimmerlijden inde Boompgens ende coopluijden deser Uedelen Stede hijer onder geteijckent*. SAR ONA 353:487 (Rotterdam 1636-44). For the location of the Boompjes, see map 5:A4-C4; Scheepmakershaven, map 5:A4-B4.

with the stakeholders who were at a disadvantage. This resulted often in temporary and voluntary associations.

Ad hoc alliances

In addition to the two mechanisms by which the inhabitants of Holland's cities kept their governors in check that Prak distinguished – the alleged representation of the community in the municipal government and the influence through civil society – a third one has to be considered. City dwellers had the opportunity to address the bailiff, burgomasters and regents directly. Regarding water, the urban authorities left much responsibility with the residents and the corporations. By the same token, they could do so because city dwellers assumed the responsibilities allotted to them. This does not mean that people solely fended for themselves and their families. Townsfolk sometimes chose to participate in the social and political life in union. They acted together with their neighbours or fellow stakeholders to reach a common goal. These were really shared objectives, unlike the fictive joint purposes that Lynch called to mind in order to simplify the analysis of society. In addition to organizing themselves, both individual and cooperating inhabitants recognized when they needed backing. In these cases, urban inhabitants habitually turned towards the city's government for guidance. Writing about subsidiarity, the sociologist Ringo Ossewaarde dubbed the government a super-servant, which could be called in at need. His remark conjures up an image resembling the situation in seventeenth-century Holland.¹⁰⁹

The Aesopic principle "Strength is in unity" was more than a well-used motto since the early days of the Dutch Republic; the Dutch also practiced it frequently in urban life.¹¹⁰ About a quarter of the water-related petitions were written on behalf of temporary and voluntary associations. Almost all of these alliances consisted of the "common neighbours," "some neighbours," a group of "house owners" or "tenants of houses and yards," in other words, the inhabitants of the respective cities.¹¹¹ Twice craftsmen and merchants collaborated to make a plea to the urban magistrates. These alliances filed twenty petitions with the authorities, foremost the burgomasters and regents. In addition, there were three testimonies aimed at

¹⁰⁹ Ossewaarde, 'Three Rival Versions of Political Enquiry', 113. See also the section about theses and debates in the introduction.

¹¹⁰ The young Dutch Republic chose 'Concordia res parvae crescunt' (concord makes small things grow) as its motto. Several variances on the maxim were used, among them 'Eendracht maakt macht' (unity makes force). Bakker, 'De zichtbare stad', 65.

¹¹¹ *Gemene gebuuren*, for instance NHA ONA 127:79r (Haarlem 1626); *enige buren*, HGA OA 54 (The Hague 1630); *eijgenaers vande huijsen*, SAR ONA 258:89 (Rotterdam 1635); *gehuijst ende geerffden*, SAR ONA 353:493 (Rotterdam 1640s).

raising an issue, either between the neighbours or towards the urban administration or a civil court.¹¹² In the remaining two records, money was the key object. One was an accord between neighbours to share the costs of hiring a paver, the other was a testimony that referred to just such an arrangement.¹¹³

Associations of inhabitants, craftsmen and merchants typically formed when communal infrastructural works were at stake. The vast majority of water-related records filed by ad hoc associations were about the paving of streets, the construction of bridges and the course of gutters and ditches. There are several reasons why exactly this type of topic encouraged people to cooperate. Since these enterprises typically affected the urban space, the urban administration had a say in them.¹¹⁴ People who wanted to make small, individual constructions like stoops and awnings asked individually for permission. Streets, the gutters running along them, ditches and other types of publicly used infrastructure were better constructed with input from a broad assembly.¹¹⁵ The larger a project, especially if it would take place in the public area, the more actors it potentially involved: the residents who wished to make improvements, passers-by, builders, the structures in their current condition, the group who was to foot the bill, and so on. Therefore, it would be sensible to seek permission in unity. It showed the decision makers that the request was widely supported, although the *Vogelenzang* case reveals that this was not always the entire story.¹¹⁶ Moreover, the adjoining residents paid for the construction and maintenance of streets, quays and related structures. Consequently, a request concerning the improvement of these works would be more successful if a majority of those who would pay the bill supported it.

Some neighbours from Rotterdam collaborated to ask for access to reasonably fresh water. In the late 1630s or early 1640s the residents from the *Bierstraat*, in the heart of the relatively new *waterstad*, addressed the mayors. The once spacious quarter they lived in had become a densely built area, the petitioners argued, and its population still grew steadily. As a result, it became harder to reach the water they needed. They asked the magistrates to authorize the construction of a staircase to descend securely to the water of the *Wijnhaven*.¹¹⁷ The second

¹¹² NHA ONA 71:59v (Haarlem 1602); NHA ONA 127:79r (Haarlem 1626); HGA NotA 180:340r-v (The Hague 1649).

¹¹³ HGA NotA 59:356r-v (The Hague 1649); HGA NotA 180:325r-326r (The Hague 1649).

¹¹⁴ See further the last section of this chapter and in the second section of chapter 3.

¹¹⁵ This has not always been the case. Although paving as a joint effort has been common practice throughout northwestern Europe at least since the fifteenth century, there is evidence to imply that at some places people had to pave the street in front of their house by their own means. See Jørgensen, 'Cooperative Sanitation', 555-556.

¹¹⁶ SAR OSA 2626 (Rotterdam 1658).

¹¹⁷ SAR ONA 353:483 (Rotterdam 1636-44). For the location of the *Bierstraat*, see map 5:B3-B4; *Wijnhaven*, map 5:B3-C3.

case about access to fresh water in Rotterdam fits a category of appeals that were typically made by associated parties, namely those concerning the restriction of nuisance or external threats. In the plague year 1635, residents along the Schiedamsedijk in Rotterdam complained to the magistrates about the stagnant water in the city's ring canal, which was especially problematic in the summer's heat. They were "vexed with such stench, that the same is unbearable, and could be the cause of the great pestilence." Unfortunately, it is not known who made this appeal and exactly on whose behalf, but it petitioned the magistrates to make a culvert from another watercourse to the ring canal, in order to ensure a steady influx of fresh water.¹¹⁸

In 1630, a group of neighbours from the Poten in The Hague made a similar request. They stated that they had complained for years about the intolerable stench caused by the pollution of the Brook. To be once and for all rid of the stench "and the perils to be expected from it in these contagious times," they proposed to build a couple of sluice-gates and a hand-driven water-wheel invented by Cornelis Eewoutsz Proot (d. 1641).¹¹⁹ The inhabitants at the southern side of the Turfmarkt in The Hague asked three fire officers to testify, in support of their protest against the perils and the nuisance caused by a brass worker. The assembled neighbours drew attention to the fire risk caused by particles springing from the foundry. They also complained about the soot staining their linen and the blackened rainwater dripping from their roofs. The testimonies were meant as a signal to the owner of the premises. He was asked, and subsequently promised with a handshake, to rent out the workshop to another craftsman.¹²⁰ Together, the neighbours fought the menace coming from beyond their premises.

Whereas the aforementioned inhabitants of The Hague and Rotterdam attempted to remedy an existing situation, assorted craftsmen involved in Haarlem's cloth industry tried to prevent a potentially incommensurable situation. Most of them were yarn bleachers, who processed newly made yarn by boiling, cooling and rinsing it. They claimed they needed fresh, untainted water for the last two stages of the process. Therefore, they had set up their businesses along the Korfsloot, beyond the city walls but within the jurisdiction of Haarlem. Now, a wool entrepreneur had spotted the same waterway as a suitable location to build his fulling mill, after it had been refused near a place where the brewers took in

¹¹⁸ *Met soodanige stanck gequelt sijn dat het selve niet te verdragen en is, ende oorsaecke soude conne sijn van de groote peste.* SAR ONA 258:89 (Rotterdam 1635). For the location of the Schiedamsedijk, see map 5:A4-B2.

¹¹⁹ *Vanden selven stanck ende de periculen die in dese contagieuse tijden daer uijjt souden zijn te verwachten onslaegen te zijn,* HGA OA 5345 (The Hague 1630). For the location of the Poten, see map 4:C3-D3.

¹²⁰ HGA NotA 180:340r-v (The Hague 1649). For the location of the Turfmarkt, see map 4:C4-D4.

their water. The yarn bleachers argued that they, like the brewers, needed clean water. They insisted that not only the bleachers would suffer serious losses if this would be no longer available. The whole chain of Haarlem's linen craftsmen and merchants would dwindle. Therefore, the petitioners asked the mayors and regents not to authorize the construction of the fulling mill at that location.¹²¹

In sum, scale mattered when city dwellers had to decide if they would cooperate, irrespective of whether they were residents, merchants or craftsmen. Together, they took up the responsibility to take care of their vicinity, which is a tell-tale sign of subsidiarity. Ad hoc, bottom-up alliances were typically made for the reconstruction of an entire street, or to combat an annoyance that bothered a large area. Unequivocally, businessmen who could have turned to their guild took part in occasional alliances as well. In a few cases associations had conflicting interests and some sort of arbitration was needed.

Arbitration

In the event that city dwellers had a conflict about water or any other subject they had the option to bring the matter before an independent mediator. Speaking in ANT terms, the number of human actors increased. In addition to the two opponents and the subject of their disagreement, up to three mediating actors stepped in: either one impartial group of arbitrators; two negotiators speaking on behalf of each of the adversaries; or two negotiators and a super-arbiter. At the same time, the quarrelling parties engaged in a new programme. They changed from fulfilling their own wishes to reaching an agreement amicably. In the cities of Holland, no single person or entity retained the exclusive prerogative to mediate between parties that were at odds. Arbitration took place at various levels, sometimes as a top-down process initiated by the officials, sometimes bottom-up or between peers. The allocation of responsibilities concerning arbitrations were not clearly delimited, suggesting that maintaining the peace was every resident's duty. The terms used in the recordings of arbitrations disclose what kind of attitude was necessary, at least in the minds of seventeenth-century city dwellers, to make the urban community function properly: behave in a neighbourly manner and do not go back to issues once they are settled.

Neighbours involved in disputations and conflicts could simply try to come to an agreement among themselves in the first instance. The account of one uncooperative neighbour gives some insight into the day-to-day negotiations of

¹²¹ NHA SA 3964 (Haarlem 1645).

the urban community. On the observation that the culvert behind their houses was clogged for the umpteenth time, one Cornelis vande Lek knocked at his neighbour's door to discuss the matter. Since he did not find his neighbour at home, Vande Lek asked the bricklayer working on the culvert to make a visit to the neighbour as well, and point out the problem.¹²² Their efforts were to no avail, but at least Vande Lek and his employee did their best to make a private arrangement and made sure to record it. When more cooperative neighbours did reach a treaty, they had it sometimes recorded in the notarial archives. In 1650 notary Beeckman from The Hague related that some issues had arisen about a wall between two neighbouring premises. In order to "maintain all neighbourly friendship" the parties involved had agreed to seal a window and to replace the overhanging gutter by one attached on top of the wall. Both parties promised to observe each stipulated condition, so that all issues and hostilities would be "terminated and ceased and will not be brought up henceforth."¹²³

Phrases like "issues have arisen," "to prevent further issues," "neighbourly," "in friendship," "to terminate and cease all issues" and their equivalents are typically found in the recordings of arbitration processes. The fact that a bricklayer got involved was also quite common. Half of the twenty-six water-related arbitrations in our sample mentioned masons or carpenters as mediators. The custom to appoint expert construction workers as mediators was known in London, Paris and several parts of the Netherlands since the early 1400s.¹²⁴ About twenty percent of the mediators in my sources were scribes such as advocates and notaries. Four times the officials of a neighbourhood organization appeared as arbitrators, three of which resided in Rotterdam. Drawing on the meagre information about neighbourhood organizations in this town, arbitration seems to have been one of their main tasks. As already discussed in the previous section, we have to bear in mind the possibility that neighbourhood organizations seldom had their arbitrations recorded. Sometimes the opposing parties recorded beforehand that they would submit themselves to the mediator's decision.¹²⁵ Arbitration was probably no feasible option for poor inhabitants, since it was not free of charge. In 1635 a cooper and a carpenter paid 7 *guldens* and 2 *stuivers* for the efforts of the

¹²² HGA NotA 189:147r-v (The Hague 1649).

¹²³ *Tot onderhouding van alle naebuerlijcke vrientschap ... ende dat alle questien ende hostiliteit ten beijden sijden daer lange getoont sullen wesen gedoodet ende gecesseert, ende voortaan niet en sullen werden op gehaelt*, HGA NotA 262a:136r-v (The Hague 1650).

¹²⁴ Magnusson, 'Public and Private Urban Hydrology', 175-176; Querrien, 'L'espace de la maison', 321; Coomans, *In Pursuit of a Healthy City*, 135.

¹²⁵ NHA ONA 142 (Haarlem 1650); NHA ONA 225:21r-22r (Haarlem 1650).

four appointed mediators and the recording notary, which cost they had to share equally between them. Besides, they had to pay the mediators' inn expenses.¹²⁶

Opposing parties did not need any authorization to appoint "good men" as arbitrators. This could simply be one of their neighbours.¹²⁷ The litigants either agreed on the engagement of one or more impartial moderators, or each chose a trusted party to conduct the negotiations.¹²⁸ They could, however, also turn to an external authoritative body to request arbitration. This is what some neighbours from the Papestraat in The Hague did in 1634, when they sought the help of the neighbourhood organization to stop the "unneighbourly" behaviour of one of them.¹²⁹ And the owners of some gardens beyond the ring canal of Rotterdam turned to the bailiff and aldermen to settle their dispute.¹³⁰

With the principle of subsidiarity in mind, one might suppose that people appointed mediators themselves to settle disputes about alleys and backyards, and that municipal officials occupied themselves when a larger area was at stake. This was not necessarily the case. In 1635 the aldermen of The Hague summoned two residents, a chairmaker and a glazer, "to hear and reconcile them if possible, and if not to give a verdict" about an issue in their backyards.¹³¹ In the end a verdict was indeed needed. The aldermen judged that the chairmaker could use the space under the glazer's eavesdrop, until the glazer needed the *drop* himself.¹³² Mayors, aldermen and building line overseers who were confronted with a conflict would often appoint some representatives to conduct the actual arbitration process.¹³³ The authorities of the city lay the matter in the hands of experts, just like the residents who organized the arbitration themselves. It also occurred that the officials required the expertise of professionals like masons, who gave their advice after an ocular inspection *in situ*, a hearing of the opposing views and the assessment of eventual charters.¹³⁴ After "ripe deliberation and delving to a level as fundamental as would please the opposing parties," either a verdict was spoken or an advice sent to the magistrates who, in their turn, would make a judgement.¹³⁵ Only in a handful of cases the mayors or aldermen officially

¹²⁶ SAR ONA 348:203-205 (Rotterdam 1635). Cf. NHA ONA 225:21r-22r (Haarlem 1650).

¹²⁷ SAR ONA 404:132-133 (Rotterdam 1650).

¹²⁸ Cf. SAR ONA 322:10-11 (Rotterdam 1634); HGA NotA 60:369r-v (The Hague 1650).

¹²⁹ HGA NotA 80:139r-v (The Hague 1650).

¹³⁰ SAR ONA 181:152-153 (Rotterdam 1634).

¹³¹ *Omme hen te hooren ende accorderen waert doenlick, indien niet dat wij uuijtspraecke souden doen*, HGA NotA 70:227r (The Hague 1635).

¹³² HGA NotA 70:227r (The Hague 1635).

¹³³ SAR ONA 181:152-153 (Rotterdam 1634); SAR ONA 143:158-160 (Rotterdam 1625); NHA ONA 142 (Haarlem 1650).

¹³⁴ SAR ONA 251:165-166 (Rotterdam 1626).

¹³⁵ *Naer rijpe delibaratie ende delvinge naert fundament soo diep als partijen wedersijts geliefte*, SAR ONA 348:203-205 (Rotterdam 1635).

endowed the experts with their authority, so that the verdict would be “of such valour, power and esteem as if it was imposed, decided and decreed by the aldermen.”¹³⁶

As a rule, arbitration was a bilateral affair. Sometimes, however, the mediators had to take more interests into account than they knew beforehand. This was the case in 1650 in the city of Haarlem. In February sand worker Dirck Lambertsz and cobbler Jacob Jonass sought arbitration over a multitude of disputes between them. Both chose two impartial men as mediators. In addition, a former alderman and a notary were appointed as “super-arbiters.” They investigated all disputed issues: the windows with a view of the neighbouring yard, the vine growing over the eaves, rainwater falling from a roof, the communal use of an alley and the demolition of a privy. The opposing parties declared they would submit themselves to the judgement, and the arbitrators went to see the situation and to hear all opinions. In the end, the super-arbiters decreed that the windows had to be sealed, the vine was to be taken off the eaves, the neighbours had to tolerate water dripping from each other’s house onto their premises and the alley would remain in communal use for ever after. In this alley, the cobbler had to reconstruct the privy he had demolished, complete with a drain to the cesspit and “two seats ... differentiated between gents and ladies, to which end he has to attach a sign or mark to the door of the aforesaid privy so that one can make out the difference.” The arbitrators concluded with the remark that herewith all issues and disputes were settled.¹³⁷ This was not to be, however. In July 1650, five months after the arbitration process had ended, two other neighbours reported that they were displeased because they had not been consulted. They claimed that the communal alley with its privy was also theirs, and therefore their counsel should have been considered. They produced some documents to prove their statement. Without the assistance of an arbitrator, the four parties thus involved agreed that the newly reconstructed privy would be moved to a place as far from all houses as possible. Jacob Jonass the cobbler, who had paid the reconstructed privy, was to be reimbursed.¹³⁸

If entire neighbourhoods were set against one another, the urban authorities had to act. In 1644, the common neighbours from the northern end of the Kleine Houtstraat in Haarlem had a dispute with those of the Spaarne about the reconstruction of a culvert. In the current situation, the houses along the Kleine

¹³⁶ *Van soodaenige valeur, cracht ende estime als oft bij sententie vande gemelte heeren schepenen getermineert, gedeciteerd ende uijtggesproocke waer*, NHA ONA 142 (Haarlem 1650).

¹³⁷ *Met twee sitplaetsen ... met destinctie vande mans ende vrouwe plaetse, tot dien eijnde hij gehouden sal sijn, een teecken ofte merck op de deure vant voorseide zecreet te doen stellen, waer aen men het onderscheijt sal connen sien*, NHA ONA 225:21r-22r (Haarlem 1650).

¹³⁸ NHA ONA 225:119r (Haarlem 1650).

Houtstraat drained through gutters on both sides of the street, and then by way of the Helmbrekerssteeg into the Spaarne river. The residents of that part of the street called Spaarne, many of them brewers, presented an alternative course to the mayors and regents. They argued to lay one large culvert under the crest of the Kleine Houtstraat, draining into the Oude Gracht. The Spaarne residents declared their willingness to pay "all those costs of making the aforesaid large culvert and also the tributary culverts that exceed the costs of making the culverts on both sides of the aforesaid Kleine Houtstraat."¹³⁹ The inhabitants of the latter street protested to the magistrates that they preferred the situation to remain as it was. A look at the map of Haarlem provides no arguments to choose between draining into either the Oude Gracht or the Spaarne. Maybe this was exactly why the burgomasters decided that the course of the drains was to be diverted: the solution did not really harm the inhabitants of the Kleine Houtstraat and neither they nor the municipality had to pay for it.¹⁴⁰ Another persuasive argument may have been that the appellants from the Spaarne, an ex-mayor and several masters of Haarlem's most important guild among them, belonged to the dignitaries of the town.¹⁴¹ They were the magistrates' peers, in spite of the supposition that the authorities represented the entire urban community.

The Vogelenzang case in Rotterdam was not explicitly recorded as a formal arbitration. Nevertheless, when the urban magistrates decided to hold an inquiry, they took a similar course of action as other arbitrators. It transpired that seventeen of the thirty-two interviewees supported the renewal of the street, although one of them made the reservation that the street level should not be laid much higher than his own premises. Five neighbours reacted dispassionately, laying the decision in the hands of the governors. Six people stated simply that the street was fine or, more firmly, that they would like the situation to remain as it was. One could not decide at all. Two of the three remaining opposers went into some detail at the inquiry, expressing concern about their drainage if the street was to be raised. Trintgen Frericx's counter-argument was of a financial nature. She possessed three houses along the Vogelenzang and therefore had to pay thrice if the magistrates decided to mend the street.¹⁴² Unfortunately, the exact outcome of the conciliation process is unknown. What we can derive from the fact

¹³⁹ *Alle tgeene de voorscreven groote heule ende mede de bijheultgens, meerder sullen coomen te costen, als de heulen die ter wederzijden vande voorscreven Cleijne Houtstraet te leggen*, NHA SA 6739 (Haarlem 1644). For the location of the Helmbrekerstraat, see map 3:C3; Oude Gracht, map 3:B2-C3.

¹⁴⁰ NHA SA 6739 (Haarlem 1644).

¹⁴¹ Cf. Wijzenbeek-Olthuis, 'Vreemd en eigen', 95; Lesger & Van Leeuwen, 'Residential Segregation'.

¹⁴² SAR OSA 2626 (Rotterdam 1658). See appendix 1 for the entire text.

that they held the inquiry, however, is that Rotterdam's magistrates took their responsibility to weigh the interests of those involved carefully.

Although the latter mediation was in the hands of the city's authorities, arbitration took place at different levels of the urban community. As water-related disputes bear out, individual members were able to reconcile their interests by seeking the assistance of someone they trusted. City dwellers could turn to civil organizations or to the magistrates whenever they felt the need. Conversely, neighbourhood organizations and officials of the urban administration could also take the initiative to summon inhabitants that threatened to disturb the peace. All called upon neighbourly behaviour, the lubricant of urban society. Concerning arbitration and peace keeping, there was apparently no clearly delimited task division within urban society. This topic will be discussed in more depth in the next section, as well as in chapter 3.

Task division within the community

Had it not been anachronistic, the phrase *laissez-faire* would be an appropriate way to describe the governmental style of the urban authorities. To judge by water-related affairs, subsidiarity was the norm in Holland. Inhabitants and corporations arranged many things among themselves. The more parties got involved, the more likely the municipal authorities stepped in. Dutch urban politics were hardly a top-down system, with magistrates laying down the rules. *Burghers* and governors were supposed to have a reciprocal, if asymmetric, relationship. Citizens had to participate in social, economic and political life. In exchange, the magistracy had not only the obligation to protect them, but also to defend their interests. This led to a cooperative relationship between regents and residents.¹⁴³

Regarding water-related issues, city dwellers expected the urban magistracy to take responsibility in three different areas: defending any interests that exceed those of individual residents or a handful of neighbours; peace-keeping within their jurisdiction; and laying down recommended customs in by-laws if necessary. The perceived task division of some activities remains unclear. Just as there were no clearly defined rules to engage in arbitration, there seem to have been none about enterprising large construction works. What is clear, however, is that the adjoining residents paid for them, although not always in full.

Property owners could do with their premises whatever they liked, provided they did not bother other people. What it meant to disturb others while remaining on

¹⁴³ Zanden, van & Prak, 'Towards an Economic Interpretation', 113-116; Tilly, 'Citizenship', 8.

one's own premises is shown in a testimony from 1649, in which not water but fire particles were the most important non-human actor. Neighbours living at the southern side of The Hague's Turfmarkt had complained about the nuisance and unsafety caused by a brazier working on his own premises, emitting burning particles into the vicinity. On the authority of three fire commissioners the brazier's landlord agreed to dispose of his tenant as soon as was seemly.¹⁴⁴

Bilateral negotiations were required if people made demands affecting neighbouring sites or communal areas, usually without the intervention of a governmental body. Seen from this angle, it is understandable that the majority of water-related records in the notarial archives concern those spots where properties met: the walls between two premises, locations where rainwater dripping from one's roof fell onto the structures of another house owner. These records reflect the result of negotiations among private townspeople. People made distinctions between temporary and everlasting arrangements. The latter became an inalienable right that was attached to the property, called a *servituut* or easement. Upon sale or inheritance, the easement went over to the succeeding proprietors.¹⁴⁵

Other arrangements contained the right to recall. In one of the documents, the parties specified that "the revocation may not take place within the time of fifty years, neither by the aforesaid Loth Schoudt, nor by the succeeding proprietors of his house."¹⁴⁶ The recalling of temporary permissions sometimes proved a source of disputes. Between October 1634 and August 1635, for example, Gerrit Anthonisz asked for the testimonies of six inhabitants of Rotterdam who declared they knew for sure that Anthonisz had only permitted his neighbour to use the drain through his alley "provisionally and until revocation."¹⁴⁷ Alkmaar's notary and surveyor Thaems Gerrits Verdoes made sure he would never need the cooperation of witnesses. He allowed his neighbours to use the space under his eaves. He underlined the temporality of the arrangement by sending them a statement of contentions that if they ever contemplated the sale of their premises, they were obliged to mention Verdoes' right of revocation in the sales deed.¹⁴⁸

¹⁴⁴ HGA NotA 180:340r-v (The Hague 1649).

¹⁴⁵ SAR ONA 84:786 (Rotterdam 1625); NHA ONA 127:97r (Haarlem 1626); HGA NotA 262a:219 (The Hague 1650).

¹⁴⁶ *Dat de selve wedersegginge noch bijde voorscreven Loth Schoudt, nochte sijne naecomelinge eijgenaers sijner voorscreven huijsinge niet ende sal mogen geschieden, binnen den tijt van vijftich eerstcomende jaeren*, NHA ONA 142:169r (Haarlem 1650).

¹⁴⁷ *Dat de waterlossing ... maer provisioneel ende tot wederseggens ... was toegelaeten*. SAR ONA 258:107-108 (Rotterdam 1635). See also SAR ONA 94:48 (Rotterdam 1634); SAR ONA 258:102-103, 106, 111-112 (Rotterdam 1635).

¹⁴⁸ RAA NotA 56:273v (Alkmaar 1625).

In areas where two or more households shared facilities, the rule applied that those who paid for maintenance, had the right to have their say. This is demonstrated in the case recorded in Haarlem in which two neighbours who had not been consulted about the reconstruction of a privy in a communal alley started complaining five months after an arrangement was made. They succeeded in their attempt to have the privy replaced.¹⁴⁹ In the event that any doubts about the original arrangement arose, the stakeholders sought witnesses to refresh people's memories. A pump engineer declared in 1650 that twenty-three or twenty-four years earlier he had been present when a well was dug in a specified communal yard. He was certain that the costs of both the well and the pump had been paid evenly by the two house owners who held the yard in common.¹⁵⁰ The meaning of such a testimony can be deduced from the response of an undershirt maker from Haarlem, who responded to the question why he did not enclose his well: "I cannot do that, because the back neighbours have also a share in it," since they had helped with delving and funding it.¹⁵¹

Whereas individual inhabitants could perfectly manage the alleys between their homes and the shared facilities in communal yards, they had to consider the interests of a larger audience when they wanted to alter ongoing streets and waterways. This was often the moment when the urban government got involved. I wish to note here that not every involvement of the city administration should be considered as the act of a governing body wielding its power. Sometimes the city was just a property owner like any other, negotiating with its fellow owners on a more or less equal basis. The city of Haarlem, for example, permitted a glass merchant in 1608 to use the empty plot between his home and the new meat hall of the city. In return, he had to make a construction to drain the water falling from the meat hall's roof and to pay an annual rent.¹⁵²

In the event that residents made an appeal to the magistrates, they usually sought the authorization of small constructions along the streets and waterways of the city. The difference between groups and individuals sending in a petition is in the scale of the adaptations they wanted to make. Individual residents typically asked permission for attachments to their houses. Allied neighbours sought to improve the infrastructure of a neighbourhood or to remove widespread nuisances and perilous situations. The magistrates dealt generously with the citizen's appeals, although we do not know how many requests they got and thus how

¹⁴⁹ NHA ONA 225:21r-22r (Haarlem 1650).

¹⁵⁰ NHA ONA 193:51v-52r (Haarlem 1650).

¹⁵¹ *Dat en mach ick nyet doen, want de gebuyren die daer achter wonen die hebben de mede een deel inne*, NHA ONA 16:151r (Haarlem 1601).

¹⁵² NHA SA 4305 (Haarlem 1608).

many they denied. Examining a sample of eighteenth-century petitions presented to the urban magistrates of Amsterdam, Henk van Nierop estimated that between half and three quarters of the submitted appeals were successful.¹⁵³

In the seventeenth century, the magistrates measured the pro's and con's pragmatically, considering whether a demand was "detrimental to anyone."¹⁵⁴ They regularly allowed the laying of cisterns and sewers beneath the street surface, for instance, making only a few provisions. The applicants had to finish the construction work as quickly as possible, minimizing the inconvenience of those passing by. In addition, the authorities urged them to take care of the drains already lying beneath the streets and to make the cover of their construction strong enough to carry the weight of the traffic.¹⁵⁵ In the same vein, inhabitants obtained permission to put a door between the common street and an alley beside their houses, on condition that the alley remained accessible for people who wanted to draw water from the ditch to douse eventual fires.¹⁵⁶ Put in ANT terms, the authorities explored the various ways in which the proposed programmes would make a difference to all involved parties.

One individual appeal that reached the magistrates of The Hague in 1622 was not as singular as it seemed. In it, the honourable Catharina Vijerpont requested permission to build over the canal running behind her house, making an annex on the new vault. As discussed in chapter 1, gaining space by building over canals was quite common in cities like Amsterdam as well.¹⁵⁷ The mayors declared that they had no objections to it, yet since Vijerpont's neighbours had requested exactly the same the available space had to be parcelled out. They put the task into the hands of the two petitioners, which makes this case a good example of subsidiarity. It is, nevertheless, a rather atypical arrangement of the construction and maintenance of shared infrastructure like streets, quays and bridges. These works were usually a joint effort of the city administration and the inhabitants. The nature of their cooperation seems to differ from project to project. The task of tendering construction works often fell to the urban administration. They laid down detailed specifications for the making of quays, construction of bridges and the dredging of canals.¹⁵⁸ Hence, when some citizens from Enkhuizen wanted to promote their

¹⁵³ Nierop, van, 'Popular Participation', 287.

¹⁵⁴ *Dat iemand daer deur is geinteresseert*, HGA OA 121:31 (The Hague 1616). See WNT, lemma *Interesseeren*, meaning I.D.

¹⁵⁵ HGA OA 122:164-165 (The Hague 1625); HGA OA 123:110 (The Hague 1629); HGA OA 125:7r (The Hague 1650).

¹⁵⁶ HGA OA 122:172-173 (The Hague 1624); HGA OA 124:75 (The Hague 1636). Cf. HGA OA 124:39 (The Hague 1635), when a similar condition was made for the construction of a pump.

¹⁵⁷ Abrahamse, *De grote uitleg*, 38, 266.

¹⁵⁸ SAR OSA 4887 (Rotterdam 1615-50); NHA SA 6627 (Haarlem 1609); NHA SA 6623 (Haarlem 1658).

invention of dredging gear in 1645, they approached the mayors of Haarlem, “because they understand that the honourable ruling lord mayors have in mind to deepen the Spaarne.”¹⁵⁹

There are also indications that citizens expected the urban authorities to provide the infrastructure needed in the city. The private neighbours of The Hague’s Lorrestraat consorted with the regents of the adjoining hospital of the Holy Ghost in a petition to pave their street. In a reply, the city magistrates promised to do the required job within a year’s time.¹⁶⁰ Also the inhabitants of the Bierstraat in Rotterdam addressed the city’s mayors to request the construction of a staircase that would enable them to descend to the water safely.¹⁶¹ Apparently, it was sometimes the other way around. In 1643, some inhabitants of Rotterdam complained to the magistrates that they had been swindled by a few builders. These had promised to dredge and clean the ditch running along their homes. Money changed hands and then the builders left altogether. Therefore, the residents turned to the burgomasters for help. The former reminded the latter that some years ago the city’s bricklayer held a procurement for a similar project. The duped Rotterdammers asked the burgomasters humbly whether he could do so again. This indicates that the contract with the deceptive builders was made by the inhabitants themselves. They concluded their petition with the statement that the completion of the job would be paid by the residents involved.¹⁶²

It is the reimbursement that brings these infrastructural works together, showing they were not as wide apart as it seems. No matter who took the initiative or which party conducted the tendering, the adjoining inhabitants were the ones who had to pay at least a part of the cost. Haarlem hired surveyors to measure the streets and to calculate how the costs of the bricks, the paver’s wage and their own fee should be spread consistently. The more property one had, the more one paid.¹⁶³ The cooperating neighbours of the Vogelenzang in Rotterdam, which were introduced before, promised that if the burgomasters and regents took care of the reconstruction of street and gutters, they themselves would cover the costs of those inhabitants unwilling to pay.¹⁶⁴ In 1611, the common neighbours of the Zijlstraat in Haarlem complained that they would bear disproportionate burdens when they had to contribute to the maintenance of the Oude Gracht, while the

¹⁵⁹ *Alsoo sij verstaen hebben dat de edele gebiedende heeren burgemeesteren van meening sijn van het Spaeren ... diep te laeten maecken*, NHA SA 7323 (Haarlem 1645). For the location of Enkhuizen, see map1:C2

¹⁶⁰ HGA OA 121:44 (The Hague 1617). For the location of the Lorrestraat, see map 4:B2-B3.

¹⁶¹ SAR ONA 353:483 (Rotterdam 1636-44).

¹⁶² SAR ONA 125:142-143 (Rotterdam 1643).

¹⁶³ NHA SA 6742 (Haarlem 1651-58).

¹⁶⁴ SAR OSA 2626 (Rotterdam 1658).

water from their premises drained towards the Brook instead. In the compromise the burgomasters and regents worked out, the inhabitants of the Zijlstraat were not entirely exempt of the said maintenance charge, but saw their burden lessened.¹⁶⁵

There are a few indications that the city sometimes shared the costs with the owners of the premises which benefited directly from infrastructural works. In a testimony about the third-party rights with which a house in The Hague's Spui was encumbered, mentions a financial arrangement concerning the construction of a bridge: "of which our lords magistrates have paid the sum of 400 guilders and another 440 guilders by some of the aforesaid neighbours."¹⁶⁶ The neighbours of the Vogelenzang proposed that the inhabitants would bear the costs of the reconstruction of street and gutters, while the city would pay the reconstruction of the communal sewer.¹⁶⁷ This went further than the urban administration paying part of the bill because it was simply one of the property owners.¹⁶⁸ From the records it remains unclear why the city sometimes took on a disproportionately large share of the cost. I suppose it has something to do with the importance of the respective infrastructural works: possibly the improvement made a difference to more parties than the immediate neighbours alone. Once again, it was probably a matter of scale. The common sewer connected to the gutters of the Vogelenzang, the bridge over the Spui and a clean Oude Gracht in Haarlem were advantageous to both the immediate neighbours and the entire community. For the benefit of the common good, both paid a share.

Defending the interests of the inhabitants also meant the prevention or reduction of nuisance that affected more than a handful of neighbours. Inhabitants clearly expected that the magistrates fulfilled this task, being "advised to present themselves to Your Honours" to prevent accidental damage.¹⁶⁹ The inhabitants of The Hague, for instance, declared that they had complained time and again, both orally and by written request, about the intolerable stink of the Brook. Apparently, they were disappointed by the fact that the magistrates had taken no action so far.

¹⁶⁵ NHA SA 6623 (Haarlem 1611). For the location of the Zijlstraat, see map 3:A2-B2. The trajectory of the Brook ran from the Raaks (A2-B2), across the Prinsenhof (B2), Grote Markt (B2-C2) and Damsteeg (C2) towards the Spaarne.

¹⁶⁶ *Daer op bij d'heeren magistraeten alhier betaelt is de somme van 400 gulden ende noch 440 gulden bij eenige van de voorseide gebueren*, HGA NotA 180:235r-326r (The Hague 1649). For the location of the Spui, see map 4:C3-C4.

¹⁶⁷ SAR OSA 2626 (Rotterdam 1658).

¹⁶⁸ According to the measurements by surveyors the city was the largest proprietor in many streets, because of its responsibility for bridges, side streets and other public infrastructural works. See NHA SA 6742 (Haarlem 1651-58).

¹⁶⁹ *Soo werden sij suplianten genootsaect haer te keeren aen U eedele achtbaerheden*, SAR OSA 2626 (Rotterdam 1658).

Therefore, they sent yet another petition, asking for the cleaning of the Brook and its surroundings.¹⁷⁰ People even took their measures before the pollution could start: Haarlem's yarn boilers, which were mentioned before, sent their appeal to the burgomasters and regents to stop the intended construction of a fulling mill.¹⁷¹

As argued before, the inhabitants of urban Holland sometimes found their way to the authorities when they had seemingly unsolvable disputes with their neighbours. The magistrates were not the only ones who had to reconcile quarrelling factions. It was a responsibility they shared with the other parties in the city, from civil organizations to the individual inhabitants. The only effort city dwellers requested solely from the urban government was to capture the local best practises into legislation when necessary. It was something the skippers' guild in Haarlem asked for, upon the observation that careless transhipment of all kinds of garbage threatened to clutter the Spaarne river at some places. They requested the magistrates of their city to limit the number of places where transhipment of garbage could take place and to have the port wardens act as overseers.¹⁷² Subsidiarity was also a significant factor in the relationship between the government and civil organizations. As long as their activities did not harm others, each one could pursue their interests at their own discretion.

The many examples of people who, individually or collectively, submitted their pleas to the magistrates, demonstrate that there were more than two mechanisms that made representation work, as Prak suggested.¹⁷³ The fact that they brought numerous disputes to the attention of a range of arbitrators points in the same direction. The inhabitants of Holland did not only nurture the fiction of representation because they believed in the magistrates' good will, or because they had influence through civil organizations. They also had direct influence, organizing themselves and asking for assistance where they needed it.

This does not mean that the urban magistrates could sit back, waiting till someone asked for help. As discussed in the section about arbitration, the magistrates sometimes took the initiative to reconcile discordant parties. It is probable they also undertook infrastructural works without being prompted. The magistracy of Amsterdam was deeply involved in the organization of the urban space when the city had to stretch its boundaries four times within a century.¹⁷⁴ Although this is an extreme example, for Amsterdam grew quicker than any town in Holland in the seventeenth century, the size and contents of the assembled

¹⁷⁰ HGA OA 5345 (The Hague 1630).

¹⁷¹ NHA SA 3964 (Haarlem 1645).

¹⁷² NHA SA 5279 (Haarlem 1631).

¹⁷³ Prak, *Citizens without nations*, 203.

¹⁷⁴ Abrahamse, *De grote uitleg*.

designs of Rotterdam's *fabriek* suggests that they did the same.¹⁷⁵ It seems unlikely that they drew up all their plans for bridges and utilitarian buildings at the explicit request of the citizens. In this sense, the government was more than a super-servant; it was the formalized manifestation of the entire community, putting up constructions where needed, keeping the peace and defending the interests of its members like a good housefather.

What becomes clear regarding quotidian encounters with water, is that Holland's society was highly subsidiary. Stakeholders mainly attended to their own needs, seeking support whenever and from whom they needed it. Thus, they formed the networks of solidarities that Colson and Van Steensel wrote about.¹⁷⁶ Businessmen who were most probably guild members adopted this self-sustaining attitude as well. When they faced a problem in which water played a role, they did not necessarily turn to the guild, but formed an occasional cooperation with other interested parties. Scale mattered. House owners and tenants took care of the facilities they shared, groups of neighbours defended the interests they had in adjoining streets and ditches. This does not mean that everybody could do whatever s/he liked or needed. People had expectations of each other. Neighbourliness, that is, behaving with consideration towards fellow residents, was a mainstay of urban society. Townspeople and the authorities also had reciprocal expectations of one another. Peace keeping was apparently everyone's duty; the upkeep of the urban infrastructure a shared responsibility. The government, who represented the entire community, was to defend the communal interest and to take measures that exceeded the abilities of the community members. In the next chapter, I explore the mutual expectations of the government and the residents of a subsidiary society further, tracing the boundary between public and private spheres.

¹⁷⁵ SAR OSA 4887 (Rotterdam 1615-50); SAR OSA 4888 (Rotterdam 1652-64).

¹⁷⁶ Colson & Van Steensel, *Cities and Solidarities*, 2.

3 Public and private spheres

And because reason and fairness impose that in such a case one should prevent damage and cut the citizens' inconveniences short by all means, especially when there is no necessity; and because the profitability of the aforesaid measure for this city and for the other plot holders is not so high that it is in proportion to the damage inflicted to the supplicants ... they were compelled to turn to Your Honours, requesting with all due respect that it may please Your Honours mercifully to raise the crown of the gutter no higher than the marker peg mentioned before.¹

*Counter-appeal to the burgomasters
and regents of Rotterdam, 1658.*

The two appeals that the inhabitants of the Vogelenzang submitted in 1658 to the magistrates of Rotterdam cover the three public-private divisions that are central to this chapter. In the first place, the residents of Rotterdam adopted a critical attitude both towards each other and the magistrates. They engaged in a rational and critical discourse, which is a dominant theme in the historical debate about public and private spheres. The first section of this chapter argues that this and other petitions, with their characteristically subservient phrasing, were the outcome of extensive discussions among the residents, adding to the knowledge of Holland' discussion culture. In the subsidiary society of Holland, the habit of consulting people before taking action was not only employed by governors, but also by common townsfolk. Furthermore, the section makes the suggestion that environmental issues and the consequential health risks either mattered deeply to seventeenth-century city dwellers, that these problems were too complex to solve with a small group of inhabitants, or both.

The boundary between the public and private space is the main theme of the second section. In the above citation, the supplicants did not only take their own

¹ *Ende nadien in alle reden ende billickeijt bestaet, datmen de schade in soodanige gevalle behoort te voorcoomen, ende t'intresse vande burgers bij alle wegen af te snijden, bijzonder daer de necessiteijt sulcx niet aen en drijft; ende t'gunt voorschreven is deser stede, ende de voorschreven andere geerfde soodanich proffijt niet en can toebrenge, dat in comperatie bij d'schade van haer suplianten can coomen, soo werden sij suplianten genootsaect haer te keeren aen Uedele Achtbaerheden, reverentelijck versoeckende dat Uedele Achtbaerheden goedertierende geliefte zij d'voors goot mette cruijn niet hooger te leggen als de meergenoemde geslage pael, SAR OSA 2626 (Rotterdam 1658). For the location of the Vogelenzang, see map 5:C2; Rotterdam, map 1:B5.*

interests and those of the other plot holders into account, but also the concerns of the city as a whole. This suggests they saw the Vogelenzang as a public area, about which the urban authorities had decision-making power. As explained in the previous chapter, the people of Holland did not shy from taking charge of their own environment, with or without the help of burgomasters, regents and other representatives of the urban administration. This raises the question whether they perceived a clear line between areas that were public and places that were not. With this question in mind I explore the different areas of inclusion and exclusion to be identified in Holland's cities, looking at water-related arrangements. I will argue that the delimitation of the spheres was as volatile in the seventeenth century as it had been before. The section also highlights, against the grain of existing historiography, that a notion of privacy was already emerging in seventeenth-century Holland.

The image of a society where the spheres of influence were not clearly delimited, extends into the next section, which concerns urban services and the common good. Although subsidiarity is not necessarily the opposite of solidarity, it turns out that the people of Holland looked at their own interests in the first place. This is not to say that they did not think about the greater good at all. In the citation above, the inhabitants of the Vogelenzang demonstrated that they had considered the interests of the city as well as their own. Moreover, they appealed to the magistrates' fair-mindedness, calling attention to the governors' task to weigh the interests of the entire community. However, they did not conceal that they acted for themselves in the first place, an attitude that is seen regularly in the sources.

The common thread running through the entire chapter is an attempt to provide a perspective of average city dwellers, rather than that of the ruling class or established corporations, showing that individuals could and did fend for themselves. A microhistorical approach of ordinary encounters in which water played a role reveals that the boundary between public spheres continued to be fluid. Holland's subsidiary society had unwritten laws about responsibilities, tasks and spheres of influence, resulting in a smooth transition between public and private spheres.

Rational and critical discourse

In addition to influencing the municipal politics through civil organizations and the supposed representation in the local magistracy, townspeople could address the governors of the city directly.² When they did so in concerted action, they

² See also the section about ad hoc alliances in chapter 2.

probably discussed the matter beforehand among themselves. Thus, they started a political discourse. The occurrence of a rational and critical discourse is one of the key elements in Habermas' ideas, supporting his argument that mercantile societies encouraged people to discuss matters openly, eventually leading to democratic tendencies.³ The public discourse is generally understood as the process of citizens discussing matters openly, independently and from their own point of view.⁴ In this section, the focus shifts to *subsidium*, the aid city dwellers sometimes sought from the magistrates – and were expected to seek if their plans concerned ongoing streets and waterways. The section exposes that consultation, which historians deem a characteristic feature of the Dutch governmental style, was not limited to the rulers, but widespread among the residents as well. It also specifies some indications that, apart from economic well-being, the preservation of healthy conditions mattered much to city dwellers.

Dutch urban politics were hardly an exclusively top-down system, with magistrates laying down the rules and citizens following their lead. As mentioned before, they had a reciprocal relationship, both entertaining expectations of each other.⁵ In their volume about the Dutch *poldermodel*, economic historians Jan Luiten van Zanden and Maarten Prak argued that representation and consultation were, and still are, a central element of the Dutch way of governing.⁶ Moreover, citizens could petition the city government for a variety of issues, a privilege taken seriously by all parties involved.⁷ Historian Joris van den Tol distinguished three methods to influence decisions that the Dutch had at their disposal: using personal contacts, petitioning, and mobilizing public opinion by canvassing for signatures. He cited several examples to demonstrate that either the appeals themselves circulated or that the initiators went from door to door to collect signatures.⁸ That means that collective appeals had already started a political discourse before they were submitted to the magistrates. This is another indication that Holland was a highly subsidiary society. Just like urban dwellers negotiated many arrangements among themselves, they also discussed matters between them before turning to the authorities for support.

³ Habermas, *Strukturwandel der Öffentlichkeit*.

⁴ Calhoun, 'Civil Society', 271; Ku, 'Revisiting the Notion of Public', 218-220; Crossley & Roberts, *After Habermas*, 2; Munck, de, 'Rewinding Civil Society', 85.

⁵ Zanden, van & Prak, 'Towards an Economic Interpretation', 113-116.

⁶ Prak & Van Zanden, *Nederland en het poldermodel*, 9-10.

⁷ Nierop, van, 'Popular Participation'; Nierop, van, 'Private Interests'.

⁸ Tol, van den, 'Kondschapen', 432.

Since the twelfth century urban elites had repeatedly taken the initiative to revolt against their overlord.⁹ In a similar way, citizens sometimes revolted against the municipal governors, demonstrating that the authoritative power was not sacrosanct.¹⁰ Historians Marc Boone and Arjan van Dixhoorn, as well as linguists Jan Bloemendal and Elsa Strietman argued that public opinions were expressed in the Low Countries through pamphlets, speeches and literary texts as early as the fifteenth century.¹¹ When printing became sufficiently affordable, lobbyists used publications for mobilizing public opinion. Seventeenth-century Dutch pamphleteers argued that opposition against the rulers was justified under certain circumstances.¹² Meanwhile, the leaders of the Dutch Republic, city governors and the representatives of the States General alike, tried to keep the public largely ignorant of politics. With reference to security, rulers at every administrative level issued edicts that prohibited talking or writing about governance, let alone publishing or selling documents on that matter.¹³ In practice, they were probably less strict than it seemed. According to historian Karel Davids, governors tended to accept civic criticism as long as it posed no serious threat to their position.¹⁴ This means that they would more likely crack down on people who questioned taxes or extra-urban relations than on folk carping about the condition of the street gutters.

So, although the water-related issues that play a role in this survey were hardly controversial, city dwellers had still to bring their criticism forward with care. Throughout Europe and West Asia, petitions are known for their deferential language.¹⁵ Granting that one cannot know whether true deference was meant, Van den Tol, David Zaret and David Coast drew attention to the fact that the sole act of submitting an appeal confirms the authority of the addressee. The expression of esteem by the petitioner(s) added to the recognition of the power

⁹ Blockmans 'Alternatives to monarchical centralisation'; Boone & Prak, 'Rulers, patricians and burghers'; Boone, 'In den beginne'.

¹⁰ For instance in Ghent (1379), Utrecht (1525), Haarlem (1567), Amsterdam (1578). According to Liddy & Haemers the late medieval relationship between the people and the magistrates of Bruges was one of virtually continuous conflict. Liddy & Haemers, 'Popular Politics', 771.

¹¹ Boone, 'In den beginne', 341; Bloemendal et al., *Literary Cultures*, 12 ff. If we accept these communications as signs of an early public sphere, we should be aware that its connotation of democratic tendencies is problematic. As stated before, citizens could try to influence politics by venturing their opinion or presenting a petition, but there was no democracy in the modern sense, with something like censitary or universal suffrage.

¹² Reinders, *Gedrukte chaos*, 226-234.

¹³ Bruin, de, *Geheimhouding en verraad*, 45-46, 201-203, 414-415.

¹⁴ Davids, 'Public knowledge', 421.

¹⁵ Tol, van den, 'Kondschappen', 442; Zaret, 'Petition-and-Response', 436-437.

relationship.¹⁶ The authorities, in their turn, had to find a balance between accepting reproach undermining their credibility on the one hand and rejecting the accusations on the other, thereby denying the people a chance to vent their frustrations.¹⁷ Zaret also pointed at the changing tone of voice of appeals. He suggested that English petitioners started to involve the general public the mid-1600s, whereas appeals had been formerly seen as a private message from the appellant to the addressee.¹⁸ According to Zaret, a similar change occurred throughout Europe in the eighteenth century.¹⁹ Michel Reinders, however, already described several inflammatory petitions printed in the Dutch Republic in 1672.²⁰ The observation of water-related appeals also suggests that a shift from unilateral petitioning towards invoking public opinion was forthcoming in seventeenth-century Holland.

As explained in chapter 2, the group of people discussing quotidian matters in public consisted of average city dwellers, with the exception of the category of unskilled labourers. Despite the fact that there are less than ninety water-related petitions from the surveyed time and regions left in the archives, they do give some clues about the people who expressed their wishes through them. The professions they occupied, as far as we know, are similar to those of the signatories of notarial deeds: a majority of them were skilled craftsmen, followed at a distance by civil servants and merchants. Unfortunately, the composition of the groups of “common neighbours” who recorded many of the appeals is unclear.

Narrowing the scope to petitioners who not only stated their wishes, but also expressed an opinion or even criticized the urban magistracy leaves only a handful of requests. The basis is too small to reach definite conclusions, but it appears that the profile of critical appellants is similar to that of all petitioners: the shipwrights and merchants of Rotterdam, bleachers from both Haarlem and The Hague and the inhabitants of some typical urban neighbourhoods.²¹ Just like they allegedly discussed a variety of issues in barges, inns and other public areas, ordinary citizens launched programmes of action on matters that really bothered them, by taking them to the governors. And although they phrased their opinion carefully, as we will see below, they did not shy from expressing their dissatisfaction. All

¹⁶ Tol, van den, ‘Kondschappen’, 442; Zaret, ‘Petition-and-Response’, 437; Coast, ‘Speaking for the People’, 52.

¹⁷ Archer, *The pursuit of stability*, 58-59; Almbjör, ‘The problem with early-modern petitions’, 1024-1025.

¹⁸ Cf. McKeon, *The Secret History of Domesticity*, 69.

¹⁹ Zaret, ‘Petition-and-Response’, 443-444.

²⁰ Reinders, *Gedrukte chaos*, 82.

²¹ For the location of Haarlem, see map 1:A3; The Hague, map 1:A5.

petitions containing criticism originated from groups. This explains why Reinders, writing about potentially controversial petitions, concluded that appeals were typically submitted on behalf of groups.²² As mentioned in chapter 2, most water-related petitions were filed by individuals. The discrepancy between Reinders' and my findings can be explained because the individual petitioners usually sought authorization for infrastructural works. When raising contentious matters, they favoured collective action.

The political discourse that took place among the inhabitants before they sent an appeal to the magistrates, has left some traces in the sources that were handed down through the archives. The authors of the counter-appeal in the Vogelenzang case did not mention how they had learned about the first appeal that was lodged by their fellow residents. In a similar counter-appeal drafted in 1634, seven owners of houses and yards in Rotterdam's Keizerstraat stated that "they have understood that a few neighbours, who raised their buildings recently, have appealed over everyone's head to the lords burgomasters and councilmen" to raise the street. The initiators of the counter-appeal rejected the notion that raising the street was a good idea, since the street had already been reconstructed a mere four or five years earlier. The pavement was still even and the gutters unobstructed. Hence, they saw no need to break up the street and cause problems for the owners of some low-lying premises.²³ The fact that the counter-appellants unambiguously stated that the first group of petitioners had addressed the magistrates over everyone's head, suggests that people usually carried out this process more overtly, for instance by consulting with the stakeholders beforehand.

Another indication that city dwellers discussed matters extensively before they drafted a petition, is the variety of topics addressed in one and the same appeal. This phenomenon was rare among individual petitions, but recurrent among requests that were made collectively. It was, for instance, apparent in three of the five water-related appeals that were presented between 1636 and 1644 to the burgomasters of Rotterdam. In the first, a group of neighbours in the environment of the *Vissersdijk* and the *Blaak* tried to prevent the restoration of a cobbler's hut. It is unclear what the main purpose of the initiator(s) was, but in the end the appeal contained three divergent reasons to refrain from rebuilding: it would block the view from the nearby *Molensteeg*; the empty space behind the hut might become

²² Reinders, *Gedrukte chaos*, 82.

²³ *Hoe dat sy voorstaen hebben dat eenige weynighe gebueren, die nieuwelick hoich getimmert hebben, buyten allen versocht hebben an de edele heeren borgermeesteren ende raeden deser stat voornoemt, dat de straet op genomen ende gehoocht soude moeten werden*, SAR ONA 185:453 (Rotterdam 1634). For the location of the Keizerstraat, see map 5:B2-B3.

an ash dump, increasing the fire risk; and it would hinder people who used the Blaak for drawing water.²⁴

Whereas the inhabitants of the Blaak area came up with three reasons for one wish, the shipwrights of the Boompjes and the merchants of Rotterdam expressed two wishes at once. It is as if the shipwrights went from door to door seeking support for their appeal, and then encountered the owners of the nearby warehouses. Apparently, the latter had a complaint of their own to make. The final appeal pointed to the disservice done by the replacement of a drawbridge by a fixed bridge over the Scheepmakershaven, creating an unwanted barrier for ships who wanted to reach the shipyards. At the same time, the petition raised the question of the uneven street surface. This was a disadvantage to the merchants who had a warehouse in the area, because they could no longer use dray carts to transport cargo to and from their warehouses.²⁵

These and other examples suggest that people planning to make a water-related appeal circulated their plans to muster allies, like Van den Tol indicated.²⁶ By their attempt to drum up support, they started a political discourse that could have various outcomes. Sometimes the initiators simply got their backing, drew up the prevised petition and sent it to the authorities. As we have seen, it also happened that the scope of the appeal changed or expanded along the way, possibly in order to get a wider range of support. An unsolicited effect of canvassing could be that opponents got wind of the petition under preparation, starting a lobby campaign of their own, like in the Keizerstraat and Vogelenzang.²⁷ It is likely that it also regularly occurred that when the instigator found out that s/he lacked backing for his or her plans, s/he abandoned them altogether.

It is unclear whether the petitioners used this process to influence public opinion deliberately, like Van den Tol suggested.²⁸ However, the actions did shape the wording of the requests, strengthening their argumentation and sometimes expanding their coverage. Besides, the fact that someone asked for their opinion forced city dwellers to consider the matter at hand, as is demonstrated by the inquiry held in the Vogelenzang. One interviewee was torn between two sides, five were more or less indifferent, but the remaining twenty-six spoke out clearly.²⁹ The inhabitants of Holland's cities could not only fend for themselves; they also

²⁴ SAR ONA 353:371 (Rotterdam 1637). For the location of the Vissersdijk, see map 5:B3-C3; Blaak, map 5:B3. The location of the Molensteeg is no longer known.

²⁵ SAR ONA 353:487 (Rotterdam 1636-44). For the location of the Boompjes, see map 5:A4-C4; Scheepmakershaven, map 5:A4-B4.

²⁶ Tol, van den, 'Kondschappen', 446-448.

²⁷ SAR ONA 185:453 (Rotterdam 1634); SAR ONA 2626 (Rotterdam 1658).

²⁸ Tol, van den, 'Kondschappen', 446-448.

²⁹ SAR ONA 2626 (Rotterdam 1658).

knew how to think for themselves. Moreover, consultation was not reserved for the governors of the towns. People most likely consulted their neighbours and other stakeholders before they sent in an appeal.

By far most petitioners requested authorisation for infrastructural works. This also applies to appeals originating from a group, which accounted for nearly one fifth of the water-related petitions in the corpus. Most of the petitioners who chose to submit their appeal conjointly did so out of practical reasons, for instance because several neighbours shared the same desire. This was the case in the Bierhaven in Rotterdam, for example, where residents and businessmen asked for the construction of a suitable bridge.³⁰ Thus, when an assembly presented a request to the magistrates, it did not necessarily concern a delicate matter. Conversely, when people wanted to address a sensitive topic, they did so predominantly in alliance with other stakeholders. Acting together reinforced the significance of the points they wanted to make. Furthermore, it would be reasonable to assume that people felt more secure uttering critique in a group rather than solely.

In a sense, the deferential language that was customary in petitions mitigated words of reproach, adding a dimension to the confirmation of power relationships remarked upon by Van den Tol, Zaret and Coast.³¹ By addressing the authorities “reverently” and “humbly”, requesting if “it would please Your Honours” to take certain actions, the petitioners left ample room for the magistrates to weigh up the interests and eventually to take a different view.³² Amidst all those pretentious words, however, the appellants managed to express their views clearly. Meanwhile, they steered clear from the blame game. Rather than questioning former decisions of the magistrates openly, the supplicants expressed their complaints in a neutral manner. The shipwrights and merchants along the Scheepmakershaven in Rotterdam, mentioned before, merely stated that “it had pleased Your Honours some time ago to demolish the bridge” without questioning the magistrates’ motives. The delicate address to the governors contrasted with the strong views they expressed in the remainder of the text. The petitioners declared that since the replacement of the drawbridge by a fixed crossing, no

³⁰ SAR ONA 353:493 (Rotterdam 1636-44). For the location of the Bierhaven, see map 5:B3-B4.

³¹ Tol, van den, ‘Kondschappen’, 442; Zaret, ‘Petition-and-Response’, 437; Coast, ‘Speaking for the People’, 52.

³² *Eerbiedich*, SAR ONA 353:487 (Rotterdam 1636-44); *ootmoedelick*, HGA OA 5256 (The Hague 1603). Cf. SAR ONA 125:143 (Rotterdam 1643); HGA OA 124:283-284 (The Hague 1645); NHA SA 8207 (Haarlem 1648); *versouckende dattet U Edelen soude gelieffe*, HGA OA 124:283-284 (The Hague 1645). Cf. SAR ONA 185:453 (Rotterdam 16305); NHA SA 7323 (Haarlem 1645); SAR OSA 2626 (Rotterdam 1658).

single ship could sail into or out of the harbour. As a result, the shipwrights' and merchants' businesses petered out completely.³³

In a similar appeal, bleachers from The Hague approached the authorities even more carefully, showing nothing but understanding for past decisions. They reminded the burgomasters in 1645 that the latter had ordered the demolition of a certain bridge fifteen years earlier. At that time The Hague's defensive rampart was being built. The bridge had to be dismantled in order to eliminate the risk of the enemy reaching the city. The defence line had never been tested, but since then the ditch had been a barrier to the land owners as well. Now that the entrepreneurs intended to use their property near the former bridge as a bleach field, they claimed that its absence did not only curb their own opportunities, but also the usability of the soil at large.³⁴ Both the businessmen of Rotterdam and The Hague put their criticism into words guardedly.

Bleachers from Haarlem and a group of neighbours from The Hague were even less candid. Their petitions reflect dissatisfaction, but without laying the blame overtly on the authorities. Haarlem's bleachers along the Korfsloot sounded offended when they demurred to the construction of a fulling mill in their environment in 1645. Apparently, the fullers had tried to erect the mill somewhere else until they were stopped by protests, presumably by the potent brewers of the city. Yet, remonstrated the bleachers, "the water the supplicants need ... can suffer contamination or bear infection as badly as the water required for the brewers' trade."³⁵ With these words the bleachers suggested, without voicing it literally, that the burgomasters and regents who faithfully defended the interests of one group, at the same time neglected those of another. In 1603, the united inhabitants living behind the Poten in The Hague did not comment on who was to blame for the bad condition of the road, which discouraged owners to build up their properties. However, they reminded the bailiff, burgomasters and regents of the town delicately of their promise to pave the road, stating the exact date when the vow was made. In that way, they made the urban governors face the facts, without literally criticizing them.³⁶

³³ *Hoe dat het U Edelen seeckeren tijt geleden gelieft heeft gehad af te doen breecken de brugge aen het westende vande Scheepmaeckers haven alhier, welcke brugge tot nog toe niet weder en is op gemaect, maer een vaste overgang legt in vougen datter niet een schip in ofte vijt en kan passeeren ... tot groote prejuditie vande voorseide scheeptimmerluijden maer oock tot groot naedeel vande coopluijden ... vermits hunne neringe geheel verloopt*, SAR ONA 353:487-477 (Rotterdam, 1636-44).

³⁴ HGA OA 124:283-284 (The Hague 1645).

³⁵ *Eeven soo weijnich, als het water totte brouwerije neeringe noodicht, besmettinge lijden kan immers alsoo weijnich, mach infectatie verdragen, het water dat de supplianten ... nootwendich hebben*, NHA SA 3964 (Haarlem 1645).

³⁶ HGA OA 5256 (The Hague 1603). For the location of the Poten, see map 4:C3-D3.

The sharpest phrasing came from some inhabitants of The Hague, by coincidence also from the Poten, nearly thirty years after the complaint about the road conditions mentioned above. They stressed in 1630 that they had complained for years, both orally and in writing, about the intolerable stench of the brook near their homes. They found fault with the bailiff, burgomasters and regents for doing nothing about it and had decided to propose a solution themselves.³⁷ Regarding its tone of voice, this residents' petition is similar to broadsheets that were aimed at building public sentiment, like the *Considerations about the draining of the Haarlemmermeer*, published in 1642 by surveyor A. Colevelt. Although there is no hard evidence to confirm that The Hague's residents tried to invoke public opinion, I cannot but wonder at their remarkably candid approach. Both Colevelt and the inhabitants of the Poten stated matter-of-factly what problems they had with the drainage plans and the brook's water quality respectively. And like The Hague's residents targeted the bailiff, burgomasters and regents of the town, Colevelt's publisher asked the dike reeve, water boards, burgomasters and regents to "contemplate that the aforesaid work is of particular interest, and merits due consideration before one would take up any dyking."³⁸

It is as if the inhabitants of the Poten wanted to advertise the proposition they made in public. Since they had a well-specified solution in mind, mentioning its inventor by name, this may well be the case. The petitioners spelled out the several works to be undertaken, up to their dimensions and the exact locations where the works should take place. Like the examples cited above, this suggests that the inhabitants of a wide area had already discussed the plans extensively, which in itself was a way of influencing the public mind. On the basis of a single petition we cannot establish beyond doubt that a shift towards publicization of petitions came about in the Dutch Republic as early as the mid-1600s, as it did in England.³⁹

Even disregarding the expected deferential language of the petitioners, the restraint they showed in their appeals concerning non-sensitive water politics is palpable. This implies that city-dwellers were even more cautious if they brought forward delicate matters. It also suggests that the petitioners who used the strongest words pleaded for matters that were particularly dear to them, since they risked their reputation. This would mean that pollution, although not

³⁷ HGA OA 5345 (The Hague 1630).

³⁸ *Te overdencken, dat aen het voornoemde werckstuck veel ghelegen is, ende wel rijpelic behoorden overgewoogen te werden, al eermen het bedijcken by der hant nam*, Colevelt, *Bedenckingen* (1642), A2v.

³⁹ Zaret, 'Petition-and-Response', 443-444.

mentioned often, did matter to people, supporting Janna Coomans' observation that health risks were deemed highly important.⁴⁰

In addition to their attempt to reach a practical solution, city dwellers looked to the authorities for financial reasons as well. The inhabitants of the Poten who complained about the putrid water of the brook also expressed their anxiety about the expected expenses.⁴¹ Apparently, they hoped that the government would assume responsibility for a project that they could not oversee themselves. In other words, they sought the help of a higher authority when they foresaw that the responsibility was too large to handle on a smaller organizational level. There was possibly more than mere uncertainty about the costs that held them back. The anticipated project would involve several infrastructural works in different places, thus requiring much negotiation and the making of arrangements. This would be much easier if the entire project was in the hands of an authoritative body.

Although it is hard to nail down the townspeople's discourse on water politics by direct evidence, there are sufficient indications to conclude that it took place. As Van den Tol indicated, people circulated their plans to gather support and maybe even the drafted appeals to collect signatures. By consulting their neighbours, they affected public opinions and, conversely, the reaction of the public affected the appeal that was eventually submitted. Petitions containing implicit or even explicit criticism of the authorities were typically lodged by groups. The caution with which they phrased their reproach, suggests that they joined forces in order to feel more or less safe when attending to the sensitive business of criticizing the government. This implies that although there was a third way for city dwellers to influence local politics – namely appealing to the magistrates without the interference of a third party – seeking the authorities' assistance on more or less contentious matter had its limits, because of the weighing of words it entailed.

Spatial division

Chapter 2 has shown that city dwellers living in Holland took responsibility for the upkeep and general well-being of the area they lived in. At the same time, they acknowledged the authority of the urban magistracy over the thoroughfares of the city, both streets and waterways. This means that they recognized a difference between those spatial spheres, whether they put the division into words or not. The subsidiary nature of Holland's urban societies, which entails that individuals, corporations and governors shared the responsibility to take care of the city, kept

⁴⁰ Coomans, *In Pursuit of a Healthy City*, 36-37.

⁴¹ *Luijden van qualiteit*, HGA OA 5345 (The Hague 1630).

the boundary between public and private realms fluctuating. In the first part of this section I explore where the city dwellers perceived boundaries between public and private spaces, introducing a third category: the non-public shared space. The water-related programmes and anti-programmes that people mounted, to put it in ANT terms, helps us to reconnoitre the liminal areas.

Even if the boundaries between public and private areas were fuzzy, people defined areas where others were not welcome. Since the Hollanders arranged many issues between them and recorded part of their arrangements, we are able to trace where they drew this line and whom they regarded as insiders and outsiders. Thus, the subsidiary nature of Holland's society helps us to detect an eventual development of the concept of privacy. Using the spatial division of public and private areas as a starting point, I will argue in the second half of this section that there are indications that the inhabitants of the dense cities of Holland started to conceal their private lives from the world outside as early as the seventeenth century.

The anthropologist Lidia Sciama pointed out that privacy is always relative, including one group and excluding all the others. The extent of inclusion may vary. A seventeenth-century family probably saw their living quarters as a private area. The adjacent courtyard could be private as well, yet this privacy included all tenants living around it. Therefore, Sciama proposed to regard the private as a continuum, shifting gradually from a state excluding anybody to one that included everyone.⁴² In addition to that, the scheme of inclusion and exclusion could vary over time. A gated alley leading to a well, for instance, may have been open to all by daylight, thus making it a public or semi-public area. Yet after the gate was closed at night, it became a private space, belonging exclusively to the residents of the adjoining house or houses.⁴³ Regarding areas that are materially public and private, things start to get complex in these liminal zones, which were omnipresent in premodern towns. Whereas a merchant's bedroom was most likely an uncontested private area, the front room where s/he set up shop by daylight was not, or not at all times.⁴⁴ People would presumably classify a town square as a public space, yet the status of the market hall adjacent to it would be less clear, for example because it was municipally owned or controlled by the guilds. Similar

⁴² Sciama, 'The Problem of Privacy', 96.

⁴³ Cf. Huijbers, 'Verklaring van kenmerken van stedelijke huisplattegronden', 329-330.

⁴⁴ Cf. Williamson, 'Space and the City', 172; Rees Jones, 'The word on the street', 100; Munck, de, 'Disassembling the City', 820-821.

ambiguity pertains to areas that were privately owned but publicly used, like alleys, wells and ditches that multiple households used to draw water.⁴⁵

My imaginary journey tracing the intersections of urban spaces that people deemed public and areas that they thought of as private, starts at the extremity of the absolutely private space. Then, it goes step by step to a communal private area, shared by a well-defined group of inhabitants. Subsequently, the attention shifts to the other extremity of the public space, before making my way back towards the borderland where public and private met. In addition to the absence of a clear-cut border, the situation in The Hague was even more complex than in the other cities, due to its ambiguous governance structure, as discussed in the introduction. The urban water politics on a microhistorical scale indicate that the permeable boundary between the public and the private sphere continued to exist.

The entirely private property comes into view in the archives when someone trespassed upon it. In Haarlem, for example, one Harman Gosseman got a statement of contentions from his neighbour in 1634, complaining about the nuisance caused by his rooftiles protruding over the wall. The neighbour argued through a notary that as a result, “you deposit water, and drip on his insinuator’s soil and yard, which you are not allowed to do.”⁴⁶ Among the many arrangements on water discharge, being the most common subject of water-related agreements, constrained dripping from a roof onto the premises of a neighbour was not always banned. Yet in the eyes of his neighbour, Gosseman trespassed his privacy by dripping, something the neighbour wanted to set right. Officially, he stood in his right: according to Grotius, it was common law that anyone captured the water fallen on his own roof, unless otherwise agreed.⁴⁷

The strip of land where rainwater dripped from a roof – like the act of dripping called *drop* or *osendrop* – was sometimes considered private property, as becomes clear from a statement of contentions recorded in Alkmaar. In May 1635, widow Neel Aeriaens took a new step in the anti-programme she had launched against her neighbour Jan Jansz Princen. The widow reminded her neighbour of the verdict pronounced a month earlier by the city’s aldermen. They had ordered Princen to stop the construction works on the widow’s *osendrop*. Since he took no heed, Aeriaens went to a notary to draft a complaint, which was called a statement of contentions. Through this document, she informed her neighbour and his workmen that she did “not wish to permit the continuation of your activities on the

⁴⁵ Oosten, van, *De stad, het vuil en de beerput*, 78; Coomans, *In Pursuit of a Healthy City*, 63, 127; Geltner, *Roads to Health*, 45.

⁴⁶ *Alsoo u waeter laet vallen, ende osendrop neemt op hem insinuants gront ende erve, twelck ghy niet en vermoocht te doen*, NHA ONA 157:246r (Haarlem 1634).

⁴⁷ Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 34:10-11 (1629).

soil of her *osendrop*.⁴⁸ To all appearances, the objective of the widow went further than the mere protection of her assets against the force of water: if the *osendrop* was still in use for dripping, the Princen's constructions faced the risk of decay, not Ariaens'. I therefore conclude that she saw the strip of land as private property that she tried to keep from appropriation by her neighbour. Proclamations to deny others the use of a certain space were not limited to alleys and backyards. Private ditches did also exist. In a sales deed from Rotterdam the seller and buyer agreed that the ditch between their plots "is not to be used by the seller at all." The ditch behind both their premises was from yet another owner. Since they were all in private use, everyone had to bear their own maintenance costs.⁴⁹

Sales deeds mentioning "free" drainpipes, alleys or egresses sometimes indicated that these were private property to be shielded from prying eyes, as I will show further on in this section. The use of the word "free" (*vrij*) may suggest it was a public area, in the sense that it was accessible to everyone, yet this was not the case. "One's own free alley" where the proprietor had "free drainage" in Alkmaar was private in the sense that it was not meant for public use, judged by the addition of the word "one's own" (*eigen*).⁵⁰ Other people had to share the facilities that were referred to as free, like the inhabitants of The Hague who had "a free communal egress up to the front street" in which they all maintained the right of *drop*.⁵¹ Likewise, several citizens of Alkmaar had a free drainage and a right of way over a shipyard at the banks of the Voormeer.⁵² Had these free communal conveniences been open to the general public, it would not have been necessary to mention them in the title deeds at all. Hence, the use of the word free has in itself nothing to do with private or public property. Rather, it has to be understood as the right of a limited number of people to use a certain area freely, comparable to a leniency. The area was free from public access in the most literal sense, but could be a shared space all the same. Consequently, most of these arrangements belong to a wider circle of privacy, including a well-defined group of city-dwellers to the use of a well-defined set of facilities communally.

The limits of communal use were sometimes mentioned explicitly in deeds. Apart from making an arrangement for the drainage of surplus water, two citizens of Haarlem agreed in 1626 that as of that day nobody but themselves would use a

⁴⁸ *De voortganck van u werck opde gront van hare osendrop niet begeert toe te staen*, RAA NotA 107 (Alkmaar 1635).

⁴⁹ *Dat die bijde vercooper int minste niet gebuyckt sal mogen werden*, SAR ONA 312:129 (Rotterdam 1650).

⁵⁰ *Een vrije eigen steech ... daer inne de voornoemde Cornelis Janss een vrije waterlosinge heeft*, RAA SA 1533 (Alkmaar 1620). For the location of Alkmaar, see map 1:A2.

⁵¹ *Een vrije gemeene uijtgangh tot voor aende straet toe*, HGA NotA 8:133v (The Hague 1634).

⁵² RAA SA 1561 (Alkmaar 1623). For the location of the Voormeer, see map 2:D1-D2.

certain causeway “except with express consent of them both.”⁵³ In 1650, a house-owner in The Hague agreed with his new tenant that the latter could use the kitchen in the backyard “to have his laundry done in the sinks, along with the landlord and no one else.”⁵⁴ By excluding others, the parties created a kind of communal privacy. Reminiscing Holland’s subsidiary nature, they could make decisions regarding this communality among themselves.

When owners forbore to define clear boundaries, conflicts could arise. Consultation with the neighbours was particularly recommendable when dealing with a ubiquitous substance as water, which is probably why so many drainage arrangements were recorded. People could not easily afford to ignore this non-human actor that affected their lives. In 1649 a landowner who was building four houses in Rotterdam came into conflict with the neighbouring millers, whose yard he used to drain the premises. The quarrelling parties called in assistance of some arbitrators. The mediators declared that although the millers owned the mill yard, they had to tolerate the drainage of the four houses on their soil. Moreover, the building landowner “will have and retain his free entrance, exit and passage for the aforesaid four houses to all eternity.” In return, the landowner had to mark off the trajectory of the drainage with pegs in such a way that wagons and carts could drive onto the mill yard safely.⁵⁵ Concisely, they allowed a limited number of people the use of a delimited area for a specific purpose.

Once established, the townsfolk took the perimeter of a communal private area seriously. The arbitrators who settled a conflict about the right to drip and the location of a privy in Haarlem’s Job Baltussteeg in 1650, had to re-open the case when they discovered they had failed to hear two of the interested parties. The alley in question was clearly an area that was not public, nor entirely private, but a non-public shared space. The new parties who wanted to be heard claimed that they had “as much ownership or communality” of the alley as the neighbours who had been heard officially.⁵⁶ Despite the fact that ownership and communality appear together in the last sentence, ownership was not fundamental to communality. The tenant washing his clothes in the landlord’s sinks mentioned

⁵³ *Nijemant meer als sijluiden met hen beijden, es bruijckende off uuijtgangh hebben sal, dan met heure beijder expres concent*, NHA ONA 127:97r (Haarlem 1626).

⁵⁴ *Een achterkeuckenke, daerinne de huijlder sal mogen laeten wasschen inde backen neffens den verhuijlder ende niemant anders*, HGA NotA 44:204r-v (The Hague 1650).

⁵⁵ *Over tselve molenpat nu en ten eeuwigen dagen vande voorseide vier huijsen sal hebben ende behouden sijn vrijen in-, uijt, ende overgang*, SAR ONA 727:677-678 and 311:32-34 (Rotterdam 1649).

⁵⁶ *So veel eygendom ofte gemeenschap aen de gemene Jop Balten stege hebben als de voorscreven Dirck Lambertsz*, NHA ONA 225:119r (Haarlem 1650). For the location of the Job Baltussteeg, see map 3:C1.

above is a good example of this.⁵⁷ His landlord granted him the privilege to join the privacy of the proprietor's yard. Another case in point was recorded in 1650, and concerns a tailoress renting the front part of a house. She could by right use the attic, along with the tenants renting other parts of the same house and two additional boarders living further down the alley. In exchange, the community of occupants had to clean the attic once a year and the shared thoroughfares, like the alley and the staircase, weekly.⁵⁸ In other words, a communality could expand and condense according to the desires of the stakeholders.

Taking responsibility for the upkeep of water infrastructure was an important duty of partners in a shared private area. The right to have a say over a certain area and the obligation to take on the corresponding burdens and responsibilities were part of the same deal. The observation that someone took part in the maintenance of an area could help to establish his proprietary rights. In 1602, a bricklayer declared that he had reconstructed the quay of a certain stretch of the Kipsloot in Rotterdam about thirty years earlier. He and a maidservant who was in service nearby, remembered that Reynier Aeryens the brewer had paid for the reconstruction. The maidservant added that her employer had told her many times that Aeryens "would always drain through the quay, but that he was therefore liable to maintain and repair the aforesaid quay continuously."⁵⁹ In 1634 one Jacob Jansz Uythuysen required three testimonies to ascertain that one of his neighbours had hired a labourer to dredge and deepen a ditch, although Uythuysen had clearly told him "you have bought the land indeed, yet the ditch belongs to me."⁶⁰ Apparently, Uythuysen was afraid that by doing the job, his neighbour had laid a proprietary claim on the ditch that Uythuysen thought to own privately. Seen from this angle, it is quite understandable that the urban administration and the inhabitants took care of the thoroughfares together. The administration was, after all, the institutionalized form of the totality of community members.

Especially in Rotterdam, notaries had a habit to describe where the responsibilities of a landowner ended. They regularly used water as a boundary marker. There are scores of records in which they mentioned that a plot extended either from or out of a (water)way to or into another. A clerical error in one of the documents suggests that the difference between 'from' or 'to' on the one hand

⁵⁷ HGA NotA 44:204r-v (The Hague 1650).

⁵⁸ SAR ONA 569:182 (Rotterdam 1650).

⁵⁹ *Altyt op de kay soude wateren maer dat hy des soude ghehouden wesen d'voorsejde caye altyt te onderhouden ende te repareren*, SAR ONA 45:147 (Rotterdam 1602). The Kipsloot ran near the Kipstraat, see map 5:B2-D3.

⁶⁰ *Ghy hebt het landt wel gecocht, maer de sloot comt my toe*, SAR ONA 185:514 (Rotterdam 1634).

and 'out of' or 'into' on the other hand did matter. When notary Gerrit vander Hout drafted a sales deed in 1649, first he wrote "extending from the street at the front, up to the Rotte at the back." He then blotted out the words "up to" and replaced them by "into."⁶¹ In his final copy, he kept the wording "into the Rotte."⁶²

Sometimes a clerk specified that a property ended in the middle of a street or waterway, without specifying where exactly the centre was to be found. The exception to this general rule is seen in a deed from 1635, which describes a plot "extending from the street at the front to nine standardized feet beyond the rear facade."⁶³ What this meant becomes clear from an appeal made in The Hague in 1644. The petitioner denoted that the ownership of his house involved the right of property over the street till halfway into the brook. Consequently, he stated, he had to maintain the quay on his side of the water.⁶⁴ Ownership and communality did not only come with rights, but also with obligations.

In order to establish where public and private spaces met in the seventeenth-century city, the attention now switches to the edge of the continuum of private spheres: the undeniably public territory. Then, I will work my way back into the continuum towards the said meeting point. It is tempting to regard the properties of a city as public assets. A new municipal meat hall, for example, or the ring canal with its banks were constructed for the benefit of the urban community. Seen from another angle, the city was just a proprietor like any other. It bought and sold grounds, made agreements with the adjoining landowners on an equal basis and had to take its share of the maintenance costs.⁶⁵ The city needed many of its premises for purposes that benefited the common cause. But it also rented out residential buildings, like any landlord. This was for instance the case in Rotterdam, where the officials of the *fabriek* set out conditions for the public sale of "several cottages inhabited by some poor people on these city plots at the west side of the Pannekoekstraat."⁶⁶ Access to these dwellings was not open to everybody, but restricted to the impoverished tenants with whom the city had a

⁶¹ *Streckende voor vande straet aff tot achter ende inde Rotte toe*, SAR ONA 311:95 (Rotterdam 1649). For the location of the Rotte, see map 5:C1-C2 or map 1:B5.

⁶² SAR ONA 311:190 (Rotterdam 1649).

⁶³ *Streckende voor vande straet tot achter negen roede voeten buiten de achtergevel*, SAR ONA 133:8-9 (Rotterdam 1634).

⁶⁴ HGA OA 124:252 (The Hague 1644).

⁶⁵ For agreements with neighbouring parties, see for instance RAA SA 1599 #2 (Alkmaar 1603); SAR OSA 2625 (Rotterdam 1630). Regarding maintenance obligations, see NHA SA 6742 (Haarlem 1653).

⁶⁶ *Verscheijde huijskens bewoont by eenige arme-luyden op de erven deser stede aende west-sijde vande Pannekoekstraat*, SAR OSA 4888:33v-34v (Rotterdam 1660). Cf. SAR OSA 4887:58r (Rotterdam 1635). For the location of the Pannekoekstraat, see map 5:C2.

lease contract. In short, not every government-owned plot was in practice a public place.

Thoroughfares in public areas were sometimes labelled as *heer(en)weg* or *heerenwatering*. These names designated a public or shared road or a public waterway. According to the WNT, the words and their equivalents indicate a wide, common road or watercourse, often the main connection between towns. Although the word most probably has its root in *heirweg*, meaning military road, by the seventeenth century the connotation with the road of an overlord ('s *heeren weg*) was equally accepted.⁶⁷ The same connection was made by Grotius in his collection of Dutch common law, published in 1629. He used the word *banwatering* as a synonym for *heerenwatering*, while *ban* designates the overlord's jurisdiction.⁶⁸ The names *heerenweg*, *heerweg* and *heerstraat* (lord's street) are therefore comparable with the English king's highway, the French *chemin royal* and the Spanish *camino real*. There was more to the term than the road's size and importance: it also implied publicness. Grotius wrote that *heerenwegen* "were communal to all folks, which can be used by anyone; of which the countship holds the right of usufruct."⁶⁹ The opposite of a lord's street or waterway were known as "neighbourhood streets,"⁷⁰ "neighbourhood ditches,"⁷¹ "side streets and non-streets,"⁷² as well as "small alleyways."⁷³

In sales deeds the boundaries of the premises on sale were often defined by listing all adjacent proprietors. These could be private owners, institutions like churches, or the city acting as a landowner. Apart from these title-holders, notaries often mentioned the lord's road, the lord's street or the lord's ditch to mark the limit of the sold grounds.⁷⁴ Sometimes the notary wrote down the street's name, for instance in a sales deed of a house "bordering the same Zilverstraat to the west and Broer Jansz the mason to the east."⁷⁵ These streets were not explicitly listed as the city's property, whereas other fields and buildings

⁶⁷ WNT, lemmas *Heerenweg*, *Heirbaan* and *Heirstraat*.

⁶⁸ Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 35:15 (1629).

⁶⁹ *Herewegen zijn wegghen ghemeen voor al het volck, die by yder een ghebruict mogen werden; waer van de vruchten de graeflickheid toe-komen*, Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 35:9 (1629).

⁷⁰ Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 35:10 (1629).

⁷¹ *Buijrsloot*, SAR ONA 78:707 (Rotterdam 1626); HGA NotA 47:176 (The Hague 1634); SAR ONA 607:53 (Rotterdam 1650).

⁷² *Sijdestraeten ofte onwegghen*, Stallaert, *Glossarium van verouderde rechtstermen*, 1:569.

⁷³ *Dat sy geen heere-straet en kent voor enge stegen*, Cats, *Houwelick*, 85r (1625).

⁷⁴ HGA OA 5412 (The Hague 1620); HGA NotA 47:185 (The Hague 1634); SAR ONA 295:165-166 (Rotterdam 1634).

⁷⁵ *Belent met de selve Silverstraat ten westen ende Broer Jansz metselaer ten oosten*, RAA NotA 181:178 (Alkmaar 1650). For the location of the Zilverstraat, see map 2:B3.

were.⁷⁶ This is most manifest in a document containing the sales conditions of a property “extending out of the harbour at the front to the city’s land and yard at the back.”⁷⁷ The wording is typical for this kind of document, especially for those originating in Rotterdam, where notaries often noted explicitly from where to where a plot ran.⁷⁸ The fact that streets and waterways were mentioned in a different way than city property suggests that both liquid and solid thoroughways were seen as common property to be used for everyone’s benefit. Hence it follows that the decision-making power of these thoroughfares did not reside with the individual residents, but with the representatives of the entire urban community, as demonstrated in chapter 2.

In medieval England, the term king’s highway or public road designated a thoroughfare that everybody could use, without fear of trespassing on anybody’s land. Moreover, travellers deemed it a safe space, where they were under the protection of the lord.⁷⁹ A sign that the inhabitants of Holland perceived the lord’s street in a similar way, emerges from an account of a street brawl in 1635 in Rotterdam, which ended with throwing personal possessions into the canal. Before it came to that, the wife of Pieter Willems the needle-maker was busy with a brush, a wet cloth and water drawing tools in front of her house when Jan Aerts the tailor and his daughter came by. The tailor started to rail at the needle-maker’s wife, threatening to throw her into the canal. She replied: “Do you have the heart to hit me? I am standing here on the lords’ streets.”⁸⁰ What she did not put into words, but clearly implied, is that the lord’s streets were free to use by all or at least visible to all. In other words, she was standing in a public place. If Pieter Willems’ wife had been indoors, she would have been entitled to immunity because of the long-lasting concept of domestic peace.⁸¹ Still, she also expected inviolability while standing in front of her house, in a public space. She felt probably safe under the protection of some lord, although it is unclear who should provide this security in earnest. Maybe she expected the protection of the urban authorities there. Like a housefather would have protected his household within doors, the townsfolk expected the city fathers to keep the peace and protect the integrity of the urban community.

⁷⁶ RAA SA 1599 (Alkmaar 1603-05); NHA SA 6951 (Haarlem 1626).

⁷⁷ *Streckende voor uuyte haven tot achteren aende stats gront ende erve toe*, SAR ONA 45:58 (Rotterdam 1600-02).

⁷⁸ Cf. SAR ONA 121:140-142 (Rotterdam 1634); SAR ONA 607:53 (Rotterdam 1650).

⁷⁹ Cooper, ‘Once a highway’.

⁸⁰ *Hebt gij het hardt dat gij mij slaet, ick stae hier op ‘s heeren straten*, SAR ONA 390:71 (Rotterdam 1635).

⁸¹ Eibach, ‘Das offene Haus’, 467.

The status of thoroughfares in The Hague differed somewhat from their standing in other cities. Due to its deviating governance structure, mentioned in the introduction, it was the only city where the terms lord's road and lord's ditches retained their literal meaning, like in rural areas. It seems, however, that a shift was taking place in the first half of the seventeenth century. The Hague started to present itself more and more as a veritable and independent city. Until 1624 the municipal authorities, chiefly the burgomasters and regents, formulated their responses to inhabitants' appeals regarding gutters, drainage opportunities and bridges as an advice to the steward-general, thus confirming his co-decision rights. A record from 1616 exhibits how the burgomasters moved precariously between their own interests and the manorial rights of their fellow administrators. In response to a petition about the construction of a cistern they noted that "over the own streets assigned to the corpus of The Hague no one has the authority but the magistrate, and that since ancient times the Halsteeg has not been a lord's road, but a confined area that is actually assigned to the corpus of The Hague."⁸²

Thus, although they phrased the text as an advice to the steward-general, they assumed the right to decide on this matter. To forestall any doubt about the decision-making authority, the clerk emphasized that the gate leading to the Halsteeg had been daily closed from dusk to dawn at the behest of the city's magistrate. And since this municipal official could "assert his jurisdiction exclusively over streets, quays and roads," the fact that the supplicant had addressed his request to the steward-general was not pertinent.⁸³ From 1625 onwards, The Hague's urban administration no longer styled its building permits as an advice to the steward-general, implying that the decision was theirs alone. The manorial rulers did not give in without a challenge, however. Historian Pieter Wagenaar pointed out that the struggle over the exercise of jurisdiction between the three governing bodies went on.⁸⁴ It is presumably because of the ongoing rivalry that only the scribes of this city ever mentioned that new structures would "serve as a street of The Hague" or as a "canal of The Hague," whereas both the notaries and urban administrators of other cities used the term common street or lord's (water)way.⁸⁵

⁸² *Gemerct dat over de eijgen Straten het corpus van Sgravenhage competerende niemant eenich gesach es hebbende, als de magistraet, ende dat van ouder tijden de Halstege geen heerstraet maer een beslooten plaetse es geweest t' corpus van Sgravenhage eijgentlijke toecomende,* HGA OA 121:31-32 (The Hague 1616). The corpus of The Hague consisted of the town council and the burgomasters. For the location of the Halsteeg, see map 4:B3.

⁸³ *Ende dat de voorschreven magistraet privative competere jurisdictie over alle straten platen ende wegen,* HGA OA 121:32 (The Hague 1616).

⁸⁴ Wagenaar, *Dat de regering niet en bestaet*.

⁸⁵ *Sal dienen tot een straet van sGravenhaege,* HGA OA 121:102 (The Hague 1619). Cf. HGA OA 124:225 (The Hague 1642); HGA OA 124:283-284 (The Hague 1645-48).

It was in the kind of thoroughfares mentioned above that the burgomasters, regents and other representatives of the urban administration had to approve infrastructural works and sometimes made a contribution in cash or in kind. The magistrates' interference with nearly every aspect of these thoroughways shows that people looked upon these areas as being public, both in a material and in a conceptual sense. In the tiered urban society, the public body looked after the places that were of significance for the entire community. Even with a limited scope of projects that had something to do with water, the range of subjects about which burgomasters and aldermen had their say was wide. They deliberated over drains and cisterns under street surfaces, over structures that affected the trajectory of public gutters and over measures to improve the drainage of streets.⁸⁶ They considered constructions that would narrow, overarch or fill in waterways.⁸⁷ Furthermore, they decided about water stairs, wells, quays, canals and bridges.⁸⁸ Sometimes the city-dwellers initiated such construction projects, sending a petition to the magistrates. Sometimes they did not bother to do even that. In 1626, two residents of Rotterdam agreed that one of them could build a bridge in front of the other's home. They agreed that the construction would stay at the designated place until "the same bridge will be rejected by the lords burgomasters or magistrates of the city."⁸⁹

The disapproval of the magistrates could have serious implications. In August 1649 a large party set out to a certain bridge over The Hague's ring canal, carrying a winch and miscellaneous carpenter's tools. The party consisted of the bailiff, two of his minions, the municipal carpenter and three or four of his journeymen. They had orders to knock down the bridge and its gateway, which, according to a couple of witnesses, had been there for at least twenty-four years.⁹⁰ A similar case took place four months later, when a labourer started to demolish a sewer that emptied into one of Rotterdam's harbours. When the owner of the sewer protested that he would lose his only drainage opportunity, the labourer proclaimed that he merely complied with the orders of his foreman at the *fabriek*. Both the foreman and the municipal mason were present when the labourer asked if he should dismantle the

⁸⁶ Regarding structures below street level, see for instance HGA OA 125:9v (The Hague 1650); trajectory of gutters, HGA OA 122:97 (The Hague 1623); raising the street, SAR ONA 347:123-124 (Rotterdam 1638-45).

⁸⁷ HGA OA 121:42 (The Hague 1616); HGA OA 121:102 (The Hague 1619); HGA OA 122:148 (The Hague 1624).

⁸⁸ On water stairs, see for instance SAR ONA 353:583 (Rotterdam 1636-44); well, HGA OA 122:47-49 (The Hague 1622); quay, HGA OA 123:157 (The Hague 1630); canal, HGA NotA 102:298r (The Hague 1649) bridge, HGA NotA 180:325r-326r (The Hague 1649).

⁸⁹ *Totte tijt toe de zelve brugge bij de heeren burgemeesteren ofte magistraten deser stede zall worden affgekeurt*, SAR ONA 63:520-522 (Rotterdam 1625).

⁹⁰ HGA NotA 102:292r-293r (The Hague 1649); HGA OA 125:14r-v (The Hague 1650).

structure entirely. "And he was told 'yes, pull it down completely.' And when it had been demolished, the hole was bricked up on the inside and on the outside ... at their orders."⁹¹

Notwithstanding the clashes between the government and private city dwellers seen in the previous examples, it was apparently perfectly acceptable to start infrastructural works without the intervention of the urban administration, confirming the subsidiary nature of urban society. In 1643, a group of fifteen inhabitants of Rotterdam's Westnieuwland, more than half of them female, complained about the contractors they had hired. The contractors had promised to dredge the ditch near their houses. They started the job, convinced the inhabitants that payment was due when they were halfway through and then left without a notice. Faced with a half-finished job, the property holders requested the burgomasters to appoint a municipal carpenter or bricklayer from the *fabriek*, who could act as an overseer of the remaining project.⁹² This means they had not needed the services of the municipal administration until then, although there is a possibility that they had sought authorization for the project beforehand. This is to be doubted, however: by dredging and cleaning a ditch, the inhabitants made no changes to the public space.

The urban administration sometimes took the lead in water-related infrastructural projects, as follows from the specifications and conditions of tenders preserved in both Rotterdam and Haarlem.⁹³ Another indication is a remark from the assembled shipwrights and merchants of Rotterdam, who submitted an appeal around 1640, stating "that it has pleased Your Honours ... to demolish the bridge," suggesting that the magistrates had initiated the deconstruction.⁹⁴ Because of the limitations of the selected sources, it remains unclear to what extent they did so on their own initiative or merely reacted to the appeals of inhabitants. Water-related enterprises started by the city had often to do with the construction of bridges, the reconstruction or cleaning of quays, and the dredging of waterways.⁹⁵ I found no government-induced projects to pave or raise streets. These were, at least in the studied records, always programmes started by the adjoining residents. If this dissimilarity found in the archives reflects

⁹¹ *Ende dat hem geantwoort werden Jae breecket geheel aff. Ende nadattet aff gebroocken was es het gat van binnen ende van buyten ... door haer ordre toe gemetselt geworden*, SAR ONA 154:672 (Rotterdam 1650).

⁹² SAR ONA 125:142-143 (Rotterdam 1643). For the location of the Westnieuwland, see map 5:B3.

⁹³ SAR OSA 4887 (Rotterdam 1615-50); SAR OSA 4888 (Rotterdam 1652-60); NHA SA 6627 (Haarlem 1609); NHA SA 6628 (Haarlem 1610); NHA SA 6742 (Haarlem 1651-60).

⁹⁴ SAR ONA 353:487 (Rotterdam 1636-44).

⁹⁵ SAR OSA 4887:140r-141v (Rotterdam 1643); SAR OSA 4887:149r-150r (Rotterdam 1644); NHA SA 6623 (Haarlem 1658).

the overall situation in the seventeenth century, the difference may be explained by the beneficiaries of the projects. All inhabitants of a certain street took advantage when the street got paved and the gutters were properly laid. Consequently, the initiator could allocate the cost to the residents according to the size of their property. This was how it was done throughout Europe since the Middle Ages.⁹⁶ It worked exactly the same in seventeenth-century Haarlem, where land surveyors accounted the payment to be levied from each inhabitant by the width of their plot.⁹⁷ The remark of Errenst the brazier from the Vogelenzang that he could “only speak on behalf of the alley” can be understood in the same way. Maybe his property did not face the street, so that the alley was his only connection to the Vogelenzang.⁹⁸

Whereas the townsfolk’s properties literally flanked the streets, the link between bridges and the individual households and tenants was much weaker. People living nearby would gain more from the construction of a bridge than people living farther away, yet this was not easy to express in numbers.⁹⁹ Canals, ditches and other waterways had a slightly weaker connection with individual properties than streets. In general, they ran parallel to the streets and thus parallel to the facades of houses and warehouses. The occupants of these buildings would most likely be the ones to profit from their upkeep, not in the least because waterways were important for the drainage of surplus water. However, while none of the inhabitants could do without a street, not every tenant would make use of a stretch of water in the same way and to the same extent.

Craftsmen and merchants would most likely benefit from a navigable canal facing their workshop or warehouse, but they were not the only ones. Neighbours from a wide area would use the same canal to draw water and to drain off surplus water. Relatively rich households could afford to construct a sewer discharging into the water, wherever this was permitted. Their actions to build and use a culvert had impact on the opportunities of other users, for instance those who needed navigable water or wished to draw water to do their chores. The multitude of possible functions and the indistinctness of the area involved made individual taxation difficult. Hence, it was more likely that the dredging of a canal or the reconstruction of a bridge needed the interposition of the urban administration than the pavement of a street.

Reconstruction and maintenance work in the public area was apparently a shared responsibility of both the urban government and the townsfolk. Inhabitants

⁹⁶ Jørgensen, ‘Cooperative Sanitation’, 553-554; Allen, ‘When things break’, 80.

⁹⁷ NHA SA 6742 (Haarlem 1651-60).

⁹⁸ *Ick heb maer voor de gange te seggen*, SAR ONA 2626 (Rotterdam 1658).

⁹⁹ Cf. Abrahamse, *De grote uitleg*, 272.

who asked for an infrastructural improvement in their neighbourhood, invariably paid the largest share of it. Sometimes the city played a part as well. Like the inhabitants of the Vogelenzang pleaded to divide the cost of the proposed work, the magistrates of The Hague financed one sixth of the clinker bricks needed to pave the street east of the Spui in 1656. In return, the inhabitants had to pay for the rest of the bricks, pave the street, deepen the Spui canal, restore its lining and repair the bridge near their homes.¹⁰⁰ Similar arrangements were made in Amsterdam throughout the seventeenth century.¹⁰¹ In 1649, a widow living in The Hague had recorded that a former owner of her house was liable for certain debts. Among those was the unpaid sum for the construction of a bridge. From a gross total of 1325 guilders to build the bridge, the magistrates had paid 400 guilders. So far, only a minority of residents had paid their share of the outstanding amount. Their fellow neighbours had to settle their account yet.¹⁰²

A paver's sketch drawn in 1655 in Haarlem shows that different norms applied to the people living north and south of the Jacobijnenbrug over the Oude Gracht. South of the bridge, towards the Stoofsteeg "the people will pay half the labour costs and the town the other half." Northward to the Brook, however, "people have to pay the labour entirely and a foot of bricks."¹⁰³ A look at Haarlem's map provides no immediate reason why such a distinction would be appropriate. Clé Lesger and Marco van Leeuwen demonstrated that the canals in the cities of Holland were the preferred places where the well-to-do chose their residence. The nearer to an arterial road, the more desirable a location was.¹⁰⁴ Seen through an ANT prism: the enhanced opportunities of an important road or waterway nearby influenced the residential choices people made. The location of the stretches of Haarlem's Oude Gracht on both sides of the Jacobijnenbrug seems quite similar in relation to markets and arterial roads, however. Nor is it probable that the buildings, which on both stretches faced the canal, housed people of an entirely different social standing. There might be an indiscernible reason, though, like the intensity of the stretch's use, or the amount of maintenance tax which the inhabitants already paid.

A similar image emerges regarding the payment of projects that possibly originated from the urban administration. Tender documents for construction work reveal that, in some cases, the magistrates only wished to pay for the

¹⁰⁰ HGA OA 125:32v (The Hague 1656). For the location of the Spui, see map 4:C3-C4.

¹⁰¹ Abrahamse, *De grote uitleg*, 279.

¹⁰² HGA NotA 180:325r-326r (The Hague 1649).

¹⁰³ NHA SA 6742 (Haarlem 1655). The Jacobijnebrug was at the end of the Jacobijnestraat, see map 3:B2; Oude Gracht, map 3:B2-C3; Stoofsteeg, map 3:B3.

¹⁰⁴ Lesger & Van Leeuwen, 'Residential Segregation'.

workforce needed to do the job.¹⁰⁵ Occasionally they were prepared to pay for “the labour and the supply of all materials” as well.¹⁰⁶ If so, they specified the desired materials and the required quality minutely. It also happened that they made provisos. Rotterdam’s burgomasters, regents and the officer of public works noted in 1654 that they wanted to put out to contract “the renovation of the sluice, including the supply of wood and wages, without the ironwork.”¹⁰⁷ Cities probably covered their part of the expenditure by the *straat- en kaaigeld* that was mentioned in a sales deed and presumably means something like ‘street and quay tax’.¹⁰⁸

Comparison of the projects to which the urban administration made a contribution with those that only the inhabitants paid for, yields no clear pattern. It remains unclear whether the distinction was more or less arbitrary or made on economic, social, spatial or other grounds. This uncertainty adds to the image of the volatility of the boundary between public and private realms. There is a possibility, however, that it was perfectly clear to Holland’s city dwellers who footed the bill for what kind of works and under what conditions. In that case, we have not yet found the key to unlock these data. I assume that it was a matter of scale. The larger the audience that benefited from infrastructural improvements, leaving aside the immediate neighbours, the larger the share paid for by the entire community. There are other possibilities to be considered, though. Maybe some city dwellers were just better negotiators than others, resulting in better deals with the urban administration. I will return to this point in the next section.

Stepping back into the continuum of private spheres, there are some areas that were probably deemed public, but to which the access could be restricted. In a sense, this principle goes for every walled town. By nightfall the gates were closed, temporarily turning anyone who was abroad into an outsider. In the cities of Holland, habitually employing a ring canal as an obstacle, this meant that anyone who arrived too late had to wait outside till dawn or face the risk of drowning. As touched upon in chapter 1, the latter was what happened in January 1625 in Rotterdam, at the day that Gerrit Corstiaens the bleacher had his child baptised in a church outside the city walls. It was late before the service ended, so that the guests had to eat the celebratory meal in haste. Clara Joossen helped to clean up after the meal, whilst the other baptism guests rushed back to the city gate. There, they informed the gatekeepers that Clara was on her way, requiring of them to

¹⁰⁵ NHA SA 6627 (Haarlem 1609); SAR OSA 4887:140r-141v (Rotterdam 1643).

¹⁰⁶ SAR OSA 4887:149r-150r (Rotterdam 1644).

¹⁰⁷ *Het sluytgen te vernieuwen, met hout ende arbeijts loon te leveren, sonder yserwerck*, SAR OSA 4887:182v-183v (Rotterdam 1654).

¹⁰⁸ HGA NotA 47:160 (The Hague 1634).

postpone the closing of the gates until she had crossed the bridge. The gatekeepers on duty did not heed the pleas. Being a dark night, the woman oversaw the fact that the bridge had already been drawn, whereupon she fell into the water and drowned.¹⁰⁹

In a comparable way, urban governors could deny the access to public roads to certain groups in an attempt to defend the interests of the inhabitants. For instance, a couple of witnesses declared in 1649 that they remembered a time when barriers closed off two bridges over The Hague's eastern ring canal. One of them, Dirck van Houten, received a key to the barriers from the urban authorities, so that he could drive to the land he rented outside the ring canal. Around 1645 the barriers had been removed, enabling all to cross the bridges with horse and cart.¹¹⁰

In like manner, waterways could be closed off with floating poles connected with ropes or chains to the banks on either side, called booms. In 1635, boom closer and bridgekeeper Jan Rientsz invited three witnesses to attest that a certain sailor had called him names. The shouting match started when Rientsz tried to fine the sailor, because the latter did not obey his directives. Amidst a torrent of abuse, the skipper declared that he would have sailed on even if the bridge had been closed.¹¹¹ What exactly the row was about remains unclear, but I can make an educated guess. Notaries repeatedly filed complaints about bridge- and lockkeepers. Yet since misunderstandings often took place out of town, they did not become part of the corpus of records under examination. Mostly, the quarrels were about either the passing time or the order in which lock- and bridgekeepers admitted ships to pass.¹¹² In a way, gate-, bridge- and lockkeepers had the power to control the public space: at the behest of the authorities they set the rhythm and sequence of people entering and leaving an area. Being civil servants, they acted on behalf of the interests of the entire urban community, if only by making sure that tolls and taxes were paid.

One stage further in the virtual continuum we encounter another permeable boundary between the public and private sphere. The urban administration reserved the right to make provisions concerning areas that city-dwellers probably would have seen as private or communal. There were several occasions when the mayors of The Hague granted inhabitants to fence in a strip of land next to their homes, thus converting it into privately used ground. At the same time, they stipulated that the gate to the newly appropriated alley should stay unlocked, so that "the access to the brook remains completely unhindered, to be used in times

¹⁰⁹ SAR ONA 53:995-997 (Rotterdam 1625).

¹¹⁰ HGA NotA 102:298r-299r (The Hague 1649).

¹¹¹ NHA ONA 133:447v (Haarlem 1635).

¹¹² Cf. RAA NotA 114:31v (Nauernase Vaart 1638); RAA NotA 116:23v-24v (Zaan 1647).

of need, serving the interests of The Hague.”¹¹³ Here, the urban administration served as the defender of the common weal. Apparently, the municipality was able to trespass upon property if an actor, a stretch of water in this case, served the needs of a larger group. Then, the interests of the greater audience prevailed over those of the individual or a small group. Meanwhile, burgomasters and regents tried to grant people’s wishes, provided they did not harm others.

As I have demonstrated, city dwellers in Holland distinguished three types of spaces: private, shared among a limited group, and public. In a sense, the latter was also a shared space, since its access could be restricted at certain times or to certain public. Where the boundary between these spaces lay, was subject to written and unwritten rules, which were likely to change. Conventionally, owners and occupants took responsibility for the area beyond the building line and the urban administration for the ongoing streets and waterways. Therefore, people had to seek authorization when they wanted to make amendments in, on or under thoroughfares. Nevertheless, the exact spheres of influence were not yet established, forcing authorities and inhabitants alike to make arrangements about the maintenance of the public space.

Logically, the exclusion of certain groups from certain places means the reciprocal demarcation of public zones as well, typifying the growing awareness of distinct private and public spheres that McKeon called attention to.¹¹⁴ One of the possible manifestations of this process is the privatization of the home. When people fenced off a certain area, they thereby visibly redefined inclusion and exclusion zones. They assumed the right to manage and the responsibility over it in a purposeful way. According to philosopher Sissela Bok most communities, irrespective of how close people live together, make provisions for the seclusion of individuals and couples.¹¹⁵ Thera Wijzenbeek-Olthuis, Nick Crossley and John Roberts argued that the privatization of urban homes in northwestern Europe started around 1700. By that time, people made an effort to separate living quarters from shops, families from servants and parents from their children.¹¹⁶

Laura Gowing posited that this privatization process was already well on its way in London in the first half of the seventeenth century. She modified her statement by remarking on the densification of the city: the crowded living

¹¹³ *Mits de toegang totter beeck blijvende heel onverhindert, omme in tijt van noot ende t’allen tijde ter dijenste vande Hage te cunnen worden gebruijct*, HGA OA 124:75 (The Hague 1636). Cf. HGA OA 122:172-173 (The Hague 1624).

¹¹⁴ McKeon, *The Secret History of Domesticity*, xix.

¹¹⁵ Bok, *Secrets*, 12.

¹¹⁶ Wijzenbeek-Olthuis, ‘Vreemd en eigen’, 84 ff; Crossley & Roberts, *After Habermas*, 3.

conditions would have prevented people from living their lives in privacy.¹¹⁷ The cities of Holland were similarly crowded. In addition to expanding the city boundaries, densification of the urban fabric was a common reaction to the vast population growth that started at the end of the sixteenth and lasted well into the seventeenth century.¹¹⁸ The empty spaces of the towns transformed progressively into a clutter of rooms and tiny houses, accessible through small alleys and accommodating several households.¹¹⁹ In view of Gowing's remarks about an early evolving concept of privacy, along with Bok's observation of people's inclination to seek privacy in some way, it is feasible that residents of the crowded cities in Holland developed a sense of privacy. In other words, they did not only take responsibility for a certain area, but possibly shielded it from view deliberately as well. A handful of agreements on and quarrels about water suggests that was indeed the case.

McKeon described privacy as the condition of being protected from unwanted access by others.¹²⁰ Key words in seventeenth-century dealings about privacy were *vrij* (free) and its counterpart *onvrij* (unfree), used both in verb and adverb form. As set out before, the word free sometimes designated a space that certain people could use under certain conditions. The following examples, however, suggest that free and its pendant unfree had also a very specific meaning, which had to do with blocking off the premises from unwanted attention.¹²¹ In 1626, a certain buyer of a room in Haarlem did not only make dispositions about the eavesdrop, but also promised to take away all doors, windows, panes and loopholes from his western wall. The seller, Christian Massa, had stipulated the removal, in order "not to unfree the yard of the aforesaid Christian Massa, or his little court."¹²² If the unfettered use of the yard had been the point, Massa would have done better by claiming the ownership of the court, fencing it off or prohibiting its use. Reiterating my earlier finds on subsidiarity and the rights and obligations attached to ownership, Massa could have secured exclusive control over it. Since he did not, I maintain that this case was about his privacy.

The kind of stipulations that Massa made was not unique. Its significance was made most clear in a lease contract in which the landlord and his tenant agreed that they would use the sinks in the rear kitchen together. Moreover, the landlord

¹¹⁷ Gowing, 'The freedom of the streets', 135.

¹¹⁸ Gowing, 'The freedom of the streets', 134; Lesger & Van Leeuwen, 'Residential Segregation', 354, 364.

¹¹⁹ Kuijpers, *Migrantenstad*, 154; Stenvert, 'Het bouwblok in de oude stad', 39.

¹²⁰ McKeon, *The Secret History of Domesticity*, 469.

¹²¹ Cf. WNT lemma Vrijen II, meaning 15: block off, fence in.

¹²² *Omme also t'er ve vande voorscreven Christian Massa, ofte sijn plaetsge ... nijet te ontvrijen*, NHA ONA 127: 97r (Haarlem 1626). The Gortersteeg was probably a sidestreet of the Kleine Houtstraat, see map 3:C2-C4.

promised he would place a shutter in front of the kitchen's window "to obstruct the view of others."¹²³ In 1650, five arbitrators assessed a complicated case, which involved several neighbours in Haarlem. In the end they judged that three of the neighbours had the right to shift and raise a gate, so that one of them "has no view from his office windows to the aforesaid privy."¹²⁴ It could be that the man in the office wanted to be rid of the hideous sight of the latrine, possibly fearing for his health by seeing this contagious place all day. Yet Grotius' description of common law offers another feasible explanation, namely that his neighbour guarded his privacy. Grotius stated that everyone had the right to let in light into his house, as well as the right to have a view from his house. However, he emphasized, with due observance of this right people could deny each other the view on a private yard.¹²⁵ In practice, this would mean that house owners could always make a window high in the wall, directing the sight upward instead of towards the yard.¹²⁶ Thus, the yard owner kept his privacy.

That there was a relation between living closely together, sharing facilities and a conceived lack of freedom, is shown in a testimony about rental conditions. Witness Catharina Reijers narrated in 1635 that she had had a chat with Robrecht Aengelsman, the tenant who disputed the conditions. When she commented on the low rent, the tenant replied that only the kitchen he rented was meant for sole use. In her turn, Reijers listed the privileges Aengelsman's landlord had granted him: he could draw water from the rainwater tank, use the pump and the privy, hang out his linen, as well as store an amount of peat in the attic. She underscored "that this would be a substantial limitation of the supplicant's freedom," by which she meant the landlord.¹²⁷ At that, Aengelsman acknowledged that it restricted the proprietor's freedom and asked Reijers to keep quiet about it if she ever spoke to his landlord.

The two mentioned connotations of the word free are not as far apart as they may seem. City dwellers could institute a form of communal privacy, according to their needs and wishes. In the 'free' private sphere that was the result of it, a limited group of people had access to an area or user rights to certain facilities. Bearing subsidiarity in mind, they thus had also the right to say. The inclusion of these people meant inevitably the exclusion of all others. The same principle goes

¹²³ *Omme t'gesicht van andere te benemen*, HGA NotA 44:204r (The Hague 1650). Cf. SAR ONA 142:177-178 (Rotterdam 1635).

¹²⁴ *Uuijt sijne comptoir vensteren het gesicht opt voorscreven secreet nijet en heeft*, NHA ONA 142 (Haarlem 1650).

¹²⁵ Grotius, *Inleidinge tot de Hollandsche rechts-geleerdheid*, 34:20-23, 27 (1629).

¹²⁶ Cf. Rees Jones, 'The word on the street', 105-106.

¹²⁷ *Dattet een groote onvrijdeheijt voordien requestrant soude wesen*, HGA NotA 47:213 (The Hague 1635).

for the privacy that was central to the second half of this section. The sole difference is that the latter inclusion zone was limited to one household.

Although historians like Thera Wijzenbeek-Olthuis, Nick Crossley and John Roberts think it likely that the privatization of urban dwellings started around 1700 in northwestern Europe, the above examples indicate that the process had already started in the previous century.¹²⁸ The inhabitants of seventeenth-century Holland already fostered a notion of privacy, albeit not under that name. This observation is in line with that of Laura Gowing, who noticed signs of privatization among the residents of seventeenth-century London.¹²⁹ Like London, the cities of Holland were densely populated and growing steadily.¹³⁰ Regarding Bok's statement that every culture makes provisions for people to seclude themselves, it may well be that the premodern privatization of the home in Holland and England was a reaction to the increasingly crowded conditions.

Urban services and the common good

When people took on the responsibility for the sustainment of their immediate vicinity, there was a fair chance that they neglected the interests of other areas. In other words, subsidiarity may in practice be the opposite of solidarity.¹³¹ This section argues that in seventeenth-century Holland townspeople pursued their own interests in the first place. Moreover, they did not hide that they were trying to fulfil their own goals. This suggests that there was nothing embarrassing about the pursuit of one's own interests in seventeenth-century Holland. Regarding water, both governments, corporations and assemblies of private residents made provisions for the common good, but nearly always with their own betterment in mind. The involvement of more stakeholders, for example when the need of a bridge was established, ostensibly evoked a broader view. Especially the occurrence of a perilous situation was an incentive to take the interests of a larger group into account.

The rather selfish attitude of Holland's people seems to be at odds with standards rooted in the ideas of medieval ecclesiastical scholars. In the fourth century, church fathers like Jerome (347-420) and Augustine of Hippo (354-430) had written about the virtue of equality and mutuality. Together with the ideas of Aristotle

¹²⁸ Wijzenbeek-Olthuis, 'Vreemd en eigen', 84 ff; Crossley & Roberts, *After Habermas*, 3.

¹²⁹ Gowing, 'The freedom of the streets', 135.

¹³⁰ Gowing, 'The freedom of the streets', 134; Lesger & Van Leeuwen, 'Residential Segregation', 354, 364.

¹³¹ Schweigert, 'Solidarity and Subsidiarity', 33-36; Finnis, 'Subsidiarity's Roots', 137-138.

about the purpose of the political community, their philosophies evolved into a notion of the common good which reconciliated theologians insisting on equivalency and merchants seeking profit. Especially the contributions of the fourteenth-century scholars from the law schools of Bologna and Paris were instrumental in the development of the concept of the common good.¹³² They claimed that profit-making was justifiable if the merchant took the benefit of the entire community into account.¹³³ Throughout Europe, towns adopted communal values that referred to friendly behaviour among citizens as well as to keeping an eye on the common good.¹³⁴ To some extent, Holland's city dwellers put these values into practice as well, establishing public facilities and caring for the destitute.¹³⁵

The group of provisioners of urban services consisted of an odd mix of individuals, corporations and governing bodies. According to environmental historian Dolly Jørgensen, it was the intricate social structure within premodern towns that made the simple water infrastructure effective. Authorities curbed the citizens' behaviour, ensuring through moral codes and legislation that they maintained their environment healthy and safe.¹³⁶ Several historians have argued that sanitation, including the provision of fresh water, garbage disposal and the cleaning of ditches, was part of the "good governance" expected from urban magistrates.¹³⁷ Historian Claartje Rasterhoff pointed out that although the public expenditure in early seventeenth-century Leiden on garbage disposal, sewage and fire safety was low, this does not mean that the municipal administration was barely involved. According to Rasterhoff, the urban magistrates reminded the inhabitants again and again of their obligations. They often took on a supervisory role, delegating the executive work to either non-governmental organizations or individuals.¹³⁸ This is something that becomes evident from the examples mentioned in this section as well.

Still, it is clear that sometimes the municipal administration took matters into its own hands. It was the city of Delft, for instance, not some corporation or individual benefactor, that employed the mathematician, hydraulic engineer and

¹³² Kaye, *A History of Balance*, 22-74.

¹³³ Kaye, *A History of Balance*, 110.

¹³⁴ Black, *Guilds and Civil Society*, 69-78; Archer, *The pursuit of stability*, 50-51; Eibach & Esser, 'Urban stability', 7; Geltner, *Roads to Health*, 6, 68.

¹³⁵ Heijden, van der, 'Conflict and consensus', 23; Nederveen Meerkerk, van & Vermeesch, 'Reforming outdoor relief'; Heijden, van der, 'New Perspectives on Public Services', 275.

¹³⁶ Jørgensen, 'Cooperative Sanitation'.

¹³⁷ Chance et al., 'Public Services', 350-353; Rasterhoff, 'Public spending', 119; Jørgensen, 'All Good Rule of the Citee', 302-307; Coomans, *In Pursuit of a Healthy City*, 63.

¹³⁸ Rasterhoff, 'Public spending', 120-123. Cf. Chance et al., 'Public Services', 350-353.

urban designer Stevin in 1598 to enhance water quality in its canals.¹³⁹ Jørgensen suggested that the profound reciprocity of the efforts of residents, civil organizations and urban governments made the difference. As a rule, people were prepared to contribute when they were convinced that they would benefit from measures the city council proposed.¹⁴⁰ Apparently, self-interest and care for the common good were not always as wide apart as they seem.

Coomans implied that a greater shared risk, like a fire or an epidemic, permitted the municipal government to overstep the implied boundary between the public and the private space.¹⁴¹ It raises the question to what extent governments, corporations and individual city dwellers within seventeenth-century Holland felt responsible for health and safety issues. Across Europe, and beyond, urban magistrates in premodern times took measures to ban stinking matter from streets and watercourses.¹⁴² The same goes for the prevention and fighting of fires. From the fifteenth century onward, urban authorities had banned the most flammable construction materials, encouraged the petrification of dwellings, supplied firefighting equipment and promulgated by-laws about the handling of fires and the accessibility of water.¹⁴³ Like with infrastructural works, municipality did prescribe and control, not necessarily execute.¹⁴⁴

Following the definition of Michael Smith et al.,¹⁴⁵ the provision of urban services already started in communal backyards where residents shared facilities, which were thus used for the benefit of multiple households. Although it is convenient to draw the boundary of urban services in that manner, I doubt whether these facilities were always meant as such. It appears that the sharing of amenities like drains and cisterns was rather an organically grown convention. If we perceive the private sphere as a continuous sequence of areas of inclusion and exclusion, we could regard the allocation of urban services as a continuum as well, the one

¹³⁹ Boer, *den, 'La vie politique'*, al. 1-2. For the location of Delft, see map 1:A5.

¹⁴⁰ Jørgensen, 'Cooperative Sanitation', 566-567.

¹⁴¹ Coomans, *In Pursuit of a Healthy City*, 62-63, 124-125.

¹⁴² Chance et al., 'Public Services', 353; Reid, *Paris Sewers*, 11; Cockayne, *Hubbub*, 212; Curtis, 'Dirt, disgust and disease', 662; Coudert, 'Sewers, Cesspools, and Privies', 715; Oosten, van, 'The Dutch Great Stink', 10; Coomans, *In Pursuit of a Healthy City*, 36-37, 52; Geltner, *Roads to Health*, 2-3. Anxiety about infection through pollution cannot be taken for granted. Mary Douglas (1966) argued that ideas about purity and impurity are largely culturally determined, defining dirt as "matter out of place."

¹⁴³ Bartlome & Flückiger, 'Stadtzerstörungen', 129-130; Pils, 'Damit nur an wasser khain menngl erscheine'; Garrioch, 'Towards a fire history'.

¹⁴⁴ Chance et al., 'Public Services', 357.

¹⁴⁵ Smith et al. defined urban services as "activit[ies] performed or provided by a government, institution, group, or individual to the benefit of urban residents ... whose primary use pertains to more than one household." Smith et al., 'Conceptual approaches to service provision', 1576.

running parallel to the other. City dwellers shared facilities with each other, sometimes within the non-public space they shared, sometimes opening up amenities to a limited group from outside or, at the other end of the continuum, the entire community.

The fact that the growing cities of Holland had to accommodate more people than before did not only mean that the cities pushed their boundaries at the expense of the surrounding countryside; at the same time densification took place within the city. Some inhabitants of Rotterdam described this process as follows: "That in the aforesaid quarter more and more buildings are raised and that with the passage of time the people living there increase in number and still multiply daily."¹⁴⁶ As a result, owners parcelled out and built up yards that before had been used by a single household. Others divided the houses they owned and rented them out as several *kamers* or rooms.¹⁴⁷ In the communal areas that evolved this way, it was undoubtedly easier to share any facilities that were already there than to build new ones immediately. The possible exception to this general rule is to be found in Rotterdam, where owners had to fence off their premises as explained in the first section of chapter 2.¹⁴⁸ However, when owners rented out parts of these premises, the sharing of facilities among Rotterdam's residents was not foreclosed.

In some cases, when tenants had permission to use rooms or equipment of the landlord, one can possibly speak of the provision of urban services, albeit on a small scale. The same goes for people who granted their neighbour's access to certain facilities "until revocation."¹⁴⁹ The difference between two or more owners using communal facilities and someone offering urban facilities by granting privileges is in the proprietary rights. Possessors who agreed among them to use gutters, wells and other amenities conjointly, were also expected to pay for maintenance and renewal.¹⁵⁰ In other words, they shared the ownership and the responsibility of the structure as well. Tenants did sometimes pay for or had to help with the amenity's maintenance, but they could never claim it as their own. This means that they received a service. To make this distinction, the definition of Smith et al. may be slightly amended: urban services are activities performed or provided by a government, institution, group or individual to the benefit of *other*

¹⁴⁶ *Dat int voorseide quartier zoo lancx hoe meerder wert getimmert ende van tijt tot tijt de luijden metter woon aldaer vermeerderen ende noch dagelijcx meer souden comen*, SAR ONA 353:483 (Rotterdam 1636-44).

¹⁴⁷ Cf. HGA NotA 7:328v (The Hague 1626); NHA ONA 224:556r-v (Haarlem 1649); SAR ONA 458:602 (Rotterdam 1650).

¹⁴⁸ *Generale Keure*, 628 (Rotterdam).

¹⁴⁹ NHA ONA 133:369r (Haarlem 1634); HGA NotA 21:365r (The Hague 1650); SAR ONA 607:26 (Rotterdam 1650).

¹⁵⁰ HGA NotA 8:164r (The Hague 1634); SAR ONA 420:65 (Rotterdam 1634).

urban residents, whose primary use pertains more than one household. As a general rule, people negotiated about the services they provided, received or shared among themselves without the help of civil organizations or governing bodies. However, even with the aforementioned modification most of the services delivered in the communal private area cannot be classified as urban services, since they were merely directed towards one household. They were just part of the package deal that landlord and tenant agreed upon.

At the interface of private and public spheres we encounter utilities that were definitely meant as urban services. In 1621, for instance, the magistrates of The Hague permitted a certain Henrick Stevens van Duijrbrouck to demolish the well standing in his yard and to rebuild it inside his house. They made the proviso that Van Duijrbrouck would construct a pump at the former site of the well and maintain it for at least twenty years, so that “the neighbours can be properly accommodated with their needed water and kept without complaints.”¹⁵¹ Apparently Van Duijrbrouck’s yard was used publicly or communally. His neighbours depended on the water supply from his premises and the assembled bailiff, aldermen, burgomasters and regents were not prepared to change this situation. Significantly, these were no negotiations among private city dwellers. The decision-making power lay in the hands of the public body. A comparable case was recorded in 1630. The burgomasters of The Hague allowed one of their residents to appropriate a piece of wasteland, provided he moved the well standing there to a place outside the new enclosure. The magistrates offered to pay half of the costs of the needed well sweep, iron chain and pail.¹⁵² The distinction between the former and the latter case is in the status of the well’s location and the party offering an urban service. In the latter, the well stayed in a public environment. In contrast, the former suggests that the yard was Van Duijrbrouck’s and that it was he who provides this service to his neighbours.

A similar mixture of private ownership and public convenience can be seen in several instances when people could use a strip of land as their own, but were obliged to keep it accessible to use in times of need. In 1624, for instance, the magistrates of The Hague recommended the steward-general to consider the interests of the neighbours in the event of a fire, before deciding on the construction of a gate.¹⁵³ Twelve years later, they stipulated that surgeon Jan vande Horst could build a gate under the condition that the brook behind his home remained accessible for the benefit of The Hague in times of need.¹⁵⁴ In these

¹⁵¹ *De buijren van haer behouftich water behoerlijcke cunnen werden gerijft ende clachteloos werden gehouden*, HGA OA 121:222-224 (The Hague 1621).

¹⁵² HGA OA 123:158-159 (The Hague 1630).

¹⁵³ HGA OA 122:172-173 (The Hague 1624).

¹⁵⁴ HGA OA 124:75 (The Hague 1636).

cases, the use of the amenities was restricted according to necessity. By default, the gated area was meant privately for Vande Horst. Only in cases of emergency the passage changed into a public space and his stretch of the brook into a public facility, needed for the common good. Like in the cases about the wells mentioned above, the urban magistracy exercised its power over these areas, ensuring the continuity of the supply of urban services.

In the public sphere, there were numerous groups, institutions and authorities that made an effort for the common good, or at least articulated their actions in such terms. Private individuals providing water-related urban services were scarce. They rather joined forces to get a job done. Together, they either pleaded for or executed the reconstruction of quays, the building of water stairs and the improvement of water quality.¹⁵⁵ They almost always paid the largest share of the infrastructural works. In ANT terms, they appeared twice as actors: first by taking the initiative, then because they shouldered the financial burden. Besides, they were the ones who benefited from the improvements. The few guilds appearing in this study made a contribution to public works by putting pressure on the government. Haarlem's brewers' and skippers' guild operated cheek by jowl with the town's burgomasters and regents. Together, they investigated possible threats to the water quality or the evolution of shallows. Afterwards the burgomasters and aldermen took measures, which were beneficial to the guild members and eventually to the other inhabitants of the city as well.

In general, the guilds were apparently not very active when it came to the provision of water-related urban services. This also applies to the neighbourhood organizations. They mainly aimed their activities at the social cohesion of the neighbourhood. The urban services they provided had to do with the major life events and peace keeping. As explained in chapter 2, The Hague was the exception. There, neighbourhood organizations also used their social infrastructure to maintain order in a more physical way, by organizing sanitation services and collecting the corresponding taxes.¹⁵⁶ Hence, they bear a resemblance to the well communities, organizations that were common east of low-lying Holland. It is perhaps a coincidence, but the one city that had organizations that resembled well communities, was the sole city in Holland with a large quantity of wells.

¹⁵⁵ For quays, see for instance, HGA OA 125:32v (The Hague 1656); water stairs, SAR ONA 353:483 (Rotterdam 1636-44); water quality, SAR ONA 258:89 (Rotterdam 1635).

¹⁵⁶ HGA OA 125:39r-40v (The Hague 1657-58).

As in other cities throughout Europe, governors and inhabitants acted jointly in seventeenth-century Holland to maintain and improve public infrastructure. Rather than the elaborate social patterns that Jørgensen identified in England and Scandinavia, I discern synergetic interaction between residents and authorities.¹⁵⁷ Constantly shifting interest groups communicated with the urban administration about necessary and desirable infrastructural projects. The government facilitated these projects, which can be classified as urban services, but they did so in various ways. This is both a sign of subsidiarity and also confirms the findings of Rasterhoff that urban administrations that were involved in infrastructural projects acted mainly as overseers.¹⁵⁸ Sometimes they acted as a mere custodian of the public



Fig. 6. Drawing of the desired signboard depicting a fire bucket. Stadsarchief Rotterdam (photo by author).

space, checking if privately built structures did not hinder public passageways. Alternatively, the municipal *fabriek* invited tenders for projects or seconded overseers to monitor the construction process. This carpenters' and bricklayers' yard could also supply building materials, either as a gift or paid for by the inhabitants.¹⁵⁹

As mentioned before, there are clues that the urban administration sometimes initiated construction projects and maintenance works. In 1659, for instance, Rotterdam's urban administration signed a contract for an extensive series of paintwork. Among many other things, the painter who accepted the assignment was to "paint 36 signboards ... with the fire bucket on it, sufficiently gouged out and with clear letters saying 'fire master'."¹⁶⁰ The goal of this assignment becomes clear from Rotterdam's by-laws, which were printed in 1712 but had already been in force long before: "In order that everyone will be able to know where the fire masters and fire engine masters live, the same will suspend or nail the

¹⁵⁷ Cf. Jørgensen, 'Cooperative Sanitation'.

¹⁵⁸ Rasterhoff, 'Public spending', 120-123.

¹⁵⁹ RAA SA 1540 (Alkmaar 1616).

¹⁶⁰ *Noch te schilderen 36 borretjes ... met den brant emmer daer op die wel uijtgediept met goede letters ende sal staen Brantmeester*, SAR OSA 4888:28r-29r (Rotterdam 1659).

signboard in front of their houses."¹⁶¹ In the same way, houses stored with fire buckets could be identified by a sign. All signboards showed the picture of a fire bucket. The difference was in the lettering: repositories of firefighting equipment displayed the number of fire buckets available; the dwelling places of fire masters simply mentioned their capacity beneath the image.¹⁶² In 1652, the foremen of Rotterdam's *fabriek* commissioned a plumber to service the municipal water pumps. His task was to "maintain, repair and keep going all of the aforesaid pumps."¹⁶³ It is unlikely that his employment was a reaction to a single appeal, since that would have been made on behalf of a small group and aimed at one or a few pumps in a certain district, while the contract of the *fabriek* explicitly mentions all municipal pumps. In sum, it had probably been the urban administration who took the initiative for this project.

A few records suggest that the urban administration of The Hague took the responsibility for the prevention and fighting of fires as well. In an attestation from 1649, a witness stepped up who was "fire master of the Turfmarkt, appointed by the Honourable Lords magistrates."¹⁶⁴ The officials and equipment needed to tour the streets at night and extinguish fires were probably paid for by the *klap- en emmergeld* or night watch and bucket tax, which was mentioned in a rental deed.¹⁶⁵

It may be that The Hague's neighbourhood organizations also had to play a role when it came to water-based firefighting. In 1636 the bailiff, burgomasters and regents of the city instructed the deacon of the Veerkade neighbourhood to make provisional arrangements as best as he could before the next inspection of fire equipment.¹⁶⁶ It is unclear whether they merely used the organizational structure of the neighbourhood for this purpose or that The Hague's neighbourhood organizations performed a regular task in firefighting. The permeable boundary between public and private spaces, mentioned before, is mirrored in the social structure around urban services. There was no blueprint for the provision of well-paved and clean streets, fresh water, working sewers or navigable waterways in Holland. The residents and entrepreneurs of the cities cooperated in shifting

¹⁶¹ *Op dat een yder soude mogen weten waer de brand-meesters en brandspuyt-meesters wonen, sullen deselve voor hunne huysen opgehangen of gespykert hebben het bordeke, Generale Keure*, 131 (Rotterdam).

¹⁶² *Generale Keure*, 120-131 (Rotterdam).

¹⁶³ *Het onderhouden, verstellen ende gaende houden van yeder der voorseide pompen*, SAR OSA 4888:2v-3r (Rotterdam 1652).

¹⁶⁴ *Brantmeester vande Turffmart, gestelt bij d'Edele Heeren magistraten*, HGA NotA 180:34or (The Hague 1649). For the location of the Turfmarkt, see map 4:C4-D4.

¹⁶⁵ HGA NotA 262:19r (The Hague 1650).

¹⁶⁶ HGA OA 124:70-71 (The Hague 1636). For the location of the (Amsterdamse) Veerkade, see map 4:C4.

groups to make available those amenities they needed. The urban administration was regularly one of the participants in such groups. Moreover, it assumed the task to make sure that existing urban services remained available for the community. As Rasterhoff indicated, the municipal governments assumed a coordinating and supervisory role. In addition to that, the municipality played an important part as custodian of the common good.

The wording of the seventeenth-century documents on water politics is in accordance with the endorsed values that Anthony Black observed for the emerging Dutch and German towns three to four centuries earlier. City dwellers recorded the agreements they made with reference to amicability, friendship and neighbourliness.¹⁶⁷ Residents who wished to perpetuate a current provision used the same words, or stated that all had been “quiet and peaceful” so far, “without anybody’s counter-argument.”¹⁶⁸ I assume that a judgment of Alkmaar’s magistrates is to be understood in this sense as well. In 1625, they found that a certain Dirck Cornelisz had filled in a ditch lawfully, following the applicable procedures to the letter. A neighbour who tried to have a say afterwards was too late. The burgomasters told him that the chances of revision were slim, since Cornelisz did not act out of *partijchap* (ill will, enmity).¹⁶⁹ In other words, Cornelisz had not only obeyed the rules, but had also tried to maintain the peace and friendship in his neighbourhood. Due to his neighbourly behaviour, he had contributed to the common wellbeing – or at least not harmed it.

References to people’s motives to negotiate with their neighbours, providing us with information about eventual selfless behaviour, are scarce but not entirely absent. It appears from the few available entries that the main reason to have a serious talk with the people next door was to prevent damage to vulnerable structures. In 1641, two citizens in Alkmaar quibbled about a payment for a gutter. One of them refused to pay for any additional work, although he demanded to make the rear of the gutter higher than the side facing the street. He had asked for this measure because his wall was soaking wet, “insisting that his wall was spoilt by the supplicant’s water.”¹⁷⁰

¹⁶⁷ *Minnelick; vrundschap; uit goede buijrschappen*. See for instance HGA NotA 11:258 (The Hague 1626); HGA NotA 79:8r-9v (The Hague 1649).

¹⁶⁸ *Rustelijcke ende vredelijcke ... sonder ijemants tegen seggen*, RAA NotA 133:64v-65v (Alkmaar 1637). Cf. HGA NotA 47:176 (The Hague 1634); HGA NotA 47:199 (The Hague 1635); HGA NotA 80:177r-v (The Hague 1650).

¹⁶⁹ RAA NotA 56:314r-v (Alkmaar 1625).

¹⁷⁰ *Sustineerde dat sijn muijr van des requirants water quam te verderven*, RAA NotA 114:175r-v (Alkmaar 1641).

In Rotterdam water damage was also the cause of a dispute in 1631. Witnesses declared that Jan Jansz van Uytrecht had fitted some boards to his house so clumsily, that the water dripping from the roof splashed vigorously onto the wall of the adjoining house.¹⁷¹ Anticipating this kind of situation, several neighbours from The Hague agreed to lay gutters capturing rainwater from their roofs, in order to prevent abrasion of the walls.¹⁷² Avoiding nuisance was another motive for making water-related arrangements among neighbours. In 1649, the buyer of a house stipulated that the seller, who owned the adjacent house, would fix a sump and a grate at the mouth of his sewer, "so that the buyer has no reason to worry about stench or filth."¹⁷³ It is hardly an overstatement to call the motivations of these individuals selfish: they wanted to avoid damage to their properties and tried to avert foulness from themselves.

A similar self-centred approach can be observed among many city-dwellers, individuals and associations alike, who appealed to the government. Economic reasoning was salient. Several residents, entrepreneurs and merchants argued that they would suffer loss of income when the authorities failed to grant certain measures. Some inhabitants of The Hague, for instance, declared in 1603 that they had made the effort of building houses in vain. They claimed they could not rent them out, since the urban administration left the streets in the area unpaved.¹⁷⁴ Half a century later, the motivations for appealing to the magistrates were quite similar. In 1652, residents from The Hague sought permission to make a lane to their fields because they planned to sell the property. The absence of a lane, they stated, "would drive down ... the price of the aforesaid parcel of land considerably."¹⁷⁵ Both in Rotterdam and The Hague, entrepreneurs pleaded with the magistrates for certain infrastructural works, in order to improve or restore their business. Bleachers from The Hague asked for the construction of a bridge in 1645 or 1646, so that customers could easily find their way towards the bleachfield.¹⁷⁶ An alliance of residents and businessmen from Rotterdam reminded the burgomasters around 1640 of the inconvenient infrastructural arrangements near their workshops and warehouses. They proclaimed, among other things, that the lack of a stout bridge and a sound pavement forced them to make lengthy

¹⁷¹ SAR ONA 323:74 (Rotterdam 1635).

¹⁷² HGA NotA 11:142 (The Hague 1625); HGA NotA 11:257 (The Hague 1626).

¹⁷³ *Op dat de cooper geen stinck ofte vuylicheijt daer door en hebbe te duchten*, HGA NotA 59:46r (The Hague 1649).

¹⁷⁴ HGA OA 5256 (The Hague 1603).

¹⁷⁵ *Also den prijs van het voorsegde partijtken lants merckelijck ... soude werden vermindert*, HGA OA 125:14r-15r (The Hague 1652).

¹⁷⁶ HGA OA 124:283-284 (The Hague 1645-46).

detours. Hence, the disadvantaged entrepreneurs complained that they had to pay more labour costs and, in addition, wasted so much time.¹⁷⁷

In May 1648, Haarlem skippers' guild lamented the dwindling of their own trade by unfair competition and sought the backing of the burgomasters and regents of the city to set things right. They reasoned that the problems had started when the Dutch War of Independence had been concluded, a few months earlier. With the departure of troops many flatboat owners that had done service with the army returned home, seeking new employment. They had found it in the conveyance of goods instead of people, to the disadvantage of Haarlem's larger freight carriers. The shallows occurring in the navigable waters around Haarlem made things worse. Especially in summer, when water levels were low, vessels with a deep draft had difficulties to negotiate the shallows. Concisely, flatboats had more workable days than large freight carriers. With reference to their threatened livelihood, the skippers appealed to the magistrates to combat the formation of shallows and to ban non-citizens from Haarlem's piers.¹⁷⁸ A group of associated neighbours from Rotterdam referred to "hard times" as well, when they sent a petition to the magistrates in 1634, criticizing the plans to raise the street surface. They feared that this would spoil their homes, which according to them was an extra concern in times already full of hardships.¹⁷⁹

A second motivation to bring forward plans to the urban authorities, was to increase people's comfort. In 1651, a small land owner sought authorization to lay a footbridge or gangplank over The Hague's Singel, in order to go to and from his property expediently.¹⁸⁰ A tanner from the same city who wanted to build a bridge six years later wrote he wanted to do so "for the convenience of himself and the cottages built there by him."¹⁸¹ A group of neighbours living along Rotterdam's *Visserdijk* referred to the "discommodity" caused by the bad condition of the street and gutters. Consequently, all sorts of muck amassed in front of their houses.¹⁸² Their fellow citizens who wanted to forestall the rebuilding of a cobbler's hut in 1637 had a threefold motivation. First, it would block their view from the *Molensteeg*. Secondly, restoration of the hut would make it more difficult to reach the staircase behind it. Residents who used the steps to draw water feared the chance of falling into the water and drowning if they had to clamber behind the hut once more. Finally, the space behind the former hut had been used

¹⁷⁷ SAR ONA 353:493 (Rotterdam 1636-44). Cf. SAR ONA 353:487 (idem).

¹⁷⁸ NHA SA 8207 (Haarlem 1648).

¹⁷⁹ *Benaede tijden*, SAR ONA 185:453 (Rotterdam 1634).

¹⁸⁰ HGA OA 125:11r (The Hague 1651).

¹⁸¹ *Tot gerieff van hem ende de huijskens bij hem aldaer getimmert*, HGA OA 125:36v (The Hague 1657).

¹⁸² SAR ONA 353:405 (Rotterdam 1636-44).

as an illegal ash dump, increasing the risk of fire.¹⁸³ In the subsidiary communities of Holland, people apparently thought of their own needs in the first place.

Patent applications belonged to the genres in which people brought the common good to the foreground. The applicants wanted to convince the members of the States of Holland that their invention deserved the attention of a wider audience. To this end, some of them merely explained what made their invention different from widely known techniques. About forty percent of them referred to the common good in one way or another. Alkmaar's former alderman Niclaes Cornelisz Rietvelt, for instance, presented himself in 1632 as a lover of the common weal, who wanted to put his newly invented watermill at the service of the general welfare.¹⁸⁴ The municipal carpenter of Gorinchem, Gerrit Anthonisz Fortuijn, promoted his waterwheel in 1647, stating that it would serve "to great advantage of these lands and its inhabitants, [of whom] many thousands will benefit."¹⁸⁵ In 1659, the English inventor William Dodson declared that his invention did not only serve the common good, but was not harmful to anyone.¹⁸⁶ Obviously, patent applications were not devoid of self-interest. Benjamin Lisse, a watchmaker from Rotterdam, phrased his motivation to apply for a patent most clearly. He wanted to uncover his new way of salvaging ships to the benefit of the common weal, if only he were assured that no one would replicate his idea.¹⁸⁷ So it was with many inventors.

Some petitioners showed that they had an eye for a slightly wider group as well. As a general rule, appeals defending the interests of more people were made collectively. The mere fact that more people were involved forced the proposers to a broader view, as we have seen in the first section of this chapter. Every additional stakeholder meant a new view and possibly an extra set of interests to take into account. An assembly of residents from Rotterdam who asked the burgomasters between 1636 and 1644 to construct a water stair did so, in their own words, "not only for the comfort of the supplicants, but also to be able to reach the water quickly in case of fire (God forbid)."¹⁸⁸

¹⁸³ SAR ONA 353:371 (Rotterdam 1637). A striking point is that the urban administration usually built cobbler's huts to prevent illegal dumping, see Smit, *Leiden met een luchtje*, 75.

¹⁸⁴ HaNA SvH 1595 (1632).

¹⁸⁵ *Tot groot voordeel deser landen ende de ingesetenen vandijen, ende veele duijssenden daer mede sullen comen te proffiteren*, HaNA SvH 1604 (1647). For the location of Gorinchem, see map 1:C5.

¹⁸⁶ HaNA SvH 1613 (1659).

¹⁸⁷ HaNA SvH 1613 (1660).

¹⁸⁸ *Niet alleen om 't gerieff van hun supplianten maer oock omme bij noot van brant ('t welck Godt verhoed) haestich bij 't water te connen comen*, SAR ONA 353:483 (Rotterdam 1636-44).

Some years later, people living near the church square in the same city listed the parties that were at a disadvantage since the streets and gutters on site were in disrepair. It was not only a nuisance to themselves, they pointed out, but also to vendors and sellers frequenting the weekly vegetable market in the former church yard. Hence, improvement of the local infrastructure would also be to the benefit of the market.¹⁸⁹ In the same vein, the yarn boilers of Haarlem combined their own motives with the greater good when they tried to impede the construction of a fulling mill in their environment in 1645. Not only their own places would be utterly ruined, they claimed, but also the “drapers’ and weavers’ business of linen, broadcloth and all that goes with it, yes, the same would well-nigh come to a halt.”¹⁹⁰

Haarlem’s skippers’ guild also tried to communicate several times that it took other people’s interests into account, referring to the “lovers of prosperity, honour and reputation of this city” and “the undoing of the blissful passage through this city.”¹⁹¹ Reference to the city suggests that they tried to make it a problem of the entire urban community, yet obviously it was their own business that suffered from eventual shallows in the first place. Seventeen years later the skippers connected the word passage (*doorvaart*) more clearly to the entire town’s interest, stating that an eventual diminution of passages would make the city of Haarlem and its inhabitants suffer.¹⁹²

A few petitioners showed even more consideration towards the greater good, although their solidarity seldom extended to beyond their own town walls. Residents asking in 1603 for the paving of a street combined their self-centred arguments with the statement that the present situation discouraged people to “build for improvement of The Hague.”¹⁹³ At the same time, they pleaded for the deconstruction of a cottage that had housed a severely ill patient. They wished the bailiff, burgomasters and regents to remove the house, or at least to prohibit people from lodging there, “so that the quarter will not be further infected by the contagious illness that has resided in the same house for a while.”¹⁹⁴ In 1630, the residents of the Poten in The Hague expressed in a similar way their concern about

¹⁸⁹ SAR ONA 347:123-124 (Rotterdam 1638-45).

¹⁹⁰ *Rederije ende weverije van linnen, laecken, metten aenclieven vandien, jae, soude de selve genoehsaem als gantsch stille moeten staen*, NHA SA 3964 (Haarlem 1645).

¹⁹¹ *Lieffhebbers vande welvaart, eere ende reputatie deser stadt ... tot verderff vande heerlicke deurvaart deser stadt*, NHA SA 5279 (Haarlem, c. 1631).

¹⁹² NHA SA 8207 (Haarlem 1648).

¹⁹³ *Gediscourageert omme van gelycken te timmere tot verbeteringe vande Hage*, HGA OA 5256 (The Hague 1603).

¹⁹⁴ *Op dat deur de contagieuse siecte die int selve huyske eenige tyt is geweest, het quartier aldaer nyet worde voorder geïnfecteert*, HGA OA 5256 (The Hague 1603).

the perils of a stinking brook “in these contagious times.”¹⁹⁵ They commiserated with those “people of quality” who had to pass the brook daily and who felt the need to change their route. Even when people thought of the interests of a larger group than their own selves, these were interlocked with their own interests. In this case, the appellants declared that they feared the high expenditure to improve the situation.¹⁹⁶

Inhabitants from Rotterdam who worried about the quality of a stretch of stagnant water thought both of their own difficulties to get fresh water and of anyone who was vexed by the stench. This could be a cause of the great pestilence, they supposed in 1635. Apart from that, the reek was inconvenient to the citizens who would have used the banks as a walking trail, if the smell had been tolerable.¹⁹⁷ By their reference to contagious diseases, both the appellants from Rotterdam and The Hague made clear that there was a greater cause at stake. As a consequence, the authorities implicitly had the residents’ permission to take the lead, as Coomans argued.¹⁹⁸ What is more, the inhabitants expected them to get ahead.

It seems that seventeenth-century city dwellers were more terrified by disease than by fires. No more than one man, a surgeon, asked witnesses to relate their story of an actual fire. Even then, the fire itself was not the main topic of the testimony, nor was the fact that it had been hard to douse because of the severe winter weather. Rather, the surgeon wanted to log that the patient he treated for the injuries sustained in the fire, had been speechless for about a month.¹⁹⁹ In short, city dwellers did not ask for fire prevention measures among the records included in this study. It was the urban administration that sometimes made stipulations to ensure access to water in the event of fire.²⁰⁰ They did so on their own initiative: as far as we know, the residents did not ask for these measures. What they did ask for, every now and then, was reducing health risks. It is not difficult to see why disease was higher on the agenda. Epidemics raged through Holland’s cities in 1622-26, 1634-37, 1655-57 and 1664-69. The notorious pestilence of 1634-37 took more than a quarter of the population of several cities.²⁰¹

¹⁹⁵ *De periculen die in dese contagieuse tijden daer uijjt souden zijn te verwachten*, HGA OA 5345 (The Hague 1630).

¹⁹⁶ *Luijden van qualiteit*, HGA OA 5345 (The Hague 1630).

¹⁹⁷ SAR ONA 258:89 (Rotterdam 1635).

¹⁹⁸ Coomans, *In Pursuit of a Healthy City*, 92-93, 124-125.

¹⁹⁹ HGA NotA 8:291v (The Hague 1635).

²⁰⁰ HGA OA 121:222 (The Hague 1621); HGA OA 124:39 (The Hague 1635).

²⁰¹ Mentink & Van der Woude, *De demografische ontwikkeling*, 53-55; Temminck, *Haarlem door de eeuwen heen*, 75; Groenveld, *Leiden*, 32; Walle, *Buurthouden*, 95; Tielhof, van & Van Dam, ‘Losing land, gaining water’, 158; Prak, *Het raadsel van de Republiek*, 121.

The occurrence of major town fires was far less frequent. Apart from the ordinary fires reducing a few buildings to ashes, people's memories had to go back to 1517 (Alkmaar), 1539 (The Hague), 1563 (Rotterdam) and 1576 (Haarlem) to recall great fires. The town fires of Alkmaar and Haarlem had been caused or at least worsened by a war situation.²⁰² Apparently, the magistrates' dispositions to propagate building with less combustible materials had taken effect. Living in houses with stone walls and tiled roofs, seventeenth-century city dwellers had less to fear from fires than, say, 150 years before. Nevertheless, during the last quarter of the seventeenth century numerous cities throughout Europe invested in the firefighting equipment patented in 1664 by three citizens of Amsterdam and improved by their fellow townsman Jan van der Heyden (1637-1712).²⁰³ It could well be that the combination of a workable invention and the alarming news of an inferno in London (1666) put fire back on the urban agenda.

Although subsidiarity does not necessarily contrast with solidarity, the two were ill-matched in Holland's seventeenth-century cities. Solidarity was not entirely absent. Concerning the many purposes of water, city dwellers showed solidarity to the people with whom they shared a cause, or at least people whose needs did not contradict their own. This principle goes for individuals, provisional associations, institutionalized organizations and governments alike, each on their own level. Regarding water, the burgomasters and regents exercised the right to enforce the continuation of urban services. Being the embodiment of the urban community, they had to guard its interests as a good housefather. The residents expected them to care for the welfare of a larger audience, but seldom beyond the good of their own citizens and inhabitants. The fact that the distribution of water did not induce more conflicts means that there must have been plenty of it, even after so many years of increasing demographic pressure. Water, being a depletable resource, was generally not depleted in the four investigated cities, neither in quantity nor in quality.

²⁰² Temminck, *Haarlem door de eeuwen heen*, 44.

²⁰³ Doorman, *Octrooien*; Parker, *Global Crisis*, 636; Degroot, *The Frigid Golden Age*, 296. Cf. Oosten, van, *The Great Sanitary Awakening*, 106.

Conclusions

Thus, the supplicants were advised to present themselves to Your Honours, requesting with all due respect that it may please them ... to hand over the contents of this petition, authenticated with an apostille, to the chief of the municipal carpenters' yard, in order to examine the aforesaid request.¹

Appeal to the burgomasters and regents of Rotterdam, 1658.

More than three hundred years after a clerk wrote down these words, it is no longer known how the Vogelenzang case ended. We do not know whether the nine negative views expressed in the inquiry sufficed to block the entire programme or if the magistrates delivered the request of the first group of petitioners with an apostille to the chief of the *fabriek*. This deficiency exposes one of the shortcomings of researching history by looking at one phenomenon: it often produces mere fragments, seldom a complete story. This conclusion starts off with a critical consideration of the approach of looking at history through water. Subsequently, it discusses the findings of this study and its relation to several ongoing historical debates. Finally, I will make a plea for looking across the borders of adjacent disciplines.

In the foregone pages, abundant water splashed, flowed and dripped through the leaves. Nevertheless, water was not the main subject of this thesis, but rather a tool to observe how people lived together, communicated with one another and tried to fulfil their purposes. In other words, it helped detect how the seventeenth-century inhabitants of urban Holland built and maintained their communities. Just as Terje Tvedt noted, both the versatility and the inevitability of water make it an excellent agent to study societies.² Water's distinct qualities ensured that the encounters we observed covered a wide range of domains. Thus, we ran across city dwellers getting rid of their filth, guarding their livelihood and expressing anxiety about decay and disease, to name but a few issues. The ways the substance forced people into action provided a microhistorical outlook on the urban communities at

¹ *Soo waren sij supplianten derhalven te raide geworden, heur aan Uwer Edele Achtbaren te adresseren reverentelijck versouckende daer selver gelieven te willen zijn de edele heeren fabrijcmeesteren der stadt den inhoud van dese met appostille in margine van desen ter handen te doen bestellen, om 't gunt voorschreven is te examineren, SAR OSA 2626 (Rotterdam 1658).*

² Tvedt, "Water Systems".

several levels. It gave us a view of the undertakings of servants and businesswomen, foreigners, private citizens, corporations and governments. Hence, this shifting angle presented us with an image of society that is as inclusive and multifaceted as is possible. This does not mean that the picture is comprehensive. In particular, unskilled workers remain grossly underrepresented in the corpus. This is not a flaw of the method, however, but rather of the selected sources – a shortcoming shared with most of the available sources.

A more fundamental problem of studying history through a phenomenon like water, is that it resembles doing research with blinders on, preventing the gaze from straying. Whereas in general this helps to stay focussed, it also entails the risk of becoming short-sighted, for instance by discarding data that could have added to our understanding, but had a weak relation to the examined substance. During my research I came across several records about privies that might have been useful to better understand the notion of privacy in the seventeenth century. Nonetheless, I excluded most of them from the corpus, since many seventeenth-century latrines were fitted with a cesspool instead of a sewer discharging into a ditch or canal. As to the disadvantage that this selection method delivers mainly fragments instead of full stories, this is probably inherent to much premodern historical research. The problem may play a less important role when performing a study on one institution, for instance, but even then, we are dependent on the subset of data that were handed down through the archives. Moreover, taking a wider scope while limiting the search to one group or organization, most probably annihilates the versatility and multi-layered character that benefited this study.

That begs the question whether the study of history by regarding people's encounters with a specific substance should be practised more often. In my opinion, it is a fruitful way of putting other investigations into perspective, because it is not biased towards one social group or institution. Observing actions related to matter that affects everyone or a multitude of groups thus can provide deep insight in the way society functions. That said, among the four classical European elements fire seems more viable as a lens to study human and urban history – apart from or in addition to water – than earth and air. The latter are more difficult to define. Borrowing from Chinese philosophy, the elements of wood and metal would also be suitable candidates to use as a viewpoint. People's dealings with food, childbirth or disease may also offer opportunities to observe society, since these events are present in every human life.

Beyond water, Aquinas envisaged society as a stratified domain, enclosing a number of self-sufficient entities, each operating in widening circles of

sovereignty. He called it subsidiarity.³ The term is certainly applicable to the premodern urban communities in the west of the Low Countries, Southern and Northern Netherlands alike. The heads of the communities' households tried to care for their property like a good housefather, defending their own interests in the first place. That this was not necessarily a male head of family has become clear from the inquiry that Rotterdam's magistrates held among the inhabitants of the Vogelenzang in 1658. In the latter case, each house owner considered carefully what it would mean to them if the street were raised. They weighed the current nuisance of an uneven pavement against the possible destruction caused by a gutter laying too high. In the same manner, businessmen, guilds and neighbourhood organizations fended for themselves in their own areas. Both individuals and organizations made ad hoc connections with other interested parties when it suited them, forming temporary communities of interest.

In like manner, the urban body functioned as a 'super-community' or 'super-household'. The inhabitants expected the municipal authorities, who purportedly embodied the entire urban community, to promote their common interests. That this principle did not only apply externally but also internally, is shown by the yarn boilers of Haarlem. They suggested that the urban magistrates had neglected the well-being of the cloth industry in their zeal to defend the interests of the brewers.⁴ That the organizational structure of Holland resembled Aquinas' tiered society indeed, becomes clear when we scale up further. The cities' meddling in the drainage plans for the Schermer and the Haarlemmermeer, for instance, demonstrates that politics worked the same way outside the cities as within them: fend for yourself, consult your fellow stakeholders, form alliances where you need them. In a similar way, cities pursued their interests in the States of Holland. The provincial states, in their turn, did the same in the States General.⁵

Within the cities, individuals and organizations could pretty much do what they liked, up to the point where their activities bothered their fellow inhabitants. Once city dwellers harmed or trespassed upon the property of others in some way, they had to be prepared to enter negotiations. Neighbours often made arrangements about intrusions on each other's soil. They dealt, for instance, with rainwater dripping from an overhanging roof onto a neighbouring plot or with one or more spurs connecting to a privately owned drainpipe. Prudent neighbours went to the notary together to record how facilities would be used communally, and how the cost of maintenance was to be divided. These were usually bilateral arrangements, made without the intervention of third parties. Sometimes, trespassing took place

³ Finnis, 'Subsidiarity's Roots', 134.

⁴ NHA SA 3964 (Haarlem 1645).

⁵ Pollmann, 'Eendracht maakt macht', 142.

in a less literal way. The brass founder who allowed the sparks from his foundry to disperse over The Hague, blackening rainwater, clearly overstepped a mark.⁶ So did the family who discharged all kinds of filth through a communal drain.⁷ They were set right in a similar way as mentioned before. Neighbours of the trespassers first tried to reason with them privately, by means of a personal conversation. Only if these attempts failed, people called in arbitrators. It is highly feasible that people did not put down every contract they made. Oral agreements were probably quite common. They only show up in the records when disputes arose. In such a case, it sometimes happened that one of the contracting parties still went to a notary to prove their righteousness by testimonies.

Areas shared by different households were also subject to ongoing negotiation. The rapid growth of the population brought about densification of the cities: the formerly empty spaces behind the houses and over waterways became more and more built over. This meant that enclosed areas, like former backyards accessible through an alley, were no longer privately used. Occupants of houses and workshops around the same courtyard, as well as those sharing eavesdrops, walls, wells and other amenities, recorded what was permitted in the non-public communal space. Contribution to the upkeep of an area was essential for participation in a communality. People who paid for or helped with the maintenance or improvement of the infrastructure, earned their right to have a say, a right which was taken seriously. It was also the other way around. People who made uncalled for alterations to a privately owned space, assumed with that the right of at least partial ownership. They were sometimes rebuked vigorously by the ones who thought to be the rightful owners.

Residents and urban administrations took care of the publicly accessible zones together, complementing each other's activities. The municipal administration often invited tenders for larger infrastructural works. Sometimes the inhabitants of the towns had prompted them to do so, though apparently the urban governors and the chiefs of the *fabriek* also took such initiatives themselves. This seems to contradict the principle of subsidiarity attested earlier. Yet if we perceive of the urban community as one large household, there is nothing strange about the figurative household servants running errands on behalf of the community. After all, there are indications that city dwellers saw the thoroughfares of the town, streets and waterways alike, as the property of them all. And since participation in the preservation of an area was an essential part of ownership, the community was responsible for the maintenance of public roads and facilities. Seen from this angle, it is not difficult to reconcile a subsidiary organizational structure with the

⁶ HGA NotA 180:340r-v (The Hague 1649).

⁷ HGA NotA 189:147r-v (The Hague 1649).

frequent involvement of the urban administration, which was the formal representation of the entire community.

In theory, the magistrates represented the citizens only. But in daily social interactions, the difference between citizens and mere inhabitants were less apparent. Notaries did not stress the distinction between the two categories. Moreover, everybody with a respectable background could make a request to the governors of a town: citizens, residents and even foreigners, with the possible exemption of the mob. It follows that the significance of the division between citizens and non-citizens was predominantly economic. Craftsmen who wanted to join a guild usually needed citizenship; residents in need of relief were better off as a *burgher*.⁸ In the relations of city dwellers and the dealings between them, these distinctions did not really matter. This means that Pieter de la Court's description of citizens as the entire community of inhabitants was not mere idealism, but reflected the real situation in the cities.

With the existence of several groups taking up responsibilities, there was no clear delimitation between the public space on the one hand, and both shared and private spaces on the other hand – something historians deem typical of premodern times. The volatile border is also apparent regarding the provision of urban services. Sometimes the urban administration took this task into its own hands, but as often as not it acted merely as an overseer and a guardian of service levels. In general, when it came to managing water, the government allowed people to do what they wanted, if they did not bother others. This accounts for the fact that anyone could lay, for instance, a conduit or cistern beneath the surface of a public street. The possible result, an unchecked jumble of constructions lying below the pavement, did not really matter. The administration only required that the construction work was done fast and that the street remained strong and wide enough to accommodate all regular traffic. In other words, magistrates and their minions ran a check on the expected hindrance of a plan. If the project passed the test, the applicant could virtually do whatever s/he liked. The idea that much could be left to the stakeholders, is a clear sign of subsidiarity.

Where water politics are concerned, the role of civil society was not fundamentally different from that of the individual inhabitants. Guilds and neighbourhood organizations were just two of the parties involved in a process of negotiation. Only in Haarlem evidence was found that two of the numerous guilds worked in unison with the magistrates to achieve their goals, for instance by gauging the waterway's depth together. The close cooperation of the brewers' guild with the burgomasters and regents is hardly surprising. When defending the interests of

⁸ Prak, *Citizens without nations*, 7, 36.

the guild members, the brewers simply took advantage of the fact that the authorities of the city were their peers and family members. There are several ways to check to what extent the paucity of water-related records originating from guilds mirrors their role in urban life at large. We could refer to the guilds' archives, for instance, incorporate more towns in the search or use another elemental substance or product to observe society.

The question should be raised whether, and if so, how, the relationship between the urban magistracy and economic leaders changed when the ranks of the magistrates closed due to the professionalization of the public office during the eighteenth century. What is clear already, is that Holland's guilds stuck to their socio-economic tasks in the seventeenth century. They had not the all-important role in the cities that Maarten Prak and other historians suggested.⁹ It is quite understandable that Prak saw guilds as the most influential group through petitions, since he based his conclusions on Henk van Nierop's sample of appeals. Van Nierop, however, sampled not from all available requests. He only selected eighteenth-century appeals that were aimed at making or altering legislature, just like I exclusively selected water-related documents. As Michel Reinders has shown, appeals geared toward changing high politics were generally made in groups.¹⁰ So, it may well be that guilds were the most active instigators of legislative change. However, they were by no means the only ones who tried to influence urban politics through petitions. A systematic categorization of petitions submitted to the urban authorities in premodern time would be helpful to clarify this issue.

Like guilds, neighbourhood organizations were not omnipresent and did not try to expand their sphere of influence. In general, they did not meddle with water-related projects. Thus, they did not resemble the well communities present in the east of the Dutch Republic and the German lands. The government of The Hague, however, took advantage of the organizational structure of the neighbourhood organizations. They invested the neighbourhoods with the power to organize the cleaning of their own vicinity. They also provided backup enforcement, in case the lower authority failed in collecting the tax it needed. In addition to keeping the record of the inhabitants and a ceremonial role in major life events, the neighbourhood organizations of Haarlem, The Hague and Rotterdam took responsibility for peace keeping within their jurisdiction. In this sense, they bear resemblance to the wardmote courts of London, acting as an interlayer between individual residents and the municipal magistracy.¹¹

⁹ Prak, 'Corporate politics', 103-104; Bos, 'A tradition of giving and receiving'; Dumolyn, 'I Thought of It at Work', 402-404; Prak, *Citizens without nations*, 47, 115.

¹⁰ Reinders, *Gedrukte chaos*, 82.

¹¹ Rees Jones, 'The word on the street', 105.

In those human interactions that shaped life within the cities, ad hoc associations were at least as important as civil organizations. Stakeholders cooperated in occasional formations, based on the objectives they wanted to achieve. Individuals residing in the same quarter liaised to have their streets raised or a bridge built, for instance. They did not need a neighbourhood organization for that. Craftsmen and merchants joined together temporarily to make a request, without the interference of a guild. The collaborations thus formed, were a kind of lobby group, turning to the magistrates to plead for measures for the preservation or improvement of their own situation. It is highly plausible that stakeholders talked their plans through with other potentially interested parties before they turned to the magistrates to seek authorization. Thus, they impacted, possibly not always intentionally, the general mood in the vicinity. Conversely, public opinions changed the appeal to the magistrates before it was submitted, by sharpening the wording, enforcing the argumentation or even enlarging its scope. This is what we observed when shipwrights and merchants from Rotterdam not only asked for the reconstruction of a demolished drawbridge, but also for the improvement of the street.¹² This and other examples illustrate that consultation was no exclusive prerogative of the magistracy. A rational discourse took place literally on the streets.

The influence of ordinary city dwellers on decisions of the urban magistrates was even larger than Prak assumed, or at least they had more legitimate ways and means at their disposal.¹³ Apart from the conviction of the governors representing the citizens and the opportunity to pressurize through civil society, residents could and did address the aldermen, bailiff, burgomasters and regents directly. Whether they did so in unison or not, was mainly a matter of scale. The objective of a typical alliance was the construction of an entire street or the removal of a nuisance that bothered a large area. It was probably no coincidence that the petitions with the sharpest formulations came from groups. Petitioners connected poor water quality explicitly to health threats and thus to a problem with a potentially high risk. It indicates that the lack of water quality and the consequential health risks did matter deeply to the supplicants, just like Janna Coomans suggested.¹⁴ And it may well have been the import of the subject at hand that helped people over the threshold of criticizing the authorities. They had to phrase their reproach carefully, yet it is clear that a rational and critical discourse was possible in seventeenth-century Holland. I assume that the acceptability of residents carping the

¹² SAR ONA 353:487 (Rotterdam 1636-44).

¹³ Prak, *Citizens without nations*, 5.

¹⁴ Coomans, *In Pursuit of a Healthy City*, 36-37.

magistrates on subjects with a relatively low political impact was a necessary condition to allow more controversial discussions.

Just like the entire community of a city was responsible for the upkeep of the urban infrastructure, it was also everybody's task to maintain the peace. To begin with, inhabitants expected each other to behave in a sensible, neighbourly manner. The communal values that Anthony Black identified in fourteenth-century cities were still very much alive.³⁵ This meant that the townsfolk lived with respect for each other's needs, without making a nuisance of themselves. When city dwellers did not act in a neighbourly manner, everyone could approach them regarding the matter. Individual community members were able to reconcile their interests by seeking the assistance of anyone they trusted. In addition, people could turn to civil organizations or to the magistrates whenever they felt the need, literally invoking their *subsidium*. Conversely, neighbourhood organizations and the urban government could also take the initiative to summon inhabitants that threatened to disturb the peace. The urban authorities, especially mayors and regents, sometimes took the investigation and judgement into their own hands. The idea that arbitration could be left to anybody might be interpreted as a breach of subsidiarity, for chances were that organizations usurped responsibilities that could have been borne by smaller entities. Yet we can also see it as the pinnacle of subsidiarity. Peacekeeping was left to the community itself. Its members could seek help when and from whomever they wanted.

The notion that the municipal administration was the formalized manifestation of the community, representing all its members at once, does not mean that the government and the inhabitants spoke to each other on an equal footing. Residents submitted applications for building permits and requests for alterations in the public space, thus confirming the authority of the urban government. The magistrates, in their turn, weighed the interests of all stakeholders before making a decision. Furthermore, they were able to take drastic actions on their own account. It was in their power to close sewers and demolish bridges, apparently without prior notice. All that the city dwellers could do, either in unity or individually, was to file their grievances in an attempt to revise the governors' decisions. Subsidiarity was not absolute, since the urban authorities had the legitimacy to go against the plans and actions of the inhabitants. They sometimes took on responsibilities that individuals or groups of neighbours could, and in many cases did bear.

The magistrates' main responsibilities concerning water politics were threefold: laying down endorsed customs in by-laws if necessary, keeping the peace within

³⁵ Black, *Guilds and Civil Society*, 69-78.

their jurisdiction and defending any interests that exceeded those of a handful of residents. In sum, they had eye for the common good in their jurisdiction. It was something the inhabitants expected them to do. People turned to the urban government when they faced problems whose solution was beyond their reach, even in assembly. By extension, this meant defending the interests of the city in the surrounding world. Hence, they stood up for the inhabitants, merchants and craftsmen against rivaling cities, the landed gentry and regional water boards. It is generally understood that with the abjuration of Philip II (1527-98) as overlord of several provinces in 1581, Holland's cities gained power in the Northern Netherlands.¹⁶ Apparently, it did not radically change the power structure within the cities.

Furthermore, city dwellers possibly also expected that the authorities would deal more or less fairly in the case of conflicting interests among their subjects. In this sense, there is a similarity between the indignancy of Haarlem's cloth workers protesting against the erection of a fulling mill that was disallowed elsewhere and the request of the residents of an alley in the same city to reopen an arbitration case.¹⁷ On both occasions, people asked for the right of all parties to be heard, as well as their interests to be considered. Whereas city dwellers looked at the government for the balancing of interests, they themselves tended to look after their own needs in the first place.

Although subsidiarity does not preclude solidary behaviour, petitioners only incidentally referred to other people's needs as a reason to appeal for water-related measures. The common good was sometimes used as an additional argument, which came in support of one's own purposes. Worth recalling in this respect is the attitude of Haarlem's skippers' guild, which implied that whatever was good for the guild, was good for the city, and thus for the common good. This attitude is slightly different from the medieval use of the common good that Coomans indicated, namely as a thin veneer of good intentions shrouding selfish goals.¹⁸ In seventeenth-century Holland, the pursuit of self-centred objectives did apparently not embarrass the inhabitants. Thus, they needed no veneer. When they considered the interests of a larger audience, it was not necessarily out of the intention to do good, but rather consequential upon the public discussion they had had, thereby taking in the viewpoints of various actors.

The observation that private inhabitants, civil organizations and municipal governors shared responsibilities among them, raises a couple of questions. The first is, whether a fluid public-private boundary and subsidiarity were interrelated.

¹⁶ Lesger, 'De wereld als horizon', 142.

¹⁷ NHA SA 3964 (Haarlem 1645); NHA ONA 225:119r (Haarlem 1650).

¹⁸ Coomans, *In Pursuit of a Healthy City*, 38-39.

This is not necessarily the case. Guy Geltner, for instance, cited some examples of authorities imposing regulations that intervened in the private homes of their subjects.¹⁹ Irrespective of the question whether they did so in order to meet the expectations of the citizens, or even acted in conjunction with them, this demonstrates that subsidiarity and a permeable public-private boundary needed not to coincide.

Another question concerns the possible connection between subsidiarity and the *poldermodel*. In two volumes that appeared about this subject in 2008 and 2013, each with an entirely different approach and intended audience, the authors agreed that discussion and seeking consensus are the *poldermodel's* main characteristics.²⁰ Although there was a large overlap between entities fending for themselves and the discussion culture in seventeenth-century Holland, the two are not the same. In theory, people could have managed their own affairs and called in the help of a higher authority at the moment that their interests collided with those of others. In Holland's practice, however, the two went hand in hand. People looked after themselves, consulted each other, sometimes adjusted their plans, and only then sought the aid of corporations or governments when needed.

One of the reasons to choose the seventeenth century for this research, was the combination of rapid growth of Holland's urban population and the occurrence of an economic boom at that time. Both factors increased the stress on the local water system, as well as on other resources. The spatial footprint of cities increased; they needed more water to supply both residents and industries; and pollution expanded along with it. Bringing to mind that the water system, as defined by Tvedt, also encompasses cultural elements, the influx of many immigrants could have changed the water system as well. The migrants originated from rural and urban areas as wide apart as Scandinavia and France.²¹ Each took their own ideas and habits; together they could have altered the way Holland's people perceived water and, more generally, the urban environment.

The developments sketched above were not unique for Holland, nor for the seventeenth century. Even if we restrict ourselves to the North Sea area, examples of rapid population growth, economic surges and mass immigration are overabundant. In the Southern Netherlands, the harbour city of Antwerp experienced an economic upswing in the sixteenth century. Its population more than tripled between 1480 and the 1560s, growing to more than 100.000 souls.²²

¹⁹ Geltner, *Roads to Health*, 42.

²⁰ Bos et al., *Harmonie in Holland*, 22-23; Prak & Van Zanden, *Nederland en het poldermodel*, 12.

²¹ Lesger 'De wereld als horizon', 135; Frijhoff & Prak, *Geschiedenis van Amsterdam, 1578-1650*, 11.

²² Blockmans, *Metropolen aan de Noordzee*, 554.

Even though Holland stood economically in the shadow of the southern regions during that time, its population nearly doubled, particularly in urban areas.²³ In the seventeenth century, London was already more populous than any of the cities in the Low Countries. When it took over the economically dominant position from Amsterdam in the eighteenth century, its population kept on growing, at least doubling in size within a century.²⁴ Meanwhile, large quantities of labourers continued to migrate from town to town. Basically, they went wherever the economic tide was favourable, taking their skills, ideas and habits with them.²⁵

Despite the fact that I examined six decades of increasing pressure on the urban water systems, there were barely fundamental changes to be seen in people's attitudes, either towards water, or towards their fellow residents. Whereas some regional variances emerged, there was apparently no major change through time. Granted, plague years show up in the records, just like major floods and the end of the Dutch War of Independence. Yet these incidents had no lasting effect on the attitude of city dwellers when it came to managing their cities. This suggests that the urban way of life – including the organizational structure, the allotment of tasks, the discourse and consultation among the inhabitants and their representation in the urban government – was firmly established by the seventeenth century. The urban communities of the Netherlands had faced similar developments before and could cope with them. As Tim Soens pointed out, disasters like floods seldom brought about social or institutional change in The Netherlands. Similarly, neither did the rapid population growth, the higher demand of resources and the increased strain on the environment in the seventeenth century.²⁶

Even so, I noted the early signs of developments that would take effect later on in the seventeenth and eighteenth century. First and foremost, I found clues that the privatization of urban dwellings in northwest Europe took off earlier than historians assume. In order to accommodate the growing population, cities both expanded their boundaries and densified the urban fabric within their borders. House owners made adaptations, dividing buildings and erecting new ones, in order to make money from the increased demand. Thus, people lived closer together than before. Moreover, they had to share facilities like cisterns, sinks and privies with people not belonging to their household. Based on the ideas of Sissela Bok and the findings of Laura Gowing, I hypothesize that it was this proximity that induced city dwellers to mark their territory more sharply.²⁷ By mentally

²³ Woude, van der, 'Population developments', 56; Vries, de, *European urbanization*, 39.

²⁴ Blockmans, *Metropolen aan de Noordzee*, 653.

²⁵ Lesger, 'De wereld als horizon', 104.

²⁶ Soens, 'Resilient societies', 157-159.

²⁷ Bok, *Secrets*, 12; Gowing, 'The freedom of the streets', 135.

separating private space from shared areas, they developed a notion of privacy. A second indication of possible change concerns the deliberate invocation of public opinion by petitioners. However, to conclude that a shift was imminent on the basis of a single sharp-phrased appeal would be too bold. More research on the tone of voice used in petitions – and not only in those about controversial topics – is warranted.

As for continuity, the findings underscore that an amphibious culture was firmly established in the cities. It showed in much more aspects of life than Petra van Dam could possibly indicate within the limits of an inaugural oration.²⁸ Tracing the three coping strategies she identified in the reports on everyday urban life, I find that only the compartmentalization of the land was exclusively meant to minimize the impact of floods. It was a measure the brewers of Haarlem promoted in 1621, pursuing the construction of an earthwork that would separate salt water from their main fresh water supply in the event a dike burst.²⁹

As to the strategy of living in elevated places, I conclude there was more to that than a sensible precaution in a region liable to flooding. We have but to look at the example of The Hague to see that settlers preferred relatively high and dry conditions over the swampy and acidic peat. In the rest of Holland, people chose firm and slightly raised ground to establish their towns, only expanding them into the peat when water became important for intercity communication. In the seventeenth century, city dwellers still recognized the merits of a slightly raised place, namely improved drainage opportunities. This is demonstrated by the fact that both builders and gardeners prepared new sites by raising the ground, as well as by the eulogy of the Haarlemmer who transformed a swamp into a habitable space.³⁰ The fact that they could flee to a higher spot in town in cases of emergency was probably important to the city dwellers as well, but only on an occasional basis.

The third strategy that Van Dam mentioned, the presence of water-borne transportation, was also a lucky coincidence in the event of a disaster. True, the omnipresence of rafts and barges was very convenient to evacuate people, cattle and goods when the land was submerged. However, I cannot but see it as the corollary of Holland's amphibious culture in its broadest sense. People needed water transport on a daily basis, in order to trade, to carry bulk goods, to travel over a long distance or just to get across in a region riddled with water.

²⁸ Dam, van, *De amfibische cultuur*. Cf. Dam, van, 'An Amphibious Culture'.

²⁹ NHA SA 4041 (Haarlem 1621).

³⁰ NHA ONA 125:126r (Haarlem 1625); HGA OA 124:279 (The Hague 1645); SAR ONA 311:340 (Rotterdam 1649); HGA OA 125:38r (The Hague 1657).

The foregone discussion underlines that considering non-human factors does not only pay off in the discipline of environmental history, but in other fields of historical studies as well. By engaging non-human and passive actors, ANT encourages scholars to look across the borders of disciplines. Even though this entails some methodological challenges and the risk of misunderstanding, I think historians would profit from doing this more often, to put historical findings into perspective. In the context of this study, the prospect of other disciplines did not change the conclusions dramatically. Nevertheless, they helped to step back and to soften the consequences of an all too emic approach. Had I relied on the accounts of Haarlem's skippers, for instance, I would have thought that the spilling of sand and refuse caused shallows in the Spaarne.³¹ More likely, the shallows were the result of recurrent floods, causing salt IJ water to mix with fresh water, which often leads to a deposit of silt.

Thus, the use of adjoining disciplines as auxiliary sciences enables us to question issues that we usually take for granted. In this context I would like to bring forward an issue that has been nagging at the back of my mind for the past few years. It was possibly Rijnland's land surveyor Claes Arentsz Colevelt who first argued that the drainage of the Zoetermeerse meer in 1614 had deteriorated the water quality in the canals of Leiden. Although several historians have repeated this as the truth, it is questionable if we can take Colevelt at face value.³² Looking through a pair of geographical glasses raises doubts. If we assume that the average rainfall did not change, the surface of the drained *polder* received as much precipitation as the lake had.³³ After the reclamation of the land, surplus water had to be drained artificially by mills. They pumped it out into the ring canal, after which it floated through the Vrouwenvaart towards Leiden, just as it had formerly done. It is true that Leiden no longer had an open fresh water reservoir to its south. But they did not get one drop less than before. In short, insights originating in other disciplines can help us seeing topics afresh.

And now, like the residents of the Vogelenzang cited above, I lay this thesis into the hands of my peers, requesting them with all due respect to examine and comment upon it, as they see fit.

³¹ NHA SA 5279 (Haarlem 1631).

³² Colevelt, *Bedenckingen*, 11-13 (1642). Cf. Smit, *Leiden met een luchtje*, 59; Tielhof, van & Van Dam, *Waterstaat in stedenland*, 162; Ham, van der, *Hollandse polders*, 72; Oosten, van, *De stad, het vuil en de beerput*, 229. For the location of the Zoetermeerse Meer, see map 1:A5.

³³ According to Buisman & Van Engelen the alternation of dry and wet years in The Netherlands was fairly balanced between 1614 and 1642. Buisman & Van Engelen, *Duizend jaar weer 4 1575-1675, 714-715*.

Appendix 1: transcription of the Vogelenzang case

I appeal

<p>To the Honoured gentlemen 2 burgomasters and regents of the city of Rotterdam</p> <p>4 The undersigned neighbours, living in the Nieuwe Vogelenzang in this 6 city, make known with all due respect that the streets and gutters 8 in front of their respective houses are lying so low and unevenly, that 10 these are submerged by common rainfall both in summer and winter.</p> <p>12 And when not raining, the streets are barely passable due to the 14 aforesaid unevenness, causing citizens to suffer from stumbles and 16 the supplicants to endure great disadvantages and a noticeable 18 stench.</p> <p>So much indeed, that it is to be 20 feared that the situation will engender major accidents, and that 22 they cannot enter or leave their houses or endure the situation 24 when it rains or smells like mentioned before.</p> <p>26 Especially since the municipal sewer through which the same streets and 28 gutters previously used to drain (by way of the vinegar yard of the 30 brewer of the Anker brewery, towards the ditch that is lying there) 32 has fallen apart and become useless by old age.</p>	<p>Aende Edele Achtbare heeren burgermeesteren ende regierders der stad Rottterdam</p> <p>Geven reverentelijck te kennen de ondergeschreve gebuijren wonende inde Nieuwe Vogelsanck binnen deser stede, hoe dat de straten en de goten voor heurluijder respective huijsingen soo laag ende ongelijck sijn leggende, dat deselve bij somer ende wintertijden door een gemeenen regen onderleggen.</p> <p>Ende niet regenende, door de voorschreve ongelijckheit qualijck te begaan sijn, waardoor de burgeren door 't vallen, ende sij supplianten grooten intrest en merckelijcke stanck sijn lijdende.</p> <p>Ja soodanich, dat te duchten staat groote ongelucken daar uijt sullen resulteren, en sijluijden bij regen ende stanck als voren, alsdan noch in, noch uijt heur huijsingen kunnen komen ofte duijren.</p> <p>Te meer omdat deser stadts riool waardoor voor desen deselve straten ende goten haer losinge plachten te hebben doorden asijnhoff vande brouwer in't Ancker tot inde sloot aldaar gelegen toe, door outheijt is vervallen ende onbrijckbaar geworden.</p>
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- | | |
|--|--|
| <p>34 Thus, the supplicants were advised
 36 to present themselves to Your
 Honours, requesting with all due
 respect that it may please them
 38 (after duly considering the former
 reasons and the consequences of
 40 the same) to hand over the contents
 of this petition, authenticated with
 42 an apostille, to the chiefs of the
 municipal carpenters' and
 44 bricklayers' yard, in order to
 examine the aforesaid request.</p> | <p>Soo waren sij supplianten derhalven
 te raide geworden, heur aan Uwer
 Edele Achtbare te adresseren,
 reverentelijck versouckende haer
 selver gelieven te willen sijn (de
 vorige redenen, ende der
 consequentie der selver wel
 geconsidereert werdende) de edele
 heeren fabrijcmeesteren der stadt
 den inhoud van dese met appostille
 in margine van desen ter handen te
 doen bestellen, om 't gunt
 voorschreven is te examineren.</p> |
| <p>46 And at the establishment that this is
 true indeed, to restore the aforesaid
 48 streets, and gutters at the expense
 of the common neighbours, and to
 50 level and make whole the aforesaid
 sewer at the cost of the city.</p> | <p>Ende alsoo bevindende gelijk 't
 inder daat oock soo is, de
 voorschreven straten ende goten
 tot costen vande gemeene
 gebuijren, ende de voorschreven
 riool tot koste van dese stadt gelijk
 ende bequaam te doen maecken.</p> |
| <p>52 With the promise that in the event
 that some neighbours would be
 54 unwilling to pay for the renovated
 streets and gutters in front of their
 56 houses, that the supplicants will do
 so, provided that Your Honours
 58 issue an act of cession to the
 supplicants, and backing them up in
 60 this matter, at the expense of those
 miscreants.</p> | <p>Met belofte in cas eenige gebuijren
 onwillich soude mogen sijn om de
 vernieuwde straeten en goten voor
 heur huijsinge te betalen, dat sij
 supplianten 't sullen doen, mits bij
 Uwer Edele Achtbare actionem
 cessam ten laste van soodanige
 quaatwillige aan heur supplianten
 gegeven werdende, ende heur daar
 in maintenerende.</p> |
| <p>62 In respect whereof, etcetera.

 Pieter Reijmersen, owning two
 64 houses

 Jan Heyndryckse</p> | <p>Dit doende, etcetera.

 Pieter Reijmersen voor 2 huijsen

 Jan Heyndryckse</p> |
| <p>66 This is the sign of Pieter Gideonsz
 sailor</p> | <p>Dit is t merck van Pieter Gideonsz
 schipper</p> |
| <p>68 This is the sign of Jesje Dirckx

 Jan van Hetfroij for himself and for
 70 his sister, acting on behalf of five
 yards</p> | <p>Dit ist merck van Jesje Dirckx

 Jan van Hetfroij voor hem en voor
 sijn suster, hem starck makende vijf
 erffve</p> |
| <p>72 Arijen Cornelisz Cruyf</p> | <p>Arijen Cornelisz Cruyf</p> |

	This is the sign of Teunis Jansen Pijl	Dit ist merck van Teunis Jansen Pijl
74	Tomas Mertence Klein	Tomas Mertence Klein
	This is the sign of Lijsbet Hendericx	Dit ist merck van Lijsbet Hendericx
76	Maerte Janse de Bruen	Maerte Janse de Bruen
	This is the sign of Salomon	Dit ist merck van Salomon
78	Henderixse, owning two houses	Henderixse voor 2 huysen
	Nelege Guers	Nelege Guers

II Counter-appeal

80	To the Honoured gentlemen burgomasters and regents of the	Aende Edele Achtbare heeren burgermeesteren ende regeerders
82	city of Rotterdam	der stadt Rotterdam
	Presenting with all due respect	Geven reverentelijck te kennen
84	Cornelis Blonck, Anthonij van	Cornelis Blonck, Anthonij van
	Opijnen, captain Claijs Adriaens	Opijnen, capiteijn Claijs Adriaens
86	vander Linde, Jacob Sijmons van	vander Linde, Jacob Sijmons van
	Venroij, Treijntgen Fredricx, Claes	Venroij, Treijntgen Fredricx, Claes
88	Jansz van Stockum, Pieter	Jansz van Stockum, Pieter
	Kalerenberge, Hanrick Jansz,	Kalerenberge, Hanrick Jansz,
90	Maerten Jans, Maertgen Claes and	Maerten Jans, Maertgen Claes ende
	Adriaen de Meter, all inhabitants	Adriaen de Meter, alle gehuijsen
92	and yard owners in the Nieuwe	ende geerffden inde Nieuwe
	Vogelenzang, also called the	Vogelesangh ofte anders genaemt
94	Stinksloot in this town, some of	de Stinck sloot alhier, sommige van
	them presenting themselves as the	henluijden supplianten coomende
96	owners of three houses and yards.	als eijgenaer van drie huijsen ende
		erven.
	That the ground level of their	Hoedat haer supplianten
98	supplicants' aforesaid houses and	voorschreve huijsinge ende erven
	yards lack sufficient height to allow	soodanige hoogte van gronden niet
100	the raising of the channel's crown	en sijn hebbende omme te cunnen
	(for the benefit of the common	verdragen dat de watersloop (ten
102	neighbours) above the level	dienste vande gemeene gebuijren)
	indicated by the marker pegs	mette kruijn hooger werde geleiijt
104	driven into the ground to this	als de palen ten dien aensien voor
	purpose.	desen geslagen.
106	And while the situation of the	Ende met welck leggen vande
	channel is sufficiently convenient to	waterloop alle de gemeene
108	all common neighbours, who need	gebuijren genouchsaem gerieeff
	not to be provided otherwise;	ende hen niet anders van noode
110	notwithstanding the fact that a few	soude zijn; doch dat des niet

112 house owners, whose premises lie
 114 higher than the average ground
 116 aforesaid channel were raised as
 mentioned before; [this would
 lead,] however, to considerable
 devastation to the suppliants.

118 Or even solicit such, or try to
 advance some proposals
 120 concerning this matter, that the
 crown of the aforesaid channel can
 122 be raised above the level of the
 aforesaid marker peg,
 124 notwithstanding the fact that it is
 well known, that the suppliants'
 126 houses and yards would suffer a lot
 of damage.

128 And because reason and fairness
 impose that in such a case one
 130 should prevent damage and cut the
 citizens' inconveniences short by all
 132 means.

134 Especially when there is no
 necessity; and because the
 136 profitability of the aforesaid
 measure for this city and for the
 138 other plot holders is not so high
 that it is in proportion to the
 damage inflicted to the supplicants.

140 Thus, they were compelled to turn
 to Your Honours, requesting with
 142 all due respect that it may please
 Your Honours mercifully to raise
 144 the aforesaid crown of the gutter
 no higher than the marker peg
 146 mentioned before.

In respect whereof, etcetera.

jegenstaende eenige eijgenaers van
 huijsen wesende haere gronden
 boven ordinaeris hoogh ende wel
 niet beschadicht indien de
 voorschreven waterloop hooger als
 voorschreven wierde geleijt;
 nochtans tot merckelijcke schade
 van haer suplianten.

Of sulcx selfs solliciteren, off eenige
 propositien dienaengaende
 vallende soecken te vorderen, dat
 de kruijn vande voorschreven
 waterloop hooger mochte werden
 geleijt als de voorschreven geslage
 pael, al niet jegenstaende deselve
 wel bekend is, dat der suplianten
 huijsen ende erven veele schade
 soude lijden.

Ende nadien in alle reden ende
 billickheijt bestaet, datmen de
 schade in soodanige gevalle
 behoort te voorcoomen, ende
 t'intresse vande burgers bij alle
 wegen af te snijden.

Bijsonder daer de necessiteit sulcx
 niet aen en drijft, ende t'gunt
 voorschreven is deser stede, ende
 de voorschreven andere geerfde
 soodanich proffijjt niet en can
 toebrenghen, dat in comperatie bij
 d'schade van haer suplianten can
 coomen.

Soo werden sij suplianten
 genootsaect haer te keeren aen
 Uedele Achtbaerheden,
 reverentelijcke versoeckende dat
 Uedele Achtbaerheden
 goedertierende geliefte zij
 d'voorschreven goot mette cruijn
 niet hooger te leggen als de
 meergenoemde geslage pael

Twelck doende, etcetera.

III Inquiry

148	Inquiry The interested owners of the	Requeste De geintresseerde eijgenaers vande
150	houses and yards in the Nieuwe	huijsen ende erven inde Nieuwe
152	Vogelenzang, concerning a sewer 15 October 1658	Vogelsangh, rakende een riool 15 October 1658
154	Jan Gerritsen Hetfroij said: I hope that the street will be reconstructed. Owns three houses.	Jan Gerritsen Hetfroij seijde: ick mach wel liden dat de straet gemaect wert. Heijt 3 huijsen.
156	Nehemijn van Hetfroij said: I refuse to choose sides.	Nehemijn van Hetfroij seijde: ick stel mijn geen partij.
158	Claes Clasen, brewer in the Anker said: I refuse to choose sides.	Claes Clasen brouwer int Ancker seijde: ick stel mijn geen partij.
160	Roelant Lichtermans said: I do not care; no matter how the gentlemen	Roelant Lichtermans seijde: het scheelt mijn niet; soo het de heere
162	decide, I will approve	verstaen, soo is mijn wel.
164	Salomon Heinderickse, owning two houses, said: restore it.	Salomon Heinderickse, voor 2 huijse, seijde van maken.
	Neeltgen Guerts said: restore it.	Neeltgen Guerts seijde van maken.
166	Elisabeth Heindricks said: restore it.	Elisabeth Heindricks seijde van maken.
168	Cornelis Blonck said: it makes no difference to me; no matter how	Cornelis Blonck seijde: het is mijn
170	the gentlemen decide, I will approve.	indifferent; alsoo het de heere verstaen is mijn wel.
172	Lady Van Wou said: restore it.	Joffrouw Van Wou seijde van maken.
174	Abraham Drijnen said: I can say yes or no. If they say 'restore' I approve, if they say 'do not restore' I approve	Abraham Drijnen seijde: ick wil ja of nee seggen. Maken sijse tis wel, maken sijse niet tis oock wel.
176	as well. Tomas Maertensen said: restore it.	Tomas Maertensen seijde van maken .
178	Maerten Janse de Bruijn said: restore it.	Maerten Janse de Bruijn seijde van maken.
180	Pieter Gidionse said: restore it. Teunis Janse Pijl said: restore it.	Pieter Gidionse seijde van maken. Teunis Janse Pijl seijde van maken.
182	Jaepge Roelants said: restore it.	Jaepge Roelants seijde van maken.

- | | | |
|-----|---|--|
| 184 | Pieter Jacobse the cabinet maker said: restore it. | Pieter Jacobse schrienwerker seijde van maken. |
| 186 | Arij Cornelissen Cruijt said: restore it. | Arij Cornelissen Cruijt seijde van maken. |
| 188 | Jesge Dirckx said: restore it. | Jesge Dirckx seijde van maken. |
| 190 | Jan Heindrickxe said: restore it. | Jan Hendrickxs seijde van maken. |
| 192 | Jacob Simonse said: I have nothing against it, unless the street level would be too much above mine. | Jacob Simonse seijde: ick heb daer niet tegen als sij mijn niet alte veel onder hoogen. |
| 194 | Errenst the brazier said: I have nothing against it, but I can only speak on behalf of the alley. | Errenst de koperslager seijde: ick heb daer niet tegen, maer ick heb maer voor de gange te seggen . |
| 196 | Pieter Reijnierse, owning two houses, said: restore it. | Pieter Reijnierse voor 2 huijse seijde van maken |
| 198 | Maertgen Claes said: my pavement is fine. | Maertgen Claes seijde: mijn straet is goet. |
| 200 | Ot van Oeveren, owning two houses, said: my pavement is fine. | Ot van Oeveren voor 2 huijse seijde: mijn straet is goet. |
| 202 | Pieter Kirreberg said: I hope that it remains the way it is. | Pieter Kirreberg seijde: ick mach wel liden dat sij blijft leggen soo als sij is. |
| 204 | Claes Janse said: I would lose my draining opportunity completely if the street were raised. | Claes Janse seijde: al mijn water loop sou ick daer mede verliesen als de straet gehoocht werde. |
| 206 | Trintgen Frericx said: I would have to pay for three houses and I have plenty to do to earn a living for my children. | Trintgen Frericx seijde: ick sou voor 3 huijse moeten betalen en ick heb genoch te doen dat ick voor mijn kinderen de kost vijn. |
| 210 | Johannis van Oppine said: I prefer it to remain this way, rather than take on this burden. | Johannis van Oppine seijde: ick heb liever dat sij blift leggen als dat ick er mede geintreseert sou sijn. |
| 212 | Arij Harmanse the whitesmith said: | Arij Harmanse witwercker seijde: |
| 214 | no matter how the gentlemen decide, I will approve. | soo het de heere verstaen ist mijn wel. |

- | | | |
|-----|--|---|
| 216 | Gerrit Frericks said: my house is no
higher than the street; I would not | Gerrit Frericks seijde: mijn hujs
staedt niet hooger als de straet; ick |
| 218 | be able to drain my water. | sou mijn water niet connen losen. |
| 220 | Gisbert vander Bijl for his gold mill
said: my pavement is fine. | Gisbert vander Bijl voor sijn
goudtmolen [sic] seijde: mijn straet
is goet. |
| 222 | Maerten Janse the drayman,
concerning his stable, said: my
pavement is fine. | Maerten Janse sleper, voor sijn stal,
seijde: mijn straet is goet. |
| 224 | [Signed] Adriaen vande Graeff | [was getekend] Adriaen vande
Graeff ¹ |

¹ SAR ONA 2626 (Rotterdam 1658).

Appendix 2: maps

Map 1: Holland

Aar	B4	Huigenwaard	B2	Vianen (Vn)	C5
Acquoy (A)	C5	IJ	A3-B3	Vlaardingen (Vl)	A6
Alblasserwaard	B5-C5	IJssel	B5-C5	Vliet	A4-A5
Alkmaar	A2	IJsselstein (Y)	C4	Vlist	B5
Amstel	B3-B4	Kennemerland	A2-A3	Voorne	A6-B6
Amstelland	B3-B4	Klundert (K)	B6	Vrouwenvaart	A4
Amsterdam	B3	Kromme IJ	B2-B3	Waal	C5
Angstel	B3-B4	Langemeer	B2	Waver	B3
Beemster	B2	Leede	A4	Weesp (Ws)	B3
Beijerland	A6-B6	Leek	B2	West-Friesland	B1-B2
Beverwijk (Bw)	A3	Leerdam (L)	C5	Woerden (Wr)	B4
Biesbosch	B5-C6	Leiden	A4	Wormer	B2-B3
Bijlmermeer (bm)	B3	Lek	B5-C5	Woudrichem (Wc)	C5
Brabant	B6-C6	Linge	A5	Zaan	B3
Brielle (Br)	A6	Maassluis (Ms)	A6	Zijl	A4
Broekerveer (br)	B3	Medemblik (Mb)	B1	Zijpe	A1-B2
Buttervliet	B6	Merwede	A6-C5	Zoetermeerse Meer (z)	A5
Canal Amsterdam- Naarden (CAN)	B3-C3	Meuse	A6-C6	Zuiderzee	B1-C3
Canal Haarlem- Amsterdam (CHA)	A3-B3	Monnickendam (Mn)	B3		
Canal Leiden- Haarlem (CLH)	A3-A4	Muiden (Md)	B3		
Delfland	A5-A6	Naamsloot	B2		
Delft (port)	B5	Naarden (Nr)	C3		
Delft	A5	Naardermeer	B3-C3		
Diemer- and Watergraafs- meer (dw)	B3	Nauernasche Vaart (NV)	B2-B3		
Does	A4-B4	Nedersticht	B3-C5		
Dordrecht	B6	Nieuwpoort (Nw)	B5		
Drecht	B4	North Sea	A1-A6		
Edam (E)	B2	Oudewater (O)	B5		
Ee	B2	Oversticht	B3-C5		
Ee, Purmer-	B3	Principality of Lower Utrecht	B3-C5		
Enkhuizen	C2	Purmer	B2-B3		
Flakkee	A6-B6	Purmerend	B2		
Geertvuidenberg (Gt)	C6	Rekere	A2		
Goedereede (Gd)	A6	Rhine	A4-C5		
Gorinchem (Gc)	C5	Rijnland	A3-B5		
Gouda	B5	Rotte	B5		
Gouwe	B4-B5	Rotterdam	B5		
Groote Sloot (GS)	A1-B2	Schermer	B2		
Haagse Vliet	A5	Schie	A5-B5		
Haarlem	A3	Schiedam (Sd)	A5		
Haarlemmermeer	A3-B4	Schieland	A5-B5		
Haringvliet	A6-B6	Schinkel	B3		
Heukelum (Hk)	C5	Schoonhoven (Sh)	B5		
Heusden (Hd)	C6	Slochter	B3		
Hondsboschevaart	A2	Spaarne	A3		
Hoorn	B2	Spui	A6-B6		
Horstermeer (h)	B3-C3	Starnmeer (s)	B2		
		The Hague	A5		
		Utrecht	C4		
		Vecht	B3-C4		

A

B

C

1

2

3

4

5

6



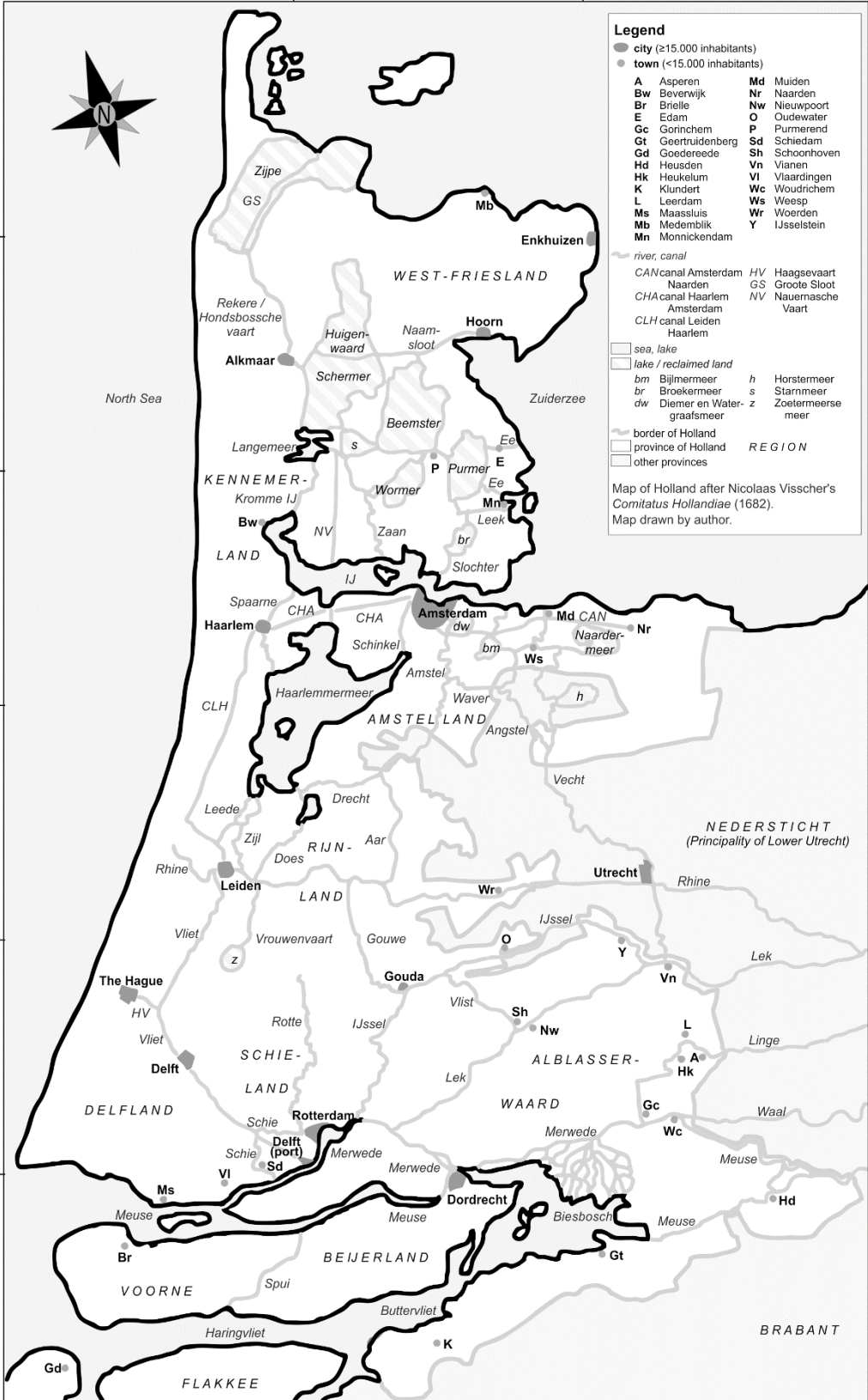
Legend

- city (≥15.000 inhabitants)
 - town (<15.000 inhabitants)
- | | |
|---------------------------|-----------------------|
| A Asperen | Md Muiden |
| Bw Beverwijk | Nr Naarden |
| Br Brielle | Nw Nieuwpoort |
| E Edam | O Oudewater |
| Gc Gorinchem | P Purmerend |
| Gt Geertruidenberg | Sd Schiedam |
| Gd Goedereede | Sh Schoonhoven |
| Hd Heusden | Vn Vianen |
| Hk Heukelum | VI Vlaardingen |
| K Klundert | Wc Woudrichem |
| L Leerdam | Ws Weesp |
| Ms Maassluis | Wr Woerden |
| Mb Medemblik | Y IJsselstein |
| Mn Monnickendam | |

- river, canal
- CAN canal Amsterdam Naarden
- CHA canal Haarlem Amsterdam
- CLH canal Leiden Haarlem
- sea, lake
- lake / reclaimed land
- bm Bijmermeer
- br Broekerveer
- dw Diemen Watergraafsmeer
- h Horstermeer
- s Starmermeer
- z Zoetermeerse meer

- border of Holland
- province of Holland
- other provinces

Map of Holland after Nicolaas Visscher's *Comitatus Hollandiae* (1682).
Map drawn by author.



Map 2: Alkmaar

Achterdam	C1-C2	Huigbrouwersteeg	B2	Pieterstraat	B1
Achterstraat	B1-B2	Kapelsteeg	C2	Ramen	B1
Appelsteeg	C2	Karnemelksteeg	C1	Ridderstraat	B2
Baangracht	B3	Keetsloot	C3	Ritsevoort	B3
Baansloot	B3	Keizerstraat	C2	Ruitersteeg	B2
Baanstraat	B3	Kenmermer poort	B3	Schermer	D2
Bagijnensteeg	A2	Kerkbuurt	B2	Schipperskaai	C2
Banen	B3	Kitsteeg	C2	Schoutenstraat	B2
Beestenmarkt	A1	Klein Nieuwland	C3	Schulpgracht	C2-D2
Bergerpoort	A2	Koningssteeg	B2	Sint Annastraat	C2
Bierkaai	C2	Koningsweg	B1	Sint Jacobsstraat	C2
Boompoot	D2	Kooltuin	C1	Silksteeg	C1
Bostelmarkt	C3	Koorstraat	A2	Spanjaardstraat	C1
Breestraat	B2	Koppersteeg	B3-C3	Torenburg	C1
Brillesteeg	B2	Krebbesteeg	B2	Turfmarkt	C2
Diggelsteeg	B2	Laat	B2-C2	Veneetse Eiland	D2
Dijk	C1	Langestraat	B2	Verdronkenoord	C2
Doelenstraat	B1-B2	Limmerhoek	C2	Vijvertje	B2
Dubbelebuurt	A2-B2	Lindegracht	A2	Vlaanderhof	B2
Fridsen	C2	Lombardsteeg	B1-B2	Voordam	B1-C1
Friesepoort	C1	Luttik Oudorp	C2	Voormeer	D1-D2
Gasthuissteeg	A2	Magdalenenstraat	B2	Vrouwensteeg	A3
Geesterpoort	A2	Mient	B2-C2	Waag	B2
Geeststraat	A2	Molenbuurt	A1-A2	Zakkestraat	C2-C3
Groot Nieuwland	C2-C3	Nieuwe sloot	B1-B2	Zandersbuurt	D2
Heiligland	D1-D2	Nieuwe Sloot	B2	Zeglis	D2
Hekelstraat	C2	Nieuwe Vaart	C1	Zilverstraat	B3
Herenstraat	C1	Nieuwlander poort	C3	Zoutkeetstraat	C2
Heul	A2	Nieuwstraat	C2		
Hofstraat	B2-B3	Oude Gracht	A2-C3		
Hondsboschevaart	C1	Paardensteeg	B1		
Hoogstraat	B2	Papensteeg	B1		
Hoorvaartsteeg	C2	Paternosterstraat	A1-A2		
Houttil	B1-B2	Payglop	B2		



D

C

B

A

1

2

3

Map 3: Haarlem

Achterstraat	Hoogstraat	C3-D3	Raamstraat	C3-D3	B4
Anegang	Houtuinstraat	C3	Raamvest	D3	A4-C4
Anthoniesteeg	Jacobijnestraat	D3	Rampenvaart	B2	A2
Anthoniestraat	Jansstraat	C3-D3	Ridderstraat	C1	C1
Appelaarsteeg	Job Baltussteeg	C2	Rozemarijnsteeg	C4	C4
Bakenessergracht	Kampervest	C1-D2	Schagchelstraat	C3	C3
Barnesteeg	Kerkhofstraat	C3-D3	Schalkwijkkerpoort	D4	D4
Barrevoetsteeg	Kinderhuisvest	A3-B3	Scheepmakersdijk	D1-E2	D1-E2
Bartelorisstraat	Klein Heiligland	B1-B2	Sint Janspoort	C1	C1
Begijnesteeg	Kleine Houtstraat	C1	Smedestraat	B1-B2	B1-B2
Begijnestraat	Klerksteeg	C2	Spaarne	D1-D4	D1-D4
Begijnhof	Koksteeg	C1	Spaarnwouderpoort	C1-D1	E2
Biggesteeg	Koningstraat	C1	Spaarnwouderstraat	B2-B3	D2-E2
Botermarkt	Koolsteeg	B3	Spiegelstraat	D4	D4
Breesteeg	Koralensteeg	B3	Stoofsteeg	B3	B3
Brouwersvaart	Koudenhorn	A2	Turfmarkt	C4-D4	C4-D4
Burgwal	Kraaienhorstergracht	D2-D4	Ursulastraat	B1	B1
Catharijnebrug	Kruispoort	D1	Vlamingstraat	B1-B2	B2-B3
Damsteeg	Kruisstraat	C2	Voldersgracht	B1	A2-A3
Doelstraat	Lakenstraat	B4	Vrouwesteeg	D2	D2
Drapenierstraat	Lange Veerstraat	A3-B3	Witteherenstraat	C2-C3	B1-B2
Drossestraat	Langebrug	A2-B2	Zaksteeg	D4	C1-D1
Eendjespoort	Leidse boom	D4	Zijlpoort	D4	A2
Frankensteeg	Leiestraat	B3-C3	Zijlstraat	D4	A2-B2
Gasthuisstraat	Lombardsteeg	B2-B3	Zijlvest	C2	A2-B2
Gierstraat	Magdalenestraat	B3-B4		B1	A2-A3
Gravesteenbrug	Margarethastraat	D2		B1-B2	
Groene buurt	Melkbrug	C2		C3	
Groot Heiligland	Nicolaasbrug	C3-C4		D2	
Grote Houtpoort	Oude Gracht	B4		B2-C3	
Grote Houtstraat	Pieterstraat	B2-B4		C1	
Grote Markt	Prinsenhof	B2-C2		B2	
Helmbrekersteeg	Raaks	C3		A2-B2	
Herenvest	Raamgracht	D4-E2		A4	
	Raamsteeg			D4	

A

B

C

D

E



1

2

3

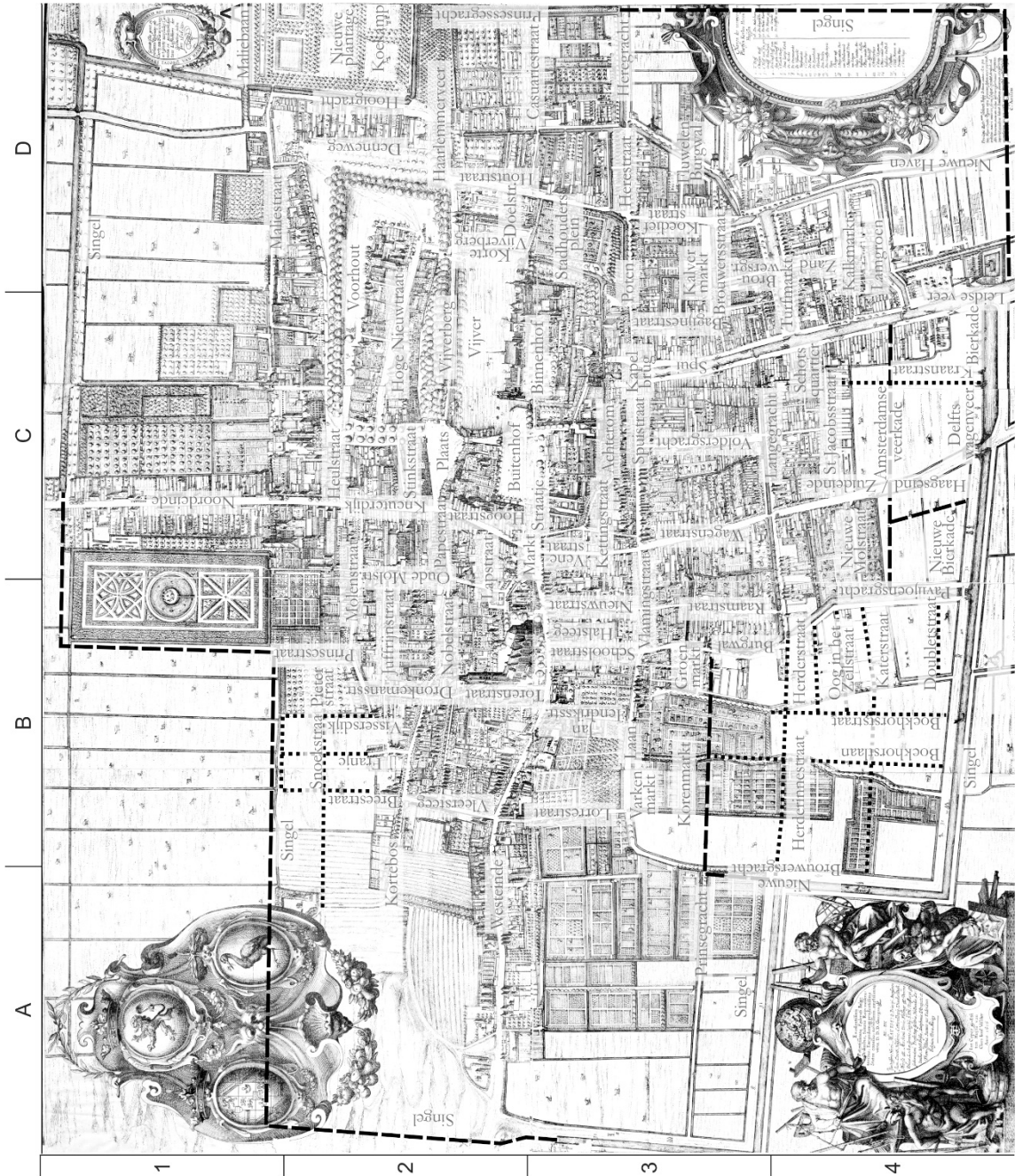
4

1. Geopiekerk 16 Nieuwe Doel
2. Klockhuys 17 St. Annenkerk
3. Stadhuis 18 Werkhuys
4. Sand 19 Oevenaert
5. Spunnenloof 20 Oude Doelen
6. Sylkeek 21 Sparen
7. Zwavelhuys 22 Oudegraaf
8. Verv. 23 Bascinerover
9. Peet huys 24
10. Stamskerk 25
11. Faarnerkerk 26
12. Bascinerover 26
13. Kerck 27
14. Kammerkerk 28
15. Claret huys 29
16. Oude manen 30
17. Akker 31

Map 4: The Hague

Achterom	C3	Juffijnstraat	B2	Pieterstraat	B2
Amsterdams Veeikade	C4	Kalkmarkt	C4-D4	Plaats	C2
Bagijnestraat	C3	Kalvermarkt	D3	Poten	C3-D3
Bierkade	C4	Kapelbrug	C3	Prinsegracht	A3-B3
Binnenhof	C3	Katerstraat	B4	Prinsegracht	D2-D3
Boekhorstlaan	B4	Kettingstraat	C3	Prinsestraat	B2
Boekhorststraat	B4	Kneuterdijk	C2	Raamstraat	B3
Breestraat	B2	Koediefstraat	D3	Schoolstraat	B3
Brouwersgracht	D3	Koekamp	D1-D2	Schots quartier	C4
Brouwersstraat	C3-C4	Korenmarkt	B3	Singel	A1-A4-D4-D1-A1
Buitenhof	C2-C3	Korte Vijverberg	D2	Sint Jacobsstraat	C4
Burgwal	B3-B4	Kortebos	A2-B2	Snoekstraat	A2-B2
Casuariestraat	D3	Kraanstraat	C4	Spui	C3-C4
Delfts wagenveer	C4	Laan	B3	Spuistraat	C3
Denneweg	D2	Langroen	C4-D4	Stadhoudersplein	D3
Doelstraat	D2	Langegracht	B4-C3	Stinkstraat	C2
Doubletstraat	B4	Lapstraat	B2-C2	Straatje	C3
Dronkemannstraat	B2	Leidseveer	C4-D4	Torenstraat	B2-B3
Fluwelen Burgwal	D3	Lorrestaat	B2-B3	Turfmarkt	C4-D4
Franje	B2	Mallebaan	D1	Varkenmarkt	B3
Groenmarkt	B3	Maliestraat	C1-D1	Venestraat	C3
Haagseind	C4	Markt	C2-C3	Vijver	C2-D2
Haarlemmerveer	D2	Molenstraat	B2-C2	Vijverberg	C2-D2
Halsteeg	B3	Nieuwe Bierkade	C4	Visserdijk	B2
Hederinnestraat	B4	Nieuwe Brouwersgracht	A3-A4	Vlamingstraat	B3-C3
Hederstraat	B4	Nieuwe Haven	D3-D4	Vleersteeg	B2
Herengracht	D3	Nieuwe Molstraat	C4	Voldersgracht	C3
Herestraat	D3	Nieuwe Plantage	D1-D2	Voorhout	C2-D2
Heulstraat	C2	Nieuwstraat	B3	Wagenstraat	C3
Hoge Nieuwstraat	C2-D2	Nobelstraat	B2	Westeinde	A2-B3
Hoogstraat	C2	Noordeinde	C1-C2	Zand	D4
Hooigracht	D2	Oog in het Zeilstraat	B4	Zuideinde	C4
Houtstraat	D2-D3	Oude Molstraat	C2		
Jan Hendriksstraat	B3	Papestraat	C2		
		Paviljoensgracht	B4		

..... streets built > 1616
--- canals dug > 1616



Map 5: Rotterdam

Baanstraat	C2	Lombardstraat	C1-C2
Bagijnenstraat	B2	Merwede	A4-D4
Bierhaven	B3-B4	Nieuwe Haven	C3-D3
Bierstraat	B3-B4	Nieuwe Hoofd	A4
Binnenvest	A3-B1	Nieuwe Markt	C2
Blaak	B3	Nieuwe Vogelenzang	C2
Bogaardstraat	B2	Oostpoort	D3
Boompjes	A4-C4	Oostvest	C1-D3
Botersloot	C1-C2	Oostwagenstraat	C2-C3
Bredestraat	C2-C3	Oppert	B1-B2
Buizegat	D3-D4	Oude Haven	C3
Coolsewegpoort	B2	Oude Hoofd	C4
Delftse poort	B1	Pannekoekstraat	C2
Delftsevaart	B1-B2	Prinsestraat	C2
Frankenstraat	C2	Raamstraat	B1
Glashaven	B3-B4	Rotte	C1-C2
Goudsepoort	C2	Scheepmakershaven	A4-B4
Grote Markt	B2-B3	Schie	B1
Hang	B2-C3	Schiedamsdijk	A4-B2
Haringvliet	C3-D3	Sint-Janstraat	C3-D3
Hofpoort	B1	Spui	B2-C2
Hofstraat	B2	Steiger	B2-D3
Hoofdsteeg	C3	Stinkslot	C2
Hoogstraat	A4-B2-D3	Torenstraat, lange-	B1-B2
Houttuin	C3	Visserdijk	B3-C3
Jufferstraat	B3-B4	Vlasmarkt	B2
Keizerstraat	B2-B3	Vogelenzang (Nieuwe-)	C2
Kerkplein	B2-B3	Westewagenstraat	B1-B2
Kikkersteeg	B1	Westnieuwland	B3
Kipstraat	B2-D3	Westvest	A3-B1
Kolk	C3	Wijnhaven	B3-C3
Lange Torenstraat	B1-B2	Wijnstraat	B3-C3
Leeuwenstraat	B2	Wolfshoek	B3
Leuvehaven	A4-B3	Zandstraat	B2

Sources

Abbreviations

ELO	Erfgoed Leiden en Omstreken, the archives of the Leiden area
HGA	Haags Gemeentearchief, The Hague municipal archives
HaNA	Nationaal Archief, national archives of the Netherlands.
HS	Handschriften, manuscripts (Rotterdam).
NotA	Notarieel Archief, notarial archives (Alkmaar, The Hague)
NHA	Noord-Hollands Archief, provincial archives of North-Holland (Haarlem)
OA	Oud Archief, ancient municipal archives (The Hague)
ONA	Oud Notarieel Archief, ancient notarial archives (Haarlem, Rotterdam)
ORA	Oud Rechterlijke Archieven (Alkmaar).
OSA	Oud Stadsarchief, ancient municipal archives (Rotterdam)
RAA	Regionaal Archief Alkmaar, regional archives of Alkmaar
SA	Stadsarchief, municipal archives (Alkmaar, Haarlem)
SA II	Stadsarchief II, municipal archives, part II (Leiden)
SP	Stadspublicaties, municipal publications (Haarlem)
SvH	Staten van Holland, archives of the States of Holland
SAR	Stadsarchief Rotterdam, municipal archives of Rotterdam

Nationaal Archief (HaNA)

Nationaal Archief, Den Haag, 3.01.04.01 Staten van Holland na 1572 (HaNA SvH), inv.nrs.:

367	Registers van resoluties van de Staten van Holland en Gecommitteerde Raden, 1600-1601	1602	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1645
370	Registers van resoluties van de Staten van Holland en Gecommitteerde Raden, 1605 - 1607	1603	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1646
372	Registers van resoluties van de Staten van Holland en Gecommitteerde Raden, 1608	1604	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1647
1591	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1601-1619	1605	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1648
1594	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1624-1629	1607	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1651-1652
1595	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1630-1632	1608	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1653-1654
1599	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1640-1641	1609	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1655
1600	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1642-1643	1611	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1657
1601	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1644	1613	Minuten van octrooien verleend op de bij de Staten ingediende rekestes, 1659-1660

Erfgoed Leiden en Omstreken (ELO)

Erfgoed Leiden en Omstreken, Stadsarchief van Leiden II, 1574-1816 (ELO SA II), inv.nrs.:

45	Gerechtdagboeken A2, November 1587 - July 1590	52	Gerechtdagboeken H, December 1612 - January 1619
46	Gerechtdagboeken B, July 1590 - November 1593	53	Gerechtdagboeken I, January 1619 - September 1621
47	Gerechtdagboeken C, March 1593 - 1596	67	Gerechtdagboeken Y, April 1646 - November 1647

Haags Gemeentearchief (HGA)

Haags Gemeentearchief, 0350-01 Oud Archief van de gemeente 's-Gravenhage (HGA OA), inv.nrs.:

120	Register van minuten van door de Magistraat gegeven consenten op ingekomen requesten tot het bouwen aan of op Haagse grond, gegeven na voorafgaande oculaire inspectie, 18 July 1619 - 24 September 1626.	124	Registers van minuten van door de Magistraat gegeven appointementen op ingekomen requesten, 30 November 1633 - 20 November 1648.
121	Registers van minuten van door de Magistraat gegeven appointementen op ingekomen requesten, 11 December 1615 - 24 November 1621.	125	Registers van minuten van door de Magistraat gegeven appointementen op ingekomen requesten, 18 December 1648 - 17 July 1676
122	Registers van minuten van door de Magistraat gegeven appointementen op ingekomen requesten, 7 December 1621- 7 November 1625.	126	Registers van minuten van door de Magistraat gegeven appointementen op ingekomen requesten, 11 August 1676 - 15 March 1688.
123	Registers van minuten van door de Magistraat gegeven appointementen op ingekomen requesten, 16 December 1625 - 29 November 1633.	5345	Request van de buren in de Poten over de vervuiling van de beek, (1630).
		5412	Request van enige buren van de Poten over een sloot lopende tegen de Bagijnestraat, (1620).

Haags Gemeentearchief, 0372-01 Notarieel Archief Den Haag (HGA NotA), minutes, inv.nrs.:

1a	Augustijn Turck, March 1600 - 1602.	102	Pieter van Groenevelt, 1649.
1b	Dirk Boot, April 1600.	103	Pieter van Groenevelt, 1650.
2	Leonart Jacobsz Kettingh, 1601 - 1602.	127	Hendrick van der Nyburgh, 1634 - 1635; November 1649 - 1650.
5	Leonart Jacobsz Kettingh, 1634 - August 1635.	129	Jacob Cornelisz de Vos, 1634 - 1635.
7	Johan Adriaenz van Warmenhuysen, 1625 - 1626.	129a	Cornelis Spont, 1634 - 1635.
8	Johan Adriaenz van Warmenhuysen, 1634 - 1635.	130	Dirck Gijsbertsz van Schoonderwoert, August 1634 - 1635.
8a	Johan Adriaenz van Warmenhuysen, May 1626.	136	Dirck Gijsbertsz van Schoonderwoert, August 1649.
9	Alewijn Jacobsz van der Aa, 1625 - 1626; 1634 - 1635.	149a	Ellert Jansz Breggh, March - September 1635.
9a	Hendrik Anthonisz van Slychtenhorst, 1625 - 1626; 1634-1635.	150a	Pieter Vroesen, December 1635.
10	Lenert van Sternburch, 1625 -1626; 1634 - 1635.	151	Nicolaes van Bolgersteyn, June 1649 - 1650.
11	Jacob de Jonge, 1625 -1626.	153	Andries Makingie, January - February 1649.
13	Jacob de Jonge, 1634 - 1635.	154	Johan Kip, 1649 - 1650.
14	Gerard van Tol, 1625 -1626; 1634 - 1635.	160	Jan Pietersz Timmers, 1649 - 1650.
15	Ferdinand Molckeman, March 1625; 1635.	167	Walterus Rietraet, 1649.
21	Garbrant Adriaenz van Warmenhuysen, 1649-1650.	168	Walterus Rietraet, 1650.
23	Egbert Jansz de Witte, 1634 - 1635.	180	Dirck Cornelisz Annocque, 1649.
25	Johan van der Lisse, 1634 - 1635.	181	Dirck Cornelisz Annocque, 1650.
27	Johan van der Lisse, 1649 -1650.	189	Quirijn Stoffelsen Gaeswijck, 1649 - 1650.
33	Lambert Rietraet, 1635.	193	Samuel Keun, February - December 1650.
44	Lambert Rietraet, 1649 -1650.	246a	Cornelis van Heymenbergh, 1649 - April 1650.
47	Anthony van der Drift, 1634 - 1635.	250	Rochus van der Leeuw, April - December 1650.
59	Anthony van der Drift, 1649.	252	Pieter van Medemblick, February - December 1650.
60	Anthony van der Drift, 1650.	262	Martin Beeckman, 1650.
79	Pieter Pietersz van Groeneweghen de Jonge, 1649.	262a	Martin Beeckman, 1650.
80	Pieter Pietersz van Groeneweghen de Jonge, 1650.	292	Johannes Houttuyn, October - December 1650

Noord-Hollands Archief (NHA)

Noord-Hollands Archief, 1617 Oud Notarieel Archief Haarlem (NHA ONA), minutes, inv.nrs.:

14	Michiel Jansz van Woerden, 1 - 4 January 1600.	142	Jacob Pietersz Schoudt, January 1649 - 3 April 1650.
15	Michiel Jansz van Woerden, 10 February 1600 - 29 December 1600.	143	Jacob Pietersz Schoudt, 27 June 1650 - December 1650.
16	Michiel Jansz van Woerden, 4 January 1601 - 3 January 1602.	149	Jacob Pietersz Schoudt, 10 - 25 December 1635.
17	Michiel Jansz van Woerden, 2 January 1602 - 30 December 1602.	150	Jacob Pietersz Schoudt, 1649 - 1650.
40	Adriaen Willemsz Suyderhoef, 1600.	151	Jacob Pietersz Schoudt, 1649 - 1650.
41	Adriaen Willemsz Suyderhoef, 4 January 1601 - 20 July 1602.	154	Wouter van Lievendael, 9 September 1625 - December 1626.
42	Adriaen Willemsz Suyderhoef, 20 June 1602 - December 1602.	157	Wouter Crousen de Jonge, 1634.
53	Joseph van Triere, 1600 - 1602.	158	Wouter Crousen de Jonge, 1635.
54	Egbert Lucasz van Bosvelt, 14 January 1601 - December 1602.	160	Jacob Steyn, 1634-1635.
58	Egbert Lucasz van Bosvelt, December 1635.	161	Jacob Steyn, 1649 - 1650.
62	Egbert Lucasz van Bosvelt, 1634 - 1635.	162	Jacob Steyn, 1634 - 1635.
68	Egbert Lucasz van Bosvelt, 1601 - 1602.	163	Jacob Steyn, 1634 - 1635, 1649 - 1650.
71	Egbert Lucasz van Bosvelt, 1600 - 1602.	164	Jacob van Bosvelt, 11 November 1634 - 28 December 1635.
72	Egbert Lucasz van Bosvelt, 1600 - 1602.	175	Salomon Coesaert, 1649 - 1650.
73	Willem van Triere, 18 April 1602 - 31 December 1602.	176	Salomon Coesaert, 1649 - 1650.
96	Willem van Triere, 1625.	180	Salomon Coesaert, 1649.
97	Willem van Triere, 1626.	181	Cornelis van Kittensteyn, 1649-1650.
105	Willem van Triere, 1634.	190	Vechter Hasewindius, 1649.
106	Willem van Triere, 1635.	192	Vechter Hasewindius, 24 January 1649 - 11 January 1650.
120	Jacob Pietersz Schoudt, 1634 - 1635.	193	Vechter Hasewindius, January - May 1650.
121	Jacob Pietersz Schoudt, 1649 - 1650.	194	Vechter Hasewindius, January - 8 March 1649.
125	Jacob Pietersz Schoudt, 6 November 1624 - 15 August 1625.	195	Nicolaas van Bosvelt, January 1649 - 30 November 1649.
126	Jacob Pietersz Schoudt, 17 August 1625 - 27 February 1626.	196	Nicolaas van Bosvelt, 10 November 1649 - 10 October 1650.
127	Jacob Pietersz Schoudt, 27 February 1626 - 11 December 1626.	197	Nicolaas van Bosvelt, October - December 1650.
128	Jacob Pietersz Schoudt, 11 - 30 December 1626.	218	Nicolaas van Bosvelt, 1649 - 1650.
133	Jacob Pietersz Schoudt, January 1634 - 1 December 1635.	224	Florens Swan, 1649.
134	Jacob Pietersz Schoudt, 2 January 1635 - December 1635.	225	Florens Swan, 1650.
		230	Jan Davitse Colterman, January 1649 - January 1650.
		231	Jan Davitse Colterman, 29 May 1650 - December 1650.
		235	Jan Davitse Colterman, 1649 - 1650.

Noord-Hollands Archief, 2166 Stadspublicaties van het Stadsbestuur van Haarlem (NHA SP), inv.nrs.:

12	Ordonnantie op de vervuiling van de Brouwersvaart, 1620.	151	Ordonnantie tegen de vervuiling van de Brouwersvaart buiten de Zijlpoort, 1656.
18	Ordonnantie waarbij de eigenaars of bewoners van de huizen aan de Kleine Houtweg verschillende verplichtingen krijgen opgelegd, 1628.	152	Ordonnantie tegen het zwemmen in het Spaarne, de Brouwersvaart, de nieuwe trekvaart naar Amsterdam en de Zomervaart en tegen het daarbij verjagen en molesteren van dieren, 1656.
24	Oproep aan aspirant-scheepmakers die een werf willen beginnen op het daartoe gereed gemaakte terrein buiten de Catharinabrug ten oosten van het Spaarne om zich te melden, 1631.	158	Ordonnantie op het aanleggen en legen van de secreten, 1657.
54	Ordonnantie voor het dieper maken van het Spaarne, 1641.	165	Publicatie van de grachtmeesters dat het verdiepen en schoonmaken van de Oude Gracht en de Raaks zal worden uitbesteed, 1658.
70	Ordonnantie waarbij het bouwen buiten de stad binnen de vrijheid wordt beperkt, 1643.	835	Ordonnantie tegen het schoonmaken van etenswaren bij de pompen binnen de stad, s.d., 17th century
143	Ordonnantie waarin maatregelen worden getroffen tegen het verspreiden van de pest.		

Noord-Hollands Archief, 3993 Stadsarchief van Haarlem (NHA SA), inv.nrs.:

1473	Ingekomen rechtsgeleerde adviezen in civiele en criminele zaken, 1587-1642.	5134	Ordonnantie op de gebuurten, minuut, 1649.
1588	Attestatie van Cornelis Aelbertsz. en Trijntgen Cornelis op verzoek van Jan Jansz. Bouckwinckel over de voorwaarden waarop hij het huis De Twee Blauwe Duyven in de Koningstraat had gekocht, 1654.	5279	Rekest van deken en vinders van het Groot Schippersgilde om een verbod tot vuilnisladen op het Spaarne omdat dit het vaarwater ondiep maakt, circa 1631.
3964	Ondertekend rekest van de blekers aan de Kerfsloot om wering van een daar geplande volmolen, 1645.	6516	Stukken betreffende maatregelen tegen de vervuiling van stadswateren, 1640 - 1660.
4041	Stukken betreffende het zuiver houden van de Brouwers- of Rampenvaart en de verhoging van de Zijlweg om doorbraak van brak water te verhinderen, 1591 - past 1647.	6623	Stukken betreffende onderhoudswerkzaamheden aan de Oude Gracht, 1592-1658.
4305	Vergunning voor Harman Jansz. tot bebouwing van een plaatsje naast zijn huis op het Marktveld (Grote Markt), met enkele bepalingen in verband met de nieuwe vleeshal, 1608.	6626	Keur op het maken van de kades langs en het op diepte houden van de stadswateren, 1580, authentiek afschrift, 1605.
4378	Vergunning voor Daniel van Eecken om een erfje bij de Zijlstraat bij het Prinsenhof te mogen betimmeren, 1626.	6627	Bestek voor het aanbesteden van werkzaamheden aan de beschoeiing van hte Spaarne, 1609.
4437	Akte van overeenkomst met Loth Schout tot scheiding van land tussen de Zijlweg en de Brouwersvaart, 1652.	6628	Bestek, tevens akte van aanbesteding, van het leeghozen van een deel van het water op het Crayenest, 1610.
4532	Memorie over de verpachting door de Rekenkamer aan de stad van de visserij op het Spaarne over de jaren 1607 - 1660.	6734	Processen-verbaal van aanzegging van de ordonnantie om rietdaken te vervangen door harde daken, 1604-1612.
4534	Ordonnantie waarin vissen in door de stad verpachte wateren wordt verboden, gedrukt, 1645.	6739	Resolutie van burgemeesters waarin het geschil wordt geslecht tussen de geburen van de Kleine Houtstraat en die van het Spaarne over het leggen van een heul, minuut, 1644.
4536	Stukken betreffende pogingen van Spaarndamse vissers tot instandhouding van hun recht om vrij in het Spaarne te mogen vissen, 1601, 1655-1657.	6742	Stukken betreffende de omslag van de kosten van bestrating en de aanleg van heulen over de bewoners van de betreffende gebuurten, 1651-1660.
		7278	Stukken betreffende de totstandkoming van een rekest van burgemeesters, namens de brouwers, over de aanleg van een

	slaperdijk wegens het herhaaldelijk overlopen van de Velserdijk, 1614.	7323	Missive van Willem Willemsz. van Coppente Enkhuizen waarin hij de diensten van Coop Fransen aanbiedt om het Spaarne met diens nieuwe methode te diepen, 1645.
7296	Processen-verbaal ban peiling van het Spaarne, 1589-1615. Met attestaties op verzoek van het schippersgilde over het verliezen van ballast, 1597.	7324	Akte van aanstelling en instructie voor Pieter Pietersz. tot schoonmaker van de plating van het Spaarne tussen de Visbrug ende Berkenrodesteeg, 1655.
7302	Uittreksel uit het keurboek van Rijnland betreffende het laden van zand en schelpen in het Spaarne, z.d. (ca. 1600).	7434	Attestaties op verzoek van Hans Severijns, kalkverkoper, en twee molenaars, dat de wetering langs de Schalkwijkerweg buiten de Schalkwijkerpoort alleen gebruikt was als afwatering en nooit als transportweg van afval, 1622.
7308	Proces-verbaal van het afleggen door bejaarde schippers van attestaties over de diepte van het Spaarne in de loop der tijden, 1604.	7458	'Reclamefolder' van Pieter Heynsz. en Jacob Willemsz. Zee, sloopstimmerlieden te Hoorn, over hun nieuw uitgevonden baggerwerktuig ter uitdieping van rivieren, gedrukt, s.d. (17th century).
7311	Memorie om vernieuwing van de ordonnantie waarin aangelanden verplicht zijn om hun deel van het Spaarne te diepen, 1605.	8207	Rekest van het Groot Schippersgilde om maatregelen voor betere verdiensten en uitdieping van het Spaarne, 1648.
7313	Stukken betreffende peiling, door deken en vinder van het schippersgilde, van de diepte van het Spaarne, 1607, 1614, 1615.	8364	Register van door schepenen uitgevoerde inspecties ter plaatse, inzake geschillen tussen burens en dergelijke, 1582-1620.
7315	Akte van commissie op Olivier Pietersz., schoenlapper, om personen te bekeuren die vuilnis buiten de vuilnisbal bij de Visbrug storten of puin in het Spaarne storten, 1615.		

Regionaal Archief Alkmaar (RAA)

Regionaal Archief Alkmaar, 0001 Stadsarchief Alkmaar 1254-1815 (RAA SA), inv.nrs.:

288	Register van interdictiën van burgemeesters. 1565-1660.	1600	Aankomsttitels van een hoekje land en een sloot buiten de Nieuwlanderpoort, 1608 - 1610.
1533	Aankomsttitel van huizen in de Ridderstraat en op de Oudegracht, 1613 - 1631.	1601	Aankomsttitel van een huis en erve aan de noordzijde van het Zeggelis bij de Schermerbrug in de ban van Alkmaar, 1637.
1534	Aankomsttitel van een huis en erve met achterhuis, gelegen aan de zuidzijde van het Verdronkenoord bij de kapel, 1609 - 1635.	1682	Aankomsttitel van 28 roeden 10 voeten 6 duim land benoorden het Zeglis aan de Omloop- of Galgendijk, 1600.
1538	Aankomsttitel van een huizinge aan de westzijde van de Koorstraat, alsmede een leeg erf op de Heul op de hoek van Popmansteeg, 1610 - 1658.	1684	Aankomsttitel van een hoekje land bezuiden het Zeglis aan de Schermeer, 1600.
1540	Aankomsttitel van een huis, erve en turfschuur op het Veneetse Eiland, 1616 - 1639.	1685	Aankomsttitel van een hoekje land, gelegen bewesten de Schermeer, 1603.
1559	Aankomsttitels van twee strookjes erf op het Heiligeland bij de Voormeer, 1605.	1686	Aankomsttitel van twee hoekjes van een stuk land, gelegen in de ban van Alkmaar aan de Schermeer, 1609.
1561	Aankomsttitels van een huis en twee kamers met erven op het Heiligeland, 1615 - 1639.	1688	Aankomsttitel van een stuk land met huis, gelegen buiten de Boompoot aan de Schermeer en het Zeglis, 1613 - 1618.
1599	Aankomsttitel van 165 roeden 6 voeten land bewesten de Schermeer aan de gemene vaart, 1603 - 1604.		

Regionaal Archief Alkmaar, o878 Notarieel archief Alkmaar 1550-1925 (RAA NotA), inv.nrs.:

32	Huybert Jacobsz van der Lijn, January 1600 - August 1601	98	Cornelis Jansz Baert, March 1636 - February 1637
33	Huybert Jacobsz van der Lijn, September 1601 - December 1602	100	Pieter Cornelisz Haringcarspel, January 1625 - May 1625
41	Huybert Jacobsz van der Lijn, January 1625 - July 1626	103	Claes Fransz Ocker, 1625 - 1626
42	Huybert Jacobsz van der Lijn, July 1626 - December 1626	106	Cornelis de Haes, 1625 - 1626
		107	Cornelis de Haes, 1634 - 1635
56	Jacob Cornelisz van der Gheest, January 1625 - March 1626	116	Baert Jansz Heerencarspel, 1649 - 1650
57	Jacob Cornelisz van der Gheest, May 1626 - December 1626	109	Cornelis Jacobsz van der Gheest, 1634 - 1635
		111	Jacob Claesz van der Heck, 1634 - 1635
94	Cornelis Jansz Baert, August 1626 - December 1626	137	Pieter Fransz Ocker, 1649 - 1650
95	Cornelis Jansz Baert, April 1627 - September 1627	143	Jan van Everdingen, 1649 - 1650
		152	Aris Cornelisz Heemskerck, 1649 - 1650
96	Cornelis Jansz Baert, March 1630 - November 1630	165	Frans Fransz Hooghsant, 1649 - 1650
		176	Sierick Fongersz Siersma, 1649 - 1650
97	Cornelis Jansz Baert, August 1634 - May 1635	178	Claes Jansz Kort, 1649 - 1650
		180	Joan d'Jongh, 1649 - 1650
		181	Jacob van Beijeren, 1649 - 1650
		263	Cornelis Dircksz Kessel, 1668.

Regionaal Archief Alkmaar, 0941 Oud-rechterlijke archieven van Alkmaar 1517-1811 (RAA ORA), inv.nrs.:

3A	Ingekomen stukken bij het gerecht, 1600-1660	971	Ingekomen stukken bij het gerecht, 1600-1660
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Stadsarchief Rotterdam (SAR)**Stadsarchief Rotterdam, 1-01 Oud Archief van de Stad Rotterdam (SAR OSA), inv.nrs.:**

1374	Akte van transport van de waterlozing van de Kikkersteeg liggend onder het huis van Samuel de Bacq, 1640.	4887	Voorwaardens van bestedinge van kaeyen, hooginge, van opslagen ende strate als anders concernerende de stadt van Rotterdam, 1615-1650.
2625	Extract uit het register met contracten, houdende de overeenkomst met Cornelis Michielsz. timmerman, over de afvloeiing van straatwater over zijn terrein gelegen aan de westzijde van de Baanstraat, 1631.	4888	Register van de Fabriekmeesteren der stadt Rotterdam daer inne gestelt zijn verscheyde contracten van bestedingen ende aannemingen van wercken ende behoeften der voorschreve stadt raeckende, 1652-1664.
2626	Stukken betreffende de verbetering van de straat en het riool van de Nieuwe Vogelzang ook wel Stincksloot genaamd, met lijst van bewoners, 1658.	4947	Aantekeningen uit de Resolutiën van de Vroedschap en andere stukken betreffende de riolering, 1610-1857.
2686	Ordonnanties van Hoge Heemraden en burgemeesteren betreffende de doorvaart van de Spoeie, 1662 - 1667.	4948	Aantekeningen uit de Resolutiën van de Vroedschap en andere stukken vanaf 1650 betreffende aanleg en onderhoud van sluizen, 1650-1850.
2687	Akten, houdende verpachting van de doorvaart door de Spoeie, 1662 - 1667.		
4724	Aantekeningen uit de resolutiën van de Vroedschap betreffende de Fabricage, 1614-1738.		

Stadsarchief Rotterdam, 18 Notarissen te Rotterdam en daarin opgegangene gemeenten (SAR ONA), minutes, inv.nrs.:

6	Jacob Symonsz, 1 January 1600 - 21 January 1600	121	Nicolaas van der Hagen, 1634 - 1635
7	Jacob Symonsz, 22 January 1600 - 27 August 1601	125	Nicolaas van de Hagen, 17 December 1632 - 24 October 1644
8	Jacob Symonsz, 28 August 1601 - 30 September 1602	127	Nicolaas v.d. Hagen, 1649 - 1650
9	Jacob Symonsz, October 1602 - December 1602	132	Arnout Wagensvelt, 1625 - 1626, 1634
24	Gerrit Jansz van Woerden, 25 July 1602 - December 1602	133	Arnout Wagensvelt, 1635, 1649-1650
45	Jacob Duyfhuysen, 27 November 1600 - December 1602	140	Arnout Wagensvelt, 1625 - 1626
29A	Jacob Duyfhuysen, 31 January 1601 - December 1602	142	Arnout Wagensvelt, 1634 - 1635, 1649 - 1650
40	Jacob Duyfhuysen, January 1625 - 10 September 1626.	143	Arnout Wagensvelt, 1625 - 1626
43	Jacob Duyfhuysen, January 1634 - 2 August 1634	144	Arnout Wagensvelt, 1634 - 1635
44	Jacob Duyfhuysen, 1634 - 1635	145	Arnout Wagensvelt, 1635, 1649 - 1650
50	Jacob Duyfhuysen, 1619	147	Adriaan Kieboom, 1625 - 1626
51	Jacob Duyfhuysen, 1625 - 1626, 1634 - 1635	150	Adriaan Kieboom, 1634 - 1635
53	Jan Lz. Schouten, 1625	154	Adriaan Kieboom, 1649 - 1650
62	Willem Jacobsz, January 1625 - 21 April 1625	161	Nicolaas Vogel Adriaansz, January 1625 - 4 December 1625
63	Willem Jacobsz, 25 April 1625 - 9 July 1626	162	Nicolaas Vogel Adriaansz, 1626
64	Willem Jacobsz, 12 July 1626 - December 1626	166	Nicolaas Vogel Adriaansz, 2 January 1634 - 4 December 1634
70	Willem Jacobsz, January 1634 - 18 April 1635	167	Nicolaas Vogel Adriaansz, 1625, 1634 - 1635
72	Willem Jacobsz, January 1634 - 1 March 1634	178	Nicolaas Vogel Adriaansz, 1625 - 1626, 1634
73	Willem Jacobsz, 5 March 1634 - 11 June 1635	179	Nicolaas Vogel Adriaansz, 15 January 1635 - December 1635
74	Willem Jacobsz, 24 May 1635 - 3 December 1635	181	Nicolaas Vogel Adriaansz, 1625, 1634 - 1635
75	Willem Jacobsz, 24 November 1635 - December 1635	183	Jacob Cornelisz van der Swan, 3 January 1626 - December 1626
78	Jan van Aller Az., January 1625 - 22 September 1626	184	Jacob Cornelisz van der Swan, 2 January 1629 - 6 June 1632
84	Jan van Aller Az., 1625 - 1626	185	Jacob Cornelisz van der Swan, 1 January 1629 - 8 January 1635
85	Jan van Aller Az., 1634 - 1635	194	Jacob Duyfhuysen jr., January 1634 - 28 October 1634
87	Jan van Aller Az., 1649 - 1650	195	Jacob Duyfhuysen jr., 28 October 1634 - 24 December 1635
92	Jan van Aller Az., 1625 - 1626	210	Jacob Duyfhuysen jr, May 1649 - March 1650
93	Jan van Aller Az., January 1634 - 1 August 1634	211	Jacob Duyfhuysen jr, March - December 1650
94	Jan van Aller Az., 17 July 1634 - December 1635	244	Jacob Duyfhuysen jr., 9 June 1626 - December 1626, 1634 - 1635, 1649-1650
96	Jan van Aller Az., 1649 - 1650	248	Jacob Duyfhuysen jr., 11 October 1625 - December 1626, 1634 - 1635, January 1649 - 1 June 1649
98	Jan van Aller Az., 1625 - 1626	250	Jacob Duyfhuysen jr., 1634 - 1635 (1649 - 1650)
105	Nicolaas van der Hagen, 1 January 1625 - 14 April 1626	251	Jacob Duyfhuysen jr., 13 February 1626 - December 1626, 1634 - 1635, 1649 - 1650
106	Nicolaas van der Hagen, 2 May 1626 - December 1626	257	Arnout Hofflant, 12 June 1626 - December 1626, 1634 - 27 July 1635
110	Nicolaas van der Hagen, 1634	258	Arnout Hofflant, 3 October 1634 - December 1635
111	Nicolaas van der Hagen, 1635	262	Arnout Hofflant, 1634 - 1635
118	Nicolaas van der Hagen, 19 September 1625 - 30 November 1626	266	Arnout Hofflant, 1649 - 1650
		268	Gerrit van der Hout, 1634 - 20 September 1635

269	Gerrit van der Hout, 8 November 1635 - December 1635	392	Jacobus Delphius, 1649 - 1650
272	Gerrit van der Hout, January - June 1649	402	Jacobus Delphius, 1634 -1635
273	Gerrit van der Hout, 20 July 1649 - 17 December 1650	403	Jacobus Delphius, 1649
278	Gerrit van der Hout, 1634 - 1635	404	Jacobus Delphius, 1650
279	Gerrit van der Hout, 1649	418	Pieter Vroesen, 1649 - 1650
280	Gerrit van der Hout, 1649 - 1650	420	Johan Cool, 1649
287	Gerrit van der Hout, 1634 - 1635	421	Johan Cool te Rotterdam 1649
288	Gerrit van der Hout, 1635	441	Balthasar Bazius, 1649
295	Gerrit van der Hout, 1634 - 1635	442	Balthasar Bazius, 1650
296	Gerrit van der Hout, 1635	451	Leonard van Zijl, 1649 - 1650
310	Gerrit van der Hout, January - February 1649	458	Leonard van Zijl, 1649 - 1650
311	Gerrit van der Hout, 16 February 1649 t/m 20 June 1650	459	Leonard van Zijl te Rotterdam, 1658, 1660
312	Gerrit van der Hout, June - December 1650	472	Willem van Aller, 1649 - 1650
322	Arent van der Graeff, 1634	474	Willem van Aller, 1649 - 1650
323	Arent van der Graeff, 1635	492	Johan van Weel de Oude, 1649
337	Arent van der Graeff, 1649	493	Johan van Weel de Oude, 1650
338	Arent van der Graeff, 1650	496	Johan Troost Albertsz, 1649 - 1650
343	Anthony Huysman, 1635	501	Vitus Mustelius Woutersz, 1649
346	Anthony Huysman, 1635	538	Isaac Troost, 1649 - 1650
347	Anthony Huysman, January 1638 - December 1645	542	Isaac Troost, 1649 - 1650
348	Anthony Huysman, 1634 - 1635	551	Pieter Cornelis van der Licht, 1650
353	Anthony Huysman, January 1636 - December 1644	569	Hartman de Custer, 1649 - 1650
366	Jacobus Delphius, 1634 - 1635	584	Willem Sonneveld, 1649 - 1650
367	Jacobus Delphius, 1649 - 1650	607	Adriaen van Aller, 1649 - 1650
390	Jacobus Delphius, 1634 - 1635	630	Adriaen van Aller, 1649 - 1650
		654	Cornelis Maes, 1649 - 1650
		667	Pieter de Paus/ Pope/ le Pape, 1650
		668	Balthasar de Gruyter, 1650
		675	Balthasar de Gruyter, January 1649 - December 1650

Stadsarchief Rotterdam, 33-01 Handschriftenverzameling van de gemeente Rotterdam, aanvullingen 1848-1987 & 33-02 Handschriftenverzameling van de gemeente Rotterdam, aanvullingen 1988-1996 (SAR HS), inv.nrs.:

2867	Vergunning voor Pieter Adriaans Tromper, zeepezieder, om een aflaats te spannen onder het dak van het huis van Gerrit Christiaans B. Snijder.	9650	Onderhandse akte van overeenkomst tussen Andries Soury, Pieter Aerrrens en Adriaen Dirksen Kerckhove in verband met de brouwerij 't Witte Paert'.
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Printed primary sources

- Cats, Jacob, *Houwelick. Dat is het gansche gelegenheit des echten-staets* (Middelburg 1625).
- Colevelt, C.A., *C.A. Colevelts Bedenckingen Over Het Droogh maken Van de Haerlemmer ende Leydsche Meer* (Amsterdam 1642).
- Generale Keure ende Ordonnantie der Stad Rotterdam* (Rotterdam 1712).
- Geul, I., *Delfs-Haeghsche Twee-dracht, Verandert in Een-macht. Voor-ghesteld, Over het maken vande Haeghsche Vaert, na het West-landt, ende de Delfsche proceduren daers tegens, om dat te beletten* (The Hague 1644).
- Gravestein, C., *Op de Nieuwe Trekvaart tusschen Haarlem en Leyden. Bij de Heeren Burgermeesteren en Commissarissen der beider Steden, op den laatsten van Wijnmand, des jaars 1657, bevaren en ingewijd* (Rotterdam 1657).
- Grotius, Hugo, *Inleidinge tot de Hollandsche rechts-geleerdheid* (1629, ed. L.J. van Apeldoorn, Arnhem 1939).
- Halma, Reynier, *Loths Wyfs Opgerechte Zout-pylaer, Tot een Baecken ende waerschouwinge voorgesteld, aen alle de Inwoonders van ons Landt in 'tgemeen, als voor die van den Alblasser-waert in 't bysonder: Over die seer sware plagen die ons Lant hebben getroffen / in 't voorleden Jaer van 1659* (Schoonhoven 1660).

- *Een Historisch Verhael, Van vele en verscheyde hooge Water-vloeden, Waters-nooden, krachtige Storm-winden, Donder, Blixsem, Hagel* (Schoonhoven 1660).
- Huisman, L., *Den Ablasser Traanen-plas, Gestort Over het inbreeken der Wateren in den Ablasser-weerd, op den 31. van Winter-maand 1658* (Schoonhoven 1659).
- Keuren en Ordonnantien van 's Graven-Hage (The Hague 1735).
- Kort Vertoogh Aen Haer Ed: Groot-Mogende Mijn Heeren De Staten van Hollandt ende West-Vrieslandt, *Op de noodtsakelijcke betemminge Van de Haerlemmer Meer* (s.l. 1662).
- Laurentius, Laurens, *Dordrechts Traanen / Gestort Over de swaare In-breek van de Laage Waardt; Geschiedt tusschen den 30, en 31. December, Anno 1658* (Dordrecht 1659).
- Leechwater, Jan Adriaensz, *Haerlemmer-Meer-Boeck* (Amsterdam 1641).
- Onderrichtinghe Vande E. Vroetschap der Stadt Utrecht voor allen ende een yeder / ende sonderlinghe voor hare Burgeren ende Innewoonderen van 'tongelijck dat de voorsz; Stadt wort aengedaen op t'Veer tusschen Utrecht ende Amstelredam* (Utrecht 1623).
- Oudenhoven, Jacobus van, *Ingebroken Alblasser-waert, In Zuyd-Hollandt / Vervangende desselfs Situatie, Grootte, Dijkkagien, Oude ende Nieuwe Inbreucken, &c. Midtsgaders, het naerder Inbreken van den Souwendijck / ende hoe veel duysent Mergens daer door in het water staen* (Dordrecht 1659).
- *Straf-Predicatie, Gedaaen In twee Predicatiën, voor ende naer den middagh, op den eersten dagh des Heeren, naer het Inbreeken van den Alblasser-Waert, in den selven Waert, in den Ambachte van Nieu-Leckerlandt* (Dordrecht 1659).
- Ruine et submergement de la ville d'Amsterdam en Hollande, Laquelle est abyssée en plein jour, avec perté de plus de trente mille personnes, deux cents navires tant de guerre que marchands* (s.l. 1649).
- Schermer-Bedyckinghe* (Alkmaar, c. 1635).
- Snellinx, Franciscus, *Rey-Zangk op de trekvaart tusschen Haarlem ende Leyden. Door 't goetvinden van d'E. Heeren der zelve Steeden bestemd te maaken, uyt last van haare E. Heeren Gevolmaghtighden, daar oover gesteldt, en eerstmaal bevaaren den laatsten van Wijnmaandt 1657* (Haarlem s. a.).
- Stalpaerd, D., *Voorslagh Tot 't reynigen soo der verslijmde gronden als veruyld stinckende wateren deser Stede Amsterdam, en de nuttigheyt die by gevolgh daer van te verwachten staet* (s.l. 1653).
- Stevin, Simon, *Vita Politica - Het Burgerlick leven* (1590, eds. Romein-Verschoor & G.S. Overdiep, Amsterdam 1939).
- Temple, William, *Observations upon the United Provinces of the Netherlands* (London 1673).
- Waerachtighe Beschrijvinge vant schrickelijek Orweder ende vreeselick hooge water datter nu (Godt betert) geweest is den 19. September, waer over veel Dijcken ende Dammen door gebroken zijn in diversche plaetsen ende de landen, ten eersten tusschen Munnedam en Memelick, ten tweeden tot Velsen by Haerlem, ende voort in Zeelandt, Vrieslandt, waer door vele menschen ende beesten int water verdroncken ende versmoot zijn als mede vande groote schaden die binnen Amsterdam geleden zijn* (Amsterdam 1621).
- Westerlo, C., *Ode Gratulatoria Ad Consules Harlemaeos & Lugdunenses Batavorum Continens delicias Fossae Qua veredis beleyariis celoces inter utramque illorum civitatem promoventibus Musae ac Nymphae variis narratiunculis otia terunt* (s.l., c. 1657).
- Wheler, Willem, *Bewijs Van de Hoedanigheyt en Wercking der geoctroyeerde Waterschep-raden, Geinventeert by ^{ker} Willem Wheler; Vergeleken tegen de tegenwoordigh gebruyckelijcke Heef-raden* (Amsterdam 1645).

Maps

- Alkmaar: Cornelis Jacobsz Drebbe, 1597, Collection Rijksmuseum Amsterdam, <http://hdl.handle.net/10934/RM0001.COLLECT.336191>.
- Haarlem (fig. 2 & appendix 2): Willem Outgertsz Akersloot & Pieter Jansz Saenredam, 1628, Collection Rijksmuseum Amsterdam, <http://hdl.handle.net/10934/RM0001.collect.71325>.
- Haarlem (cover): Georg Braun & Franz Hogenberg, 1575, David Rumsey Historical Map Collection.
- Holland: map drawn by author after Nicolaas Visscher's Comitatus Hollandiae, 1682, <https://geheugenvannederland.nl/>.
- Rotterdam: J. Blaeu, c. 1640, Collection Stadsarchief Rotterdam, object number I-38.
- The Hague: C. Bos & J.J. van Harn, 1616, Collection Haags Gemeentearchief. Adaptations by author.
- The Low Countries: map drawn by author after Druifkes 2015, https://commons.wikimedia.org/wiki/File:Nederlanden_1609.png.
- All maps released under Creative Commons license 4.0 CC-BY-NC-SA.**

Bibliography

- Aberth, John, *An Environmental History of the Middle Ages. The Crucible of Nature* (London 2013), doi: 10.4324/9780203107690.
- Abrahamse, Jaap Evert, *De grote uitleg van Amsterdam. Stadsontwikkeling in de zeventiende eeuw* (Amsterdam 2010).
- Aerts, Remieg, 'Civil Society or Democracy? A Dutch Paradox', *BMGN - Low Countries Historical Review* 125 (2010) 2/3, 209-236, doi:10.18352/bmgn-lchr.7120.
- Alexandre-Bidon, Danièle, Françoise Piponnier & Jean-Michel Poisson eds., *Cadre de vie et manières d'habiter (xiii-xvii siècle)* (Caen 2006).
- Allemeyer, Marie Luisa, "*Kein Land ohne Deich..!*" *Lebenswelten einer Küstengesellschaft in der frühen Neuzeit* (Göttingen 2006).
- 'Profane Hazard or Divine Judgement? Coping with Urban Fire in the 17th Century', *Historical Social Research* 32 (2007) 3, 145-168.
- Allen, Valerie, 'When things break: mending roads, being social' in: Allen & Evans, *Roadworks*, 74-96, 10.7765/9781784996703.00011.
- Allen, Valerie & Ruth Evans eds., *Roadworks. Medieval Britain, medieval roads* (Manchester 2016), doi: 10.7228/manchester/9780719085062.001.0001.
- Almbjär, Martin 'The problem with early-modern petitions: safety valve or powder keg?', *European Review of History: Revue européenne d'histoire* 26 (2019) 6, 1013-1039, doi:10.1080/13507486.2019.1575798.
- Appuhn, Karl, *A Forest on the Sea. Environmental Expertise in Renaissance Venice* (Baltimore 2009).
- Archer, Ian W., 'Popular politics in the sixteenth and early seventeenth centuries' in: Griffiths & Jenner, *Londinopolis*, 26-46.
- *The pursuit of stability: social relations in Elizabethan London* (Cambridge 1991), doi:10.1017/CBO9780511522468.
- Arendt, Hannah, *The Human Condition* (Chicago 1989).
- Aroney, Nicholas, 'Subsidiarity, Federalism and the Best Constitution: Thomas Aquinas on City, Province and Empire', *Law and Philosophy* 26 (2007) 2, 161-228, doi:10.1007/s10982-006-0005-9.
- Aten, Diederik, "'Alle winters onder waetter". Grepen uit de geschiedenis van de Bergense polders', *Bergense Kroniek* (2006) 6, 6-25.
- "*Als het gewelt comt...*". *Politiek en economie in Holland benoorden het IJ, 1500-1800* (Hilversum 1995).
- 'Een afgerond geheel. Waterstaat en waterschappen ten noorden van het IJ tot 1800' in: Beukers, *Hollanders en het water*, 123-60.
- 'Stedelijke handelspolitiek. Alkmaar en de Beemster in de 17e en 18e eeuw', *Holland* 24 (1992), 146-159.
- *Stormenderland. Canon waterstaatsgeschiedenis Holland boven het IJ 700-2008* (Wormer 2009).
- Aten, Diederik, Jan Drewes, Joop Kila & Harry de Raad eds., *Geschiedenis van Alkmaar* (Zwolle 2007).
- Aten, Diederik, Marijke Joustra & Han van Zwet, *Leeghwater en het Haarlemmermeer* (Purmerend 2009).
- Bakker, Boudewijn, 'De zichtbare stad 1578-1813' in: Frijhoff & Prak, *Geschiedenis van Amsterdam, 1578-1650*, 17-101.
- Bakker, H. de & M.W. van den Berg eds., *Proceedings of the symposium on peat lands below sea level* (Wageningen 1982).
- Bankoff, Greg, 'The "English Lowlands" and the North Sea Basin System: A History of Shared Risk', *Environment and History* 19 (2013), 3-37, doi:10.3197/096734013X13528328438992.
- Bartlome, Niklaus & Erika Flückiger, 'Stadtzerstörungen und Wiederaufbau in der mittelalterlichen und frühneuzeitlichen Schweiz' in: Körner et al., *Stadtzerstörung und Wiederaufbau*, 123-146.
- Bavel, Bas van & Oscar Gelderblom, 'The economic origins of cleanliness in the Dutch Golden Age', *Past and Present* 205 (2009) 1, 41-69, doi:10.1093/pastj/gtp041.
- Bavel, Bas van, Daniel R. Curtis & Tim Soens, 'Economic inequality and institutional adaptation in response to flood hazards: a historical analysis', *Ecology and Society* 23 (2018) 4:30, doi: 10.5751/ES-10491-230430.
- Becker, Anna, 'Der Haushalt in der politischen Theorie der Frühen Neuzeit' in: Eibach & Schmidt-Voges, *Das Haus in der Geschichte*, 667-684, doi:10.1515/9783110358988-048.

- Beekelaar, G.A.M. et al. eds., *Richtlijnen voor het uitgeven van historische bescheiden* (6th revised ed., The Hague 1988).
- Beenakker, Jan, *Historische Plattegronden van Nederlandse steden. Deel 5: de steden van Hollands Noorderkwartier* (Lisse 1991).
- Benders, Jeroen & Dick de Boer, 'Putten uit bronnen, bronnen uit putten. De sociale geschiedenis van waterput en beerput' in: Taverne et al., *Nederland stedenland*, 150-164.
- Beukers, Eelco ed., *Hollanders en het Water. Twintig eeuwen strijd en profijt* (Hilversum 2007).
- Bitter, Peter, 'De stad versteent. Huizen, woninginrichting en hygiëne' in: Aten et al., *Geschiedenis van Alkmaar*, 210-225.
- 'Huis, erf en straat. Woningen en werkplaatsen, leven en werken in Alkmaar' in: Aten et al., *Geschiedenis van Alkmaar*, 79-90.
- 'Nederzetting op het zand. Landschappelijke dynamiek en menselijke bewoning' in: Aten et al., *Geschiedenis van Alkmaar*, 12-21.
- 'Ommuurd, volgebouwd en uitgelegd' in: Aten et al., *Geschiedenis van Alkmaar*, 64-78.
- Black, Antony, *Guilds and Civil Society in European Political Thought from the Twelfth Century to the Present* (London 1984).
- Blickle, Peter, 'Die "Consociatio" bei Johannes Althusius als Verarbeitung kommunaler Erfahrung' in: Blickle et al., *Subsidiarität*, 215-235.
- , *Kommunalismus: Skizzen einer gesellschaftlichen Organisationsform* (München 2000).
- ed., *Resistance, Representation, and Community* (Oxford 1997).
- Blickle, Peter, Steven Ellis & Eva Österberg, 'The Commons and the State: Representation, Influence, and the Legislative Process' in: Blickle, *Resistance, Representation*, 115-153.
- Blickle, Peter, Thomas O. Hüglin & Dieter Wyduckel eds., *Subsidiarität als rechtliches und politisches Ordnungsprinzip in Kirche, Staat und Gesellschaft* (Berlin 2002), doi:10.3790/978-3-428-50634-7.
- Blockmans, Wim P., 'Alternatives to monarchical centralisation: the great tradition of revolt in Flanders and Brabant' in: H.G. Koenigsberger ed., *Republiken und Republikanismus im Europa der frühen Neuzeit* (München 1988), 145-154.
- *Metropolen aan de Noordzee. De geschiedenis van Nederland, 1100-1560* (Amsterdam 2010).
- 'The impact of cities on state formation: three contrasting territories in the Low Countries' in: Blickle, *Resistance, Representation*, 256-271.
- Bloemendal, Jan & Arjan van Dixhoorn, 'De scharpheit van een gladde tong'. Literaire teksten en publieke opinievorming in de vroegmoderne Nederlanden' *BMGN - Low Countries Historical Review* 125 (2010) 1, 3-28, doi:10.18352/bmgn-lchr.7066.
- Bloemendal, Jan, Arjan van Dixhoorn & Elsa Strietman eds., *Literary Cultures and Public Opinion in the Low Countries, 1450-1650* (Leiden 2011), doi:10.1163/lej.9789004206168.i-324.
- Blok, Anders, Ignacio Fariás & Celia Roberts eds., *The Routledge Companion to Actor-Network Theory* (London 2020), doi:10.4324/9781131511667.
- Blom, Hans W., 'Burger en Belang: Pieter de la Court over de politieke betekenis van burgers' in: Joost Kloek & Karin Tilmans eds., *Burger* (Amsterdam 2002), 99-112.
- 'Sociability and Hugo Grotius', *History of European Ideas* 41 (2015) 5, 589-604, doi:10.1080/01916599.2014.987558.
- Blom, J.C.H., & E. Lamberts eds., *Geschiedenis van de Nederlanden* (Amsterdam 2014).
- Blom, Philipp, *De opstand van de natuur. Een geschiedenis van de kleine ijstijd (1570-1700) en het ontstaan van het moderne Europa* (Amsterdam 2017).
- Blussé van Oud Alblas, J.L., *Aan de oevers van de grote rivieren: de Rijn en Yangzi delta's 1350-1850* (Leiden 2011).
- Boekhorst, Peter te, Peter Burke & Willem Frijhoff eds., *Cultuur en maatschappij in Nederland 1500-1800. Een historisch-antropologisch perspectief* (Meppel 1992).
- Boele Anita, 'De stad als sociaal lichaam. Ware armen en liefdadigheid' in: Taverne et al., *Nederland stedenland*, 138-149.
- Boer, Pim den, 'La vie politique selon Stevin et Juste Lipse' in: Secretan & Den Boer, *Simon Stevin*, 191-199, doi:10.4000/books.ensditions.1168.
- Boer, Pim den & Anneke C.G. Fleurkens eds., *Simon Stevin. Het burgerlick leven & Anhangh* (Utrecht 2001).
- Bohman, James, 'Expanding dialogue: The Internet, the public sphere and prospects for the transnational democracy', in: Crossley & Roberts, *After Habermas*, 131-155.
- Bok, Sissela, *Secrets. On the Ethics of Concealment and Revelation* (Oxford 1984).
- Bont, Chris de, 'De kassen staan blank. Historische wortels van wateroverlast in Delfland', *Jaarboek voor Ecologische Geschiedenis 2002. Tussen politiek, economie en ecologie: waterbeheer in het verleden* (Hilversum 2001), 25-38.

- *Delfts water. Tweeduizend jaar bewoning door waterbeheer in het Delftse* (Delft 2000).
- Boone, Marc, 'In den beginne was het woord'. De vroege groei van 'parlementen' in de middeleeuwse vorstendommen der Nederlanden', *BMGN - Low Countries Historical Review* 120 (2005) 3, 338-361, doi:10.18352/bmgn-lchr.6249.
- Boone, Marc, Sofie Cerutti, Robert Descimon & Maarten Prak, 'Introduction: Citizenship between individual and community, 14th-18th Centuries' in: Marc Boone & Maarten Prak eds. *Statuts individuels, statuts corporatifs et statuts judiciaires dans les villes européennes (moyen âge et temps modernes). Actes du colloque tenu à Gand les 12-14 octobre 1995* (Leuven 1996), 3-10.
- Boone, Marc & Maarten Prak, 'Rulers, patricians and burghers: the Great and the Little traditions of urban revolt in the Low Countries' in: Davids & Lucassen, *A miracle mirrored*, 99-134.
- Borger, G.J., 'De ontwatering van het veen: een hoofdlijn in de historische nederzettingen-geografie van Nederland', *Geografisch Tijdschrift voor het Koninklijk Nederlands Aardrijkskundig Genootschap*, 11 (1977) 5, 377-387.
- Bos, Dennis, Maurits Ebben & Henk te Velde eds., *Harmonie in Holland. Het poldermodel van 1500 tot nu*, (Amsterdam 2008).
- Bos, Jurjen M., *Landinrichting en archeologie: het bodemarchief van Waterland* (Amersfoort 1988).
- Bos, Sandra, 'A tradition of giving and receiving: mutual aid within the guild system' in: Prak et al., *Craft Guilds*, 174-193.
- Bradbee, Cheryl, 'Imprints: the history of water management and canals in Piacenza, Italy', *Urban History* 44 (2017) 2, 188-207, doi:10.1017/s0963926816000341.
- Brand, Fridolin Simon & Kurt Jax, 'Focusing the Meaning(s) of Resilience: Resilience as a Descriptive Concept and a Boundary Object', *Ecology and Society* 12 (2007) 1, 23, doi:10.5751/es-02029-120123.
- Brand, Nikki & Jan Luiten van Zanden, 'Infrastructuur in een stedenlandschap', *Tijdschrift voor sociale en economische geschiedenis* 10 (2013) 3, 3-32, doi:10.18352/tseg.216.
- Brewer, John, 'Microhistory and the Histories of Everyday Life', *Cultural and Social History* 7 (2010) 1, 87-109, doi:10.2752/147800410x477359.
- Bruin, Guido de, *Geheimhouding en verraad. De geheimhouding van staatszaken ten tijde van de Republiek (1600-1750)* ('s-Gravenhage 1991).
- Buisman, J. & A.F.V. van Engelen eds., *Duizend jaar weer, wind en water in de Lage Landen. Deel 4: 1575-1675* (Franeker 2000).
- Bulst, Neithard & Robert Delort, *Maladies et société (XIIe - XVIIIe siècles). Actes du colloque de Bielefeld novembre 1986* (Paris 1989).
- Bult, Epko J., *Midden-Delfland, een archeologische kartering, inventarisatie, waardering en bewoningsgeschiedenis* (Amersfoort 1983).
- Bulte, M.A., 'De oostelijke oever van het Spaarne' in: Sliggers, *De loop van het Spaarne*, 63-84.
- Burg, Martijn van der, 'Introduction. The rise of public facilities in the Low Countries, 1400-1800' in: Heijden, van der et al., *Serving the Urban Community*, 7-20.
- Burgers, Ton, *Nederlands grote rivieren. Drie eeuwen strijd tegen overstromingen* (Utrecht 2014).
- Burke, Peter, 'Visualizing neighbourhood in Renaissance Florence: Santo Spirito and Santa Maria del Carmine', *Journal of Urban History* 32 (2006) 5, 693-710, doi:10.1177/0096144206287094.
- Calhoun, Craig, 'Civil Society and the Public Sphere', *Public Culture* 5 (1993), 267-280.
- Callon, Michel, 'Actor-network theory - the market test' in Law & Hassard, *Actor Network Theory and After*, 181-195, doi:10.1111/1467-954x.46.s.10.
- 'Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay', *The Sociological Review* 32 (1984) 1, 196-233, doi:10.1111/j.1467-954x.1984.tb00113.x.
- Campbell, Bruce M.S., *The Great Transition: Climate, Disease and Society in the Late-Medieval World* (Cambridge 2016), doi:10.1017/CBO9781139031110.
- Catterall, Douglas, 'Drawing Lives and Memories from the Everyday Words of the Early Modern Era', *Sixteenth Century Journal* 36 (2005) 3, 651-672, doi:10.2307/20477484.
- Chance, Eleanor, Christina Colvin, Janet Cooper, C.J. Day, T.G. Hassall, Mary Jessup, & Nesta Selwyn, 'Public Services' in: Alan Crossley & C.R. Elrington eds., *A History of the County of Oxford: Volume 4, the City of Oxford* (London 1979), 350-364.
- Cipolla, Carlo M., *Before the Industrial Revolution. European Society and Economy 1000-1700* (London 1976, reprint 1978), doi:10.4324/9780203695128.
- Clark, Nigel, 'What can go wrong when people become interested in the non-human?' in Blok et al., *Routledge Companion to ANT*, 158-167, doi:10.4324/9781315111667-18.
- Classen, Albrecht ed., *Urban Space in the Middle Ages and the Early Modern Age* (Berlin 2009), doi:10.1515/9783110223903.

- Cleijne, I.J., A.M.J.H. Huijbers, A.D. Brand & R.J.W.M. Gruben eds., *Huizenbouw en percelering in de late middeleeuwen en nieuwe tijd. Van hout(skelet)bouw naar baksteenbouw in tien steden* (Amersfoort 2017).
- Clement-Van Alkemade, M.H.G., B.M.J. Speet & A.G. van der Steur, *Historische plattegronden van Nederlandse steden. Deel 6: Haarlem*, (Alphen aan den Rijn 1993).
- Coast, David, 'Speaking for the People in Early Modern England', *Past and Present* 244 (2019), 51-88, doi:10.1093/pastj/gtz024.
- Cockayne, Emily, *Hubbub. Filth, Noise & Stench in England 1600-1770* (New Haven 2007).
- Colson, Justin & Arie van Steensel eds., *Cities and Solidarities. Urban Communities in Pre-Modern Europe* (London 2007), doi:10.4324/9781315270951.
- Cook, Harold J., 'Science and Technology' in: Helmers & Janssen, *Cambridge Companion to the Dutch Golden Age*, 350-369, doi:10.1017/9781316771549.022.
- Coomans, Janna, *In Pursuit of a Healthy City. Sanitation and the Common Good in the Late Medieval Low Countries* (Amsterdam 2018).
- Cooper, Alan, 'Once a highway, always a highway: roads and English law, c. 1150-1300' in: Allen & Evans, *Roadworks*, 50-73, doi:10.7765/9781784996703.00010.
- Cornelisse, Charles, 'The economy of peat and its environmental consequences in Holland during the late Middle Ages' in: Greefs & 't Hart, *Jaarboek voor Ecologische Geschiedenis 2005/2006*, 95-121.
- Coudert, Allison P., 'Sewers, Cesspools, and Privies: Waste as Reality and Metaphor in Pre-modern European Cities' in: Classen, *Urban Space*, 713-734, doi:10.1515/9783110223903.713.
- Crossley, Nick & John Michael Roberts eds., *After Habermas. New Perspectives on the Public Sphere* (Oxford 2004).
- Cruyningen, Piet van, 'From disaster to sustainability: floods, changing property relations and water management in the south-western Netherlands, c.1500-1800', *Continuity and Change* 29 (2014) 2, 241-265, doi:10.1017/S0268416014000149.
- Curtis, Daniel R., *Coping with Crisis: The Resilience and Vulnerability of Pre-Industrial Settlements* (Farnham 2014), doi:10.4324/9781315574233.
- Curtis, Daniel R. & Michele Campopiano, 'Medieval land reclamation and the creation of new societies: comparing Holland and the Po Valley, c.800-c.1500', *Journal of Historical Geography* 44 (2014), 93-108, doi:10.1016/j.jhg.2013.10.004.
- Curtis, Daniel R., Bas van Bavel & Tim Soens, 'History and the Social Science: Shock Therapy with Medieval Economic History as the Patient', *Social Science History* 40 (2016), 751-774, doi:10.1017/ssh.2016.30.
- Curtis, Valerie A., 'Dirt, disgust and disease: a natural history of hygiene', *Journal of Epidemiology & Community Health* 61 (2007), 660-664, doi:10.1136/jech.2007.062380.
- Dam, Petra J.E.M. van, 'An Amphibious Culture: Coping with Floods in the Netherlands' in: Peter Coates et al. eds., *Local Places, Global Processes: Histories of Environmental Change in Britain and Beyond* (Oxford 2016), 78-93, doi:10.2307/j.ctv139vg2h.16.
- *De amfibische cultuur. Een visie op watersnoodrampen* (Amsterdam 2010).
- 'Denken over natuurrampen, overstromingen en de amfibische cultuur', *Tijdschrift voor Waterstaatsgeschiedenis* 21 (2012) 1-2, webversie 2014, 1-10.
- 'Ecological Challenges, Technological Innovations. The Modernization of Sluice Building in Holland, 1300-1600', *Technology and Culture* 43 (2002) 3, 500-520, doi:10.1353/tech.2002.0144.
- 'Frühmoderne Städte und Umwelt in den Niederlanden' in: Dieter Schott & Michael Toyka-Seid eds., *Die europäische Stadt und ihre Umwelt* (Darmstadt 2008), 83-103.
- 'Sinking Peat Bogs. Environmental Change in Holland, 1350-1550', *Environmental History* 1 (2001) 6, 32-46.
- *Van Amsterdams Peil naar Europees referentievlak. De geschiedenis van het NAP tot 2018* (Hilversum 2018).
- *Vissen in veenmeren. De sluisvisserij op aal tussen Haarlem en Amsterdam en de ecologische transitie in Rijnland 1440-1530* (Hilversum 1998).
- Davids, Karel, 'Amsterdam as a centre of learning in the Dutch golden age, c. 1580-1700' in: O'Brien et al. 2001, 305-323.
- 'Patents and patentees in the Dutch republic between c. 1580 and 1720', *History and Technology, an International Journal* 16 (2000) 3, 263-283, doi:10.1080/07341510008581969.
- 'Public knowledge and common secrets. Secrecy and its limits in the early-modern Netherlands', *Early Science and Medicine* 10 (2005) 3, 411-427, doi:10.1163/1573382054615424.
- 'Public Services in Early Modern European Towns: An Agenda for Further Research', *Journal of Urban History* 36 (2010) 3, 386-392, doi:10.1177/0096144209359149.

- 'River control and the evolution of knowledge: a comparison between regions in China and Europe, c. 1400-1850', *Journal of Global History* (2006) 1, 59-79, doi:10.1017/s1740022806000040.
- 'Shifts of technological leadership in early modern Europe' in: Davids & Lucassen, *A miracle mirrored*, 338-366.
- *The Rise and Decline of Dutch Technological Leadership. Technology, Economy and Culture in the Netherlands, 1350-1800* (Leiden 2008), doi:10.1163/ej.9789004168657.i-634.
- Davids, Karel & Jan Lucassen eds., *A miracle mirrored. The Dutch Republic in European Perspective* (Cambridge 1995).
- Davis, Kathleen & Nadia Altschul eds., *Medievalisms in the postcolonial world: the idea of "the Middle Ages" outside Europe* (Baltimore 2009).
- Davis, Natalie Zemon, *Fiction in the Archives. Pardon Tales and their Tellers in Sixteenth-Century France* (Oxford 1987).
- Deceulaer, Harald, 'Guilds and Litigation: Conflict Settlement in Antwerp (1585-1796)' in: Marc Boone & Maarten Prak eds. *Statuts individuels, statuts corporatifs et statuts judiciaires dans les villes européennes (moyen âge et temps modernes). Actes du colloque tenu à Gand les 12-14 octobre 1995* (Leuven 1996) 171-208.
- 'Implicaties van de straat: rechten, plichten en conflicten in Gentse gebuurten (17de en 18de eeuw)', *Handelingen der Maatschappij voor Geschiedenis en Oudheidkunde te Gent*, nieuwe reeks 50 (1996), 121-147, doi:10.21825/hmgog.v50i1.331.
- 'Implications of the street. Entitlements, duties and conflicts in neighbourhoods in Ghent (17th-18th centuries)' in: Heijden, van der et al., *Serving the Urban Community*, 194-216.
- Deen, Femke, *Publiek debat en propaganda in Amsterdam tijdens de Nederlandse Opstand: Amsterdam 'Moorddam'* (Amsterdam 2015).
- Deen, Femke, David Onnekink & Michel Reinders eds., *Pamphlets and Politics in the Dutch Republic* (Leiden 2011), doi:10.1163/ej.9789004191785.i-261.
- Degroot, Dagomar, *The Frigid Golden Age. Climate Change, the Little Ice Age, and the Dutch Republic, 1560-1720* (Cambridge 2018).
- Dekken, Marjolein, *Brouwen, branden & bedienen. Werkende vrouwen in de Nederlandse dranknijverheid, 1500-1800* (Amsterdam 2010).
- Deligne, Chloé, 'Édilité et politique. Les fontaines urbaines dans les Pays-Bas méridionaux au Moyen Âge', *Histoire urbaine* 22 (2008), 77-96, doi:10.3917/rhu.022.0077.
- Deursen, A.Th. van, *Mensen van klein vermogen. Het 'kopergeld' van de Gouden Eeuw* (Amsterdam 1991).
- Dilcher, Gerhard, 'The Urban Belt and the Emerging Modern State' in: Blickle, *Resistance, Representation*, 217-224.
- Dingemans, Clazina, *Rap van tong, scherp van pen. Literaire discussiecultuur in Nederlandse praatjespamfletten (circa 1600-1750)* (Hilversum, 2008).
- Doorman, G., *Octrooien voor uitvindingen in de Nederlanden uit de 16e-18e eeuw. Met bespreking van enkele onderwerpen uit de geschiedenis der techniek ('s-Gravenhage 1940)*.
- Dorren, Gabrielle, 'Communities within the community: aspects of neighbourhood in seventeenth-century Haarlem' *Urban History* 25 (1998) 2, pp. 173-188, doi:10.1017/s0963926800000791.
- *Eenheid en verscheidenheid. De burgers van Haarlem in de Gouden Eeuw* (Amsterdam 2001).
- Douglas, Mary, *Purity and Danger: an analysis of concepts of pollution and taboo* (London 1966, reprint 2008).
- Dumolyn, Jan, '"I Thought of It at Work, in Ostend": Urban Artisan Labour and Guild Ideology in the Later Medieval Low Countries', *International Review of Social History* 62 (2017), 389-419, doi:10.1017/S0020859017000323.
- Dumolyn, Jan & Jelle Haemers, '"Let Each Man Carry on With his Trade and Remain Silent'. Middle Class Ideology in the Urban Literature of the Late Medieval Low Countries', *Cultural and Social History* 10 (2013) 2, 169-189, doi:10.1017/S0020859017000323.
- Dunlap, W. & R. Catton 'A new ecological paradigm for post-exuberant sociology', *American Behavioral Scientist* 24 (1980) 1, 15-47, doi:10.1177/000276428002400103.
- Durepos, Gabrielle & Albert J. Mills, 'Actor-Network Theory, ANTi-History and critical organizational historiography', *Organization* 19 (2011) 6, 703-721, doi:10.1177/1350508411420196.
- Eibach, Joachim, 'Burghers or town council: who was responsible for urban stability in early modern German towns?' *Urban History* 34 (2007) 1, 15-26, doi:10.1017/s0963926807004300.
- 'Das offene Haus. Kommunikative Praxis im sozialen Nahraum der europäischen Frühen Neuzeit', *Zeitschrift für Historische Forschung* 38 (2011) 4, 621-664, hdoi:10.3790/zhf.38.4.621.
- Eibach, Joachim & Inken Schmidt-Voges eds., *Das Haus in der Geschichte Europas* (Berlin 2015), doi:10.1515/9783110358988.

- Eibach, Joachim & Raingard Esser, 'Introduction: urban stability and civic liberties', *Urban History* 34 (2007) 1, 5-13, doi:10.1017/s0963926807004294.
- Emirbayer, Mustafa & Mimi Sheller, 'Publics in history', *Theory and Society* 27 (1998) 727-779.
- Epstein, S.R. & Maarten Prak eds., *Guilds, Innovation and the European Economy, 1400-1800* (Cambridge 2008), doi:10.1017/cb09780511496738.001.
- Esser, Raingard, "Concordia res parvae crescunt". Regional Histories and the Dutch Republic in the Seventeenth Century' in: Pollmann & Spicer, *Public Opinion and Changing Identities*, 229-248, doi:10.1163/ej.9789004155275.i-310.19.
- 'Fear of water and floods in the Low Countries', in: William G. Naphy & Penny Roberts eds., *Fear in Early Modern Society* (Manchester 1997), 62-77.
- "Offer gheen water op en hadde gheweest". Narratives of Resilience on the Dutch Coast in the Seventeenth Century', *Dutch Crossing. Journal of Low Countries Studies* 40 (2016) 2, 97-107, doi:10.1080/03096564.2016.1159866.
- Ewert, Ulf Christian, 'Water, Public Hygiene and Fire Control in Medieval Towns: Facing Collective Goods Problems while Ensuring the Quality of Life', *Historical Social Research* 32 (2007) 4, 222-251.
- Faber, J.A., H.A. Diederiks & S. Hart, 'Urbanisering, industrialisering en milieuaantasting in Nederland in de periode van 1500 tot 1800', *A.A.G. Bijdragen* 18 (1973), 251-271.
- Fagan, Brian, *Elixir. A Human History of Water* (London 2011).
- Fariás, Ignacio, Anders Blok & Celia Roberts, 'Actor-network theory as a companion. An inquiry into intellectual practices' in: Blok et al., *Routledge Companion to ANT*, xx-xxxv, doi:10.4324/9781315111667.
- Finnis, John, 'Subsidiarity's Roots and History: Some Observations', *The American Journal of Jurisprudence* 61 (2016), 133-141, doi:10.1093/ajj/auw006.
- Fischer-Kowalski, Marina, 'Society's Metabolism. The Intellectual History of Materials Flow Analysis, Part I, 1860-1970', *Research and Analysis* 2 (1998) 1, 61-78, doi:10.1162/jiec.1998.2.1.61.
- Fockema Andreae, S.J., *Wat er aan de droogmaking van de Haarlemmermeer vooraf ging* (Amsterdam 1955).
- Fransen, Alfons, 'Sharing the responsibility of ecological change. The case of the Diemerdijk, 1670-1770' in: Greefs & 't Hart, *Jaarboek voor Ecologische Geschiedenis 2005/2006*, 143-173.
- Frijhoff, Willem, 'Inleiding: Historische antropologie' in: Boekhorst, te et al., *Cultuur en maatschappij*, 11-38.
- Frijhoff, Willem & Maarten Prak eds., *Geschiedenis van Amsterdam. Centrum van de wereld, 1578-1650* (Amsterdam 2004).
- *Geschiedenis van Amsterdam. Zelfbewuste stadstaat, 1650-1813* (Amsterdam 2005).
- Frijhoff, Willem & Marijke Spies eds., *1650. Bevochten eendracht* (2nd edition, The Hague 2000).
- Garrioch, David, 'Towards a fire history of European cities (late Middle Ages to nineteenth century)', *Urban History* 46 (2019) 2, 202-224, doi:10.1017/s0963926818000275.
- 'Why Didn't Paris Burn in the Seventeenth and Eighteenth Centuries?', *French Historical Studies* 42 (2019) 1, 35-65, doi:10.1215/00161071-7205197.
- Garrioch, David & M. Peel, 'Introduction: The social history of urban neighbourhoods', *Journal of Urban History* 32 (2006) 5, 663-676.
- Geevers, Liesbeth & Griet Vermeesch eds., *Politieke belangenbehartiging in de vroegmoderne Nederlanden* (Maastricht 2014).
- Geltner, G., 'Fighting Corruption in the Italian City-State. Perugian Officers' End of Term Audit (sindacato) in the Fourteenth Century' in: R. Kroeze, A. Vitória & G. Geltner eds., *Anticorruption in History. From Antiquity to the Modern Era* (Oxford 2018), 103-121, doi:10.34055/josf.io/tnf6y.
- 'Public Health and the Pre-Modern City: A Research Agenda', *History Compass* 10 (2012) 3, 231-245, doi:10.1111/j.1478-0542.2011.00826.x.
- *Roads to Health. Infrastructure and Urban Well-being in Later Medieval Italy* (Philadelphia 2019), doi:10.9783/9780812296310.
- 'The Path to Pistoia: Urban Hygiene before the Black Death', *Past & Present* 246 (2020), 3-33, doi:10.1093/pastj/gtzo28.
- Geyer, W. Rockwell, 'Where the Rivers Meet the Sea', *Oceanus* 43 (2004) 1, (web edition), www.whoi.edu/oceanus/feature/where-the-rivers-meet-the-sea, retrieved 27 June 2017.
- Giebels, L. ed., *Zeven eeuwen Rijnlandse uitwatering in Spaarndam en Halfweg. Van beveliging naar beheersing* (Leiden 1994).
- Ginzburg, Carlo (translation Pietha de Voogd), *De Kaas & De Wormen. Het wereldbeeld van een zestiende-eeuwse molenaar* (Amsterdam 1982).
- Glaudemans, Corien, *De oude plannen tot droogmaking van het Haarlemmermeer* (Leiden 1985).
- Gottfried, Robert, 'Plague, Public Health and Medicine in Late Medieval England' in: Bulst & Delort, *Maladies et société*, 337-365.

- Gottschalk, M.K. Elisabeth, *Stormvloed en rivieroverstromingen in Nederland III de periode 1600-1700* (Assen 1977).
- Gowing, Laura, 'The freedom of the streets': women and social space, 1560-1640' in: Griffiths & Jenner, *Londinopolis*, 130-151.
- Greefs, Hilde & Marjolein 't Hart eds., *Jaarboek voor Ecologische Geschiedenis 2005/2006. Water Management, Communities, and Environment. The Low Countries in Comparative Perspective, c. 1000- c. 1800* (Ghent 2006).
- Griffiths, Paul & Mark S.R. Jenner, *Londinopolis. Essays in the cultural and social history of early modern London* (Manchester 2000).
- Grijzenhout, Frans, 'Het straatje van Vermeer. Een plaatsbepaling', *Bulletin KNOB* (2018) 1, 1-13.
- Groen, J.A., *Een cent per emmer. Het Amsterdamse drinkwater door de eeuwen heen* (Amsterdam 1978).
- Groenewoudt, B.J., 'History continuous: Drowning and desertification. Linking past and future in the Dutch landscape', *Quaternary International* 251 (2012), 125-135, doi:10.1016/j.quaint.2011.07.015.
- Groenewoudt, Bert & Jeroen Benders, 'Private and shared water facilities in rural settlements and small towns. Archaeological and historical evidence from the Netherlands from the medieval and post-medieval periods' in: Jan Klápšte ed., *Hierarchies in rural settlements* (Turnhout 2013), 245-262, doi:10.1484/m.ruralia.1.101614.
- Groenveld, S., *Evidente factiën in den staet. Sociaal-politieke verhoudingen in de 17e-eeuwse Republiek der Verenigde Nederlanden* (Hilversum 1990).
- ed., *Leiden. De geschiedenis van een Hollandse stad* (Leiden 2003).
- Groenveld, S., W.E. Penning & C.J.J. Stal eds., *Historische plattegronden van Nederlandse steden. Deel 10: Den Haag* (Alphen aan den Rijn 2007)
- Gunn, J.A.W., *Politics and the Public Interest in the Seventeenth Century* (London 1969).
- Haagse Kaart, www.haagsekaart.nl, retrieved on 20 March 2019.
- Habermas, Jürgen, *Strukturwandel der Öffentlichkeit. Untersuchungen zu einer Kategorie der bürgerlichen Gesellschaft* (6th edition, Neuwied 1974).
- Haemers, Jelle & Wouter Ryckbosch 'A targeted public: public services in fifteenth-century Ghent and Bruges', *Urban History* 37 (2010), 203-225, doi:10.1017/S0963926810000295.
- Ham, Willem van der, *Hollandse polders* (Amsterdam 2009).
- Hamlin, Christopher, 'Water' in: Kenneth F. Kiple & Kriemhild Coneè Ornelas, *The Cambridge World History of Food* (Cambridge 2000) vol. 1, 720-730.
- Harline, Craig E., *Pamphlets, Printing, and Political Culture in the Early Dutch Republic* (Dordrecht 1987), doi:10.1007/978-94-009-3601-0.
- Harms, Roeland, *De uitvinding van de publieke opinie: pamfletten als massamedia in de zeventiende eeuw* (Utrecht 2010).
- Hart, Marjolein 't, 'The Dutch Republic: the urban impact upon politics' in: Davids & Lucassen, *A miracle mirrored*, 57-98.
- Heersink, Wim, 'Zachte woorden op het platteland. Een verkennend onderzoek naar conflictregelingen in Noord-Holland', *Leidschrift* 12 (1996) 1, 83-109.
- Heijden, Manon van der, *Civic Duty: Public Services in the Early Modern Low Countries* (Cambridge 2012).
- 'Conflict and consensus. The allocation of public services in the Low Countries 1500-1800' in: Heijden, van der et al 2009, 21-41.
- 'Introduction: New Perspectives on Public Services in Early Modern Europe', *Journal of Urban History* 36 (2010) 3, 271-284, doi:10.1177/0096144209359137.
- Heijden, Manon van der, Elise van Nederveen Meerkerk & Griet Vermeesch eds., *Serving the Urban Community. The Rise of Public Facilities in the Low Countries* (Amsterdam 2009).
- Heijden, Manon van der & Ariadne Schmidt 'Public Services and Women's Work in Early Modern Dutch Towns', *Journal of Urban History* 36 (2010) 3, 368-385, doi:10.1177/0096144209359147.
- 'Der Haushalt in der niederländischen Geschichtsschreibung: Ehemuster, fragliches Patriarchat und häusliches Leben' in: Eibach & Schmidt-Voges, *Das Haus in der Geschichte*, 131-148, doi:10.1515/9783110358988-011.
- Heilbron, Johan, 'Interest: History of the Concept', *International Encyclopedia of the Social and Behavioral Sciences* (2nd edition, Amsterdam 2015), vol. 12, pp. 386-389, doi:10.1016/B978-0-08-097086-8.03095-6.
- Helmers, Helmer J., 'Popular Participation and Public Debate' in: Helmers & Janssen, *Cambridge Companion to the Dutch Golden Age*, 124-146, doi:10.1017/9781316771549.011.
- Helmers, Helmer J. & Geert H. Janssen eds., *The Cambridge Companion to the Dutch Golden Age* (Cambridge 2018), doi:10.1017/9781316771549.

- Henderson, John, 'Epidemics in Renaissance Florence: Medical Theory and Government Response' in: Bulst & Delort, *Maladies et société*, 165-186.
- Hoffmann, Richard C., 'Economic Development and Aquatic Ecosystems in Medieval Europe', *American Historical Review* 101 (1996) 3, 631-669, doi:10.1086/ahr/101.3.631.
- 'Footprint Metaphor and Metabolic Realities. Environmental Impacts of Medieval European Cities' in: Paolo Squatriti ed., *Natures Past. The Environment and Human History* (Ann Arbor 2007) 288-325.
- Hoyle, R.W., 'Petitioning as popular politics in early sixteenth-century England', *Historical Research* 75 (2002) 190, 365-389, doi:10.1111/1468-2281.00156.
- Hughes, J. Donald, 'Three Dimensions of Environmental History', *Environment and History*, 14, (2008) 3, 319-330, doi:10.3197/096734008x333545.
- Huijbers, A.M.J.H., 'De stand van zaken aangaande syntheses over huizenbouw en percelering in de archeologie' in: Cleijne et al., *Huizenbouw en percelering*, 23-59.
- 'Verklaring van kenmerken van stedelijke huisplattegronden' in: Cleijne et al., *Huizenbouw en percelering*, 313-338.
- Huisman, Pieter & Hans Buiten, 'Het zoete nat. Zorg om drinkwater en omgang met afvalwater in Holland' in: Beukers, *Hollanders en het water*, II 383-438.
- Ijsselstijn, Marcel, 'Enkele grote lijnen in de Nederlandse stedenbouwgeschiedenis. Een vergelijkende studie naar de binnensteden van Utrecht, Amsterdam en 's-Hertogenbosch', *Bulletin KNOB* (2011) 3/4, 89-107.
- Isenmann, Eberhard, 'Norms and Values in the European City, 1300-1800' in: Blickle, *Resistance, Representation*, 185-215.
- Isensee, Josef, 'Subsidiarität - das Prinzip und seine Prämissen', in: Blickle et al., *Subsidiarität*, 129-177.
- Janssen, Geert H., 'Migration' in: Helmers & Janssen, *Cambridge Companion to the Dutch Golden Age*, 50-66, doi:10.1017/9781316771549.007.
- 'The Republic of the Refugees: Early Modern Migrations and the Dutch Experience', *The Historical Journal* 60 (2017) 1, 233-252, doi:10.1017/s0018246x1600039x.
- Jenner, Mark S.R., 'From conduit community to commercial network? Water in London, 1500-1725' in: Griffiths & Jenner, *Londinopolis*, 250-272.
- Jong, J. de, 'Ontstaan en geschiedenis van het Spaarne' in: Sliggers, *De loop van het Spaarne*, 9-16.
- Jørgensen, Dolly, '"All Good Rule of the Citee": Sanitation and Civic Government in England, 1400-1600', *Journal of Urban History* 36 (2010) 3, 300-315, doi:10.1177/0096144209359141.
- 'Cooperative Sanitation. Managing Streets and Gutters in Late Medieval England and Scandinavia', *Technology and Culture* 49 (2008), 547-567, doi:10.1353/tech.0.0047.
- 'Modernity and Medieval Muck', *Nature and Culture* 9 (2014) 3, 225-237, doi:10.3167/nc.2014.090301.
- 'The Medieval Sense of Smell, Stench and Sanitation' in: Krampl et al. eds., *Les cinq sens de la ville du Moyen Âge à nos jours* (Tours 2013), 301-313.
- Joyeux, Arthur, *Le principe de subsidiarité, entre terminologie et discours: pistes pour une nouvelle histoire de la formule* (HAL open access archives 2016).
- Jun, Hatano, 'Edo's Water Supply' in: James L. McClain et al. eds., *Edo and Paris. Urban Life and the State in the Early Modern Era* (Ithaca 1994) 246-250.
- Jütte, Daniel, *The Age of Secrecy: Jews, Christians, and the Economy of Secrecy* (New Haven 2015), doi:10.12987/9780300213423.
- Kant, Immanuel, *Kritik der reinen Vernunft* (Riga 1781).
- Kapteijn, Herman, 'Kaasstad van Holland. Een markt- en verzorgingscentrum van naam' in: Aten et al., *Geschiedenis van Alkmaar*, 226-251.
- 'Streekcentrum in wording. De economische ontwikkeling van een marktstad' in: Aten et al., *Geschiedenis van Alkmaar*, 91-103.
- Kaviraj Sudipta & Sunil Khilnani eds., *Civil Society. History and Possibilities* (Cambridge 2001).
- Kaye, Joel, *A History of Balance, 1250-1375. The Emergence of a New Model of Equilibrium and its Impact on Thought* (Cambridge 2014), doi:10.1017/CBO9781139236225.
- Keck, Markus & Patrick Sakdapolrak, 'What is Social Resilience? Lessons Learned and Ways Forward', *Erdkunde* 67 (2013) 1, 5-19, doi:10.3112/erdkunde.2013.01.02.
- Keene, Derek, 'Fire in London: Destruction and Reconstruction, A.D. 982-1676' in: Körner et al., *Stadtzerstörung und Wiederaufbau*, 187-211.
- Kempe, Michael, 'Mind the Next Flood! Memories of Natural Disasters in Northern Germany from the Sixteenth Century to the Present', *The Medieval History Journal* 10 (2007) 1-2, 327-354, doi:10.1177/097194580701000212.
- 'The Genesis Story and Natural Disasters in Early Modern Times', *Environment and History* 9 (2003) 2, 151-174, doi:10.3197/096734003129342809.

- Kint, An, 'Becoming Civic Community: Citizenship in Sixteenth-Century Antwerp' in: Marc Boone & Maarten Prak eds. *Statuts individuels, statuts corporatifs et statuts judiciaires dans les villes européennes (moyen âge et temps modernes). Actes du colloque tenu à Gand les 12-14 octobre 1995* (Leuven 1996) 157-170.
- Kintz, Jean-Pierre, 'Presse et catastrophes naturelles: l'exemple du Mercure Français' in: Körner et al., *Stadtzerstörung und Wiederaufbau*, 321-326.
- Klinkert, Wim, 'Water in oorlog. De rol van het water in de militaire geschiedenis van Holland na 1550' in: Beukers, *Hollanders en het water*, II 451-504.
- Kloek, Joost & Karin Tilmans eds., *Burger* (Amsterdam 2002).
- Knevel, Paul, 'Hoofdstad van Holland boven het IJ. Politieke en bestuurlijke ontwikkelingen' in: Aten et al., *Geschiedenis van Alkmaar*, 190-209.
- Kocka, Jürgen, 'Civil Society in Historical Perspective', in: John Keane ed., *Civil Society* (Berlin 2006), 37-50.
- Kooi, Christine, *Liberty and Religion. Church and State in Leiden's Reformation, 1572-1620* (Leiden 2000).
- Körner, Martin, Niklaus Bartlome & Erika Flückiger eds., *Stadtzerstörung und Wiederaufbau. Band I: Zerstörung durch Erdbeben, Feuer und Wasser / Destruction and Reconstruction of Towns. Volume I: Destruction by Earthquakes, Fire and Water / Destruction et reconstruction des villes. Tome I: Destructons par des tremblements de terre, le feu et l'eau* (Bern 1999).
- Kort, J.C., 'Landverlies aan de noordzijde van de Haarlemmermeer voornamelijk in de vijftiende en zestiende eeuw', *Tijdschrift voor Waterstaatsgeschiedenis* 6 (1997), webversie 2006, 1-7.
- Krom, Tycho & Djoeke van Netten, 'Geheymnissen en secreten. Denkbeelden over geheimhouding in Nederlandse pamfletten uit 1672' in: *Jaarboek voor Nederlandse boekgeschiedenis/Yearbook for Dutch Book History* 23 (Nijmegen 2016) 193-207.
- Kruif, José de, Marijke Meijer Drees & Jeroen Salman eds., *Het lange leven van het pamflet. Boekhistorische, iconografische, literaire en politieke aspecten van pamfletten 1600-1900* (Hilversum 2006).
- Ku, Agnes S., 'Revisiting the Notion of "Public" in Habermas's Theory - Toward a Theory of Politics of Public Credibility', *Sociological Theory* 18 (2000) 2, 216-240, doi:10.1111/1467-9558.00096.
- Kuijpers, Erika, *Migrantenstad. Immigratie en sociale verhoudingen in 17e-eeuws Amsterdam* (Hilversum 2005).
- Kuijpers, Erika & Maarten Prak, 'Burger, ingezetene, vreemdeling: burgerschap in Amsterdam in de 17e en 18e eeuw' in: Kloek & Tilmans, *Burger*, 113-132.
- Kuijpers, Erika & Maarten Prak, 'Gevestigden en buitenstaanders' in: Frijhoff & Prak, *Geschiedenis van Amsterdam, 1578-1650*, 189-239.
- Laar, Paul van de & Mies van Jaarsveld, *Historische Atlas van Rotterdam* (Amsterdam 2004).
- Lake, Peter & Steve Pincus, 'Rethinking the Public Sphere in Early Modern England', *Journal of British Studies* 45 (2006), 270-292.
- Lambert, Audrey M., *The Making of the Dutch Landscape. An Historical Geography of the Netherlands* (London 1985).
- Latour, Bruno, 'On recalling ANT' in: Law & Hassard, *Actor Network Theory and After*, 15-25.
 ——— *Reassembling the Social: An Introduction to Actor-Network-Theory*, (Oxford 2005).
 ——— 'Technology is Society Made Durable', *The Sociological Review* 38 (1990), 103-131, doi:10.1111/j.1467-954x.1990.tb03350.x.
 ——— *We Have Never Been Modern* (Cambridge MA 1991).
- Law, John & John Hassard eds., *Actor Network Theory and After* (Oxford 1999).
- Lee, John S., 'Piped water supplies managed by civic bodies in medieval English towns', *Urban History* 41 (2014) 3, 369-393, doi:10.1017/S0963926813000990.
- Lesger, Clé, 'De wereld als horizon. De economie tussen 1578 en 1650' in: Frijhoff & Prak, *Geschiedenis van Amsterdam, 1578-1650*, 103-187.
 ——— *Huur en conjunctuur. De woningmarkt in Amsterdam, 1550-1850* (Amsterdam 1986).
- Lesger, Clé & Marco H.D. van Leeuwen, 'Residential Segregation from the Sixteenth to the Nineteenth Century: Evidence from the Netherlands', *Journal of Interdisciplinary History* XLII (2012) 3, 333-369, doi:10.1162/jinh_a_00254.
- Levi, Giovanni, 'On Microhistory' in: Peter Burke ed., *New Perspectives on Historical Writing* (Cambridge 1991), 93-113.
- Liddy, Christian D. & Jelle Haemers, 'Popular Politics in the Late Medieval City: York and Bruges', *The English Historical Review* 128 (2013) 553, 771-805, doi:10.1093/ehr/cet107.
- Lilley, Keith D., *Urban Life in the Middle Ages 1000-1450* (Basingstoke 2002).
- Linden, H. van der, *Cope. Bijdrage tot de rechtsgeschiedenis van de openlegging der Hollands-Utrechtse laagvlakte*, (Assen 1956).
 ——— 'De Nederlandse waterhuishouding en waterstaatsorganisatie tot aan de moderne tijd', *BMGN* 103 (1988) 4, 534-553, doi:10.18352/bmgn-lchr.3016.

- Lis, Catharina & Hugo Soly, 'Craft guilds in comparative perspective: the Northern and Southern Netherlands, a survey' in: Prak et al., *Craft Guilds*, 1-31.
- 'Export industries, craft guilds and capitalist trajectories, 13th to 18th centuries' in: Prak et al., *Craft Guilds*, 107-132.
- 'Neighbourhood social change in West European cities. Sixteenth to nineteenth centuries', *International Review of Social History* 38 (1993), 1-30, doi:10.1017/S002085900011757.
- Long, Pamela, *Openness, Secrecy, Authorship. Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (Baltimore 2001), doi:10.1353/book.20624.
- López-Gómez, Daniel, 'What if ANT wouldn't pursue agnosticism but care?' in: Blok et al., *Routledge Companion to ANT*, 4-13, doi:10.4324/9781315111667-2.
- Lourens, Piet & Jan Lucassen, *Inwonertallen van Nederlandse steden ca. 1300-1800* (Amsterdam 1997).
- Lucassen, Jan, *Immigranten in Holland 1600-1800. Een kwantitatieve benadering* (Amsterdam 2002).
- 'Labour and early modern economic development' in: Davids & Lucassen, *A miracle mirrored*, 367-409.
- Lucassen, Jan & Maarten Prak, 'Conclusion' in: Prak et al., *Craft Guilds*, 224-231.
- Lynch, Katherine A., *Individuals, Families, and Communities in Europe, 1200-1800: The Urban Foundation of Western Society* (Cambridge 2003).
- 'Social Provisions and the Life of Civil Society in Europe: Rethinking Public and Private', *Journal of Urban History* 36 (2010) 3, 285-299, doi:10.1177/0096144209359140.
- Magnusson, Roberta J., 'Medieval Urban Environmental History', *History Compass* 11 (2013) 3, 189-200, doi:10.1111/hic3.12038.
- 'Public and Private Urban Hydrology: Water Management in Medieval London' in: Walton, *Wind & Water*, 171-187.
- McKeon, Michael, *The Secret History of Domesticity. Public, Private and the Division of Knowledge* (Baltimore 2005).
- McNeill, William H., 'Interview', *Environmental History* 15 (2010) 1, 129-137.
- Meeteren, A.P.M. van, *Op hoop van akkoord: Instrumenteel forumgebruik bij geschilbeslechting in Leiden in de zeventiende eeuw* (Rotterdam 2006).
- Mentink, G.J. & A.M. van der Woude, *De demografische ontwikkeling te Rotterdam en Cool in de 17e en 18e eeuw. Een methodisch en analyserend onderzoek van de retroacta van de burgerlijke stand van Rotterdam en Cool* (Rotterdam 1965).
- Merchant, Carolyn, *Autonomous Nature. Problems of Prediction and Control from Ancient Times to the Scientific Revolution* (New York 2016), doi:10.4324/9781315680002.
- Merriam-Webster online dictionary, www.merriam-webster.com.
- Molen, W.H. van der, 'Water management in the Western Netherlands' in: Bakker, de & Van den Berg, *Proceedings of the symposium on peat lands*, 106-121.
- Moran, Joe, 'History, Memory and the Everyday', *Rethinking History* 8 (2004) 1, 51-68, doi:10.1080/13642520410001649723.
- Morgan, John Emrys, 'The micro-politics of water management in early modern England: regulation and representation in Commissions of Sewers', *Environment and History* 23 (2017) 3, 409-413, doi:10.3197/096734017X14979473873876.
- Morgan, Ruth A. & James L. Smith, 'Premodern Streams of Thought in Twenty-First-Century Water Management', *Radical History Review* 116 (2013), 105-129, doi:10.1215/01636545-1965748.
- Munck, Bert de, 'Disassembling the City: A Historical and Epistemological View on the Agency of Cities', *Journal of Urban History* 43 (2017) 5, 811-829, doi:10.1177/0096144215621737.
- 'From brotherhood community to civil society? Apprentices between guild, household and the freedom of contract in early modern Antwerp', *Social History* 35 (2010) 1, 1-20, doi:10.1080/03071020903491724.
- 'Rewinding Civil Society: Conceptual Lessons from the Early Modern Guilds', *Social Science History* 41 (2017) 1, 83-102, doi:10.1017/ssh.2016.39.
- Munck, Bert de, Piet Lourens & Jan Lucassen, 'The establishment and distribution of craft guilds in the Low Countries, 1000-1800' in: Prak et al., *Craft Guilds*, 32-73.
- Naso, Irma, 'Les hommes et les épidémies dans l'Italie de la fin du Moyen Age: Les réactions et les moyens de défense entre peur et méfiance' in: Bulst & Delort, *Maladies et société*, 307-326.
- Nederveen Meerkerk, Elise van, 'Professionalization of Public Service: Civil Servants in Dordrecht, 1575-1795', *Journal of Urban History* 36 (2010) 3, doi:10.1177/0096144209359146.
- Nederveen Meerkerk, Elise van & Griet Vermeesch, 'Reforming outdoor relief. Changes in urban provisions for the poor in the northern and southern Low Countries (c. 1500-1800)' in: Heijden, van der et al., *Serving the Urban Community*, 135-154.

- Neve, Roel de & Alex van Heezik, 'Verbonden door het water. Binnenvaart en zeehavens in Holland' in: Beukers, *Hollanders en het water*, 187-274.
- Nierop, Henk F.K. van, 'And Ye Shall Hear of Wars and Rumours of Wars'. Rumour and the Revolt of the Netherlands' in: Pollmann & Spicer, *Public Opinion and Changing Identities*, 69-86, doi:10.1163/ej.9789004155275.i-310.11.
- 'Popular Participation in Politics in the Dutch Republic', in: Blicke, *Resistance, Representation*, 272-290.
- 'Private Interests, Public Policies: Petitions in the Dutch Republic', in: Arthur K. Wheelock, Jr. and Adele Seeff eds., *The Public and Private in Dutch Culture of the Golden Age* (Newark 2000) 33-39.
- NOAA, 'Estuaries', http://oceanservice.noaa.gov/education/tutorial_estuaries/esto5_circulation.html, retrieved 27 June 2017.
- Nobel, Arjan, 'Polderen in de polder? Consensus en conflict in een vroegmodern poldergebied', in: Bos et al., *Harmonie in Holland*, 30-48.
- Noordegraaf, Leo ed., *Alkmaar, stad en regio. Alkmaar en omgeving in de Late Middeleeuwen en Vroegmoderne Tijd* (Hilversum 2004).
- Noordegraaf, Leo & Gerrit Valk, *De Gave Gods. De pest in Holland vanaf de late middeleeuwen* (online edition 2007), www.dbnl.org/tekst/nooro41gaveo1_01/nooro41gaveo1_01.pdf, retrieved 2 January 2020.
- Noordegraaf Leo & Jan Luiten van Zanden, 'Early modern economic growth and the standard of living: did labour benefit from Holland's Golden Age?' in: Davids & Lucassen, *A miracle mirrored*, 410-437.
- Novello, Elisabetta & James C. McCann, 'The Building of the Terra Firma: The Political Ecology of Land Reclamation in the Veneto from the Sixteenth through the Twenty-first Century', *Environmental History* 22 (2017) 460-485, doi:10.1093/envhis/emx025.
- Nutton, Vivian, 'The Seeds of Disease: an Explanation of Contagion and Infection from the Greeks to the Renaissance', *Medical History* 27 (1983), 1-34, doi:10.1017/S0025727300042241.
- Ogilvie, Sheilagh, 'The Economics of Guilds', *Journal of Economic Perspectives* 28 (2014) 4, 169-192, doi:10.1257/jep.28.4.169.
- 'Whatever is, is right? Economic institutions in pre-industrial Europe', *Economic History Review* 60 (2007) 4, 649-684, doi:10.1111/j.1468-0289.2007.00408.x.
- Onnekink, David, 'The Body Politic' in: Helmers & Janssen, *Cambridge Companion to the Dutch Golden Age*, 107-123, doi:10.1017/9781316771549.010.
- Oosten, Roos M.R. van, *De stad, het vuil en de beerput. Een archeologisch-historische studie naar de opkomst, verbreiding en neergang van de beerput in stedelijke context (13de tot 18de eeuw)* (Groningen 2014).
- 'The Dutch Great Stink: The End of the Cesspit Era in the Pre-Industrial Towns of Leiden and Haarlem', *European Journal of Archaeology* 19 (2016) 4, 704-727, doi:10.1080/14619571.2016.1147677.
- 'The 'Great Sanitary Awakening' Questioned: Is There a Solid Argument in Favour of the 'Filthy Medieval City' Hypothesis?', *Medieval and Modern Matters* 5 (2014), 59-116, doi:10.1484/J.MMM.5.10984.
- Ossewaarde, M.R.R., 'Three Rival Versions of Political Enquiry. Althusius and the Concept of Sphere Sovereignty', *Monist* 90 (2007) 1, 106-125, doi:10.5840/monist20079016.
- Ostrom, Elinor, *Governing the commons. The evolution of institutions for collective action* (Cambridge 1990).
- 'The Challenge of Common-Pool Resources', *Environment: Science and Policy for Sustainable Development* 50 (2008) 4, 8-21, doi:10.1017/CBO9780511807763.
- Packer, Michelle V., 'Rising from the Ashes: Fire Prevention as Social Transformation', *Dutch Crossing. Journal of Low Countries Studies* 39 (2015) 2, 160-185, doi:10.1179/0309656415Z.00000000076.
- Paping, Richard, *General Dutch Population development 1400-1850* (Groningen 2014).
- Parker, Geoffrey, *Global Crisis. War, Climate Change and Catastrophe in the Seventeenth Century* (New Haven 2013).
- Pater, Ben de & Eelco Beukers, 'Een dagje aan het strand' in: Beukers, *Hollanders en het water*, II 533-564.
- Peacock, Martha Moffitt, 'Early Modern Dutch Women in the City: The Imaging of Economic Agency and Power' in: Classen, *Urban Space*, 667-712.
- Pelling, Margaret, 'Skirting the city? Disease, social change and divided households in the seventeenth century' in: Griffiths & Jenner, *Londinopolis*, 154-175.
- Pennell, Sara, 'Material Culture in Seventeenth-Century Britain: The Matter of Domestic Consumption' in: Frank Trentmann ed., *The Oxford Handbook of the History of Consumption* (Oxford 2012) 64-83, doi:10.1093/oxfordhb/9780199561216.013.0004.
- Pérez-Díaz, Víctor, 'Civil society: A multi-layered concept', *Current Sociology Review* 62 (2014) 6, 812-830, doi:10.1177/0011392114533115.

- Pettegree, Andrew ed., *Broadsheets. Single-Sheet Publishing in the First Age of Print* (Leiden 2017).
- 'A Provincial News Community in Sixteenth-Century Europe' in: Pollmann & Spicer, *Public Opinion and Changing Identities*, 33-48, doi:10.1163/ej.9789004155275.i-310.9.
- Pickett, Steward T.A., Brian McGrath B, M.L. Cadenasso, Alexander J. Felson, 'Ecological resilience and resilient cities', *Building Research & Information* 42 (2014) 2, 143-157, doi:10.1080/09613218.2014.850600.
- Pieck, G.Th.H.C., 'Jan van Hout en de Leidse buurten' in: Dick E.H. de Boer ed., *Leidse facetten. Tien studies over Leidse geschiedenis* (Zwolle 1982), 35-51.
- Pils, Susanne Claudine, "... damit nur an wasser khain menngl erscheine ...". Vom Umgang der Stadt Wien mit dem Feuer der frühen Neuzeit' in: Körner et al., *Stadtzerstörung und Wiederaufbau*, 173-186.
- Pitlo, A., *De zeventiende en achttiende eeuwse notarisboeken en wat zij ons omtrent ons oude notariaat leeren* (Haarlem 1948).
- Polkowski, Marcin, "Non urbs, tamen urbis ipsa major." The Image of The Hague in the Dutch Literature and Art of the 17th and 18th Century', *Werkwinkel* 10 (2015) 2, 37-66, doi:10.1515/werk-2015-0011.
- Pollmann, Judith, 'Eendracht maakt macht. Stedelijke cultuuiridealen en politieke werkelijkheid in de Republiek', in: Bos et al., *Harmonie in Holland*, 134-151.
- 'No Man's Land. Reinventing Netherlandish Identities, 1585-1621' in: Stein & Pollmann, *Networks, Regions and Nations*, 241-261, doi:10.1163/ej.9789004180246.i-292.51.
- Pollmann, Judith & Andrew Spicer eds., *Public Opinion and Changing Identities in the Early Modern Netherlands. Essays in Honour of Alastair Duke* (Leiden 2007).
- Poulsen, Peter, *Van burenlust tot milieuhinder. Het stedelijk leefmilieu, 1500-1800* (Antwerpen 1987).
- Prak, Maarten, *Citizens without nations: urban citizenship in Europe and the world, c. 1000-1789* (Cambridge 2018), doi:10.1017/9781316219027.
- 'Corporate politics in the Low Countries: guilds as institutions, 14th to 18th Centuries' in: Prak et al., *Craft Guilds*, 74-106, doi:10.1017/S002085900800360X.
- 'De Nederlandse "stadsrepublieken": gilden, schutterijen en andere vormen van burgerlijke invloed' in: Leo Lucassen & Wim Willems eds., *Waarom mensen in een stad willen wonen, 1200-2000* (Amsterdam 2009), 59-78.
- *Het raadsel van de Republiek* (Amsterdam, herziene uitgave 2012).
- 'Individual, corporation and society: the rhetoric of Dutch guilds (18th C.)' in: Marc Boone & Maarten Prak eds. *Statuts individuels, statuts corporatifs et statuts judiciaires dans les villes européennes (moyen âge et temps modernes). Actes du colloque tenu à Gand les 12-14 octobre 1995* (Leuven 1996) 255-280.
- 'The Dutch Republic as a Bourgeois Society' *BMGN - Low Countries Historical Review* 125 (2010) 2-3, 107-139, doi:10.18352/bmgn-lchr.7117.
- 'Urbanization' in: Helmers & Janssen, *Cambridge Companion to the Dutch Golden Age*, 15-31, doi:10.1017/9781316771549.005.
- Prak, Maarten & Jan Luiten van Zanden, *Nederland en het poldermodel. Sociaal-economische geschiedenis van Nederland 1000-2000* (Amsterdam 2013).
- Prak, Maarten Roy, Catharina Lis, Hugo Soly, Jan Lucassen eds., *Craft Guilds in the Early Modern Low Countries. Work, Power and Representation* (Aldershot 2006).
- Price, J.L., 'Water and Land' in: Helmers & Janssen, *Cambridge Companion to the Dutch Golden Age*, 33-48, doi:10.1017/9781316771549.006.
- Querrien, Armelle, 'L'espace de la maison: le jeu des intérêts publics et privés (xiiie-xve siècle)' in: Alexandre-Bidon et al. 2006, 313-323.
- Rasterhoff, Claartje, 'Public spending and population growth in Leiden and Utrecht during the Golden Age' in: Heijden, van der et al., *Serving the Urban Community*, 107-134.
- Ravesteyn, L.J.C.J. van, *Rotterdam tot het einde van de achttiende eeuw. De ontwikkeling der stad* (Rotterdam 1933).
- Rawcliffe, Carole, 'Less Mudslinging and More Facts': A New Look at an Old Debate about Public Health in Late Medieval English Towns', *Bulletin of the John Rylands University of Manchester Library* 89 (2013) 1, 203-221, doi:10.7227/BJRL.89.S.11.
- *Urban Bodies. Communal Health in Late Medieval English Towns and Cities* (Woodbridge 2013).
- Rees Jones, Sarah, 'The word on the street: Chaucer and the regulation of nuisance in post-plague London' in: Allen & Evans, *Roadworks*, 97-126, doi:10.7765/978184996703.00012.
- Reh, Wouter, Clemens Steenbergen, & Diederik Aten, *Zee van land. De droogmakerij als atlas van de Hollandse landschapsarchitectuur* (Wormer 2005).
- Reid, Donald, *Paris Sewers and Sewermen. Realities and Representations* (Cambridge 1991).
- Reinders, Michel, *Gedrukte chaos. Populisme en moord in het Rampjaar 1672* (Amsterdam 2010).

- Reuss, Martin, 'Introduction to the special issue on water management, communities, and environment' in: Greefs & 't Hart, *Jaarboek voor Ecologische Geschiedenis 2005/2006*, 1-7.
- Roodenburg, Herman, 'Naar een etnografie van de vroegmoderne stad: De 'gebuyrten' in Leiden en Den Haag' in: Boekhorst, te et al., *Cultuur en maatschappij*, 219-243.
- Rosenthal, D., 'Big Pieter, the Empire of the Meadow, and the Parish of Santa-Lucia: Claiming Neighbourhood in the Early Modern City', *Journal of Urban History* 32 (2006) 5, 677-692, doi:10.1177/0096144206287100.
- Rothauser, Britt C.L., "'A rever ... brighter then bothe the sunne and mone": The Use of Water in the Medieval Consideration of Urban Space' in: Classen, *Urban Space*, 245-272.
- Rutte, Reinout & Bram Vannieuwenhuyze, *Stedenatlas Jacob van Deventer. 226 Stadsplattegronden uit 1545-1575 - Schakels tussen verleden en heden* (Bussum 2018).
- Sabine, Ernest L., 'City Cleaning in Mediaeval London', *Speculum* 12 (1937) 1, 19-43, doi:10.2307/2848659.
- Sandidge, Marilyn, 'Urban Space as Social Conscience in Isabella Whitney's "Wyll and Testament"' in: Classen, *Urban Space*, 595-614, doi:10.1515/9783110223903_595.
- Sawyer, Andrew, 'Medium and Message. Political Prints in the Dutch Republic, 1568-1632' in: Pollmann & Spicer, *Public Opinion and Changing Identities*, 163-188, doi:10.1163/ej.9789004155275.i-310.16.
- Schama, Simon, *The Embarrassment of Riches. An Interpretation of Dutch Culture in the Golden Age* (London 1987).
- Schilling, Heinz, *Religion, Political Culture and the Emergence of Early Modern Society. Essays in German and Dutch History* (Leiden 1992).
- Schmidt, Ariadne, 'Labour Ideologies and Women in the Northern Netherlands, c. 1500-1800', *International Review of Social History* 56 (2011), 45-67, doi:10.1017/S0020859011000538.
- Schmidt-Voges, Inken, 'Das Haus in der Vormoderne' in: Eibach & Schmidt-Voges, *Das Haus in der Geschichte*, 1-18, doi:10.1515/9783110358988-003.
- Schmidt-Voges, Inken, 'Das Haus und seine Nachbarschaft: Integration und Konflikt' in: Eibach & Schmidt-Voges, *Das Haus in der Geschichte*, 417-432, doi:10.1515/9783110358988-031.
- Inken, 'Einführung: Interaktion und soziale Umwelt' in: Eibach & Schmidt-Voges, *Das Haus in der Geschichte*, 411-416, doi:10.1515/9783110358988-030.
- Schothorst, C.J., 'Drainage and behaviour of peat soils', in: Bakker, de & Van den Berg, *Proceedings of the symposium on peat lands*, 130-163.
- Schuppen, Steven van, *Historische Atlas van Den Haag. Van Hofvijver tot Hoftoren* (Amsterdam 2006).
- Schweigert, Francis J., 'Solidarity and Subsidiarity: Complementary Principles of Community Development', *Journal of Social Philosophy* 33 (2002) 1, 33-44, doi:10.1111/1467-9833.00122.
- Sciama, Lidia, 'The Problem of Privacy in Mediterranean Anthropology' in: Shirley Ardener ed., *Women and Space. Ground Rules and Social Maps* (New York 1981), 72-88.
- Secretan, Catherine, 'Simon Stevin's Vita Politica. Het Burgerlijk leven (1590). A practical guide for civic life in the Netherlands at the end of the sixteenth century', *De Zeventiende Eeuw* 28 (2012) 1, 2-20.
- Secretan, Catherine & Pim den Boer eds., *Simon Stevin. De la vie civile, 1590* (Lyon 2005), <http://books.openedition.org>, retrieved 13 October 2017, doi:10.4000/books.enseditions.1141.
- Sliggers, B.C. ed., *De loop van het Spaarne. De geschiedenis van een rivier* (Haarlem 1987).
- Sloof, J.H.M., 'Rijnland en het Spaarne in de Late Middeleeuwen' in: Sliggers, *De loop van het Spaarne*, 17-36.
- Smail, Daniel Lord, *The Consumption of Justice. Emotions, Publicity, and Legal Culture in Marseille, 1264-1423* (Ithaca 2003), doi:10.7591/9780801468780.
- Smit, Cor, *Leiden met een luchtje. Straten, water groen en afval in een Hollandse stad, 1200-2000* (Leiden 2001).
- Smith, Michael E., Timothy Dennehy, April Kamp-Whittaker, Benjamin W. Stanley, Barbara L. Stark, Abigail York, 'Conceptual approaches to service provision in cities throughout history', *Urban Studies* 53 (2016) 8, 1574-1590, doi:10.1177/0042098015577915.
- Snyder, Jon, *Dissimulation and the Culture of Secrecy in Early Modern Europe* (Berkeley 2009).
- Soens, Tim, 'De drassige schaduw van de Gouden Eeuw. Historisch-ecologische reflecties over wateroverlast en economische transformaties in ancien régime Rijnland', *BMGN - Low Countries Historical Review* 123 (2008) 1, 88-101, doi:10.18352/bmgn-lchr.6736.
- 'Resilient societies, vulnerable people: coping with North Sea floods before 1800', *Past and Present* 241 (2018), 143-177, doi:10.1093/pastj/gty018.
- Speet, Ben, *Historische Atlas van Haarlem. 1000 jaar Spaarnestad* (Amsterdam 2006).
- Stallaert, Karel-Frans, *Glossarium van verouderde rechtstermen, kunstwoorden en andere uitdrukkingen uit Vlaamsche, Brabantsche en Limburgsche oorkonden* (Leiden 1890).
- Stearns, Justin K., *Infectious Ideas. Contagion in Premodern Islamic and Christian Thought in the Western Mediterranean* (Baltimore 2011).

- Stein, Robert, 'An Urban Network in the Low Countries. A Cultural Approach' in: Stein & Pollmann, *Networks, Regions and Nations*, 43-71.
- Stein, Robert & Judith Pollmann eds., *Networks, Regions and Nations. Shaping Identities in the Low Countries, 1300-1650* (Leiden 2010).
- Stenvert, Ronald, 'Het bouwblok in de oude stad. Een methodische verkenning', *Bulletin KNOB* 118 (2019) 3, 27-50.
- Symes, Carol, *A common stage: theater and public life in medieval Arras* (Ithaca 2007).
- Taşan-Kok, Tuna, Dominic Stead & Peiwen Lu, 'Conceptual Overview of Resilience: History and Context' in: Ayda Eradyn & Tuna Taşan-Kok eds., *Resilience Thinking in Urban Planning* (Dordrecht 2013), 39-51.
- Taverne, Ed, Len de Klerk, Bart Ramakers & Sebastian Dembski eds., *Nederland stedenland. Continuïteit en vernieuwing*, (Rotterdam 2012).
- TeBrake, William H., 'Managing Water in an Urban Land. A New History of Rijnland', *BMNG - Low Countries Historical Review* 123 (2008) 1, 71-78.
- Temminck, J.J., *Haarlem door de eeuwen heen* (Haarlem 1982).
- Tielhof, Milja van, 'Betrokken bij de waterstaat. Boeren, burgers en overheden ten zuiden van het IJ tot 1800' in: Beukers, *Hollanders en het water*, 161-98.
- 'Drinkwater en geschiedenis', *Waterspiegel. Opinieblad van de vereniging van waterbedrijven in Nederland (VEWIN)* 18 (2015) 5, 5.
- 'Het college van hoofdingelanden. De vertegenwoordiging van de ingelanden in Rijnland en Schieland in de vroegmoderne tijd', *BMGN - Low Countries Historical Review* 131 (2016) 2, 22-51.
- Tielhof, Milja van & Petra J.E.M. van Dam, 'Repliek: De nieuwe waterstaatsgeschiedenis', *BMNG - Low Countries Historical Review* 123 (2008) 1, 102-112.
- *Waterstaat in stedenland. Het hoogheemraadschap van Rijnland voor 1857* (Utrecht 2006).
- 'Losing land, gaining water. Ecological and financial aspects of regional water management of Rijnland, 1200-1800', in: Greefs & 't Hart, *Jaarboek voor Ecologische Geschiedenis 2005/2006*, 63-93.
- Tilly, Charles, 'Citizenship, Identity, and Social History,' *International Review of Social History* 40, supplement S3 (1995), 1-19.
- Tol, Joris van den, 'Hendrick Haecx: amateuristisch lobbyen door de WIC in de Republiek in 1647' in: GeEVERS & Vermeesch, *Politieke belangenbehartiging*, 47-64.
- 'Kondschapen. Lobbyen in de zeventiende-eeuwse Republiek via petitie, publieke opinie en persoonlijke relaties', *Tijdschrift voor Geschiedenis* 131 (2018) 3, 431-452.
- Tönnies, Ferdinand, *Gemeinschaft und Gesellschaft. Abhandlung des Communismus und des Socialismus als empirischer Culturformen* (Berlin 1887).
- Trentmann, Frank ed., *The Oxford Handbook of the History of Consumption* (Oxford 2012).
- 'The Politics of Everyday Life' in: Trentmann, *Oxford Handbook of the History of Consumption*, 521-547.
- Tvedt, Terje, 'Water Systems', *Environmental History and the Deconstruction of Nature*, *Environment and History* 16 (2010), 143-166.
- United Nations, *World Urbanization Prospects: The 2018 Revision* (s.l. 2018).
- Van Dijck, Maarten F., 'Democracy and Civil Society in the Early Modern Period: The Rise of Three Types of Civil Societies in the Spanish Netherlands and the Dutch Republic', *Social Science History* 41 (2017) 1, 61-81.
- Van Dijck, Maarten F., Bert De Munck & Nicholas Terpstra 'Relocating Civil Society: Theories and Practices of Civil Society between Late Medieval and Modern Society', *Social Science History* 41 (2017), 1-17.
- Ven, van de, G.P. van de Ven ed., *Leefbaar laagland. Geschiedenis van de waterbeheersing en landaanwinning in Nederland* (Hilversum 1993).
- Verhoeff, J.M., *De oude Nederlandse maten en gewichten* (Amsterdam, 2nd edition, 1983).
- Vermeesch, Griet, 'Access to Justice: Legal Aid to the Poor at Civil Law Courts in the Eighteenth-Century Low Countries', *Law and History Review* 32 (2014) 3, 683-714, doi:10.1017/S0738248014000261.
- 'Miserabele personen' en hun toegang tot het stadsbestuur. Pro deo petitie in achttiende-eeuws Antwerpen', *TSEG The Low Countries Journal of Social and Economic History* 12 (2015) 4, 1-27, doi:10.18352/tseg.89.
- 'Wetgeving op verzoek in achttiende-eeuws Antwerpen. Initiatieven van ambachten en corporaties tot regulering door middel van petitie' in: GeEVERS & Vermeesch, *Politieke belangenbehartiging*, 109-138.
- Vermeir, Koen, 'Openness versus secrecy? Historical and historiographical remarks', *The British Journal for the History of Science*, 45 (2012) 2, 165-188, doi:10.1017/S000708741200006.
- Vis, G.N.M., *Van 'vulliscuyt' tot Huisvuilcentrale. Vuilnis en afval en hun verwerking in Alkmaar en omgeving van de middeleeuwen tot heden* (Hilversum 1996).

- Vogelzang, Izak, *De drinkwatervoorziening van Nederland voor de aanleg van de drinkwaterleidingen* (Gouda 1956).
- Vries, Jan de, *European urbanization 1500-1800* (London 1984), doi:10.4324/9780203716526.
- *The Industrious Revolution. Consumer Behavior and the Household Economy, 1650 to the Present* (Cambridge 2008), doi:10.1017/CBO9780511818196.
- Vries, Jan de & Ad van der Woude, *The First Modern Economy. Success, failure, and perseverance of the Dutch economy, 1500-1815* (Cambridge 1997), doi:10.1017/CBO9780511666841.
- Wagenaar, F.P., "Dat de regering niet en bestaet by het corpus van de magistraet van Den Hage alleen". *De sociëteit van 's-Gravenhage (1587-1802). Een onderzoek naar bureaucratisering* (Leiden 1997).
- Wall, Heinrich de, 'Das Subsidiaritätsprinzip in der luterischen Staats- und Gesellschaftslehre der frühen Neuzeit' in: Blickle et al., *Subsidiarität*, 59-70, doi:10.3790/978-3-428-50634-7.
- Walle, Kees, *Buurthouden. De geschiedenis van burengebruiken en buurtorganisaties in Leiden (14e-19e eeuw)* (Leiden 2005).
- Walton, Steve A., *Wind & Water in the Middle Ages. Fluid Technologies from Antiquity to the Renaissance* (Tempe 2006).
- Weber, Max, *Wirtschaft und Gesellschaft. Grundriss der verstehenden Soziologie* 1. Halbband (4. Auflage, ed. J. Winckelmann, Tübingen 1956).
- Weintraub, Jeff & Krishan Kumar eds., *Public and Private in Thought and Practice. Perspectives on a Grand Dichotomy* (Chicago 1997).
- Weststeijn, Arthur, *Commercial Republicanism in the Dutch Golden Age. The Political Thought of Johan & Pieter de la Court* (Leiden 2012), doi:10.1163/9789004221406.
- Wheeler, Jo, 'Stench in sixteenth-century Venice' in: Alexander Cowan & Jill Steward eds., *The City and the Senses. Urban Culture Since 1500*, 25-38.
- Wijsenbeek-Olthuis, Thera, *Achter de gevels van Delft. Bezit en bestaan van rijk en arm in een periode van achteruitgang (1700-1800)* (Hilversum 1987).
- 'Vreemd en eigen: Ontwikkelingen in de woon- en leefcultuur binnen de Hollandse steden van de zestiende tot de negentiende eeuw' in: Boekhorst, te et al., *Cultuur en maatschappij*, 79-107.
- Williamson, Fiona, 'Space and the City', *Cultural and Social History* 9 (2012) 2, 169-185, doi:10.2752/147800412X1327075306872.
- Winthereik, Brit Ross, 'Is ANT's radical empiricism ethnographic?' in: Blok et al., *Routledge Companion to ANT*, 24-33, doi:10.4324/9781315111667-4.
- WNT, *Woordenboek der Nederlandsche Taal ('s-Gravenhage 1994)*, <http://gtb.inl.nl/>.
- Worster, Donald, 'Doing Environmental History' in: Donald Worster and Alfred W. Crosby, *The Ends of the Earth: Perspectives on Modern Environmental History* (Cambridge 1988), 289-308.
- 'Historians and Nature: Environmental historian Donald Worster explains why historians should stop separating culture from nature', *The American Scholar*, 79 (2010) 2, 120.
- Wortel, Th.P.H., *Straatnamenlijst van de gemeente Alkmaar* (Alkmaar 1961).
- Woude, A.M. van der, 'Population developments in the Northern Netherlands (1500-1800) and the validity of the "urban graveyard" effect', *Annales de démographie historique* (1982) 55-75.
- Yasuhira, Genji, 'Confessional Coexistence and Perceptions of the 'Public'. Catholic's Agency in Negotiations on Poverty and Charity in Utrecht, 1620s-1670s', *BMGN - Low Countries Historical Review* 132 (2017) 4, 3-24, doi:10.18352/bmgn-lchr.10258.
- Zagorin, Perez, *Ways of Lying. Dissimulation, Persecution, and Conformity in Early Modern Europe* (Cambridge MA 1990), doi:10.4159/harvard.9780674866379.
- Zanden, Jan Luiten van & Maarten Prak, 'Towards an Economic Interpretation of Citizenship: The Dutch Republic between Medieval Communes and Modern Nation-States', *European Review of Economic History* 10 (2006), 111-45, doi:10.1017/S1361491606001651.
- Zaret, David, 'Petition-and-Response and Liminal Petitioning in Comparative/Historical Perspective', *Social Science History* 43 (2019), 431-451, doi:10.1017/ssh.2019.16.
- 'Dealing with diversity: small-scale dikes in early modern Rijnland, 17th-early 19th century' in: Greefs & 't Hart, *Jaarboek voor Ecologische Geschiedenis 2005/2006*, 175-192.
- Zeischka, Siger, *Minerva in de polder. Waterstaat en techniek in het hoogheemraadschap van Rijnland (1500-1856)* (Amsterdam 2007).
- Zwet, Han van, *Lofwaardighe dijkagies en miserabele polders. Een financiële analyse van landaanwinningsprojecten in Hollands Noorderkwartier 1597-1643* (Amsterdam 2009).

Summary

Water's worth. Urban society and subsidiarity in seventeenth-century Holland

The substance of water is omnipresent, unavoidable and needed by all human beings on a daily basis. Both in its presence and in its absence, it has the force to threaten people and their possessions. Moreover, its utilization restricts its advantageousness to others, either in a quantitative or a qualitative sense. So, although people may try to manage water, it also forces people into action. Because of its versatility and inescapability, the reports of human encounters with water enable us to study societies at various levels. In this thesis, I evaluate the allocation of duties and responsibilities within Holland's urban communities in the first six decades of the seventeenth century. I do so by systematically examining the reports of water-related issues in notarial records and appeals to the urban magistrates, originating from the cities of Alkmaar, Haarlem, The Hague and Rotterdam. Observing Holland's society from a new angle, I nuance existing ideas about the organization of its urban communities in general and ideas about the role of civil organizations and occasional groups, as well as the development of privacy in particular.

The first chapter establishes the meanings that seventeenth-century city dwellers assigned to water, and thus why water mattered to the urban community. Using the methodology called Actor-Network Theory, it demonstrates how private residents and civil organizations used water for their own ends, as well as how water stirred them into action. Besides, it shows that one patch of water could bear several meanings at once. What was a consumable for one group of inhabitants could be a nuisance, an obstacle, a threat or a means to make money to others. The potential frictions between these people led to negotiations and, sometimes, to the recording of their encounters. Their accounts of everyday water-related issues, irrespective of whether these were ordinary or extraordinary, supports the detection of the relationships and the perceived task allocation within the city.

Chapter 2 zooms in at the allotment of tasks and responsibilities within the premodern cities of Holland. First, it assesses the selected sources, marking that the mass of menial workers was nearly absent from them. Women were also underrepresented, yet their actions were sufficiently recorded to observe that they had an active role in the urban community. Taking water as a viewpoint reveals that the impact of corporations on several aspects of urban life was limited. In the

few instances that guilds were seen to meddle in water politics, their involvement sprang directly from their socio-economic duty. Neighbourhood organizations fulfilled a social task in society. This included peace keeping and arbitration, although these were in principle the responsibility of every community member. Only the neighbourhood organizations of The Hague were seen to take up tasks in which water played a more than fleeting role. Rather than officially instituted corporations, informal associations took on various responsibilities in the cities. These could be assembled from all kinds of stakeholders, including guild members. It shows that, on average, city dwellers could fend for themselves without the intervention of corporations. They only sought help when and where they needed it. The residents and the government shared the task of maintaining the thoroughfares of the city. The inhabitants expected the urban authorities, who represented the entire community, to defend the communal interest and to take measures that exceeded the abilities of the community members.

The third chapter elaborates further on the notion that the urban administration and the separate community members shared tasks among them. In order to do so, it considers if and where the seventeenth-century city dwellers perceived any boundaries between public and private spheres. Historians assume that the permeability of such a boundary is one of the characteristics of premodern societies. The chapter starts with a discussion of the creation of appeals to the magistrates that were made collectively. Despite the lack of direct evidence, it transpires that city dwellers consulted each other extensively before they submitted a petition, thereby influencing public opinions. Moreover, the inhabitants of Holland had the opportunity to affect the urban politics via direct means, provided they choose their words carefully.

The city dwellers of Holland distinguished three types of spaces: private, shared among a limited group and public. Where the boundary between these spaces lay, was subject to written and unwritten rules. Nevertheless, the exact spheres of influence were not yet established, forcing authorities and inhabitants to make arrangements about the maintenance of the public space, waterways included. When doing so, they looked at their own interests in the first place. They did consider the greater good, especially when they acted collectively, but only if it suited their own ends. The last potential public-private dichotomy considered in the chapter is that of openness versus concealment. Although I conclude in general that the boundary between public and private spheres were as fluid as before, there are indications that a notion of privacy began to emerge. Living together in crowded cities, the inhabitants of Holland had started to shield their property from prying eyes.

The overall conclusion of the thesis is that taking water as a viewpoint reveals that the urban communities of Holland were highly subsidiary in nature. Individual townspeople, men and women alike, knew how to fend for themselves. They identified their needs and took the initiative to fulfil them. In order to do so, they incidentally had recourse to other inhabitants, businessmen, corporations or magistrates. If needed, they consulted with their fellow stakeholders and organized themselves. Together, they constituted a tiered society, wherein nearly each entity bore the responsibilities that fitted its capacities.

Samenvatting

Nuttig water. De stedelijke samenleving en subsidiariteit in zeventiende-eeuws Holland

Water is overal, onontkoombaar en een dagelijkse behoefte voor iedereen. Het kan een bedreiging vormen voor mensen en hun bezittingen, zowel wanneer het aanwezig is als wanneer het ontbreekt. Bovendien beperkt het gebruik van water het voordeel dat anderen eruit kunnen putten, zowel in kwantitatieve als in kwalitatieve zin. Kortom, hoewel mensen kunnen proberen water te beheersen, dwingt het hen ook tot handelen. De veelzijdigheid en onvermijdelijkheid van deze substantie biedt ons een uitgelezen mogelijkheid om samenlevingen op verschillende niveaus te bestuderen. In dit proefschrift onderzoek ik de manier waarop taken en verantwoordelijkheden in de stedelijke gemeenschappen van de provincie Holland waren verdeeld in de eerste zes decennia van de zeventiende eeuw. Dit doe ik door het systematisch onderzoeken van de water-gerelateerde vermeldingen in notariële archieven en petitieën aan de stedelijke autoriteiten, opgetekend in Alkmaar, Haarlem, Den Haag en Rotterdam. Door de samenleving van Holland vanuit deze invalshoek te bekijken, stel ik bestaande ideeën bij over de organisatie van stedelijke gemeenschappen in het algemeen en ideeën over de rol van maatschappelijke organisaties en gelegenheidsgroepen, alsmede over het ontstaan van het concept privacy in het bijzonder.

Het eerste hoofdstuk gaat over de betekenissen die zeventiende-eeuwse stadsbewoners toekenden aan water, en dus op welke manieren water belangrijk was voor de stadsgemeenschap. Met behulp van de zogenoemde *Actor-Network Theory* wordt getoond op welke manieren privépersonen en maatschappelijke organisaties water inzetten voor hun eigen doeleinden, alsook hoe water hen mobiliseerde. Daarnaast laat het hoofdstuk zien dat eenzelfde beetje water verschillende betekenissen tegelijk kon hebben. Wat voor de ene groep een gebruiksproduct was, was voor anderen een bron van overlast, een obstakel, een bedreiging of een middel om geld te verdienen. De potentiële frictie die dit met zich meebracht, zorgde ervoor dat mensen onderhandelingen over water aangingen, die ze soms vastlegden. Hun relaas over dagelijkse voorvallen, ongeacht of deze gewoon of bijzonder waren, maakt het mogelijk om relaties en verwachtingen over de taakverdeling bloot te leggen.

Hoofdstuk 2 zoomt in op de verdeling van taken en verantwoordelijkheden in de pre-moderne steden van Holland. Een kritische beschouwing van de gebruikte

bronnen toont aan dat de grote groep arbeiders hierin vrijwel ontbreekt. Vrouwen waren eveneens ondervertegenwoordigd, maar hun activiteiten zijn in zoverre vastgelegd dat we kunnen concluderen dat zij een actieve rol binnen de stedelijke gemeenschap vervulden. Een blik op water laat zien dat de invloed van corporaties op diverse aspecten van het stadsleven beperkt bleef. In de schaarse gevallen dat gilden zich bemoeiden met waterpolitiek, kwam hun inmenging rechtstreeks voort uit hun sociaal-economische functie. Buurtorganisaties vervulden een sociale taak in de samenleving. Het handhaven van de rust en het bemiddelen in conflicten behoorde hiertoe, al was dit in principe een taak die ieder lid van de gemeenschap toekwam. Alleen van de buurtorganisaties in Den Haag is het duidelijk dat zij taken op zich namen waarin water enige rol van betekenis speelde. Het waren veeleer tijdelijke samenwerkingsverbanden die verantwoordelijkheden op zich namen, in plaats van officiële corporaties. Aan deze gelegenheidsassociaties namen uiteenlopende belanghebbenden deel, met inbegrip van leden van de gilden. Dit laat zien dat de stadsbevolking over het algemeen goed voor zichzelf kon opkomen, zonder de tussenkomst van corporaties. Ze zochten uitsluitend hulp wanneer ze deze nodig hadden. De inwoners en stedelijke overheid zorgden gezamenlijk voor het onderhoud van de doorgaande (water)wegen in de stad. De autoriteiten vertegenwoordigden de gehele gemeenschap. De bewoners verwachtten van hen dat ze opkwamen voor het gemeenschappelijke belang en dat ze maatregelen namen die de capaciteiten van de gemeenschapsleden te boven gingen.

Hoofdstuk 3 gaat nader in op de gedeelde taak van het stadsbestuur en de afzonderlijke leden van de gemeenschap. Hiertoe behandelt het de vraag of, en waar, zeventiende-eeuwse stedelingen zich een grens voorstelden tussen publieke en private domeinen. Historici gaan ervan uit dat een veranderlijke grens een van de kenmerken van pre-moderne samenlevingen was. Het hoofdstuk begint met een beschouwing over de totstandkoming van gemeenschappelijke petitieën aan de magistratuur. Hoewel direct bewijs ontbreekt, zijn er allerlei signalen dat de stadsbewoners elkaar uitgebreid consulteerden voordat ze een petitie indienden, waarbij ze en passant de publieke opinie beïnvloedden. Bovendien blijkt dat de inwoners van Holland de mogelijkheid hadden om rechtstreeks invloed uit te oefenen op de lokale politiek, mits ze hun woorden zorgvuldig kozen.

De bewoners van Holland onderscheidden drie soorten ruimtelijke gebieden: privaat, gedeeld met een beperkte groep en publiek. Waar de grens tussen deze gebieden lag, werd bepaald door geschreven en ongeschreven regels. Niettemin waren de exacte invloedssferen nog niet afgebakend, zodat autoriteiten en inwoners moesten onderhandelen over het onderhoud van de publieke ruimte, inclusief waterinfrastructuur. Daarbij keken ze in de eerste plaats naar hun eigen

belangen. Ze namen weliswaar het algemeen belang in ogenschouw, vooral wanneer ze als collectief optraden, maar uitsluitend indien dat hun eigen belang diende. Ten slotte komt de mogelijke publiek-private scheiding aan bod die te maken heeft met openheid en verborgenheid. Hoewel ik constateer dat de grens tussen publieke en private domeinen over het algemeen nog zo veranderlijk was als daarvoor, zijn er signalen dat er een concept van privacy aan het ontstaan was. Mogelijk omdat ze in dichtbevolkte steden leefden, begonnen de bewoners van Holland zich tegen nieuwsgierige blikken te beschermen.

De algehele conclusie van het proefschrift luidt dat het gebruik van water als invalshoek laat zien de stedelijke gemeenschappen van Holland in hoge mate subsidiair waren. Individuele stadsbewoners, zowel mannen als vrouwen, waren uitstekend in staat om voor zichzelf te zorgen. Ze brachten hun behoeften in kaart en namen het initiatief om deze te vervullen. Om dit te doen, vroegen ze incidenteel bijstand van andere ingezetenen, ondernemers, corporaties of regenten. Indien nodig overlegden ze onderling en verenigden zichzelf. Samen vormden ze een gelaagde samenleving, waarin vrijwel iedere eenheid de verantwoordelijkheden droeg die in verhouding stond tot zijn of haar capaciteiten.



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