

ions to
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A Companion to Medieval and Renaissance Bologna

Edited by

Sarah Rubin Blanshei



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i del cantiere di San Petronio (1390-1397)," *Una basilica per una città, sei secoli in San*
sto Centenario di fondazione della Basilica
), pp. 51-75.
 nziani. Un autoritratto celebrativo," *Società*

Public Health

G. Geltner*

Thirteenth-century *bolognesi* had access to a greater range of medical healers, knowledge, and services than most city dwellers of that era, let alone rustics.¹ Yet they also faced unique and serious risks to their well-being. While the latter would certainly have included sins, scandals, and other moral dangers plaguing urban centers in particular (for instance, in the shape of prostitutes or financial greed), *bolognesi* also routinely remarked upon threats to their physical safety and health. Overcrowding, filth, violence, corrupt produce, noise, rampaging animals, and blocked waterways: one does not have to embrace a Victorian image of the Middle Ages in order to recognize what lurked (or was thought to lurk) among the city's streets, homes, taverns, workshops, and markets.² Much of the available literature on premodern public health assumes or implies that earlier societies failed to react to or take preventative measures against health hazards, real or perceived.³ As this essay will show, however, concerns about and approaches to population-level health are a central, but often neglected, aspect of the city's late medieval history.

The concerted promotion – and by implication fragility – of public health is particularly well documented for Bologna in the 13th and 14th centuries. It was a period that saw the city's population peak (probably at around 55,000-60,000)

* I am grateful to Ann Carmichael, Sam Cohn, Trevor Dean, John Henderson, and Alessandro Pastore for their helpful references and data. Earlier versions of this essay were discussed by seminar participants at the European Association for Urban History Conference in Lisbon, the Consejo Superior de Investigaciones Científicas in Madrid (2014), and session participants on Academia.edu in early 2015. Research funding has been provided by the University of Amsterdam and Villa I Tatti, The Harvard Center for Italian Renaissance Studies, during the academic year 2013-14.

¹ Dall'Osso, *L'organizzazione medico-legale*; Siraisi, *Taddeo Alderotti*; Nutton, "Continuity or Rediscovery?," pp. 26-28.

² Rawcliffe, *Urban Bodies*, who gives due attention to the interconnected medieval notions of spiritual and physical health. On scandal as essentially a moral danger, see Fossier, "*Propter vitandum scandalum*."

³ The entrenched view of medieval cities as growing heaps of dung is discussed in Rawcliffe, *Urban Bodies*, pp. 12-15. For a recent and typical illustration, see Shepard, *An Illustrated History of Health and Fitness*, pp. 307-8. And see footnote 5 below.

around 1280, dip, and then downright tumble with the onset of plague in 1348, whose visitations upon the city continued for the next century.⁴ Preventative activities hardly began in this period, but even the documents' earliest proliferation demonstrates that residents sought to improve their environments well before the Black Death struck and centuries prior to the establishment of health boards. Modern historians tend to represent both of these events as watershed moments in the history of public health, the former as a trigger to any and all interventions, and the latter as either a culmination of that process or as the dawn of modern public health.⁵ Different series in the Archivio di Stato di Bologna, however, provide a radically different view. The registers of one organ in particular, known as the *fango* ("dirt," "mud") official, allow us to observe how preventative practices were conceived, what they meant both before and after an alleged sea change in local public health history, and test some hypotheses about their impact, the kind of activities and people targeted as public health (or environmental) offenders, and the means for detecting, prosecuting, and punishing them. In this sense, the history of Bologna's public health interventions cannot be set entirely apart from developments in its demographic profile, physical layout and infrastructure, trade connections, legal thought and activities, the agendas of its political elites, and the city's world of learning.

For the purposes of this essay, however, the main focus will be on the activities and regulations governing Bologna's *fango* officials, whose efforts in promoting communal well-being were striking and often deliberate. Our survey spans the period commencing with the organ's first mention in the sources, around the mid-13th century, and up to the late 14th century, when its activities were routinized within the city's apparatus, having undergone no particular transformation in the aftermath of Black Death or plague's repeated visitations in the following decades. Bologna's government, much like numerous regimes

4 Pini, "Problemi di demografia." Also see the essay by Fabio Giusberti and Francesca Roversi Monaco in this volume.

5 The dated yet still prevalent consensus is articulated in Cosmacini, *Storia della medicina*, pp. 27-42. Rosen, *A History of Public Health*, pp. 26-56, remains a partial exception among non-specialists in terms of recognizing medieval society's capacity for promoting public health. A more typical survey will often ignore premodern interventions entirely, either assuming or falsely claiming that "modern public health began [in the late 18th century] with efforts by city governments to deal with environmental problems, such as ensuring fresh water supplies, air quality, the removal of waste, and even the location of burial grounds." Berridge, Gorsky, and Mold, *Public Health in History*, p. 26. Bradley with Stowe, *Rome, Pollution and Propriety*, skips the medieval period altogether. And see Cipolla, *Public Health*; Idem, *Miasmi ed umori*; Alexander, *Bubonic Plague*; Bowers, *Plague and Public Health*.

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in and beyond the Italian peninsula, charged these men (elsewhere known as roads officials or *viarii*) with the overall upkeep of urban infrastructures related to safety and cleanliness. In other words, the *fango* officials, like roads and waters officials elsewhere, monitored both physical structures such as bridges, roads, and wells, and human and animal behaviors thought to impact these structures, from waste disposal, to building activities, to travel, play, and commerce.⁶ Prior to the advent of organized police forces and fire brigades, and both before and after the establishment of health boards in premodern Europe, these men were the regime's eyes, ears, and noses on the ground. They were decidedly not the only residents (or even officials) entrusted with Bolognese well-being, but they are currently the best-documented government organ to have pursued this goal, however partially and even inadvertently, and their records consequently reflect both formal definitions and responses to health threats as well as resistance or simply apathy towards them on the part of dwellers and visitors.

Bologna's *fango* series received a modest amount of attention, especially from modern local historians, who have variously underscored their value for tracing processes of state building, as an inroad to understanding communal and post-communal ideologies, and as a source for studying urban social marginality, not to mention the city's morphology.⁷ Some of these studies have been substantially based on the statutes prescribing the office's norms, while others have tapped its daily reports, fiscal accounts, and court records. It is especially the latter that allow us to see the official in action and above all in interaction with the urban environment, be it through onsite inspections and public announcements (*gride*), or by purchasing provisions, hiring workers, and prosecuting those who violated pertinent statutes. Despite this modicum of scholarly interest, the present essay is the first to explore – however provisionally – most of the series' nearly 300 surviving registers up to the year 1400.⁸

Indeed, Bologna's *fango* is probably the most richly documented office of its kind for late medieval Italy, and as such arguably of Europe as a whole. By comparison, its Lucchese parallel (the *Curia viarum*) has left behind 11 registers for

6 Geltner, "Public Health"; Idem, "Healthscaping a Medieval City."

7 Greci, "Il controllo della città"; Breveglieri, "Il notaio del fango"; Tosi Brandi, "Igiene e decoro"; Albertani, "Igiene e decoro"; Geltner, "Finding Matter."

8 ASB, Podestà, Ufficio delle acque, strade, ponti, calanchi, selciate e fango [henceforth *Fango*] 1-27, 30, 32; ASB, Capitano del Popolo, Giudici del Capitano 376, 379, 381, 400, 407, 410, 415-16, 423, 441, 446, 451, 487, 489, 491, 507, 511, 516, 532, 535, 538, 539, 542, 544, 548-54, 556, 562, 576, 581, 586, 587, 595, 599, 608, 612, 620, 626, 628, 631, 636, 639, 640, 642, 651-52, 659, 664, 673, 683, 687, 691, 695-96, 705, 710, 720, 726, 806, 809, 813-15, 820, 846, 848, 874, 875. This essay is mostly based on the former series.

the period 1336-77, although the activities of its successor government organ, the *fondaco*, are documented in thousands of registers for the following centuries.⁹ Certainly roads and waterways organs such as the Bolognese *fango* officials and the Lucchese *viarii* were common in late medieval Italy, to judge by the extant statute collections of cities large and small, from Lazio to Alto Adige.¹⁰ But in most cases their documents of practice have not come down to us. And even when they have, as in Bologna and Lucca, their neglect by historians of medicine and urban well-being meant that entrenched views on the Black Death's tremendous impact, the seminal value of health boards, and the correlation between democratization, modernization, and advanced science and public health interventions have often gone unchallenged.

Investigating the Bolognese series, therefore, illuminates public supervisory and prosecutorial activities, and through them, the city's history of defining and coping with major health threats. Far from a linear development, what these sources reveal is a complex process involving internal and external forces and different stakeholders, who in turn participated in and promoted different systems of power and knowledge and achieved varying degrees of success. First, however, let us trace the *fango* officials' early stages and mandate.

Origins and Scope

Preventative health interventions in the Middle Ages often stemmed directly from concerns about physical viability, on land and water.¹¹ Bologna was no exception. Since the late 12th century several *scarii* or *yscarii*, works supervisors whose regional presence can be traced back to the early 8th century, maintained the city's roads, bridges, and waterways, alongside monitoring other sensitive areas such as piazzas, markets, gates, and industrial sites.¹² In all likelihood under growing demographic pressure and economic development, their responsibilities were gradually redistributed. Book 1, rubric 23 of the 1250 statutes records a recent group of officials, namely the "quatuor qui

9 Geltner, "Healthscaping a Medieval City." To be sure, the *Fondaco* had a far larger portfolio.

10 In a survey I conducted of 111 discrete texts of Italian urban statutes between c.1250-1500, 57 towns or cities (51 per cent of the sample) designate roads and/or waters officials, including Perugia, Castiglione degli Ubertini, Piancastagnaio, Viterbo, and Monteagutolo.

11 Bocchi, "Regulation of the Urban Environment"; Eadem, *Attraverso le città*, pp. 107-27; Balestracci, "The Regulation"; Zupko and Laures, *Straws in the Wind*, pp. 59-72; Greci, "Il problema dello smaltimento"; Szabò, "La politica stradale."

12 On the term's possible etymologies and the office's early history see Fasoli, "Un fossile nel vocabolario." And see Maragi, "La santé publique."

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sunt in loco yscariorum,"¹³ and the statutes' redaction of 1256 (Book 11, Rubric 98) calls for the establishment of "soprastanti...ad fangum per civitatem,"¹⁴ whose remit overlapped substantially with the previous organ's, including (other than viability) the protection of artisanal standards, produce, weights, and measures. Numbering four, these men represented each of the city's quarters and required no particular training or background.

Towards the end of the 13th century the group of *fango* officials was replaced by a single officer, one of seven notaries in the *podestà*'s entourage. Envisaged as an "experienced man who will know how to deal with the issues pertaining to his office," this roads supervisor (whom the administrative sources continue to refer to as the *fango* official) was required to ensure viability and cleanliness in the city and its rural communes.¹⁵ Around 1376, the *officium fangi* moved under the aegis of the *capitano del popolo* without shedding any of these duties or the higher standards required from government officials.¹⁶ Throughout the 14th century, then, and along with tangible government efforts to keep the city clean and traffic flowing, the roads or *fango* official remained responsible for the collection and disposal of waste, overseeing public works, examining market stalls and produce, inventorying the presence of animals, curbing the accumulation of firewood, and investigating the presence of social undesirables such as false beggars, gamblers, vagabonds, and prostitutes.¹⁷ Beyond suggesting a perceived link between social marginality and disease, the persecution of social and religious deviants also reminds us that promoting health was rarely detached from avoiding sin, be it at the individual or population level.¹⁸

Both the city's statutes and especially the *fango*'s mission statements, to say nothing of the notary's records of practice, demonstrate that the office's development was neither linear nor its focus permanent. Despite the replacement of representatives of each of the city's quarters by one official, local residents' involvement enabled the central body's officials to deal with general violations

¹³ *Statuti di Bologna dall'anno 1245 all'anno 1267*, vol. 1, pp. 176-82.

¹⁴ *Statuti di Bologna dall'anno 1245 all'anno 1267*, vol. 3, p. 345.

¹⁵ *Statuti di Bologna dell'anno 1288*, Bk. 1, Rubric 4 "Quintus [notarius] supersit stratis et viis civitatis et burgorum aptandis et faciendis fieri et purgationi civitatis et aliis que in suo officio continentur. Et sit homo expertus qui questiones ad suum officium pertinentes noverit terminare," vol. 1, p. 11. And see *Lo Statuto del Comune di Bologna dell'anno 1335*, Bk. 1, Rubric 3, vol. 1, p. 8.

¹⁶ Montorsi and Scaccabarozzi, *La giustizia*, pp. 446-510 and passim.

¹⁷ Zupko and Laures, *Straws in the Wind*, pp. 20-23 and passim.

¹⁸ Carmichael, *Plague and the Poor*; Rawcliffe, *Medicine and Society*; Henderson, *The Renaissance Hospital*.

and policing rather than directly maintain the streets or specific public works. And the development of urban infrastructures themselves (markets, sewers, walls) continued to refocus the notary's attention. But whatever the office's vicissitudes, the *fango* notary was relentless about extending his reach, especially by establishing a personal presence in the city. Between December 1329 and June 1330, for instance, he recorded 78 visits to commercial and production sites and 12 inspections of waterways – a total of 90 excursions (or incursions, depending on one's perspective). In the next semester the visits' number rose to 94, or more than one every other day.¹⁹ Registers covering seven semesters in the period 1334–37 chart a modest decline in site visits, but the notaries still average nearly 67 excursions, that is just over one every three days.²⁰

Significantly, all of these inspections are listed as uneventful, that is, the official found no violation (*nichil inveni*). When the opposite held true, the record usually contains a follow-up in the form of a summons, a fine, or an inquest. And while these cases fill many folios in the extant records (as we will see below), on average they are less numerous than uneventful site visits. This ratio lends itself to several interpretations: a relatively law-abiding society when it came to public hygiene, an incompetent or neglectful official, or a combination of the two. In terms of keeping eyes on the street, however, onsite visits tell only part of the story. On the one hand, and as we shall see in greater detail below, on many days the official adjudicated cases, which were often brought to his attention by other officials and private individuals; on the other, his main order of business, namely supervising public works, must have kept him constantly out and about, his presence simultaneously protecting and defining Bologna's vulnerable sites.

One pair of eyes, however focused and vigilant, was hardly enough for pursuing public health and the political goals of this office in every nook and cranny of Bologna's dense fabric. Accordingly, dirt officials seldom went on their inspection rounds unaccompanied by fellow officers from the *podestà's* (or *capitano del popolo's*) *famiglia*.²¹ Moreover, the *fango* notary sought to incentivize help from artisans and vendors and expand his network of

19 ASB, Podestà, Fango 18, Register 4, fols. 16r–21v (December 1329–June 1330); Register 5, fols. 17r–20v and 22r–25r (June–December 1330).

20 ASB, Podestà, Fango 19, Register 10, fols. 17r–20r (June–December 1334) (74 visits); 20, Register 1, fols. 17v–18v (December 1334–June 1335) (86); Register 2, fols. 16r–18r (June–December 1335) (70); Register 3, fols. 21r–23v (December 1335–June 1336) (65); Register 4, fols. 17r–19v (June–December 1336) (56); Register 5, fols. 19r–21v (December 1336–June 1337) (60); Register 6, fols. 25r–27v (June–December 1337) (57).

21 The *fango* notary's accompaniers are often listed for each site visit.

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informants across social strata. For while public health interventions could be stimulated from the top down, implementing them required broad and willing participation. Accordingly, in 1288, numerous parish representatives had to swear an oath that they would vigilantly protect Bologna's infrastructure, specifically stating that they would observe regulations concerning domestic and industrial waste disposal, and report "those throwing dung or carcasses into public ditches or who keep buckets or any other vessel containing putrid or otherwise dangerous matter."²² Officials also deployed communal heralds to reiterate existing regulations and disseminate new ones, including the monetary rewards of successful accusers. Cleaning campaigns were similarly announced with *gride*, as on 9 October 1296, when the official ordered residents to clean the streets and public spaces from "dung, dirt...and any waste within three days under pain of 20 *soldi*."²³ The more eyes on the street, the cleaner and safer the city.²⁴

Health Discourses

Demanding oaths and sending criers around hardly guaranteed residents' cooperation. Indeed, much of the *fango's* extant records contain strong evidence to the contrary. Moreover, such prescriptions assume that rather than explain why fecal matter, grease, and industrial waste could be dangerous (*periculosum*). Wagon handlers allowing their oxen to roam free, laundresses toiling upstream, wine merchants fiddling with weights, and residents diverting or blocking ditches are routinely cited for the damage (*dampnum*) or the

²² "Quibus preceptum fuit...quod ab hodie in antea denuptient et accuse[n]t mihi... putredines et omnes puteos non rimondatos et non habentes catenas et situlas vel si haberent ruptas; et habentes adronas non muratas; et proiecentes finactiam vel letamen in viis publicis; et coquentes grassam vel sepum de die vel de nocte in dicta cappella vel vicinia; et sepelientes vel facientes sepelliri ossa in civitate vel burgis Bononie; et mittentes vel ponentes linum ad macerandum in fossato circle; et proiecentes moltictium vel eius aquam in viis publicis; et tenentes calcinariam in civitate vel burgis; et battentes pelles ante stationes eorum...et habentes andronas clausas; et proiecentes latamen vel ruscum in andronis comunibus vel tenentes situlas vel aliud quod habeat in se putritudinem vel quod esset periculosum in aliquo casu." Transcribed in Breveglieri, "Il notaio del fango," pp. 110-11.

²³ ASB, Podestà, Fango 7, Register 3, fol. 8r: "quelibet persona debeat aspicare de viis et spatibus publicis letamen, fangum...et omnem inmoniditum hanc ad tres dies pena viginti soldorum."

²⁴ See Jacobs, *The Death and Life*.

destructive potential (*ruinatio, devastatio*) of their actions; but the harm itself remains mostly unstated, or else is expressed in material and moral rather than physical or biological terms.

On occasion, however, we do come across descriptions that are more explicit from a health perspective. On 13 January 1295, for example, the notary instructed five men, who were in possession of open latrines near their domiciles, to seal and enclose them within eight days "so that they cannot be seen by passersby."²⁵ To modern ears this may sound like an aesthetic intervention, and to an extent it is, albeit partly. For medieval optical theories of ocular emission and intro-mission held that the perceiving eye could absorb an object's qualities, be they detrimental or favorable to one's health.²⁶ Accordingly, dead organic matter such as dirt, blood, dung, and especially carcasses threatened those who saw it. Whenever our records invoke the sight of dirt or dead matter therefore they are likely also alluding to the latter's dangerous properties and accuse pertinent violators of compromising public health. To acknowledge this is to reveal an important layer in the *fango's* court documents, which has so far mostly been overlooked.

Foul odors were seen as another source of ill health, since medieval medical theorists, following Hippocrates (c.460-c.370 BC) and Galen (129-c.200/c.216), thought stench could trigger disease by compounding an already deteriorated atmosphere.²⁷ The odors' origins could be diverse: sick people, rotting carcasses, stagnant ponds, filthy water, and exposed latrines are frequently named as dangerous for this reason. And all of them were to be avoided, either by sealing, covering or burying the foul vessel, or through encouraging residents to minimize contact, apply ointment to the nose and mouth, carefully dispose of dangerous substances, and do so downwind and downstream. With this in mind, the *fango's* records capture numerous instances in which communal health was seen to be undermined by bad smells. On 1 April 1297, for example, a certain Visconte was charged with erecting two latrines over his gutter "so that filth (*putredo*) exits and stench (*fetor*) reaches the people who pass there and those who live nearby."²⁸ During his rounds on 2 November 1300 the *fango* notary Pagano noticed that the gutter of Filippa, wife of ser Federigo di Tedaldi

25 ASB, Podestà, Fango 6, Register 3, fol. 12r: "debeant ea sidilia facere murari vel coperiri secundum formam statuti comunis bononie, ita quod per transeuntes videri non possint sub pena in statutum contenuta."

26 Stearns, *Infectious Ideas*, pp. 91-105; Hawkins, "Sights for Sore Eyes."

27 Siraisi, *Medieval and Renaissance Medicine*, pp. 128-30; Porter, *Health, Civilization and the State*, pp. 9-60; Jouanna, "Air, Miasma and Contagion."

28 ASB, Podestà, Fango 7, Register 4, fol. 8r: "super quedam androna sunt duo sedilia ita quod putredo exit et fetor venit hominibus ibi transeuntibus et vicinis prope ibi habitantibus."

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of San Antolino, was "uncovered," as a result of which "much filth (*maxima putredo*) poured out into a public road and stench (*fedor*) reached the neighbors, which inflicted major harms (*maxima iniuria*) on those passing by and commuting through the said street."²⁹

The two main vectors of transmitting illness, namely sight and scent, could act in concert. For instance, when the *fango* notary accused a group of residents in mid-July 1320 of neglecting to maintain a latrine and its gutter, he ordered them to carry out an immediate repair "so that the stench and fetor would not emanate from them...and that those latrine and sewers are cleaned and cleared...so that other putridity will not be visible."³⁰ In other words, beyond the mechanical repair, it was paramount that the facility cease to emit harmful sights and scents.

Perceived threats to health emerged well beyond negligent practices of domestic waste disposal. On 14 October 1314, for instance, Giovanna, wife of Piero the shoemaker, was fined 10 *soldi* for hanging animal hides to dry on a wall in her parish, from which, as the complaint states, the filth could trickle into a local well.³¹ On 14 January 1317 Restarino Bonifacci, a leather worker in Santa Maria Maggiore, narrowly avoided a fine after he confessed to cleaning hides within two feet of a local well, despite the production of filth involved and the prohibition by the city's statutes.³² And on 13 July 1376 Mengolino Berti of San Sisimondo was caught carrying a dead horse into the *campo fori*, where he skinned and disposed of it, against the statutes.³³ Such violations were presented unequivocally in the sources as placing their surrounding environments at risk. And the same held true for market vendors, especially fishmongers and butchers, who were fined throughout the 14th century for keeping rotting merchandise in their stalls, or for operating in illicit locations or off-hours, to avoid being controlled.

Most offenders were evidently willing to compromise communal well-being, even within their own parishes, for private gain or comfort or out of

29 ASB, Podestà, Fango 8, Register 3, fol. 6v: "unam andronam sive clavigam, domine Felipe uxoris...domini Federighi di Tedaldi capelle Sancti Antolini, apertam ex qua exiebat in via publica maxima putredo et fetor veniebat vicinis et ex hoc maxima iniuria sequebatur viatoribus et transeuntibus per dictam stratam."

30 ASB, Podestà, Fango 16, Register 6a, fols. 45r-47v (10-16 July 1320): "quod putredo vel fetor ex eis non exeat...ac etiam ipsas sedilium et clavichas purgari facere et disgombrare...ita quod alia putredo non apareat."

31 ASB, Podestà, Fango 13, Register 2, fol. 52r: "sic quod putredo potevat cadere... in dicto puteo."

32 ASB, Podestà, Fango 15, Register 1, fols. 10v-11r.

33 ASB, Capitano del Popolo, Giudici del Capitano 806 (1376), fol. 5v.

sheer laziness. But on rare occasions the records suggest outright sabotage. In mid-August 1314, for instance, a case was brought against a certain Imelda, a domestic servant in San Gervasio, for intentionally dumping "dangerous filth" (*periculas inmundicias*) at night into a local well near the hospital of San Pietro.³⁴ Even more explicitly, a year later a certain Pizolo Ghinacci, *spiritu diabolico* and under the cover of night, threw an enormous heap of filth (*putredinem in magnam quantitatem*) into a well in Santa Lucia, apparently to avenge his mistreatment by some local women.³⁵

Bologna's records thus demonstrate that some contemporaries considered certain sights, scents, and matters to have a potentially adverse effect on health, and that magistrates considered it their duty to minimize harmful exposure. Even if none of those who produced the extant texts actually believed in or understood the underlying medical theories of disease transmission (which is unlikely), at the very least they considered it a useful tactic to evoke sight and scent pollution when lodging an official complaint or promulgating an order. Moreover, when Bolognese officials and residents translated such private concerns into social and legal action, it is possible to trace a link between medieval medical theory and public health policies. And when the records capture contemporary individuals who employ a similar discourse as part of an attempt to enforce such policies, we can reasonably talk about the influence of certain medical ideas, either directly disseminated or otherwise present, and their adaptation and even manipulation by urban dwellers.³⁶ Jointly, such actions amounted to what I have elsewhere termed urban healthscaping: a legal, physical, social, and political process by which urban regimes, organizations, and individuals sought to support and improve communal health.³⁷

Preventative Interventions

With this in mind, let us examine some of the *fango's* extant records more systematically in order to achieve a better-grounded profile of Bologna's public

34 ASB, Podestà, Fango 13, Register 2, fols. 5v-8v (13-22 August 1314).

35 ASB, Podestà, Fango 14, Register 2, fol. 38v (27 August 1315): "Pizolus Ghinacci capelle Sancte Lucie qui moratur ad stanctionem cum Guidocto Corbisi in androna tuschorum spiritu diabolico ductus noctis tempore proiecit et posuit putredinem in magnam quantitatem in quodam puteo ipsius domini Ugolini posito in quadam curia domus dicti domini Ugolini in androna tuscorum posita in capella Sancte Marie di caranis iuxta heredes quidam domini Tortuzi di Passiponeris et iuxta aposa."

36 Coomans and Geltner, "On the Street."

37 Geltner, "Healthscaping a Medieval City."

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health-related challenges, or at least establish how these were perceived and represented. The current section is based on a selection of seven registers traversing the period 1300-79, a timespan that illuminates healthscaping activities both before and after the Black Death.³⁸ Beyond their temporal distribution these registers were also chosen for completeness and clarity, which yielded ample information. In this sense, the selection cannot be properly labeled a sample, but the large amount of charges it contains does provide an entry point to studying contemporary concerns and behaviors. The selected data cover a total of 43 months in which 2107 charges were pressed against pertinent offenders by the *fango* official or (less frequently) by private individuals. Insofar as the records allowed, they were mined for data on the gender, provenance, and occupation of the offender, the type and location of the offense, and its outcome.

To recall, the *fango* official had multiple responsibilities beyond maintaining urban hygiene. Procuring materials and contracting workers took the lion's share of the office's budget. And yet, as the basic data show, the detection and prosecution of offenders falling under his jurisdiction was fairly intensive time-wise. Allegations brought before his tribunal came in one of three different ways. First, while the dirt official spent much of his day outdoors, it is likely that, whatever else he was focused on, wandering through local markets, accosting carters, and dropping in on artisanal workshops and private homes could all be done on a whim or following a tip. Any and all of these could have led to a charge. Secondly, other officials could have identified environmental offenders during their routines, and passed them on to the *fango* notary. Cases reaching the tribunal this way would likely lead to an official inquest (*inquisitio*). Last but not least, keeping eyes on the street were also Bolognese residents, who, also driven by the promise of a monetary reward, could complain against violators in their work or residential areas, precipitating an accusatorial procedure (*accusatio*).³⁹

Every month, the *fango* notary adjudicated anywhere up to 245 cases (Fig. 4.1). To contextualize this figure, Bologna's regular criminal court dealt with an average of around 120 cases per month in the late 13th century to as little as 20 cases a month in the early and middle of the 14th century (a decline preceding the onset of plague), before rising to about 40 cases a month in the late 14th

³⁸ ASB, Podestà, Fango 8, Register 3 (1300-01); 15, Register 2 (1317); 20, Register 1 (1334-35); 20, Register 2 (1335); 22, Register 4 (1361); 24, Register 4 (1369); 27, Register 8 (1378-79).

³⁹ I have yet to work out the exact ratio between inquisitorial and accusatorial procedures, which could help establish residents' active participation in enforcing environmental legislation. My impression so far is that most cases were formally brought forward by officials, but that does not necessarily mean the complaint originated with them.

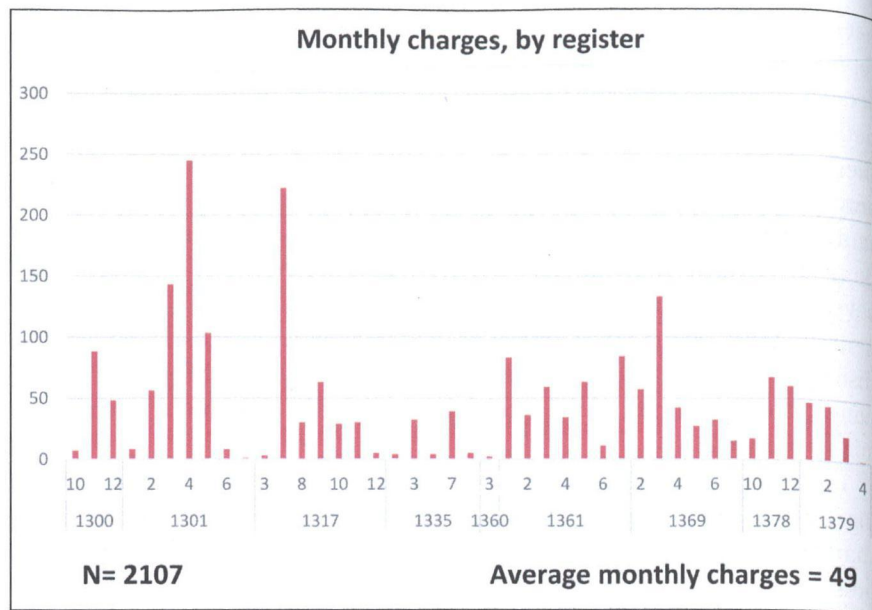


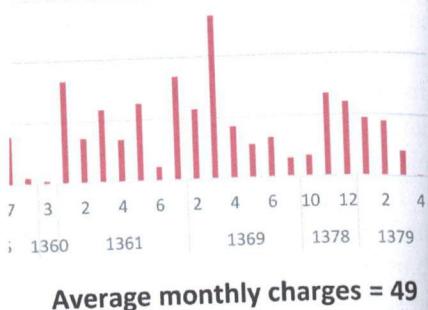
FIGURE 4.1 *Monthly charges brought before the fango notary in selected registers, 1300-79.*
SOURCE: AUTHOR'S DATA SET AS DESCRIBED IN FOOTNOTE 38.

century.⁴⁰ In other words, the *fango* notary's caseload was quite substantial in contemporary terms, especially when we consider that, unlike notaries presiding over regular civic and criminal tribunals, he could dedicate only part of his time to prosecuting offenders. However, and as the extant registers attest, given the nature of most offenses adjudicated by this tribunal, verdicts could easily be pronounced on the basis of confessions and eyewitness testimony (not infrequently the official's own) and sentences (mostly fines) meted out and presently collected.

Despite their summary character, the extant entries certainly illuminate detection and prosecution activities at a higher resolution, for instance in terms of charges made, persons involved, location, and outcome. To begin with deviance itself, one way to impose some order on the matter, is to divide the offenses described in the sources under the rubrics of commerce, neglect, filth, animals, blockage, and safety. (In 17 per cent of the cases I could not establish the charge) (Fig. 4.2).

40 Private correspondence with Sam Cohn, Trevor Dean, and Sarah Blanshei are the basis of the statistics on criminal prosecutions in Bologna. For broader contextualization see Bonfiglio Dosio, "Criminalità ed emarginazione"; Verga, "Le sentenze criminali dei podestà milanesi 1385-1429"; Dorini, *Il diritto penale*; Cohn, "Repression of Popular Revolt."

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2 fango notary in selected registers, 1300-79.
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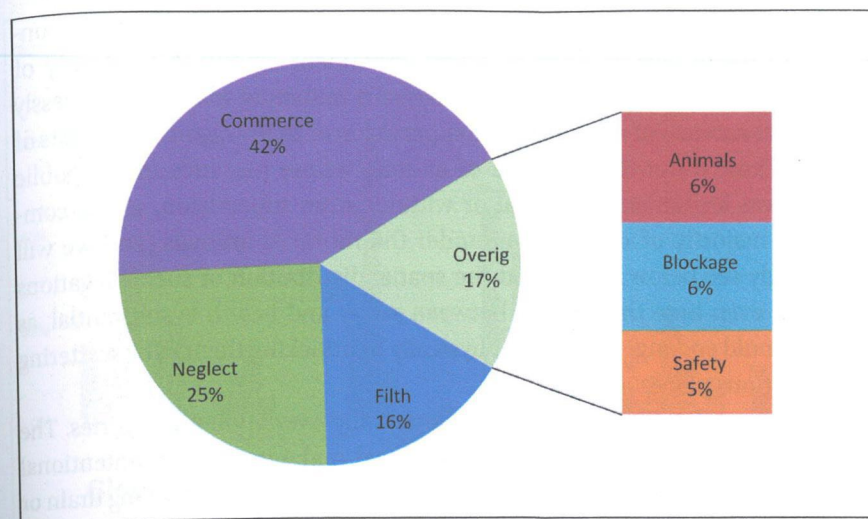


FIGURE 4.2 General distribution of charges in selected registers, 1300-79. SOURCE: AUTHOR'S DATA SET AS DESCRIBED IN FOOTNOTE 38.

A fair criticism of these categories is that they subsume diverse types of offenses under generic ones. To some extent that is true of most categorizations and taxonomies, of course, yet the intention here is to demonstrate the interconnection between Bolognese concepts of civic order and public health. For instance, it can be reasonably argued that most offenses under the heading of commerce are technical, namely selling outside licit opening hours and/or away from designated locations. But operating off-hours and off-site also meant avoiding the quality control officials provided in order to ensure that residents received healthy fish, meat, wine, and produce, and that the latter were not discarded in a way that endangered residents' health. Illegal weights and measures comprise another major subcategory within commerce, and here too the link with public health may appear to be tenuous, even though they could have had a moral domino-effect and there were certain applications of weights and measures that could have had an adverse effect on health, for instance regarding recipes and medicines. At any event, while promoting health may have been the impetus of prosecution in some cases, it is more likely that foremost on the magistrates' mind was a desire to encourage honesty and transparency, thereby protecting the unity of the civic body. Once again we observe how the spiritual and physical attributes of health were difficult to tell apart.⁴¹

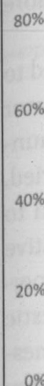
⁴¹ This is a major point in Rawcliffe, *Urban Bodies*; and Henderson, *The Renaissance Hospital*.

From a more familiar modern perspective other rubrics can be easily connected to public health, such as safety. Prominent among this category of charges are artisans using ovens or dangerous industrial materials recklessly and carters accused of neglecting the supervision of their wagons and beasts of burden. These differ from owners of animals whose presence in the public domain was forbidden in general or without strict supervision, which comprise the majority of cases falling under the rubric of animals (and we will accordingly see below how broad the spatial distribution of such allegations was). But even here the overlap between safety and health is substantial, as animals could endanger residents physically by attacking them or by scattering filth in various places.

Blockage and neglect are likewise potentially overlapping categories. The main distinction here is between intentional and seemingly unintentional offenses, for instance piling wood deep into a portico versus a leaking drain or gutter. Of course, depending on what the gutter was leaking, an offense could be easily placed under the final category, namely filth. However, only when complaints explicitly mentioned environmental deterioration or threats to public health, they were counted under the latter category. As the chart above shows, overall these comprise a minority of cases (16 per cent). But using this figure to gauge public health concerns in Bologna is somewhat misleading. As we have repeatedly seen, diverse health risks lay immediately beneath the surface of numerous other offenses suggesting that the category of filth unnecessarily constrains us to think about public health from the limiting perspective of modernity. Either way, it is helpful to see these diverse charges as reflecting a nexus of threats that, at least in officialdom's eyes, impacted health at the population level and hence defined one way of promoting it.

A closer look into the frequency and location of alleged violations reveals a rather dynamic and complex picture of both continuity and change across the 14th century (Fig. 4.3). Note, for instance, the reduction of filth- and blockage-related charges and the disappearance of animal-related prosecutions and neglect after the Black Death, as well as the modest and huge rise respectively in safety- and commerce-related charges. While explaining these trajectories remains a desideratum,⁴² the continuity of government efforts and residents' complaints is itself significant. That is, plague may have impacted the pattern

⁴² My current research project, "Healthscaping Medieval Europe," is an attempt to do just that. Without entering too deeply into the realm of speculation, however, it is plausible that certain changes had to do with the interconnected processes of urban migration, declining population, and political centralization, although economic and ecological conditions may well have played an important role as well.



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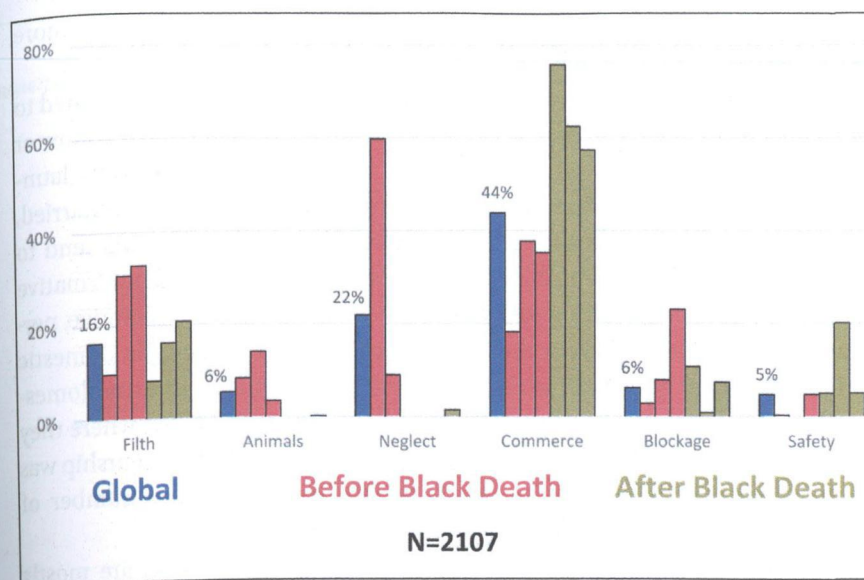


FIGURE 4.3 Distribution of charges in selected registers, 1300-79. SOURCE: AUTHOR'S DATA SET AS DESCRIBED IN FOOTNOTE 38.

of problems experienced and official responses, but it is unlikely to have sparked an interest in developing public health interventions in the first place, or conversely to have triggered a breakdown of mutual aid or government services.⁴³

The same data allow us to explore particular interests, such as the role of gender in promoting or undermining public health. Women, for example, comprise an average of 11 per cent of those charged with environmental offences. If we look at gender divisions by offense, however, some categories, such as gambling and safety, are entirely male domains, while women are somewhat more prominent (but still a minority) among deviant market vendors (16 per cent). And even here female offenders are mostly grocers and herbalists detected working off-hours or off-site, while their male counterparts, especially fishmongers and butchers, clearly instigated most of the *fango's* inquests during market operating hours. The discrepancy between women's strong presence in the public eye, particularly in the markets, and their marginalization in these records also remains to be explained, but it is

43 Here I am consciously siding with a "continuist" view of Bolognese society forged by Wray, *Communities and Crisis*.

likely tied with governments' tendency in this period to embrace a more restrictive definition of female deviancy.⁴⁴

What the *fango* records can tell us about Bolognese women is not limited to their capacity as health threats. Leaving aside the occasional wealthy widow or wife of an artisan, most women charged by or before the officials were laundresses and domestic servants, most of whom were presumably unmarried, given that they are not described as such and that medieval courts tend to describe women in terms of their relations with men. Indeed, the normative picture being promoted through this office and its sources is conservative, perpetuating as it does a classist and patriarchal dichotomy between domestic and public spaces, with riverbanks and parish wells featuring as extra-domestic spaces where women could carry out their accepted tasks, but where they were also more open than elsewhere to scrutiny. Female entrepreneurship was treated with a modicum of suspicion, as the relatively higher number of women among charged market vendors seems to suggest.

While the women appearing in the *fango*'s medieval records are mostly alleged violators and agents of disequilibrium, they also emerge from them as defenders of health, at least as a byproduct of local loyalties. In this sense, official records also and perhaps inadvertently shed light on healthscaping activities at the neighborhood level. The parish women of Santa Lucia who denied a foreigner access to their well, the domestic servant acting as an eyewitness to a polluting act, the green grocer who stood her ground against an unauthorized competitor, were all promoting at least what government officials considered communal well-being.

Gender thus numbers among the various analytical categories that the *fango* records can help historicize from a unique perspective, adding to our picture of late medieval Bologna's society and politics. The same can be postulated for other key markers of identity and social status such as provenance, occupation, and education, as well as variables ranging from seasons to political circumstances. How these elements shaped individual, corporate, and government approaches to promoting health and fighting disease cannot be fully explored in the present survey, but the extant documents promise a fruitful line of research.

Last but not least, by working in a historical GIS (geographical information system) environment, it is now simpler than before to identify and compare the physical location of charges and their types over time, as well as the provenance of alleged offenders and its correlation with other identity markers

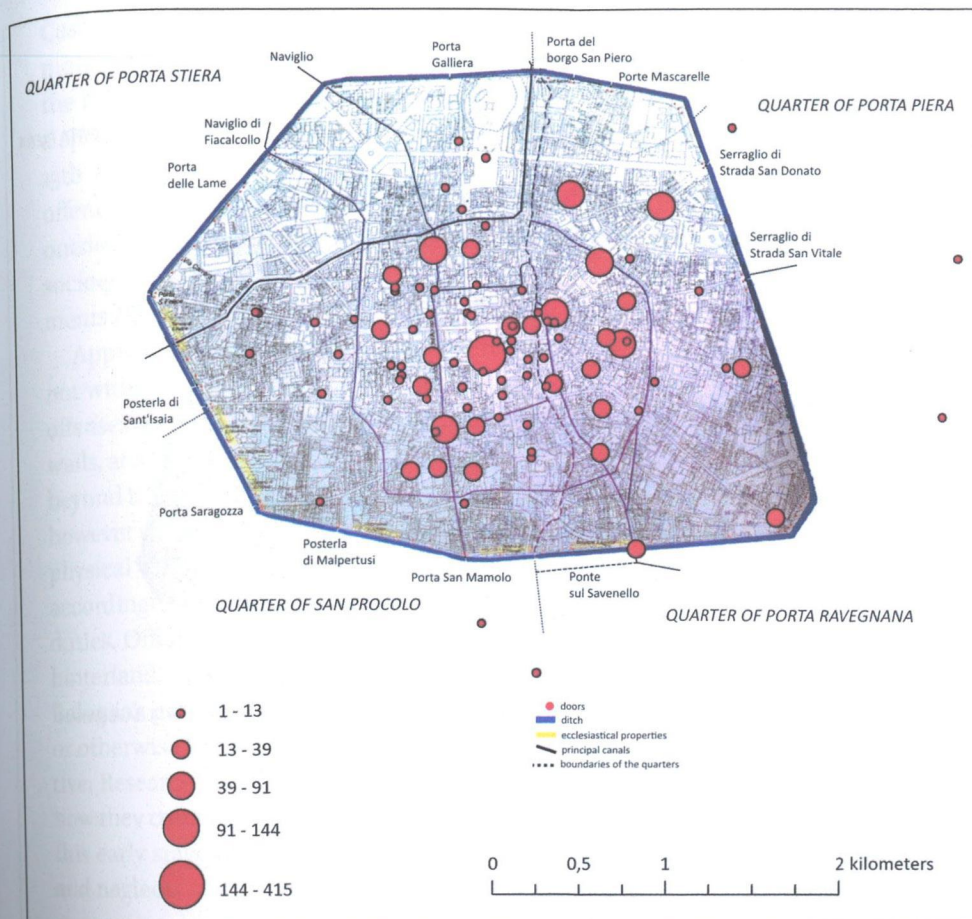
44 Geltner, "A Cell of their Own."

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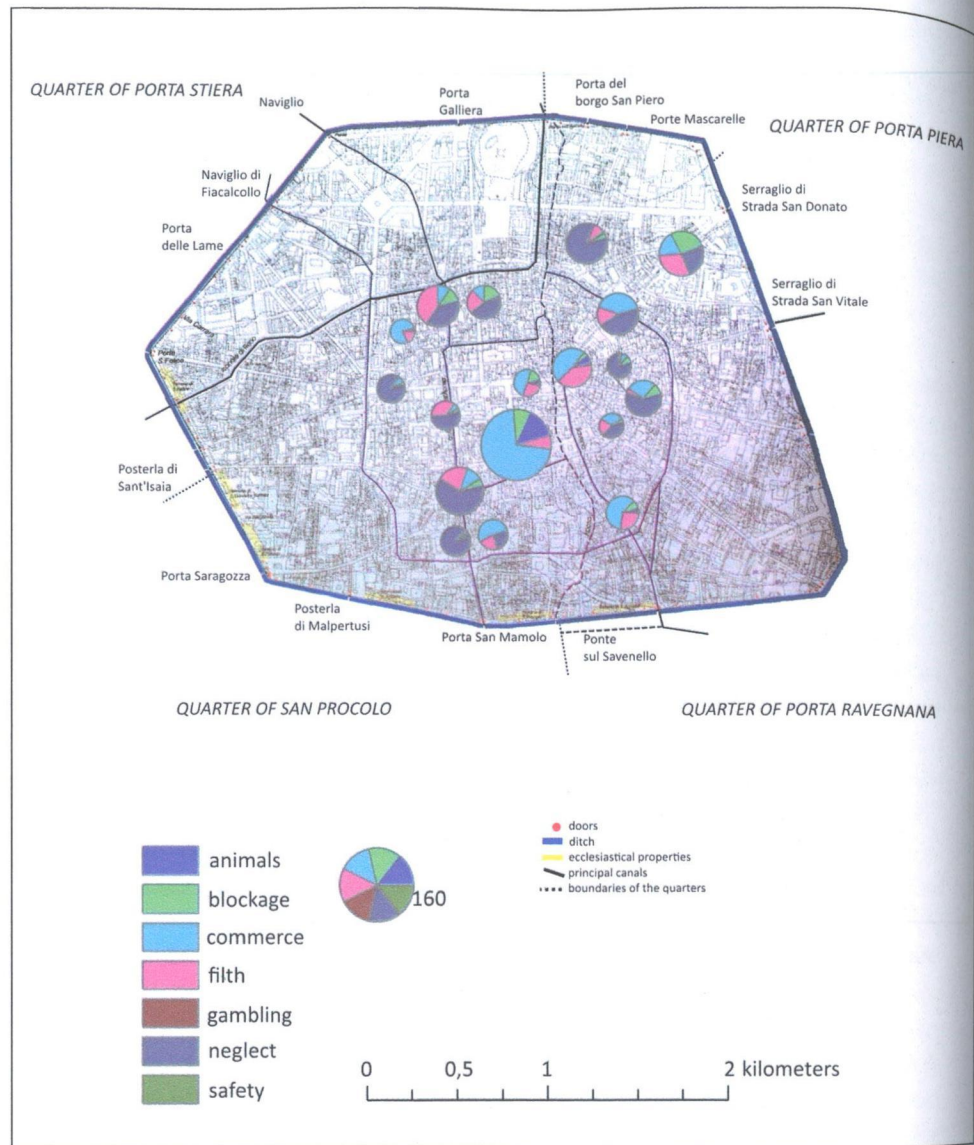
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MAP 4.4 Location of charges in selected registers, 1300-79. Source: Author's data set as described in footnote 38. MAP: FROM ROLANDO DONDARINI AND CARLO DE ANGELIS, "DA UNA CRISI ALL'ALTRA (SECOLI XIV-XVII," *BOLOGNA*, VOL. 2, *ATLANTE STORICO DELLE CITTÀ ITALIANE* (BOLOGNA, 1997), P. 22.

across the Black Death divide.⁴⁵ Analysis of these data from these and other perspectives is still nebulous, so observations are necessarily tentative rather than conclusive at this stage. For instance, the rudimentary maps (Maps 4.4

⁴⁵ The remainder of this section offers a very preliminary examination of the data assembled and presented in the accompanying images. I am grateful to Karin Pfeffer and Marcel Heemskerk at the University of Amsterdam's GIS center.

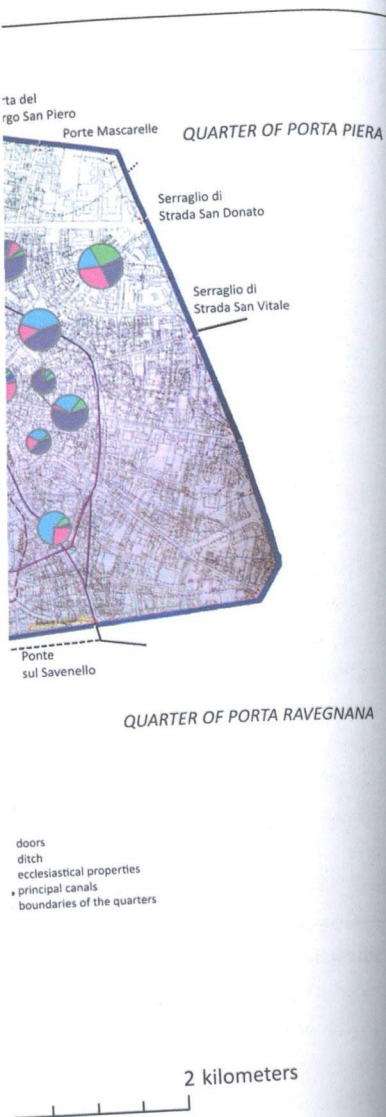


MAP 4.5 *Physical distribution of charges in selected registers, 1300-79. Source: Author's data set as described in footnote 38. MAP: FROM ROLANDO DONDARINI AND CARLO DE ANGELIS, "DA UNA CRISI ALL'ALTRA (SECOLI XIV-XIVV," BOLOGNA, VOL. 2, ATLANTE STORICO DELLE CITTÀ ITALIANE (BOLOGNA, 1997), P. 22.*

and 4.5) seem to confirm that commerce-related offenders were mostly concentrated in the city's three market areas, the Piazza Maggiore, Mercato di Mezzo, and Porta Ravegnana, and to a lesser extent near the erstwhile Aposa,

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Castiglione, and San Donato gates. Animal-related offenses, by contrast, are far more evenly spread throughout the city, with two major agglomerations near the Porta Saragozza and, equally unsurprisingly, near the Campo del Mercato, a space designated for the sale of cattle away from the city center in the late 13th century. It also seems clear that while the majority of the commerce offenders were local residents, animal-related offenders could come from outside the city as well. Both groups, at any rate, seem to have shared a low socioeconomic status occupationally, dovetailing with earlier scholars' comments on the perceived conjunction of class and health.⁴⁶

Approaching Bologna's public health history on the basis of these insights is not without its problems. For, as the maps also illustrate, the vast majority of offenses were reported or detected within the city's first and second ring of walls, at a time when some of Bologna's population certainly lived and worked beyond them. It is unlikely that health risks were absent outside the city center, however dense and lively it remained throughout the 14th century. Instead, the physical distribution of charges may indicate the *fango* officials' beat, and accordingly where they thought they could best (or most easily) carry out their duties. Officials neglected neither the city's gates, waterways, or surrounding hinterland, nor the numerous wells and workshops scattered throughout Bologna's parishes. But the latter group was clearly lower on their priority list or otherwise less accessible (and thus less finable) from officialdom's perspective. Research on Bolognese officials' healthscaping activities, not to mention how they compare with parallel efforts in other cities, is embryonic. Yet even at this early stage the emerging picture is one of care and attention, not apathy and neglect.

Looking Farther Afield

Any survey, however brief, of medieval Bologna's history of healthscaping would be incomplete without at least mentioning the important role played by guilds, neighborhoods, hospitals, and confraternities, as well as the regular input on health-related matters from the university's scholars of medicine and astronomy. These bodies and entities are explored elsewhere in this volume, so suffice it to say here that ideas and practices concerning healing, labor safety, product quality, and diverse forms of charity and mutual aid received much attention in these contexts. Moreover, the prognostications, prophylactic measures, and cures debated by university scientists and medical practitioners

⁴⁶ Mollat, *The Poor in the Middle Ages*, esp. pp. 135-57; Carmichael, *Plague and the Poor*.

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were regularly communicated to – indeed eagerly sought by – governments and the general population. That it not to say that policies or recommendations were always enthusiastically or widely adhered to. As is customary in the history of public health, population-level interests tended to be defined and pursued vis-à-vis private and corporate agendas, and the welfare of the many rarely triumphed over that of the (powerful) few as a matter of course. In times of calm or during epidemics, healthcare and medical professionals backed by the government met with criticism, apathy, and outright resistance in carrying out their duties.⁴⁷ Unruly *bolognesi*, then as now, had to be routinely reminded of their actions' broader implications and encouraged to compromise.

Finally, looking beyond the chronological scope of this essay allows us to observe the emergence of local health boards. Here Bologna seems to have followed the trajectory of many Italian and European cities in founding – over time – permanent institutions of public health or *Sanità*. Unlike the *fango* office, these organs do not predate the Black Death and rarely served as direct responses to it, or even to the repeated visitations of the disease during the later 14th and 15th centuries. Milan and Venice being exceptional, most cities took a century or more, and numerous epidemics, to move beyond ad hoc responses to dedicated institutions, personnel, and budgets, whose stability was easily undermined. In Bologna, as elsewhere, health-related connectivity between the city, its hinterland, and other cities continued to develop throughout the 15th century, alongside traditional government prophylactic measures. Given the intermittent nature of disease outbreaks, however, it is hardly surprising that local responses, even when organized around a new initiative or health board, did not immediately transform into permanent organs of government.

Institutional ebb and flow seems to have ended with the onslaught of the plague epidemic of 1575-78, also known as the Plague of San Carlo. Within the havoc it created, numerous authors across the peninsula (not all of them medically trained) began urging urban governments and regional princes to act more systematically through civic institutions of disease control and prevention.⁴⁸ Bologna may have had something akin to a health board earlier that century, yet sometime between this event and the plague of 1630 a distinct organ gained a stable status as the *Assunteria di Sanità*.⁴⁹ While permanent

47 Pastore, *Crimine e giustizia*.

48 Cipolla, *Public Health*, pp. 11-66; Cohn, *Cultures of Plague*, pp. 202-07; Cosmacini, *Storia della medicina*, pp. 110-18; Pazzi, "L'organizzazione dei servizi."

49 Brighetti, *Bologna e la peste*; Rosa, *Medicina e salute pubblica*. The main archival series recording these activities are the Assunteria di Sanità (beginning in 1555) and the Commissione provinciale di sanità della legazione di Bologna (beginning in 1674).

eagerly sought by – governments say that policies or recommendations adhered to. As is customary in the interests tended to be defined and ends, and the welfare of the many) few as a matter of course. In times and medical professionals backed by, and outright resistance in carrying out now, had to be routinely reminded encouraged to compromise. The scope of this essay allows us to look at Bologna. Here Bologna seems to have followed European cities in founding – over health or *Sanità*. Unlike the *fango* (Black Death and rarely served as direct visitations of the disease during the plague in Venice being exceptional, most cities in times of epidemics, to move beyond ad hoc measures, personnel, and budgets, whose stability and effectiveness elsewhere, health-related connectivity in cities continued to develop through government prophylactic measures. In times of outbreaks, however, it is hardly surprising that organized around a new initiative to transform into permanent organs of

have ended with the onslaught of the plague as the Plague of San Carlo. Within the peninsula (not all of them medical institutions and regional princes to act in the name of disease control and prevention, akin to a health board earlier than the plague of 1630 a distinct *Sanità di Sanità*.⁴⁹ While permanent

Structures of Plague, pp. 202–07; Cosmacini, *Storia della sanità e salute pubblica*. The main archival series of the *Sanità di Sanità* (beginning in 1555) and the *Sanità di Bologna* (beginning in 1674).

and influential, it usually sprang into action only when epidemics were thought to have struck, at which point its officials became responsible for inspecting residences, industrial and agricultural production sites, commercial traffic, and even letters. It was these administrators who issued clean bills of health and authorized the entry and exit of people and products.

What historians, often writing with a modernist bias, might see as a “delay” in the rise of Bologna’s health board, can be explained through a combination of the city’s degree of administrative centralization, the political cachet and coherence of the medical profession, and the severity of plague. But whatever else may explain Bologna’s (and other cities’) path and chronology when it came to founding these bodies, it is also worth considering the role of pre-existing organs such as the *fango* (and its peninsular and continental parallels) in providing inhabitants with a robust if imperfect solution to dealing with ongoing health threats. Indeed, in times of peace and in the absence of epidemics, it was precisely these and other rather mundane city employees who helped keep the city clean and its residents safe.

Conclusions

Population-level healthcare is a rich yet so far mostly hidden aspect of medieval Bologna’s social, legal, and political history. Economically marginal occupations, foreigners, and women – groups that remain mostly voiceless in the city’s records – emerge for once as historical agents, as future work on the *fango* and *Assunteria di Sanità* is bound to demonstrate in greater detail. In the interim, it is safe to say that Bologna’s public health intellectual and administrative infrastructure far predates the onset of a plague epidemic in the mid-14th century, experimentation with civic actions in the 15th, or the rise of health boards in the 16th. Since the mid-13th century at the latest, Bolognese magistrates began carving out a greater space for themselves than before as defenders of communal health and well-being in times of peace, and not only in response to war and sudden crisis. In the Italian context in particular, this meant pushing against strong private and guild interests from the direction of a limited and often-contested public authority. Certainly government action could both complement and clash with residents’ genuine concern for their health and safety and that of their neighbors and communities. However greatly those societies’ definitions of health and disease differ from our own, the myriad individual, corporate, and government efforts preserved in the archives, and those coming down to us via narrative sources and architectural and biological remains, strongly attest premodern healthscaping.

From a still broader perspective, Bologna was hardly unique, its wealthy archives notwithstanding. For the government organ whose surviving records shed so much light on communal health and well-being in this period was a ubiquitous one in the peninsula, and could be found across late medieval western Europe, Byzantium, and the Islamic world. This should come as no surprise since the office itself harks back to the ancient Greek *agronomos*, the Roman *aedil*, the Jewish *rav souk*, and the Sassanid *vazarbad*, and finds rich parallels with the Muslim *muhtasib* (also known in Iberia as the *mustaṣaf*), the Byzantine eparch, and the legal proceeding known in London as the assize of Nuisance.⁵⁰ Despite their diversity of backgrounds and jurisdictions, numerous officials across the premodern world shared a responsibility for the upkeep and smooth operation of key urban infrastructures, including roads, bridges, and markets, a jurisdiction that entailed implementing preventative health measures and prosecuting offenses thought to threaten population health.

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