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**'Filth is the Mother of Corruption': Plague and the Built Environment in Early
Modern Florence**

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John Henderson, *Birkbeck, University of London*

Abstract

The aim of this paper is to explore the association between the impact of plague and the physical fabric of the city during the last major epidemic to affect Tuscany, 1630-1. Contemporaries in the seventeenth century were only too aware of the close connection between disease and the conditions in which people lived. This was reflected in the long tradition of sanitary legislation, which had sought to address what they thought caused disease, namely corrupt air, which was seen as being generated by industrial and domestic waste and exacerbated by people living in cramped, crowded conditions. The threat of plague led early modern city states to implement both precautionary measures to address the factors which led to the generation of disease, and to preventive measures when an epidemic had broken out in a city. This resulted in the institution of a complex system directed by Health Boards to mitigate the spread of disease, including sanitary surveys, the inspection and registration of the sick, their incarceration in isolation hospitals and the quarantining of their contacts and families in their houses or in separate institutions. This paper will concentrate on examining the preventive measures that Florentine authorities put into place, in particular house-by-house sanitary surveys, revealing the dreadful living conditions of the poor, and then the measures taken to address these problems through cleansing of houses and streets. More broadly it will seek to understand these measures in relation, on the one hand, to contemporary medical theory, and in particular the influence of neo-Hippocratic ideas concerning the influence of environmental factors, and, on the other hand, in relation to attitudes towards the poorer members of society, who were even blamed for the worsening epidemic through their lifestyle.

**‘Filth is the Mother of Corruption’:¹
Plague, the Poor and the Environment in Early Modern Florence
John Henderson**

11 August 1630, the Quarter of S. Ambrogio

Between Via Nuova and [Borgo] Pinti in the courtyard of the house of Monna Caterina, widow of Jacopo the coachman, and Monna Piera di Zanobi: redo the straw mattresses because they smell, and it is necessary to burn the old ones because there is a great stink. There are seven people to a room and they do everything in the same courtyard; to the left in the room of Monna Dianora there is a fetid bed, which could create plague where it has not been up until now, thus burn and replace it.²

This passage from a sanitary survey of Florence reflects the concerns of contemporaries in seventeenth-century Tuscany about the physical environment and how the way that people lived influenced their health. The matter-of-fact description spells out the very cramped living conditions in one of the poorer parts of the city, with seven people sleeping in one room on filthy bedding and pallasses or straw mattresses. The real fear was that because these conditions created a great stink and fetid air they would create plague; in fact, by mid-August 1630 their fears were realised when an epidemic broke out in the city. It is this theme of poverty, the physical environment and plague, which is at the centre of this article. However, in order to understand properly the reason for this intense interest in the connection between the fabric of the city, disease and the living conditions of the poor, we have to take a step back to place this survey and the epidemic of plague of 1630-1 in Florence within a wider chronological, administrative and above all medical context.

The ‘city is [like] a hospital’: the tradition of sanitary legislation

A major theme of contemporary Florentine treatises written about the ‘pestilential contagious diseases’ of 1630-1 was that the insanitary conditions associated with poverty and poor housing was one of the fundamental causes of plague.³ This belief had a long and venerable tradition in late-medieval medical treatises. It was in particular the poisonous vapours generated, in the words of an eminent contemporary physician Stefano Roderico De Castro, by ‘earthquakes, unburied bodies, stagnant and fetid water’,⁴ which caused plague. Insanitary conditions were seen as particularly bad in cities through the effluence generated by humans living in close proximity. De Castro underlined why cities were so unhealthy:⁵

crowds of sick people and of those who care for them can besmirch the air, and the proof is clear; as one always flees the air inside hospitals, because the breath of the sick fills them with bad vapours. I imagine that similarly at a time when there are many sick people in a city, that city is [like] a hospital.

The belief in the association between bad air and disease had also underlain sanitary legislation from well before the Black Death, when medieval states and cities had enacted measures to clean up the environment, from the disposal of human waste and the banning of the butchery of animals in city centres, as discussed by Carole Rawcliffe in her article in this volume on butchery and plague in late medieval England. At the time of the Black Death, Giovanni Boccaccio recorded in his Introduction to *The Decameron* that ‘in that [pestilence] no wisdom or measure was of any use, such as the clearing of the city of much refuse by officials appointed for that purpose, and the prohibition of any person from entering [the city] and many counsels [Consilia] given for the preservation of health ...’.⁶

In Florence, as Boccaccio records, as in many cities and towns across Italy, magistrates had been established in order to investigate infractions of the sanitary legislation, whether deriving from reports of the officials themselves or of concerned citizens.⁷ However, despite legislation and its enforcement, contemporaries complained stridently about high levels of stench, which convinced them that bad smells were the cause of plague. From the second half of the sixteenth century these ideas became even better developed through the influence of the growing literature arguing for the close connection between the physical environment, health and disease, following the revival of neo-Hippocratic ideas, and in particular the influence of *Airs, Waters and Places*. This treatise placed emphasis on the connection between location and climate and hence the causative link between the health and disease of an area, whether urban or rural, and of local inhabitants.⁸

Even with this general awareness of the ever increasing emphasis of the close association between insanitary conditions and disease, it is only relatively recently that historians have started to examine the impact of these ideas on government policy and the extent to which regulations were enforced.⁹ This is a topic which has been studied more extensively for later periods through the emergence of the genre of medical topographies in the eighteenth century.¹⁰ It has been argued for northern Italy that one impetus to a more general public awareness of the link between disease and the environment was the epidemic of plague of 1575. This was reflected in the explosion of broadsheets in Venice, Milan and Bologna, giving instructions for citizens to keep the streets clean of refuse and excrement to prevent the spread of disease.¹¹

Another important feature of government policy in the sixteenth century was the growing intolerance and fear of the poor, as they came increasingly to be seen as the source of infection.¹² This attitude was fuelled by the impact of the new epidemic of the Great Pox,¹³ and exacerbated still further by the devastating plague epidemic of 1575-6 in northern Italy.¹⁴ Even so, reactions were tempered by the influence of the Counter-Reformation, which underlined the church's attitude towards the poor, who were also seen as worthy objects of redemption.¹⁵ In Verona, for example, while the city expelled beggars, they also expressed pity for their plight. Carlo Borromeo, who gave his name to this epidemic, was famous for the help he gave to the poor, underlining the two sides of the motivation behind charity, compassion and fear.¹⁶

The Plague of 1630-31

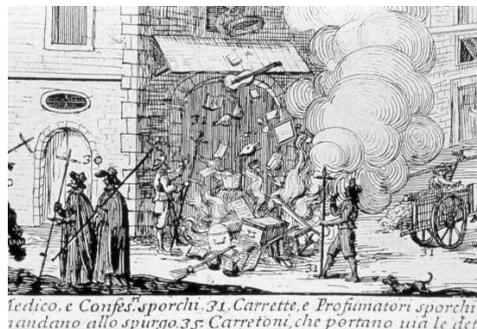
By the early seventeenth century, and in particular during the last epidemic to hit northern and central Italy between 1629 and 1633, the association between the physical environment and living conditions of the poor became even more entrenched and elaborated.¹⁷ This article will concentrate on Florence, the capital of the Medicean Grand-ducal state of Tuscany, where the epidemic started in August 1630 and lasted for about a year. Once plague had taken hold in the city, the period of worst mortality was in late autumn with a slow tailing off over the subsequent seven months. During the whole period in which plague was in the city, August 1630 to July 1631, about 12 per cent of the resident population of 75,000 had died.¹⁸ This was a relatively low mortality rate when compared to cities further north, such as Milan and Venice, which suffered respectively from a 46 and 33 per cent mortality rate of populations in excess of 130,000, while some smaller centres were hit even more hard, such as Verona which lost 57 percent of its population.¹⁹

The fact that plague arrived in Tuscany almost two years after it had entered Italy, and six months after it had impacted on the cities in northern Italy, would have left the authorities with plenty of time to take both precautionary measures to prevent its arrival, especially given the regular exchange of information concerning the threat and progress of epidemics between governments and health boards across the peninsula. The main strategies adopted to

stop the plague from spreading into Tuscany included banning trade and commerce with infected states and then establishing cordon sanitaires around the frontiers of Tuscany.²⁰

Once plague had broken out in the city, a separate set of controls were adopted, familiar from studies across renaissance and early modern Europe.²¹ The city's health board, the Magistrato di Sanità, which we saw in genesis in Boccaccio's 'Introduction' to the *Decameron*, coordinated all operations not just outside, but also within the city: banning public assemblies, prohibiting the sale of cloth and clothes, quarantining the sick in their houses and in isolation hospitals or Lazaretti, and the burial of victims in special pits outside the city walls, all enforced by its own police officers and law courts.²² Every resident was obliged to report the sick within their household or house, followed by the visit of the physician of the Sanità to ascertain if the ailment was an 'ordinary disease' or a 'contagious disease'. If anything suspicious was discovered, the patient was sent to the Lazaretto and members of the household were quarantined for twenty-two days either at home or in extra-mural isolation centres. The inspection of suspected houses and transportation of the sick and dead was performed by the Fraternity of the Misericordia. This was a brotherhood of voluntary laymen who dedicated themselves to charitable works, and had been for over 140 years the main organisation in the city to man this emergency service during epidemics.²³ At the same time the clothes and bedding of the sick and dead were removed and taken to be burned or aired for forty days, and the house was subsequently disinfected. A satirical view on these operations can be seen in a contemporary print of the health board operatives working in Rome during the 1656 plague, chucking out from a first floor the contents of an infected house for disinfection (see plate 1).²⁴

Plate 1: 'Disinfection of goods from a plague house', *Scenes from the Plague in Rome of 1656* (credit: Wellcome Library, London)



All these measures were predicated on the belief that plague could be spread by individuals and materials, and in particular cloth, which was seen as having the ability of holding within itself the 'seeds' of plague and hence the lengthy periods of disinfection through exposure to the air. Cloth had been at the centre of concerns of administrators and their medical advisors from the time of the Black Death onwards.²⁵

Medical Theory: Poverty, Disease and the Environment

The increased emphasis in public health policy from the late sixteenth century on the relationship between poverty, disease and urban environment was discussed and explained in detail in a growing body of medical literature.²⁶ In addition to the influence of Neo-Hippocratic ideas, contemporaries stressed the importance of the Galenic concept of the six non-naturals, those individual and environmental factors which influenced well-being.²⁷ The most crucial non-natural from our point of view was air, given that diseased air was seen as causing disease, and led, as we shall see, to the concentration by the authorities on insanitary

conditions.²⁸ In Florence at the beginning of the epidemic in August 1630, the College of Physicians was asked by the Sanità to determine the nature of the disease, in order to provide the government with guidance over which prophylactic measures to adopt. This led in August to discussions and then debates being held at the highest medical and social levels. As the Librarian of the Grand Duke of Tuscany, Francesco Rondinelli, who wrote an official history of the epidemic, recorded: ‘all the city was divided between [different] opinions: one that said it was pest and these were called the Frightened Ones...The others said that they were ordinary sicknesses, which happened every year, caused by suffering and hardship’.²⁹

Although there was some disagreement about whether or not it was the ‘contagious sickness’, most medical experts did agree what caused the most immediate and readily observable effect of this epidemic, higher mortality among the poor. Rondinelli summarized briefly the most widely held medical explanation. He recorded that recently the poor had suffered considerably from a series of severe dearths, when they had been forced to consume food and drink of poor quality. Indeed the 1620s had seen a series of famines and the subsequent outbreak of epidemics of typhus.³⁰ The dearths had led, according to some doctors, to the generation in the bodies of the poor of ‘a great mass of bad humours’, which had led to the creation in them of an ‘extraordinary putrefaction, which even from a long distance and even for any occasion has become the pest’.³¹

Rondinelli reported here the ideas enunciated by two eminent physicians, Alessandro Righi and Stefano De Castro, who both advised the Sanità and then wrote treatises on plague.³² Righi took the standard Galenic line and emphasised that not eating well increased the level of bad humours within the bodies of the poor and weakened their resistance to disease.³³ Stefano de Castro also argued that their wilful ignorance made them susceptible to disease. He portrayed the poor as refusing to believe it was necessary to keep clear of an infected person, who, although he might not have an evident ‘segno del male’, could still be carrying the ‘secret seed of contagion’.³⁴ Furthermore, he suggested, that the shortage of money of the poor meant they could not take the proper preventive measures against plague, such as buying aromatic herbs and spices to burn and perfume the air, all compounded by not having enough space to avoid mixing with infected people.³⁵

If De Castro portrayed the poor as victims of their own prejudices and ignorance, Righi instead had a more fatalistic approach. According to him it was in the very nature of the poor to attract disease, as he demonstrated by taking the Platonic analogy between the human body and the city. He likened the noble and robust organs, such as the heart, to the upper levels of society and the poor to the less noble and robust organs (veins, arteries, skin and glands). The rich were seen as having the ability to expel unnecessary dangerous substances towards the outside and the lower organs. The poor, who did not possess the same ability, became the deposit of poisons: ‘therefore ... if the disease is in the city, they [the poor] receive it and retain it, as if they were the glands of society’.³⁶ This vision of society as a body was not just confined to the medical world. In Rome during the 1656 epidemic the Jesuit Sforza Pallavicino recorded that when plague had begun to spread through Trastevere a decision was made to place the poor sick into a Lazaretto in order to ‘cut off, according to the rules of surgery, all that part that was weak and ignoble from the best parts of the body’.³⁷

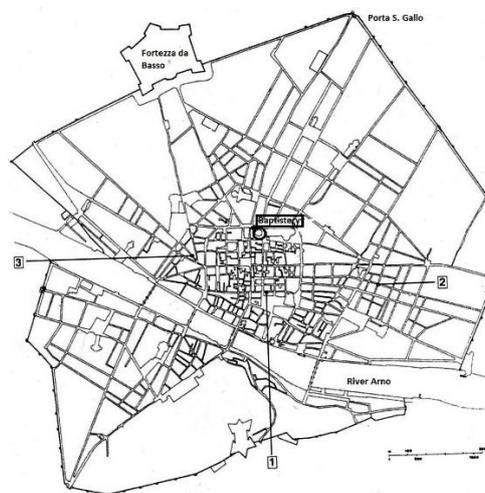
Public health and preventive measures

Thus in Florence, as in Rome and elsewhere, medical men provided a justification for the measures taken by the Sanità to cope with the unfolding crisis of the plague epidemic. An important element of this was how they dealt with the poorer elements of society. Those at the very base of the social pile, beggars, were, as in other parts of Europe, divided between ‘foreigners’ and the locals; the former were expelled from the city, while the latter were sent to the Spedale dei Mendicanti, a special beggars’ hostel in the parish of San Frediano, a

working-class area south of the river.³⁸ As Rondinelli records, it was feared that beggars ‘could catch the fire of the contagion and sow it through the city’ in their search for alms.³⁹

This association between poverty, insanitary housing and the genesis and spread of plague was to have a long history, as reflected in studies of the third pandemic. This is a theme emphasized in the chapters in this volume by Elgelmann and Evans on late nineteenth and early twentieth-century America and India. Indeed the Board of Health in Honolulu argued in December 1899 that plague germs ‘flourish in filth, in garbage and in damp, dark or foul places (see Elgelmann below). But there is another theme which the second and third pandemics shared, the strong culture of blame; in Florence: beggars, the poor, prostitutes and the Jews, compared with the Chinese population, whether in Honolulu, Hong Kong or San Francisco (see also Peckham below).

Map 1: City of Florence with location of the first cases of plague, August 1630



1. Via del Garbo
2. Canto alla Briga
3. Borgo S. Pancrazio

Map 1
City of Florence with location of the first cases of plague, August 1630

The emphasis throughout Rondinelli’s account reflected the prejudices and general attitudes towards the poor as the initiators of the epidemic and the cause of its spread. This was proved to the satisfaction of contemporaries because highest mortality was recorded in the poorer areas of the city with high density housing where households were crowded together. The first deaths were in three streets in the medieval centre (Via del Garbo, Canto alla Briga and S. Pancrazio), from where it spread outwards to the rest of the city (see Map1).⁴⁰

In each case the Sanità traced the cause of the infection to specific people, a cloth-merchant named Sisto Amici had had contact with the source of the infection in Trespiano, a village five miles to the north of the city; the wife of a man called ‘Il Rovinato’ (‘the wreck’), who had looked after her sick sister and taken away a favourite shirt and given it to her daughter who promptly died; and the wife of the baker Maestro Francesco at S. Pancrazio, who had nursed her dying daughter and had brought the disease back to her house, probably causing its further spread in the neighbourhood as the bakery would have been a hub of social activity.⁴¹ All these individuals were portrayed by contemporary commentators as ignorant and irresponsible and having put their interests before that of the city. Evidence which appears to substantiate this claim can be found in the prosecutions of over 550 individuals for breaking the decrees and laws of the Sanità over the course of the epidemic. However, while the official version of events written by men like Rondinelli represent the opposition of authority and the poorer sorts, many cases reveal a more nuanced picture. Even

if it is true there was deliberate criminal activity, such as the theft of goods from empty houses, judges were often lenient in their sentencing recognising that much of the time these cases derived from the poorer sorts attempted to adopt a wide range of strategies to survive in an economically depressed environment, as plague regulations led to disruption of trade and commerce and high levels of unemployment, especially among the woollen and silk textile industries.⁴²

What also emerges from these trial records is the surprising amount of social activity at family and neighbourhood levels during the plague.⁴³ This, combined with the close attention of the authorities to the living conditions of the poor, led to various levels of surveillance not just to control social behaviour, but also to determine the areas of the city where the most crowded and insanitary housing was located, which was linked to higher infection and mortality rates. A contemporary anonymous discussion of these environmental problems emphasized two features of housing, which made the poor particularly susceptible to plague, particularly for those who lived in ground-floor apartments: a humid atmosphere, where the ‘walls run with water’ and the lack of proper ventilation.⁴⁴ All this was made worse because conditions were often crowded, with families of four or five children, and ‘they do not have ventilation or air in the house and have only a little window’. Their poverty also meant they often had no ‘benches or bed and hardly a straw mattress and a mattress of tow [hemp fibre]’, and when beds were remade they were found to be mildewed, and their clothes were damp in the morning when they woke up. Conditions were further exacerbated during the forty-day total quarantine of Florence from 20 January 1631, when all residents were required to remain in their houses day and night, ‘so living like this they will definitely die’. Indeed it was emphasized that they were a danger not just to themselves, but also to others: ‘because if they get sick they infect the others who live above them’. Finally, it was rumoured that another health risk was in the offing because the Sanità intended to distribute coal for fires in these houses, which would lead to a ‘great fear of some sickness’, because ‘coal would create the greatest damage [to health] because it is too hot’.⁴⁵

It is probable that this document was written in February 1631 during the quarantine of the city, but it was precisely these concerns which lay behind the sanitary surveys of the poorest zones of the city six months earlier in August 1630, when a series of measures had been instituted to repair the systems for dealing with human waste, to replace mattresses and paliasses as well as to provide subsidies to the very poor. This grew out of an existing tradition of surveying insanitary conditions in Tuscany from the late sixteenth century, partly in response to epidemics of typhus, and in turn built on the surveying systems of the long tradition of tax and population censuses.⁴⁶ Such surveys also became more standard features of anti-plague measures plague in early modern Italy, as revealed from studies of Bologna in 1630 and Rome in 1656.⁴⁷

The sanitary survey in Florence, August to September 1630

The recognition of the close relationship between environment and plague in 1630 was reflected in Dr Antonio Pellicini’s recommendations to the Health Board in his treatise describing the initial stages of the epidemic: ‘And remove those people shut up in houses, and especially the narrow evil shacks where there are a number of people living, not so much because of the many disorders which can take place, but because the enclosed air cannot be cleansed and is insalubrious’.⁴⁸

In August 1630 the health board was especially sensitised to the relationship between disease and smelly environments, as can be seen from the report of a corporal employed by the magistracy of the Otto on the 8 August: ‘We passed near the house of Signor Lucha Salviati and smelling a great stink in Piazza de’ Donati, which is near-by ... we found nineteen barrels of excrement. They had begun to empty a cesspit and evidently they had left

it uncovered ...'.⁴⁹ This vigilance was taken one step further later in the month when it was decided by the Sanità to make a systematic investigation through instituting a sanitary survey. This built on a practice established by the Sanità from the late sixteenth century when medical men were sent to places infected by an epidemic to gather information about the sanitary conditions of the area, to describe the diseases of the sick and dead and to determine the cause of the outbreak.⁵⁰ Even more urgent was when there were epidemics in the city, as during the outbreak of typhus in Florence in 1620-1, when members of the charitable confraternity, the Buonomini di S. Martino, with doctors elected by the Sanità, instituted an inspection of the houses of the sick poor and found there 'a smell and fetor so great and unsupportable'. So struck were they, that they commissioned a government official Filippo Lasagnini, responsible for the condition of Florence's streets, to undertake a thorough visit of the city and especially of the poorer areas. His description of the appalling insanitary conditions left the Sanità to conclude that 'proceeding in this way it is a miracle that it does not lead to a plague'.⁵¹

These were to prove portentous words when plague broke out in summer 1630 and the link between poverty and disease was acknowledged immediately, as recorded by Mario Guiducci in his *Panegyric* to the Grand Duke, written during the plague: 'They addressed the extreme misery of the poor, who languish in their houses, wasted away and in a sorry plight, not so much for their lack of food, as they have to sleep in beds which are so wretched, that it would less troublesome to sleep in the places where unclean animals live like beasts'.⁵²

Following the practice of 1620-1, a survey was implemented of the whole city, concentrating on the poorest streets: 'These [miserable beds] were to be carried away, the houses of the poor were to be cleansed from this dirt, and proper mattresses should be substituted in place of the vile piles of straw and the wretched rags ...'.⁵³ As in 1620-1, the survey was delegated by the Sanità to the members of a religious confraternity, in this case the Company of S. Michele Arcangelo, which, as Nicholas Eckstein has shown, had fulfilled this task on behalf of the city from the early sixteenth century.⁵⁴ The brief of the company was to concentrate on identifying any problems associated with the systems for dealing with cess-pits and the distribution of drinking water as well as with inadequate or defective bedding.⁵⁵

The surviving copy of the survey, initiated on 10 August, records the genuine concern of the *confratelli* over the living conditions of the poor, hardly surprising since many members were nobles from the grand-ducal court. This was a very detailed investigation with the brothers going from house to house and indeed from apartment to apartment, mounting stairs, going through smelly courtyards and into equally smelly basements, to investigate the cause of odours emanating from leaking or over-full cess-pits and drains. As Nicholas Eckstein has shown recently, the survey can be thought of as a type of 'walking map', in which the Gentilomini (Gentlemen or Visitatori) walked the streets of the city and identify individuals and places 'not by a specific address, but by spatial relationships that weave physical movement into the fabric of the Florentine urban environment'.⁵⁶

Some idea of the number and distribution of these problems can be appreciated from an analysis of all cases of leaking cesspits and rotten mattresses listed in two major surveys in August in the largest parish in the city, San Lorenzo.⁵⁷ The parish contained about 15 per cent of the city's population. It stretched from the centre, just north of the Baptistery, to the northern city walls at Porta San Gallo, and to the Fortezza da Basso in the north-west, and was characterised by a wide social and professional mix (see Map 1). It also included a range of building types, from the patrician palaces in the centre to the complex of conventual and hospital buildings on Via S. Gallo, all linked together by the numerous streets of terraced houses inhabited by artisans and poorer folk. Just as mortality and mortality rates were highest in the narrow streets with high density population, so were these sanitary problems. It

was in these poorer streets that most of the 770 instances of problems associated with cesspits, water supply and rotten mattresses were discovered during the surveys begun on 10 and 16 August. It is interesting that far more mattresses needed to be replaced (656) than cesspits requiring repair (114). This is not unexpected given that every person living in these crowded houses would have needed a mattress or paliasse on which they slept, while there was usually no more than one cesspit per house, and in theory it should have been repaired at the expense of the landlord.

Another important task assigned to the Gentlemen was not just to: ‘remake straw mattresses and to remove filth’, but also ‘to take note of the sick that are found in the houses’.⁵⁸ There were variations in how much information was recorded for each section of the city, depending on how rigorously the Gentlemen fulfilled their task. Thus the Sesto of S. Croce provided much more detail about the health of the inhabitants than did those surveying the Sesto of S. Giovanni, noting, for example cases of ‘fever, catarrh, malate di spine’.⁵⁹ This was reinforced by the Sanità, who passed a decree on 27 August giving instructions to the brothers that that when they visited the parishes of the city, they should make a note of the ‘symptoms [*accidenti*] of the sick’, and send this information to the chancellor of the Sanità; at the same time it was emphasized to all heads of household that it was their duty, under threat of punishment, to report any sick person in their houses.⁶⁰ The close association between poverty and disease in the minds of the Gentilomini is clearly reflected in the entry about Agnolo di Francesco, who lived between Canto alle Macine and S. Lorenzo; he is described as ‘sick from suffering and fever’.⁶¹

Plate 2: Canto alla Paglia, Florence



The houses of the poor were not confined to the back-streets, as can be seen from the following account of the inhabitants of the medieval tower at the Canto alla Paglia, which was opposite the Baptistery of S. Giovanni, on the corner of Borgo S. Lorenzo and Via dei Carnesechi (now Via Cerretani). Particular attention would have been paid to this building because the apartments were above a shop belonging to a butcher, an occupation which in itself would have been seen as creating pollution through the release of the corrupt vapours contained in bodies of animals when they were slaughtered and cut up.⁶² The tower was divided into four separate apartments, each with problems of its own:⁶³

On the first floor of the said tower: to the widow Monna Lisa a new straw mattress; climbing another staircase: to Monna Lisabetta, wife of Bartolommeo Porta, another mattress; to Francesca on the said floor: mend a cesspit.
On the top floor: a straw mattress to Andrea the tailor; and instruct the landlord of the said [apartment], who is the above-mentioned Moscellaro, to have carried away all the rubbish in the said house because it causes a great stink.

The house which is built next door: to the son of the widow, the stretcher-bearer: a new straw mattress and empty the well; the landlord of it is called il Grazzini.

This description, then, follows the journey of the inspector from the ground to the top floor in what were probably quite cramped apartments, or even individual rooms in a medieval tower. Like others built from the thirteenth century onwards, they were tall narrow buildings with sometimes no more than one or two rooms per floor, as is suggested by the official having had to climb the staircase from Monna Lisa's room to those of Monna Lisabetta and Monna Francesca. Even though this extract from the Company's visit is brief, it has enabled us to determine some of the characteristics which contemporaries saw as constituting 'the poor', and in turn how their living conditions were seen as determining that poverty. First this group of half-a-dozen people were all living in rented accommodation in squalid conditions, with a landlord who was normally too mean to have the rubbish cleared away. In this and the house next door there were also problems with either the supply of clean water or the system to deal with human waste. We know that two of these women were widows, presumably living in straightened circumstances. They are represented as being too poor to buy decent mattresses; their own were seen as harbouring the poison of disease. Finally two of the men would have been regarded as potentially suspect within the context of plague, Andrea the tailor and the stretcher-bearer, the first because he dealt with cloth and the second because he came into contact with the sick.

The emphasis in this passage, as in the rest of the survey, was on poverty and insanitary conditions, which often met in the same house. Over and over again during this survey the Gentlemen encountered widows or women living by themselves in abject poverty. In this case the level of indigence was measured by the lack of bedding. Some such as Monna Fiore, the widow of Camillo the cobbler of Via S. Gallo, was found sleeping on the floor, as did the five women tenants further down the street and the weaver Lisabetta di Tommaso with her five children in Via Campaccio.⁶⁴

In other cases the precarious economic climate had led to the splitting up of families, as with Maddalena di Giovanni, who was described as a twenty-four-year old 'girl', who lived in Via dell'Amore next to Piccini the baker. She also slept on the floor and was to be given a paliasse, although this was not enough to supply her needs since she is described as having been abandoned by her father and was subsequently sent to the beggars' hostel of the Mendicanti.⁶⁵ In Borgo S. Jacopo there lived a woman called Nannina with seven children; the family was in abject poverty, and they were described as 'dying of hunger'. The main bread-winner of the family, her husband Matteo Pallini, had been in Pisa for several months, possibly in search of work, and may very well have found it difficult to return with the restrictions placed on travellers during plague. Obviously with such a large family she would have found it difficult, if not impossible, to work and hence her parlous financial state.⁶⁶

Evidently whole houses were often divided up into letting rooms, which were desolate in their poverty, as: 'In the courtyard inside the Portaccia [in Via dell'Ariento] there are many wretched rooms with ten tenants, all unhappy: supply ten [new] paliasses and have everything burnt; they do not have any kind of sheet or cover; and [we] have carried away many mounds of rubbish that corrupt the air'.⁶⁷

When the Sanità received this report on the 'houses of the poor people of the city', they recorded their satisfaction with the 'diligence employed and the charity of those who had undertaken [the survey]'. They declared, moreover, that they would request the Grand Duke to provide subsidies to the poor and that those houses in greatest need were to be cleansed. However, charity was not provided for all; the Sanità requested a note of those poor people who were able to work in the woollen or silk trades and they were not given alms.⁶⁸

Two of the main aims of the survey had thus been achieved, to establish the extent of the needs of the poor and the extent of those insanitary conditions which might generate disease and help to create an epidemic.

Plate 3: Courtyard of the Palazzo Medici-Riccardi, Florence



This concern for filth, smells and corrupt air can be seen even more graphically in a scene which was probably not uncommon in early modern cities, but in more normal times might not have been the cause of such alarm. The circumstances were ultimately the responsibility of the Grand Dukes because they were caused by workmen in Palazzo Medici, which remained their property, even though the family had taken up residence in Palazzo Pitti: 'In the courtyard of the Palazzo de' Medici where the labourers are working on the chapel there are the common places which give off the most terrible stink in the whole street, and the same is true under the portico and where the labourers live, therefore they should be reconstructed in other places which are properly ventilated'.⁶⁹

Problems arose when provision had to be made for builders working on a property, either because they were lazy or because the proprietor did not allow access to their own toilets. The Medici Grand Dukes were also ultimately responsible for a similar problem for their employees: 'in the stables of the Grand Duke: mend the common place in Adam's room and also the sink because they create a great stink, and take away the rubbish and the filth from a hole where everybody throws things inside'.⁷⁰ The Medici were not the only landowners whose property created insanitary conditions, as can be seen in the case of the nuns of S. Orsola, for in the road behind their convent 'there is a drain leading from the water-troughs where the nuns work; twice a week all the stinking water runs out, which infects the street'.⁷¹ The brothers ordered that the drain should be covered or a well should be dug, which would drain off the water from the trough. A major reason for these problems was the difficulty in establishing who was responsible for drains once waste water had left the premises, the landlord or institution or the city, and then enforcing the regulations. In Via Panicale, for example, the Gentilomini ordered that a drain should be repaired because it 'receives the [water from] the washrooms of twelve houses at the back'.⁷² In the case of a house near Canto alle Macine inhabited by the patrician Tommaso Pandolfini 'there is a drain that discharges into the street and causes the greatest stink' so the landlord Piero the olive oil dealer is ordered to construct a well to collect the fetid water.⁷³ But tenants could also be the cause of the problem, as in another house near Canto alle Macine where orders were issued to 'all the tenants who wash their clothes or other things, that they should not wash them in the house so that the stinking water does not find its way into the street'.⁷⁴

The system to deal with the human waste of tenants could also be defective, as was reflected in the case of the medieval tower at the Canto alla Paglia and numerous other entries in these surveys, such as in the house in the Sestiere of S. Ambrogio between Via Nuova and Borgo Pinti, cited at the beginning of this article, where the tenants 'do everything in the same courtyard'.⁷⁵ While legislation and medical reports may have put the blame for filthy

living conditions firmly on the shoulders of the poor, many entries in the sanitary survey underline that it was the responsibility of the landlord to provide the sanitary facilities involving not just latrines, but also the provision of fresh water and the disposal of all sorts of waste generated within the domestic context. Clearly one of the most problematic areas within houses were the cellars, partly because this is where the cesspits (*pozzi neri*) were often situated, as in the case of two houses in Via S. Zanobi, one rented by Francesco Perugino, where the contents of the cesspit was ‘filling’ the cellar, and the other rented by Francesco di Lorenzo which ‘has a ruined cesspit’.⁷⁶

The cellar was also the place where pipes entered the property, whether for clean water supply, where this existed, or for drainage pipes linking to the channels for waste water in the street and, as can be seen from the following entry relating to the S. Ambrogio area, where rubbish had been dumped: ‘No 21: At the Canto ai Leoni there is a cellar where in addition to being full of filth, a female dog has died there ... one can smell the stink all around and many people are complaining’.⁷⁷ Here again one can see the association between filth (*porcheria*) and the fear of plague, made worse by the fact that a dead dog had been dumped there, which was clearly regarded as a health problem by the Gentilomini who surveyed the area and more generally by locals.

One of the reasons for the numerous problems with the *pozzi neri* may have been the recent change in the system. Until the early sixteenth century it had been the job of the ‘votapozzieri’ (literally sewer-emptiers) who were paid by the State to empty the *pozzi neri* on a regular basis. They emptied the liquid matter into the Arno and sold the solid matter to the *contadini* to fertilise their fields.⁷⁸ Then in the early seventeenth century the proprietors and the *contadini* decided to bypass the *votapozzieri*, with property-owners selling the matter directly to the *contadini*. De-regulation, of course, led to problems since there was now no proper control of waste disposal and resulted in complaints about the stench of the Arno and the surrounding areas. A new law was passed in 1621 during the typhus epidemic to remedy this abuse so that in future only the officially appointed *votapozzieri* could deal with waste. However, when it was decreed that landlords had to foot the bill, some decided to get the tenants to pay instead, but, because the poorest could not afford it, the *pozzi* were left to overflow.⁷⁹

The brothers of the Company of S. Michele Arcangelo understood well the association between stink and plague and must have been keenly aware of their own exposure to disease while they conducted their survey. Risks to their own health and to that of the city are clearly evident from this note on 30 August by one of the Gentilomini, Lionardo Ginori, when he made his survey of Via Chiara:⁸⁰

In distributing the straw mattresses today we discovered that the household goods were being removed belonging to someone whom they say had died while he was being taken to the hospital. Having heard that it was a suspicious disease, I ordered that the said goods that they wanted to carry into another house should not be touched. It seemed good to me to give an account of this to Your Most Illustrious Lords, how I found a sick woman in the Stufa Vecchia of Via dell’Ariente and that the above-mentioned person who died lived opposite the baker of S. Bernaba.

This report reflects the care which was taken by these men appointed to survey the city to trace the physical proximity of cases of sickness and to report any incidence of suspicious death. The report shows clearly how information was gathered as they made their way along the streets inspecting houses. Evidently, on discovering somebody taking goods out of a house, Ginori had interviewed neighbours, who had told him that the man had died on the way to hospital and that it was evidently a suspicious death. All these streets were in close

proximity and it is possible that the dead woman had visited the baker behind S. Bernaba where the man had died. Ginori would have known this area intimately since Palazzo Ginori, where his family lived, was around the corner; indeed one can almost hear his patrician voice asking the questions and eliciting answers – ‘they say’, ‘having heard’ – from the more humble people of his neighbourhood.

The brothers of the Company of San Michele who had been designated to carry out the survey were genuinely shocked by the poverty, filth and stinking air caused by the living conditions of the poor; as they noted in their report on the Sesto di S. Maria Novella on 22 August: ‘and one sees in the poverty from one day to the next an increase in the miseries and infinite needs, and if you had wanted us to note every case we would have had to create a large volume indeed’.⁸¹ By early September the Sanità records that a total of 2,347 straw mattresses had been handed out to the poor by the confraternity, equivalent to giving a mattress to 3 per cent of the resident population.⁸²

Concern was expressed above all that these insanitary conditions would create and increase the corrupt vapours, which were seen as creating plague, for, as Rondinelli had put it, ‘filth is the mother of corruption’.⁸³ However, even if the results of the sanitary surveys of late summer 1630 appear to have shocked the brothers who conducted them, they cannot have been that surprised, given their normal daily experience must have included encounters with areas of the city which gave off smells generated by both domestic and industrial waste. What impact the survey had on the longer term sanitary conditions in the city is difficult to judge, given the similarity between these findings and the anonymous description in February 1631 during the quarantine of the city. Indeed this survey was followed by another in the following spring.⁸⁴ Although its aim was not to describe the sanitary conditions, it instead outlined the number of people living in poverty, who were in need of state subsidies to survive and, like the earlier survey, in the process they identified those who were sick from plague and ‘ordinary sicknesses’. Taken together these two surveys emphasize how far governments had come to identify poverty, disease and the urban environment, and, while outbreaks of epidemic disease may have concentrated their minds, it should not be forgotten that these measures were also part of a long tradition of sanitary legislation.

Conclusion

One of the themes of this article has been the relationship between the better off and the poor. However, for the most part the records discussed, including laws, medical treatises and sanitary surveys, reflect a top-down perspective, rather than that of the poorer sections of society, who were often the objects of government policy. These sources frequently reflected prejudices regarding the behaviour and living conditions of the poor, used to justify what appear to have been quite draconian measures to keep the poor in their places through systems of quarantine and punishment. However, this was not simply a question of social opposition; reality was much more complex. Thus the reactions of the brothers of the Company of S. Michele reveal genuine compassion in their visits of the poorer streets. It is also too easy from our perspective to condemn the insanitary conditions revealed by the survey, for even to have instituted it reflects a considerable awareness of these problems in their city and the necessity to remedy the situation. This speaks to a desire to improve the living conditions of the poor, a movement which was emphasized by the neo-Hippocratic revival, which placed emphasis on the close association between the urban environment, health and disease.

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³ See Pellicini, *Discorso* (1630).

⁴ De Castro, *Il curioso* (1631), p. 15.

⁵ De Castro, *Il curioso* (1631), p. 19.

⁶ Henderson, 'The Black Death in Florence', p. 142.

⁷ Geltner, 'Healthscaping', pp. 395–415.

⁸ Cipolla, *Miasmas and Disease*, on late sixteenth-century surveys of Tuscany; Cohn, *Cultures of Plague*, ch. 7.

⁹ See, for example, Rawcliffe, *Urban Bodies*.

¹⁰ Cf. Riley, *The eighteenth-century campaign to avoid disease*.

¹¹ Cohn, *Cultures of Plague*, pp. 202–207.

¹² This built on an existing tradition; see for the preceding period: Carmichael, *Plague and the Poor*.

¹³ For a comparison between policies towards plague and the Great Pox see: Henderson, 'Coping with Plagues in Renaissance Italy', pp. 175–194; and Arrizabalaga, Henderson, French, *The Great Pox*.

¹⁴ Cohn, *Cultures of Plague*, ch. 7.

¹⁵ Terpstra, *Cultures of Charity*.

¹⁶ Cohn, *Cultures of Plague*, pp. 227–9.

¹⁷ Pullan, 'Plague and perceptions of the poor', pp. 101–23.

¹⁸ Henderson, "La schifezza, madre di corruzione", pp. 23–56.

¹⁹ Del Panta, *Le epidemie*, p. 160: table 24.

²⁰ Studies of the 1630–31 plague in Florence range from Lombardi's study '(1629–31): crisi e peste a Firenze', pp. 3–50 to Lichfield, *Florence ducal capital*, ch. 7.

²¹ For Italy see: Carmichael, 'Plague Legislation', pp. 208–25; 'Contagion Theory and Contagion Practice', pp. 213–56; and Benvenuto, *La peste nell'Italia della prima età moderna* and most recently *Le retour de la peste*.

²² Outlined most recently in Henderson, "La schifezza, madre di corruzione".

²³ On the role of the Misericordia see: Henderson, 'Plague in Renaissance Florence', pp. 165–186.

²⁴ Cf. *La Peste a Roma (1656–1657)*, ed., Fosi.

²⁵ For the earlier period see: Carmichael, *Plague and the Poor*.

²⁶ Cohn, *Cultures of Plague*, Ch. 7.

²⁷ Cf. Cavallo and Storey, *Healthy Living*.

²⁸ On early modern England see: Wear, *Knowledge and Practice*, pp. 184–209.

²⁹ Rondinelli (1633), pp. 26–7.

³⁰ See Cipolla, *I pidocchi e il Granduca*.

³¹ Rondinelli (1633), pp. 30, 40; cf. Righi (1633), pp. 23–6, on diet; cf. Pullan, 'Plague and perceptions of the poor', pp. 108–110. For similar sentiments expressed by medical writers in early modern England see: Wear, *Knowledge and Practice*, pp. 281–6.

³² Righi (1633); De Castro (1631).

³³ Righi (1633), p. 17; De Castro (1631), p. 9.

³⁴ De Castro (1631), p. 9.

³⁵ De Castro (1631), p. 9; cf. also discussion by Calvi, *Histories of a Plague Year*, pp. 64–5.

³⁶ Righi (1633), pp. 11–12.

³⁷ Pastore, *Crimine e giustizia in tempo di peste*, p. 188.

³⁸ Lombardi, *Povertà maschile, Povertà femminile*.

³⁹ Rondinelli (1633), p. 25.

⁴⁰ Rondinelli (1633), pp. 34, 44–6. See also discussion in Lombardi, '(1629–31): crisi e peste a Firenze'; Lichfield, *Florence ducal capital*, ch. 7; and see Henderson and Rose, 'Plague and the City', ch. 7.

⁴¹ Rondinelli (1633), pp. 34, 44–6.

⁴² See Henderson, *Death in Florence*, ch. 7 (forthcoming) for a detailed discussion of actual punishments given to those breaking the Health Board's decrees.

⁴³ The subject of: Calvi, *Histories of a Plague Year*, and also Henderson, *Death in Florence*, ch. 7, Lichfield, *Florence ducal capital*, on the economic background.

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- ⁴⁶ Cipolla, *Miasmas and Disease*; Cipolla, *I pidocchi*; Eckstein, 'Florence on foot', pp. 19-20
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- ⁴⁸ Pellicini (1630), p. 14.
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- ⁵⁰ See Cipolla, *Miasmas and Disease*.
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- ⁷⁵ *Ibid.*, 1418.6.A, no. 3, f. 2v.
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